







GENERAL PHASING NOTES

- THIS PROJECT WILL BE CONDUCTED DURING ACTIVE FLYING OPERATIONS INCLUDING STUDENT TRAINING. STRICT COMPLIANCE TO THE PHASING PLAN AND RESTRICTIONS IS REQUIRED.
- NO RUNWAYS OR TAXIWAYS ARE TO BE CLOSED FOR THIS PHASE OF WORK. AIRFIELD LIGHTS WILL BE OPERATIONAL EACH NIGHT BY MANUAL OR ATC CONTROL. THE CONTRACTOR MAY UTILIZE TEMPORARY SOLAR LED EDGE LIGHTING FOR TAXIWAY AND APRON EDGE AREAS AT THE CONTRACTOR EXPENSE AS PART OF THE TEMPORARY MEASURES TO MAINTAIN AIRFIELD LIGHTING FOR ROUTINE OPERATIONS DURING THE PROJECT.
- WORK OFF PAVEMENT AND OUTSIDE OF RUNWAY SHOULDER LIMITS-200' FROM EDGE, & TAXIWAY WINGTIP CLEARANCE LIMITS-75' FROM TAXIWAY/TAXILANE CENTERLINE CAN BE CONDUCTED DURING THE ENTIRE PROJECT DURATION IF NO OPERATIONAL IMPACT IS REQUIRED. ACTIVE HAULING ACROSS TAXIWAYS WILL REQUIRE FLAGMEN AND SWEEPER/VACUUMS TO PREVENT FOD.
- SEE PLANS FOR MINIMUM CLEARANCE DISTANCES FROM OPEN TAXIWAYS & RUNWAYS.
- CONTRACTOR VEHICLES OR HAULING OPERATIONS MUST BE UNDER ESCORT OR UNDER CONTROL AND IN DIRECT RADIO CONTACT UPON ENTRY ONTO THE MAIN PARKING APRON AT TAXIWAY S AND AT THE BUILDING 1241 ACCESS ROAD.
- THE CONTRACTOR MUST ANTICIPATE THE USE OF CONTRACTOR PROVIDED TEMPORARY AIRFIELD LIGHTING CONSTANT CURRENT REGULATORS TO MAINTAIN LIGHTING OPERATIONS ON OPEN AIRFIELD PAVEMENTS. TEMPORARY REGULATORS MAY BE MANUALLY CONTROLLED AND THEIR USE IS DEPENDENT UPON THE CONTRACTOR'S PHASING AND WORK PLAN. IF TEMPORARY REGULATORS ARE UTILIZED THEY ARE TO BE ACCESSIBLE AND OPERABLE BY AIRFIELD ELECTRICAL MAINTENANCE STAFF. TEMPORARY CIRCUITS MUST BE ON WHEN THE CONTRACTOR IS NOT ON SITE.
- PRIOR TO BEGINNING CONSTRUCTION WORK IN A WORK AREA AND DISCONNECTING LIGHTING CIRCUITS, THE CONTRACTOR MUST ENSURE THAT THE LIGHTING CIRCUIT WILL BE OPERABLE OR TEMPORARY LIGHTING IS PROVIDED WHEN THE WORK AREA REOPENS FOR TRAFFIC. THE USE OF TEMPORARY JUMPERS IS ANTICIPATED. TEMPORARY CABLES PLACED ABOVE GROUND MUST BE ENCLOSED IN ORANGE CONDUIT AND WEIGHTED WITH SAND BAGS AND FLAGGED FOR AVOIDANCE BY MOVERS. THE DURATION OF THE USE OF TEMPORARY JUMPER CABLES MUST BE MINIMIZED AND BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICERS AND INSPECTION PERSONNEL PRIOR TO INSTALLATION.
- WORK AREA 1 INVOLVES WORK IN THE AIRFIELD LIGHTING VAULT BUILDING 1241 AND HOME RUN CABLE INSTALLATION. AIRFIELD LIGHTING VAULT REPAIR AND EXPANSION WORK MUST BE COORDINATED WITH THE OTHER SUB-PROJECTS. TEMPORARY WORK IN THE VAULT WILL BE REQUIRED TO MAINTAIN AIRFIELD LIGHTING IN THE OPERATION.
- WORK ASSOCIATED WITH THE INSTALLATION OF THE COMMUNICATION DUCT BETWEEN THE VAULT AND ATCT MUST BE COORDINATED WITH THE CONTRACTING OFFICER AND THE WORK AREA MUST BE DELINEATED BY USE OF LOW PROFILE BARRICADES.

WORK AREA NOTES

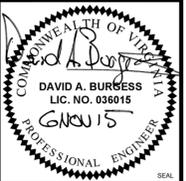
AIRFIELD LIGHTING VAULT - WORK AREA 1

- WORK AND ACCESS IS TO BE COORDINATED WITH CONCURRENT WORK ON THE MAIN APRON AND TAXIWAY E.
- ACCESS TO THE PROJECT SITE MUST BE FROM GATE 13 AND THE MAIN APRON. NO ACCESS OR HAUL IS ALLOWED ACROSS RUNWAYS.

