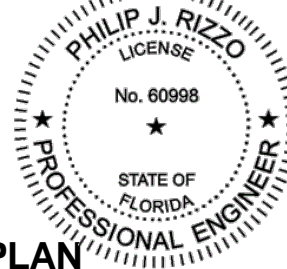


O'DONNELL, NACCARATO, MIGNOGNA & JACKSON, INC.

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Phone: (561) 835-9994
Certificate of Authorization No. 4386

Project Name: Sandridge Golf Club
Project Address: Vero Beach, FL
Project No.: 933.047
Engineer of Record: Philip J. Rizzo

Date: January 24, 2024



This item has been digitally signed and sealed by Philip J. Rizzo using a Digital Signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

THRESHOLD INSPECTION PLAN

PART 1 - GENERAL

[SEAL]

1.01 SUMMARY:

- A. The Threshold Building Special Inspection services as described herein will be paid for by the Owner.
- B. The purpose of this special inspection, as required by Chapter 471, and Chapter 553 of the Florida Statutes, is to ensure that good practices are followed in constructing the project in accordance with the Contract Documents in order to assure the public of the safe construction and subsequent use of the structure.
- C. The Special Inspection will encompass the construction of all structural components of the building. It will not include construction of non-load bearing walls, elevators, or other nonstructural elements or systems, except as required by the authority having jurisdiction.
- D. The Special Inspector shall verify that the structural elements of the building are constructed in general accordance with the permitted Contract Documents. The Contract Documents are defined as the permitted plans and specifications with all addenda and changes thereto, together with any other items stipulated as specifically included, and including the Threshold Inspection Plan.
- E. The Special Inspector shall not make design decisions, direct the Contractor's work, nor be responsible for construction means and methods.

1.02 RESPONSIBILITY AND QUALIFICATIONS:

- A. This inspection does not relieve the Contractor of his responsibility to perform the work in accordance with the Contract Documents.
- B. This inspection does not relieve the Contractor of his responsibilities to carry out his quality control inspection and testing.

- C. Only a Professional Engineer registered in the State of Florida can assume the responsibilities of a Special Inspector.
- D. The Special Inspector shall be certified as such by the State of Florida Department of Business and Professional Regulation, and shall be acceptable to the enforcing agency having jurisdiction for this project and to the Architect.
- E. **The Special Inspector shall have a minimum of ten years of experience in inspection and/or design of similar structures.** Special Inspectors utilizing qualified representatives shall insure the representative is qualified to perform the duties assigned by the Special Inspector. Such qualifications shall include but not be limited to; licensure as a professional engineer; licensure as an architect or graduation from an architectural education program; graduation from an engineering education program in civil or structural engineering; successful completion of the NCEES Fundamental Examination; registration as building inspector or general contractor. **The representative shall have a minimum of three years of experience in inspection of similar structures, and shall not be the same person performing soil, concrete or other material testing or laboratory sampling.** Resumes of both the Special Inspector and the Field Representative shall be submitted to the Architect /Engineer for review.
- F. The Special Inspector does not have the authority to revoke, alter, relax or enlarge any requirement of the Contract Documents.
- G. The Contractor shall cooperate with, and assist the Special Inspector and his representative in performing their inspection duties as specified below. They shall have free access to the project at all times.
- H. The Special Inspector shall be responsible to the enforcing agency having jurisdiction for this project.
- I. The Special Inspector shall be insured against error and omissions by a professional liability insurance policy, having a limit of liability not less than that \$1,000,000. **A copy of the insurance policy shall be submitted to the Architect/Engineer for review.**

1.03 SUBMITTALS

The Special Inspector shall require approved submittals for prefabricated structural components and shall verify that the prefabricated components are in compliance with the submittals and with the Contract Documents.

- A. Approval concrete mix designs for all specified strengths and types shall be submitted to and reviewed by the Special Inspector. The mix designs shall be prepared in accordance with ACI recommendations and be supported by attached test data.
- B. Approved reinforcing steel shop drawings and bar lists shall be submitted to the Special Inspector. The shop drawings and bar list shall be prepared in accordance with ACI recommendations, and shall clearly show all bar sizes, dimensions, and grades. Mill reports for all reinforcing steel shall be submitted to the Special

Inspector.

