

NAVAL COMPUTER AND TELECOMMUNICATIONS AREA MASTER STATION - ATLANTIC, CUTLER ME

CUTLER SOUTH HELIX HOUSE STEEL PRESERVATION AND EXTERIOR RENOVATION
NCTAMS LANT DET, NCTCS CUTLER, ME

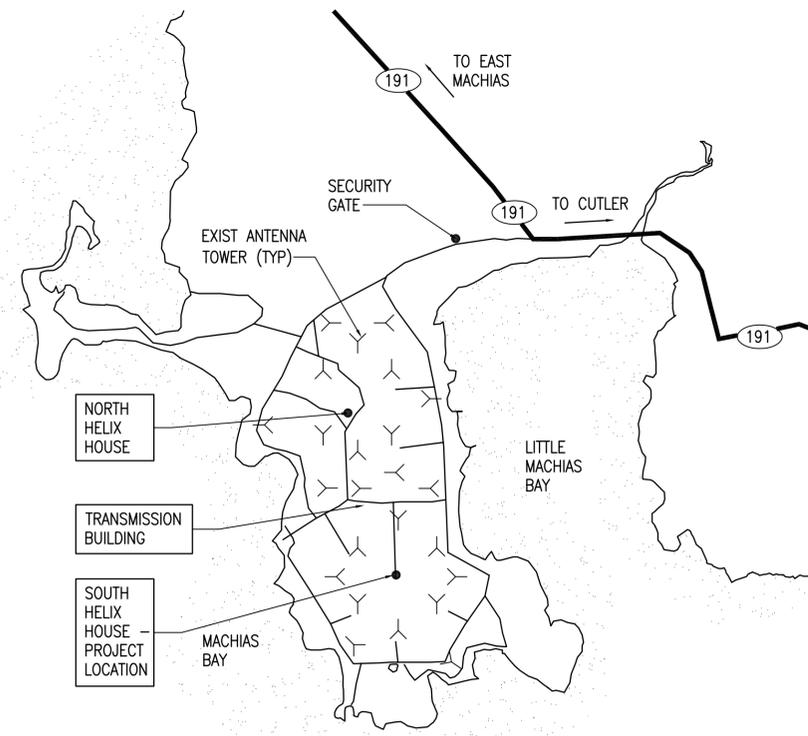
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
CONSTRUCTION CONTRACT NO. _____

MAXIMO NUMBER: 9233808

ePROJECTS WORK ORDER NUMBER: 1369480



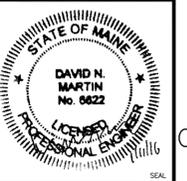
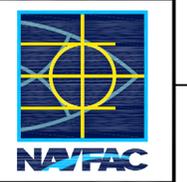
AREA MAP 



INSTALLATION PLAN 

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| SYN | DESCRIPTION | DATE | APPR |
|-----|-------------|------|------|
| | | | |



APPROVED
FOR COMMANDER NAVFAC
ACTIVITY

| | | |
|-----------------|------------------|----------|
| SATISFACTORY TO | DATE | 01/08/16 |
| DES | DNM | DRW |
| CHK | MJC | CHK |
| PFD | DAVID HOPPER | |
| PM/DM | | |
| BRANCH MANAGER | MARTIN RYAN | |
| FEAD/PM/AL | LCDR JAMES ROCHE | |

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SHIPYARD - PORTSMOUTH - ME
PUBLIC WORKS DEPARTMENT - MAINE
NCTAMS LANT DET
NCTCS CUTLER, MAINE
**CUTLER SOUTH HELIX HOUSE STEEL
PRESERVATION AND EXTERIOR RENOVATION**
SOUTH HELIX HOUSE COVER SHEET

| | |
|--------------------|----------|
| SCALE: | AS NOTED |
| EPROJECT NO.: | 1369480 |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. | 12712460 |
| SHEET | 1 OF 48 |
| G-001 | LF-16-93 |

DRAWING REVISION: 10 MARCH 2009

GENERAL PROJECT NOTES:

- THE BUSHINGS ARE PRESSURIZED AND ARE MADE OF A PORCELAIN MATERIAL. TO AVOID DAMAGE TO THE BUSHINGS DURING THE PROJECT, PROVIDE A BRACED, TEMPORARY PLYWOOD ENCLOSURE WITH A SELF CLOSING PLYWOOD ACCESS DOOR. TEMPORARY ENCLOSURE SHALL BE SIZED TO MAINTAIN A MINIMUM 5 FOOT CLEARANCE AROUND AND ABOVE BUSHING. THE BUSHINGS SHALL BE WRAPPED IN TWO LAYERS OF CARPETING FASTENED WITH NYLON STRAPS AS APPROVED BY THE CONTRACTING OFFICER'S REPRESENTATIVE. THE PROTECTIVE CARPETING WRAP SHALL REMAIN IN PLACE FOR THE DURATION OF THE PROJECT [OPTION 1].
- STRUCTURAL DEFICIENCIES IDENTIFIED IN THE STRUCTURAL STEEL NOT INDICATED ON THE DRAWINGS SHALL BE REPORTED TO THE CONTRACTING OFFICER'S REPRESENTATIVE FOR FURTHER REVIEW AND ACTION.
- FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING WORK AND REPORT ANY DISCREPANCIES TO THE CONTRACTING OFFICER'S REPRESENTATIVE.
- WORK FROM GIVEN DIMENSIONS AND LARGE SCALE DETAILS ONLY. DO NOT SCALE DRAWINGS.
- DO NOT PENETRATE BEAMS OR OTHER STRUCTURAL MEMBERS.
- AT THE END OF EACH WORKING DAY, THE CONSTRUCTION SITE SHALL BE LEFT IN A WEATHERTIGHT, NEAT, CLEAN AND SAFE CONDITION.
- DISPOSE OF AND/OR RECYCLE CONSTRUCTION DEBRIS FROM THE PROJECT AS REQUIRED BY THE GOVERNMENT. OBTAIN REQUIRED DISPOSAL PERMITS.
- COMPONENTS INDICATED ON THE DRAWINGS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR UNLESS NOTED OTHERWISE.
- WORK SHALL BE PROVIDED IN COMPLIANCE WITH INDUSTRIES' STANDARDS AND PERFORMED IN A WORKMANLIKE AND PROFESSIONAL MANNER.
- VEHICLE ACCESS ADJACENT TO THE BUILDING IS LIMITED. COORDINATE MATERIAL DELIVERIES AND HAUL ROUTES WITH THE CONTRACTING OFFICER'S REPRESENTATIVE.
- ON-SITE STORAGE OF CONSTRUCTION MATERIALS IS LIMITED. COORDINATE MATERIAL STORAGE WITH THE CONTRACTING OFFICER'S REPRESENTATIVE.

GENERAL ELECTRICAL NOTES:

- REMOVE AND PROVIDE TEMPORARY SUPPORT FOR ELECTRICAL CONDUIT AND BOXES AFFECTED BY STEEL CONSTRUCTION. CONDUCTORS WITHIN CONDUIT MAY NOT BE CUT FOR PURPOSES OF REMOVAL. CONDUCTORS SHALL BE CONTINUOUS FROM EACH TERMINATION POINT UNLESS THERE IS AN EXISTING SPLICE OR UNLESS SPLICES ARE ACCEPTABLE TO CONTRACTING OFFICER'S REPRESENTATIVE. FOR BIDDING PURPOSES ASSUME 500 FEET OF 1-1/2" PVC COATED STEEL CONDUIT AND (5) 3'X3' PULL BOXES (0001rr, 0001ss).
- REMOVE ELECTRICAL CONDUIT, CONDUIT FITTINGS, BOXES AND ACCESSORIES THAT HAVE SIGNIFICANT CORROSION. CONDUCTORS WITHIN CONDUIT MAY NOT BE CUT FOR PURPOSES OF REMOVAL. CONDUCTORS SHALL BE CONTINUOUS FROM EACH TERMINATION POINT UNLESS THERE IS AN EXISTING SPLICE OR UNLESS SPLICES ARE ACCEPTABLE TO CONTRACTING OFFICER'S REPRESENTATIVE. FOR BIDDING PURPOSES ASSUME 500 FEET OF 1-1/2" PVC COATED STEEL CONDUIT AND (5) 3'X3' PULL BOXES (0001tt, 0001uu).
- INSTALL AND REATTACH/SUPPORT ELECTRICAL CONDUIT AND BOXES AFTER STEEL CONSTRUCTION. REINSTALL CONDUCTORS. CONDUCTORS WITHIN CONDUIT AND BOXES SHALL BE CONTINUOUS FROM EACH TERMINATION POINT (SHALL NOT BE SPLICED) UNLESS THERE IS AN EXISTING SPLICE OR UNLESS SPLICES ARE ACCEPTABLE TO CONTRACTING OFFICER'S REPRESENTATIVE. REFER TO GENERAL ELECTRICAL NOTES 1 AND 2 FOR QUANTITIES.
- PROVIDE ELECTRICAL PVC RIGID STEEL CONDUIT, CONDUIT FITTINGS, BOXES AND ACCESSORIES (TO REPLACE ITEMS REMOVED DUE TO CORROSION; REFER TO GENERAL ELECTRICAL NOTE 2. REINSTALL CONDUCTORS. CONDUCTORS WITHIN CONDUIT AND BOXES SHALL BE CONTINUOUS FROM EACH TERMINATION POINT (SHALL NOT BE SPLICED) UNLESS THERE IS AN EXISTING SPLICE OR UNLESS SPLICES ARE ACCEPTABLE TO CONTRACTING OFFICER'S REPRESENTATIVE. REFER TO GENERAL ELECTRICAL NOTES 1 AND 2 FOR QUANTITIES.

LIST OF SHEETS

| SHEET NUMBERS | PWD ME DWG NUMBERS | NAVFAC DWG NUMBERS | SHEET TITLE |
|---------------|--------------------|--------------------|--|
| 1 OF 48 | G-001 | LF-16-93 | 12712460 SOUTH HELIX HOUSE COVER SHEET |
| 2 OF 48 | G-002 | LF-16-94 | 12712461 SOUTH HELIX HOUSE DATA SHEET |
| 3 OF 48 | G-201 | LF-16-95 | 12712462 SOUTH HELIX HOUSE EXTERIOR ELEVATIONS 1 |
| 4 OF 48 | G-202 | LF-16-96 | 12712463 SOUTH HELIX HOUSE EXTERIOR ELEVATIONS 2 |
| 5 OF 48 | S-001 | LF-16-97 | 12712464 SOUTH HELIX HOUSE STRUCTURAL NOTES |
| 6 OF 48 | S-002 | LF-16-98 | 12712465 SOUTH HELIX HOUSE DESIGN LOADS AND ABBREVIATIONS |
| 7 OF 48 | SD101 | LF-16-99 | 12712466 SOUTH HELIX HOUSE UPPER FLOOR FRAMING REMOVALS PLAN |
| 8 OF 48 | SF101 | LF-16-100 | 12712467 SOUTH HELIX HOUSE ROOF PLAN |
| 9 OF 48 | SF102 | LF-16-101 | 12712468 SOUTH HELIX HOUSE UPPER FLOOR FRAMING PLANS |
| 10 OF 48 | SF103 | LF-16-102 | 12712469 SOUTH HELIX HOUSE ICE SHIELD FRAMING PLAN [OPTION 1] |
| 11 OF 48 | SF104 | LF-16-103 | 12712470 SOUTH HELIX HOUSE ICE SHIELD PURLIN FRAMING PLAN [OPTION 1] |
| 12 OF 48 | SF201 | LF-16-104 | 12712471 SOUTH HELIX HOUSE STRUCTURAL ELEVATIONS 1 |
| 13 OF 48 | SF202 | LF-16-105 | 12712472 SOUTH HELIX HOUSE STRUCTURAL ELEVATIONS 2 |
| 14 OF 48 | SF203 | LF-16-106 | 12712473 SOUTH HELIX HOUSE STRUCTURAL ELEVATIONS 3 |
| 15 OF 48 | SF204 | LF-16-107 | 12712474 SOUTH HELIX HOUSE STRUCTURAL ELEVATIONS 4 |
| 16 OF 48 | SF205 | LF-16-108 | 12712475 SOUTH HELIX HOUSE STRUCTURAL ELEVATIONS 5 |
| 17 OF 48 | SF206 | LF-16-109 | 12712476 SOUTH HELIX HOUSE STRUCTURAL ELEVATIONS 6 |
| 18 OF 48 | SF207 | LF-16-110 | 12712477 SOUTH HELIX HOUSE STRUCTURAL ELEVATIONS 7 |
| 19 OF 48 | SF208 | LF-16-111 | 12712478 SOUTH HELIX HOUSE STRUCTURAL ELEVATIONS 8 |
| 20 OF 48 | SF209 | LF-16-112 | 12712479 SOUTH HELIX HOUSE STRUCTURAL ELEVATIONS 9 |
| 21 OF 48 | SF210 | LF-16-113 | 12712480 SOUTH HELIX HOUSE STRUCTURAL ELEVATIONS 10 |
| 22 OF 48 | SF211 | LF-16-114 | 12712481 SOUTH HELIX HOUSE BRACING TRUSS ELEVATIONS |
| 23 OF 48 | SF212 | LF-16-115 | 12712482 SOUTH HELIX HOUSE STRUCTURAL SECTIONS |
| 24 OF 48 | SF221 | LF-16-116 | 12712483 SOUTH HELIX HOUSE TRUSS T-6 ELEVATIONS 1 [OPTION 1] |
| 25 OF 48 | SF222 | LF-16-117 | 12712484 SOUTH HELIX HOUSE TRUSS T-6 ELEVATIONS 2 [OPTION 1] |
| 26 OF 48 | SF223 | LF-16-118 | 12712485 SOUTH HELIX HOUSE FRAME D AND TRUSS T-4 ELEVATIONS [OPTION 1] |
| 27 OF 48 | SF224 | LF-16-119 | 12712486 SOUTH HELIX HOUSE FRAME A, FRAME B AND FRAME C ELEVATIONS [OPTION 1] |
| 28 OF 48 | SF225 | LF-16-120 | 12712487 SOUTH HELIX HOUSE FRAME E AND FRAME F ELEVATIONS [OPTION 1] |
| 29 OF 48 | SF226 | LF-16-121 | 12712488 SOUTH HELIX HOUSE TRUSS T-1 AND TRUSS T-1A ELEVATIONS [OPTION 1] |
| 30 OF 48 | SF227 | LF-16-122 | 12712489 SOUTH HELIX HOUSE TRUSS T-2, TRUSS T-3 AND TRUSS T-5 ELEVATIONS [OPTION 1] |
| 31 OF 48 | SF228 | LF-16-123 | 12712490 SOUTH HELIX HOUSE FRAMING ABOVE TRUSS T-6, BRACING S-1, TRUSS S-2 AND TRUSS S-3 ELEVATIONS [OPTION 1] |
| 32 OF 48 | SF401 | LF-16-124 | 12712491 SOUTH HELIX HOUSE ENLARGED STRUCTURAL ELEVATIONS 1 |
| 33 OF 48 | SF501 | LF-16-125 | 12712492 SOUTH HELIX HOUSE STRUCTURAL DETAILS 1 |
| 34 OF 48 | SF502 | LF-16-126 | 12712493 SOUTH HELIX HOUSE STRUCTURAL DETAILS 2 |
| 35 OF 48 | SF503 | LF-16-127 | 12712494 SOUTH HELIX HOUSE STRUCTURAL DETAILS 3 |
| 36 OF 48 | SF504 | LF-16-128 | 12712495 SOUTH HELIX HOUSE STRUCTURAL DETAILS 4 |
| 37 OF 48 | SF505 | LF-16-129 | 12712496 SOUTH HELIX HOUSE STRUCTURAL DETAILS 5 |
| 38 OF 48 | SF506 | LF-16-130 | 12712497 SOUTH HELIX HOUSE STRUCTURAL DETAILS 6 |
| 39 OF 48 | SF507 | LF-16-131 | 12712498 SOUTH HELIX HOUSE STRUCTURAL DETAILS 7 |
| 40 OF 48 | SF508 | LF-16-132 | 12712499 SOUTH HELIX HOUSE STRUCTURAL DETAILS 8 |
| 41 OF 48 | SF509 | LF-16-133 | 12712500 SOUTH HELIX HOUSE STRUCTURAL DETAILS 9 |
| 42 OF 48 | SF511 | LF-16-134 | 12712501 SOUTH HELIX HOUSE STRUCTURAL DETAILS 10 |
| 43 OF 48 | SF512 | LF-16-135 | 12712502 SOUTH HELIX HOUSE STRUCTURAL DETAILS 11 |
| 44 OF 48 | SF521 | LF-16-136 | 12712503 SOUTH HELIX HOUSE ICE SHIELD STRUCTURAL DETAILS 1 [OPTION 1] |
| 45 OF 48 | SF522 | LF-16-137 | 12712504 SOUTH HELIX HOUSE ICE SHIELD STRUCTURAL DETAILS 2 [OPTION 1] |
| 46 OF 48 | SF601 | LF-16-138 | 12712505 SOUTH HELIX HOUSE CONNECTION SCHEDULE |
| 47 OF 48 | SF602 | LF-16-139 | 12712506 SOUTH HELIX HOUSE REPAIR CRITERIA 1 |
| 48 OF 48 | SF603 | LF-16-140 | 12712507 SOUTH HELIX HOUSE REPAIR CRITERIA 2 |

GENERAL SYMBOLS

1 NEW WORK KEYNOTE
 2 DEMO WORK KEYNOTE
 A CONNECTION TYPE KEYNOTE

DETAIL NUMBER
 B6 AE501 DETAIL INDICATOR
 SHEET WHERE DETAIL IS DRAWN

DIRECTION OF VIEW PHOTOGRAPH NUMBER
 D4 AE901 PHOTOGRAPH INDICATOR
 SHEET WHERE PHOTOGRAPH IS SHOWN

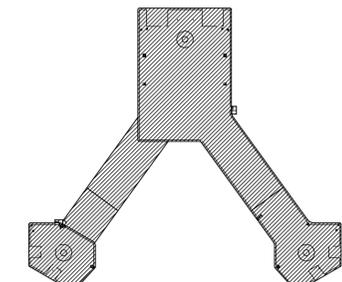
INDICATES DIRECTION OF VIEW
 A1 AE202 ELEVATION NUMBER
 EXTERIOR ELEVATION INDICATOR
 SHEET WHERE ELEVATION IS DRAWN

INDICATES DIRECTION OF VIEW
 B6 AE301 BUILDING SECTION INDICATOR
 SHEET WHERE SECTION IS DRAWN

SECTION NUMBER
 B6 AE302 WALL/PARTIAL BUILDING SECTION INDICATOR
 SHEET WHERE SECTION IS DRAWN

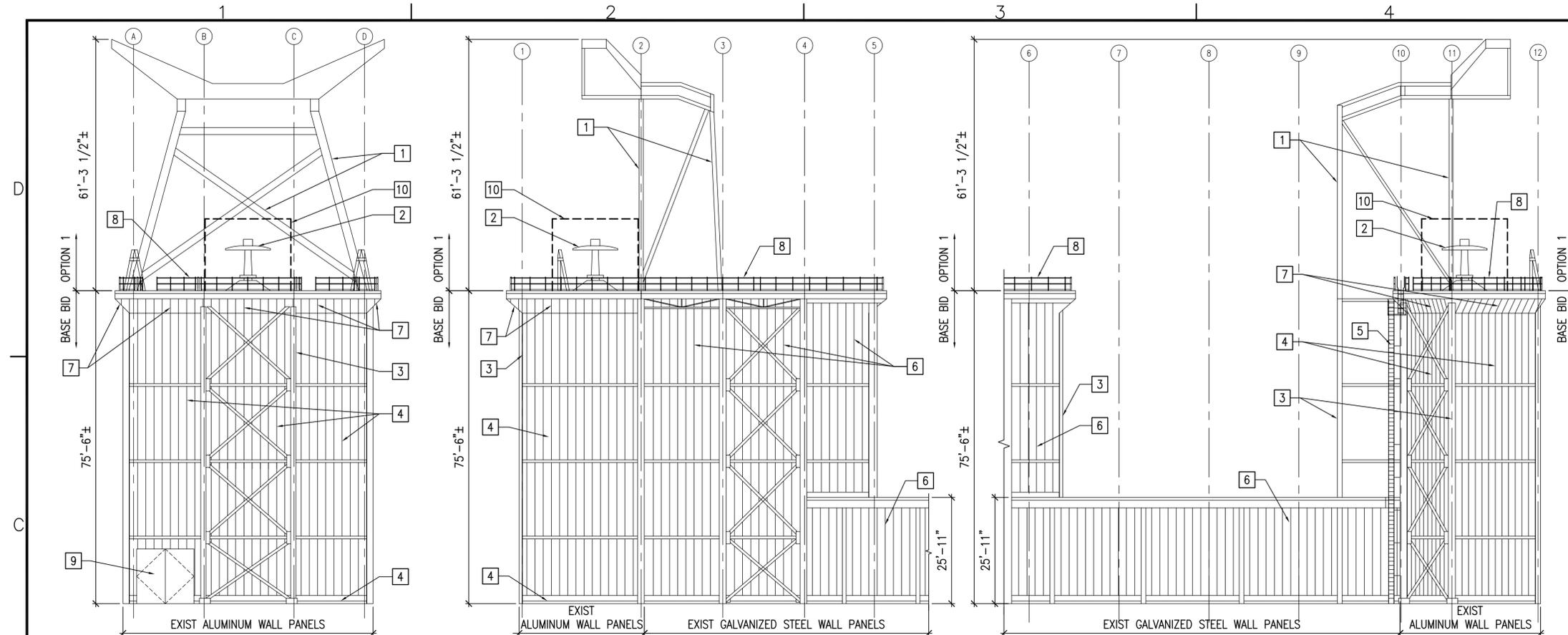
DETAIL NUMBER
 A1 AE101 DETAIL TITLE
 SCALE: 3" = 1'-0"
 SHEET WHERE TAKEN

PLAN NORTH
 PLAN TITLE
 SCALE: 1/8" = 1'-0"
 TRUE SOUTH DIRECTION



SOUTH HELIX HOUSE KEY PLAN
 NOT TO SCALE

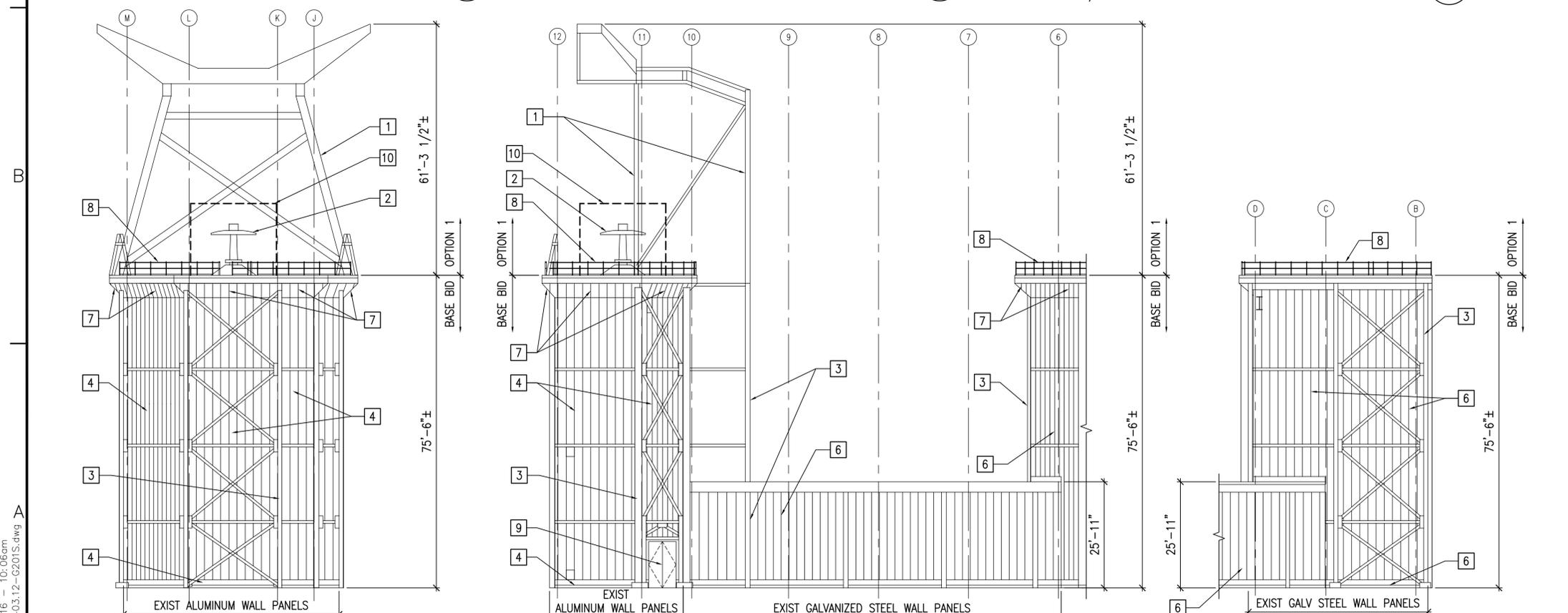
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| APPR | DATE |
| DESCRIPTION | SYN |
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| | |
| APPROVED | A/E INFO |
| FOR COMMANDER NAVFAC | ACTIVITY |
| SATISFACTORY TO | DATE 01/08/16 |
| DES DNM | DRW MJC |
| CHK PFD | |
| FW/DM | DAVID HOPPER |
| BRANCH MANAGER | MARTIN RYAN |
| FEED/FRAME | LCDR JAMES ROCHE |
| FIRE PROTECTION | |
| NAVAL FACILITIES ENGINEERING COMMAND NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC NAVAL SHIPYARD - PORTSMOUTH - NH NCTAMS CUTLER, MAINE NCTAMS LANT DET | |
| CUTLER SOUTH HELIX HOUSE STEEL PRESERVATION AND EXTERIOR RENOVATION SOUTH HELIX HOUSE DATA SHEET | |
| SCALE: | AS NOTED |
| EPROJECT NO.: | 1369480 |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. | 12712461 |
| SHEET | 2 OF 48 |
| G-002 | LF-16-94 |
| DRAWING REVISION: 10 MARCH 2009 | |



SOUTH HELIX HOUSE EXTERIOR ELEVATION
SCALE: 1/16"=1'-0" G-201 **C1**

SOUTH HELIX HOUSE EXTERIOR ELEVATION
SCALE: 1/16"=1'-0" G-201 **C2**

SOUTH HELIX HOUSE EXTERIOR ELEVATION
SCALE: 1/16"=1'-0" G-201 **C3**



SOUTH HELIX HOUSE EXTERIOR ELEVATION
SCALE: 1/16"=1'-0" G-201 **A1**

SOUTH HELIX HOUSE EXTERIOR ELEVATION
SCALE: 1/16"=1'-0" G-201 **A2**

SOUTH HELIX HOUSE EXTERIOR ELEVATION
SCALE: 1/16"=1'-0" G-201 **A3**

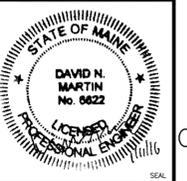
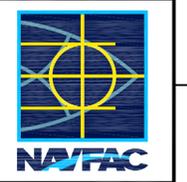
GENERAL SHEET NOTES

- SEE GENERAL PROJECT NOTES SHEET G-002.
- SEE SHEETS SF201-SF211 AND SF221-SF228 FOR EXPOSED STEEL SIZES.

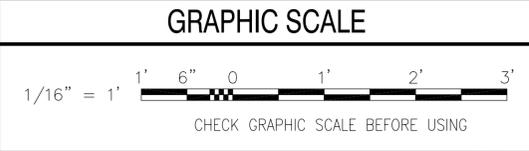
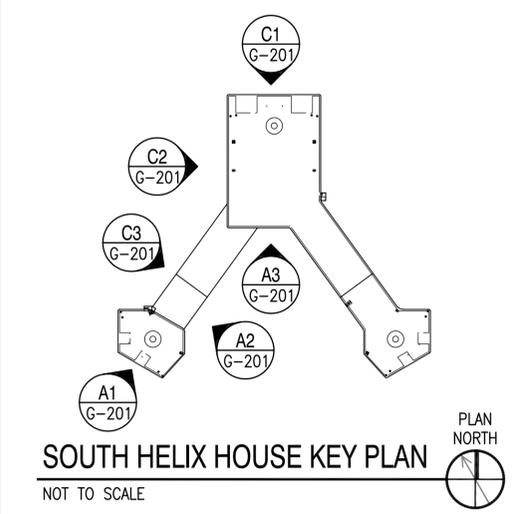
KEYNOTES (THIS SHEET ONLY)

- EXISTING STEEL ICE SHIELD SUPPORT FRAMES [OPTION 1].
- EXISTING BUSHING.
- EXISTING STEEL COLUMNS ON EXTERIOR OF BUILDING.
- EXISTING ALUMINUM WALL PANELS.
- EXISTING STEEL LADDER AND LANDING.
- EXISTING GALVANIZED STEEL WALL PANELS.
- EXISTING SLOPED SOFFIT PANELS.
- EXISTING RAILINGS.
- EXISTING DOOR.
- TEMPORARY BUSHING ENCLOSURE, REFER TO GENERAL NOTE #1 ON SHEET G-002. PROVIDE SAND BAGS AT BASE OF ENCLOSURE TO HOLD ENCLOSURE IN PLACE. DO NOT PENETRATE OR DAMAGE EXISTING ROOF MEMBRANE.

| APPROVED | DATE | DESCRIPTION | SYN |
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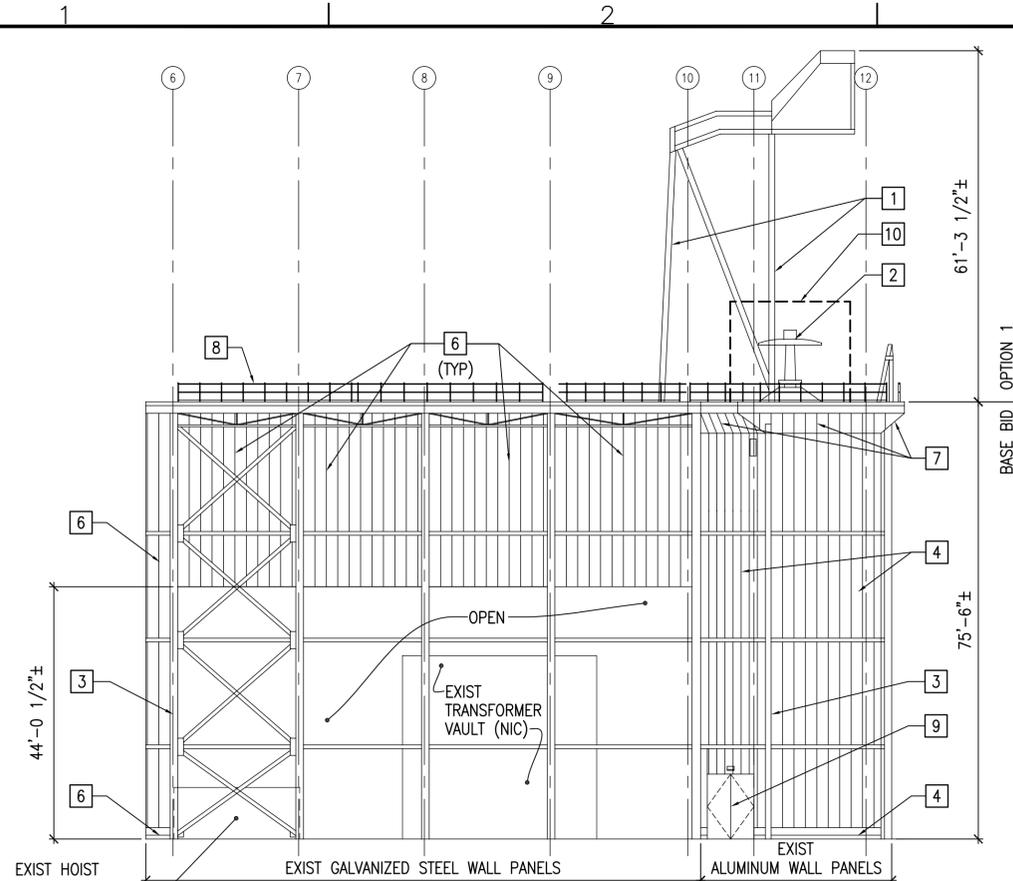
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| APPROVED | DATE | 01/08/16 | | | |
| FOR COMMANDER NAVFAC | ACTIVITY | | | | |
| SATISFACTORY TO | DATE | 01/08/16 | | | |
| DES | JEG | DRW | MJC | CHK | DNM |
| FW/DM | DAVID HOPPER | | | | |
| BRANCH MANAGER | MARTIN RYAN | | | | |
| FEAD/FAAE | LCDR JAMES ROCHE | | | | |



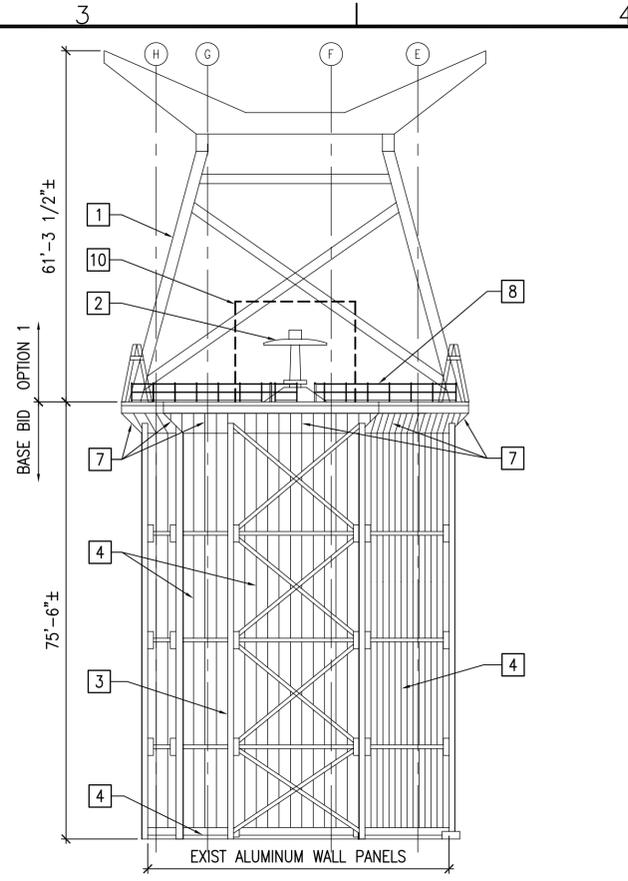
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| SCALE: | AS NOTED |
| EPROJECT NO.: | 1369480 |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. | 12712462 |
| SHEET | 3 OF 48 |
| G-201 | LF-16-95 |

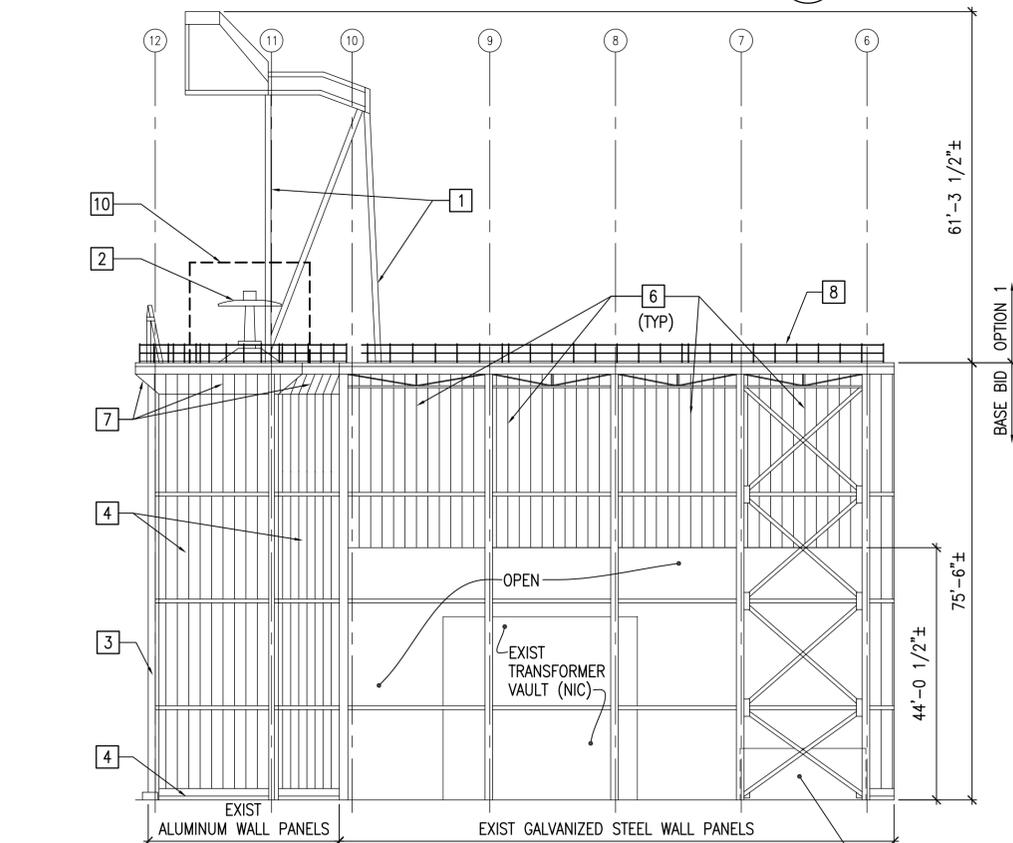
DRAWING REVISION: 10 MARCH 2009



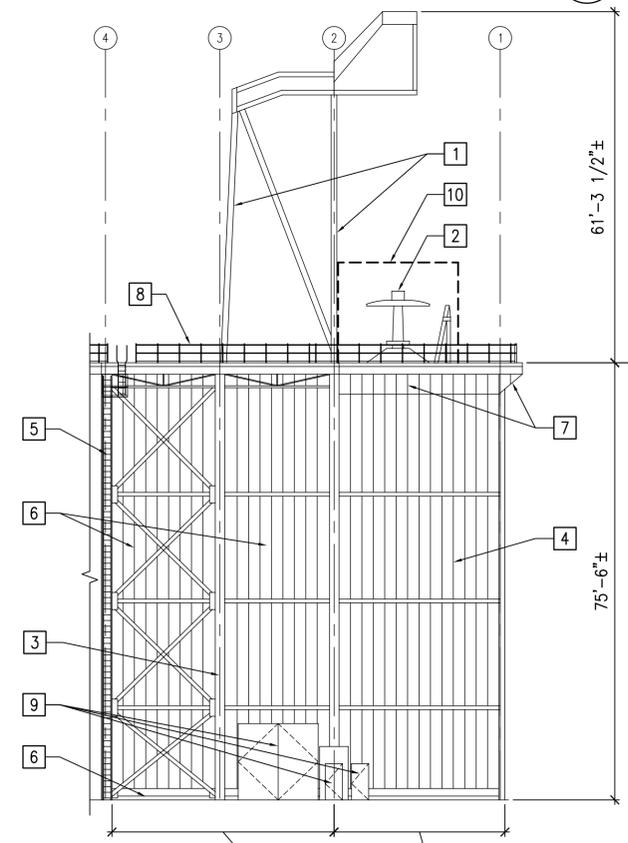
SOUTH HELIX HOUSE EXTERIOR ELEVATION
SCALE: 1/16"=1'-0"
G-202 **C2**



SOUTH HELIX HOUSE EXTERIOR ELEVATION
SCALE: 1/16"=1'-0"
G-202 **C4**



SOUTH HELIX HOUSE EXTERIOR ELEVATION
SCALE: 1/16"=1'-0"
G-202 **A2**



SOUTH HELIX HOUSE EXTERIOR ELEVATION
SCALE: 1/16"=1'-0"
G-202 **A4**

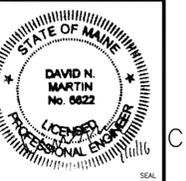
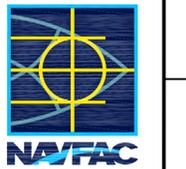
GENERAL SHEET NOTES

- SEE GENERAL PROJECT NOTES SHEET G-002.
- SEE SHEETS SF201-SF211 AND SF221-SF228 FOR EXPOSED STEEL SIZES.

KEYNOTES (THIS SHEET ONLY)

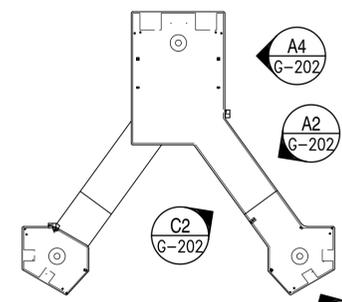
- EXISTING STEEL ICE SHIELD SUPPORT FRAMES [OPTION 1].
- EXISTING BUSHING.
- EXISTING STEEL COLUMNS ON EXTERIOR OF BUILDING.
- EXISTING ALUMINUM WALL PANELS.
- EXISTING STEEL LADDER AND LANDING.
- EXISTING GALVANIZED STEEL WALL PANELS.
- EXISTING SLOPED SOFFIT PANELS.
- EXISTING RAILINGS.
- EXISTING DOOR.
- TEMPORARY BUSHING ENCLOSURE, REFER TO GENERAL NOTE #1 ON SHEET G-002. PROVIDE SAND BAGS AT BASE OF ENCLOSURE TO HOLD ENCLOSURE IN PLACE. DO NOT PENETRATE OR DAMAGE EXISTING ROOF MEMBRANE.

| NO. | DESCRIPTION | SYN | DATE | APPR |
|-----|-------------|-----|------|------|
| | | | | |



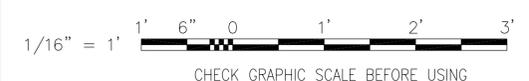
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| APPROVED | A/E INFO |
| FOR COMMANDER NAVFAC | ACTIVITY |
| SATISFACTORY TO DATE | 01/08/16 |
| DES | JEG |
| DRW | MJC |
| CHK | DNM |
| FW/DM | DAVID HOPPER |
| BRANCH MANAGER | MARTIN RYAN |
| FEED/PM/AE | LCDR JAMES ROCHE |

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
NAVAL SHIPYARD - PORTSMOUTH - MAINE
NCTAMS LANIT DET
NCTCS CUTLER, MAINE
CUTLER SOUTH HELIX HOUSE STEEL PRESERVATION AND EXTERIOR RENOVATION
SOUTH HELIX HOUSE EXTERIOR ELEVATIONS 2



SOUTH HELIX HOUSE KEY PLAN
NOT TO SCALE

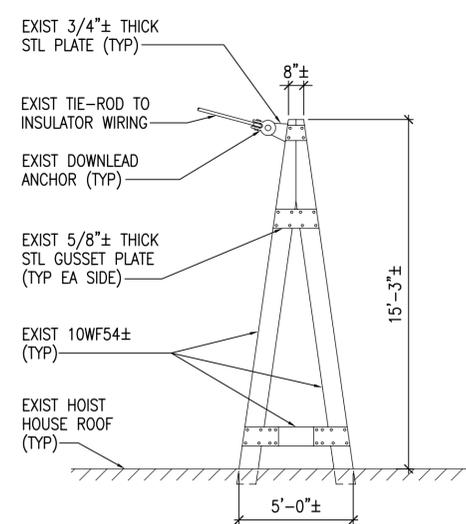
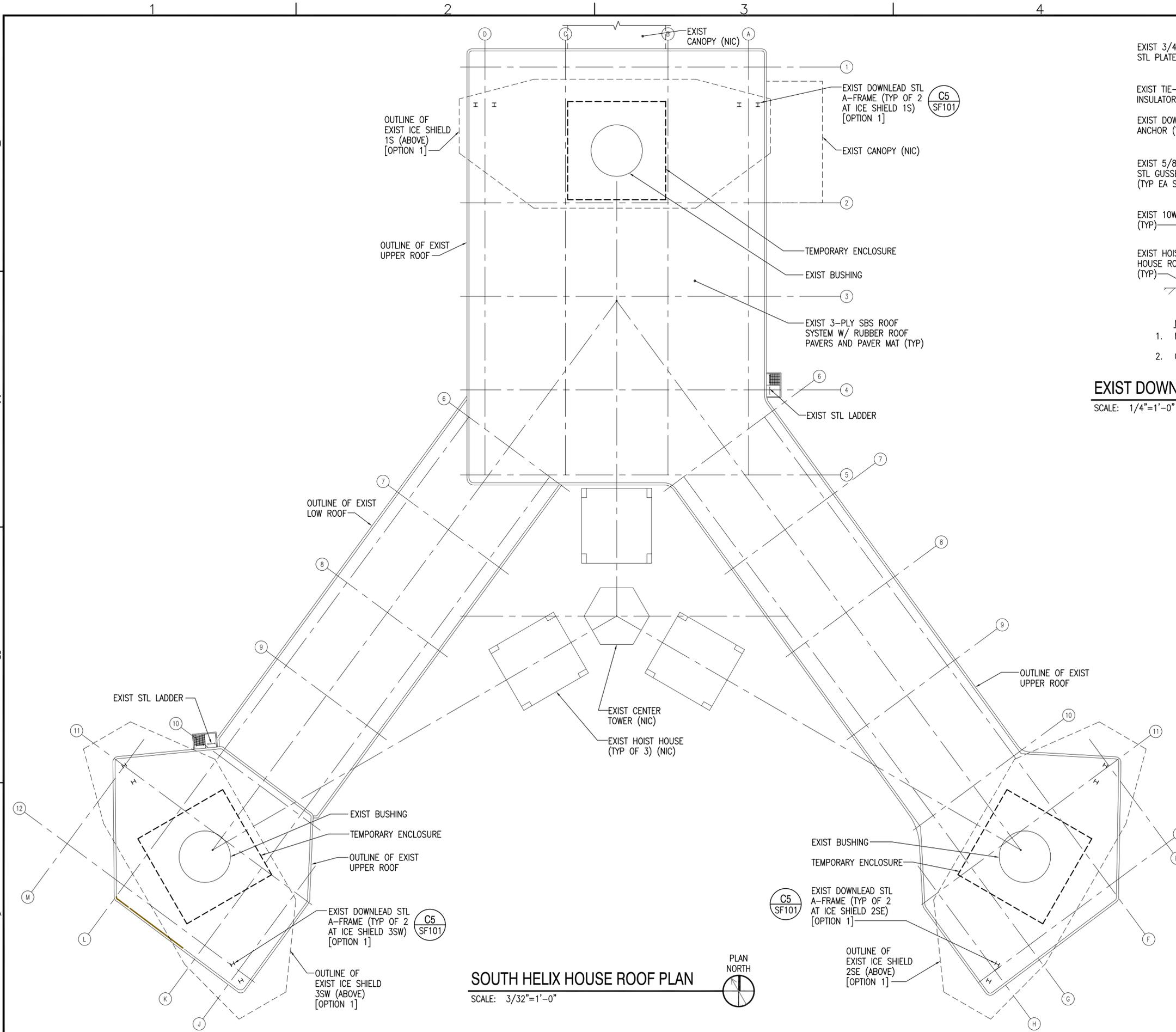
GRAPHIC SCALE



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| SCALE: | AS NOTED |
| EPROJECT NO.: | 1369480 |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. | 12712463 |
| SHEET | 4 OF 48 |
| G-202 | LF-16-96 |

11 Jan, 2016 - 10:11am
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11 Jan, 2016 10:26am
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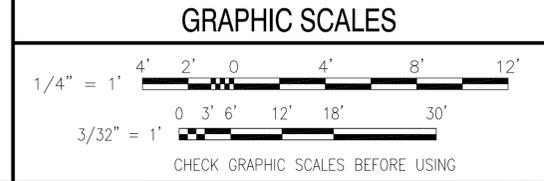
- NOTES:
 1. MEMBER SIZES MAY VARY.
 2. QUANTITY OF BOLTS/RIVETS MAY VARY.

