



STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES &
ENVIRONMENTAL CONTROL
DIVISION OF FISH & WILDLIFE
89 Kings Highway
Dover, DE 19901

**CONTRACT DOCUMENTS & TECHNICAL SPECIFICATIONS
ADDENDUM NO. 2**

**DELAWARE BAYSHORE BYWAY
LITTLE CREEK BOARDWALK AND WILDLIFE VIEWING TOWER
CONTRACT NO. FW-2-15**

Project Name: Delaware Bayshore Byway
Cooper-Cross Wildlife Viewing Enhancements

Contract No.: FW-2-15

Date of Issue: December 19, 2018

Notice No. 1: Attach this addendum to the Project Manual for this project. It modifies and becomes part of the Bidding Documents. Work or material not specifically mentioned herein is to be as described in the main body of the specifications and as shown on the drawings.

Bids Due: Thursday, January 17, 2019, 2:00 PM, EST

"CONTRACT NO. FW-2-15 - SEALED BID – DO NOT OPEN".
Dept. of Natural Resources & Environmental Control
Division of Fish and Wildlife
89 Kings Highway, Dover DE 19901
Attn: Anthony T. Gonzon Jr., Delaware Bayshore Initiative Coordinator

1. PREBID ATTENDANCE SHEET: The Mandatory Prebid Attendance Sheet has been revised to provide correct email addresses for attendees.

2. RFI QUESTIONS AND RESPONSES:

Q1. Drawing C3 shows wood bollards, will this be by owner?

A1. **The wood bollards will be installed by the Owner.**

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through Science and Service*

- Q2. If existing wood piles are in the same location as the new helical piers not knowing how many locations this will occur, can an allowance be issued?
- A2. **The bid package has been revised to include a Unit Cost (Per Each) for the removal and disposal of existing piles.**
- Q3. What are the depths of the existing piles? This will effect lengths of helical depths.
- A3. **Subsequent to the pre-bid meeting a DFW staff crew was sent to the project site and probed around an existing wood pile and encountered compacted material at a depth of approximately 4' to 4.5'. This information is to be used at the contractor's discretion and does not imply or warrant the depth of the wood piles.**
- Q4. Can an allowance be issued for dewatering?
- A4. **An allowance for dewatering will not be issued for the project. All cost associated with dewatering shall be included in the Contractor's lump sum bid for the project.**
- Q5. Will county permit be required? If so, who owns the permit?
- A5. **The contractor shall be responsible for obtaining any permits required by the county. The owner will reimburse the contractor for the amount paid to the county, through a Change Order to the project.**
- Q6. Alternate 3 requires to complete railing system, will this be the complete rail as shown on Drawing-S8? Details 21, 22 and 23 are just the hand rail.
- A6. **Add/Alternate 3 includes furnishing and installing a round tube railing, matching the railing on the stairs see detail 4/A-3, around the perimeter of the upper level. Detail 4/A-3 has been revised to provide a round steel pipe handrail.**
- Q7. Specification 015639 calls for an arborist for tree pruning and a detail schedule will this be required?
- A7. **An arborist for tree pruning and a detail schedule will be required.**
- Q8. Specification 057300 states contractor to hire an engineer for the railing system. We would need an allowance for engineering. There would be no way to guess at an engineer design cost. This could also affect material and labor costs as we are only bidding what is shown on drawing.
- A8. **Specification 057300 has been deleted from the project manual.**

Q9. Can details be giving showing how the railing would attach and meet structural requirements?

A9. See sheet S-8 details 21, 22 and 23 for rail post connection details.

Q10. Simpson Strongtie Products are not American made, also screws and bolts are not made readily available here in the United States. The cost for the screws and bolts if we can get them, are double the price of the foreign made. Please advise.

A10. **This project will be funded, in part, by the Federal-aid Highway Program administered through the Delaware Department of Transportation. In accordance with 23 U.S.C, 313 and 23 CFR 635.410, all iron and steel materials permanently incorporated into this project will be produced in the United States and all manufacturing processes involving these materials will occur in the U.S, except that a minimal amount of foreign steel or iron materials may be used, provided the cost of the foreign materials does not exceed 0.1 percent of the total Contract cost or \$2,500.00, whichever is greater. If such minimal amount of foreign steel is used, the Contractor shall maintain a record of the costs to ensure that the allowable limit is not exceeded. This documentation shall be presented to the Department upon request.**

3. DRAWINGS: The following drawings have been revised

a. **Sheet A-3: STAIR PLAN & SECTIONS**

4. ADDITIONAL INFORMATION:

a. Last Day for Questions shall be Friday January 4, 2019 (4:30 PM, EST). Any questions received after this time will not be addressed.

ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME.

IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT:

Anthony Gonzon (anthony.gonzon@state.de.us)

Attachments: 1 – Corrected Prebid Attendance Sheet
2 – Drawing A-3
3 – Table of Contents
4 – Section T-057300 VOID

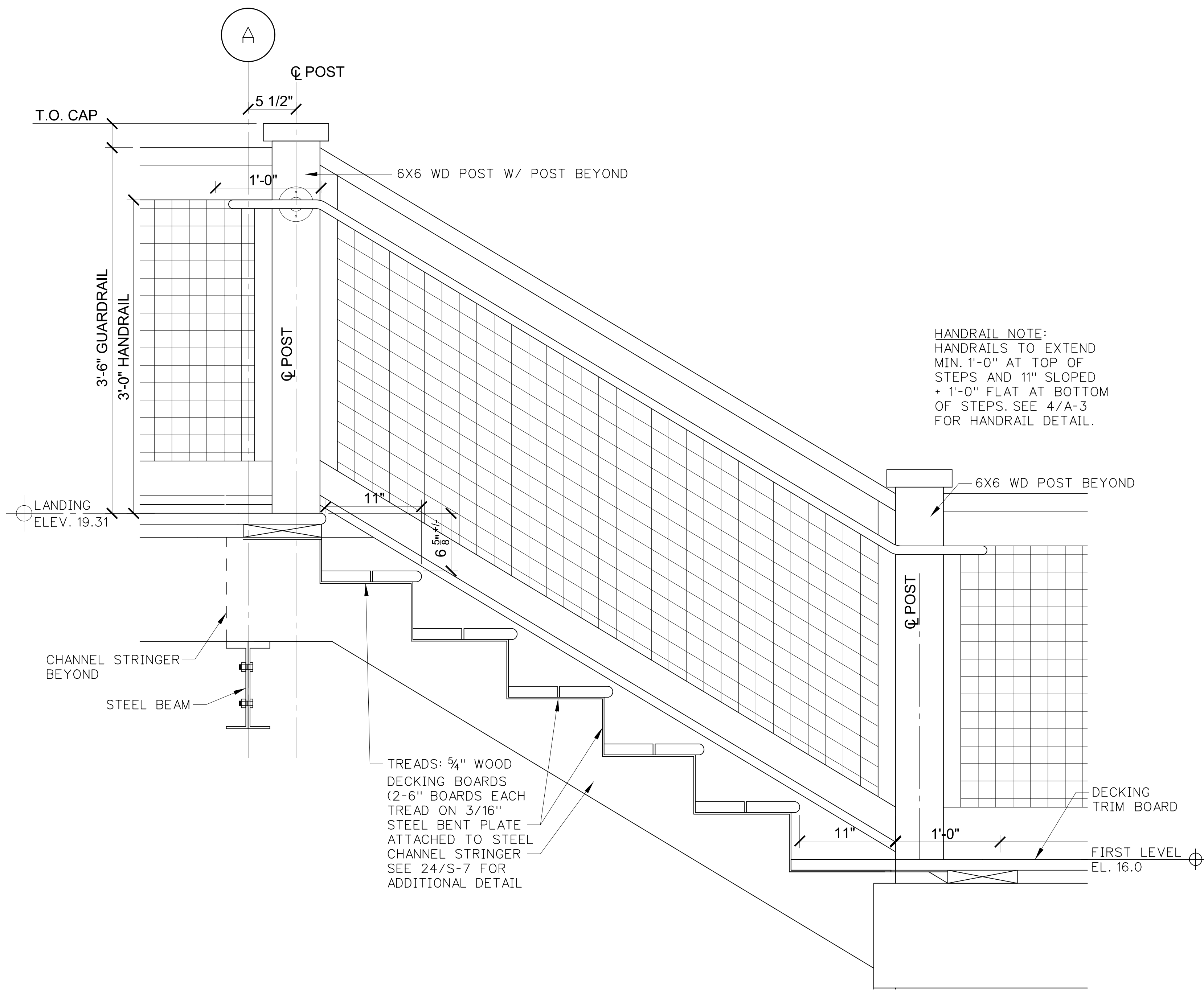
PRE-BID CONFERENCE

NAME: Little Creek Boardwalk and Wildlife Viewing Tower
DATE: December 11, 2018 10:00 AM