- C. Approved tendon and/or rebar placement shop drawings for concrete slabs shall be submitted to the Special Inspector. These drawings shall clearly indicate all design data, and shall be signed and sealed by a Professional Engineer registered in the State of Florida. Unit marks shall be indicated on these drawings and shall be clearly shown on units shipped to the site for installation.
- D. Approved shop drawings for all structural metals, such as embedded anchors, connection, plates, etc. shall be submitted to the Special Inspector prior to installation.
- E. Approved shop and erection drawings for all structural steel components, all member sizes, configurations, dimensions, connection details, and material grades shall be submitted to the Special Inspector prior to installation. Prefabricated component drawing, such as open web steel joists, shall be signed and sealed by a Professional Engineer registered in the State of Florida responsible for their design.
- F. All shoring shall be installed in accordance with the approved drawings signed and sealed by a Professional Engineer registered in the State of Florida. The approved shoring drawings shall be submitted to the Special Inspector prior to installation.
- G. Approved shop drawings and product approval submittals for all window / door systems shall be submitted to the Special Inspector prior to installation.
- H. Prior to the commencement of work, the Special Inspector shall be supplied with a complete set of design documents for the project, including all drawings and specifications. These documents shall be signed and sealed by the Architect/Engineer responsible for their preparation, and shall be approved by the authority having jurisdiction.
- I. The contractor shall provide the Special Inspector with design professional approved changes to the permitted plans and specifications prior to incorporating the alternatives into the project.

1.04 CONSTRUCTION MATERIALS TESTING

- A. Verify that the construction materials are being sampled and tested as required by the Contract Documents.
- B. Verify that the materials used are in compliance with the requirements of the Contract Documents, based upon the reported test results.
- C.. The Special Inspector may require testing supplemental to that required by the Contract Documents if conditions warrant.

PART 2 - PROCEDURES

2.01 OPERATIONS

- A. The contractor shall advise the Special Inspector in advance of construction schedules and planned operations in order to assure timely and appropriate inspection of items specified herein.
- B. The Special Inspector shall cooperate with the Contractor, but shall refrain from supervising or directing the work for the Contractor, as this is expressly not part of the Special Inspector's function.
- C. The Special Inspector shall review and become familiar with the Contract Documents and the approved shop drawings related to the part of the project under his inspection responsibility.
- D. **The Special Inspector shall be present at all times when concrete is being poured.**

2.02 REPORTING

- A. **The Special Inspector shall submit written reports weekly to the Building Department or any other agency having jurisdiction.** In addition, the Special Inspector shall submit copies of his report to the Owner, Architect, Engineer and the Contractor. **A field hand copy shall also be written and posted on a clipboard on a daily basis. The clipboard shall be located in an area that is agreed upon by the Contractor and is easily accessible for viewing.** The report shall describe construction progress and all conditions that were not in compliance as required above. The report shall state whether any measures were taken by the Contractor to correct these conditions. The report shall also indicate the following:
 - 1. Identify working conditions including weather, temperature, time of day, type and location of work being formed.
 - 2. Note changes in working sequence or materials and any unusual circumstances affecting the performance of work.
 - 3. Place emphasis on those areas where deficiencies reoccur.
- B. The Special Inspector shall keep an **Outstanding Issues** file for follow-up. This file shall be reviewed on a daily basis and updated as the outstanding issues are rectified. Any noted uncorrected outstanding issues shall be reported to the enforcing agency, Owner, Architect, Engineer and the Contractor.
- C. Upon completion of the building and prior to the issuance of the Certificate of Occupancy, a signed and sealed statement by the Special Inspector must be submitted to the Building Department or other enforcing agency having jurisdiction, stating that the part of the project under his inspection responsibilities has been constructed in accordance with the Contract Documents. This statement shall be in accordance with Section 553.79(7)(a) of the Florida Statutes.

PART 3 - EXECUTION

3.01 SUBSURFACE INVESTIGATION

- A. Soils Investigation Report: All Threshold Buildings shall have a soil bearing and/or pile load capacity certification issued prior to placing concrete for the foundation. A signed and sealed copy of this report by a Professional Engineer registered in the State of Florida shall be filed with the Special Inspector. The Special Inspector shall confirm that the specified notes regarding foundations on the design drawings concur with this Soils Report.

3.02 FOUNDATION

- A. Verify size of footings and pile caps as well as their reinforcement, and concrete coverage (**a tie-in survey and top of footing elevation certification letter(s) are required**).
- B. At the conclusion of the foundation construction, a foundation certification letter shall be submitted to the Special Inspector, signed and sealed by a Professional Engineer registered in the State of Florida employed by the Geotechnical Engineer, stating that the Geotechnical Engineer, or his representative, has determined that the required soil bearing pressure and compaction under each footing and pile capacity have been obtained; and that the foundations were constructed in accordance with the requirements of the Geotechnical Report.
- C. Verify pile type, reinforcing for the grade of steel, bar size, bar quantities and minimum embedment into pile caps.