EXIST DOWNLEAD A-FRAME ELEV [OPTION 1]
 SCALE: 1/4"=1'-0" SF101 C5

SOUTH HELIX HOUSE ROOF PLAN
 SCALE: 3/32"=1'-0"

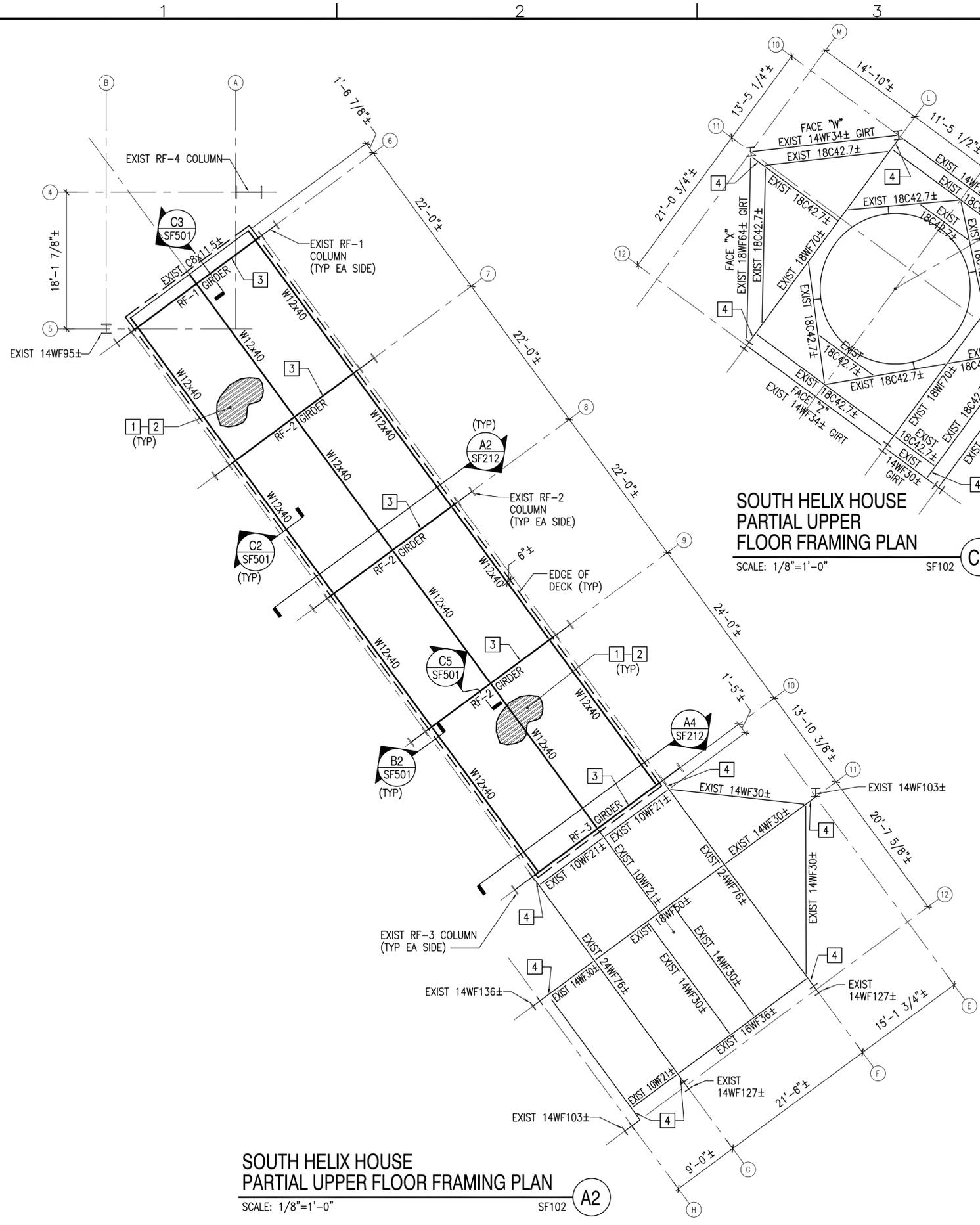


- GENERAL SHEET NOTES**
- REFER TO SHEETS SF201-SF210 FOR EXTERIOR STRUCTURAL BUILDING ELEVATIONS.
 - TEMPORARY BUSHING ENCLOSURE, REFER TO GENERAL NOTE #1 ON SHEET G-002. PROVIDE SAND BAGS AT BASE OF ENCLOSURE TO HOLD ENCLOSURE IN PLACE. DO NOT PENETRATE OR DAMAGE EXISTING ROOF MEMBRANE.

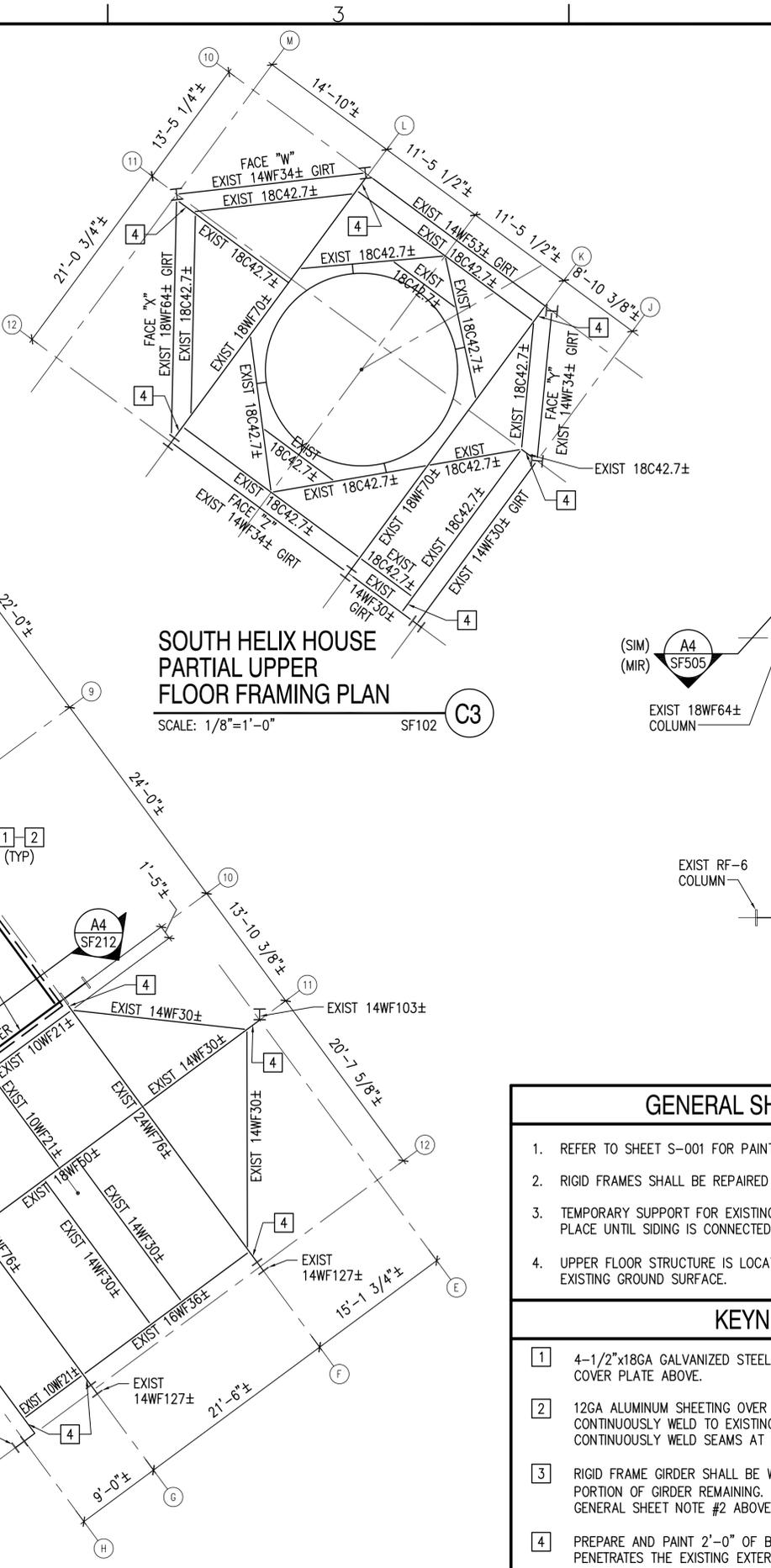


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| A/E INFO | |
| APPROVED | |
| FOR COMMANDER NAVFAC | |
| ACTIVITY | |
| SATISFACTORY TO | DATE 01/08/16 |
| DES DNM | DRW MJC |
| CHK | PFJ |
| FW/DM | DAVID HOPPER |
| BRANCH MANAGER | MARTIN RYAN |
| FEED/FWAE | LCDR JAMES ROCHE |
| FIRE PROTECTION | |
| NAVAL FACILITIES ENGINEERING COMMAND NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC NAVAL SHIPYARD - PORTSMOUTH - NH PUBLIC WORKS DEPARTMENT - MAINE NCTAMS LANIT DET NCTCS CUTLER, MAINE | |
| CUTLER SOUTH HELIX HOUSE STEEL PRESERVATION AND EXTERIOR RENOVATION SOUTH HELIX HOUSE ROOF PLAN | |
| SCALE: AS NOTED | |
| EPROJECT NO.: 1369480 | |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. 12712467 | |
| SHEET 8 OF 48 | |
| SF101 | LF-16-100 |
| DRAWING REVISION: 10 MARCH 2009 | |

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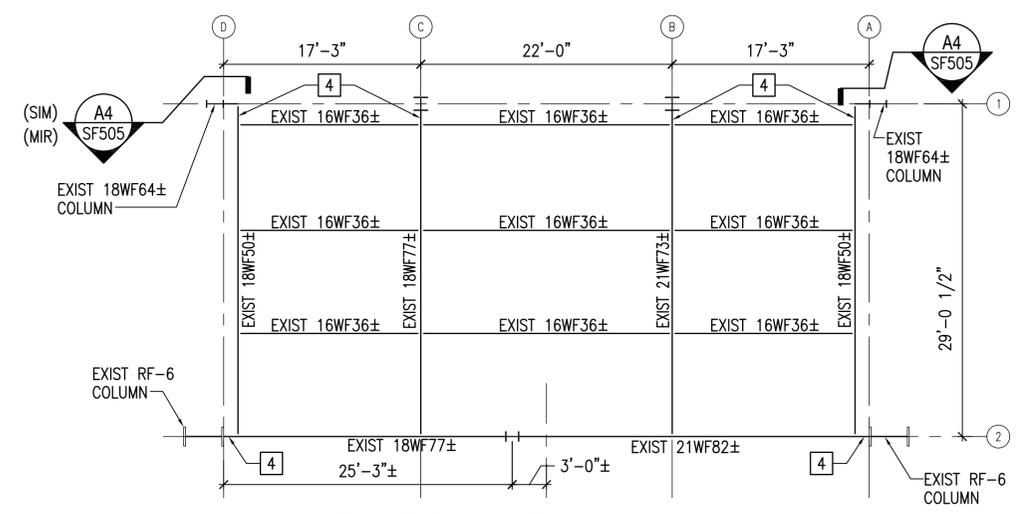
**SOUTH HELIX HOUSE
PARTIAL UPPER FLOOR FRAMING PLAN**
SCALE: 1/8"=1'-0" SF102 A2



**SOUTH HELIX HOUSE
PARTIAL UPPER FLOOR FRAMING PLAN**
SCALE: 1/8"=1'-0" SF102 C3

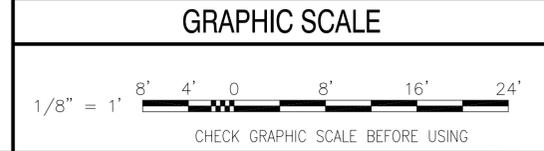
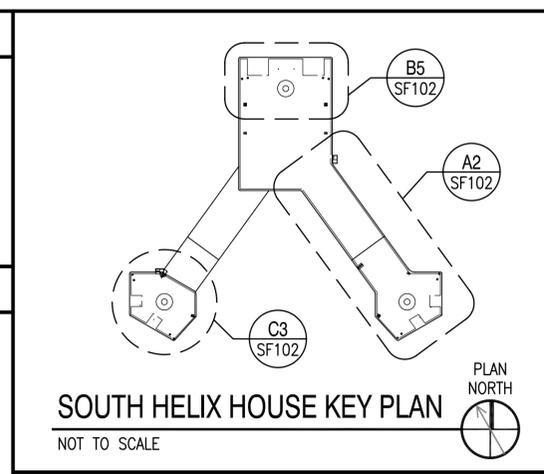
| RIGID FRAME MEMBER SIZES | | | | | | |
|--------------------------|--------------|------------|--------------|------------|--------------|------------|
| RIGID FRAME NO. | FLOOR GIRDER | | ROOF GIRDER | | COLUMN | |
| | WEB | FLANGE | WEB | FLANGE | WEB | FLANGE |
| 1 | 3/4"x28" | 7/8"x16" | 5/8"x28-1/4" | 7/8"x16" | 5/8"x28-1/4" | 7/8"x16" |
| 2 | 3/4"x28" | 7/8"x16" | 5/8"x28-1/4" | 7/8"x16" | 5/8"x28-1/4" | 7/8"x16" |
| 3 | 3/4"x22" | 1"x16-1/2" | 36WF230± | | 3/4"x33-1/2" | 2"x16-1/2" |
| 4 | N.A. | | 3/4"x39-1/4" | 1-3/8"x20" | 3/4"x39" | 1-1/2"x20" |
| 5 | N.A. | | 3/4"x39-1/4" | 1-3/8"x20" | 3/4"x39" | 1-1/2"x20" |
| 6 | N.A. | | 3/4"x39" | 1-1/2"x20" | 3/4"x38" | 2"x20" |
| 7 | N.A. | | 21WF112± | | 21WF112± | |
| 8 | N.A. | | 21WF112± | | 21WF112± | |
| 9 | N.A. | | 21WF127± | | 21WF112± | |

NOTE:
REFER TO SHEET SF212 FOR ELEVATION OF RIGID FRAME.



**SOUTH HELIX HOUSE
PARTIAL UPPER FLOOR FRAMING PLAN**
SCALE: 1/8"=1'-0" SF102 B5

- GENERAL SHEET NOTES**
- REFER TO SHEET S-001 FOR PAINT REMOVAL NOTES.
 - RIGID FRAMES SHALL BE REPAIRED ONE FRAME AT A TIME.
 - TEMPORARY SUPPORT FOR EXISTING EXTERIOR SIDING SHALL REMAIN IN PLACE UNTIL SIDING IS CONNECTED TO W12X40 EDGE BEAMS.
 - UPPER FLOOR STRUCTURE IS LOCATED APPROXIMATELY 45'-0" ABOVE THE EXISTING GROUND SURFACE.
- KEYNOTES**
- 4-1/2"x18GA GALVANIZED STEEL FLOOR DECK WITH 20GA STEEL SHEET COVER PLATE ABOVE.
 - 12GA ALUMINUM SHEETING OVER STEEL SHEET COVER PLATE. CONTINUOUSLY WELD TO EXISTING WALL ALUMINUM SHEETING AND CONTINUOUSLY WELD SEAMS AT NEW SHEETING TO NEW SHEETING.
 - RIGID FRAME GIRDER SHALL BE WELDED (FULL PENETRATION) TO THE PORTION OF GIRDER REMAINING. REFER TO DETAIL B2/SF501 AND GENERAL SHEET NOTE #2 ABOVE.
 - PREPARE AND PAINT 2'-0" OF BEAM INSIDE OF BUILDING THAT PENETRATES THE EXISTING EXTERIOR SIDING OF THE BUILDING. REPAIR CRITERIA AND REPAIRS SHALL BE AS INDICATED BY DETAIL A2/SF511.



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| DATE | |
| DESCRIPTION | |
| SYN | |

OAK POINT ASSOCIATES

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FOR COMMANDER NAVFAC
ACTIVITY

SATISFACTORY TO DATE 01/08/16

| | | | | | |
|----------------|------------------|-----|-----|-----|-----|
| DES | DNM | DRW | MJC | CHK | DNM |
| FW/DM | DAVID HOPPER | | | | |
| BRANCH MANAGER | MARTIN RYAN | | | | |
| FEAD/FAAE | LCDR JAMES ROCHE | | | | |

FIRE PROTECTION

NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
NAVAL SHIPYARD - PORTSMOUTH - MAINE
NCTAMS LANIT DET
NCTCS CUTLER, MAINE

CUTLER SOUTH HELIX HOUSE STEEL PRESERVATION AND EXTERIOR RENOVATION

SOUTH HELIX HOUSE
UPPER FLOOR FRAMING PLANS

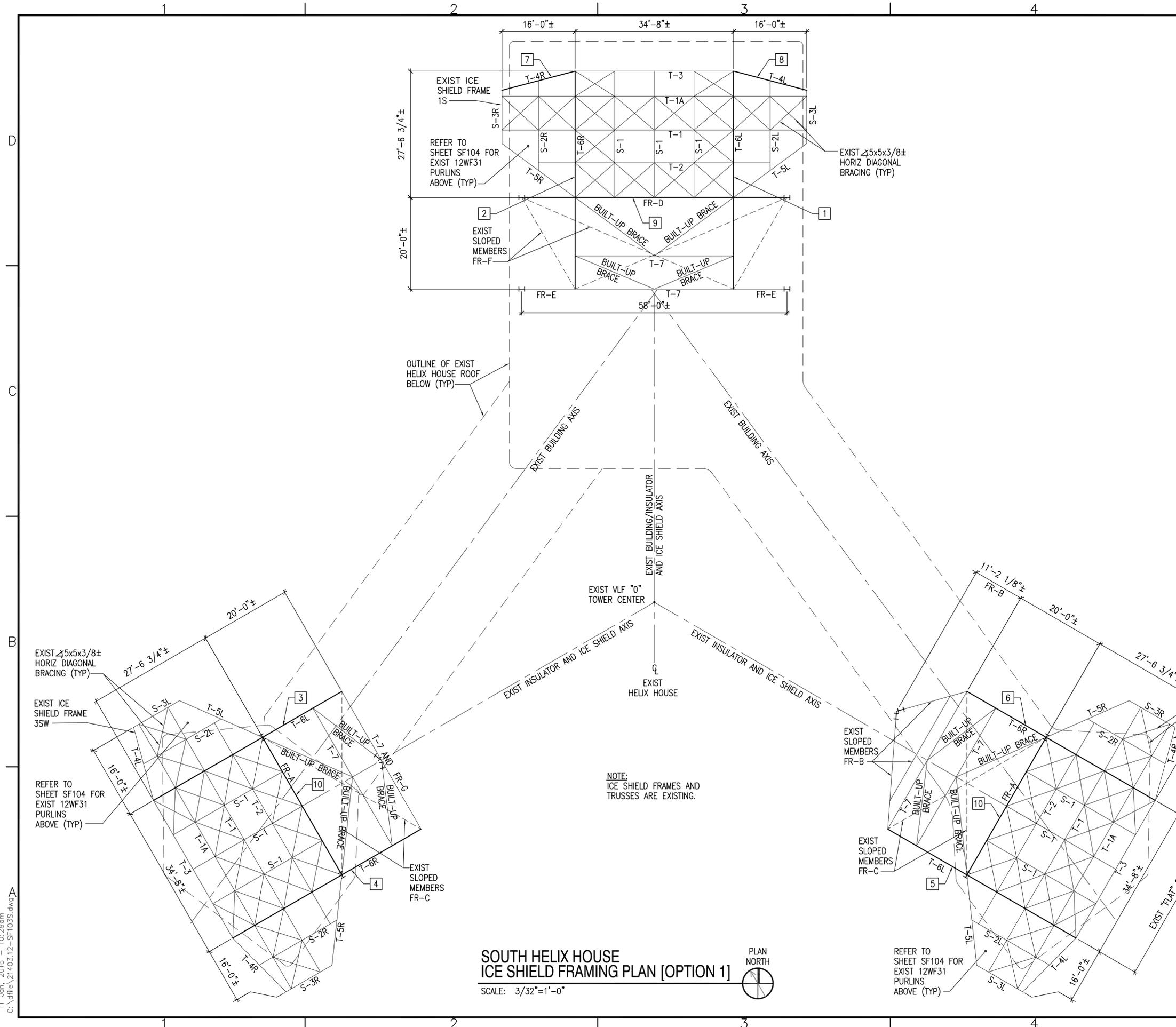
SCALE: AS NOTED
EPROJECT NO.: 1369480
CONSTR. CONTR. NO.

NAVFAC DRAWING NO. 12712468
SHEET 9 OF 48

SF102 LF-16-101

DRAWING REVISION: 10 MARCH 2009

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**SOUTH HELIX HOUSE
 ICE SHIELD FRAMING PLAN [OPTION 1]**
 SCALE: 3/32"=1'-0"



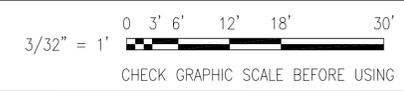
GENERAL SHEET NOTES

1. ITEMS ON THIS SHEET ARE ASSOCIATED WITH OPTION 1.
2. REFER TO SHEET SF224 FOR FRAMES A, B AND C ELEVATIONS.
3. REFER TO SHEET SF223 FOR FRAME D AND TRUSS T-4 ELEVATIONS.
4. REFER TO SHEET SF225 FOR FRAMES E AND F ELEVATIONS.
5. REFER TO SHEET SF226 FOR TRUSS T-1 AND T-1A ELEVATIONS.
6. REFER TO SHEET SF227 FOR TRUSS T-2, T-3 AND T-5 ELEVATIONS.
7. REFER TO SHEETS SF221 AND SF222 FOR TRUSS T-6 ELEVATIONS.
8. REFER TO SHEET SF228 FOR FRAMING ABOVE TOP CHORD OF TRUSS T-6, BRACING S-1,S-2 AND S-3 ELEVATIONS.

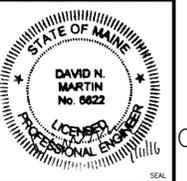
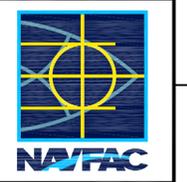
KEYNOTES (THIS SHEET ONLY)

- 1 TRUSS T-6 REPAIR AT ICE SHIELD 1S. SEE DETAIL C3/SF221 FOR LEFT TRUSS.
- 2 TRUSS T-6 REPAIR AT ICE SHIELD 1S. SEE DETAIL B3/SF221 FOR RIGHT TRUSS.
- 3 TRUSS T-6 REPAIR AT ICE SHIELD 3SW. SEE DETAIL A3/SF221 FOR LEFT TRUSS.
- 4 TRUSS T-6 REPAIR AT ICE SHIELD 3SW. SEE DETAIL C3/SF222 FOR RIGHT TRUSS.
- 5 TRUSS T-6 REPAIR AT ICE SHIELD 2SE. SEE DETAIL B3/SF222 FOR LEFT TRUSS.
- 6 TRUSS T-6 REPAIR AT ICE SHIELD 2SE. SEE DETAIL A3/SF222 FOR RIGHT TRUSS.
- 7 REMOVE AND REPLACE EXISTING HSS DIAGONAL AND VERTICAL MEMBER. SEE DETAIL C4/SF223.
- 8 REMOVE AND REPLACE EXISTING HSS DIAGONAL MEMBER. SEE DETAIL C4/SF223 (SIMILAR).
- 9 REMOVE AND REPLACE EXISTING 18WF71± WITH (2) MC18x42.7± SECTIONS WELDED TO BEAM AT FRAME D. SEE DETAIL C2/SF223.
- 10 REMOVE AND REPLACE EXISTING 18WF71± WITH (2) MC18x42.7± SECTIONS WELDED TO BEAM AT FRAME A. SEE DETAIL C2/SF224 (SIMILAR).

GRAPHIC SCALE



| APPR | DATE | DESCRIPTION | SYN |
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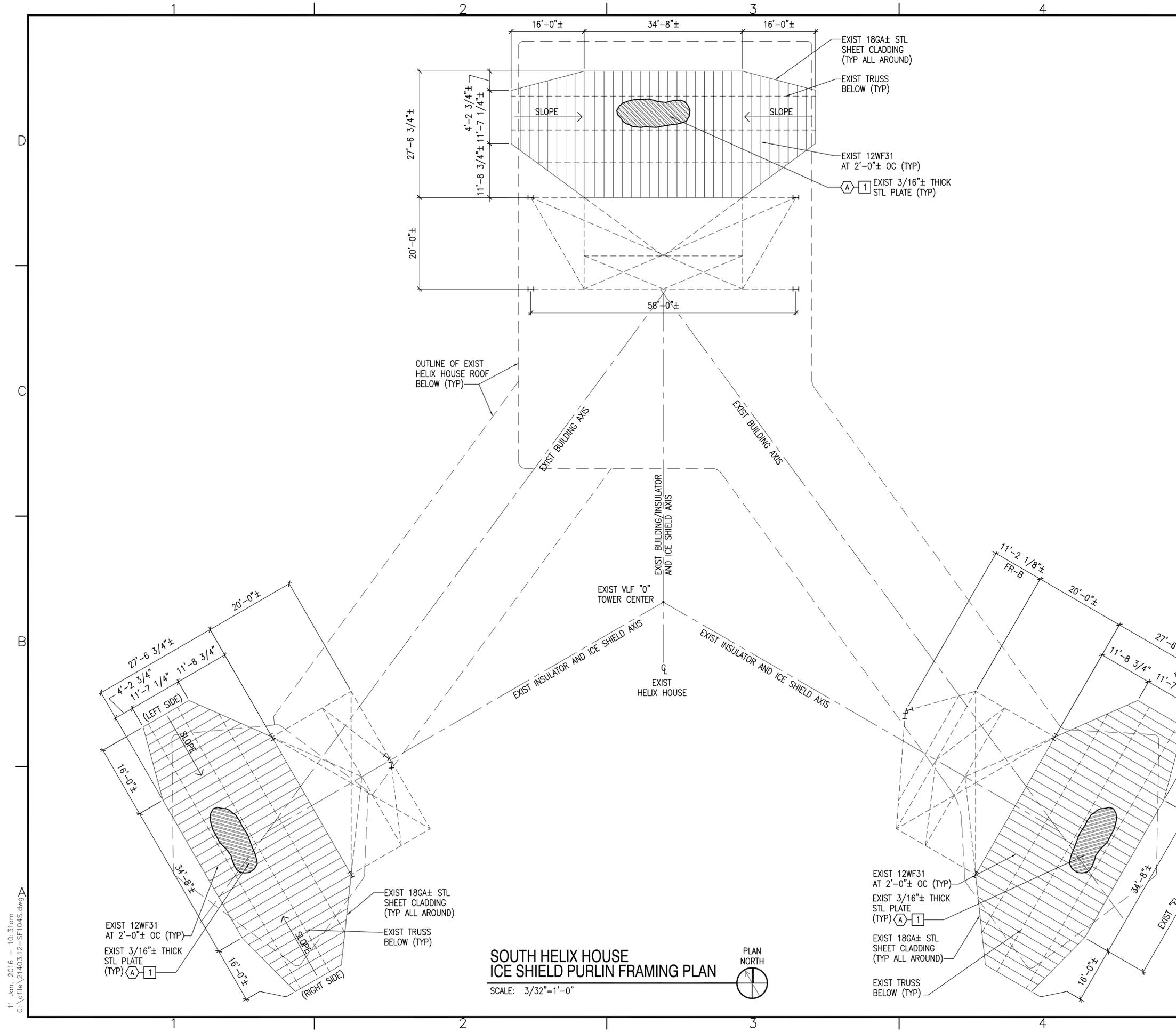
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| SATISFACTORY TO | DATE | 01/08/16 |
| DES | DNM | DRW |
| MJC | CHK | PF |
| PM/DM | DAVID HOPPER | |
| BRANCH MANAGER | MARTIN RYAN | |
| FEAD/PM/AAE | LCDR JAMES ROCHE | |

FIRE PROTECTION

DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING COMMAND
 NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
 NAVAL SHIPYARD - PORTSMOUTH - NH
 NCTAMS LANT DET
 NCTCS CUTLER, MAINE
**CUTLER SOUTH HELIX HOUSE STEEL
 PRESERVATION AND EXTERIOR RENOVATION**
 SOUTH HELIX HOUSE ICE SHIELD FRAMING PLAN [OPTION 1]

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| SCALE: | AS NOTED |
| EPROJECT NO.: | 1369480 |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. | 12712469 |
| SHEET | 10 OF 48 |

SF103 LF-16-102
 DRAWING REVISION: 10 MARCH 2009



GENERAL SHEET NOTE

1. ITEMS ON THIS SHEET ARE ASSOCIATED WITH OPTION 1.

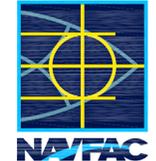
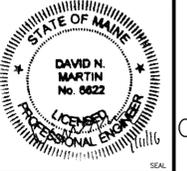
REMOVALS KEYNOTE (THIS SHEET ONLY)

(A) REMOVE ALL EXISTING 3/16"± STEEL PLATE THAT IS PLUG WELDED TO EXISTING 12WF31± BEAMS AT 2'-0"± ON-CENTER. PLUG WELDS ARE SPACED AT 12"± ON-CENTER.

KEYNOTE (THIS SHEET ONLY)

1 NEW 3/16" STEEL PLATE PLUG WELDED TO EXISTING 12WF31± BEAMS AT 2'-0"± ON-CENTER. CONNECT TO BEAMS WITH PLUG WELDS AT 12" ON-CENTER. DO NOT INSTALL STEEL PLATE UNTIL LOOSE RUST AT TOP FLANGE OF BEAM HAS BEEN REMOVED. GRIND EXISTING PLUG WELDS SMOOTH PRIOR TO INSTALLATION OF STEEL PLATE. FABRICATE PLATES TO THE MAXIMUM LENGTH AND WIDTH PRACTICAL.

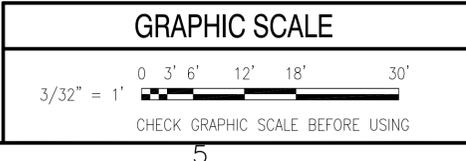
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| FOR COMMANDER NAVFAC | | | | | |
| ACTIVITY | | | | | |
| SATISFACTORY TO DATE | 01/08/16 | | | | |
| DES | DNM | DRW | MJC | CHK | PFD |
| FW/DM | DAVID HOPPER | | | | |
| BRANCH MANAGER | MARTIN RYAN | | | | |
| FEAD/PM/EA | LCDR JAMES ROCHE | | | | |

DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING COMMAND
 NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
 NAVAL SHIPYARD - PORTSMOUTH - NH
 PUBLIC WORKS DEPARTMENT - MAINE
 NCTAMS LANT DET
 NCTCS CUTLER, MAINE
CUTLER SOUTH HELIX HOUSE STEEL PRESERVATION AND EXTERIOR RENOVATION
 SOUTH HELIX HOUSE ICE SHIELD PURLIN FRAMING PLAN [OPTION 1]

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| SCALE: | AS NOTED |
| EPROJCT NO.: | 1369480 |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. | 12712470 |
| SHEET | 11 OF 48 |
| SF104 LF-16-103 | |



11 Jan, 2016 - 10:31am
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GENERAL SHEET NOTES

1. REFER TO SHEET S-002 FOR CONNECTION LEGEND.
2. REFER TO SHEET SF601 FOR CONNECTION SCHEDULE AND SHEETS SF602 - SF603 FOR REPAIR CRITERIA.
3. REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
4. REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

| SYN | DESCRIPTION | DATE | APPR |
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AVE INFO

APPROVED

FOR COMMANDER NAVFAC
ACTIVITY

SATISFACTORY TO DATE 01/08/16

DES DNM DRW MJC CHK DNM

FW/DM DAVID HOPPER

BRANCH MANAGER MARTIN RYAN

FEAD/PMAE LCDR JAMES ROCHE

FIRE PROTECTION

NAVAL FACILITIES ENGINEERING COMMAND

NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC

NAVAL SHIPYARD - PORTSMOUTH - NH

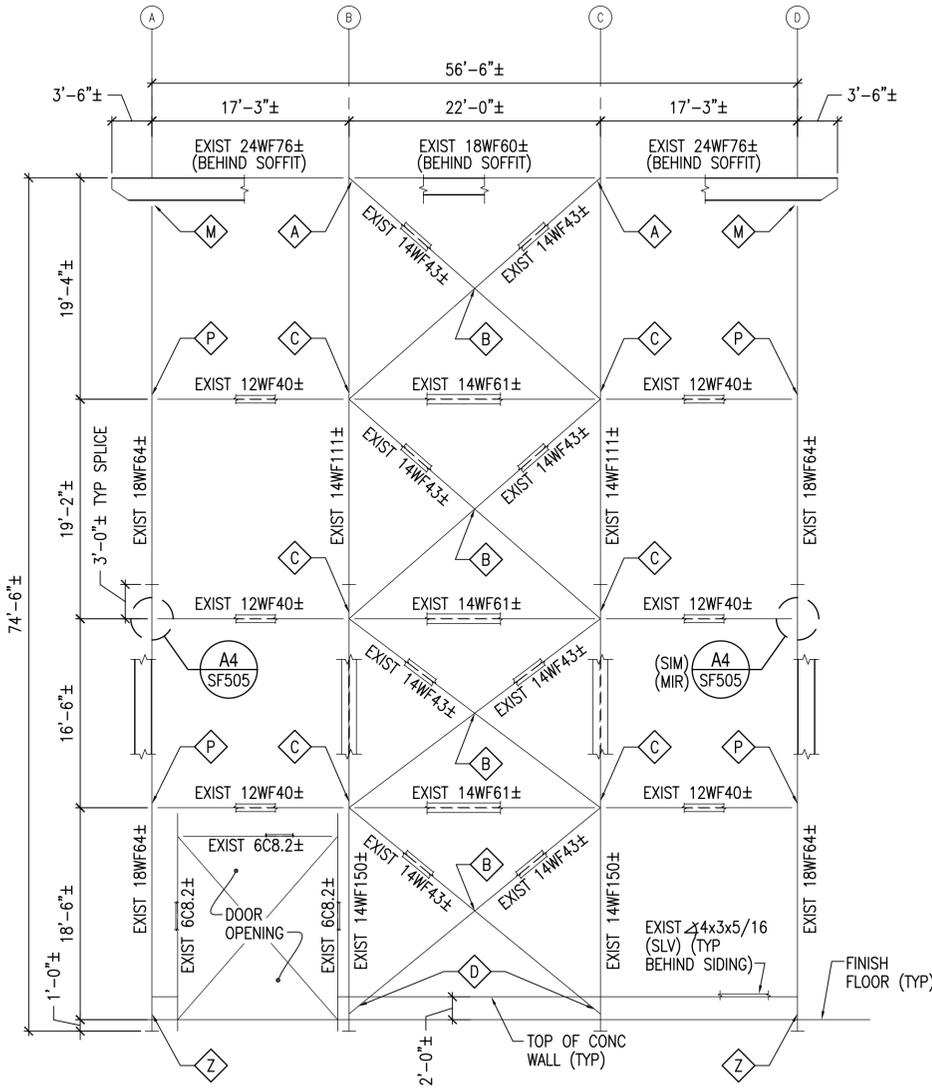
NCTAMS LANIT DET

CUTLER SOUTH HELIX HOUSE STEEL

PRESERVATION AND EXTERIOR RENOVATION

SOUTH HELIX HOUSE

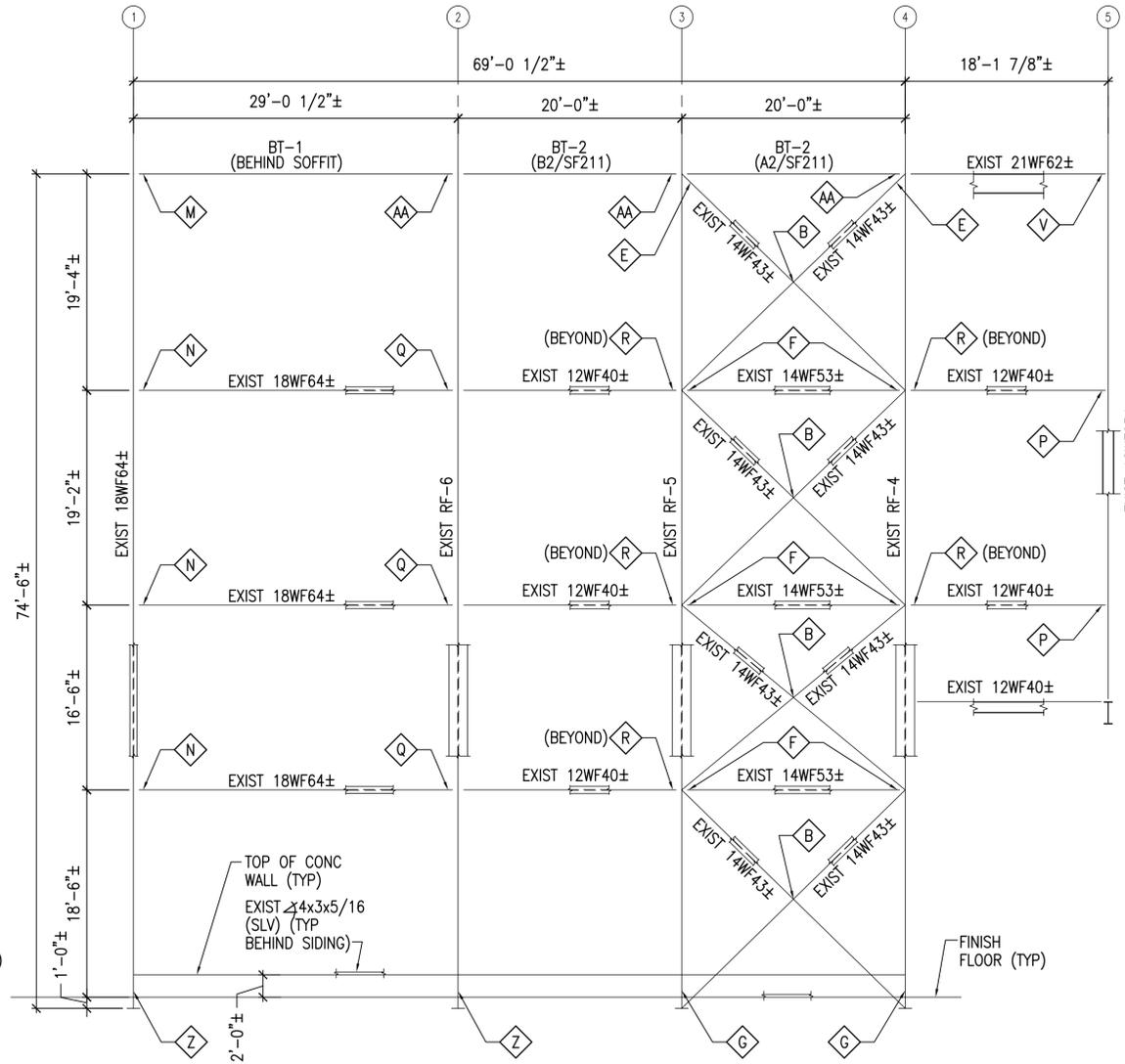
STRUCTURAL ELEVATIONS 1



ELEVATION AT COLUMN LINE 1

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

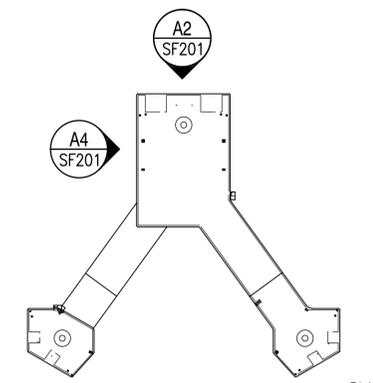
SF201 A2



ELEVATION AT COLUMN LINE D

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

SF201 A4



SOUTH HELIX HOUSE KEY PLAN

NOT TO SCALE



GRAPHIC SCALE



CHECK GRAPHIC SCALE BEFORE USING

SCALE: AS NOTED

EPROJECT NO.: 1369480

CONSTR. CONTR. NO.

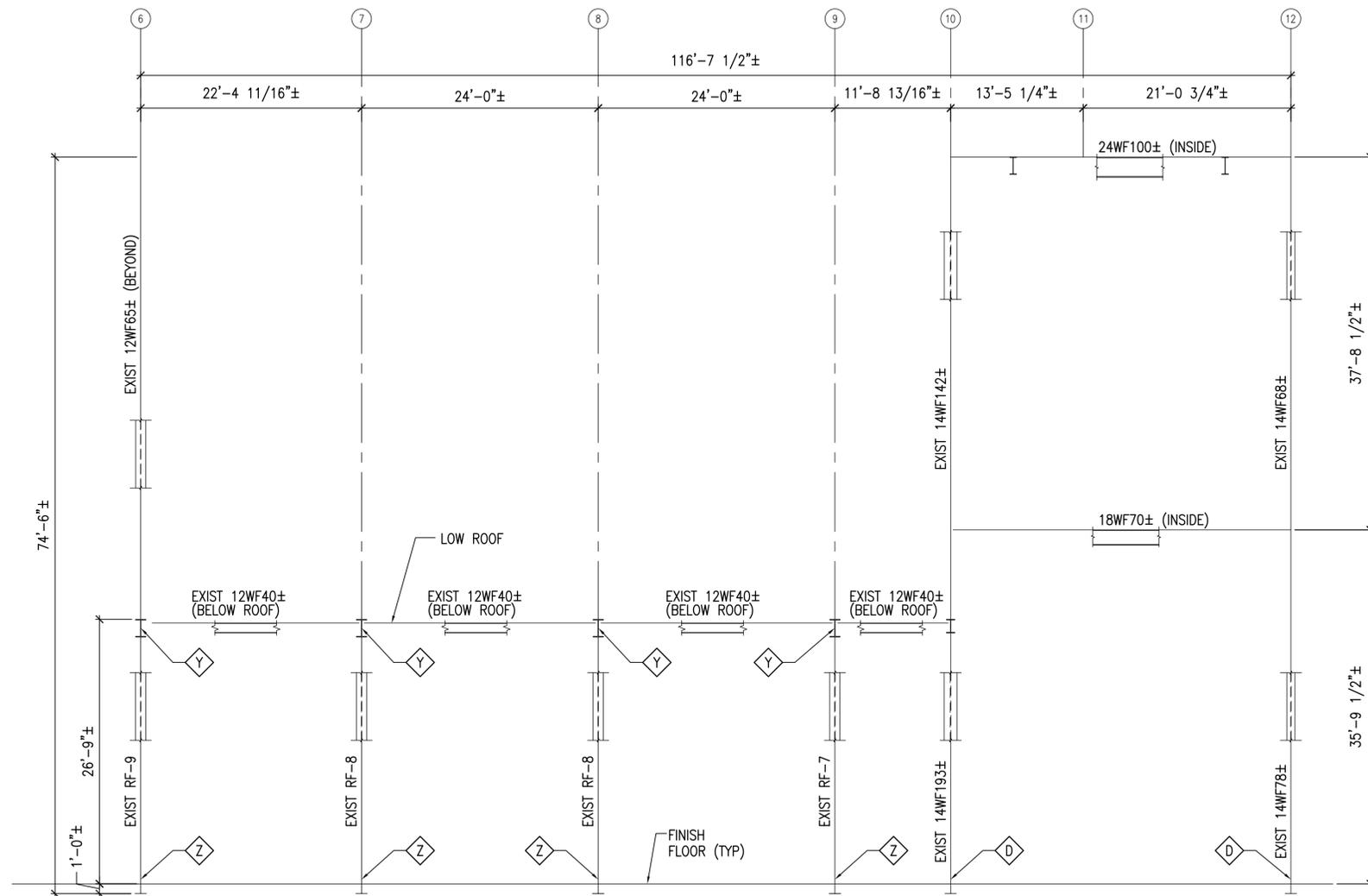
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SHEET 12 OF 48

SF201 LF-16-104

DRAWING REVISION: 10 MARCH 2009

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ELEVATION AT COLUMN LINE L

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

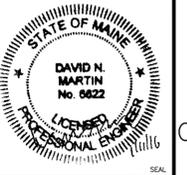
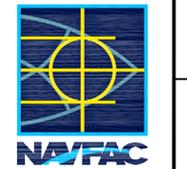
SF202

A3

GENERAL SHEET NOTES

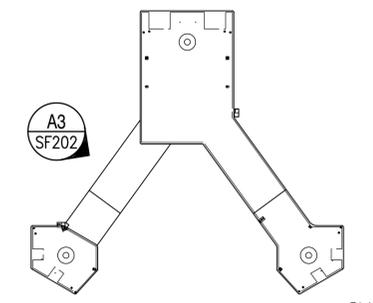
1. REFER TO SHEET S-002 FOR CONNECTION LEGEND.
2. REFER TO SHEET SF601 FOR CONNECTION SCHEDULE AND SHEETS SF602 - SF603 FOR REPAIR CRITERIA.
3. REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
4. REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

| SYN | DESCRIPTION | DATE | APPR |
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| APPROVED | A/E INFO |
| FOR COMMANDER NAVFAC | ACTIVITY |
| SATISFACTORY TO DATE 01/08/16 | DES DNM DRW MJC CHK DNM |
| | FW/DM DAVID HOPPER |
| | BRANCH MANAGER MARTIN RYAN |
| | FEAD/FAAE LCDR JAMES ROCHE |

DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING COMMAND
 NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
 NAVAL SHIPYARD - PORTSMOUTH - NH
 PUBLIC WORKS DEPARTMENT - MAINE
 NCTAMS LANT DET
 NCTCS CUTLER, MAINE
**CUTLER SOUTH HELIX HOUSE STEEL
 PRESERVATION AND EXTERIOR RENOVATION**
 SOUTH HELIX HOUSE
 STRUCTURAL ELEVATIONS 2



SOUTH HELIX HOUSE KEY PLAN

NOT TO SCALE



GRAPHIC SCALE



CHECK GRAPHIC SCALE BEFORE USING

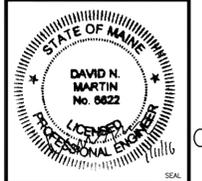
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| EPROJECT NO.: | 1369480 |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. | 12712472 |
| SHEET | 13 OF 48 |
| SF202 | LF-16-105 |

DRAWING REVISION: 10 MARCH 2009

GENERAL SHEET NOTES

- REFER TO SHEET S-002 FOR CONNECTION LEGEND.
- REFER TO SHEET SF601 FOR CONNECTION SCHEDULE AND SHEETS SF602 - SF603 FOR REPAIR CRITERIA.
- REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
- REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

| SYN | DESCRIPTION | DATE | APPR |
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APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE 01/08/16

DES DNM DRW MJC CHK DNM

FW/DM DAVID HOPPER

BRANCH MANAGER MARTIN RYAN

FEAD/FAAE LCDR JAMES ROCHE

FIRE PROTECTION

NAVFACILITIES ENGINEERING COMMAND

NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC

NAVAL SHIPYARD - PORTSMOUTH - NH

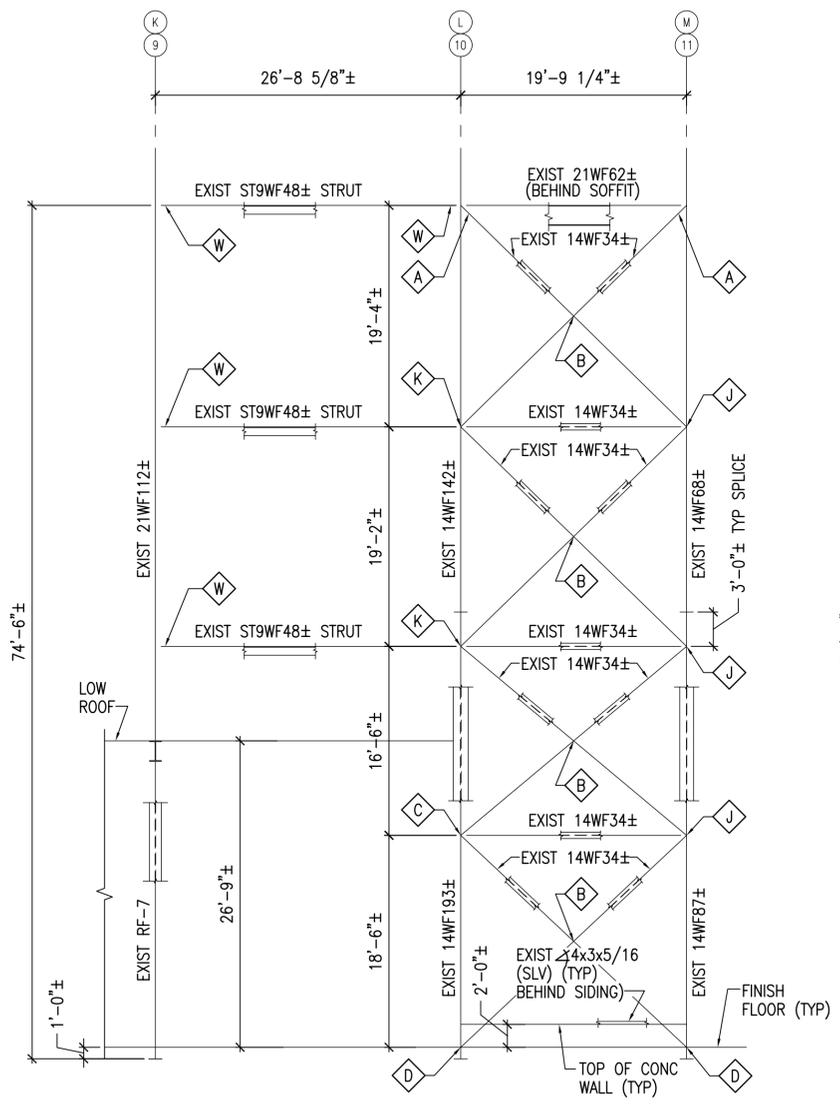
NCTAMS LANIT DET

CUTLER SOUTH HELIX HOUSE STEEL

PRESERVATION AND EXTERIOR RENOVATION

SOUTH HELIX HOUSE

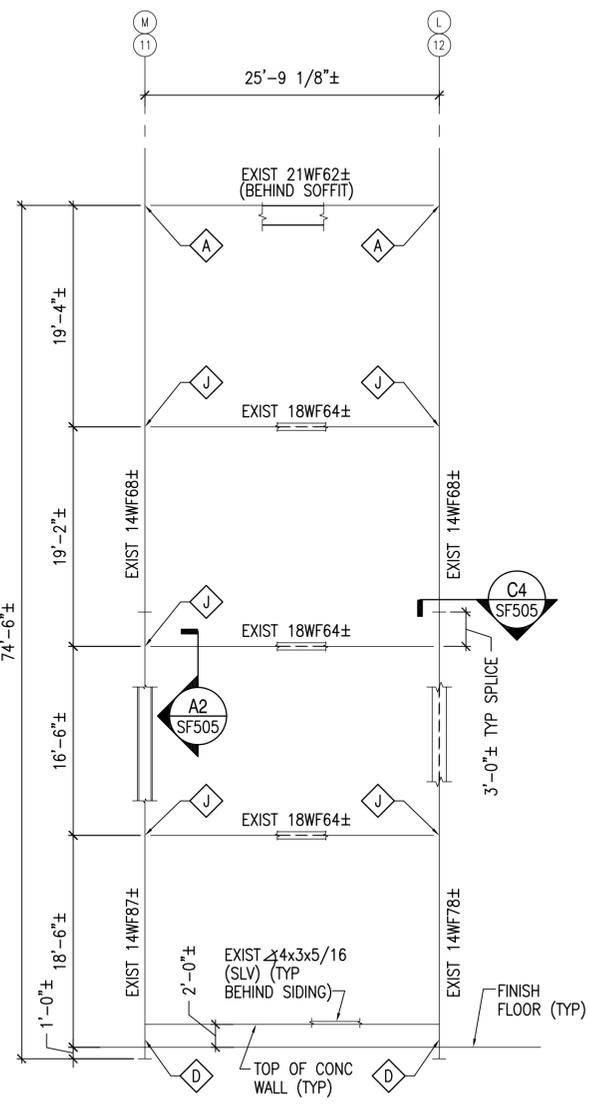
STRUCTURAL ELEVATIONS 3



ELEVATION AT FACE "W"

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

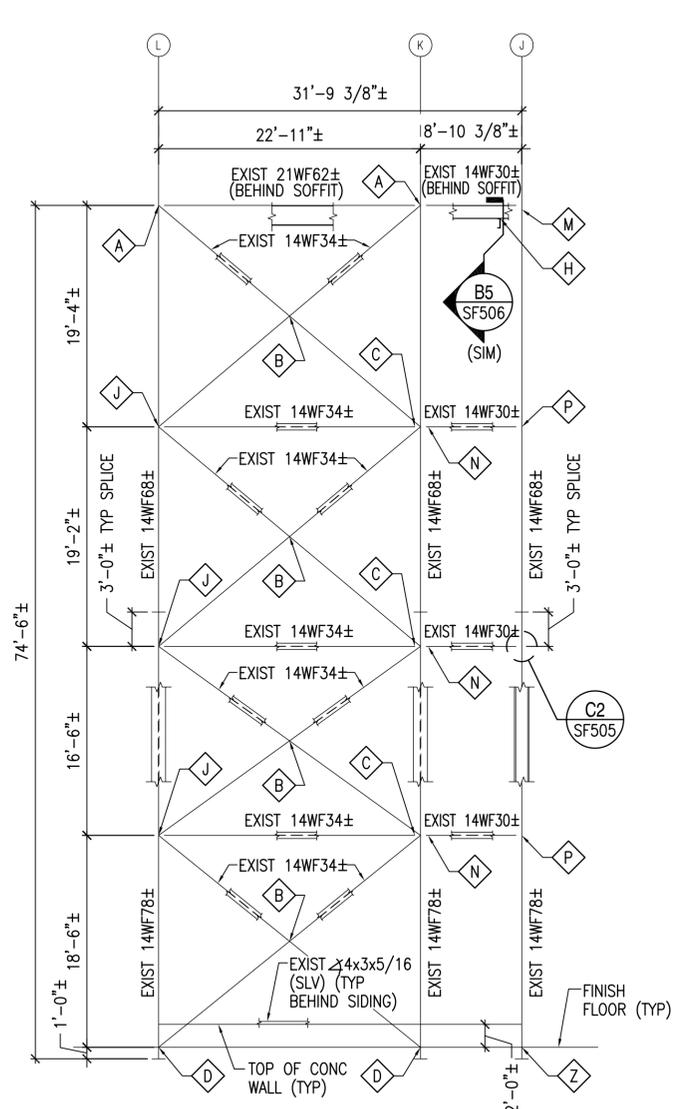
SF203 A2



ELEVATION AT FACE "X"

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

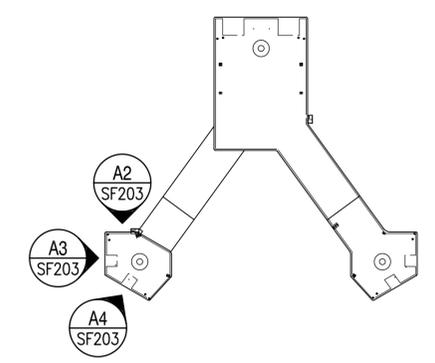
SF203 A3



ELEVATION AT COLUMN LINE 12 (FACE "Z")

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

SF203 A4



SOUTH HELIX HOUSE KEY PLAN

NOT TO SCALE



GRAPHIC SCALE



CHECK GRAPHIC SCALE BEFORE USING

SCALE: AS NOTED

EPROJECT NO.: 1369480

CONSTR. CONTR. NO.

