

Specifications for

**City of Foley**

**Mel Roberts Park Pavilion**

901 North Cedar Street

**Dudley L. Flotte, Architect, CSI, CCS**

8278 River Road North, Foley, AL 36535

(251) 968-6700

October 26, 2020

# **Dudley L. Flotte, Architect, CSI, CCS**

8278 River Road North, Foley, AL 36535

(251) 968-6700      Dated 10/26/20

## **List of Construction Documents**

---

### **City of Foley Mel Roberts Park Pavilion**

901 N Cedar Street, Foley, Alabama

#### **SPECIFICATIONS:**

Specifications for City of Foley Mel Roberts Park Pavilion  
(50 pages dated October 26, 2020)

#### **BIDDING DOCUMENTS:**

Bidding Instructions and General Conditions for City of Foley Mel  
Roberts Park Pavilion (12 pages)(File Name: Bid Packet -  
Mel Roberts Park Pavilion);

#### **DRAWINGS:** (File Name: Mel Roberts Park Pavilion Drawings 072720.pdf)

Sheet C01 (Site/Cover revised 07.27.2020);  
Sheet A01 (Floor Plan revised 07.27.2020);  
Sheet A02 (Elevations dated 07.27.2020);  
Sheet A03 (ADA Standard Details dated 07.27.2020);  
Sheet S01 (General Notes dated 07.27.2020);  
Sheet S02 (Wind Notes dated 07.27.2020);  
Sheet S03 (Foundation/Floor Plan revised 07.27.2020);  
Sheet S04 (Roof Plan dated 07.27.2020);  
Sheet M1.0 (HVAC Plan dated 06.02.2020);  
Sheet E1.0 (Electrical Plan dated 06.02.2020)  
Sheet E1.1 (Electrical Plan dated 06.02.2020)&  
Sheet P1.0 (Plumbing Plan dated 06.02.2020).

## TABLE OF CONTENTS

-----

Section	BID AND CONTRACT REQUIREMENTS	Page #
00700	General Conditions	5
00800	Special Provisions	5
DIVISION 1 - GENERAL REQUIREMENTS		
01010	Summary of Work	6
01015	Miscellaneous Requirements	10
01400	Quality Control and Testing	14
01600	Materials and Equipment	18
01630	Product Options & Substitutions	21
DIVISION 2 - SITE CONSTRUCTION		
02119	Selective Demolition	23
02189	Trenching and Filling	23
03131	Termite Control	25
DIVISION 3 - CONCRETE – See STRUCTURAL DRAWINGS		
DIVISION 4 - MASONRY - None		
DIVISION 5 - METALS - None		
DIVISION 6 - WOOD AND PLASTIC		
06145	Carpentry & Miscellaneous Work	29
DIVISION 7 - THERMAL AND MOISTURE PROTECTION		
07213	Insulation	33
07920	Joint Sealants	35
DIVISION 8 - DOORS AND WINDOWS		
08210	Doors and Frames	39
DIVISION 9 – FINISHES		
09256	Wall Board	41
09510	Suspended Acoustical Ceiling	44
09910	Paints and Coatings	46
DIVISION 10 - SPECIALTIES - None		
DIVISION 11 - EQUIPMENT - None		
DIVISION 12 - FURNISHINGS - None		
DIVISION 13 - SPECIAL CONSTRUCTION - None		
DIVISION 14 - CONVEYING SYSTEMS - None		
DIVISION 15 - MECHANICAL – See Drawings		

DIVISION 16 – ELECTRICAL - See Drawings

DIVISION 17 – PLUMBING - See Drawings

## **SECTION 00700 - GENERAL CONDITIONS**

1.01 The "General Conditions" are included in the Bid Package.

1.02 In case of conflict between the "General Conditions" and the Special Conditions (below), the "General Conditions" shall prevail.

END OF SECTION

## **SECTION 00800 - SPECIAL PROVISIONS**

SP-1 COMPLETION. The Contract shall be substantially completed, including the repair of all damages to property resulting from the work of this Contract, within the number of calendar days established in the Contract from the start date indicated on the Owner's Notice to Proceed. Time is an essential condition of the Contract.

SP-2 CORRECTION OF WORK. Each contractor shall re-execute any work that fails to conform to the requirements of the Contract and any defective work that appears during the progress of the work, and shall remedy any defects due to faulty materials or workmanship which appear within a period of one (1) year from the date of Substantial Completion of the Contract.

SP-3 INTENT OF DOCUMENTS. It is understood that except as otherwise specifically stated in the Contract Documents, each contractor shall provide and pay for all materials, labor, tools, equipment, supplies, light, power, all means of construction, construction equipment, transportation, shipping, handling, superintendent, quality control, temporary construction of every nature, and all other services and facilities of every nature whatsoever, necessary to execute, complete and deliver the entire Project within the specified time, fully operational, complete, and code conforming.

SP-4 UNDERGROUND INSTALLATIONS. Each contractor, shall be responsible for discovery of existing under-ground installations, in advance of their excavating or trenching, by contacting all local utilities, and by prospecting.

SP-5 DEFINITIONS

A. "As Directed" and "as instructed" refers to direction or instruction of the Architect. Similarly, "approved", "acceptable", and "satisfactory" refers to the Architect subject to the provisions of the Contract. The judgment of the Architect in such matters shall be final.

B. "Provide", as used throughout the Contract Documents, including derivatives thereof, shall be interpreted to mean "furnish, fabricate, complete, transport, deliver, install, erect, construct, finish, and test, including all labor, materials, equipment, apparatus, appurtenances, supervision, quality control, handling, permitting, taxes and expenses necessary to complete in place, ready for operation or use under the terms of these Contract Documents".

C. "Include" as used herein, including derivative(s) thereof, shall be interpreted to mean "included but not be limited to".

D. "Or equal", "approved equal", "equivalent to", and "similar to" when used in reference to the kind, brand, type, or make of equipment or material specified herein, shall mean that any proposed substitution must be equal, equivalent, or similar in the sole judgment of the Architect unless otherwise stated, and the Architect's written approval of such proposed substitution must be obtained.

- SP-6 Each contractor is totally responsible for any lost time or extra expense incurred due to their fault or the fault of one (or more) of their subcontractor's, a sub-subcontractor's, and/or Material Supplier's failure to perform. Failure to perform includes a subcontractor's financial failure, abandonment of the Project, or failure to do work up to standard. Under no circumstances shall the Owner mitigate the contractor's losses or reimburse any contractor, nor material supplier, nor service provider, nor sub-contractor, for losses caused by these events.

END OF SECTION

## **Section 01010 - SUMMARY OF WORK**

### **1.01 Summary of Work**

A. This Contract covers the furnishing of all labor, materials, tools, equipment, supervision and services necessary to perform the work indicated by, or reasonably inferable from, the Contract Documents. Owner will pay all permit fees, impact fees, utility fees, utility connection fees and utility deposits.

B. It is the intent of this Project Manual that the Work be sequenced and performed to provide minimal disruption to the existing operation at the same location. Work areas must be left in a condition that allows for normal operations during work hours, and materials cannot be left such that they hamper the use of the facility with the exception of the immediate area of work.

C. The intent and meaning of the Contract Documents require that each contractor, under the terms of the Contract, shall take such action as is necessary and/or required to provide labor, materials, equipment, transportation, facilities, plants and appurtenances thereto, which are indicated, or reasonably implied by the Plans, and each Section of the Specifications, all of which are collectively necessary and required for the execution of the Work.

D. All insurance certificates shall be given to and approved by the Owner, in writing, before any work is performed by any Contractor, contractor or sub-contractor.

### **1.02 Permits and Regulations**

A. Contractor shall be solely responsible for obtaining Building Permit from the proper authorities, however, Owner will pay the necessary construction permits fee. Owner will file the requested number of sets with the Building Department. Owner will pay all impact fees; utility connection fees, and utility deposits. Contractor, and their sub-contractors, and material suppliers shall be responsible for paying all Licenses and all taxes, etc. for working in Foley, Alabama.

B. Each contractor is responsible for compliance with all federal, state and local regulations which affect implementation of the Project.

C. Repeat inspection fees for the City of Foley, if any, to be paid by Contractor.

D. If any contractor observes that the Contract Documents are at variance with any laws, ordinances, rules and regulations applicable to the Work, they shall give the Owner, and Architect, written notice thereof. Any Work performed by each contractor which is contrary to such laws, ordinances, rules and regulations and without written notice to the Owners & contractor shall be either dismantled and rebuilt or modified, with approval of the Owner, to comply with said laws, ordinances, rules and regulations. Costs arising from such additional work shall be borne by the contractor as determined by the Owner.

E. Work shall comply with the International Code Council, Inc. 2018 "I-Codes" including Appendices and Regulations adopted by the City of Foley.

### **1.03 Project Construction Requirements**

#### **A. General**

1. The Contractor shall provide a construction waste container for their use, and the use of all contractors at the site, until the project is complete.

2. All materials and/or equipment held in storage shall be protected from weather, vandalism and/or flooding by suitable waterproof coverings or by placing them in storage buildings until ready for installation or until equipment is to be turned over to the Owner.

### **1.04 Existing Conditions**

A. Each contractor is advised that if they damage any facility, inside or outside of the limits of construction, they shall be responsible to replace/restore the item(s) to their original condition. No additional compensation shall be provided for replacing damaged areas in kind.

### **1.05 Planned Sequence of Construction**

A. Contractor shall be responsible for submitting a planned sequence of construction prior to beginning work which shall include starting dates for each type of construction in each of the two areas

B. Any necessary temporary utilities or facilities required during construction, or to operate or test new facilities until such time as permanent utilities are installed, shall be provided with no additional cost to the Owner. Each Utility contractor may tie into, and use the Owner's water and electricity during the construction period, provided they bear the cost of the tie-in, removing the tie-in & restoring the affected area to the condition it was in prior to the start of construction. Usual usage costs for the water and electricity, during the construction period, will be paid by the Owner.

C. If, after award of the Construction Contract, any contractor initiates or causes a change in the recommended construction sequence, contractor must bear any additional costs which are occasioned by the change, whether his own costs or those incurred by other contractors. The Architect's approval of such schedule or subsequent modifications shall not relieve contractor from this responsibility.

D. Notwithstanding any of the foregoing responsibilities for coordination, the Owner will resolve disagreements which cannot be settled among the contractors. The Owner's or Project Manager's decisions will be based on the solution which best serves the interests of the Owner on this particular project. The Project Manager's decision is final and not subject to contractor claims for delay damages or time extensions.

E. Rest Rooms. (Note: See item 1.09, page 12)

### **1.06 Contractor's Use of Site**

A. Each contractor shall coordinate all construction with the Owners Designated Representative. If a lay down area is needed so as to not conflict with other persons on-site, the Owner will designate said area. Trailer, parking, material storage areas, etc. shall be limited to the area designated by the Owner, unless both the contractor and Owner agree to other arrangements in advance.

B. Each contractor shall:

1. Assume full responsibility for protection and safekeeping of products stored on or off the site.
2. Obtain and pay for all additional storage or work areas required for their operations.

#### **1.07 Miscellaneous Items**

A. Each contractor shall inform their subcontractors of the conditions of the Work, since each contractor shall be held responsible for the actions of their subcontractors and material Suppliers.

B. The exact location of each contractor's temporary facilities must be approved by the Owner.

C. Each contractor shall not enter any private property outside the Owner's property without written permission from the Owner of the property.

D. Each contractor's responsibility shall include compliance with all Federal, State and Local regulations which in any way affect the work or implementation of the project.

E. Furnish and install ADA and IBC approved handicap and other required signs

#### **1.08 Items furnished & installed by Owner:**

A. The Owner will NOT furnish any materials nor items for this project unless a written separate agreement is made and signed by both the Owner & the Contractor.

B. Contractor shall remove all ruts and grade site evenly (so as not to hold rain water) 20' around the building (any new soil required to be top soil provided by Owner) but spread by the Contractor - Owner will move any existing trails and install new plants as required.

#### **1.09 Allowances:**

A. The following items shall be included in the Contractor's Price, less applicable trade discounts; delivery to site and applicable taxes on products.

B. Cost Not Included in Cash Allowances, but Included in the Contract Sum (in base bid): Product handling at site including unloading, uncrating and storage; protection of products from elements and from damage; labor, tools, equipment, construction aids, supervision, services, safety programs and precautions, consumables, and incidentals for installation, testing, adjusting and finishing; warranties and guarantees; Contractor, subcontractor and sub-subcontractor overhead and profit; insurance and bonds; labor burden; and all other costs and expenses not specifically named above.

C. Differences between allowance amounts and actual costs will be adjusted by Change Order.

D. The Owner reserves the right to deliver any allowance item directly to the Contractor and the cost of the item, or items, from the amount due under the Contract.

E. Hardware items included 9in Section 13122/ Sub-Section 2.05 ACCESSORIES/ B/3/ "Finish Hardware" (page 53) are included in the "Metal Building Systems" and are not part of the items in the "Cash Allowance" below.

#### **F. CASH ALLOWANCE SCHEDULE**

<u>Product</u>	<u>Pavilion Allowance</u>
----------------	---------------------------

---



1. Door Hardware	\$400.00
2. Door Thresholds	\$360.00
3. Toilet and Bath Accessories	\$160.00
	-----
Total for allowances	\$ 920.00

#### 1.10 Specification Formats and Conventions

A. Specification Format: The Specifications are organized into Divisions and Sections similar to the 16-division format and CSI/CSC's "Master Format" numbering system.

1. Section Identification: The Specifications use Section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete because all available Section numbers are not used. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of Sections in the Contract Documents.

2. Division 01: Sections in Division 01 govern the execution of the Work in all Sections in the Project Manual.

B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

1. Language used in the Specifications and other Contract Documents is abbreviated.

2. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires.

3. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.

4. Imperative mood and streamlined language are generally used in the Specifications.

5. Requirements expressed in the imperative mood are to be performed by contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by contractor or by others when so noted.

6. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

#### 1.11 Each contractor's duties:

A. Except as specifically noted otherwise, provide and/or pay for:

1. Labor, materials, supplies, accessories, incidentals, transportation, handling, project management and other required services and equipment.
2. Tools, construction equipment and machinery.
3. All temporary facilities required for construction, including temporary water and electricity.
4. Other facilities and services necessary for proper execution and completion of work.
5. Insurance as required by the Contract Documents.
6. Costs for overhead.
7. Superintendent and supervision.
8. Quality control.
9. Other direct and indirect costs and expenses incidental to the performance of the Work.
10. Pay all legally required sales, consumer and use taxes, and other applicable taxes.