CONTRACT #FW-2-15

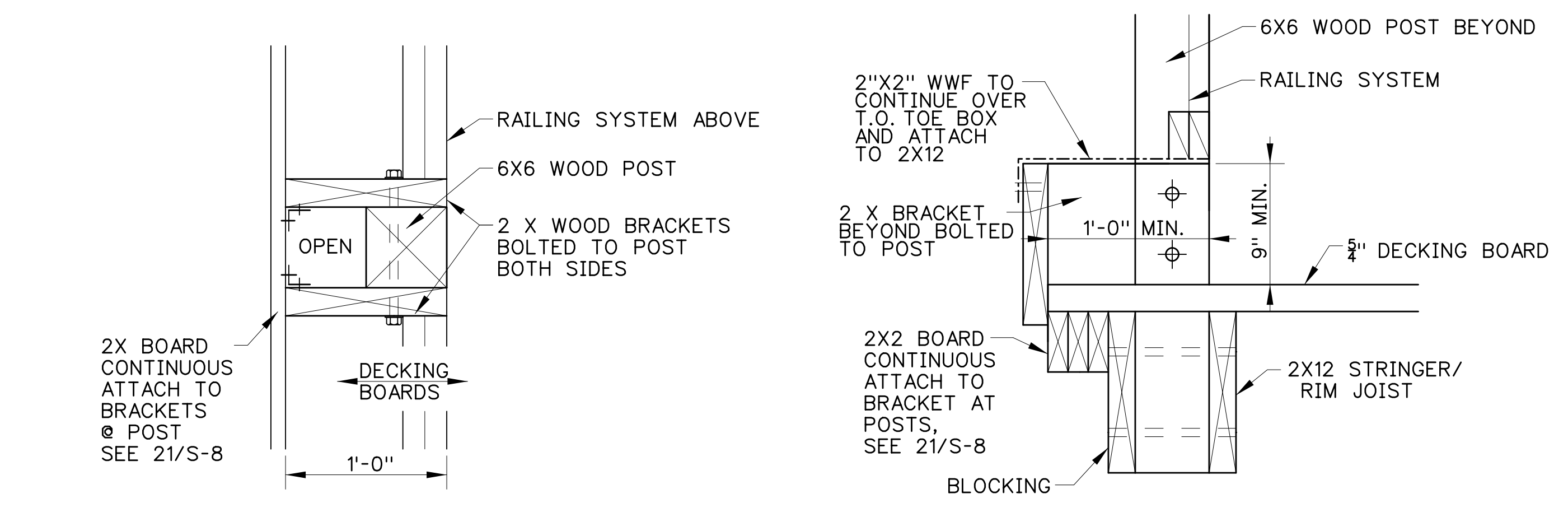
NAME	AGENCY/COMPANY	TELEPHONE	EMAIL
Ed Bush	EPB Associates	302-218-2781	epbush@aol.com
Tony Reynolds	Kent Construction	302-653-6469	tony@kentconstructionco.com
Kathy Ferguson	Mumford & Miller	302-373-5771	Kferguson@mumfordandmiller.com
Danny Hanna	A-Del Construction	302-453-8286	estimates@a-del.com
Tom Donofrio	Ocean Construction	609-653-0133	TomD@oceanconst.com
Danny Carrow	Carrow Construction	302-275-7592	danny.carrow@carrowconstruction.com
Greg Thompson	Conventional Builders Inc.	302-422-2429	Conventionalbuilders@comcast.net
Brian C. Thompson	Conventional Builders Inc.	302-422-2429	Conventionalbuilders@comcast.net
Gilbert Dissen	Dissen & Juhn Co.	410-604-1802	gwdissen@dissen-juhn.com
Mike Dehoy	J. L. Briggs Co.	302-856-7033	contact@jlbriggsc.com
Liz Thompson	Thompson & Sons Contracting	302-335-3404	thompsonsonsincc@comcast.net
Matt Tarr	G. E. S.	302-757-2883	mtarr@gesoncall.com
Matt Ruoff	J.J.I.D.	302-363-2004	mruoff@jjid.com
Tony Stuart	DSS	302-737-1007	Tony@DSSfabrication.com
Scott Mackay	RamJack Helicals	484-614-7643	scott@ramjacktri.com
J D Brighton	RBCI Inc.	410-763-9681	rbeavers@rbci.biz
Larry Bathon	Bathon Builders	443-553-0931	abathon@aol.com
Bob Shaffer	RK&K (Project Engineer)	410-432-9392	rshaffer@RKK.com
Samantha Roupe	RK&K (Project Engineer)	410-462-9309	sroupe@RKK.com
Anthony Gonzon	DE Fish & Wildlife (Owner)	302-735-8673	Anthony.Gonzon@state.de.us

