

MAGAZINE CONTRACT DRAWINGS

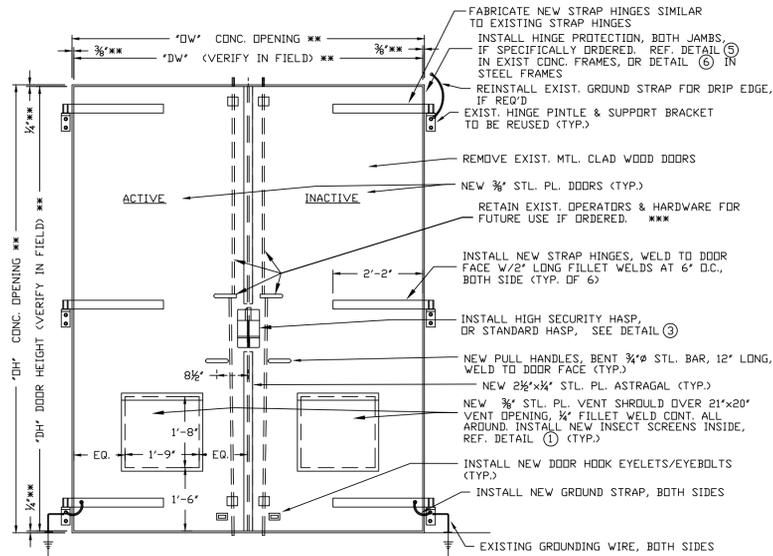
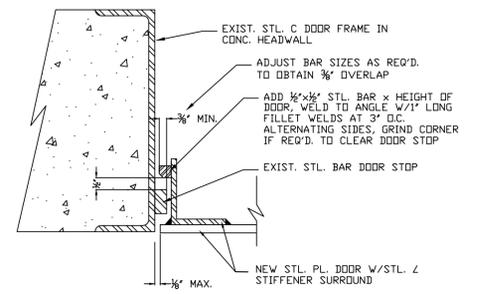
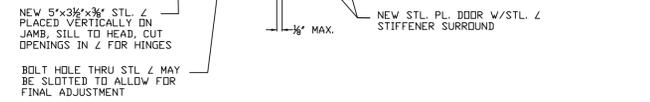
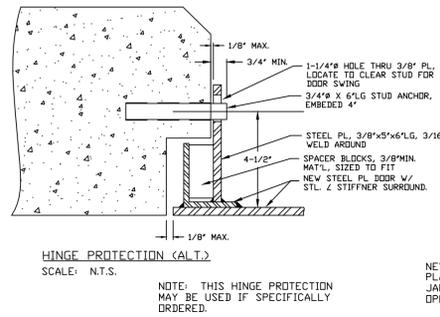
Contract #N40085-16-D-2801

1. PW Dwg. #6825, (Sheet #1, 2, 3, & 4), S. P. Magazine Wingwall Replace & Repair
2. PW Dwg. #6935, (Sheet #1, 2, 3, 4, & 5), Magazine & Inert Dock Replace & Repair (Sheet #6 is not part of Contract).
3. PW Dwg. #7035, (Sheet #1, 2, & 3), Extended Width 8' to 12' Magazine Dock Replacement
4. PW Dwg. #6981, Sheet #1), Steel Door, Drop in Locking Bar
5. PW Dwg. #6894, (Sheet #1), Magazine Door, Replacement W/Details
6. PW Dwg. #7261, (Sheet #1), Steel Door, Upper & Lower Cane Bolt Details
7. Dwg. #7182-CA, (Sheet #1 & 2), Modified E-Box Magazine Door
8. Dwg. #7316-CA, (Sheet #1, 2, 3, & 4), Replace Frontwall, Hi-Ex Magazine
9. Dwg. #7318-CA, (Sheet #1) Replace Existing Ventilators on Hi-Ex Magazine

Drawings provided for information:

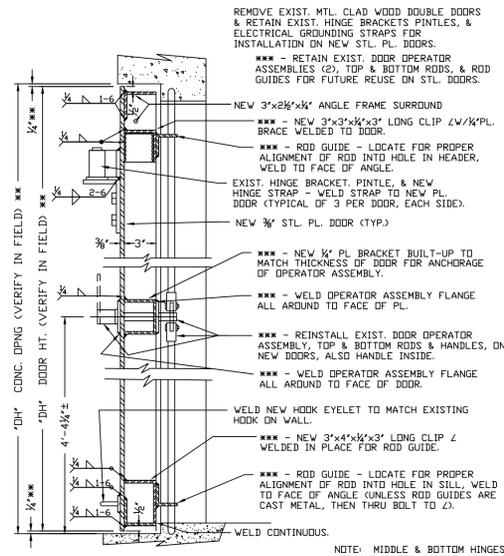
- A. YD158633 Hi- Ex Magazine
- B. YD209854 SHT 001 Hi- Ex Magazine
- C. YD209855 SHT 002 Hi- Ex Magazine
- D. YD649602 SHT 001 Hi- Ex Magazine
- E. YD387740 SHT 002 Smokeless Powder Magazine
- F. YD387743 SHT 003 Inert Storage Magazine

DOOR SCHEDULE								HINGE PROTECTION
DOOR TYPE	MAG TYPE	DIM. "DH"	DIM. "DH"	DIM. "DW"	DIM. "DW"	DIM. "W1"	HASP TYPE	HINGE PROTECTION
J	SP MAG	10'-6 1/4"	10'-5 3/4"	8'-3 3/4"	8'-3"	4'-1 1/4"	HIGH SEC.	YES
J	ABM	10'-6 1/4"	10'-5 3/4"	8'-3 3/4"	8'-3"	4'-1 1/4"	HIGH SEC.	NO
J	INERT	10'-6 1/4"	10'-5 3/4"	8'-3 3/4"	8'-3"	4'-1 1/4"	STD.	NO
G-1	H.E. MAG	10'-5"	10'-4 1/2"	6'-0 1/2"	6'-0"	2'-11 1/2"	HIGH SEC.	YES
G-2	H.E. MAG	10'-6 1/4"	10'-5 3/4"	6'-3 3/4"	6'-3"	3'-1 1/4"	HIGH SEC.	YES
H	H.E. MAG	10'-6 1/4"	10'-0"	8'-0 1/2"	8'-0"	3'-11 1/2"	HIGH SEC.	YES
K	INERT	8'-5 1/2"	8'-5"	8'-0"	7'-11 1/2"	3'-11 1/4"	STD.	NO
K	SP MAG	8'-5 1/2"	8'-5"	8'-0"	7'-11 1/2"	3'-11 1/4"	HIGH SEC.	YES



ELEVATION "J"

NOTE: ** - VERIFY EXISTING DOOR SIZES AND OPENING SIZES OF DOORS IN FIELD PRIOR TO FABRICATION OF NEW DOORS. ADJUST SIZES TO FIT ACTUAL OPENING.

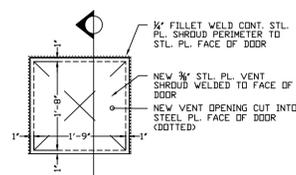


VERTICAL SECTION

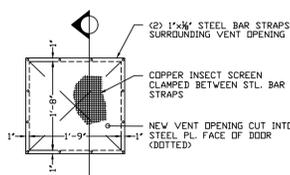
HINGE PROTECTION (5) SCALE: N.T.S.

INSTALLATION NOTE: HINGE PROTECTION DETAIL '5' TO BE USED FOR DOOR OPENINGS WITH UNFRAMED CONCRETE OPENING AND HINGE PROTECTION DETAIL '6' TO BE USED FOR DOOR OPENINGS WITH STEEL CHANNEL FRAMED DOOR OPENING.

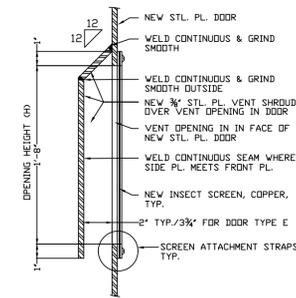
HINGE PROTECTION (6) SCALE: N.T.S.



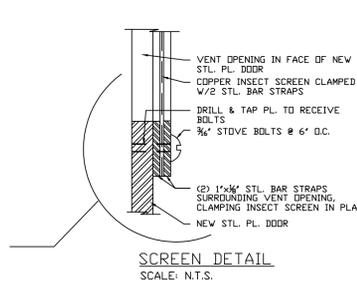
DOOR VENT ELEVATION AS VIEWED FROM OUTSIDE SCALE: N.T.S.