3.03 STRUCTURAL CONCRETE

A. Shoring / Reshoring:

- (1) Obtain from the contractor approved drawings signed and sealed by a Professional Engineer registered in the State of Florida, of formwork, shoring and reshoring.
- (2) The Special Inspector shall determine that a professional engineer who specializes in shoring design has inspected the shoring and reshoring for conformance with the shoring and reshoring plans submitted to the enforcing agency. Contractor shall also submit a certification letter indicating that the shoring / reshoring conforms to the approved shoring / reshoring plans prior to concrete placement.
- (3) Verify compliance with approved shoring and reshoring plans submitted by Contractor.
- (4) Confirm satisfactory test results on concrete test cylinders before removal of shoring.

B. Concrete:

- (1) Verify that the design strength of concrete delivered to the site conforms with the requirements of the Contract Documents for the structural element under construction. Verify that the mix design delivered has been approved by the Architect/Engineer and the authority having jurisdiction.

C. Reinforcing Steel:

- (1) Verify that rebar grade, size, number and location conforms with the requirements of the Contract Documents. Report deficiencies to the Contractor.
- (2) Verify minimum clearance requirements from formed surfaces.
- (3) Verify reinforcing is adequately supported to resist displacement or shifting during concrete placement.
- (4) Verify that splices in reinforcing steel are located as shown in the approved drawings. Report any discrepancies to the Engineer-of-Record. Verify that hooks and corner bars are installed as required.
- (5) Verify specific locations for placement of galvanized bars as specified in the contract documents.
- (6) Verify that all specified embedded items are installed as shown and secured against displacement prior to concrete placement.
- (7) Verify that rebar surfaces are free of excess rust or other coating that may adversely affect bonding capacity. If oiling of forms is required, apply before reinforcing is placed.
- (8) Verify additional reinforcement at openings, sleeves, and embedded items in accordance to the Construction Documents.
- (9) Verify that all debris and foreign material have been removed before concrete is placed.
- (10) Relocation of reinforcing is not permitted unless approved by the Engineer-of-Record.

D. Openings and Sleeves:

- (1) Notify Engineer-of-Record all slab openings larger than 12" which are not shown on the structural drawings/shop drawings. No sleeves or openings will be permitted in beams without prior approval from the Engineer-Of-Record.
- (2) Verify placement of additional reinforcing around openings. No sleeves or

openings will be permitted in beams without prior approval from the Engineer-of-Record.

E. Embedded Items:

- (1) Verify that utility conduits are placed in slabs as specified by the drawings and/or approval of the Engineer of Record
- (2) Verify that all embedded items are installed as specified in the approved drawings and properly secured.
- (3) Relocation of embedded items, which are in conflict with reinforcing steel, will not be permitted without prior approval of the Engineer-of-Record.

F. Concrete Placement:

- (1) Review placement of concrete to avoid segregation of aggregate.
- (2) Verify that the testing laboratory has been informed and will be available to perform tests as needed.
- (3) Review transit mix delivery slips to ensure correct mix design and to determine elapsed time between batching and depositing of concrete.
- (4) Verify that concrete slump is measured at the specified intervals. Require additional slump measurements if compliance with slump requirements is in doubt.
- (5) Verify that concrete test cylinders have been taken in accordance with the Contract Specifications. Review results of compressive strength tests for compliance with Contract Documents.
- (6) Monitor the addition of water to the concrete mix in the truck. The addition of water beyond the limits given on the approved concrete mix design shall not be permitted.
- (7) Confirm that consolidation methods for concrete are being implemented especially behind embedded anchorages, tendon bearing plates, in beams and column, and other congested steel areas.

G. Control Joints:

- (1) Verify that construction joints are located as shown on the approved drawings.
- (2) Verify that the joint materials used are as specified and are installed in accordance with the manufacturers' recommendations.
- (3) Verify that the structural expansion joints are as per the approved

Construction Documents.

H. Construction Joints:

- (1) Note all construction joints in beams/slabs and confirm with the Engineer-of-Record if not shown on the Contract Documents.
- (2) Verify preparation of joints with regards to spliced dowels and keyways.

PART 4 – FLOOR/ROOF SYSTEM

4.01 PRE-ENGINEERED WOOD TRUSSES / GIRDER TRUSSES

A. Related Documents:

- (1) Review engineering and layout sheets for conformance to the approved structural drawings and specifications.
- (2) Verify that the truss shop drawings have been reviewed by the Engineer-of-Record.

B. Truss Locations:

- (1) Verify the location of all trusses.
- (2) Verify that the trusses have been installed in the proper direction.