7/16/2018 1:51:33 PM \\cisrv05\2015\2015\15010_dnrccf\TASK_3 - Little Creek Observation Tower\Architectural\ACAD\Plans\1501-AP-A3.dwg

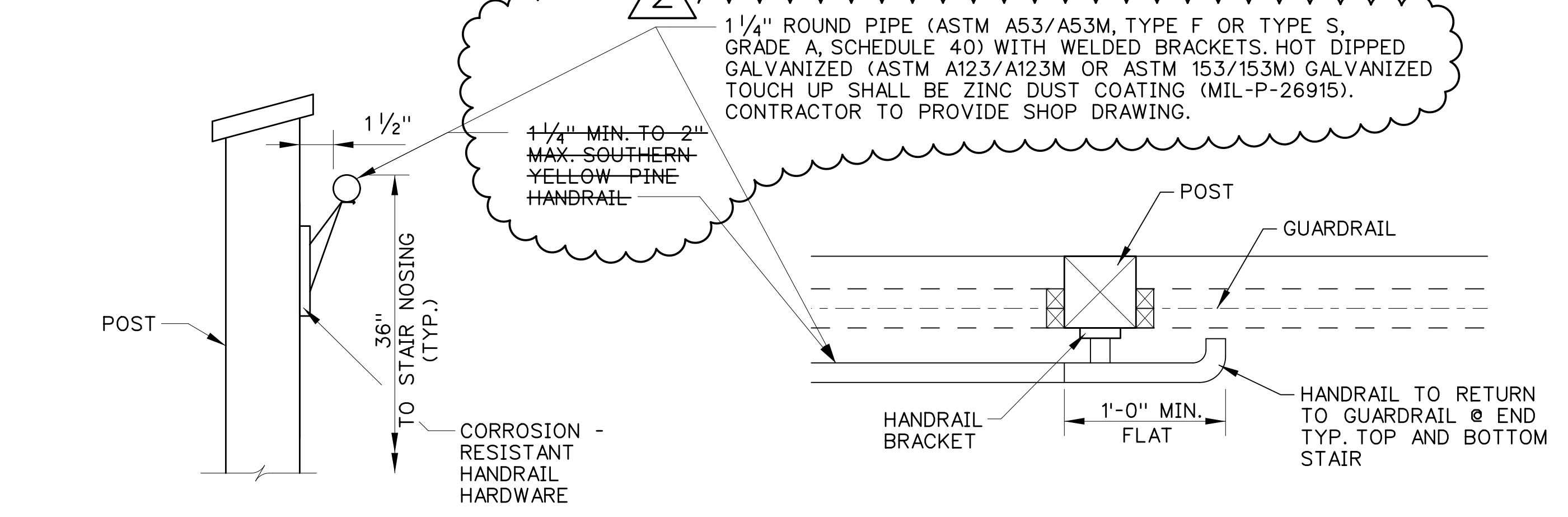


1 STAIR SECTION DETAIL
A-3 SCALE: 1 1/2"=1'-0"

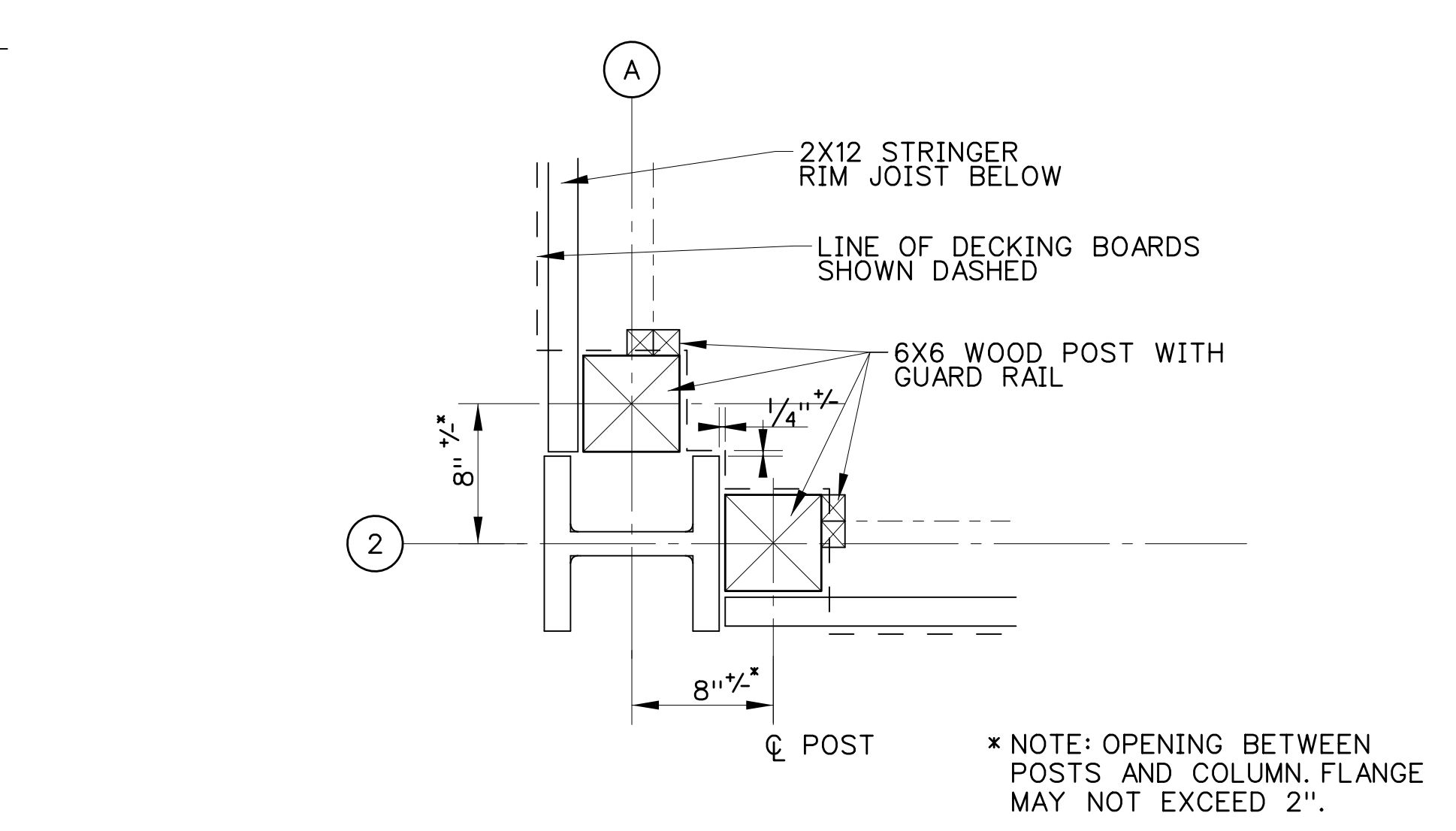
HANDRAIL NOTE:
HANDRAILS TO EXTEND MIN. 1'-0" AT TOP OF STEPS AND 11" SLOPED + 1'-0" FLAT AT BOTTOM OF STEPS. SEE 4/A-3 FOR HANDRAIL DETAIL.



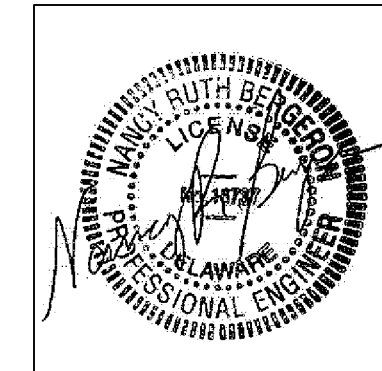
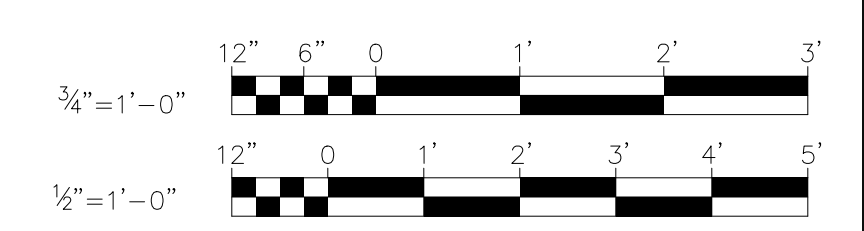
2 PLAN DETAIL @ TOE BOX SCALE: 1 1/2"=1'-0"
3 SECTION DETAIL @ TOE BOX SCALE: 1 1/2"=1'-0"



4 DETAIL @ HANDRAIL SCALE: 1 1/2"=1'-0"
5 PLAN DETAIL @ HANDRAIL SCALE: 1 1/2"=1'-0"



6 PLAN DETAIL @ COLUMN (FIRST LEVEL) SCALE: 1 1/2"=1'-0"



BY:	
DATE:	7/16/2018 ISSUED FOR BID
	12/18/2018 ADDENDUM No. 2
DESCRIPTION:	DELAWARE BAYSHORE BYWAY LITTLE CREEK BOARDWALK AND WILDLIFE OBSERVATION TOWER
	STAIR PLAN & SECTIONS
DESIGNED BY:	RKK
DRAWN BY:	RKK
BUILDING NO.:	N/A
DATE:	JULY 16, 2018
SCALE:	AS NOTED
SHEET NO.:	A-3
DFW PROJECT #:	FW-2-15
CONTRACT #:	FW-2-15