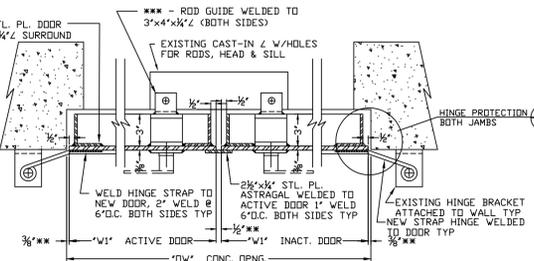
DOOR VENT ELEVATION AS VIEWED FROM INSIDE SCALE: N.T.S.



VENT SECTION SCALE: N.T.S.



SCREEN DETAIL SCALE: N.T.S.

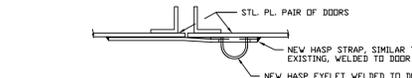
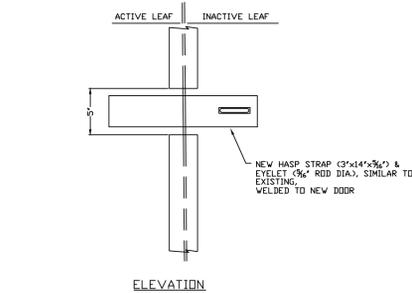


HORIZONTAL SECTION

NEW DOOR DETAILS

NOTE: IF DOORS ARE SPECIFICALLY ORDERED WITH HIGH SECURITY HASPS AND/OR HINGE PROTECTION, REFER TO DETAILS 3, 5, & 6 ON THIS DRAWING.

*** NOTE: IF DOORS ARE SPECIFICALLY ORDERED WITH OPERATOR ASSEMBLIES TO BE REINSTALLED, REFER TO INDICATED NOTES AND DETAILS ON THIS DRAWING. OTHERWISE INSTALL CANE BOLTS ON NEW DOORS AS SHOWN ON DRAWING #7261. OPERATOR ASSEMBLIES & ASSOCIATED HARDWARE REMOVED AND NOT REUSED SHALL BE RETAINED AS REPAIR ITEMS FOR OTHER DOORS.



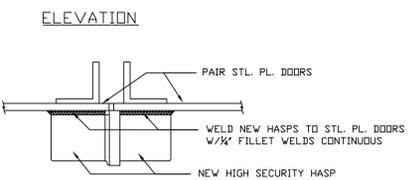
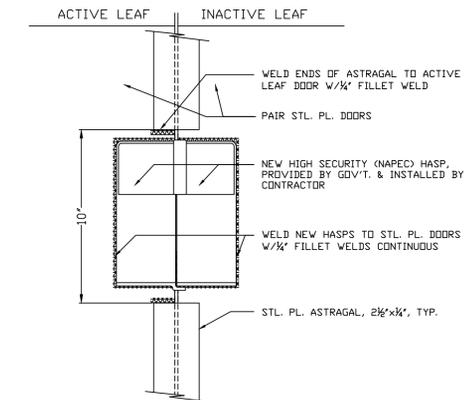
PLAN SECTION VIEW STANDARD HASP INSTALLATION (3) (11)

INSTALLATION NOTES:

1. ALL STEEL MOUNTING PLATES AND BOLTS SHALL BE PROVIDED BY CONTRACTOR.
2. THE LOCATION OF THE HINGE SUPPORT BRACKETS MAY VARY FROM DOOR TO DOOR AND SHALL BE VERIFIED. THE HINGE STRAPS SHALL BE INSTALLED ON THE DOORS TO PROPERLY ALIGN WITH THE HINGE SUPPORT BRACKET AT EACH LOCATION.
3. STANDARD HASP MOUNTING HEIGHT SHALL BE APPROXIMATELY +4'3" ABOVE THE FINISHED FLOOR UNLESS OTHERWISE NOTED.
4. UPON COMPLETION OF THE WORK, THE DOORS SHALL PROPERLY ALIGN AND OPEN, AND THE HASPS' LOCK SHACKLE HOLES SHALL ALIGN FOR ADEQUATE INSERTION OF LOCK.

SPECIAL REQUIREMENTS:

1. FLAME-EMITTING TORCHES SHALL NOT BE USED TO CUT STEEL OR METAL DURING DEMOLITION OF DOORS.
2. CONCRETE AND REBAR SHALL BE CUT BY USING WET-SAWING PROCEDURES ONLY.
3. CONTRACTOR EQUIPMENT TO BE USED FOR DEMOLITION AND CONSTRUCTION SHALL BE GIVEN A SAFETY INSPECTION BY CODE ESD AND CODE 0131 PERSONNEL PRIOR TO START OF WORK.
4. THE CONTRACTOR SHALL OBTAIN WORK PERMITS FROM CODES ESD & 0131 PRIOR TO SAW-CUTTING AND HAMMER-DEMOLITION FOR EACH MAGAZINE DOOR.
5. THE ABOVE REQUIREMENTS APPLY TO ALL MAGAZINES AND BUILDINGS UNLESS OTHERWISE NOTED BY THE DICC.



PLAN SECTION HIGH SECURITY HASP INSTALLATION (3) (12) SCALE: N.T.S.

HIGH SECURITY HASP INSTALLATION NOTES:

1. THE NEW HIGH SECURITY HASP ASSEMBLY JIG, WELDING ROD (TYPE 308-15 OR 16) AND HASP INSTALLATION INSTRUCTION SHEET ARE ALL PROVIDED BY THE GOVERNMENT.
2. HASP INSTALLATION SHALL BE PROVIDED BY THE CONTRACTOR.
3. ALL STEEL MOUNTING PLATES & BOLTS SHALL BE BY THE CONTRACTOR.
4. STANDARD TOP OF HASP MOUNTING HEIGHT SHALL BE +5'-3"(+8") ABOVE THE FINISHED FLOOR UNLESS NOTED OTHERWISE.
5. DO NOT HASP INSTALLATION WORK ON NEW DOORS OR EXISTING DOORS IN NEED OF REPAIR UNTIL THE DOORS ARE MADE TO FUNCTION PROPERLY & ARE IN ALIGNMENT.
6. INSTALL HASP IN STRICT ACCORDANCE WITH THE 'NAPEC' HASP INSTALLATION INSTRUCTIONS.
7. UPON COMPLETION OF THE WORK THE DOORS SHALL BE PROPERLY ALIGNED AND THE HASP'S LOCK SHACKLE HOLES SHALL ALIGN TO WITHIN 1/8" FOR ADEQUATE INSERTION OF LOCK.

DATE	DESCRIPTION	PREP BY	DATE	APPROVED
	DRAWING REDRAWN USING AUTOCAD	RKK	08/10	
	DOOR SCH. & TYPE K DOOR ADDED	RKK	03/11	
	TYPE H DOOR (SCHEDULE) ADDED	RKK	10/12	
	TYPE G8 DOOR (SCHEDULE) ADDED	RKK	10/12	
	TYPE K DOOR (SP MAG) ADDED	RKK	09/14	