SUBPROJECT PHASING NOTES

- THIS PROJECT INVOLVES THE REPAIR, RENOVATION, AND EXPANSION OF BUILDING 1241, THE AIRFIELD LIGHTING VAULT. THE PROJECT ALSO INVOLVES REPLACEMENT OF THE CCRS AND REPLACEMENT OF PANELS AND CONTROLS. THE EXISTING BUILDING WILL BE RENOVATED TO INCLUDE REPLACEMENT OF INTERIOR LIGHTING AND HVAC. THE BUILDING WILL BE EXPANDED TO PROVIDE ADDITIONAL SPACE FOR CCRS AND EQUIPMENT.
- THE AIRFIELD LIGHTING SYSTEM IS TO REMAIN OPERATIONAL EACH NIGHT AND DURING INCLEMENT WEATHER. IF LIGHTS ARE OPERATING ON MANUAL CONTROL THEY MUST BE DEACTIVATED DURING THE DAY OR WHEN NOT REQUIRED DURING THE ENTIRE PROJECT DURATION.
- THE RUNWAY LIGHTS MUST BE OPERATIONAL EACH NIGHT OR DURING INCLEMENT WEATHER.
- TAXIWAY LIGHT SEGMENTS MAY BE DEACTIVATED FOR EXTENDED DURATIONS IN EXCESS OF 24 HOURS, IF TEMPORARY SOLAR POWERED TAXIWAY LIGHTS ARE PROVIDED. THE USE OF TEMPORARY TAXIWAY LIGHTS IS A CONTRACTOR OPTION AND IS NOT REQUIRED.
- REFER TO VAULT DETAILS AND ELECTRICAL NOTES FOR PHASING REQUIREMENTS OF THE BUILDING EXPANSION, RENOVATION, AND EQUIPMENT INSTALLATION. THE CONTRACTOR MUST ANTICIPATE THE USE OF TEMPORARY WIRING TO MAINTAIN FUNCTION OF THE AIRFIELD LIGHTS.
- TEMPORARY CABLES PLACED ABOVE GROUND MUST BE ENCLOSED IN ORANGE CONDUIT AND WEIGHTED WITH SAND BAGS AND FLAGGED FOR AVOIDANCE BY MOVERS. THE DURATION OF THE USE OF TEMPORARY JUMPER CABLES MUST BE MINIMIZED AND BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICERS AND INSPECTION PERSONNEL PRIOR TO INSTALLATION.
- CONTRACTOR MUST NOT CROSS ACTIVE RUNWAYS DURING THIS PROJECT. ACTIVE TAXIWAY CROSSINGS REQUIRE A TRAINED RADIO EQUIPPED FLAGMAN AND SWEEPER/VACUUM TRUCK DURING HAULING OPERATIONS.
- THE HAUL ROUTE UTILIZES A GATE AT THE NORTHEAST SIDE OF THE AIRFIELD FOR ENTRY FROM OCEAN DRIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND/OR IMPROVING THE ACCESS ROAD AS NECESSARY TO SUPPORT CONSTRUCTION TRAFFIC FOR THE DURATION OF THE PROJECT. IF PERMITTED FOR USE BY THE CONTRACTING OFFICER, THE PORTION OF THE ROUTE RESIDING ON PAVEMENT MUST BE DELINEATED WITH WATER-FILLED, LOW PROFILE AIRPORT BARRICADES ON EITHER SIDE OF THE ROUTE AND SPACED NO MORE THAN 50-FEET ON CENTER. BARRICADES MUST BE LIT DURING NIGHT OPERATIONS TO PREVENT CONSTRUCTION VEHICLES FROM TRAVELING OUTSIDE OF THE DELINEATED ROUTE. THESE BARRICADES MUST BE ORANGE AND MEET THE REQUIREMENTS OF FAA ADVISORY CIRCULAR 150-5730-2E.
- THE CONTRACTOR MUST MAINTAIN THE HAUL ROUTE FREE OF DEBRIS BY SWEEPING A MINIMUM OF DAILY OR AS NEEDED TO ENSURE DEBRIS DOES NOT MIGRATE OUTSIDE OF THE HAUL ROUTE LIMITS. THE CONTRACTING OFFICER MY, AT HIS/HER DISCRETION, REQUIRE MORE FREQUENT SWEEPING ACTIVITY IF IT IS DEEMED THAT DEBRIS IS POSING A SAFETY THREAT TO OPERATIONAL AIRCRAFT.
- CONTRACTOR PERSONNEL MUST NOT UTILIZE PERSONALLY OWNED VEHICLES (POV) ON THE AIRFIELD. POVS MUST BE PARKED IN A DESIGNATED AREA WHILE ON NAS CORPUS CHRISTI. ONLY MARKED, COMPANY REGISTERED AND LICENSED VEHICLES WILL BE PERMITTED ON THE AIRFIELD AND ONLY FOR THE PURPOSE OF ACCOMPLISHING WORK.
- SEE RUNWAY CLOSURE MARKER AND BARRICADE SCHEDULE FOR LOCATION AND APPLICABLE WORK AREA INFORMATION.
- THE CONTRACTOR STAGING AREAS ARE TO BE GRADED SMOOTH AND STABILIZED WITH PAVEMENT MILLINGS AT THE END OF THE PROJECT. EXCESS TOPSOIL MUST BE STRIPPED AND DEPOSITED IN AN AREA ON THE AIRFIELD DESIGNATED BY THE CONTRACTING OFFICER AND STABILIZED WITH SEED AND MULCH.

