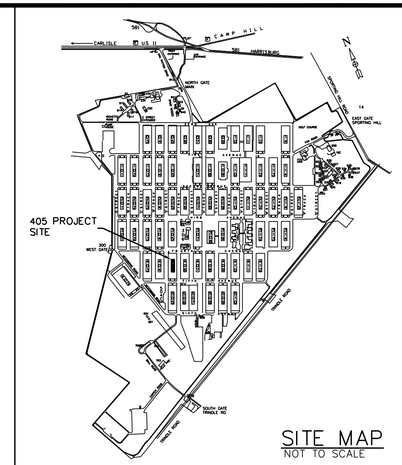
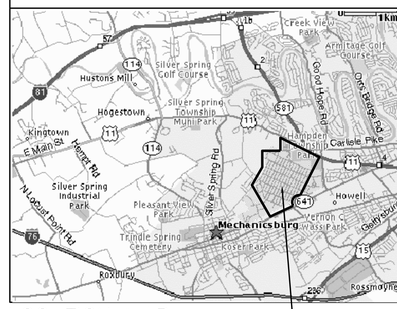
REPLACE ROOF – BUILDING 405
NAVAL SUPPORT ACTIVITY
MECHANICSBURG, PENNSYLVANIA
CONSTRUCTION CONTRACT NO.N40085–09–C–0075



SITE MAP
NOT TO SCALE



LOCATION MAP
NOT TO SCALE

NAVAL SUPPORT ACTIVITY – MECHANICSBURG

DRAWING LIST

SHEET TITLE	NAVFAC DWG NO	PWD DWG NO	DWG NO	SHEET NO
TITLE SHEET	12,551,636	9885	G–001	1 OF 28
STANDARD ABBREVIATIONS, LEGEND, SYMBOLS & GENERAL NOTES	12,551,637	9886	G–002	2 OF 28
SITE/STAGING PLAN	12,551,638	9887	C–101	3 OF 28
ROOF AREA PLAN – EXISTING CONDITIONS	12,551,639	9888	A–101	4 OF 28
ROOF AREA PLAN – NEW CONSTRUCTION	12,551,640	9889	A–102	5 OF 28
ELEVATIONS – EXISTING CONDITIONS	12,551,641	9890	A–201	6 OF 28
ELEVATIONS – EXISTING CONDITIONS	12,551,642	9891	A–202	7 OF 28
ELEVATIONS – EXISTING CONDITIONS	12,551,643	9892	A–203	8 OF 28
ELEVATIONS – NEW CONSTRUCTION	12,551,644	9893	A–204	9 OF 28
ELEVATIONS – NEW CONSTRUCTION	12,551,645	9894	A–205	10 OF 28
SECTIONS – EXISTING CONDITIONS	12,551,646	9895	A–301	11 OF 28
SECTIONS – EXISTING CONDITIONS	12,551,647	9896	A–302	12 OF 28
SECTIONS – NEW CONSTRUCTION	12,551,648	9897	A–303	13 OF 28
DETAILS – NEW CONSTRUCTION	12,551,649	9898	A–501	14 OF 28
DETAILS – NEW CONSTRUCTION	12,551,650	9899	A–502	15 OF 28
DETAILS – NEW CONSTRUCTION	12,551,651	9900	A–503	16 OF 28
DETAILS – NEW CONSTRUCTION	12,551,652	9901	A–504	17 OF 28
DETAILS – NEW CONSTRUCTION	12,551,653	9902	A–505	18 OF 28
PHOTOS – EXISTING CONDITIONS	12,551,654	9903	A–506	19 OF 28
PHOTOS – EXISTING CONDITIONS	12,551,655	9904	A–507	20 OF 28
PARTIAL FRAMING PLANS	12,551,656	9905	S–101	21 OF 28
GENERAL NOTES AND SECTIONS	12,551,657	9906	S–102	22 OF 28
MECHANICAL ROOF PLAN	12,551,658	9907	M–101	23 OF 28
MECHANICAL SCHEDULE, DETAIL AND NOTES	12,551,659	9908	M–102	24 OF 28
MONITOR PLAN AND SECTIONS	12,551,660	9909	ME–101	25 OF 28
ELECTRICAL – LEGEND, NOTES, DETAILS AND ABBREVIATIONS	12,551,661	9910	E–101	26 OF 28
ELECTRICAL ROOF PLAN	12,551,662	9911	E–102	27 OF 28
ELECTRICAL–PANEL BOARD SCHEDULES	12,551,663	9912	E–103	28 OF 28

REFERENCE DRAWINGS

SHEET TITLE	Y&D DWG NO	SHEET NO
GENERAL STOREHOUSE – ELEVATIONS & SECTIONS	185,602	3 OF 19
GENERAL STOREHOUSE – WALL & WINDOW SECTIONS	185,603	4 OF 19
GENERAL STOREHOUSE – FOUNDATION, ROOF, FRAMING PLAN & SECTIONS	185,605	6 OF 28

APPROVED:	DATE:
OFFICER IN CHARGE	
REVIEWED BY:	DATE:
ENVIRON.:	
FIRE DEPT.	
SAFETY	
SATISFACTORY TO:	
TENANT	

PWD. DWG. NO.

DESIGNED ECKARD
DRAWN JOHNSON CHKD BOHLEN
HD ARCH. BOHLEN
HD STRU. RODRIGO CHACON, P.E.
HD CIVIL
HD ELEC. FERNANDO MONTALVO
HD MECH. JONATHAN VAUGHN
SATISFACTORY TO:
DIRECTOR OF DESIGN DATE:

SYM	DESCRIPTION	DATE	APPR

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REGISTERED PROFESSIONAL
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ENGINEER
No. PE056945
SEAL

SUBMITTED BY
FIRM MEMBER DATE
APPROVED
ACTIVITY – SATISFACTORY TO DATE
APPROVED
FOR COMMANDER NAVFAC DATE

DES	DR
CHK	QC

DESIGNER
REVIEWED BY
QC
AIC/EIC
FIRE PROTECTION NA
BRANCH MANAGER
DESIGN DIRECTOR

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SUPPORT ACTIVITY – MECHANICSBURG, PA

REPLACE ROOF – BUILDING 405

TITLE SHEET

CODE ID. NO. SIZE D
SCALE: NONE
PWD DWG. NO. 9885
JOB ORDER NO.
SPEC. NO. 09–0075
CONSTR. CONTR. NO. N40085–09–C–0075
NAVFAC DRAWING NO. 12,551,636
SHEET 1 OF 28

G–001

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STANDARD LEGEND

NOTE: NOT ALL SYMBOLS NECESSARILY USED

- ROOF EDGE
- EXPANSION JOINT
- PARAPET
- GUTTER WITH DOWNSPOUT AND SPLASHBLOCK
- RIDGE LINE
- CONTROL JOINT
- CONDUIT
- CRICKET
- C — CHIMNEY
- F — FAN
- H — HATCH
- S — SKYLIGHT
- V — VENT
- RTU — ROOF TOP MECHANICAL UNIT
- MAIN ENTRANCE
- HOT PIPE
- PIPE PENETRATION
- LADDER WITH SAFETY CAGE
- LIGHT
- POURABLE SEALER POCKET
- ROOF DRAIN WITH SUMP
- ROOF DRAIN
- AUGMENTING ROOF DRAIN
- SCUPPER
- OVERFLOW SCUPPER
- STRUCTURAL SLOPE
- TAPERED INSULATION SLOPE
- SUPPORT
- VENT PIPE
- RV — RADON VENT
- ITEM TO BE REMOVED AND ENCLOSED

STANDARD ABBREVIATIONS

NOTE: NOT ALL ABBREVIATIONS NECESSARILY USED

AIR CONDITIONER UNIT	AC
ALUMINUM	AL
AREA DRAIN	AD
BASE FLASHING	BF
BRICK MASONRY UNIT	BMU
BUILDING	BLDG
BUILT-UP ROOFING	BUR
CEMENTITIOUS WOOD FIBERBOARD	CWF
CLADDING	CLDG
CLEAT	CLT
CONCRETE	CONC
CONCRETE MASONRY UNIT	CMU
CONTINUOUS	CONT
COUNTERFLASHING	CF
COVER	CV
DOWNSPOUT	DS
ELEVATION	EL
EQUAL	EQ
ETHYLENE PROPYLENE DIENE MONOMER	EPDM
EXISTING	EX
EXPANSION JOINT	EJ
EXTERIOR	EXT
EXTERIOR INSULATION FINISH SYSTEM	EIFS
FASTENER	FSTNR
FIRE RETARDANT TREATED	FRT
FOOT	FT
GLAZING	GLZ
GYPSUM	GYP
INCH	IN
INTERIOR	INT
INSULATION	INSUL
LADDER	LAD
LIGHTNING	LTNG
LIGHTWEIGHT CONCRETE	LWC
LIGHTWEIGHT	LT WT
MAXIMUM	MAX
MECHANICAL	MECH
MEMBRANE	MEMB
METAL	MTL
MINIMUM	MIN
NOT IN CONTRACT	NIC
NOT TO SCALE	NTS
NUMBER	NO
PLYWOOD	PLYWD
ROOF DRAIN	RD
ROOF TOP UNIT	RTU
SELF-ADHERING MODIFIED BITUMEN	SAMB
SHEET METAL	SM
SHEET	SHT
SIMILAR	SIM
SLEEVE	SLV
STANDING SEAM (ROOF)	SS
STAINLESS STEEL	SST
STEEL	STL
STRUCTURAL	STRUCT
TYPICAL	TYP
WINDOW	WDW
WOOD	WD
WOODFIBER BOARD	WF

STANDARD SYMBOLS

NOTE: NOT ALL SYMBOLS NECESSARILY USED

DETAIL NUMBER — 1 / 100 | 200 — SHEET NUMBER WHERE DETAIL IS TAKEN — SHEET NUMBER WHERE DETAIL IS SHOWN

DETAIL INDICATORS

SECTION IDENTIFIER — 1 / 100 | 200 — SHEET NUMBER WHERE SECTION IS TAKEN — SHEET NUMBER WHERE SECTION IS SHOWN

SECTION INDICATOR

ELEVATION IDENTIFIER — 1 / 100 | 200 — SHEET NUMBER WHERE ELEVATION IS TAKEN — SHEET NUMBER WHERE ELEVATION IS SHOWN

ELEVATION INDICATOR

#

PHOTO INDICATOR

STANDARD HATCH PATTERNS

NOTE: NOT ALL HATCH PATTERNS NECESSARILY USED OR SHOWN

- BATT INSULATION
- CELLULAR FOAM INSULATION
- CONCRETE
- FIBERGLASS INSULATION
- GYPSUM BOARD/DECK
- ISOCYANURATE INSULATION
- LIGHTWEIGHT CONCRETE
- WOOD FIBERBOARD INSULATION
- EIFS
- CEMENT ASBESTOS WALL PANEL

GENERAL NOTES

DEMOLITION NOTES:

1. THE INFORMATION SHOWN ON THE DRAWINGS HAS BEEN COMPILED FROM VARIOUS SOURCES AND MAY NOT REFLECT THE ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION.
2. THE BUILDING WILL REMAIN OCCUPIED DURING CONSTRUCTION. THE CONTRACTOR SHALL SCHEDULE AND EXECUTE WORK TO AVOID INTERRUPTIONS TO BUILDING OPERATIONS. DEMOLITION SHALL BE PERFORMED ON OFF HOURS.
3. CONTRACTOR SETUP LOCATIONS SHALL BE INDICATED BY THE CONTRACTING OFFICER.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COVERING ALL INTERIOR ITEMS, WITH 6-MIL POLYETHYLENE, UNDER ALL EXISTING ROOF AREAS PRIOR TO ROOF REMOVAL. ONCE REMOVAL IS COMPLETE FOR THE DAY, THE PLASTIC COVERINGS SHALL BE REMOVED AND THE INTERIOR AREAS CLEANED. ALL AREAS BELOW ROOFING REMOVAL WORK SHALL BE CORDONED OFF AND "DO NOT ENTER" SIGNS SHALL BE POSTED.
5. THE CONTRACTOR SHALL REPORT DETERIORATED OR UNSUITABLE STRUCTURAL DECK AND SUBSTRATE COMPONENTS TO THE CONTRACTING OFFICER PRIOR TO PERFORMING ROOFING.
6. REMOVE AND DISPOSE OF EXISTING ROOF SYSTEM AND ALL ASSOCIATED MATERIALS DOWN TO THE STRUCTURAL DECK UNLESS INDICATED ON THE DRAWINGS TO REMAIN.
7. REMOVE AND DISPOSE OF ALL ITEMS TO INCLUDE ROOF CURBS, DRAINS, LADDERS, WOOD BLOCKING AND APPURTENANCES UNLESS INDICATED ON THE DRAWINGS TO REMAIN.
8. PROVIDE TEMPORARY OVERHEAD PROTECTION AS SPECIFIED IN THE CONTRACT DOCUMENTS AT LOCATIONS INDICATED ON THE DRAWINGS, OR AT ENTRANCES TO MAINTAIN OPERATION OF THE BUILDING.
9. HOT ASPHALT WILL NOT BE USED ON THIS PROJECT. MATERIALS SHALL BE SECURED AS SPECIFIED USING MECHANICAL FASTENERS AND POLYURETHANE ADHESIVE. NO MECHANICAL FASTENERS SHALL BE INSTALLED DIRECTLY BENEATH THE EPDM MEMBRANES.
10. REMOVE AND DISPOSE OF ASBESTOS CONTAINING CEMENTITIOUS (TRANSITE) WALL PANELS IN ACCORDANCE WITH SECTION 028216.0020 OF THE SPECIFICATIONS, OSHA AND FEDERAL, STATE AND LOCAL REQUIREMENTS.
11. INDEPENDENT TESTING OF BITUMINOUS ROOF MEMBRANES AND BASE FLASHINGS, PERFORMED BY THE NAVY, INDICATES THAT ALL, BASE FLASHINGS AND STRIPPING FELTS THROUGHOUT THE ROOF AREAS ARE ASBESTOS CONTAINING ROOF MATERIALS (ACRM). REMOVE AND DISPOSE OF EXISTING ASBESTOS CONTAINING ROOFING MATERIALS AS SPECIFIED IN ACCORDANCE WITH SECTION 028216.0020 OF THE SPECIFICATIONS AND FEDERAL, STATE AND LOCAL REQUIREMENTS.
12. REMOVALS SHALL BE PERFORMED IN ACCORDANCE WITH THE ROOF REMOVAL PLAN, THE DETAIL DRAWINGS AND THE SPECIFICATIONS.
13. REFER TO REPLACEMENT NOTE #10 FOR DISCONNECTION, REMOVAL, REINSTALLATION AND RECONNECTION OF EXISTING ROOFTOP MECHANICAL/ELECTRICAL EQUIPMENT.
14. THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO ELIMINATE POTENTIAL LEAD HAZARDS RESULTING FROM THE HANDLING AND CLEANUP OF DAMAGED LEAD BASED PAINT AND THE MANUAL DEMOLITION AND DISPOSAL OF STRUCTURES WHERE LEAD BASED PAINT IS PRESENT. DEMOLITION OF STRUCTURE WHERE LEAD BASED PAINT IS PRESENT SHALL BE DONE BY REMOVING STRUCTURES INTACT WHERE POSSIBLE. THE LEAST AMOUNT OF DAMAGE POSSIBLE SHOULD BE DONE TO THE LEAD BASED PAINT DURING DEMOLITION. THE LEAD WORK INCLUDES THE DEMOLITION AND DISPOSAL OF THE FOLLOWING STRUCTURES WHERE LEAD BASED PAINT IS PRESENT: BUILDING LADDERS, PAINTED SHEET METAL, ROOF MOUNTED LIGHT FIXTURES AND LIGHT POLES, WINDOW ASSEMBLIES AND MISCELLANEOUS EXTERIOR WOOD TRIM. ALL WORK SHALL BE DONE IN ACCORDANCE WITH SECTION 028313.0020 OSHA, STATE AND LOCAL REGULATIONS.
15. CUT NEW OPENINGS ON ROOF DECKS FOR NEW FAN UNITS WHERE INDICATED. REMOVE EXISTING WINDOW GLAZINGS AND/OR EIFS TO ACCOMMODATE NEW LOUVER ASSEMBLIES.
16. EXISTING RADON VENT PIPES (RV) SHALL BE DETACHED FROM EXISTING WALLS WHERE INDICATED TO PROPERLY INSTALL COMPONENTS AS DETAILED. RADON VENT PIPES MOUNTED AN MONITORS SHALL BE REROUTED THROUGH ROOF DECK.

REPLACEMENT NOTES:

1. FOR THE SAKE OF CLARITY, EACH INDIVIDUAL DETAIL ON THE ROOF PLANS HAS NOT BEEN INDICATED. INSTALLATION DETAILS HAVE BEEN INDICATED FOR TYPICAL COMPONENTS AT RANDOM LOCATIONS.
2. COMPONENTS SHOWN ON THE DETAIL DRAWINGS SHALL BE NEW UNLESS SPECIFICALLY INDICATED AS EXISTING. REFER TO SPECIFICATIONS FOR MATERIALS.
3. ITEMS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH LOCAL, STATE NAVY AND FEDERAL REGULATIONS APPLICABLE TO THE PROJECT.
4. FOR THE SAKE OF CLARITY, SECUREMENT FASTENERS ARE NOT SHOWN ON THE DETAIL DRAWINGS. REFER TO SPECIFICATIONS FOR FASTENER TYPES AND SPACING.
5. OVERALL DIMENSIONS SHOWN ON THE ROOF PLANS ARE BASED UPON PLAN VIEW. THE CONTRACTOR SHALL COMPENSATE FOR EXISTING ROOF SLOPE WHICH INCREASES OVERALL DIMENSIONS.
6. ANY DISCREPANCIES ON THE DRAWINGS NOTED BY THE CONTRACTOR SHALL BE BROUGHT TO THE CONTRACTING OFFICER'S ATTENTION PRIOR TO BID SUBMISSION.
7. ROOFING AND FLASHINGS SHALL BE 100% WEATHERTIGHT ON A DAILY BASIS. REMOVE ONLY AS MUCH ROOFING AS CAN REPLACED ON THE SAME WORK DAY.
8. COPIES OF MATERIAL DATA SHEETS ARE REQUIRED AT LEAST ONE WEEK PRIOR TO USE OF MATERIALS. PRIOR TO THE APPLICATION OF ADHESIVES AND/OR COATINGS, THE CONTRACTING OFFICER, COMMAND, FACILITIES AND PUBLIC SAFETY MUST BE NOTIFIED.
9. DETAILS NOT DEPICTED SHALL BE CONSTRUCTED IN A MANNER CONSISTENT WITH THE DETAIL DRAWINGS.
10. DISCONNECT, REMOVE, STORE, PROTECT AND REINSTALL EXISTING ROOFTOP EQUIPMENT AND ASSOCIATED MECHANICAL/ELECTRICAL PENETRATIONS AND CONDUIT TO PROPERLY INSTALL REPLACEMENT ROOF SYSTEMS AND PROVIDE MINIMUM SPECIFIED FLASHING HEIGHTS. THE CONTRACTOR SHALL "LOCK-OUT" ALL MECHANICAL ELECTRICAL EQUIPMENT, INCLUDING HVAC EQUIPMENT, PRIOR TO INITIATING WORK IN ACCORDANCE WITH NAVY REGULATIONS.
11. IF POTENTIAL HAZARDOUS MATERIAL, ASBESTOS CONTAINING MATERIAL, IS ENCOUNTERED DURING THE COURSE OF WORK THAT IS NOT IDENTIFIED ON THE DRAWINGS, THE CONTRACTOR WILL STOP WORK IMMEDIATELY AND CONTACT THE CONTRACTING OFFICER, WHO WILL DETERMINE IF THE MATERIAL IS HAZARDOUS.
12. ANY FIRES MUST BE REPORTED TO THE FIRE DEPARTMENT IMMEDIATELY, BY DIALING 911.
13. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL FIRE EXTINGUISHERS REQUIRED FOR THE PROTECTION OF GOVERNMENT PROPERTY AND THE PUBLIC. HOT WORK PERMITS WILL NOT BE ISSUED IF THE PROPER EXTINGUISHERS ARE NOT ON THE SITE.
14. ALL DUMPSTERS MUST BE AT LEAST 5 FEET FROM THE BUILDING AND EMPTIED WHEN FULL AND BEFORE EACH WEEK END.
15. MATERIALS MAY NOT BE STORED CLOSER THAN 15 FEET FROM BUILDINGS AND MAY NOT BE PLACED IN FRONT OF EXITS OR ANY FIRE PROTECTION EQUIPMENT.
16. INSTALL NEW FAN UNITS AND CURBS ON ROOFS AND WALL MOUNTED LOUVERS AS INDICATED AND SPECIFIED.
17. THE CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER A MINIMUM 48 HOURS IN ADVANCE PRIOR TO INSTALLATION OF ADHESIVES AND/OR COATINGS.
18. REATTACH EXISTING RADON VENT PIPES WHERE INDICATED AFTER COMPLETION OF WORK.
19. THE CONTRACTOR SHALL UTILIZE A DIRECT READING INSTRUMENT TO MONITOR THE VAPORS FROM ADHESIVES AND COATINGS. MONITORING SHALL BEGIN WITH THE APPLICATION OF ADHESIVES AND COATINGS AND CONTINUE THROUGH AT LEAST FIVE DAYS OF APPLICATION. IF SAMPLE RESULTS DETERMINE BUILDING OCCUPANTS ARE NOT AT RISK OF EXPOSURE, THEN AIR MONITORING CAN BE DISCONTINUED PROVIDING APPLICATION METHODOLOGY REMAINS THE SAME. AIR MONITORING SHALL CONTINUE IF BUILDING OCCUPANTS ARE AT RISK OF EXPOSURE. AIR INTAKES SHALL BE SEALED IN THE VACINITY OF ADHESIVE WORK.
20. AN EMERGENCY RESPONSE CREW OF AT LEAST TWO PERSONS SHALL BE AVAILABLE 24 HOURS A DAY, SEVEN DAYS A WEEK, TO RESPOND TO ROOF LEAKS OR OTHER CRITICAL SITUATIONS CAUSED BY THIS CONSTRUCTION. THE RESPONSE TIME SHALL BE LIMITED TO FOUR HOURS OR LESS. SEE SPECIFICATION SECTION 01 50 00.00 20.
21. ONE FIVE-GALLON SAFETY CAN MAY BE STORED ON THE ROOF TO REFUEL GAS POWERED EQUIPMENT. IT SHALL BE REMOVED FROM THE ROOF AT THE END OF EACH WORK DAY AND STORED IN A NON-FLAMMABLE STORAGE CONTAINER. ONE ADDITIONAL FIVE-GALLON SAFETY CAN MAY BE KEPT IN A STORAGE CONTAINER OFF THE ROOF. A HOT WORK PERMIT WILL BE ISSUED WEEKLY FOR THIS OPERATION AND PERIODIC CHECKS WILL BE CONDUCTED. HOT WORK PERMITS ARE ALSO REQUIRED FOR ALL WELDING AND SHALL BE ISSUED WEEKLY FOR THE SPECIFIC AREA OF WORK, NOT FOR THE ENTIRE PROJECT AT ONE TIME.
22. WORK ON THIS PROJECT WILL REQUIRE DRILLING INTO OR THROUGH OR OTHERWISE DISTURBING ASBESTOS CONTAINING MATERIALS. THE CONTRACTOR SHALL ABIDE BY THE FOLLOWING: COMPLY WITH OSHA REQUIREMENTS SET FORTH IN 29 CFR 1910.1001 USING A HEPA DRILL, EMPLOY THE WET METHOD, CLEAN UP USING A HEPA VACUUM TO SWEEP THE FLOOR IN THE IMMEDIATE AREA, CONTRACTOR EMPLOYEE DOING THE WORK SHALL HAVE A MINIMUM OF 2 HOURS OF ASBESTOS AWARENESS TRAINING, AND ALL ASBESTOS WORK IN OCCUPIED AREAS SHALL BE DONE AFTER NORMAL DUTY HOURS. THE CONTRACTOR SHALL OBTAIN THE ADVICE AND GUIDANCE OF A PERSON QUALIFIED IN ASBESTOS WORK TO REVIEW THE CURRENT REQUIREMENTS OF 29 CFR 1910.

'SAFETY FIRST'

IT SHALL BE THE CONTRACTOR'S PRIORITY TO PUT 'SAFETY FIRST' IN ALL CONSTRUCTION ACTIVITIES. SPECIFICATION SECTION 01 35 29 SAFETY AND OCCUPATIONAL HEALTH REQUIREMENTS INCORPORATES SAFETY AND HEALTH DOCUMENTS IN THIS CONTRACT. THE MOST STRINGENT REQUIREMENT SHALL APPLY IN ALL CASES INVOLVING DISCREPANCIES BETWEEN THESE DOCUMENTS. SPECIAL ATTENTION IS CALLED TO USACE SAFETY AND HEALTH REQUIREMENTS MANUAL EM 385-1-1 DATED 15 SEPTEMBER 2008; 'ACCIDENT PREVENTION PLAN' (APPENDIX A), 'ACTIVITY HAZARD ANALYSIS' (SECTION 1), 'SAFE ACCESS AND FALL PROTECTION' (SECTION 21) AND OTHER SECTIONS DEALING WITH FALL PROTECTION AND THESE CONSTRUCTION ACTIVITIES.

APPROVED: DATE:	PWD. DWG. NO.
OFFICER IN CHARGE	DESIGNED ECKARD
REVIEWED BY: DATE:	DRAWN JOHNSON CHKD BOHLEN
ENVIRON.:	HD ARCH. BOHLEN
	HD STRU. RODRIGO CHACON, P.E.
FIRE DEPT.	HD CIVIL
	HD ELEC. FERNANDO MONTALVO
SAFETY	HD MECH. JONATHAN VAUGHN
SATISFACTORY TO:	SATISFACTORY TO:
TENANT	DIRECTOR OF DESIGN DATE:

SYM	DESCRIPTION	DATE	APPR

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SEAL

SUBMITTED BY	
FIRM MEMBER	DATE
APPROVED	
ACTIVITY - SATISFACTORY TO	DATE
APPROVED	
FOR COMMANDER NAVFAC	DATE
DES	DR
CHK	QC
DESIGNER	
REVIEWED BY	
QC	
AIC/EIC	
FIRE PROTECTION	NA
BRANCH MANAGER	
DESIGN DIRECTOR	

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SUPPORT ACTIVITY - MECHANICSBURG, PA

REPLACE ROOF - BUILDING 405

STANDARD ABBREVIATIONS, LEGEND, SYMBOLS AND GENERAL NOTES

CODE ID. NO.	SIZE D
SCALE: NONE	
PWD DWG. NO. 9886	
JOB ORDER NO.	
SPEC. NO. 09-0075	
CONSTR. CONTR. NO. N40085-09-C-0075	
NAVFAC DRAWING NO. 12,551,637	
SHEET 2 OF 28	
G-002	

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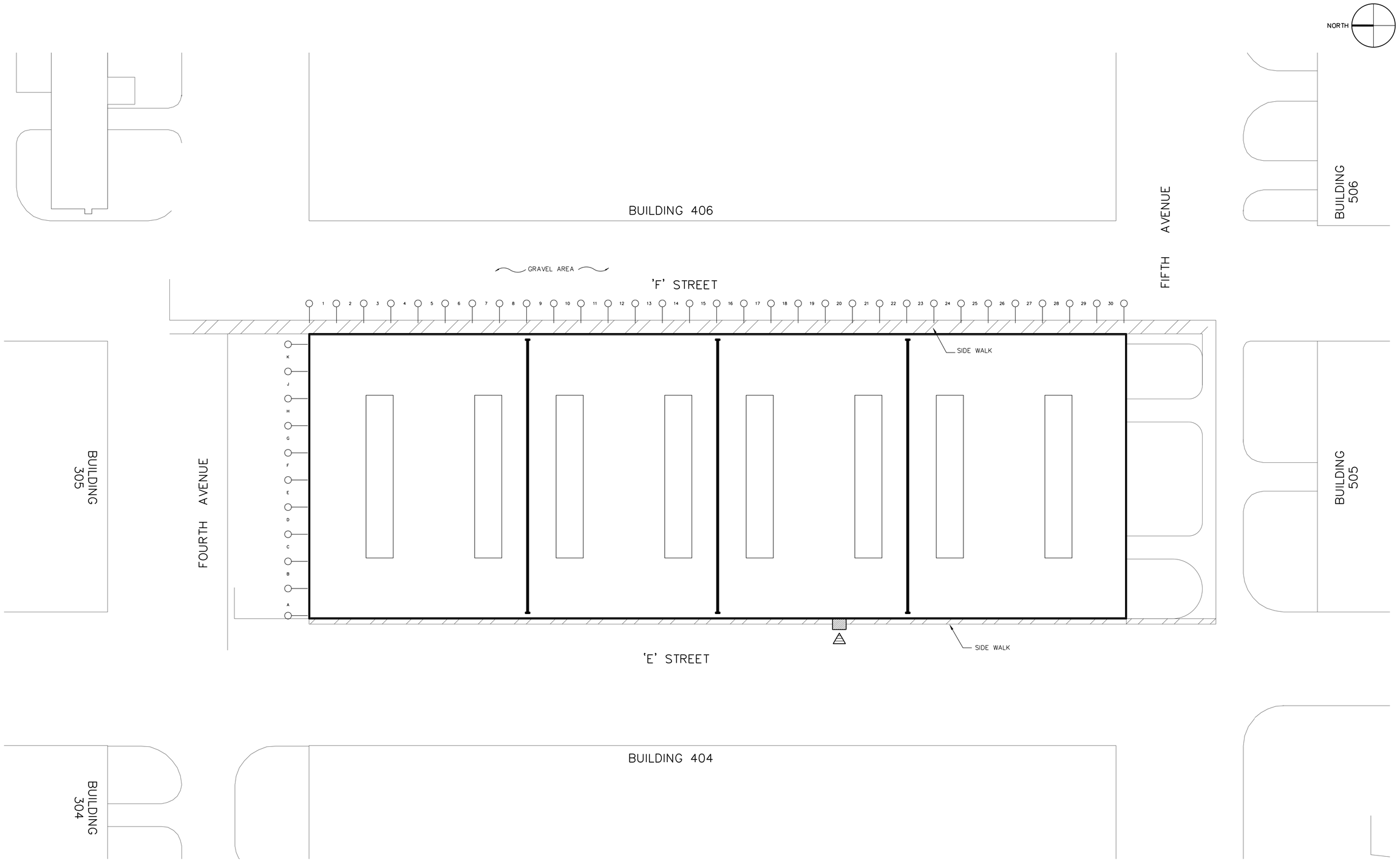

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APPROVED: DATE:	PWD. DWG. NO.
OFFICER IN CHARGE	DESIGNED ECKARD
REVIEWED BY: DATE:	DRAWN JOHNSON CHKD BOHLEN
ENVIRON.:	HD ARCH. BOHLEN
FIRE DEPT.	HD STRU. RODRIGO CHACON, P.E.
SAFETY	HD CIVIL
SATISFACTORY TO:	HD ELEC. FERNANDO MONTALVO
TENANT	HD MECH. JONATHAN VAUGHN
	SATISFACTORY TO:
	DIRECTOR OF DESIGN DATE:

SYM	DESCRIPTION	DATE	APPR

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STEVEN J. BOHLEN
ENGINEER
No. PE056945

