## CITY OF JACKSONVILLE PUBLIC WORKS DEPARTMENT



ONE CITY. ONE JACKSONVILLE

# **SPECIFICATIONS FOR MARY SINGLETON** SENIOR CENTER RENOVATIONS

BID NO.:

CP-0091-19

BID DATE: February 27, 2019

## MANDATORY PRE-BID CONFERENCE:

LOCATION: 150 East 1st Street DATE: FEB 8, 2019 TIME: 2:00 PM

PROJECT NO.: 2018-0044

LENNY CURRY **MAYOR** 

PREPARED FOR **ENGINEERING DIVISION** 

PREPARED BY **ENGINEERING DIVISION** 

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\*\* TO BE DEVELOPED FOR EACH PROJECT

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## DIVISION I

## BIDDING REQUIREMENTS

## SECTIONS 1 - 9

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#### INVITATION TO BID

BID NO: CP-0091-19

Notice is hereby given that the City of Jacksonville, Florida, will receive sealed Bids in the Office of the Procurement Division, Ed Ball Building, Suite 105, 214 N. Hogan Street, Jacksonville, Florida 32202, until 2:00 P.M. on the  $27^{\frac{\text{th}}{2}}$  day of February, 2019 for the Renovation of the Mary Singleton Senior Center.

At that time Bids will be publicly opened, read aloud, and recorded in Room 110, Ed Ball Building, 214 N. Hogan Street.

Scope of Work: Work consists of furnishing all labor, materials, and equipment and performing all operations necessary for the Renovation of the Maty Singleton Senior Senior Center. The work shall include not be limited to, interior renovations including new flooring, restrooms, wall framing, interior paint, tile, signage, exterior doors, carpet replacement, sidewalk, asbestos removal, HVAC systems, minor renovations to the electrical, plumbing systems and upgrades to repair the existing freight lift. The exterior work (with exception of  $40'\pm$  of S/W) shall be included in the additive bid alternates as indicated in the bid proposal (Section 3).

Mandatory Pre-Prid Meeting: February 8th, 2018 at 2:00 pm, at 150 East 1st St.

**Pre-Qualification:** All bidders on this project must be on the approved Pre-Qualified Bidders List Yes X No \_\_\_\_ (See <u>Vertical</u> Pre-Qualifying Procedures) with the City of Jacksonville, Procurement Division. Bidding firm must be actively licensed by the State of Florida to perform the scope of services defined herein.

Drawings and Specifications may be reviewed and obtained at the Office of the Procurement Division, Ed Ball Building, Suite 105, 214 N. Hogan Street, Jacksonville, Florida 32202. The price per set of Documents is \$40 or the fees as stated by 3<sup>rd</sup> party website as applicable and is required to be paid prior to receipt of the Documents. PAYMENT WILL BE ACCEPTED BY CHECK ONLY. NO REFUND WILL BE MADE FOR THESE DOCUMENTS.

In addition to the Drawings and Specifications, the CONTRACTOR will need the two-volume set of City Standard Specifications and City Standard Details with Revisions 1 through 16 as provided in Instruction to Bidders.

Bidders must submit with their sealed bid a completed schedule of subcontractor/subconsultant participation, appendix "H", Section 3, proposal, in accordance with Ordinance 2004-602E. In addition, bidder shall submit proof of local business tax certificate as applicable.

In accordance with Part 6 of the Purchasing Code and as detailed in the Specifications, this procurement has been designated to be under the Participation Pecentage Plan to provide Equal Business Opportunity to certain Jacksonville Small Emerging Businesses certified in the area of: General Construction.

All Bids must be made on the Proposal forms provided, properly executed, and mailed or delivered in accordance with this Notice. ONE ORIGINAL BID AND REQUIRED DOCUMENTS SHALL BE SUBMITTED. NO DUPLICATES OR COPIES WILL BE CONSIDERED.

The City of Jacksonville reserves the right to reject any or all Bids, waive informalities, irregularities or technical defects in any Bid, make award in part or whole with or without cause, and to make the award it deems to be in the best interest of the City of Jacksonville.

Gregory Pease, Chief Procurement Division Lenny Curry, Mayor City of Jacksonville

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## SECTION 2

## INSTRUCTION TO BIDDERS

#### FOR

## THE CITY OF JACKSONVILLE, FLORIDA

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## SECTION 2 INSTRUCTION TO BIDDERS FOR

#### THE CITY OF JACKSONVILLE, FLORIDA

#### 2.1 CONTRACT DOCUMENTS PROCURABLE

2.1.1 The Contract Documents are on file and may be examined in or purchased in the office of the Procurement Division, Suite 105, Ed Ball Building, 214 N. Hogan Street, Jacksonville, Florida 32202.

#### 2.2 CONTRACT DOCUMENTS

2.2.1 The Contract Documents contain the following component parts:

Plans, Drawings, Specifications, and Addenda
Invitation to Bid
Instruction to Bidders
Equal Business Opportunity Program (if applicable)
Bid Proposal
Impact Proposal (if applicable)
Bid Bond
Contract Agreement
Contract Bonds
General Conditions
Federal Regulations (if applicable)
Special Conditions
City Standard Specifications
City Standard Details

2.2.2 City Standard Details and City Standard Specifications may be obtained from Development Services, 2<sup>nd</sup> Floor, Ed Ball Building, 214 N. Hogan Street, Suite 2100, Jacksonville, Florida 32202, at a cost of \$40.00 for Details and \$80.00 for Specifications. Payment for such documents shall be by cash only and is not refundable. Both Details and Specifications should include revisions 1 through 16. Bidders currently possessing these documents, but lacking any of the revisions, may obtain a set of the revisions only from the Engineering Division at a minimal fee.

## 2.3 BID SECURITY

2.3.1 If required below, the Proposal shall be accompanied by Bid security in the form of a Bid Bond executed by the Bidder and a surety company regularly commissioned and currently licensed as a resident or non-resident agent in the State of Florida, or either a certified or cashier's check drawn on any national bank in an amount equal to five percent (5%) of the Bid amount made payable to the City of Jacksonville. Said Bid Security guarantees the Bidder will not withdraw from the competition after opening the Bids and, in the event the Contract is awarded to the Bidder, it will execute the

Contract and furnish the required bonds within ten (10) days after notification. If it withdraws or fails to provide the bonds, the Bid Security and all proceeds there from shall become the property of the CITY as agreed upon, to be fixed as reasonable liquidated damages. In any Contract involving the expenditure of Federal funds, the bond must be written by a Federally approved bonding agency. A copy of the currently approved agencies will be furnished prospective bidders on request from the U. S. Department of Housing and Urban Development (H.U.D.).

Federal funds involved? Yes No No No No

#### 2.4 RETURN OF BID SECURITY

2.4.1 As soon as Bids have been satisfactorily evaluated by the CITY, the Bid Securities accompanying Bids which in the CITY's judgment would not likely be considered for the award may be returned. All other Bid Securities will be held until the award has been made and executed, after which the Bid Securities will be returned to the respective Bidders who tendered same.

#### 2.5 BID PROPOSAL

- 2.5.1 All Bids must be made on the attached Proposal form. (Bidders are cautioned to make their Proposals on the Proposal form and not in the blank spaces in the Contract Agreement form.) The CITY may reject Bids which are incomplete, conditioned, or obscure; or which contain additions, interlineations, omissions, alterations, or other similar irregularities unless all changes, corrections and erasures, are INITIALED by the same person signing the bid. All blank spaces on the Proposal must be completed or, where permissible, contain the statement "No Bid." All blank spaces shall be filled, and all entries shall either be typed or in ink.
- 2.5.2 Bids must be properly signed in ink by the Bidder if an individual or by an authorized official or agent when the Bidder is a partnership, firm or corporation. When the Bid is made by a partnership, firm or corporation, the signature must include the firm name and title of the official or person authorized to bind the entity to the Contract. Proof of signature authority, and the names and business addresses of the President, Secretary, and Treasurer of corporations, or principals in partnerships is required.
- 2.5.3 The Bid, with the accompanying Bid Security, must be enclosed in a sealed envelope and be addressed to the City of Jacksonville, Florida. The envelope shall be mailed or delivered to Suite 105, Ed Ball Building, 214 N. Hogan Street, Jacksonville, Florida 32202. The Bid number shall be shown on the OUTSIDE of the envelope. The Bidder shall

designate on the Bid Proposal its official address to which all communications are to be mailed.

- 2.5.4 Only the amount shown on the appropriate proposal form inside the envelope will be accepted. Changes in the bid amounts appearing on the bid envelope containing the bid shall not be considered.
- 2.5.5 In the preparation of the Bid, the BIDDER shall include all additional costs for any shift work that may be necessary in the completion of the project. The auxiliary cost should be for items such as water outages, traffic control officers, night lighting, etc. The above referenced costs shall be included into the items which are construction requiring shift work.
- 2.5.6 Contractors submitting bids on this project must submit current proof of all applicable business licenses required by Local, State and Federal Agencies, including a Local Business Tax Certificate, if applicable.

## 2.6 QUALIFICATIONS OF BIDDERS

- 2.6.1 The Contract shall only be awarded to a responsible Bidder who is qualified by experience and who is financially capable of doing the work specified. In order to award the Contract, the Bidder must promptly submit the following upon request:
  - 2.6.1.1 Experience record showing training and experience on similar work.
  - 2.6.1.2 A list and brief description of satisfactorily completed similar work, its location and date of completion.
  - 2.6.1.3 Evidence of organization, capital, equipment, and machinery necessary to complete the work within the time limit established.
  - 2.6.1.4 Furnish the name of its surety for Contract Bonds and a statement from the surety or authorized agent of the surety stating the surety will provide Contract Bonds if the Bidder is awarded the Contract for this project.

Required: Yes  $\boxtimes$  No  $\square$ .

2.6.1.5 Where applicable, evidence that the Bidder is legally qualified to contract for and perform the project (see section 20.54, General Conditions).

Required: Yes  $\boxtimes$  No  $\square$ .

- 2.6.1.6 Where applicable, evidence that Plumbing, Electrical, Mechanical and other contractor or subcontractor are legally qualified to perform work on the project in specialty trades (See Section 20.55, General Conditions).
- 2.6.1.7 Work requiring the installation of water, sewer and storm drainage systems shall be performed by contractors licensed as underground utility contractors, in accordance with Chapter 489 Florida Statutes.

Required: Yes\_No\_\_\_.

2.6.1.8 For work requiring the drilling of potable water wells, the Bidder shall certify that the well driller holds a current permit issued by the Division of Environmental Health, State of Florida.

Required: Yes  $\square$  No  $\square$ .

## 2.7 DISQUALIFICATION OF BIDDER FOR MULTIPLE BIDS OF COLLUSION

2.7.1 If more than one Bid is submitted from an individual, firm, partnership, corporation or association under the same or a different name, none of these bids will be considered. "Reasonable grounds" that a Bidder has an interest in more than one Proposal for the same work shall be sufficient cause for rejection of all Proposals in which such Bidder is believed to be interested. If there is reason to believe collusion exists among Bidders, no participants in such collusion will be considered in this work and in future Proposals for the same work.

## 2.8 BASIS OF AWARD

- 2.8.1 The award will be made as specified in the Proposal.
- 2.8.2 In the event of mathematical errors in the extension of prices or in the addition total for any base bid, unit prices will prevail. The corrected base bid will be used to determine the low qualified Bidder. The award of this contract will establish the CONTRACTOR and the unit prices which are to be used during the life of the contract.
- 2.8.3 The award will not be made until all necessary investigations have been made as to whether the low Bidder is qualified to do the work and has the necessary organization, capital and equipment to carry out the provisions of the contract.

#### 2.9 AWARD OF CONTRACT

2.9.1 Award of the Contract, if it is awarded, shall be made to the lowest responsible Bidder, meeting or exceeding

specifications, whose bid is in the best interest of the CITY. However, until the CITY issues a Notice to Proceed with a specific start date, the CITY shall not be liable for any expenses incurred by the CONTRACTOR prior to such start date.

#### 2.10 EXECUTION OF CONTRACT

2.10.1 The Bidder to whom the Contract has been awarded shall sign two (2) original copies of the Contract Agreement and the Contract Bonds in the form herein contained without any additions, deletions, or modifications, and return same to the CITY within ten (10) days after receipt. Failure to execute the Contract Agreement and the Contract Bonds and return of them to the CITY within ten (10) days after receipt, shall be a breach of the Contract and may result in forfeiture of the award by the Bidder and forfeiture of the bid security to the CITY. The award may then be made to the next lowest responsible bidder or re-advertised as the CITY may elect.

## 2.11 CONTRACT PERFORMANCE AND PAYMENT BONDS

Section 20.45 in 2.11.1 Except as provided of the General Conditions, Contract Bonds in the form provided in these Contract Documents will be required in an amount equal to one hundred percent (100%) of the Contract Amount and shall be written with a surety company regularly commissioned and currently licensed as a resident or non-resident agent in the State of Florida. Such surety company must be approved by the CITY'S Division of Insurance and Risk Management. The bonds shall guarantee the faithful performance of this Contract, including delay damage expense, and payment for labor, materials, and supplies used therefore. For a Contract involving Federal funds, the bond must be written by a Federally approved bonding agency. (A copy of bonding agencies currently approved by the Federal Government will be furnished upon request from the U. S. Housing and Urban Development (H.U.D.) Department).

Performance an	d Payment	Bonds Required:	Yes_\_ No
		Yes No_X_	

When Performance and Payment Bonds are not required:

- a. The CONTRACTOR, prior to final payment, will certify by affidavit that laborers, materialmen and Subcontractors, as defined in Florida Statute s. 713.01, have no claims against the Contractor resulting from the completion of the work provided for in the Contract.
- b. Payments will be made by the CITY jointly between or among the Contractor and its Subcontractors and suppliers.

## 2.12 RIGHT RESERVED TO REJECT BIDS

- 2.12.1 The CITY reserves the right to reject any or all bids, with or without cause.
- 2.12.2 Bids in which the prices are obviously unbalanced are subject to rejection. The CITY shall not be liable to the CONTRACTOR for failure to reject or notify the Bidder of any unbalanced bid.

#### 2.13 WITHDRAWAL OF BIDS

2.13.1 A bidder may withdraw its Bid without forfeiture of bid security not later than the day and hour set in the advertisement for receiving Bids, "the bid time", by communicating its withdrawal in writing to the CITY at the address given in the Invitation, and the Proposal will be returned to the Bidder unopened. When "the bid time" has passed, no Bidder shall thereafter have a right to withdraw its bid. Subsequent to the opening of Bids, withdrawal will subject the Bidder's Bid Security to forfeiture.

#### 2.14 CONDITIONS IN BIDDER'S PROPOSAL

2.14.1 The Bidder shall not stipulate in its Bid Proposal, or append thereto, any conditions contrary to those contained in the Contract Documents.

#### 2.15 TAXES

2.15.1 Bidders shall include in their bid prices any sales taxes or use taxes which they are required by law to pay. Bidders are reminded, it is the CONTRACTOR'S responsibility to pay all Florida Sales Taxes that are required to be paid to the State under the subject contract. These taxes, by State law, are not to be set forth as a separate line item. Therefore, the CONTRACTOR shall devise his own method to insure recovery. Additional allowances will not be made for failure to include these required taxes in the proposal.

## 2.16 LIST OF LICENSED/NON-LICENSED SUBCONTRACTORS AND SHOP FABRICATORS:

2.16.1 Inasmuch as it is unlawful for a person to engage, within the city of Jacksonville, in the business of contracting or act in the capacity of a contractor as provided in Chapter 342, Jacksonville Ordinance Code or Chapter 489, Florida Statutes, without a valid contractor certificate or license, bidders for all capital improvement projects are required, on or before the date and time of bid opening, to furnish, with their bids, the names, addresses and scopes of work to be performed by all subcontractors required to be certified, qualified, or licensed in accordance with Chapter 342 and/or Chapter 489, as either may be revised from time to time. On

or before the date and time of bid opening, bidders, if applicable, are required to indicate, as part of their bids, all scopes of work that they intend to self-perform and to provide evidence that they currently hold the required certifications, qualifications, or licensing necessary for all scopes of work to be self-performed. The subcontractors required to be listed under this section shall be listed in the Schedule of Licensed Subcontractors of Appendix C-1, hereof.

- 2.16.2 The bidder shall furnish, PRIOR TO AWARD, the names, addresses and scopes of work to be performed by all subcontractors and/or shop fabricators that are NOT required to be certified, qualified, or licensed in accordance with chapter 342, Jacksonville Ordinance Code and/or Chapter 489, Florida Statutes. All subcontractors and/or shop fabricators required to be listed under this section shall be listed in the chart provided in Paragraph 2 of Section 3, Appendix C.
- 2.16.3 All subcontractors and/or shop fabricators listed under the above sections shall not be on the City's Disqualified/Probationary Vendor's List (Section 3, Appendix J) or the State of Florida's Convicted and/or Suspended Vendors list. In this event, the subcontractor and/or shop fabricator will not be eligible to provide the services or materials for this project. The Contractor will absorb any additional cost incurred for having to select a different subcontractor and/or shop fabricator.

## 2.17 USE AND REPLACEMENT OF MAJOR SUBCONTRACTORS AND SHOP FABRICATORS:

- 2.17.1 The successful bidder shall employ the Subcontractors and shop fabricators specified in its bid for the class of work designated under Section 2.16. Modification in any way whatsoever, without the written consent of the City of Jacksonville, will not be permitted.
- 2.17.2 Consent by the City will be given only in those instances where the bidder presents written evidence that use of the listed Subcontractor or shop fabricator will not be in the best interests of the City.

#### 2.18 PROJECT SITE

2.18.1 The work shall be performed upon property owned, leased, or otherwise under the control of the City of Jacksonville, Florida as shown on the plans or otherwise identified herein.

#### 2.19 EXAMINATION OF SITE AND CONTRACT DOCUMENTS

2.19.1 Bidders shall visit the site and inform themselves of all conditions under which the work is to be performed. They shall familiarize themselves with the nature of the ground,

- the obstacles which may be encountered, whether shown on the Contract Documents or not, and all other relevant matters concerning the work to be performed.
- 2.19.2 A CONTRACTOR to whom a contract is awarded will not be allowed any extra compensation by reason of any such matters or things concerning which the CONTRACTOR did not inform himself prior to bidding.
- 2.19.3 Bidders must satisfy themselves by personal examination of the locations of the proposed work, and by such other means as they may prefer, as to the correctness of any quantities listed in the Proposal, and shall not, after submission of a Proposal, either dispute or complain of such estimate, nor assert that there was any misunderstanding in regard to the nature of work to be done, it being understood, in a unit price contract the bid quantities are used for bid purposes only and are subject to adjustment for actual quantities used.
- 2.19.4 Before submitting a Proposal each Bidder shall examine carefully the complete Contract Documents, including but not limited to: Invitation to Bid, Instructions to Bidders, the Contract Agreements and Bonds, General Conditions, Special Conditions, Specifications, Contract Drawings and all Addenda thereto, all of which contain provisions applicable not only to the successful Bidder but also to any of its Subcontractors.
- 2.19.5 The successful CONTRACTOR must employ, as far as possible, such methods and means in the carrying out of its work as will not cause any interruption or interference with any other Contractor.
- 2.19.6 A Bidder is expected to base its bid on materials and equipment which comply fully with the Contract Drawings and Specifications and, in the event it names or includes materials or equipment in its bid which do not conform, it will, if awarded a contract, be responsible for furnishing materials and equipment which do fully conform at no change in its Contract Price.
- 2.19.7 Bidders Obligation: In the course of preparing bids for the project, the Bidder shall visit the project site, inspect and report any problems, including discrepancies or ambiguities, it may encounter, at the site or in the documents, to the ENGINEER as soon as possible, but not less than ten (10) days prior to time for receipt of bids. The bidder is presumed to have no unanswered questions when it submits its bid.
- 2.19.8 In the preparation of their Bid, the Bidders shall include all additional costs for any shift work that may be necessary in the completion of the project. The auxiliary cost should be for items such as water outages, traffic control officers,

night lighting etc. The above referenced costs shall be included into the items which are construction requiring shift work.

#### 2.20 INTERPRETATION OF CONTRACT DOCUMENTS

2.20.1 A Bidder who is in doubt as to the true meaning of any part of the Contract Drawings, Specifications or other portions of the Contract Documents, may submit a written request to the ENGINEER for an interpretation. The Bidder submitting the request will be responsible for its prompt delivery. If deemed necessary by the ENGINEER, an interpretation of the Contract Documents will be made by addendum and duly issued or delivered by the ENGINEER to each person who has received a set of such documents. The ENGINEER will not be responsible for any other explanations or interpretations of the Contract Documents.

#### 2.21 ADDENDA

2.21.1 Addenda prepared and issued by the ENGINEER prior to the opening of the bids, for the purpose of changing the intent of the Drawings and Specifications or clarifying the meaning of same, shall be binding in the same way as if written in the Specifications. The Bidder shall acknowledge receipt of addenda in the Proposal. It is also the responsibility of each Bidder to make sure that it has received all addenda.

## 2.22 STATE AND FEDERAL REGULATIONS:

2.22.1 The CONTRACTOR shall comply with all State and Federal laws, regulations, and codes applicable to the work as well as those of the City of Jacksonville. The CONTRACTOR's attention is directed to the U. S. Department of Labor Safety and Health Regulations for construction promulgated under the Occupational Safety and Health Act of 1970 (PL 91-596) and under Section 107 of the Contract Work Hours and Safety Standards Act (DL 91-54).

#### 2.23 NON-DISCRIMINATION IN EMPLOYMENT

2.23.1 By responding to the invitation to Bid on this project and/or executing the Contract on this project, the Bidder certifies that it meets and agrees to comply with Section 126.404 of the Jacksonville Ordinance Code concerning non-discrimination in employment (See Section 20.19 of the General Conditions).

#### 2.24 FEDERALLY ASSISTED CONSTRUCTION PROJECTS

2.24.1 On any project upon which funding is provided by an agency of the United States Government, all regulations applicable thereto including, but not limited to, Title VI of the Civil Rights Act of 1964 (24 CFR, parts 1 & 2); Title VIII of the Civil Rights Act of 1968 (24 CFR, part 115); Federal Labor Standards Provisions (HUD-4020.1); the Davis-Bacon Act; the Anti-Kickback Act; and the Contract Work Hours Standards Act, shall apply and the Bidder or CONTRACTOR shall conform thereto. If applicable, Section 21 of the General Conditions contains some, but not necessarily all, of Federal Regulations that apply to this project. Bidders are advised to refer to Appendix "B", Section 21, Federal Regulations, of these Specifications, which contains a copy of excerpts from the Federal Register - Section 135, dated June 30, 1994. Federal funds involved: Yes No

#### 2.25 MAJOR ITEMS OF EQUIPMENT

- 2.25.1 When requested for a capital improvement project, bidders are required, prior to award, to submit a schedule of "Major Items of Equipment" to be furnished and installed as part of this Contract. The Contract Specifications include descriptions of these "Major Items of Equipment" which complies with design requirements. The schedule of "Major Items of Equipment" under this section shall be listed in the chart provided in Paragraph 3 of Section 3, Appendix C.
- 2.25.2 Prior to award, proposals to furnish major items of equipment other than those specified shall be made only in accordance with Section 2.26 hereof. Following award of the contract, proposals to furnish equipment other than that specified shall be made in accordance with Section 20.16 and/or 20.34 of the General Conditions.

#### 2.26 SUBSTITUTION OF "OR EQUAL" ITEMS

- 2.26.1 The materials, devices, systems, appliances, or equipment designated in the Contract Documents by a manufacturer's, vendor's, proprietary or trade name; establish a standard of required function, dimensions, appearance and quality to be met. Wherever the designation of such items is not followed by "or equal", it shall be deemed that the words "or equal" do follow such designation. A Bidder may propose the substitution of items equalling or bettering the standards of those specified, upon submission to the ENGINEER, not less than 10 days prior to the date for receipt of Bids, of complete information on the proposed substitute including its name, manufacturer, drawings, cut-sheets, performance, test data, and any other information required by the ENGINEER for evaluation of the proposed substitute.
- 2.26.2 Approval, if granted, by the ENGINEER of a proposed substitute shall be in the form of an Addendum issued to all prospective bidders. Whenever a bidder proposes to furnish an approved substitute, it shall be responsible for and include in its base bid the cost of making all adjustments to accommodate the substitute including, but not limited to, structural elements, auxiliary equipment, piling, electrical, mechanical and control systems; which are required to provide

- a complete satisfactory operating installation of the substitute item. Approval of the substitute item shall be in the sole discretion of the ENGINEER upon its finding that it conforms to all structural, architectural, mechanical, electrical and other design criteria as well as required operating performance characteristics. Failure of the ENGINEER to complete the review and evaluation of a proposed substitute in time to issue an addendum prior to the receipt of Bids shall not authorize any Bidder to include such substitute in a Bid nor shall it be the basis of a protest by a Bidder.
- 2.26.3 No substitute or "or equal" item which has not been previously approved as required by Section 2.26.1, shall be included in the proposal. If, regardless of the above prohibition, a non-approved substitute item is shown on the proposal, it shall be disregarded in consideration of award, and if an award is made to such Bidder, the Bidder shall furnish the item as specified with no change in Bid price notwithstanding the substitute shown on the proposal.
- 2.26.4 Following the award of a contract, substitution of any item from that specified or approved prior to receipt of bid, shall be requested in accordance with Section 20.16 and/or 20.34 of the General Conditions.

#### 2.27 CONFLICT OF INTEREST

- 112.313(3) and 112.313(7), Florida 2.27.1 Sections Statutes, prohibit certain business relationships on the part of public officers and employees, their spouses and their children. However, Section 112.313(12), Florida Statutes, provides certain limited exemptions to those prohibitions including one where business is awarded under a system of sealed competitive bidding; the public official has exerted no influence in bid negotiations and specifications; AND where disclosure is made, prior to or at the time of the submission of the bid, of the official's or his/her spouse's or child's interest and the nature of the intended business. Further, Section 126.110 of the Purchasing Code also requires such disclosure. That disclosure must be made by executing the Conflict of Interest form contained herein.
- 2.27.2 A bidder's failure to comply with Florida Statutes shall cause rejection of its bid. Any question as to applicability or interpretation of Florida Statutes should be pursued by the bidder with the State of Florida, Commission of Ethics, Tallahassee, Florida.