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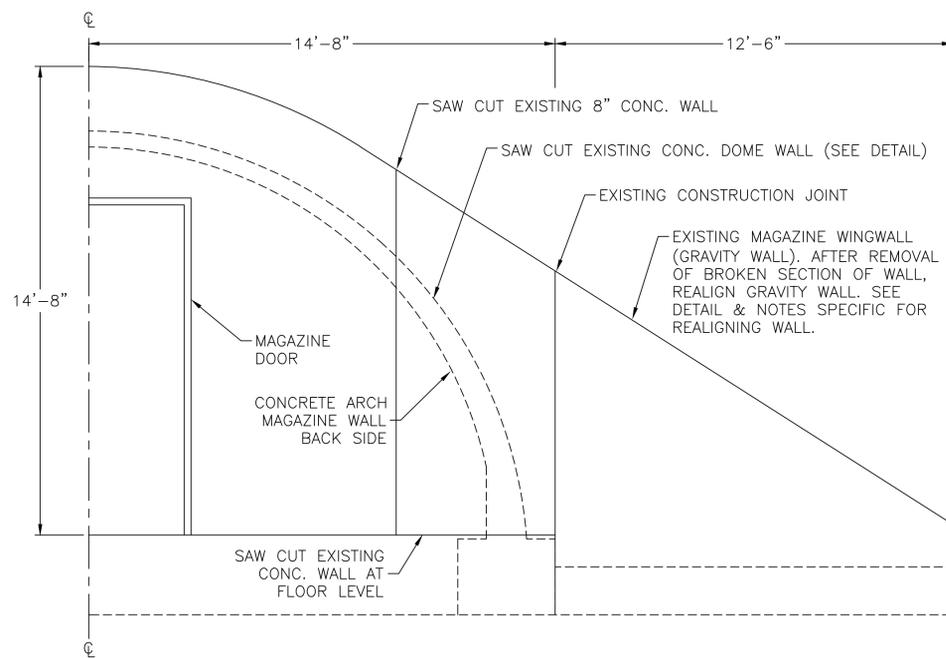
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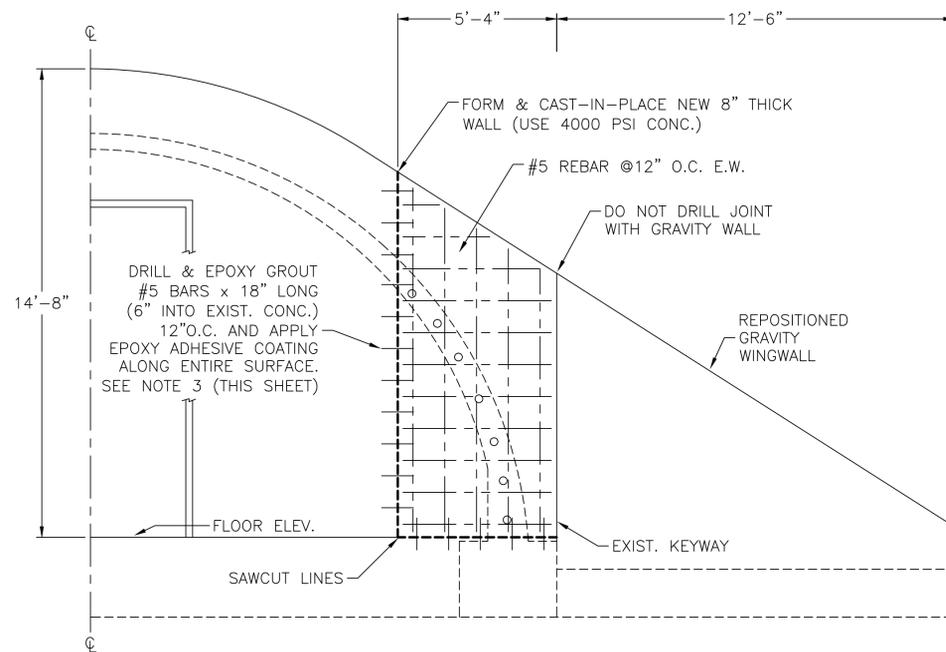
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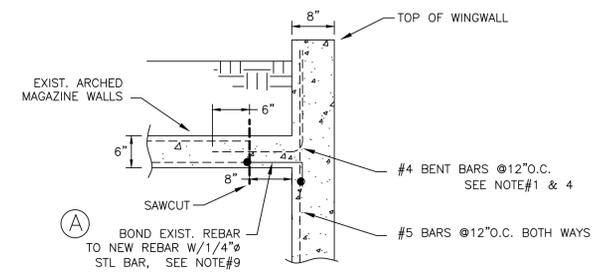
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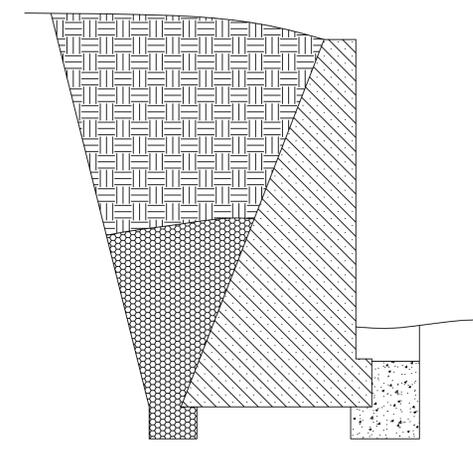
EXISTING WALL ELEVATION (HALF SECTION)
SCALE: 3/8" = 1'-0"



NEW WALL ELEVATION (HALF SECTION)
SCALE: 3/8" = 1'-0"



ARCH/NEW WALL JOINT DETAIL
SCALE: 3/4" = 1'-0"

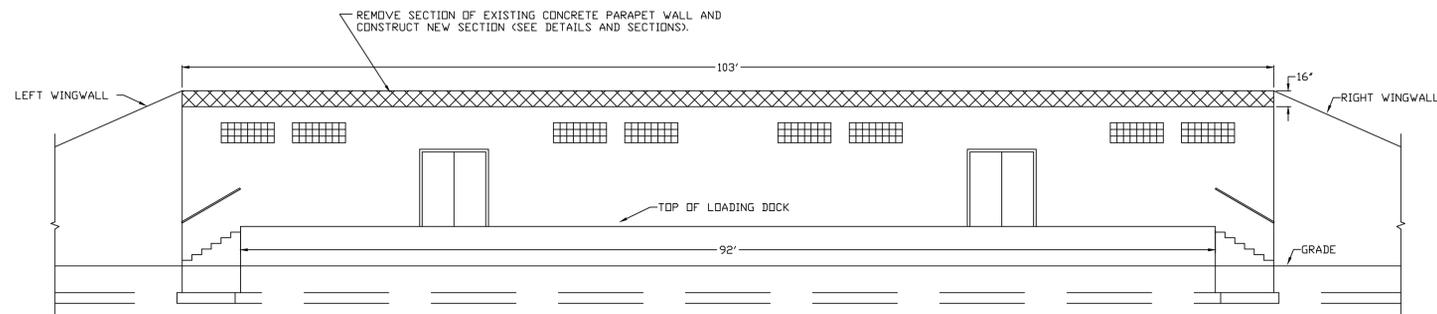


GRAVITY WALL SECTION
SCALE: 3/4" = 1'-0"

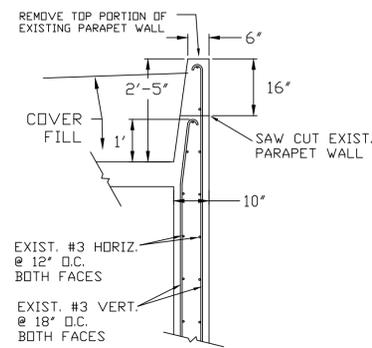
- NOTES (FOR GRAVITY WALL REPOSITIONING):**
1. EXCAVATE EARTH FROM BACKSIDE OF THE EXISTING CONCRETE GRAVITY WALL TO A MINIMUM DEPTH OF ONE FOOT BELOW BOTTOM OF WALL. UNDERCUT EXISTING WALL APPROX. 6 INCHES THE ENTIRE LENGTH OF WALL, LEAVING ADEQUATE SOIL TO SUPPORT WEIGHT OF WALL.
 2. EXCAVATE THE FRONT SIDE OF THE WINGWALL TO A DEPTH OF ONE FOOT BELOW BOTTOM OF WALL. UNDERCUT APPROX. 8 INCHES THE ENTIRE LENGTH OF THE WALL. BOTTOM OF EXCAVATION SHOULD BE 24 INCHES WIDE.
 3. USING ADEQUATE SIZED EQUIPMENT, MOVE TOP OF WINGWALL IN ROTATING MOTION TO ALIGN WITH FRONT FACE OF MAGAZINE FACE WALL AND BLOCK INPLACE.
 4. USING 2 #4 REBARS LENGTHWISE, PLACE 3" ABOVE NEAR BOTTOM OF FRONT EXCAVATION. PLACE CONCRETE IN FRONT EXCAVATION TO A DEPTH OF 18 INCHES.
 5. BACKFILL EXCAVATION IN BACK OF WALL WITH #4 CRUSHED STONE TO A DEPTH OF 36 INCHES THE LENGTH OF THE WALL. INSTALL 4" PERFORATED DRAIN PIPE. BACKFILL REMAINDER OF EXCAVATION WITH REMOVED EARTH.
 6. FILL REMAINDER OF FRONT EXCAVATION WITH CRUSHED STONE TO MAKE EVEN WITH ROADWAY.
 7. SEED AND MULCH DISTURBED AREAS.