11. Secure and pay for, as necessary for proper execution and completion of Work, and as specified in this document:
  - a. Inspections, agency approvals;
  - b. Government and other fees not listed previously;
  - c. Licenses to do business
12. Give required notices and obtain required inspections/reviews/approvals. Demonstrate performance of systems in the presence of the inspectors, such as but not limited to: exit signs, emergency lighting, and other similar systems.
13. Comply with codes, ordinances, rules, regulations, orders, standards and other legal requirements of public authorities that have jurisdiction over the Work.
14. Promptly submit written notice to the Architect of observed variances of Contract Documents from Legal and Code requirements.
15. Enforce strict discipline and good order among employees and subcontractors.
16. Employ only qualified, trained, experienced persons skilled in their assigned task.
17. Verify measurements at site and accept responsibility for accuracy of same.
18. Remove obstructions as necessary for proper completion of Work.
19. Maintain job site neat and safe. Protect all persons from any effects of this Work.
20. Jobsite safety, means, methods, scheduling and sequence of construction.
21. Maintain complete, current information at the site for proper execution of the Work.
22. Maintain a set of complete & readable Record Documents at the site, whenever someone is working.

## **End of Section 01010**

---

## **SECTION 01015 - MISCELLANEOUS REQUIREMENTS**

### **1.0 GENERAL**

#### **1.01 DIVISIONS AND SECTIONS**

A. Separation of these specifications into Divisions and Sections is done for convenience only and is not intended to establish responsibilities of work or to establish divisions of work, nor shall it operate to make the Architect arbiter to establish limits to the Contracts between contractors, and between a Contractor and their Subcontractors or Material Suppliers.

B. Contract Requirements and General Requirements: Each contractor, by execution of the subject documents, agrees to comply with all applicable contract conditions.

#### **1.02 DEFINITIONS AND EXPLANATIONS**

A. Scope. This article defines certain terms used in the specifications (Project Manual) and drawings, and explains the language, abbreviations thereof, format & certain conventions used in the Specifications and associated Contract Documents.

B. Limitations. The definitions & explanations of this article are not necessarily either complete or exclusive, but are general for the work to the extent such definitions or explanations are not stated more explicitly in another provision of the Contract Documents.

C. General Explanation. A Substantial amount of the Contract Document Specification and drawing language constitutes specific definitions for terms found in the other Contract Documents, including the Drawings which must be recognized as diagrammatic in nature and not completely descriptive of the requirements indicated thereon. Certain terms used repetitiously in the contract documents are defined generally in this article.

D. General Requirements. The provisions and requirements of Division 1 apply to the entire Work of the Contract.

E. Project Site. The space available to a contractor for the performance of the Work, either exclusively or in conjunction with others performing other Work as part of the Project.

F. Section Numbering. Sections are generally numbered in CSI 5 - Digit System. Contract Documents sections are placed in the Project Manual in numerical sequence; however, the numbering sequence is not complete, and the listing of sections in the Project Manual Table of Contents must be consulted to determine the numbers and names of Specification sections in the Contract Documents.

G. Testing Laboratory. An independent entity engaged to perform specific inspections or tests of the work and to report and (if required) interpret the results of those inspections or tests.

1.03 NOT IN CONTRACT

A. Items indicated in the Project Manual or on drawings as "NIC", noted "Not in Contract", or noted "By Owner" are shown for convenience only and are not a part of this Contract.

A.04 ACCEPTANCE

A. Signing of the Contract will be deemed evidence that the site and the Contract Documents have been examined thoroughly & completely by the contractor and that the contractor is fully familiar with conditions under which the work will be done and has a complete understanding of the Contract Documents.

B. Signing of the Contract will be deemed evidence that each contractor, and all subcontractors, that the contractor intends to use, have carefully and thoroughly reviewed the Project Manual, and drawings, and other Contract Documents and have found them free from ambiguities and sufficient for the purpose intended; further that

C. Signing of the Contract will be deemed evidence that each contractor and all workmen, employees and subcontractors that each contractor intends to use are trained, skilled and experienced in the type of construction represented by the Contract Documents; further that,

D. Signing of the Contract will be deemed evidence that neither the contractor nor any of the contractor's employees, agents, intended suppliers or subcontractors have relied upon any verbal representations, allegedly authorized or unauthorized from the Owner, or the Owner's employees or agents including the Architect, engineers or consultants, in assembling the price proposed; further that,

E. Signing of the Contract will be deemed evidence that the base bid price figure, and any alternate price figures, and any unit price figures are based solely upon the Contract Documents and properly issued written addenda and not upon any other written representation; further that,

F. Each contractor shall verify measurements at site and accept responsibility for accuracy of same. The beginning of work indicates acceptance of conditions under which the work will be done; and further that.

G. Extra payments will not be authorized for work that could have been determined by a careful examination of site conditions and coordination with the Contract Documents by each contractor.

1.05 MINIMUM QUALITY/QUANTITY

A. In every instance, the quality level or quantity shown or specified is intended as the minimum for the work to be performed or provided. Upon thorough study of the Plans, Specifications and manufacturer's literature, it may be found that additional items are required (at no charge to the Owner).

1.06 SPECIALISTS; ASSIGNMENTS

A. In certain instances the specification text requires (or at least implies) that specific work be assigned to certain specialists or expert entities, who must be engaged for the performance of those units of work.

A.07 FACILITATING OVERHEAD UTILITIES

A. Each contractor shall examine the site in detail for conformance with other requirements of these specifications. All visible obstructions and site features are not shown on the drawings but are to be noted by the contractor prior to submission of a proposal. Each contractor accepts responsibility for execution of their Contract duties by submission of his proposal.

B. The responsibility of each contractor including facilitating obstructions and site features throughout the completion of the project and assuming all costs for protecting, temporarily relocating, permanently relocating, or using special construction methods to complete the Work as indicated.

1.08 INTERFERENCE

A. Drawings are generally diagrammatic. Each contractor shall organize and coordinate his work with that of the other contractors, or different trades, so that interference of different equipment, piping, etc., shall be avoided and each piece of equipment, piping, etc., is installed to function properly.

B. In the case where an interference develops, the Architect is to be consulted to determine which equipment, piping, etc., is to be relocated regardless of which item was first installed.

C. Do not cut, or separate structural members, finishes, pipes, etc., without the knowledge of the Architect.

1.09 Post PERMITS AND APPROVALS BY AUTHORITIES HAVING JURISDICTION, where they can be seen.

A. The Contractor will furnish, install, and maintain temporary sanitary facilities (toilet accommodations) at the site, as required herein, for the needs of all construction workers and others performing work or furnishing services on the Project throughout the construction period.

1.10 TEMPORARY FIRE PROTECTION

A. Provide general temporary fire protection during construction period. Handle all flammable and combustible

1.11 JOBSITE MAINTENANCE

A. Keep areas within and about working and storing spaces free from waste materials, trash, debris, garbage, etc. All solid waste, trash, garbage, and debris shall be removed from the site at the end of each week, at a minimum.

B. Throughout the construction period, dirt and dust accumulated in the working area storage areas, and access roadway areas shall be kept to an absolute minimum.

- C. Do not run wheeled equipment, nor run vehicles, nor drag or push materials or equipment over moist soil if such procedures create ruts or "mixes" water into the soil.

#### A.14 PERSONNEL AND EQUIPMENT

- A. Maintain a construction force at site, including competent, trained, experienced, qualified superintendent, mechanics, craftsmen and laborers, sufficient to expedite work to completion on date indicated in Contract Documents.
- B. Maintain construction equipment and means of construction at site, in good condition, sufficient for efficient and safe execution of work.
- C. All communications given to the Superintendent, or his assistant in his absence, shall be as binding as if given to a principal of each contractor.
- D. At all times, all personnel associated with this Project shall conduct themselves appropriately and in a manner fitting to the workplace and as acceptable to the Owner.

#### 1.14 OBSTRUCTION TO CONSTRUCTION

- A. Each contractor shall anticipate and remove all subsurface, as well as above surface obstructions to construction of his work.

#### 1.15 PROTECTION OF EXISTING STRUCTURES AND CONSTRUCTION

- A. Each contractor shall avoid damage to existing structures, finished materials, pavements, buildings and utilities. Each contractor is completely responsible for thorough protection of existing buildings, structures, site work and all construction adjacent to or in any location within an area receiving effects from the Work. Any damage or affects must be immediately repaired with all new materials to restore existing items to a condition equal to or better than the condition present prior to commencing the Work
- B. Each contractor shall be responsible for all of their damage to the exterior and interior of the building, and any other public or private property, regardless of location or character, which may be caused by transporting equipment, materials or men to or from the Work or any part of site thereof, whether by him or his subcontractors. Responsible contractor shall make satisfactory and acceptable arrangements with the Owner of, or the agency or authority having jurisdiction over the damaged property, concerning its repair or replacement or payment of costs incurred in connection with the damage.

#### 1.16 SAFETY EQUIPMENT

- A. Provide personal safety equipment for authorized visitors as well as workmen and the Owner's Employees. Cover trenches and holes when not in use. Carefully guard trenches and holes while they are in use.

#### 1.17 SAFETY SIGNS – COMPLY TO FEDERAL GUIDELINES

- A. Install signs and safety flagging as necessary for safety and as necessary to meet insurance requirements. All types of "caution" and "warning" signs shall be provided and maintained as required to maintain a safe work site. Colors shall meet test specified in Section 3 - Color Definitions, ANSI Z 53.1, "Safety Color Code for Working Physical Hazards".

#### 1.18 SCAFFOLDING AND HOISTING – COMPLY TO FEDERAL GUIDELINES

- A. Provide construction aids and equipment required by personnel and to facilitate execution of the work. Erect and maintain scaffolds, staging, runways, platforms, railings, ramps,

stairs, ladders, hoists, cranes, chutes, and other such equipment necessary for reaching all portions of work conveniently and safely. Install guard rails required. Install, maintain and operate equipment in a manner that will prevent injury or damage. Meet applicable safety requirements.

1.19 SERVICE CHARGES Include all service charges that may be applicable for execution and completion of the Work.

2.0 PRODUCTS - NOT USED

3.0 EXECUTION - NOT USED

END OF SECTION

## **SECTION 01400 - QUALITY CONTROL AND TESTING**

1.0 GENERAL

1.1 QUALITY CONTROL, GENERAL

- A. Comply with industry standards except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship on this Project.
- B. Work shall be performed only by persons qualified by equivalent applicable union standards to produce workmanship of the specified quality.
- C. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, operating forces and racking.
- D. Comply with manufacturer's written instructions in full detail, including each step in sequence. Should instructions conflict with Contract Documents, notify and request clarification from Architect before proceeding.

1.2 SITE INVESTIGATION AND CONTROL

- A. Each contractor shall verify all dimensions in the field and shall check field conditions continuously during construction. Each contractor shall be solely responsible for any inaccuracies built into their Work due to their failure to comply with this requirement.
- B. Each contractor shall inspect related, adjacent, and appurtenant Work and shall report in writing to the Architect any conditions which will prevent proper completion of the Work. Failure to report any such conditions shall constitute acceptance of all site conditions, and any required removal, repair or replacement caused by unsuitable conditions shall be performed by each contractor at its sole cost and expense.

1.3 INSPECTION OF THE WORK

- A. The Work shall be conducted under the general periodic observation of the Architect, as stated in his Contract with the Owner, and shall be subject to inspection by testing laboratories acting on behalf of the Owner to insure strict compliance with the requirements of the Contract Documents. Such inspection may include mill, plant, shop



or field inspection, as required. The Architect and testing laboratories shall be permitted access to all parts of the Work, including plants where materials or equipment are manufactured or fabricated. Each contractor shall provide the Architect and the Owner a safe means of access and egress from all work areas during the entire contract period, including such areas as the roof.

- B. The presence of the Architect or any inspector(s), however, shall not relieve each contractor of the responsibility for the proper execution of the work in accordance with all requirements of the Contract Documents. Compliance is a duty of each contractor, and said duty shall not be avoided by any act or omission on the part of the Architect or any testing laboratory inspector(s).

#### 1.4 TIME OF INSPECTIONS AND TESTS

- A. Samples and test specimens required under these Specifications shall be furnished and prepared for testing in ample time for the completion of the necessary tests, analyses and reporting of results before said articles or materials are to be used. Each contractor shall furnish and prepare all required test specimens at their own expense. Except as otherwise provided in the Contract Documents, performance of the required tests will be by the Owner, and all costs thereof will be borne by the Owner at no extra cost to the contractor; except, that the costs of any test which show unsatisfactory results shall be borne by the respective contractor performing the work.
- B. Whenever a contractor is ready to hide or otherwise cover any Work under the Contract, the Architect shall be notified after the Work is in place and not less than 24 hours in advance before beginning any covering of such Work. Failure of the contractor to notify the Architect at least 24 hours in advance of covering any such work shall be reasonable cause for the Architect to order a sufficient delay in the contractor's schedule to allow time for Architect to see such Work and any remedial or corrective Work required, and all costs of such delays, including its effect upon the progress of the Work or other portions of the Work, shall be borne by the contractor causing the condition. Payment for items which are built without proper notice to the Architect, may be delayed by the Architect until satisfactory evidence of compliance is attained.

#### 1.05 SAMPLING AND TESTING

- A. When not otherwise specified, all sampling and testing shall be in accordance with methods prescribed in the current standards of the ASTM or related standard entity, as applicable to the class and nature of the article or materials considered; however, the Owner reserves the right to use any generally-accepted system of inspection which, in the opinion of the Architect, will insure the Owner that the quality of the workmanship is in full accordance with the Contract Documents.
- B. Any waiver of any specific testing or other quality assurance measures, whether or not such waiver is accompanied by a guarantee of substantial performance as a relief from the specified testing or other quality assurance requirements as originally specified, and whether or not such guarantee is accompanied by a performance bond to assure execution of any necessary corrective or remedial Work, shall not be construed as a waiver of any technical or qualitative requirements of the Contract Documents.
- C. Notwithstanding the existence of such waiver, the Architect shall reserve the right to make independent investigations and tests as specified in this section and, upon failure of any portion of the Work to meet any of the quantitative or qualitative requirements of the Contract Documents, shall be reasonable cause for the Architect to require the removal

or correction and reconstruction of any such Work.