#### 2.28 PUBLIC ENTITY CRIME STATEMENT

A person or affiliate who has been placed on the State of Florida convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or

services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity for a period of 36 months from the date of being placed on the convicted vendor list.

#### 2.29 FORMS TO BE RETURNED

- 2.29.1 The "Conflict of Interest Certificate" as provided in Appendix "F", properly filled out and authenticated as required should be returned with the bid proposal. Failure to execute this form prior to the Recommendation of Award will make the bid non-responsive and provide a basis for rejection.
- 2.29.2 The Letter of Intent, as provided in Section 3, Appendix I hereto shall be filled out, authenticated as required, and may be submitted at the time of the scheduled bid opening or must be submitted within 48 hours after the scheduled bid to the Equal Business Opportunity/Contract Compliance, 214 N. Hogan Street, STE 800, Jacksonville, FL 32202. The Schedule of Subcontractor/Subconsultant Participation and the Letter of Intent must match and be identical. Failure to submit the letter of intent within 48 hours of the scheduled bid opening may make the bid nonresponsive and may be cause for rejection.
- 2.29.3 If this project has been selected to use the Percentage Participation Plan, see Section 2.31.2(a). See Section 5 for additional information that may be required to be submitted with bid proposal to document "good faith effort".

#### 2.30 VOLUNTARY PARTNERING

- 2.30.1 After an award and prior to the preconstruction conference, either the CITY or CONTRACTOR may request the other to partner on this project. The objective of partnering is to establish a partnership charter and action plan between the CITY and the CONTRACTOR to identify and achieve reciprocal goals. This partnership will not change the legal relationship of the parties to the Contract nor relieve either party from any of the terms of the Contract. This partnership will be bilateral in make up and only if participation is approved by both parties. Any cost associated with developing this partnership must be agreed to by both parties and will be shared equally.
- 2.30.2 If both the CITY and CONTRACTOR agree to partnering, the Chief of the Engineering Division and the CONTRACTOR'S Project Manager will meet and plan a partnering development

seminar/team building workshop. At this planning session, arrangements will be made to determine workshop attendees, agenda, duration, location and facilitator, if Participants should include the ENGINEER and key project personnel, and the CONTRACTOR'S Project Manager and key project personnel. The project Design Engineer, key local government personnel, representatives of Subcontractor utilities, representatives of regulatory agencies and others, may also be invited to attend as necessary. Management personnel consisting of the Director-level head of the CITY'S using agency and a Corporate Officer or other person representing ownership of the CONTRACTOR shall participate in the partnering workshop and its implementation.

2.30.3 Follow-up workshops may be held periodically throughout the duration of the Contract as agreed to by the CITY and the CONTRACTOR.

## 2.31 JACKSONVILLE SMALL EMERGING BUSINESS ("JSEB") PROGRAM

Certain projects are designated to be included in the Jacksonville Small Emerging Business Program ("JSEB") established by Ordinance Code 2004-602; projects are so designated in Section 2.31.1 below.

2.31.1 This project has been selected to utilize the following method for achieving JSEB utilization and goals under the Jacksonville Small Emerging Business Program:

a. The Participation Percentage Plan (See Section 5 of Contract Documents)	
b. The Set Aside Plan (See Section 6 of Contract Documents)	
c. The Encouragement Plan (See Section 7 of Contract Documents)	

2.31.2 In order to be qualified as participants in the Equal Business Opportunity Program, contractors, subcontractors, suppliers, and other business entities, including joint ventures, must have been previously certified by the CITY in accordance with Ordinance Number 2004-602.

## 2.32 SOLICITATION SILENCE POLICY

The City of Jacksonville has implemented a Solicitation Silence Policy that prohibits certain oral communication regarding a solicitation during the period the policy is in effect. Written communications to the Chief of the Procurement Division or his/her staff are allowed at all times.

그 원수가 [#송년 기본 항공]

- 2.32.1 Prohibitions
  - Any oral communication regarding a particular solicitation is prohibited between a potential vendor, service provider, bidder, lobbyist or consultant and city employees, staff, or hired consultant.
- 2.32.2 Exceptions to the Solicitation Silence Policy
  Unless specifically provided in the applicable
  solicitation document the Solicitation Silence Policy does
  not apply to the following:
  - communications regarding a particular solicitation between the Chief of the Procurement Division or his/her staff responsible for administering the procurement process for such solicitation, provided the communication is limited strictly to matters of process or procedure already contained in the corresponding solicitation document
  - communications between a potential vendor, service provider, bidder, consultant or lobbyist and city employees responsible for administering the Jacksonville Small Emerging Business Program, provided the communication is limited strictly to matters of programmatic process or procedures
  - communications with the Office of General Counsel and his/her staff
  - communications with the Office of Inspector General and his/her staff
  - emergency procurements of goods and services pursuant to 126.102(e).
  - oral communications at pre-bid conferences
  - oral presentations before publicly noticed committee meetings
  - contract negotiations during any duly noticed public meeting
  - duly noticed site visits to determine competency of bidders during the period between bid opening and issuance of the Chief of Procurement Division's written recommendation
  - communications in writing at any time to the Chief of Procurement Division or his/her staff unless specifically prohibited by the applicable solicitations document
- 2.32.3 Commencement and Termination of the Solicitation Silence Period

The period of Solicitation Silence commences after the advertisement of the solicitation document. The period of Solicitation Silence terminates after the Chief of the Procurement Division issues a written recommendation to the corresponding awarding committee. If the awarding committee refers the Chief's recommendation back for further review, the Solicitation Silence period shall be reinstated until such time as the Chief issues a

subsequent recommendation.

2.32.4 Written Communication During the Solicitation Silence Period
When the Solicitation Silence period is in effect, any communication shall be in writing, unless one of the exceptions applies. Written communication may be in the form of letter, email or facsimile.

If Not an Exception

If a city employee, staff or hired consultant receives an oral inquiry call for an answer or response that is not within the scope of the exception, the city employee, staff or hired consultant shall kindly request that the question be presented in writing to the Chief of the Procurement Division or his/her staff and that a response will, in turn, be given in writing.

Any information that changes adds to or clarifies the terms, provisions or requirements of the solicitation document shall be conveyed equally to all competitors in a solicitation addendum.

## 2.33 VENDOR CERTIFICATION

If this Agreement is for goods or services of \$1 million or more, the City, pursuant to Section 287.135(3)(c), Florida Statutes, may terminate this Agreement at City's option if Contractor:

- (a) Is found to have submitted a false certification under Section 287.135(5), Florida Statutes;
- (b) Has been placed on the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes, or is engaged in a boycott of Israel;
- (c) Has been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List created pursuant to Section 215.473, Florida Statutes; or
- (d) Has been engaged in business operations in Cuba or Syria.

#### 2.34 PUBLIC RECORDS LAW

In accordance with Section 119.0701, Florida Statutes, the Contractor shall:

- (a) Keep and maintain public records required by City to perform the services; and
- (b) Upon request from City's custodian of public records, provide City with a copy of the requested records or allow records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided for in Chapter 119, Florida

*			
•			

Statutes, or as otherwise provided by law; and

- (c) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Contract term and following completion of this Contract if Contractor does not transfer the records to City; and
- (d) Upon completion of this Contract, transfer to City at no cost all public records in possession of Contractor or keep and maintain public records required by City to perform the service. If Contractor transfers all public records to City upon completion of this Contract, Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If Contractor keeps and maintains public records upon completion of this Contract, Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to City upon request from City's custodian of public records in a format that is compatible with City's information technology systems.

The above requirements apply to a "Contractor" as defined in Section, 119.0701, Florida Statutes.

IF CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CITY'S CUSTODIAN OF PUBLIC RECORDS AT(904)630-7678; REQUEST@COJ.NET; CITY JACKSONVILLE, PUBLIC OF REQUEST, 214 N. HOGAN STREET, SUITE 1180, JACKSONVILLE, FLORIDA 32202.

## 2.35 LEGAL WORKFORCE

- (a) Owner shall consider the employment, by Vendor/Contractor, of unauthorized aliens a violation of section 274A(e) of the Immigration and Nationalization Act. Such violation shall be cause for unilateral cancellation of the contract upon thirty (30) days' prior written notice of such cancellation, notwithstanding any other provisions to the contrary in the Specifications and other Contract Documents.
- (b) Vendor/Contractor shall utilize the U.S. Department of Homeland Security's E-Verify system, in accordance with the terms governing use of the system, to confirm the employment eligibility of:
  - 1. all persons employed by the Vendor/Contractor during the term of the Contract to perform employment duties within Jacksonville, Duval County, Florida; and
  - 2. all persons, including subcontractors, assigned by the Vendor/Contractor to perform work pursuant to the Contract with the Owner.

## MARY SINGLETON SENIOR CENTER RENOVATIONS

SECTION 3 PROPOSAL

PROJECT NO.2018-0044

BID NO.: CP-0091-19

BID DATE:	February 27 <sup>th</sup> , 2019
TO: THE CITY OF JACKSONVILLE, FLORIDA	2:00 P.M.
FROM:	
In accordance with the Invitation to Bid to construct the existing Mary Singleton Senior Center for the Construction of the Drawings, Specifications and Details, and Addenda thereto, if are made a part of this Proposal, the undersigned put the Renovations of the existing Mary Singleton Section Bid as follows:	City of Jacksonville, ications, Standard f any, all of which proposes to construct
LUMP SUM BASE BID - Provide all labor, equipment services to complete the Renovations of the exist: Senior Center as described in the contract document include not be limited to, interior renovations include in corridors, dining room and front entrance) framing, interior paint, tile, signage, exterior replacement, HVAC systems, minor renovations to plumbing systems and upgrades to repair the exist (including gates on landings at both sides) and appropriate sidewalk connecting to an existing sidewalk side of the building (where a path has been of traffic). Also, the asbestos removal by a State of asbestos abatement firm shown on Section 32 (Asbesto included in the Base Bid. All the work required Architectural Renovations in accordance with specifications are to be included in the base bid.	ing Mary Singleton ts. The work shall uding new flooring , restrooms, wall or doors, carpet of the electrical, sting freight lift proximately 40' of k on the 1st Street created from foot of Florida license os Report) shall be for completing the
TOTAL LUMP SUM BASE BID: \$	(Numerals)
	(Written)
LUMP SUM BID ALTERNATE # 1 - Provide all labor, equand services to construct ADA parking spaces. The not be limited to, saw cut and remove existing pave asphalt parking spaces, signage, wheel stops and al complete the 4 parking spaces in accordance with specifications.	work shall include ment, four (4)-60° l work required to
TOTAL LUMP BID ADDITIVE ALTERNATE # 1: \$	(Numerals)
	(Written)

		•

pressure wash exterior façade, ramps & knee walls (Section 08 25 16), provide clear sealer to cleaned concrete (Section 08 25 30) and any other item needed to complete the exterior cleaning and sealing in accordance with the contract drawings and specifications.
TOTAL LUMP BID ADDITIVE ALTERNATE # 2: \$(Numerals
(Written)
LUMP SUM BID ADDITIVE ALTERNATE # 3 - Provide all labor, equipment,
materials, and services to complete a Parking lot Expansion of the
existing Mary Singleton Senior Center building as described in the
contract documents. The work shall include not be limited to, and a
new parking lot with 25 parking spaces. The new parking lot includes
tree protection, sediment barrier, inlet protection, clearing and
grubbing, pavement demolition, excavation, embankment, concrete
curbing, sidewalk, stabilization, base, asphalt, signage, landscape,
irrigation and any other item needed to complete the work in
accordance with the contract drawings and specifications.
TOTAL LUMP BID ADDITIVE ALTERNATE # 3: \$ (Numerals
TOTAL LUMP BID ADDITIVE ALTERNATE # 3: \$(Numerals

of the existing Mary Singleton Senior Center building as described in the contract documents. The work shall include not be limited to,

(Written)

#### B. BASIS OF AWARD

The project may be awarded to the lowest responsive, responsible Bidder contingent on the availability of funds within the project's approved budget. The Total Base Bid plus selected Alternate(s), if any, will be used to determine the lowest bidder. If selected, Alternate(s) will be awarded in the order listed (i.e. - 1,2,3...). The CITY has the right to reject any or all bids.

#### C. REVISIONS OF BID PROPOSAL FORM

Request for revision of the Bid Proposal Form must be made to the ENGINEER at least ten (10) days prior to date of opening of Bids. Revision of the Bid Proposal by the Bidder will void the Bid.

#### D. CONTRACT EXPIRATION DATE

The Contract expiration date shall be established as follows:

The notice to proceed date plus ten (10) calendar days for mobilization, plus the construction time established in the Proposal, plus time extensions pursuant to valid change orders (which shall establish the construction completion date), plus 120 days to assure a contract exists beyond the scheduled construction completion date in order to comply with Executive Order Number 2013-05.

#### E. BID CHANGES

No changes in the amount of Bids appearing on the outside of Bids will be considered. Only the amounts shown on bidding documents inside the envelope will be considered. All changes, corrections and erasures must be initialed by the person signing the bid.

#### F. CONSTRUCTION COMPLETION

The CONTRACTOR shall begin work within ten (10) calendar days, including Sundays and holidays, after the date of written notice from the owner to begin work, and shall complete the Base Bid work within 105 calendar days, Bid Additive Alternate No. 1 within 90 calendar days, Bid Additive Alternate No. 2 within 90 calendar days (90 days total for Bid Add Alt # 1 and #2 combined) and Bid Additive Alternate No. 3 within 120 calendar days, including Sundays and holidays, after the expiration of such ten (10) day notice. If the Bidder determines that "off-hours" work is anticipated to complete the project within such allotted times, a schedule therefore shall be attached to this proposal as required by Section 20.3.4 of the General Conditions.

#### G. BID SECURITY

If Bid Security is required for this project, a Certified Check on

(or) Cashier's Check on

(or) Bid Bond properly executed by
the undersigned and by qualified surety in the sum of

representing not less than five percent

(5%) of the total amount of Bid, made payable to the Tax Collector,
City of Jacksonville, Florida, which the undersigned Bidder hereby

deposits as a guarantee of good faith and which it agrees to forfeit to the CITY of Jacksonville, not as a penalty, but as fixed and liquidated damages in the event it fails to enter into Contract, or fail to furnish the contract bond required in accordance with the Special Conditions within ten (10) days after receipt of the contract.

#### H. SUBMITTAL STATEMENT

The undersigned Bidder certifies that this proposal is made in good faith, without collusion or connection with any other entity bidding on this work.

The undersigned Bidder has examined and read (cover to cover) all Drawings, Specifications, General and Special Conditions, and other Contract Documents, and all Addenda thereto; and is acquainted with and fully understands the extent and character of the work covered by this Proposal and the specified requirements, for the proposed work.

The undersigned Bidder certifies that no officer or agent of the CITY will directly or indirectly benefit from this bid.

The undersigned Bidder states that this Proposal is made in conformity with the Contract Documents, and agrees that in case of any discrepancy or differences between its Proposal and the Contract Documents, the provisions of the latter shall prevail.

The undersigned Bidder certifies that it has carefully examined the foregoing Proposal after the same was completed and has verified every item placed thereon; and agrees to indemnify, defend and save harmless the CITY against any cost, damage or expense which may be incurred or caused by any error in the Bidder's preparation of same.

The undersigned Bidder states that all applicable taxes are included in the unit prices or Lump Sum Bid and acknowledges this project is not exempt from the State or Local Sales or Use taxes, and payment of such taxes is the responsibility of the Bidder.

The undersigned Bidder certifies that it has reviewed the provisions of the Jacksonville Ethics Code contained in Chapter 602, Jacksonville Ordinance Code, and the provisions of the purchasing Code contained in Chapter 126, Jacksonville Ordinance Code.

The undersigned Bidder agrees to keep its bid in effect for 180 calendar days after the Bid Opening date to allow the CITY time to award the bid, should it be awarded, and time to prepare and execute the contract (or issue the purchase). This time period begins at the time bids are opened and ends upon the issuance of Notice to Proceed (NTP) by the CITY. The bid prices shall remain in effect throughout the life of the Contract. Failure of the CITY to issue NTP within the specified time period shall allow Bidder to withdraw its Bid and terminate its contract without penalty or forfeiture of Bid Bond. Failure of the CITY to issue NTP within the specified time period shall not entitle Bidder to an adjustment of its Bid prices, unless mutually agreeable by the CITY.

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The undersigned Bidder certifies, under penalty of perjury and contract rescission, that it has all required licenses to perform the work required to fulfill the terms of the contract resulting from a successful bid. Furthermore, the undersigned Bidder affirms that all subcontractors requiring to be licensed are listed in Appendix "C" and are properly licensed to perform work on their respective portions of this project. The successful bidder will be required to sign an affidavit in accordance with the above provision prior to award of the project.

PRESIDENT	NAME OF BIDDER
SECRETARY	SIGNATURE AND TITLE
TREASURER	BUSINESS TELEPHONE
75 0	EMERGENCY TELEPHONE
If Corporation, Affix Corporate Seal	BUSINESS ADDRESS
	CITY
	STATE AND ZIP CODE

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#### APPENDIX A - QUANTITIES

It is understood that the quantities set forth in the Proposal Form are calculated estimates, and that payment will be made only upon the actual quantities of work complete in place, measured as defined in the Contract Documents. It is the Bidder's responsibility to verify the scope and quantity of work included in lump sum bid items. No Adjustment in a lump sum bid price will be allowed for errors in quantity tabulations unless there is a change in the defined scope of work after receipt of the bids.

It is anticipated that the quantities set forth in the Bid Proposal Form are reasonable and will not be exceeded. During the bid process, any Bidder finding a discrepancy larger than 10% of the estimated quantity shall bring the discrepancy to the attention of the ENGINEER. The quantity estimated will be checked and if found in error, an addendum will be published and distributed to all Bidders. Notwithstanding the foregoing, however, if during construction any quantity is exceeded, the overrun must be approved by the ENGINEER prior to proceeding with work to incorporate the item in the construction. No change order for this additional work will be required other than a final change order for the amount installed, except when any one pay item is exceeded by more than 20% of the quantity listed or when the total amount of all overruns exceeds \$50,000. If any one of said quantities is adjusted greater than twenty percent (20%), then the unit price is subject to negotiation.

It is expressly understood and agreed that the foregoing Total Bid(s) is/are the basis for establishing the amount of the Bid Security and is not to be construed to be a Lump Sum Proposal.

#### APPENDIX B - OFF-HOURS WORK

Off-hours work as provided in Section 20.3.4 of the General Conditions is ( ) or is not (X) anticipated. (Attach schedule of off-hours work if anticipated.)

### APPENDIX C - LIST OF ALL SUBCONTRACTORS AND SHOP FABRICATORS

For all bids, the Bidder expressly agrees that:

1. In accordance with section 2.16.1, hereof, as part of its bid submission in response to this solicitation, each bidder must complete the following Schedule of Licensed Subcontractors by providing the company name, license number, and phone number of the subcontractor(s) it intends to utilize to perform the scopes of work listed below that are applicable to the project in question (attach additional sheets if necessary).

#### SCHEDULE OF LICENSED SUBCONTRACTORS

Scope of Work	* Self-Perform / License No.	Subcontractor's Company Name	License No.	Phone No:
Underground Utility				
Electrical				
Plumbing				
Mechanical				
Sheet metal				

Roofing				
Structural Welding				
Carpentry				
Pool/Spa				
Irrigation Installation	, ·			
Non-structural Siding				1.001
Water Treatment Equip.				
Natural Gas Specialty				
Non-electrical Signage				
,		1	1	1

- To the extent applicable, bidders are required to indicate, as part of completing the above schedule, all scopes of work that they intend to self-perform and to provide their license numbers to evidence that they currently hold the required certifications, qualifications, or licensing necessary to self-perform the same (see § 489.131, Florida Statutes).
- 2. In accordance with section 2.16.2, hereof, bidder hereby furnishes the names, addresses and the scopes of work to be performed by the following listed subcontractors and/or shop fabricators, that are NOT required to be qualified, or licensed in accordance with chapter 342, certified, Jacksonville Ordinance Code and/or Chapter 489, Florida Statutes, for their respective scope(s) of work which shall: (i) list ALL subcontractors and shop fabricators for each of their respective scope(s) of work; and (ii) certify that each listed subcontractor and shop fabricator is financially responsible, properly licensed and insured, experienced and qualified to perform their respective scope(s) of work necessary to construct the project in question in a good and workmanlike manner. (Attach additional sheets if necessary)

SCHEDULE OF NON-LICENSED SUBCONTRACTORS & SHOP FABRICATORS

Scope of Work	Subcontractor's and/or Shop Fabricator Company Name	Phone No.	Address
	-		
			W-94104-01/A-1-
·			
<del></del>	3-7		Lump Sum Bid Proposal

3. In accordance with section 2.25.1, hereof, bidder hereby furnishes the following schedule of Major Items of Equipment to be furnished and installed. (Attach additional sheets if necessary)

SCHEDULE OF MAJOR ITEMS OF EQUIPMENT

Item 1	Manufacturer	Description

#### APPENDIX D - ADDENDA ACKNOWLEDGMENT

Bidder acknowle	edges receip	of the following addendum:
Addendum No. 1	Date:	Acknowledged By:
Addendum No. 2	Date:	Acknowledged By:
Addendum No. 3	Date:	Acknowledged By:
Addendum No. 4	Date:	Acknowledged By:

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#### APPENDIX E - TRENCH SAFETY ACT ACKNOWLEDGMENT

If this project involves trench excavations which will exceed a depth of five (5) feet, pursuant to Chapter 90-96, Laws of Florida, the requirements of the Florida Trench Safety Act will be in effect and the undersigned Bidder hereby certifies that such Act will be complied with during the construction of this project.

The undersigned Bidder acknowledges that included in the various items of the proposal and in the total bid price are costs for complying with the Florida Trench Safety Act. The Bidder further identifies the costs to be summarized below:

	Trench Safety Measure (Description)	Units of Measure (LF,SY)	Quantity	Unit Cost	Extended Cost
A.					
В.					
c.					
D.					
Е.					
				TOTAL	

Failure to complete the above may result in the bid being declared non-responsive.

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APPENDIX F:	CONFLICT of INTERE	EST STATEMENT	BID NO.:
	r Section I or Section II hereunder rejection of this bid proposal.	er relative to Florida	Statute 112.313(12). Failure to execute
	SECTION	ON I	
	icial or employee of the City of ia material financial interest in thi		requiring the goods or services described
Signature		Company Name	
Name of Official (type or p	print)	Business Address	
		City, State, Zip C	ode
	SECTION	ON II	
excess of 5%) in this cor		erest Statements with	having material financial interest(s) (in h the Supervisor of Elections, 105 East
Name	Title of Position		Date of Filing
Signature		Company Name	
Name of Official (type or	print)	Business Address	,
		City, State, Zip C	ode
	PUBLIC OFFICIA	L DISCLOSURE	
make a disclosure at the		submitted or at the	s a financial interest in a bid or contract time that the public official acquires a with bid.
Public Official			
Position Held			
Position or Relat	ionship with Bidder		

GB Form 105 (revised 1/2013)

Appendix G

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## Appendix H

## SCHEDULE OF JSEB SUBCONTRACTOR/SUBCONSULTANT PARTICIPATION

NAME OF BIDDER					
PROJECT TITLE					
BID NUMBER TOTAL BASE BID AMOUNT					
*Please list all	JSEBs				
NAME OF SUB FIRM	ADDRESS OF FIRM	TYPE OF SUB (if certified)	TYPE OF WORK TO BE PERFORMED	TOTAL CONTRACT VALUE	
JSEBs are not, accordance with (	for any reason Ordinance 2004-60	n, properly o 2, at the time	, if any of the certified with the of bid opening, to on percentage goa	he City, in the same will	
this schedule, execution of a operjury I declare	tants/Subcontracto as well as any contract with th	y applicable e City of Jac ad the foregoi	d herein for wor alternates, cond eksonville. Under .ng conditions and	rk listed in litioned upon penalties of	
Signature: Signa	ture of Prime Cor	Title	:	Date:	
Print Name:					
Attach additional list of su	ıbcontractors/subconsultar	its as needed			

JSEB FORM 1

## LETTER OF INTENT

(Name of JSEB Sup	plier/Consultant/Subcontracto	or)
NAME OF PROJECT	В	ID NO
I, the undersigned, understand that the price belowstated below. I further understand that this price is bid requirements. All work must meet the City of J	s subject to increase or decrea	ase due to the City of Jacksonville
	*Total Dries of word	
*Scope of Work		t to be performed or materials ed including Sales Tax
*Scope of Work		
*Scope of Work		
*Scope of Work		
*Scope of Work  Signature of JSEB Supplier/Consultant/ Subcontractor		

JSEB FORM 2

#### **DISQUALIFIED/PROBATIONARY Vendors List**

In accordance with the City's Procurement Code 126.201 (1) (1), the Chief of Procurement and all agencies are advised to cease doing business with disqualified vendors as they appear on this list. However, any existing contracts held by the vendors listed below should be completed.