SEAL

SUBMITTED BY
FIRM MEMBER DATE
APPROVED
ACTIVITY - SATISFACTORY TO DATE
APPROVED
FOR COMMANDER NAVFAC DATE

DES	DR
CHK	QC
DESIGNER	
REVIEWED BY	
QC	
AIC/EIC	
FIRE PROTECTION	NA
BRANCH MANAGER	
DESIGN DIRECTOR	

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SUPPORT ACTIVITY - MECHANICSBURG, PA

REPLACE ROOF - BUILDING 405

SITE/STAGING PLAN

CODE ID. NO.	SIZE D
SCALE: 1"=20'-0"	
PWD DWG. NO. 9887	
JOB ORDER NO.	
SPEC. NO. 09-0075	
CONSTR. CONTR. NO. N40085-09-C-0075	
NAVFAC DRAWING NO. 12,551,638	
SHEET 3 OF 28	
C-101	

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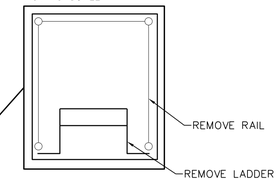
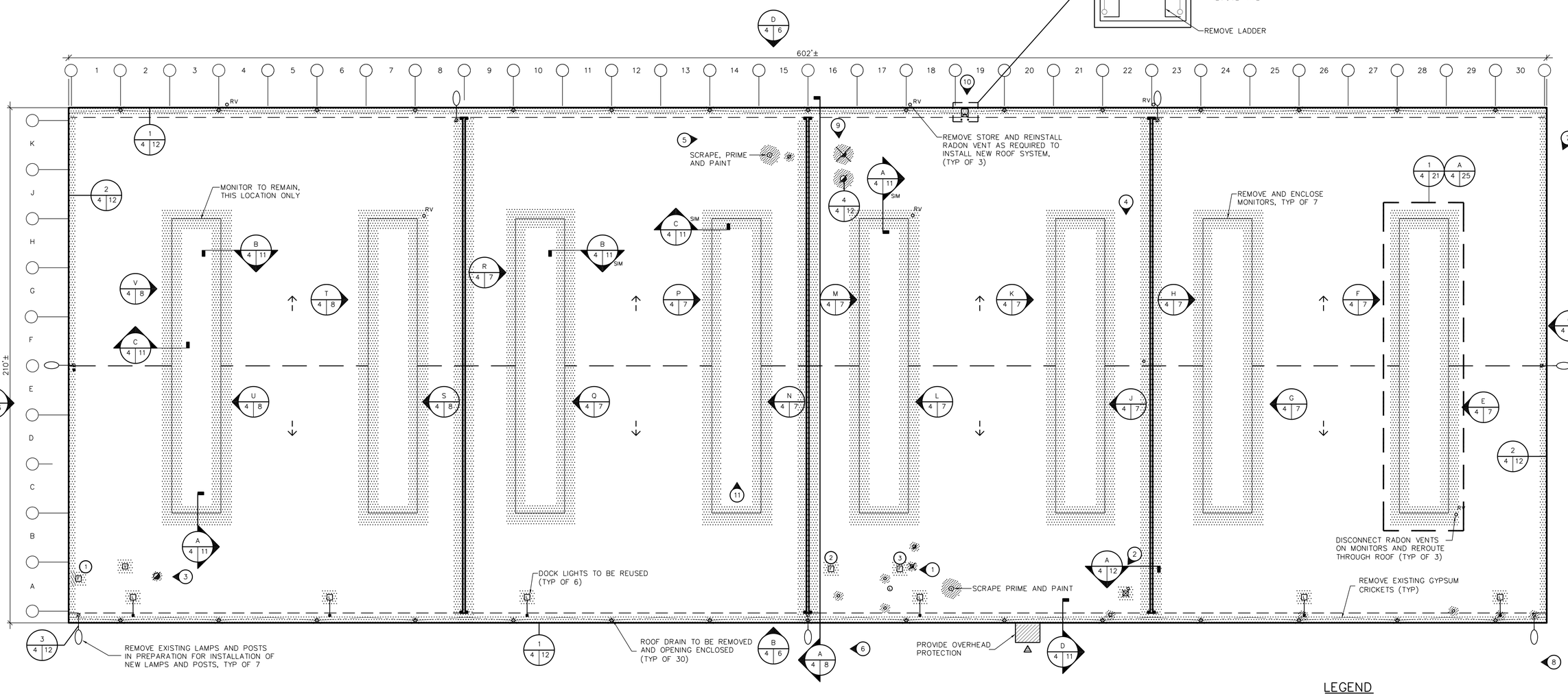
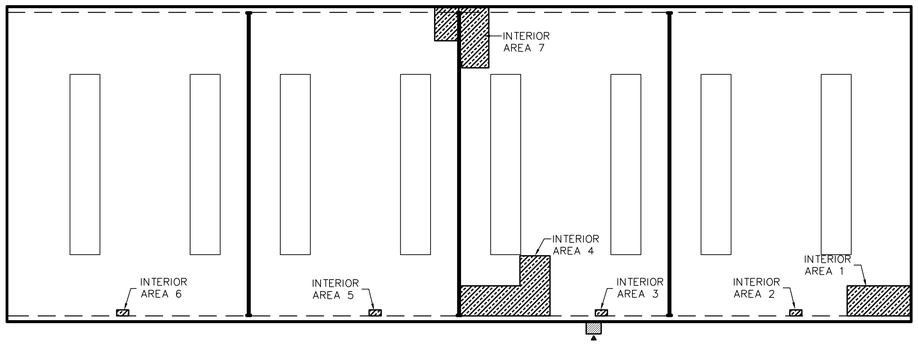
LADDER OPENING

NOT TO SCALE







FINISHED INTERIOR SPACES

NOT TO SCALE

FINISHED INTERIOR SPACES

AREA	DESCRIPTION	SQ. FT.
AREA 1	OFFICE	840
AREA 2	PUMP ROOM	32
AREA 3	PUMP ROOM	32
AREA 4	OFFICE	1600
AREA 5	PUMP ROOM	32
AREA 6	PUMP ROOM	32
AREA 7	MECH ROOM	1070

AREAS BELOW ROOF DECK THAT HAVE SUSPENDED CEILING OR ARE NOT ACCESSIBLE. CONTRACTOR IS STILL RESPONSIBLE FOR CONTROL OF DUST AND DEBRIS ENTERING THESE SPACES.

BUILDING 405 RTU/FAN SCHEDULE

RTU	RTU BAY NO	PANEL BAY NO.	PANEL ID	BREAKER / ID
1	A-1			
2	A-16			
3	A-17			
4				
5				
6				
7				

LEGEND

ASBESTOS CONTAINING ROOFING MATERIALS, FLASHINGS AND STRIPPINGS TO BE REMOVED.

PHOTO INDICATOR REFER TO A-506 AND A-507

GENERAL NOTES

1. CLOSELY COORDINATE WORK OVER INTERIOR FINISHED SPACE LOCATIONS.
2. PROVIDE PROTECTION TO CONTROL DUST IN THESE LOCATIONS ACCESS TO SOME SPACES MAY BE LIMITED.
3. REFER TO MECHANICAL / ELECTRICAL DRAWING FOR MONITOR INTERIOR REMOVAL AND REPLACEMENT ITEMS.
4. REFER TO MECHANICAL DRAWINGS FOR INFORMATION ON NEW RTU'S

0 10' 20' 40'

CHECK GRAPHIC SCALES PRIOR TO USING SCALES

APPROVED: DATE:
OFFICER IN CHARGE
REVIEWED BY: DATE:
ENVIRON.:
FIRE DEPT.
SAFETY
SATISFACTORY TO:
TENANT

PWD. DWG. NO.
DESIGNED ECKARD
DRAWN JOHNSON CHKD BOHLEN
HD ARCH. BOHLEN
HD STRU. RODRIGO CHACON, P.E.
HD CIVIL
HD ELEC. FERNANDO MONTALVO
HD MECH. JONATHAN VAUGHN
SATISFACTORY TO:
DIRECTOR OF DESIGN DATE:

APPR	DATE	DESCRIPTION	STM

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
STEVEN J. BOHLEN
ENGINEER
No. PE056945

SEAL

SUBMITTED BY
FIRM MEMBER DATE
APPROVED
ACTIVITY - SATISFACTORY TO DATE
APPROVED
FOR COMMANDER NAVFAC DATE
DES DR
CHK QC
DESIGNER
REVIEWED BY
QC
AIC/EIC
FIRE PROTECTION NA
BRANCH MANAGER
DESIGN DIRECTOR

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL SUPPORT ACTIVITY - MECHANICSBURG, PA

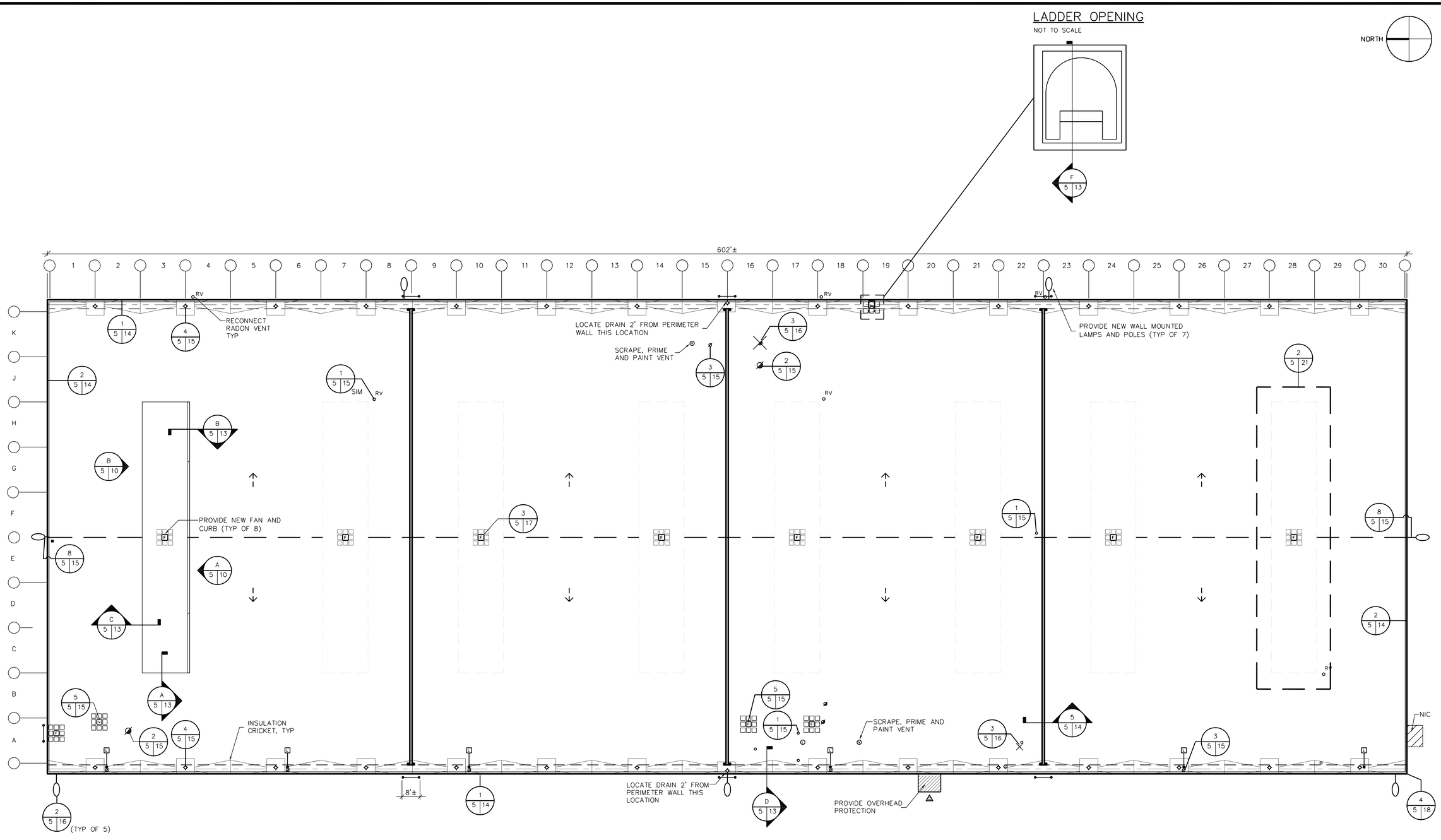
REPLACE ROOF - BUILDING 405

ROOF AREA PLAN - EXISTING CONDITIONS

CODE ID. NO. SIZE D
SCALE: 1"=20'-0"
PWD DWG. NO. 9888
JOB ORDER NO.
SPEC. NO. 09-0075
CONSTR. CONTR. NO. N40085-09-C-0075
NAVFAC DRAWING NO. 12,551,639
SHEET 4 OF 28

A-101

o:\655146\bldg 405\dwg\655146 405 a1x.dwg Tuesday, November 24, 2009



LEGEND

WALKWAY PAD

SAFETY RAILING

GENERAL NOTES

1. PROVIDE 6" MINIMUM CLEAR BETWEEN NEW ROOF DRAINS AND BUILDING WALL.
2. CENTER ROOF DRAINS BETWEEN SOFFIT FRAMING MEMBERS.
3. PROVIDE OFFSET DOWNSPOUT CONNECTIONS AS REQUIRED.

0 10' 20' 40'
CHECK GRAPHIC SCALES PRIOR TO USING SCALES

APPROVED: DATE:
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SATISFACTORY TO:
DIRECTOR OF DESIGN DATE:

SYM	DESCRIPTION	DATE	APPR

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APPROVED
FOR COMMANDER NAVFAC DATE

DES	DR
CHK	QC

DESIGNER
REVIEWED BY
QC
AIC/EIC
FIRE PROTECTION NA
BRANCH MANAGER
DESIGN DIRECTOR

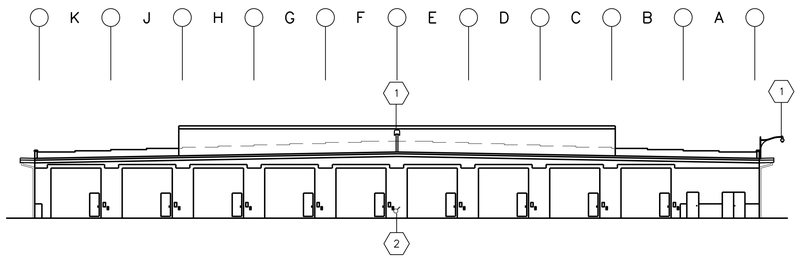
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SUPPORT ACTIVITY - MECHANICSBURG, PA

REPLACE ROOF – BUILDING 405

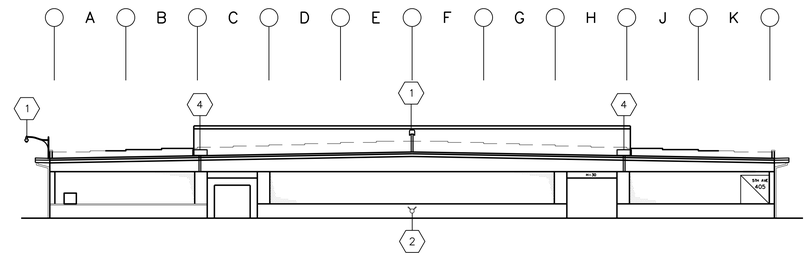
ROOF AREA PLAN – NEW CONSTRUCTION

CODE ID. NO. SIZE D
SCALE: 1"=20'-0"
PWD DWG. NO. 9889
JOB ORDER NO.
SPEC. NO. 09-0075
CONSTR. CONTR. NO. N40085-09-C-0075
NAVFAC DRAWING NO. 12,551,640
SHEET 5 OF 28
A-102

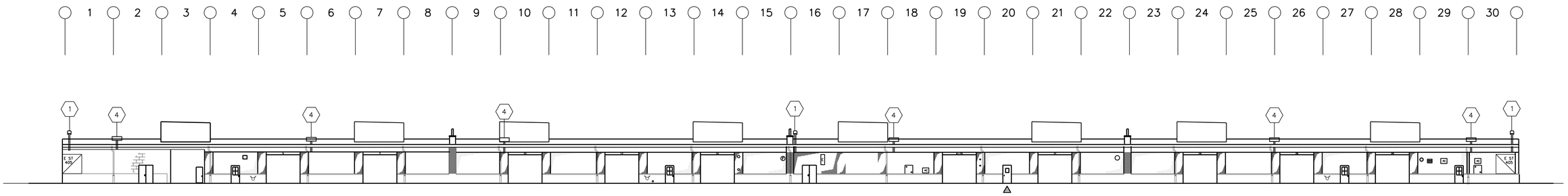
o:\655146\bldg 405\dwg\655146 405 a1x.dwg Tuesday, November 24, 2009



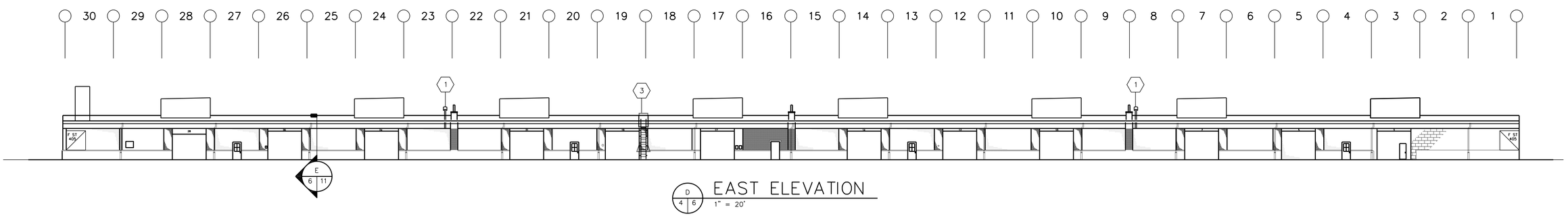
A 4 6 NORTH ELEVATION
1" = 20'



C 4 6 SOUTH ELEVATION
1" = 20'



B 4 6 WEST ELEVATION
1" = 20'



D 4 6 EAST ELEVATION
1" = 20'

KEY NOTES

1. REMOVE EXISTING LAMP AND POST SEE MECHANICAL/ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION
2. TERMINATE AND CAP STANDPIPE INSIDE OF WALL. REPAIR MASONRY WALL. SEE MECHANICAL/ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION
3. REMOVE LADDER / CAGE
4. DISCONNECT, STORE AND REINSTALL WALL MOUNTED DOCK LIGHT AS REQUIRED TO INSTALL THE NEW ROOF SYSTEM

0 10' 20' 40'
CHECK GRAPHIC SCALES PRIOR TO USING SCALES

APPROVED: DATE:
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REVIEWED BY: DATE:
ENVIRON.:
FIRE DEPT.
SAFETY
SATISFACTORY TO:
TENANT

PWD. DWG. NO.
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SATISFACTORY TO:
DIRECTOR OF DESIGN DATE:

	APPR	DATE	DESCRIPTION	SYM

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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL SUPPORT ACTIVITY - MECHANICSBURG, PA

REPLACE ROOF - BUILDING 405

ELEVATIONS - EXISTING CONDITIONS

CODE ID. NO. SIZE D
SCALE: 1" = 20'
PWD DWG. NO. 9890
JOB ORDER NO.
SPEC. NO. 09-0075
CONSTR. CONTR. NO. N40085-09-C-0075
NAVFAC DRAWING NO. 12,551,641
SHEET 6 OF 28
A-201

Tuesday, November 24, 2009
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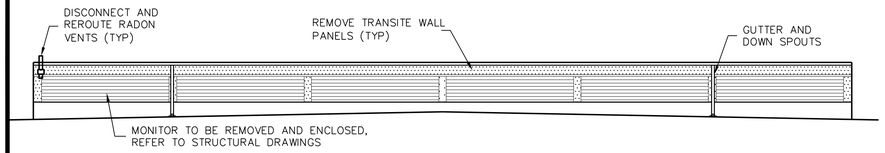
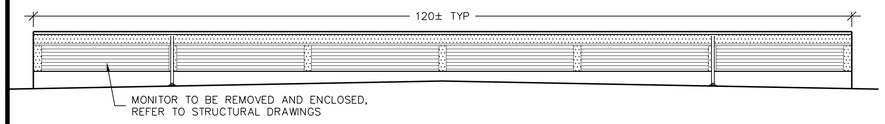
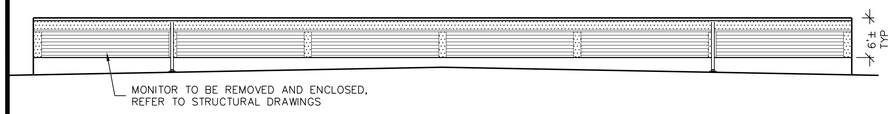
SOUTH ELEVATIONS



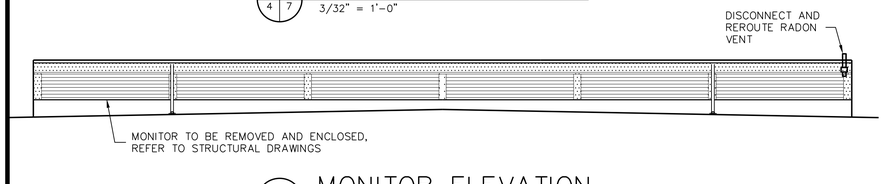
E 4 7 MONITOR ELEVATION
3/32" = 1'-0"



G 4 7 MONITOR ELEVATION
3/32" = 1'-0"



J 4 7 MONITOR ELEVATION
3/32" = 1'-0"



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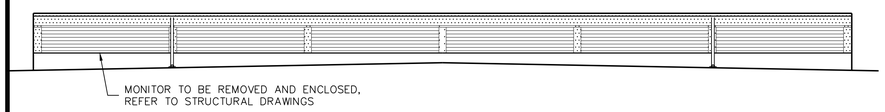
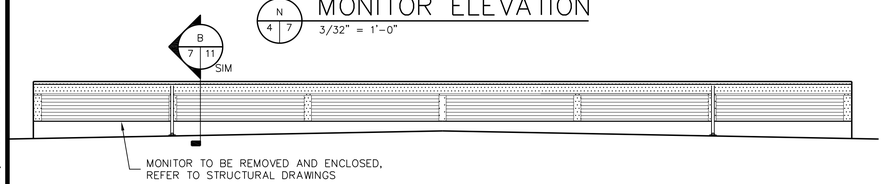
3/32" = 1'-0"

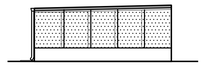


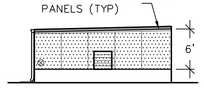
N 4 7 MONITOR ELEVATION
3/32" = 1'-0"

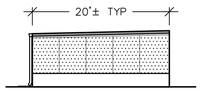


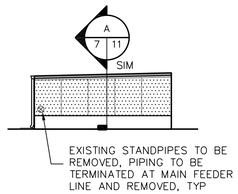
Q 4 7 MONITOR ELEVATION
3/32" = 1'-0"

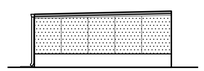
EAST ELEVATIONS

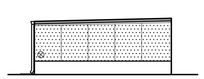




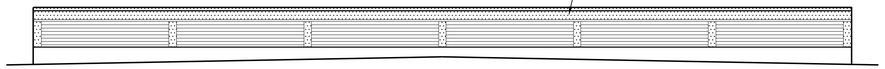




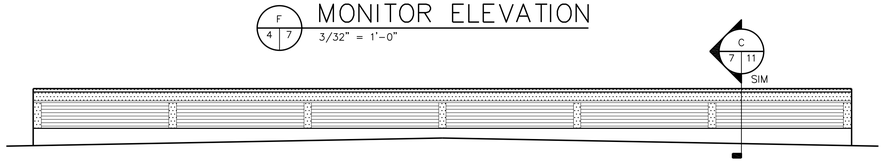




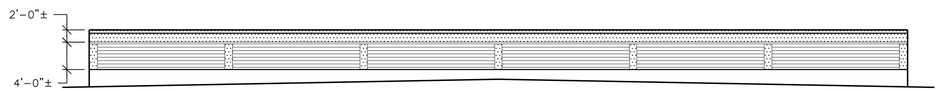
NORTH ELEVATIONS



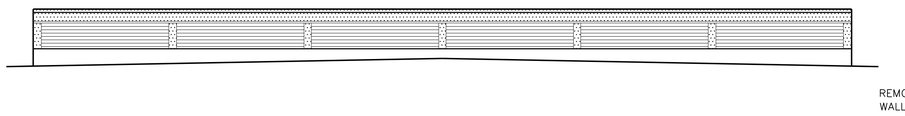
F 4 7 MONITOR ELEVATION
3/32" = 1'-0"



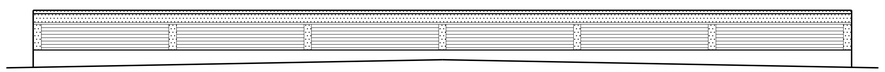
H 4 7 MONITOR ELEVATION
3/32" = 1'-0"



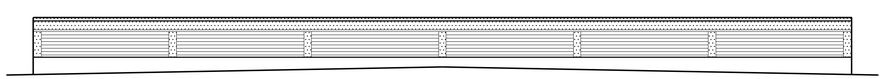
K 4 7 MONITOR ELEVATION
3/32" = 1'-0"



M 4 7 MONITOR ELEVATION
3/32" = 1'-0"

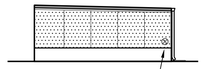


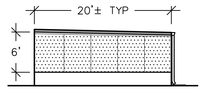
P 4 7 MONITOR ELEVATION
3/32" = 1'-0"

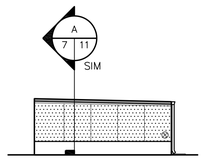


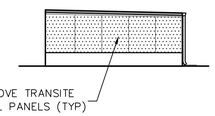
R 4 7 MONITOR ELEVATION
3/32" = 1'-0"

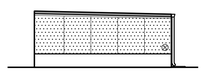
WEST ELEVATIONS

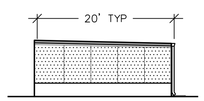












MONITOR NOTES

1. EXISTING TRANSITE WALL PANELS SHALL BE REMOVED, HANDLED AND DISPOSED OF IN ACCORDANCE WITH SECTION 0282 16.00 20 AND OSHA REQUIREMENTS.
2. EXISTING STEEL FRAMED WINDOW ASSEMBLIES ARE COATED WITH LEAD CONTAINING PAINT (LCP) AND SHALL BE REMOVED, HANDLED AND DISPOSE OF IN ACCORDANCE WITH SECTION 02 83 13.00 02 AND OSHA REQUIREMENTS. DO NOT DISTURB PAINTED SURFACES DURING THE COURSE OF WORK ON MONITOR SCHEDULED TO REMAIN.
3. ALL STANDPIPES TO BE TERMINATED AT MAIN FEEDER LINE ON MONITORS SCHEDULED TO BE REMOVED TERMINATION SHALL BE IN ACCORDANCE WITH APPLICABLE CODE REQUIREMENTS.
4. MONITORS TO BE REMOVED IN THEIR ENTIRETY EXCEPT FOR THE NORTH MONITOR (ELEVATIONS 6 & 7). REFER TO STRUCTURAL DRAWINGS.