- NOTES (FOR REPAIR OF WALL SECTION, THIS SHEET):**
1. ALL NEW CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI IN 28 DAYS. STEEL FOR REINFORCING SHALL BE NEW GRADE 60 BILLET STEEL AND CONFORM TO ASTM A615. ALL PERMANENTLY EXPOSED CONCRETE CORNERS SHALL HAVE A 1"x45' CHAMFER.
 2. EXISTING CONCRETE WHICH IS SAWCUT SHALL BE DONE AS TO PRODUCE STRAIGHT LINES WHICH ARE FREE OF RAVELS, CHIPPING, ETC. SAWCUTTING A MINIMAL DEPTH OF THE TOP SURFACE OF THE CONCRETE AND THEN BREAKING THE SECTIONS IS UNACCEPTABLE.
 3. FIRST VERTICAL/HORIZONTAL REBAR SHALL BE INSTALLED SO AS TO CROSS EACH DOWEL BAR WITH A TIGHT BONDED JOINT (WIRED-TIED). AS AN OPTION, THE CONTRACTOR MAY ELIMINATE THE DOWEL PINS IN THIS AREA IF THE NEW VERTICAL & HORIZONTAL #5 REBAR ARE DOWELED INTO THE EXISTING CONCRETE A MINIMUM OF 6 INCHES AND EPOXIED WITH HIGH STRENGTH EPOXY.
 4. ALL REINFORCING STEEL IN NEW WALL SHALL BE MADE ELECTRICALLY CONTINUOUS (BONDED) USING METAL WIRE TIES. EXPOSE ENDS OF EXISTING REBARS IN EXISTING WALLS/FLOOR AT SPACING AT LEAST EVERY FIVE FEET ALONG JOINT INTERFACE OF WALLS &/ FLOOR AND WELD 1/4" SMOOTH STEEL BAR TO REBAR AND WELD IT TO NEW REBAR IN NEW WALL SECTION. (OPTION, WELD #2 SOLID COPPER WIRE TO EXISTING REBAR AND WELD IT TO NEW REBAR). WELD #2/0 BARE COPPER CABLE TO NEW REBAR AND CONNECT IT (SEE NOTE #12, SHEET #1) TO THE EXISTING #2/0 MAGAZINE GROUND GIRDL, BURIED A MINIMUM OF 30" BELOW GRADE.
 5. THE CONTRACTOR SHALL REMOVE THE EXISTING EARTH COVER ON THE ROOF AND ALONG THE WINGWALLS TO A DEPTH NECESSARY TO REMOVE AND REPLACE THE SECTION OF THE FRONTWALL. DURING EXCAVATION, THE CONTRACTOR MUST NOT DAMAGE THE EXISTING GROUNDING CABLES. FOR SAFETY REASONS, THE CONTRACTOR MUST USE SHORING OR EXCAVATE IN STEPS TO PREVENT THE EARTH FROM CAVING IN DURING CONSTRUCTION. ONCE THE EARTH IS REMOVED, THE CONTRACTOR MUST CLEAN AND PREP THE EXISTING CONCRETE SURFACES FOR APPLICATION OF WATERPROOFING BARRIER MATERIAL. AFTER SURFACE PREP IS COMPLETED, THE CONTRACTOR SHALL APPLY A WATERPROOFING BARRIER MATERIAL TO THE AREA AROUND THE NEW WALL AND EXISTING ARCH INTERFACE. THE MEMBRANE MUST BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR SHALL COVER THE NEW WATERPROOFING BARRIER WITH 1" POLYSTYRENE OR RIGID BOARD INSULATION. WHERE VERTICAL AND HORIZONTAL INSULATION MUST OVERLAP, THE HORIZONTAL INSULATION MUST OVERLAP THE VERTICAL INSULATION THE FULL WIDTH OF THE 1" INSULATION.
 6. THE CONTRACTOR SHALL BACKFILL ALONG THE WALLS AS SHOWN. THE BACKFILL SHALL BE COMPACTED, HOWEVER HIGH DENSITY COMPACTION IS NOT REQUIRED. THE CONTRACTOR SHALL BACKDRAG THE BUCKET OVER THE FILL TO ACHIEVE A CONTOUR SIMILAR TO THE EXISTING. SEED AND MULCH THE EXCAVATED AREAS AND ANY DISTURBED AREAS.
 7. DISPOSAL OF CONCRETE RUBBLE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AS DIRECTED BY THE CONTRACTING OFFICER.

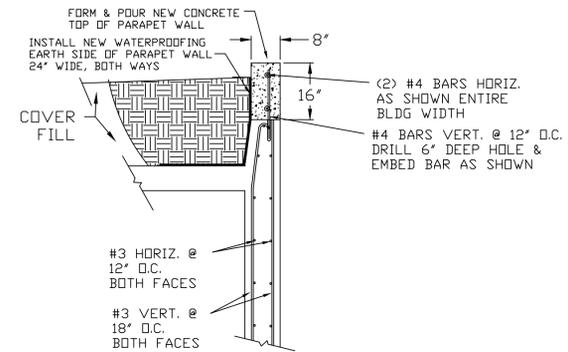
DATE	REVISION	DESCRIPTION	PREP BY	DATE	APPROVED
	1	DRAWING REV. SHEET 4	RKK	3/18/15	APP.
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MAGAZINE FRONT WALL ELEVATION
SCALE: 1/8" = 1'-0"



EXIST. PARAPET WALL SECTION
SCALE: 1/2" = 1'-0"



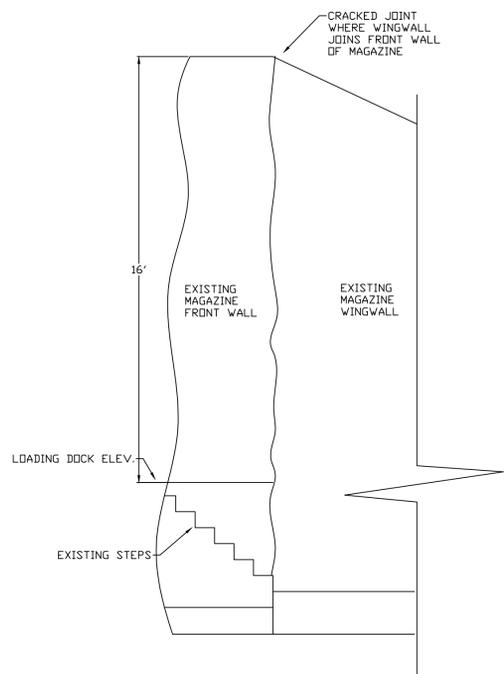
PARAPET WALL REPAIR SECTION
SCALE: 1/2" = 1'-0"

PARAPET WALL REPAIR NOTES:

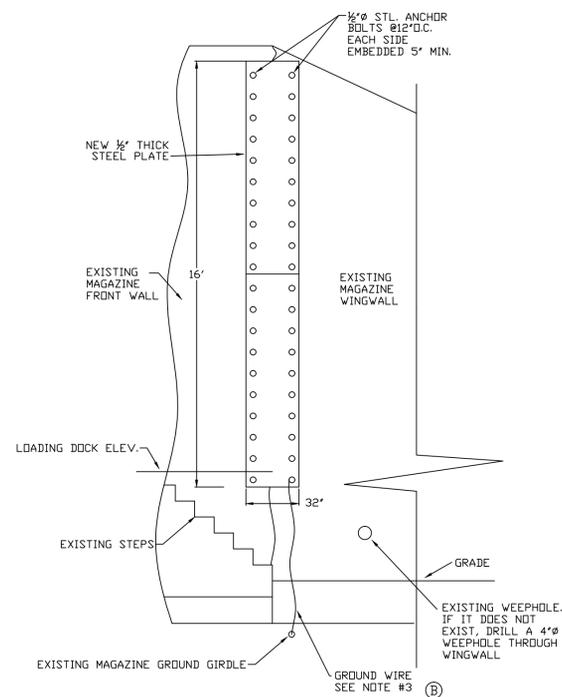
1. SAWCUT EXISTING CONCRETE PARAPET WALL SECTION OF THE BUILDING FRONT WALL ACROSS ENTIRE WIDTH AND AT THE LOCATION AS SHOWN. DEMOLISH AND REMOVE ALL INCLUDED CONCRETE AND REBAR. DISPOSE OF CONCRETE RUBBLE AT AREAS DESIGNATED BY THE CONTRACTING OFFICER. REPAIR MAGAZINE PARAPET WALL AS SHOWN.
2. NEW REBAR SHALL BE ELECTRICALLY BONDED TO EXISTING BUILDING STEEL IN THREE PLACES MINIMUM.
3. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL CONCRETE RUBBLE AT A LOCATION ON CENTER AS DESIGNATED BY THE CONTRACTING OFFICER.
4. CARE SHALL BE EXERCISED DURING WORK ACCOMPLISHMENT TO PREVENT DAMAGE TO OTHER PARTS OF THE MAGAZINE. ANY EARTH COVER FILL/TURF DAMAGED SHALL BE RESTORED TO ORIGINAL CONDITION OR REESTABLISHED.