VENDOR	VENDOR-FEIN #	Date of Disqualification	Eligibility Reinstatement Date
Able Lumber and Supply	593198312	07/18/1997	07/18/1998
*Aquino Construction Company, Inc.	00001424	04/19/2018	04/19/2021
Armored Car Services	593191058	02/10/2000	02/10/2001
*Arnett Contracting, Inc.	223965485	06/04/2010	06/04/2013
*Aztec American Builders, Inc.	00012849	01/10/2018	01/10/2021
** B. Robinson Corporation	00008704	10/24/2018	10/24/2019
**B & H Full Service Cleaning, Inc.	*****3840	11/19/2010	11/19/2011
C & H Construction	593216284	03/07/2002	03/07/2003
Carolina Paper Mill	593579372	10/20/1980	10/20/1981
*Cleft Landscape Mgmt.	590036843	10/26/2000	10/26/2001
Concerned Citizens of Developing the Disable, Inc. d/b/a A.I.C.R.		07/23/1998	07/23/1999
Court Yard Concepts	593198312	05/07/1997	05/07/1998
Creed Company	45357941	03/07/1990	03/07/1991
D&D Sile Work, Inc.		10/9/2013	10/9/2016
Elite Public Safety		03/25/2000	03/25/2001
Fire Defense Centers	593035606	06/08/1987	06/08/1988 ·
*First Coast Site Contractors	273995727	10/26/2012	10/26/2013
**Francbeth, Inc.	593658944	7/9/2014	7/9/2015
*GA Janitorial Cleaning Svcs., Inc.	010684614	08/31/2009	08/31/2010
George Patterson & Assoc.	59317759	06/05/1998	06/05/1999
G K Salutions	593541756	09/08/1999	09/08/2000
**J&J Recycling and Demo; LLC	****1758	4/21/2015	10/21/2015
Kingdom Cleaning	*****6694/*****9588	10/20/2015	10/20/2017
*Process Server Enterprises, LLC	263336079	04/29/2010	04/29/2011
**Ray T. Freiha Construction, Inc.	593615599	06/01/2010	06/01/2012
*The Real Dirt Busters	*****3042	10/26/2012	10/26/2015
The Rose Group, LLC	*****0716	07/21/2015	07/21/2018
**Sheza General Contractors, Inc.	593430930	11/02/2010	11/02/2011
** Synot Roofing & Construction LLC	*****6145	08/28/2018	02/28/2019
Tiger Tale Publication	22.2	05/21/1998	05/21/1999
Whitlie & Sons		07/25/1980	07/25/1981
		200 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

<sup>\*</sup>Vendors disqualified/debarred from bidding as Prime and/or Sub Contractors

<sup>\*\*</sup>Vendors placed on probation for a period of 6 months or more

#### NO BID FORM

Bid # CP-0091-19

## UNABLE TO SUBMIT A BID? WE SINCERELY HOPE THIS IS NOT THE CASE.

If your firm cannot submit a bid at this time, please provide the information requested in the space provided below and return it to:

City of Jacksonville Procurement Division 214 North Hogan St, Ste #105 Jacksonville, Florida 32202

We are	e unable to submit a bid at this time	due to	the following reason(s):
	Insufficient time to respond		Conflicts with production schedule
	Don't meet minimum requirements	; <b>□</b>	Do not offer these commodities/svcs
	Unable to meet bond requirements		Other (please state below)
Sugges	stions:		
Compa	any Name:		
Signat	ure & Title:		
Street:			
City:	State:	Zip:	Phone:

PLEASE SUBMIT THIS FORM ONLY; DO NOT SEND BACK THE BID PACKAGE

This form may be faxed to 904-255-8839

#### **SECTION 4**

## Full and Fair Consideration of Ex-Offenders For Awarded Contractor

#### 4.1 POLICY

It is the policy of the City of Jacksonville that the rehabilitation of ex-offenders is an essential component in a community fight against criminal activity; the hiring of ex-offenders into fair paying jobs helps restore the economic stability of ex-offenders, perpetuates their rehabilitation, reduces recidivism and contributes to a community crime free environment; providing consideration and opportunities to ex-offenders with companies doing business with the City of Jacksonville can be accomplished without compromising the security of the businesses, or the City and its citizens, and without unnecessarily depriving others of opportunities; and that the City of Jacksonville should take a leading role in the rehabilitation of ex-offenders, and has done so through the City's third-party service provider ex-offender re-entry programs that provide job training and/or job placement services to Ex-Offenders.

#### 4.2 **DEFINITIONS**

For the purpose of this Section, the following definitions apply:

- (1) City Ex-Offender Program Providers shall collectively mean the Jacksonville Sheriff's Office Jacksonville Re-Entry Center and any entity under contract with the City to provide job training and/or job placement services to Ex-Offenders.
- (2) Contractor for purposes of this Section only shall mean a person or entity awarded a City contract in the amount of \$200,000 or greater.
- (3) Ex-Offender means a person who has pled guilty, no contest or nolo contendere to a felony offense; or has been found guilty of a felony offense by a judge or jury; regardless of adjudication of guilt.
- (4) Ex-Offender Program Provider shall mean the Jacksonville Sheriff's Office Jacksonville Re-Entry Center, any entity under contract with the City to provide job training and/or job placement services to Ex-Offenders, or any other entity that specializes in job training and/or job placement services for Ex-Offenders.

#### 4.3 CONSIDERATION FOR AWARD

No contract for construction, remediation or capital improvement in an amount of \$200,000 or greater shall be awarded unless the responding bidder agrees in writing, by submission of its bid, including FORM 4A, to fully comply with Section 4 requirements as outlined herein. Failure to submit the referenced FORM 4A at the time of bid submission may be grounds for determining a bid submission as non-responsive bid(s). The City reserves the right to reject any/all bids. A contractor complies with this section by indicating its intent on FORM 4A to provide full and fair consideration for ex-offenders who seek employment. A contractor is not required to actually employ an ex-offender at the time it bids for or is awarded a contract, subject to this policy.

#### 4.4 COMPLIANCE WITH THIS SECTION

Each awarded contractor will be required to report on its compliance with this section via a notarized Compliance Report to be submitted by the Contractor at the time of submission of progress payments.

And shall include the following information:

- (i) The number of Ex-Offenders hired and currently working, or an explanation as to why no Ex-Offenders have been hired:
- (ii) The number of Ex-Offenders interviewed for employment under the project;
- (iii) An explanation as to why any Ex-Offender who applied for employment was refused employment;
- (iv) Whether the Contractor maintains an employment policy that Ex-Offenders will be given full and fair consideration in employment;
- (v) Whether the Contractor indicates on recruitment literature that Ex-Offenders will be given full and fair consideration in employment by the Contractor;
- (vi) Whether a job opening under the project was available during the reporting period; and
- (vii) Statement from the Contractor that the Contractor has contacted an Ex-Offender Program Provider no later than 30 days after the issuance of a notice to proceed under the project to obtain information regarding available Ex-Offenders for employment.

Additionally, each awarded Contractor must agree to do the following during the contracted period:

- (1) Identify potential job opportunities under the project that may be available for Ex-Offenders after contract award;
- (2) Consider for job placement after contract award at least one otherwise qualified Ex-Offender, to the extent a job opportunity is available under the project and an otherwise qualified Ex-Offender has applied for such job;
- (3) Assist the City in addressing the goal of securing employment for Ex-Offenders by complying with the City's Procurement Rules Regarding Ex-Offenders, as may be amended.

Nothing in this Section 4.4 creates any cause of action by an individual or ex-offender against the City or the contractor for failure to hire. Nothing in this Section 4.4 requires a contractor to retain an ex-offender in employment for any definite length of time. However, a contractor should give consideration to ex-offenders pursuant to this section for replacement of personnel and or additional personnel.

#### 4.5 NON-COMPLIANCE

If an awarded contractor fails to comply with the requirement of this section, the City may withhold payment due under the contract until the awarded contractor complies with Section 4.4. Upon determination by the City that an awarded contractor is not in compliance with this section, the awarded contractor will receive written notice of such non-compliance, and the awarded contractor will be required to reply to the Notice of Non-Compliance within ten (10) days. The written response must include the required documentation to show full compliance as specified in Section 4.4 herein. Failure to comply with the section and/or failure to respond to the Notice of Non-Compliance may result in, but not be limited to, withholding of payment(s), breach of contract, cancellation of contract, filing against performance bond(s) and disciplinary action, including contractor debarment, in accordance with Chapter 126, specifically Section 126.201(1). In the event a dispute arises as to whether the contractor has complied with Section 4.4, the Contract Administration Section of the Public Works Department shall engage the Office of the Ombudsman of the Finance and Administration Department to rule whether the contractor has complied. Such determination shall be made within (30) days from receipt by the Office of the Ombudsman. During the period of any contest or dispute, the contractor shall otherwise continue to perform under the contract.

## <u>FORM 4A</u> - Acknowledgement/Commitment Form Full and Fair Consideration of Ex-Offenders For Awarded Contractor Direct Hiring

The bidder agrees to cooperate with the City of Jacksonville in addressing the goal of increasing public safety, reducing recidivism and securing employment for ex-offenders by affixing its signature below and by submission of a bid response. The bidder need not actually employ an exoffender at the time of submitting its bid, but agrees to comply with Section 4 if awarded the contract. Failure to submit signed FORM 4A at the time of bid submission may be grounds for determining a bid submission as "non-responsive," resulting in rejection of non-responsive bid(s). The City reserves the right to reject any/all bids.

Bidder, by signing below, agrees to fully comply with Section 4 of the Bid Specification and do the following during the contract award term:

- (1) Identify potential job opportunities under the project that may be available for Ex-Offenders after contract award;
- (2) Consider for job placement after contract award at least one otherwise qualified Ex-Offender, to the extent a job opportunity is available under the project and an otherwise qualified Ex-Offender has applied for such job;
- (3) Execute a notarized compliance tally report ("Compliance Report") at the time of submission of progress payment(s) on such Contractor's employment practices and experience during the project with respect to the hiring of Ex-Offenders that includes the following information:

  (i) the number of Ex-Offenders hired and currently working, or an explanation as to why no Ex-Offenders have been hired; (ii) the number of Ex-Offenders interviewed for employment under the project; (iii) an explanation as to why any Ex-Offender who applied for employment was refused employment; (iv) whether the Contractor maintains an employment policy that Ex-Offenders will be given full and fair consideration in employment; (v) whether the Contractor indicates on recruitment literature that Ex-Offenders will be given full and fair consideration in employment by the Contractor; (vi) whether a job opening under the project was available during the reporting period; and (vii) a statement from the Contractor that the Contractor has contacted an Ex-Offender Program Provider no later than 30 days after the issuance of a notice to proceed under the project to obtain information regarding available Ex-Offenders for employment; and
- (4) Assist the City in addressing the goal of securing employment for Ex-Offenders by complying with the City's Procurement Rules Regarding Ex-Offenders, as may be amended.

After the award of contracts, failure of the awarded contractor to comply with this policy on providing full and fair consideration to ex-offenders for employment may result in the City exercising its remedies under Section 4.5.

Project Name and Bid Number
,

#### **COMPLIANCE REPORT**

## Full and Fair Consideration of Ex Offenders For Awarded Contractor \*Submitted with Progress Payments This form must be notarized

Date	
Project Name and Bid Number	
Name of Contractor	
Authorized Signature and Title	
Printed Name	
By submission of this report, it is attested that the efforts below have been usefull and fair consideration to ex-offenders in the hiring practices of the above in support of and in compliance with Section 4 of the project specifications/corr	named contractor
Please review the following and respond accordingly, if applicable.	
(i) The number of Ex-Offenders hired and currently working, Num or an explanation as to why no Ex-Offenders have been hired.  (As to number hired, satisfactory evidence must be provided and compliance report of the hire: e.g. Contractor's payroll information and obtained from the Florida Department of Corrections website.)  If None Hired Why?	
(ii) The number of Ex-Offenders interviewed for employment under the project	
(iii) An explanation as to why any Ex-Offender who applied for employment was refused employment.	
(iv) Whether the Contractor maintains an employment policy that Ex-Offenders will be given full and fair consideration in employment.	Yes/No
<ul><li>(v) Whether the Contractor indicates on recruitment literature that Ex-Offenders will be given full and fair consideration in employment by the Contractor.</li></ul>	Yes/No
(vi) Whether a job opening under the project was available during the reporting Period.	g <u>Yes/No</u>

Provider (State provider name) no later than 30 d under the project to obtain information regarding	lays after the issuance of a notice to proceed
(This statement is mandatory)	
If necessary, on a separate attachment, provide been hired, including but not limited to, identifyin related to bonding or insurance, as applica employment, efforts made to recruit ex-offenders encountered that prevented ex-offenders from be	ng any safety or security considerations, issues able, whether any ex-offenders applied for some for employment and any specific impediments
Sworn to before me this day of	,20 by (Name of affiant)
He/She is personally known to me or has produas identification.	uced
Notary's Printed Name	Expiration of Notary's Commission
Affix Seal Here:	

# EQUAL BUSINESS OPPORTUNITY PROGRAM PARTICIPATION PERCENTAGE PLAN FOR JACKSONVILLE SMALL AND EMERGING BUSINESSES

#### A. <u>POLICY</u>

Pursuant to Part 6 of Chapter 126, Jacksonville Ordinance Code, the City of Jacksonville encourages the utilization and participation of Jacksonville Small and Emerging Businesses (JSEBs) in its contract awards based upon availability. It is the City's intent in adopting this program to reflect the philosophy with regard to enhancing participation of JSEBs in all areas of procurement.

Please be advised that, in order to be counted toward meeting the participation percentage goal defined herein, all JSEBs shall be certified by the City in accordance with Part 6 of Chapter 126, Jacksonville Ordinance Code, AT THE TIME OF BID OPENING.

In the event bidders/proposers are unable to obtain bids from JSEB subcontractors that equal or exceed the percentage established in the participation goals, shall at minimum, submit, at the time of bid opening a Notice of Intent to Submit the Good Faith Effort Form (Form 4). This is outlined in the Good Faith Effort category in Section J.

### B. JSEB OBLIGATION

Bidders/proposers are required to make all efforts reasonably possible to ensure that JSEBs have a full and fair opportunity to compete for performance on this project. Contractors shall not discriminate on the basis of race, ethnicity, national origin or gender in the award and performance of the work under this contract.

#### C. ELIGIBILITY

- 1. To be considered eligible for contract award, the Contractor shall include with the bid/proposal an original Form 1(Schedule of Subcontractor/Subconsultant Participation), showing:
  - a. Total percentage of JSEB work or procurement that the Prime Contractor intends to award;
  - b. The identification of the JSEB as being a subcontractor, service organization, manufacturer, or supplier;
- In addition, each certified JSEB must submit to the prime contractor a Letter of Intent (see 2. Section 3 of specification documents) to perform a specific task related to the project for which he or she is licensed to perform and has been certified by the City in that category. The Letter of Intent must include the JSEB subcontractor's name, the scope of work to be performed, and the dollar value of the work to be performed by the JSEB (the information contained in the Letters of Intent must reflect the information contained in the bidder's Schedule Subcontractor/Subconsultant Participation). Copies (or faxes) of the original Letters of Intent signed by the JSEB subcontractors or suppliers may be submitted at the time of the scheduled bid opening but must be submitted within 48 hours after the scheduled bid opening to the Chief of Procurement, 214 N Hogan Street, Suite 800 Jacksonville, FL 32202... Failure to submit the Letter(s) of Intent within 48 hours after the scheduled bid opening may result in the bid in question being rejected as non-responsive.

a. All JSEBs must be subcontracted in the area that they are licensed and certified, in accordance with the requirements of Part 6, Chapter 126, Jacksonville Ordinance Code.

#### D. COMPLIANCE

All bidders, proposers or subcontractors participating in this project are hereby notified that failure to fully comply with the City's JSEB policy as set forth herein shall constitute a breach of contract which may result in termination of the contract or such other remedy as deemed appropriate by the Owner. Such penalties as outlined in Section 126.201, Jacksonville Ordinance Code, will apply.

## E. PARTICIPATION GOALS

The following goals apply to this contract and submissions of a bid by a prospective contractor shall constitute full acceptance of all conditions outlined in the bid documents, Chapter 126, Jacksonville Ordinance Code, and the prospective contractor's bid proposal.

The attainment of JSEB participation goals established for this contract will be: (i) based upon JSEBs certified by the City AT THE TIME OF BID OPENING in accordance with Part 6 of Chapter 126, Jacksonville Ordinance Code; and (ii) measured as a percentage of the total dollar value of the contract or, in the case of alternates, the percentage is calculated on the base bid for the purpose of the award; however, the contractor is expected to make every attempt to meet or exceed the stated goals when the alternates are awarded. The goal established for this contract is:

# 10 PERCENT TO BE PERFORMED BY CITY CERTIFIED JSEBs AT THE TIME OF BID OPENING (ANY COMBINATION)

### F. <u>CONTRACT AWARD</u>

The City proposes to award the contract to the responsive, responsible bidder submitting a reasonable bid, provided: (i) the bidder has met the goals for JSEB participation; or (ii) if unable to meet the goals, the bidder has timely submitted an acceptable Good Faith Effort Statement and supporting documentation that demonstrates, pursuant to Part 6 of Chapter 126, Jacksonville, Ordinance Code, a sufficient attempt to meet the JSEB participation goals as established herein. Bidders are advised that the City has sole discretion and authority to determine if any bidder has made a "Good Faith Effort." The City reserves the right to reject any or all bids submitted. The City will have discretion to reject any bid or exclude a prospective bidder from submitting a bid who has been non-responsive to JSEB program requirements without satisfactory justification accepted by the Chief of Procurement. Rejections hereunder may be timely protested pursuant to the city's Procurement Protest Procedures, a copy of which is included as part of these bid documents.

#### G. SUBCONTRACT CLAUSE

- 1. All bidders hereby agree to incorporate the JSEB participation, policy, goals, conditions and instructions in all agreements that offer JSEB participation subcontracting opportunities.
- 2. If a change order presents further subcontracting opportunity beyond current subcontracting, the prime contractor shall make positive efforts to further include JSEB participation.
- 3. The JSEB prime contractor shall perform at least 25% of the total amount of the work to be performed under this Contract with its own workforce. Subletting of any Work under this Contract shall not relieve the JSEB prime contractor of its full responsibility for the proper and timely performance and for its selection of Subcontractor (s).

#### H. POST AWARD REQUIREMENTS

After the award of the contract, failure on the part of the successful contractor to subcontract with JSEBs at a percentage level equal to or higher than stated on Form 1, may put the contractor in violation and is subject to penalties outlined in Chapter 126, Jacksonville Ordinance Code.

#### I. PAYMENT OF SUBCONTRACTORS

Prime contractors shall certify in writing that ALL subcontractors and suppliers have been paid for work and materials from previous progress payments received (less any retainage) as a condition precedent to prior to receipt of any further progress payments. Prime contractors shall be obligated to pay subcontractors within 3 days of receipt from the City of funds, and must confirm payment to the City. Prime contractor shall have a continuing obligation to pay all subcontractors and suppliers equal to the amount of work and materials furnished on this project at the direction of the prime contractor and for which amount prime contractor includes in its request or application for payment that it submits to the city in order to induce payment for the same; otherwise, within 10 business days after receiving written notice from the city, prime contractor shall return to the city any and all amounts it has been paid by the city that prime contractor failed to pay its subcontractors or suppliers in contradiction to information contained in a corresponding request or application for payment submitted by prime contractor. Additionally, failure to comply with the requirements of this section may result in penalties imposed upon prime contractor, including without limitation those outlined in Chapter 126, Jacksonville Ordinance Code.

## J. GOOD FAITH EFFORTS

Bidders who are unable to meet the stated JSEB participation goals set forth herein are required to submit to the Chief of Procurement Division: (i) a Notice of Intent to Submit a Good Faith Effort Statement at the time of bid opening; and (ii) a completed Good Faith Effort Form (Form 4) and all supporting documentation within 48 hours after the scheduled bid opening, that demonstrate all of the bidder's efforts in the solicitation of subcontractors to meet the JSEB participation goals on this project, which will be evaluated in accordance with the factors outlined in Part 6 of Chapter 126, Jacksonville Ordinance Code, including without limitation §§ 126.613 and 126.614.

Failure to submit the Good Faith Effort Statement and supporting documentation within 48 hours after the scheduled bid opening: (i) shall constitute a waiver of any right to have the same considered; and (ii) may result in the bid in question being rejected as non-responsive.

NOTE: The City will investigate and verify information submitted in determining Good Faith Effort, and, among other factors, will compare the same with the performance of other bidders in their attempt to meet the participation goals defined herein.

## K. EXCLUSIONARY AGREEMENTS

Agreements between any bidder/proposer and a JSEB in which the JSEB promises not to provide subcontracting quotations to other bidders are prohibited, and may result in both the bidder/proposer and the JSEB being subject to the penalties outlined in Chapter 126, Jacksonville Ordinance Code.

## L. <u>JOINT VENTURE SUBMIT</u>TAL

For Capital Improvement, contractors submitting as Joint Venture must be certified as a joint venture at the time of bid opening. Information concerning submitting a bid as a Joint Venture may be obtained from the Procurement Division, 117 West Duval Street, Suite 335, Jacksonville, FL 32202,

(904)630-1184. Failure to meet the deadline for certification as a Joint Venture may deem a proposal non-responsive.

#### M. SUBSTITUTIONS

- 1. The contractor cannot make changes to the Schedule of Participation or substitute subcontractors named in the Schedule of Participation without the prior written approval of the JSEB Administrator upon recommendation of the Ombudsman. Unauthorized changes or substitutions shall be a violation of this chapter, and may constitute grounds for rejection of the bid or proposal or cause termination of the executed contract for breach, the withholding of payment and/or subject the contractor to contract penalties or other sanctions.
- 2. All requests for changes or substitutions of the subcontractors named in the Schedule of Participation shall be made to the Ombudsman with a copy to the JBA Administrator in writing, and shall clearly and fully set forth the basis for the request. A contractor shall not substitute a subcontractor or perform the work designated for a subcontractor with its own forces unless and until the Administrator approves such substitution in writing. A contractor shall not allow a substituted subcontractor to begin work until both the JBA Administrator and the City's project manager have approved the substitution.
- 3. The facts supporting the request must not have been known nor reasonably should have been known by either party prior to the submission of the Schedule of Participation. Bid shopping is prohibited. The contractor must bring this dispute to the Ombudsman for resolution.
- 4. The Administrator's final decision whether to permit or deny the proposed substitution, and the basis therefore, will be communicated to the parties in writing by the Administrator, with a copy to the CAO.
- 5. If the City requires the substitution of a subcontractor listed in the Schedule of Participation, the contractor shall undertake Good Faith Efforts to fulfill the Schedule of Participation if the Project Specific Goals would not otherwise be met. If the Goal(s) cannot be reached and Good Faith Efforts have been made, the contractor may substitute with non-JSEBs.
- 6. If a Contractor plans to hire a subcontractor on any scope of work that was not previously disclosed in the Schedule of Participation, the contractor shall obtain the approval of the JBA Administrator to modify the Schedule of Participation and must make Good Faith Efforts to ensure that JSEBs have a fair opportunity to bid on the new scope of work.
- 7. Changes to the scopes of work shall be documented by the User Department at the time they arise, to establish the reasons for the change and the effect on achievement of the Project Specific Goal(s).

### N. JSEB MONTHLY REPORT

A completed JSEB Monthly Report (See Form 3) will be included with each pay request. Prime Contractor is required to maintain records of the JSEB Monthly Reports for three (3) years.

#### O. CALCULATION OF JSEB PARTICIPATION

- 1. Credits toward the JSEB goal will be based on the percentage of work actually performed by JSEBs.
- 2. If a certified JSEB bidder bids as a prime contractor, it will meet the established goal by virtue of being a certified JSEB; nevertheless, JSEBs who bid as prime contractors are encouraged to make every attempt to subcontract with other JSEBs.
- 3. Subject to the requirements of Part 6 of Chapter 126, Jacksonville Ordinance Code, credit towards the JSEB goal allowed for a joint venture involving a JSEB will be equal to the same percentage as the percentage of ownership and control of the JSEB participants in the joint venture. The eligibility of a JSEB joint venture will be determined on a project-by project basis.

A joint venture must be certified as a JSEB joint venture at the time of bid opening in order for the participation of the JSEB partner to be counted towards the JSEB goal requirement. The JSEB partner's share in the ownership, control, management responsibilities, risks and profits of the joint venture must be at least twenty-five percent (25%) and the JSEB partner must be responsible for a clearly defined portion of the work to be performed.

- 4. The EBO office will accept participation from certified JSEB companies that are certified at the time of bid opening, and that are immediately subordinate to subcontractors and sub-consultants, toward meeting percentage goals.
- 5. The EBO office will accept 100% of purchase price for materials from JSEB suppliers towards meeting JSEB percentage goals.

## P. PENALTIES

Severe penalties, including without limitation those outlines in Chapter 126, Jacksonville Ordinance Code, may apply to non-compliance with the Equal Business Opportunity Program and other violations of applicable federal, state and local laws statutes, ordinances, rules and regulations.

## JSEB FORM 1 CITY OF JACKSONVILLE SMALL & EMERGING BUSINESSES PROGRAM

## SCHEDULE OF JSEB SUBCONTRACTOR/SUBCONSULTANT

NAME OF BIDDI	ER			
PROJECT TITLE				
BID NUMBER		_ TOTAL BASE BID	AMOUNT	
*Please list all JS	EBs			
NAME OF SUI FIRM	B ADDRESS OF FIRM	TYPE OF SUB (if certified)	TYPE OF WORK TO BE PERFORMED	TOTAL CONTRACT VALUE
***************************************				-
				VIII 100 000 000 000 000 000 000 000 000
The undersigned ackr accordance with Ordi defined herein.	nowledges and agrees that, if any of t nance 2004-602, at the time of bid op	he above-listed JSEBs ar pening, the same will not	e not, for any reason, properly be counted toward meeting th	y certified with the City, in ne participation percentage goal as
schedule, as well as a	enter into a formal Agreement with to ny applicable alternates, conditioned ad the foregoing conditions and instru	upon execution of a cont	tract with the City of Jacksony	ville. Under penalties of perjury I
Signature:	Signature of Prime Contractor	Title:		Date:
Print Name:				

Rev 04/26/2018

Attach additional list of subcontractors/sub-consultants as needed

## JSEB FORM 2 CITY OF JACKSONVILLE SMALL & EMERGING BUSINESSES PROGRAM

## **LETTER OF INTENT**

(Name of JSEB Suppli	er/Consultant/Subcontractor	)
NAME OF PROJECT	BII	O NO
I, the undersigned, understand that the p work stated below. I further understand of Jacksonville bid requirements. All w	that this price is subject ork must meet the City of *Total Price of	to increase or decrease due to f Jacksonville bid specification work to be performed or materials.
Scope of Work	to be su	applied including Sales Tax
Scope of Work	to be su	applied including Sales Tax
Scope of Work	to be su	applied including Sales Tax
Scope of Work	to be su	applied including Sales Tax

\*Scope of Work and Price are covered under Base Bid only.

Total price must be filled in on this form in order for participation to be considered valid. This form must be used for Letter of Intent.