0 8' 16' 24'
CHECK GRAPHIC SCALES PRIOR TO USING SCALES

APPROVED: DATE:
OFFICER IN CHARGE
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SAFETY
SATISFACTORY TO:
TENANT

PWD. DWG. NO.
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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL SUPPORT ACTIVITY - MECHANICSBURG, PA

REPLACE ROOF - BUILDING 405

ELEVATIONS - EXISTING CONDITIONS

CODE ID. NO. SIZE D
SCALE: 1" = 20'
PWD DWG. NO. 9891
JOB ORDER NO.
SPEC. NO. 09-0075
CONSTR. CONTR. NO.
N40085-09-C-0075
NAVFAC DRAWING NO.
12,551,642
SHEET 7 OF 28
A-202

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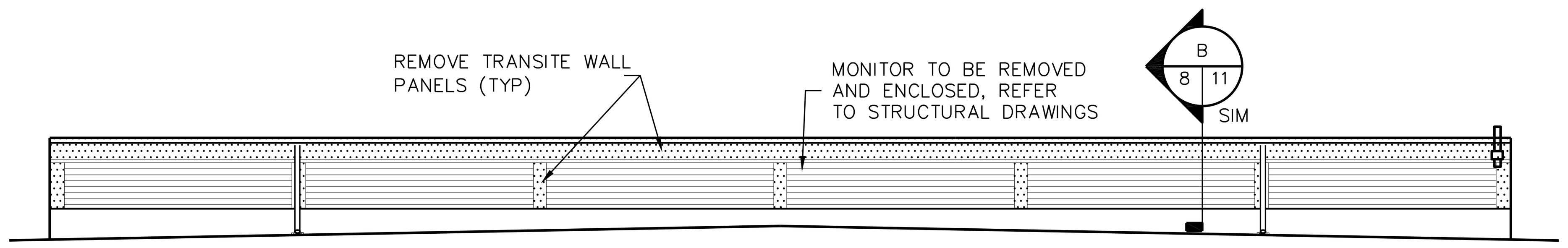
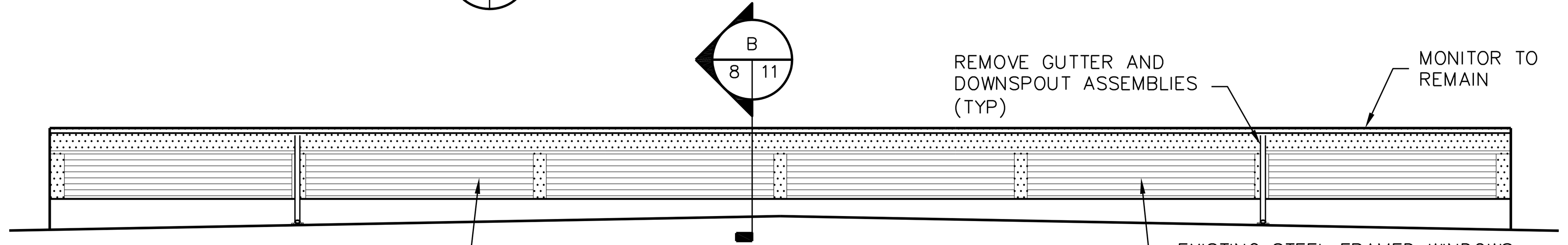
SOUTH ELEVATIONS

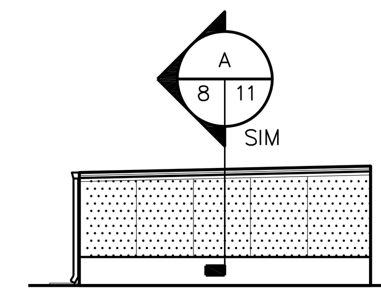


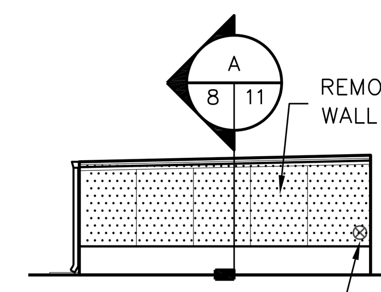
S 4 8 MONITOR ELEVATION
3/32" = 1'–0"



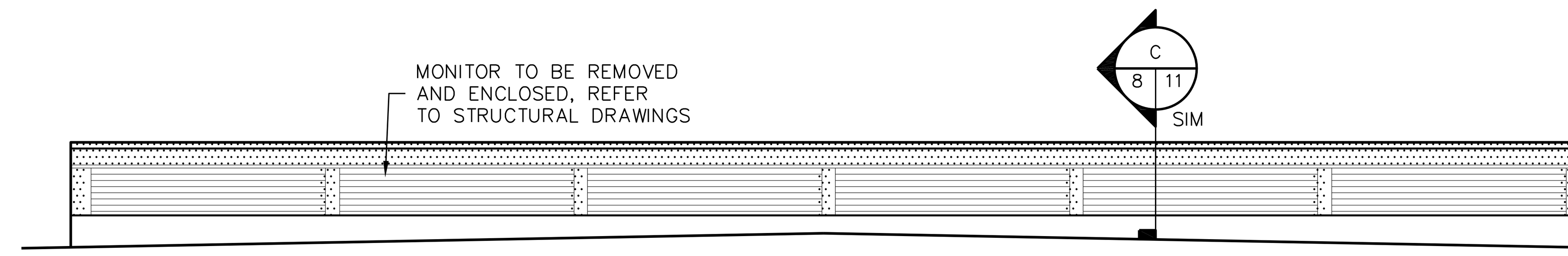
U 4 8 MONITOR ELEVATION
3/32" = 1'–0"

EAST ELEVATIONS

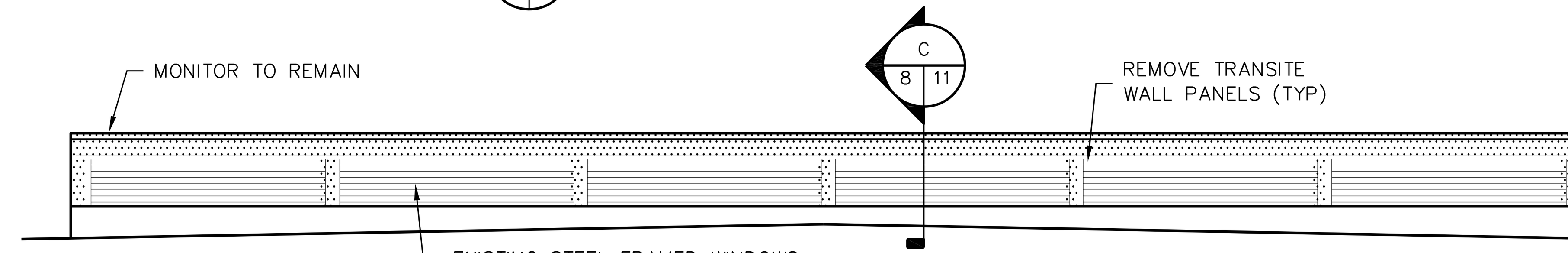




NORTH ELEVATIONS

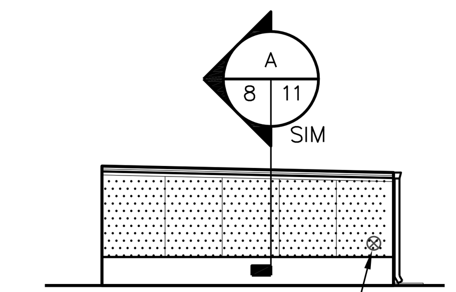


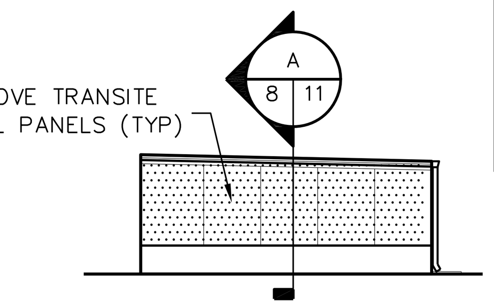
T 4 8 MONITOR ELEVATION
3/32" = 1'–0"



V 4 8 MONITOR ELEVATION
3/32" = 1'–0"

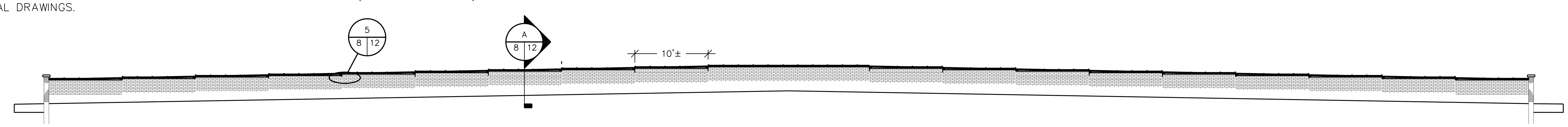
WEST ELEVATIONS





MONITOR NOTES

1. EXISTING TRANSITE WALL PANELS SHALL BE REMOVED, HANDLED AND DISPOSED OF IN ACCORDANCE WITH SECTION 02 82 16.00 20 AND OSHA REQUIREMENTS.
2. EXISTING STEEL FRAMED WINDOW ASSEMBLIES ARE COATED WITH LEAD CONTAINING PAINT (LCP) AND SHALL BE REMOVED, HANDLED AND DISPOSE OF IN ACCORDANCE WITH SECTION 02 83 13.00 02 AND OSHA REQUIREMENTS. DO NOT DISTURB PAINTED SURFACES ON MONITOR SCHEDULED TO REMAIN DURING THE COURSE OF WORK.
3. ALL STANDPIPES TO BE TERMINATED AT MAIN FEEDER LINE ON MONITORS SCHEDULED TO BE REMOVED. TERMINATION SHALL BE IN ACCORDANCE WITH APPLICABLE CODE REQUIREMENTS.
4. MONITORS TO BE REMOVED IN THEIR ENTIRETY EXCEPT FOR THE NORTH MONITOR (ELEVATIONS 6 & 7). REFER TO STRUCTURAL DRAWINGS.



A 4 8 FIRE WALL ELEVATION
1/8" = 1'–0"

0 4' 8' 16'

0 8' 16' 24'
CHECK GRAPHIC SCALES PRIOR TO USING SCALES

Tuesday, November 24, 2009
o: \655146\bldg 405\dwg\655146 405 a2x.dwg

APPROVED:	DATE:
OFFICER IN CHARGE	
REVIEWED BY:	DATE:
ENVIRON.:	
FIRE DEPT.	
SAFETY	
SATISFACTORY TO:	
TENANT	

PWD. DWG. NO.
DESIGNED ECKARD
DRAWN JOHNSON CHKD BOHLEN
HD ARCH. BOHLEN
HD STRU. RODRIGO CHACON, P.E.
HD CIVIL
HD ELEC. FERNANDO MONTALVO
HD MECH. JONATHAN VAUGHN
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SEAL

SUBMITTED BY
FIRM MEMBER DATE
APPROVED
ACTIVITY – SATISFACTORY TO DATE
APPROVED
FOR COMMANDER NAVFAC DATE

DES	DR
CHK	QC
DESIGNER	
REVIEWED BY	
QC	
AIC/EIC	
FIRE PROTECTION NA	
BRANCH MANAGER	
DESIGN DIRECTOR	

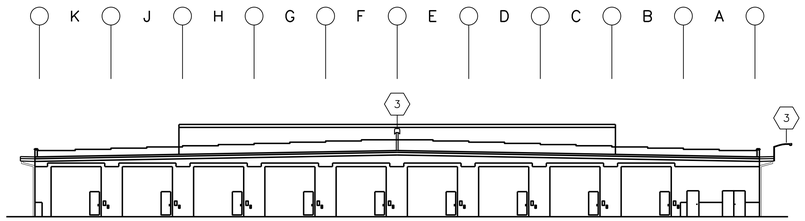
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SUPPORT ACTIVITY – MECHANICSBURG, PA

REPLACE ROOF – BUILDING 405

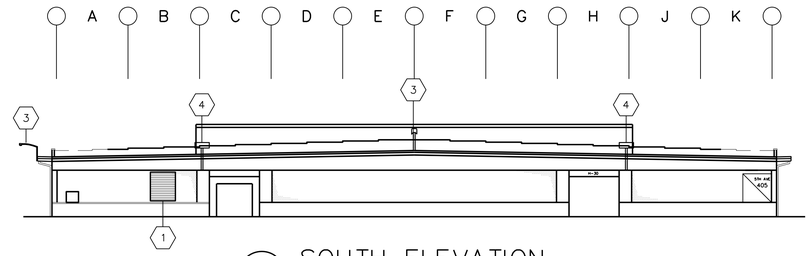
ELEVATIONS – EXISTING CONDITIONS

CODE ID. NO.	SIZE D
SCALE: 1" = 20'	
PWD DWG. NO. 9892	
JOB ORDER NO.	
SPEC. NO. 09–0075	
CONSTR. CONTR. NO. N40085–09–C–0075	
NAVFAC DRAWING NO. 12,551,643	
SHEET 8 OF 28	

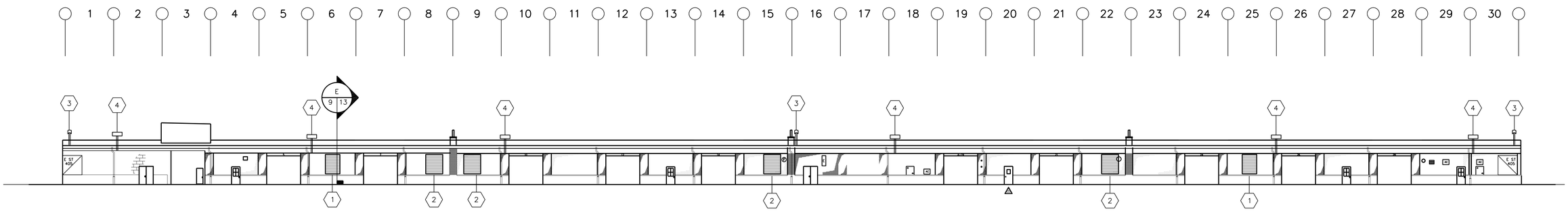
A–203



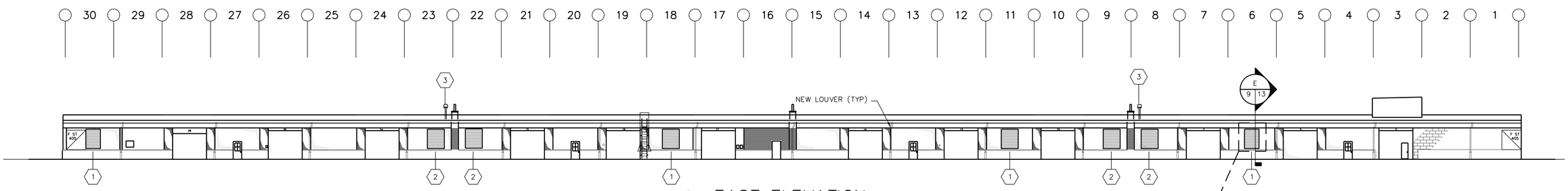
A 5 9 NORTH ELEVATION
1" = 20'



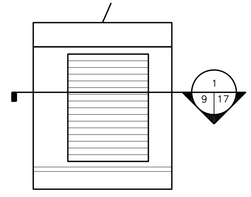
C 5 9 SOUTH ELEVATION
1" = 20'



B 5 9 WEST ELEVATION
1" = 20'



D 5 9 EAST ELEVATION
1" = 20'



LOUVER ASSEMBLY
3/16"=1'-0"

KEY NOTES

1. LOUVER TYPE 1 OVERALL ROUGH OPENING APPROXIMATELY 72"x102"
2. LOUVER TYPE 2 OVERALL ROUGH OPENING APPROXIMATELY 84"x102"
3. PROVIDE NEW LAMP AND POST, SEE MECHANICAL/ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
4. REINSTALL AND CONNECT DOCK LIGHTS

GENERAL NOTES

1. THE TERM LOUVER SHALL BE USED TO REFER TO THE LOUVER AND DAMPER ASSEMBLY.
2. PROVIDE LOUVERS FULL HEIGHT OF OPENING.
3. PROVIDE VANDAL PROOF SCREENS AT EACH LOUVER. REFER TO SPECIFICATIONS FOR SCREEN REQUIREMENTS.
4. ROUGH OPENING DIMENSIONS ARE FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL FIELD VERIFY OPENING DIMENSIONS PRIOR TO ORDERING MATERIALS

0 10' 20' 40'
CHECK GRAPHIC SCALES PRIOR TO USING SCALES

APPROVED: DATE:
OFFICER IN CHARGE
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FIRE DEPT.
SAFETY
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HD CIVIL
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No. PE056945

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CHK QC
DESIGNER
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QC
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FIRE PROTECTION NA
BRANCH MANAGER
DESIGN DIRECTOR

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SUPPORT ACTIVITY - MECHANICSBURG, PA

REPLACE ROOF - BUILDING 405

ELEVATIONS - NEW CONSTRUCTION

CODE ID. NO. SIZE D
SCALE: 1" = 20'
PWD DWG. NO. 9893
JOB ORDER NO.
SPEC. NO. 09-0075
CONSTR. CONTR. NO. N40085-09-C-0075
NAVFAC DRAWING NO. 12,551,644
SHEET 9 OF 28
A-204

Tuesday, November 24, 2009
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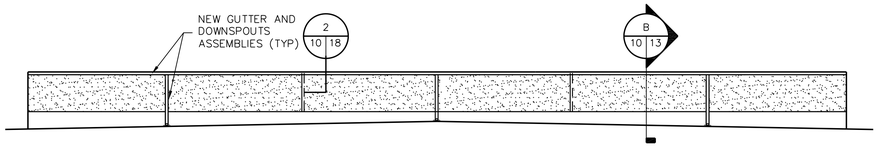
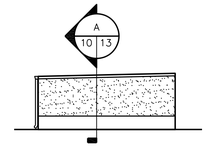
SOUTH ELEVATION

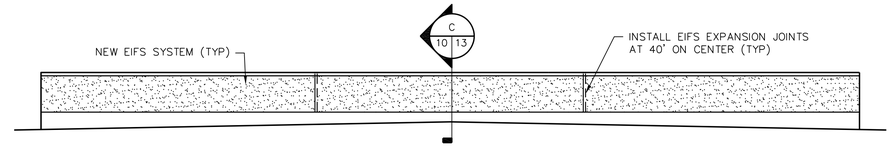


A 5 10 MONITOR ELEVATION
3/32" = 1'-0"

EAST ELEVATION

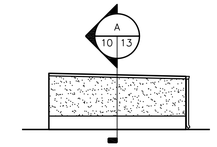


NORTH ELEVATION



B 5 10 MONITOR ELEVATION
3/32" = 1'-0"

WEST ELEVATION



0 8' 16' 24'
CHECK GRAPHIC SCALES PRIOR TO USING SCALES

APPROVED: DATE:
OFFICER IN CHARGE
REVIEWED BY: DATE:
ENVIRON.:
FIRE DEPT.
SAFETY
SATISFACTORY TO:
TENANT

PWD. DWG. NO.
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DIRECTOR OF DESIGN DATE:

	DATE	APPR

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ENGINEER
No. PE056945

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CHK QC
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FIRE PROTECTION NA
BRANCH MANAGER
DESIGN DIRECTOR

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NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SUPPORT ACTIVITY - MECHANICSBURG, PA

REPLACE ROOF - BUILDING 405

ELEVATIONS - NEW CONSTRUCTION

CODE ID. NO. SIZE D
SCALE: 1" = 20'
PWD DWG. NO. 9894
JOB ORDER NO.
SPEC. NO. 09-0075
CONSTR. CONTR. NO. N40085-09-C-0075
NAVFAC DRAWING NO. 12,551,645
SHEET 10 OF 28
A-205

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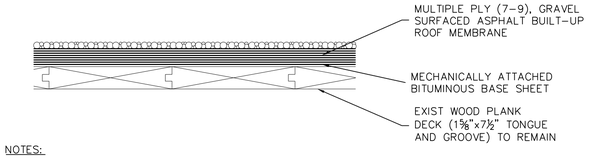


NOTES:

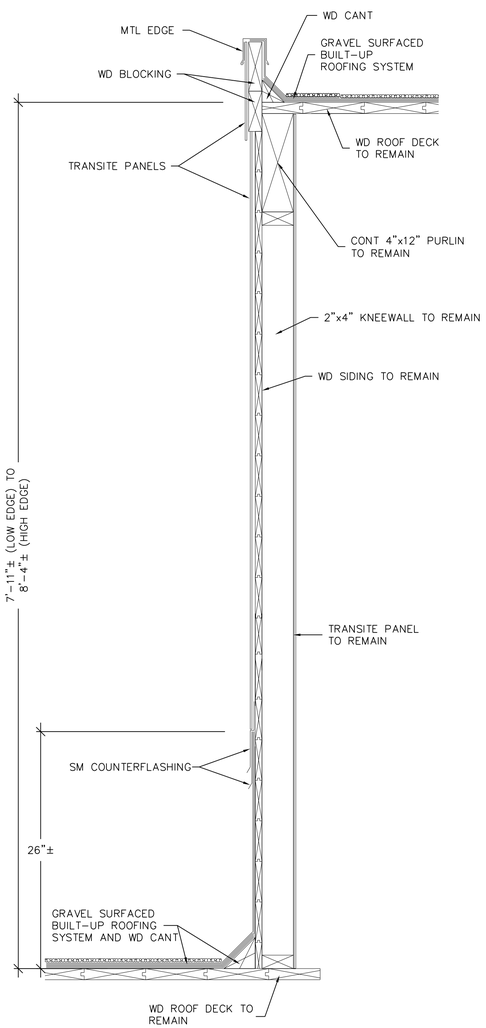
1. SLOPE = ¼"/FT±
2. REFER TO DEMOLITION NOTES ON DRAWING G–002 FOR ADDITIONAL INFORMATION.
3. ALL ITEMS ARE TO BE REMOVED UNLESS SPECIFICALLY INDICATED TO REMAIN.
4. REMOVE EXISTING GYPSUM CRICKETS ALONG DRAINAGE EDGES THROUGHOUT THE MAIN ROOF AREAS.
5. ALL BITUMINOUS STRIPPINGS AND BASE FLASHINGS ARE ASBESTOS CONTAINING ROOFING MATERIALS (ACRM). REMOVE AS SPECIFIED.

TYPICAL ROOF SYSTEM CROSS SECTION – EXISTING

3" = 1'–0"

NOTES:

1. EIFS WINDOW ASSEMBLY AND ACCESSORIES TO BE REMOVED FROM HEAD TO SILL AND FROM STEEL JAMB TO STEEL JAMB, SEE DRAWINGS FOR EXTENT.
2. DO NOT DISTURB ADJACENT WINDOW ASSEMBLIES AND EIFS



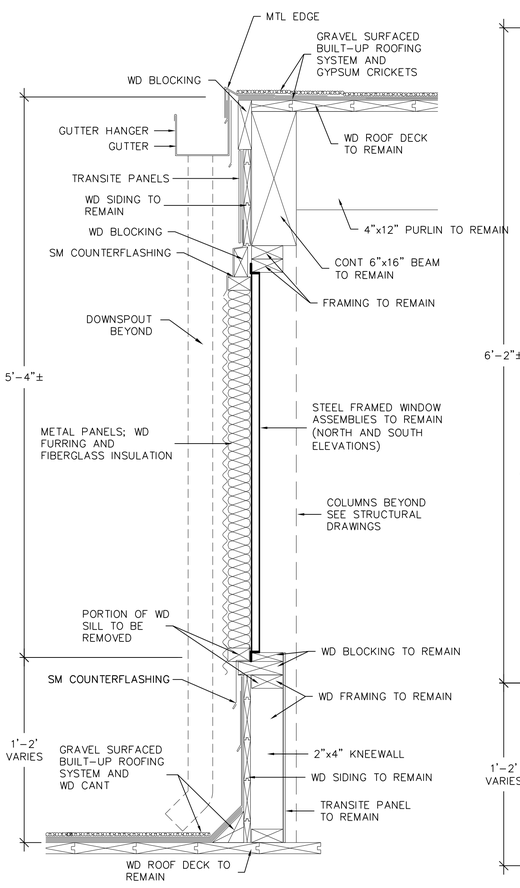
A 11 — MONITOR WALL – EAST/WEST

1–1/2" = 1'–0"

4,7,8,21

NOTES:

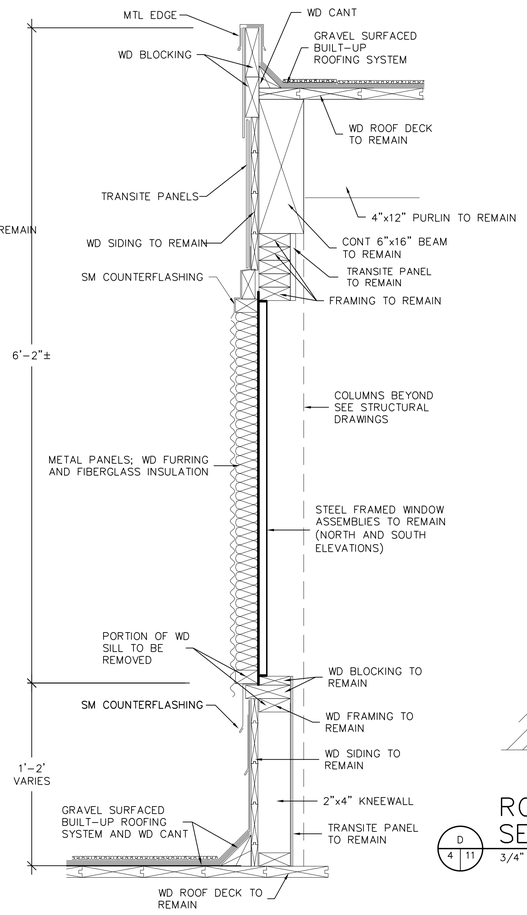
1. MONITOR SECTIONS ARE FOR NORTHERN MOST MONITOR WHICH IS SCHEDULED TO REMAIN. REMAINING MONITORS ARE CONSTRUCTED IN A SIMILAR MANNER AND WILL BE REMOVED IN THEIR ENTIRETY.
2. REFER TO STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.



B 11 — MONITOR WALL – SOUTH

1–1/2" = 1'–0"

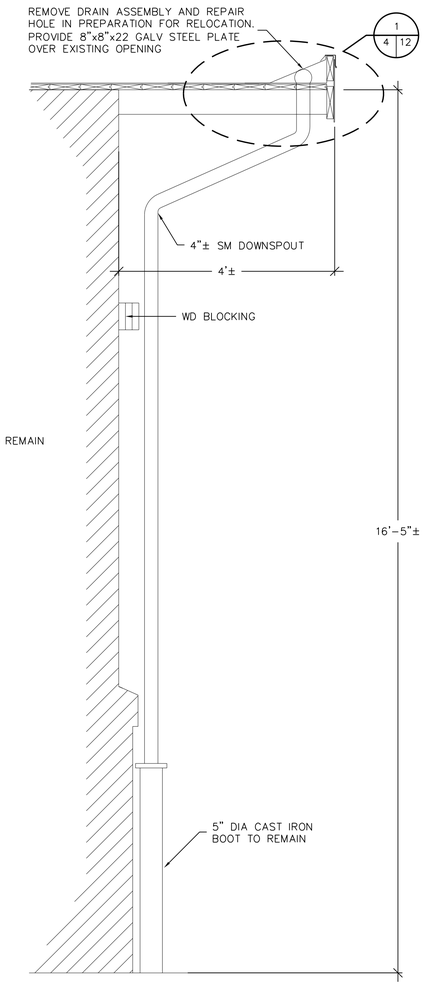
4,7,8,21



C 11 — MONITOR WALL – NORTH

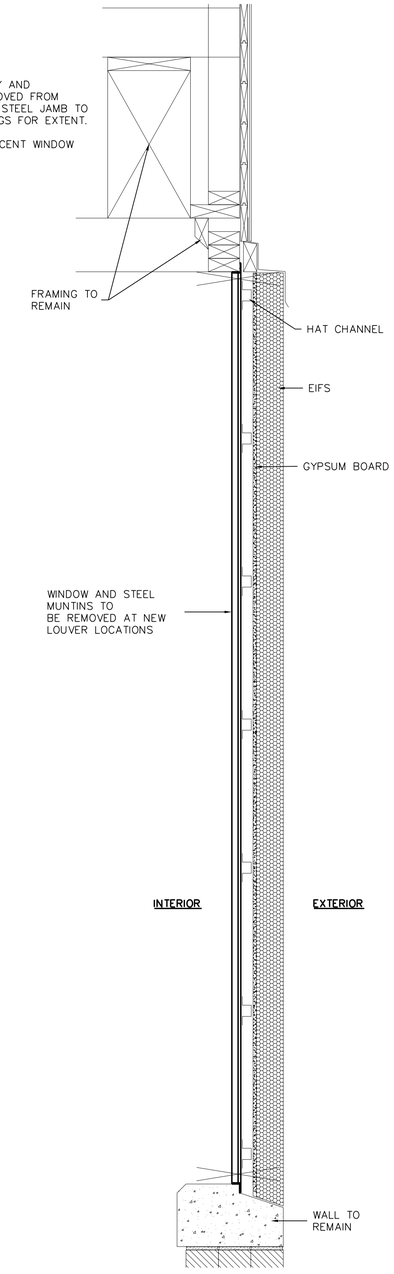
1–1/2" = 1'–0"

4,7,8,21



D 11 — ROOF EDGE TO DRAIN CROSS SECTION – EXISTING CONDITION

3/4" = 1'–0"



E 11 — BUILDING WINDOW

3/4" = 1'–0"

ALL ITEMS TO BE REMOVED UNLESS INDICATED AS EXIST TO REMAIN

CHECK GRAPHIC SCALES PRIOR TO USING SCALES

APPROVED:	DATE:
OFFICER IN CHARGE	
REVIEWED BY:	DATE:
ENVIRON.:	
FIRE DEPT.	
SAFETY SATISFACTORY TO:	
TENANT	

PWD. DWG. NO.

DESIGNED ECKARD
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HD ARCH. BOHLEN
HD STRU. RODRIGO CHACON, P.E.
HD CIVIL
HD ELEC. FERNANDO MONTALVO
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ENGINEER
No. PE056945
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DES DR
CHK QC
DESIGNER
REVIEWED BY
QC
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FIRE PROTECTION NA
BRANCH MANAGER
DESIGN DIRECTOR

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SUPPORT ACTIVITY – MECHANICSBURG, PA

REPLACE ROOF – BUILDING 405

SECTIONS – EXISTING CONDITIONS

CODE ID. NO. SIZE D
SCALE: AS NOTED
PWD DWG. NO. 9895
JOB ORDER NO.
SPEC. NO. 09-0075
CONSTR. CONTR. NO.
N40085-09-C-0075
NAVFAC DRAWING NO.
12,551,646
SHEET 11 OF 28
A-301

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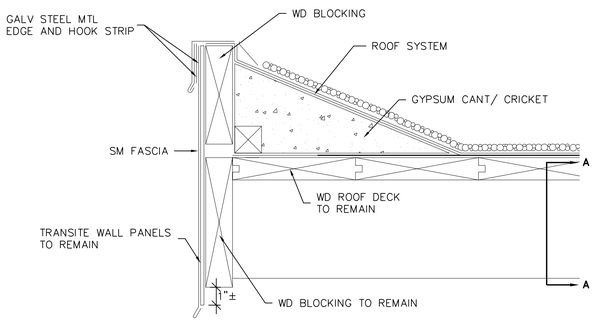
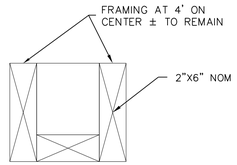
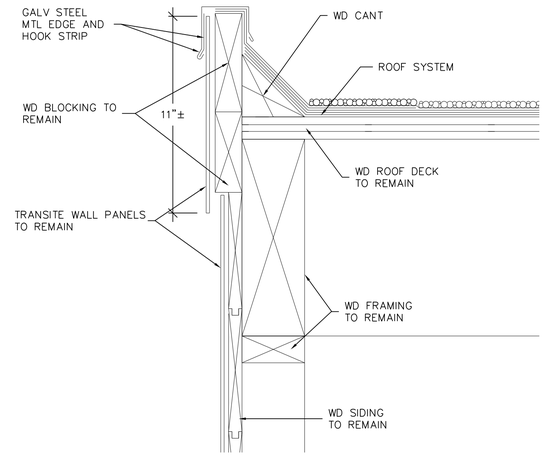


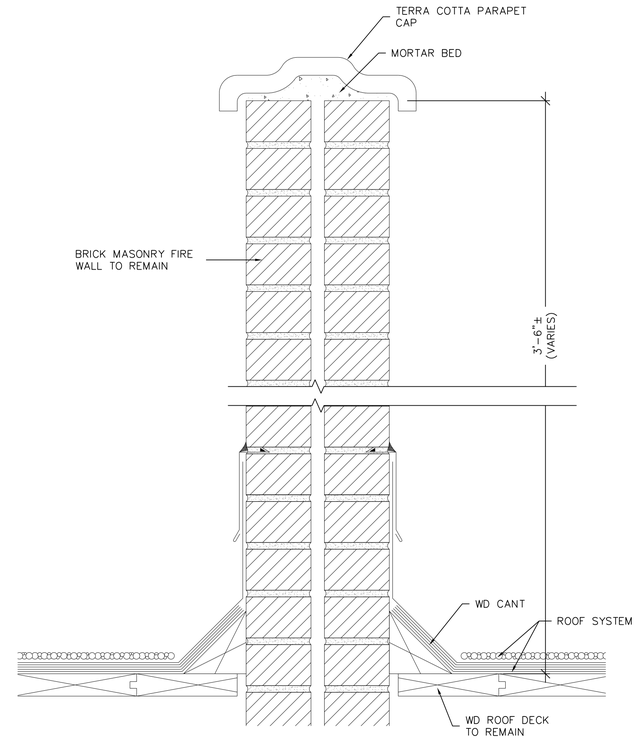
1 / 4 12 MAIN ROOF EDGE – EAST/WEST
3" = 1'-0"



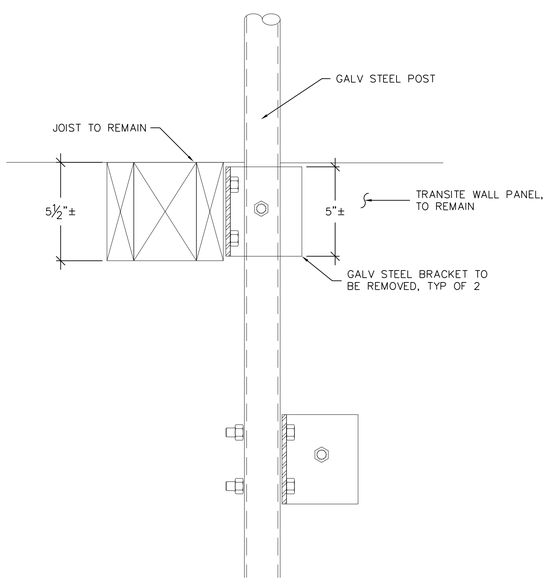
A–A



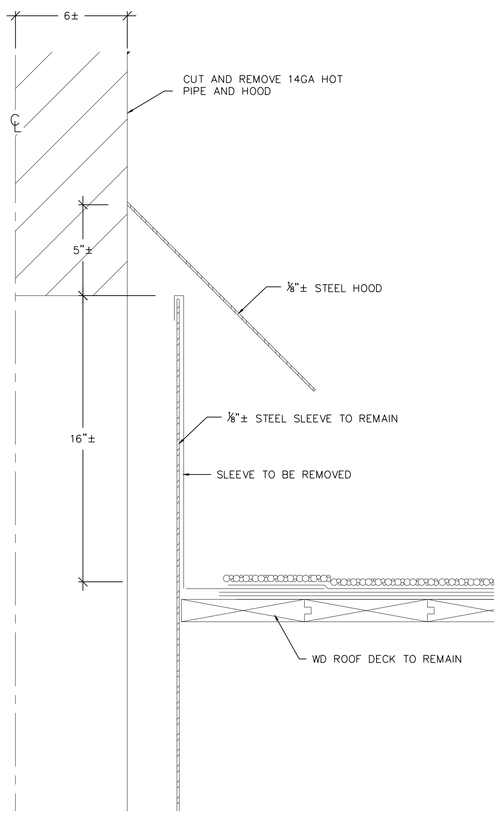
2 / 4 12 MAIN ROOF EDGE NORTH/SOUTH
3" = 1'-0"