DATE	DESCRIPTION
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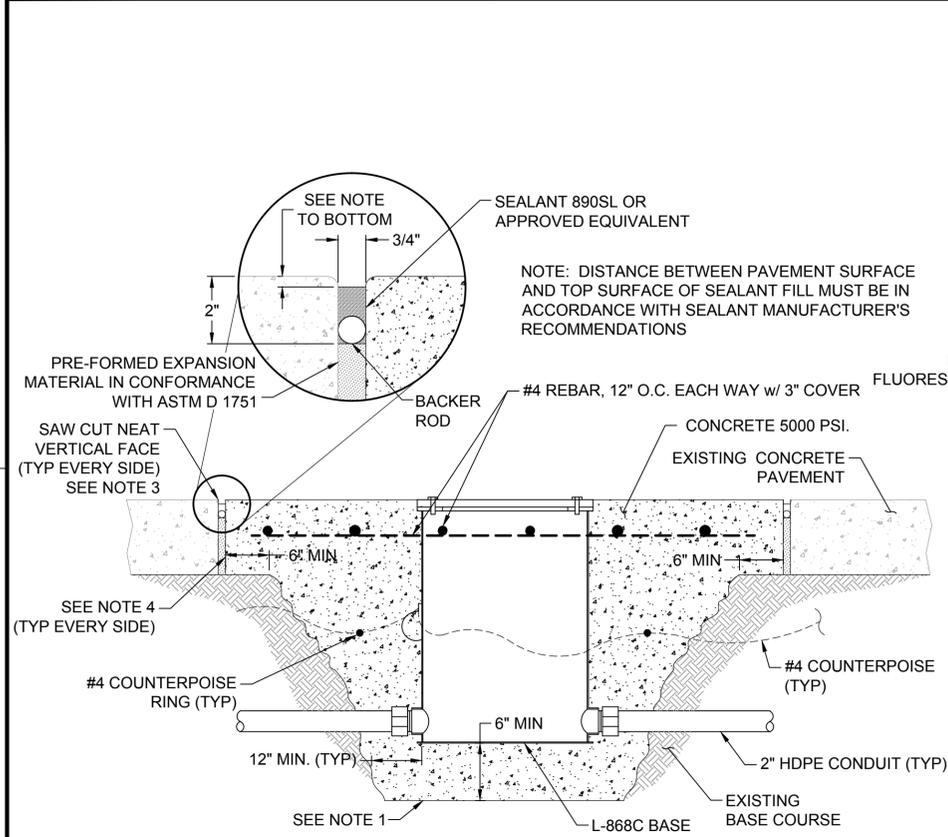


APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES DAB   DRW DAB   CHK EFC
PROJECT MANAGER
IPIT TECH BRANCH HEAD
CHIEF ENGINEER (CORE)

DEPARTMENT OF THE NAVY  
 NAVAL FACILITIES ENGINEERING COMMAND  
 NAVAL AIR STATION JACKSONVILLE  
 CHIEF CORE  
 NAS CORPUS CHRISTI  
 NAS CORPUS CHRISTI AIRFIELD REPAIRS  
 AIRFIELD LIGHTING VAULT  
 PHASING NOTES

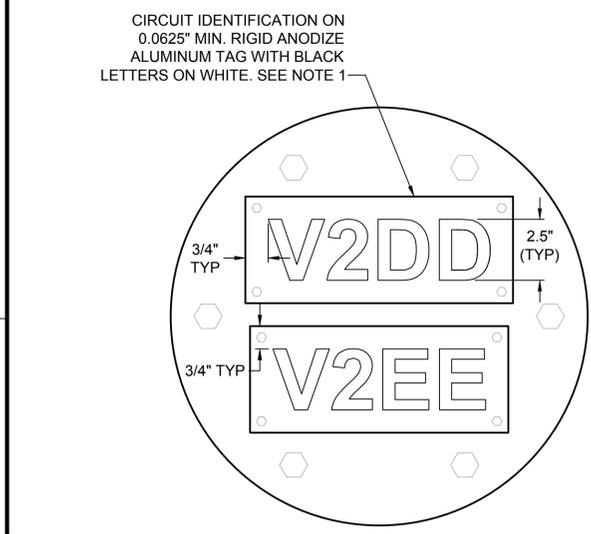
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 CONSTR. CONTR. NO.  
 NAVFAC DRAWING NO. 15095074  
 SHEET 4 OF 54  
 GI004  
 DRAWFORM REVISION: 5 APRIL 2012

FILE NAME: N:\14072\04 CAD\03a-va\art1302443-g-0004.dwg, GI004, 11/15/2015 1:53:41 PM, mm  
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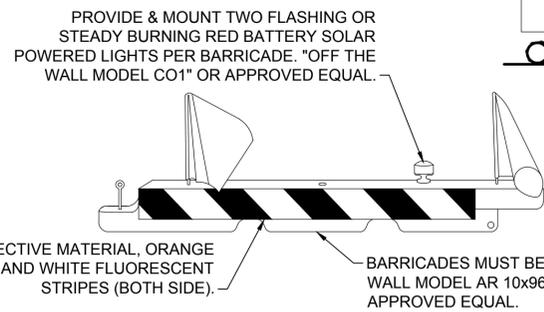
**NOTES:**

1. PRIOR TO BACKFILLING, CLEAN-OUT EXCAVATED AREA OF LOOSE MATERIAL TO EXPOSE UNDISTURBED EDGES.
2. IN A NON-MILLED SHOULDER AREA, THE ASPHALT PATCH MUST MATCH THE EXISTING PAVEMENT SURFACE.
3. IN THE APRON, INCREASE SIZE OF CONCRETE ENCASUREMENT AS REQUIRED.



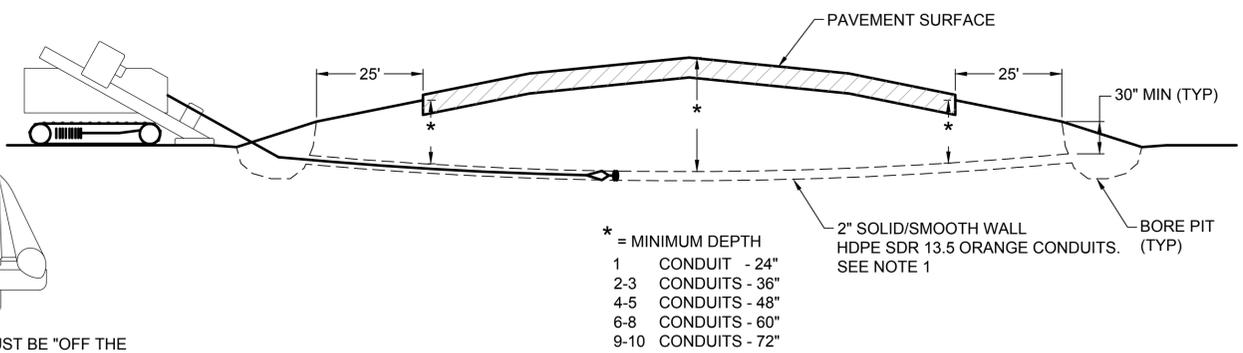
**NOTE:**

1. PROVIDE HIGH PERFORMANCE ADHESIVE BACKING AND 4-3/16" DIA. HOLE FOR MECHANICAL ATTACHMENT WITH S.S. HEX HEAD WASHER SELF TAPPING SCREWS. PROVIDE SAMPLE TAG FOR APPROVAL BY THE CONTRACTING OFFICER.