SPECIAL REQUIREMENTS

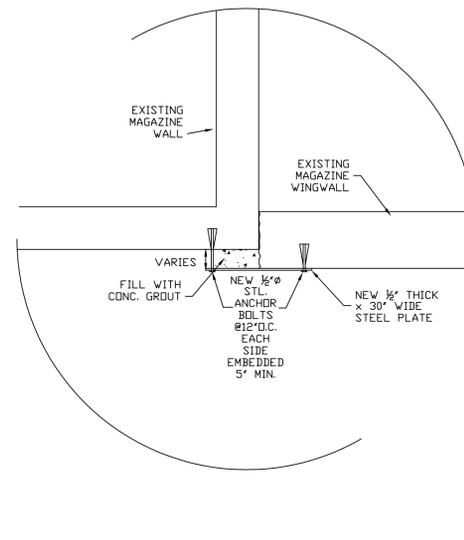
1. FLAME-EMITTING TORCHES SHALL NOT BE USED TO CUT REINFORCING STEEL DURING DEMOLITION OF CONCRETE WALL.
2. CONCRETE AND REBAR SHALL BE CUT BY USING WET-SAWING PROCEDURES ONLY.
3. CONTRACTOR EQUIPMENT TO BE USED FOR DEMOLITION AND CONSTRUCTION SHALL BE GIVEN A SAFETY INSPECTION BY CODE ESD AND CODE 0131 PERSONNEL PRIOR TO START OF WORK.
4. THE CONTRACTOR SHALL OBTAIN WORK PERMITS FROM CODES ESD & 0131 PRIOR TO SAW-CUTTING AND HAMMER-DEMOLITION FOR THE MAGAZINE LOADING DOCK.



EXISTING FRONT WALL/WINGWALL ELEVATION
SCALE: 1/4" = 1'-0"



NEW FRONT WALL/WINGWALL ELEVATION
SCALE: 1/4" = 1'-0"



FRONT WALL/WINGWALL CRACK REPAIR
SCALE: 1/2" = 1'-0"

WALL CRACK REPAIR NOTES:

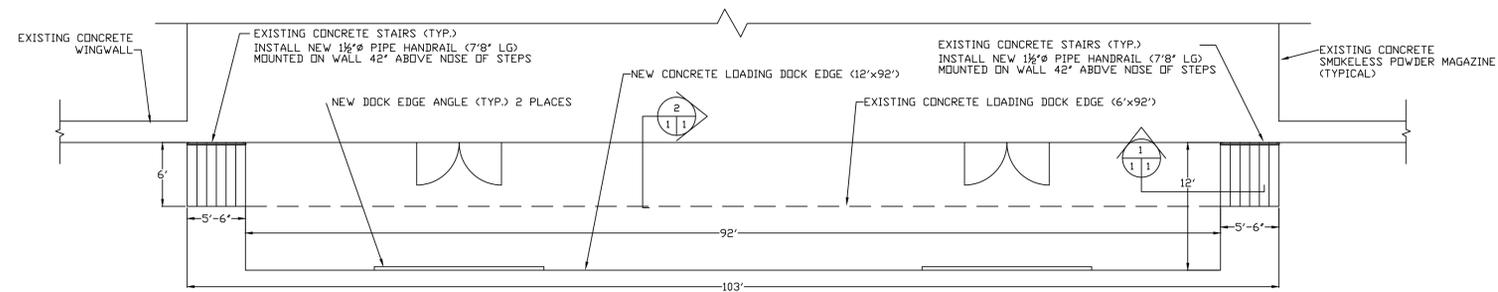
1. ALL DIMENSIONS SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACTUAL FIELD MEASUREMENTS AND MATERIAL ESTIMATES.
2. TEMPORARY ACCESS CROSSINGS OVER RAILROAD TRACKAGE SHALL NOT PROHIBIT RAIL TRAFFIC. ALL TEMPORARY CROSSINGS SHALL BE REMOVED BY THE CONTRACTOR UPON COMPLETION OF CONSTRUCTION SO THAT THE TOPS OF THE TIES, TIE PLATES, AND RAILS ARE VISIBLE. ANY DAMAGE TO RAILROAD TRACKAGE, SUCH AS BROKEN OR BENT RAILS, STRIPPED TIES, ETC., SHALL BE REPAIRED BY THE CONTRACTOR.
3. ALL STEEL (STEEL PLATES) SHALL BE ELECTRICALLY BONDED TO THE MAGAZINE GROUNDING SYSTEM, USING #2/0 BARE COPPER CABLE, CONNECT THE STEEL PLATE TO THE EXISTING #2/0 BARE COPPER CABLE MAGAZINE GROUNDING GIRDLE, WHICH IS BURIED A MINIMUM OF 30' BELOW GRADE DIRECTLY BELOW THE CRACK REPAIR LOCATION. ATTACH BONDING CABLE AROUND ANCHOR BOLT UNDER WASHER & TIGHTEN SECURELY. SEE NOTE #16 ON SHEET #1 FOR ATTACHMENT TO GROUND GIRDLE.
4. ALL DETAILS SHOWN ON DRAWING ARE FOR THE RIGHT-HAND WINGWALL OF A MAGAZINE. FOR WORK ON THE LEFT-HAND WINGWALL OF A MAGAZINE, REVERSE THE PLAN AND DETAILS.

LTR	DESCRIPTION	PREP BY	DATE	APPROVED
A	DRAWING REVISED	RKK	05/01/10	APP.
B	DRAWING GROUNDING REVISED	RKK	03/09/11	
C	PARAPET WALL REPAIR ADDED	RKK	07/29/15	
D	PARAPET WATERPROOFING REV'D	RKK		

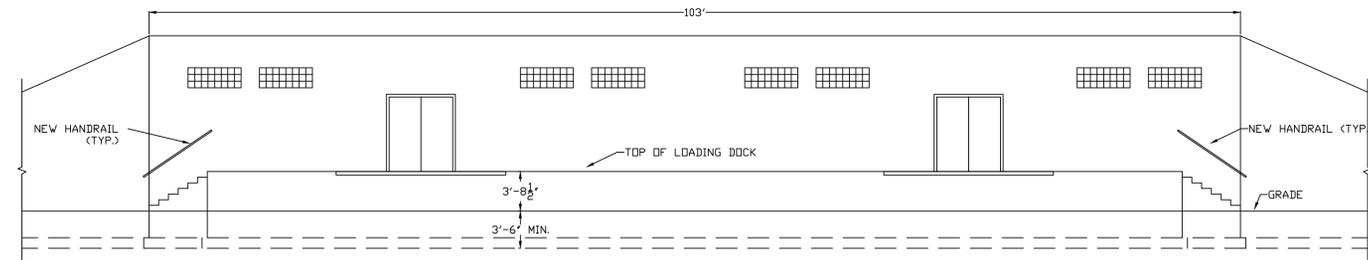
DEPARTMENT OF THE NAVY	NAVAL FACILITIES ENGINEERING COMMAND	DATE
NAVAL CRANE DIVISION	WARFARE CENTER	
CRANE SURFACE	CRANE, INDIANA	
REPAIR SP MAGAZINE FRONT WALL		
TYPICAL WINGWALL CRACK & PARAPET WALL REPAIRS		

DATE	BY	CHKD	APP'D
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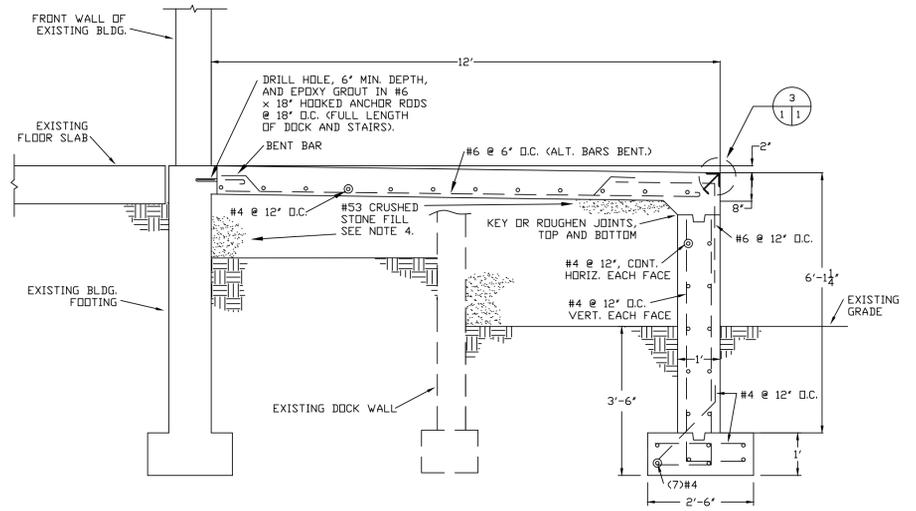
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	WR NO.
	CONTRACT NO.
	SPEC. NO.
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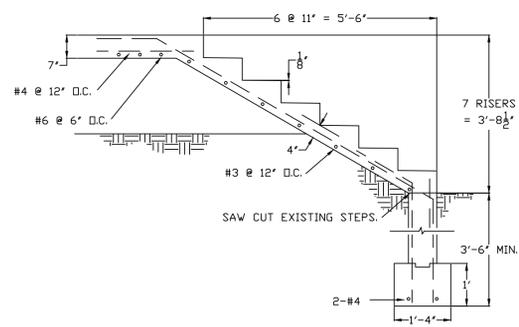
PLAN VIEW OF LOADING DOCK - SMOKELESS POWDER MAGS. (TYP.)
SCALE: 1/8"=1'