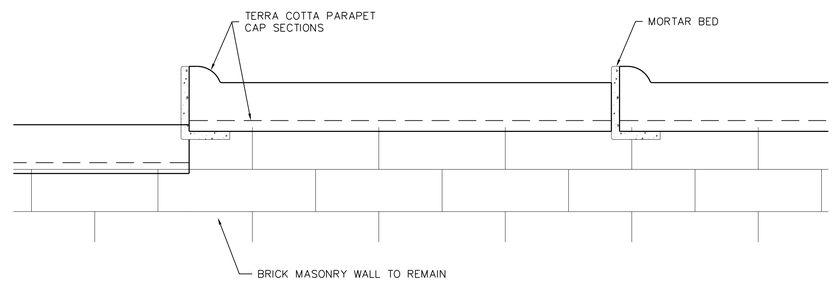
A / 12 FIRE WALL SECTION
4,8
3" = 1'-0"



3 / 4 12 LUMINAIRE POST
3" = 1'-0"



4 / 4 12 HOT PIPE
3" = 1'-0"



5 / 8 12 FIRE WALL CAP TRANSITION
3" = 1'-0"

ALL ITEMS TO BE REMOVED UNLESS INDICATED AS EXIST TO REMAIN

CHECK GRAPHIC SCALES PRIOR TO USING SCALES

APPROVED: DATE:	PWD. DWG. NO.
OFFICER IN CHARGE	DESIGNED ECKARD
REVIEWED BY: DATE:	DRAWN JOHNSON CHKD BOHLEN
ENVIRON.:	HD ARCH. BOHLEN
	HD STRU. RODRIGO CHACON, P.E.
FIRE DEPT.	HD CIVIL
	HD ELEC. FERNANDO MONTALVO
SAFETY	HD MECH. JONATHAN VAUGHN
SATISFACTORY TO:	SATISFACTORY TO:
TENANT	DIRECTOR OF DESIGN DATE:

SYM	DESCRIPTION	DATE	APPR

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CHK	QC
DESIGNER	
REVIEWED BY	
QC	
AIC/EIC	
FIRE PROTECTION	NA
BRANCH MANAGER	
DESIGN DIRECTOR	

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NAVAL FACILITIES ENGINEERING COMMAND
NAVAL SUPPORT ACTIVITY – MECHANICSBURG, PA

REPLACE ROOF – BUILDING 405

SECTIONS – EXISTING CONDITIONS

CODE ID. NO.	SIZE D
SCALE: AS NOTED	
PWD DWG. NO. 9896	
JOB ORDER NO.	
SPEC. NO. 09-0075	
CONSTR. CONTR. NO. N40085-09-C-0075	
NAVFAC DRAWING NO. 12,551,647	
SHEET 12 OF 28	

A–302

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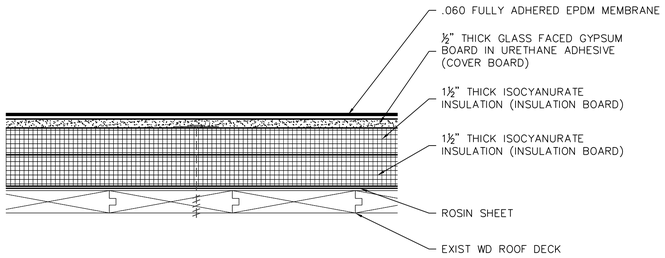
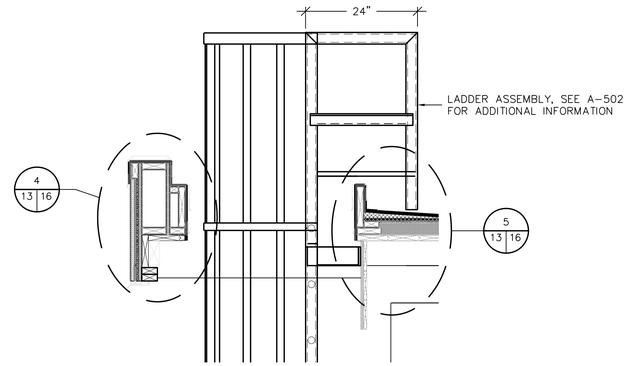


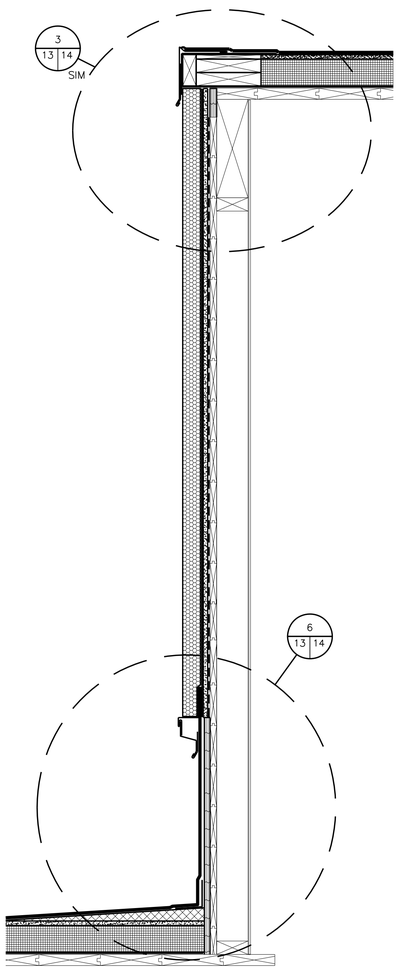
ROOF SYSTEM CROSS SECTION – NEW CONSTRUCTION

3" = 1'-0"



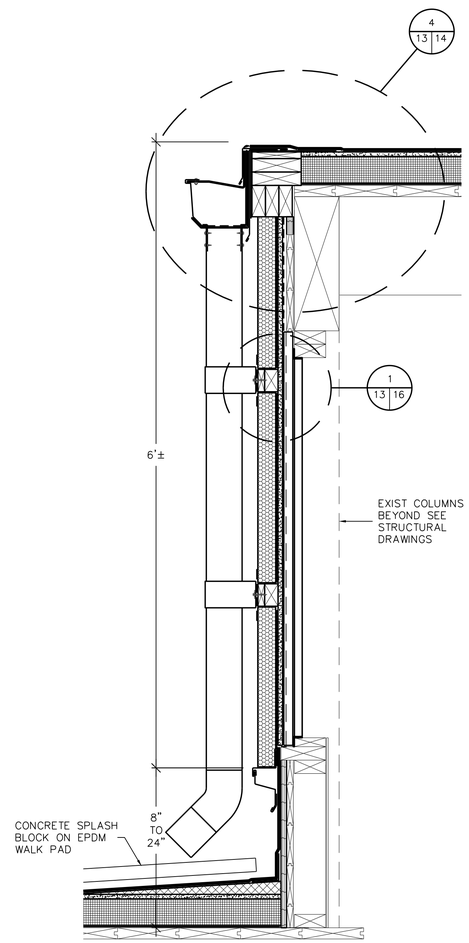
F 5 13 LADDER OPENING

3/4" = 1'-0"



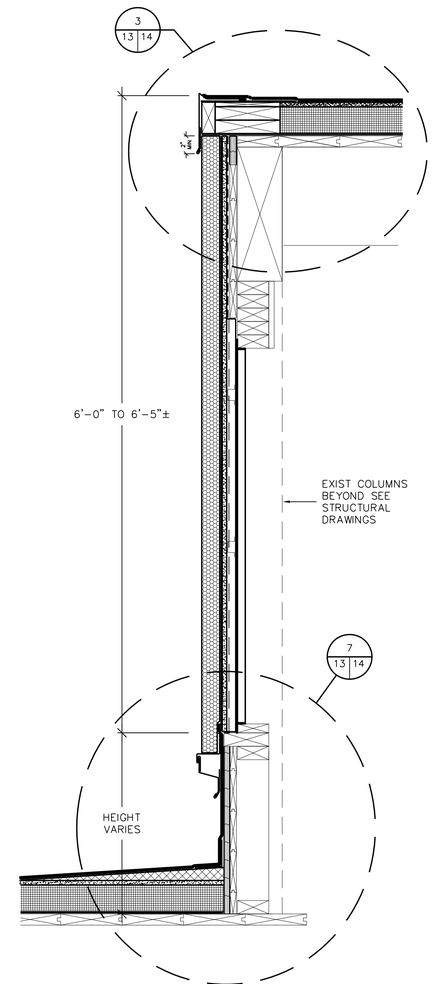
A 13 MONITOR WALL – EAST/WEST

5,10 — 1-1/2" = 1'-0"



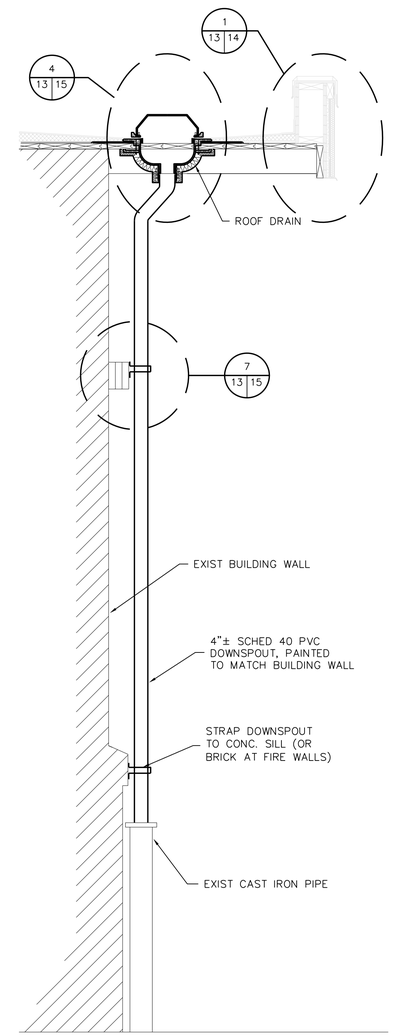
B 13 MONITOR WALL – SOUTH

5,10 — 1-1/2" = 1'-0"



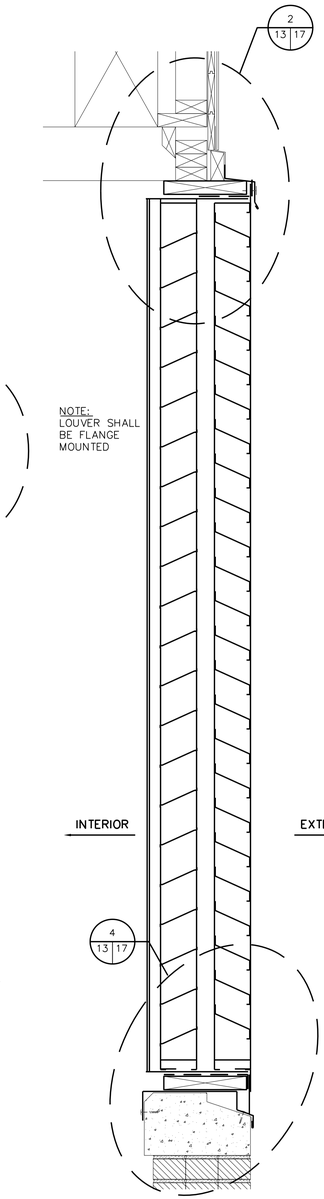
C 13 MONITOR WALL – NORTH

5,10 — 1-1/2" = 1'-0"



D 5 13 ROOF DRAIN TO EDGE

3/4" = 1'-0"



E 9 13 LOUVER ASSEMBLY

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

ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING

CHECK GRAPHIC SCALES PRIOR TO USING SCALES

APPROVED: DATE:	PWD. DWG. NO.
OFFICER IN CHARGE	DESIGNED ECKARD
REVIEWED BY: DATE:	DRAWN JOHNSON CHKD BOHLEN
ENVIRON.:	HD ARCH. BOHLEN
FIRE DEPT.	HD STRU. RODRIGO CHACON, P.E.
SAFETY	HD CIVIL
SATISFACTORY TO:	HD ELEC. FERNANDO MONTALVO
TENANT	HD MECH. JONATHAN VAUGHN
	SATISFACTORY TO:
	DIRECTOR OF DESIGN DATE:

SYM	DATE	APPR	DESCRIPTION

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COMMONWEALTH OF PENNSYLVANIA
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STEVEN J. BOHLEN
ENGINEER
No. PE056945

SEAL

SUBMITTED BY
FIRM MEMBER DATE
APPROVED
ACTIVITY – SATISFACTORY TO DATE
APPROVED
FOR COMMANDER NAVFAC DATE

DES	DR
CHK	QC
DESIGNER	
REVIEWED BY	
QC	
AIC/EIC	
FIRE PROTECTION	NA
BRANCH MANAGER	
DESIGN DIRECTOR	

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – MID-ATLANTIC
NAVAL SUPPORT ACTIVITY – MECHANICSBURG, PA

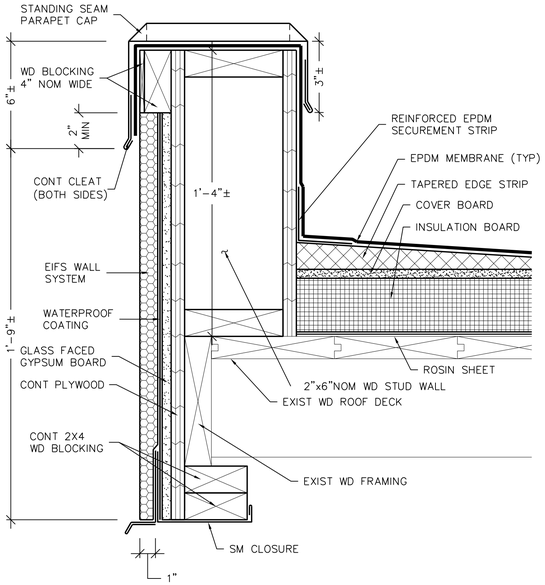
REPLACE ROOF – BUILDING 405

SECTIONS – NEW CONSTRUCTION

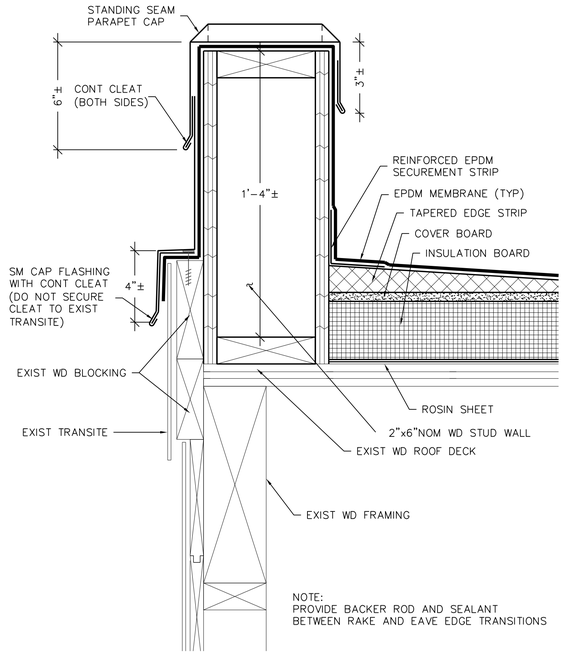
CODE ID. NO. SIZE D
SCALE: AS NOTED
PWD DWG. NO. 9897
JOB ORDER NO.
SPEC. NO. 09-0075
CONSTR. CONTR. NO. N40085-09-C-0075
NAVFAC DRAWING NO. 12,551,648
SHEET 13 OF 28

A-303

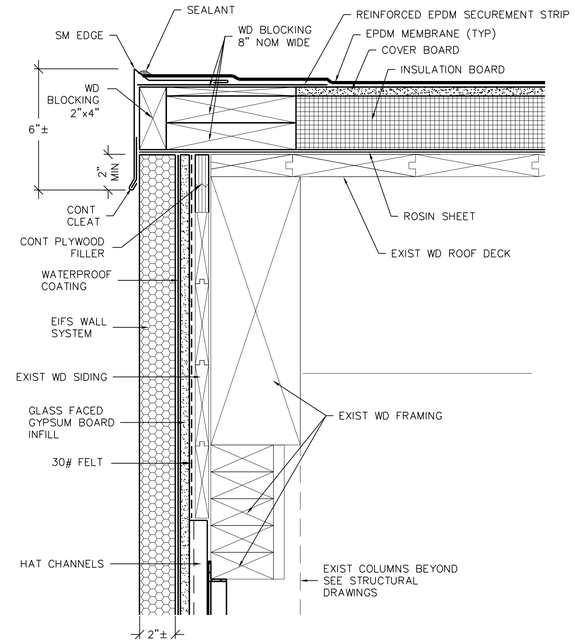
o:\655146\bldg 405\dwg\655146 405 a5x.dwg Tuesday, November 24, 2009



1 / 5 14 MAIN ROOF EDGE – EAST/WEST
3" = 1'-0"



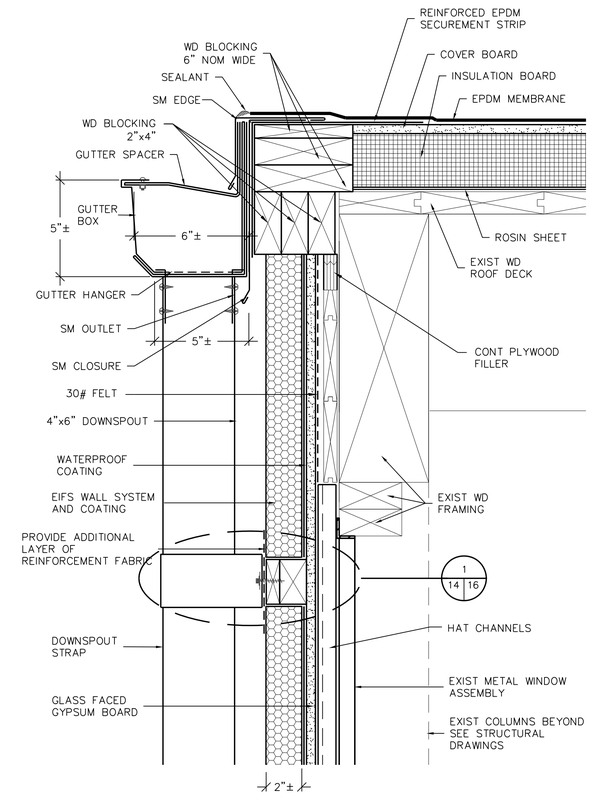
2 / 5 14 MAIN ROOF EDGE – NORTH/SOUTH
3" = 1'-0"



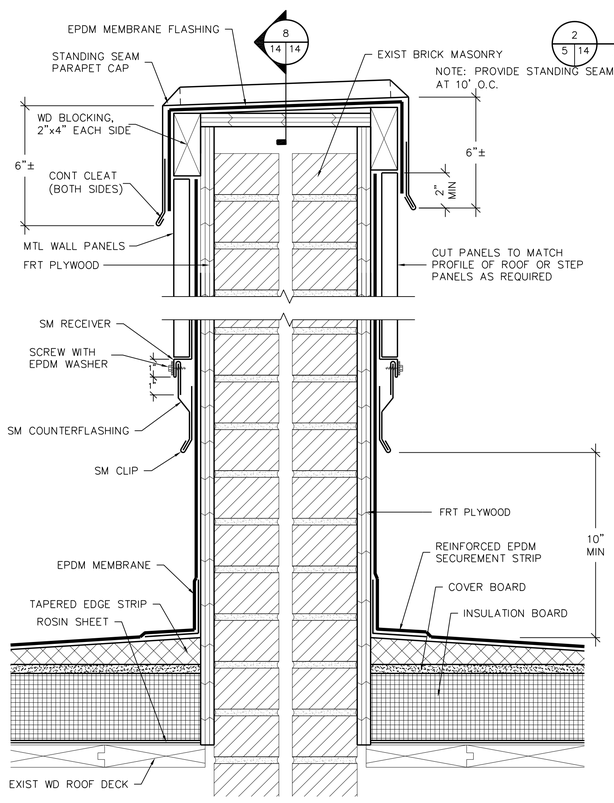
3 / 13 14 MONITOR ROOF EDGE
3" = 1'-0"

NOTES:

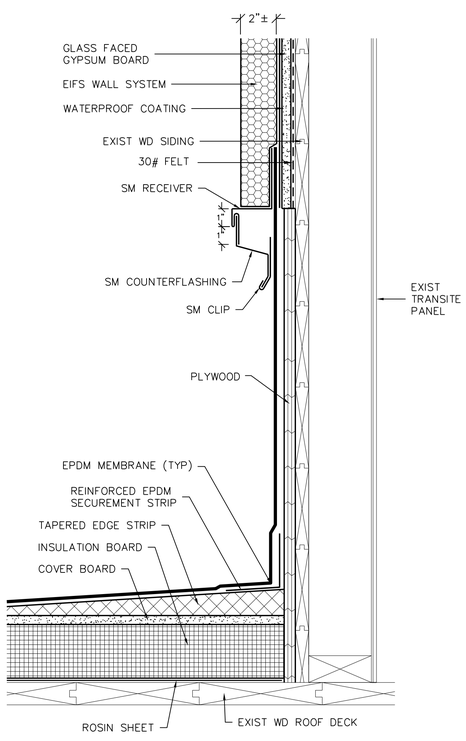
1. PROVIDE GLASS FACED GYPSUM BOARD INFILL ABOVE WINDOWS ON MONITOR AS REQUIRED TO MATCH SUBGIRT THICKNESS.
2. WOOD BLOCKING AT DOWNSPOUT STRAP SHALL BE FLUSH WITH INSULATION. PROVIDE ADDITIONAL FABRIC REINFORCEMENT AT WOOD BLOCKING.



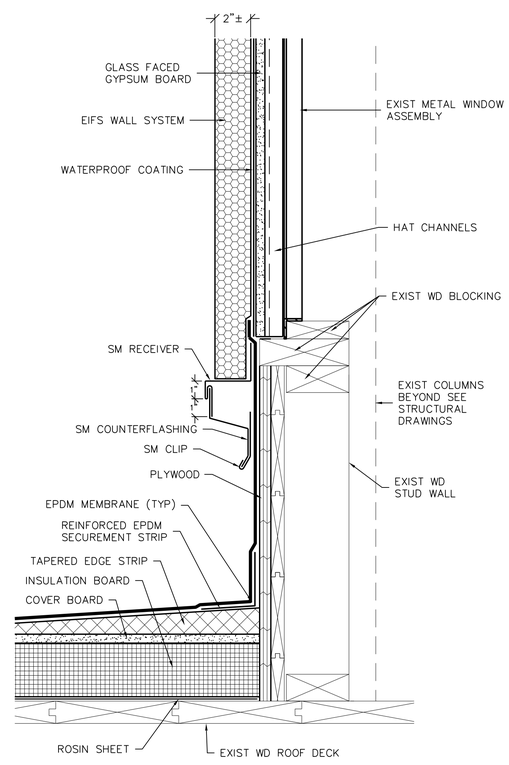
4 / 13 14 MONITOR GUTTER EDGE
3" = 1'-0"



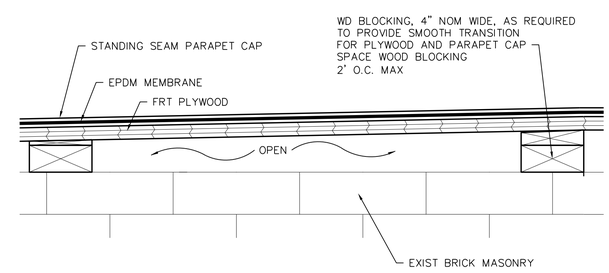
5 / 5 14 FIRE WALL
3" = 1'-0"



6 / 13 14 ROOF TO WALL
3" = 1'-0"



7 / 13 14 ROOF TO WALL
3" = 1'-0"



8 / 14 14 FIRE WALL CAP TRANSITION
3" = 1'-0"

ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING

CHECK GRAPHIC SCALES PRIOR TO USING SCALES

APPROVED: DATE:
OFFICER IN CHARGE
REVIEWED BY: DATE:
ENVIRON.:
FIRE DEPT.
SAFETY
SATISFACTORY TO:
TENANT

PWD. DWG. NO.
DESIGNED ECKARD
DRAWN JOHNSON CHKD BOHLEN
HD ARCH. BOHLEN
HD STRU. RODRIGO CHACON, P.E.
HD CIVIL
HD ELEC. FERNANDO MONTALVO
HD MECH. JONATHAN VAUGHN
SATISFACTORY TO:
DIRECTOR OF DESIGN DATE:

SYM	DESCRIPTION	DATE	APPR

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
STEVEN J. BOHLEN
ENGINEER
No. PE056945
SEAL

SUBMITTED BY
FIRM MEMBER DATE
APPROVED
ACTIVITY – SATISFACTORY TO DATE
APPROVED
FOR COMMANDER NAVFAC DATE
DES DR
CHK QC
DESIGNER
REVIEWED BY
QC
AIC/EIC
FIRE PROTECTION NA
BRANCH MANAGER
DESIGN DIRECTOR

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – MID-ATLANTIC
NAVAL SUPPORT ACTIVITY – MECHANICSBURG, PA

REPLACE ROOF – BUILDING 405

DETAILS – NEW CONSTRUCTION

CODE ID. NO. SIZE D
SCALE: AS NOTED
PWD DWG. NO. 9898
JOB ORDER NO.
SPEC. NO. 09-0075
CONSTR. CONTR. NO. N40085-09-C-0075
NAVFAC DRAWING NO. 12,551,649
SHEET 14 OF 28
A-501

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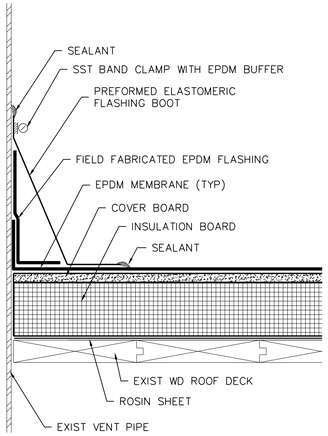
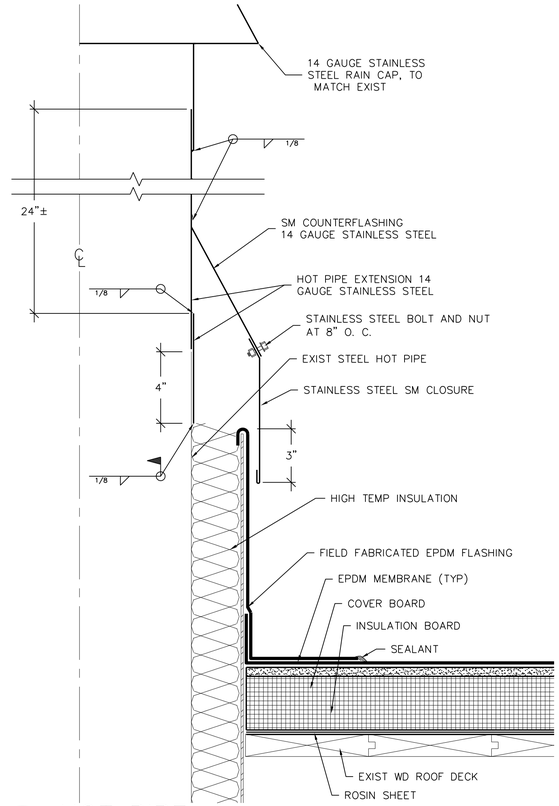
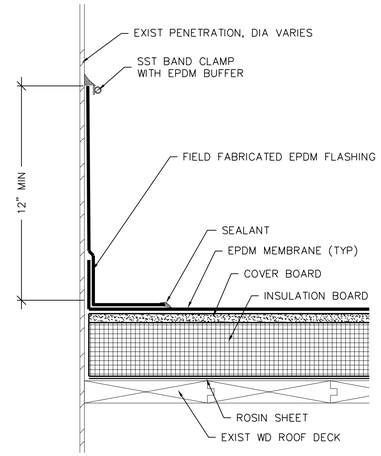


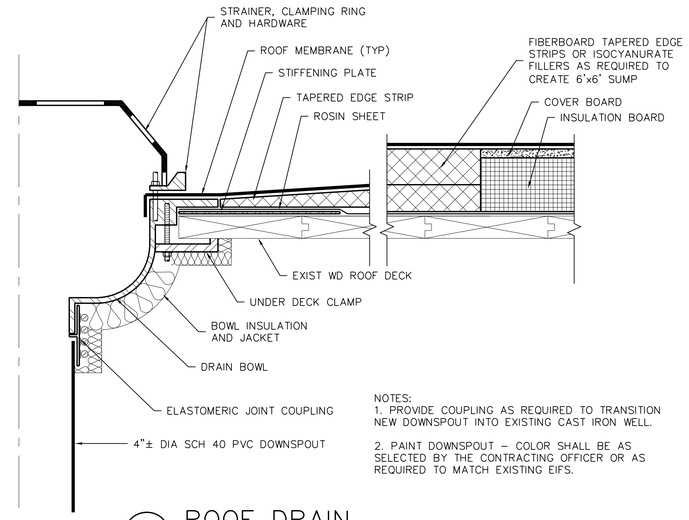
1 / 5 15 VENT PIPE
3" = 1'-0"



2 / 5 15 HOT PIPE
3" = 1'-0"



3 / 5 15 PIPE PENETRATION
3" = 1'-0"

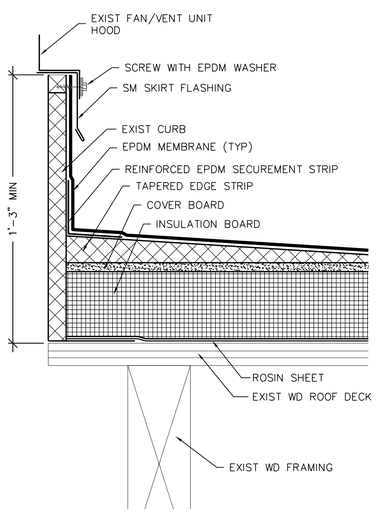


NOTES:
1. PROVIDE COUPLING AS REQUIRED TO TRANSITION NEW DOWNSPOUT INTO EXISTING CAST IRON WELL.