- D. In addition to any other inspection or quality assurance provisions that may be specified, the Owner shall have the right to independently select, test and analyze, at the expense of the Owner, additional test specimens of any or all of the materials to be used. Results of such tests and analyses shall be considered along with the tests and analyses made by any contractor to determine compliance with the applicable specifications for materials so tested or analyzed; provided that wherever any portion of the Work is discovered, as a result of such independent inspection and investigation, and all costs of removal, correction and reconstruction, or repair of any such Work shall be borne by the respective contractor.

#### 1.06 RIGHT OF REJECTION

- A. The Architect, acting for the Owner, shall have the right, at all times and places, to reject any articles or materials to be furnished herein which, in any respect, fail to meet the requirements of the Contract Documents, regardless of whether the defects in such articles or materials are detected at the point of manufacture or after completion of the Work at the site. If the Architect or inspector, through an oversight or otherwise, has accepted materials or Work which is defective or which is contrary to the Contract Documents such material, no matter in what stage or condition of manufacture, delivery or erection, may be rejected by the Architect or the Owner.
- B. The respective contractor shall promptly remove rejected articles or material from the site of the Work after notification of rejection.
- C. All costs of removal and replacement of rejected articles or materials from the site of the Work after notification of rejection shall be borne by the respective contractor.

#### 1.07 TESTING LABORATORY SERVICES

- A. The Owner will select and pay for the services of an independent testing laboratory to perform specified testing, quality control & services at their discretion. The City may require a soils compaction test prior to placement of concrete slab. The City shall pay for the cost of the test. If test does not pass required compaction, the contractor shall pay for any subsequent required test.
- B. Each contractor shall cooperate with the laboratory in the execution of its services.
- C. Employment of the laboratory shall in no way relieve contractor's obligations to perform the Work of the Contract.
- D. Related Requirements
  - a. Inspections & testing required by laws, ordinances, rules, regulations, standards or approvals of public authorities.
  - b. Certification of Products indicated in respective Specification Sections.
  - c. Test, adjust and balance of equipment indicated in respective Specification Sections.
  - d. Laboratory test required, and standards for testing: each Specification Section listed.
- E. Tests and inspections shall be conducted in accordance with the requirements of these specifications or, if not herein specified, in accordance with the latest standards of ASTM or other recognized authorities.
- F. Laboratory Duties
  - a. Cooperate with Architect and contractor; provide qualified personnel.



- b. Perform specified inspections, sampling and testing of materials and methods of construction and reporting of results:
    - i. Comply with specified standards.
    - ii. Ascertain compliance of materials with requirements of Contract Documents.
    - iii. Tests and inspections shall be conducted in accordance with specified requirements and if not specified, in accordance with applicable standards of American Society of Testing and Materials and other recognized authorities as applicable.
  - c. Promptly notify Architect and Contractor of observed irregularities or deficiencies of work or products.
  - d. Immediately notify Architect if rain is observed during any concrete pour or installation of any roofing materials.
  - e. Promptly submit written reports of each test and inspection; one copy each to Owner and Architect. Each report shall contain:
    - i. Date issued, Project title and number.
    - ii. Testing Laboratory name, address, telephone number and fax number.
    - iii. Name and signature of laboratory inspector.
    - iv. Date and time of sampling or inspection.
    - v. Record of temperature and weather conditions.
    - vi. Date of test.
    - vii. Identification of product and specification section.
    - viii. Location of sampling or test on the Project.
    - ix. Type of test or inspection.
    - x. Results of tests and compliance/non-compliance with Contract Documents
  - f. Interpretation of test results, when requested by Architect.
  - g. As applicable to the Project, testing laboratory inspecting, sampling, and testing may be required for but not limited to Soils & Portland Cement concrete.
  - h. Perform any additional tests as required by the Architect or Owner.
- G. Limitations of Authority of Testing Laboratory
- a. Laboratory is not authorized to:
  - b. Release, revoke, alter, or enlarge any Contract Document requirements.
  - c. Approve or accept any portion of the Work.
  - d. Perform any duties of the contractor.
- H. Each contractor's Responsibilities
- a. Cooperate with laboratory personnel, provide access to Work, and to Manufacturer's operations and make available, without cost, adequate representational samples of all materials to be tested to meet applicable standard specifications.
  - b. Provide to the laboratory and to the Architect the preliminary design mix proposed to be used for concrete and other materials and mixes which require control by the testing laboratory.
  - c. Furnish the testing laboratory samples of all materials which are intended to be used and which require testing, without cost.
  - d. Furnish incidental labor and sheltered working space and other facilities:
    - i. To provide access to Work to be tested.
    - ii. To obtain and handle samples at the Project Site or at the source of the product to be tested.
    - iii. To facilitate inspections and tests.
    - iv. For protection, storage and curing of test samples.

- I. Costs of tests, samples and mock-ups of substitute and specified material, where the substitution is requested by any contractor and the tests are necessary in the opinion of the Architect to establish equality qualified with specified items, shall be borne by the respective contractor.
- J. Notify laboratory and Owner's Representative sufficiently in advance of operations to allow for laboratory assignment of inspection personnel, scheduling of tests and completion of initial tests (48 hours minimum). When tests or inspections cannot be performed due to lack of notice, suspend work in the affected area until the tests can be performed.
- K. Employ and pay for the services of a separate, equally qualified independent testing laboratory to perform additional inspections, sampling and testing required:
  - a. For the contractor's convenience.
  - b. When initial tests indicate Work does not comply with Contract Documents.
  - c. When required by laws, codes, ordinances, rules, regulations, orders or approvals of public authorities.

2.0 PRODUCTS - NOT USED

3.0 EXECUTION - AS REQUIRED BY THE TEST BEING PERFORMED

END OF SECTION

---

**SECTION 01600 - MATERIALS AND EQUIPMENT**

1.0 GENERAL

1.01 RELATED REQUIREMENTS

A. Section 01010 - Summary of Work.

1.02 DESCRIPTION

A. Material and equipment incorporated into the Work or used in the production of the Project shall:

- a. Conform to applicable specifications and standards.
- b. Comply with size, make, type and quality specified or as specifically approved in writing by the Architect.

B. Manufactured and Fabricated Products:

- a. Design, fabricate and assemble in accordance with the best engineering and shop practices.
- b. Manufacture like parts of duplicate units to standard sizes and gages, to be interchangeable.
- c. Two or more items of the same kind shall be identical, and by the same manufacturer.
- d. Products shall be suitable for service conditions.
- e. Equipment Capacities, sizes and dimensions shown or specified shall be adhered to unless variations are specifically approved in writing.

C. Do not use material or equipment for any purpose other than that for which it is designed or is specified.

- D. Whenever an article, device or piece of equipment specified herein (or as indicated on the drawings) is referred to in the singular number, such reference shall apply to as many such articles as are indicated or required to complete the installation within the general intent of the Contract Documents.
- E. All materials and products shall be installed in accordance with the requirements of the Contract Documents.
- F. Each contractor shall be fully responsible for all materials and equipment which they have furnished, and shall furnish necessary replacements at any time prior to expiration of the correction period.
- G. Off-site storage arrangements shall be acceptable to Owner for all materials and equipment not incorporated into the work but included in Applications for Payment. Such off-site storage shall be presented in writing; shall afford adequate and satisfactory security, insurance (provide certificates) and protection; & shall be accessible to Architect & the Owner.
- H. All items mentioned in these Contract Documents shall be handled in conformance with this Section, instructions in the related Sections, and manufacturer's literature.

#### 1.03 MANUFACTURER'S INSTRUCTIONS

- A. Obtain manufacturer's printed instructions for all material incorporated into the Project, and distribute copies of such instructions to parties involved in the installation, including one copy to Architect.
  - a. Maintain one set of complete instructions at the job site during installation and until Project completion.
- B. Handle, install, connect, clean, condition and adjust products in strict accordance with such instructions and in conformity with specified requirements.
  - a. Should job conditions or specified requirements conflict with manufacturer's instructions, consult with Architect for further instructions.
  - b. Do not proceed with such Work without clear instructions.
- C. Perform all Work in accordance with manufacturer's written instructions. Do not omit any preparatory step or installation procedure unless specifically modified or exempted by Contract Documents.

#### 1.04 TRANSPORTATION AND HANDLING

- A. Arrange deliveries of products in accordance with construction schedules & coordinate to avoid conflicts and delays.
- B. Deliver products in undamaged condition, in manufacturer's original containers or packaging with identifying labels intact and legible. Labels shall indicate manufacturer and product name, description, mixing and application instructions, limitations, cautions and warnings.
- C. Immediately upon delivery, inspect shipments to ensure proper material, color, type, quantities, and to assure compliance with the Contract Documents and approved submittals and that the products are properly protected and undamaged.
- D. Provide equipment and personnel to handle products by methods to prevent soiling or damage to the product or packaging.

#### 1.05 STORAGE AND PROTECTION

- A. Store Products in accord with manufacturer's instructions, with seals and labels intact and legible.
  - a. Store products subject to damage by the elements in weather tight enclosures or inside of the building.
  - b. Maintain temperature and humidity within the ranges required by manufacturer's instructions.
- B. Exterior Storage.
  - a. Store fabricated products above the ground, on blocking or skids - prevent soiling or staining.
  - b. Use a conditioned storage building, if recommended by the material's manufacturer.
  - c. Cover products that are subject to deterioration with impervious sheet coverings, provide adequate ventilation to avoid condensation.
  - d. Store loose granular materials in a well-drained area on solid surfaces to prevent mixing with foreign matter.
- C. Arrange storage in a manner to provide easy access for inspection. Make periodic inspections of stored products to assure that products are maintained under specified conditions, and free from damage or deterioration.

#### 1.06 PROTECTION AFTER INSTALLATION

- A. Provide substantial coverings as necessary to protect installed products, equipment, and systems from damage from traffic and subsequent construction operations.
- B. Remove, and properly dispose of coverings when no longer needed.
- C. Protect finished surfaces from damage and soiling during application, drying or curing, as applicable.

#### 1.07 SUBSTRATE CONDITIONS

- A. Each contractor shall be responsible for verifying and obtaining proper substrate conditions, tolerances and material alignments to receive applied or attached materials and construction.
- B. Substrates shall be sound, clean, dry and free of imperfections or conditions which would be detrimental to receipt of applied materials.
- C. Align materials to give smooth, uniform surface planes within specified tolerances and straight, level, square, true and plumb surfaces.
- D. Inspect substrates prior to installation of applied materials. Correct unacceptable conditions prior to proceeding with work.

#### 1.08 FINISHED SURFACES

- A. Finished surfaces shall be clean, uniform and free of damages, dents, soiling or defects in material and finish.
- B. Finished surfaces shall match color and texture of existing, unless other directions are received from Owner, in writing.
- C. Protection:

- a. Protect finished surfaces from damage and soiling during application, drying or curing, as applicable.
- b. Provide temporary protective coverings or barriers required.

2.0 PRODUCTS - Not Used

3.0 EXECUTION - Not Used

END OF SECTION

## **SECTION 01630 - PRODUCT OPTIONS AND SUBSTITUTIONS**

### 1.01 DESCRIPTION

- A. These Contract Documents include provisions for use of equivalent materials and equipment per Owner's written decision, based on a recommendation of the Architect after he has read the following:
- B. Proposal (Bid) shall be based only on materials, system or equipment specified in the Contract Documents or which have been approved by the Architect. All equipment and materials specified or indicated on drawings by manufacturer's name, catalog or model number have been selected to establish a standard of quality and function. Products of other manufacturer may be submitted to the Architect for consideration. Substitution submittals must be in accordance with standard procedures and as requested by the Architect.
- C. It is understood and agreed that the proposal submitted is based on furnishing "Standards" as specified and as indicated on drawings and entitles the Architect/Owner to require that such materials and/or methods be incorporated in the Work, except as may be approved in writing by the Owner.
- D. Each contractor may offer substitutions for any item, unless noted otherwise. List the name of the substituted item, the manufacturer, model name/number, etc., and any other deviations in performance or appearance from the "Standards". Each contractor shall present to the Owner, and Architect:
  - a. Protect finished surfaces from damage and soiling during application, drying or curing, as applicable.
  - b. A "written guarantee" or certification (from the Contractor) that the substituted material/method meets the standards of the material specified,
- E. The name of a certain brand, make manufacturer, or definite specifications is to denote the quality standard of the article or system desired, but does not restrict bidders to the specific brand, make, manufacturer, or specification named. It is to set forth and convey to prospective bidders the general style, type character, and quality of article or system desired. When in specifications or contract documents a particular brand, make of material, device equipment or system is shown or specified, such brand, make of material device, equipment or system shall be regarded merely as a standard. Products required in the Contract Documents establish minimum quality "Standards" which proposed substitutions must meet in order to be considered acceptable. The burden of proof of quality and equality rests with the contractor performing the work. The Owner reserves the right to determine if the material is equal to the specified and is acceptable under this contract.

## 1.02 SAMPLES

- A. Samples shall be of sufficient size and quantity to clearly illustrate:
  - a. Functional characteristics of the product with integrally related parts and attachment devices.
  - b. Full range of color, hue, value, tone, sheen, opacity, texture, and pattern/repeat.
  - c. Serve as a sample for testing.
  - d. Establish standards by which completed work is judged.
- B. Label each sample with identification required for transmittal letter.