NAVFAC DRAWING NO. 12712473

SHEET 14 OF 48

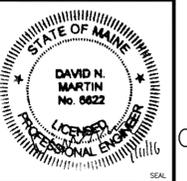
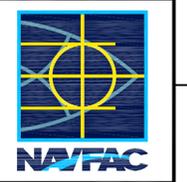
SF203 LF-16-106

11 Jan, 2016 - 10:36am
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GENERAL SHEET NOTES

- REFER TO SHEET S-002 FOR CONNECTION LEGEND.
- REFER TO SHEET SF601 FOR CONNECTION SCHEDULE AND SHEETS SF602 - SF603 FOR REPAIR CRITERIA.
- REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
- REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

| SYN | DESCRIPTION | DATE | APPR |
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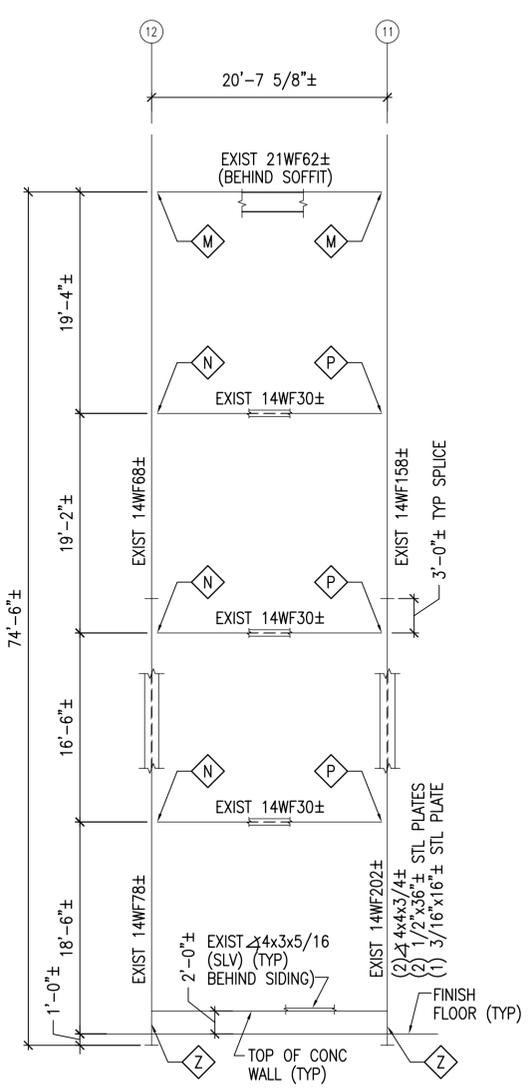


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| APPROVED | A/E INFO |
| FOR COMMANDER NAVFAC | ACTIVITY |
| SATISFACTORY TO DATE 01/08/16 | |
| DES DNM | DRW MJC |
| FM/DM DAVID HOPPER | CHK DNM |
| BRANCH MANAGER MARTIN RYAN | |
| FEAD/PM/AE LCDR JAMES ROCHE | |

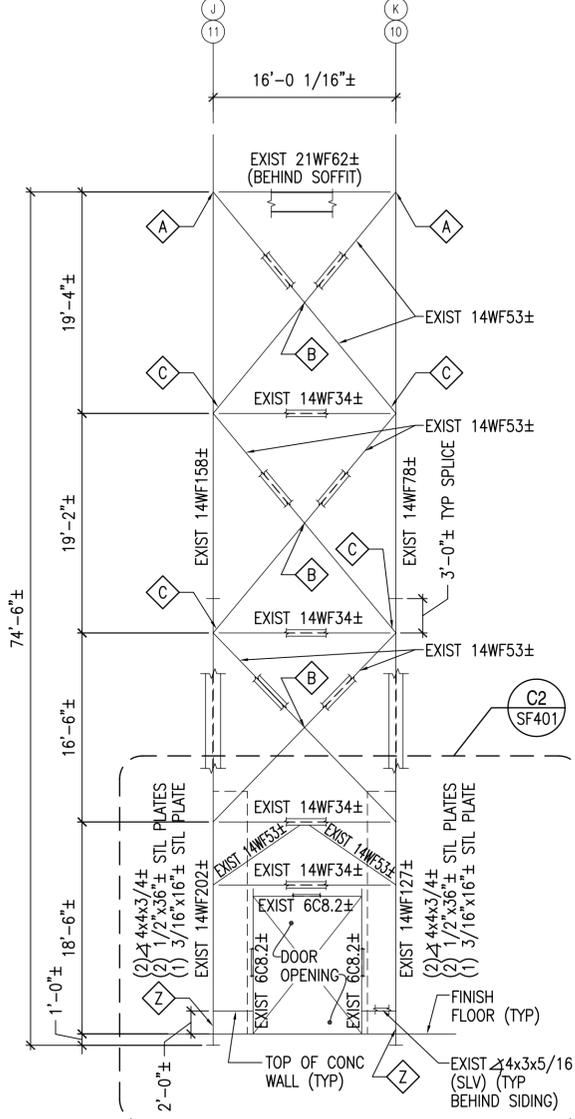
NAVAL FACILITIES ENGINEERING COMMAND
 NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
 NAVAL SHIPYARD - PORTSMOUTH, MAINE
 NCTAMS LANT DET
 CUTLER SOUTH HELIX HOUSE STEEL
 PRESERVATION AND EXTERIOR RENOVATION
 SOUTH HELIX HOUSE
 STRUCTURAL ELEVATIONS 4

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|-----------------------------|
| SCALE: AS NOTED |
| EPROJECT NO.: 1369480 |
| CONSTR. CONTR. NO. |
| NAVFAC DRAWING NO. 12712474 |
| SHEET 15 OF 48 |
| SF204 LF-16-107 |

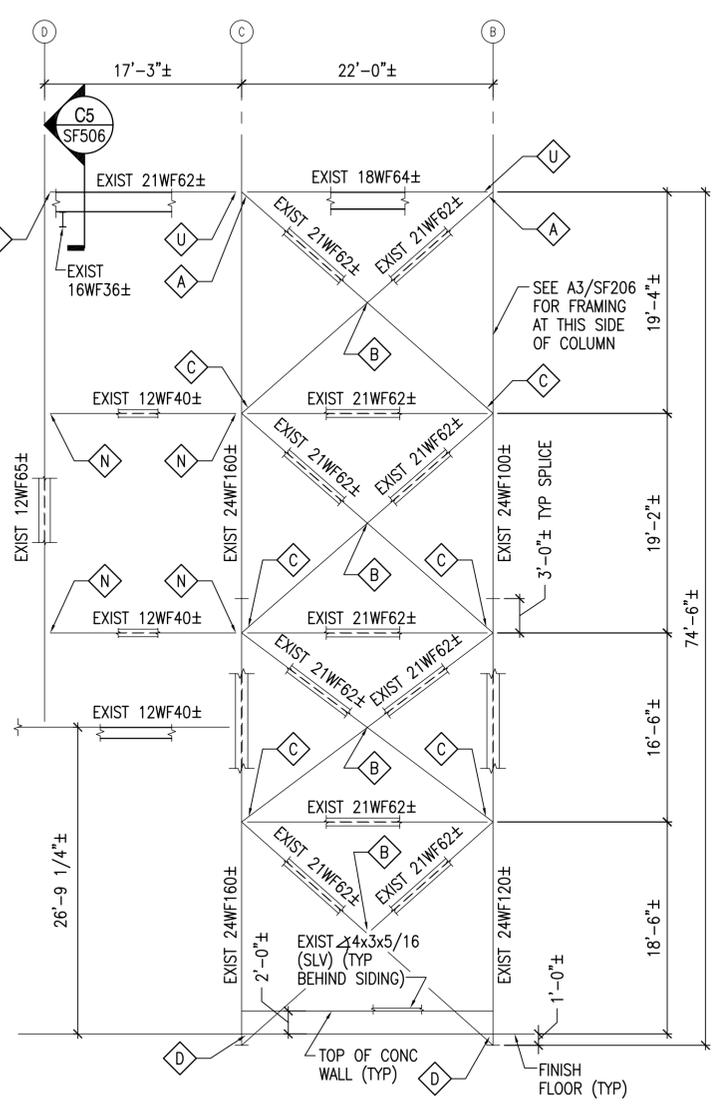
DRAWING REVISION: 10 MARCH 2009



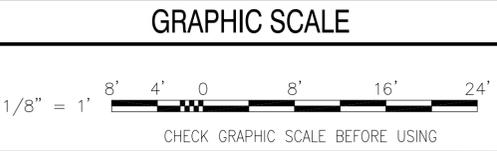
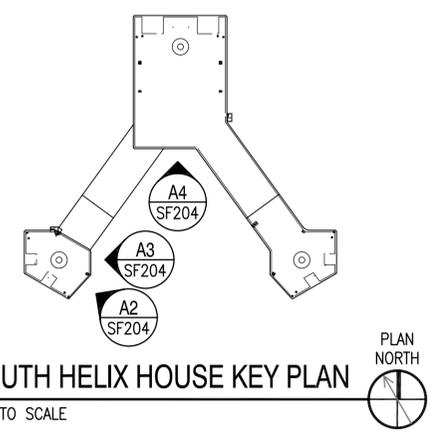
ELEVATION AT COLUMN LINE J
 SCALE: 1/8"=1'-0"
 SF204 **A2**



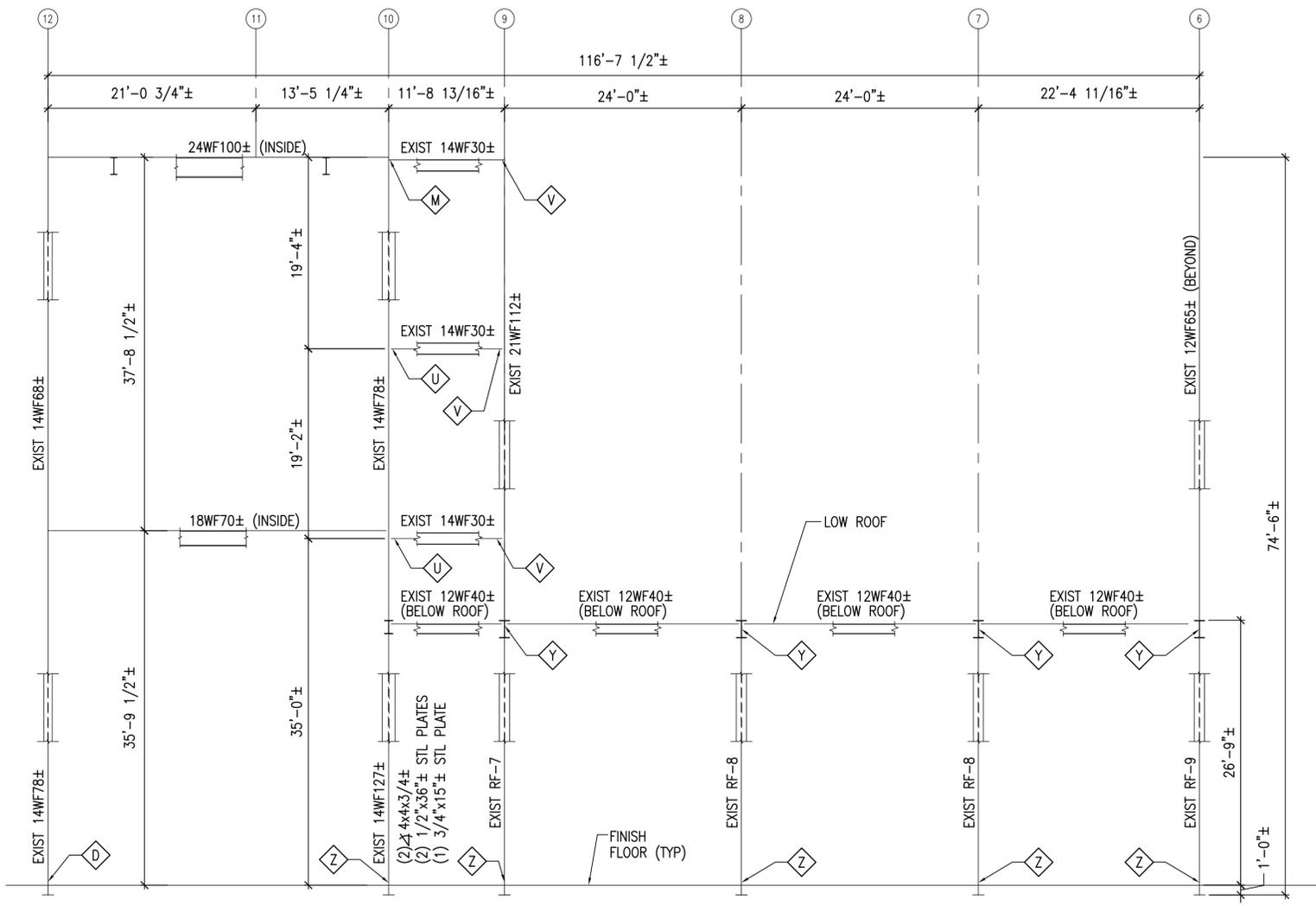
ELEVATION AT FACE "Y"
 SCALE: 1/8"=1'-0"
 SF204 **A3**



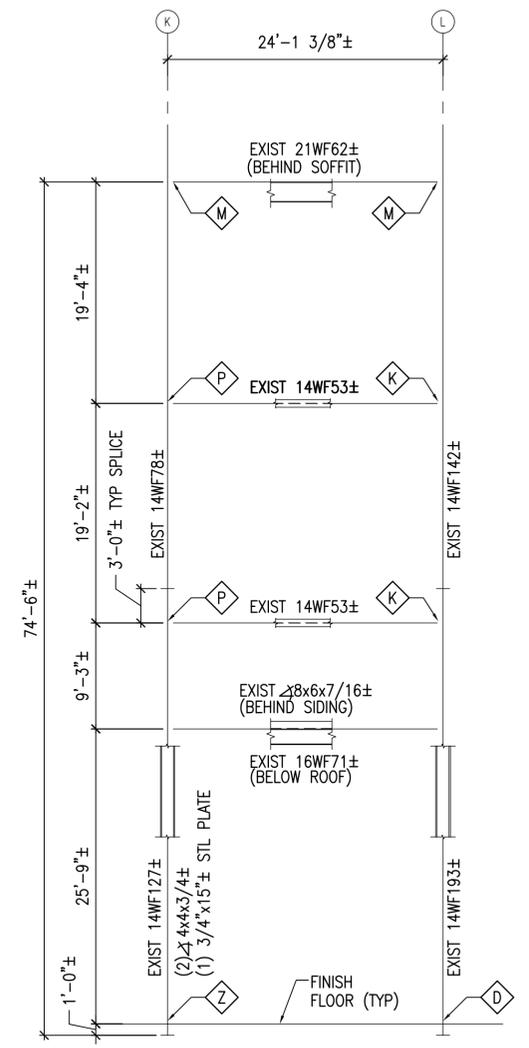
ELEVATION AT COLUMN LINE 5
 SCALE: 1/8"=1'-0"
 SF204 **A4**



11 Jan, 2016 10:39am
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ELEVATION AT COLUMN LINE K
 SCALE: 1/8"=1'-0" SF205 **A2**



ELEVATION AT COLUMN LINE 10
 SCALE: 1/8"=1'-0" SF205 **A4**

GENERAL SHEET NOTES

- REFER TO SHEET S-002 FOR CONNECTION LEGEND.
- REFER TO SHEET SF601 FOR CONNECTION SCHEDULE AND SHEETS SF602 - SF603 FOR REPAIR CRITERIA.
- REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
- REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

| SYN | DESCRIPTION | DATE | APPR |
|-----|-------------|------|------|
| | | | |



APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE 01/08/16

DES DNM DRW MJC CHK DNM

FW/DM DAVID HOPPER

BRANCH MANAGER MARTIN RYAN

FEAD/FMAE LCDR JAMES ROCHE

FIRE PROTECTION

NAVAL FACILITIES ENGINEERING COMMAND

NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC

NAVAL SHIPYARD - PORTSMOUTH - NH

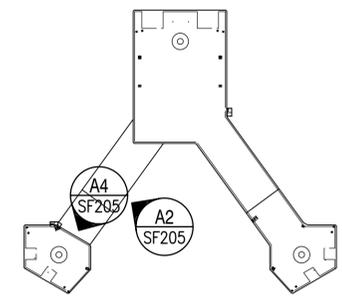
NCTAMS LANIT DET

CUTLER SOUTH HELIX HOUSE STEEL

PRESERVATION AND EXTERIOR RENOVATION

SOUTH HELIX HOUSE

STRUCTURAL ELEVATIONS 5



SOUTH HELIX HOUSE KEY PLAN

NOT TO SCALE

GRAPHIC SCALE



CHECK GRAPHIC SCALE BEFORE USING

SCALE: AS NOTED

EPROJECT NO.: 1369480

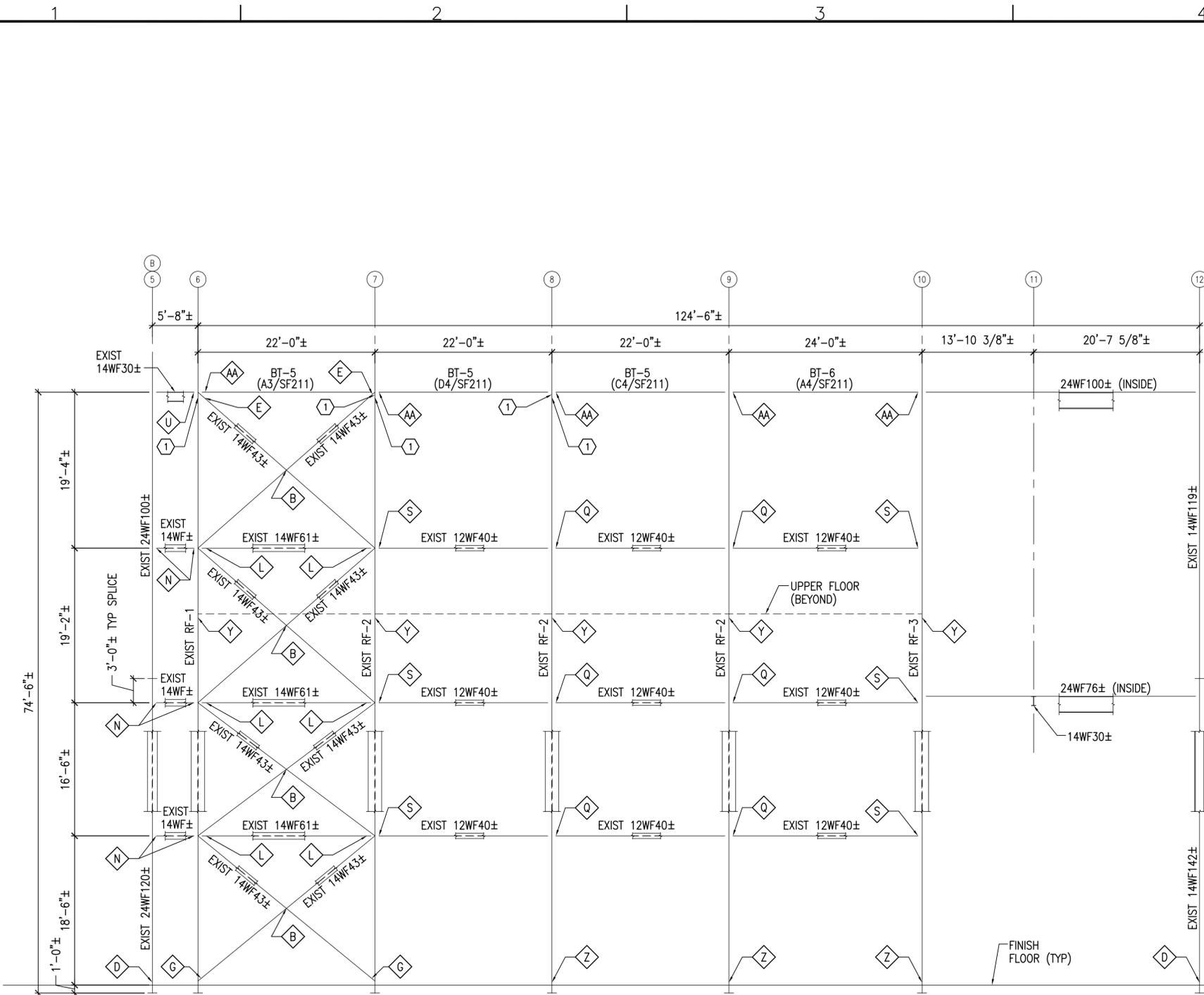
CONSTR. CONTR. NO.

NAVFAC DRAWING NO. 12712475

SHEET 16 OF 48

SF205 LF-16-108

DRAWING REVISION: 10 MARCH 2009



ELEVATION AT COLUMN LINE G
 SCALE: 1/8"=1'-0" A3
 SF206

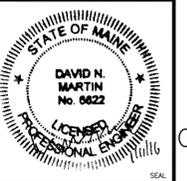
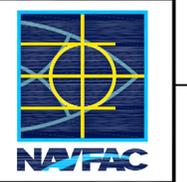
GENERAL SHEET NOTES

1. REFER TO SHEET S-002 FOR CONNECTION LEGEND.
2. REFER TO SHEET SF601 FOR CONNECTION SCHEDULE AND SHEETS SF602 - SF603 FOR REPAIR CRITERIA.
3. REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
4. REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

REMOVALS KEYNOTE (THIS SHEET ONLY)

- 1 REMOVE ANGLE AT COLUMN WEB INSIDE RIGID KNEE.

| SYN | DESCRIPTION | DATE | APPR |
|-----|-------------|------|------|
| | | | |
| | | | |

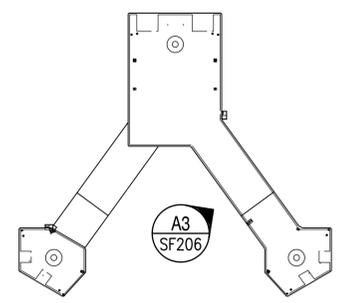


APPROVED: _____
 DATE: 01/08/16

| | |
|----------------------|------------------|
| FOR COMMANDER NAVFAC | |
| ACTIVITY | |
| SATISFACTORY TO | DATE 01/08/16 |
| DES | DNM |
| DRW | MJC |
| CHK | DNM |
| FW/DM | DAVID HOPPER |
| BRANCH MANAGER | MARTIN RYAN |
| FEED/FW/MAE | LCDR JAMES ROCHE |

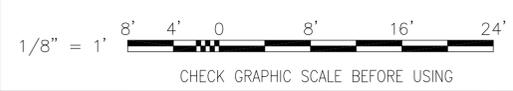
NAVFAC ENGINEERING COMMAND
 NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
 NAVAL SHIPYARD - PORTSMOUTH - MAINE
 NCTCS CUTLER, MAINE

CUTLER SOUTH HELIX HOUSE STEEL PRESERVATION AND EXTERIOR RENOVATION
 SOUTH HELIX HOUSE
 STRUCTURAL ELEVATIONS 6



SOUTH HELIX HOUSE KEY PLAN
 NOT TO SCALE

GRAPHIC SCALE



| | |
|--------------------|------------------|
| SCALE: | AS NOTED |
| EPROJECT NO.: | 1369480 |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. | 12712476 |
| SHEET | 17 OF 48 |
| SF206 | LF-16-109 |

GENERAL SHEET NOTES

- REFER TO SHEET S-002 FOR CONNECTION LEGEND.
- REFER TO SHEET SF601 FOR CONNECTION SCHEDULE AND SHEETS SF602 - SF603 FOR REPAIR CRITERIA.
- REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
- REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

| SYN | DESCRIPTION | DATE | APPR |
|-----|-------------|------|------|
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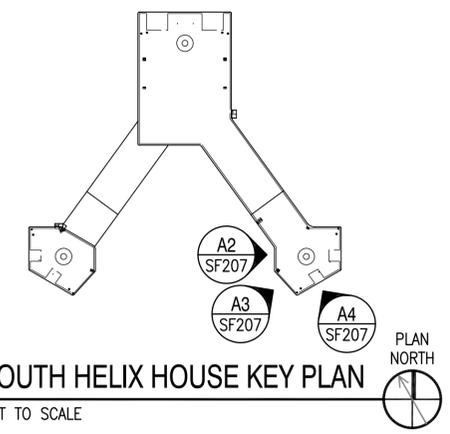
APPROVED
A/E INFO

FOR COMMANDER NAVFAC
ACTIVITY

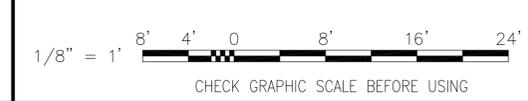
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| SATISFACTORY TO | DATE | 01/08/16 |
| DES | DNM | DRW MJC |
| CHK | DNM | |
| FM/DM | DAVID HOPPER | |
| BRANCH MANAGER | MARTIN RYAN | |
| FEAD/PM/EA | LCDR JAMES ROCHE | |

FIRE PROTECTION

NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL WORKS DEPARTMENT - MAINE
NCTAMS LANI DET
CUTLER SOUTH HELIX HOUSE STEEL
PRESERVATION AND EXTERIOR RENOVATION
SOUTH HELIX HOUSE
STRUCTURAL ELEVATIONS 7



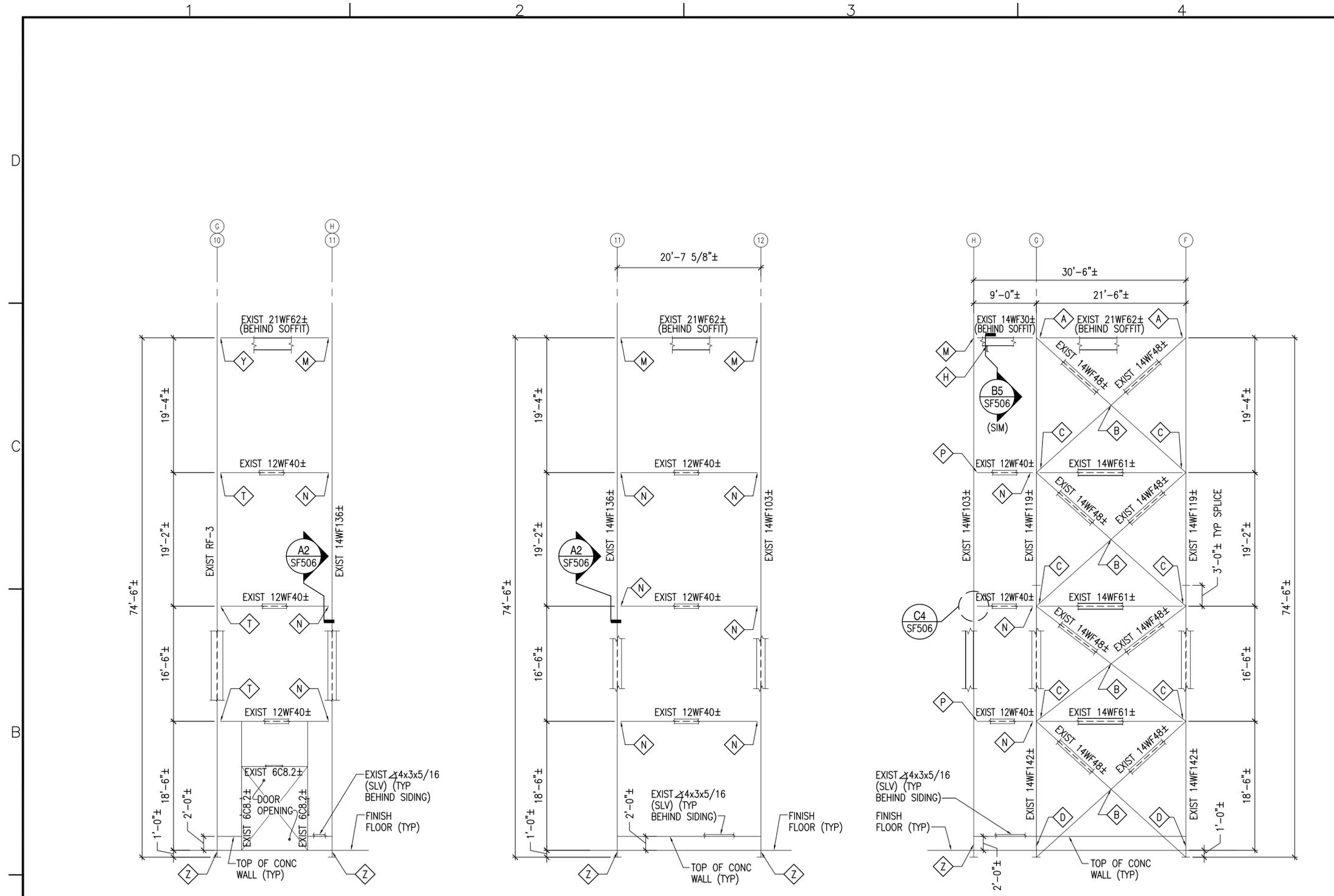
GRAPHIC SCALE



SCALE: AS NOTED
EPROJECT NO.: 1369480
CONSTR. CONTR. NO.

NAVFAC DRAWING NO. 12712477
SHEET 18 OF 48

SF207 LF-16-110
DRAWING REVISION: 10 MARCH 2009



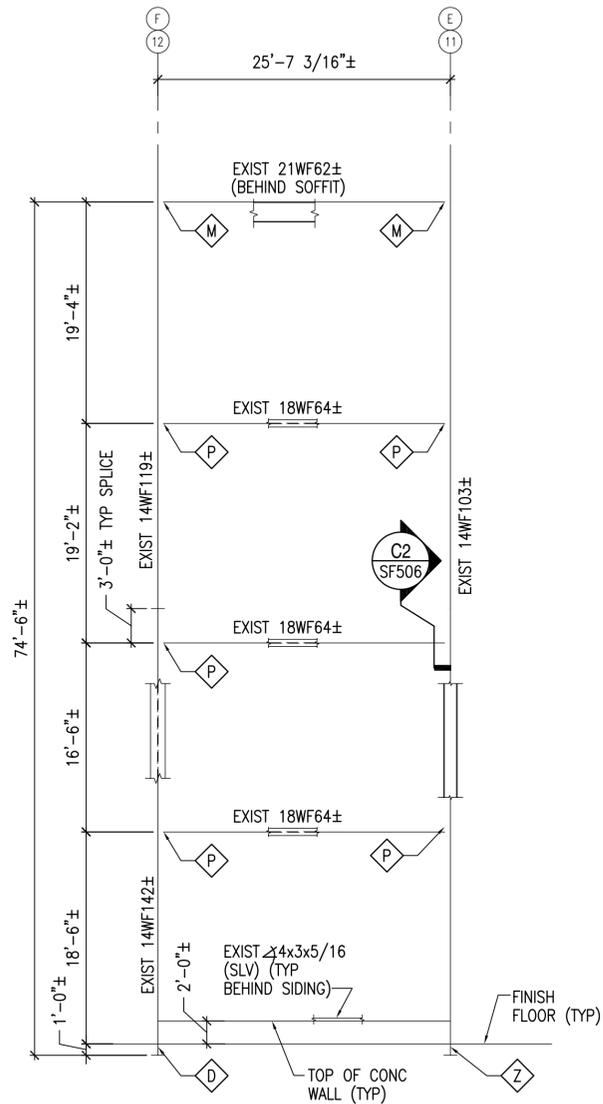
ELEVATION AT FACE "S"
SCALE: 1/8"=1'-0" SF207 **A2**

ELEVATION AT COLUMN LINE H
SCALE: 1/8"=1'-0" SF207 **A3**

ELEVATION AT COLUMN LINE 12 (FACE "T")
SCALE: 1/8"=1'-0" SF207 **A4**

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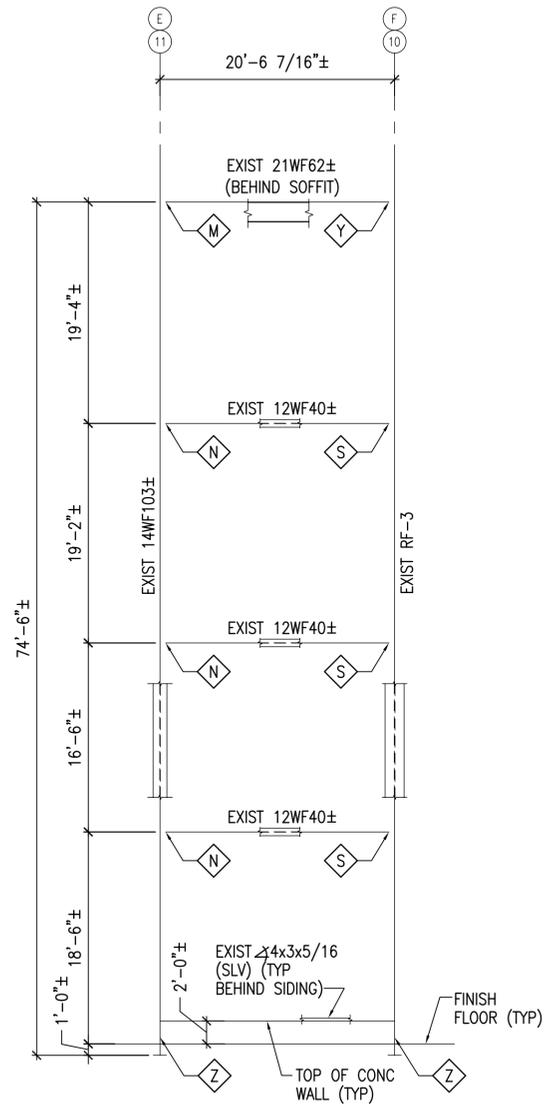
11 Jan, 2016 10:42am
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ELEVATION AT FACE "R"

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

SF208 A2



ELEVATION AT FACE "Q"

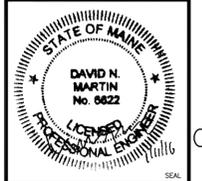
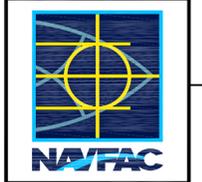
SCALE: 1/8"=1'-0"

SF208 A3

GENERAL SHEET NOTES

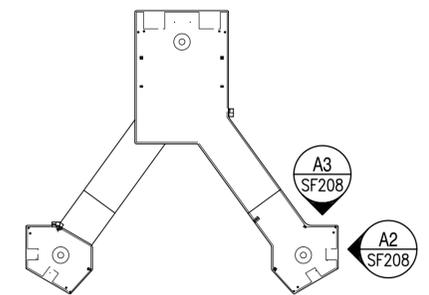
1. REFER TO SHEET S-002 FOR CONNECTION LEGEND.
2. REFER TO SHEET SF601 FOR CONNECTION SCHEDULE AND SHEETS SF602 - SF603 FOR REPAIR CRITERIA.
3. REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
4. REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

| SYN | DESCRIPTION | DATE | APPR |
|-----|-------------|------|------|
| | | | |



| | |
|-------------------------------|----------|
| APPROVED | A/E INFO |
| FOR COMMANDER NAVFAC | ACTIVITY |
| SATISFACTORY TO DATE 01/08/16 | |
| DES DNM | DRW MJC |
| FM/DM DAVID HOPPER | |
| BRANCH MANAGER MARTIN RYAN | |
| FEAD/FAAE LCDR JAMES ROCHE | |

DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING COMMAND
 NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
 NAVAL SHIPYARD - PORTSMOUTH - MAINE
 NCTAMS LANT DET
 CUTLER SOUTH HELIX HOUSE STEEL
 PRESERVATION AND EXTERIOR RENOVATION
 SOUTH HELIX HOUSE
 STRUCTURAL ELEVATIONS 8



SOUTH HELIX HOUSE KEY PLAN

NOT TO SCALE

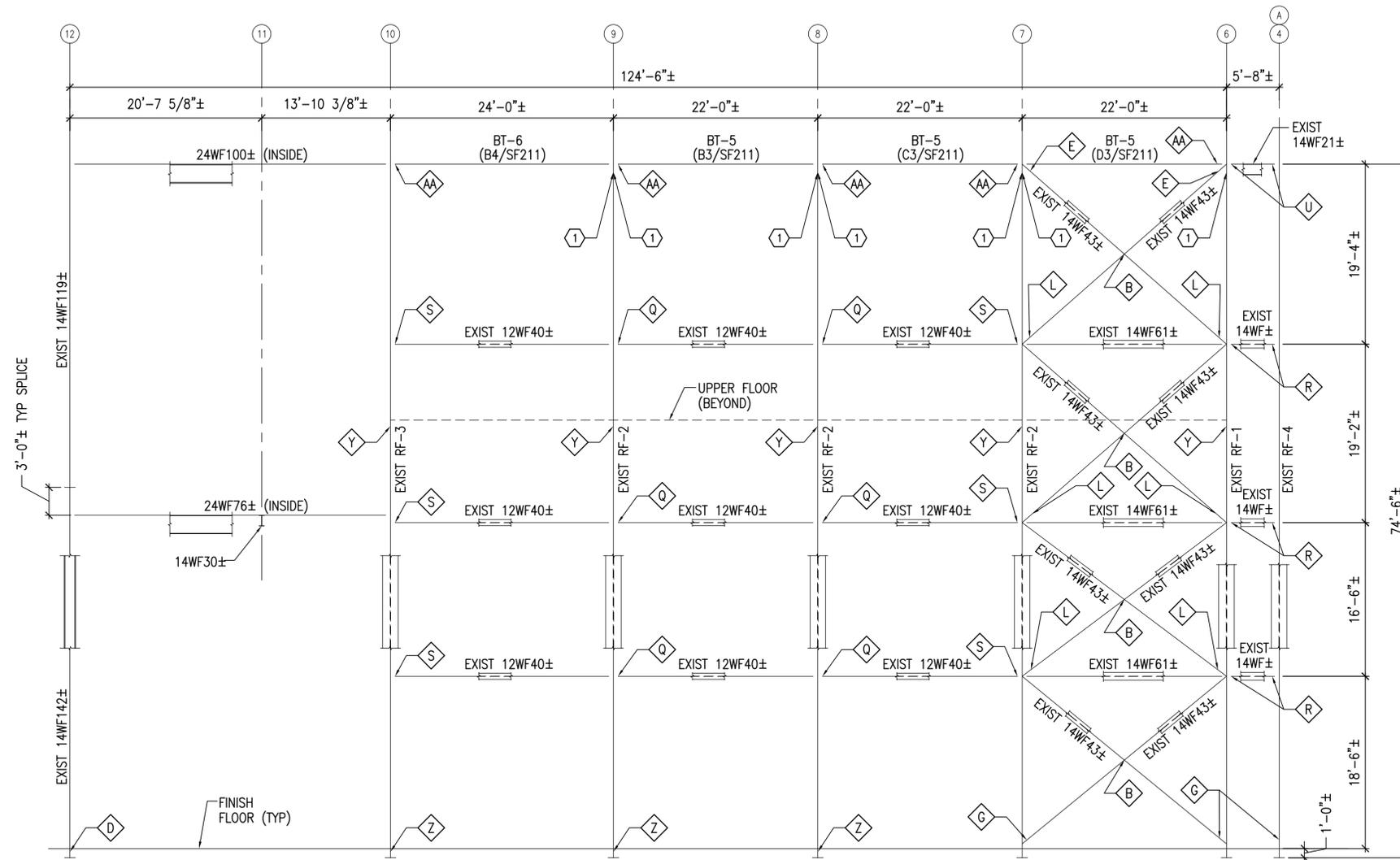
GRAPHIC SCALE



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| SCALE: AS NOTED |
| EPROJECT NO.: 1369480 |
| CONSTR. CONTR. NO. |
| NAVFAC DRAWING NO. 12712478 |
| SHEET 19 OF 48 |
| SF208 LF-16-111 |

DRAWING REVISION: 10 MARCH 2009

11 Jan, 2016 10:49am
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ELEVATION AT COLUMN LINE F

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

SF209, SF210

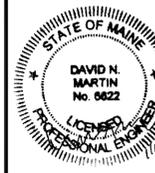
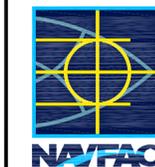
A3

GENERAL SHEET NOTES

- REFER TO SHEET S-002 FOR CONNECTION LEGEND.
- REFER TO SHEET SF601 FOR CONNECTION SCHEDULE AND SHEETS SF602 - SF603 FOR REPAIR CRITERIA.
- REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
- REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

REMOVALS KEYNOTE (THIS SHEET ONLY)

- ① REMOVE ANGLE AT COLUMN WEB INSIDE RIGID KNEE.



APPROVED

FOR COMMANDER NAVFAC
ACTIVITY

SATISFACTORY TO DATE 01/08/16

DES DNM DRW MJC CHK DNM

FW/DM DAVID HOPPER

BRANCH MANAGER MARTIN RYAN

FEAD/FAAE LCDR JAMES ROCHE

FIRE PROTECTION

NAVAL FACILITIES ENGINEERING COMMAND

NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC

NAVAL SHIPYARD - PORTSMOUTH - NH

NCTAMS LANIT DET

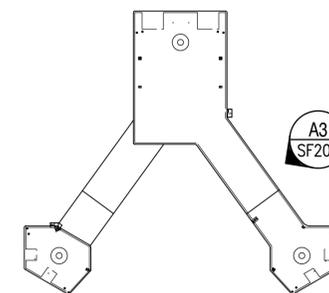
NCTCS CUTLER, MAINE

CUTLER SOUTH HELIX HOUSE STEEL

PRESERVATION AND EXTERIOR RENOVATION

SOUTH HELIX HOUSE

STRUCTURAL ELEVATIONS 9



SOUTH HELIX HOUSE KEY PLAN

NOT TO SCALE



GRAPHIC SCALE



CHECK GRAPHIC SCALE BEFORE USING

SCALE: AS NOTED

EPROJECT NO.: 1369480

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.