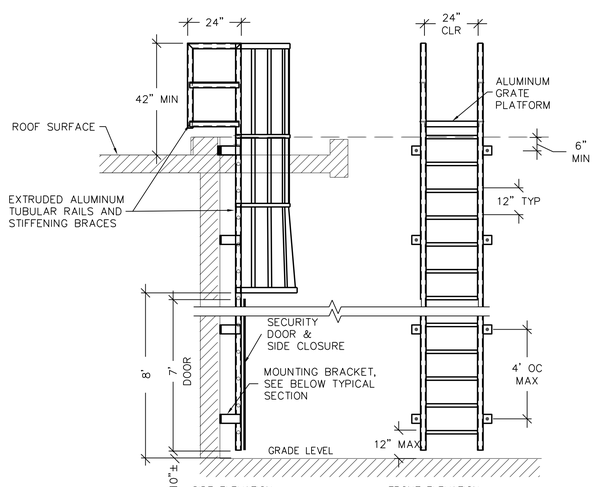
2. PAINT DOWNSPOUT – COLOR SHALL BE AS SELECTED BY THE CONTRACTING OFFICER OR AS REQUIRED TO MATCH EXISTING EIFS.

4 / 5 15 ROOF DRAIN
3" = 1'-0"

13



5 / 5 15 EXIST FAN CURB
3" = 1'-0"

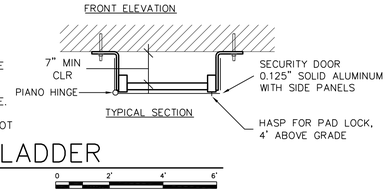


NOTES:
1. PROVIDE ALUMINUM GRATE PLATFORM AT STEPTHROUGH, AS SPECIFIED.

2. ATTACHMENT OF BRACKETS TO WALL WILL REQUIRE HEPA DRILLING OF ASBESTOS TRANSITE.

3. PROVIDE OSHA APPROVED ALUMINUM SAFETY CAGE.

4. LADDERS SHALL BE WALL MOUNTED AND SHALL NOT PENETRATE THE ROOF.



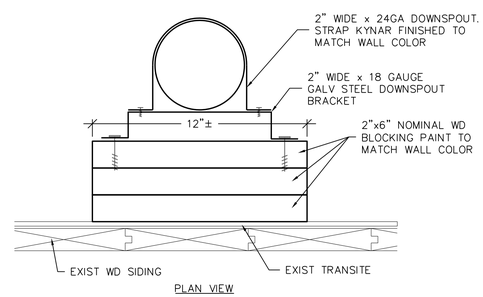
6 / 5 15 ACCESS LADDER
3/8" = 1'-0"

NOTES:

1. BRACKET TO BE UTILIZED ON EAST AND WEST OVERHANG DOWNSPOUTS.

2. DOWNSPOUT BRACKET TO EXTEND APPROX 6" FROM WALL.

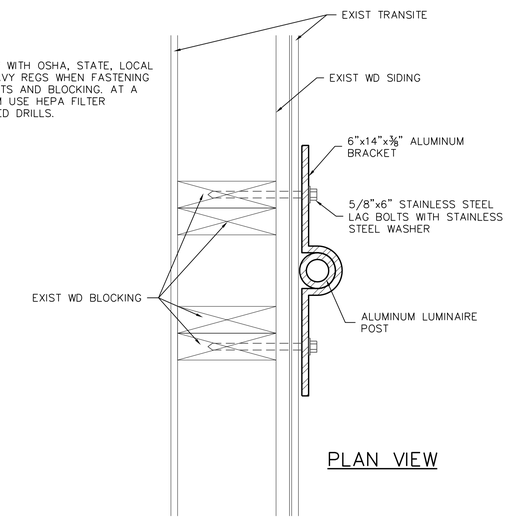
3. COMPLY WITH OSHA, STATE, LOCAL AND NAVY REGS WHEN FASTENING BRACKETS AND BLOCKING. AT A MINIMUM USE HEPA FILTER EQUIPPED DRILLS.



7 / 13 15 DOWNSPOUT BRACKET
3" = 1'-0"

NOTE: PROVIDE UPPER BRACKET SEE DETAIL 2 / 5 15

COMPLY WITH OSHA, STATE, LOCAL AND NAVY REGS WHEN FASTENING BRACKETS AND BLOCKING. AT A MINIMUM USE HEPA FILTER EQUIPPED DRILLS.



8 / 5 15 LUMINAIRE POST – NORTH/SOUTH
3" = 1'-0"

ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING

CHECK GRAPHIC SCALES PRIOR TO USING SCALES

APPROVED:	DATE:	PWD. DWG. NO.
OFFICER IN CHARGE		DESIGNED ECKARD
REVIEWED BY:	DATE:	DRAWN JOHNSON CHKD BOHLEN
ENVIRON.:		HD ARCH. BOHLEN
FIRE DEPT.		HD STRU. RODRIGO CHACON, P.E.
SAFETY		HD CIVIL
SATISFACTORY TO:		HD ELEC. FERNANDO MONTALVO
TENANT		HD MECH. JONATHAN VAUGHN
		SATISFACTORY TO:
		DIRECTOR OF DESIGN DATE:

APPR	DATE	DESCRIPTION	STM

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STEVEN J. BOHLEN
ENGINEER
No. PE056945

SEAL

SUBMITTED BY
FIRM MEMBER DATE
APPROVED
ACTIVITY – SATISFACTORY TO DATE
APPROVED
FOR COMMANDER NAVFAC DATE

DES	DR
CHK	QC
DESIGNER	
REVIEWED BY	
QC	
AIC/EIC	
FIRE PROTECTION	NA
BRANCH MANAGER	
DESIGN DIRECTOR	

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SUPPORT ACTIVITY – MECHANICSBURG, PA

REPLACE ROOF – BUILDING 405

DETAILS – NEW CONSTRUCTION

CODE ID. NO.	SIZE D
SCALE: AS NOTED	
PWD DWG. NO. 9899	
JOB ORDER NO.	
SPEC. NO. 09-0075	
CONSTR. CONTR. NO. N40085-09-C-0075	
NAVFAC DRAWING NO. 12,551,650	
SHEET 15 OF 28	

A-502

Tuesday, November 24, 2009

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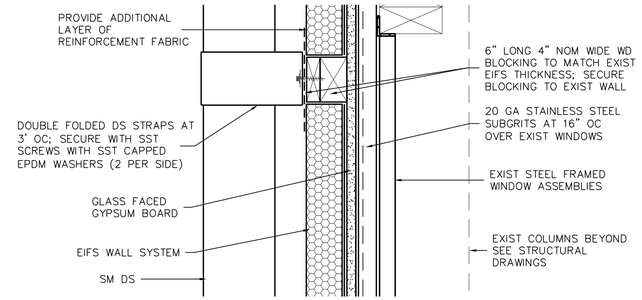
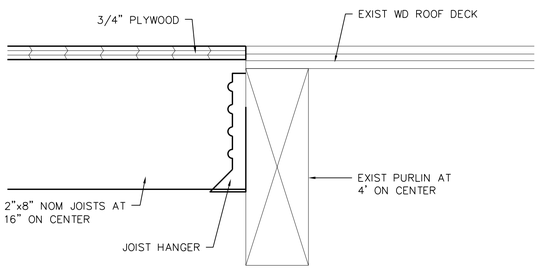


1 / 13 | 16 — DOWNSPOUT STRAP
3" = 1'-0"

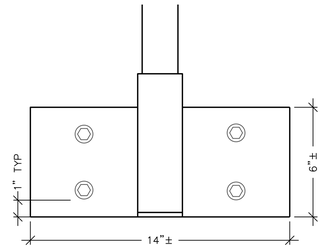
14



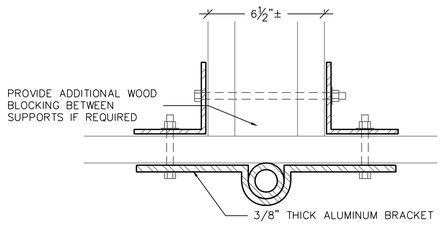
NOTES:

1. NEW JOISTS TO BE CONTINUOUS BETWEEN ADJACENT PURLINS.
2. REMOVE DECKING AS REQUIRED BETWEEN PURLIN.
3. SECURE HANGERS WITH JOIST HANGER NAILS.

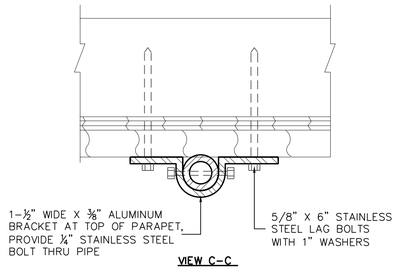
3 / 5 | 16 — DECK ENCLOSURE
3" = 1'-0"



VIEW A–A

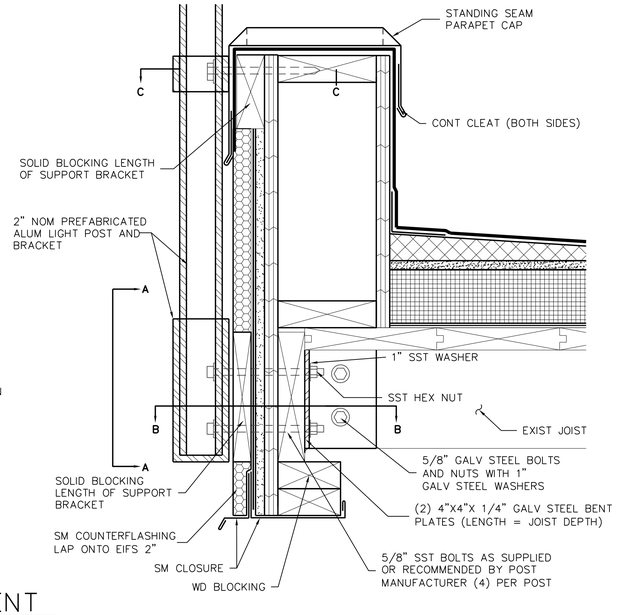


VIEW B–B

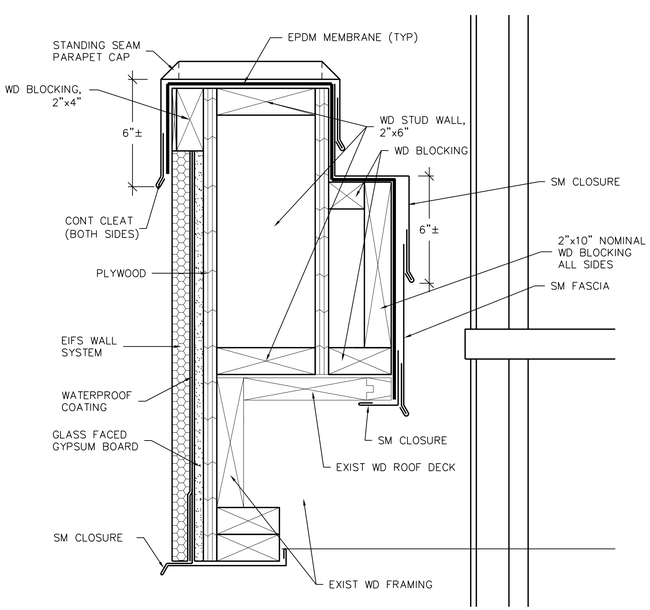


VIEW C–C

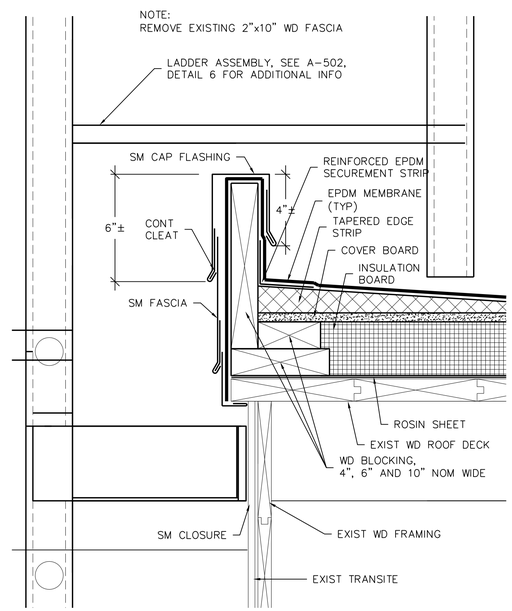
NOTE:
REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION



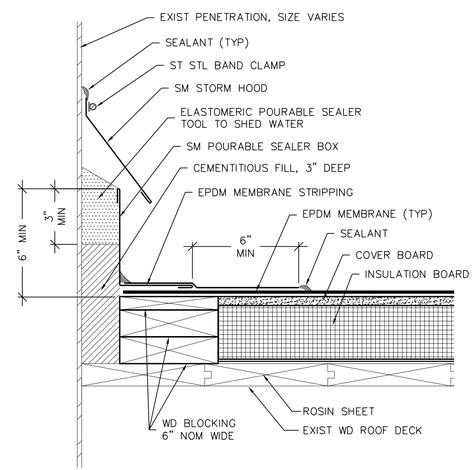
2 / 5 | 16 — LUMINAIRE POST ATTACHMENT
3" = 1'-0"



4 / 13 | 16 — PARAPET AT LADDER
3" = 1'-0"



5 / 13 | 16 — ROOF TO LADDER
3" = 1'-0"



7 / 5 | 16 — POURABLE SEALER POCKET
3" = 1'-0"

ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING

CHECK GRAPHIC SCALES PRIOR TO USING SCALES

APPROVED: DATE:
OFFICER IN CHARGE
REVIEWED BY: DATE:
ENVIRON.:
FIRE DEPT.
SAFETY
SATISFACTORY TO:
TENANT

PWD. DWG. NO.
DESIGNED ECKARD
DRAWN JOHNSON CHKD BOHLEN
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HD STRU. RODRIGO CHACON, P.E.
HD CIVIL
HD ELEC. FERNANDO MONTALVO
HD MECH. JONATHAN VAUGHN
SATISFACTORY TO:
DIRECTOR OF DESIGN DATE:

APPR	DATE	DESCRIPTION	STM

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SUBMITTED BY
FIRM MEMBER DATE
APPROVED
ACTIVITY - SATISFACTORY TO DATE
APPROVED
FOR COMMANDER NAVFAC DATE

DES	DR
CHK	QC
DESIGNER	
REVIEWED BY	
QC	
AIC/EIC	
FIRE PROTECTION	NA
BRANCH MANAGER	
DESIGN DIRECTOR	

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL SUPPORT ACTIVITY - MECHANICSBURG, PA

REPLACE ROOF – BUILDING 405

DETAILS – NEW CONSTRUCTION

CODE ID. NO.	SIZE D
SCALE: AS NOTED	
PWD DWG. NO. 9900	
JOB ORDER NO.	
SPEC. NO. 09-0075	
CONSTR. CONTR. NO. N40085-09-C-0075	
NAVFAC DRAWING NO. 12,551,651	
SHEET 16 OF 28	

A-503

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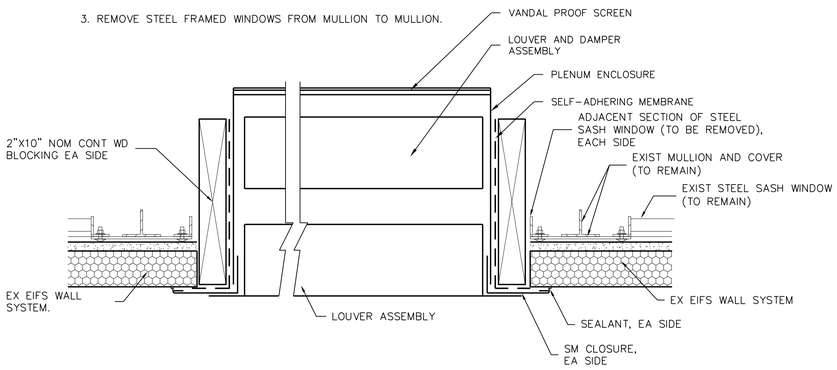
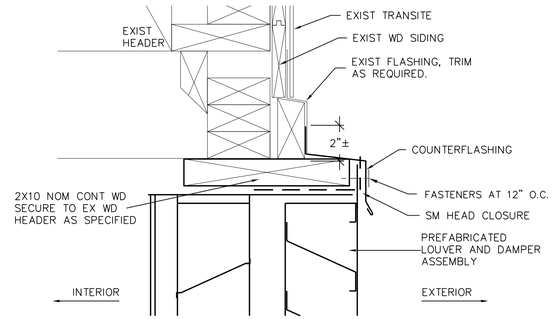
NOTES:
1. CONTRACTOR SHALL VERIFY EACH LOUVER LOCATION. LOUVERS SHALL BE FLANGE MOUNTED.

2. PROVIDE SHEET METAL FLASHINGS, BACKER ROD AND SEALANT ALONG LOUVER PERIMETER AS REQUIRED TO MAKE A WEATHER-TIGHT SEAL.

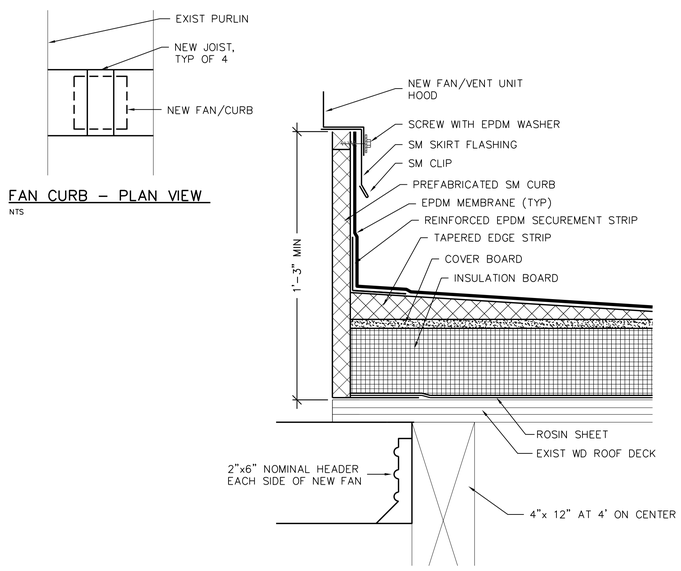
3. REMOVE STEEL FRAMED WINDOWS FROM MULLION TO MULLION.



1 / 9 17 LOUVER JAMB
3" = 1'-0"

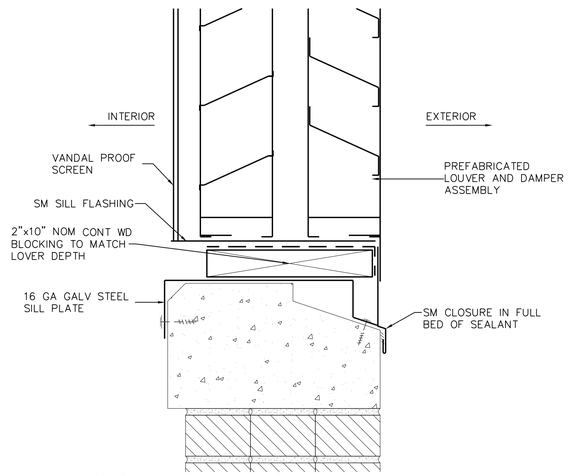


2 / 13 17 LOUVER HEAD
3" = 1'-0"



FAN CURB - PLAN VIEW
NTS

3 / 5 17 NEW FAN CURB
3" = 1'-0"



NOTES:

1. ACTUAL CIP CONCRETE SILL CONFIGURATION MAY VARY. FIELD VERIFY EXIST CONDITIONS. WD BLOCKING, SHIMS AND OTHER APPURTENANCES MAY BE REQUIRED TO PROPERLY INSTALL LOUVERS, PROVIDE AS NECESSARY.

2. LOUVER FLANGE TO COUNTERFLASH EX EIFS.

4 / 13 17 LOUVER SILL
3" = 1'-0"

ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING

CHECK GRAPHIC SCALES PRIOR TO USING SCALES

APPROVED: DATE:
OFFICER IN CHARGE
REVIEWED BY: DATE:
ENVIRON.:
FIRE DEPT.
SAFETY
SATISFACTORY TO:
TENANT

PWD. DWG. NO.
DESIGNED ECKARD
DRAWN JOHNSON CHKD BOHLEN
HD ARCH. BOHLEN
HD STRU. RODRIGO CHACON, P.E.
HD CIVIL
HD ELEC. FERNANDO MONTALVO
HD MECH. JONATHAN VAUGHN
SATISFACTORY TO:
DIRECTOR OF DESIGN DATE:

			APPR
			DATE
		DESCRIPTION	
			STM

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410-821-9000 | 410-821-9001 fax | www.gale-inc.com
Boston Baltimore Orlando San Francisco

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
STEVEN J. BOHLEN
ENGINEER
No. PE056945

SEAL

SUBMITTED BY
FIRM MEMBER DATE
APPROVED
ACTIVITY - SATISFACTORY TO DATE
APPROVED
FOR COMMANDER NAVFAC DATE

DES	DR
CHK	QC
DESIGNER	
REVIEWED BY	
QC	
AIC/EIC	
FIRE PROTECTION	NA
BRANCH MANAGER	
DESIGN DIRECTOR	

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SUPPORT ACTIVITY - MECHANICSBURG, PA

REPLACE ROOF - BUILDING 405

DETAILS - NEW CONSTRUCTION

CODE ID. NO.	SIZE D
SCALE: AS NOTED	
PWD DWG. NO. 9901	
JOB ORDER NO.	
SPEC. NO. 09-0075	
CONSTR. CONTR. NO. N40085-09-C-0075	
NAVFAC DRAWING NO. 12,551,652	
SHEET 17 OF 28	

A-504

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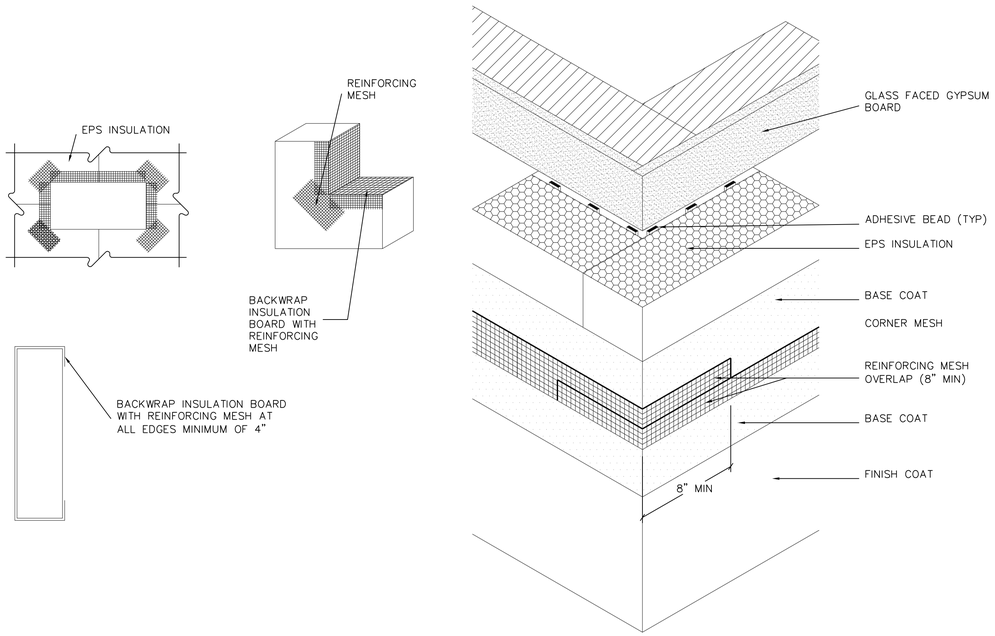
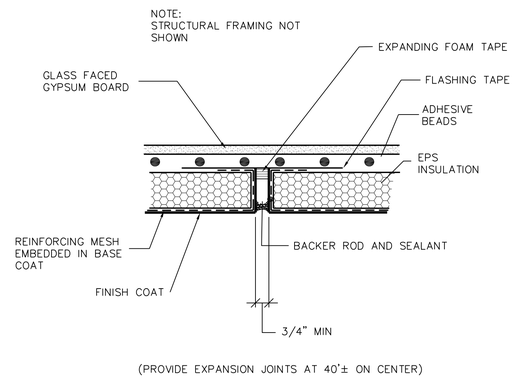


1 | 18 | 18 TYPICAL EIFS REINFORCEMENT DETAILS

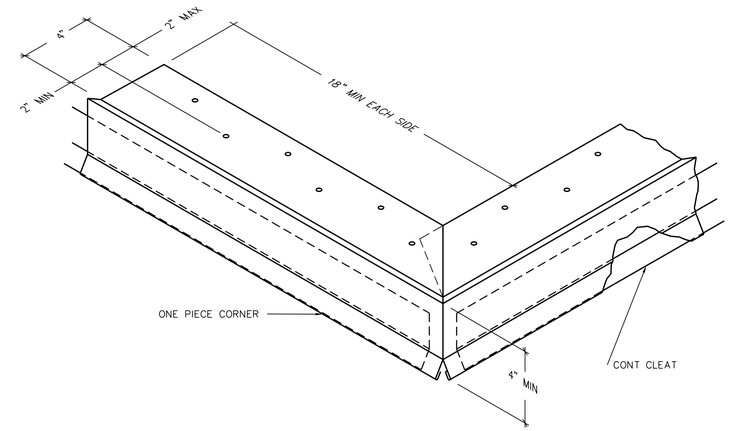
NOT TO SCALE



2 | 10 | 18 TYPICAL EIFS EXPANSION JOINT

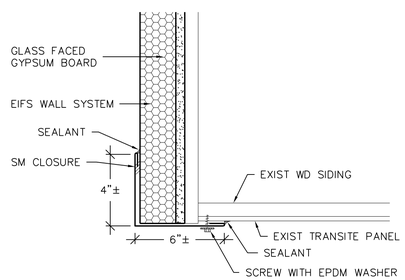
3" = 1'-0"

0 3" 6" 9"



SM-1 | 18 | 18 EDGE METAL OUTSIDE CORNER

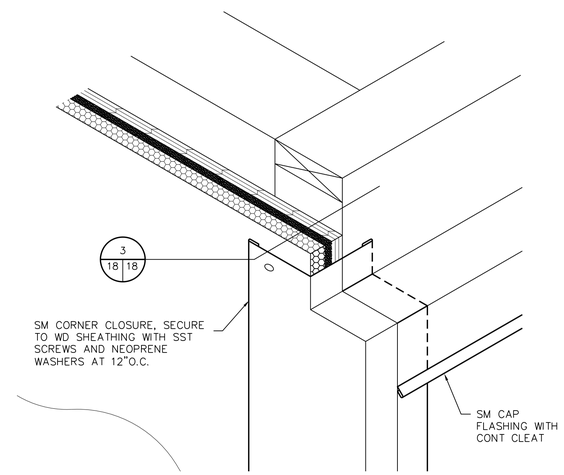
NOT TO SCALE



3 | 18 | 18 CORNER CLOSURE

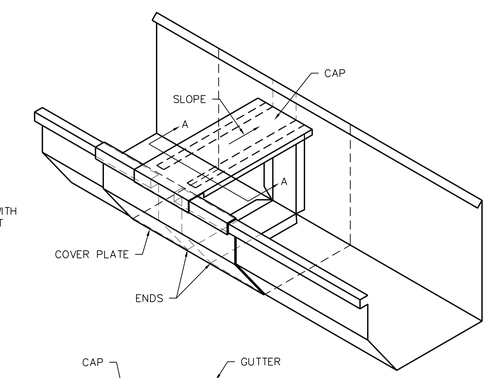
3" = 1'-0"

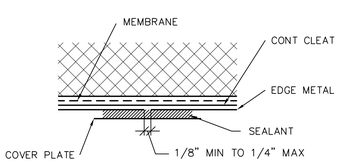
0 3" 6" 9"



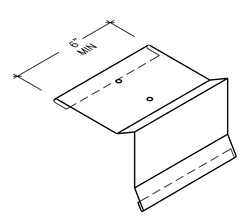
4 | 5 | 18 EIFS CLOSURE AT FASCIA

3"=1'-0"

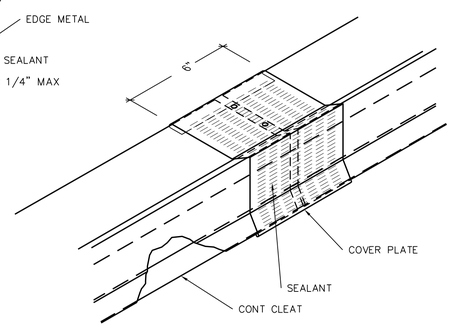




SECTION THROUGH JOINT



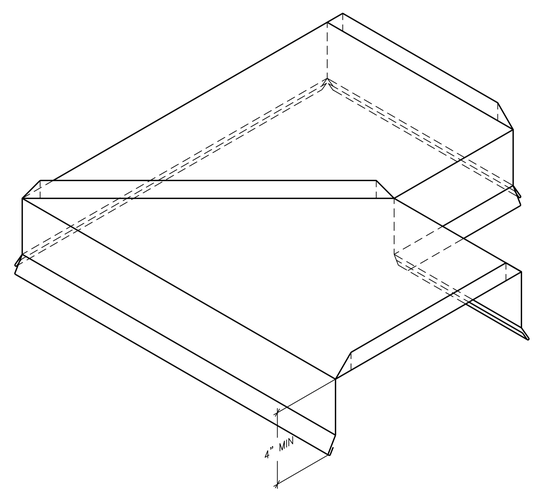
COVER PLATE



LOCATE JOINTS AT 10'-0" OC MAX

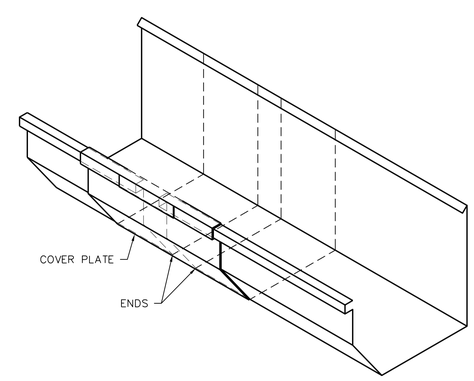
SM-2 | 18 | 18 EDGE METAL JOINT

NOT TO SCALE



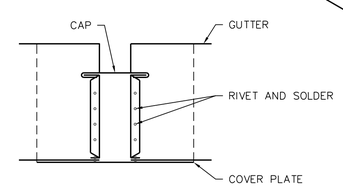
SM-3 | 18 | 18 PARAPET CAP CORNER TRANSITION

NOT TO SCALE



SM-4 | 18 | 18 GUTTER SECTION LAP

NOT TO SCALE



SM-5 | 18 | 18 GUTTER EXPANSION JOINT

NOT TO SCALE

ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING

CHECK GRAPHIC SCALES PRIOR TO USING SCALES

APPROVED:	DATE:
OFFICER IN CHARGE	
REVIEWED BY:	DATE:
ENVIRON.:	
FIRE DEPT.	
SAFETY	
SATISFACTORY TO:	
TENANT	

PWD. DWG. NO.