## **JSEB FORM 3**

## CITY OF JACKSONVILLE SMALL & EMERGING BUSINESSES PROGRAM FINANCE & ADMINISTRATION DEPARTMENT CONSULTANT AND CONTRACTOR'S MONTHLY REPORT

RIME CONTRACTOR NA	AME:			PROJ	ECT TITLE:		
ROFESSIONAL SERVIC	ES NO			OR -	CITY BID NO.:		
URRENT CONTRACT TOTAL AMOUNT \$				CITY	CONTRACT NO		
			INVOICE	E INFORMAT	NOI		
	INVOICE NO.:					ICE \$:	
FOR PERIO		3:				CED \$:	
				CON	TRACT % COMP	LETE:	
		C	ONTRACI	Γ GOAL TRA	CKING		
JSE	BE/MBE GOAL \$	S:			JSEB/MBE	GOAL %:	
CUMULAT	PRIOR MONT	Н					
	IVE <b>JSEB/MBE</b> S PRIOR MONT	»: Н		1	FORMULA F	OR CUMULATIVE MON	/TH %:
CUMULATIVE N	ON-JSEB/MBE	<b>\$</b> :		<u>'</u>	CUMULATIVE	\$ / CUMULATIVE \$ II	NVOICED
CUMULATI	VE <b>JSEB/MBE</b> S	\$:		CI	UMULATIVE <b>JSE</b>	B/MBE % :	
CUMULATI	VE NON-JSEB	SEB \$:			UMULATIVE <b>NO</b> N	N-JSEB %:	
and the second public Market	ISED/A	MRE SURCON	TPACTO	DS TO RE DA	ID FROM TH	IS INVOICE	and the second second
COMPANY N		FEDERAL I.D.		ZIP CODE	SDBE TYPE 1	TYPE OF WORK 2	\$
							THIS PAYMENT
				·			
		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
				· · · · · · · · · · · · · · · · · · ·			
**************************************	<u> </u>				<u> </u>		
Use Sh	eet 2 if additional	lines are needed.		one, and a derivative of		TOTAL	
	NON-J	SEB SUBCON	TRACTO	RS TO BE PA	ID FROM TH	IS INVOICE	
COMPANY N	AME	FEDERAL I.D	. NO.	ZIP CODE		TYPE OF WORK	\$ THIS PAYMENT
		***************************************					
		Married and Married Married and American					
	eet 3 if additional					TOTAL	
						erican; <b>WBE:</b> Woman; <b>E</b> : Examples: Catering, Cl	
Engineering, Hauling, J		, Site Clearing, Tec	chnical Suppor				***************************************
<u> </u>			1			T	a
DATE PROCESSED	DOCUME	NT NO.	INDEX	CODE – SUBOE	BJECT - PROJECT	Γ NO. – DETAIL	\$ THIS PAYMENT

- THIS MONTHLY FORM MUST BE COMPLETED AND SUBMITTED WITH ALL REQUESTS FOR PAYMENT AND FINAL PAYMENT. Contractor shall attach to this form a typewritten explanation of any differences in JSEB/MBE participation from original contract commitment.

# JSEB FORM 4 CITY OF JACKSONVILLE SMALL & EMERGING BUSINESSES PROGRAM JSEB GOOD FAITH EFFORT DOCUMENTATION

The intent of this form is to document the good faith effort attempts made by the apparent low bidder in soliciting JSEB firms to meet the JSEB project goal. Please note that the project goal will not be waived and the contractor must make efforts to achieve the goal throughout the life of the contract.

Every work type where there is a certified JSEB, the apparent low bidder must submit the form as follows:

1 available JSEB – must contact 1 JSEB

- 2-5 available JSEB must contact 3 JSEBs minimum
- 6-7 available JSEBs must contact 4 JSEBs minimum
- 8-9 available JSEBs must contact 5 JSEBs minimum
- 10 or more available JSEBs must contact 6 JSEBs minimum

## All information submitted on this form is subject to audit by the JSEB Office

Date Submitted:	E	Bid Number:	Agency:	
Contractor Name:		Company Ad	dress:	
City	State:	Zip code:	Phone:	
Goal Percentage:	Commitment Pe	ercentage:	Unattained Percentage:	
best of my knowledge.	I further understult in appropriate s	tand that any willfu	umentation form is true and cord l falsification, fraudulent stat volve debarment and/or prosecu	ement or
Bidder/Authorized Represe	entative Signature:			
Representative Title:		Date:		
Witness		Date:		

## JSEB FORM 4 (Cont.) CITY OF JACKSONVILLE SMALL & EMERGING BUSINESSES PROGRAM

## **GOOD FAITH EFFORT DOCUMENTATION**

Work Type Number	er Description of Work, Service or			JSEB Firm Name			
Contact Name (First and	l Last)	Contact Date	Co	ntact Method	Contact Results	Bid Amount	
1.							
2.							
3.							
Comments:							
	Γ						
Work Type Number	Description of Wo	ork, Service or Ma	ateri	al JSEB Firm N	lame		
Contact Name (First and	l Last)	Contact Date	Co	ontact Method	Contact Results	Bid Amount	
1.							
2.							
3.							
Comments:							
	<b>y</b>						
Work Type Number Description of Work, Service or				JSEB Firm Name			
Contact Name (First and	l Last)	Contact Date	Co	ontact Method	Contact Results	Bid Amount	
1.			ļ				
2.							
3.							
Comments:							
						······································	

## JSEB FORM 4 (Cont.) CITY OF JACKSONVILLE SMALL & EMERGING BUSINESSES PROGRAM

### GOOD FAITH EFFORT DOCUMENTATION

#### **GOOD FAITH EFFORTS**

Proposers who fail to meet the stated JSEB participation goals set forth in Section "J" are required to submit with their proposal all efforts that would demonstrate a "Good Faith Effort" in the solicitation of subcontractors to meet the JSEB participation goals on this project.

The following categories, without limitations, may be utilized in considering Good Faith Efforts as outlined in Chapter 126, Jacksonville Ordinance code:

- (1) A contact log showing the name, address, and contact number (phone or fax) used to contact the proposed certified subcontractors, nature of work requested for quote, date of contact, person making the effort;
- (2) The description of work for which a quote was requested;
- (3) The amount of the quote given, if one was obtained;
- (4) The list of divisions of work not subcontracted and an explanation why not; and
- (5) Subcontractor information as requested by forms developed by the Department.

NOTE: The City will investigate and verify information submitted in determining Good Faith Effort, and will compare the same with the performance of other proposers' attempts to meet the participation goals defined herein.

**SOLICITATION EFFORTS** - should include your efforts to solicit quotes, through all reasonable and available means, the interest of all certified firms who have the capability to perform the work of the contract. The bidder should ensure that the requests are made within sufficient time to allow JSEB firms to respond. The contractor should take the initiative to contact firms which have indicated an interest in participating as a subcontractor/supplier.

**ADDITIONAL EFFORTS** - Utilizing the services offered by the City of Jacksonville Small and Emerging Business Office for assistance with recruitment efforts. Contractors are encouraged to undertake and document any other efforts taken in their attempt to fulfill the project goal.

## **SECTION 6**

# EQUAL BUSINESS OPPORTUNITY PROGRAM Set Aside Plan

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## **SECTION 7**

# EQUAL BUSINESS OPPORTUNITY PROGRAM <u>Encouragement Plan</u>

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## CITY OF JACKSONVILLE



## PROCUREMENT DIVISION

214 N. Hogan Street – 8<sup>th</sup> floor, Jacksonville, Florida 32202 (904) 255-8800-Ph; (904) 255-8837-Fax; <u>www.coj.net</u>

## PROCUREMENT PROTEST PROCEDURES

### 126.106(e) PROTEST PROCEDURES

126.106(e)(1)	Purpose and Scope
126.106(e)(2)	Definitions
126.106(e)(3)	Timely Notice of Protest
126.106(e)(4)	Extension Request / Supplemental Protest Documentation
126.106(e)(5)	Delivery
126.106(e)(6)	Process
126.106(e)(7)	Protest Hearing Rules and Procedures

Independent Agency, Board or Delegated Authority

#### 126.106(e)(1) Purpose and Scope

126.106(e)(8)

- (a) These protest procedures are promulgated pursuant to § 126.106(e) of the Jacksonville Ordinance Code (the "Code"), which authorizes the Chief of the Procurement Division (the "Chief") to "prepare and publish rules and regulations governing bid protests." In the event a court of competent jurisdiction declares any provision of these Procurement Protest Procedures to be unconstitutional, invalid, or otherwise unenforceable, then all remaining provisions shall be severable, valid and enforceable regardless of the invalidity of any other provision.
- (b) In accordance with the procedures contained herein, any person or entity that is adversely affected by a decision or an intended decision concerning a solicitation, solicitation documents, award, or any other process or procedure prescribed in the Code and who has standing to protest said decision or intended decision under Florida law (the "Protestant"), must timely file a written Notice of Protest seeking to challenge the decision or intended decision. The issue(s) raised and the information contained in the Notice of Protest and any supplemental documentation filed in accordance with § 126.106(e)(4), hereof, must clearly identify and explain the factual and legal basis for any relief sought, and shall be the only

issue(s) and information the Protestant may present for consideration before the applicable committee.

#### 126.106(e)(2) **Definitions**

For the purpose of these Bid Protest Procedures, the following definitions are provided:

- (a) "Competitive solicitation" or "solicitation" shall include without limitation an invitation to bid, competitive sealed bid, multi-step competitive sealed bid, competitive sealed proposal, or a request for proposals and/or qualifications.
- (b) "Posting" means the notification of solicitations, decisions or intended decision, or other matters relating to procurement on a centralized Internet website, by placing the same on the bulletin board(s) designated by the Procurement Division for this purpose, or as may be consistent with § 126.102(m) of the Code.
- (c) "Exceptional purchase" means any purchase excepted by law or rule from the requirements for competitive solicitation, including without limitation purchases pursuant to §§ 126.107, 126.206, 126.207, 126.211, 126.307, 126.309, 126.311, 126.312, or 126.313 of the Code.

- (d) "Electronic transfer" is limited solely to facsimile transmissions that appear legibly on paper at the place of filing.
- (e) "Final Agency Action" means a final decision that results from a proceeding hereunder, and includes actions which are affirmative, negative, injunctive, or declaratory in form.
- (f) "Procurement process" has the same meaning as "contract solicitation or award process."

#### 126.106(e)(3) Timely Notice of Protest

- (a) Recommendations of Award and/or Bid Rejection. A Protestant shall have 48 hours after either the posting or written notification of a decision or intended decision, whichever is earlier, in which to file a written Notice of Protest in order to timely challenge or seek relief from a Procurement Division recommended award of an exceptional purchase or an award or recommended conclusion to any bid or proposal solicitation process, including without limitation: (i) a recommendation to reject a bid or proposal; (ii) a contract award; or (iii) the short-listing of bidders or proposers.
- (b) Bid/Proposal **Specifications** and/or Requirements. A Protestant shall have 10 business days after the posting of a solicitation or 48 hours after the posted date and time of a pre-bid or pre-proposal conference, whichever is earlier, or 48 hours after the posting of an addendum, in which to file a written Notice of Protest in order to timely challenge the requirements, terms and/or conditions contained in bid or proposal documents, including without limitation any provisions governing or establishing: (i) the basis for making the award in question; (ii) evaluation criteria; (iii) equipment, product, or material specifications; (iv) proposed project schedules; (v) statements regarding participation goals or other equal opportunity measures; or (vi) other general solicitation or project requirements.
- (c) Computation of Time The computation of the time limitations or periods contained herein shall be governed by and shall be pursuant to Florida Rule of Civil Procedure 1.090(a). Failure to file a written Notice of Protest within the applicable time limitation or period shall constitute a waiver of any right, remedy, or relief available hereunder.
- (d) Form and Content of the Notice of Protest A written Notice of Protest shall: (i) be addressed to the Chief; (ii) identify the solicitation, decision, or recommended award in question by number and title or any other language sufficient to enable the Chief to

identify the same; (iii) state the timeliness of the protest; (iv) state Protestant's legal standing to protest; and (v) clearly state with particularity the issue(s), material fact(s) and legal authority upon which the protest is based.

## 126.106(e)(4) Request for Extension to File Supplemental Protest Documentation

At the time of filing a timely Notice of Protest hereunder, a Protestant may request an extension of three (3) business days after the date its Notice of Protest is timely received, in which to provide supplemental protest documentation. Failure to do so or to timely submit the supplemental protest documentation shall constitute a waiver of any right to the same.

### 126.106(e)(5) Delivery

The timely filing of a Notice of Protest shall be accomplished when said notice is actually received by the Procurement Division within the applicable time limitation or period contained herein. Filing a notice may be accomplished by manual transfer via hand-delivery or mail to the Chief of Procurement at 214 N. Hogan Street, 8<sup>th</sup> floor, Jacksonville, Florida 32202 or by electronic transfer via facsimile to (904) 255-8837. The responsibility and burden of proof that its Notice of Protest has been timely and properly received shall rest with the Protestant, regardless as to the method of delivery employed.

#### 126.106(e)(6) Process

- Upon receipt of a timely filed written Notice of Protest, the Chief or his/her designee shall schedule and provide notice of the time, date and place that the protest will be heard. The protest will be heard before the General Governmental Awards Committee ("GGAC"), the Professional Services Evaluation Committee ("PSEC"), or the Competitive Sealed Proposal Evaluation Committee ("CSPEC"), whichever is applicable. The Chief or his/her designee shall have the discretion to proceed with the solicitation or contract award process in question or to suspend the same pending the resolution of the protest. To the extent the Chief or his/her designee decides to exercise his/her discretion not to suspend the solicitation or contract award process pending the resolution of the protest, the Chief or his/her designee shall set forth in writing the particular facts and/or circumstances upon which his/her decision is based.
- (b) Those persons or entities, other than the Protestant, who will be directly affected by the resolution of the protest shall be given notice of the protest hearing, and the Notice of Protest and any supplemental protest

documentation shall be made available to them upon a written request for the same.

(c) When a Notice of Protest is filed pursuant to § 126.106(e)(3)(b), hereof, the Chief or applicable awards committee chairperson shall have the discretion to direct that the solicitation in question not be opened pending the resolution of the protest.

## 126.106(e)(7) Protest Hearing Rules and Procedures

- Hearings hereunder shall be heard before the applicable committee, and shall begin with a general statement of the rules and procedures prescribed herein by a representative of the committee, followed by a general statement of the facts by a representative of the Procurement Division. Representatives of the Protestant, limited solely to its owners, officers, employees and/or legal counsel, will then be required to present its case based solely upon the issue(s) and information contained in the Notice of Protest and any timely submitted supplemental protest documentation. Those persons or entities, other than the Protestant, who have legal standing and will be directly affected by the resolution of the protest will be given an opportunity to be heard and to present information before the committee, which will be followed by a statement and the presentation of information from the Procurement Division and other governmental representatives. The Protestant must establish by the preponderance of the evidence that the protest should be granted based upon the law, facts and information presented. The committee is entitled to ask questions of any party at any time during the hearing.
- (b) For hearings hereunder, the formal rules of evidence pursuant to the Florida Evidence Code may be

relaxed at the sole discretion of the presiding chairperson of the applicable committee. Hearsay evidence may be admissible and used to supplement or explain other evidence.

- (c) Unless otherwise provided by the Code, the burden of proof shall rest with the Protestant. The standard of proof for proceedings hereunder shall be whether a Procurement Division recommendation or the decision or intended decision in question was clearly erroneous, arbitrary or capricious, fraudulent, or otherwise without any basis in fact or law. In any protest proceeding challenging a decision or intended decision to reject all bids, proposals, or replies, the standard of review shall be whether the decision or intended decision is illegal, arbitrary, dishonest, or fraudulent.
- (d) A majority vote of the members of the applicable committee shall be required to grant a protest, hereunder; otherwise, the protest shall be denied, and, upon execution by the Mayor or his designee, said vote and/or decision of the applicable awards committee shall be posted and shall represent final agency action.

## 126.106(e)(8) Independent Agency, Board or Delegated Authority

If a protest is filed and the solicitation is for the benefit of an independent agency, board, or delegated authority that has its own established procurement procedure and does not use the City's procurement process and/or protest procedures, then the person or entity protesting must follow the protest procedures of that independent agency, board, or delegated authority.

## CERTIFICATE OF ADOPTION AND IMPLEMENTATION

The preceding Procurement Protest Procedures are hereby adopted this 1<sup>st</sup> day of October, 2011, by the undersigned Chief of Procurement for immediate implementation, and will remain in full force and effect until such time as they may be formally revised, amended, supplemented, superseded, or abolished.

**Procurement Division** 

Gregory Pease, Chief

Lity of Jacksonville 214 N. Hogan Street, 8th floor

Jacksonville, Florida 32202 (904) 255-8800 – Phone

(904) 255-8837 – Facsimile

gpease@coj.net

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## SECTION 9

# SUPPLIER/CONTRACTOR PERFORMANCE EVALUATION PROGRAM

DOES NOT APPLY TO THIS CONTRACT

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#### DIVISION II

#### DOCUMENTS AND FORMS

#### SECTIONS 10-19

SECTION NAME	SECTION NO.
Bid Bond	10-1 through 10-2
Form of Contract Agreement	11-1 through 11-3
Performance Bond Statutory Payment Bond	12PB-1 through 12PB-7 12SPB-1 through 12SPB-5
Application for Payment Quantities for Partial Payment Contractors Affidavit for Final Payment Certificate of Substantial Completion Bonding Company Letter Requesting Release of Funds (Bond, etc.) (Sample Letter) Improvements in Progress This Page Intentionally Omitted Contractor's Daily Report Request for Information Form As-Built Drawings Certifications	13-2 13-3 13-4 through 13-5 13-6 13-7 13-8 13-9 through 13-10 13-11
Executive Order No. 94-187	15-1 through 15-3

### SECTION 10 CITY OF JACKSONVILLE, FLORIDA

#### BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,

as

Principal and

as

Surety, are hereby held and firmly bound unto the City of

Jacksonville, Florida, in the sum of

dollars (\$\_\_\_\_\_\_) as liquidated damages for payment of

which, well and truly to be made, we hereby jointly and severally

bind ourselves, our heirs, executors, administrators, successors

and assigns.

The Conditions of the above obligation are such that whereas the Principal has submitted to the City of Jacksonville, Florida, a certain Proposal attached hereto and hereby made part hereof, to enter into a Contract Agreement in writing, for construction of

#### NOW THEREFORE,

- (a) If said Proposal shall be rejected or withdrawn as provided in the Instructions to Bidders attached hereto or, in the alternative,
- (b) If said Proposal shall be accepted and the Principal shall sign and deliver a formal contract document in the form of the Contract Agreement attached hereto (properly completed in accordance with said Proposal) and shall furnish the specified Bonds required by Section 12 of the Contract Documents in the amount equal to one hundred percent (100%) of the base bid within ten (10) consecutive days after the receipt of said contract,

thence this obligation shall be void, otherwise, it shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder in no event shall exceed the amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by an extension of the time within which such Proposal may be accepted, and said Surety does hereby waive notice of any such extension.

The sum herein stated shall be due and payable to the City of Jacksonville, Florida, and the "Surety" herein agrees to pay said sum immediately upon demand of said City of Jacksonville, Florida in good and lawful money of United States of America; as liquidated damages for failure thereof of said "Principal".

IN WITNESS WHEREOF, the s	aid,
as "Principal" herein, has cau	sed these presents to be signed in
its name by its	and attested by
its unde	er its corporate seal, and the said
as "Surety" herein,	has caused these presents to be
signed in its name by its	and attested by
itsunder	its corporate seal, this
day ofA.D., 20	
	4
	(SEAL)
	AS PRINCIPAL
ATTEST:	
Its	
	Its
Signed, Sealed and Delivered in the presence of:	Ву
in the presence or.	AS SURETY
	•

# CORTRACT

# BETWEEN THE CITY OF JACKSONVILLE AND

FOR
THIS CONTRACT, Executed as of this day of, 20, by
and between the CITY OF JACKSONVILLE, FLORIDA (hereinafter sometimes called the
"Owner" or the "City"), a municipal corporation, in Duval County, Florida, and
(hereinafter called the "Contractor") acorporation with office at,
WITNESSETH, That for the consideration and under the provisions hereinafter stated
and referred to moving from each to the other of said parties, respectively, it is mutually
understood and agreed as follows:
1. That Contractor is the lowest responsive and responsible bidder for furnishing,
not by way of limitation, all labor, materials, equipment and performing all operations necessary
for, all in accordance with plans and specifications hereinafter referred to and has
been awarded this Contract for said work pursuant to award made
2. The Contractor will, at its own cost and expense, do the work required to be
done and furnish the materials required to be furnished on said work in accordance with plans
and specifications prepared by, bid numbered, bid date, designated as
, and strictly in accordance with the advertisement calling for bids, plans,
specifications, blueprints, addenda, requirements of the City of Jacksonville, proposal of the said

Contractor, and award therefor (hereinafter collectively called the "Contract Documents") now on file in the Office of the Division Chief of the Procurement Division of the City of Jacksonville, all of which are, by this reference, hereby specifically made a part hereof to the same extent as if fully set out herein for an amount not-to-exceed \_\_\_\_\_, at and for the prices and on the terms contained in the Contract Documents.

- 3. On Contractor's faithful performance of this Contract, the Owner will pay the Contractor in accordance with the terms and on the conditions stated in the Contract Documents.
- 4. Contractor shall submit and record all payment and performance bonds in the Official Records of Duval County, as required by Section 255.05, Florida Statutes.
- 5. Notwithstanding any provision to the contrary in this Contract or in the Contract Documents, the Owner has the absolute right to terminate this Contract without cause, for convenience, by giving the Contractor thirty (30) days advance written notice of the date of termination. Such notice shall be delivered by Certified United States Mail, return receipt requested; or by any other delivery method with evidence of receipt, to the Contractor's representative who signed this contract, at the address specified on the signature page.
  - 6. If Contract is for in excess of one (1) year, insert term and renewal language.
- 7. This Contract and all amendments thereto may be executed in several counterparts, each of which shall be deemed to be an original, and all of such counterparts together shall constitute one and the same instrument.

[Remainder of page intentionally left blank. Signature page follows immediately.]

IN WITNESS WHEREOF, the p	arties hereto have duly executed this Contract, in
duplicate, the day and year first above written ATTEST:	. CITY OF JACKSONVILLE, FLORIDA
I do hereby certify that there is an unexpende	DWNER  of the Ordinance Code of the City of Jacksonville, ed, unencumbered and unimpounded balance in the g agreement; and that provision has been made for paid.
Ť	Director of Finance
Encumbrance & funding information is for	ind on the next page.
Form Approved:	
Office of General Counsel ATTEST:	INSERT NAME OF CONTRACTOR
Signature	Signature
Type/Print Name	Type/Print Name
Title	Title
	Address:
	CONTRACTOR

11-3

05/11

#### THIS IS AN APPROVED FORM. DO NOT SUBSTITUTE OR REVISE.

#### CONTRACT NUMBER

(Contract Number to be inserted by the City of Jacksonville)

# PERFORMANCE BOND REQUIRED BY SECTION 255.05, FLORIDA STATUTES

As to the Contractor/Principal:
Name:
Principal Business Address:
Telephone:
As to the Surety:
Name:
Principal Business Address:
Telephone:()
As to the Owner of the Property/Contracting Public Entity:
Name: The City of Jacksonville, Florida (c/o Public Works Department)
Principal Business Address: 214 North Hogan Street, Jacksonville, Florida 32202
Telephone: (904) 255-8762
Description of project including address and description of improvements:

#### THIS IS AN APPROVED FORM. DO NOT SUBSTITUTE OR REVISE.

#### CITY OF JACKSONVILLE, FLORIDA

#### PERFORMANCE BOND

# REQUIRED BY SECTION 255.05, FLORIDA STATUTES KNOW ALL MEN BY THESE PRESENTS, That\_\_\_\_\_, as Principal,

-
(hereinafter called "Contractor"), and, a
corporation organized and existing under the laws of the State of and duly
authorized to conduct and carry on a general surety business in the State of Florida, as Surety
(hereinafter called "Surety"), are each held and firmly bonded unto the City of Jacksonville, a
municipal corporation in Duval County, Florida, as Obligee (hereinafter called "City"), in the
sum of, lawful money of the United States of America, for the payment
whereof Contractor and Surety bind themselves, their respective heirs, executors, administrators,
legal representatives, successors and assigns, jointly and severally, firmly by these presents.
WHEREAS, the Principal made and entered into City Contract
Number(to be inserted by the City) (the "Contract"), dated as of the
day of,20 for, under Bid numbered, of
Specifications entitled for the City of Jacksonville, Florida, in strict accordance
with plans and specifications prepared by, bid numbered, bid date
and any advertisement for bids for said work and the drawings, plans and
specifications for said work and requirements of the City request for bids and award therefor and
of the Contract and all documents included as a part of the Contract, all of which are, by this
reference, made a part hereof to the same extent as if fully set out herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if

Contractor shall: (1) promptly and faithfully perform the construction work and other work in the time and manner prescribed in said Contract, which is made a part of this Bond, by reference, in strict compliance with the Contract requirements; and (2) perform the guarantee and maintenance of all work and materials furnished under the Contract for the time specified in the Contract; and (3) pay the City all losses, delay and disruption damages and all other damages, expenses, costs, statutory attorney's fees, including appellate proceedings, that the City sustains because of a default by Contractor under the Contract; then this Bond shall be void; otherwise it shall remain in full force and effect, both in equity and in law, in accordance with the laws and statutes of the State of Florida.

**PROVIDED**, that the Surety hereby waives notice of any alteration or extension of time made by the City, and any changes in or under the Contract and compliance or noncompliance with any formalities connected with the Contract or the changes does not affect Surety's obligation under this bond.