## 2.0 PRODUCTS - Not Used

## 3.0 EXECUTION

### 3.01 PROCEDURE

- A. The Owner and the Architect will consider a formal request for the substitution of products in place of those specified only under the conditions set forth in the Bidding & Contract Requirements (Division 0), and the General Requirements (Division 1 of the Project Manual) after the contract has been awarded. Submit a separate request for each product, material or system, supported with complete product data, drawings, certified test results, and samples as appropriate including comparison of the qualities of the proposed substitution with that specified, changes required in other elements of the Work because of the substitution, effect on construction schedule, effect on warranties, cost data comparing the proposed substitution with the specified products, comparison of availability of maintenance, service and replacement cost, source of replacement materials, and any required license fees or royalties.
  - a. Any supporting test data or results shall use the same test procedures for the proposed substitution and the specified products to facilitate comparison.
- B. Request for substitution constitutes a representation that the submitting Contractor:
  - a. Has personally investigated the proposed substitute product and determined that it is equal to or superior in all respects to that specified.
  - b. Will provide the same or better warranties, bonds and guarantees for the substitution as for the specified product.
  - c. Will coordinate the installation of an accepted substitution into the Work and making such changes as may be required to make the Work complete in all respects.
  - d. Waives all claims for additional costs, related to the substitution which may subsequently become apparent.
  - e. Certifies that the cost data presented is complete and includes all related costs under this Contract except the Architect's redesign costs, and waives all claims for additional costs related to the substitution which subsequently become apparent.
- C. The Owner shall be the judge of the acceptability of proposed substitutions, after he receives a recommendation from the Architect.
- D. Architect will review requests for substitutions with reasonable promptness, and notify the Contractor, in writing of the decision to accept or reject the requested substitution.
- E. The above shall not be construed to mean that substitution of materials and equipment will be allowed routinely.
- F. The Owner reserves the right to disapprove and reject any request for substitution.

- G. Should the proposing Contractor propose a substitute material or method assembly that is of questionable quality or suitability to the Architect, suitable tests may be required to establish a basis for acceptance or rejection. Such tests will be paid for by the respective Contractor and conducted in accordance with industry accepted, and as acceptable to the Architect.
- H. Owner's decision on all substitution requests is final and binding.
- I. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.

END OF SECTION

## **SECTION 02119 - SELECTIVE DEMOLITION**

### **1.01 DESCRIPTION**

#### **PART 1 GENERAL**

##### **1.1 SECTION INCLUDES**

- A. Selective Site demolition (Pump House , Open Area and Storage Room at Mel Roberts Park):
  - a. Demolition of designated Site including paving, curbing, roofing & walls.
  - b. Demolition of below grade foundations and site improvements to depth to avoid conflict with new construction or site work.
  - c. Removal of hollow items or items which could collapse.
  - d. Demolition of Building containing Pump, Open Area and Storage Room at Mel Roberts Park.
  - e. Protection of Site Work and adjacent structures.
  - f. Removal & legal disposal of unwanted materials.
  - g. Interruption, capping or removal of utilities as applicable (see separate Riviera Utilities Drawings).
  - h. Removed items, become owned by the Contractor, when they leave the site.
- B. Occupied Spaces: Do not close or obstruct streets, walks, drives or other occupied or used spaces or facilities without the written permission of the Owner and the authorities having jurisdiction. Do not interrupt utilities serving occupied or used facilities without the written permission of the Owner and authorities having jurisdiction. If necessary, provide temporary utilities.

END OF SECTION

## **SECTION 02189 - TRENCHING & FILLING**

### **1.01 DESCRIPTION**

#### **PART 1 GENERAL**

##### **1.0 GENERAL SUMMARY**

- A. Compact each layer of fill, or backfill, material as compacted by the Engineer.



- B. Compaction testing will be performed in accordance with ASTM D1596.
- C. Remove from the site, any soil material which cannot be properly compacted.
- D. Section Includes:
  - a. Excavate trenches for utility lines out to the connection.
  - b. Excavation for footings.
  - c. Compacted bed and compacted fill over utilities and buildings base.
- E. TESTS
  - a. Tests and analysis of fill materials will be performed in accordance with ASTM D1557 and with Section 01400.
- F. PROTECTION
  - a. Protect excavations by a method required to prevent cave-in.

## **2.0 PRODUCTS**

### **2.01 SELECT BED AND FILL MATERIALS**

- A. See Structural Drawing for Notes.

## **3.0 EXECUTION**

### **3.01 PREPARATION**

- A. Identify required lines levels, contours, and datum.
- B. When necessary, compact subgrade surfaces to density requirements for backfill material.

### **3.02 EXCAVATION**

- A. Excavate subsoil required for foundation & utilities.
  - a. Cut trenches sufficiently wide to enable installation of utilities and allow inspection.
  - b. Excavate and remove existing material from the site.
- B. BACKFILLING
  - a. Support pipe and conduit during placement and compaction of bedding fill.
  - b. Backfill trenches to contours and elevations.
  - c. Place and compact select fill materials in continuous layers not exceeding eight inches (8") loose depth.
  - d. Maintain optimum moisture content of backfill materials to attain required compaction density.
  - e. Remove surplus backfill materials from site.

### **3.03 COMPACTION**

- A. Compact each layer of fill, or backfill, as required by the Engineer.
- B. Perform Compaction Testing in accordance with ASTM D1596.
- C. Remove any soil material which cannot be compacted, from the site.
- D. Proof roll, with a fully loaded dump truck, the entire area being paved; giving the Architect 24 hour notice.

**END OF SECTION**

---



## **SECTION 03131 - TERMITE CONTROL**

### **PART 1 - GENERAL**

#### **1.01 Product Data:**

- A. For each type of product:
  - a. Include construction details, material descriptions, dimensions of individual components, and profiles for termite control products.
- B. Include the EPA-Registered Label for termiticide products.

#### **1.02 INFORMATIONAL SUBMITTALS**

- A. Qualification Data: For qualified Installer.
- B. Product Certificates: For each type of termite control product.
- C. Soil Treatment Application Report: After application of termiticide is completed, submit report for Owner's records and include the following:
  - a. Date and time of application.
  - b. Moisture content of soil before application.
  - c. Termiticide brand name and manufacturer.
  - d. Quantity of undiluted termiticide used.
  - e. Dilutions, methods, volumes used, and rates of application.
  - f. Areas of application.
- D. Water source for application.

#### **1.03 FIELD CONDITIONS**

- A. Soil Treatment:
  - a. Environmental Limitations: To ensure penetration, do not treat soil that is water saturated or frozen. Do not treat soil while precipitation is occurring. Comply with requirements of the EPA-Registered Label and requirements of authorities having jurisdiction.
  - b. Related Work: Coordinate soil treatment application with excavating, filling, grading, and concreting operations.
  - c. Treat soil under footings, grade beams, and ground-supported slabs before construction.

#### **1.03 WARRANTY**

- A. Soil Treatment Special Warranty: Manufacturer's standard form, signed by Applicator and Contractor, certifying that termite control work consisting of applied soil termiticide treatment will prevent infestation of subterranean termites, including Formosan termites (*Coptotermes formosanus*). If subterranean termite activity or damage is discovered during warranty period, re-treat soil and repair or replace damage caused by termite infestation.
  - a. Warranty Period: Five years from date of Substantial Completion. PART 2 - PRODUCTS 2.01 MANUFACTURERS
  - b. Source Limitations: Obtain termite control products from single source. 2.02 SOIL TREATMENT
  - c. Termiticide: EPA-Registered termiticide acceptable to authorities having jurisdiction, in an aqueous solution formulated to prevent termite infestation.

- B. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
  - a. FMC Corporation, Prevail FT Termiticide
  - b. Service Life of Treatment: Soil treatment termiticide that is effective for not less than five years against infestation of subterranean termites.

## PART 3 - EXECUTION

3.01 Proceed with application only after unsatisfactory conditions have been corrected.

### 3.02 PREPARATION

- A. General: Prepare work areas according to the requirements of authorities having jurisdiction and according to manufacturer's written instructions before beginning application and installation of termite control treatment(s). Remove extraneous sources of wood cellulose and other edible materials, such as wood debris, tree stumps and roots, stakes, formwork, and construction waste wood from soil within and around foundations.
- B. Soil Treatment Preparation: Remove foreign matter and impermeable soil materials that could decrease treatment effectiveness on areas to be treated. Loosen, rake, and level soil to be treated, except previously compacted areas under slabs and footings. Termiticides may be applied before placing compacted fill under slabs if recommended in writing by termiticide manufacturer.
- C. Fit filling hose connected to water source at the site with a backflow preventer, according to requirements of authorities having jurisdiction.

### 3.03 APPLYING SOIL TREATMENT

- A. Application: Mix soil treatment termiticide solution to a uniform consistency. Distribute treatment uniformly. Apply treatment at the product's EPA-Registered Label volume and rate for maximum specified concentration of termiticide to the following so that a continuous horizontal and vertical termiticidal barrier or treated zone is established around and under building construction.
  - a. Underground-supported slab construction, including footings, building slabs, and attached slabs as an overall treatment. Treat soil materials before concrete footings and slabs are placed.
  - b. Foundations: Soil adjacent to and along the entire inside perimeter of foundation walls; along both sides of interior partition walls; around plumbing pipes and electric conduit penetrating the slab; around interior column footers, piers, and chimney bases; and along the entire outside perimeter, from grade to bottom of footing.
  - c. Penetrations: At expansion joints, control joints, and areas where slabs and below-grade walls will be penetrated.
- B. Upon completion:
  - a. Post warning signs in areas of application.
  - b. Reapply soil treatment solution to areas disturbed by subsequent excavation, grading, landscaping, or other construction activities following application.

### 3.04 PROTECTION

- A. Avoid disturbance of treated soil after application.
- B. Keep off treated areas until completely dry.
- C. Protect termiticide solution dispersed in treated soils and fills from being diluted by exposure to water spillage or weather until ground-supported slabs are installed.

- D. Use waterproof barrier according to EPA-Registered Label instructions.

### 3.05 MAINTENANCE SERVICE

- A. Continuing Maintenance Proposal: Provide from termite-control-treatment Installer to Owner, in the form of a standard yearly (or other period) maintenance agreement, starting on date initial 5 year warranty service is concluded. State services, obligations, conditions, and terms for agreement period and for future renewal options.
  - a. Include annual inspection for termite activity and effectiveness of termite treatment according to manufacturer's written instructions.
  - b. Provide services to re-treat soil and repair or replace damage caused by termite infestation if subterranean termite activity or damage is discovered.

## 4.0 GENERAL

### 4.01 DESCRIPTION

- A. Comply with all applicable requirements of Division 1.
- B. Provide all labor, materials, transportation, handling, supervision, safety precautions, quality control, services, tools and equipment & perform all operations necessary to complete Work specified herein.
- C. Treat soil to provide chemical barrier to protect building, and improvements against attack by subterranean termites. Interior and exterior foundation perimeter and penetrations through slab.

### 4.02 QUALITY ASSURANCE

- A. Application of termite treatment shall be by certified licensed and bonded applicator in accordance with minimum requirements of State of Alabama, whose principal business is pest control and anti-termite soil treatment. Applicator shall be an established, licensed and bonded company specializing in performing the work of this Section with minimum five (5) years documented experience having its State of Alabama license continuously for the past five (5) years.
- B. Comply with Rules and Regulations of the State of Alabama.
- C. Ref.: EPA - Environmental Protection Agency Federal Insecticide, Fungicide & Rodenticide Act.

### 4.03 GUARANTEE

- A. Upon Substantial Completion, and as a condition of final acceptance, this Contractor shall provide the Owner a prepaid written insured state approved two (2) year guarantee and Subterranean Termite control Contract (including Formosan termites) in the amount of two hundred-fifty thousand dollars (\$250,000), and a written certificate stating the chemical used was an approved chemical, had the required concentration and was applied in the proper manner and at the proper rates.
- B. The guarantee shall state that the application was made at the concentration, rates and methods that comply with Governmental Requirements.
- C. The effectiveness of the treatment shall be guaranteed for not less than two (2) years, without additional cost to the Owner; and at the end of the two year period, the Owner shall be offered a renewable contract guarantee on a year-to-year basis, at the Owner's option, at an agreed upon annual fee.
- D. Re-treatment, upon evidence of subterranean or Formosan termite activity any time during the guarantee period shall be at no charge to the Owner, and in accordance with accepted trade practices.
- E. Warranty shall include coverage for damage and repairs to the building and building contents.
- F. Damage to the building, contents and improvements caused by termites shall be corrected without cost to the Owner, up to two hundred-fifty thousand dollars (\$250,000) in value.

- G. Draw the two (2) year guarantee in favor of the Owner and submit a sample form of guarantee to the Architect for review before beginning the Work.

#### 4.04 DELIVERY, STORAGE AND HANDLING

- A. Soil treatment agents shall be delivered to the jobsite in sealed and labeled containers bearing the manufacturer's warnings to be observed in the handling and use of soil treatment agents. Labels shall bear evidence of registration under the Federal Insecticide Fungicide, and Rodenticide Act.
- B. Labels shall give manufacturer's name, type of chemical and rate of concentrations for application.
- C. Only licensed and bonded applicators shall handle the soil treatment agents. Comply with handling and storing recommendations of the treatment agent manufacturer. Comply with all codes, rules, regulations, and policies applicable to the storage and handling of toxicant chemicals and containers.
- D. Store materials as per manufacturer's instructions.

#### 4.05 REGULATORY REQUIREMENTS

- A. Conform to applicable code requirements for application, authority to use toxicant chemicals in accordance with EPA.
- B. Provide certificate of compliance from authority having jurisdiction indicating approval of toxicants.

### 2.0 PRODUCTS

#### 2.01 MATERIALS

- A. Soil treatment agent shall be water-based emulsion only using one of the following chemicals at the maximum concentration recommended by the manufacturer:
  - a. Isofenphos Fenvalerate
  - b. Cypermethrin
  - c. Permethrin
  - d. Chlorpyrifos.
- B. Chemicals shall be job mixed in a measured tank to maintain control of the rate of concentration of chemicals. Use highest recommended concentration. Mix according to manufacturer's instructions.
- C. Chemicals used for control of subterranean termites shall be labeled and EPA-registered for the purpose.
- D. Synthetically color dye toxicant chemical to permit visual identification of treated soil.

#### 2.02 MIXES

- A. If combinations of chemicals are used, one of them must be at the recommended percentage.

### 3.0 EXECUTION

#### 3.01 PREPARATION

- A. Applicator must examine the areas and conditions under which soil treatment for termite control is to be applied and verify all site conditions. Do not proceed with the work until unsatisfactory conditions have been corrected. Verify that soil is in friable condition with moisture content low enough to permit absorption of soil treatment agent solution. Verify that soil is unfrozen, sufficiently dry to absorb toxicant, and ready to receive treatment.
- B. Do not begin termite treatment Work until all preparations for slab placements have been completed. Verify final grading is complete.
- C. In areas of structural slabs, apply termite treatment immediately prior to laying underslab membrane (vapor retarder).