12712479

SHEET 20 OF 48

SF209 LF-16-112

DRAWING REVISION: 10 MARCH 2009

GENERAL SHEET NOTES

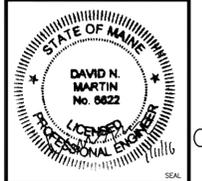
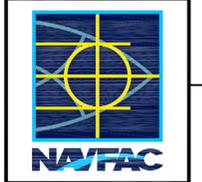
- REFER TO STRUCTURAL ELEVATION SHEETS SF201-SF210 FOR COLUMN SIZES.
- SEE DETAILS A4/SF506, D2/SF507, D3/SF507, D5/SF507 AND C2/SF507 FOR TYPICAL BRACING TRUSS CONNECTION DETAILS.
- REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
- REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

20' BRACING TRUSS
TOP CHORD: 6
BOTTOM CHORD: 6
WEBS: 2

22' BRACING TRUSS
TOP CHORD: 8
BOTTOM CHORD: 6
WEBS: 4

24' BRACING TRUSS
TOP CHORD: 8
BOTTOM CHORD: 6
WEBS: 6

| SYN | DESCRIPTION | DATE | APPR |
|-----|-------------|------|------|
| | | | |



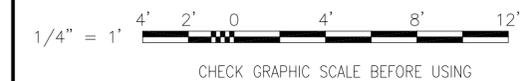
APPROVED

FOR COMMANDER NAVFAC
ACTIVITY

| | | |
|-----------------|------------------|----------|
| SATISFACTORY TO | DATE | 01/08/16 |
| DES | DNM | DRW |
| FM/DM | DAVID HOPPER | CHK |
| BRANCH MANAGER | MARTIN RYAN | DNM |
| FEED/FMAE | LCDR JAMES ROCHE | |

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
NAVAL SHIPYARD - PORTSMOUTH - NH
PUBLIC WORKS DEPARTMENT - MAINE
NCTAMS LANT DET
NCTCS CUTLER, MAINE
CUTLER SOUTH HELIX HOUSE STEEL
PRESERVATION AND EXTERIOR RENOVATION
SOUTH HELIX HOUSE
BRACING TRUSS ELEVATIONS

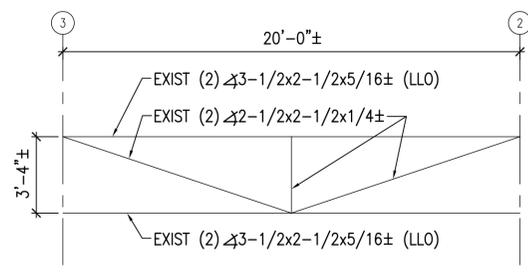
GRAPHIC SCALE



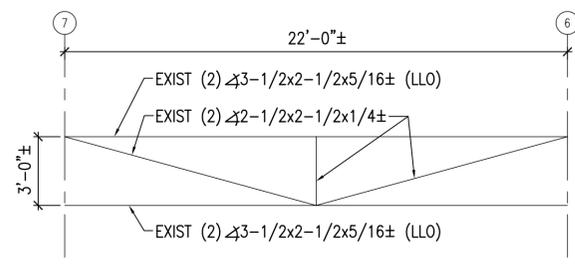
CHECK GRAPHIC SCALE BEFORE USING

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|--------------------|-----------|
| SCALE: | AS NOTED |
| EPROJECT NO.: | 1369480 |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. | 12712481 |
| SHEET | 22 OF 48 |
| SF211 | LF-16-114 |

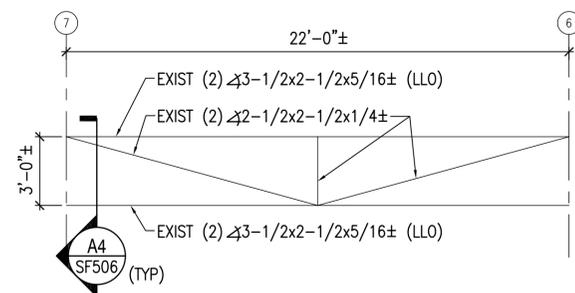
DRAWING REVISION: 10 MARCH 2009



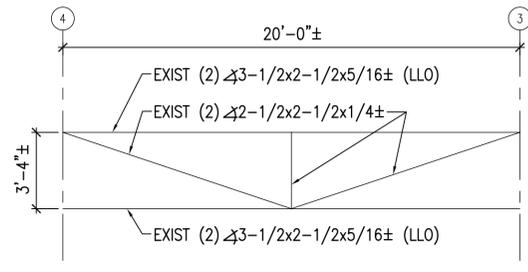
EXIST BT-2 (COLUMN LINE A/2 TO A/3)
SCALE: 1/4"=1'-0" SF210 **D2**



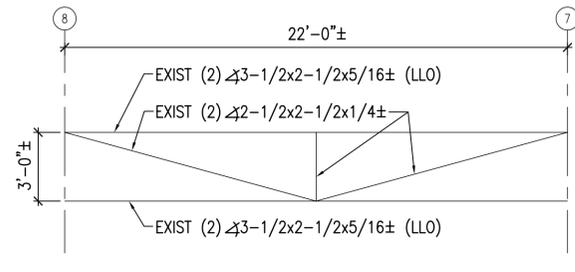
EXIST BT-5 (COLUMN LINE F/6 TO F/7)
SCALE: 1/4"=1'-0" SF209 **D3**



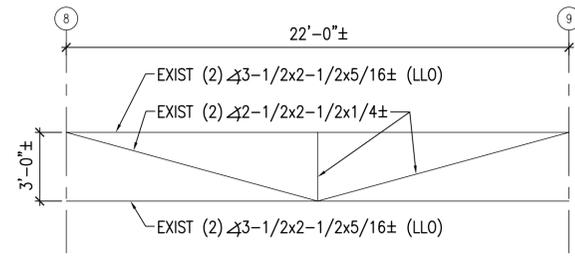
EXIST BT-5 (COLUMN LINE G/7 TO G/8)
SCALE: 1/4"=1'-0" SF206, SF602 **D4**



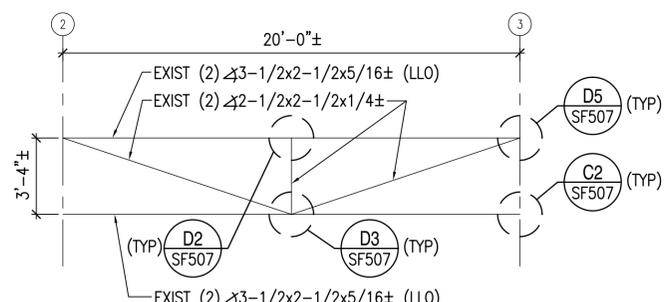
EXIST BT-2 (COLUMN LINE A/3 TO A/4)
SCALE: 1/4"=1'-0" SF210 **C2**



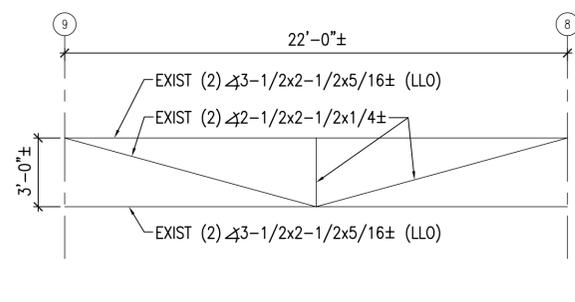
EXIST BT-5 (COLUMN LINE F/7 TO F/8)
SCALE: 1/4"=1'-0" SF209 **C3**



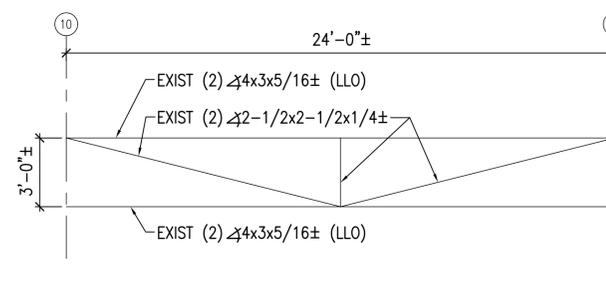
EXIST BT-5 (COLUMN LINE G/8 TO G/9)
SCALE: 1/4"=1'-0" SF206, SF602 **C4**



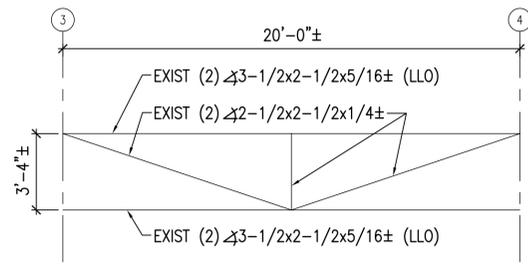
EXIST BT-2 (COLUMN LINE D/2 TO D/3)
SCALE: 1/4"=1'-0" SF201 **B2**



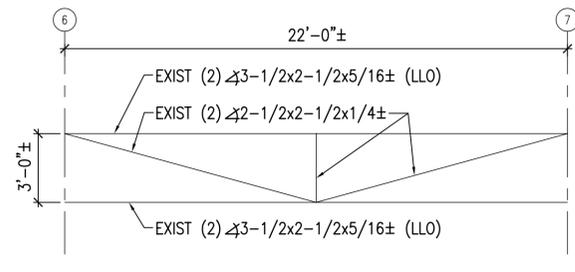
EXIST BT-5 (COLUMN LINE F/8 TO F/9)
SCALE: 1/4"=1'-0" SF209 **B3**



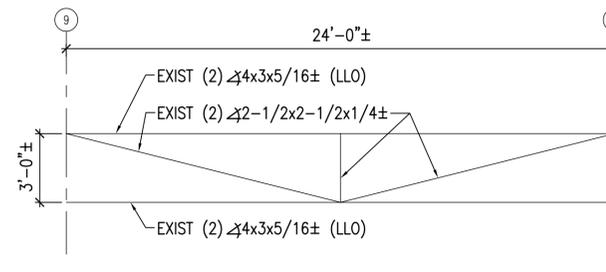
EXIST BT-6 (COLUMN LINE F/9 TO F/10)
SCALE: 1/4"=1'-0" SF209 **B4**



EXIST BT-2 (COLUMN LINE D/3 TO D/4)
SCALE: 1/4"=1'-0" SF201 **A2**

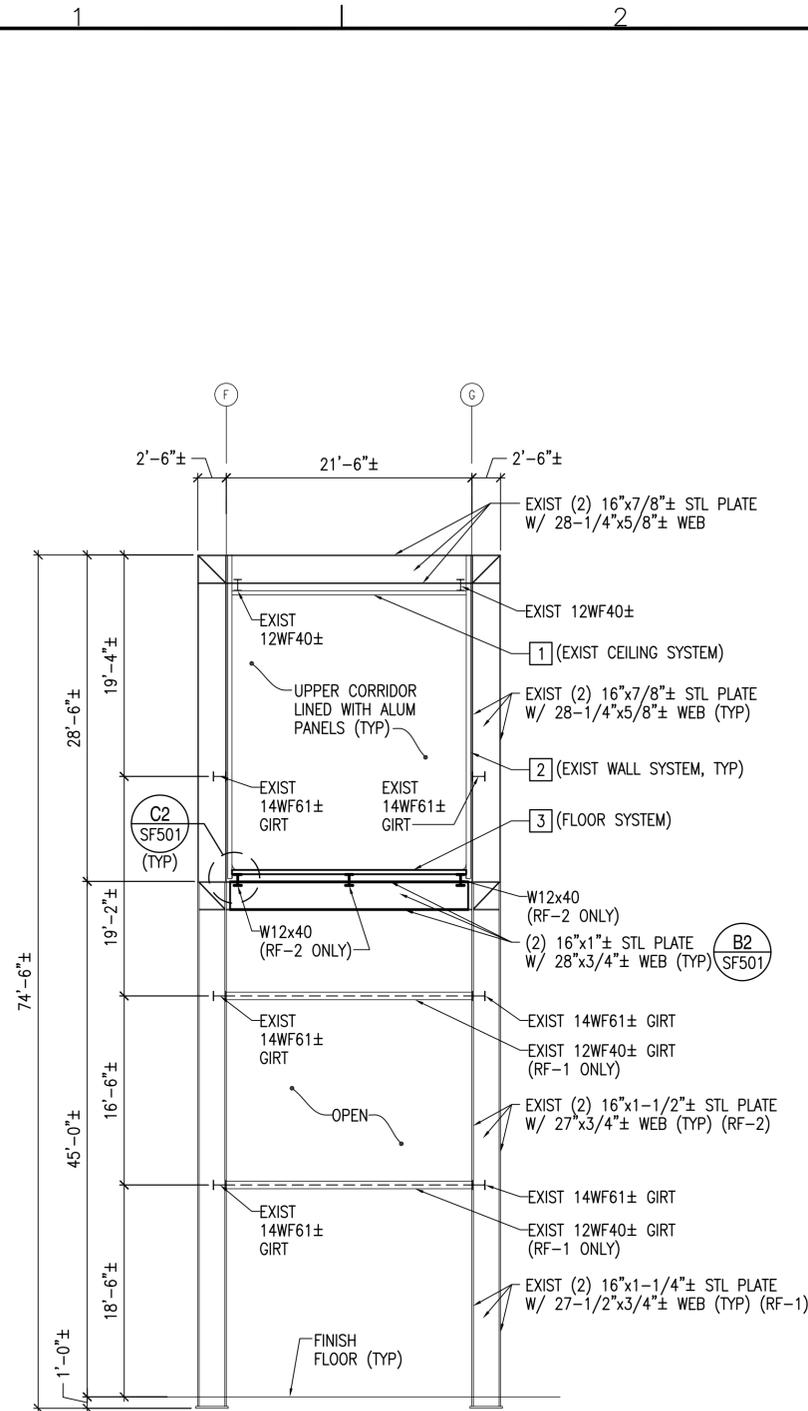


EXIST BT-5 (COLUMN LINE G/6 TO G/7)
SCALE: 1/4"=1'-0" SF206 **A3**

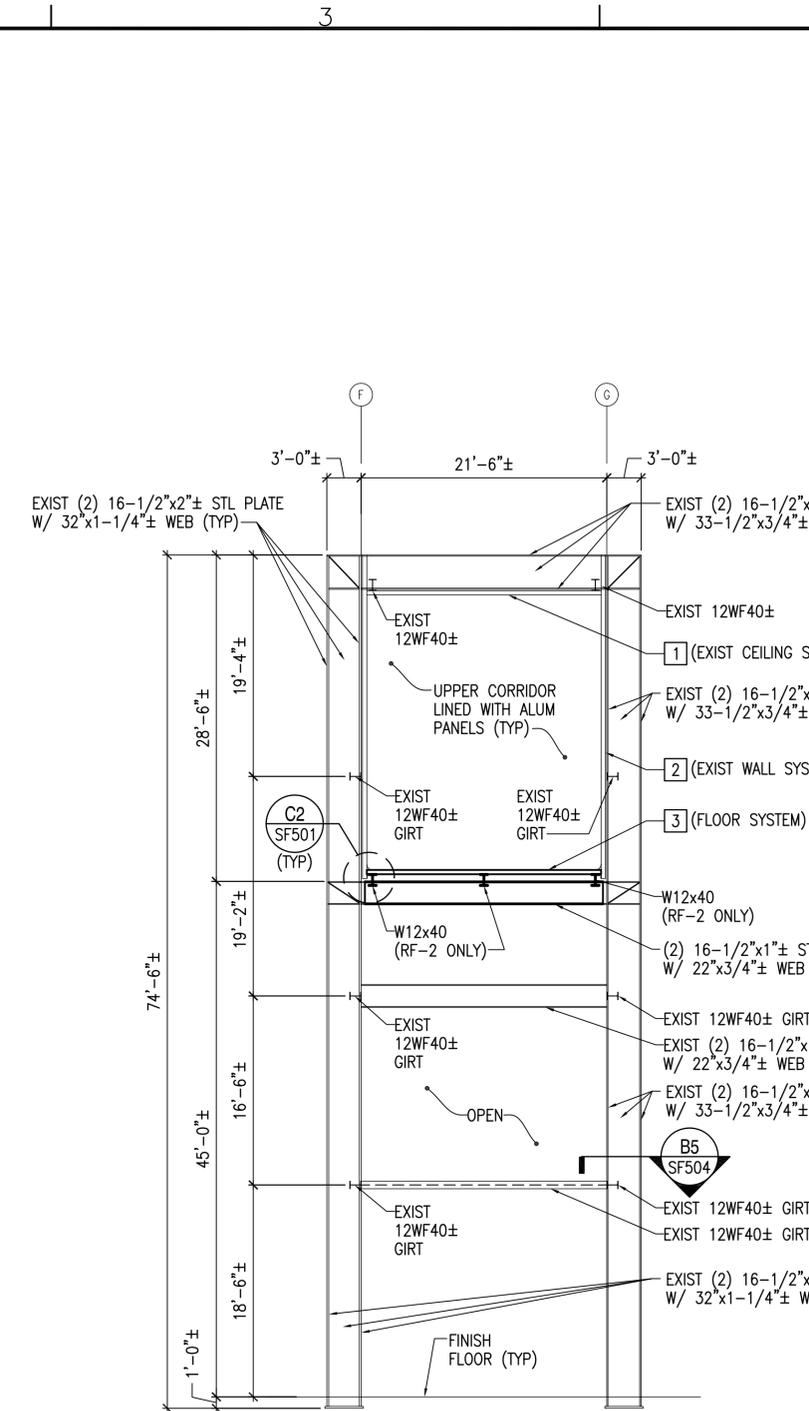


EXIST BT-6 (COLUMN LINE G/9 TO G/10)
SCALE: 1/4"=1'-0" SF206 **A4**

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SECTION AT RF-1 COL LINE 6
SECTION AT RF-2 COL LINE 7,8 & 9
SCALE: 1/8"=1'-0" SD101, SF102 A2



SECTION AT RF-3 COL LINE 10
SCALE: 1/8"=1'-0" SD101, SF102, SF504 A4

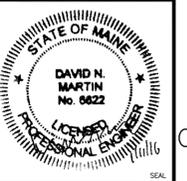
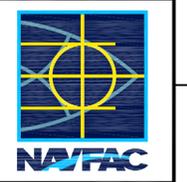
GENERAL SHEET NOTES

- UPPER PRECAST CONCRETE PLANK ROOFING SYSTEM NOT SHOWN FOR CLARITY.
- REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
- REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

KEYNOTES

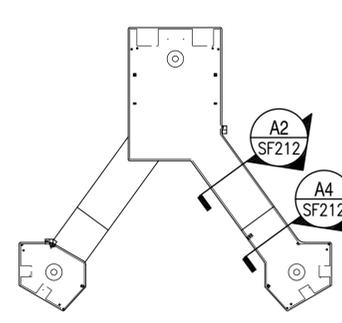
- EXISTING CEILING SYSTEM CONSISTS OF 4-1/2"x18GA STEEL DECK, 20GA STEEL COVER PLATE, AND 12GA ALUMINUM PLATE.
- EXISTING WALL SYSTEM CONSISTS OF 4-1/2"x18GA STEEL DECK, 20GA STEEL COVER PLATE, AND 12GA ALUMINUM PLATE.
- FLOOR SYSTEM CONSISTS OF 4-1/2"x18GA STEEL DECK, 20GA STEEL COVER PLATE, AND 12GA ALUMINUM PLATE.

| SYN | DESCRIPTION | DATE | APPR |
|-----|-------------|------|------|
| | | | |



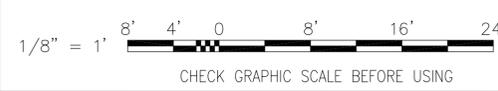
| | | |
|----------------------|------------------|----------|
| APPROVED | DATE | 01/08/16 |
| FOR COMMANDER NAVFAC | ACTIVITY | |
| SATISFACTORY TO | DATE | 01/08/16 |
| DES | DNM | DRW |
| FM/DM | DAVID HOPPER | CHK |
| BRANCH MANAGER | MARTIN RYAN | DNM |
| FEAD/PM/AE | LCDR JAMES ROCHE | |

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
NAVAL SHIPYARD - PORTSMOUTH - NH
PUBLIC WORKS DEPARTMENT - MAINE
NCTAMS LANT DET
CUTLER SOUTH HELIX HOUSE STEEL
PRESERVATION AND EXTERIOR RENOVATION
SOUTH HELIX HOUSE
STRUCTURAL SECTIONS

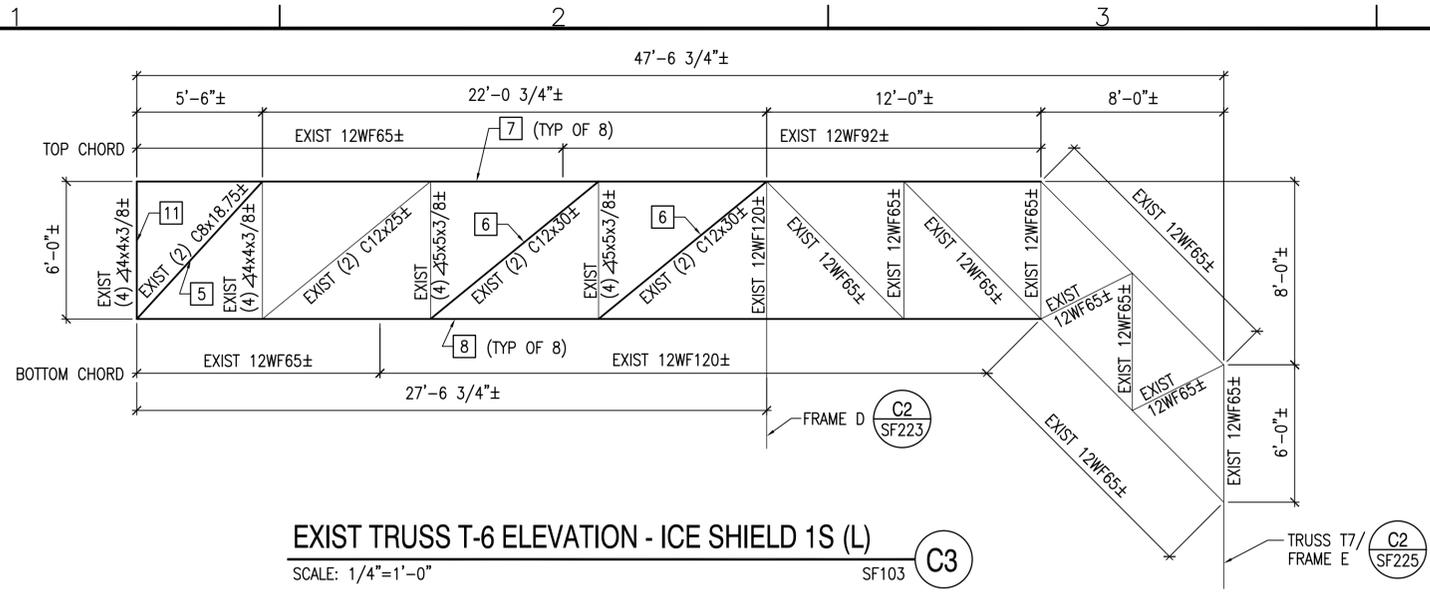


SOUTH HELIX HOUSE KEY PLAN
NOT TO SCALE

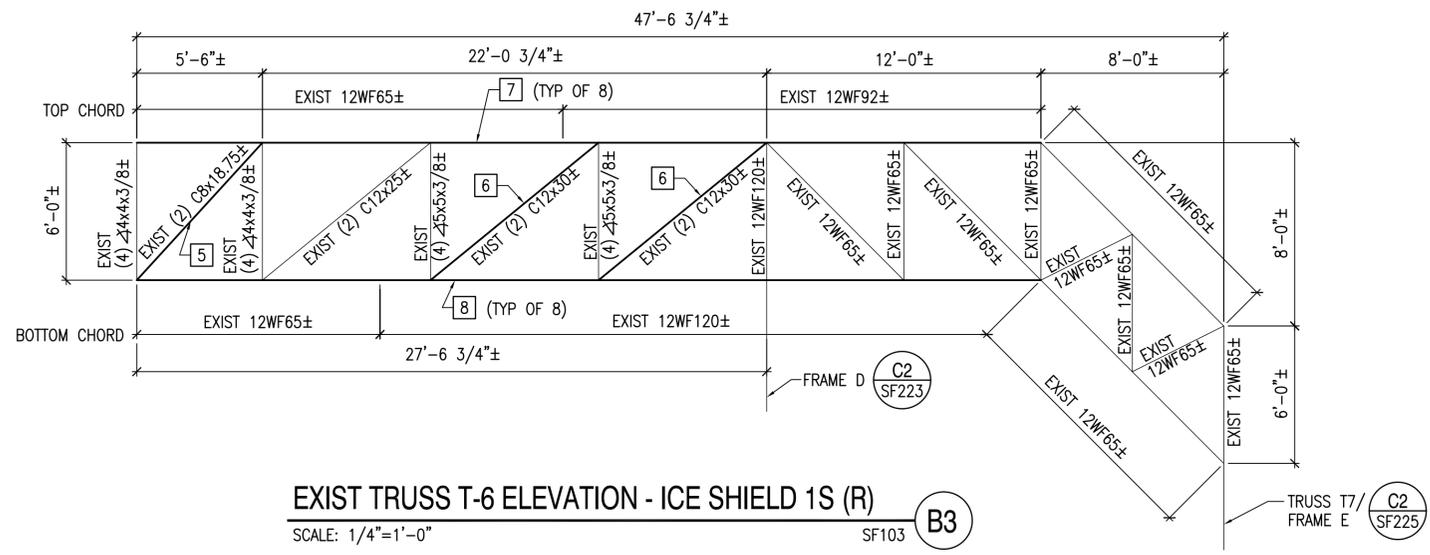
GRAPHIC SCALE



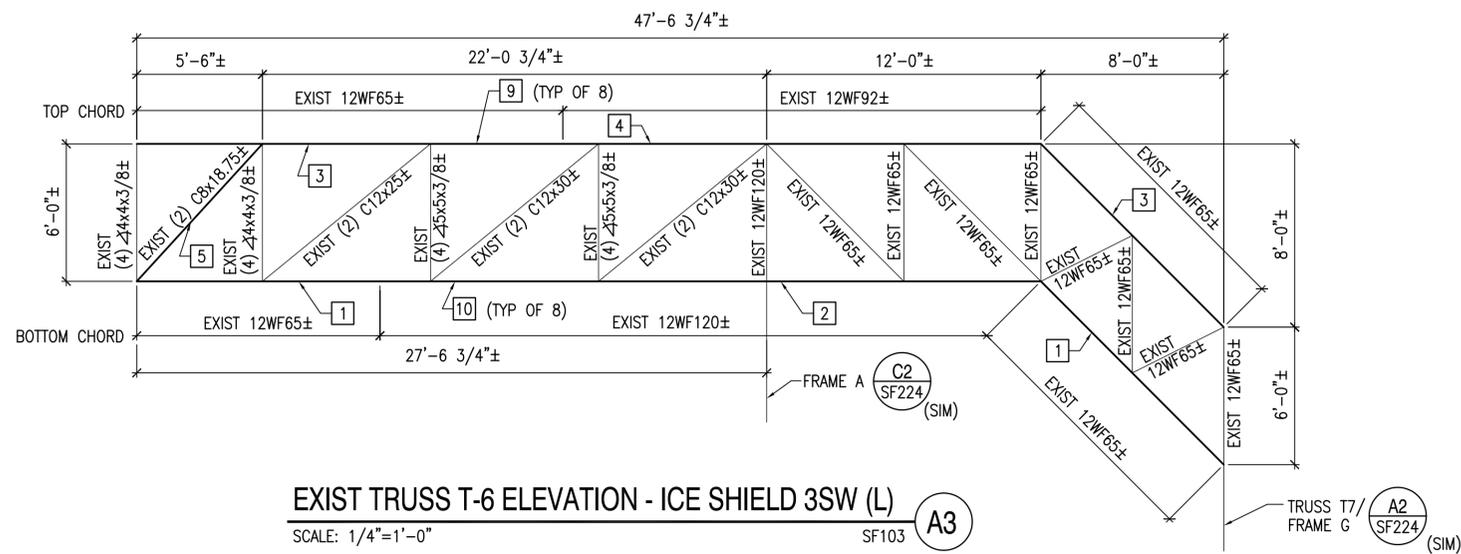
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| SCALE: | AS NOTED |
| EPROJECT NO.: | 1369480 |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. | 12712482 |
| SHEET | 23 OF 48 |
| SF212 | LF-16-115 |



EXIST TRUSS T-6 ELEVATION - ICE SHIELD 1S (L)
SCALE: 1/4"=1'-0" SF103 C3



EXIST TRUSS T-6 ELEVATION - ICE SHIELD 1S (R)
SCALE: 1/4"=1'-0" SF103 B3



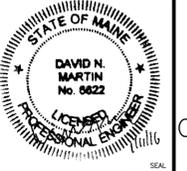
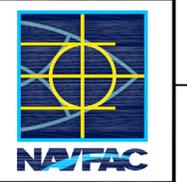
EXIST TRUSS T-6 ELEVATION - ICE SHIELD 3SW (L)
SCALE: 1/4"=1'-0" SF103 A3

GENERAL SHEET NOTES

- ITEMS ON THIS SHEET ARE ASSOCIATED WITH OPTION 1.
- REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
- REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

KEYNOTES (THIS SHEET ONLY)

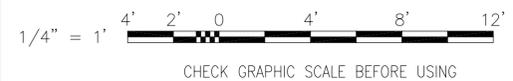
- REINFORCE EXISTING 12WF65± BOTTOM CHORD OF TRUSS T-6. SEE DETAIL D2/SF521.
- REINFORCE EXISTING 12WF120± BOTTOM CHORD OF TRUSS T-6. SEE DETAIL D3/SF521.
- REINFORCE EXISTING 12WF65± TOP CHORD OF TRUSS T-6. SEE DETAIL D5/SF521.
- REINFORCE EXISTING 12WF92± TOP CHORD OF TRUSS T-6. SEE DETAIL C2/SF521.
- REMOVE AND REPLACE EXISTING (2) C8x18.75± DIAGONAL MEMBER. SEE DETAILS C2/SF522 AND C4/SF522.
- REMOVE AND REPLACE EXISTING (2) C12x30± DIAGONAL MEMBER. SEE DETAILS A2/SF522 AND A4/SF522.
- REPAIR DRAIN HOLES IN TOP CHORD OF TRUSS T-6. SEE DETAIL B2/SF521.
- REPAIR DRAIN HOLES IN BOTTOM CHORD OF TRUSS T-6. SEE DETAIL B2/SF521.
- DRAIN HOLE IN REINFORCED TOP CHORD OF TRUSS T-6. SEE DETAIL C5/SF521.
- DRAIN HOLE IN REINFORCED BOTTOM CHORD OF TRUSS T-6. SEE DETAIL C3/SF521.
- REPAIR EXISTING 4x4x3/8± VERTICAL MEMBER. SEE DETAIL B5/SF522.



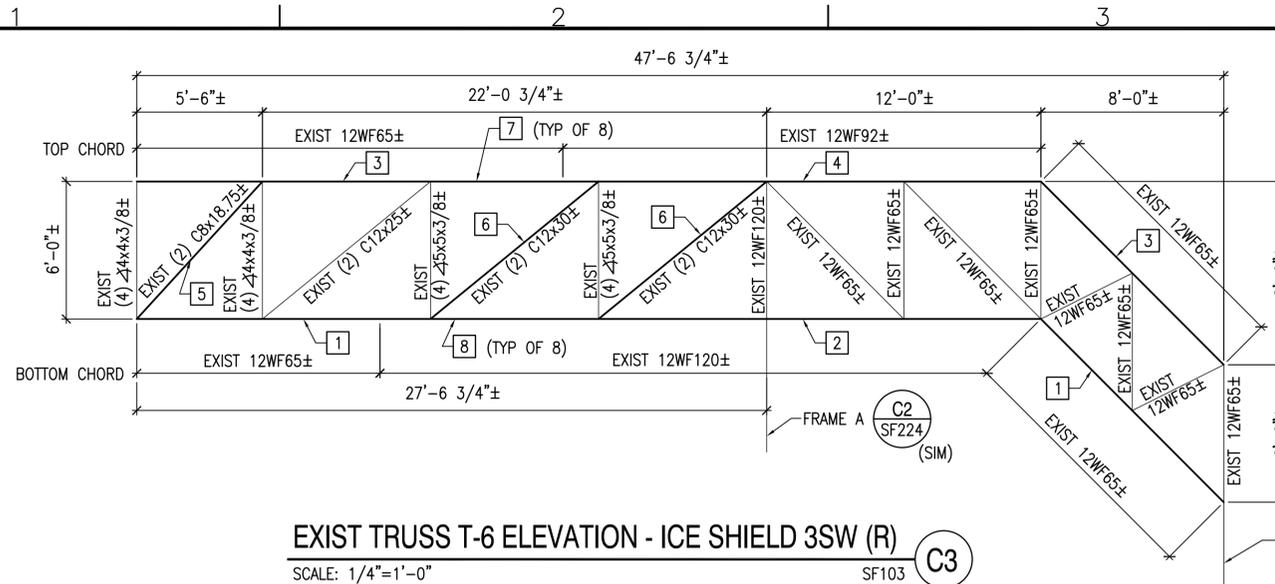
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| APPROVED | A/E INFO |
| FOR COMMANDER NAVFAC | ACTIVITY |
| SATISFACTORY TO | DATE |
| DES | DNM |
| DRW | MJC |
| CHK | DNM |
| FW/DM | DAVID HOPPER |
| BRANCH MANAGER | MARTIN RYAN |
| FEAD/PM/AE | LCDR JAMES ROCHE |
| FIRE PROTECTION | |

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SHIPYARD - PORTSMOUTH - NH
PUBLIC WORKS DEPARTMENT - MAINE
NCTAMS LANT DET
NCTCS CUTLER, MAINE
**CUTLER SOUTH HELIX HOUSE STEEL
PRESERVATION AND EXTERIOR RENOVATION**
SOUTH HELIX HOUSE
TRUSS T-6 ELEVATIONS 1 [OPTION 1]

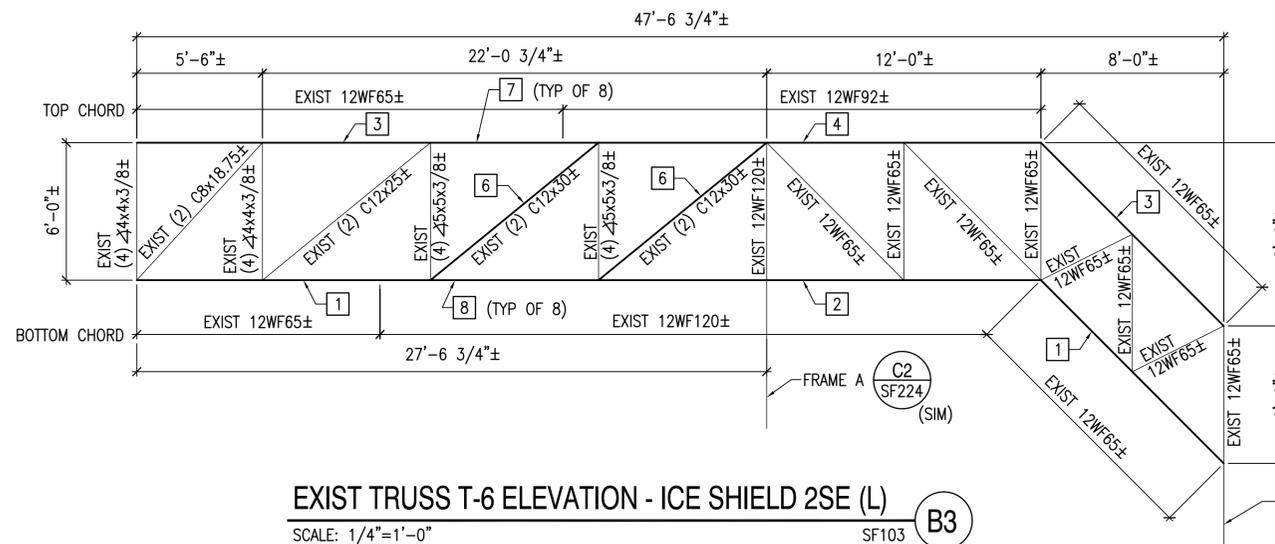
GRAPHIC SCALE



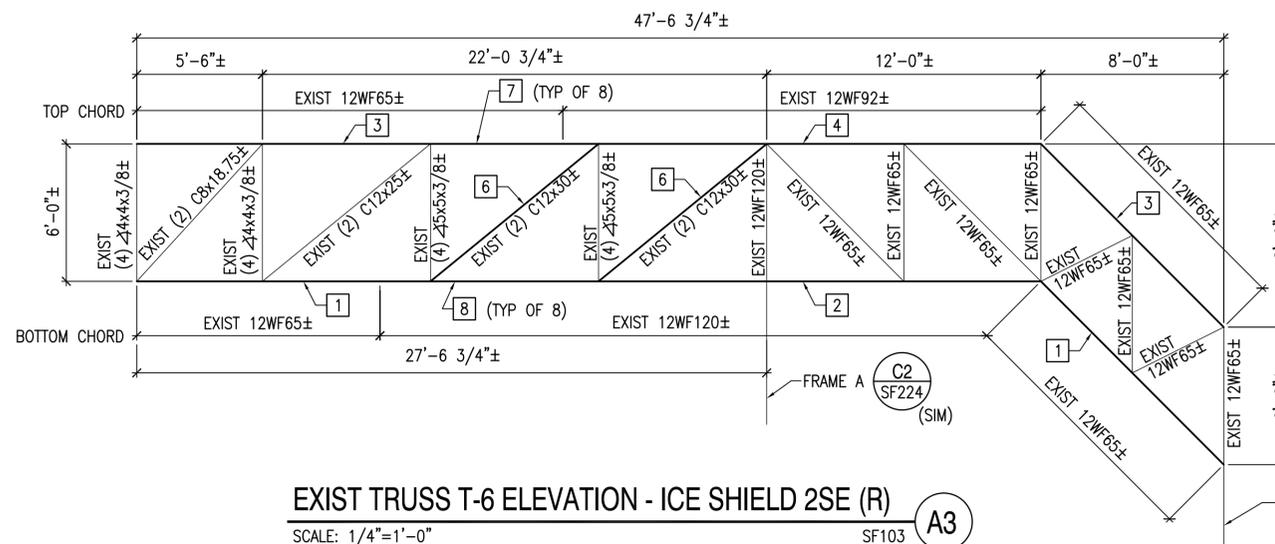
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| SCALE: | AS NOTED |
| EPROJECT NO.: | 1369480 |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. | 12712483 |
| SHEET | 24 OF 48 |
| SF221 | LF-16-116 |



EXIST TRUSS T-6 ELEVATION - ICE SHIELD 3SW (R)
SCALE: 1/4"=1'-0" SF103 C3



EXIST TRUSS T-6 ELEVATION - ICE SHIELD 2SE (L)
SCALE: 1/4"=1'-0" SF103 B3



EXIST TRUSS T-6 ELEVATION - ICE SHIELD 2SE (R)
SCALE: 1/4"=1'-0" SF103 A3

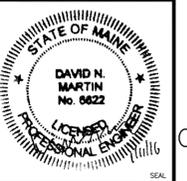
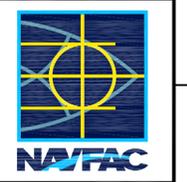
GENERAL SHEET NOTES

- ITEMS ON THIS SHEET ARE ASSOCIATED WITH OPTION 1.
- REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
- REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

KEYNOTES (THIS SHEET ONLY)

- REINFORCE EXISTING 12WF65± BOTTOM CHORD OF TRUSS T-6. SEE DETAIL D2/SF521.
- REINFORCE EXISTING 12WF120± BOTTOM CHORD OF TRUSS T-6. SEE DETAIL D3/SF521.
- REINFORCE EXISTING 12WF65± TOP CHORD OF TRUSS T-6. SEE DETAIL D5/SF521.
- REINFORCE EXISTING 12WF92± TOP CHORD OF TRUSS T-6. SEE DETAIL C2/SF521.
- REMOVE AND REPLACE EXISTING (2) C8x18.75± DIAGONAL MEMBER. SEE DETAILS C2/SF522 AND C4/SF522.
- REMOVE AND REPLACE EXISTING (2) C12x30± DIAGONAL MEMBER. SEE DETAILS A2/SF522 AND A4/SF522.
- DRAIN HOLE IN REINFORCED TOP CHORD OF TRUSS T-6. SEE DETAIL C5/SF521.
- DRAIN HOLE IN REINFORCED BOTTOM CHORD OF TRUSS T-6. SEE DETAIL C3/SF521.

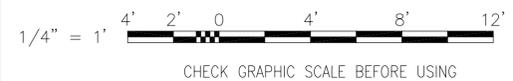
| SYN | DESCRIPTION | DATE | APPR |
|-----|-------------|------|------|
| | | | |



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| APPROVED | A/E INFO |
| FOR COMMANDER NAVFAC | ACTIVITY |
| SATISFACTORY TO DATE | 01/08/16 |
| DES | DNM |
| DRW | MJC |
| CHK | DNM |
| FW/DM | DAVID HOPPER |
| BRANCH MANAGER | MARTIN RYAN |
| FEAD/PM/AE | LCDR JAMES ROCHE |

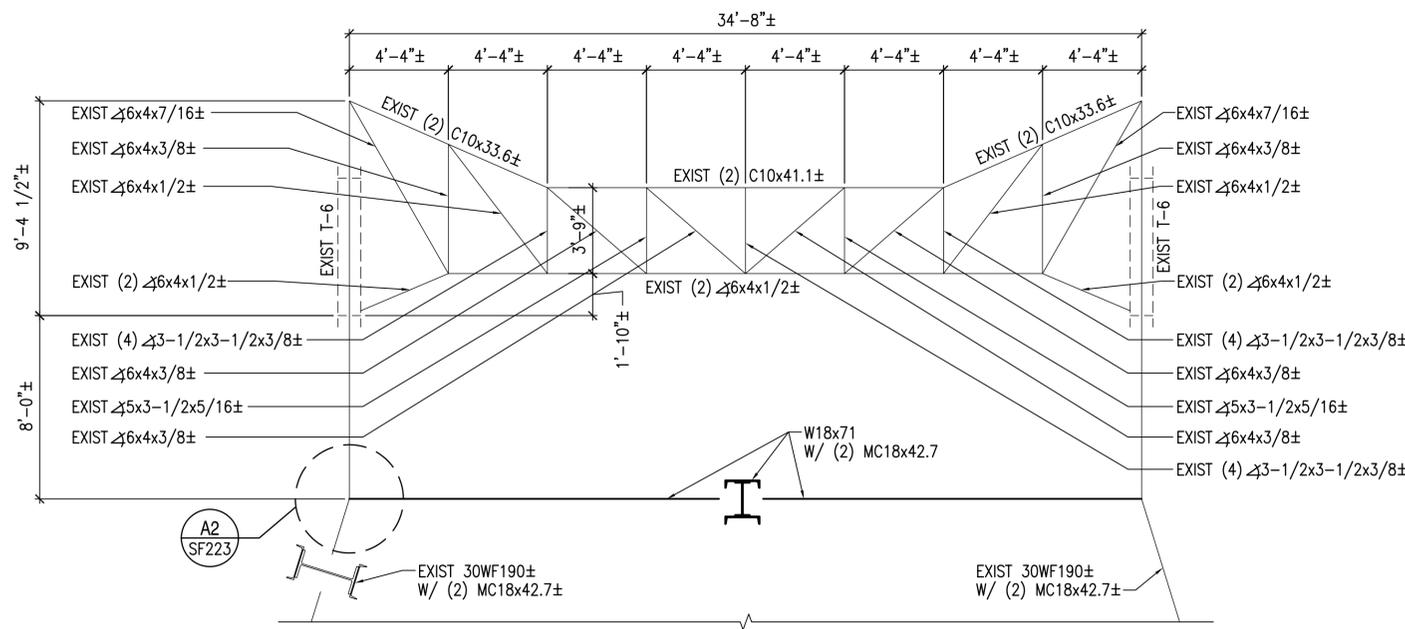
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
NAVAL SHIPYARD - PORTSMOUTH - NH
PUBLIC WORKS DEPARTMENT - MAINE
NCTAMS LANT DET
NCTCS CUTLER, MAINE
CUTLER SOUTH HELIX HOUSE STEEL PRESERVATION AND EXTERIOR RENOVATION
SOUTH HELIX HOUSE
TRUSS T-6 ELEVATIONS 2 [OPTION 1]

GRAPHIC SCALE



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|--------------------|-----------|
| SCALE: | AS NOTED |
| EPROJECT NO.: | 1369480 |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. | 12712484 |
| SHEET | 25 OF 48 |
| SF222 | LF-16-117 |

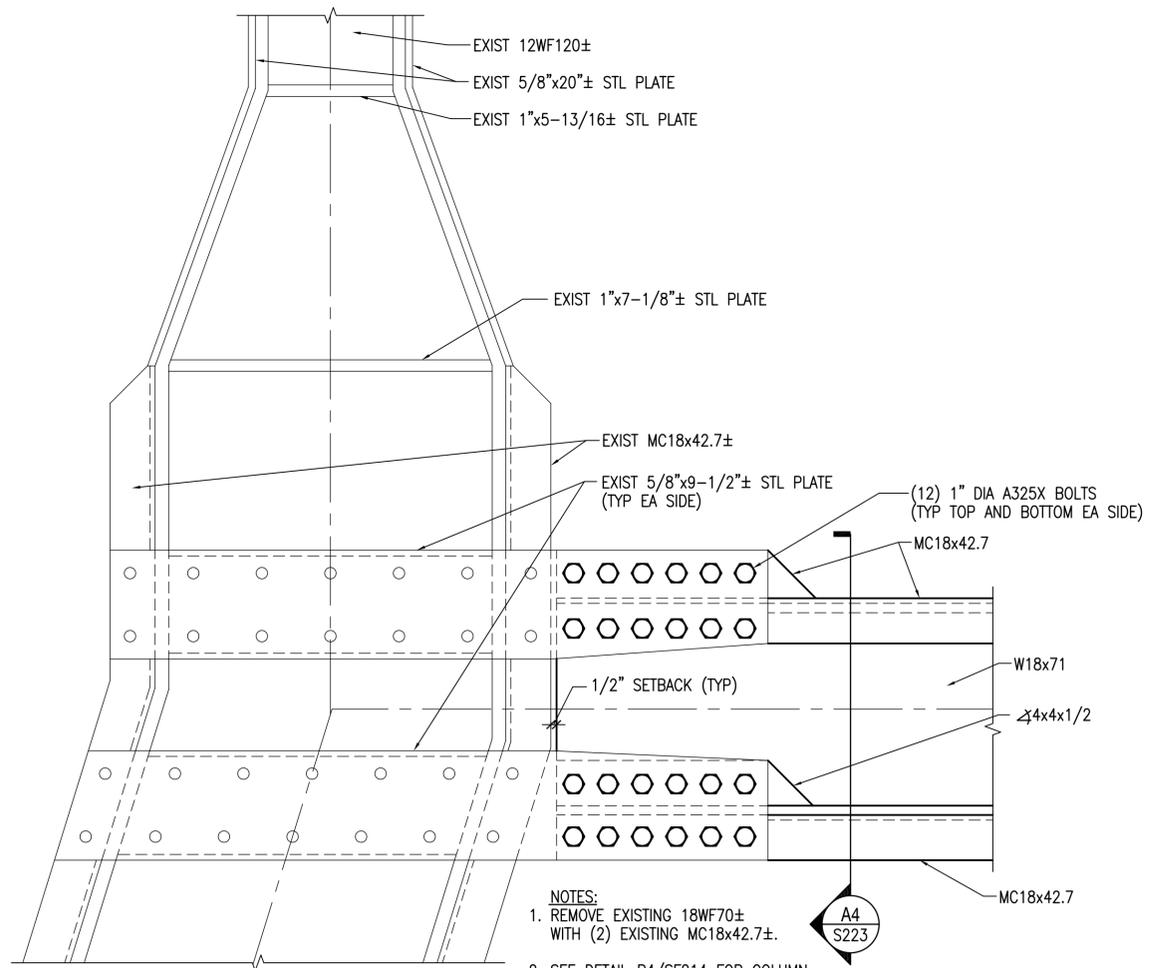
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EXIST FRAME D ELEVATION

SCALE: 1/4"=1'-0" SF103, SF221, SF222 **C2**

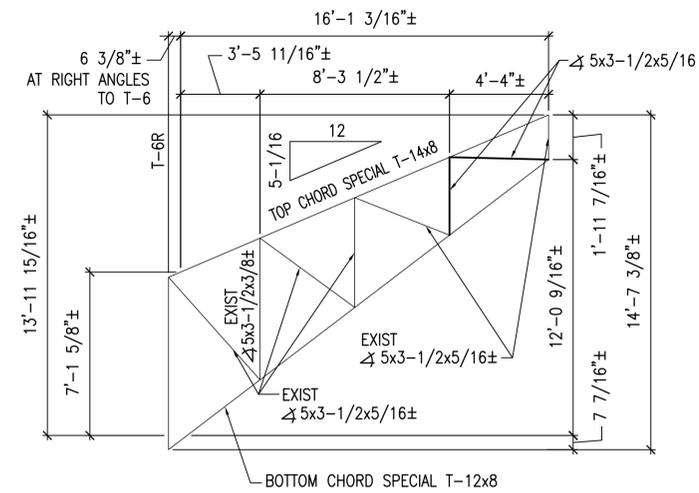
NOTE:
SEE BID ITEM 0002f OF
UNIT PRICE FORM.