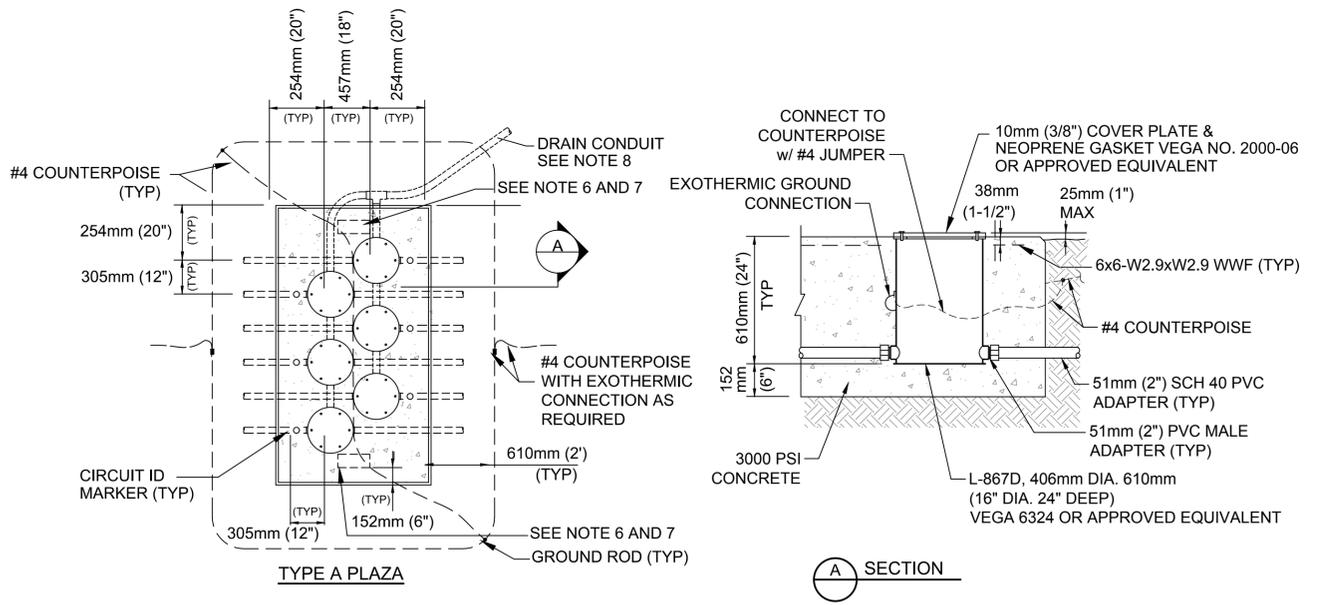
**NOTES:**

1. BARRICADES TO BE SPACED A MAXIMUM OF 25' APART, UNLESS SPECIFIED OTHERWISE.
2. BARRICADES MUST BE FILLED WITH WATER TO ADEQUATELY WITHSTAND HIGH WINDS AND/OR JET BLAST.
3. THE CONTRACTOR MUST MAKE FREQUENT INSPECTION OF THE BARRICADES AND MAKE PROMPT REPAIRS AS NECESSARY.
4. LIGHTS AND FLAGS MUST BE INSPECTED AND OPERATING EVERY NIGHT PRIOR LEAVING THE SITE.
5. FLAGS ALTERNATING ORANGE AND WHITE TWENTY INCHES (20") SQUARE, AND SECURELY FASTENED TO BARRICADE TO PREVENT FOD.
6. BARRICADE MUST BE PROVIDE AS THE FIRST ITEM OF WORK.



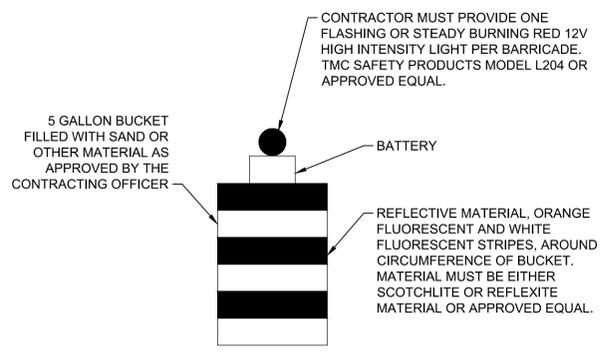
**NOTE:**

1. ATTACH 1-#4 BARE STRANDED COPPER WIRE TO THE OUTSIDE OF THE HDPE CONDUIT OR GROUP OF CONDUITS WHEN PLACING THE CONDUITS. CONNECT THE #4 BARE WIRE TO THE CONTINUING TRENCH COUNTERPOISE WITH EXOTHERMIC WELDS. PROVIDE AND CONNECT A 3/4" x 10' COPPER GROUND ROD AT EACH BORE PIT AND/OR BORE TERMINATION LOCATION.