TABLE OF CONTENTS

- A. Specifications for this project are arranged in accordance with the Construction Specification Institute numbering system and format. Section numbering is discontinuous and all numbers not appearing in the Table of Contents are not used for this Project.
- B. DOCUMENTS BOUND HEREWITH

DIVISION 00 – PROCUREMENT AND CONTRACT REQUIREMENTS

INTRODUCTORY INFORMATION

00 01 01 – PROJECT TITLE PAGE	1 page
00 01 10 – TABLE OF CONTENTS	3 pages
LOCATION MAP	2 pages
00 01 15 – LIST OF DRAWING SHEETS	1 page

PROCUREMENT REQUIREMENTS

00 11 16 – INVITATION TO BID	1 page
00 21 13 – INSTRUCTIONS TO BIDDERS	12 pages
00 41 13 – BID FORM	6 pages
00 43 13 – BID BOND	1 page

CONTRACTING REQUIREMENTS

00 52 13 – STANDARD FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR (SAMPLE DNREC CONTRACT)	1 page 3 pages
00 61 13.13 – PERFORMANCE BOND	2 pages
00 61 13.16 – PAYMENT BOND	2 pages
00 72 13 – GENERAL CONDITIONS TO THE CONTRACT	1 page
00 73 13 – SUPPLEMENTARY GENERAL CONDITIONS	10 pages
00 73 46 – WAGE RATE REQUIREMENTS	2 pages
00 81 13 – GENERAL REQUIREMENTS	14 pages
00 81 14 – DRUG TESTING FORMS	2 pages

DIVISION 01 - GENERAL REQUIREMENTS

	01 09 00 – STATE HOLIDAYS	1 page
	01 10 00 – SUMMARY	6 pages
	01 14 00 – WORK RESTRICTIONS	1 page
	01 21 00 – ALLOWANCES (NOT USED)	2 pages
△ 1	01 22 00 – UNIT PRICES	2 pages
	01 23 00 – ALTERNATES	2 pages
△ 1	01 24 00 – PERMITS	2 pages
	01 25 00 – CONTRACT MODIFICATION PROCEDURES	2 pages
	01 29 00 – PAYMENT PROCEDURES	3 pages
	01 31 00 – PROJECT MANAGEMENT AND COORDINATION	3 pages
	01 31 50 – FIELD ENGINEERING	2 pages
	01 32 00 – CONSTRUCTION PROGRESS DOCUMENTATION	5 pages
	01 32 23 – PHOTOGRAPHIC DOCUMENTATION	2 pages
	01 33 00 – SUBMITTAL PROCEDURES	11 pages
	01 35 91 – HISTORICAL TREATMENT PROCEDURES (NOT USED)	9 pages
	01 40 00 – QUALITY REQUIREMENTS	8 pages
	01 42 00 – REFERENCE STANDARDS AND DEFINITIONS	4 pages
	01 50 00 – TEMPORARY FACILITIES AND CONTROLS	11 pages
	01 56 00 – ENVIRONMENTAL PROTECTION	3 pages
	01 56 39 – TEMPORARY TREE AND PLANT PROTECTION	8 pages
	01 60 00 – PRODUCT REQUIREMENTS	10 pages
	01 73 00 – EXECUTION REQUIREMENTS	6 pages
	01 73 29 – CUTTING AND PATCHING	4 pages
	01 74 19 – CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL	6 pages
	01 77 00 – CLOSEOUT PROCEDURES	6 pages
	01 78 23 – MAINTENANCE DATA	4 pages
	01 78 39 – PROJECT RECORD DOCUMENTS	4 pages

DeDOT Standard Specifications (The following Delaware Department of Transportation Standard Specifications for Road and Bridge Construction (Dated August 2001) are included by reference only and are not reprinted in this Project Manual)
http://deldot.gov/Publications/manuals/standard_specifications/index.shtml

Section 100000

106 Control of Material

Section 200000

201 Clearing and Grubbing
202 Excavation and embankment
207 Excavation and Backfilling for Structures
209 Borrow
211 Removal of Structures and Obstructions
212 Undercut Excavation
250 Sediment Removal
251 Silt fence
268 Stabilized Construction Entrance