DESIGNED ECKARD
DRAWN JOHNSON CHKD BOHLEN
HD ARCH. BOHLEN
HD STRU. RODRIGO CHACON, P.E.
HD CIVIL
HD ELEC. FERNANDO MONTALVO
HD MECH. JONATHAN VAUGHN
SATISFACTORY TO:
DIRECTOR OF DESIGN DATE:

APPR	DATE	DESCRIPTION	SYM

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
STEVEN J. BOHLEN
ENGINEER
No. PE056945

SEAL

SUBMITTED BY
FIRM MEMBER DATE
APPROVED
ACTIVITY - SATISFACTORY TO DATE
APPROVED
FOR COMMANDER NAVFAC DATE
DES DR
CHK QC
DESIGNER
REVIEWED BY
QC
AIC/EIC
FIRE PROTECTION NA
BRANCH MANAGER
DESIGN DIRECTOR

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SUPPORT ACTIVITY - MECHANICSBURG, PA

REPLACE ROOF - BUILDING 405

DETAILS - NEW CONSTRUCTION

CODE ID. NO. SIZE D
SCALE: AS NOTED
PWD DWG. NO. 9902
JOB ORDER NO.
SPEC. NO. 09-0075
CONSTR. CONTR. NO.
N40085-09-C-0075
NAVFAC DRAWING NO.
12,551,653
SHEET 18 OF 28

A-505

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1 / 4 19 TYPICAL MONITOR SOUTH ELEVATION

2 / 4 19 ABANDONED PENETRATION

3 / 4 19 NORTH WEST CORNER OF ROOF

4 / 4 19 MONITOR AND RADON VENT

5 / 4 19 ROOF PENETRATION AND FIREWALL

6 / 4 19 TYPICAL, EAST ELEVATION

NOTE:
PHOTOS ARE IDENTIFIED BY (#▶) ON SHEET A-101

APPROVED:	DATE:
OFFICER IN CHARGE	
REVIEWED BY:	DATE:
ENVIRON.:	
FIRE DEPT.	
SAFETY	
SATISFACTORY TO:	
TENANT	

PWD. DWG. NO.

DESIGNED	ECKARD
DRAWN	JOHNSON CHKD BOHLEN
HD ARCH.	BOHLEN
HD STRU.	RODRIGO CHACON, P.E.
HD CIVIL	
HD ELEC.	FERNANDO MONTALVO
HD MECH.	JONATHAN VAUGHN
SATISFACTORY TO:	
DIRECTOR OF DESIGN	DATE:

SYM	DESCRIPTION	DATE	APPR

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STEVEN J. BOHLEN
ENGINEER
No. PE056945
SEAL

SUBMITTED BY
FIRM MEMBER DATE
APPROVED
ACTIVITY - SATISFACTORY TO DATE
APPROVED
FOR COMMANDER NAVFAC DATE

DES	DR
CHK	QC
DESIGNER	
REVIEWED BY	
QC	
AIC/EIC	
FIRE PROTECTION	NA
BRANCH MANAGER	
DESIGN DIRECTOR	

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SUPPORT ACTIVITY - MECHANICSBURG, PA

REPLACE ROOF - BUILDING 405

PHOTOS - EXISTING CONDITIONS

CODE ID. NO.	SIZE D
SCALE: NONE	
PWD DWG. NO. 9903	
JOB ORDER NO.	
SPEC. NO. 09-0075	
CONSTR. CONTR. NO. N40085-09-C-0075	
NAVFAC DRAWING NO. 12,551,654	
SHEET 19 OF 28	

A-506

Tuesday, November 24, 2009
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7 / 4 20 TYPICAL SOUTH ELEVATION

8 / 4 20 TYPICAL WEST ELEVATION

9 / 4 20 HOT PIPE

10 / 4 20 LADDER AND DOWNSPOUT

11 / 4 20 TYPICAL MONITOR INTERIOR OF BUILDING

APPROVED:	DATE:
OFFICER IN CHARGE	
REVIEWED BY:	DATE:
ENVIRON.:	
FIRE DEPT.	
SAFETY	
SATISFACTORY TO:	
TENANT	

PWD. DWG. NO.

DESIGNED ECKARD
DRAWN JOHNSON CHKD BOHLEN
HD ARCH. BOHLEN
HD STRU. RODRIGO CHACON, P.E.
HD CIVIL
HD ELEC. FERNANDO MONTALVO
HD MECH. JONATHAN VAUGHN
SATISFACTORY TO:
DIRECTOR OF DESIGN DATE:

SYM	DESCRIPTION	DATE	APPR

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STEVEN J. BOHLEN
ENGINEER
No. PE056945

SEAL

SUBMITTED BY
FIRM MEMBER DATE
APPROVED
ACTIVITY - SATISFACTORY TO DATE
APPROVED
FOR COMMANDER NAVFAC DATE

DES	DR
CHK	QC

DESIGNER
REVIEWED BY
QC
AIC/EIC
FIRE PROTECTION NA
BRANCH MANAGER
DESIGN DIRECTOR

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SUPPORT ACTIVITY - MECHANICSBURG, PA

REPLACE ROOF - BUILDING 405

PHOTOS - EXISTING CONDITIONS

CODE ID. NO. SIZE D
SCALE: NONE
PWD DWG. NO. 9904
JOB ORDER NO.
SPEC. NO. 09-0075
CONSTR. CONTR. NO. N40085-09-C-0075
NAVFAC DRAWING NO. 12,551,655
SHEET 20 OF 28
A-507

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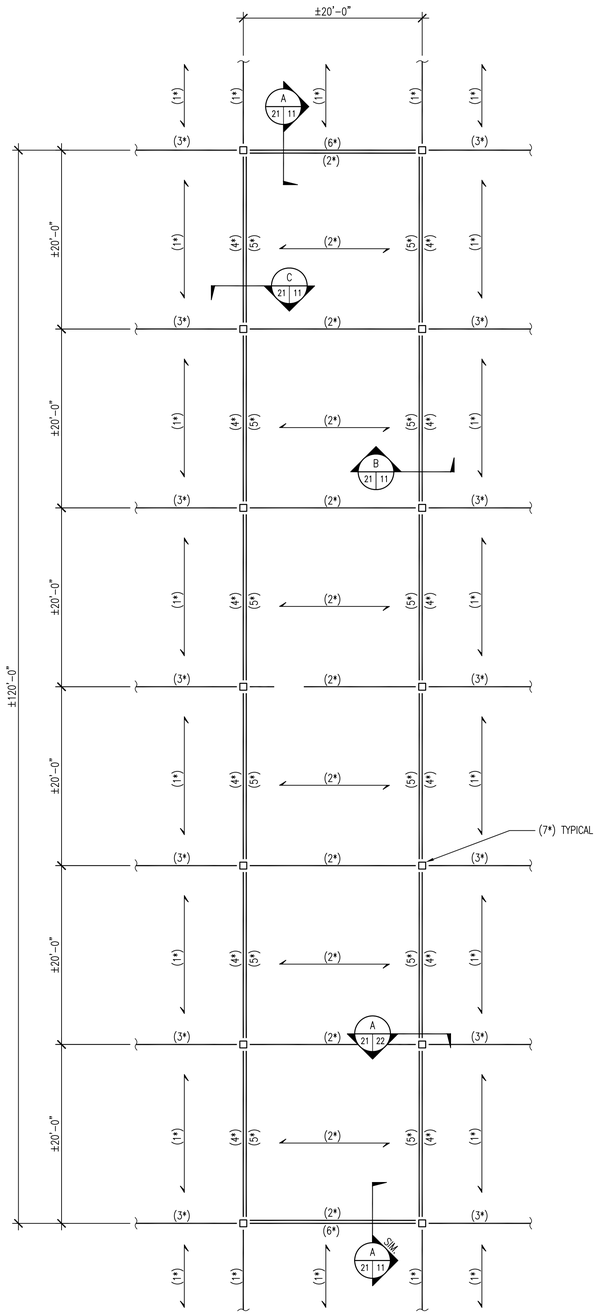


TYPICAL EXISTING ROOF MONITOR FRAMING PLAN

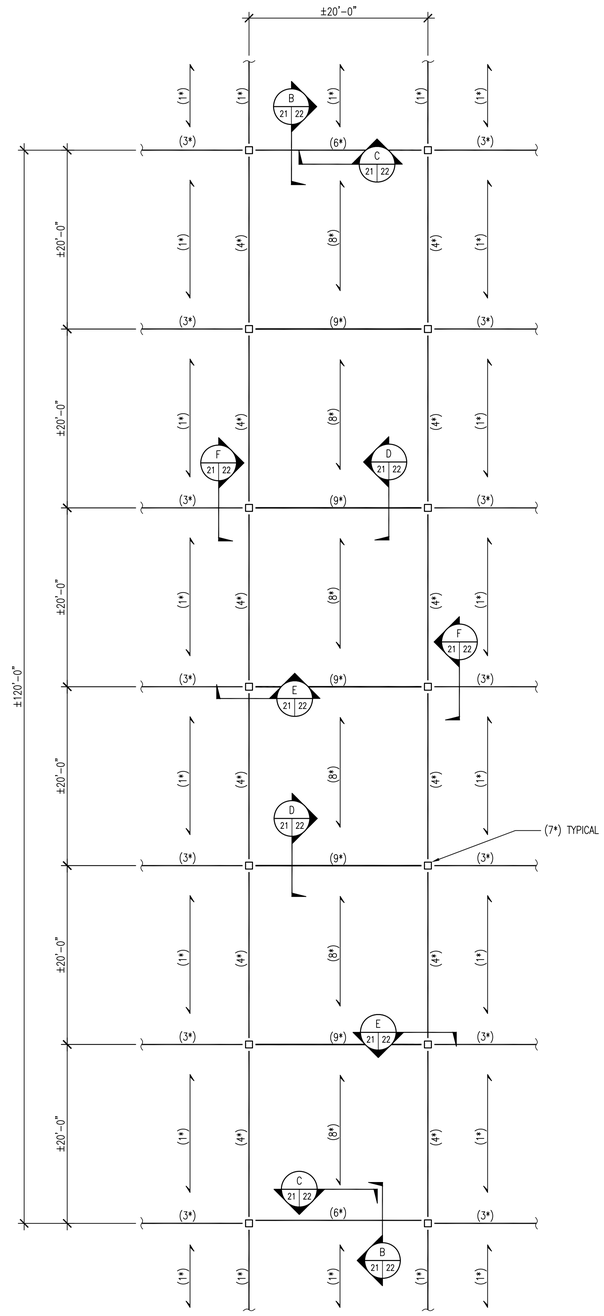
1 / 4 | 21

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

NOTES:

1.) COLUMBIA ENGINEERING, INC. PREPARED THIS EXISTING STRUCTURAL LAYOUT BASED ON A LIMITED AMOUNT OF FIELD EXPLORATION. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND MEMBER SIZES AND REPORT DISCREPANCIES TO COLUMBIA ENGINEERING PRIOR TO PROCEEDING WITH FABRICATION OR CONSTRUCTION.

2.) THE CONTRACTOR SHALL INSPECT THE EXISTING STRUCTURE FOR WATER DAMAGE, SPLITTING AND OTHER SIGNS OF STRUCTURAL DISTRESS. CONCERNS SHALL BE REPORTED TO COLUMBIA ENGINEERING FOR FURTHER ANALYSIS, AND IF NEEDED, PREPARATION OF A REPAIR PROCEDURE.



TYPICAL ROOF MONITOR INFILL FRAMING PLAN

2 / 5 | 21

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

NOTES:

1.) ALL NEW ROOF DECK SHALL BE 2x6 TONGUE AND GROOVE SELECT SOUTHERN PINE (Fb=1150 PSI) OR BETTER.

2.) INSTALL FULL DEPTH BLOCKING AT MIDSPAN BETWEEN ALL NEW JOISTS.

KEYED NOTES:

(1*) DENOTES EXISTING 4x12 SAWN JOIST AT 4'-0"o.c. JOISTS SCHEDULED TO REMAIN FOR CONTINUED USE.

(2*) DENOTES EXISTING 4x12 SAWN JOIST (HIGH) AT 4'-0"o.c. JOISTS SCHEDULED FOR REMOVAL.

(3*) DENOTES EXISTING TIMBER GIRDER TO REMAIN.

(4*) DENOTES EXISTING 5 1/4"x10 5/8" TIMBER GIRDER (LOW) TO REMAIN.

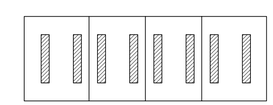
(5*) DENOTES EXISTING TIMBER GIRDER (HIGH) TO BE REMOVED.

(6*) DENOTES EXISTING 9"x16 5/8" TIMBER GIRDER (LOW) TO REMAIN.

(7*) DENOTES EXISTING 9 1/4"x9 1/4" TIMBER COLUMN.

(8*) DENOTES NEW 4x12 SAWN JOIST AT 4'-0"o.c. JOISTS SHALL BE SOUTHERN PINE No.1 (Fb=1250 PSI) OR BETTER.

(9*) DENOTES NEW 7"x14" 2.0E PARALLAM PSL BY TRUS JOIST OR APPROVED EQUIVALENT (Fb=2900 PSI).



KEY PLAN

Columbia Engineering Inc.
Structural Engineers
6210 Old Dobbin Lane
Suite 150
Columbia, Maryland 21045

410.992.9970 Telephone
410.992.0627 Fax
columbiaengineering.com

APPROVED: DATE:
OFFICER IN CHARGE
REVIEWED BY: DATE:
ENVIRON.:
FIRE DEPT.
SAFETY
SATISFACTORY TO:
TENANT

PWD DWG. NO. 9905
DESIGNED KGM
DRAWN HW CHKD KGM
HD ARCH. BOHLEN
HD STRU. ROD CHACON
HD CIVIL
HD ELEC.
HD MECH.
SATISFACTORY TO:
DIRECTOR OF DESIGN DATE:

DATE	DESCRIPTION	SYM	APPR

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
RODRIGO H. CHACON
ENGINEER
PE-035041-R
SEAL

SUBMITTED BY
FIRM MEMBER DATE
APPROVED
ACTIVITY - SATISFACTORY TO DATE
APPROVED
FOR COMMANDER NAVFAC DATE
DES DR
CHK QC
DESIGNER
REVIEWED BY
QC
AIC/EIC
FIRE PROTECTION NA
BRANCH MANAGER
DESIGN DIRECTOR

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SUPPORT ACTIVITY - MECHANICSBURG, PA

REPLACE ROOF BUILDING 405

PARTIAL FRAMING PLANS

CODE ID. NO. SIZE D
SCALE: AS NOTED
PWD DWG. NO. 9905
JOB ORDER NO.
SPEC. NO. 09-0075
CONSTR. CONTR. NO. N40085-09-C-0075
NAVFAC DRAWING NO. 12,551,656
SHEET 21 OF 28

S-101

CEI: #29072

GENERAL NOTES

WOOD:

1.) STRUCTURAL WOOD JOISTS, BEAMS AND COLUMNS SHALL BE SOUTHERN PINE NUMBER ONE (Fb=1250 PSI). ALL FABRICATION, ERECTION, OTHER PROCEDURES AND MINIMUM UNIT STRESSES SHALL CONFORM TO THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" (LATEST LOCAL APPROVED EDITION).

2.) ALL STRUCTURAL LUMBER FOR ROOF DECK SHALL BE SELECT SOUTHERN PINE (Fb=1150 PSI).

3.) PROVIDE 1x3 CROSS BRIDGING OR FULL DEPTH BLOCKING AT 8'-0"o.c. BETWEEN ALL FLOOR AND ROOF JOISTS.

MISCELLANEOUS:

1.) ITEMS AND CONDITIONS NOTED OR IDENTIFIED IN SECTIONS AND DETAILS APPLY TO AREAS SIMILAR IN CONDITION TO THOSE DENOTED BY SECTION CUT OR DETAIL MARK.

2.) THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER OF ANY DISCREPANCIES BETWEEN THE STRUCTURAL DOCUMENTS AND ANY OTHER DOCUMENTS OR EXISTING CONDITIONS FOR RESOLUTION PRIOR TO PROCEEDING WITH FABRICATION OR CONSTRUCTION.

DESIGN CODES:

1.) INTERNATIONAL BUILDING CODE 2006

2.) NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION 2005

DESIGN LOADS:

ROOF LOAD:

1.) MINIMUM LIVE LOAD ..... 20 PSF

2.) GROUND SNOW LOAD (Pg) ..... 25 PSF

3.) FLAT ROOF SNOW LOAD (Pf) ..... 20 PSF

4.) SNOW EXPOSURE FACTOR (Ce) 1.0

5.) SNOW LOAD IMPORTANCE FACTOR (Is) 1.0

6.) THERMAL FACTOR (Ct) 1.0

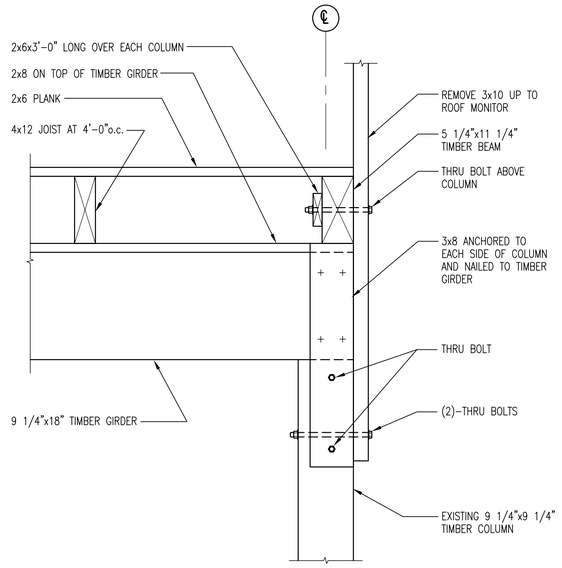
WIND LOAD:

1.) BASIC WIND SPEED (3 SECOND GUST) ..... 90 MPH

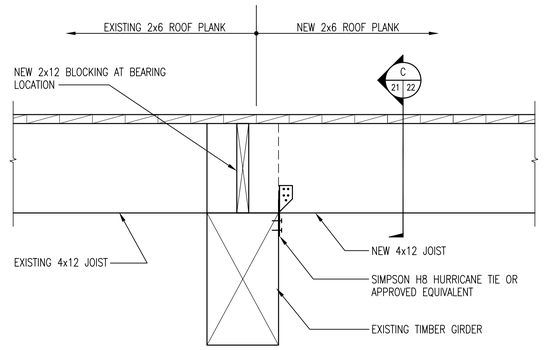
2.) WIND LOAD IMPORTANCE FACTOR (Iw) 1.0

3.) WIND EXPOSURE C

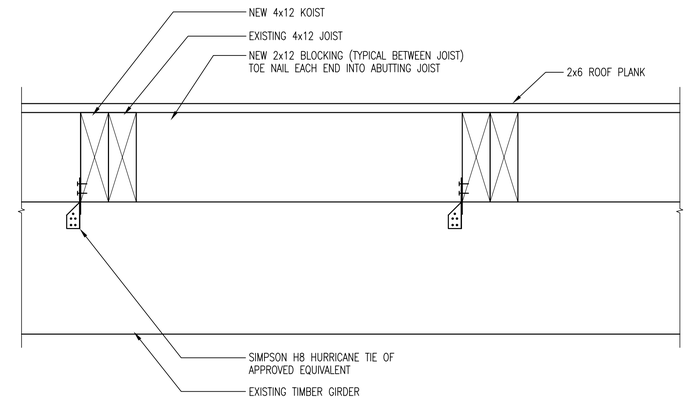
4.) INTERNAL PRESSURE COEFFICIENT 0.18



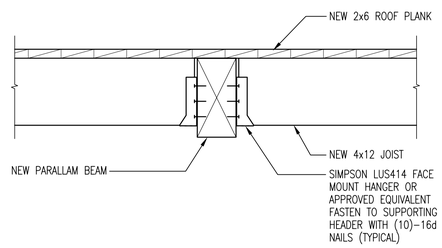
SECTION A (21 | 22)
SCALE: 1"=1'-0"



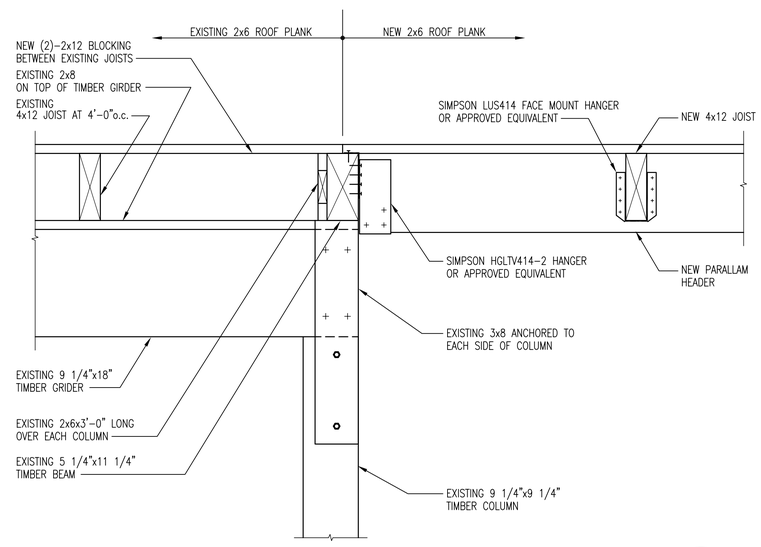
SECTION B (21 | 22)
SCALE: 1"=1'-0"



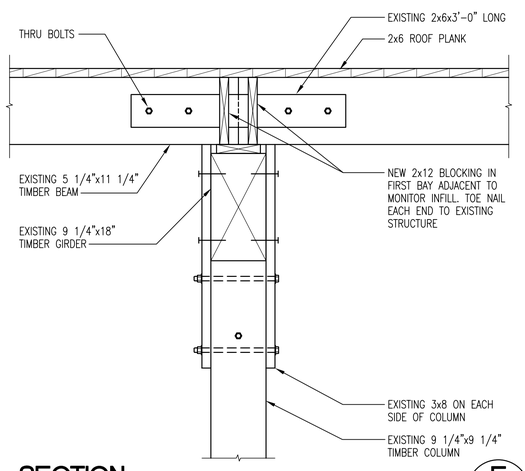
SECTION C (21 | 22)
SCALE: 1"=1'-0"



SECTION D (21 | 22)
SCALE: 1"=1'-0"



SECTION E (21 | 22)
SCALE: 1"=1'-0"



SECTION F (21 | 22)
SCALE: 1"=1'-0"

Columbia Engineering Inc.
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6210 Old Dobbin Lane
Suite 150
Columbia, Maryland 21045

410.992.9970 Telephone
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columbiaengineering.com

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SAFETY	
SATISFACTORY TO:	
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PWD DWG. NO. 9906
DESIGNED KGM
DRAWN HW CHKD KGM
HD ARCH. BOHLEN
HD STRU. ROD CHACON
HD CIVIL
HD ELEC.
HD MECH.
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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
RODRIGO H. CHACON
ENGINEER
PE-035041-E
SEAL

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FIRM MEMBER DATE
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ACTIVITY - SATISFACTORY TO DATE
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FOR COMMANDER NAVFAC DATE

DES	DR
CHK	QC

DESIGNER
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QC
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FIRE PROTECTION NA
BRANCH MANAGER
DESIGN DIRECTOR

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SUPPORT ACTIVITY - MECHANICSBURG, PA

REPLACE ROOF BUILDING 405

GENERAL NOTES AND SECTIONS

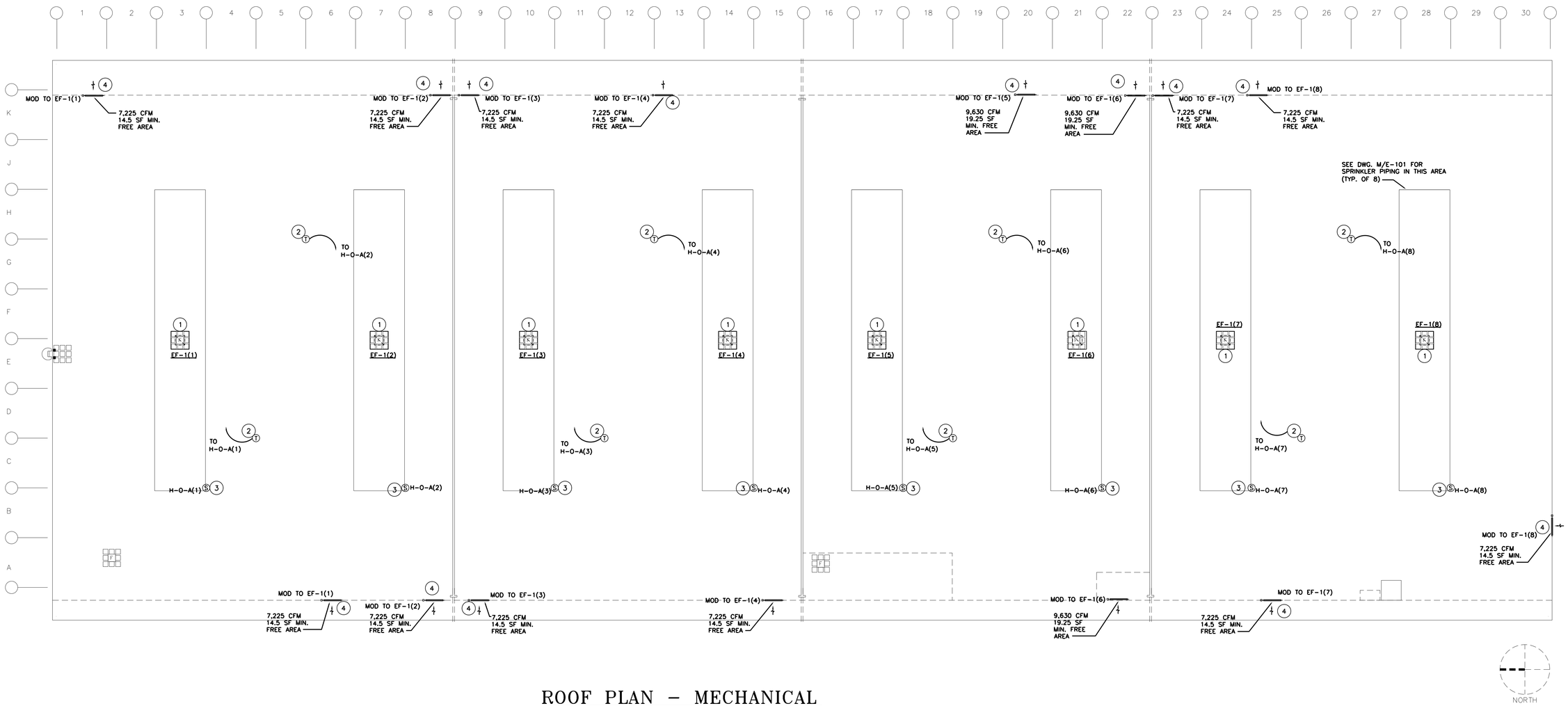
CODE ID. NO. | SIZE D
SCALE: AS NOTED
PWD DWG. NO. 9906
JOB ORDER NO.
SPEC. NO. 09-0075
CONSTR. CONTR. NO.
N40085-09-C-0075
NAVFAC DRAWING NO.
12,551,657
SHEET 22 OF 28

S-102

CEI: #29072

DRAWING NOTES:

1. PROVIDE ROOF-MOUNTED HOODED PROPELLER TYPE EXHAUST FAN ON ROOF. CENTERED BETWEEN SUPPORTS. SEE DETAIL (DWG. M-102).
2. MOUNT THERMOSTAT ON COLUMN AT 10'-0" (MIN.) ABOVE FINISHED FLOOR. EACH THERMOSTAT SHALL INTERLOCK TWO MOD'S AS INDICATED (SEE SCHEDULE AND SEQUENCE OF OPERATION).
3. MOUNT HAND-OFF-AUTO (H-O-A) SWITCHES ON COLUMN AT 60" (MIN.) ABOVE FINISHED FLOOR. EACH EXHAUST FAN SHALL BE OPERATED BY A DEDICATED H-O-A SWITCH (SEE SEQUENCE OF OPERATION). POSITION.
4. SEE ARCHITECTURAL PLANS AND SPEC 089100 FOR ACTUAL LOUVER SIZES, CONFIGURATIONS AND LOCATIONS.



ROOF PLAN – MECHANICAL

SCALE: 1"=20'-0"

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PWD. DWG. NO.

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MD ARCH. BOHLEN
MD STRU. RODRIGO CHACON, P.E.
MD CIVIL
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ACTIVITY - SATISFACTORY TO DATE
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DES	BR
CHK	QC
DESIGNER JV	
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BRANCH MANAGER	
DESIGN DIRECTOR	

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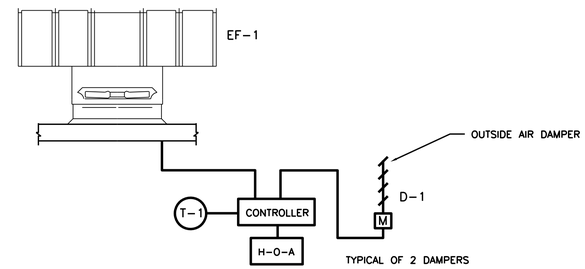
NAVAL SUPPORT ACTIVITY ~ MECHANICSBURG, PA

REPLACE ROOF – BUILDING 405

MECHANICAL ROOF PLAN

CODE ID. NO.	SIZE D
SCALE 1" = 20'	
PWD DWG. NO. 9907	
JOB ORDER NO.	
SPEC. NO. 09-0075	
CONSTR. CONTR. NO. N40085-09-C-0075	
NAVFAC DRAWING NO. 12,551,658	
SHEET 23 OF 28	

M-101



SEQUENCE OF OPERATION:

1. WITH H-O-A SWITCHES IN THE "AUTOMATIC" POSITION THE CORRESPONDING EXHAUST FAN SYSTEM SHALL OPERATE AS ACTIVATED BY ITS RESPECTIVE INTERLOCKED THERMOSTAT T-1.
2. WITH H-O-A SWITCHES IN THE "HAND" POSITION THE CORRESPONDING EXHAUST FAN SYSTEM SHALL RUN CONTINUOUSLY.
3. WITH H-O-A SWITCHES IN THE "OFF" POSITION THE CORRESPONDING EXHAUST FAN SYSTEM SHALL NOT OPERATE.
4. UPON AN INCREASE IN SPACE TEMPERATURE ABOVE 85°F (ADJ.) AS SENSED BY THE THERMOSTAT T-1 THE CORRESPONDING INTERLOCKED MOTORIZED ZONE DAMPER D-1 SHALL MODULATE TO THE "OPEN" POSITION. THE CORRESPONDING EXHAUST FAN SHALL BE ENERGIZED AND RUN CONTINUOUSLY.
5. UPON A DECREASE IN SPACE TEMPERATURE TO 80°F (ADJ.) AS SENSED BY THERMOSTAT T-1 THE CORRESPONDING EXHAUST FAN SHALL BE DE-ENERGIZED. THE CORRESPONDING INTERLOCKED MOTORIZED ZONE DAMPER D-1 SHALL MODULATE TO THE CLOSED POSITION.