FRAME D CONNECTION DETAIL

SCALE: 1-1/2"=1'-0" SF223, SF224 **A2**

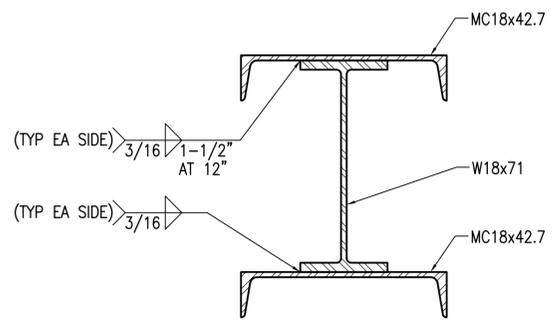
- NOTES:
- REMOVE EXISTING 18WF70± WITH (2) EXISTING MC18x42.7±.
 - SEE DETAIL B4/SF214 FOR COLUMN WEB REPAIR.



EXIST TRUSS T-4L AND T-4R ELEVATION

SCALE: 1/4"=1'-0" SF103 **C4**

- NOTES:
- TRUSS T-4R (T-4L OPPOSITE HAND)
 - REMOVE EXISTING HSS MEMBER AT NEW Δ5x3-1/2x5/16 MEMBER LOCATIONS.
 - WELD Δ5x3-1/2x5/16 WITH 1/4" FILLET WELDS ALL AROUND TO EXISTING TOP AND BOTTOM CHORDS.



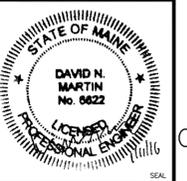
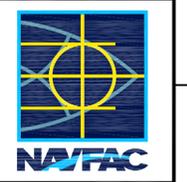
FRAME D REPAIR BEAM SECTION

SCALE: 1-1/2"=1'-0" SF223, SF224 **A4**

GENERAL SHEET NOTES

- ITEMS ON THIS SHEET ARE ASSOCIATED WITH OPTION 1.
- REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
- REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

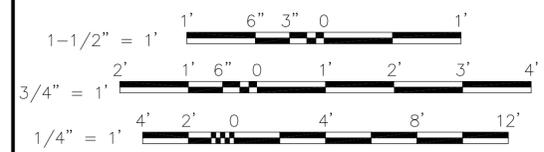
| APPR | DATE | DESCRIPTION | SYN |
|------|------|-------------|-----|
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| APPROVED | A/E INFO |
| FOR COMMANDER NAVFAC | ACTIVITY |
| SATISFACTORY TO | DATE |
| DES | DNM |
| DRW | MJC |
| CHK | DNM |
| FW/DM | DAVID HOPPER |
| BRANCH MANAGER | MARTIN RYAN |
| FEND/FMAE | LCDR JAMES ROCHE |

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
NAVAL SHIPYARD - PORTSMOUTH - MAINE
NCTCS CUTLER, MAINE
CUTLER SOUTH HELIX HOUSE STEEL PRESERVATION AND EXTERIOR RENOVATION
SOUTH HELIX HOUSE
FRAME D AND TRUSS T-4 ELEVATIONS [OPTION 1]

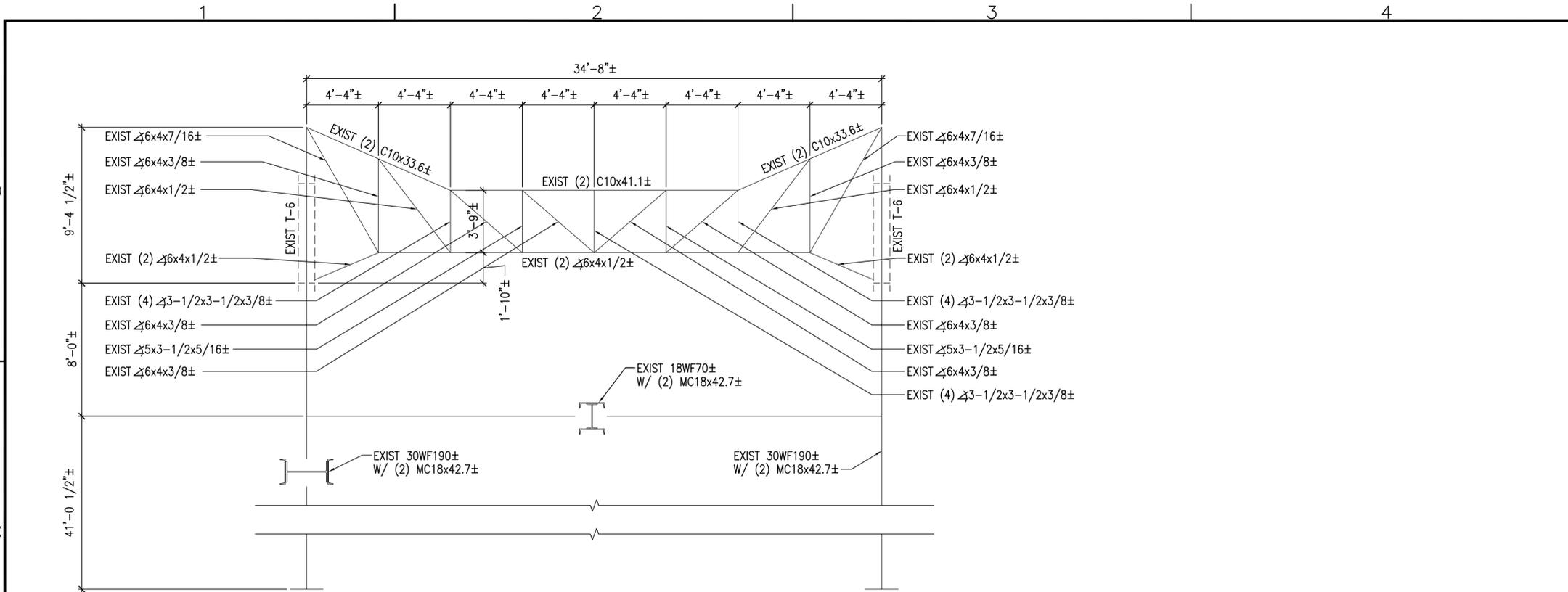
GRAPHIC SCALES



CHECK GRAPHIC SCALES BEFORE USING

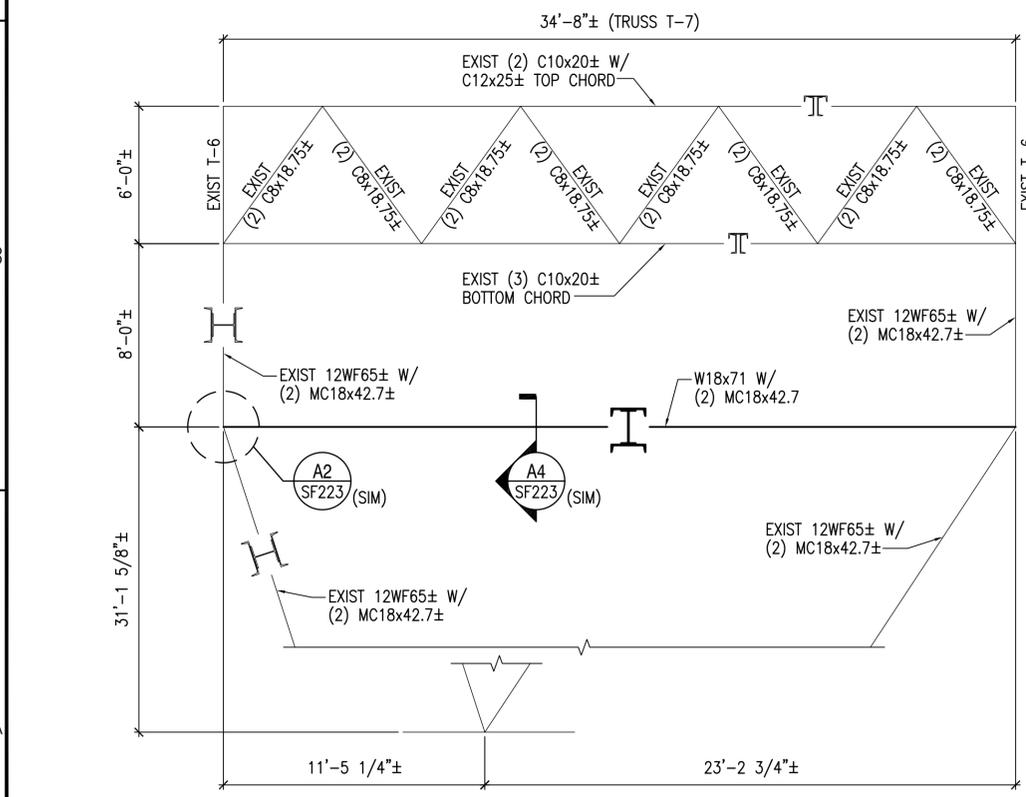
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| SCALE: | AS NOTED |
| EPROJECT NO.: | 1369480 |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. | 12712485 |
| SHEET | 26 OF 48 |
| SF223 | LF-16-118 |

11 Jan, 2016 - 10:58am
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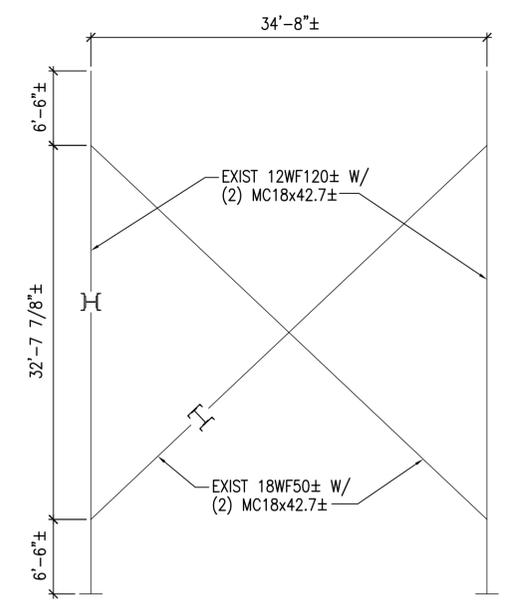
EXIST FRAME A ELEVATION

SCALE: 1/4"=1'-0" SF103, SF221, SF222 **C2**



EXIST FRAME B ELEVATION

SCALE: 1/4"=1'-0" SF221, SF222 **A2**



EXIST FRAME C ELEVATION

SCALE: 1/8"=1'-0" SF221, SF222 **A4**

NOTE:
SEE ITEM 0002u OF UNIT BID FORM.

GENERAL SHEET NOTES

- ITEMS ON THIS SHEET ARE ASSOCIATED WITH OPTION 1.
- REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
- REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

| SYN | DESCRIPTION | DATE | APPR |
|-----|-------------|------|------|
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APPROVED

FOR COMMANDER NAVFAC
ACTIVITY

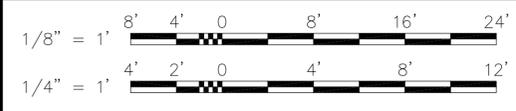
| SATISFACTORY TO | DATE | 01/08/16 |
|-----------------|------|----------|
| DES | DNM | DRW MJC |
| CHK | DNM | |

FW/DM DAVID HOPPER
BRANCH MANAGER MARTIN RYAN
FEO/FRAME LCDR JAMES ROCHE

FIRE PROTECTION

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
NAVAL SHIPYARD - PORTSMOUTH - NH
PUBLIC WORKS DEPARTMENT - MAINE
NCTAMS LANT DET
NCTCS CUTLER, MAINE
**CUTLER SOUTH HELIX HOUSE STEEL
PRESERVATION AND EXTERIOR RENOVATION**
SOUTH HELIX HOUSE
FRAME A, FRAME B AND FRAME C ELEVATIONS [OPTION 1]

GRAPHIC SCALES



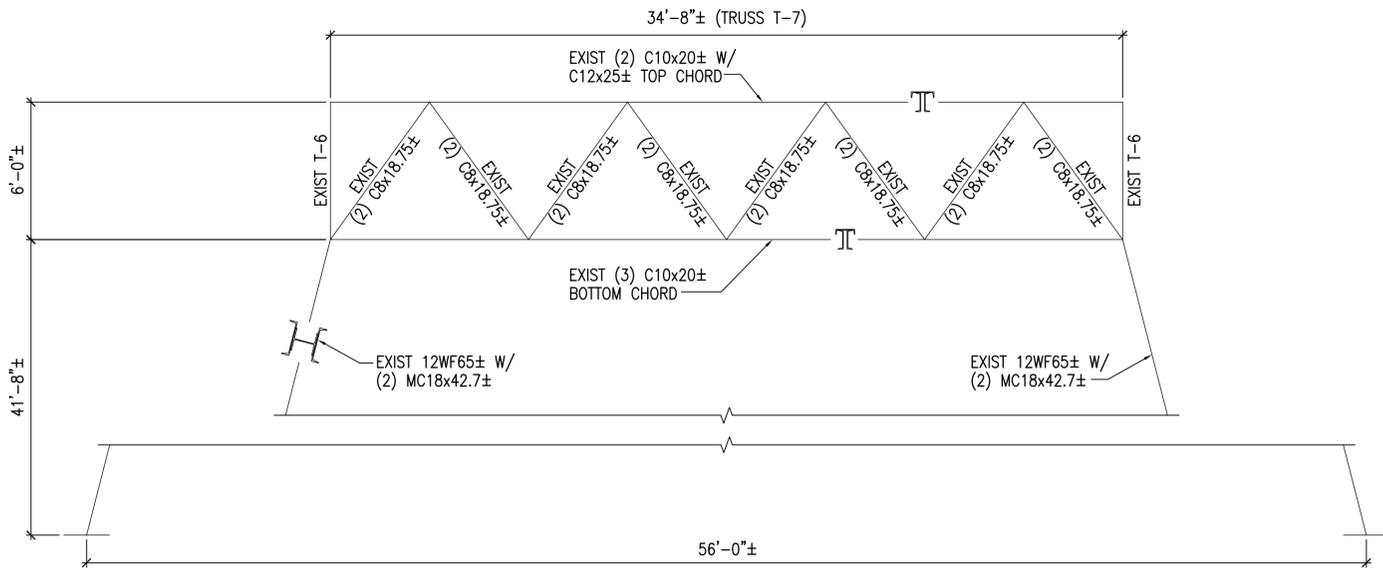
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| EPROJECT NO.: | 1369480 |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. | 12712486 |
| SHEET | 27 OF 48 |
| SF224 | LF-16-119 |

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DRAWING REVISION: 10 MARCH 2009

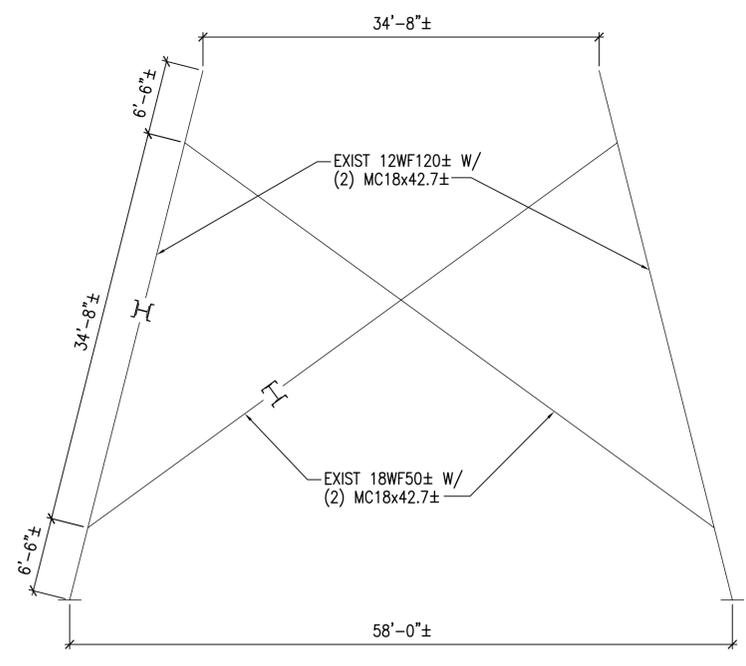
1 2 3 4 5



EXIST FRAME E ELEVATION

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

SF103 **C2**



EXIST FRAME F ELEVATION

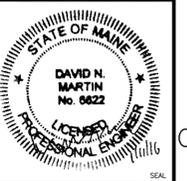
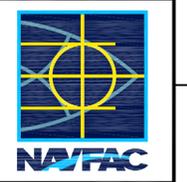
SCALE: 1/8"=1'-0"

SF103 **A2**

GENERAL SHEET NOTES

1. ITEMS ON THIS SHEET ARE ASSOCIATED WITH OPTION 1.
2. REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
3. REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

| NO. | DESCRIPTION | DATE | APPR. |
|-----|-------------|------|-------|
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ACTIVITY

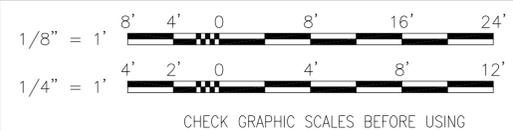
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| SATISFACTORY TO | DATE | 01/08/16 |
| DES | DNM | DRW |
| CHK | MJC | CHK |
| DNM | | |
| PM/DM | DAVID HOPPER | |
| BRANCH MANAGER | MARTIN RYAN | |
| FEAD/PM/AE | LCDR JAMES ROCHE | |

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SHIPYARD - PORTSMOUTH - NH
PUBLIC WORKS DEPARTMENT - MAINE
NCTAMS LANT DET
NCTCS CUTLER, MAINE

**CUTLER SOUTH HELIX HOUSE STEEL
PRESERVATION AND EXTERIOR RENOVATION**

SOUTH HELIX HOUSE
FRAME E AND FRAME F ELEVATIONS [OPTION 1]

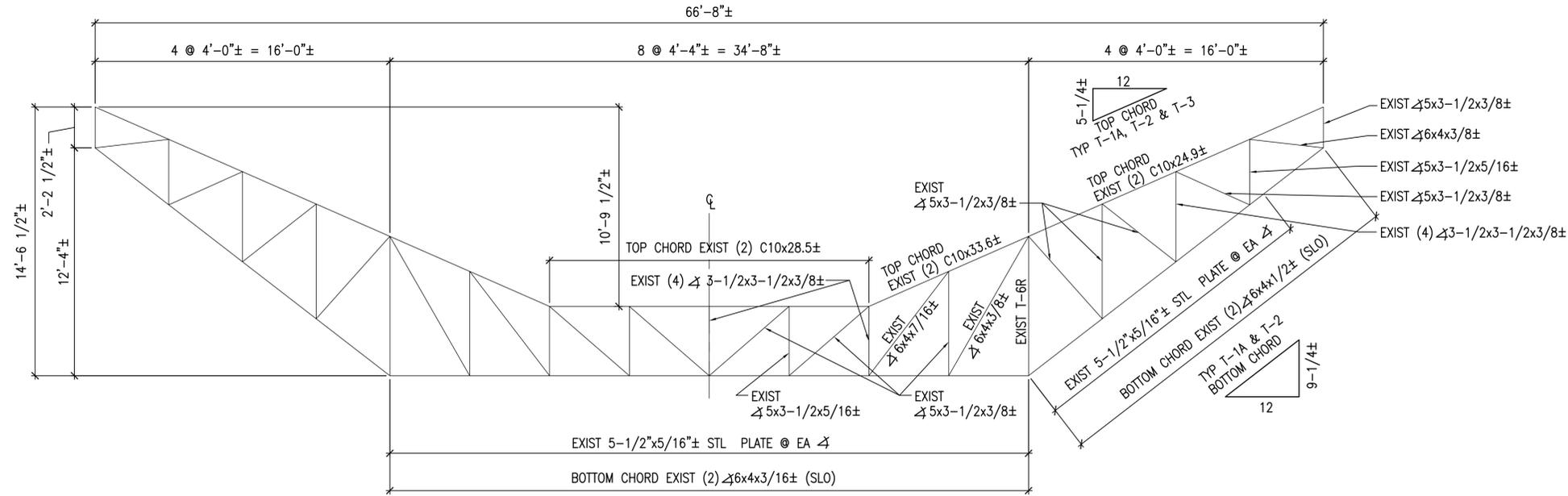
GRAPHIC SCALES



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| SCALE: | AS NOTED |
| PROJECT NO.: | 1369480 |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. | 12712487 |
| SHEET | 28 OF 48 |
| SF225 | LF-16-120 |

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11 Jan, 2016 11:02am
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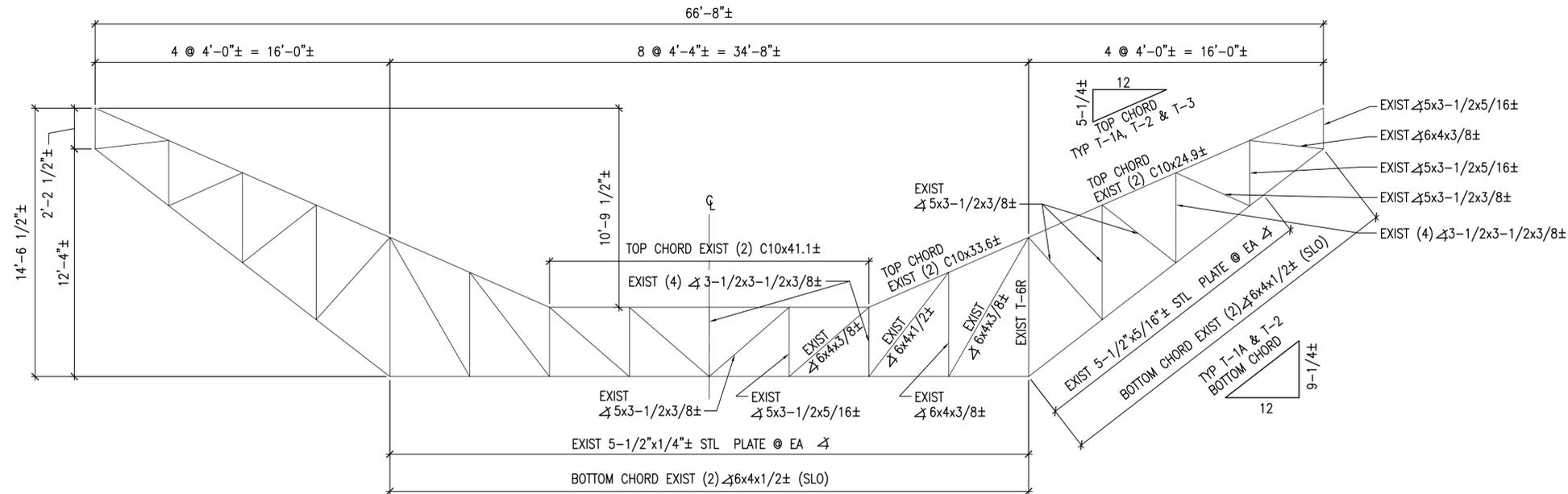


EXIST TRUSS T-1 ELEVATION

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

SF103

C3



EXIST TRUSS T-1A ELEVATION

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

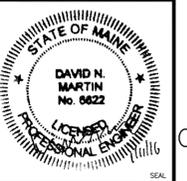
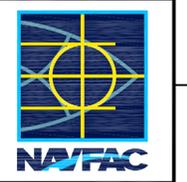
SF103

A3

GENERAL SHEET NOTES

- ITEMS ON THIS SHEET ARE ASSOCIATED WITH OPTION 1.
- TRUSSES ARE SYMMETRICAL ABOUT CENTERLINE.
- REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
- REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

| SYN | DESCRIPTION | DATE | APPR |
|-----|-------------|------|------|
| | | | |



APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE 01/08/16

DES DNM DRW MJC CHK DNM

FW/DM DAVID HOPPER

BRANCH MANAGER MARTIN RYAN

FEED/FWAE LCDR JAMES ROCHE

FIRE PROTECTION

NAVAL FACILITIES ENGINEERING COMMAND

NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC

NAVAL SHIPYARD - PORTSMOUTH - NH

PUBLIC WORKS DEPARTMENT - MAINE

NCTAMS LANT DET

NCTCS CUTLER, MAINE

CUTLER SOUTH HELIX HOUSE STEEL

PRESERVATION AND EXTERIOR RENOVATION

SOUTH HELIX HOUSE

TRUSS T-1 AND TRUSS T-1A ELEVATIONS [OPTION 1]

GRAPHIC SCALE



CHECK GRAPHIC SCALE BEFORE USING

SCALE: AS NOTED

EPROJECT NO.: 1369480

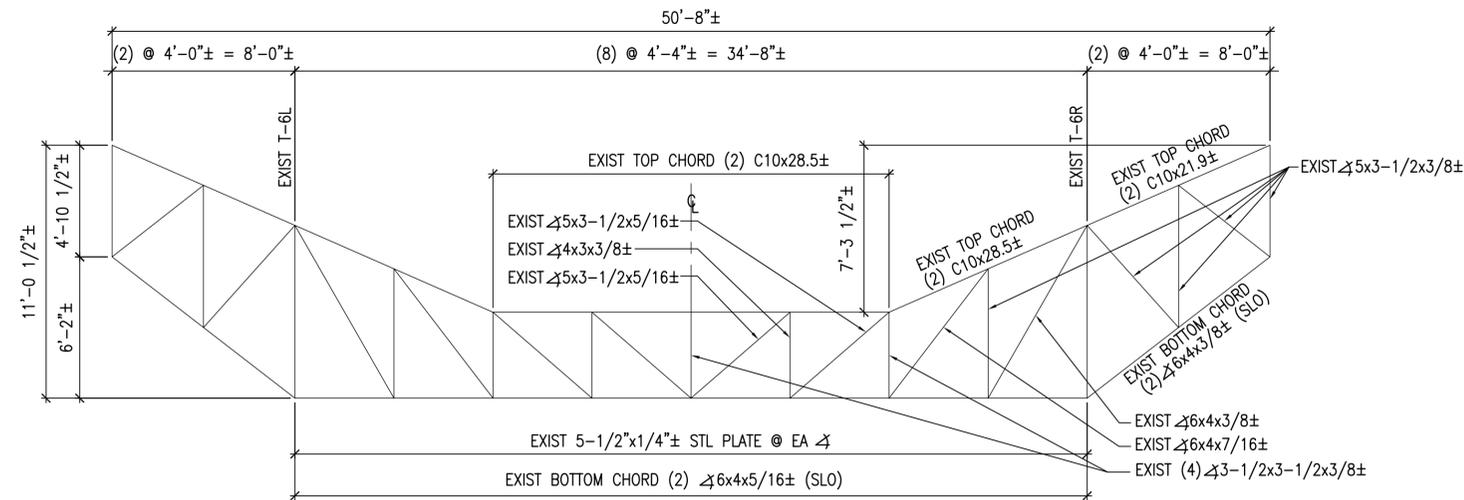
CONSTR. CONTR. NO.

NAVFAC DRAWING NO. 12712488

SHEET 29 OF 48

SF226 LF-16-121

DRAWFORM REVISION: 10 MARCH 2009

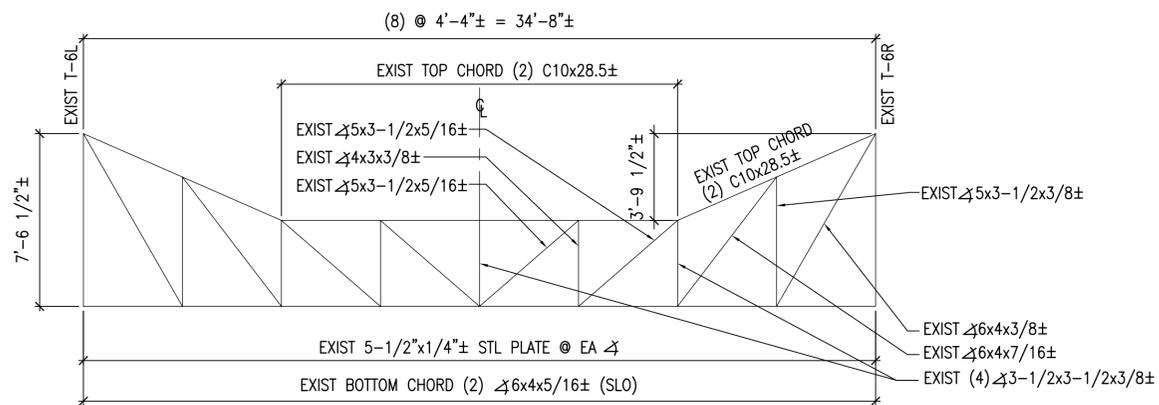


EXIST TRUSS T-2 ELEVATION

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

SF103

C3

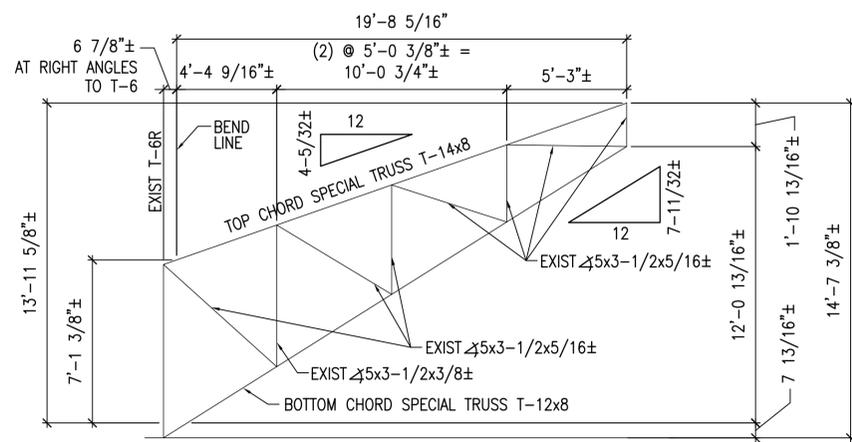


EXIST TRUSS T-3 ELEVATION

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

SF103

B3



TRUSS T-5R (T-5L OPPOSITE HAND)

EXIST TRUSS T-5L AND T-5R ELEVATION

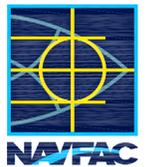
SCALE: 1/4"=1'-0"

SF013

A2

GENERAL SHEET NOTES

- ITEMS ON THIS SHEET ARE ASSOCIATED WITH OPTION 1.
- TRUSSES ARE SYMMETRICAL ABOUT CENTERLINE.
- REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
- REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.



APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE 01/08/16

DES DNM DRW MJC CHK DNM

FW/DM DAVID HOPPER

BRANCH MANAGER MARTIN RYAN

FEAD/FAAE LCDR JAMES ROCHE

FIRE PROTECTION

NAVAL FACILITIES ENGINEERING COMMAND

NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC

NAVAL SHIPYARD - PORTSMOUTH - NH

NCTAMS LANT DET

NCTCS CUTLER, MAINE

CUTLER SOUTH HELIX HOUSE STEEL

PRESERVATION AND EXTERIOR RENOVATION

SOUTH HELIX HOUSE

TRUSS T-2, TRUSS T-3 AND TRUSS T-5 ELEVATIONS [OPTION 1]

GRAPHIC SCALE



CHECK GRAPHIC SCALE BEFORE USING

SCALE: AS NOTED

EPROJECT NO.: 1369480

CONSTR. CONTR. NO.

NAVFAC DRAWING NO. 12712489

SHEET 30 OF 48

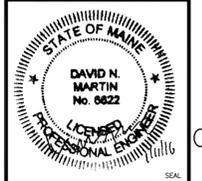
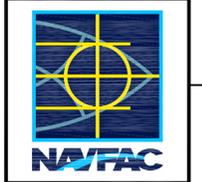
SF227 LF-16-122

DRAWING REVISION: 10 MARCH 2009

GENERAL SHEET NOTES

- ITEMS ON THIS SHEET ARE ASSOCIATED WITH OPTION 1.
- REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
- REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

| SYN | DESCRIPTION | DATE | APPR |
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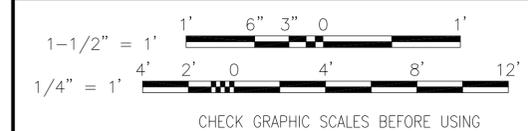


APPROVED
FOR COMMANDER NAVFAC
ACTIVITY

| | | | | | |
|----------------|------------------|-----|-----|-----|-----|
| DES | DNM | DRW | MJC | CHK | DNM |
| DATE | 01/08/16 | | | | |
| FW/DM | DAVID HOPPER | | | | |
| BRANCH MANAGER | MARTIN RYAN | | | | |
| FEAD/PM/AE | LCDR JAMES ROCHE | | | | |

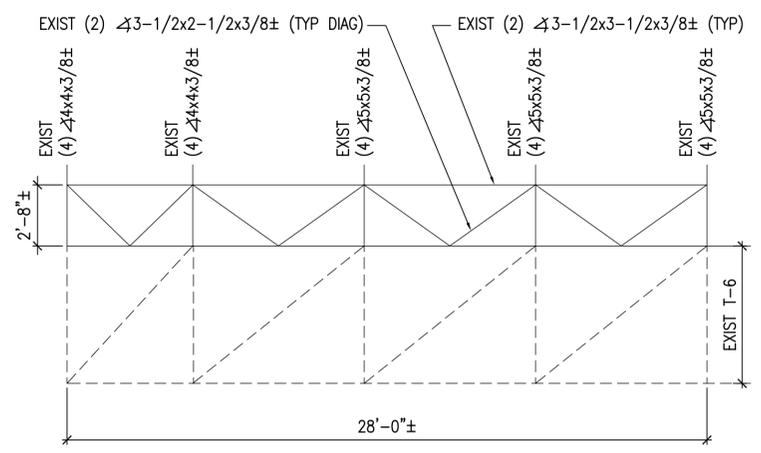
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
NAVAL SHIPYARD - PORTSMOUTH - NH
PUBLIC WORKS DEPARTMENT - MAINE
NCTAMS LANT DET
NCTCS CUTLER, MAINE
CUTLER SOUTH HELIX HOUSE STEEL PRESERVATION AND EXTERIOR RENOVATION
SOUTH HELIX HOUSE FRAMING ABOVE TRUSS T-6, BRACING S-1, TRUSS S-2 AND TRUSS S-3 ELEVATIONS [OPTION 1]

GRAPHIC SCALES

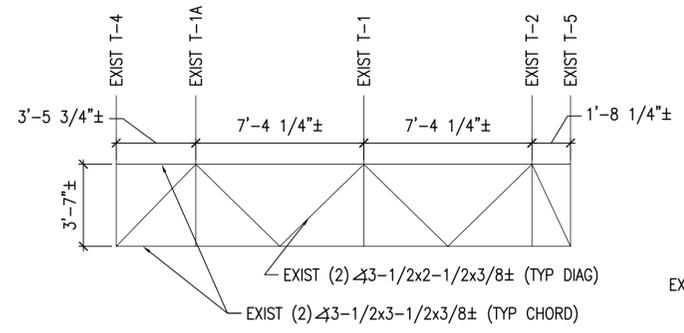


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| SCALE: | AS NOTED |
| EPROJECT NO.: | 1369480 |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. | 12712490 |
| SHEET | 31 OF 48 |
| SF228 | LF-16-123 |

DRAWING REVISION: 10 MARCH 2009

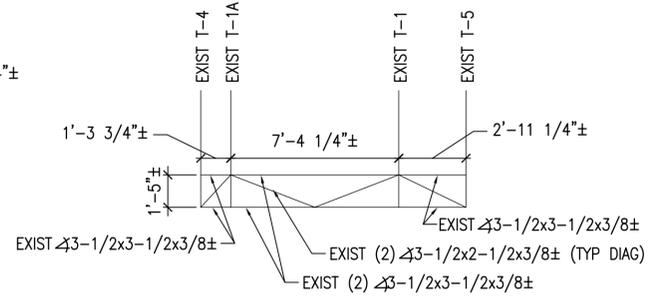


EXIST FRAMING ABOVE TOP CHORD TRUSS T-6 ELEVATION
SCALE: 1/4"=1'-0" SF103 C2

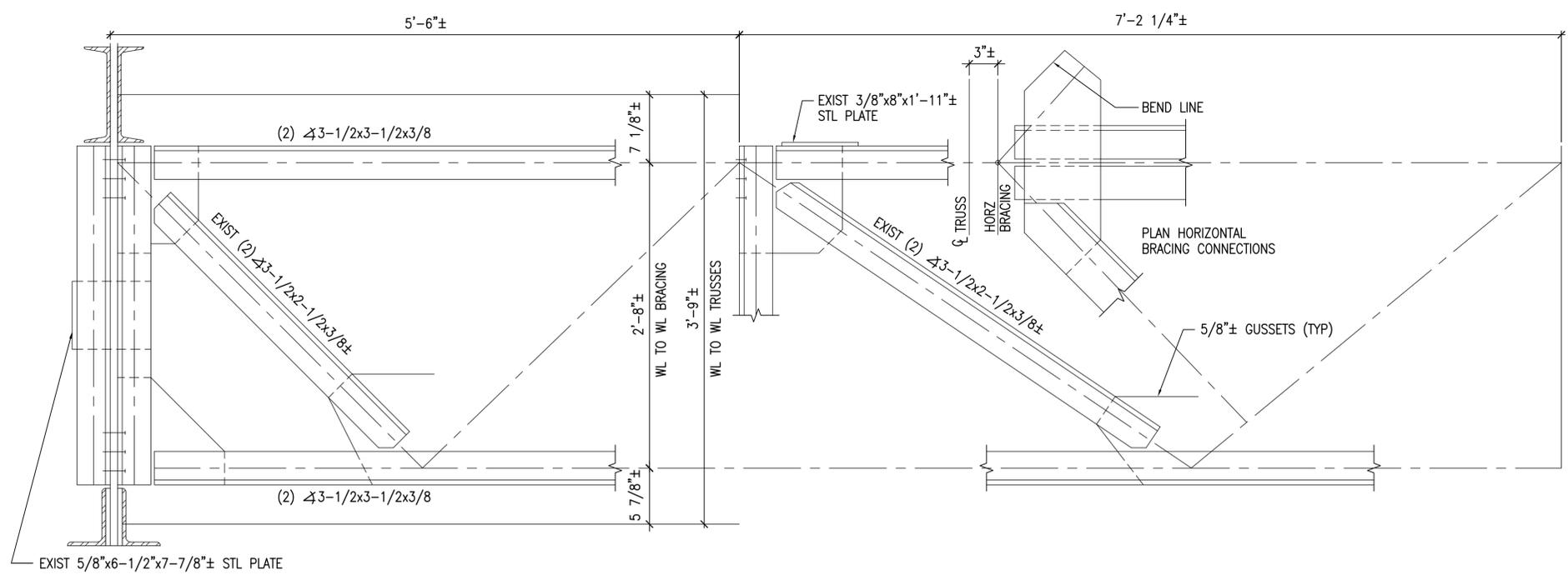


EXIST TRUSS S-2 ELEVATION
SCALE: 1/4"=1'-0" SF103 C3

NOTE:
TRUSS S-1 SIMILAR.

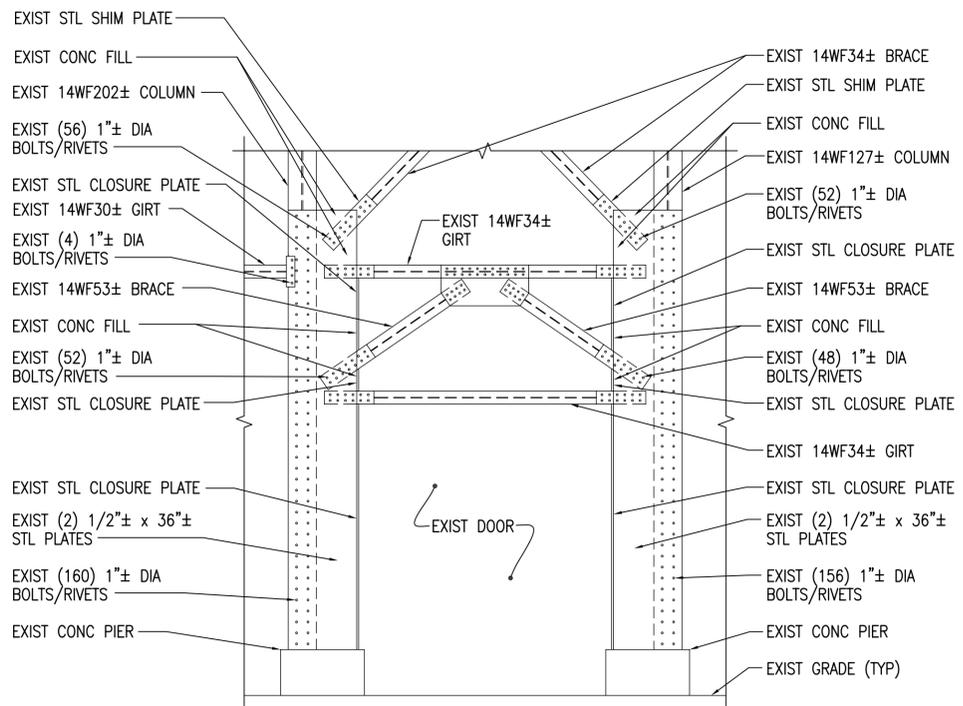


EXIST TRUSS S-3 ELEVATION
SCALE: 1/4"=1'-0" SF103 C4



EXIST BRACING S-1 (S-2 SIMILAR)
SCALE: 1-1/2"=1'-0" SF103 A3

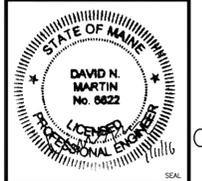
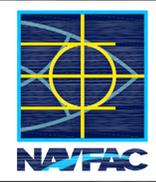
11 Jan, 2016 11:04am
C:\file\21403.12-SF228S.dwg



- NOTES:
1. MEMBER SIZES MAY VARY.
 2. QUANTITIES OF BOLTS/RIVETS MAY VARY.

ENLARGED PARTIAL ELEVATION AT FACE "Y"
 SCALE: 1/4"=1'-0" C2

| SYN | DESCRIPTION | DATE | APPR |
|-----|-------------|------|------|
| | | | |



APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE 01/08/16

DES DNM DRW MJC CHK DNM

PM/DM DAVID HOPPER

BRANCH MANAGER MARTIN RYAN

FEAD/PM/EA LCDR JAMES ROCHE

FIRE PROTECTION

NAVAL FACILITIES ENGINEERING COMMAND

NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC

NAVAL SHIPYARD - PORTSMOUTH - NH

NCTCS CUTLER, MAINE

CUTLER SOUTH HELIX HOUSE STEEL

PRESERVATION AND EXTERIOR RENOVATION

SOUTH HELIX HOUSE

ENLARGED STRUCTURAL ELEVATIONS 1

DEPARTMENT OF THE NAVY

NAVAL FACILITIES ENGINEERING COMMAND

PUBLIC WORKS DEPARTMENT - MAINE

NCTAMS LANT DET

GENERAL SHEET NOTES

1. COORDINATE LOCATION OF EXISTING BOLT HOLES PRIOR TO FABRICATING STEEL FRAMING OR CONNECTIONS.
2. FIELD VERIFY DIMENSIONS, SIZES, QUANTITIES, ETC. PRIOR TO FABRICATION.

GRAPHIC SCALE



CHECK GRAPHIC SCALE BEFORE USING

SCALE: AS NOTED

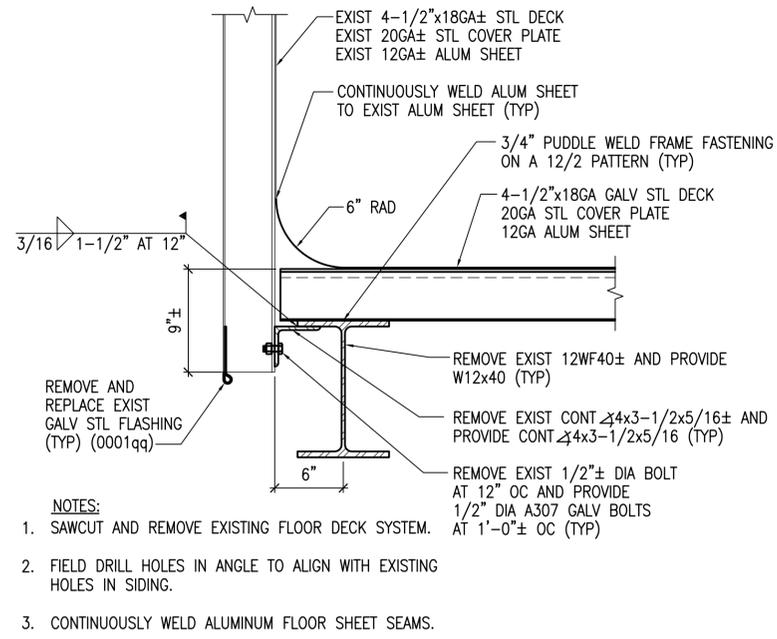
EPROJECT NO.: 1369480

CONSTR. CONTR. NO.