- D. To insure penetration, do not apply soil treatment to excessively wet soils or during inclement weather. Do not apply termite treatment when surface water is present to avoid runoff of toxicants into water supply, storm and sanitary sewer systems.
- E. Remove foreign matter which could decrease effectiveness of treatment on areas to be treated. Loosen, rake and level soil to be treated, except previously compacted areas under slabs and foundations.

### 3.02 APPLICATION

- A. Just prior to placing concrete slabs on grade and just prior to backfilling around concrete foundation, soil treatment shall be applied.
- B. Apply toxicant to: All soil under new building slabs for a depth of two feet (2'), both sides of foundation surface, at all pipe and other penetrations through slabs on grade. Apply extra treatment to structure penetrations.
- C. Apply chemicals at the maximum rate and concentration recommended by the manufacturer. Apply treatment in strict accordance with manufacturer's printed instructions and in strict accordance with the EPA and applicable State agencies.
- D. Re-treat areas around plumbing, electrical conduits, etc.
- E. Treat inside of exterior foundation walls, crawl spaces, all expansion and/or construction joints and all slab penetrations.

END OF SECTION

## **SECTION 06145 - CARPENTRY & MISCELLANEOUS WORK**

### 1.0 GENERAL

#### 1.01 SECTION INCLUDES

- A. Provide all labor, materials, accessories, appurtenances, incidentals, hardware, transportation, services, quality control, tools, supervision and equipment necessary to complete the fabrication and installation of the Work of this Section, as indicated on the Drawings and as specified herein:
- B. Furnish & install carpentry items (other than shop fabricated casework), wood standing and running trim, cabinet trim, paneling and trim, hardware (except door hinges & door hardware) and attachment accessories, ornamental items; all carpentry work exposed to view and all non-structural carpentry.

#### 1.02 REFERENCES

- A. ANSI115.69 – Cabinet Hardware
- B. AWI – Quality Standards – Quality Standards
- C. FSMM-L-736 – Lumber Hardware
- D. FS MMM-A-130 – Adhesive, Contact
- E. PS1 – Construction & Industrial Plywood
- F. PS-20 – American Softwood Standards.

#### 1.03 SUBMITTALS

- A. Product Data: Submit manufacturer's specifications, catalog cuts, and installation instructions for each materials or product.
- B. Submit color and pattern samples Owner for selection, when requested.

#### 1.04 QUALITY ASSURANCE

1.05 Perform work in accordance with AWI Custom Grade for paint finished wood.

- A. Lumber Grading: Southern Pine Inspection Bureau (SPIB).
- B. Plywood Grading Rules: American Plywood Association (APA) Product Standard PS 1.
- C. Lumber: Grade stamp shall contain symbol of grading agency, mill number or name, grade of lumber, species or species grouping, rules under which graded, and conditions of seasoning at time of manufacture. Each piece of lumber shall be grader stamped. Grade stamp shall not be visible in the finished installation.
- D. Plywood: Appropriate grade trademark of APA. Indicate type, grade, class and identification index and inspection and testing agency mark. Each piece of plywood shall be grader stamped. Grade stamp shall not be visible in the finished installation.
- E. Prior to installation of finish carpentry, examine shop fabricated work for completion, and complete work as required, including back priming and removal of packing.
- F. Provide trim conforming to the following Architectural Woodwork Institute (AWI) Quality Standards as a minimum requirement:
  - a. Paint Finish Standing and Running trim: AWI Section 300 - Custom Grade
- G. Use adequate numbers of skilled, trained, and experienced workmen to ensure fabrication and installation in strict accordance with the approved design and the recommendations of the materials manufacturer.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store and handle products to site.
- B. Protect products and materials from moisture damage, soiling, deterioration, and other types of damage during transit, delivery, handling and storage.
- C. Do not deliver shop finished items until site conditions are adequate to receive the Work in this Section. Do not deliver interior finish carpentry items until painting, wet work, grinding and similar operations that could damage, soil or deteriorate woodwork have been completed in installation areas. Immediately upon delivery to job site, place materials indoors in dry, conditioned space, protected from weather and damage. Store materials and products a minimum of 6 inches above floor on blocking.
- D. Upon delivery, immediately inspect for conformance to the specified requirements and for damage and defects. Remove defective, damaged or non-conforming products from site, do not use or install defective, damaged or non-conforming products. Discard material that is unsound, warped, bowed, twisted, not adequately seasoned, not of the correct size/shape/profile, or has surface defects.
- E. Protect the material of this Section before, during, and after installation and protect the Work and materials of all other trades.
- F. In the event of minor damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner. In the event of significant damage, remove damaged products from site and replace with new. Do not install damaged or non-conforming products.

1.07 FIELD MEASUREMENTS

- A. Take field measurements to ascertain exact millwork and trim sizes.

1.08 COORDINATION

- A. Coordinate the work of this section with the work of all other sections including mechanical & electrical.

2.0 PRODUCTS

2.01 WOOD MATERIALS FOR PAINTED FINISH



- A. Softwood Lumber: FS MM-L-736; graded in accordance with AWI Custom Grade, Grade II, average moisture content of 15 percent, Southern Pine species, SPIB grade B & better, plain sawn, mixed grain, paint quality, smooth surfaced S4S, solid lumber stock. Provide kiln-dried lumber having a moisture content from time of manufacture until time of installation not greater than 15%.
  - a. Indicated lumber dimensions are nominal. Actual dimensions shall conform to industry standards.
  - b. Where indicated on drawings, use Cedar for exterior applications. At all exterior applications where cedar is not indicated, provide pressure treated lumber.
- B. Blocking, furring, bracing and nailers as required.

## 2.02 SHEET MATERIALS

- A. Wood Particleboard: PS 1; Standard, 42.5 lbs./cu. ft. composed of wood chips, medium density, made with water resistant adhesive; of grade to suit application; filled and sanded faces.
- B. Softwood Plywood: AWI Custom grade; core materials of veneer; softwood face veneers; APA A-C, exterior glue, PS-1.
- C. Alternatively Oriented Strand Board (OSB) may be used. If OSB is used, before ordering, obtain written approval from the OSB manufacturer – submit manufacturer's written instructions, and a letter approving its use for the Mel Roberts Park Pavilion.

## 2.03 ACCESSORIES

- A. Contact Adhesive: FS MMM-A-130 waterproof solvent release type contact adhesive or type recommended by AWI.
- B. Wall Adhesive: Solvent release, cartridge type, compatible with wall substrate, capable of achieving durable bond.
- C. Nails/Fasteners: Size and type to best suit application, plain finish for all interior work, and galvanized finish for all work exposed to exterior. Select fasteners of size that will not penetrate members were exposed to view or will receive finish material.
- D. Bolts, Nuts, Washers, Lags, Pins, and Screws: Of size and type to best suit application, plain finish for all interior work, galvanized finished for all work exposed to the exterior.
- E. Concealed Joint Fasteners: Threaded steel.
- F. Closet shelving will be furnished by Owner.
- G. Primer: As recommended by the paint manufacturer.
- H. Wood Filler: Oil base as recommended by the paint manufacturer.
- I. High-Pressure Decorative Laminate: NEMA LD 3, grades as indicated or, if not indicated, as required by AWI Quality Standards 2020. Manufactured by Formica, Wilsonart, Nevamar, or written approved equal.

## 2.04 FABRICATION

- A. When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.

## 3.0 EXECUTION

### 3.01 EXAMINATION

- A. Verify adequacy of backing and support framing.

- B. Examine the areas and conditions under which Work of this Section will be performed to verify that site conditions are ready to receive work. Correct conditions detrimental to the proper and timely completion of the Work. Do not proceed until unsatisfactory conditions have been corrected. Verify field measurements are as indicated. Beginning of installation means acceptance of site conditions.
- C. Do not install any finish carpentry or millwork with a higher moisture content than is recommended by the supplier or manufacturer.

### 3.02 INSTALLATION

- A. Install work in accordance with AWI Custom quality standard.
- B. Install standing and running trim with minimum number of joints possible, using full-length pieces (from maximum length of lumber available) to the greatest extent possible. All runs 10'-0" or less shall be one piece. Runs over 10'-0" shall have only one piece less than 10'-0" long. Stagger joints in adjacent and related members. Cope at inside returns, miter at outside corners, and comply with Quality Standards for joinery.
- C. Anchor woodwork to anchors or blocking built-in or directly attached to substrate. Secure to grounds, stripping and blocking with countersunk, concealed fasteners and blind nailing as required for complete installation. Except where prefinished matching fasteners heads are required, use fine finishing nails for exposed nailing, countersunk and filled flush with woodwork, and matching final finish.
- D. Set and secure materials and components in place, plumb, level, straight, square and true to line. Shim as required using concealed shims. Scribe and cut for accurate fit to other finished work. Secure work to framing, anchors or blocking, or directly attach to substrate.
- E. Install trim, if any, with screws.
- F. Cover exposed edges of plywood shelving, site made casework, and similar exposed edges with 3/8 inch thick solid wood edging, width to match plywood thickness.
- G. Set exposed fasteners to below wood surface. Apply wood filler in exposed fastener indentations.
- H. Site finishing: See Section 09910. Touch up all shop finished items including refinishing necessitated by job fitting or attaching and repair of scratches and similar damage. Touch up repairs shall be indiscernible in the finished work.

### 3.03 ADJUSTING - Adjust work to operate properly.

### 3.04 CLEANING

- A. Clean work upon completion.
- B. Clean standing and running trim.
- C. Remove all tags, stickers, markings and foreign matter from all products.

### 3.05 PROTECTION OF FINISHED WORK

- A. Protect finished Work and prefinished work.
- B. Do not permit finished woodwork to be exposed to continued construction activity.
- C. Just prior to Substantial Completion examine work for damage. Repair or replace such damage to specified conditions.
- D. Clean wood and accessory items using a neutral cleaner. Check and correct operating mechanisms for proper operation. Adjust and lubricate operating hardware.

END OF SECTION



## **SECTION 07213 - INSULATION**

### **1.0 GENERAL**

#### **1.01 SECTION INCLUDES**

- A. Provide all labor, materials, accessories, appurtenances, incidentals, hardware, transportation, services, quality control, tools, supervision and equipment necessary to complete the fabrication and installation of the Work of this Section, as indicated on the Drawings and as specified herein:
- B. Furnish & install carpentry items (other than shop fabricated casework), wood standing and running trim, cabinet trim, paneling and trim, hardware (except door hinges & door hardware) and attachment accessories, ornamental items; all carpentry work exposed to view and all non-structural carpentry.

#### **1.02 QUALITY ASSURANCE**

- A. Conform to requirements of the State of Alabama, International Building Code 2018 and with local codes and requirements.
- B. Testing: Flame spread: ASTM E84, 75 or less, smoke developed factor 450 or less, ASTM E84.

#### **1.03 SUBMITTALS**

- A. Manufacturer's data
  - a. Manufacturer's literature: Manufacturer's recommended installation instructions.
  - b. Certificates: Manufacturer's certification that materials meet specification requirements.
  - c. Submit insulation manufacturer's recommendations for adhesives and/or mechanical fasteners.

#### **1.04 PRODUCT DELIVERY, STORAGE AND HANDLING**

- A. Deliver products in original, undamaged, sealed and labeled containers. Handle, store and protect as per manufacturer's written instructions.
- B. Identify contents, manufacturer, brand name, thermal value, applicable standards, type, grade and class. The manufacturer's "R" factor designation, if any, shall appear on the packages and on the product.
- C. Immediately upon delivery, inspect all products for damage, defects and for conformance with all specified requirements. Damaged, defective or non-conforming products shall not be used. Remove damaged, defective or non-conforming products from the site immediately.
- D. Use all means necessary to protect the materials and Work of all other trades from damage due to Work of this Section before, during and after installation.
- E. Only skilled, trained, experienced and competent workmen shall handle the materials of this Section.
- F. In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect at no additional cost to the Owner.

#### **1.05 JOB CONDITIONS**

- A. Examine substrates and spaces to be insulated and all other conditions under which the work of this Section will be performed. If unsatisfactory conditions exist, do not proceed with installation and installer shall notify the Owner. Installer shall ensure that all job conditions meet his requirements and the requirements of the insulation manufacturer. Beginning of installation indicates acceptance of existing conditions.

### **2.0 PRODUCTS**

#### **2.01 ACCEPTABLE MANUFACTURERS**

- A. Certainteed
- B. Owens Corning Fiberglas
- C. U.S.G. Interiors, Inc.

## 2.02 MATERIALS

- A. Thermal Insulation-batts or blankets: Federal Spec HH-1-521E and ASTM C665, Preformed Mineral Fiber, Type II, Class C, Category 1, unfaced, flame spread rating of 75 or less and a smoke developed rating of 450 or less when tested in accordance with ASTM E84. Certainteed Building Insulation or approved equal. Provide edge condition required for construction type(s) indicated on drawings.
  - a. R-13 minimum thermal resistance, 3-1/2 inch thick, in all Office walls to all Office walls. R-value designation is the thermal resistance of insulation only.
  - b. R-19 minimum thermal resistance, 6 inch thick, at Office ceilings. R-value designation is the thermal resistance of insulation only.
- B. Fasteners and Adhesives: as recommended by insulation manufacturer for the type of construction indicated and as required to secure insulation in place without future settlement.
- C. Contact Architect to decide discrepancies or questions in type of insulation to be installed as called for below:

## **SCHEDULE OF BUILDING INSULATION**

- A. MEL ROBERTS PARK PAVILION
  - a. Roof = none
  - b. Storage Area Exterior walls = R11 4" Aluminum faced fiberglass rolls
  - c. North & East Rest Room walls = R19 6" Aluminum faced fiberglass rolls
  - d. Above ceiling of Rest Rooms = R11 + R19 C(114 sq. ft. each)

## 3.01 INSPECTION

- A. Examine areas indicated or scheduled to receive batt or blanket insulation to insure protection against inclement weather and other hazards and Work of preceding trades is completed. Surfaces shall be clean, dry and free of any projections.
- B. Examine space allotted for insulation for proper dimensions to receive material.
- C. Verify that site conditions are ready to receive the work of this Section. Verify mechanical and electrical services within walls and ceilings have been installed and tested.
- D. Do not proceed with installation of insulation until subsequent work which will conceal insulation is ready to be performed.