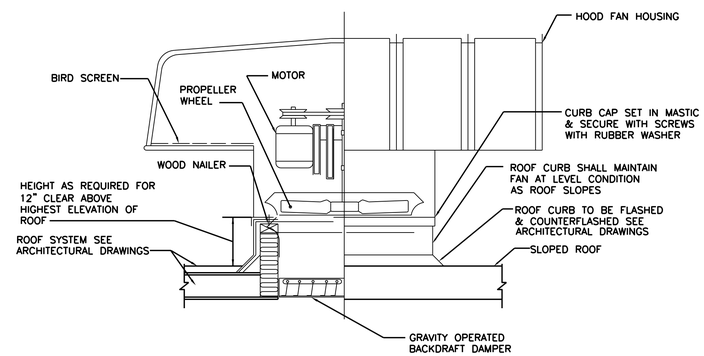
2 CONTROLS SEQUENCE
NO SCALE

FAN SCHEDULE

UNIT NUMBER	SYSTEM	CAPACITY (CFM)	S.P. INCHES W.G.	FAN SPEED (RPM)	MOTOR				DAMPER TYPE	REMARKS
					HP	OPERATING POWER (HP)	RPM	VOLT/ø		
EF-1	VENTILATION EXH	14,450	0.25	465	1.5	1.42	1725	208/3	MOTORIZED	BASIS OF DESIGN GREENHECK RBE-3H48-15

NOTES:
1. INTERLOCK MOTORIZED DAMPER WITH EF-1
2. SEE #4 OF SEQUENCE OF CONTROLS

3 FAN SCHEDULE
NO SCALE



NOTE: COORDINATE ROOF WORK WITH ARCHITECTURAL DRAWINGS.

1 ROOF MOUNTED EXHAUST FAN DETAIL
NO SCALE

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CHK QC
DESIGNER JV
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FIRE PROTECTION NA
BRANCH MANAGER
DESIGN DIRECTOR

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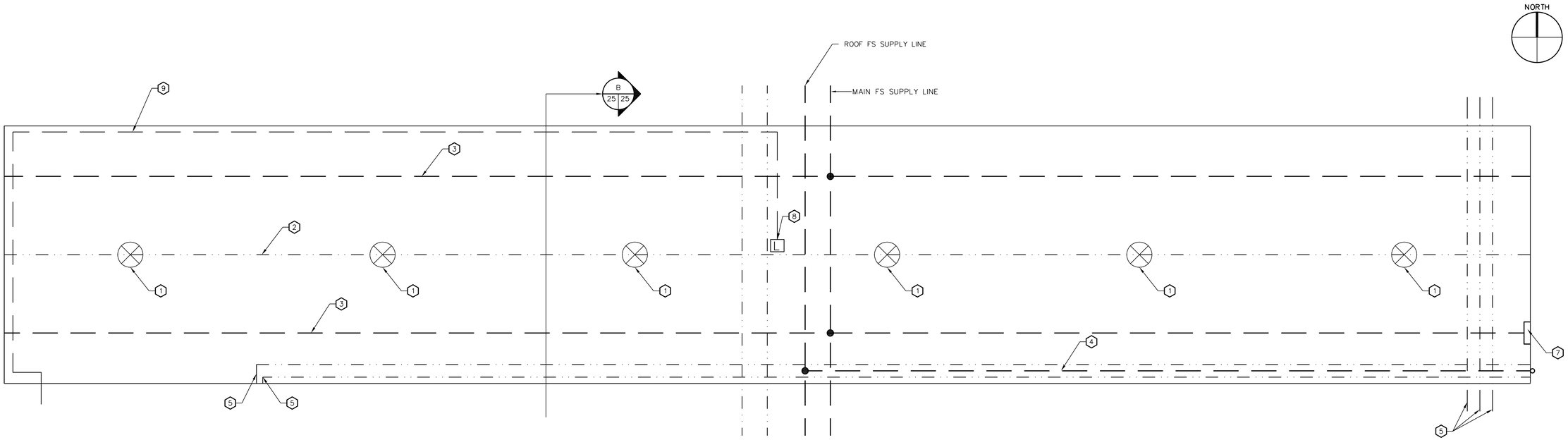
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SUPPORT ACTIVITY - MECHANICSBURG, PA

REPLACE ROOF - BUILDING 405

MECHANICAL SCHEDULE, DETAIL AND NOTES

CODE ID. NO. SHE D
SCALE: 1" = 20'
PWD DWG. NO. 9908
JOB ORDER NO.
SPEC. NO. 09-0075
CONTR. COMP. NO. N40085-09-C-0075
NAVFAC DRAWING NO. 12,551,659
SHEET 24 OF 28
M-102

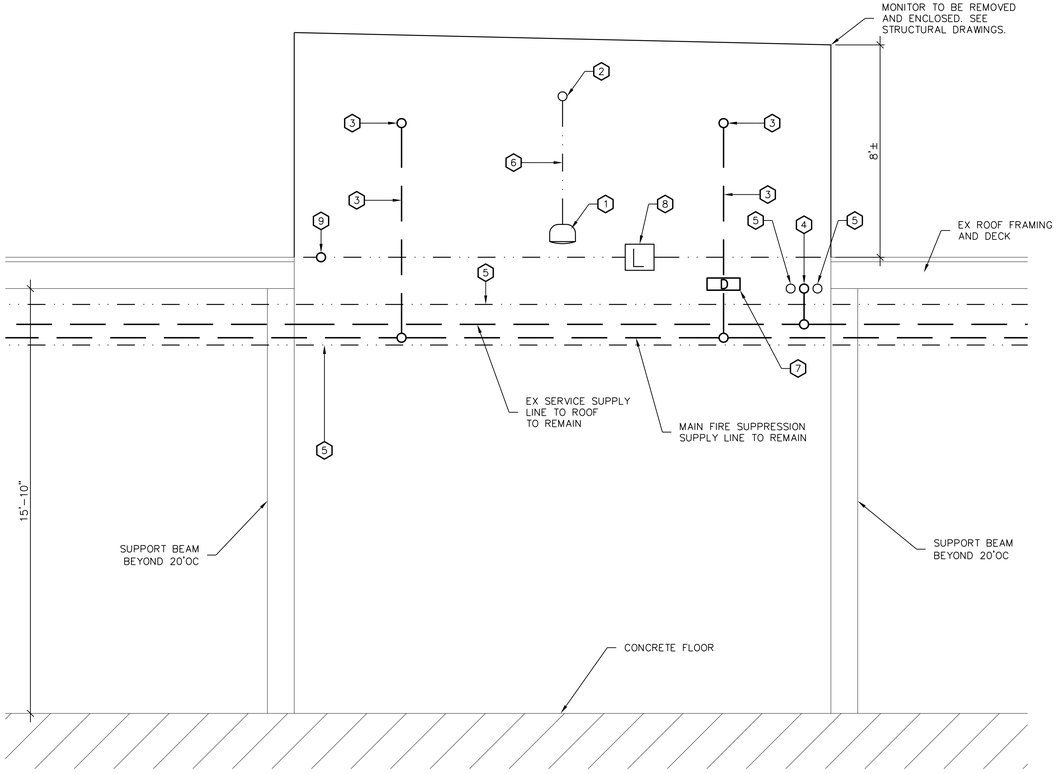
REV	DATE	DESCRIPTION	BY



A 4 25 TYP MONITOR–INTERIOR PLAN VIEW

1/4" = 1'

0 2' 4' 8'



B 25 25 M/E SECTION VIEW A–A

3/8" = 1'

KEYNOTES:

1. EXISTING PENDANT LIGHTS @20'±O.C. TO BE REMOVED, STORED, AND RECONNECTED TO NEW LOWER FRAMING. ELEV 15'–10".
2. EXISTING ELECTRICAL CONDUIT AND WIRING TO BE REMOVED AND REPLACED AT ELEV 15'–10".
3. EXISTING SPRINKLER PIPE TO BE REMOVED, PROVIDE NEW PIPE AT ELEV 15'–10"
4. EXISTING SPRINKLER SERVICE LINE TO ROOF TO BE REMOVED AND CAPPED AT MAIN.
5. EXISTING CONDUIT TO REMAIN.
6. REMOVE AND REPLACE LIGHT EXTENSIONS/CONDUIT.
7. REROUTE AND/OR RELOCATE DUCT TO ACCOMODATE FRAMING LOCATION.
8. EMERGENCY LIGHTS TO BE REMOVED AND RELOCATED TO ELEV 15'–10".
9. RELOCATE CONDUIT AND WIRING TO ELEV 15'–10"

GENERAL NOTES:

1. EXISTING LIGHTING, CONDUIT AND PIPING MAY VARY FROM MONITOR TO MONITOR. CONTRACTOR SHALL FIELD VERIFY PRIOR TO DEMOLITION WORK.
2. ALL ELECTRICAL COMPONENETS SHALL BE DISCONNECTED AT SOURCE.

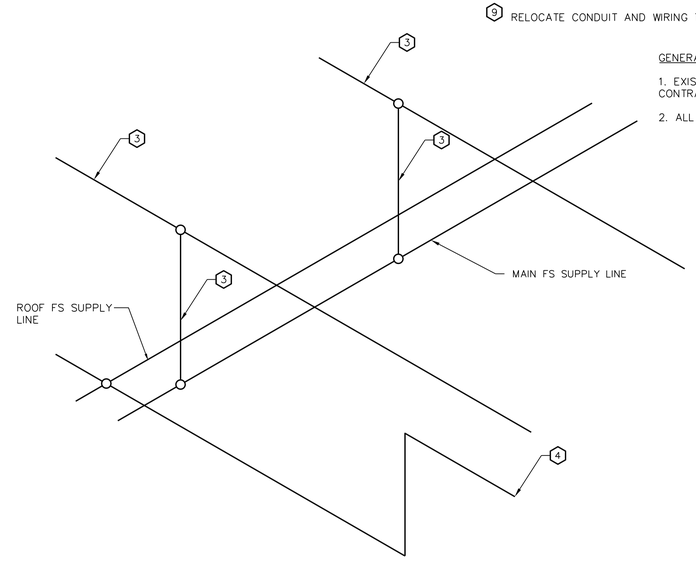
LEGEND

SPRINKLER LINE

ELECTRICAL LINE

PENDANT LIGHT

PENDANT LIGHT – PLAN VIEW



C 25 25 PARTIAL FS RISER DIAGRAM

N.T.S.

APPROVED: DATE:	PWD. DWG. NO. XXXX
OFFICER IN CHARGE	DESIGNED ECKARD
REVIEWED BY: DATE:	DRAWN JOHNSON CHKD BOHLEN
ENVIRON.:	HD ARCH. BOHLEN
	HD STRU. RODRIGO CHACON, P.E.
FIRE DEPT.	HD CIVIL
	HD ELEC. FERNANDO MONTALVO
SAFETY	HD MECH. JONATHAN VAUGHN
SATISFACTORY TO:	SATISFACTORY TO:
TENANT	DIRECTOR OF DESIGN DATE:

SYM	DESCRIPTION	DATE	APPR

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STATE OF MARYLAND
JAMAL L. CHAUDHRY
No. 9946
REGISTERED PROFESSIONAL ENGINEER

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FIRM MEMBER DATE

APPROVED

ACTIVITY - SATISFACTORY TO DATE

APPROVED

FOR COMMANDER NAVFAC DATE

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CHK	QC
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FIRE PROTECTION	NA
BRANCH MANAGER	
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NAVAL SUPPORT ACTIVITY – MECHANICSBURG, PA

REPLACE ROOF – BUILDING 405

MONITOR PLAN AND SECTIONS

CODE ID. NO.	SIZE D
SCALE: AS NOTED	
PWD DWG. NO. 9909	
JOB ORDER NO.	
SPEC. NO. 09-0075	
CONSTR. CONTR. NO. N40085-09-C-0075	
NAVFAC DRAWING NO. 12,551,660	
SHEET 25 OF 28	

ME–101

o:\655146\vendor\cd submission\building 207\e103.dwg Tuesday, November 24, 2009

ELECTRICAL LEGEND

- LIGHTING FIXTURE, POLE MOUNTED
- LIGHTING FIXTURE, WALL MOUNTED
- ACROSS THE LINE MOTOR STARTER
- PANELBOARD, AS NOTED, MOUNT AT 6'-6" A.F.F. TO TOP
- C — LIGHTING CONTACTOR
- P — PHOTOCELL
- J — JUNCTION BOX
- J — JUNCTION BOX – WALL MOUNTED
- SAFETY DISCONNECT SWITCH
- MOTOR CONNECTION
- —EX— EXISTING CONDUIT
- NEW CONDUIT AND WIRE
- HOMERUN TO PANELBOARD: ARROWHEADS INDICATE QUANTITY OF CIRCUITS. CROSSLINES INDICATED ARE NEUTRAL AND THREE HOT LEGS (A DIFFERENT PHASE PER EACH CIRCUIT). ALL CIRCUITRIES SHALL ALSO CONTAIN AN INSULATED GROUNDING CONDUCTOR (NOT SHOWN WITH CROSSLINES). WHEN A SINGLE GROUND, NEUTRAL AND PHASE CONDUCTOR (SINGLE PHASE L-N CIRCUITS) ARE INSTALLED, CROSSLINES INDICATING WIRE TYPES ARE NOT SHOWN.
  - NEUTRAL
- LV-1B — MOTOR OPERATED LOUVER, CORRESPONDS TO MECHANICAL PLAN

GENERAL NOTES – ELECTRICAL WORK

A. DRAWINGS SHALL NOT BE SCALED. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS AND MOUNTING HEIGHTS OF FIXTURES AND DEVICES.

B. PRIOR TO PURCHASE AND INSTALLATION OF ANY MOTOR CONTROL EQUIPMENT (STARTERS, ETC.), THE CONTRACTOR SHALL VERIFY THE ACTUAL MOTOR ELECTRICAL CHARACTERISTICS. STARTER OVERLOADS SHALL BE SIZED IN ACCORDANCE WITH THE ACTUAL MOTOR RUNNING LOAD AMPERES.

C. PROVIDE EQUIPMENT GROUNDING CONDUCTORS FOR ALL FEEDERS AND CIRCUITS.

D. FOR HOMERUN AND CIRCUIT WIRING, PROVIDE MINIMUM 2#12+1#12 GROUND IN 3/4" CONDUIT UNLESS NOTED OTHERWISE.

E. FOR CIRCUITS THAT REQUIRE A NEUTRAL, PROVIDE A SEPARATE NEUTRAL CONDUCTOR FOR EACH PHASE CONDUCTOR. SHARING OF NEUTRAL CONDUCTOR SHALL NOT BE PERMITTED.

F. SUBMIT EQUIPMENT CUTS AND SHOP DRAWINGS FOR APPROVAL FOR LIGHTING FIXTURES.

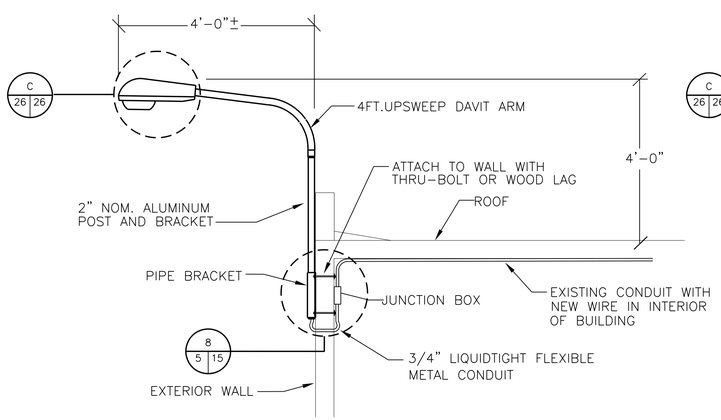
H. CONTRACTOR SHALL NOT INSTALL ELECTRICAL EQUIPMENT ON THE UNDERSIDE OF THE ROOF DECK.

COBRAHEAD LUMINAIRE REQUIREMENTS:

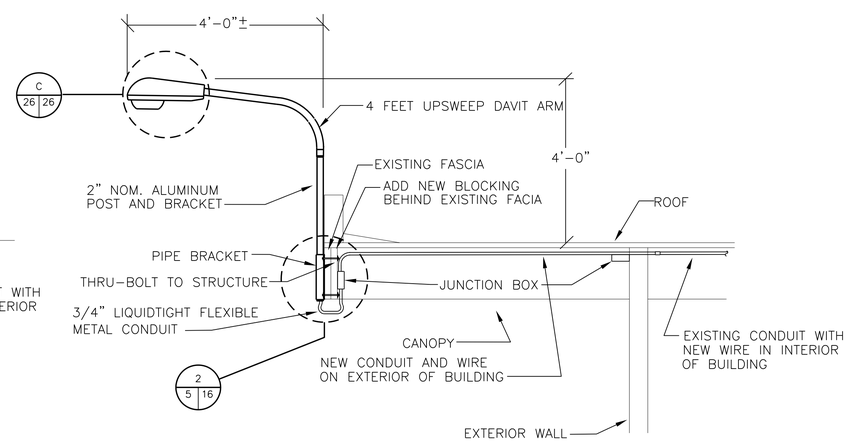
1. HOUSING – DIE-CAST ALUMINUM WITH STAINLESS STEEL BAIL LATCH AND HARDWARE. PROVIDE SEPARATE ENCLOSURE ACCESS FOR BALLAST COMPARTMENT.
2. FINISH – MULTI-STAGE PRE-TREATMENT, FINISHED WITH BAKED-ON GRAY POLYESTER POWDER COAT. REFLECTOR – ONE-PIECE ANODIZED SPECULAR OR SEMI-SPECULAR ALUMINUM.
3. REFLECTOR SHALL PRODUCE IESNA BEAM PATTERN AS INDICATED. PROVIDE PATTERN IESNA TYPE III WITH SEMI-CUTOFF CONTROL.
4. LAMP SOCKET – INTEGRAL, PRE-WIRED PORCELAIN LAMP SOCKET WITH NICKEL- PLATED SCREW AND CENTER CONTACT.
5. LENS/REFRACTOR – PRISMATIC BOROSILICATE GLASS.
6. LAMPS – METAL HALIDE OR HIGH PRESSURE SODIUM WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE. BALLAST – PREWIRED TO SEPARATE MOUNTING ASSEMBLY WITH QUICK DISCONNECT.
7. PLUG; MULTI-TAP, ENCASED AND POTTED (ENCAPSULATED), AUTO-REGULATOR, HIGH POWER FACTOR (≥.90), CORE AND COIL TYPE UNLESS OTHERWISE INDICATED.
8. CERTIFICATION – UL LISTED AND CERTIFIED FOR WET LOCATIONS.
9. MOUNTING – 1 1/4" TO 2" SLIPFITTER (2 OR 4 BOLT), WITH PEST GUARD.
10. OPTIONS – PHOTOCELL RECEPTACLE, BRONZE FINISH, AND FUSING.

ELECTRICAL ABBREVIATIONS

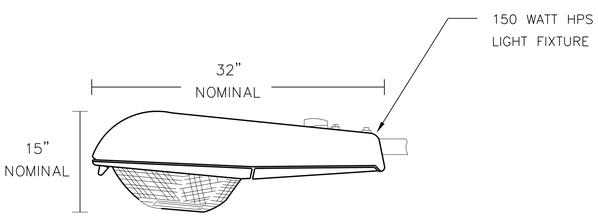
A	AMPERE(S)
AFF	ABOVE FINISHED FLOOR
AIC	AMPERES INTERRUPTING CAPACITY
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
C/B	CIRCUIT BREAKER
CKT	CIRCUIT
DISC	DISCONNECT
DT	DOUBLE THROW
DWG	DRAWING
DPDT	DOUBLE POLE, DOUBLE THROW
DPST	DOUBLE POLE, SINGLE THROW
EX	EXISTING
FLA	FULL LOAD AMPERES
FSS	FUSED SAFETY SWITCH
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GRD	GROUND
GRS	GALVANIZED RIGID STEEL
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
HZ,~	HERTZ
JB	JUNCTION BOX
Kcmil	THOUSAND CIRCULAR MILLS
KV	KILOVOLTS
KVA	KILO-VOLT-AMPERES
KW	KILOWATTS
LTG	LIGHTING
LV	LOW VOLTAGE
LVC	LOW VOLTAGE CONTROL
MCB	MAIN CIRCUIT BREAKER
MH	MOUNTING HEIGHT
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
NEC	NATIONAL ELECTRICAL CODE
NFSS	NON-FUSED SAFETY SWITCH
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
ø	PHASE
P	POLE
PNL	PANELBOARD
RX	REMOVE EXISTING
S/N	SOLID NEUTRAL
SPDT	SINGLE POLE, DOUBLE THROW
SPST	SINGLE POLE, SINGLE THROW
ST	SINGLE THROW
SYM	SYMMETRICAL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
V	VOLTS
VA	VOLT-AMPERE
W	WIRE, WATTS
WP	WEATHERPROOF
1P	SINGLE POLE
2P	DOUBLE POLE
3P	THREE POLE



A 18 18 WALL MOUNTED LIGHT FIXTURE DETAIL (NORTH AND SOUTH ELEVATIONS)
NOT TO SCALE



B 18 18 CANOPY MOUNTED LIGHT FIXTURE DETAIL (EAST AND WEST ELEVATIONS)
NOT TO SCALE



C 26 26 ENLARGED LAMP
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FOR COMMANDER NAVFAC DATE

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DESIGNER HFM	
REVIEWED BY HFM	
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FIRE PROTECTION NA	
BRANCH MANAGER	
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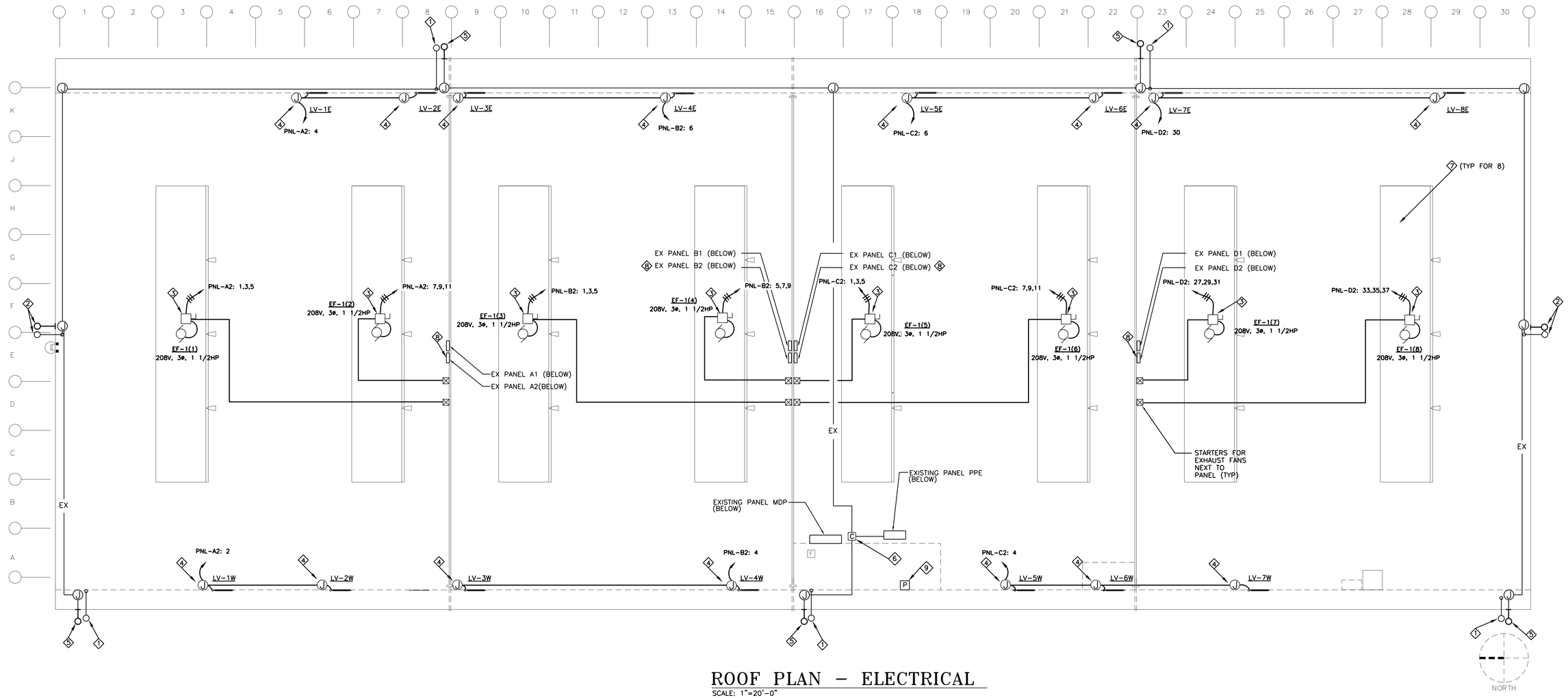
NAVAL SUPPORT ACTIVITY - MECHANICSBURG, PA
NAVAL FACILITIES ENGINEERING COMMAND

REPLACE ROOF – BUILDING 405

ELECTRICAL-LEGENDS, NOTES, DETAILS AND ABBREVIATIONS

CODE ID. NO.	SIZE D
SCALE: NOT TO SCALE	
PWD DWG. NO. 9910	
JOB ORDER NO.	
SPEC. NO. 09-0075	
CONSTR. CONTR. NO. N40085-09-C-0075	
NAVFAC DRAWING NO. 12,551,661	
SHEET 26 OF 28	

E-101



ROOF PLAN – ELECTRICAL

SCALE: 1"=20'-0"

REFERENCED NOTES:

1. REMOVE EXISTING LIGHT FIXTURE, MOUNTING HARDWARE AND ANY REMOTE COMPONENTS ASSOCIATED WITH THE FIXTURE. REMOVE EXTERIOR PORTIONS OF CONDUIT, AND ALL WIRING BACK TO PANEL PPE. REUSE EXISTING INTERIOR CONDUIT FOR NEW WIRING. EXISTING INTERIOR CONDUIT RUN SHOWN FOR REFERENCE AND MAY VARY.

2. REMOVE EXISTING LIGHT FIXTURE, MOUNTING ARM AND WIRE BACK TO PANEL. PROVIDE NEW 120V 150 WATT HIGH PRESSURE SODIUM LIGHT FIXTURE WITH MOUNTING ARM. EXTEND NEW CIRCUIT REFERENCED IN NOTE 5 WITH 2#8 & 1#10 GROUND AWG TO NEW FIXTURES. REUSE EXISTING CONDUIT IN INTERIOR OF BUILDING. PROVIDE NEW 3/4" LIQUIDTIGHT FLEXIBLE METAL CONDUIT TO TERMINATE NEW FIXTURES. REFER TO DETAIL 'A' ON SHEET E-101.

3. PROVIDE 250V, 3 POLE, 30A FSS IN NEMA 3R ENCLOSURE. FUSE PER FAN MANUFACTURERS RECOMMENDATIONS. EXTEND TO CIRCUIT INDICATED AND PROVIDE 3P, 20 CIRCUIT BREAKER IN PANEL. PROVIDE NEMA SIZE 1, 3ø STARTER WITH CONTROL POWER TRANSFORMER (120V) ADJACENT TO PANEL. REMOTE H-O-A SWITCH TO BE PROVIDED BY MECHANICAL. COORDINATE WITH MECHANICAL AND PROVIDE ALL CONTROL WIRING IN CONDUIT REQUIRED.

4. PROVIDE 120V, POWER TO MOTOR OPERATED DAMPERS LOCATED ON EXTERIOR WALL AND CONNECT TO CIRCUIT INDICATED ON PLAN. CONTROL WIRING SHALL BE PROVIDED BY HVAC CONTRACTOR.

5. PROVIDE NEW 120V 150 WATT HIGH PRESSURE SODIUM LIGHT FIXTURE WITH PIPE SUPPORT AND DAVIT ARM. RE-CIRCUIT NEW FIXTURES WITH NEW 2#8 & 1#10 GROUND AWG TO EXISTING CIRCUIT BREAKER IN PANEL PPE. PROVIDE NEW 3/4" GRS CONDUIT ON EXTERIOR OF BUILDING AND 3/4" LIQUIDTIGHT FLEXIBLE METAL CONDUIT TO TERMINATE NEW FIXTURES. REFER TO DETAIL 'B' ON SHEET E-101.

6. REMOVE EXISTING LIGHTING CONTACTOR AND REPLACE WITH NEW 250V, 3P, 60A CONTACTOR WITH 120V COIL IN NEMA 1 ENCLOSURE.

7. FOR WORK RELATED TO MONITORING, REFER TO DRAWING ME-101.

8. REFER TO DRAWING E-103 FOR PANELBOARD DETAILS AND SCHEDULE.

9. EXISTING PHOTOCELL CONTROLLING EXTERIOR LIGHTS OF THE BLDG SHALL BE RECONNECTED IN THE UPRIGHT POSITION. PHOTOCELL LOCATION SHALL BE FIELD VERIFIED.

NIKA Technologies, Inc.
Engineering and Management Consultants

11400 Rockville Pike, Ste 505
N. Bethesda, MD 20852
p: 301.770.3520 f: 301.770.3521
www.nikatechnologies.com

APPROVED: DATE:
OFFICER IN CHARGE
REVIEWED BY: DATE:
ENVIRON.:
FIRE DEPT.
SAFETY
SATISFACTORY TO:
TENANT

PWD. DWG. NO.
DESIGNED HFM
DRAWN CHKD HFM
HD ARCH. BOHLEN
HD STRU. RODRIGO CHACON, P.E.
HD CIVIL
HD ELEC. FERNANDO MONTALVO
HD MECH. JONATHAN VAUGHN
SATISFACTORY TO:
DIRECTOR OF DESIGN DATE:

SYM	DESCRIPTION	DATE	APPR

GALE
Gale Associates, Inc.
Engineers Architects Planners
5500 Newbury Street Baltimore, MD 21209
P: 410.602.6151 F: 410.602.6150 www.gale.com
Boston Baltimore Orlando San Francisco

SEAL

SUBMITTED BY
FIRM MEMBER DATE
APPROVED
ACTIVITY - SATISFACTORY TO DATE
APPROVED
FOR COMMANDER NAVFAC DATE
DES DR
CHK QC
DESIGNER HFM
REVIEWED BY HFM
QC
AIC/EIC
FIRE PROTECTION NA
BRANCH MANAGER
DESIGN DIRECTOR

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SUPPORT ACTIVITY - MECHANICSBURG, PA

REPLACE ROOF – BUILDING 405

ELECTRICAL-ROOF PLAN

CODE ID. NO. SIZE D
SCALE: 1" = 20'
PWD DWG. NO. 9911
JOB ORDER NO.
SPEC. NO. 09-0075
CONSTR. CONTR. NO. N40085-09-C-0075
NAVFAC DRAWING NO. 12,551,662
SHEET 27 OF 28
E-102

PANEL: A2	V/PH/W: 208-120V/3PH/4W	LOCATION: BUILDING 405
	AMPS: 400A MLO	MANUFACTURER / MODEL:
	AIC: –	MOUNTING: SURFACE

POLE NO.	CB (AMPS)	DESCRIPTION	WIRE PHASE	WIRE GND	LOAD (kVA) LOAD	PH	LOAD	DESCRIPTION	WIRE PHASE	WIRE GND	CB (AMPS)	POLE NO.
1	20/3	EXHAUST FAN EF-1(1)	#10	#12	–	A	0.7	LOUVER LV-1W, LV-2W	#10	#10	20/1	2
3		(1 ½ HP)	#10	–	–	B	0.7	LOUVER LV-1E, LV-2E	#10	#10	20/1	4
5			#10	–	–	C	–	–	–	–	–	6
7	20/3	EXHAUST FAN EF-1(2)	#10	#12	–	A	–	–	–	–	–	8
9		(1 ½ HP)	#10	–	–	B	–	–	–	–	–	10
11			#10	–	–	C	–	–	–	–	–	12
13	–	–	–	–	–	A	–	–	–	–	–	14
15	–	–	–	–	–	B	–	–	–	–	–	16
17	–	–	–	–	–	C	–	–	–	–	–	18
19	–	–	–	–	–	A	–	–	–	–	–	20
21	–	–	–	–	–	B	–	–	–	–	–	22
23	–	–	–	–	–	C	–	–	–	–	–	24
25	–	–	–	–	–	A	–	–	–	–	–	26
27	–	–	–	–	0.9	B	–	–	–	–	–	28
29	–	–	–	–	0.9	C	–	–	–	–	–	30
31	–	–	–	–	0.9	A	–	–	–	–	–	32
33	–	–	–	–	0.9	B	–	–	–	–	–	34
35	–	–	–	–	0.9	C	–	–	–	–	–	36
37	–	–	–	–	0.9	A	–	–	–	–	–	38
39	–	–	–	–	–	B	–	–	–	–	–	40
41	–	–	–	–	–	C	–	–	–	–	–	42

TOTALS (kVA):	
PHASE A	
PHASE B	
PHASE C	
TOTAL:	

LOAD TYPE	LOAD (kVA) CONN	DF	DEMAND
LIGHTING	-	1.00	-
RECEPTACLE	-	NEC	-
HEATING	-	—	-
A/C	-	—	-
MOTORS	-	—	-
OTHER	-	1.00	-
TOTALS	-	—	-

OPTIONS AND ACCESSORIES:

PANEL NOTES:

1. PROVIDE NEW CIRCUIT BREAKERS "BOLT-IN" TYPE WITH TRIP INDICATOR WINDOW TO SERVE EXHAUST FAN AND LOUVER LOADS. NEW CIRCUIT BREAKERS SHALL MATCH AIC AND CHARACTERISTICS OF EXISTING CIRCUIT BREAKERS.
2. PANELBOARD DIRECTORY SHALL BE UPDATED WITH NEW LOADS. ALL UNUSED BREAKERS IN THE PANEL SHALL BE LABELED SPARE.