NAVFAC DRAWING NO. 12712491

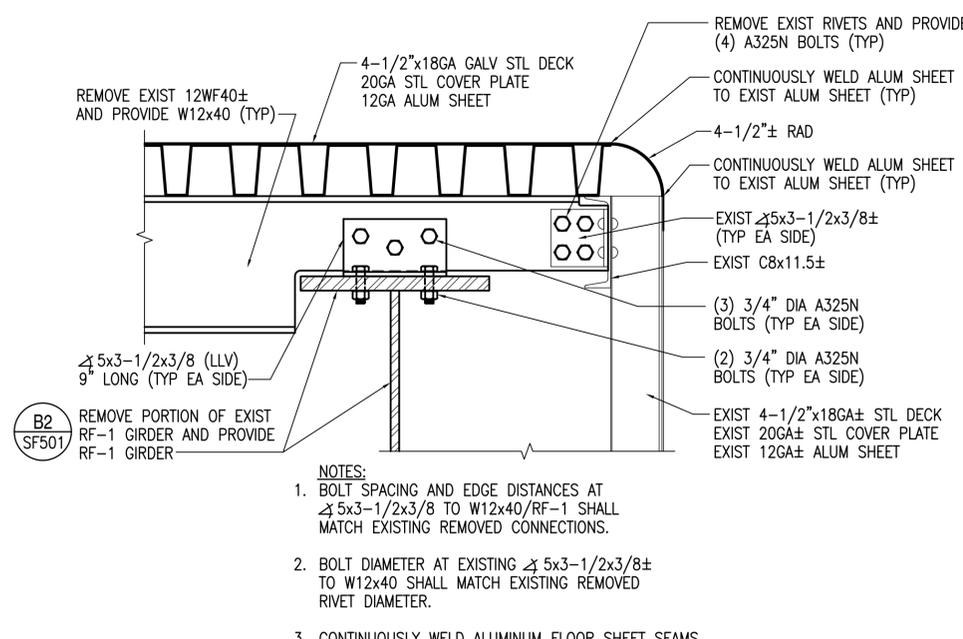
SHEET 32 OF 48

SF401 LF-16-124



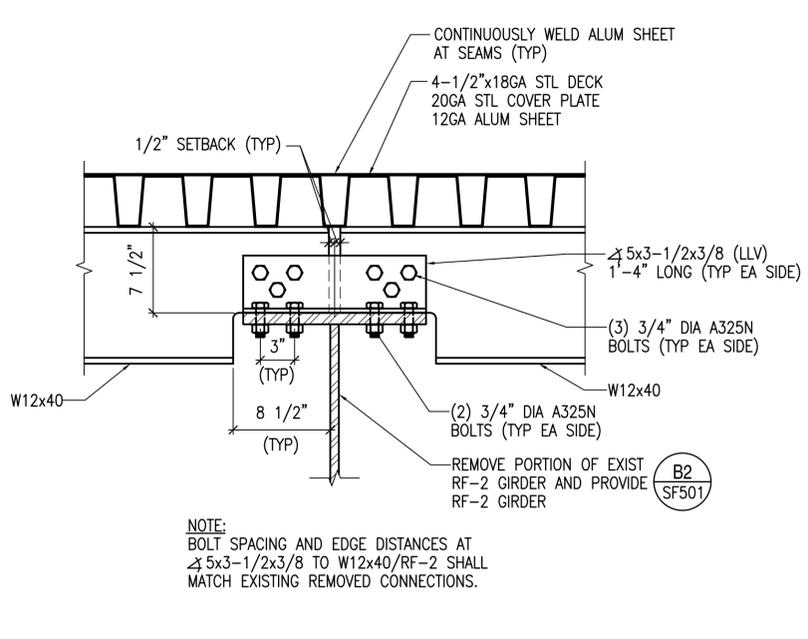
UPPER FLOOR DECK EDGE REPAIR DETAIL (C2)

SCALE: 1-1/2"=1'-0" SD101, SF102, SF212, SF501



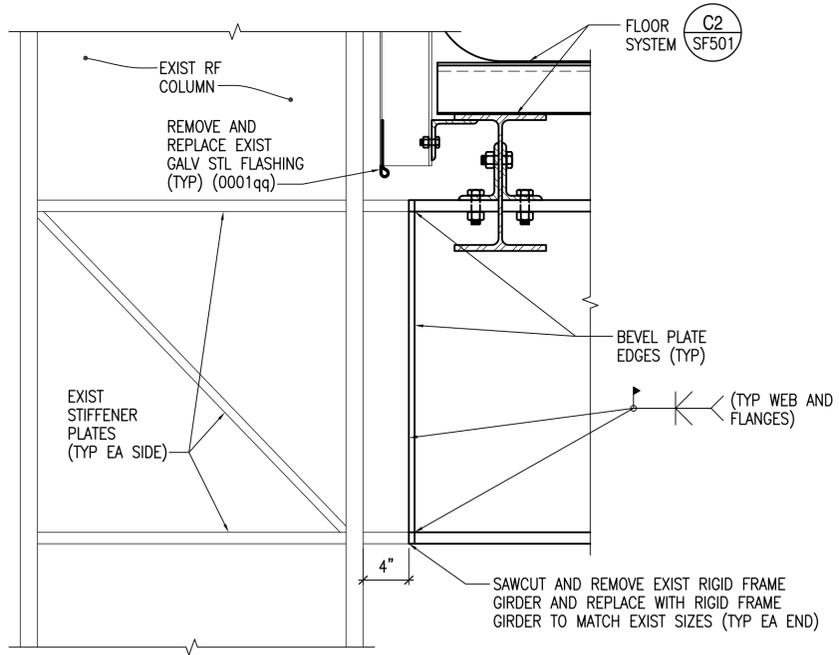
UPPER FLOOR DECK INT EDGE REPAIR DETAIL (C3)

SCALE: 1-1/2"=1'-0" SD101, SF102



UPPER FLOOR W12x40 TO RF-2 CONN DETAIL (C5)

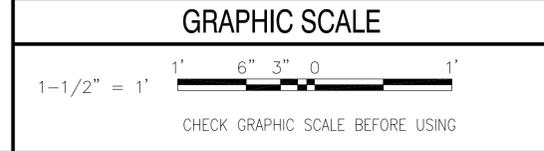
SCALE: 1-1/2"=1'-0" SD101, SF102



UPPER FLOOR RIGID FRAME GIRDER REPLACEMENT DETAIL (B2)

SCALE: 1-1/2"=1'-0" SD101, SF102, SF212, SF501

- GENERAL SHEET NOTES**
- COORDINATE LOCATION OF EXISTING BOLT HOLES PRIOR TO FABRICATING STRUCTURAL STEEL FRAMING OR CONNECTIONS.
 - FIELD VERIFY DIMENSIONS, SIZES, QUANTITIES, ETC. PRIOR TO FABRICATION.
 - REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
 - REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.



| NO. | DATE | DESCRIPTION | BY | APPR. |
|-----|------|-------------|----|-------|
| | | | | |

NAVFAC

STATE OF MAINE

DAVID N. MARTIN
No. 6622
LICENSED PROFESSIONAL ENGINEER

OAK POINT ASSOCIATES

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE 01/08/16

| | | | | | |
|----------------|------------------|-----|-----|-----|-----|
| DES | DNM | DRW | MJC | CHK | DNM |
| FW/DM | DAVID HOPPER | | | | |
| BRANCH MANAGER | MARTIN RYAN | | | | |
| FEAD/PMAE | LCDR JAMES ROCHE | | | | |

FIRE PROTECTION

NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SHIPYARD - PORTSMOUTH - NH
NAVAL WORKS DEPARTMENT - MAINE
NCTAMS LANT DET
NCTCS CUTLER, MAINE

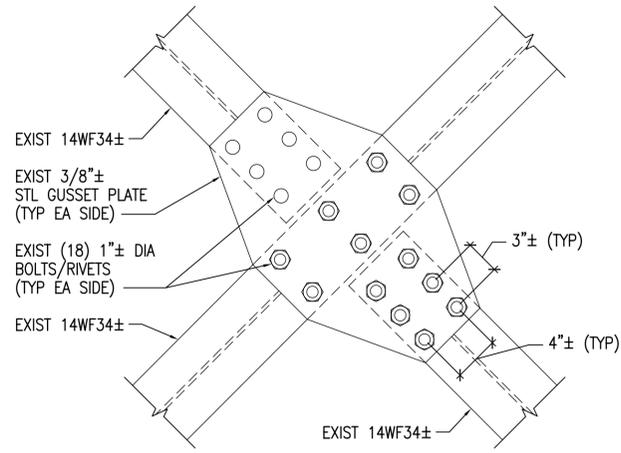
CUTLER SOUTH HELIX HOUSE STEEL PRESERVATION AND EXTERIOR RENOVATION

SOUTH HELIX HOUSE
STRUCTURAL DETAILS 1

| | |
|--------------------|-----------|
| SCALE: | AS NOTED |
| EPROJECT NO.: | 1369480 |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. | 12712492 |
| SHEET | 33 OF 48 |
| SF501 | LF-16-125 |

DRAWFORM REVISION: 10 MARCH 2009

11 Jan, 2016 - 11:07am
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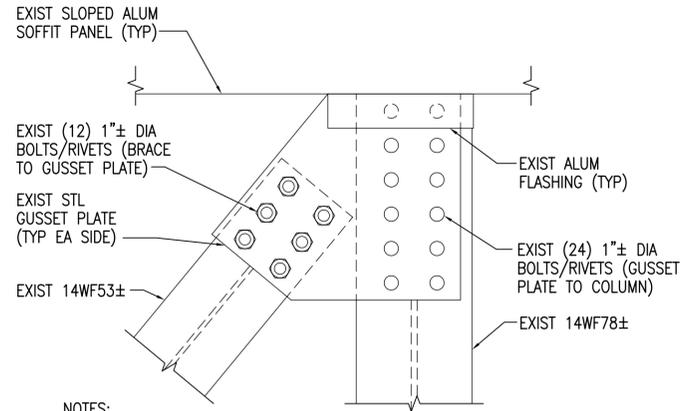


TYP BRACE TO BRACE CONN DETAIL

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

SF601

C2

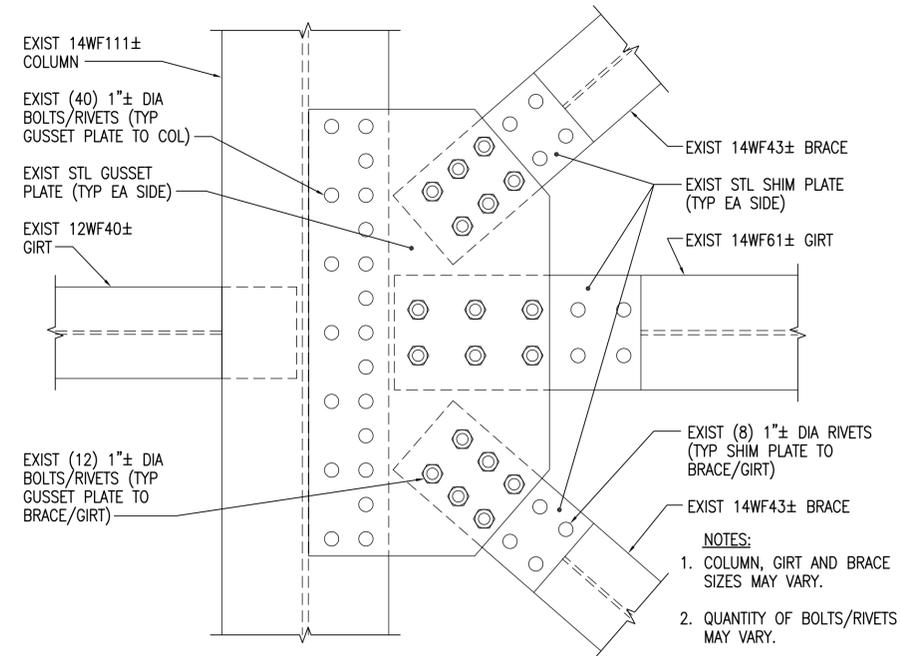


TYP BRACE TO COL CONN DETAIL AT SOFFIT PANEL

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

SF601

C3

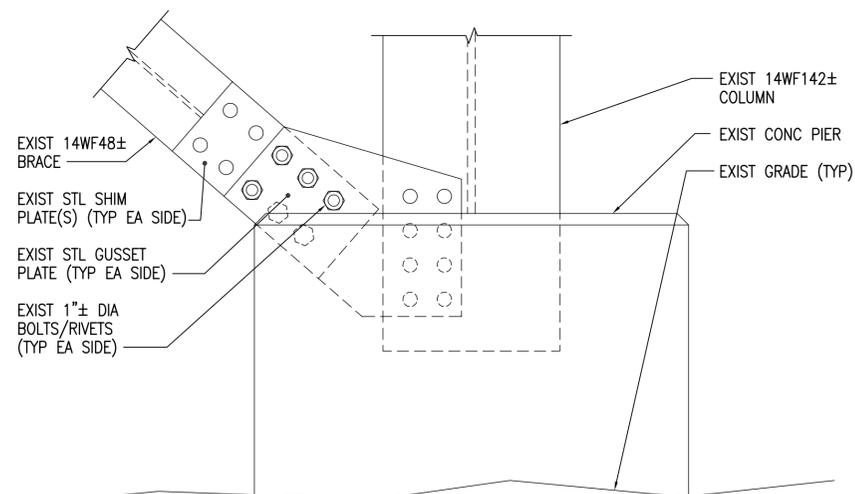


TYP (2) BRACES/GIRT TO COL CONN DETAIL

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

SF601

C5

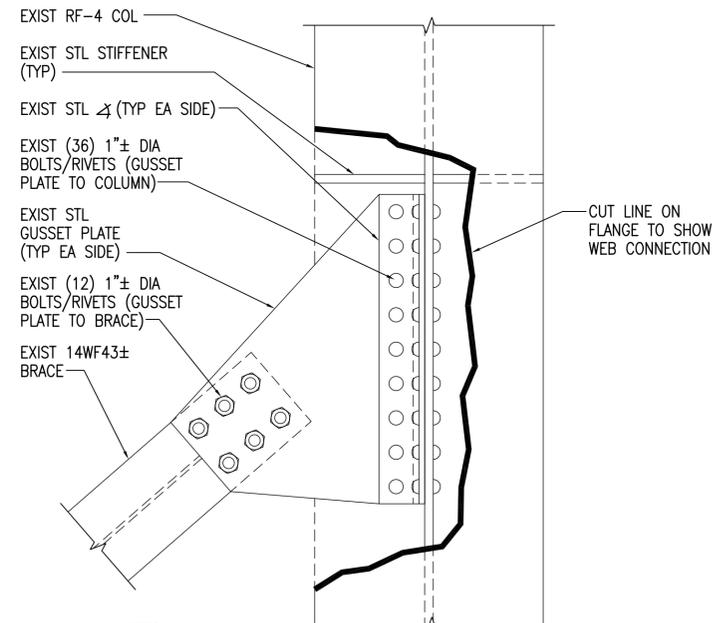


TYP BRACE TO COL CONN DETAIL AT COL BASE

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

SF601

A2

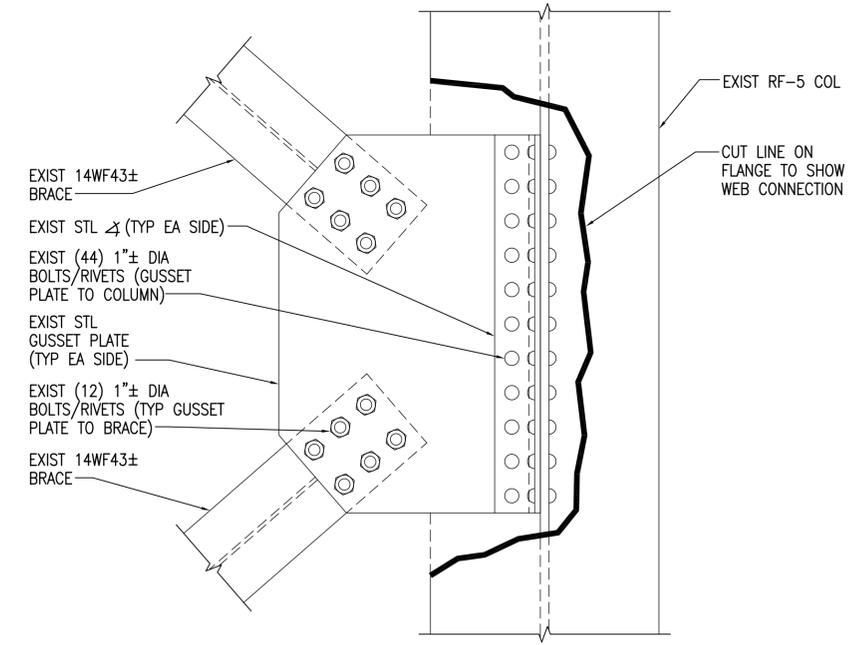


TYP BRACE TO RF COL CONN DETAIL NEAR ROOF

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

SF601

A3



TYP (2) BRACES TO RF COL CONN DETAIL

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

SF601

A5

- NOTES:**
1. COLUMN AND BRACE SIZES MAY VARY.
 2. QUANTITY OF BOLTS/RIVETS MAY VARY.

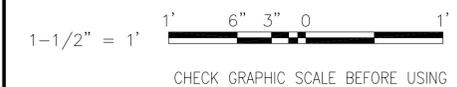
- NOTES:**
1. RF-COLUMN AND BRACE SIZES MAY VARY.
 2. QUANTITY OF BOLTS/RIVETS MAY VARY.

- NOTES:**
1. RF-COLUMN AND BRACE SIZES MAY VARY.
 2. QUANTITY OF BOLTS/RIVETS MAY VARY.

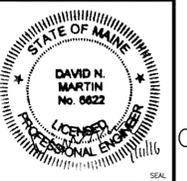
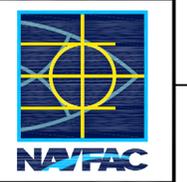
GENERAL SHEET NOTES

1. COORDINATE LOCATION OF EXISTING BOLT HOLES PRIOR TO FABRICATING STRUCTURAL STEEL FRAMING OR CONNECTIONS.
2. FIELD VERIFY DIMENSIONS, SIZES, QUANTITIES, ETC. PRIOR TO FABRICATION.
3. REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
4. REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

GRAPHIC SCALE



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APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE 01/08/16

DES DNM DRW MJC CHK DNM

PW/DM DAVID HOPPER

BRANCH MANAGER MARTIN RYAN

FEAD/PMAE LCDR JAMES ROCHE

DEPARTMENT OF THE NAVY

NAVAL FACILITIES ENGINEERING COMMAND

NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC

NAVAL SHIPYARD - PORTSMOUTH - MAINE

NCTAMS LANT DET

CUTLER SOUTH HELIX HOUSE STEEL PRESERVATION AND EXTERIOR RENOVATION

SOUTH HELIX HOUSE STRUCTURAL DETAILS 2

SCALE: AS NOTED

EPROJECT NO.: 1369480

CONSTR. CONTR. NO.

NAVFAC DRAWING NO. 12712493

SHEET 34 OF 48

SF502 LF-16-126

DRAWING REVISION: 10 MARCH 2009

11 Jan, 2016 11:08am
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EXIST CAST-IN-PLACE HOLLOW CORE CONC SLAB (TYP)

EXIST STL SIDING CLOSURE PLATE
EXIST 21WF112± RF BEAM

EXIST 1"± STIFFENER PLATE (TYP EA SIDE)
EXIST 21WF112± RF COLUMN

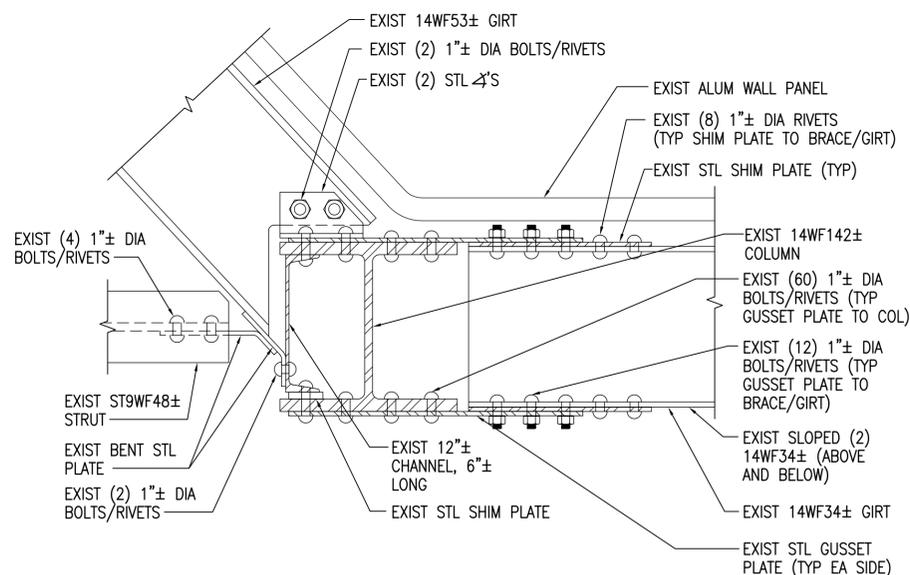
NOTE:
COLUMN, BEAM AND STIFFENER SIZES MAY VARY.

RIGID KNEE CONN DETAIL AT RIGID FRAME

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

SF601

C2



PLAN VIEW

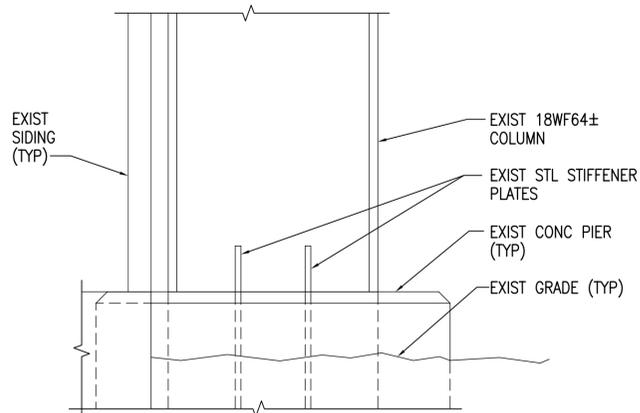
NOTES:
1. COLUMN, BRACE, GIRT AND STRUT SIZES MAY VARY.
2. QUANTITY OF BOLTS/RIVETS MAY VARY.

TYP (2) BRACES/(2) GIRTS/STRUT TO COL CONN DETAIL

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

SF601

A2



NOTES:

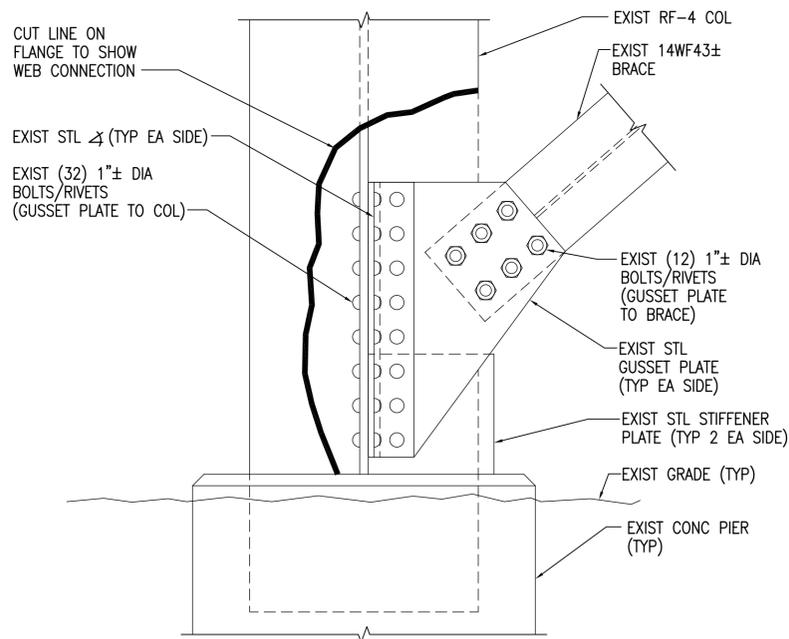
1. COLUMN SIZES MAY VARY.
2. CONCRETE PIER SIZES MAY VARY.
3. STEEL STIFFENERS NOT LOCATED AT ALL COLUMNS. EXPOSED STIFFENER HEIGHT MAY VARY.

TYP COLUMN BASE DETAIL

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

SF601

C3



NOTES:

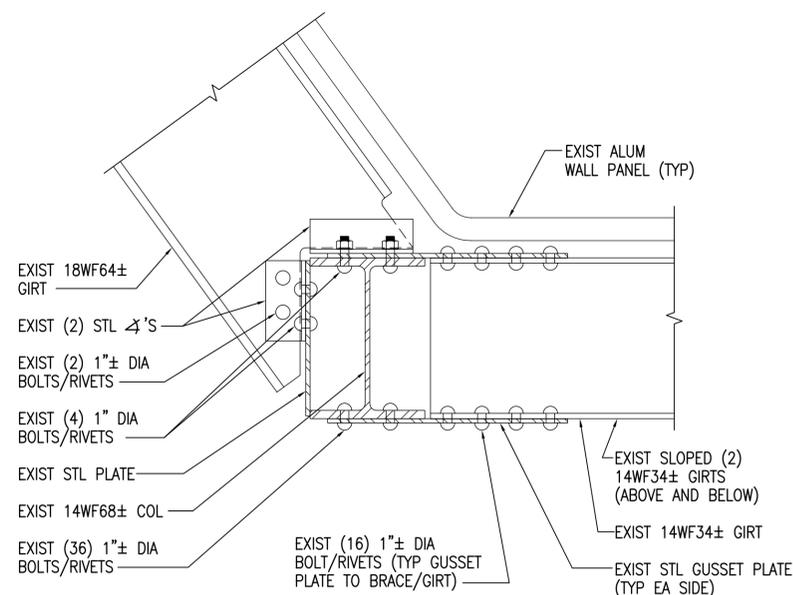
1. RF COLUMN AND BRACE SIZES MAY VARY.
2. QUANTITY OF BOLTS/RIVETS MAY VARY.

TYP BRACE TO RF COL CONN DETAIL AT COL BASE

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

SF601

A3



PLAN VIEW

NOTES:

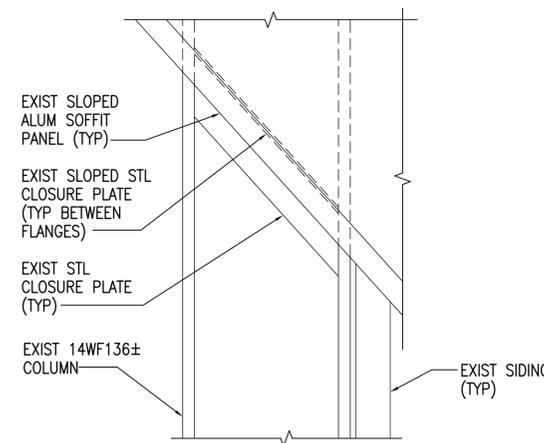
1. COLUMN, BRACE AND GIRT SIZES MAY VARY.
2. QUANTITY OF BOLTS/RIVETS MAY VARY.

TYP (2) BRACES/(2) GIRTS TO COL CONN DETAIL

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

SF601

C5



TYP COLUMN AT SOFFIT PANEL DETAIL

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

SF601

A5

GENERAL SHEET NOTES

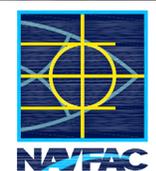
1. COORDINATE LOCATION OF EXISTING BOLT HOLES PRIOR TO FABRICATING STRUCTURAL STEEL FRAMING OR CONNECTIONS.
2. FIELD VERIFY DIMENSIONS, SIZES, QUANTITIES, ETC. PRIOR TO FABRICATION.
3. REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
4. REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

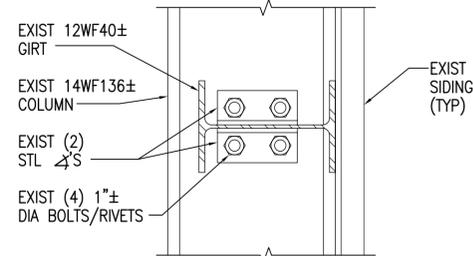
GRAPHIC SCALE



CHECK GRAPHIC SCALE BEFORE USING

11 Jan, 2016 - 11:10am
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| A/E INFO | |
| APPROVED | |
| FOR COMMANDER NAVFAC | |
| ACTIVITY | |
| SATISFACTORY TO DATE | 01/08/16 |
| DES | DNM |
| DRW | MJC |
| CHK | DNM |
| PW/DM | DAVID HOPPER |
| BRANCH MANAGER | MARTIN RYAN |
| FEAD/PMAE | LCDR JAMES ROCHE |
| FIRE PROTECTION | |
| DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC PUBLIC WORKS DEPARTMENT - MAINE NCTAMS LANT DET NCTAS CUTLER, MAINE CUTLER SOUTH HELIX HOUSE STEEL PRESERVATION AND EXTERIOR RENOVATION SOUTH HELIX HOUSE STRUCTURAL DETAILS 3 | |
| SCALE: | AS NOTED |
| EPROJECT NO.: | 1369480 |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. | 12712494 |
| SHEET | 35 OF 48 |
| SF503 | LF-16-127 |
| DRAWING REVISION: 10 MARCH 2009 | |



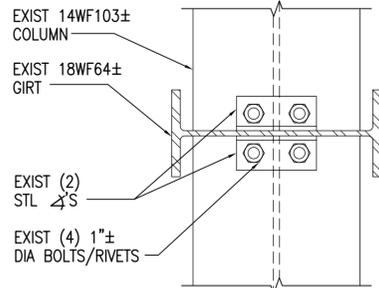
- NOTES:**
1. COLUMN AND GIRTS SIZES MAY VARY.
 2. QUANTITY OF BOLTS/RIVETS MAY VARY.

TYP GIRTS TO COL WEB CONN DETAIL

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

SF601

C2



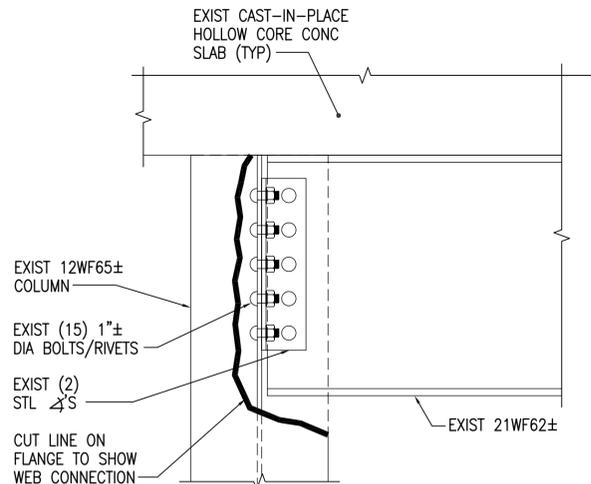
- NOTES:**
1. COLUMN AND GIRTS SIZES MAY VARY.
 2. QUANTITY OF BOLTS/RIVETS MAY VARY.

TYP GIRTS TO COL FLANGE CONN DETAIL

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

SF601

C3



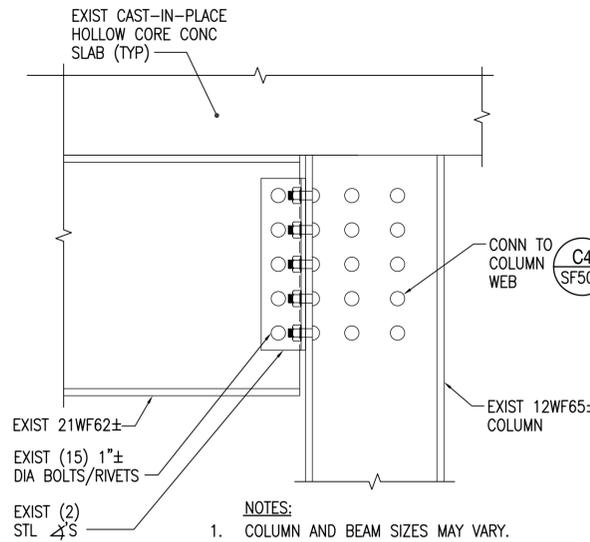
- NOTES:**
1. COLUMN AND BEAM SIZES MAY VARY.
 2. QUANTITY OF BOLTS/RIVETS MAY VARY.

TYP BEAM TO COLUMN WEB CONN DETAIL

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

SF504, SF601

C4



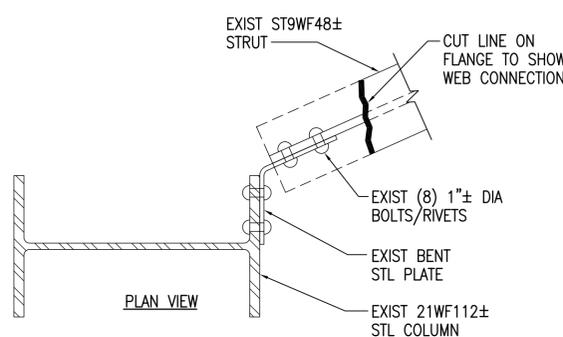
- NOTES:**
1. COLUMN AND BEAM SIZES MAY VARY.
 2. QUANTITY OF BOLTS/RIVETS MAY VARY.

TYP BEAM TO COLUMN FLANGE CONN DETAIL

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

SF601

C5



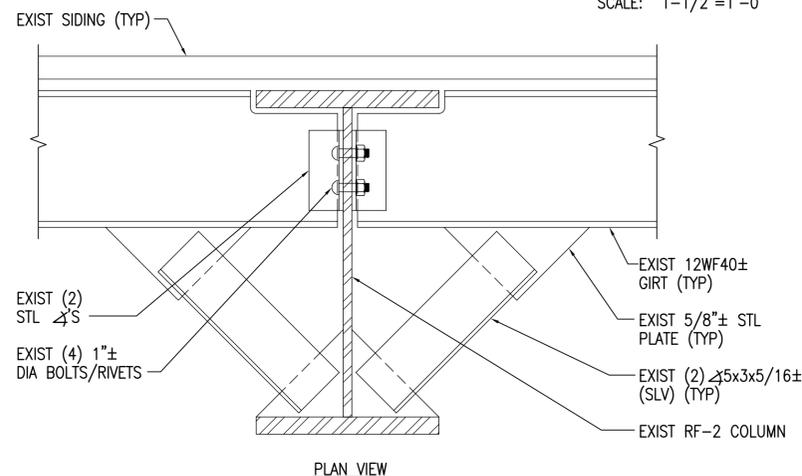
- NOTES:**
1. COLUMN AND STRUT SIZES MAY VARY.
 2. QUANTITY OF BOLTS/RIVETS MAY VARY.

TYP STRUT TO COLUMN CONN DETAIL

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

SF601

B2



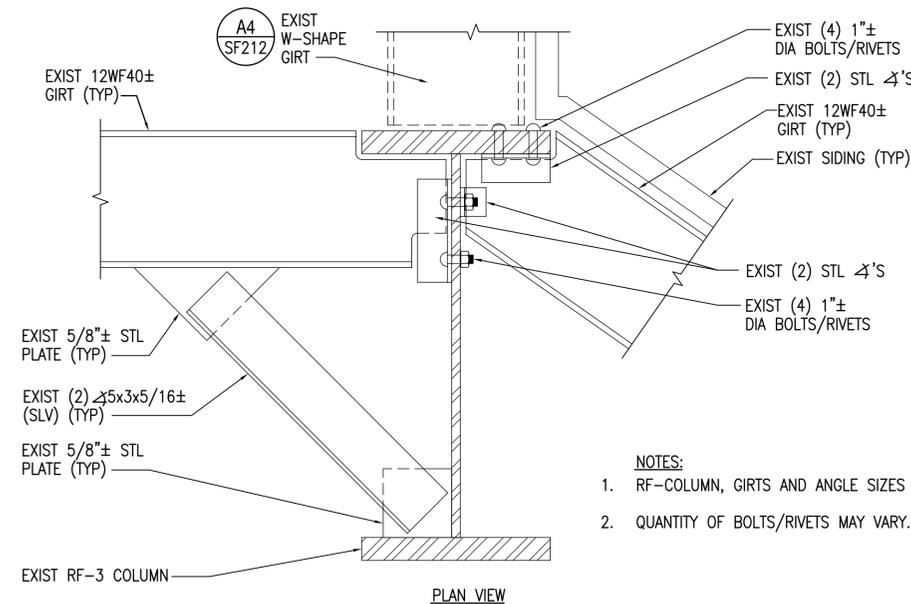
- NOTES:**
1. RF-COLUMN, GIRTS AND ANGLE SIZES MAY VARY.
 2. QUANTITY OF BOLTS/RIVETS MAY VARY.

TYP (2) GIRTS/ANGLE BRACES TO RF-COL CONN DETAIL

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

SF601

B3



- NOTES:**
1. RF-COLUMN, GIRTS AND ANGLE SIZES MAY VARY.
 2. QUANTITY OF BOLTS/RIVETS MAY VARY.

TYP (2) GIRTS TO RF-COL W/ BRACE CONN DETAIL

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

SF212, SF601

B5

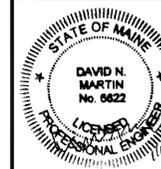
GENERAL SHEET NOTES

1. COORDINATE LOCATION OF EXISTING BOLT HOLES PRIOR TO FABRICATING STRUCTURAL STEEL FRAMING OR CONNECTIONS.
2. FIELD VERIFY DIMENSIONS, SIZES, QUANTITIES, ETC. PRIOR TO FABRICATION.
3. REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
4. REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

GRAPHIC SCALE



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| APPR | |
| DATE | |
| DESCRIPTION | |
| SYN | |



APPROVED

FOR COMMANDER NAVFAC
ACTIVITY

SATISFACTORY TO DATE 01/08/16

DES DNM DRW MJC CHK DNM

FW/DM DAVID HOPPER

BRANCH MANAGER MARTIN RYAN

FEAD/PM/EE LCDR JAMES ROCHE

FIRE PROTECTION

NAVAL FACILITIES ENGINEERING COMMAND

NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC

NAVAL SHIPYARD - PORTSMOUTH - NH

NCTCS CUTLER, MAINE

NCTAMS LANT DET

CUTLER SOUTH HELIX HOUSE STEEL

PRESERVATION AND EXTERIOR RENOVATION

SOUTH HELIX HOUSE

STRUCTURAL DETAILS 4

SCALE: AS NOTED

EPROJECT NO.: 1369480

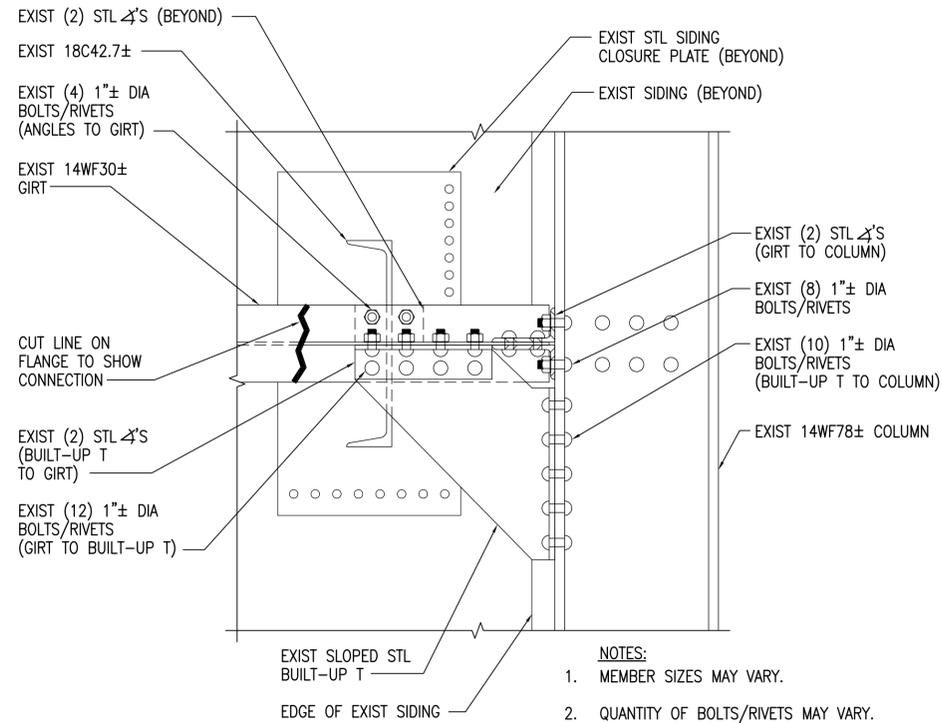
CONSTR. CONTR. NO.

NAVFAC DRAWING NO. 12712495

SHEET 36 OF 48

SF504 LF-16-128

DRAWING REVISION: 10 MARCH 2009



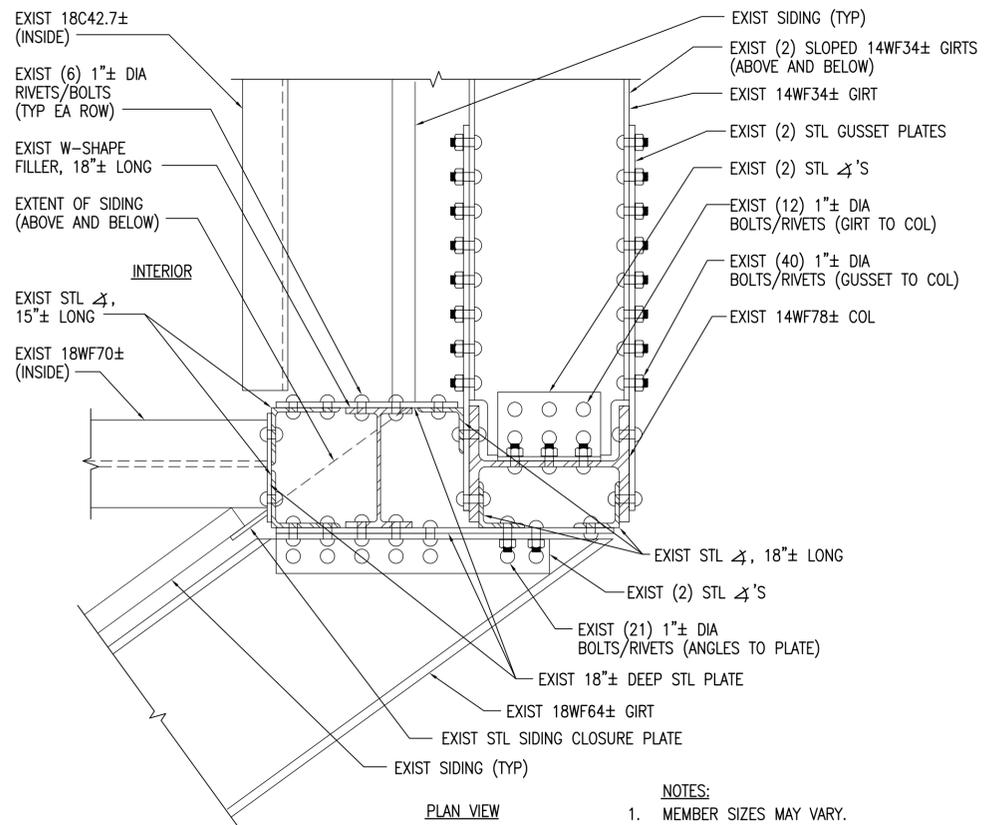
UPPER FLOOR EXIST 18C42.7± TO EXIST 14WF30± GIRTS CONN DETAIL

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

SF203

C2

- NOTES:
- MEMBER SIZES MAY VARY.
 - QUANTITY OF BOLTS/RIVETS MAY VARY.



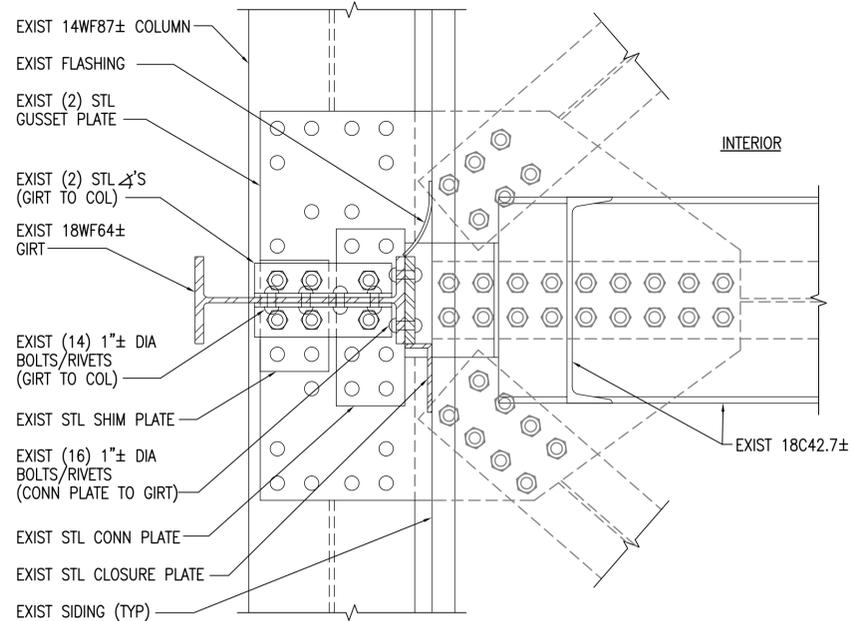
UPPER FLOOR CONN AT COL LINE L/12

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

SF203

C4

- NOTES:
- MEMBER SIZES MAY VARY.
 - QUANTITY OF BOLTS/RIVETS MAY VARY.



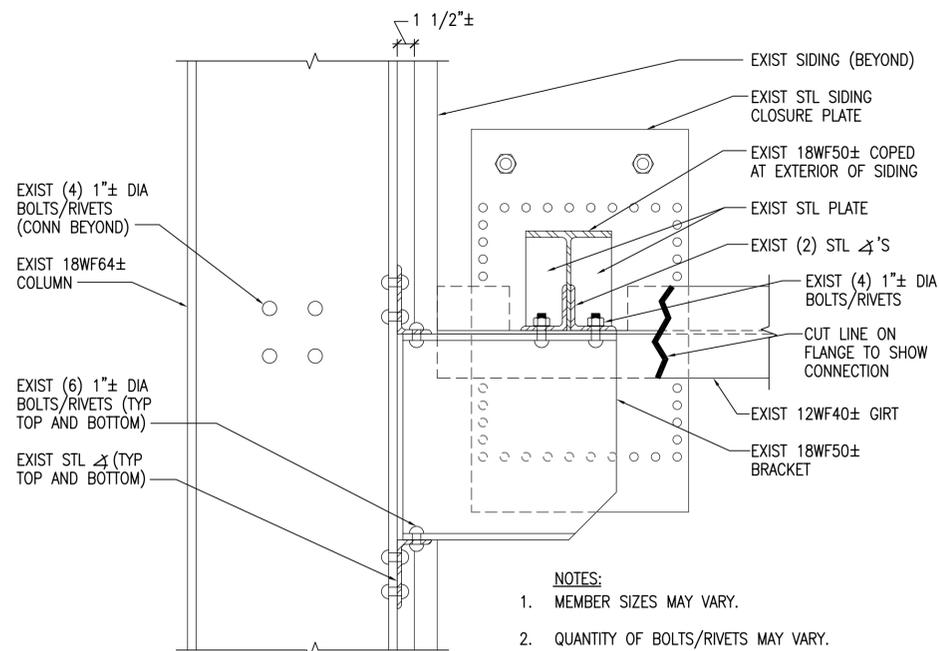
UPPER FLOOR CONN DETAIL NEAR COL LINE M/11

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

SF203

A2

- NOTES:
- MEMBER SIZES MAY VARY.
 - QUANTITY OF BOLTS/RIVETS MAY VARY.



UPPER FLOOR EXIST 18WF50± TO EXIST 12WF40± GIRTS CONN DETAIL

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

SF102, SF201

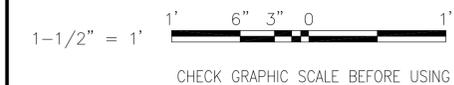
A4

- NOTES:
- MEMBER SIZES MAY VARY.
 - QUANTITY OF BOLTS/RIVETS MAY VARY.

GENERAL SHEET NOTES

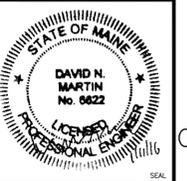
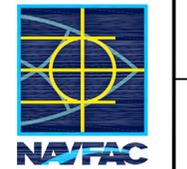
- COORDINATE LOCATION OF EXISTING BOLT HOLES PRIOR TO FABRICATING STRUCTURAL STEEL FRAMING OR CONNECTIONS.
- FIELD VERIFY DIMENSIONS, SIZES, QUANTITIES, ETC. PRIOR TO FABRICATION.
- REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
- REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

GRAPHIC SCALE



CHECK GRAPHIC SCALE BEFORE USING

| NO. | DATE | DESCRIPTION | BY | APPR. |
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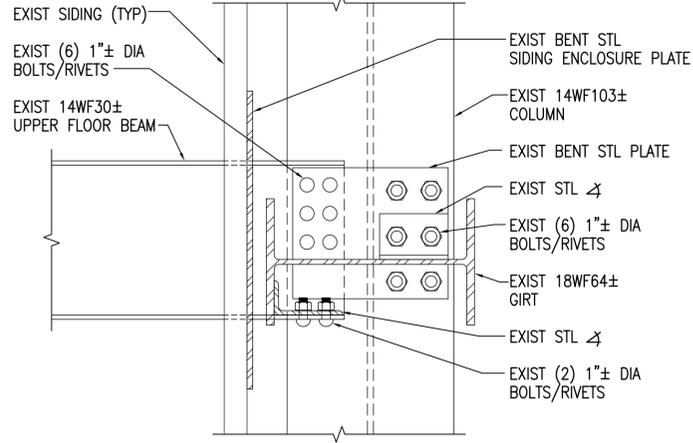
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| APPROVED | A/E INFO |
| FOR COMMANDER NAVFAC | ACTIVITY |
| SATISFACTORY TO DATE | 01/08/16 |
| DES | DNM |
| DRW | MJC |
| CHK | DNM |
| FW/DM | DAVID HOPPER |
| BRANCH MANAGER | MARTIN RYAN |
| FEAD/FAAE | LCDR JAMES ROCHE |

NAVFACILITIES ENGINEERING COMMAND
 NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
 NAVAL SHIPYARD - PORTSMOUTH - NH
 PUBLIC WORKS DEPARTMENT - MAINE
 NCTAMS LANIT DET
 NCTCS CUTLER, MAINE
**CUTLER SOUTH HELIX HOUSE STEEL
 PRESERVATION AND EXTERIOR RENOVATION**
 SOUTH HELIX HOUSE
 STRUCTURAL DETAILS 5

| | |
|--------------------|-----------|
| SCALE: | AS NOTED |
| EPROJECT NO.: | 1369480 |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. | 12712496 |
| SHEET | 37 OF 48 |
| SF505 | LF-16-129 |

DRAWING REVISION: 10 MARCH 2009

11 Jan, 2016 - 11:12am
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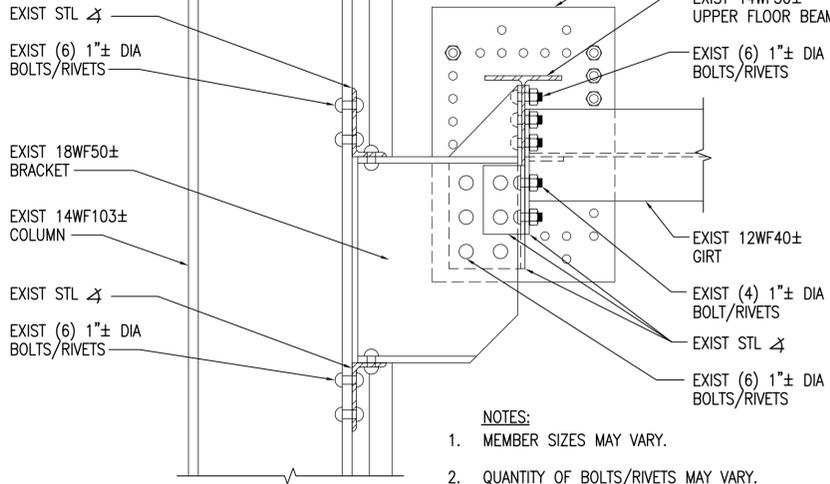


- NOTES:
1. MEMBER SIZES MAY VARY.
 2. QUANTITY OF BOLTS/RIVETS MAY VARY.