**NOTES:**

1. NUMBER OF JUNCTION CANS AND CONDUIT CONFIGURATIONS VARY. SEE LAYOUT PLAN SHEETS FOR ORIENTATION.
2. CONDUITS WHICH ARE NOT USED IN THE PROJECT MUST BE CAPPED 304mm (12") OUTSIDE OF PLAZA CONCRETE.
3. ORIENT PLAZA AS SHOWN ON LAYOUT PLAN SHEETS.
4. CONTRACTOR MUST PROVIDE A 51mm (2") DIA DOMED BRONZE MARKER AT EACH JUNCTION CAN AS SHOWN. MARKER MUST BE STAMPED WITH CIRCUIT IDENTIFICATION AS SHOWN ON LAYOUT PLAN SHEETS.
5. PROVIDE GROUND RODS AND GROUND LOOP AT JUNCTION CAN PLAZAS AS SHOWN. PROVIDE TWO GROUND RODS PER PLAZA LOCATED AT OPPOSITE CORNERS. COUNTERPOISE MUST BE LOCATED NOMINALLY 304mm (12") BELOW EXISTING GRADE.
6. CONTRACTOR MUST LABEL 2 ENDS OF EACH JUNCTION CAN PLAZA (JCP) BY IMPRESSING THE JCP IDENTIFICATION NUMBER INTO THE CONCRETE FOUNDATION DURING PLACEMENT. LETTERS AND NUMBERS MUST BE 102mm (4") IN HEIGHT, PROPORTIONAL IN WIDTH, AND HAVE A STROKE WIDTH OF 13mm (1/2") AND 6mm (1/4") DEPTH.
7. SEE LAYOUT PLAN SHEETS FOR JCP IDENTIFICATION NUMBERS.
8. DRAINS NOT REQUIRED FOR THIS PROJECT. DRAIN CONDUIT BETWEEN CANS NOT REQUIRED FOR THIS PROJECT.



**NOTES:**

1. LIGHT MUST BE CLAMPED TO BUCKET BARRICADE OR MOUNTED TO LID.
2. FOR AIRSIDE USE ONLY.
3. CONTRACTOR MUST USE BUCKET BARRICADES TO DELINEATE HAUL ROADS ALONG ACTIVE AIRCRAFT MOVEMENT AREAS. MAXIMUM 100' SPACING, 50' ON CURVES.

DATE	6 NOV 15
ISSUED FOR BID	0
DESCRIPTION	
SCALE	NTS
PROJECT NO.	15095075
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	15095075
SHEET	5 of 54
<b>GI005</b>	
DRAWFORM REVISION: 5 APRIL 2012	

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NOV 15  
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APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES: MWK | DRW: MRM | CHK: JMM

PROJECT MANAGER

IP/T TECH. BRANCH HEAD

CHIEF ENGINEER (CORE)

DEPARTMENT OF THE NAVY  
NAVAL FACILITIES ENGINEERING COMMAND  
NAVAL FACILITIES ENGINEERING COMMAND SOUTHEAST  
NAVAL AIR STATION JACKSONVILLE  
CIBL CORE  
NAS CORPUS CHRISTI  
CORPUS CHRISTI, TEXAS  
NAS CORPUS CHRISTI AIRFIELD REPAIRS  
AIRFIELD LIGHTING VAULT  
PHASING DETAILS

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GENERAL STRUCTURAL NOTES

D. MASONRY CONTINUED -

3. VERTICAL WALL REINFORCING -

A. PROVIDE VERTICAL REINFORCING (NORMAL REINFORCING) IN GROUT FILLED CELLS IN ALL WALLS AS FOLLOWS UNLESS OTHERWISE NOTED -

WALL TYPE	REINF. IN FILLED CELLS	MAXIMUM SPACING
8 IN. PARTIALLY GROUTED CMU	1 - #6	24 IN.

THERE SHALL BE A FOUNDATION DOWEL CAST INTEGRAL WITH THE SUPPORTING MEMBER FOR EACH VERTICAL REINFORCING BAR (NORMAL REINFORCING). ALL VERTICAL REINFORCING BARS AND DOWELS SHALL BE CENTERED IN THE WALL UNLESS NOTED OTHERWISE.

B. PROVIDE AN ADDITIONAL VERTICAL REINFORCING BAR WITH FOUNDATION DOWEL IN GROUT FILLED CELL, OF SAME SIZE AND LENGTH AS THE NORMAL REINFORCING BAR, AT THE FOLLOWING LOCATIONS -

- EACH SIDE OF A CONTROL OR ISOLATION JOINT.
- INTERSECTION OF EXTERIOR WALLS.
- EACH SIDE OF A WALL OPENING.
- EACH END OF A WALL.

C. VERTICAL REINFORCING SHALL EXTEND CONTINUOUSLY FROM THE TOP OF THE SUPPORTING FOUNDATION MEMBER TO EMBED AT LEAST 6 INCHES INTO THE TOP COURSE BOND BEAM.

4. HORIZONTAL WALL REINFORCING -

A. PROVIDE GROUT FILLED BOND BEAM AT THE TOP OF WALL OR PARAPET, AT ROOF LEVEL, AT FLOOR LEVELS (ABOVE GRADE), AT BOTTOM OF WALLS, AT TOP OF OPENINGS, BELOW OPENINGS, AT BEARING LOCATIONS, AND INTERMEDIATELY AT EVERY SIXTH COURSE (48 INCHES). BOND BEAMS SHALL BE REINFORCED AT FOLLOWS -

WALL TYPE	BOND BEAM REINF.
8 IN. CMU	2 - #4

B. ALL INTERIOR STRUCTURAL WALLS (SHEAR AND/OR BEARING) SHALL HAVE INTERMEDIATE BOND BEAMS LOCATED AT THE SAME ELEVATIONS AS EXTERIOR BOND BEAMS.

C. PROVIDE BENT CORNER BARS TO MATCH EACH HORIZONTAL BAR SIZE AND SPACING AT ALL CORNERS AND INTERSECTION UNLESS NOTED OTHERWISE.