## 3.02 INSTALLATION

- A. Installation of all insulation shall be in strict accordance with approved manufacturer's published specifications and recommendations, as specified herein. Avoid gaps and bulges in insulation during installation. Attach flanges to framing members with fasteners.
  - a. Do not install wet or damp insulation.
  - b. Insulation shall have joints closely butted and placed tightly over or between framing members.
  - c. Extend insulation full thickness over entire area required to be insulated without gaps or voids.
  - d. At suspended ceilings, use roll blanket insulation only. Install perpendicular to ceiling cross tees.
  - e. Cut and fit snugly around pipes, conduits and outlet boxes maintaining a continuous barrier over surface to be insulated. Fit insulation tight to the exterior side of mechanical and electrical services within the plane of the insulation. Leave no gaps or voids.
  - f. Exercise care to insure integral vapor retarder is continuous over entire surface for

- batts or blankets. Lap ends and side flanges of facing over framing members.
- g. Install applicable insulation with vapor retarder facing toward the exterior of the structure.
  - h. Do not place insulation closer than 3 inches from the side of recessed lighting fixtures and heat producing devices or within 24 inches of the top of such devices.
  - i. Pack insulation into narrowly spaced framing as may occur at corners and shim spaces.
  - j. Insulate bridging and cross bracing by splitting a batt or blanket vertically at the center and packing one-half into each opening. Butt insulation at the bridging and cross bracing; fill in the bridged area with loose or scrap insulation.
  - k. Coordinate installation of vapor retarder facing with installation of the air infiltration barrier. Extend vapor retarder facing tight to full perimeter of windows and door frames and other items interrupting the plane of the facing.

### 3.03 ADJUSTMENT AND CLEANING

- A. Adjust batts or blanket as required after all mechanical and electrical Work is completed.
- B. Remove excess materials, litter and debris, leaving areas in a clean condition.

END OF SECTION

## **SECTION 07920 - JOINT SEALANTS**

### 1.0 GENERAL

#### 1.01 DESCRIPTION

- A. Comply with applicable requirements of Division 1.
- B. Work under this Section consists of providing items necessary for and incidental to the execution and completion of all preparation of sealant substrate surfaces and all sealant, caulking and backing work interior and exterior, as indicated on the Drawings and specified herein including all materials, supplies, labor, supervision, quality control, services, accessories, incidentals, tools, transportation and equipment required.

#### 1.02 QUALITY ASSURANCE

- A. Obtain elastomeric materials from manufacturers who will, if requested, send a qualified technical representative to the Project site, for the purpose of advising the Installer of proper procedures and precautions for the use of the materials. Manufacturer shall be an established company specializing in manufacturing the products specified in this section with documented experience.
- B. Conform to Sealant, Waterproofing, and Restoration Institute requirements for material and installation and the SWRI Guide Specification.
- C. Perform Work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
- D. General Sealant Type: Polyurethane-based, 1 part elastomeric sealant, UV stable, paintable, high performance gun grade sealant.
- E. Joint Failure: One or more of the following characteristics:
  - a. Air and/or water leakage
  - b. Migration
  - c. Loss of adhesion
  - d. Loss of cohesion
  - e. Failure to cure
  - f. Discoloration
  - g. Staining of adjacent work
  - h. Development of bubbles, air pockets or voids

- i. Inclusion of foreign matter
- F. Obtain each type of sealant from a single manufacturer.

### 1.03 SUBMITTALS

- A. Submittals shall be delivered to the Architect twelve (12) calendar days prior to the when the sealants need to be delivered to the job site.
- B. Manufacturer's Data: Submit manufacturer's specifications (primer, filler, backing material, bond breaker, etc.), recommendations and installation instructions for each type of sealant and associated miscellaneous material required. Include manufacturer's published data, or letter of certification, or certified laboratory test report indicating that each material complies with the requirements and is intended generally for the applications required. Show by transmittal that one copy of each recommendation and instruction has been distributed to the Installer.
- C. Guarantee, Sealants, and Accessories: Submit written guarantee agreeing to repair or replace sealants which fail to provide air-tight and water-tight joints; or fail in joint adhesion, cohesion, abrasion resistance, weather resistance, extrusion resistance, migration resistance, stain resistance, fail to cure, or fail in general durability; or appear to deteriorate in any other manner not clearly specified by submitted manufacturer's data, as an adherent quality of the materials for the exposure indicated. Provide guarantee signed by the Installer and Contractor covering defects in materials and workmanship. Guarantee period is three years from date of Substantial Completion. Submit to Architect before requesting Final Payment..

### 1.04 DELIVERY, STORAGE AND HANDLING

- A. Deliver products in original, undamaged, sealed and labeled containers. Sealants and caulking material more than six months old shall not be used. Immediately upon delivery, inspect all products for age, damage, and conformance with the specified requirements.
- B. Store products in clean area.
- C. Handle and store products in accordance with manufacturer's requirements.
- D. Protect products from damage and contamination by foreign materials.
- E. Old, damaged, defective or non-conforming products shall not be used and shall be removed from the site.
- F. Store products in an environment with temperature range within the recommendations of the manufacturer.

### 1.06 JOB CONDITIONS

- A. Condition of Other Work: The Installer must examine the joint surfaces, backing, and anchorage of units forming sealant rabbet, and the conditions under which the sealant Work is to be performed, and notify the Owner in writing of conditions detrimental to the proper and timely completion of the Work and performance of the sealants. Do not proceed with the sealant Work until unsatisfactory conditions have been corrected in a manner acceptable to the Installer and Architect. Protect contiguous work from damage by sealant work. Apply masking material or manipulate application equipment to keep materials in joint. If masking materials are used, allow no tape to touch cleaned surfaces to receive sealant. Remove tape immediately after sealing, before surface skin begins to form. Joints to be sealed must be clean, dry, and free of dust and loose material.
- B. Wherever joint width is affected by ambient temperature variations, install materials only when temperatures are in lower third of manufacturer's recommended installation temperature.

## 2.0 PRODUCTS

### 2.01 ACCEPTABLE MANUFACTURERS

- A. Polyurethane: Pecora Corp, or

B. Sonneborn

2.02 MATERIALS

- A. Sealant: Polyurethane-based, 1 part moisture curing elastomeric sealant, complying with ASTM-C920, Type S, Grade NS, Class 25, Use NT-G-A-O-M, FS TT-S-00230C, Class A, Type II (non-sag). Sealant shall be UV stable and paintable
  - a. Pecora Corp. - Dynatrol I, modified polyurethane rubber with primers.
  - b. Sonneborn - Sonolastic NP I, with primers.
- B. Acoustical Caulking:
  - a. OSI Acoustical Sealant
  - b. Tremco Acoustical Sealant.
- C. Primers: Non-staining, quick-drying type as recommended by sealant manufacturer. Use primers on all metal surfaces and other surfaces as recommended.
- D. Sealant Backer Rod: Compressible rod stock closed cell urethane, or other flexible, permanent, durable, closed cell, non-absorptive material as recommended, for compatibility with sealant by the sealant manufacturer and as recommended for compatibility with adjoining materials. Provide size and shape of rod which will control the joint depth for sealant placement, break bond of sealant at bottom of joint, form optimum shape of sealant bead on back side, and provide a highly compressible backer to minimize the possibility of sealant extrusion when joint is compressed. Diameter of backer rod shall be 1-1/3 times joint width. ASTM C1330 and ASTM D1056.
- E. Bond Breaker Tape: Approved by sealant manufacturer, pressure sensitive adhesive, polyethylene. Apply to sealant contact surfaces, where bond to the substrate of the joint sealant must be avoided for proper performance of the sealant.
- F. Compatibility: Provide only materials (manufacturer's recommended variation of the specified materials) which are known to be fully compatible with the actual installation conditions, as shown by manufacturer's published data or certification.
- G. Colors: Wherever sealant is not exposed to view, provide manufacturer's standard color which has the best overall performance characteristics for the application shown. Where exposed to view, provide colors to match the adjoining surfaces. Custom colors will be required to match prefinished materials.
- H. Joint Cleaner: Non-corrosive, non-staining type. Provide the type of joint cleaning compound recommended by the sealant manufacturer for the joint surfaces to be cleaned.

2.03 MANUFACTURER

- A. The products of a single manufacturer shall be used for each type of sealant. Architect will consider systems recommendations on specific products.

3.0 EXECUTION

3.01 EXAMINATION

- A. Verify that substrate surfaces and joint openings are ready to receive work. Beginning of installation means installer accepts existing conditions.
- B. Verify backing and release tapes are compatible with sealant.
- C. Protect surrounding elements from damage.

3.02 JOINT SURFACE PREPARATION

- A. Perform preparation in accordance with ASTM C1193.
- B. Comply with sealant manufacturer's printed instruction except where more stringent requirements are specified.
- C. Clean joint and prime joint surfaces immediately before installation of sealant in accordance with manufacturer's instructions. Remove dirt, insecure coatings, loose material, moisture and other substances that would interfere with bond or adhesion of sealant or other required

surface covering.

- D. For elastomeric sealants, do not proceed with installation of sealant over joint surfaces which have been painted, lacquered, waterproofed or treated with water repellent or other treatment or coating.
- E. Etch concrete and masonry joint surfaces to remove excess alkalinity so it does not interfere with sealant bond and performance, unless material manufacturer's product data indicates that alkalinity does not interfere with bond performance. Etch with 5% solution of muriatic acid; neutralized with dilute ammonia solution, rinse thoroughly with clean water and allow drying before sealant installation. Protect adjacent surfaces.
- F. Roughen joint surfaces on non-porous materials unless materials manufacturer's product data indicates equal bond strength as porous surfaces. Rub with fine abrasive cloth or wool to produce a dull sheen.

### 3.03 APPLICATION

- A. Comply with sealant manufacturer's printed instructions and recommendations except where more stringent requirements are shown or specified. Comply with ASTM C1193 - Standard Guide for Use of Joint Sealers for preparations and installation.
- B. Polyurethane sealant: Use in all exterior and interior locations and applications. Use U.V. stabilized type sealant for all exterior exposed joints.
- C. Measure joint dimensions and size materials to achieve required width/depth ratios. (2:1 width/depth ratio unless indicated otherwise.)
- D. Prime or seal the joint surfaces wherever shown or recommended by the sealant manufacturer, in accordance with manufacturer's instructions. Do not allow primer/sealer to spill or migrate on to adjoining surfaces.
- E. Install sealant backer rod for liquid elastomeric sealants, except where shown to be omitted or recommended to be omitted by the sealant manufacturer for the specific application shown. Install bond breaker tape where joint backing is not used. Install bond breaker tape to all sealant contact surfaces where bonding to the surface must be avoided for proper performance of the sealant.
- F. Apply sealant within recommended application temperature ranges without exception.
- G. Employ only proven installation techniques, which will ensure that sealants will be deposited in uniform, continuous ribbons without gaps or air pockets, with complete "wetting" of the joint bond surfaces equally on opposite sides. Except as otherwise indicated, fill sealant rabbet to a slightly concave surface and tool, slightly below adjoining surfaces. Where horizontal joints are between a horizontal surface and a vertical surface, fill joint free of air pockets and tool to form a slight cove, so that joint will not trap moisture and dirt. Surfaces of sealant shall be smooth, free of ridges, wrinkles, sags and air pockets or embedded impurities.
- H. Install sealants to depths as shown, or, if not shown, as recommended by the sealant manufacturer but within the following general limitations, measured at the center (thin) section of the bead. For normal moving joints sealed with elastomeric sealant, but not subject to traffic, fill joints to a depth equal to 50% of joint width, but neither more than 1/2" deep nor less than 1/4" deep.
- I. No face beads of sealant are allowed.
- J. Protect elements surrounding the Work of this Section from damage or disfiguration. Do not allow sealants to overflow or spill onto adjoining surfaces or to migrate into the voids of adjoining surfaces. Use masking tape or other precautionary devices to prevent staining of adjacent surfaces.

### 3.04 CURING AND PROTECTION

- A. Cure sealants and caulking compounds in compliance with manufacturer's instructions to obtain high early bond strength, internal cohesive strength and surface durability.
- B. Protect sealants until cured. Protect finished installation. The Installer shall advise the Owner of procedures required for the curing and protection of sealants and caulking compounds



during the construction period.

### 3.05 CLEAN UP

- A. Clean work under provisions of Division 1.
- B. Remove excess, smears, misplaced materials and spillage of compounds promptly as the work progresses. Clean the adjoining surfaces to eliminate evidence of misplaced materials without damage to adjacent surface finishes. Use solvents and methods recommended by manufacturer.
- C. Repair and correct defective work.
- D. Repair or replace defaced or disfigured finishes caused by Work of this section. Restore surfaces from which materials have been removed to original condition and appearance.

END OF SECTION

---

## **SECTION 08210 - DOORS AND FRAMES**

### 1.0 GENERAL

#### 1.01 SUMMARY

- A. Comply with applicable requirements of DIVISION 1
- B. Section Includes: Provide all necessary materials, labor, and equipment for complete installation of packaged doors and frames indicated on drawings.

#### 1.02 References

- A. Standards of the following as referenced:
  - a. American Society for Testing and Materials (ASTM).
  - b. Insulated Steel Door Systems Institute (ISDSI).
  - c. National Fire Protection Association (NFPA).
  - d. Underwriters' Laboratories, Inc., (UL).
  - e. Warnock Hersey International (WHI).
  - f. National Wood Window and Door Association (NWWDA).
- B. Industry Standards:
  - a. ISDSI: Certified Products Directory, August 1980 edition.
  - b. NFPA: National Fire Codes, Volume 4.
  - c. NWWDA: I.S. 1-86 and I.S. 5-83.
  - d. USDOJ: Americans with Disabilities Act Standards for Accessible Design (2010 ).

#### 1.03 Submittals:

- A. NSI/BHM A115.69 - - Cabinet Hardware.
  - a. Product data: Factory assembled door units, doors only, and frames in sizes and configurations indicated.
  - b. Quality Control Submittals:
    - i. Indicate compliance with required code authorities for openings and ratings.
    - ii. Test reports: Submit certified test reports, if required by Architect, indicating compliance with design requirements from independent testing laboratory.