Section 300000

302 Graded Aggregate Base Course

Section 600000

602 Concrete Structures
603 Bar Reinforcement

Section 700000

705 Portland Cement Concrete Sidewalk
713 Geotextiles
748 Pavement Marking

Section 800000

803 Water for Mixing Portland Cement Concrete
805 Coarse Aggregate
808 Joint Seals and Sealants
812 Portland Cement Concrete
813 Grading Requirements Minimum and Maximum
821 Graded Aggregates
827 Geotextile

TECHNICAL SPECIFICATION PACKAGE



Technical Specifications

~~T-057300 Boardwalk and Viewing Area Railings~~ **VOIDED**
T-619562 Helical Piles

Appendix A

Geotech Report

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SECTION T-057300 - BOARDWALK AND VIEWING AREA RAILINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section is for the railing system on the boardwalk and wildlife viewing areas. Design and construction of the railing system is the responsibility of the contractor based on the performance requirements in this special provision and the details provided in the plans. The elements in the plans are shown for design intent. The work included in this item shall consist of fully engineering, fabricating, transporting, furnishing, constructing and installing the railing in the locations indicated in the plans. The railing system includes posts, infill panels, intermediate rails, top rails, framing, anchors, fasteners, hardware, and accessories necessary to complete the railing system as indicated in the plans.
- B. ADA accessible viewing platforms shall be provided in the locations and matching the dimensions shown in the plans.

1.3 SUBMITTALS

- A. Submit shop drawings in accordance with Section 013300 showing the following:
 - 1. Sizes, finishes, all materials, locations, attached hardware and fittings and details for all items and fabricated metal work, threaded fasteners and welds. Indicate all welds, both shop and field, by symbols conforming to AWS Standards.
 - 2. Furnish setting diagrams, erection plans, templates, and directions for the installation of backing plates, anchors, and other items.
 - 3. Submit catalogue descriptions of manufacturer's standard items.
- B. Shop Drawings for each type and size of railing. Show layout at same scale as site plan or larger if necessary for clarity of presentation; typical plan, elevation and section of units, at 1" = 1'-0" and joint/anchorage details at 1/2" = 1'-0". Include details of railings, connections, corners and terminations.
- C. Product Data for each type and grade of metal used in fabricating units, and for fasteners and accessory items used in assembly and installation.
- D. Delegated Design Submittal: Submit calculations signed and sealed by a Professional Engineer registered in the State of Delaware.

1.4 PERFORMANCE REQUIREMENTS

- A. Railings, including attachments to other construction, shall withstand the effects of gravity loads as well as loads and stresses as defined for Guards in the current edition of the IBC.
- B. Railings shall meet the opening limitations requirements as defined for Guards in the current edition of the IBC.
- C. Railings shall allow for thermal movements due to temperature change from ambient as appropriate for the region in which the railing is installed.
- D. Handrails, where incorporated into the railing design, shall meet the loading and geometric requirements in the current edition of the IBC.

1.5 QUALITY ASSURANCE

- A. Welding Qualifications: Qualify procedures and personnel according to the following:
 - 1. AWS D1.1/D1.1M, "Structural Welding Code for Steel."

1.6 DELIVERY, STORAGE AND HANDLING

- A. Identify, and mark, as applicable, all materials, including fabrications, for installation and field assembly.
- B. Verify and practice, deliver to the job site as complete units, ready for installation or erection with anchors, hangers, fasteners and miscellaneous metal items required for installation.
- C. Provide adequate storage facilities at the job site for the protection and storage of all delivered materials. Handle and store in such a manner as to not damage factory finishes. Repair damaged finishes at no cost to the Owner.

1.7 FIELD CONDITIONS

- A. Field Measurements: Verify actual locations of construction contiguous with railings by field measurements before fabrication and indicate measurements on Shop Drawings.
- B. Railings shall be detailed to allow adjustment of the fit of the various components to accommodate field conditions and construction tolerances. Slotted holes in bolted connections are encouraged where practical.

PART 2 - PRODUCTS

2.1 METALS, GENERAL

- A. Metal Surfaces, General: Provide materials with smooth surfaces, without seam marks, roller marks, rolled trade names, stains, discolorations, or blemishes.

2.2 STEEL

- A. Steel, General: Whenever practicable, deliver items to job site as complete units, ready for installation or erection, with all anchors, hangers, fasteners and miscellaneous metal items required for installation. Provide finish and color per Owner direction.

- B. Extruded Bars and Shapes: ASTM A242/A242M.

- C. Extruded Structural Pipe and Round Tubing: ASTM A513 Type S, Grade A, Standard Weight (Schedule 40), unless another grade and weight are required by structural loads.