5. REINFORCING SHALL MEET THE FOLLOWING LAP, SPLICE, AND EMBEDMENT REQUIREMENTS -

REINF. BAR SIZE	LAP OR SPLICE LENGTH IN WALL (IN.)	DOWELS INTO FOUNDATION EMBEDMENT W/ STD. ACI HOOK	
		STRAIGHT EMBEDMENT (IN.)	STRAIGHT EMBEDMENT (IN.)
#4	36	10	25
#5	45	12	31
#6	54	15	37

FOUNDATION DOWELS SHALL EXTEND A LAP LENGTH INTO THE MASONRY WALL.

6. HORIZONTAL BARS AROUND PERIMETER OF OPENINGS SHALL EXTEND NOT LESS THAN 40 BAR DIAMETERS OR 24 INCHES, WHICHEVER IS LARGER, BEYOND THE CORNER OF THE OPENING.

7. CELLS WHICH CONTAIN REINFORCING STEEL (VERTICAL CELLS, BOND BEAMS, LINTELS, AND PILASTERS) SHALL BE FILLED SOLIDLY WITH GROUT.

8. VERTICAL CELLS TO BE FILLED SHALL HAVE VERTICAL ALIGNMENT SUFFICIENT TO MAINTAIN A CLEAR UNOBSTRUCTED CONTINUOUS VERTICAL CELL NOT LESS THAN 2 INCHES X 3 INCHES IN PLAN DIMENSIONS.

9. BOND BEAM REINFORCING FOR ALL WALLS SHALL BE CONTINUOUS THROUGHOUT, EXCEPT AT CONTROL AND ISOLATION JOINTS IT SHALL BE AS FOLLOWS -

A. INTERMEDIATE BOND BEAM REINFORCING SHALL BE DISCONTINUOUS AT CONTROL JOINTS EXCEPT THAT REINFORCEMENT IN BOND BEAMS AT FLOOR AND ROOF DIAPHRAGM LEVELS SHALL BE CONTINUOUS.

10. LOCATION AND DETAILS OF MASONRY CONTROL JOINTS AND ISOLATION JOINTS IN REINFORCED MASONRY SHALL BE AS SHOWN ON THE STRUCTURAL AND ARCHITECTURAL DRAWINGS. THE MAXIMUM SPACING OF CONTROL JOINTS SHALL BE AT A LENGTH TO HEIGHT RATIO OF 4 TO 1 OR 24 FEET ON CENTER, WHICHEVER IS LESS. THE CONTRACTOR SHALL SUBMIT A JOINT LAYOUT PLAN FOR APPROVAL PRIOR TO CONSTRUCTION.

11. MASONRY UNITS IN CONTACT WITH SOIL SHALL HAVE VOIDS FILLED WITH GROUT.

12. LINTELS WITH A CLEAR OPENING WIDTH UP TO 6'-4" SHALL CONSIST OF 8 INCH GROUT FILLED BOND BEAM UNIT WITH (2) - #5 BARS AT THE BOTTOM, U.N.O.

13. ALL CMU WALLS SHALL BE PLACED IN A RUNNING BOND.

E. STRUCTURAL STEEL -

1. ALL STRUCTURAL STEEL HAS BEEN DESIGNED AND SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE "BUILDING CODE", ANSI/AISC 360-10 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" (22 JUNE 2010), AND THE AISC STEEL CONSTRUCTION MANUAL (14TH EDITION) CONFORMING TO THE PROVISIONS OF THE LOAD RESISTANCE FACTOR DESIGN (LRFD).

A. STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STEEL ERECTION STANDARDS 29-CFR, SUBPART R.

2. STRUCTURAL STEEL SHALL MEET THE FOLLOWING REQUIREMENTS UNLESS OTHERWISE NOTED ON THE DRAWINGS -

TYPE	ASTM	GRADE	FY (MIN.)
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STRUCTURAL WIDE FLANGE BEAMS AND COLUMNS (W-SHAPES)

A992 OR A572	-	50 KSI
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STRUCTURAL TEES (WT-SHAPES)

A992 OR A572	-	50 KSI
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STRUCTURAL CHANNELS AND ANGLES (C, MC, AND L-SHAPES)

A36	-	36 KSI
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STRUCTURAL PLATES AND BARS (TYPICAL U.N.O.)

A36	-	36 KSI
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STRUCTURAL CONTINUITY PLATES

A572	-	50 KSI
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STRUCTURAL COLUMN CONTINUITY CAP PLATES

A572	-	50 KSI
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STRUCTURAL STEEL PIPE

A53 B, TYPE E OR S	-	35 KSI
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STRUCTURAL STEEL TUBING (TS-SHAPES)

A500	B	46 KSI
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HOLLOW STRUCTURAL SHAPES (HSS-SHAPES - RECTANGULAR OR SQUARE)

A500	B	46 KSI
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STRUCTURAL ANCHOR RODS (BOLTS)

F1554 WITH WELDABILITY SUPPLEMENT S1 & CARBON EQUIVALENT FORMULA PER ASTM F1554 SECTION 1.5.2.1	-	36 KSI
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STRUCTURAL HIGH STRENGTH BOLTS

A325TC	-	FU=120 KSI
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3. STRUCTURAL STEEL CONNECTIONS -

A. ALL CONNECTIONS NOT DETAILED OR OTHERWISE NOTED SHALL BE DESIGNED BY THE FABRICATOR. SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED BEARING THE SEAL AND SIGNATURE OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

NON-COMPOSITE AND COMPOSITE BEAM SHEAR CONNECTIONS SHALL BE AS SHOWN ON THE "TYPICAL BEAM CONNECTION SCHEDULE" UNLESS NOTED OTHERWISE.