#### 1.03 DELIVERY, STORAGE, AND HANDLING

- A. Deliver packaged doors and frames cartoned for protection. Metal frames to have temporary spreader bars.
- B. Inspect: Work upon delivery for damage. Reject damaged items.
- C. Store materials under cover, on raised platforms, in vertical position.

#### 1.04 QUALITY ASSURANCE

A. Furnish fire-rated components bearing factory applied labels of UL or WHI; give component rating.

## 2.0 PRODUCTS

### 2.01 MANUFACTURERS

- A. Acceptable manufacturers (Interior Units):
- Any member of NWWDA
  - Any other manufacturer approved by Architect.

### 2.02 Materials:

- A. Interior Doors - hollow core type;
- Meet NWWDA I.S. 1-86 Grade II, Type II and AWI SECTION 1300.
  - By Masonite Corp or equal;
  - Smooth flush panel, paint grade;
  - Thickness: 1-1/4 inch for flush doors.
- B. Frames: White pine or fir, finger jointed.
- C. Trim: Match trim in existing building.
- D. Hardware and Accessories: Furnished by Owner & Installed by this Contractor.

### 2.03 FABRICATION

- A. Fabricate units in accord with industry standards, except where more stringent requirements are required or specified.
- B. Finish - Wood: Prime & paint.
- C. Shop
- Fabricate door units in shop in accord with reviewed shop drawings for sizes and locations indicated.
  - Machine doors for hardware using templates furnished by hardware manufacturer as applicable.
  - Swinging doors: Bore for latch set 35-1/2 inch from door bottom: backset in accord with requirements of mortise for hinges.
  - Bi-fold doors: Assemble units with surface mounted hinges; predrill for pulls and guides. Pack for shipping.
  - Second Bore: 11-1/4 inch center to center on units per manufacturer's written instructions
- D. Allowable manufacturing tolerance:
- Overall dimensions: 1/16 inch maximum variation.
  - Door or frame squareness: Maximum 1/8 inch variation in diagonal dimension.

## 3.0 EXECUTION

### 3.01 INSTALLATION:

- A. General
- Install doors in accord with manufacturer's product data.
  - Maintain uniform height to top of trim for all doors: align with window head as applicable. Shim full at fasteners to rough opening.
  - Adjust components for smooth and quiet operation.
  - Provide three anchors through each jamb into the buck.
  - Align and plumb door strike jamb and level head.
  - Maintain same space at each jamb.
  - On exterior doors, fully shim space at each hinge and at door strike.
- B. Fire rated door and frame: Install in accord with NFPA 80 and manufacturer's approved product data and installation instructions.
- C. Set Thresholds in two continuous beads of butyl sealant full width of opening. Caulk juncture of frame and adjoining material at jambs and head with sealant specified in Joint Sealants section.
- D. Clearance between door and frame: In accord with manufacturer's approved installation instructions.



- E. Lock sets or latch sets: Specified in Door Hardware section.
- F. Clean soil, smudge marks, & door handling defects. Replace doors from which marks cannot be removed.
- G. Wood and metal finish: Specified in Paints and Coatings Section.

END OF SECTION

## **SECTION 09255 - WALL BOARD**

### **1.0 GENERAL**

#### **1.01 SCOPE OF WORK**

- A. Comply with applicable requirements of Division 1.
- B. Provide all labor, materials, supplies, transportation, handling, tools, services, quality control, supervision, equipment, accessories, and incidentals necessary to complete gypsum board walls, ceilings, furring, accents, features and returns where indicated on drawings.

#### **1.02 DESCRIPTION OF SYSTEM**

- A. Gypsum board shall be provided as shown, indicated, or scheduled on the drawings. .

#### **1.03 QUALITY ASSURANCE**

- A. Conform to ASTM C36, ASTM C474, ASTM C475, ASTM C754, ASTM C840, ASTM C1047, ASTM E84, and ASTM E119. Also conform to GA - 216. (Gypsum Association), "Application and Finishing of Gypsum Board" and Underwriter's Laboratory requirements.

#### **1.04 ENVIRONMENTAL CONDITIONS**

- A. Temperature: Maintain temperature uniformly within the range of 55 degrees to 80 degrees Fahrenheit for 24 hours before, during, and 48 hours after wall application and joint finishing.
- B. Ventilation: Provide adequate ventilation to eliminate moisture build-up and to allow proper curing of wet applied materials.
- C. Install gypsum board only after building is enclosed and interior environment is controlled.
- D. Under slow drying condition, allow additional drying time as required between coats of joint treatment.
- E. Protect installed materials from drafts during hot, dry weather

#### **1.05 PRODUCT DELIVERY, STORAGE AND HANDLING**

- A. Delivery and Handling
  - a. Deliver materials to the project site with manufacturer's labels intact and legible. Deliver materials in sealed containers, bundles, fully identified with manufacturer's label.
  - b. Provide materials for use on project free from damage.
  - c. Delay material delivery until project is ready to receive the materials of this Section and until delivery is necessary.
  - d. Immediately upon delivery, inspect products for damage, defects and conformance with specified requirements. Remove damaged, defective or non-conforming products from the site immediately. Do not install damaged, defective or non-conforming products.
- B. Storage
  - a. Store materials inside under cover and stacked flat on clean, dry, well-ventilated area on pallets or platforms off of the floor, supports shall prevent sagging.
  - b. Avoid overloading floor system.
  - c. Distribute material storage areas to provide working area for other trades.
  - d. Store compounds in a dry area at approximately 70 degrees Fahrenheit for at least 24 hours before using.

- e. Do not install gypsum products that have been wet or damp, even if they have dried out.

## 2.0 PRODUCTS

### 2.01 WALLBOARD MATERIALS

- A. Conform to the respective specifications and standards and to the requirements specified herein. Provide gypsum board manufactured from asbestos-free materials.
- B. Unrated Gypsum Wallboard: ASTM C36. 48 inches wide, 5/8 inch thick tapered edges, U.S. Gypsum Regular Sheetrock, or National Gypsum Company Gold Bond Regular, or approved equal. Use maximum length panels available to minimize end joints.
- C. Rest Rooms Walls & Ceiling: 48 inches wide, 96" long, 5/8 inch thick "extremegreen", with seamless finishes. (Tel.: 251-405-4717 & Email: info@extreme green.com) - distributed locally by Hoods Home Center.

### A.02 ACCESSORIES FOR GYPSUMBOARD

- A. General: Accessories shall conform to ASTM C1047
- B. Joint Treatment Compound: ASTM C 475, and ASTM C474, GA 201 and GA 216, pre-mixed ready for use, single component. U.S. Gypsum Durabond 90, National Gypsum Company Gold Bond Ready-Mix Joint Compound, or approved equal.
- C. Embedding Compound: Ready mixed, single component ready for use, specifically formulated and manufactured for use in embedding tape at gypsum board joints and completely compatible with tape, substrate and fasteners.
- D. Finishing or Topping Compound: Ready mixed, single component ready for use, specifically formulated and manufactured for use as a finishing compound.
- E. All-Purpose Compound: Ready mixed, single component ready for use, specifically formulated and manufactured to serve as both a taping and a finishing compound and compatible with tape, substrate and fasteners.
- F. Joint Tape: ASTM C475, Cross-laminated, tapered edge, perforated, reinforced paper, or special tape recommended by the manufacturer.
- G. Screws: ASTM C 954, 1" long type "S-12" bugle head steel self-drilling, self-tapping screws at cold-formed metal framing, ASTM C1002, 1-1/4" long type "W" course thread, drill point, bugle head steel screws at wood framing. Comply with GA216 and panel manufacturer's recommendation.
- H. Cornerbead: 1 1/4" wide, fine expanded mesh flanges, beaded corner for concealment of flanges in joint compound. Fabricate from galvanized steel or plastic designed for the particular intended use. Flanges shall be free of dirt, grease, and other materials that may adversely affect the bond of joint treatment.
- I. Edge Trim: Galvanized steel or plastic designed for the particular intended use, standard "L" and "U" shapes with fine expanded mesh flanges, beaded corner for concealment of flanges in joint compound.
- J. Water: Clean, fresh, and potable.

### 2.03 ACCESSORIES FOR ""extremegreen"" BOARD: Furnish & install all accessories recommended by the board manufacturer.

## 3.0 EXECUTION

### 3.01 INSPECTION

- A. Installer shall verify that site conditions are ready to receive work and opening dimensions are correct. Examine framing and substrates. Review areas of potential interferences or conflicts. Do not proceed with installation until conditions are acceptable to the Installer. Installer shall report any unsatisfactory conditions to the Architect.
- B. Verify that all insulation, electrical, and mechanical items are installed, tested, and inspected.
- C. Beginning of installation means acceptance of existing site conditions and surfaces.
- D. DO NOT proceed with gypsum board installation until all framing, blocking, bracing and other

grounds and supports for subsequent work are in place.

### 3.02 GYPSUM BOARD INSTALLATION

- A. Install gypsum board in accordance with manufacturer's instruction and in accordance with Gypsum Association 216, and ASTM C840 unless more stringently specified herein or more stringently specified in manufacturer's instructions. Install boards with face side out. Coordinate layout, sequencing and installation with all other trades for proper integration of work.
- B. Erect single layer fire rated gypsum board vertically, with ends and edges occurring over solid framing. Install unrated gypsum board horizontally, with ends occurring over solid framing. Use wall boards of maximum lengths to minimize end joints. Stagger end joints minimum 16" in alternate courses of board. Locate end butt joints as far from center of walls and ceilings as possible. Gypsum board shall be held 1/4" above concrete slabs.
- C. Gypsum board screw spacing as per manufacturer.
- D. Abut boards without forcing. Fit ends and edges of boards together for light contact. Do not place butt ends or cut edges/ends against tapered edges. Position regular boards so both tapered edge joints abut, mill cut or field cut where end joints abut.
- E. Install board accessories in accord with manufacturer's recommendations. Install corner beads at all external corners, including window return and in cased wall openings.
- F. Place control joints consistent with lines of building spaces and in consistent patterns as directed.
- G. Provide corner beads at external corners. Use longest practical length. Place edge trim where gypsum board abuts dissimilar materials.
- H. DO NOT install imperfect, damaged or damp boards.

### 3.03 JOINT TREATMENT & FINISHING

- A. Conform to ASTM C840.
- B. Tape, fill, and sand exposed joints, edges, openings, and corners to produce a smooth surface ready to receive paint. Apply two additional coats of compound over tape, feather edging and sanding each coat. Allow at least 24 hours drying time between coats, increase drying times as required for relative humidity, etc.
- C. Fill and sand fastener locations minimum 3 separate coats of joint compound, each coat sanded at all joints, screw heads and metal flanges.
- D. Feather coats onto adjoining surfaces so that camber is maximum 1/32 inch
- E. Finish: Smooth, flush. Form true, level and plumb lines without joints, screw heads, flanges of accessories or defects visible after application of paint. Finish in accordance with GA-214 Level 4.
- F. Provide fire rated fire stopping system at all penetrations through fire rated and smoke partition and ceilings to close openings.

### 3.04 TOLERANCES

- A. Maximum Variation from true flatness: 1/8" in 10'-0" in any direction for plumb, level, warp and bow. 1/8" maximum offset between planes of board faces.
- B. Surface smoothness: No joints or fasteners, roughness or blemish discernible after application of finish when viewed at any angle from a distance of 4'-0" under occupancy lighting conditions.

3.05 "Extremegreen" BOARD shall be capable of holding a 300 pound load in the center of a 23" x 23" "clear span board.

3.06 CLEANING: Restore to original condition, or replace, work or materials of other trades (including the "extremegreen" boards) damaged or permanently stained

END OF SECTION

## **SECTION 09510 - SUSPENDED ACOUSTICAL CEILINGS**

### **PART 1. GENERAL**

#### **1.01 SUMMARY**

- A. Section Includes:
  - a. Suspended metal grid ceiling system.
  - b. Acoustical ceiling panels.
  - c. Wire hangers, fasteners, main runners, cross tees, and wall angle moldings.
- B. Submit product data, to requirements of Section 01340, on metal grid system components and acoustic units.
- C. Match existing suspension system and tiles - if a difference can be observed, replace grid and tiles in entire room (grid and tiles can be switched between rooms if approved in advance by the Architect).

#### **1.02 REFERENCES**

- A. American Society for Testing and Materials (ASTM):
  - a. ASTM A 1008 Standard Specification for Steel, Sheet, Cold Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
  - b. ASTM A 641 Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire.
  - c. ASTM A 653 Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process.
  - d. ASTM C 423 Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
  - e. ASTM C 635 Standard Specification for Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings.
  - f. ASTM C 636 Recommended Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels.
  - g. ASTM E 1111 Standard Test Method for Measuring the Interzone Attenuation of Ceilings Systems.
  - h. ASTM E 1264 Classification for Acoustical Ceiling Products.
  - i. ASTM E 1477 Standard Test Method for Luminous Reflectance Factor of Acoustical Materials by Use of Integrating-Sphere Reflectometers.
  - j. ASTM D 3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.
- B. ASHRAE Standard 62.1-2004, "Ventilation for Acceptable Indoor Air Quality"

#### **1.03 QUALITY ASSURANCE**

- A. Fire Performance Characteristics: Identify acoustical ceiling components with appropriate markings of applicable testing and inspecting organization. Surface Burning Characteristics. As follows, tested per ASTM E 84 and complying with ASTM E 1264 for Class A products.
  - a. Flame Spread: 25 or less
  - b. Smoke Developed: 50 or less
- B. Handle acoustical ceiling units carefully to avoid chipping edges or damaged units in any way.

#### **1.04 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver acoustical ceiling units to project site in original, unopened packages and store them in a fully enclosed space where they will be protected against damage from moisture, direct sunlight, surface contamination, and other causes.
- B. Before installing acoustical ceiling units, permit them to reach room temperature and a stabilized moisture content.
- C. Handle acoustical ceiling units carefully to avoid chipping edges or damaged units in any

way.

#### 1.05 PROJECT CONDITIONS

- A. All ceiling products and suspension systems must be installed and maintained in accordance with Armstrong written installation instructions for that product in effect at the time of installation and best industry practice. Prior to installation, the ceiling product must be kept clean and dry, in an environment that is between 32°F (0°C) and 120°F (49°C) and not subject to Abnormal Conditions. Abnormal conditions include exposure to chemical fumes, vibrations, moisture from conditions such as building leaks or condensation, excessive humidity, or excessive dirt or dust buildup.