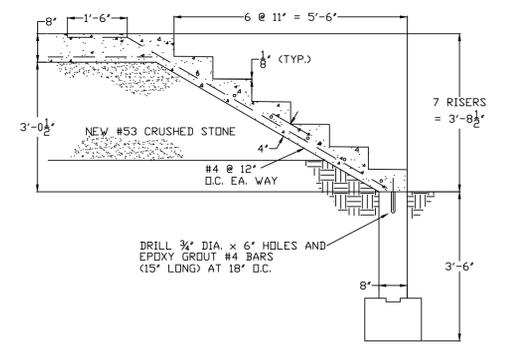
LOADING DOCK ELEVATION - SMOKELESS POWDER MAGS. (TYP.)
SCALE: 1/8"=1'



NEW CONCRETE LOADING DOCK (TYP.) - SECTION
SCALE: 1/8"=1'

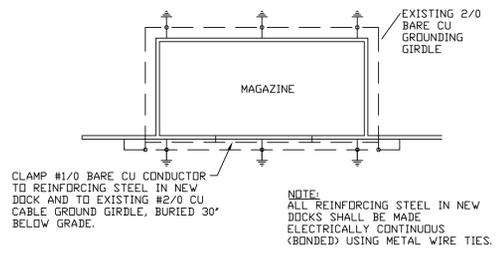


SECTION - EXISTING
SCALE: 1/8"=1'

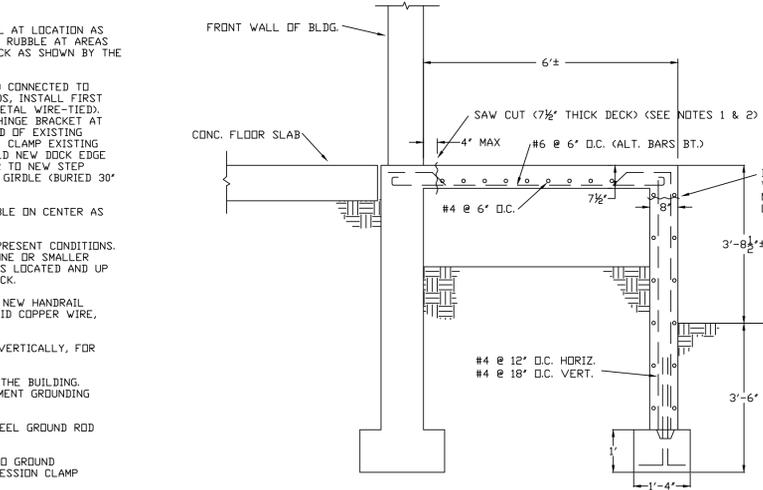


NEW CONCRETE STAIRS (TYP.) - SECTION
SCALE: 1/8"=1'

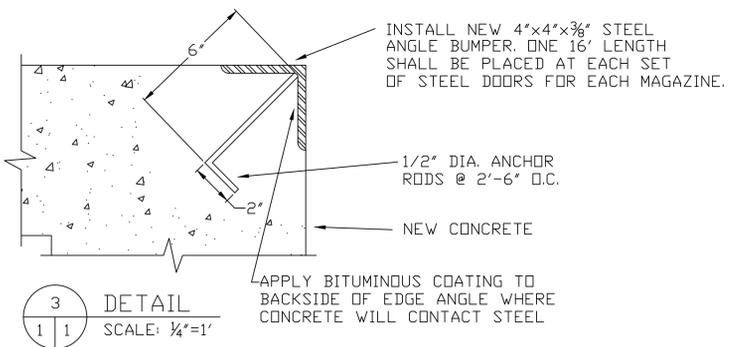
- NOTES:**
- SAW CUT EXISTING CONCRETE DECK SLAB AND STEPS ALONGSIDE THE BUILDING FRONT WALL AT LOCATION AS SHOWN. DEMOLISH AND REMOVE ALL INCLUDED CONCRETE AND REBAR. DISPOSE OF CONCRETE RUBBLE AT AREAS DESIGNATED BY THE CONTRACTING OFFICER. REPAIR EACH SMOKELESS POWDER MAGAZINE DOCK AS SHOWN BY THE TYPICAL 'NEW CONCRETE LOADING DOCK SECTION', THIS SHEET.
 - ALL NEW STEEL, REBAR, BUMPER ANGLES, GRATING, HANDRAILS, ETC. SHALL BE BONDED AND CONNECTED TO EXISTING BUILDING GROUNDING SYSTEM. SEE DETAILS FOR PLAN. FOR HOOKED ANCHOR RODS, INSTALL FIRST LONGITUDINAL DOCK REBAR SO AS TO CROSS EACH ANCHOR WITH A TIGHT BONDED JOINT (METAL WIRE-TIED). AT EACH DOORWAY, BOND A #6 SOLID COPPER WIRE FROM NEW REBAR UP TO DOOR FRAME/HINGE BRACKET AT EACH SIDE AND BOND, AT EACH SIDE OF DOORWAY WELD 1/4" Ø SMOOTH STEEL BAR TO END OF EXISTING FLOOR SLAB/WALL REBAR, EXTEND BARS INTO DOCK SLAB AND WELD TO NEW DOCK REBAR. CLAMP EXISTING GROUND CABLE FOUND UNDER FLOOR SLAB IN EACH DOORWAY TO NEW REBAR IN DOCK. WELD NEW DOCK EDGE ANGLE ANCHOR TO NEW DOCK REBAR. CONNECT NEW #1/0 COPPER CABLE FROM SLAB REBAR TO NEW STEP REBAR, TO NEW STEP PAD REBAR, AND CONNECT (SEE NOTE #9) TO EXISTING #2/0 GROUND GIRLDE (BURIED 30" MIN. BELOW GRADE), AT BOTH ENDS OF DOCK.
 - THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXCESS REINFORCED CONCRETE RUBBLE ON CENTER AS DIRECTED BY THE CONTRACTING OFFICER.
 - AN UNDETERMINED AMOUNT OF EARTH FILL MAY EXIST UNDER CONCRETE LOADING DOCK AT PRESENT CONDITIONS. FOR BIDDING PURPOSES, ASSUME THAT AN AVERAGE OF AN 18" LAYER OF #53 CRUSHED STONE OR SMALLER WILL BE REQUIRED FOR FILL IN NEW CONCRETE DOCK AND STAIRS WHERE EXISTING DOCK IS LOCATED AND UP TO 36" OF #53 CRUSHED STONE FILL WILL BE REQUIRED WHERE THERE IS NO EXISTING DOCK.
 - INSTALL NEW PIPE HANDRAIL ABOVE STEPS (BOTH ENDS OF DOCK) AS SHOWN. BOND EACH NEW HANDRAIL TO NEW GROUNDING CONDUCTOR FROM DOCK REBAR TO THE GROUND GIRLDE USING A #6 SOLID COPPER WIRE, USING GROUNDING CLAMP AT BOTH ENDS.
 - PAINT THE EDGE OF DOCK WITH A YELLOW STRIP 4" WIDE EACH WAY, HORIZONTALLY AND VERTICALLY, FOR THE ENTIRE LENGTH OF DOCK. PAINT EACH NEW HANDRAIL YELLOW.
 - CARE SHALL BE EXERCISED TO PREVENT CUTTING THE GROUND GIRLDE OR CONDUCTORS OF THE BUILDING. IF THE GROUND CONDUCTOR IS DAMAGED OR CUT, REPAIRS SHALL BE MADE BY THE GOVERNMENT GROUNDING TECHNICIAN.
 - IF A NEW GROUND ROD IS NEEDED, NEW GROUND ROD SHALL BE 3/4" Ø X 10' COPPER CLAD STEEL GROUND ROD AND INSTALLED AT A MINIMUM DEPTH OF 2 FEET.
 - CONNECTION OF GROUND GIRLDES TO GROUND GIRLDES AND BUILDING GROUND CONDUCTORS TO GROUND GIRLDES SHALL BE ACCOMPLISHED WITH EXOTHERMIC WELDS OR 10,000 PSI MIN. HIGH COMPRESSION CLAMP FITTINGS.
- SPECIAL REQUIREMENTS**
- FLAME-EMITTING TORCHES SHALL NOT BE USED TO CUT REINFORCING STEEL DURING DEMOLITION OF CONCRETE DOCKS.
 - CONCRETE AND REBAR SHALL BE CUT BY USING WET-SAWING PROCEDURES ONLY.
 - CONTRACTOR EQUIPMENT TO BE USED FOR DEMOLITION AND CONSTRUCTION SHALL BE GIVEN A SAFETY INSPECTION BY CODE ESO AND CODE 0131 PERSONNEL PRIOR TO START OF WORK.
 - THE CONTRACTOR SHALL OBTAIN WORK PERMITS (SAFETY AND HOT TOOL PERMITS) PRIOR TO SAW-CUTTING AND HAMMER-DEMOLITION FOR EACH MAGAZINE LOADING DOCK.