UPPER FLOOR EXIST 14WF30± TO EXIST 14WF103± COL CONN DETAIL

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

SF208

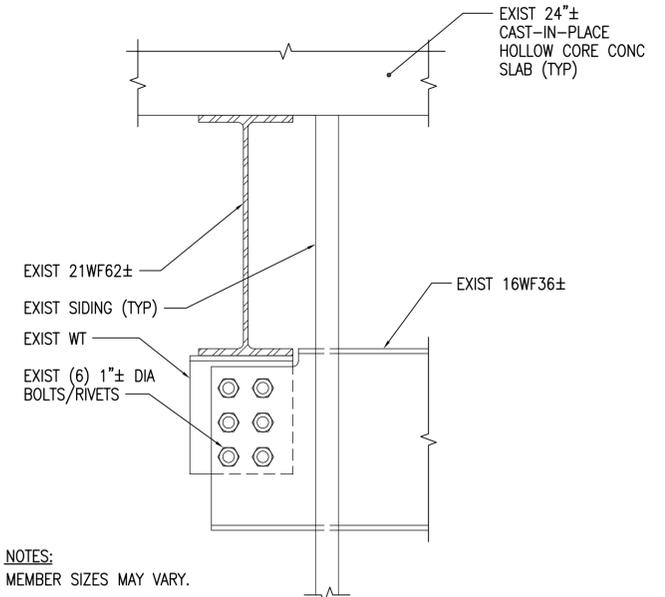


- NOTES:
1. MEMBER SIZES MAY VARY.
 2. QUANTITY OF BOLTS/RIVETS MAY VARY.

UPPER FLOOR EXIST 14WF30± TO EXIST 14WF103± COL CONN DETAIL

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

SF207

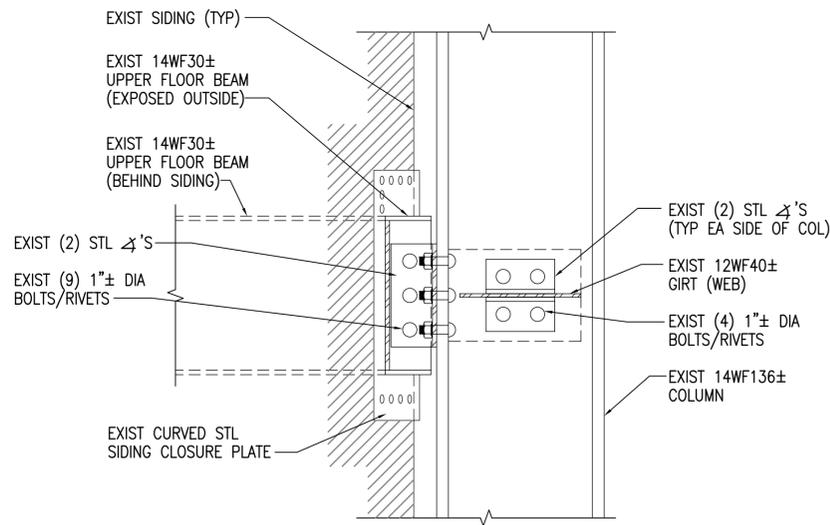


- NOTES:
1. MEMBER SIZES MAY VARY.
 2. QUANTITY OF BOLTS/RIVETS MAY VARY.

EXIST 16WF36± TO EXIST 21WF62± CONN DETAIL

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

SF204

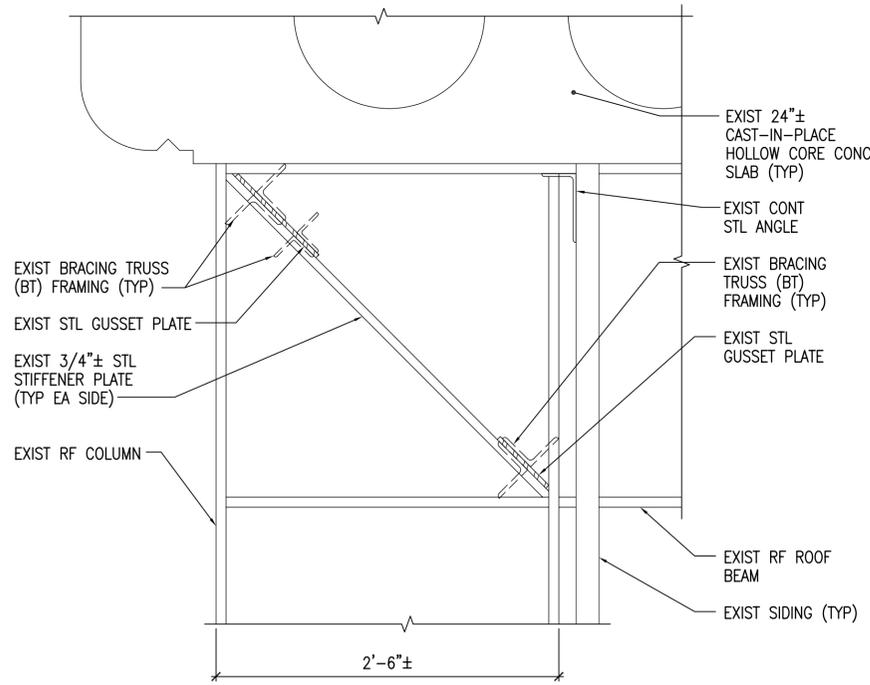


- NOTES:
1. EXISTING 12WF40± GIRT FLANGE NOT SHOWN FOR CLARITY.
 2. MEMBER SIZES MAY VARY.
 3. QUANTITY OF BOLTS/RIVETS MAY VARY.

UPPER FLOOR EXIST 14WF30± TO EXIST 14WF136± COL CONN DETAIL

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

SF207

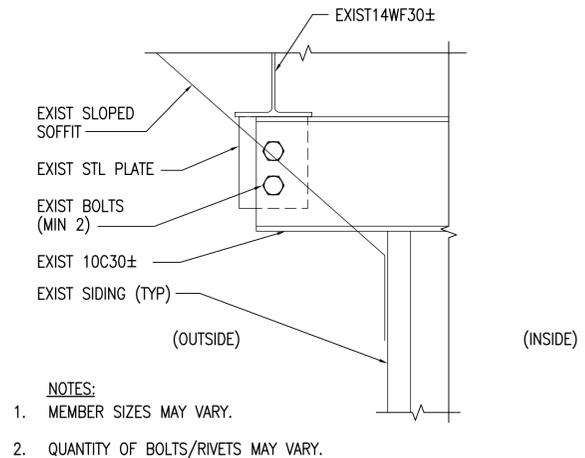


- NOTES:
1. MEMBER SIZES MAY VARY.
 2. SEE SHEET SF211 FOR BRACING TRUSS ELEVATIONS.

BRACING TRUSS CONN DETAIL AT RF COLUMN

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

SF211, SF601



- NOTES:
1. MEMBER SIZES MAY VARY.
 2. QUANTITY OF BOLTS/RIVETS MAY VARY.

TYP EXIST CHANNEL EXPOSED THROUGH SLOPED SOFFIT

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

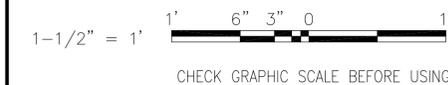
SF203, SF207, SF601



GENERAL SHEET NOTES

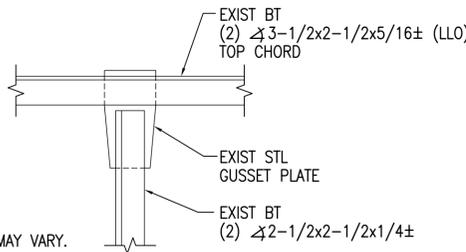
1. COORDINATE LOCATION OF EXISTING BOLT HOLES PRIOR TO FABRICATING STRUCTURAL STEEL FRAMING OR CONNECTIONS.
2. FIELD VERIFY DIMENSIONS, SIZES, QUANTITIES, ETC. PRIOR TO FABRICATION.
3. REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
4. REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

GRAPHIC SCALE



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| APPR | |
| DATE | |
| DESCRIPTION | |
| SYN | |
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| APPROVED FOR COMMANDER NAVFAC ACTIVITY SATISFACTORY TO DATE 01/08/16 DES DNM DRW MJC CHK DNM PW/DM DAVID HOPPER BRANCH MANAGER MARTIN RYAN FEAD/PMAE LCDR JAMES ROCHE FIRE PROTECTION | |
| NAVAL FACILITIES ENGINEERING COMMAND NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC NAVAL SHIPYARD - PORTSMOUTH - MAINE NCTCS CUTLER, MAINE CUTLER SOUTH HELIX HOUSE STEEL PRESERVATION AND EXTERIOR RENOVATION SOUTH HELIX HOUSE STRUCTURAL DETAILS 6 | |
| SCALE: AS NOTED EPROJECT NO.: 1369480 CONSTR. CONTR. NO. NAVFAC DRAWING NO. 12712497 SHEET 38 OF 48 SF506 LF-16-130 DRAWING REVISION: 10 MARCH 2009 | |

11 Jan, 2016 - 11:13am
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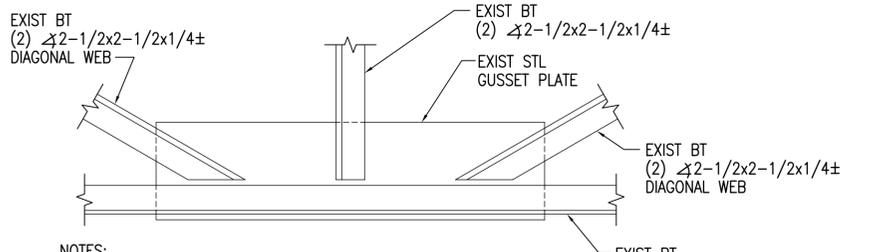


- NOTES:
 1. MEMBER SIZES MAY VARY.
 2. BRACING TRUSS IS SLOPED.

EXIST BRACING TRUSS - VERT WEB TO TOP CHORD CONN DETAIL

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

SF211 **D2**

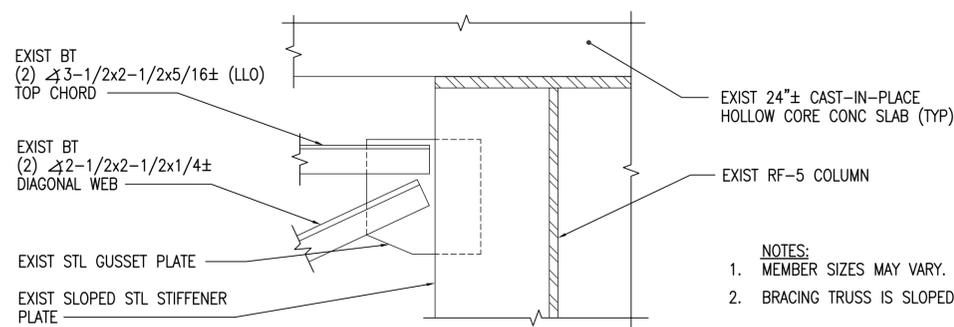


- NOTES:
 1. MEMBER SIZES MAY VARY.
 2. BRACING TRUSS IS SLOPED.

EXIST BRACING TRUSS - VERT WEB/DIAGONAL WEBS TO BOTTOM CHORD CONN DETAIL

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

SF211 **D3**

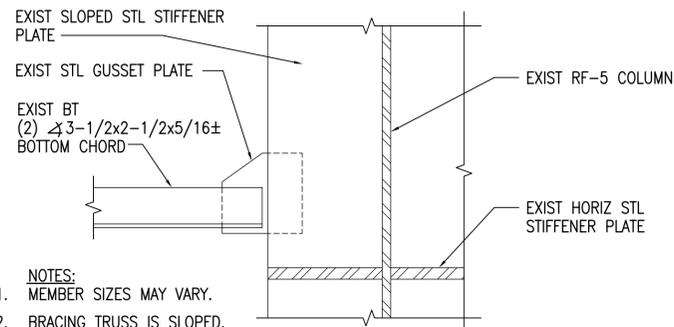


- NOTES:
 1. MEMBER SIZES MAY VARY.
 2. BRACING TRUSS IS SLOPED.

EXIST BRACING TRUSS - TOP CHORD/DIAGONAL WEB TO SLOPED STIFFENER PLATE CONN DETAIL

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

SF211 **D5**



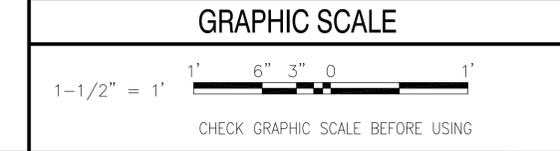
- NOTES:
 1. MEMBER SIZES MAY VARY.
 2. BRACING TRUSS IS SLOPED.

EXIST BRACING TRUSS - BOTTOM CHORD TO SLOPED STIFFENER PLATE CONN DETAIL

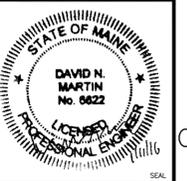
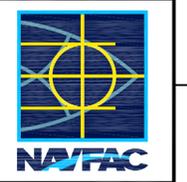
SCALE: 1-1/2"=1'-0"

SF211 **C2**

- GENERAL SHEET NOTES**
- COORDINATE LOCATION OF EXISTING BOLT HOLES PRIOR TO FABRICATING STRUCTURAL STEEL FRAMING OR CONNECTIONS.
 - FIELD VERIFY DIMENSIONS, SIZES, QUANTITIES, ETC. PRIOR TO FABRICATION.
 - REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
 - REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.



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| APPR | |
| DATE | |
| DESCRIPTION | |
| SYN | |



A/E INFO

APPROVED

FOR COMMANDER NAVFAC
ACTIVITY

SATISFACTORY TO DATE 01/08/16

DES DNM DRW MJC CHK DNM

FW/DM DAVID HOPPER

BRANCH MANAGER MARTIN RYAN

FEAD/FMAE LCDR JAMES ROCHE

FIRE PROTECTION

NAVAL FACILITIES ENGINEERING COMMAND
 NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
 NAVAL SHIPYARD - PORTSMOUTH - NH
 NCTCS CUTLER, MAINE
CUTLER SOUTH HELIX HOUSE STEEL PRESERVATION AND EXTERIOR RENOVATION
 SOUTH HELIX HOUSE STRUCTURAL DETAILS 7

SCALE: AS NOTED

EPROJECT NO.: 1369480

CONSTR. CONTR. NO.

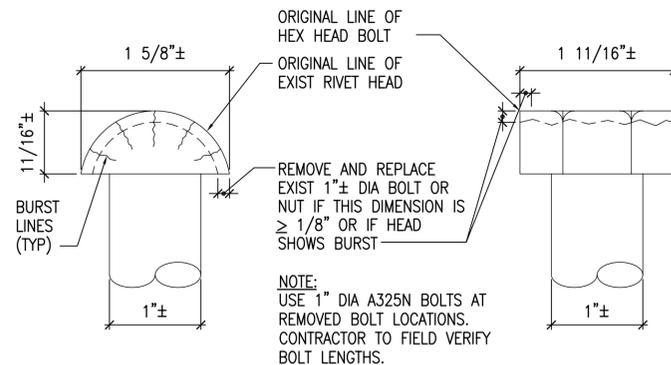
NAVFAC DRAWING NO. 12712498

SHEET 39 OF 48

SF507 LF-16-131

DRAWFORM REVISION: 10 MARCH 2009

11 Jan, 2016 11:15am
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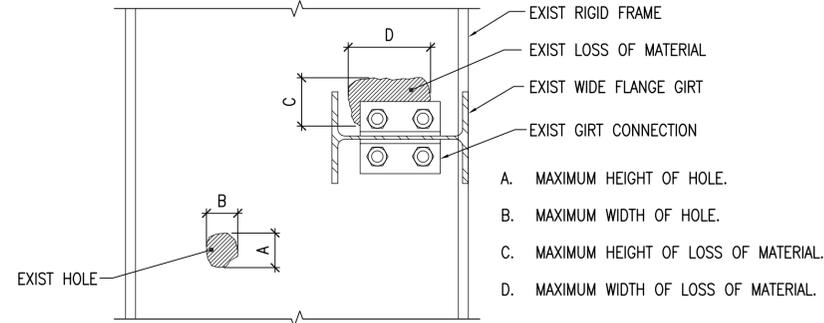


TYP BOLT REPLACEMENT CRITERIA

SCALE: FULL

SF602, SF603

D2

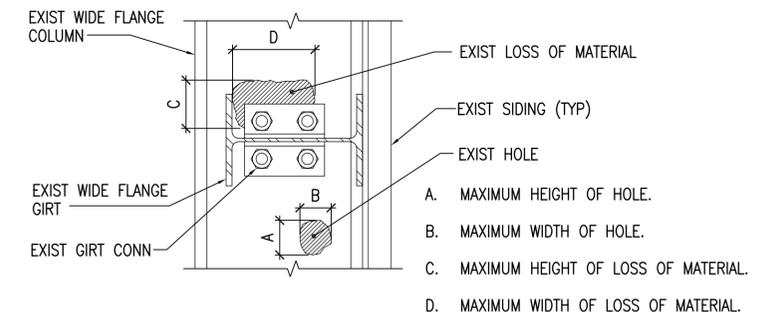


RIGID FRAME COLUMN WEB REPAIR CRITERIA

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

SF602

D3

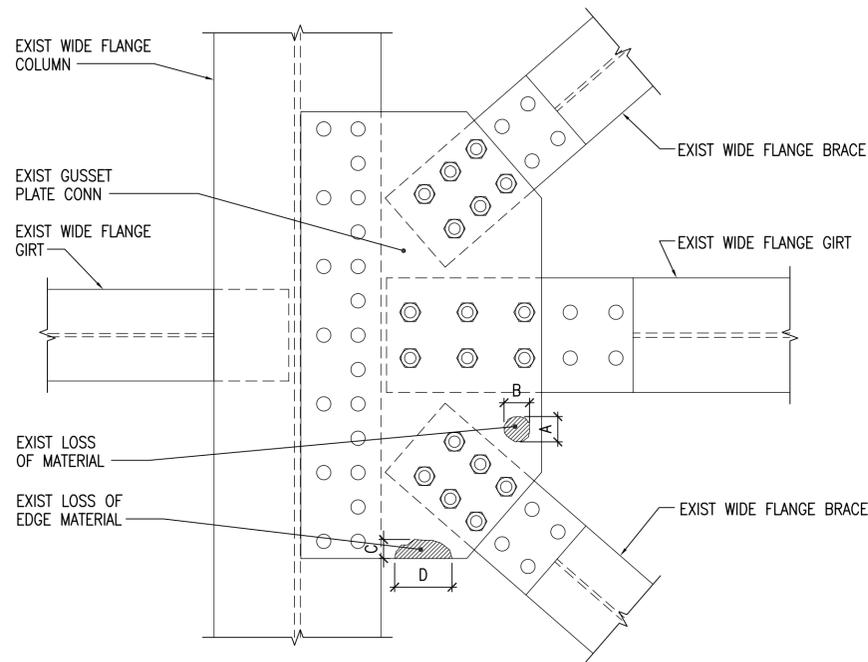


WIDE FLANGE COL WEB REPAIR CRITERIA

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

SF602

D5

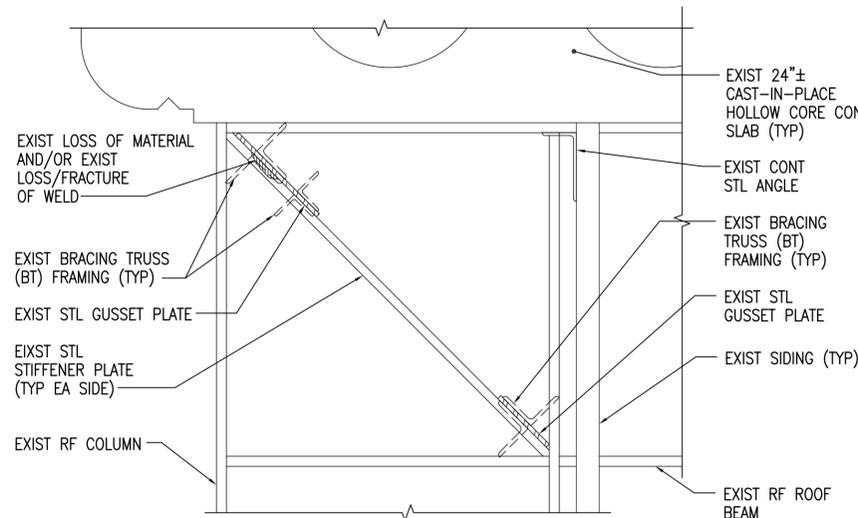


TYP (2) BRACES/GIRT TO WIDE FLANGE COL REPAIR CRITERIA

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

SF603

B2



RIGID KNEE CONN REPAIR CRITERIA DETAIL AT RIGID FRAME

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

SF508, SF603, SF511

B5

BRACING TRUSS CONN REPAIR CRITERIA DETAIL AT RF COLUMN

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

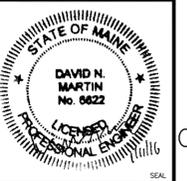
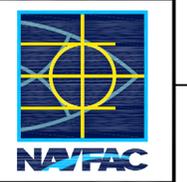
SF603

A4

| GENERAL SHEET NOTES | |
|---------------------|--|
| 1. | COORDINATE LOCATION OF EXISTING BOLT HOLES PRIOR TO FABRICATING STRUCTURAL STEEL FRAMING OR CONNECTIONS. |
| 2. | FIELD VERIFY DIMENSIONS, SIZES, QUANTITIES, ETC. PRIOR TO FABRICATION. |
| 3. | REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES. |
| 4. | REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES. |

| GRAPHIC SCALE | |
|----------------------------------|--|
| 1-1/2" = 1' | |
| CHECK GRAPHIC SCALE BEFORE USING | |

| DATE | DESCRIPTION | SYN | APPR |
|------|-------------|-----|------|
| | | | |



| APPROVED | DATE |
|----------|------|
| | |

| SATISFACTORY TO | DATE |
|-----------------|----------|
| | 01/08/16 |

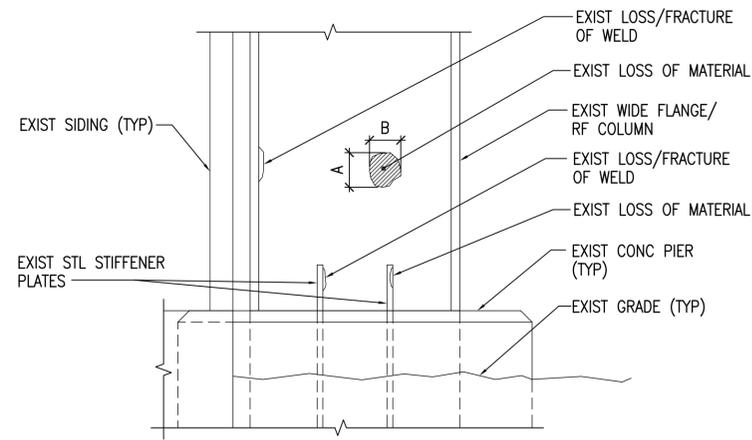
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|-----|-----|-----|-----|-----|-----|
| | | | | | |

| FM/DM | BRANCH MANAGER |
|--------------|----------------|
| DAVID HOPPER | MARTIN RYAN |

| SCALE | AS NOTED |
|--------------------|-----------|
| EPROJECT NO.: | 1369480 |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. | 12712499 |
| SHEET | 40 OF 48 |
| SF508 | LF-16-132 |

DRAWING REVISION: 10 MARCH 2009

11 Jan, 2016 - 11:16am
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- NOTES:**
- STEEL STIFFENERS NOT LOCATED AT ALL COLUMNS. EXPOSED STIFFENER HEIGHT MAY VARY.
 - LOSS OF MATERIAL AREA = A x B.
- A. MAXIMUM LENGTH OF LOSS OF MATERIAL.
B. MAXIMUM WIDTH OF LOSS OF MATERIAL.

TYP COLUMN BASE REPAIR CRITERIA DETAIL
SCALE: 1-1/2"=1'-0" SF602 **C2**

- GENERAL SHEET NOTES**
- COORDINATE LOCATION OF EXISTING BOLT HOLES PRIOR TO FABRICATING STRUCTURAL STEEL FRAMING OR CONNECTIONS.
 - FIELD VERIFY DIMENSIONS, SIZES, QUANTITIES, ETC. PRIOR TO FABRICATION.
 - REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
 - REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

GRAPHIC SCALE

1-1/2" = 1'

CHECK GRAPHIC SCALE BEFORE USING

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| APPR | |
| DATE | |
| DESCRIPTION | |
| SYN | |

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE 01/08/16

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|----------------|------------------|-----|-----|-----|-----|
| DES | DNM | DRW | MJC | CHK | DNM |
| FW/DM | DAVID HOPPER | | | | |
| BRANCH MANAGER | MARTIN RYAN | | | | |
| FEAD/FMAE | LCDR JAMES ROCHE | | | | |

FIRE PROTECTION

NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SHIPYARD - PORTSMOUTH - NH
NCTCS CUTLER, MAINE

CUTLER SOUTH HELIX HOUSE STEEL
PRESERVATION AND EXTERIOR RENOVATION

SOUTH HELIX HOUSE
STRUCTURAL DETAILS 9

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
PUBLIC WORKS DEPARTMENT - MAINE
NCTAMS LANT DET

SCALE: AS NOTED
EPROJECT NO.: 1369480
CONSTR. CONTR. NO.

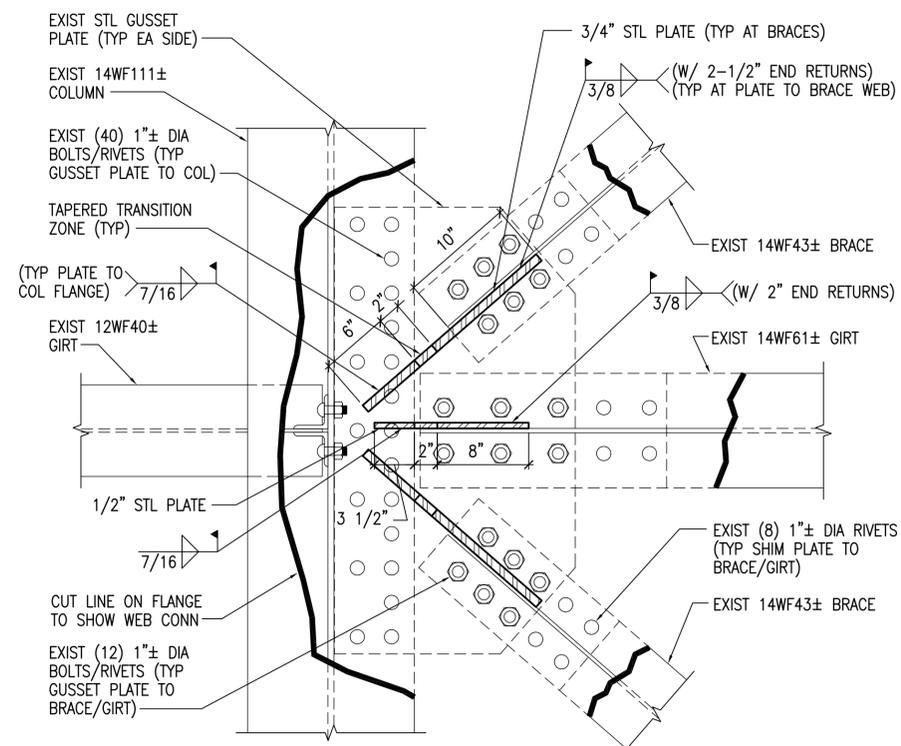
NAVFAC DRAWING NO.
12712500

SHEET 41 OF 48

SF509 LF-16-133

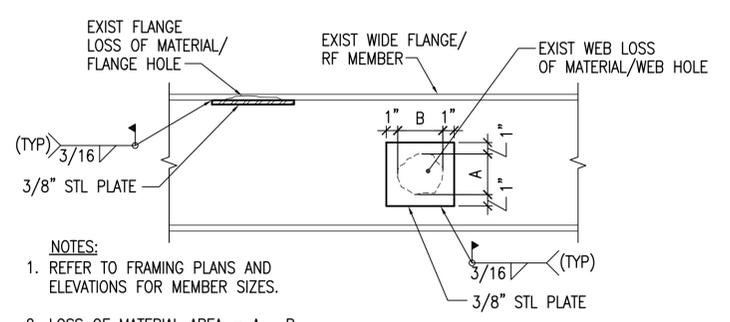
DRAWFORM REVISION: 10 MARCH 2009

11 Jan, 2016 11:17am
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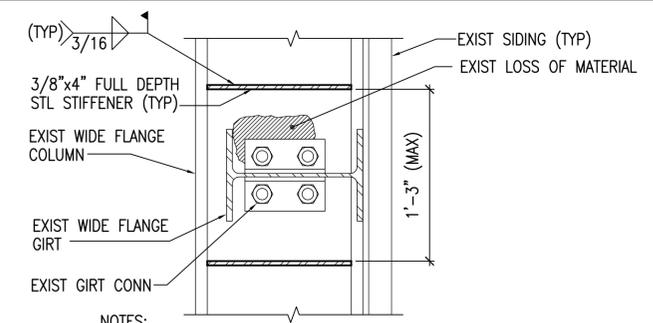
- NOTES:**
- COLUMN, GIRTS AND BRACE SIZES MAY VARY.
 - QUANTITY OF BOLTS/RIVETS MAY VARY.
 - STEEL PLATES AT BRACES/GIRTS HAVE A 2" TAPERED TRANSITION ZONE FOR PLATE WIDTH. THE 2" ZONE SHALL BE MEASURED FROM COLUMN FLANGE. WIDTH OF PLATES ON EACH SIDE OF TRANSITION ZONE SHALL BE AS FOLLOWS:
 - A. COLUMNS - PLATE WIDTH SHALL BE EQUAL TO THE DISTANCE BETWEEN COLUMN FLANGES.
 - B. BRACE/GIRT WEBS - PLATE SHALL BE 8".
 - PLATE THICKNESS AT 14WF34± BRACES SHALL BE 1/2".
 - WELD AT PLATE TO COLUMN FLANGE CONNECTION AT 14WF34±, 14WF43± AND 14WF53± SHALL BE 3/8" FILLET WELDS BOTH SIDES.
 - REMOVE EXISTING RIVETS AT LOCATIONS WHERE BRACE AND GIRT CONNECTION PLATES ARE IN THE SAME LOCATION.

TYP (2) BRACES/GIRT TO COL REPAIR CONN DETAIL (B2)
SCALE: 1-1/2"=1'-0" SF603



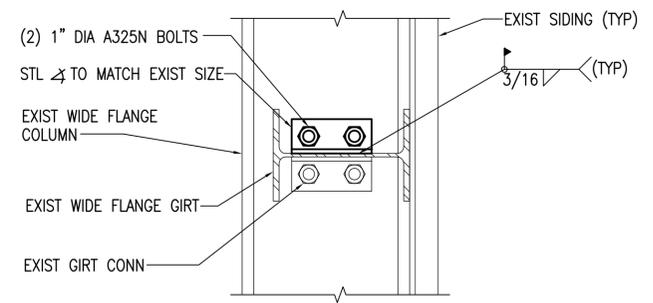
- NOTES:**
- REFER TO FRAMING PLANS AND ELEVATIONS FOR MEMBER SIZES.
 - LOSS OF MATERIAL AREA = A x B.
 - A. MAXIMUM LENGTH OF LOSS OF MATERIAL.
 - B. MAXIMUM WIDTH OF LOSS OF MATERIAL.
 - LOSS OF MATERIAL AREA IN FLANGE SHALL BE MEASURED THE SAME AS WEB LOSS OF MATERIAL.

GENERAL MEMBER REPAIR CRITERIA/REPAR DETAIL (A2)
SCALE: 1-1/2"=1'-0" SF102, SF602, SF603



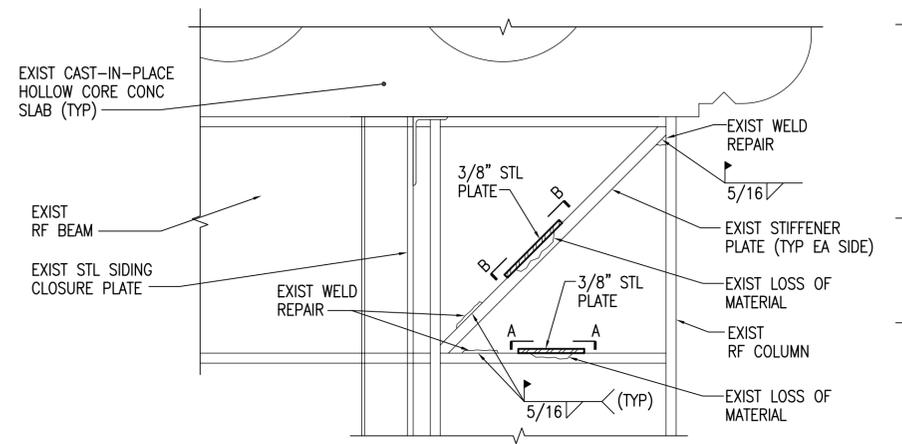
- NOTES:**
- SPACING OF WEB STIFFENERS IS A MAXIMUM VALUE. LOCATE STIFFENERS ABOVE/BELOW THE AREAS OF WEB DAMAGE.
 - STIFFENERS REQUIRED ON ONE SIDE OF COLUMN ONLY.

WIDE FLANGE COL WEB REPAIR CONN DETAIL (D3)
SCALE: 1-1/2"=1'-0" SF602



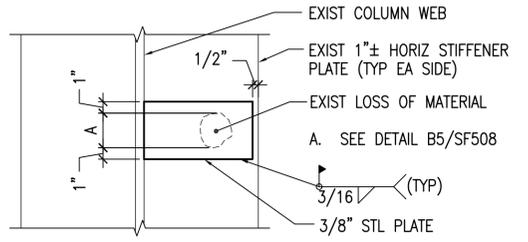
- NOTE:** QUANTITY OF ANGLE AND BOLT/RIVET REPAIRS MAY VARY DEPENDING ON LOCATION.

TYP GIRTS TO COL WEB REPAIR CONN DETAIL (D5)
SCALE: 1-1/2"=1'-0" SF602, SF603

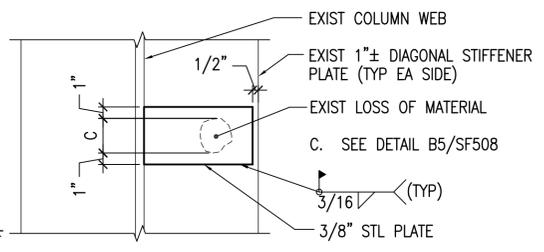


- NOTES:**
- REFER TO RIGID FRAME SIZE SCHEDULE ON SHEET SD101.
 - LENGTH OF THE WELD AT EITHER THE EXISTING HORIZONTAL STIFFENER OR DIAGONAL STIFFENER TO EXISTING COLUMN SHALL BE THE LENGTH OF THE LOSS OF WELD OR FRACTURE PLUS 1 INCH ON EACH SIDE.
 - LENGTH OF THE WELDS AT POINT WHERE THE HORIZONTAL STIFFENER AND DIAGONAL STIFFENER CONNECT TO THE FLANGES OF EITHER THE COLUMN OR GIRDER FLANGES SHALL BE THE LENGTH OF THE LOSS OF WELD OR FRACTURE OF THE WELD PLUS 1 INCH ON EACH SIDE.

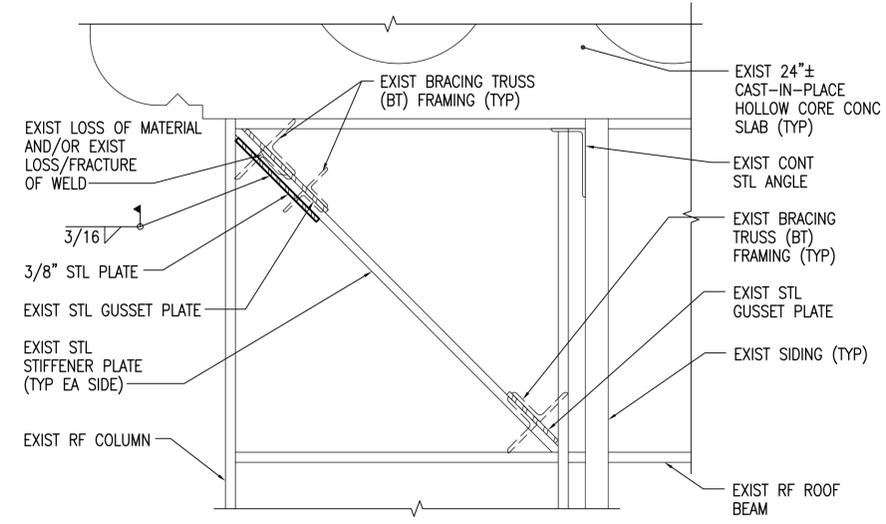
RIGID KNEE CONN STIFFENER REPAIR DETAIL (B5)
SCALE: 1-1/2"=1'-0" SF511, SF603



SECTION A-A AT HORIZ STIFFENER



SECTION B-B AT DIAGONAL STIFFENER



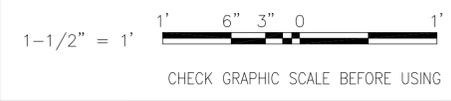
- NOTES:**
- SEE SHEET SF211 FOR BRACING TRUSS ELEVATIONS.
 - REFER TO DETAIL B5/SF511 FOR REPAIRS AT THE HORIZONTAL AND DIAGONAL STIFFENERS AT LOCATIONS AWAY FROM BRACING TRUSS CONNECTION.
 - THE 3/8" STEEL PLATE SHALL HAVE A LENGTH EQUAL TO THE WIDTH OF THE BRACING TRUSS CONNECTION GUSSET PLATE AND THE WIDTH SHALL BE EQUAL TO THE STIFFENER WIDTH MINUS 1/2".

BRACING TRUSS CONN REPAIR DETAIL AT RF COLUMN (A4)
SCALE: 1-1/2"=1'-0" SF603

GENERAL SHEET NOTES

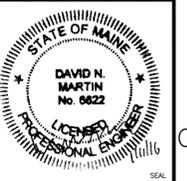
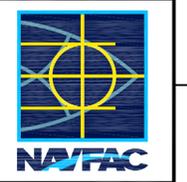
- COORDINATE LOCATION OF EXISTING BOLT HOLES PRIOR TO FABRICATING STRUCTURAL STEEL FRAMING OR CONNECTIONS.
- FIELD VERIFY DIMENSIONS, SIZES, QUANTITIES, ETC. PRIOR TO FABRICATION.
- REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
- REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

GRAPHIC SCALE



CHECK GRAPHIC SCALE BEFORE USING

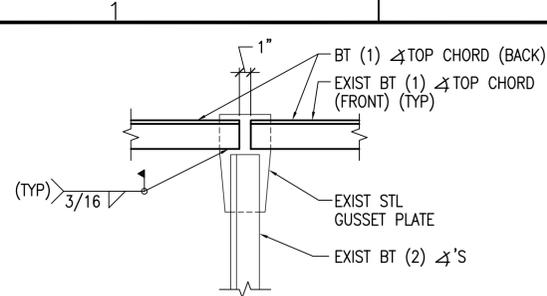
| APPR | DATE | DESCRIPTION | SYN |
|------|------|-------------|-----|
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|----------------------|----------------|------------------|
| APPROVED | DATE | 01/08/16 |
| FOR COMMANDER NAVFAC | DES | DNM |
| ACTIVITY | DRW | MJC |
| | CHK | DNM |
| | FW/DM | DAVID HOPPER |
| | BRANCH MANAGER | MARTIN RYAN |
| | FEAD/FAAE | LCDR JAMES ROCHE |

NAVFACILITIES ENGINEERING COMMAND
 NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
 NAVAL SHIPYARD - PORTSMOUTH - NH
 NCTAMS LANIT DET
 NCTCS CUTLER, MAINE
CUTLER SOUTH HELIX HOUSE STEEL PRESERVATION AND EXTERIOR RENOVATION
 SOUTH HELIX HOUSE STRUCTURAL DETAILS 10

| | |
|--------------------|-----------|
| SCALE: | AS NOTED |
| EPROJECT NO.: | 1369480 |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. | 12712501 |
| SHEET | 42 OF 48 |
| SF511 | LF-16-134 |

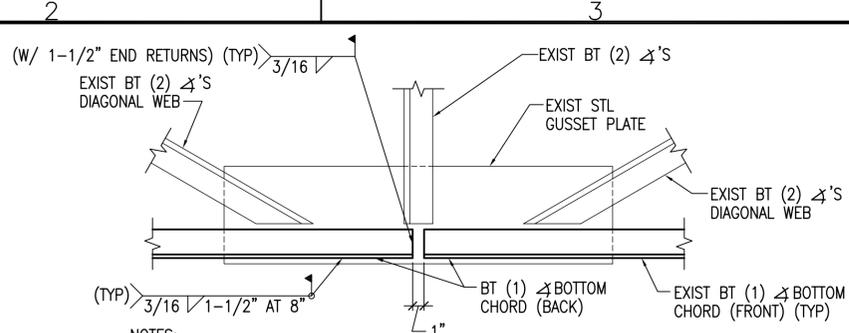


- NOTES:
1. CONNECTION DETAIL VIEW IS FROM BACK OF CONNECTION.
2. BRACING TRUSS IS SLOPED.

EXIST BRACING TRUSS - TOP CHORD BACK ANGLE REPLACEMENT CONN DETAIL

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

SF602 **D2**

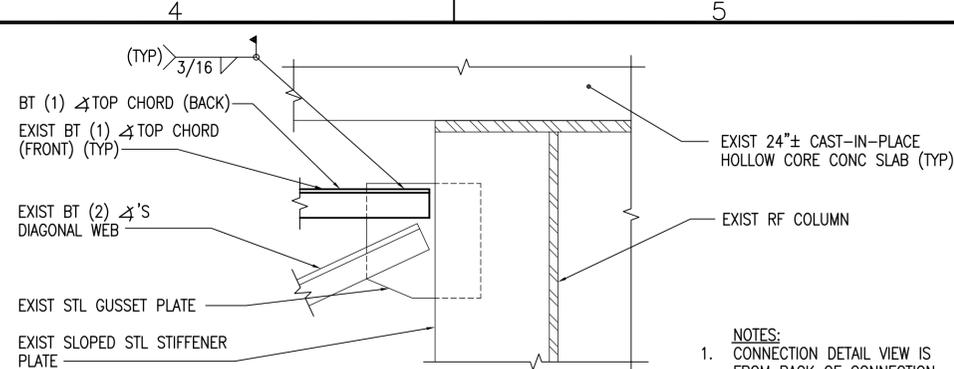


- NOTES:
1. CONNECTION DETAIL VIEW IS FROM BACK OF CONNECTION.
2. BRACING TRUSS IS SLOPED.

EXIST BRACING TRUSS - BOTTOM CHORD BACK ANGLE REPLACEMENT CONN DETAIL

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

SF602 **D3**

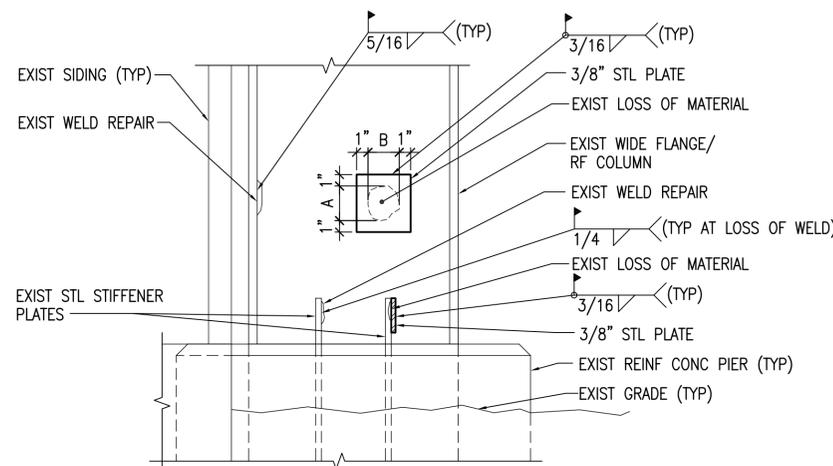


- NOTES:
1. CONNECTION DETAIL VIEW IS FROM BACK OF CONNECTION.
2. BRACING TRUSS IS SLOPED.

EXIST BRACING TRUSS - TOP CHORD BACK ANGLE REPLACEMENT CONN DETAIL

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

SF602 **D5**

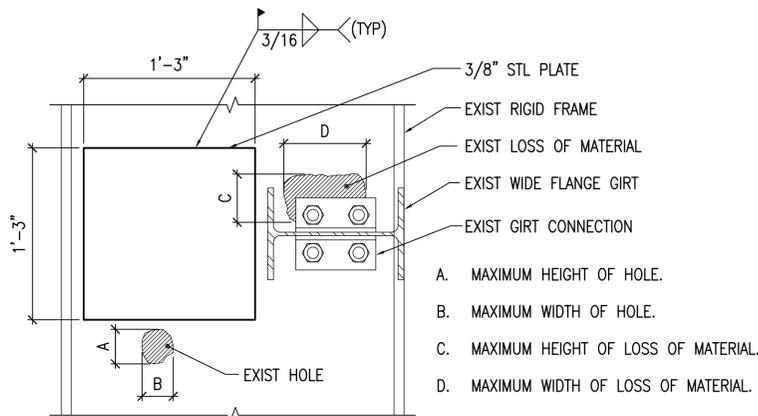


- NOTES:
1. STEEL STIFFENERS NOT LOCATED AT ALL COLUMNS. EXPOSED STIFFENER HEIGHT MAY VARY.
2. REPAIR PLATE AT COLUMN FLANGE SHALL HAVE THE SAME DIMENSION AND WELD SIZES AS USED AT COLUMN WEB REPAIR.
3. STEEL PLATE ADDED TO STIFFENER SHALL HAVE A LENGTH EQUAL TO THE LOSS OF MATERIAL PLUS 1" ON EACH SIDE OF THE STIFFENER AND SHALL MATCH THE HEIGHT OF THE STIFFENER.
4. WELD REPAIRS AT LOSS OF WELD OR WELD FRACTURE SHALL HAVE A LENGTH EQUAL TO THE LENGTH OF THE LOSS OF WELD/WELD FRACTURE PLUS 1" ON EACH SIDE.
- A. MAXIMUM LENGTH OF LOSS OF MATERIAL.
B. MAXIMUM WIDTH OF LOSS OF MATERIAL.

TYP COLUMN BASE REPAIR DETAIL

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

SF602 **B2**



- NOTES:
1. REFER TO RIGID FRAME MEMBER SIZE SCHEDULE ON SHEET SD101.
2. CUT REINFORCING PLATES TO FIT AROUND EXISTING WEB STIFFENERS AND CONNECTION PLATES AND ANGLES.
- A. MAXIMUM HEIGHT OF HOLE.
B. MAXIMUM WIDTH OF HOLE.
C. MAXIMUM HEIGHT OF LOSS OF MATERIAL.
D. MAXIMUM WIDTH OF LOSS OF MATERIAL.

RIGID FRAME COLUMN WEB REPAIR AT GIRT CONN

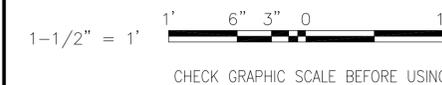
SCALE: 1-1/2"=1'-0"

SF602 **B3**

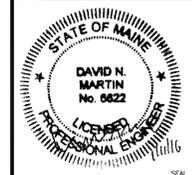
GENERAL SHEET NOTES

- COORDINATE LOCATION OF EXISTING BOLT HOLES PRIOR TO FABRICATING STRUCTURAL STEEL FRAMING OR CONNECTIONS.
- FIELD VERIFY DIMENSIONS, SIZES, QUANTITIES, ETC. PRIOR TO FABRICATION.
- REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
- REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

GRAPHIC SCALE



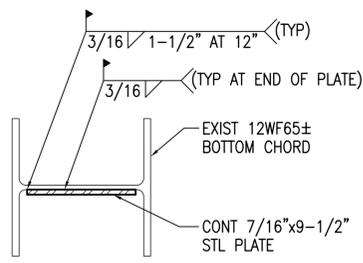
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|-------------|--|
| APPR | |
| DATE | |
| DESCRIPTION | |
| SYN | |



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| APPROVED | A/E INFO |
| FOR COMMANDER NAVFAC | ACTIVITY |
| SATISFACTORY TO DATE | 01/08/16 |
| DES | DNM |
| DRW | MJC |
| CHK | DNM |
| FW/DM | DAVID HOPPER |
| BRANCH MANAGER | MARTIN RYAN |
| FEAD/FAAE | LCDR JAMES ROCHE |

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
NAVAL SHIPYARD - PORTSMOUTH - NH
PUBLIC WORKS DEPARTMENT - MAINE
NCTAMS LANT DET
NCTCS CUTLER, MAINE
CUTLER SOUTH HELIX HOUSE STEEL PRESERVATION AND EXTERIOR RENOVATION
SOUTH HELIX HOUSE
STRUCTURAL DETAILS 11

| | |
|--------------------|-----------|
| SCALE: | AS NOTED |
| EPROJECT NO.: | 1369480 |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. | 12712502 |
| SHEET | 43 OF 48 |
| SF512 | LF-16-135 |



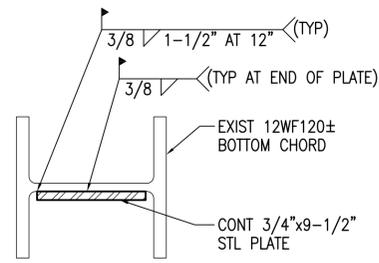
- NOTES:**
1. INSTALL STEEL PLATE AFTER PAINTING SURFACE PREPARATION HAS BEEN COMPLETED AND CORRODED MATERIAL HAS BEEN REMOVED.
 2. SPLICES IF REQUIRED SHALL BE MADE WITH FULL PENETRATION WELDS.
 3. SEE DETAIL B3/SF521 FOR CONNECTION AT SPLICE TO EXISTING 12WF120±.
 4. SEE DETAIL C3/SF521 FOR DRAIN HOLE.
 5. SEE ITEM 0002b OF UNIT PRICE FORM.