CONNECTION DESIGN BASED ON BEARING TYPE BOLTED CONNECTIONS WITH BOLTS "SNUG TIGHT" PER RCSC "SPECIFICATIONS FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS"

C. CONNECTION BOLTS INDICATED ON THE DRAWINGS ARE 3/4 INCH DIAMETER ASTM A325-N BEARING TYPE BOLTS UNLESS NOTED OTHERWISE.

D. BOLTS SHALL BE INSTALLED IN STANDARD SIZE HOLES UNLESS NOTED OTHERWISE. DO NOT USE OVERSIZED HOLES OR SLOTTED HOLES FOR ANY CONNECTIONS UNLESS SPECIFICALLY INDICATED ON THE CONTRACT DOCUMENTS OR APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD.

E. ALL WELDING SHALL BE IN ACCORDANCE WITH LATEST AWS CODE. ALL WELDS SHALL USE E70XX ELECTRODES (FU=70 KSI) UNLESS NOTED OTHERWISE. WELDS CONNECTING STEEL DECK TO STRUCTURAL STEEL SUPPORTS SHALL USE E60XX ELECTRODES (60 KSI).

E. STRUCTURAL STEEL CONTINUED -

4. STEEL FRAMING CONNECTIONS SHALL BE TIGHTENED AND COLUMNS SHALL BE LEVELED AND GROUTED IN PLACE BEFORE DECKING IS ATTACHED TO FRAMING.

5. ALL COPES, HOLES, OPENINGS AND MODIFICATIONS REQUIRED IN STRUCTURAL STEEL MEMBERS FOR ERECTION OR THE WORK OF OTHER TRADES SHALL BE SHOWN ON THE STRUCTURAL STEEL SHOP DRAWINGS AND REQUIRE WRITTEN APPROVAL BY THE STRUCTURAL ENGINEER OF RECORD.

6. FIELD MODIFICATIONS (HOLES, LENGTH ADJUSTMENTS, ETC.) OF STRUCTURAL STEEL IS PROHIBITED WITHOUT WRITTEN APPROVAL BY THE STRUCTURAL ENGINEER OF RECORD.

F. STEEL JOISTS AND STEEL JOIST GIRDERS -

1. STEEL JOISTS AND STEEL JOIST GIRDERS SHALL BE DESIGNED, MANUFACTURED, AND ERECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE "BUILDING CODE" AND THE LATEST STEEL JOIST INSTITUTE (SJI) SPECIFICATIONS.

A. STEEL JOISTS AND STEEL JOIST GIRDERS SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STEEL ERECTION STANDARDS 29-CFR, SUBPART R.

2. STEEL JOISTS SHALL BE FIELD WELDED TO SUPPORTING MEMBERS EXCEPT PROVIDE BOLTED CONNECTIONS IN ACCORDANCE WITH THE STEEL JOIST INSTITUTE SPECIFICATIONS WHERE COLUMNS ARE NOT FRAMED IN TWO DIRECTIONS OR UNLESS OTHERWISE NOTED.

3. ALL BRIDGING SHALL BE PERMANENTLY INSTALLED BEFORE CONSTRUCTION LOADS ARE APPLIED. EACH LINE OF BRIDGING SHALL BE ANCHORED AT ENDS TO WALLS OR BEAMS.

4. TOP AND BOTTOM JOIST CHORDS ARE NOT DESIGNED FOR CONCENTRATED LOADS. PLACE LOADS AT PANEL POINTS OR FIELD WELD L2X2X3/16 AS WEB MEMBER BETWEEN TOP AND BOTTOM CHORDS FROM POINT OF LOAD TO NEAREST PANEL POINT ON OPPOSITE CHORD, SEE DETAIL 4/S-006.

5. STEEL JOIST MANUFACTURER SHALL DESIGN THE STEEL JOIST FOR AN UNFACTORED SERVICE-LEVEL WIND NET UPLIFT PRESSURE OF 56 PSF.

G. STEEL DECK -

1. STEEL ROOF AND FLOOR DECKS SHALL COMPLY WITH THE LATEST EDITION OF THE STEEL DECK INSTITUTE (SDI) SPECIFICATIONS.

2. ROOFS (TYP. U.N.O.) - STEEL ROOF DECK SHALL BE 1-1/2 INCH DEEP WIDE RIB STEEL ROOF DECK WITH AN UNCOATED DESIGN THICKNESS OF 0.0358 IN. (20 GAUGE). DECKING SHALL HAVE A MINIMUM YIELD STRENGTH OF 80 KSI, A MINIMUM IP OF 0.201 IN./4FT., A MINIMUM IN OF 0.222 IN./4FT., A MINIMUM SP OF 0.234 IN./3FT., AND A MINIMUM SN OF 0.247 IN./3FT.. DECKING SHALL RECEIVE A G-90 GALVANIZED FINISH PER SPECIFICATION. DECKING SHALL BE CONTINUOUS OVER A MINIMUM OF THREE SUPPORTS. EACH DECK UNIT SHALL BE ATTACHED TO SUPPORTING MEMBERS AND ADJACENT PANELS AS SHOWN ON DETAIL 7/S-006.

3. ALL ROOF DECK OPENINGS GREATER THAN 6 INCHES WIDE MEASURED PARALLEL TO THE SUPPORTING MEMBERS SHALL BE FRAMED WITH FRAMING ANGLES PER DETAILS 1/S-006 AND 2/S-006 UNLESS SHOWN OR NOTED OTHERWISE.

4. LOADS MAY NOT BE DIRECTLY HUNG FROM THE ROOF DECK.

E. MISCELLANEOUS -

1. SHOP DRAWINGS SHALL BE ORIGINAL DRAWINGS, PREPARED BY CONTRACTOR, SUBCONTRACTOR, SUPPLIER OR DISTRIBUTOR. REPRODUCTION OF CONTRACT DOCUMENTS AS ERECTION PLANS OR DETAILS WILL NOT BE PERMITTED AND WILL BE REJECTED WITHOUT REVIEW.