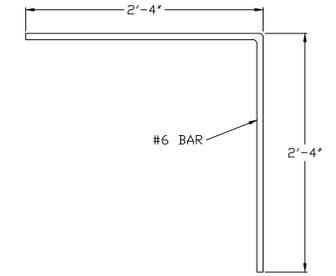
TYPICAL GROUND GIRLDE PLAN
N.T.S.



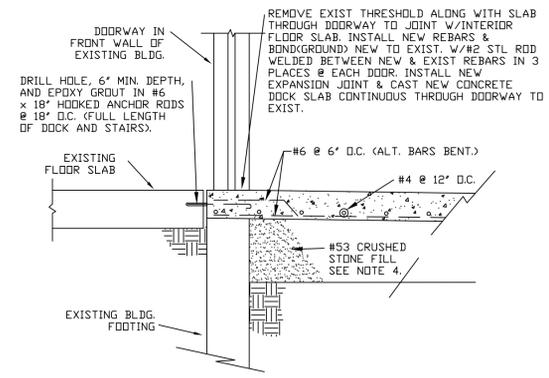
SECTION - EXISTING
SCALE: 1/8"=1'



DETAIL
SCALE: 1/4"=1'



BAR BENDING DIAGRAM
NOT TO SCALE



DOORWAY THRESHOLD DETAIL
SCALE: 1/8"=1'

DATE	DESCRIPTION	PREP BY	DATE	APPROVED
	DRAWING REVISED	RKK	03/15/11	
	8' DOCK ADDED & DWG REVISED	RKK	7/29/15	
	DOOR THRESHOLD DETAIL ADDED	RKK		

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	8' DOCK ADDED & DWG REVISED	RKK	7/29/15	
	DOOR THRESHOLD DETAIL ADDED	RKK		

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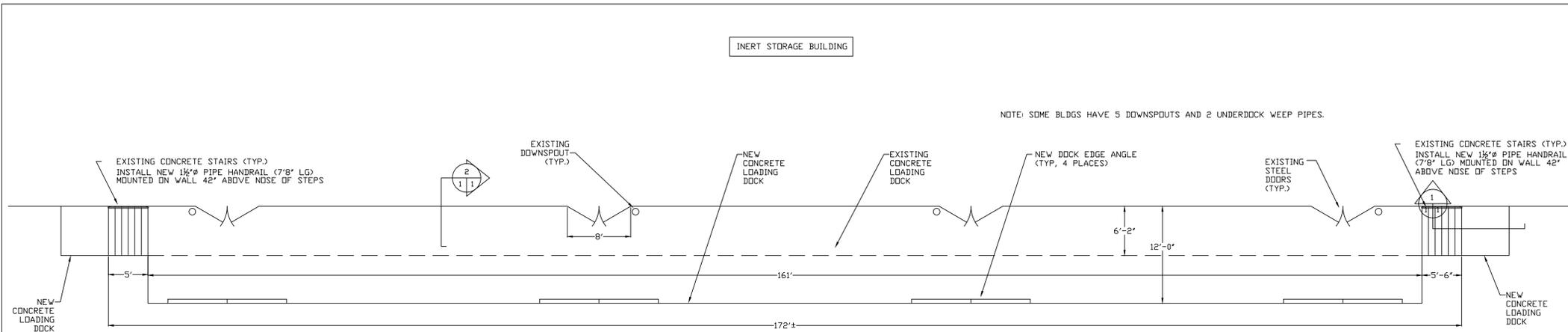
DATE	DESCRIPTION	PREP BY	DATE	APPROVED
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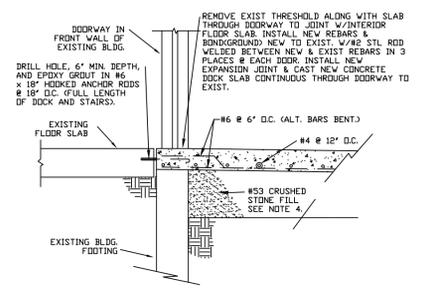
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	DRAWING REVISED	RKK	03/15/11	
	8' DOCK ADDED & DWG REVISED	RKK	7/29/15	
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	8' DOCK ADDED & DWG REVISED	RKK	7/29/15	
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PLAN VIEW OF LOADING DOCK - INERT BLDGS/AGM MAGS. (TYP.)
SCALE: 1/8"=1'



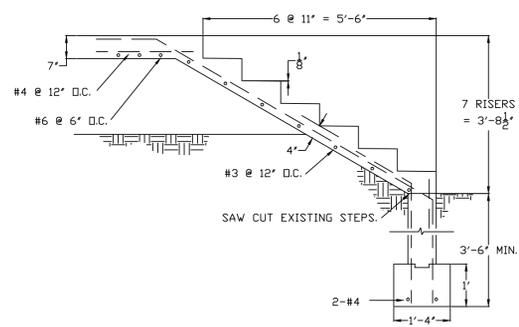
DOORWAY THRESHOLD DETAIL
SCALE: 3/8"=1'

NOTES:

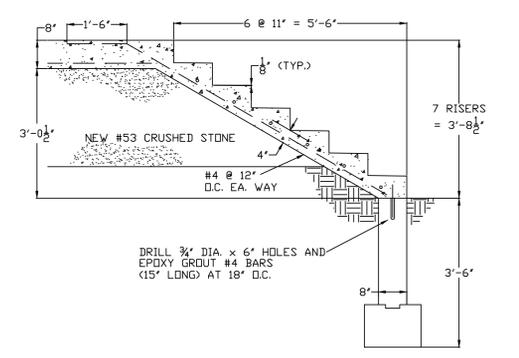
- FOR INERT STORAGE BUILDING, SAW CUT EXISTING CONCRETE DOCK FRONT WALL AND STEPS FRONT ABOVE EXISTING GRADE AS SHOWN. SAW CUT ENTIRE EXISTING CONCRETE BECK SLAB AND STEPS ALONGSIDE THE BUILDING FRONT WALL AT LOCATION AS SHOWN. DEMOLISH AND REMOVE INCLUDED CONCRETE AND REBAR. DISPOSE OF EXCESS CONCRETE RUBBLE AT AREAS DESIGNATED BY THE CONTRACTING OFFICER. REPAIR THE LOADING DOCK AS SHOWN BY THE TYPICAL 'NEW CONCRETE LOADING DOCK SECTION', THIS SHEET.
- ALL NEW STEEL (REBAR, BUMPER ANGLES, ETC.) SHALL BE BONDED AND CONNECTED TO A NEW GROUND ROD AT EACH END OF THE DOCK. SEE DETAILS FOR PLAN. FOR HOOKED ANCHOR RODS, INSTALL FIRST LONGITUDINAL DOCK REBAR SO AS TO CROSS EACH ANCHOR WITH A TIGHT BONDED JOINT (METAL WIRE-TIED). AT EACH DOORWAY, BOND A #6 SOLID COPPER WIRE FROM NEW REBAR UP TO DOOR FRAME/HINGE BRACKET AT EACH SIDE, AND BOND AT EACH SIDE OF EACH DOORWAY, WELD A 1/4" SMOOTH STEEL BAR TO END OF EXISTING FLOOR SLAB/REBAR, EXTEND BARS INTO DOCK SLAB AND WELD TO NEW DOCK REBAR. WELD NEW DOCK EDGE ANGLE ANCHOR TO NEW DOCK REBAR. CONNECT NEW #1/0 COPPER CABLE CONDUCTOR FROM SLAB REBAR TO NEW STEPS REBAR, TO NEW STEPS PAD REBAR, AND CONNECT TO NEW 3/4"x10" COPPER CLAD STEEL GROUND ROD AT EACH END OF DOCK.
- THE EXPOSED CORNERS OF THE NEW CONCRETE SHALL BE MADE WITH 1/8" RADII MINIMUM.
- AN UNDETERMINED AMOUNT OF EARTH FILL MAY EXIST UNDER CONCRETE LOADING DOCK AT PRESENT CONDITIONS. FOR BIDDING PURPOSES, ASSUME THAT AN AVERAGE OF AN 24" LAYER OF #53 CRUSHED STONE OR SMALLER WILL BE REQUIRED FOR FILL IN NEW CONCRETE DOCK AND STAIRS.
- BOND EACH NEW HANDRAIL ABOVE EACH SET OF STEPS TO NEW GROUNDING CONDUCTOR FROM DOCK REBAR TO NEW GROUND ROD AT EACH END OF DOCK USING #6 SOLID COPPER WIRE WITH BONDING LUG AT HANDRAIL AND GROUNDING CLAMP AT GROUNDING CONDUCTOR.
- PAINT THE EDGE OF DOCK WITH A YELLOW STRIP 4" WIDE EACH WAY, HORIZONTALLY AND VERTICALLY. PAINT EACH NEW HANDRAIL YELLOW.
- NEW GROUND RODS SHALL BE 3/4"x10" COPPER CLAD STEEL GROUND ROD AND INSTALLED AT A MINIMUM DEPTH OF 2 FEET.
- ALTERNATE DRAIN. IF SPECIFIED IN WORK ORDER, DOWNSPOUTS MAY BE ROUTED UNDER DOCK TO ONE OR BOTH ENDS OF DOCK IN LIEU OF EXITING OUT THE FRONT OF DOCK.