**PROVIDED further**, that whenever Contractor shall be declared by the City to be in default under the Contract, the City having performed the City's obligations thereunder, the Surety shall, at the City's sole option, take one (1) of the following actions:

the City's written notice of termination for default, arrange for Contractor with the City's consent, which shall not be unreasonably withheld, to complete the Contract and the Surety shall pay the City all losses, delay and disruption damages and all other damages, expenses, costs and statutory attorney's fees, including appellate proceedings, that the City sustains because of a default by

the Contractor under the Contract; or

- **(2)** (A) Within a reasonable time, but in no event longer than sixty (60) days of the City's written notice of termination for default, award a contract to a completion contractor and issue notice to proceed. Surety shall obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible qualified bidder, award a contract; (B) alternatively, the City may elect, to have the Surety determine jointly with the City the lowest responsible qualified bidder, to have the Surety arrange for a contract between such bidder and the City, and for the Surety to make available as Work progresses sufficient funds to pay the cost of completion less the balance of the Contract price (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph). The term "balance of the Contract price", as used in this Bond, shall mean the total amount payable by the City to Contractor under the Contract and any approved change orders thereto, less the amount properly paid by the City to Contractor. (C) Either way, the Surety shall pay the City all remaining losses, delay and disruption damages, expenses, costs, and statutory attorney's fees, including appellate proceedings, that the City sustains because of a default by Contractor under the Contract; or
- Within a reasonable time, but in no event later than thirty (30) days from City's notice of termination for default, waive its right to complete or arrange for completion of the Contract and, within twenty-one (21) days thereafter,

determine the amount for which it may be liable to the City and tender payment to the City of any amount necessary in order for the City to complete performance of the Contract in accordance with its terms and conditions less the balance of the Contract price, and shall also indemnify and save the City harmless on account of all claims and damages arising from the Contractor's default under the Contract, and pay the City for all losses, delay and disruption damages and other damages, expenses, costs and statutory attorney's fees, including appellate proceedings, that the City sustains because of a default of the Contractor under the Contract.

PROVIDED further, the Surety shall indemnify and save the City harmless from any and all claims and damages, arising from the Contractor's default under the Contract including, but not limited to, contractual damages, expenses, costs, injury, negligent default, or intentional default, patent infringement and actual damages (including delay and disruption damages) in accordance with the Contract, and including all other damages and assessments which may arise by virtue of failure of the product to perform or any defects in work or materials within a period of one (1) year from the date on which the Contractor receives from the City a certificate of final completion under the Contract.

PROVIDED further, that during any interim period after the City has declared Contractor to be in default but Surety has not yet remedied the default in the manner acceptable to the City, Surety shall be responsible for securing and protecting the work site including, but not limited to, the physical premises, structures, fixtures, materials, and equipment, and shall be responsible for securing and protecting materials and equipment stored off-site in accordance

with the Contract.

**PROVIDED further**, no right of action shall accrue on this Bond to or for the use of any person or corporation other than the City named herein or the heirs, executors, administrators or successors of the City.

[Remainder of page intentionally left blank. Signature page follows immediately.]

SIGNED AND SEALED this	_day of	, 20
ATTEST:	INSE	RT NAME OF CONTRACTOR
Signature Signature		
Type/Print Name		Type/Print Name
Title	·	Title AS PRINCIPAL
Signed, Sealed and Delivered in the Presence of:		
		By
		AS SURETY
		Name of Agent:
		Address:
Note. Date of Bond M	ust No	t Be Prior to Date of Contract
Form Approved:		
Office of General Counsel	-	

#### THIS IS AN APPROVED FORM. DO NOT SUBSTITUTE OR REVISE.

CONTRACT NUMBER (Contract Number to be inserted by the City of Jacksonville) PAYMENT BOND REQUIRED BY SECTION 255.05, FLORIDA STATUTES

As to the Contractor/Principal:
Name:
Principal Business Address:
Telephone:
As to the Surety:
Name:
Principal Business Address:
Telephone:()
As to the Owner of the Property/Contracting Public Entity:
Name: The City of Jacksonville, Florida (c/o Public Works Department)
Principal Business Address: 214 North Hogan Street, Jacksonville, Florida 32202
Telephone: (904)
Description of project including address and description of improvements:

#### THIS IS AN APPROVED FORM. DO NOT SUBSTITUTE OR REVISE.

#### CITY OF JACKSONVILLE, FLORIDA

#### PAYMENT BOND REQUIRED BY

#### **SECTION 255.05, FLORIDA STATUTES**

KNOW ALL MEN BY THESE PRESENTS, that	, hereinafter called
"Principal", and	, a corporation organized and
existing under the laws of the State of, a	and duly authorized to conduct
and carry on a general surety business in the State of Florida, l	nereinafter called "Surety", are
each held and firmly bound unto the City of Jacksonville,	a municipal corporation, of
Jacksonville, Duval County, Florida, hereinafter called "City"	or "Owner", in the penal sum
of, in lawful money of the United States of Amer	rica, for the payment whereof
Principal and Surety bind themselves, their respective heirs, e	xecutors, administrators, legal
representatives, successors and assigns, jointly and severally, firm	ly by these presents.
WHEREAS, the Principal made and enter	ered into City Contract
Number(to be inserted by the City) (the "	Contract"), dated as of the
day of,20 for, un	der Bid numbered, of
Specifications entitled for the City of Jacksonville	e, Florida, in strict accordance
with plans and specifications prepared by, bid r	numbered, bid date
and any advertisement for bids for said work	and the drawings, plans and
specifications for said work and requirements of the City request	for bids and award therefor and
of the Contract and all documents included as a part of the Cor	ntract, all of which are, by this
reference, made a part hereof to the same extent as if fully set out	herein.

NOW, THEREFORE, THE CONDITION OF THIS BOND is such that if the said

Principal:

- (1) Promptly makes payments to all claimants, as defined in Sections 255.05 and 713.01, Florida Statutes, supplying Principal with labor, materials or supplies that are consumed or used directly or indirectly, by Principal in connection with the prosecution of the work provided for in such Contract and including all insurance premiums on the work, and including any authorized extensions or modifications of such Contract; and
- (2) Defends, indemnifies and saves the City harmless from claims, demands, liens, or suits by any person or entity whose claim, demand, lien or suit is for the payment of labor, materials or equipment furnished for use in the performance of the Contract, provided the City has promptly notified the Principal and Surety of any claims, demands, liens, or suits and provided there is no failure by the City to pay the Principal as required by the Contract; and
- (3) Pays the City all losses, damages, expenses, costs and attorney's fees, including appellate proceedings, that the City sustains because of the Principal's failure to promptly make payments to all claimants as provided above,

then this Bond is void; otherwise, it remains in full force and effect, both in equity and in law, in accordance with the statutes and the laws of the State of Florida and, specifically Section 255.05, Florida Statutes.

**PROVIDED**, no suit or action for labor, materials or supplies shall be instituted hereunder against the Principal or the Surety unless a claimant provides, to each of them, both of the proper notices, in accordance with the requirements of Section 255.05(2)(a), Florida Statutes. Both notices must be given in order to institute such suit or action.

**PROVIDED further**, an action, except for an action exclusively for recovery of retainage, must be instituted against the Principal or Surety on this Payment Bond within one (1)

year after the performance of the labor or completion of delivery of the materials or supplies, in

accordance with the requirements of Section 255.05(2)(a), Florida Statutes.

PROVIDED further, an action exclusively for the recovery of retainage must be

instituted against the Principal or Surety within one (1) year after the performance of the labor or

completion of delivery of the materials or supplies, or within ninety (90) days after the

Principals' receipt of final payment (or the payment estimate containing the owner's final

reconciliation of quantities, if no further payment is earned and due as a result of deductive

adjustments) by the Principal or surety whichever comes last, in accordance with the

requirements of Section 255.05(2)(a), Florida Statutes.

PROVIDED further, that the said Surety, hereby stipulates and agrees that no

change, extension of time, alteration or addition of the terms of the Contract or to the work to be

performed thereunder or the specifications accompanying the same shall in any wise effect its

obligation on this Bond, and it does hereby waive notice of any such change, extension of time,

alteration or addition to the terms of the Contract or to the work or to the specifications.

[Remainder of page left blank Intentionally. Signature page follows immediately.]

SIGNED AND SEALED this \_\_\_\_\_ day of \_\_\_\_\_\_, 20\_\_\_.

12SPB-4

ATTEST:	INSERT	NAME OF CONTRACTOR	
			_
Signature		Signature	
Type/Print Name		Type/Print Name	
Γitle		Title	
		AS PRINCIPAL	
Signed, Sealed and Del in the Presence of:			
	Its	Ву:	
	AS SURE	CTY	
	Name of Agent: _		
Form Approved:	Address:		
Office of General Cour	ısel		
		<del></del>	

A DOCTOR COR

Note. Date of Bond Must Not Be Prior to Date of Contract

## CITY OF JACKSONVILLE, FLORIDA APPLICATION FOR PAYMENT NO. \_\_\_\_

PROJECT	BID NO.	CONTRACT NO.	
For Work accomplished through	the date of	500, W-0000	-
A. Contract and Change Orders	}		
		\$	
		+ \$	
3. Total Contract (1) + (2)		\$	
B. Work Accomplished			
4. Work performed on Co	ntract Amount (1)	\$	
5. Work performed on Ch	ange Orders (2)	+\$	
		+\$	
7. Direct Purchase Materia	als	\$	
8. Sales Tax for Direct Pu	rchase Materials	\$	
9. Total Completed & Sto	rea $(4) + (5) + (6) - (7) - (7)$	-(8)\$	
10. Retainage * 5% of the	em (9), not to exceed 3	5% of Item (3) \$	
11. Less Previous Payme	ents Made (or) invoice	ed\$	
12. Payment Amount Du	e this Application (9)	- (10) - (11) \$	
(*)-Retainage subject to condition	ons as set forth in Para	agraph 20.39.5 of the General Conditions.	
CO	NTRACTOR'S CER	RTIFICATION	
Work performed and materials so Documents; (3) all previous progrethe Contract referred to above havincurred in connection with Work equipment incorporated in said W will pass to CITY at time of pencumbrances; and (5) if applicable	upplied fully comply we ess payments received for the been applied to dische covered by prior Applications or otherwise listed payment free and clear ple, the CONTRACTOR e payment of a pro-rata	ms and amounts shown above are correct; (2) all with the terms and conditions of the Contract from the CITY on account of Work done under harge in full all obligations of CONTRACTOR eations for Payment; (4) title to all materials and in or covered by this Application for Payment of all liens, claims, security interests and R has complied with all provisions of Part 6 of a share to Minority Business Enterprises of all	et R d d of
Dated			
		CONTRACTOR	
		Ву:	
Notary Public			
DATE	APPROVALS		
		Construction Inspector	
		Project Engineer	
		P. E., Contract Section	
		i. D., Condact Socion	

# 01/08 Reissued 04/18

# QUANTITIES FOR PARTIAL PAYMENT

# (Attachment TO APPLICATION FOR PAYMENT)

PROJECT NAME:	LOCATION:	PAGE	OF
PAYMENT NO.:	FROM: TO:		
CONTRACTOR:	ADDRESS:	Account to the second s	To College
CONTRACT NO.	BID NO.:		
			11.14.5

		0	RIGIN	ORIGINAL ESTIMATE	(TE	C	DMPLET	COMPLETED TO DATE	
Item	Description	Qty	Unit	Cost Per Unit	Contract Price	Contract Number Price Units	Value	Value of Uncompl Work	% Comp

#### CITY OF JACKSONVILLE, FLORIDA CONTRACTOR'S AFFIDAVIT FOR FINAL PAYMENT

STATE OF FLORIDA)						
COUNTY OF DUVAL)	SS					
That under date of the CONTRACTOR does her Jacksonville as Owner, cov	eby certify that the	ay of _ certain co		, 20, t		
has been entirely performe fully completed, and final statement is given, under of the undersigned to obtain it with, or directly employed connection with said contr for the following services:	payment thereunder loath, in compliance wifinal payment from the by the undersigned,	has becom vith the Urne City of or in conn	e due to the uniform Mecha Jacksonville; ection with s	undersigned by said anics Lien Law of I that all lienors con aid improvements	d owner; and this Florida to enable ntracting directly and under and in	5 2 7
Further, the undersigned C the Purchasing Code (E- participation by SDBEs ar final payment will be, pai CITY to SDBEs and SBEs	qual Business Oppond SBEs and states to within seven (7) b	ortunity) that the fo ousiness d	and the req llowing amo ays after Co	uirements of this unts have been, or ntractor's receipt o	contract as to upon receipt of	) f
COMPANY NAME	FEDERAL I.D. NO.	ZIP CODE	SBE/SDBE TYPE	TYPE OF WORK	TOTAL PAYMENT AMOUNT	PERCENT OF TOTAL CONTRACT AMOUNT
					-	
0 1 1 1 1111 2 2 1 1 2				TOTAL		
Submit additional she	ets as needed.	l	1	1		
Sworn to and subscribed before		-		CONTRAC	CTOR	
me this day or		By :				
AD. 20						
Notary Public, State of Florida			Title			
at Large, My Commission expires:			Address	S		

#### CERTIFICATE OF SUBSTANTIAL COMPLETION

CITY'S Project No.	ENGINEER'S Project No.
	(Project Name)
CONTRACTOR	
Contract For	Contract Date
-	
This Certificate of Subto the following specif	ostantial Completion applies to all Work under the Contract Documents or ied parts thereof:
То	CITY
And To	
And To	CONTRACTOR
CITY, CONTRACT	is Certificate applies has been inspected by authorized representatives of <b>OR AND ENGINEER</b> , and that Work is hereby declared to be in accordance with the Contract Documents on
	DATE OF SUBSTANTIAL COMPLETION
	DATE OF SUBSTANTIAL COMPLETION
inclusive, and the factoritems in the tentative l	is to be completed or corrected is attached hereto. This list may not be all-ailure to include an item in it does not alter the responsibility of complete all the Work in accordance with the Contract Documents. The list shall be completed or corrected by CONTRACTOR within days abstantial Completion.

The responsibilities between the CITY and the CONTRACTOR for security, operation, safety, maintenance, heat, utilities, insurance and warranties shall be as follows:

RESPONSIBILITIES:		
CITY:		
CONTRACTOR:	<u></u>	
		L-14
The following documents are attached	ed to and made a part of this Certificate:	
	n acceptance of Work not in accordance w NTRACTOR's obligation to complete the	
Executed by ENGINEER on	, 20	
	ENGINEER	
BY		
	cate of Substantial Completion on	, 20
	CONTRACTOR	
ВҮ		
CITY accepts this Certificate of Sub	stantial Completion on	, 20
<del></del>	CITY	
BY	4444	

#### SAMPLE COPY

(To be on Bonding Company Letterhead Stationary)

	(Date)
Contract Administration Branch Engineering Division 10th Floor – Edward Ball Building 214 N. Hogan Street Jacksonville, Florida 32202	
RE: Contract No	
Construction of	
Jacksonville, Florida.	
CONTRACTOR/Construction Company	
Surety	
Performance Bond No.:	
Payment Bond No.:	
Gentlemen:	
TheSurety Company of	<u>,</u>
(City and S is the surety for	tate) of
(CONTRACTOR/Construction Co.) in favor of the City of Jacksonville, Florida	
for the work performed under the referenced contract.	
Please accept this letter as consent of surety to release any and all funds being Jacksonville, Florida in connection with this contract, due  (CONTRACTOR/Construction Co.)	held by the City of that may be
We also acknowledge that under the terms and conditions of the Bonds there is a one and guarantee of the project against defective materials and/or workmanship after subduring which Contract Bonds must remain in effect, and such warranty and bonds are extended for an additional one-year period from the date of correction of any item of	ostantial completion automatically
Very truly yours,	
(Surety Company)	
(Attorney-in-Fact cc: (CONTRACTOR/Construction Company) (Surety Company)	

01/08

# NOTIFICATION OF IMPROVEMENTS IN PROGRESS

NAME OF PROJECT:	
CONTRACTOR:	
ANTICIPATED START:	
ANTICIPATED COMPLETION:	
PROJECT COST:	\$
Dear Resident:	
Public Works is pleased to adv referenced project. A vicinity ma This work may impact trees, shrub way and/or easements next to you some unavoidable inconvenience	ove the quality of life in Jacksonville, the Department of ise you that construction will soon begin on the above ap is included on the back of this sheet for your reference. Obery, fencing, etc., located near or within the City right-of-ar property. As with any construction project, there may be see along the project route. In our effort to keep these will be happy to discuss any specific concerns you may
Should you have any questions, of following:	r wish to discuss any of the work, please contact one of the
Contractor Representative:	Phone:
City CM Representative:	Phone:
	ion throughout this project will be most appreciated and we with the final product. We believe the work will be a eighborhood.

### CITY OF JACKSONVILLE CONTRACTOR'S DAILY REPORT

Contractor	Date	Supr
		Office
Super:	Weather:	Carp
		Elec
Jobsite:	Temp: am pm	Mason
		Precast
Job Safety:		Finish'r
		Tile
		Plumbr
		Paint
Deficiencies/Delay s		Scaff
	511 - 164 -	Iron
		Duct
		Rein'mt
		Fireprf
		Misc
Comments:		Steel
		Oper
		Survey
		Labor
		**************************************
WILLD		
Work In Progress		
		TOTAL
		Parties of Manager States and A

Additional space provided on back

Work in Progress Continued:	
-	
· · · · · · · · · · · · · · · · · · ·	The second secon
	and the second s
Inspector Comments:	
Contractor	Inspector

#### **REQUEST FOR INFORMATION (RFI)**

PROJECT:	DATE:
	RFI #or NOI #:
CONTRACTOR:	
CONTRACT/P.O. #:	
RFI OR NOI DESCRIPTION:	
SUBMITTED BY:	
Contractor's Representative	
REQUEST REPLY BY:	
REPLY:	
REPLY BY:	DATE:
Owner's Representative	

This reply does not necessarily constitute an increase in contract value or time. Any Change in contract value or time will require supplemental information submitted by the contractor for review and approval.

#### AS BUILT INFORMATION PROVIDED BY: DATE: NAME: ADDRESS: PHONE #: IN ACCORDANCE WITH CHAPTER 471, FLORIDA STATUES, I HEREBY CERTIFY THAT THE: WATER MAIN \_\_\_\_ PAVEMENT \_\_\_\_\_ CURB & GUTTER \_\_\_\_\_ SANITARY GRAVITY SYSTEM STORM & DRAINAGE SYSTEM \_\_\_\_ FORCE MAIN LIFT STATION UNDERDRAIN CONNECTIONS ARE AT THE HORIZONTAL AND VERTICAL LOCATIONS AS SHOWN ON THESE "AS-BUILT" DRAWINGS, AND THAT THERE ARE NOT ANY ENCROACHMENTS WITHIN THE EASEMENTS OR RIGHT-OF-WAY. SIGNATURE NAME FLORIDA PROF. ENG. NO.

13-12

#### AS BUILT INFORMATION PROVIDED BY: DATE: NAME: ADDRESS: PHONE #: I HEREBY CERTIFY THAT: \_\_\_\_\_ PAVEMENT \_\_\_\_\_ WATER MAIN \_\_\_\_\_ SANITARY GRAVITY SYSTEM \_\_\_\_ CURB & GUTTER STORM & DRAINAGE SYSTEM FORCE MAIN UNDERDRAIN CONNECTIONS LIFT STATION ARE AT THE HORIZONTAL AND VERTICAL LOCATIONS AS SHOWN ON THESE "AS-BUILT" DRAWINGS, AND MEET THE MINIMAL TECHNICAL STANDARDS SET FORTH BY THE FLORIDA BOARD OF LAND SURVEYORS PURSUANT TO SECTION 472.027 FLORIDA STATUTES AND THAT THERE ARE NOT ANY ENCROACHMENTS WITHIN THE EASEMENTS OR RIGHT-OF-WAY. **SIGNATURE** NAME FLORIDA REG. LAND SURVEYOR'S NO.

INFORMATION	PROVIDED BY:	
DATE: NAME: ADDRESS:		
	RTIFY THAT THE MOSTRUCTION OF:	IATERIALS AND QUANTITIES
I HEREBY CER USED IN THE C	ONSTRUCTION OF:	WATER MAIN
I HEREBY CENTRE CONTROL PAVENT CURB	ONSTRUCTION OF:	



#### OFFICE OF MAYOR ALVIN BROWN

ST. JAMES BUILDING 117 WEST DUVAL STREET, SUITE 400 JACKSONVILLE, FLORIDA 32202

#### **EXECUTIVE ORDER NO. 2013-05**

PH: (904) 630-1776 FAX: (904) 630-2391 www.coj.net

TO:

All Elected Officials, Department Heads, Division Chiefs, Independent

Agencies, Authorities, Boards, Commissions and Councils

FROM:

Alvin Brown, Mayor

SUBJECT:

Change Orders

By virtue of the authority vested in me as Mayor by the Charter of the City of Jacksonville and by Section 20.107, *Ordinance Code*, and as the chief executive and administrative officer of the Consolidated Government, it is ordered as follows:

Repeal of Executive Order No. 94-187. This Executive Order shall nullify and supersede Executive Order No. 94-187 in order to provide guidance for the review of all Change Orders as defined herein, except for purchases made pursuant to the informal purchase provisions or the emergency provisions of Chapter 126, Ordinance Code (the "Purchasing Code").

<u>Definition of Change Order</u>. For the purposes of this Executive Order, a Change Order is defined as any written agreement between the City and a person or business entity modifying in any way an existing contract between such parties previously made pursuant to the formal purchasing provisions of Part 2 (Supplies Contractual Services and Capital Improvements), Part 3 (Professional Services Contracts), or Part 7 (Design Build Contracts), of the Purchasing Code.

Administrative Review of Change Orders. Change Orders shall be initiated by the applicable department on a form developed by the Procurement Division, which shall include without limitation the following:

- (a) signature approval by the director or designee of the requesting department;
- (b) recommendation or approval, if applicable, by the consultant(s), if any;
- (c) original maximum indebtedness of the contract, individual listing of any prior dollar amount of increases or decreases resulting from prior, properly approved Change Orders, and dollar amount of increase or decrease of the proposed Change Order;
- (d) original time period for completion of work, supply of product or the like, individual listing of any prior time extensions or reductions resulting from prior,

Page 1 of 3

- properly approved Change Orders, and amount of time extension or reduction of the proposed Change Order;
- designation of source of funds by account number, name of account and/or other pertinent means of identification;
- (f) a full, detailed written description of the proposed change, a statement of the reasons why the proposed change is in the City's best interest, and a statement of whether the proposed change is the result of an unforeseen condition, client request or increase in scope, a reconciliation of quantities, or design error or omission; and
- (g) such other information as determined by the Chief of the Procurement Division to be necessary or desirable to carry out the provisions of this Executive Order.

Each proposed Change Order shall be transmitted by the initiating department to the Department of Finance for written certification (by email or otherwise) as to the availability of funds in accordance with Section 24.103(e) of the *Ordinance Code*, of the City of Jacksonville.

If the necessary funds are available, the proposed Change Order shall then be transmitted to the Chief of the Procurement Division. The Chief of the Procurement Division or his/her designee(s) shall review the proposed Change Order for the purpose of ensuring efficiency in purchasing and promoting good contract purchase practices and shall consider without limitation the following factors in approving or disapproving the proposed Change Order:

- (a) comparison of the maximum dollar amount of the increase or decrease of the proposed Change Order and any prior increases or decreases to the original maximum indebtedness of the contract;
- (b) comparison of unit or lump sum prices in the proposed Change Order to the unit or lump sum prices in the contract;
- (c) comparison of the scope and limits of work in the proposed Change Order to the scope and limits of work in the contract;
- (d) comparison of time extension or reduction in the proposed Change Order to the completion date and liquidated damages in the contract;
- (e) determination as to whether the proposed Change Order is a result of an unforeseen condition, client request or increase in scope, a reconciliation of quantities, or design error or omission; and
- (f) any other relevant factors as determined by the Chief of the Procurement Division which relate to efficiency in purchasing and promoting good contract purchase practices.

Having completed such review, the Chief of the Procurement Division or his/her designee shall approve or disapprove the proposed Change Order with any additional comment deemed pertinent. A disapproved proposed Change Order shall be sent back to the initiating department.

Page 2 of 3

Awards Committee and Mayoral Approval. If approved by the Chief of the Procurement Division, the proposed Change Order shall be forwarded to the applicable Awards Committee (GGAC, CSPEC or PSEC) for consideration. If approved by the applicable Awards Committee, the proposed Change Order will be forwarded to the Mayor's Office for review, approval and execution by the Mayor or his/her designee and by the Corporation Secretary.

<u>Special Rules for Change Orders on Capital Construction Projects.</u> The following exceptions to the process described above shall apply to proposed Change Orders on contracts involving new construction, additions, improvements, repairs to structures or other capital improvements originally awarded through the GGAC:

- A signature by the Mayor or his/her designee approving a proposed Change Order shall constitute a signature to the Change Order itself. A second signature from the Mayor's Office shall not be required for such Change Order.
- In accordance with Sections 126.109(a) and 126.201(d)(7), Ordinance Code, proposed Change Orders in an amount up to 10% in the aggregate of the awarded contract value, shall not require GGAC or Mayoral approval if:
  - (a) The Director of Public Works determines that the proposed Change Order is the result of unforeseen conditions, the reconciliation of quantities, or design errors and/or omissions; and
  - (b) The proposed Change Order has followed the process set forth in the "Administrative Review of Change Orders" section of this Executive Order and is approved by (i) the Director of Public Works or his/her designee, (ii) the Director of the requesting department (if applicable), and (iii) the Chief of the Procurement Division.

Monthly Reports. All departments shall provide a monthly written report to the Chief of the Procurement Division identifying all contracts for which the respective departments have submitted Change Orders and the net sum of such Change Orders.

<u>Timeliness</u>. It shall be the goal of the administration to fully complete each specified review and signature turnaround process for each proposed Change Order within 2 business days or less.

Approved as to conformity with sound fiscal policy:

Director of Finance

Approved as to Form:

a La Lague

Approved and Issued:

Alvin Brown Mayor

Approval Date:

Effective Date:

Page 3 of 3



#### OFFICE OF THE MAYOR

JOHN A. DELANEY

MAYOR

ST. JAMES BUILDING 117 WEST DUVAL STREE SUITE 400 JACKSONVILLE, FL 3220

#### **EXECUTIVE ORDER 98-01**

TO:

All Elected Officials, Department Heads, Division Chiefs, Independent Agencies,

Authorities, Boards, Commissions and Councils

FROM:

John A. Delaney, Mayor

SUBJECT:

City Construction Dispute Review Board (CCDRB)

By virtue of the authority vested in me as Mayor by the Charter and as Chief Executive Officer of the Consolidated Government, it is ordered:

Section 1. Background. The Mayor appointed a select committee to review and make suggestions to improve the City Purchasing Code, mindful of changes in procurement methods for professional and contractor services (PCS) since the Code was last revised. After extensive and extended review, the committee recommended, among other things, creating a dispute review board to hear claims involving PCS. This process offers an expeditious and inexpensive means for disputants to resolve their differences and benefits all parties.