#### 1.06 WARRANTY

- A. Acoustical Panel: Submit a written warranty executed by the manufacturer, agreeing to repair or replace acoustical panels that fail within the warranty period. Failures include, but are not limited to:

#### 1.07 Acoustical Panels: Sagging and warping as a result of defects in materials or factory workmanship.

- A. Grid System: Rusting and manufacturer's defect.
- B. The Warranty shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and will be in addition to and run concurrent with other warranties made by this Contractor under the requirements of the Contract Documents.

#### 1.08 MAINTENANCE - Deliver extra materials to Owner. Furnish extra materials described below that match products installed, packaged with protective covering for storage and identified with appropriate labels. Furnish quality of full-size Acoustical Ceiling Units equal to 5.0 percent of amount installed.

### PART 2. PRODUCTS

#### 2.01 ACCEPTABLE MANUFACTURERS - Armstrong World Industries, Inc., or written approved equal. Acoustical Panels Type ACT-1 (submit samples for approval prior to ordering):

- A. Surface Texture: Fine
- B. Composition: Mineral Fiber
- C. Color: White
- D. Size: 24in X 24in X 3/4in
- E. Edge Profile: Angled Tegal for interface with Prelude ML 15/16" Exposed Tee.
- F. Noise Reduction Coefficient (NRC): ASTM C 423; Classified with UL label on product carton, 0.50.
- G. Ceiling Attenuation Class (CAC): ASTM C 1414; Classified with UL label on product carton, 35
- H. Emissions Testing: Section 01350 Protocol, < 13.5 ppb of formaldehyde when used under typical conditions required by ASHRAE Standard 62.1-2004, "Ventilation for Acceptable Indoor Air Quality"
- I. Flame Spread: ASTM E 1264; Class A (UL)
- J. Light Reflectance (LR): ASTM E 1477; White Panel: Light Reflectance: 0.83.
- K. Product: Dune Second Look, 2711 as manufactured by Armstrong World Industries.
- L. Suspension System:
  - a. Components:
    - i. All main beams and cross tees shall be commercial quality hot-dipped galvanized (galvanized steel, aluminum, or stainless steel) in baked polyester paint. Main beams and cross tees shall have rotary stitching (exception: extruded aluminum or stainless steel).
    - ii. Structural Classification: ASTM C 635 HD.
    - iii. Color: match the actual color of the selected ceiling tile, unless noted

otherwise.

- iv. Attachment Devices: Size for five times design load indicated in ASTM C 635, Table 1, Direct Hung unless otherwise indicated.
- M. Wire for Hangers and Ties: ASTM A 641, Class 1 zinc coating, soft temper, pre-stretched, with a yield stress load of at least three times design load, but not less than 12 gauge.
- N. Edge Moldings and Trim: Metal or extruded aluminum of types and profiles indicated or, if not indicated, manufacturer's standard moldings for edges and penetrations, including light fixtures, that fit type of edge detail and suspension system indicated. Provide moldings with exposed flange of the same width as exposed runner
- O. Ceiling Clips:
  - a. if acceptable to the manufacturer, use clips to keep the panels in place, and
  - b. if acceptable to the manufacturer, along the tall wall (between the Work Area and Office # 2, Rest Rooms and Hall use screws into the top plate 8' – 2" above the floor.

### PART 3. EXECUTION

#### 3.01 EXAMINATION

- A. Verify that layout of hangers will not interfere with other work.
- B. Verify that site conditions are ready to receive work.
- C. Beginning of installation means acceptance of site conditions.
- D. Do not proceed with installation until all wet work such as concrete, plastering and painting has been completed and thoroughly dried out, unless expressly permitted by manufacturer's printed recommendations; .

#### 3.02 INSTALLATION

- A. Install suspension system and panels in accordance with the manufacturer's instructions, and in compliance with ASTM C 636 and with the authorities having jurisdiction.
- B. Suspend main beam from overhead construction with hanger wires spaced 4'-0" on center along the length of the main runner. Install hanger wires plumb and straight.
- C. Install wall moldings at intersection of suspended ceiling and vertical surfaces. Miter corners where wall moldings intersect or install corner caps.
- D. For reveal edge panels: Cut and reveal or rabbet edges of ceiling panels at border areas and vertical surfaces.
- E. Install acoustical panels in coordination with suspended system, with edges resting on flanges of main runner and cross tees. Cut and fit panels neatly against abutting surfaces. Support edges by wall moldings.
- F. Fit acoustic units in place, free from damaged edges.

3.03 Variation from Flat and Level Surface: 1/8" inches in 10 feet.

#### 3.04 ADJUSTING AND CLEANING

- A. Replace damaged and broken panels.
- B. Clean exposed surfaces of acoustical ceilings, including trim, edge moldings, and suspension members. Comply with manufacturer's instructions for cleaning and touch up of minor finish damage.
- C. Remove and replace work that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION

---

### **SECTION 09900 - PAINTS AND COATINGS**

#### 1.0 GENERAL

##### 1.01 SUMMARY

---



- A. Section Includes:
  - a. Surface preparation.
  - b. Painting
  - c. Touch ups
  - d. Cleanup
- B. Surface finish schedule, sheen and colors in "Materials and Finishes" Schedule on Sheet A-3 of the drawings.
- C. Owner will stripe paving & parking spaces and will furnish (2' high x 40' to 60' long) wallpaper logo to be hung.
- D. Apply additional coats, if required, to "hide" imperfections.

#### 1.02 SUBMITTALS

- A. Submit three (3) samples illustrating color, finish, and textures.
- B. Submit descriptive information, installations, and recommended coverage for each product to be used.

#### 1.03 JOB CONDITIONS

##### A. ENVIRONMENTAL REQUIREMENTS:

- a. Do not apply coating in areas where dust is being generated. Surfaces shall be free of foreign matter.
- b. Lighting shall be adequate as required for proper application, provided by applicator as necessary to supplement temporary lighting.
- c. Do not paint in excessive humidity. Do not paint wet or humid surfaces.
- d. Do not paint surfaces which indicates a moisture content above 12% or the manufacturer's minimum.

##### B. PROTECTION:

- a. Cover or otherwise protect all finished work of other trades and surfaces not being painted.
- b. Remove finish hardware, accessories, light fixtures and cover plates, factory finished work, and similar items. Replace upon completion of painting.
- c. Prevent any fire hazards.

#### 1.04 WORK NOT INCLUDED

- A. Unless otherwise indicated, painting is not required on surfaces in concealed areas and inaccessible areas such as furred spaces, utility tunnels, pipe spaces and duct shafts.
- B. Unless otherwise indicated, do not paint any moving parts of operating units such as valve operators, linkages, sensing devices, and motor shafts.
- C. Do not paint over any required labels or equipment identification, performance rating, name or nomenclature plates.
- D. Do not paint factory pre-finished materials unless otherwise indicated.

#### 1.05 MAINTENANCE MATERIALS

- A. Provide the Owner with one gallon of each color/type paint used. Containers are to be unopened and labeled.

## 2.0 PRODUCTS

### 2.01 ACCEPTABLE MANUFACTURERS

- A. ICI Delux Paints.
- B. Benjamin Moore and Co.
- C. Sherwin Williams.

### 2.02 MATERIALS

- A. Paints: Ready mixed except field catalyzed coatings; good flow and brushing properties;



- capable of drying or curing free of streaks or sags.
- B. Paint Accessory Materials: Linseed oil, shellac, turpentine, and other materials, of commercial quality
- C. Products are to be based on Sherwin Williams product numbers as shown on the Schedules at the end of this Section.
- D. Paint colors are to be determined by Owner.
- E. All Painting materials to be low volatile.

## 2.03 FINISH

- A. Clean and prepare structural steel members for finishing.
- B. Shop prime structural steel members. Do not prime surfaces that will be field welded.

## PART 3. EXECUTION

### 3.01 EXAMINATION

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- B. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the recommended maximum.
- C. Beginning of installation means acceptance of site conditions.

### 3.02 PREPARATION

- A. Correct minor defects and deficiencies in surfaces which affect work of this section.
- B. Prepare surfaces to paint manufacturer's instructions. Rinse with clean water.
  - a. Aluminum - Remove all oil, grease, dirt, oxide and other foreign material by cleaning per SSPC-SP1, Solvent Cleaning.
  - b. Drywall (Interior and Exterior) - Must be clean and dry. All nail heads must be set and spackled.
  - c. Joints must be taped and covered with a joint compound. Spackled nail heads and tape joints must be sanded smooth and all dust removed prior to painting. Exterior surfaces must be spackled with exterior grade compounds.
- C. Previously Coated Surfaces - Maintenance painting will frequently not permit or require complete removal of all old coatings prior to repainting. However, all surface contamination such as oil, grease, loose paint, mill scale, dirt, foreign matter, rust, mold, mildew, mortar, efflorescence, and sealers must be removed to assure sound bonding to the tightly adhering old paint. Gloss surfaces of old paint films must be clean and dull before repainting. Thorough washing with an abrasive cleanser will clean and dull in one operation, or, wash thoroughly and dull by sanding. Spot prime any bare areas with an appropriate primer. Recognize that any surface preparation short of total removal of the old coating may compromise the service length of the system. Check for compatibility by applying a test patch of the recommended coating system, covering at least 2 to 3 square feet. Allow to dry one week before testing adhesion per ASTM D3359. If the coating system is incompatible, complete removal is required.
- D. Solvent Cleaning - Solvent Cleaning is a method for removing all visible oil, grease, soil, drawing and cutting compounds, and other soluble contaminants. Solvent cleaning does not remove rust or mill scale. Change rags and cleaning solution frequently so that deposits of oil and grease are not spread over additional areas in the cleaning process. Be sure to allow adequate ventilation. For complete instructions, refer to Steel Structures Paint Council Surface Preparation Specification No. 1 (SSPC-SP1).
- E. Hand Tool Cleaning - Hand Tool Cleaning removes all loose mill scale, loose rust, and other detrimental foreign matter. It is not intended that adherent mill scale, rust, and paint be removed by this process. Mill scale, rust, and paint are considered adherent if they cannot be removed by lifting with a dull putty knife. Beforehand tool cleaning, remove visible oil, grease, soluble residues, and salts by the methods outlined in SSPCSP1. For complete instructions, refer to Steel Structures Paint Council Surface Preparation Specification No. 2 (SSPC-SP2).

- F. Power Tool Cleaning - removes all loose mill scale, loose rust, and other detrimental foreign matter. It is not intended that adherent mill scale, rust, and paint be removed by this process. Mill scale, rust, and paint are considered adherent if they cannot be removed by lifting with a dull putty knife. Before power tool cleaning, remove visible oil, grease, soluble residues, and salts by the methods outlined in SSPCSP1. For complete instructions, refer to Steel Structures Paint Council Surface Preparation Specification No.3.(SSP-PC3).
- G. Wood (Interior) - All finishing lumber and flooring must be stored in dry, warm rooms to prevent absorption of moisture, shrinkage, and roughening of the wood. All surfaces must be sanded smooth, with the grain, never across it. Surface blemishes must be corrected and the area cleaned of dust before coating.
- H. High-and Ultra-High Pressure Water Jetting for Steel and Other Hard Materials SSPC-SP12 or NACE 5. This standard provides requirements for the use of high- and ultra-high pressure water jetting to achieve various degrees of surface cleanliness. This standard is limited in scope to the use of water only, without the addition of solid particles in the stream. For complete instructions, refer to Joint Surface Preparation Standard (SSPC-SP12/NACE No.5)

### 3.03 APPLICATION

- A. Apply products to manufacturer's instructions and to their recommended dry mil film thickness.
- B. Paint all exposed to view surfaces (except concrete).
- C. Sand lightly between coats to achieve required finish.
- D. Do not apply finishes to surfaces that are not dry.
- E. Where clear finishes are required, tint fillers to match wood. Work fillers into the grain before set. Wipe excess from surface.
- F. Back prime exterior woodwork with exterior primer paint.
- G. Back prime interior woodwork with enamel primer sealer.
- H. Protect other surfaces from paint or damage. Repair damage.

### 3.03 CLEANING

- A. As work proceeds, promptly remove paint where spilled, splashed, or spattered.

### 3.04 SCHEDULE - EXTERIOR SURFACES

- A. New Galvanized Steel, Galvanized Metal Doors and Frames
  - a. Prep - as necessary
  - b. Primer: B66W00310 - Pro Industrial Pro-Cryl® Universal Primer Off White
  - c. Finish: B66W00111 - DTM Acrylic Coating Gloss Extra White/Tint Base

### 3.05 SCHEDULE - INTERIOR SURFACES

- A. Drywall-Ceilings
  - a. Primer: B28W08000 - PVA INT PRMR WHITE Spot Prime as needed.
  - b. Finish: B30W02651 - ProMar® 200 Zero VOC Interior Latex Flat Extra White/Colors
- B. Drywall-Walls
  - a. Finish: B20W02651 - ProMar® 200 Zero VOC Interior Latex Eg-Shel Extra White/Colors
- C. Wood:
  - a. Primer: B51W08020 - Multi-Purpose Latex Primer White Spot Prime as needed.
  - b. Finish: B31W02651 - ProMar® 200 Zero VOC Interior Latex Semi-Gloss Extra White/Colors
- D. Steel - Unprimed:
  - a. Primer: B66W00310 - Pro Industrial Pro-Cryl® Universal Primer Off White
  - b. Intermediate Coat: B66W00111 - DTM Acrylic Coating Gloss Extra White/Tint Base
- E. Steel - Primed:
  - a. Primer touch up: B66W00310 - Pro Industrial Pro-Cryl® Universal Primer Off White
  - b. Finish: B66W00111 - DTM Acrylic Coating Gloss Extra White/Tint Base

- F. Steel - Galvanized:
  - a. Primer: B66W00310 - Pro Industrial Pro-Cryl® Universal Primer Off White
  - b. Finish: B66W00111 - DTM Acrylic Coating Gloss Extra White/Tint Base
- G. Steel - Painted:
  - a. Primer touch up: B66W00310 - Pro Industrial Pro-Cryl® Universal Primer Off White
  - b. Finish: B66W00111 - DTM Acrylic Coating Gloss Extra White/Tint Base
- H. Notify Architect if any of the primer or finish coats specified above is not suitable, or does not match existing painted areas.

END OF SECTION