PANEL: B2	V/PH/W: 208-120V/3PH/4W	LOCATION: BUILDING 405
	AMPS: 225A MLO	MANUFACTURER / MODEL:
	AIC: –	MOUNTING: SURFACE

POLE NO.	CB (AMPS)	DESCRIPTION	WIRE PHASE	WIRE GND	LOAD (kVA) LOAD	PH	LOAD	DESCRIPTION	WIRE PHASE	WIRE GND	CB (AMPS)	POLE NO.
1	20/3	EXHAUST FAN EF-1(3)	#10	#12	0.9	A	–	–	–	–	–	2
3		(1 ½ HP)	#10	–	0.9	B	0.7	LOUVER LV-3W, LV-4W	#10	#10	20/1	4
5			#10	–	0.9	C	0.7	LOUVER LV-3E, LV-4E	#10	#10	20/1	6
7	20/3	EXHAUST FAN EF-1(4)	#10	#12	0.9	A	–	–	–	–	–	8
9		(1 ½ HP)	#10	–	0.9	B	–	–	–	–	–	10
11			#10	–	0.9	C	–	–	–	–	–	12
13	–	–	–	–	–	A	–	–	–	–	–	14
15	–	–	–	–	–	B	–	–	–	–	–	16
17	–	–	–	–	–	C	–	–	–	–	–	18
19	–	–	–	–	–	A	–	–	–	–	–	20
21	–	–	–	–	–	B	–	–	–	–	–	22
23	–	–	–	–	–	C	–	–	–	–	–	24
25	–	–	–	–	–	A	–	–	–	–	–	26
27	–	–	–	–	–	B	–	–	–	–	–	28
29	–	–	–	–	–	C	–	–	–	–	–	30
31	–	–	–	–	–	A	–	–	–	–	–	32
33	–	–	–	–	–	B	–	–	–	–	–	34
35	–	–	–	–	–	C	–	–	–	–	–	36
37	–	–	–	–	–	A	–	–	–	–	–	38
39	–	–	–	–	–	B	–	–	–	–	–	40
41	–	–	–	–	–	C	–	–	–	–	–	42

TOTALS (kVA):	
PHASE A	
PHASE B	
PHASE C	
TOTAL:	

LOAD TYPE	LOAD (kVA) CONN	DF	DEMAND
LIGHTING	-	1.00	-
RECEPTACLE	-	NEC	-
HEATING	-	—	-
A/C	-	—	-
MOTORS	-	—	-
OTHER	-	1.00	-
TOTALS	-	—	-

OPTIONS AND ACCESSORIES:

PANEL NOTES:

1. PROVIDE NEW CIRCUIT BREAKERS "BOLT-IN" TYPE WITH TRIP INDICATOR WINDOW TO SERVE EXHAUST FAN AND LOUVER LOADS. NEW CIRCUIT BREAKERS SHALL MATCH AIC AND CHARACTERISTICS OF EXISTING CIRCUIT BREAKERS.
2. PANELBOARD DIRECTORY SHALL BE UPDATED WITH NEW LOADS. ALL UNUSED BREAKERS IN THE PANEL SHALL BE LABELED SPARE.

RTU BAY E-17 (1½ HP)

PANEL: C2	V/PH/W: 208-120V/3PH/4W	LOCATION: BUILDING 405
	AMPS: 225A MLO	MANUFACTURER / MODEL:
	AIC: –	MOUNTING: SURFACE

POLE NO.	CB (AMPS)	DESCRIPTION	WIRE PHASE	WIRE GND	LOAD (kVA) LOAD	PH	LOAD	DESCRIPTION	WIRE PHASE	WIRE GND	CB (AMPS)	POLE NO.
1	20/3	EXHAUST FAN EF-1(5)	#10	#12	0.9	A	–	–	–	–	–	2
3		(1 ½ HP)	#10	–	0.9	B	1.1	LOUVER LV-5W, LV-6W, LV-7W	#10	#10	20/1	4
5			#10	–	0.9	C	0.7	LOUVER LV-5E, LV-6E	#10	#10	20/1	6
7	20/3	EXHAUST FAN EF-1(6)	#10	#12	0.9	A	–	–	–	–	–	8
9		(1 ½ HP)	#10	–	0.9	B	–	–	–	–	–	10
11			#10	–	0.9	C	–	–	–	–	–	12
13	–	–	–	–	–	A	–	–	–	–	–	14
15	–	–	–	–	–	B	–	–	–	–	–	16
17	–	–	–	–	–	C	–	–	–	–	–	18
19	–	–	–	–	–	A	–	–	–	–	–	20
21	–	–	–	–	–	B	–	–	–	–	–	22
23	–	–	–	–	–	C	–	–	–	–	–	24
25	–	–	–	–	–	A	–	–	–	–	–	26
27	–	–	–	–	–	B	–	–	–	–	–	28
29	–	–	–	–	–	C	–	–	–	–	–	30
31	–	–	–	–	–	A	–	–	–	–	–	32
33	–	–	–	–	–	B	–	–	–	–	–	34
35	–	–	–	–	–	C	–	–	–	–	–	36
37	–	–	–	–	–	A	–	–	–	–	–	38
39	–	–	–	–	–	B	–	–	–	–	–	40
41	–	–	–	–	–	C	–	–	–	–	–	42

TOTALS (kVA):	
PHASE A	
PHASE B	
PHASE C	
TOTAL:	

LOAD TYPE	LOAD (kVA) CONN	DF	DEMAND
LIGHTING	-	1.00	-
RECEPTACLE	-	NEC	-
HEATING	-	—	-
A/C	-	—	-
MOTORS	-	—	-
OTHER	-	1.00	-
TOTALS	-	—	-

OPTIONS AND ACCESSORIES:

PANEL NOTES:

1. PROVIDE NEW CIRCUIT BREAKERS "BOLT-IN" TYPE WITH TRIP INDICATOR WINDOW TO SERVE EXHAUST FAN AND LOUVER LOADS. NEW CIRCUIT BREAKERS SHALL MATCH AIC AND CHARACTERISTICS OF EXISTING CIRCUIT BREAKERS.
2. PANELBOARD DIRECTORY SHALL BE UPDATED WITH NEW LOADS. ALL UNUSED BREAKERS IN THE PANEL SHALL BE LABELED SPARE.

PANEL: D2	V/PH/W: 208-120V/3PH/4W	LOCATION: BUILDING 405
	AMPS: 400A MLO	MANUFACTURER / MODEL:
	AIC: –	MOUNTING: SURFACE

POLE NO.	CB (AMPS)	DESCRIPTION	WIRE PHASE	WIRE GND	LOAD (kVA) LOAD	PH	LOAD	DESCRIPTION	WIRE PHASE	WIRE GND	CB (AMPS)	POLE NO.
1	–	–	–	–	–	A	–	–	–	–	–	2
3	–	–	–	–	–	B	–	–	–	–	–	4
5	–	–	–	–	–	C	–	–	–	–	–	6
7	–	–	–	–	–	A	–	–	–	–	–	8
9	–	–	–	–	–	B	–	–	–	–	–	10
11	–	–	–	–	–	C	–	–	–	–	–	12
13	–	–	–	–	–	A	–	–	–	–	–	14
15	–	–	–	–	–	B	–	–	–	–	–	16
17	–	–	–	–	–	C	–	–	–	–	–	18
19	–	–	–	–	–	A	–	–	–	–	–	20
21	–	–	–	–	–	B	–	–	–	–	–	22
23	–	–	–	–	–	C	–	–	–	–	–	24
25	–	–	–	–	–	A	–	–	–	–	–	26
27	20/3	EXHAUST FAN EF-1(7)	#10	#12	0.9	B	–	–	–	–	–	28
29		(1 ½ HP)	#10	–	0.9	C	0.7	LOUVER LV-7E, LV-8E	#10	#10	20/1	30
31			#10	–	0.9	A	–	–	–	–	–	32
33	20/3	EXHAUST FAN EF-1(8)	#10	#12	0.9	B	–	–	–	–	–	34
35		(1 ½ HP)	#10	–	0.9	C	–	–	–	–	–	36
37			#10	–	0.9	A	–	–	–	–	–	38
39	–	–	–	–	–	B	–	–	–	–	–	40
41	–	–	–	–	–	C	–	–	–	–	–	42

TOTALS (kVA):	
PHASE A	
PHASE B	
PHASE C	
TOTAL:	

LOAD TYPE	LOAD (kVA) CONN	DF	DEMAND
LIGHTING	-	1.00	-
RECEPTACLE	-	NEC	-
HEATING	-	—	-
A/C	-	—	-
MOTORS	-	—	-
OTHER	-	1.00	-
TOTALS	-	—	-

OPTIONS AND ACCESSORIES:

PANEL NOTES:

1. PROVIDE NEW CIRCUIT BREAKERS "BOLT-IN" TYPE WITH TRIP INDICATOR WINDOW TO SERVE EXHAUST FAN AND LOUVER LOADS. NEW CIRCUIT BREAKERS SHALL MATCH AIC AND CHARACTERISTICS OF EXISTING CIRCUIT BREAKERS.
2. PANELBOARD DIRECTORY SHALL BE UPDATED WITH NEW LOADS. ALL UNUSED BREAKERS IN THE PANEL SHALL BE LABELED SPARE.

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Gale Associates, Inc.
Engineers Architects Planners
5550 Newbury Street | Baltimore, Md 21209
P 410.664.0611 F 410-664-0711 www.gainc.com
Boston Baltimore Orlando San Francisco

SYM | DESCRIPTION | DATE | APPR

STATE OF MARYLAND – JAWAHAR L. CHAUDHARY – No. 8646 – REGISTERED PROFESSIONAL ENGINEER

SEAL

SUBMITTED BY

FIRM MEMBER DATE

APPROVED

ACTIVITY - SATISFACTORY TO DATE

APPROVED

FOR COMMANDER NAVFAC DATE

DES	DR
CHK	QC

DESIGNER HFM
REVIEWED BY HFM
QC
AIC/EIC
FIRE PROTECTION NA
BRANCH MANAGER
DESIGN DIRECTOR

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SUPPORT ACTIVITY - MECHANICSBURG, PA

REPLACE ROOF - BUILDING 405

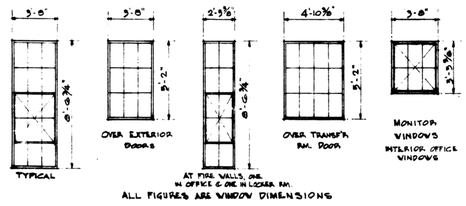
ELECTRICAL-PANELBOARD SCHEDULES

APPROVED:	DATE:
OFFICER IN CHARGE	
REVIEWED BY:	DATE:
ENVIRON.:	
FIRE DEPT.	
SAFETY	
SATISFACTORY TO:	
TENANT	

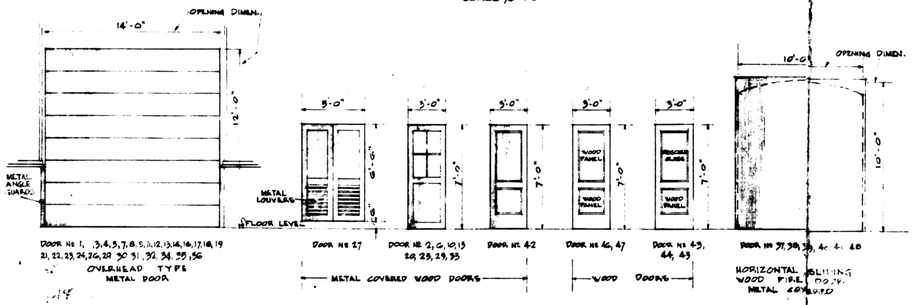
PWD. DWG. NO.
DESIGNED HFM
DRAWN ______ CHKD HFM
HD ARCH. BOHLEN
HD STRU. RODRIGO CHACON, P.E.
HD CIVIL
HD ELEC. FERNANDO MONTALVO
HD MECH. JONATHAN VAUGHN
SATISFACTORY TO:
DIRECTOR OF DESIGN DATE:

CODE ID. NO. SIZE D
SCALE: NOT TO SCALE
PWD DWG. NO. 9912
JOB ORDER NO.
SPEC. NO. 09-0075
CONSTR. CONTR. NO. N40085-09-C-0075
NAVFAC DRAWING NO. 12,551,663
SHEET 28 OF 28

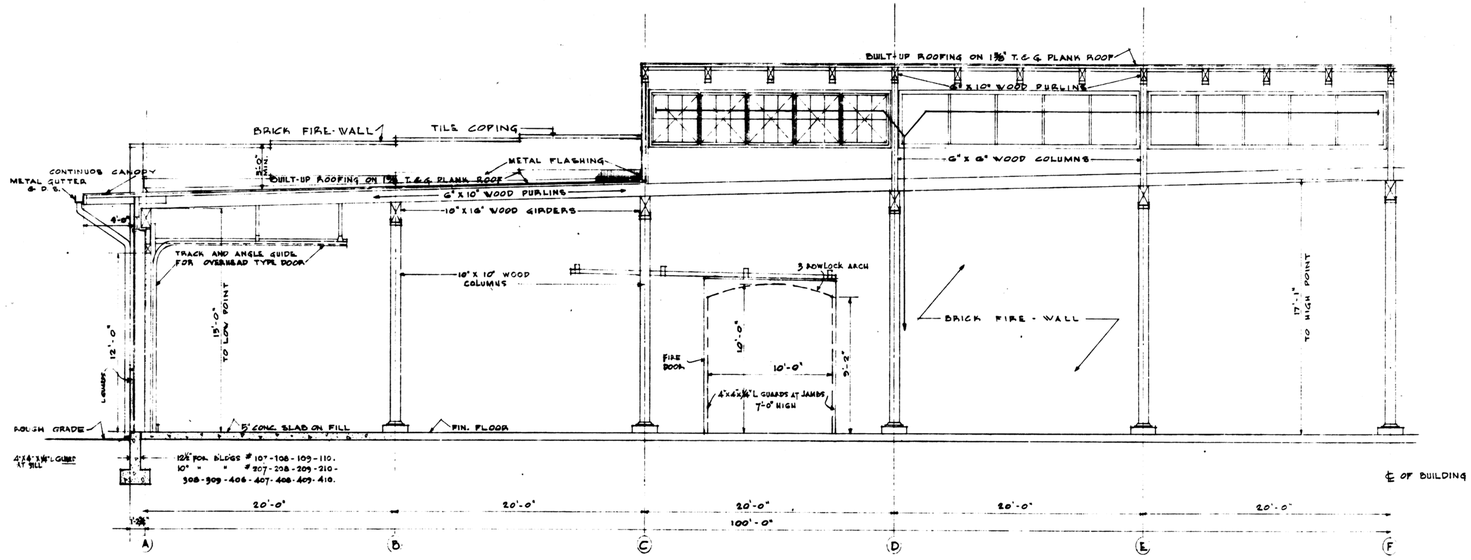
E-103



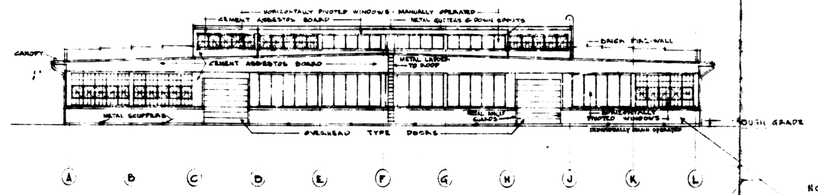
WINDOW TYPES
SCALE ⅛" = 1'-0"



DOOR TYPES
SCALE ⅛" = 1'-0"

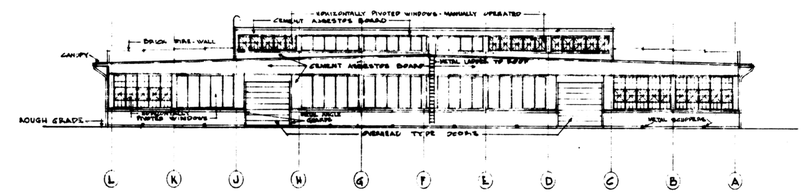


HALF SECTION
SCALE ¼" = 1'-0"

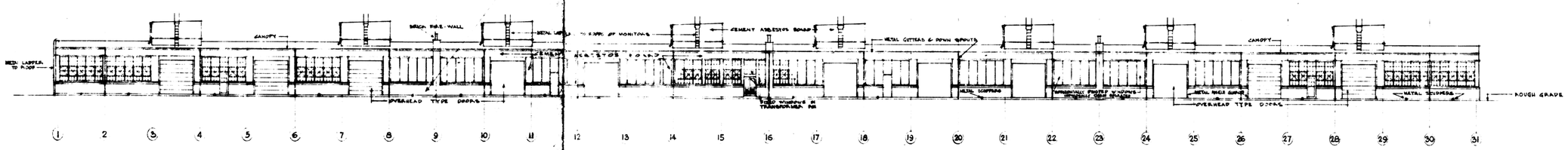


SOUTH ELEVATION
SCALE 1/16" = 1'-0"

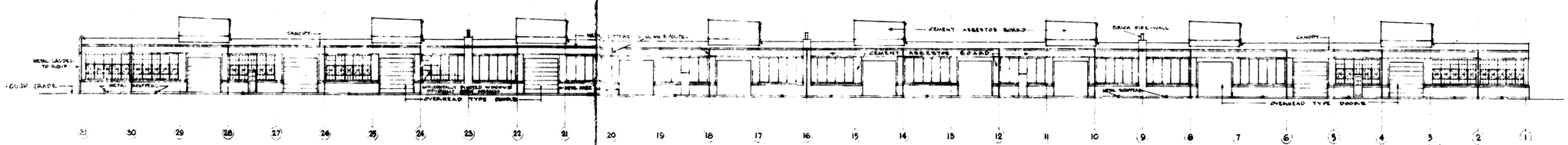
NOTE -
12½" BRICK BASE WALL FOR BUILDINGS Nº 107-108-109-110.
10" CONC. BASE WALL FOR BUILDINGS Nº 207-208-209-210-
308 309-406-407-408-409-410.



NORTH ELEVATION
SCALE 1/16" = 1'-0"



EAST ELEVATION
SCALE 1/16" = 1'-0"



WEST ELEVATION
SCALE 1/16" = 1'-0"

APPROVED BY THE BUREAU OF SUPPLIES & ACCOUNTS
DATE Dec 31, 1941. C. T. Arnt

REVISION	DATE	BY

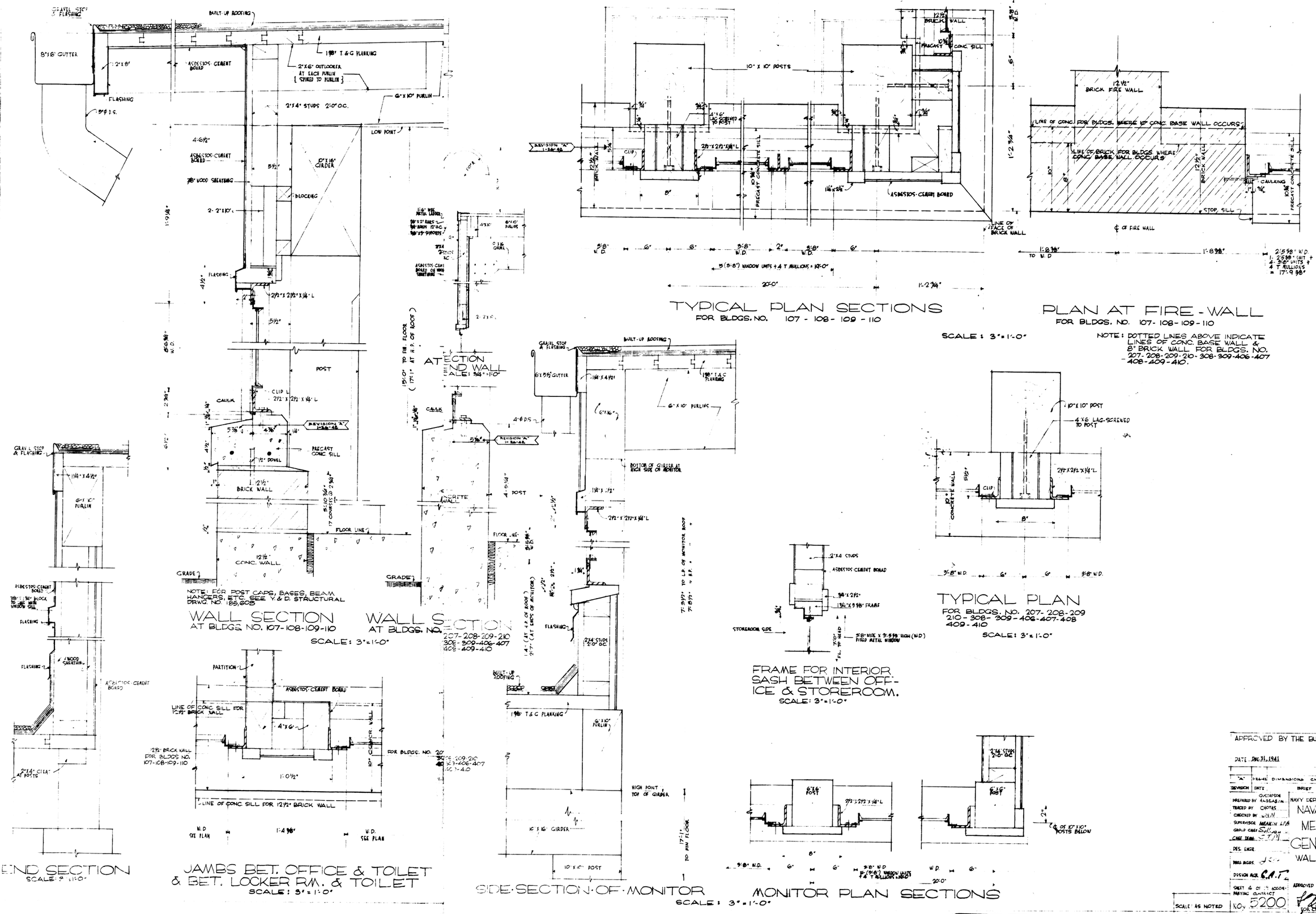
PROJECT BY GUSTAFSON & ANECHE E.P.A.
TRACED BY ANECHE
CHECKED BY W.W.
SUPERVISOR MEANS L.P.A.
GROUP CHIEF Sullivan & Conn
CHIEF DESIGNER J.T.A.
PRES. ENGR.
PROJ. MGR. S.L.R.
DESIGN MGR. G.A.T.
SHEET 3 OF 19 ACCOMP. DRAWING CONTRACT NOy 5200 CF-221

NAVY DEPARTMENT BUREAU OF YARDS & DOCKS
NAVAL SUPPLY DEPOT
MECHANICSBURG, PA.
GENERAL STOREHOUSE
ELEVATIONS - SECTION
DOOR & WINDOW TYPES

APPROVED Dec 31, 1941 Y.S.U. DRAWING NO.
SCALE AS NOTED
FOR CHIEF OF BUREAU
185,602

17

432-34-3



APPROVED BY THE BUREAU OF SUPPLIES & ACCOUNTS

DATE: Dec. 31, 1941

"A" DIVISION	1-26-42 DATE	DIMENSIONS CHANGED AS MARKED BRIEF	BY

PREPARED BY GUSTAFSON & ANDERSON
TRACED BY CHOTAS
CHECKED BY WILLIAM
SUPERVISOR MERKIN
GROUP CHIEF Sullivan
CHIEF ENGR.
DES. ENGR.
DWG. ENGRS.
DIVISION ACR. C.A.T.

NAVY DEPARTMENT BUREAU OF YARDS & DOCKS

NAVAL SUPPLY DEPOT
MECHANICSBURG, PA.
GENERAL STOREHOUSE
WALL & WINDOW SECTIONS

SHEET 4 OF 4 ACCOMPANYING CONTRACT NOy 5200

APPROVED Dec. 31, 1941

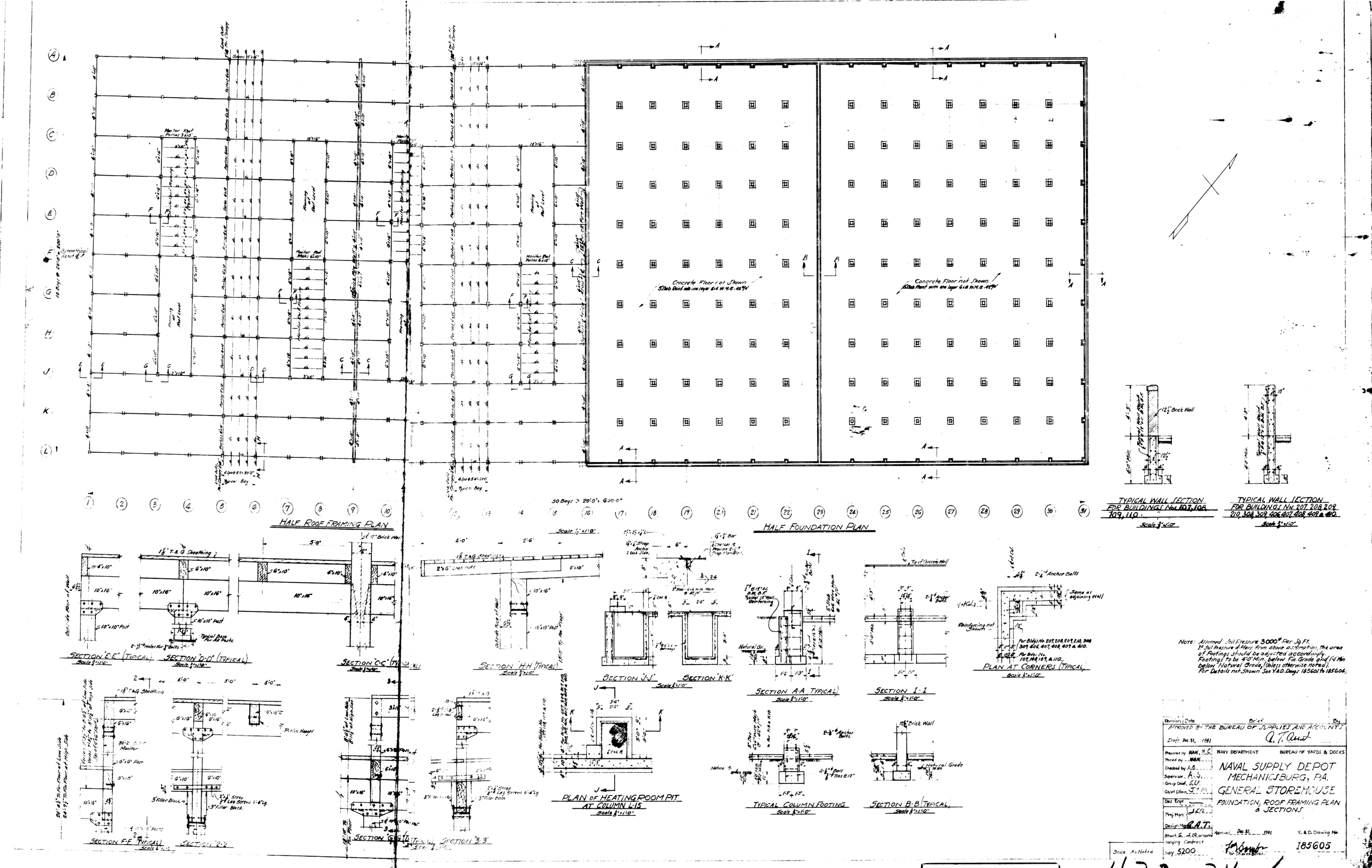
Y. & D. DRAWING NO. 185,603

SCALE AS NOTED

FOR CHIEF OF BUREAU

16

432-34-4


HALF ROOF FRAMING PLAN
HALF FOUNDATION PLAN
Concrete Floor not Shown
Concrete Floor not Shown
TYPICAL WALL SECTION FOR BUILDINGS Nos. 107, 108, 109, 110.
TYPICAL WALL SECTION FOR BUILDINGS Nos. 207, 208, 209, 210, 308, 309, 406, 407, 408, 409 & 410.
SECTION "E-E" (TYPICAL)
SECTION "D-D" (TYPICAL)
SECTION "C-C" (TYPICAL)
SECTION "H-H" (TYPICAL)
SECTION "J-J"
SECTION "K-K"
SECTION A-A (TYPICAL)
SECTION 1-1
PLAN AT CORNERS (TYPICAL)
SECTION F-F (TYPICAL)
SECTION 2-2
SECTION "G-G" (TYPICAL)
SECTION 3-3
PLAN OF HEATING ROOM PIT AT COLUMN L-15
TYPICAL COLUMN FOOTING
SECTION B-B (TYPICAL)
NOTE: Assumed Soil Pressure 3000# Per Sq. Ft. If Soil Pressure differs from above assumption, the area of Footings should be adjusted accordingly. Footings to be 4'-0" Min. below Fin. Grade and 1'-0" Min. below Natural Grade, (Unless otherwise noted). For Details not Shown See Y.&D. Dwgs 185601 to 185604.
Revision | Date | Brief | By
APPROVED BY THE BUREAU OF SUPPLIES AND ACCOUNTS
Date Dec. 31, 1941
NAVY DEPARTMENT
BUREAU OF YARDS & DOCKS
NAVAL SUPPLY DEPOT
MECHANICSBURG, PA.
GENERAL STOREHOUSE
FOUNDATION, ROOF FRAMING PLAN & SECTIONS
Approval Dec. 31, 1941
Y. & D. Drawing No. 185605
Scale As Noted
Nov 5200
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432-34-6