Section 2. City Construction Dispute Review Board Created; Membership. There is hereby created the City Construction Dispute Review Board (CCDRB) to be composed of two (2) permanent members and two (2) non-permanent members as follows:

- (a) The Public Works Department Chief of Engineering or his designee (permanent), who shall serve as chairman.
- (b) The General Counsel or his designee (permanent).
- (c) A design professional licensed in Florida and experienced in the discipline associated with the dispute (non-permanent).
- (d) Contractor licensed in Florida and experienced in the discipline associated with the dispute (non-permanent).



#### EXECUTIVE ORDER 98-

The Director of Public Works (Director) shall solicit volunteers from the contractor and design professional communities to serve as non-permanent members. Volunteers shall not be compensated nor have an interest in any case before them. The Director shall maintain a current list of volunteers reflecting their disciplines, general experience, length of licensure, and education. When a matter is referred to the CCDRB, the non-permanent members shall be selected from the list maintained by the Director by mutual agreement of the Chief of Engineering and the disputing party. In the event no contractor and/or design professional volunteer on the list is acceptable to both the Chief of Engineering and the other party, the Director shall solicit additional volunteers to serve on the CCDRB to hear such case. Alternatively, the disputing parties may agree that the hearing shall continue with only the permanent members and any agreed-upon non-permanent member. The Public Works Department will provide staff support to the CCDRB.

- Section 3. Purpose. The purpose of the CCDRB is to provide a non-binding dispute review service to the City and its Construction Contractors, Architects and Engineers, for claims and/or other disputes on City Capital Improvement projects. Such a process has been used in private industry where most construction disputes are resolved without trial. A copy of this order shall be appeaded to all City bidding and contract documents. Such documents shall also include language that any dispute cognizable under this order must be presented to the CCDRB and a decision rendered as a condition precedent to instituting any other legal action.
- Section 4. Function. Upon a written request of a City department or agency or its construction contractor, architect or engineer, the Chief of Engineering shall receive a copy of the claim and statement of the dispute and any response thereto, with all supporting documentation. The CCDRB shall schedule a hearing of the interested parties within 30 calendar days after receiving all information to hear the claim, and all responses. The Florida Rules of Evidence shall apply to proceedings before the CCDRB; however, such rules may be relaxed at the discretion of the chairman. Within seven (7) business days after the dispute review proceeding concludes, the CCDRB will provide its written, non-binding determination to the parties involved. Each party may accept the CCDRB's determination, or may seek other remedies, as permitted by contract and law. Any claim not brought before the CCDRB shall be deemed legally deficient. The testimony and any unadopted decision of the CCDRB are inadmissible in any subsequent legal proceeding.
- Section 5. Promulgation of Rules. As necessary, rules governing the administration and proceedings of the CCDRB may be promulgated by the Public Works Department to insure fair and timely hearings on matters referred to the CCDRB.

Section 6. Use by Independent Agency(s). Should any independent agency wish to use

#### **EXECUTIVE ORDER 98-**

the CCDRB, it may refer disputes to the Board and the Public Works permanent member may be replaced by a designee of the Chief Executive Officer of the using agency.

Approved as to conformity with sound fiscal policy:

Director of Administration and Finance

Approved as to Form:

Assistant General Counsel

Approved and Issued:

Mayor

Approval Date:

Effective Date: 114118

GASHAREDAGREGORYR\CCDRR.ORD

### SECTIONS 16 through 19 VACANT

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## SECTION 20 GENERAL CONDITIONS

#### 20.1 DEFINITIONS:

The following terms as used in these Contract Documents are respectively defined as follows:

- 20.1.1 Addenda: Written or graphic instruments issued prior to receipt of bids which modify or interpret the Contract Documents by additions, deletions, clarifications and/or corrections.
- 20.1.2 <u>Application for Payment</u>: The form furnished by the CITY which is used by the CONTRACTOR in requesting progress payments.
- 20.1.3 <u>Bid</u>: The Proposal of the Bidder submitted on the prescribed Contract Proposal form setting forth the prices for the work to be performed.
- 20.1.4 <u>Bidder</u>: Any person, firm or corporation submitting a Bid for the work.
- 20.1.5 <u>Bonds</u>: Bid, Performance, Payment and other instruments of security, furnished by the CONTRACTOR and its Surety in accordance with the Contract Documents.
- 20.1.6 Change Order: A written amendment to the Contract prepared by the CITY and signed by the CONTRACTOR, ENGINEER and CITY authorizing revision to the work within the scope of the Contract Documents and authorizing adjustment to Contract price and/or contract time, if any, issued after execution of the Contract Agreement
- 20.1.7 <u>CITY</u>: The City of Jacksonville, Florida, including any of its departments, designated agencies, or independent authorities.
- 20.1.8  $\underline{\text{CONTRACTOR}}$ : Any entity with whom the CITY has executed a contract. CONTRACTOR usually refers to the contractor on a specific project.
- 20.1.9 <u>Contract Agreement</u>: The written agreement between the CITY and the CONTRACTOR covering the work to be performed.
- 20.1.10 Contract Documents: The agreement subscribed to by the parties; namely, the Invitation to Bid, Instructions to Bidders, CONTRACTOR'S Proposal, Bidder's Certifications, Bid Bond, Contract Agreement, Contract Bonds, General Conditions, Employment Requirements and Wage Rates, Special Conditions, Technical Specifications, Drawings, Plans, Addenda and Change Orders.

- 20.1.11 Contract Amount or Contract Price: The total moneys payable to the CONTRACTOR under the terms and conditions of the Contract Documents.
- 20.1.12 <u>Contract Time</u>: The number of consecutive calendar days or the period of time stated in the Contract Documents for the completion of the work.
- 20.1.13 Council: The City Council of the City of Jacksonville.
- 20.1.14 <u>Days</u>: Except where otherwise specifically provided in the Contract Documents, calendar days including Saturdays, Sundays and Holidays.
- 20.1.15 Delay: This shall mean delay, disruption or hindrance.
- 20.1.16 <u>Drawings, Plans</u>: Drawings showing the character and scope of the work to be performed, and referred to in the Contract Documents. The term "Plans" shall also mean drawings.
- 20.1.17 ENGINEER: The Chief of the Engineering Division or that person duly appointed by the CITY to undertake the duties assigned to the ENGINEER, acting either directly or through properly authorized agents acting within the scope of the particular duties entrusted to them.
- 20.1.18 <u>Field Modification</u>: A modification issued by the ENGINEER which clarifies or interprets the Contract Documents in accordance with Paragraph 20.27 where no adjustment in Contract time or Contract price is involved.
- 20.1.19 <u>Final Payment</u>: Final Payment is considered to be any payment which includes a reduction in the five percent (5%) retainage when the project is 100% complete.
- 20.1.20 <u>Inspector</u>: The authorized representative of the ENGINEER, assigned to inspect any of the materials and workmanship of the CONTRACTOR to ensure compliance with the requirements of the Contract Documents.
- 20.1.21 Modification: (1) A written amendment (Titled Modification to the Contract Documents, which is time and cost neutral) signed by the ENGINEER; (2) A Change Order signed by both parties; or (3) A written clarification or interpretation issued by the ENGINEER in accordance with Paragraph 20.27. A Modification may be issued only after execution of the Contract Agreements.
- 20.1.22 Owner: Except where context implies otherwise, the City of Jacksonville, Florida, including any of its departments, designated agencies or independent authorities.

- 20.1.23 <u>Project</u>: The entire construction to be performed as provided in the Contract Documents.
- 20.1.24 Project Engineer: The authorized representative of the ENGINEER who is assigned to the Project to ensure that all facets of construction and materials comply with the requirements of the Contract Documents. The Project Engineer shall serve essentially as field liaison between the ENGINEER and the CONTRACTOR.
- 20.1.25 Shop Drawings: All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the CONTRACTOR, a Subcontractor, Shop fabricator, Manufacturer, Supplier, or Distributor and which illustrate the equipment, material or some portion of the work.
- 20.1.26 Subcontractor: A person, firm or corporation having a direct contract with the CONTRACTOR or with any other subcontractor for the performance of any part of the CONTRACTOR'S obligations hereunder at the site of work, excluding, however, the furnishing of standard materials such as concrete, lumber and other materials not worked to a special design under the Plans and Specifications for the Work.
- 20.1.27 <u>Substantial Completion</u>: The Work (or a specified part thereof) has progressed to the point where, in the opinion of ENGINEER as evidenced by ENGINEER'S definitive certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended; or if there be no such certificate issued, when final payment is due in accordance with paragraph 20.41. The terms "substantially complete" and "substantially completed" as applied to any Work refer to Substantial Completion thereof.
- 20.1.28 <u>Work:</u> Workmanship, materials and equipment necessary to this Contract, and any and all obligations, duties and responsibilities necessary to the successful completion of the Project assigned to or undertaken by the CONTRACTOR under the Contract Agreement, including the furnishing of all labor, materials, equipment and other incidentals.
- 20.1.29 PROGRAM MANAGEMENT FIRM(S): The authorized firm or firms and designated representative(s) retained by the CITY to perform duties as defined for all aspects of the management and oversight of planning, programming, design, and construction of projects.
- 20.1.30 Field Order Change: A written order issued by the ENGINEER which clarifies or interprets the Contract Documents in accordance with Paragraph 20.27 or orders minor changes in the work in accordance with Paragraph 20.34.

#### 20.2 GIVING OF NOTICE

20.2.1 Unless otherwise specified herein, any notice required under the Contract Documents shall be deemed given if deposited in the United States Mail, first class postage prepaid, addressed as follows:

If notice to the CITY or ENGINEER

Public Works Department
Attention: Chief of Engineering & Construction Management
Ed Ball Building, 10<sup>th</sup> Floor
214 North Hogan Street
Jacksonville, Florida 32202

If notice to the CONTRACTOR:

The CONTRACTOR'S name and address as shown in its Proposal, or latest given address.

The above addresses may be changed by written notification to the other parties shown above.

- 20.2.2 Notice may also be given by hand delivery at the above addresses or to the authorized representative of the abovenamed parties at the work site and, if requested, a receipt will be given therefor by the addressee.
- 20.2.3 All correspondence and/or drawings, pertinent to the work covered by these specifications shall bear the following information: Title, Bid Number, and/or Purchase Order Number, and Contract Number.

#### 20.3 NOTICE TO PROCEED, PRECONSTRUCTION CONFERENCE AND WORK HOURS:

- 20.3.1 The CONTRACTOR shall begin work within ten (10) days after date of written Notice to Proceed, such notice being prepared and forwarded through the mail or otherwise by the CITY. No work shall be done prior to the date of issuance of the Notice to Proceed. The CITY shall not be liable for any damages or expenses incurred by the CONTRACTOR for any work performed or purchases made prior to the commencement date in the Notice to Proceed.
- 20.3.2 The Contract Time shall commence on the eleventh (11<sup>th</sup>) day after issuance of Notice to Proceed.
- 20.3.3 Before starting the work, a Preconstruction Conference will be held to review and determine the methods of scheduling and progress reporting of this Project, establish procedures for handling Shop Drawings and other submissions and for processing Applications for Payment, and to

establish a working understanding between the parties as to the ENGINEER, the CONTRACTOR, and the CONTRACTOR'S Superintendent.

20.3.4 Prior to the Preconstruction Meeting, the Contractor shall develop a schedule and progress report method acceptable to the Engineer for submission at the preconstruction conference. The Contractor shall maintain an updated project schedule and progress report and submit this information monthly. The Contractor shall also be required to provide an initial monthly cash flow projection for the City work to be submitted at the preconstruction conference. These cash flow projections shall be updated monthly, based on the actual payments, and submitted monthly with the payment applications.

No separate measurement and payment will be made for cash flow projections, schedule and progress reports. Failure to submit these schedules, progress reports and cash flow projections with the pay request will result in rejection of the monthly pay request.

- 20.3.5 The time allotted for completion of the project is based on a standard work week with no "off-hours" work, which is defined as work:
  - (1) before 7:00 a.m. or after 5:00 p.m.; or
  - (2) more than eight (8) hours per day; or,
  - (3) more than forty (40) hours per week; or
  - (4) on Saturdays, Sundays, or the following legal CITY holidays:
    - New Years Day
    - Martin Luther King's Birthday
    - Presidents Day
    - Memorial Day
    - Independence Day
    - Labor Day
    - Veterans Day
    - Thanksgiving Day
    - Friday after Thanksgiving Day
    - Christmas Eve Day
    - Christmas Day

The time allotted for completion was intentionally set long enough to allow for normal delays due to inclement weather, shop drawing approvals, responding to CONTRACTOR requests for information, and processing Change Orders. The bidder is presumed to have included any and all costs associated with these normal delays in its bid.

Bidders who determine that, in order to complete the project within the time allotted including said normal delays, it must work during "off-hours", should provide an

"off-hours" schedule with its bid. (Failure to furnish this item with the Bid Proposal will not be construed as a defective Bid.) If no "off-hours" schedule has been submitted and the CONTRACTOR determines during the course of construction that "off-hours" work is needed, it shall request approval by the ENGINEER of an "off-hours" work schedule at least 48 hours prior to doing such "off-hours" work. The CONTRACTOR must secure the ENGINEER'S approval for any overtime work. Approval by the ENGINEER of "off-hours" work shall not be construed as authorizing an increase in the contract amount or additional cost to the CITY.

- 20.3.6 No "off-hours" work shall be done unless previously approved by the ENGINEER, except:
  - (1) normal protective work such as maintenance of barricades, lights or pumps and tending of fires or other potentially hazardous conditions; or,
  - (2) emergency work to relieve an unsafe condition or a threat of injury to persons or property; or,
  - (3) extenuating circumstances such as completing a concrete pour or other work that is at a stage of construction that requires completion at the end of a normal work day.
- 20.3.7 Typically, the CONTRACTOR will not be responsible for the payment of the CITY'S cost of overtime inspection. However, the CONTRACTOR may be required to reimburse the CITY for overtime inspection costs in situations where overtime inspections are required on work performed solely for the convenience of the CONTRACTOR or for off-hours work resulting from avoidable delays by the CONTRACTOR or its subcontractors or suppliers. The ENGINEER shall be responsible for determining when the CONTRACTOR is to reimburse the CITY for overtime inspection costs. When reimbursement is required, the cost shall include the CITY Inspector's hourly rate times one and one-half, plus payroll costs and incidental expense related to such overtime inspection. The ENGINEER shall determine how such overtime cost shall be recovered by the CITY. NO PAYMENT SHALL BE MADE DIRECTLY TO THE INSPECTOR. Failure by the CONTRACTOR to reimburse the CITY for the costs of overtime inspection, after receipt of a proper invoice from the CITY, shall be grounds for the CITY to increase the retainage on future payments due the CONTRACTOR. If CITY invoices for inspector overtime have not been paid by the time the CONTRACTOR submits its final pay request, the total of all unpaid invoices shall be deducted from the CONTRACTOR'S final payment and the CONTRACTOR may be removed from the CITY'S Approved Bidders List. After a period of twelve (12) months the CONTRACTOR may apply for reinstatement.

20.3.8 The rate for reimbursement of Overtime Inspection related to "Off-Hours Work", as described above, is \$80.00 per hour.

#### 20.4 SCHEDULE AND PROGRESS REPORTS

- 20.4.1 Scheduling and progress reporting of this Project shall be accomplished by a computerized program which develops a Critical Path giving data similar and equivalent to Primavera Project Planner, which shall be used throughout the project. During construction, the diagram and reports will be used to provide the following information:
  - 20.4.1.1 Status of Project to accuracy of 30 days to determine trouble spots and if work is on schedule.
  - 20.4.1.2 Ample information to determine justification for extensions of time as requested under General Conditions, Paragraphs 20.8 and 20.34.
- Prior to the Preconstruction Meeting, the Contractor shall 20.4.2 develop a schedule and progress report method acceptable to Engineer for submission at the preconstruction conference. The Contractor shall maintain an updated project schedule and progress report and submit this If requested by the City, the information monthly. Contractor shall also be required to provide an initial monthly cash flow projection for the City work to be submitted at the preconstruction conference. These cash flow projections shall be updated monthly, based on the actual payments, and submitted monthly with the payment applications. No separate measurement and payment will be made for cash flow projections, schedule and progress reports. Failure to submit these schedules, progress reports and cash flow projections with the pay request will result in rejection of the monthly pay request.
- The CONTRACTOR shall, at the Preconstruction Conference, submit to the ENGINEER five (5) copies of a logical network diagram covering operations in the first sixty (60) days of work. After approval, the diagram will be used as a basis for review of monthly progress reports until the total project network diagram is approved.
- 20.4.4 Within 15 calendar days after the date of Notice to Proceed, five (5) copies of the proposed total project network diagram shall be submitted to the ENGINEER for approval. Activities shown on this schedule shall include all major construction operations, its proposed sequence, submittal of shop drawings and/or samples, installation of major and critical items and the completion of the various work items within the allowed time for the Contract. Each event or node of the network shall be uniquely numbered and

each activity shall be labeled with a suitable description together with an estimate of the number of working days required for the activity.

- 20.4.5 A reproducible copy of the approved network shall be transmitted to the ENGINEER within thirty (30) days after Notice to Proceed. The Critical Path shall be indicated on the network together with the cumulative number of calendar days to complete the Project. With the approved network, the CONTRACTOR shall submit two (2) copies of each of two (2) different tabulations giving this type of information: Starting Node, Ending Node, Duration in working days, Description, Earliest Start, Earliest Finish, Latest Start, Latest Finish, Total Float, Free Float.
- 20.4.6 One tabulation shall be a listing of activities in order of ascending starting node numbers. If there is more than one activity with the same starting node number, then all such activities shall be listed in order of ascending ending node numbers. The second tabulation shall be a listing of all activities in order of ascending "latest starts" as related to the start of the Project. If there is more than one activity with the same "latest start," all such activities shall be listed in order of ascending node numbers.
- As an alternative to the above defined Critical Path Method, the CONTRACTOR may use the following specified Progress Charts for its schedule and progress reporting upon written approval of the Owner. Progress Charts, showing project schedule, shall be submitted to the ENGINEER at the Preconstruction Conference. Failure to submit an acceptable schedule will be considered cause for withholding payment, until an acceptable schedule has been developed.
- 20.4.8 Progress Chart shall include the following:
  - A horizontal time scale, with a listing of the 20.4.8.1 various activities required in the construction contract, including but not limited to mobilization, clearing and grubbing, line work, fencing, planting, paving, soddina, demobilization, etc. Projected construction time shall be shown as a bar for each activity, in accordance with the horizontal time scale. As construction progresses, CONTRACTOR shall graphically show progress made on each activity and show percentage of completion of that activity on the left end of the chart.
  - 20.4.8.2 A projected time/percent construction completion curve shall also be shown on the Progress Chart, with horizontal time scale matching that of the

various activity bars, and percent of completion based on construction dollars shown on the vertical axis at the right end of the chart. As construction proceeds, CONTRACTOR shall plot actual progress on a second contrasting curve. Percent construction completion, both projected and actual, shall be based on dollar value of construction projected (first curve) and completed (second curve).

- 20.4.9 Each month, the CONTRACTOR shall report current project status by submitting four (4) copies of charts reflecting progress made on activities established in the project Network Diagram or Progress Chart. These charts shall include the time/construction completion curves.
- 20.4.10 When major changes in the Contract or in the order of work are made, the Network Diagram or Progress Chart shall be revised and reproducible copies shall be submitted to the ENGINEER for approval, along with four (4) copies of tabulations required for the development of the Diagrams or Charts.
- 20.4.11 If in the opinion of the ENGINEER, the CONTRACTOR falls behind in scheduled progress, as indicated by the monthly charts such that the work in place is more than 20% behind schedule, the CONTRACTOR shall take whatever steps are required to improve its progress and shall submit its revised network diagram or bar chart, tabulations, operational plans and manpower and equipment loading schedule to demonstrate the manner in which the lost progress will be regained, all without any time loss or additional cost to the CITY.
- 20.4.12 Lack of satisfactory progress, as adjudged by the ENGINEER, shall be considered grounds for the withholding of payment (in addition to any other remedy allowed at law or equity) until adequate progress, as determined by the ENGINEER, is demonstrated, with due consideration of the CONTRACTOR'S current CPM or Progress Chart, and the Contract Substantial Completion date.
- 20.4.13 Adequate progress is defined as that level of CONTRACTOR effort necessary to put the project back on schedule such that it will be ready for beneficial occupancy by the designated Substantial Completion date, or in the absence of such date, by the date of Final Acceptance.

#### 20.5 PHOTOGRAPHIC RECORDS

20.5.1 The CONTRACTOR shall provide a monthly photographic record of construction progress to the ENGINEER. This record shall consist of two (2) sets of four (4) pictures each 8" x 10", color professional quality photographs. High

resolution digital photos printed on 8%"x11" Standard Quality Photo Paper will also be accepted. The Engineer reserves the right to reject poor quality digital photos. If construction is being conducted in different localities, then four (4) pictures shall be taken at each locality. The ENGINEER shall reserve the right to select the views to be photographed. Each photograph will be identified in a lower corner, with typed record of date picture was taken, ENGINEER'S project number or contract number, and brief description of times and activity covered in the picture.

- 20.5.2 The CONTRACTOR shall take the progress pictures between the 20th and 25th day of each month and submit the pictures to the ENGINEER before the end of the 27th day of each month. If the CONTRACTOR fails to submit the pictures to the ENGINEER before the 28th day of each month, the CITY reserves the right to have the pictures taken by an independent photographer and the costs associated thereto will be for the CONTRACTOR'S account.
- In addition to the photographic records required during construction as stipulated above, the CONTRACTOR performing line work projects shall furnish the ENGINEER two (2) sets of 8" x 10" color print photographs taken along the entire project alignment showing existing conditions before any construction begins. Photographs are to be taken along the line of Work at intervals not exceeding 150'. For gravity sewers, these photographs shall include a view of each proposed manhole location taken from a distance not exceeding 25' and viewed toward the next manhole location.
- 20.5.4 Two (2) sets of preconstruction 8" x 10" color print photographs shall also be taken of each waterway crossing and delivered to the ENGINEER. An upstream and downstream view of each bank at the point of crossing shall be taken recording the intertidal zone and/or mean high water level. Also, a view of the line route shall be taken from each bank of the crossing and elsewhere as the ENGINEER may direct.
- 20.5.5 In addition, the CONTRACTOR shall provide unedited video recordings on CDs, DVDs or Flash Drives with superimposed timer and vocal commentary of the preconstruction and post construction conditions. Video recordings shall include both sides of the right-of-way and record close attention to paved and unpaved driveways and walkways; conditions of buildings, lawns, shrubs, flowers, flower beds, and trees; conditions of pavement, mailboxes, fences, signs, planters and any other items within or adjacent to the right-of-way. The Video recordings shall become a part of the ENGINEER'S permanent job records. Video recordings should be indexed, using the timer for locations by stationing and by street intersections. This index shall be provided with each CD,

DVD or Flash Drive and shall be attached to the recording's container.

- 20.5.6 Each photograph taken of line work projects shall have marked on the front of the photograph in a lower corner, the project name, the contract number or ENGINEER'S project number, date picture was taken, location taken or station number and direction of view.
- 20.5.7 At the completion of the line work construction, two (2) sets of  $8" \times 10"$  color print photographs shall be taken in the same orientation and location of the preconstruction photographs and delivered to the ENGINEER.

#### 20.6 TIME OF COMPLETION AND LIQUIDATED DAMAGES

- When CONTRACTOR considers the entire Work ready for its 20.6.1 intended use, CONTRACTOR shall notify ENGINEER in writing that the entire Work is substantially complete and request that the ENGINEER issue a certificate of Substantial Completion. The CONTRACTOR will include with this notification, a detailed list of any items which are not complete. Within a reasonable time thereafter, CONTRACTOR and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers the Work substantially complete, ENGINEER will execute a certificate of Substantial Completion which shall fix the date thereof. There shall be attached to the certificate a list of items, if any, to be completed or corrected before final payment. At the time of delivery of the certificate of Substantial Completion ENGINEER will deliver to CONTRACTOR a written recommendation as to division of responsibilities pending final payment between CITY and CONTRACTOR with respect to security, operation, safety, maintenance, heat, utilities, insurance and warranties, which will be binding on CITY and CONTRACTOR until final payment.
- 20.6.2 CITY shall have the right to exclude CONTRACTOR from the Work after the date of Substantial Completion, but CITY shall allow CONTRACTOR reasonable access to complete or correct items on the list to be completed.
- 20.6.3 It is agreed that the rate of progress herein required to meet the Contract time allotted has been purposely made low enough to allow for the ordinary delays incident to construction work of this character. No extension of time will be made for ordinary delays, inclement weather, and accidents, and the occurrence of such will not relieve the CONTRACTOR from the necessity of maintaining this rate of progress. If delays are caused by acts of God, acts of Government, strikes, extra work, or other contingencies

clearly beyond the control or responsibility of the CONTRACTOR, the CONTRACTOR shall be entitled to equal additional time to perform and complete this Contract. The ENGINEER shall certify this in writing to be justified. The CONTRACTOR will not be entitled to any additional compensation for the excusable delays noted above.