SPECIAL REQUIREMENTS

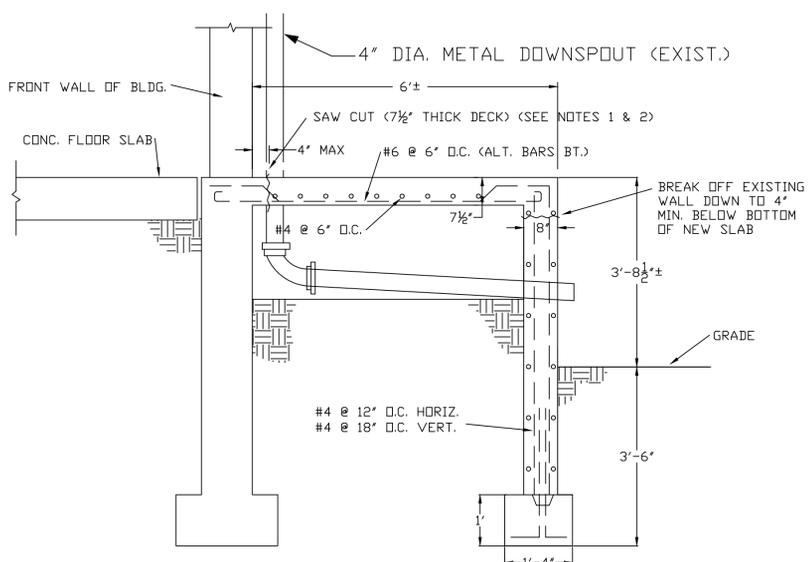
- FLAME-EMITTING TORCHES SHALL NOT BE USED TO CUT REINFORCING STEEL DURING DEMOLITION OF CONCRETE DOCKS.
- CONCRETE AND REBAR SHALL BE CUT BY USING WET-SAWING PROCEDURES ONLY.
- CONTRACTOR EQUIPMENT TO BE USED FOR DEMOLITION AND CONSTRUCTION SHALL BE GIVEN A SAFETY INSPECTION BY CODE ESD AND CODE 0131 PERSONNEL PRIOR TO START OF WORK.
- THE CONTRACTOR SHALL OBTAIN WORK PERMITS FROM CODES ESD & 0131 PRIOR TO SAW-CUTTING AND HAMMER-DEMOLITION FOR EACH MAGAZINE LOADING DOCK.
- THE ABOVE REQUIREMENTS APPLY TO ALL MAGAZINES AND BUILDINGS UNLESS OTHERWISE NOTED BY THE DICC.



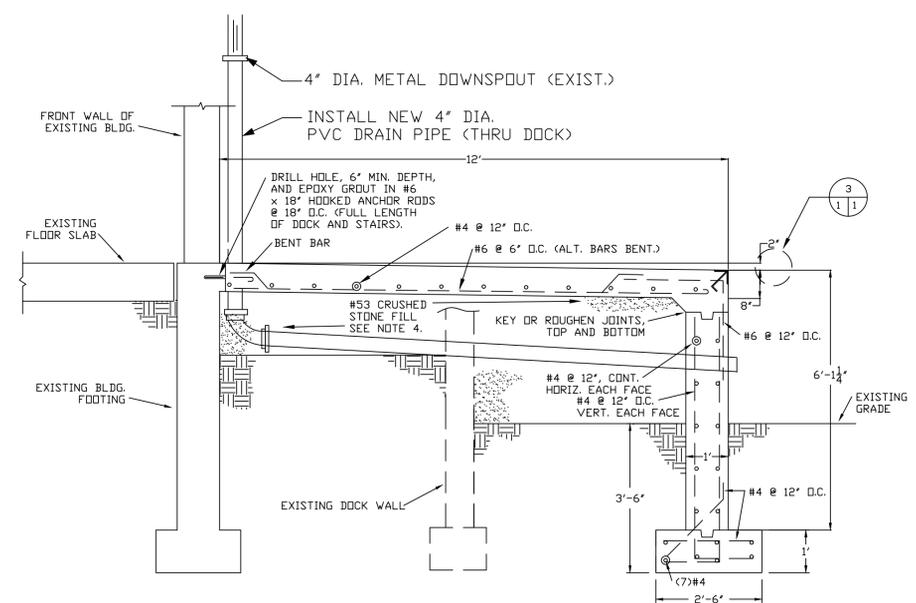
SECTION - EXISTING
SCALE: 1/2"=1'



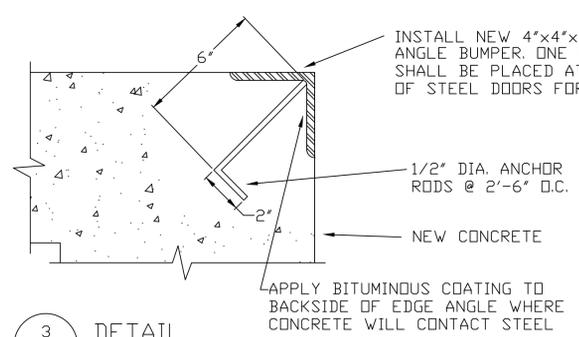
NEW CONCRETE STAIRS (TYP.) - SECTION
SCALE: 1/2"=1'



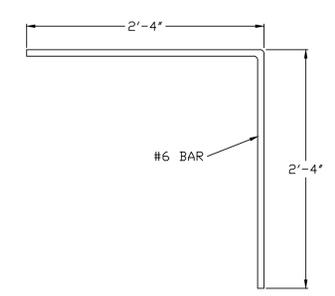
SECTION - EXISTING
SCALE: 1/2"=1'



NEW CONCRETE LOADING DOCK (TYP.) - SECTION
SCALE: 1/2"=1'



DETAIL
SCALE: 1/4"=1'



BAR BENDING DIAGRAM
NOT TO SCALE

DATE	DESCRIPTION	PREP. BY	DATE	APPROVED
		RKK	12/14/11	APP.
		RKK	7/29/15	APP.

DATE	DESCRIPTION	REVISIONS

NAVAL FACILITIES ENGINEERING COMMAND MIDWEST - PWCGL CRANE DET.	NAVAL SUPPORT ACTIVITY CRANE CRANE, INDIANA	LOADING DOCK REPLACEMENT INERT BLDG. DETAILS (6' TO 12' WIDTH)
R.K.K.	C.A.S.	
DESIGN	DRAWN	CHECKED
DATE		
SCALE		
CODE IDENT. NO. 80091	DRAWING SIZE: D	SCALE: AS NOTED
WR NO.	CONTRACT NO.	
SPEC. NO.	NAVFAC DRAWING NO.	
PW DRAWING NO. 7035		
SHEET 3 OF 3		