- D. Plate and Sheet: ASTM A242.

- E. Castings: ASTM A27/A27M Grade 65,

- F. Woven-Wire Mesh: Intermediate-crimp, diamond pattern, 2-inch (50-mm) woven-wire mesh, from 0.125-inch (3.2-mm) diameter complying with ASTM A510/A510M.

- G. Bolts, Washers:

1. Provide zinc plated for use with galvanized material.
2. Provide stainless steel for use with corrosion resistant and stainless materials.
3. Provide cadmium plated for use with all other materials.

- H. Coatings

1. Galvanized sheet shall conform to requirements of ASTM A446/A446M. All other galvanizing shall conform to requirements of ASTM A123/A123M or ASTM 153/153M as applicable.
2. Galvanize touch up shall be zinc dust coating conforming to requirements of MIL-P-26915.

2.3 FASTENERS

- A. Fastener Materials: Unless otherwise indicated, provide the following:
1. Galvanized-Steel Components: Plated-steel fasteners complying with ASTM B633/B633M, Class Fe/Zn 25 for electrodeposited zinc coating.
 2. Dissimilar Metals: Type 304 or Type 316 stainless-steel fasteners.

- B. All fasteners attaching to the composite top rail shall be Type 304 or Type 316 stainless steel. They shall also provide a smooth surface either by sinking flush or through the use of rounded heads (i.e. carriage bolts).
- C. All screwed connections of steel components to the timber posts shall utilize Type 304 or Type 316 stainless-steel fasteners.
- D. Fasteners for Anchoring to Other Construction: Select fasteners of type, grade, and class required to produce connections suitable for anchoring railings to other types of construction indicated and capable of withstanding design loads.
- E. Nailed connections are not permitted.

2.4 MISCELLANEOUS MATERIALS

- A. Composite Boards:
 - 1. Composite boards shall be selected from the approved materials provided in the Plans and in the color indicated in the Plans.
- B. Wood Posts:
 - 1. All wood posts shall be selected from the approved materials provided in the Plans and in the color indicated in the Plans. Refer to wood preservative treatment requirements in the Plans.

PART 3 - FABRICATION

3.1 FABRICATION

- A. General
 - 1. Fabricate all work as indicated in the Contract Documents and approved shop and working drawings. Straighten work bent by shearing or punching.
 - 2. Press exposed edges and ends of metal smooth, with no sharp edges and with corners slightly rounded. Construct connections and joints exposed to weather to exclude water.
 - 3. Provide sufficient quantity and size of anchors for the proper fastening of the work.
- B. Railing Components
 - 1. Fabricate railing components as indicated in accordance with OSHA from steel, hot dip galvanized after fabrication.
- C. Connections
 - 1. Shop connections in weldable materials, not designed for service removable, shall be welded. All welding shall conform to AWS D1.1 requirements. Weld behind finished

- surfaces whenever possible. Grind all exposed welds smooth. Remove weld, brazing, and solder spatter, flux, slag and oxides from finished surfaces.
2. Complete all provisions for bolted field connections in the shop unless otherwise indicated.
 3. Match exposed work to produce continuity of line and design. Fabricate and fasten metal work so that the work will not be distorted, the finish impaired, nor the fasteners overstressed from the expansion and contraction of the metal. Conceal fastenings whenever practicable. Use fastenings exposed to public view of the same color and appearance as the surrounding metal.

D. Galvanizing

1. All steel components, with the exception of stainless steel fasteners, shall be galvanized in accordance with reference standards set forth hereinbefore.

3.2 ERECTION AND INSTALLATION

- A. Erection work shall be in accordance with the American Institute of Steel Construction, Inc. Specification for the Design, Fabrication and Erection of Structural Steel for Buildings and the American Institute of Steel Construction, Inc. Standard Specification for Steel Buildings and Bridges, where applicable.
- B. Upon completion of installation, re-check all work and provide final shims, washers, anchors and corrective work required to ensure that erection is plumb, tight, anchored, in true alignment with no twists, warps, distortions, unduly fastenings, raw edges or protrusions.
- C. Erect metal railing as indicated. Set railing plumb and level and true to elevations as indicated, and locate railing in respect to work.
- D. Avoid unnecessary cutting, drilling and welding of prefabricated railing units. Where necessary to cut, drill or weld railing units, repair shop costs of finish (primer and finish coat) in manner recommended by paint manufacturer and in manner which will provide corrosion protection equivalent to shop-applied coats insofar as possible.
- E. Clean exposed surfaces of metal railing work and touch up abraded finishes to restore appearance and corrosion resistance.

END OF SECTION T-057300

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