- The Work shall be conducted in such a manner and with sufficient labor, materials, tools and equipment necessary to effect a diligent pursuit of the work through final completion. If, in the opinion of the ENGINEER, the CONTRACTOR fails to carry out the Work in such manner, then the CITY shall have the right to take charge of the work and provide labor, materials and equipment necessary to complete the work and charge the cost of all such work against the CONTRACTOR. Payments to the CONTRACTOR for work performed may be withheld until said costs are reimbursed to the CITY.
- 20.6.5 The Work to be done under this Contract shall be substantially completed within the Contract time set forth in the Contract Documents. It is understood, and the CONTRACTOR hereby agrees, that the time limit substantial completion of work is of essence to the Contract, and should the CONTRACTOR fail to substantially complete the Work on or before the scheduled date established in the Notice to Proceed, it is agreed unless provided otherwise in the Special Conditions, that for each calendar day any work remains substantially incomplete after the time limit specified, the amount of \$50.00 minimum for a Contract Amount up to \$50,000 plus \$10.00 additional for each additional \$10,000 or portion thereof of Contract Amount over \$50,000; shall be deducted from the monies due the CONTRACTOR, not as a penalty, but as liquidated damages, representing the additional cost of contract administration and inconvenience only. addition to liquidated damages, the CONTRACTOR shall pay to the CITY any actual damages as well as the cost of inspection beyond the specified time for substantial completion including any extension of time granted by the CITY, such inspection cost comprised of payroll cost (direct labor plus fringe benefits) and incidental expense related to such inspection. Nothing in these Contract Documents shall be construed as precluding the CITY from recovering from the CONTRACTOR any and all actual expenses, costs and damages incurred by the CITY as a result of the CONTRACTOR'S failure to complete the Work by the completion date provided by the Contract Documents. The CONTRACTOR will have 30 calendar days to complete all work once the list of uncompleted items from the substantial completion inspection is transmitted to the CONTRACTOR. If, at the end of this 30 day period, all items of work are not satisfactorily completed, any additional time necessary for

completion of the items will be subject to the liquidated damages as described above.

20.6.6 In accordance with Section 126.202 Jacksonville Ordinance Code, when a CONTRACTOR is more than sixty (60) days in default, the Chief of Procurement and Supply may remove the name of the CONTRACTOR from the bidder's list.

#### 20.7 CITY'S RIGHT TO SUSPEND WORK

- 20.7.1 If the work is defective, or the CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or if the CONTRACTOR fails to make prompt payments to Subcontractors or suppliers for labor, materials or equipment, the ENGINEER may order the CONTRACTOR to stop the work, or any portion thereof, until the cause for such order has been eliminated. Any delay or other costs associated with the stoppage will be soley for the CONTRACTOR'S account.
- 20.7.2 The CITY may, at any time and without cause, suspend the work or any portion thereof by notice in writing to the CONTRACTOR. The ENGINEER shall fix the date on which work shall be resumed. The CONTRACTOR will resume the work on the date so fixed.

#### 20.8 EXTENSION OF TIME FOR UNFORESEEABLE CAUSES

- 20.8.1 The CONTRACTOR shall not be entitled to any extension of time for completion of the work as herein above specified unless the CONTRACTOR, within five (5) days from the beginning of any delay (delay shall be meant to include any disruption or hindrance), notifies the CITY and the ENGINEER in writing of such delay and the cause thereof and the ENGINEER shall determine;
  - 20.8.1.1 That such delay arises from unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including but not restricted to, acts of God; acts of public enemy; acts of the Government in either it's sovereign or contractual capacity; acts or omissions of the CITY, its agents or employees; acts of another CONTRACTOR in the performance of a contract with the CITY; fires, floods, epidemics, quarantine embargoes, freight restrictions, strikes, unusually severe weather; or delays Subcontractors or suppliers arising from such unforeseeable causes beyond the control and without the fault or negligence of both the CONTRACTOR and its Subcontractors or suppliers. Float time in the CONTRACTOR'S schedule shall be exhausted before any time extension will be approved.

- 20.8.1.2 That the work cannot be completed by the CONTRACTOR within the time specified solely by reason of such causes.
- 20.8.2 No extension of time shall be granted for material delays or deliveries except in the case of national emergency or documented labor strikes.
- 20.8.3 The ENGINEER shall make a determination as soon as practicable after the CONTRACTOR'S notice is received and shall decide the amount of additional time, if any, for completion of the work which conditions justify.

## 20.8.4 NO DAMAGES FOR DELAY; ACKNOWLEDGEMENT BY CONTRACTOR (CONSTRUCTION MANAGER)

No Claim for damages or any other claim other than for an extension of time shall made or asserted against the Owner by reason of any delay, disruption, interference or hindrance. The Contractor (Construction Manager) shall not be entitled to any increase in the Contract Sum or payment or compensation of any kind from the Owner for direct, indirect, consequential, impact or other damages, including but not limited to costs of acceleration and inefficiency, arising due to delay, disruption or hindrance or interference from any cause whatsoever. Contractor's (Construction Manager's) sole remedy for delay, disruption, disruption and interference damages shall be an equitable time extension, provided that a logical time impact analysis has been provided to the Owner so as to evaluate any time extension.

Where the entire project has been suspended by active interference or fraud by the Owner; and the Contractor (Construction Manager) is required to standby and is otherwise unable, under any circumstances, to obtain replacement work, the Owner will equitably adjust the Contract, provided that the time impact analysis and the substantiation presented to the Owner for any project costs shall be by discreet accounting methods and no formulas, means or hypothetical computations shall be considered as the basis for any claim or damages.

#### 20.9 CONTRACTOR'S RIGHT TO STOP WORK OR TERMINATE

20.9.1 If, through no act or fault of the CONTRACTOR, the Work is suspended for a period of more than ninety days by the CITY or under an order of court or other public authority, or the ENGINEER fails to act on any Application for Payment within thirty days after it is submitted, or the CITY fails to pay the CONTRACTOR any sum approved by the ENGINEER or awarded by arbitrators within thirty days of its approval and presentation, then the CONTRACTOR may, upon seven days'

written notice to the CITY and the ENGINEER, terminate the Contract Agreement and recover from the CITY payment for all work executed and any expense sustained plus a reasonable profit for the work performed. In addition and in lieu of terminating the Contract Agreement, if the ENGINEER has failed to act on an Application for Payment or the CITY has failed to make any payment as aforesaid, the CONTRACTOR may upon seven days' notice to the CITY and the ENGINEER stop the work until it has been paid all amounts then due.

#### 20.10 CITY'S RIGHT TO EXPEDITE WORK OR TERMINATE CONTRACT

- If the CONTRACTOR is adjudged bankrupt or insolvent, or if 20.10.1 it makes a general assignment for the benefit of its creditors, or if a trustee or receiver is appointed for the CONTRACTOR or for any of its property, or if it files a petition to take advantage of any debtors' act, or to reorganize under the bankruptcy or similar laws, or if it repeatedly fails to make prompt payments to Subcontractors or Suppliers for labor, materials or equipment or if it disregards laws, rules, regulations or orders of any public body having jurisdiction, or if it disregards the authority of the ENGINEER, or should the CONTRACTOR any time refuse, neglect or fail to supply a sufficient number of properly skilled workmen with sufficient equipment or materials of the proper quality, or prosecute the Work with diligence and in accordance with approved schedules, or fail in the performance of any of the covenants herein contained, such refusal, neglect or failure being verified by the ENGINEER, the CITY may, after three (3) days' written notice to the CONTRACTOR and its bonding company, provide any such labor, equipment or materials and deduct the cost thereof from any money then due or thereafter to become due to the CONTRACTOR under this Contract.
- 20.10.2 Alternatively, the CITY may, after ten (10) days' written notice to the CONTRACTOR and its bonding company, terminate the employment of the CONTRACTOR for said Work, and enter upon the premises and take possession of all materials, tools and equipment thereon and finish or contract with others to finish the Work. The CONTRACTOR shall not be entitled to rental or other compensation for the use of its construction tools and equipment, but shall only be entitled to the return thereof in the condition existing when possession was taken, ordinary wear and tear excepted.
- 20.10.3 In case of such discontinuance of the employment of the CONTRACTOR, the CONTRACTOR shall not be entitled to receive any further payment under this Contract until the said Work shall be wholly finished, at which time, if the unpaid balance of the amount to be paid under this Contract shall exceed the expenses incurred by the CITY in finishing the Work, such excess shall be paid by the CITY to the

CONTRACTOR, but if such expenses shall exceed the unpaid balance, the CONTRACTOR shall pay the difference from money then due or thereafter to become due to the CONTRACTOR under this Contract. The expense incurred by the CITY as herein provided for finishing the Work and the damage incurred by the CITY through such default shall be certified by the ENGINEER, whose certificate thereof shall be conclusive and binding upon the parties.

- 20.10.4 The remedies of the CITY under this Paragraph are exclusive of and in addition to any others contained in the Contract Documents, the CONTRACTOR'S bonds, or provided by law. Any retention or payment of monies by the CITY due the CONTRACTOR will not release the CONTRACTOR from liability.
- 20.10.5 Upon seven days written notice to the CONTRACTOR and the ENGINEER, the CITY may, without cause and without prejudice to any other right or remedy, elect to abandon the Project and terminate the Contract Agreement for convenience. In such case, the CONTRACTOR shall be paid for all Work executed including stored materials and demobilization costs plus a reasonable profit and overhead, not to exceed a total of 15 per cent, on the work completed.

#### 20.11 CORRELATION, INTERPRETATION AND INTENT OF CONTRACT DOCUMENTS:

- 20.11.1 The intent of the Contract Documents is to include in the Contract Price the cost of all labor and materials, taxes, water, fuel, tools, plant, equipment, light, utilities, transportation and all other expenses as may be necessary for the proper execution of the Work.
- 20.11.2 The Contract Documents comprise the entire Agreement between the CITY and the CONTRACTOR and may be altered only by a Modification.
- 20.11.3 The Contract Documents are complementary; what is called for by one is binding as if called for by all. If the CONTRACTOR finds a conflict, error or discrepancy in the Contract Documents, the CONTRACTOR shall call it to the ENGINEER'S attention in writing before proceeding with the Work affected thereby.
- 20.11.4 Figure dimensions on Drawings shall govern over scale dimensions, and detailed Drawings shall govern over general Drawings. Any Work that may reasonably be inferred from the Contract Documents as being required to produce the intended result shall be supplied whether or not it is specifically called for. Work, materials or equipment described in words which so applied have a well-known technical or trade meaning shall be deemed to refer to such recognized standards. The CONTRACTOR assumes full responsibility for having familiarized itself with the nature and extent of the Contract Documents, Work,

- locality, and local conditions that may in any manner affect the Work to be done.
- 20.11.5 Existing dimensions and clearances shall be verified by the CONTRACTOR before laying out the Work. Any discrepancies shall be immediately forwarded to the ENGINEER for resolution.
- 20.11.6 Any Addenda issued by the ENGINEER prior to the opening of the bids for the purposes of changing the intent of the Contract Documents or clarifying the meaning thereof shall be binding in the same way as if written therein.
- 20.11.7 The Table of Contents for the Contract Documents, or any division thereof, is included for convenience only. It does not form a part of the Contract Agreement, nor does it show the scope or disposition of the Work.
- 20.11.8 Neither the ENGINEER nor the CITY will assume any responsibility for bidding errors and/or omissions caused by failure of the CONTRACTOR or any of its Subcontractors to inspect and familiarize themselves with the complete set of Contract Documents.

#### 20.12 COPIES OF DOCUMENTS, RECORD DOCUMENTS

- 20.12.1 The CITY will furnish to the CONTRACTOR up to six (6) copies of the Contract Documents (Plans, Specifications and Addenda) at no cost, and as reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.
- 20.12.2 The CONTRACTOR shall keep one record copy of all Specifications, Drawings, Addenda, Modifications, and Shop Drawings at the site in good order and annotated to show all changes made during the construction process. These shall be available to the ENGINEER and shall be delivered to the CITY upon completion of the Project.

#### 20.13 WORK BY OTHERS

- 20.13.1 The CITY may perform work related to the Project with CITY personnel, or award other direct contracts therefor. In either event, the CONTRACTOR shall fully cooperate with such other CONTRACTORS and carefully schedule and fit its own Work to that provided under other contracts. The CONTRACTOR shall not commit or permit any act which will interfere with the performance of work by any other CONTRACTOR.
- 20.13.2 The CONTRACTOR shall do all cuttings, fittings or patching of the Work that may be required to make its several parts connect with the work of other Contractors as shown in, or

- reasonably implied, by the Contract Documents and as may be directed by the ENGINEER.
- 20.13.3 Any cost caused by defective or ill-timed work shall be borne by the party responsible therefor as determined by the ENGINEER, except the CITY shall not be responsible for any damages or costs to the CONTRACTOR as a result of delays, disruptions or hindrances caused in whole or in part by the CITY, its agents and employees.
- 20.13.4 The CONTRACTOR shall not endanger any Work by cutting, digging, or otherwise, and shall not cut or alter the work of any other CONTRACTOR without the consent of the ENGINEER.
- 20.13.5 If the performance of additional work by other CONTRACTORS or the CITY is not noted in the Contract Documents prior to the award of the Contract, written notice thereof shall be given to the CONTRACTOR prior to starting any additional work. If the CONTRACTOR believes that the performance of additional work by the CITY or others involves the CONTRACTOR in additional expense or entitles it to an extension of the Contract Time, it may make a claim therefor as provided in Paragraph 20.34.

#### 20.14 ASSIGNMENT, SUBLETTING OR SUBCONTRACTING

- 20.14.1 The CONTRACTOR shall perform at least 40% of the total amount of the work to be performed under this Contract with its own organization and may sublet any portion of the work to qualified Subcontractor(s)--EXCEPT as provided for in Division I Section 5 or Section 6, if applicable.
- 20.14.2 Subletting of any Work under this Contract shall not relieve the CONTRACTOR of its full responsibility for the proper and timely performance of all work required hereunder and for its selection of Subcontractor(s).
- 20.14.3 If, in the judgment of the CITY, any Subcontractor has, for any reason, failed to perform its subcontract in a satisfactory or timely manner, the CITY or ENGINEER shall advise the CONTRACTOR in writing of its determination and the CONTRACTOR shall promptly, and not later than fifteen (15) calendar days from the receipt of such advice, replace such Subcontractor with another Subcontractor agreeable to the CITY and ENGINEER unless the CONTRACTOR, with the CITY'S or ENGINEER'S consent, decides to perform the subcontracted work itself. The rights of the CITY under this Paragraph shall be in addition to the CITY'S other rights and remedies under the CONTRACTOR'S bond or otherwise.

- 20.14.4 The exercise of this right by the CITY or ENGINEER shall not be considered as a basis for an increase in cost to the CITY or an increase in contract time to the CONTRACTOR, for work performed under this Contract and neither shall be allowed.
- 20.14.5 The divisions and sections of the Contract Documents and the identifications of any Drawings shall not control the CONTRACTOR in dividing the Work among Subcontractors or delineating the Work to be performed by any trade.
- 20.14.6 In all relations, pertinent to the work, between the subcontractors and the CITY or ENGINEER, the subcontractors and its employees shall be considered as employees of the CONTRACTOR as the term "employee" is used in these specifications. Nothing contained in the Contract or specifications shall create any contractual relations between a subcontractor and the CITY. The CONTRACTOR shall be responsible to the CITY for its subcontractors.
- 20.14.7 The CITY reserves the right to let other Contracts in connection with this project. Each CONTRACTOR shall afford other CONTRACTOR'S reasonable facilities for the bringing in and storage of their materials and execution of their work.

#### 20.15 MATERIALS AND WORKMANSHIP

- 20.15.1 All workmanship, equipment, materials and articles incorporated in the Work covered by this Contract are to be new and of the best grade (unless re-use of used materials is otherwise specified). When required, the CONTRACTOR shall furnish the ENGINEER certified copies of test results made of the materials or articles which are to be incorporated in the Work for approval. When so directed, samples of materials shall be submitted for approval. Machinery, equipment, materials and articles installed or used without such approval shall be at the risk of subsequent rejection, removal and replacement at the CONTRACTOR'S expense.
- 20.15.2 If not otherwise provided, material or work called for in this Contract shall be furnished and performed in accordance with the manufacturer's instructions and established practice and standards recognized by architects, engineers and the trade.

#### 20.16 SUBSTITUTIONS

20.16.1 Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the naming of the item is intended to establish the type, function and quality required. Materials or equipment of

other Suppliers may be accepted by the ENGINEER if sufficient information is submitted by the CONTRACTOR to allow the ENGINEER to determine that the material or equipment proposed is equivalent or equal to that named. The procedure for review by the ENGINEER will include the following as may be modified in the Special Conditions. Requests for review of substitute items of material and equipment will not be accepted by the ENGINEER from anyone other than the CONTRACTOR. If the CONTRACTOR wishes to furnish or use a substitute item of material or equipment, the CONTRACTOR shall make written application to the ENGINEER for acceptance thereof, certifying that proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. The application will state that the evaluation and acceptance of the proposed substitute will not prejudice the CONTRACTOR'S achievement of Substantial Completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other contract directly with the CITY for work on the Project) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. application will also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other CONTRACTORS affected by the resulting change, all of which shall be considered by the ENGINEER in evaluating the proposed substitute. The ENGINEER may require the CONTRACTOR to furnish at the CONTRACTOR'S expense additional data about the proposed substitute.

- 20.16.2 If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, the CONTRACTOR may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to the ENGINEER, if the CONTRACTOR submits sufficient information to allow the ENGINEER to determine that the substitute proposed is equivalent to that indicated or required by the Contract Documents. The procedure for review by the ENGINEER will be similar to that provided in paragraph 20.16.1 as applied by the ENGINEER and as may be modified by the Special Conditions.
- 20.16.3 The ENGINEER will be allowed a reasonable time (normally a minimum of ten (10) days) within which to evaluate each proposed substitute; such time shall not be deemed

justification for an extension of the CONTRACTOR'S time for completion of the project. The ENGINEER will be the sole judge of acceptability, and no substitute will be ordered, installed or utilized without the ENGINEER's prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. The ENGINEER will record time required by the ENGINEER and the ENGINEER's consultants in evaluating substitutions proposed by the CONTRACTOR and in making changes in the Contract Documents occasioned thereby. Whether or not the ENGINEER accepts a proposed substitute, the CONTRACTOR shall reimburse the CITY for the charges of the ENGINEER and the ENGINEER's consultants for evaluating each proposed substitute.

20.16.4 The CITY may require the CONTRACTOR to furnish at the CONTRACTOR'S expense a special performance guarantee or other surety with respect to any substitute.

#### 20.17 ROYALTIES AND PATENTS

The CONTRACTOR shall indemnify, defend and save harmless 20.17.1 the CITY, and the ENGINEER from all liabilities, decrees, judgment claims or disbursements, including attorneys' fees and/or damages and expenses resulting from delay which may in any way come against or be incurred by the CITY, or the ENGINEER by reason of the use of any patented material, machinery, devices, equipment or processes furnished or used in the performance of the work under this Contract or the use by the CITY of the completed structure or by reason of the use of patented designs furnished by the CONTRACTOR and accepted by the CITY. In the event any claim, action at law or suit in equity of any kind whatsoever is made or brought against the CITY, or the ENGINEER involving any such patent rights, then the CITY shall have the right without impairment of the foregoing indemnification, to retain from the money due and to become due said CONTRACTOR a sufficient amount of money to protect these parties against loss.

#### 20.18 COMPLIANCE WITH LAWS AND PERMITS

- 20.18.1 The CONTRACTOR shall comply with all laws, ordinances, rules and regulations bearing on the conduct of the Work and shall, unless the Contract Documents provide otherwise, at its own cost obtain all permits and licenses necessary for the prosecution of the Work, including, but not limited to, Building and other permits specified in Chapter 320 of the Jacksonville Ordinance Code.
- 20.18.2 The CONTRACTOR shall pay all fees and charges required for permits, connections to utilities, downstream pollution, concurrency management, parking meter rental/removal and any other assessments imposed on construction or initial occupancy of the project.

- 20.18.3 The CONTRACTOR shall be responsible for the payment of all Federal, State, or local taxes, including but not limited to sales and use taxes, applicable to the performance of this Contract and shall indemnify and hold harmless the CITY from the consequences of the CONTRACTOR'S failure to pay such taxes.
- 20.18.4 The CONTRACTOR shall indemnify and save harmless the CITY and the ENGINEER from all liabilities, decrees, judgments claims or disbursements, including attorneys fees and/or damages and expenses arising from or based upon the violation of any law, ordinance, regulation or permit whether by the CONTRACTOR, the CONTRACTOR'S employees, or sub-contractors.
- 20.18.5 Permits required for construction of facilities within and/or crossing the right-of-way of state and federal highways, railroads, and waterways shall be obtained by and at the expense of the CITY. No work shall be performed in such areas until said permits have been provided to the CONTRACTOR.
- 20.18.6 The CONTRACTOR shall comply with all conditions of permits on the project issued by Federal, State, or local governmental agencies, which are hereby incorporated into these Contract Documents, until the project is accepted by the CITY as substantially complete, unless a specific agreement otherwise is endorsed by both the CONTRACTOR and the CITY. Accordingly, the CONTRACTOR is responsible for the resolution of any issues resulting from a finding of noncompliance during construction by any of the respective regulatory agencies including all costs for delays, litigation, fines or other costs; all of which costs shall be borne by the CONTRACTOR at no cost to the CITY. Copies of the permits for this project can be found in Section 33 of this document.

#### 20.19 CITY'S NON-DISCRIMINATION POLICY

20.19.1 As required by Section 126.404, Jacksonville Ordinance Code, contractor represents that it has adopted and will maintain throughout the term of this contract a policy of nondiscrimination or harassment against any person with regard to race, color, sex (including pregnancy), sexual orientation, gender identity or expression, religion, political affiliation, national origin, disability, age, marital status, veteran status, or any other impermissible factor in recruitment, hiring, compensation, training, placement, promotion, discipline, demotion, transfers, layoff, recall, termination, working conditions and related terms and conditions of employment. Contractor agrees that, on written request, it will permit reasonable access to its records of employment, employment advertisement,

application forms and other pertinent data and records, by the Executive Director of the Community Relations Commission, or successor agency or commission, for the purpose of investigation to ascertain compliance with the non-discrimination provisions of the Contract; provided however, that Contractor shall not be required to produce, for inspection, records covering periods of time more than one (1) year prior to the effective date of the Contract. Contractor agrees that, if any of the products or Services to be provided pursuant to the Contract are to be provided by a subcontractor, the provisions of this Section shall be incorporated into and become a part of the subcontract.

#### 20.20 FEDERAL EMPLOYMENT REQUIREMENTS

20.20.1 On federally assisted projects, the attention of all Contractors and subcontractors is directed to current Labor Standards Contract Provisions, Anti-Kickback Regulations and Provisions, and associated forms including but not limited to: Certification of Nonsegregated Facilities; Certification by Proposed Prime CONTRACTOR or Subcontractor regarding Equal Employment Opportunity; Notice to Labor and Other Organizations of Workers; Unions Nondiscrimination in Employment; Weekly Statement of Compliance; and Sample Payroll Form.

#### 20.21 FEDERAL WAGE RATES

20.21.1 Prevailing rates of pay as determined by the United States Department of Labor shall be paid to skilled and unskilled labor on Federally assisted contracts valued at over \$2,000.

#### 20.22 AVAILABILITY OF LANDS: SURVEYS AND CONDITIONS AT THE SITE

- 20.22.1 The CITY will provide, as indicated in the Contract Documents and not later than the date when needed by the CONTRACTOR, the lands upon which the Work is to be done, rights-of-way or access thereto, and such other lands which are designated for the use of the CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities will be secured and paid for by the CITY, unless otherwise specified in the Contract Documents. The CONTRACTOR will provide, at its expense, all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.
- 20.22.2 If, in the opinion of the ENGINEER, the Contract Documents do not reflect sufficient survey information, the CITY will, upon request, furnish to the CONTRACTOR copies of all available boundary surveys, which will establish or indicate such general reference points as in its judgment will enable the CONTRACTOR to proceed with the Work.

- 20.22.3 Unless otherwise agreed to by the CITY, the CONTRACTOR will provide all surveys necessary to commence and perform all the work. All work shall be done to the lines, grades and elevations shown on the Plans. Any Work done without being properly located may be ordered removed and replaced at the CONTRACTOR'S expense. The CONTRACTOR shall also be responsible for monumenting benchmarks, geometric curve data and all other boundaries at the conclusion of the project, to allow for future reference.
- 20.22.4 The ENGINEER may, in its sole discretion, check from time to time the reference marks, lines, grades and measurements established by the CONTRACTOR, but its exercise or failure to exercise such right shall not relieve the CONTRACTOR of its obligations under the preceding sub-paragraph.
- 20.22.5 The CONTRACTOR shall make such investigations of conditions above or below the surface of the ground as it may deem necessary for the proper and timely performance of its work, including but not limited to the making of borings. No oral representations by any persons respecting such conditions shall in any manner be binding upon the CITY or the ENGINEER.
- 20.22.6 The CITY may have, for its own use, made borings at or near the site of the work. The boring data will be made available by the ENGINEER if the CONTRACTOR, for its own convenience, desires to examine it. Any interpretations or conclusions drawn by the CONTRACTOR from such data shall be its own and the CITY makes no representation or guarantee concerning the accuracy or completeness of such data. The CONTRACTOR shall be responsible for making its own determination of subsurface soil conditions and water table variations prior to bidding and shall not assume that any water levels shown by the aforesaid boring data will necessarily be maintained at the level indicated.
- If conditions are encountered at the site which are (1) 20.22.7 subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature, which differ materially from those ordinarily found exist and generally recognized as inherent construction activities of the character provided for in the Contract Documents, the CONTRACTOR shall give notice to the ENGINEER promptly before conditions are disturbed and in no event later than five (5) days after first observance of the conditions. The ENGINEER will promptly investigate such condition and, if it differs materially and causes an increase or decrease in the CONTRACTOR'S cost of, or time required for, performance of any part of the work, will recommend an equitable adjustment in the Contract Price or Contract Time, or both. If the ENGINEER determines that the

conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the ENGINEER shall so notify the CONTRACTOR in writing stating the reasons. Claims in opposition to such determination must be made within ten (10) days after the ENGINEER has given notice of the decision.

- The CONTRACTOR shall be responsible for any encroachments on rights or property of the public or adjoining property owner and shall hold the CITY harmless because of any encroachments which may result of the CONTRACTOR'S lack of proper layout. In this regard the CONTRACTOR shall, without extra cost to the CITY, remove any work or that portion of any work that encroaches on the property of others, or that is built beyond legal building or setback limits, and shall rebuild the affected work or portion of work at the proper location and in full compliance with the Contract Documents.
- 20.22.9 The CONTRACTOR shall not (except upon written consent from the property owner) enter or occupy with men, tools or equipment any land outside the easements, rights-of-way or property of the CITY. A copy of the written consent shall be delivered to the ENGINEER prior to entry.