EXIST 12WF65± BOTTOM CHORD REINF DETAIL

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

SF221, SF222, SF521

D2



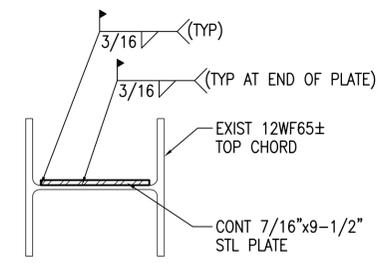
- NOTES:**
1. INSTALL STEEL PLATE AFTER PAINTING SURFACE PREPARATION HAS BEEN COMPLETED AND CORRODED MATERIAL HAS BEEN REMOVED.
 2. SPLICES IF REQUIRED SHALL BE MADE WITH FULL PENETRATION WELDS.
 3. SEE DETAIL B3/SF521 FOR CONNECTION AT SPLICE TO EXISTING 12WF65±.
 4. SEE DETAIL C3/SF521 FOR DRAIN HOLE.
 5. SEE ITEM 0002d OF UNIT PRICE FORM.

EXIST 12WF120± BOTTOM CHORD REINF DETAIL

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

SF221, SF222, SF521

D3



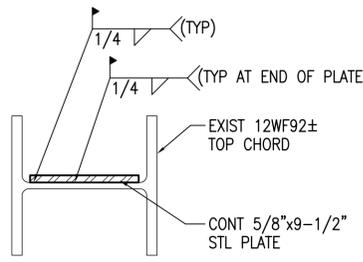
- NOTES:**
1. INSTALL STEEL PLATE AFTER PAINTING SURFACE PREPARATION HAS BEEN COMPLETED AND CORRODED MATERIAL HAS BEEN REMOVED.
 2. SPLICES IF REQUIRED SHALL BE MADE WITH FULL PENETRATION WELDS.
 3. SEE DETAIL B5/SF521 FOR CONNECTION AT SPLICE TO EXISTING 12WF92±.
 4. SEE DETAIL C5/SF521 FOR DRAIN HOLE.
 5. SEE ITEM 0002c OF UNIT PRICE FORM.

EXIST 12WF65± TOP CHORD REINF DETAIL

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

SF221, SF222, SF521

D5



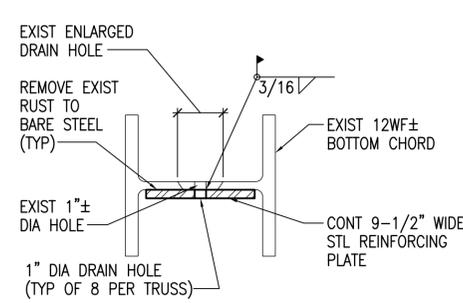
- NOTES:**
1. INSTALL STEEL PLATE AFTER PAINTING SURFACE PREPARATION HAS BEEN COMPLETED AND CORRODED MATERIAL HAS BEEN REMOVED.
 2. SPLICES IF REQUIRED SHALL BE MADE WITH FULL PENETRATION WELDS.
 3. SEE DETAIL B5/SF521 FOR CONNECTION AT SPLICE TO EXISTING 12WF65±.
 4. SEE DETAIL C5/SF521 FOR DRAIN HOLE.
 5. SEE ITEM 0002e OF UNIT PRICE FORM.

EXIST 12WF92± TOP CHORD REINF DETAIL

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

SF221, SF222, SF521

C2



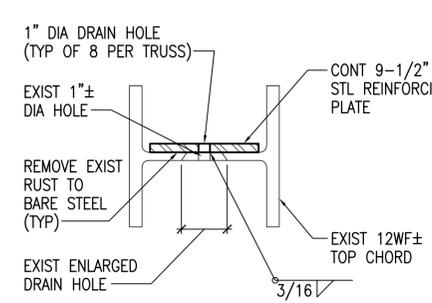
- NOTES:**
1. COORDINATE BOTTOM REINFORCING PLATE THICKNESS WITH DETAILS D2/SF521 AND D3/SF521.
 2. SEE ITEM 0002i OF UNIT PRICE FORM.

DRAIN HOLE DETAIL AT BOTTOM CHORD

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

SF221, SF521

C3



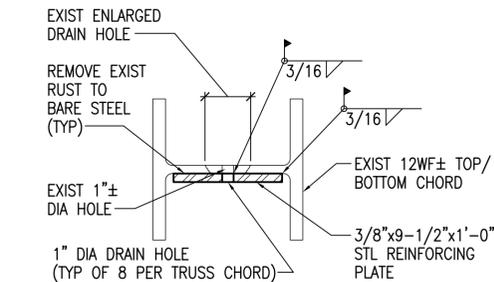
- NOTES:**
1. COORDINATE TOP REINFORCING PLATE THICKNESS WITH DETAILS D5/SF521 AND C2/SF521.
 2. SEE ITEM 0002k OF UNIT PRICE FORM.

DRAIN HOLE DETAIL AT TOP CHORD

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

SF221, SF222, SF521

C5



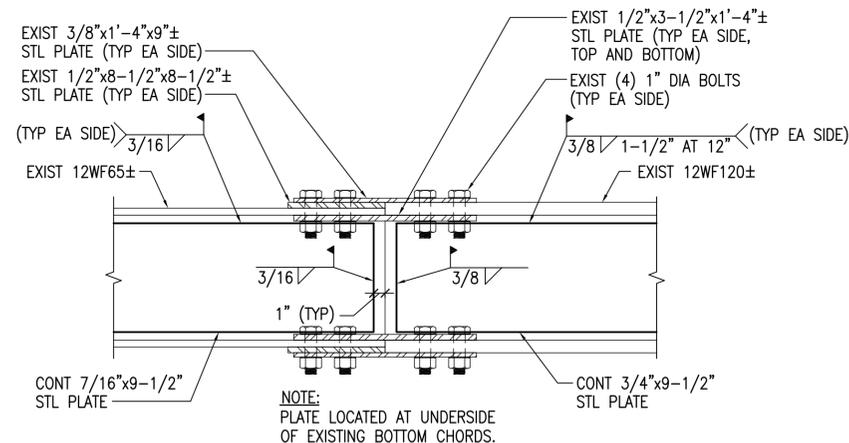
- NOTE:**
SEE ITEM 0002i AND 0002j OF UNIT PRICE FORM.

TYP DRAIN HOLE REPAIR DETAIL

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

SF221, SF222

B2

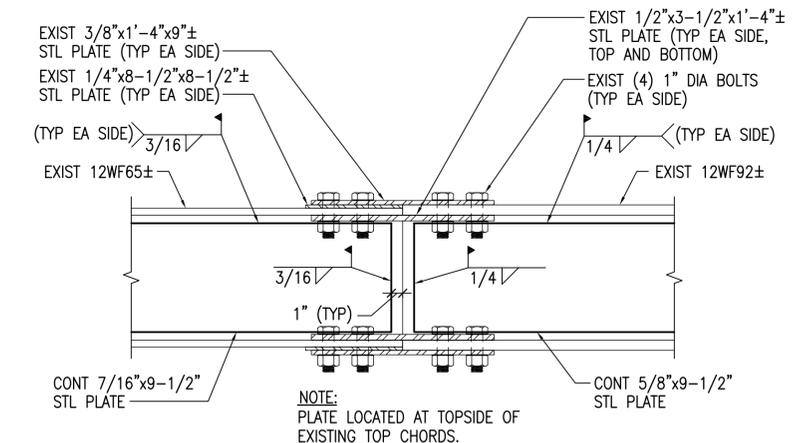


BOTTOM CHORD REINFORCING PLATE AT EXIST SPLICE DETAIL

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

SF521

B3



TOP CHORD REINFORCING PLATE AT EXIST SPLICE DETAIL

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

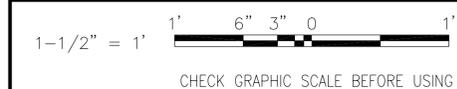
SF521

B5

GENERAL SHEET NOTES

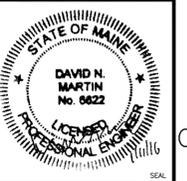
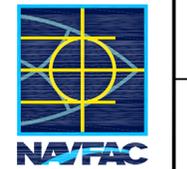
1. ITEMS ON THIS SHEET ARE ASSOCIATED WITH OPTION 1.
2. REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
3. REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.

GRAPHIC SCALE



CHECK GRAPHIC SCALE BEFORE USING

| SYN | DESCRIPTION | DATE | APPR |
|-----|-------------|------|------|
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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE 01/08/16

DES DNM DRW MJC CHK DNM

FW/DM DAVID HOPPER

BRANCH MANAGER MARTIN RYAN

FEAD/FAAE LCDR JAMES ROCHE

FIRE PROTECTION

NAVAL FACILITIES ENGINEERING COMMAND

MID-ATLANTIC

NAVAL SHIPYARD - PORTSMOUTH - NH

NCTAMS LANIT DET

CUTLER SOUTH HELIX HOUSE STEEL

PRESERVATION AND EXTERIOR RENOVATION

SOUTH HELIX HOUSE ICE SHIELD

STRUCTURAL DETAILS 1 [OPTION 1]

DEPARTMENT OF THE NAVY

NAVAL FACILITIES ENGINEERING COMMAND

PUBLIC WORKS DEPARTMENT - MAINE

NCTAMS LANIT DET

SCALE: AS NOTED

EPROJECT NO.: 1369480

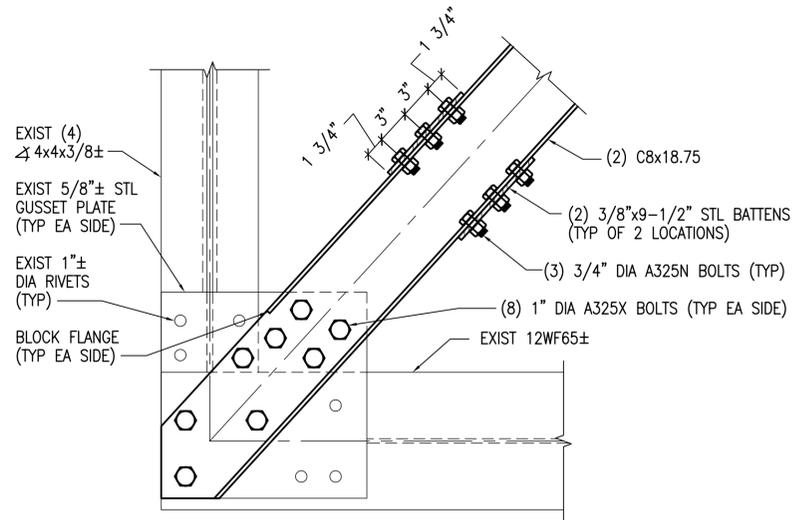
CONSTR. CONTR. NO.

NAVFAC DRAWING NO. 12712503

SHEET 44 OF 48

SF521 LF-16-136

DRAWING REVISION: 10 MARCH 2009



NOTES:

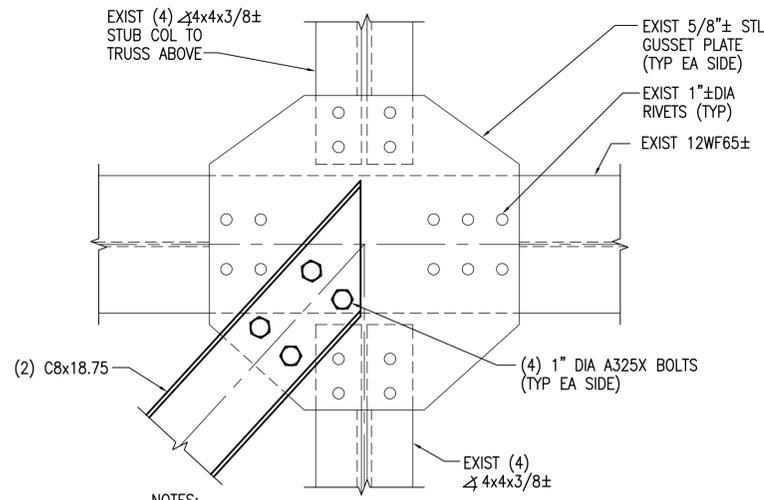
1. REMOVE EXISTING (2) C8x18.75± BUILT-UP DIAGONAL MEMEBER.
2. REMOVE EXISTING (2) 3/8"x9-1/2"± STEEL BATTENS, TYPICAL OF 2 LOCATIONS. EACH BATTEN IS CONNECTED TO C8x18.75± WITH (3) 1"± DIAMETER RIVETS.
3. REMOVAL OF EXISTING MEMBER AND RIVETS SHALL NOT OCCUR UNTIL THE TEMPORARY SHORING SYSTEMS HAVE BEEN INSTALLED.
4. BOLTS SHALL BE INSTALLED AT SAME LOCATIONS AS REMOVED RIVETS AT CONNECTION TO EXISTING 5/8"± STEEL GUSSET PLATE.
5. BATTENS SHALL BE LOCATED AT SAME LOCATIONS AS REMOVED BATTENS.
6. TRUSSES T-3 AND T-4 NOT SHOWN FOR CLARITY.
7. SEE BID ITEM 0002f OF UNIT PRICE FORM.

(2) C8x18.75 DIAGONAL REPLACEMENT DETAIL AT BOTTOM CHORD

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

SF221, SF222

C2



NOTES:

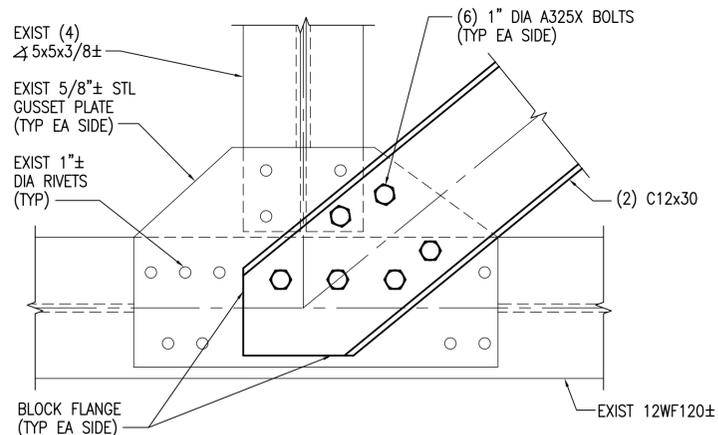
1. REMOVE EXISTING (2) C8x18.75± BUILT-UP DIAGONAL MEMEBER.
2. REMOVE EXISTING (2) 3/8"x9-1/2"± STEEL BATTENS, TYPICAL OF 2 LOCATIONS. EACH BATTEN IS CONNECTED TO C8x18.75± WITH (3) 1"± DIAMETER RIVETS.
3. REMOVAL OF EXISTING MEMBER AND RIVETS SHALL NOT OCCUR UNTIL THE TEMPORARY SHORING SYSTEMS HAVE BEEN INSTALLED.
4. BOLTS SHALL BE INSTALLED AT SAME LOCATIONS AS REMOVED RIVETS AT CONNECTION TO EXISTING 5/8"± STEEL GUSSET PLATE.
5. BATTENS SHALL BE LOCATED AT SAME LOCATIONS AS REMOVED BATTENS.
6. TRUSSES T-3 AND T-4 NOT SHOWN FOR CLARITY.
7. SEE BID ITEM 0002f OF UNIT PRICE FORM.

(2) C8x18.75 DIAGONAL REPLACEMENT DETAIL AT TOP CHORD

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

SF221, SF222

C4



NOTES:

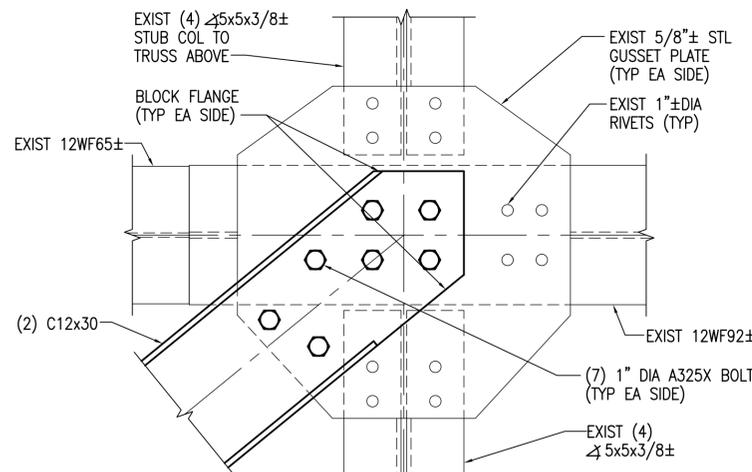
1. REMOVE EXISTING (2) C12x30± BUILT-UP DIAGONAL MEMEBER.
2. REMOVE EXISTING (2) 3/8"x9-1/2"± STEEL BATTENS, TYPICAL OF 2 LOCATIONS. EACH BATTEN IS CONNECTED TO C12x30 WITH (3) 1"± DIAMETER RIVETS.
3. REMOVAL OF EXISTING MEMBER AND RIVETS SHALL NOT OCCUR UNTIL THE TEMPORARY SHORING SYSTEMS HAVE BEEN INSTALLED.
4. BOLTS SHALL BE INSTALLED AT SAME LOCATIONS AS REMOVED RIVETS AT CONNECTION TO EXISTING 5/8"± STEEL GUSSET PLATE.
5. BATTENS SHALL BE LOCATED AT SAME LOCATIONS AS REMOVED BATTENS. SEE DETAIL C2/SF502 (SIMILAR) FOR BATTEN SIZE AND CONNECTION TO (2) C12x30.
6. TRUSSES T-3 AND T-4 NOT SHOWN FOR CLARITY.
7. SEE BID ITEM 0002g OF UNIT PRICE FORM.

(2) C12x30 DIAGONAL REPLACEMENT DETAIL AT BOTTOM CHORD

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

SF221, SF222

A2



NOTES:

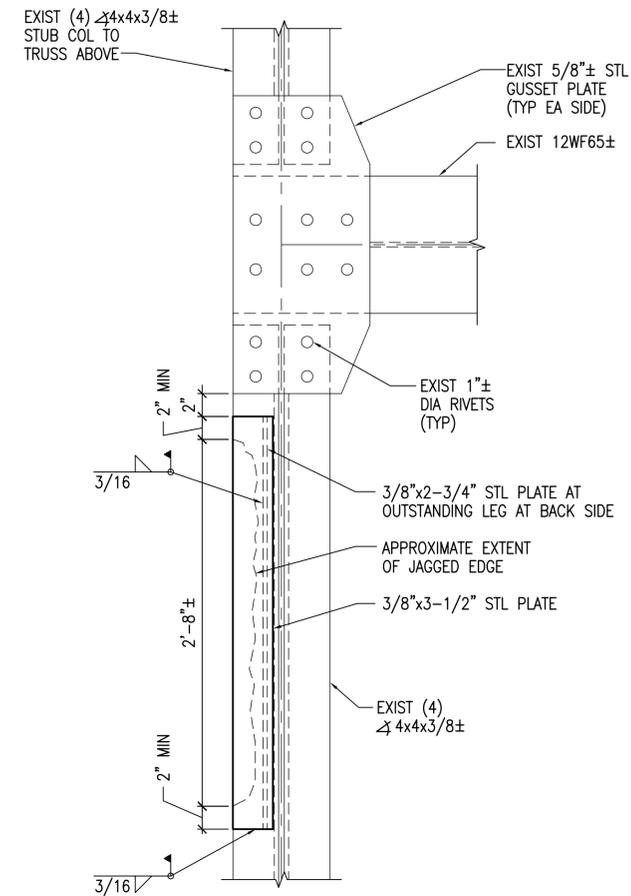
1. REMOVE EXISTING (2) C12x30± BUILT-UP DIAGONAL MEMEBER.
2. REMOVE EXISTING (2) 3/8"x9-1/2"± STEEL BATTENS, TYPICAL OF 2 LOCATIONS. EACH BATTEN IS CONNECTED TO C12x30 WITH (3) 1"± DIAMETER RIVETS.
3. REMOVAL OF EXISTING MEMBER AND RIVETS SHALL NOT OCCUR UNTIL THE TEMPORARY SHORING SYSTEMS HAVE BEEN INSTALLED.
4. BOLTS SHALL BE INSTALLED AT SAME LOCATIONS AS REMOVED RIVETS AT CONNECTION TO EXISTING 5/8"± STEEL GUSSET PLATE.
5. BATTENS SHALL BE LOCATED AT SAME LOCATIONS AS REMOVED BATTENS. SEE DETAIL C2/SF502 (SIMILAR) FOR BATTEN SIZE AND CONNECTION TO (2) C12x30.
6. TRUSSES T-3 AND T-4 NOT SHOWN FOR CLARITY.
7. SEE BID ITEM 0002g OF UNIT PRICE FORM.

(2) C12x30 DIAGONAL REPLACEMENT DETAIL AT TOP CHORD

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

SF221, SF222

A4



NOTES:

1. REMOVE LOOSE/JAGGED SECTION OF EXISTING DAMAGED ANGLE.
2. SEE BID ITEM 0002h OF UNIT PRICE FORM.

VERTICAL MEMBER REPAIR DETAIL

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

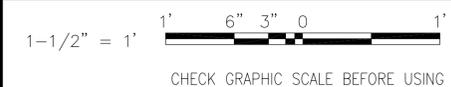
SF221

B5

GENERAL SHEET NOTES

1. ITEMS ON THIS SHEET ARE ASSOCIATED WITH OPTION 1.
2. REFER TO SHEET S-001 FOR PAINT REMOVAL AND PAINTING NOTES.
3. REFER TO SHEET S-001 FOR CONTAINMENT BERM AND STRUCTURE NOTES.
4. FIELD DRILL BOLT HOLES. USE OF TORCHES TO MAKE HOLES IS NOT PERMITTED.

GRAPHIC SCALE



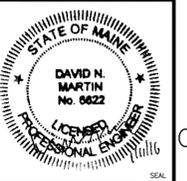
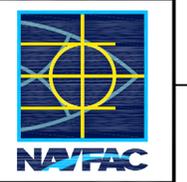
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| APPR | DATE | |
| DATE | | |
| SYN | DESCRIPTION | |
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| | | |
| APPROVED | | |
| FOR COMMANDER NAVFAC | | |
| ACTIVITY | | |
| SATISFACTORY TO | DATE | 01/08/16 |
| DES | DNM | DRW |
| MJC | CHK | DNM |
| PW/DM DAVID HOPPER | | |
| BRANCH MANAGER MARTIN RYAN | | |
| FEAD/PMAE LCDR JAMES ROCHE | | |
| FIRE PROTECTION | | |
| NAVAL FACILITIES ENGINEERING COMMAND NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC NAVAL SHIPYARD - PORTSMOUTH - NH NCTCS CUTLER, MAINE CUTLER SOUTH HELIX HOUSE STEEL PRESERVATION AND EXTERIOR RENOVATION SOUTH HELIX HOUSE ICE SHIELD STRUCTURAL DETAILS 2 [OPTION 1] | | |
| SCALE: AS NOTED | | |
| EPROJECT NO.: 1369480 | | |
| CONSTR. CONTR. NO. | | |
| NAVFAC DRAWING NO. 12712504 | | |
| SHEET 45 OF 48 | | |
| SF522 LF-16-137 | | |
| DRAWING REVISION: 10 MARCH 2009 | | |

11 Jan, 2016 11:25am
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| CONNECTION SCHEDULE | | |
|---------------------|----------------|--|
| CONN TYPE | DETAIL | NOTES |
| ◇A | C3/SF502 | BRACE TO COLUMN AT SOFFIT PANEL; BRACE AND COLUMN SIZES VARY. |
| ◇B | C2/SF502 | BRACE TO BRACE; BRACE SIZES AND QUANTITY OF BOLTS VARY. |
| ◇C | C5/SF502 | (2) BRACES/GIRT TO COLUMN; BRACE, GIRT AND COLUMN SIZES VARY. |
| ◇D | A2/SF502 | BRACE TO COLUMN AT COLUMN BASE/PIER; BRACE AND COLUMN SIZES VARY. |
| ◇E | A3/SF502 | BRACE TO RF COLUMN NEAR ROOF; BRACE AND COLUMN SIZES VARY. |
| ◇F | A5/SF502 | (2) BRACES TO RF COLUMN; BRACE AND RF SIZES VARY. |
| ◇G | A3/SF503 | BRACE TO RF COLUMN BASE; BRACE AND COLUMN SIZES VARY. |
| ◇H | B5/SF506 | CHANNEL TO BEAM; CHANNEL AND BEAM SIZES VARY. |
| ◇J | C5/SF503 | (2) BRACES/(2) GIRTS TO COLUMN; CONNECTIONS ON (2) SIDES OF COLUMN; BRACE, GIRT AND COLUMN SIZES VARY. |
| ◇K | A2/SF503 | (2) BRACES/(2) GIRTS/STRUT TO COLUMN; COLUMN SIZES VARY. |
| ◇L | C5/SF502 (SIM) | (2) BRACES/GIRT TO RF COLUMN; BRACE, GIRT AND COLUMN SIZES VARY. |
| ◇M | A5/SF503 | COLUMN AT SOFFIT PANEL; COLUMN SIZES VARY. |
| ◇N | C2/SF504 | GIRT TO COLUMN WEB; GIRT AND COLUMN SIZES VARY. |
| ◇P | C3/SF504 | GIRT TO COLUMN FLANGE; GIRT AND COLUMN SIZES VARY. |
| ◇Q | B3/SF504 | (2) GIRTS TO RF COLUMN WITH ANGLE BRACES; GIRT AND RF SIZES VARY. |
| ◇R | B2/SF504 (SIM) | (2) GIRTS TO RF COLUMN WITH ANGLE BRACE; GIRT AND RF SIZES VARY. |
| ◇S | B5/SF504 | GIRT TO RF COLUMN WITH ANGLE BRACE; GIRT AND RF SIZES VARY. |
| ◇T | B5/SF504 | GIRT TO RF COLUMN; GIRT AND COLUMN SIZES VARY. |
| ◇U | C4/SF504 | BEAM TO COLUMN WEB; BEAM AND COLUMN SIZES VARY. |
| ◇V | C5/SF504 | BEAM TO COLUMN FLANGE; BEAM AND COLUMN SIZES VARY. |
| ◇W | B2/SF504 | STRUT TO COLUMN; STRUT AND COLUMN SIZES VARY. |
| ◇Y | C2/SF503 | RIGID KNEE AT RF; RF SIZES VARY. |
| ◇Z | C3/SF503 | COLUMN AT COLUMN BASE/PIER; COLUMN SIZES VARY. |
| ◇AA | A4/SF506 | RIGID KNEE AT RF WITH BRACING TRUSS; RF SIZES VARY. |

| SYN | DESCRIPTION | DATE | APPR |
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APPROVED
 FOR COMMANDER NAVFAC
 ACTIVITY

| | | |
|-----------------|------------------|----------|
| SATISFACTORY TO | DATE | 01/08/16 |
| DES | DNM | DRW |
| | MJC | CHK |
| | DNM | |
| PW/DM | DAVID HOPPER | |
| BRANCH MANAGER | MARTIN RYAN | |
| FEAD/PMAE | LCDR JAMES ROCHE | |

DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING COMMAND
 NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
 NAVAL SHIPYARD - PORTSMOUTH - MAINE
 NCTAMS LANT DET
 NCTCS CUTLER, MAINE
 CUTLER SOUTH HELIX HOUSE STEEL
 PRESERVATION AND EXTERIOR RENOVATION
 SOUTH HELIX HOUSE
 CONNECTION SCHEDULE

| | |
|--------------------|-----------|
| SCALE: | AS NOTED |
| EPROJECT NO.: | 1369480 |
| CONSTR. CONTR. NO. | |
| NAVFAC DRAWING NO. | 12712505 |
| SHEET | 46 OF 48 |
| SF601 | LF-16-138 |

GIRT CONNECTION REPAIR CRITERIA

- REMOVAL AND REPLACEMENT OF EXISTING CONNECTION ANGLES IS REQUIRED FOR ANY OF THE FOLLOWING CONDITIONS:
 - REDUCTION IF THICKNESS OF EITHER THE TOP OR BOTTOM ANGLE OF MORE THAN 1/8 INCH, MEASURED AFTER THE REMOVAL OF ALL CORRODED MATERIAL, WITH A LENGTH OF THE LOSS OF MATERIAL GREATER THAN 2 INCHES.
 - LOSS OF MATERIAL AT ENDS OF EXPOSED OUTSTANDING LEGS OF EITHER THE TOP OR BOTTOM ANGLE OF MORE THAN 1 INCH, MEASURED AFTER THE REMOVAL OF ALL CORRODED MATERIAL.
- WHERE ANGLES ARE REQUIRED TO BE REMOVED, THE FOLLOWING PROCEDURES SHALL BE FOLLOWED (0001u, 0001v):
 - REPLACE WITH ANGLE OF THE SAME LENGTH AND DIMENSIONS AS THE REMOVED ANGLE. MINIMUM THICKNESS OF ANGLE SHALL MATCH EXISTING ANGLE AND SHALL BE NO LESS THAN 1/4 INCH. SEE DETAIL D5/SF511.
 - AT CONNECTIONS WHERE THE EXISTING ANGLE IS WELDED TO THE GIRT WEB, WELD REPLACEMENT ANGLE WITH 3/16 INCH FILLET WELD ALL AROUND THE ANGLE TO THE GIRT WEB. SEE DETAIL D5/SF511.
 - AT CONNECTIONS WHERE THE EXISTING ANGLE IS BOLTED TO THE GIRT WEB, REMOVE EXISTING BOLTS AND INSTALL 1 INCH DIAMETER A325N BOLTS. INSTALL BOLTS IN THE SAME LOCATION AS REMOVED BOLTS. DO NOT ENLARGE EXISTING BOLT HOLES IN GIRT WEB (0001a, 0001b).
 - REMOVE EXISTING BOLTS AT ANGLE TO COLUMN WEB CONNECTION AND INSTALL 1 INCH DIAMETER A325N BOLTS. INSTALL BOLTS IN THE SAME LOCATION AS REMOVED BOLTS. DO NOT ENLARGE EXISTING BOLT HOLES IN COLUMN WEB. SEE DETAIL D5/SF511 (0001a, 0001b).
 - REMOVE EXISTING CORROSION FROM BEHIND THE REPAIRED CONNECTION AND PROVIDE ONE COAT OF PRIMER TO THE CONNECTION AREA ON THE MEMBER BEHIND PRIOR TO INSTALLING NEW CONNECTION.
- REINFORCEMENT OF THE COLUMN WEB AT GIRT CONNECTION AT WIDE FLANGE COLUMNS IS REQUIRED FOR ANY OF THE FOLLOWING CONDITIONS:
 - HOLES IN COLUMN WEB WITH AN AREA GREATER THAN 2 SQUARE INCHES WITHIN 7-1/2 INCHES OF GIRT CENTERLINE. MEASUREMENT OF THE AREA SHALL BE AS INDICATED IN DETAIL D5/SF508, MEASURED AFTER THE REMOVAL OF ALL CORRODED MATERIAL.
 - REDUCTION IN THICKNESS OF THE COLUMN WEB GREATER THAN 1/8 INCH IN AN AREA GREATER THAN 9 SQUARE INCHES. MEASUREMENT OF THE AREA SHALL BE AS INDICATED IN DETAIL D5/SF508, MEASURED AFTER THE REMOVAL OF ALL CORRODED MATERIAL.
- REINFORCEMENT OF THE COLUMN WEB AT GIRT CONNECTION, IF REQUIRED, SHALL BE AS INDICATED BY DETAIL D3/SF511 (0001w, 0001x).
- REINFORCEMENT OF THE COLUMN WEB AT GIRT CONNECTION AT RIGID FRAMES IS REQUIRED FOR ANY OF THE FOLLOWING CONDITIONS:
 - HOLES IN COLUMN WEB WITH AN AREA GREATER THAN 2 SQUARE INCHES WITHIN 7-1/2 INCHES OF GIRT CENTERLINE. MEASUREMENT OF THE AREA SHALL BE AS INDICATED IN DETAIL D3/SF508, MEASURED AFTER THE REMOVAL OF ALL CORRODED MATERIAL.
 - REDUCTION IN THICKNESS OF THE COLUMN WEB GREATER THAN OR EQUAL TO 1/8 INCH IN AN AREA GREATER THAN 9 SQUARE INCHES. MEASUREMENT OF THE AREA SHALL BE AS INDICATED IN DETAIL D3/SF508, MEASURED AFTER THE REMOVAL OF ALL CORRODED MATERIAL.
- REINFORCEMENT OF THE COLUMN WEB IF REQUIRED SHALL BE AS INDICATED BY DETAIL B3/SF512 (0001y, 0001z).

HORIZONTAL BRACE REPAIR CRITERIA AT RIGID FRAMES

- REMOVAL AND REPLACEMENT OF EXISTING BRACE ANGLES AND/OR EXISTING GUSSET PLATES IS REQUIRED FOR ANY OF THE FOLLOWING CONDITIONS:
 - REDUCTION IN THICKNESS OF THE LEGS OF EITHER THE TOP OR BOTTOM ANGLES OF MORE THAN 1/8 INCH, MEASURED AFTER THE REMOVAL OF ALL CORRODED MATERIAL, WITH A LENGTH OF THE LOSS OF MATERIAL GREATER THAN 2 INCHES.
 - LOSS OF MATERIAL AT THE EXPOSED OUTSTANDING LEGS OF EITHER THE TOP OR BOTTOM ANGLE OF MORE THAN 1/2 INCH IN DEPTH OF THE ANGLE AND A LENGTH OF LOSS GREATER THAN 2 INCHES, MEASURED AFTER THE REMOVAL OF ALL CORRODED MATERIAL.
 - REDUCTION IN THICKNESS OF THE EXISTING 5/8 INCH STEEL GUSSET PLATE IF THERE IS A REDUCTION IN THICKNESS OF MORE THAN 1/8 INCH, MEASURED AFTER THE REMOVAL OF ALL CORRODED MATERIAL, WITH A LENGTH OF THE LOSS OF MATERIAL GREATER THAN 2 INCHES.
 - LOSS OF MATERIAL AT THE EXPOSED EDGE OF GUSSET PLATE OF MORE THAN 1/2 INCH IN WIDTH AND A LENGTH OF LOSS GREATER THAN 2 INCHES.

- WHERE ANGLES AND/OR GUSSET PLATES ARE REQUIRED TO BE REPLACED, THE FOLLOWING PROCEDURES SHALL BE FOLLOWED:
 - REPLACE WITH ANGLE OF THE SAME LENGTH AND DIMENSIONS AS THE REMOVED ANGLE. MINIMUM THICKNESS OF ANGLE SHALL MATCH EXISTING ANGLE AND SHALL BE NO LESS THAN 5/16 INCH. WELD TO THE SUPPORTING GUSSET PLATE WITH 3/16 INCH FILLET WELDS ALL AROUND (0001ee, 0001gg).
 - REPLACE GUSSET PLATE WITH PLATE OF THE SAME DIMENSIONS AS THE REMOVED GUSSET PLATE. MINIMUM THICKNESS OF THE GUSSET PLATE SHALL MATCH EXISTING GUSSET PLATE AND SHALL BE NO LESS THAN 5/8 INCH. WELD TO COLUMN WEB AND/OR GIRT FLANGE WITH 3/8 INCH FILLET WELDS BOTH SIDES (0001ff, 0001hh).
- WHERE REMOVAL OF ANGLES AND/OR GUSSET PLATES IS NOT REQUIRED, REMOVAL AND REPLACEMENT OF WELD WILL BE REQUIRED WHEN THERE IS A REDUCTION IN LENGTH OF THE WELD OF MORE THAN 1 INCH IN ANY LOCATION.
- WHERE WELDS ARE REQUIRED TO BE REMOVED, REPLACE WITH 3/8 INCH FILLET WELD BOTH SIDES (0001c, 0001d).

BRACING TRUSS REPAIR CRITERIA

- REMOVAL OF EXISTING BRACING TRUSS MEMBERS IS REQUIRED FOR ANY OF THE FOLLOWING CONDITIONS:
 - REDUCTION IN THICKNESS OF ANY OUTSTANDING LEG OF ANY BUILT UP COMPRESSION MEMBER OF MORE THAN 1/8 INCH, MEASURED AFTER THE REMOVAL OF ALL CORRODED MATERIAL, WITH A LENGTH OF THE LOSS OF MATERIAL GREATER THAN 2 INCHES, EXCEPT AS NOTED IN PARAGRAPH D.
 - LOSS OF MATERIAL AT ENDS OF EXPOSED OUTSTANDING LEGS ANGLES OF BUILT UP COMPRESSION MEMBERS OF MORE THAN 1/2 INCH, MEASURED AFTER THE REMOVAL OF ALL CORRODED MATERIAL, EXCEPT AS NOTED IN PARAGRAPH D.
 - FAILURE OF ANY MEMBER TO GUSSET PLATE CONNECTION.
 - REPAIRS OF ANGLES IN LIEU OF REPLACEMENT OF THE ENTIRE ANGLE ARE PERMITTED PROVIDED THE REDUCTION IN MEMBER/LOSS OF MATERIAL MEETS EITHER OF THE FOLLOWING CRITERIA:
 - THE DISTANCE BETWEEN DAMAGED AREAS IS GREATER THAN 2 FEET.
 - THERE ARE LESS THAN 4 IDENTIFIED AREAS OF DAMAGE ALONG THE LENGTH OF THE MEMBER.
- WHERE ANGLES ARE REQUIRED TO BE REMOVED, THE FOLLOWING PROCEDURES SHALL BE FOLLOWED (0001f, 0001g, 0001i, 0001m):
 - REPLACE WITH ANGLE OF THE SAME LENGTH AND DIMENSIONS AS THE REMOVED ANGLE AS INDICATED ON SHEET SF211. ONLY THE REMOVAL OF DAMAGED ANGLE IS REQUIRED. IF REMAINING ANGLE IN THE BUILT UP MEMBER IS INTACT, THE UNDAMAGED ANGLE SHALL REMAIN IN PLACE. DO NOT REMOVE THE EXISTING SPACER PLATES LOCATED ALONG LENGTH OF MEMBER.
- WHEN ANGLE AT TOP AND/OR BOTTOM CHORD OF BRACING TRUSS IS TO BE REMOVED/REPLACED IS LOCATED CLOSEST TO EXISTING WALL SIDING, THE ANGLE SHALL BE REPLACED AS FOLLOWS (0001f, 0001i):
 - INSTALL THE REPLACEMENT ANGLE IN TWO SECTIONS. EACH SECTION SHALL BE WELDED TO EXISTING STEEL GUSSET PLATES AT CONNECTION TO BUILDING COLUMN AND AT CENTER TRUSS GUSSET PLATE. WELD REPLACEMENT ANGLE TO GUSSET PLATES AS INDICATED BY DETAILS D2/SF512, D3/SF512 AND D5/SF512.
 - WELD REPLACEMENT ANGLE TO EXISTING SPACER PLATES LOCATED ALONG THE LENGTH OF THE MEMBER. WELD WITH 3/16 INCH FILLET WELDS ACROSS LENGTH OF MEMBER.
- REPAIR OF ANGLES WHERE PERMITTED SHALL BE MADE BY WELDING A 1/4" THICK STEEL PLATE OVER THE DAMAGED AREA USING 3/16" FILLET WELDS ALL AROUND. PLATES SHALL EXTEND A MINIMUM DISTANCE OF 1" CLEAR BEYOND THE EDGES OF THE DAMAGED AREAS. PLATES SHALL BE ATTACHED ONLY AFTER THE REMOVAL OF ALL CORRODED MATERIAL (0001h, 0001n).
- REMOVAL OF EXISTING GUSSET PLATES AT TRUSS TO COLUMN CONNECTION IS REQUIRED FOR ANY OF THE FOLLOWING CONDITIONS:
 - REDUCTION IN THICKNESS OF PLATE OF MORE THAN 1/8 INCH, MEASURED AFTER REMOVAL OF ALL CORRODED MATERIAL, WITH A LENGTH OF LOSS OF MATERIAL GREATER THAN 2 INCHES.
 - LOSS OF MATERIAL OF EXPOSED EDGES OF GUSSET PLATE OF MORE THAN 1/2 INCH, MEASURED AFTER THE REMOVAL OF ALL CORRODED MATERIAL.
- COLUMN GUSSET PLATES, IF REQUIRED TO BE REMOVED, SHALL BE REPLACED WITH PLATES OF THE SAME DIMENSIONS AND THICKNESS OF THE EXISTING GUSSET PLATE, MINIMUM THICKNESS OF GUSSET PLATE SHALL BE 5/8 INCH. WELD TO SUPPORTING COLUMN WITH 1/4 INCH FILLET WELDS ON BOTH SIDES OF PLATE ALONG THE FULL LENGTH OF PLATE IN CONTACT WITH THE COLUMN. CONNECTION OF TRUSS MEMBER TO REPLACED GUSSET PLATE SHALL BE AS INDICATED BY DETAIL D5/SF512 (0001i, 0001o).
- GUSSET PLATE TO COLUMN WELD/TRUSS MEMBER WELD SHALL BE REMOVED/REPLACED WHEN THE WELD HAS FAILED, WHICH IS DEFINED AS THE FOLLOWING:
 - SEPARATION OF GUSSET PLATE FROM COLUMN/TRUSS MEMBER.
 - LOSS OF MORE THAN 2 INCHES OF WELD, MEASURED AFTER THE REMOVAL OF ALL CORRODED MATERIAL.

- WELDS SHALL BE REPLACED WITH A MINIMUM 1/4 INCH FILLET WELD BOTH SIDES ALONG THE FULL LENGTH OF THE PLATE IN CONTACT WITH THE COLUMN AND ALONG THE FULL LENGTH OF PLATE IN CONTACT WITH THE ANGLE (0001e, 0001k).
- REMOVAL OF INTERMEDIATE EXISTING GUSSET PLATES AT MID SPAN OF THE TRUSS IS REQUIRED FOR ANY OF THE FOLLOWING CONDITIONS:
 - REDUCTION IN THICKNESS OF PLATE OF MORE THAN 1/8 INCH, MEASURED AFTER REMOVAL OF ALL CORRODED MATERIAL, WITH A LENGTH OF LOSS OF MATERIAL GREATER THAN 2 INCHES.
 - LOSS OF MATERIAL OF EXPOSED EDGES OF GUSSET PLATE OF MORE THAN 1/2 INCH, MEASURED AFTER THE REMOVAL OF ALL CORRODED MATERIAL.
- INTERMEDIATE GUSSET PLATES, IF REQUIRED TO BE REMOVED, SHALL BE REPLACED WITH PLATES OF THE SAME DIMENSIONS AND THICKNESS OF THE EXISTING GUSSET PLATE. MINIMUM THICKNESS OF GUSSET PLATE SHALL BE 5/8 INCH. WELD TO SUPPORTING MEMBERS AS INDICATED BY DETAIL D3/SF512 (0001i, 0001o).
- REMOVE AND REPLACE BRACING TRUSS BT-5 (D4/SF211) AND BT-5 (C4/SF211), INCLUDING GUSSET PLATES, SPACER PLATES AND WELDING (0001j, 0001p).

GENERAL MEMBER REPAIR CRITERIA

- REPAIR OF MEMBERS, OTHER THAN AT CONNECTIONS AND BRACING TRUSSES, IS REQUIRED FOR ANY OF THE FOLLOWING CONDITIONS:
 - REDUCTION IN THICKNESS OF MORE THAN 1/8 INCH OVER AN AREA OF 9 SQUARE INCHES. MEASUREMENT OF THE AREA SHALL BE AS INDICATED IN DETAIL A2/SF511, MEASURED AFTER THE REMOVAL OF ALL CORRODED MATERIAL.
 - HOLES IN MEMBERS OF MORE THAN 2 SQUARE INCHES. MEASUREMENT OF THE AREA SHALL BE AS INDICATED IN DETAIL A2/SF511, MEASURED AFTER THE REMOVAL OF ALL CORRODED MATERIAL.
- REPAIR OF MEMBERS SHALL BE AS INDICATED BY DETAIL A2/SF511 (0001ii, 0001jj).

COLUMN BASE REPAIR CRITERIA

- REPAIRS AT COLUMN BASES, WIDE FLANGE AND RIGID FRAMES, IS REQUIRED FOR THE FOLLOWING CONDITIONS:
 - REDUCTION IN THICKNESS OF EITHER COLUMN WEB OR FLANGE OF MORE THAN 1/8 INCH OVER AN AREA GREATER THAN 9 SQUARE INCHES, MEASURED AFTER THE REMOVAL OF ALL CORRODED MATERIAL. SEE DETAIL C2/SF509.
 - LOSS OF WELD AT RIGID FRAME COLUMNS AT CONNECTION OF WEB TO FLANGE OF MORE THAN 1 INCH IN LENGTH, MEASURED AFTER THE REMOVAL OF ALL CORRODED MATERIAL. SEE DETAIL C2/SF509.
 - REDUCTION IN THICKNESS OF THE EXPOSED SECTION OF STIFFENER MORE THAN 1/8 INCH OVER A LENGTH GREATER THAN 2 INCHES, MEASURED AFTER THE REMOVAL OF ALL CORRODED MATERIAL. SEE DETAIL C2/SF509.
 - LOSS OF WELD OF THE STIFFENER TO COLUMN WEB OF MORE THAN 1 INCH IN LENGTH, MEASURED AFTER THE REMOVAL OF ALL CORRODED MATERIAL. SEE DETAIL C2/SF509.
 - FRACTURE OF THE WELD OF THE STIFFENER TO COLUMN WEB. SEE DETAIL C2/SF509.
- REPAIRS AT COLUMN BASES, IF REQUIRED, SHALL BE AS INDICATED ON DETAIL B2/SF512 (0001ii, 0001jj).

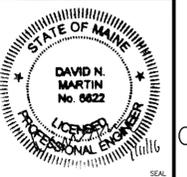
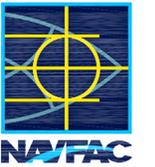
BOLT/RIVET REPAIR CRITERIA

- REMOVAL OF EXISTING BOLTS/RIVETS IS REQUIRED IF THE BOLT/RIVET IS DAMAGED PER THE CRITERIA GIVEN IN DETAIL D2/SF508. DETERMINATION SHALL BE MADE AFTER REMOVAL OF ALL CORRODED MATERIAL.
- WHERE BOLTS/RIVETS ARE REQUIRED TO BE REMOVED, INSTALL 1-INCH DIAMETER A325N BOLTS IN EXISTING BOLT/RIVET HOLES AND FULLY TENSION BOLTS (0001a, 0001b).

GENERAL SHEET NOTES

- REFER TO REPAIR PLAN NOTES ON SHEET S-002.
- ICE SHIELD REPAIRS (BID OPTION 2) ARE GIVEN ON SHEETS SF221, SF222, SF521 AND SF522.
- REFER TO SPECIFICATION SECTION 00 41 00 "BID SCHEDULES" FOR UNIT PRICE ITEM NUMBERS (i.e. 0001q, ETC).

| SYN | DESCRIPTION | DATE | APPR |
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APPROVED

FOR COMMANDER NAVFAC
ACTIVITY

SATISFACTORY TO DATE 01/08/16

DES DNM DRW MJC CHK DNM

FW/DM DAVID HOPPER

BRANCH MANAGER MARTIN RYAN

FEAD/FAAE LCDR JAMES ROCHE

FIRE PROTECTION

NAVAL FACILITIES ENGINEERING COMMAND

NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC

NAVAL SHIPYARD - PORTSMOUTH - NH

NCTCS CUTLER, MAINE

CUTLER SOUTH HELIX HOUSE STEEL

PRESERVATION AND EXTERIOR RENOVATION

SOUTH HELIX HOUSE

REPAIR CRITERIA 1

DEPARTMENT OF THE NAVY

NAVAL FACILITIES ENGINEERING COMMAND

PUBLIC WORKS DEPARTMENT - MAINE

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SCALE: AS NOTED

EPROJECT NO.: 1369480

CONSTR. CONTR. NO.

NAVFAC DRAWING NO. 12712506

SHEET 47 OF 48

SF602 LF-16-139

DRAWING REVISION: 10 MARCH 2009