2. THE CONTRACTOR SHALL DESIGN AND PROVIDE ALL ITEMS FOR ATTACHING ARCHITECTURAL, MECHANICAL AND ELECTRICAL EQUIPMENT AND ELEMENTS TO THE BUILDING STRUCTURE TO RESIST ALL LOADS INCLUDING SEISMIC LOADS. ATTACHMENT SHALL BE MADE SO AS NOT TO OVERSTRESS THE STRUCTURAL MEMBERS. THE CONTRACTOR SHALL COORDINATE THE ATTACHMENTS AND LOCATIONS OF THE EQUIPMENT AND ELEMENTS AND INCORPORATE THEIR REQUIREMENTS INTO THE STRUCTURAL SHOP DRAWINGS. REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PROCESS DRAWINGS FOR ADDITIONAL REQUIREMENTS.

E. MISCELLANEOUS CONTINUED -

3. THE CONTRACTOR SHALL INCLUDE AND PROVIDE THE FOLLOWING SERVICES -

A. VERIFICATION OF ALL DIMENSIONS, ELEVATIONS, OPENING SIZES, AND EQUIPMENT WEIGHTS PRIOR TO STARTING WORK AND INCORPORATE THIS INFORMATION INTO THE PROJECT'S STRUCTURAL SHOP AND ERECTION DRAWINGS.

B. VERIFICATION OF ALL DIMENSIONS, MEMBER SIZES AND CONDITIONS RELATING TO ANY EXISTING BUILDINGS OR SITE FOUNDATIONS.

C. VERIFICATION OF ALL FLOOR SLOPES, DEPRESSIONS, AND OFFSETS WITH ARCHITECTURAL DRAWINGS PRIOR TO THE SUBMITTAL OF REINFORCING SHOP DRAWINGS.

D. REMOVE ALL ABANDONED FOUNDATIONS, UTILITIES, PIPELINES, ETC. THAT MAY INTERFERE WITH THE NEW CONSTRUCTION.

E. REVIEW AND APPROVE ALL SHOP DRAWINGS PRIOR TO SUBMITTAL NOTING CHANGES MADE WHICH DO NOT COMPLY WITH DESIGN DRAWINGS. PRIOR WRITTEN APPROVAL FROM THE ARCHITECT/ENGINEER SHALL BE REQUIRED FOR ALL DEVIATIONS FROM THE DESIGN DOCUMENTS MADE BY THE CONTRACTOR.

F. PROVIDE TEMPORARY BRACING AND SHORING AS REQUIRED FOR STABILITY DURING CONSTRUCTION.

4. PLANS, SECTIONS, AND DETAILS SHALL NOT BE SCALED FOR DETERMINATION OF QUANTITIES, LENGTHS, OR FIT OF MATERIALS.

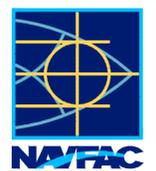
5. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR SIZE AND LOCATION OF ALL OPENINGS, SLEEVES, CURBS, PADS, INSERTS, ETC. NOT SHOWN ON THE ARCHITECTURAL DRAWINGS. BEFORE FABRICATION OF MATERIALS, COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS AND PROVIDE ALL MISCELLANEOUS AND STRUCTURAL ITEMS INDICATED OR REQUIRED TO COMPLETE THE WORK.

6. THE DESIGN DOCUMENTS REFLECT THE FINAL COMPLETED STATE OF STRUCTURAL SYSTEMS AND ELEMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION RELATED ENGINEERING TO INCLUDE BUT NOT BE LIMITED TO CONSTRUCTION MEANS AND METHODS, TEMPORARY SUPPORTS AND BRACING, TEMPORARY USE OF STRUCTURES, PARTIALLY CONSTRUCTED STRUCTURES AND INCOMPLETE STRUCTURES. ALL CONSTRUCTION AND RELATED ENGINEERING SHALL BE IN ACCORDANCE WITH ASCE 37-02; "DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION".

7. IN ACCORDANCE WITH UFC 1-200-01 SECTION 2-17, THE CONTRACTOR IS RESPONSIBLE FOR HIRING AN APPROVED INDEPENDENT THIRD PARTY AGENCY TO PROVIDE TESTING AND INSPECTION INDICATED IN THE PROJECT DRAWINGS. SEE THE "STATEMENT OF SPECIAL INSPECTIONS" ON THIS SHEET FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

8. CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES TO NOT INTERFERE WITH NAVAL AIR STATION CORPUS CHRISTI OPERATIONS.

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Delta Project No. 14072\_06\_000

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SAISFACTORY TO DATE

DES DPS DRW JGF CHK STW

PM / DM

BRANCH MANAGER

CHIEF ENG / ARCH

FIRE PROTECTION

NAVAL FACILITIES ENGINEERING COMMAND

NAVAL FACILITIES ENGINEERING COMMAND SOUTHEAST

NAVAL AIR STATION JACKSONVILLE

CIBL CORE

NAS CORPUS CHRISTI

NAS CORPUS CHRISTI AIRFIELD REPAIRS

CORPUS CHRISTI, TEXAS

AIRFIELD LIGHTING VAULT

GENERAL STRUCTURAL NOTES

SCALE: NTS

EPROJECT NO.:

CONSTR. CONTR. NO.:

NAVFAC DRAWING NO. 15095077

SHEET 7 OF 54

**S-002**

DRAWFORM REVISION: 5 APRIL 2012

FILE NAME: P:\Y08\1641-060\A3\2051134600\_NAS\_Corpus\_Christi\_Airfield\_Repair\_V0\_DESIGN\40\_CAD\3\134600-03-5-002.dwg LAYOUT NAME: 134600-03-5-002 PLOTTED: Wednesday, November 04, 2015 - 8:24am USER: fountainj