C. Truss Members/Plates:

- (1) Observe condition of trusses for broken members and bent connector plates.
- (2) Locate manufacturer's stamp for specie type.
- (3) Verify bolt/nail sizes and spacing for truss girders.
- (4) Verify all the uplift straps/bucket connections and their connectors according to the approved drawings/specifications.
- (5) Verify that all the lateral bracing (by the Truss Manufacturer and Engineer-of-Record) are in place. All bracings shall terminate properly at a rigid wall and/or truss girder as specified in the approved drawings.

4.02 ROOF SHEATHING

A. Sheathing Size and Type:

- (1) Verify thickness and/or APA identification index.
- (2) Sheathing shall be Exposure 1, exterior type unless otherwise noted in the approved drawings and specifications.

B. Sheathing Installation:

- (1) Verify orientation of sheathing with staggered placement.
- (2) Verify attachment of sheathing including any required blocking.

4.03 STRUCTURAL STEEL

A. Primary Framing

- (1) Check all structural metal components for size, material, location, orientation, and connection to adjoining structural components as per the approved Contract Documents and shop drawings.
- (2) Verify that the fire protection materials are installed in accordance with the Contract Documents.
- (3) Verify that all field welding is performed by welders certified by A.W.S. for the type of work specified.
- (4) Verify that metal components are in compliance with the Contract Documents prior to concealment by other work.
- (5) Verify that fabrication errors are not corrected in the field with gas cutting torches unless approved by the Engineer-of-Record.

B. Steel Joists

- (1) Verify that the type, size, and orientation of steel joists are in accordance with the Contract Documents.
- (2) Verify that the connections of joists and joist girders to adjoining work have been installed in accordance with the Contract Documents and shop drawings.
- (3) Verify that joist bridging, including uplift bridging, the connection of the bridging to adjoining masonry walls, primary steel framing, concrete columns, or other structural members, is in accordance with the Contract Documents.
- (4) Verify that protective paint and spray applied fire protection materials are installed in accordance with the Contract Documents.
- (5) Verify that the spray applied fire protection materials are tested by a Certified Testing Company.

C. Metal Deck

- (1) Verify that the type, gauge, and corrosion protection provided are as specified in the Contract Documents.
- (2) Verify that the deck to joist connections, deck to deck side lap connections, and deck overlap at supports are as specified in the Contract Documents.

- (3) Verify that touch-up paint and spray applied fire protection materials have been installed in accordance with the Contract Documents prior to concealment by other work.

PART 5 – WALL SYSTEM

5.01 MASONRY

- A. Verify that the type and size of the masonry units supplied are as specified.
- B. Verify fill cell locations; that vertical reinforcing steel is of the size specified; that rebar lap splices satisfy the minimum lap length specified; that the cells to be grouted are cleaned of mortar fins. Also, the clean-out holes shall be present every 4' vertically.
- C. Verify that horizontal reinforcement is present in the courses specified; that the horizontal reinforcement is lap spliced the minimum length specified. Also, that the prefabbed corners and tees are installed at wall corners and intersections.
- D. Verify that bond beams, lintels, tie-columns, tie beams, wall openings and additional reinforcement at wall openings are installed accordance with the Contract Documents.
- E. Verify that the design mix grout, mortar and fill cell concrete are in accordance with the approved mix designs, and that the materials are installed in accordance with the Contract Documents.
- F. Monitor grout placement. Verify that grouting is performed in lifts not to exceed the maximum specified, and that the grout is consolidated as specified.
- G. Verify mortar joint thickness by spot checking some areas.
- H. Verify that masonry is fastened to adjoining work with the specified type and number of fasteners.
- I. Verify that the expansion joints are installed and constructed to the specified dimensions.

PART 6 – WINDOW / DOOR SYSTEM

6.01 SHOP DRAWINGS / PRODUCT APPROVAL

- A. Verify that shop drawings are signed and sealed by a Professional Engineer registered in the State of Florida.
- B. Verify that the submitted product approval has not expired.

6.02 WINDOW / DOOR SYSTEM

- A. Verify that window / door system has been reviewed / approved by the Architect and/or Engineer of Record.
- B. Verify all window/door openings to have impact protection.

- C. Verify that the attachments, type, size, length and spacing of the fasteners of the window / door system to the building substrate is as per the submitted product approval.
- D. Verify maximum gap spacing between the window / door frame and the building substrate as per the submitted product approval. Verify attachment of wood buck to building substrate if provided.
- E. Verify that the window / door system bear an AAMA or WDMA or other approved label identifying the manufacturer, performance characteristics and approved product evaluation entity.

THE END