#### 20.23 UTILITIES AND OTHER OBSTRUCTIONS

- 20.23.1 Information shown on the drawings related to existing utilities, whether on the surface or underground, has been provided for whatever purpose the CONTRACTOR may, at the CONTRACTOR'S risk, use it. The CONTRACTOR shall have full responsibility for reviewing and checking such information for accuracy and the CITY makes no representation or guarantee concerning the accuracy or completeness of such information.
- 20.23.2 The CONTRACTOR shall be responsible for locating all utilities either on or contiguous to the site (or payline width) and taking adequate precautions to safely protect, support and maintain such utilities during construction, whether or not such utilities are accurately shown on the Drawings. Where there is a direct conflict between an existing utility, and proposed construction and there is no provisions in the Contract Documents for resolving the conflict, cost of resolving the conflict shall be borne by the OWNER of the utility.
- 20.23.3 If a utility not shown on the drawings of the site or within the payline is damaged by the CONTRACTOR, the cost of repair of initial damage shall be borne by the owner of the utility provided the CONTRACTOR had requested utility locates. The cost of repair for any subsequent damages by the CONTRACTOR to such utility shall be borne by the CONTRACTOR. The final decision as to responsibility for the cost of repair of

damage to a utility, whether or not shown on the drawings, shall be made by the ENGINEER.

- 20.23.4 Customer service lines and other utilities that traverse a payline width are not normally shown on the Drawings and any damages thereto shall be the sole responsibility of the CONTRACTOR.
- 20.23.5 It shall be the responsibility of the CONTRACTOR to notify each utility that may be affected by proposed construction at least 72 hours prior to construction in order for the utility to locate and stake its facilities in the field. Should the CONTRACTOR encounter any unidentified utility, work in the immediate area shall cease and the ENGINEER shall be advised. Florida Statutes specifically require the CONTRACTOR to notify gas companies at least 48 hours in advance of any digging operation in the vicinity of underground gas lines.

#### 20.24 PROTECTION OF LIFE AND PROPERTY

- 20.24.1 Throughout the performance of the work, the CONTRACTOR shall, at its own expense, construct and adequately maintain suitable and safe crossings, detours, barricades, watchmen or other safety precautions as directed by the ENGINEER.
- 20.24.2 Nothing in this section shall be construed as requiring the CONTRACTOR to provide a road patrol.
- 20.24.3 Existing poles, wires, fences, gates, curbing, paving, property line markers, trees, shrubs, landscaping, traffic signs and signals, and other structures or items, either public or private, must be preserved in place and shall be protected from damage by the CONTRACTOR. Should such items be damaged as a result of the CONTRACTOR'S operations, it shall be restored, at no additional cost to the CITY, by the CONTRACTOR to at least as good condition as that in which it was found immediately before the work was begun.
- 20.24.4 Any object, item of historical value, artifact, or other item deemed valuable by the ENGINEER, the Historical and Cultural Conservation Commission, the Museum of Science and History or any other historical organization, which is encountered within the limits of the construction shall not be damaged by the CONTRACTOR and shall remain the property of the CITY.
- 20.24.5 In the event the CONTRACTOR does not perform its obligations under the preceding paragraphs, the CITY reserves the right, at its election, to make good any damage to public or private property caused by the work of the CONTRACTOR. The cost thereof will be deducted from the CONTRACTOR'S final payment application.

#### 20.25 USE OF JOB SITE

- 20.25.1 The CONTRACTOR shall confine its equipment, apparatus, the storage of materials and operations of its workmen to limits indicated by law, ordinances, permits or directions of the ENGINEER and shall not encumber the premises with its materials.
- 20.25.2 The CONTRACTOR shall not load or permit any part of any structure to be loaded to the extent that its safety may be endangered.
- The CONTRACTOR shall not close or obstruct any portion of a 20.25.3 street, road or private way without obtaining permits therefor from the proper authorities. If any street or private way shall be rendered unsafe by the CONTRACTOR'S operations, it shall make such repairs or provide such temporary ways or guards as shall be acceptable to the ENGINEER. Streets, roads, private ways, and walks not closed shall be maintained passable by the CONTRACTOR at expense, and the CONTRACTOR shall assume full responsibility for the adequacy and safety of provisions The CONTRACTOR shall at least five (5) days in advance, notify the Traffic Engineer in writing and receive permission, with a copy to the ENGINEER, if the closure of a street is necessary. The CONTRACTOR shall be responsible for maintaining proper coordination with the Traffic Engineer and the Traffic Engineering Division of the City of Jacksonville.

#### 20.26 ENGINEER'S STATUS DURING CONSTRUCTION

- 20.26.1 The ENGINEER shall be the CITY'S representative during the construction period. All instructions of the CITY to the CONTRACTOR shall be issued by the ENGINEER. The duties and responsibilities and the limitations of authority of the ENGINEER as the CITY'S representative during construction are set forth in these Contract Documents and shall not be extended without written consent of the CITY ENGINEER.
- The ENGINEER shall observe and monitor the Work. If the 20.26.2 ENGINEER is an employee of the CITY, he/she shall be an agent only to the extent provided in the Contract If the appointed ENGINEER is engaged as an Documents. independent Consultant, its responsibility and authority are limited as set forth in the Contract Documents. The ENGINEER has authority to stop the work whenever such stoppage may be necessary to insure the proper execution of the Contract. As the ENGINEER is, in the first instance, the interpreter of the conditions of the Contract and the judge of the CONTRACTOR'S performance, the ENGINEER shall use its powers under the Contract to enforce the faithful performance thereof. The ENGINEER shall also, within a reasonable time, make decisions on all other matters

relating to the execution and progress of the Work or the interpretation of the Contract Documents. Except as expressly provided in the Contract Documents, all the ENGINEER'S decisions shall be final. For the purposes of this Section and depending on the urgency of the matter, seven (7) days shall be considered reasonable time.

20.26.3 Nothing in the Contract Documents shall be construed as placing the work under the specific direction or supervision of the CITY or the ENGINEER or relieving the CONTRACTOR from its liability as an independent CONTRACTOR and, as such, it shall be solely responsible for the method, manner and means by which it shall perform its work, including, but not limited to, supervision and control of its own personnel and scheduling of the work as required to insure its proper and timely performance, and it shall be solely responsible for the exercise of due care to prevent bodily injury and damage to property in the prosecution of the work, all in accordance with the governing Sections of these Specifications.

#### 20.27 ENGINEER'S INTERPRETATIONS AND DECISIONS

- 20.27.1 The ENGINEER will issue with reasonable promptness such written clarifications or interpretations (in the form of drawings or otherwise) as it may determine necessary for the proper execution of the work, such clarifications and interpretations to be consistent with or reasonably inferable from the overall intent of the Contract Documents. The CONTRACTOR will immediately proceed with the work in the normal schedule sequence in accordance with the ENGINEER'S determination. If the CONTRACTOR believes that a written clarification and interpretation justifies an increase in the Contract Price, it may make a claim therefor as provided in Paragraph 20.34.
- The ENGINEER will be the initial interpreter of the terms and conditions of the Contract Documents and the judge of the performance thereunder. In its capacity as interpreter and judge it will exercise its best efforts to insure faithful performance by both the CITY and the CONTRACTOR. It will not show partiality to either and shall not be liable for the result of any interpretation or decision rendered in good faith. Claims, disputes and other matters relating to the execution and progress of the work or the interpretation of or performance under the Contract Documents shall be referred initially to the ENGINEER for a decision, which it shall render in writing within a reasonable time, generally seven (7) days or less.

#### 20.28 SHOP DRAWINGS

20.28.1 The term "shop drawings" as used herein includes fabrication, erection, layout and setting drawings;

manufacturer's standard drawings; schedules; descriptive literature, catalogs and brochures; performance and test data; wiring and control diagrams; all other drawings and descriptive data pertaining to materials, equipment, piping, duct and conduit systems, and method construction as may be required to show the ENGINEER that the proposed materials, equipment or systems and the position thereof are in compliance with the requirements of the Contract Documents. As used herein, the term "manufactured" applies to standard units usually mass produced, and "fabricated" means items specifically assembled or made out of selected materials to meet individual design requirements. Shop drawings shall establish the actual details of all manufactured or fabricated items; indicate proper relation to adjoining work; amplify design details of mechanical and electrical equipment in proper relation to physical spaces in the structure; and incorporate minor changes of design or construction to suit actual conditions.

- Approved shop drawings are required for structures and all 20.28.2 manufactured and fabricated items, prior to purchase. The CONTRACTOR shall submit all required shop drawings with such promptness as to cause no delay in its work or in that of any other CONTRACTOR or subcontractor. No extensions of time will be granted to the CONTRACTOR because of failure to have shop drawings submitted in ample time to allow for checking, subsequent submittals and reviews, and approval. All shop drawings shall be complete in every detail, properly identified with the name and number of the Project and to the Specification paragraph number identification of each item, and stating qualifications, departures or deviations from the Contract Documents, if any. Shop drawings for each section of the work shall be numbered consecutively and the numbering system shall be retained throughout all revisions. Each drawing shall have a clear space above the title block in the lower right-hand corner for the approval stamps of the CONTRACTOR and the ENGINEER.
- 20.28.3 The CONTRACTOR shall forward to the ENGINEER for review, four (4) prints of each drawing, plus the number of prints it desires returned, including fabrication, erection, layout and setting drawings, and such other drawings as are required under the various sections of the Specifications. Similarly, the CONTRACTOR shall submit three (3) copies plus the number of copies it desires returned of manufacturer's descriptive data for materials; equipment and fixtures, including catalog sheets showing dimensions, performance characteristics and capacities; wiring diagrams and controls; schedules; and other pertinent information as required.

- Each Subcontractor shall submit all shop drawings and 20.28.4 manufacturer's descriptive data through the CONTRACTOR for the ENGINEER'S approval. Shop drawings will not be accepted directly from Subcontractors or Suppliers (except in special instances when specifically required by the ENGINEER). All shop drawings shall be thoroughly checked by the CONTRACTOR for completeness and for compliance with the Contract Documents before submitting them to the ENGINEER, and shall bear the CONTRACTOR'S stamp of approval certifying that it has been so checked. Any shop drawings submitted without this stamp of approval and certification and any shop drawings which in the ENGINEER'S opinion are incomplete, contain numerous errors or have not been checked or checked only superficially by the CONTRACTOR will be returned unchecked by the ENGINEER for resubmission by the CONTRACTOR.
- In checking shop drawings, the CONTRACTOR shall verify all 20.28.5 dimensions and field conditions and shall check and coordinate the shop drawings of any section or trade with the requirements of all other sections or trades whose work is related thereto, as required for proper and complete installation of the work. The drawings will be reviewed for compliance with design concept and will either be approved (as qualified below) or desired corrections will be requested by a "Return for Correction" stamp; however, approval of such drawings shall not be construed as a complete check nor shall it relieve the CONTRACTOR, Subcontractor, manufacturer, fabricator or supplier from ultimate responsibility for any deficiency that may exist or from any departures or deviations from the requirements of the Contract Documents unless it has, in writing, called the ENGINEER'S attention to such deviations at the time of submission and obtained written approval thereof, nor shall it relieve it from the responsibility for errors of any sort in shop drawings or schedules, nor from responsibility for proper fitting of the work, nor from the necessity of furnishing any work required by the Contract Documents which may not be indicated on shop drawings when approved. The CONTRACTOR shall be solely responsible for quantities and dimensions which may be shown on the shop drawings. All rough-in and connections for utilities shall conform to approved equipment shop drawings.
- 20.28.6 The ENGINEER will review the shop drawings with reasonable promptness (normally ten (10) days minimum) and will return them to the CONTRACTOR stamped to indicate the action taken. The stamp will indicate that the shop drawing is "Approved", "Approved as Noted", "Returned for Correction" or "Disapproved". Only those shop drawings stamped "Returned for Correction" or "Disapproved" shall be resubmitted for subsequent review. Resubmittals shall be in the same form and number of copies as original submittals, with notation indicating a revised submittal.

Prints stamped "Approved" or "Approved as Noted" will be returned, less the five (5) sets retained by the CITY, to the CONTRACTOR, who will be responsible for distributing them to the field and Subcontractors.

- 20.28.7 When shop drawings are in the form of manufacturer's descriptive literature, catalog cuts and brochures, each copy will be stamped by the ENGINEER in the same manner as described above for Shop Drawings, indicating the action taken. Copies stamped "Approved" and "Approved as Noted" will be returned to the CONTRACTOR, who will be responsible for distributing them to the field and to Subcontractors. If stamped "Returned for Correction" or "Disapproved", the CONTRACTOR shall have the required corrections made and submit the same number of new copies for each subsequent review as was included in the original submittal until approval is obtained.
- 20.28.8 At the same time the ENGINEER returns a reviewed submittal to the CONTRACTOR, it will also forward two copies of each item stamped "Approved" or "Approved as Noted", together with any conditions of approval, to the CITY for field and office use. The ENGINEER may revoke approval of shop drawings, should field conditions so dictate.
- 20.28.9 The CONTRACTOR shall, at no extra cost to the CITY, make all changes and alterations whatsoever in work already performed or in subcontracts or orders placed prior to the approval of any and all shop drawings.
- 20.28.10 A submittal/transmittal form letter (in a format provided by the CITY) shall accompany each submittal. Each submittal shall deal with only one section of the Specifications, and shall be identified by Section Number and Contract Number. Shop drawings shall be forwarded to the ENGINEER for approval. Each drawing (or each part of a brochure) shall be listed separately on the letter and identified as indicated thereon. The CONTRACTOR shall also note on the transmittal letter any deviations that the shop drawings may have from the requirements of the Contract Documents.
- 20.28.11 After approval of shop drawings and submissions, the CONTRACTOR shall submit, if required, bound copies of detailed instructions covering the operation and maintenance of all equipment furnished under this Contract.
- 20.28.12 No work required by shop drawings shall be executed until approved by the ENGINEER and a copy stamped "Approved" is on the job site. Approval of shop drawings by the ENGINEER shall not relieve the CONTRACTOR from the responsibility of furnishing the items covered in proper size, dimensions, quantity, quality, and service characteristics to efficiently perform the requirements and reasonable

inferred intent of the Contract Documents. Such approval shall not relieve the CONTRACTOR from responsibility for errors in the shop drawings or for compatibility of the item covered with other materials, equipment, assemblies, devices, products, or fixtures used in construction of the project. Should the shop drawings deviate from the Contract Documents, the CONTRACTOR shall advise the ENGINEER in writing accompanying the shop drawings, including the reason for the deviation.

#### 20.29 SAMPLES

- 20.29.1 The term "Samples" as used herein includes natural materials, fabricated items, equipment, devices, appliances or parts thereof as called for in the Specifications, and any other samples as may be required by the ENGINEER to determine whether the kind, quality, construction, workmanship, finish, color and other characteristics of the materials, etc., proposed by the CONTRACTOR conform to the requirements of the Contract Documents. Samples approved by the ENGINEER shall establish the kind, quality and other required characteristics of the various parts of the work, and all work shall be in accordance with the approved samples.
- 20.29.2 The CONTRACTOR shall submit all required samples with such promptness as to cause no delay in its own work or in that of any other CONTRACTOR or Subcontractor. No extensions of time will be granted to the CONTRACTOR because of its failure to submit samples in ample time to allow for review and approval.
- 20.29.3 In case considerable range of color, graining, texture or other characteristics may be anticipated in finished products, a sufficient number of samples of the specified materials shall be furnished to indicate the full range of such characteristics which will be present in the finished products. Unless otherwise called for in the various sections of the Specifications, samples shall be submitted in triplicate. All samples shall be marked, tagged, or otherwise properly identified with the name of the CONTRACTOR, the name of the Project, the purpose for which the samples are submitted, and the date, and shall be accompanied by the letter of transmittal containing similar information together with the Specification paragraph number for identification of each item. Each tag or sticker shall have clear space for the approval stamps of the CONTRACTOR and the ENGINEER.
- 20.29.4 Samples of materials which are generally furnished in containers bearing the manufacturer's descriptive labels and printed application instructions shall, if not submitted in the standard containers, be supplied with such labels and application instructions.

- 20.29.5 Each Subcontractor shall submit all samples through the CONTRACTOR for the ENGINEER'S approval. All samples shall be checked by the CONTRACTOR for compliance with the Contract Documents before submitting them to the ENGINEER and shall bear the CONTRACTOR'S stamp of approval certifying that they have been so checked. If any samples are submitted without this stamp, or if in the ENGINEER'S opinion the samples are incomplete or have not been checked or only checked superficially, the CONTRACTOR will be required to re-submit additional samples until such samples are satisfactory.
- 20.29.6 The ENGINEER will review samples for aesthetics, general design and technical compliance; however, approval of such samples will not relieve the CONTRACTOR from ultimate responsibility for any departure or deviations from the requirements of the Contract Documents unless it has, in writing, directed the ENGINEER'S attention to such departures or deviations at the time of submission. The ENGINEER will pass upon the samples with reasonable promptness. If the samples are approved, they will be so stamped and the CONTRACTOR will be notified to pick them up. If the samples are not approved, the CONTRACTOR will be notified to re-submit additional samples until they are approved.
- 20.29.7 The CONTRACTOR will deliver one of each sample "Approved" or "Approved as Noted" (and so stamped) to the CITY prior to incorporation of the material in the work.
- 20.29.8 The ENGINEER may revoke approval of a sample should field conditions so dictate. In addition, the ENGINEER might make approval of field components of construction, such as concrete mixes and backfill compaction, and as called for in the Specifications.

## 20.30 TESTS AND INSPECTIONS

20.30.1 All materials and equipment prior to being incorporated in the work, shall be tested for conformance with contractual requirements. Standard items of a uniform nature may be accepted on the manufacturer's certification. Where specific performance and/or quality is referred to, it is the CONTRACTOR'S responsibility to have the necessary tests performed by qualified persons to show that the contractual requirements are being met except those tests, if any, named in the Special Conditions to be performed by the CITY. Certified test results shall be submitted promptly in quadruplicate to the ENGINEER for review. All tests shall be performed in accordance with referenced standards. Where no reference is made, tests shall be performed in accordance with the methods prescribed by the American

Society for Testing and Materials or such other organization as would be applicable.

20.30.1.1 Testing Costs Borne by the CITY.

Unless provided otherwise by Special Conditions, the CITY will pay for the following tests:

- 1. Geotechnical investigations (generally performed during the Design Phase prior to bidding.)
- Testing of compaction for all structural, building or utility backfills
- 3. Testing of concrete
- 4. Testing of welds
- 5. Testing of torque of bolts

The CONTRACTOR will pay for any retests resulting from its failure to provide work that passes required tests. Said retests shall be performed by the same testing company which failed the work.

- 20.30.2 If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, require any work to specifically be inspected, tested, or approved by someone other than the CONTRACTOR or the ENGINEER, the CONTRACTOR shall give the ENGINEER timely notice of readiness therefor. The CONTRACTOR shall furnish the ENGINEER the required certificates of inspection, testing or approval. All such tests will be in accordance with the methods prescribed by the American Society for Testing and Materials or such other applicable organization as may be required by law or the Contract Documents.
- 20.30.3 If any work required to be inspected, tested or approved is covered up without written approval or consent of the ENGINEER, it must, if directed by the ENGINEER, be uncovered for observation and/or testing at the CONTRACTOR'S expense.
- 20.30.4 Any work which fails to meet the requirements of any required test, inspection or approval and any work which meets the requirements of any test or approval, but nevertheless does not meet the requirements of the Contract Documents, shall be considered defective. Such defective work may be rejected, corrected or accepted as provided in Paragraph 20.38.
- 20.30.5 The ENGINEER may appoint inspectors to inspect any and all materials and work. Such inspection may extend to any or all parts of the work and to the preparation and manufacture of the materials to be used. The inspectors

shall not be authorized to alter, revoke, enlarge or relax the provisions of the Contract Documents, nor will it be authorized to approve or accept any portion of the completed work, nor to issue instructions contrary to the Contract Documents. An inspector is placed on the work to keep the ENGINEER informed as the progress of the work and the manner in which it is being done; also to call attention of the CONTRACTOR to any infringement upon the Contract Documents. The inspector will have the authority to reject defective materials or to suspend any work that is being improperly done subject to the final decision of the ENGINEER.

- 20.30.6 Neither observations by the ENGINEER nor inspections, tests or approvals by persons other than the CONTRACTOR shall relieve the CONTRACTOR from its obligations to perform all work in accordance with the requirements of the Contract Documents.
- 20.30.7 Upon completion and prior to acceptance of the installation, all major equipment shall be subjected to operating field tests to determine satisfactory functioning and operation. The equipment shall be operated by and at the expense of the CONTRACTOR. The CONTRACTOR shall submit to the ENGINEER for approval, an outline of the test sequence and a schedule indicating the estimated time required to complete the tests.
- 20.30.8 Unless otherwise provided in the Contract Documents, acceptance by the CITY shall be made as promptly as practicable after completion and inspection of all work required by the Contract Documents. Acceptance shall be final and conclusive except as regards latent defects, fraud, or such gross mistakes as may amount to fraud, or as regards the CITY'S rights under any warranty or guarantee.
- 20.30.9 Until the final acceptance of the project by the CITY, it shall be under the charge and care of the CONTRACTOR, who shall take every precaution to protect the work from damage by the elements or from any cause whatsoever and it shall repair and make good at its own expense any such damage. The CONTRACTOR shall provide and maintain suitable, strong and substantial barricades and signs wherever necessary to protect the public and users of the facility. These signs and barricades shall be kept lighted from sunset to sunrise with suitable properly colored lights.

#### 20.31 CONTRACTOR'S SUPERVISION AND SUPERINTENDENT

20.31.1 The CONTRACTOR shall supervise and direct the work efficiently and with its best skill and attention and shall be solely responsible for the means, methods, techniques, sequences and procedures of construction. It shall be the CONTRACTOR'S responsibility to carefully study and compare

the Contract Documents and to check and verify all figures shown thereon and all field measurements.

- 20.31.2 In case of discrepancy in the Plans, the matter shall be immediately submitted to the ENGINEER without whose decision said discrepancy shall not be adjusted by the CONTRACTOR, save only at its own risk and expense.
- 20.31.3 The CONTRACTOR shall be responsible for ensuring that the finished work complies accurately with the Contract Documents.
- 20.31.4 At all times during its progress from commencement of construction through completion of the Completion punchlist items, except when work on this project is suspended in accordance with Section 20.7 herein or as specified below, the CONTRACTOR shall keep on the work site a full-time resident superintendent satisfactory to the ENGINEER. The superintendent shall be designated at the Preconstruction Conference, shall not be replaced without the written consent of the ENGINEER and shall not be assigned to any other Project. The superintendent shall be the CONTRACTOR'S representative at the site and shall have complete authority to act on behalf of the CONTRACTOR. All communications given to the superintendent shall be as binding as if given to the CONTRACTOR.

On construction contracts with a value of less than \$1,500,000 the requirement for having a full-time on-site superintendent will be waived and the following requirements will apply:

Project	% of Time (Daily)
Construction	Superintendent
Cost	Is To Be On-Site
Less than \$350,000	4 hours/day
\$350,001 to \$800,000	5 hours/day
\$800,001 to \$1,500,000	6 hours/day

When not on-site, the superintendent shall be available to the CONTRACTOR'S personnel, its subcontractors and the CITY by telephone or radio and shall be able to be on-site in 1 hour or less, should their presence be required for any reason.

This reduction in the on-site superintendent requirement in no way releases the CONTRACTOR from its responsibility to supervise the work of its personnel/subcontractors, maintain safety, maintain environmental and traffic controls or, any other responsibility assigned under this contract.

- 20.31.5 Any person employed on the work who shall be deemed to be incompetent by the ENGINEER, or shall be guilty of any disorderly conduct or shall trespass on any property in the vicinity of the work shall be removed from the work at once by the CONTRACTOR at the request of the CITY or ENGINEER.
- 20.31.6 Neither the CITY nor the ENGINEER will be responsible for the acts or omissions of the CONTRACTOR, or any Subcontractors, or any of its agents or employees, or any other persons performing any of the work.
- 20.31.7 If the CONTRACTOR does not have a local office, a field office with telephone and facsimile facilities shall be provided by the CONTRACTOR during the full period of the Contract, at the Contractor's expense.

## 20.32 SAFETY, PROTECTION AND EMERGENCIES

- 20.32.1 The CONTRACTOR shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work. It shall give all notices and comply with all applicable laws, ordinances, rules, regulations, and lawful orders of any public authority; and take all necessary precautions for the safety of, and provide the necessary protection to prevent damage, injury, or loss to the following:
  - 20.32.1.1 All employees and subcontractors on the work, the public, and all other persons who may be affected thereby, including the CITY'S employees and its agents.
  - 20.32.1.2 All the work completed and in progress and all materials or equipment to be incorporated therein whether in storage on or off the site.
  - 20.32.1.3 Other public or private property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.
- 20.32.2 The CONTRACTOR shall comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss. It shall erect and maintain, as required by the conditions and progress of the work, all necessary safeguards for safety and protection, including posting danger signs, barricades, and other warnings against hazards and promulgating safety regulations. It shall notify owner's of adjacent properties and utilities when prosecution of the work may affect them. The use of explosives is

strictly prohibited. Machinery, equipment, and all hazards shall be guarded or eliminated in accordance with the recommended safety provisions of the Manual of Accident Prevention in Construction published by the Associated General Contractors of America, to the extent that such provisions are contradictory to applicable laws.

- 20.32.3 The CONTRACTOR shall provide proper facilities, take all necessary precautions and assume the entire cost for protecting the work against weather conditions and for handling all storm, flood and ground water, sewage, or other seepage, that may be encountered during the performance of the Contract. The manner of providing for such contingencies and for carrying on the work in freezing weather shall meet with the approval of the ENGINEER. If the CONTRACTOR shall fail to provide adequate protection or in the event of emergencies, the CITY may provide such protection at the CONTRACTOR'S expense and deduct its costs from the Contract amount or the CONTRACTOR'S next application for payment, at the Owner's option.
- 20.32.4 The CONTRACTOR assumes all risk of damage to or destruction of the work covered by this contract until the work is completed and accepted by the CITY and shall repair or replace, at its expense, any work damaged or destroyed prior to such completion and acceptance regardless of cause, including flood, tides, fire, or any other natural disaster.
- 20.32.5 In emergencies affecting the safety of persons or the work or property at the site or adjacent thereto, the CONTRACTOR, without special instructions or authorization from the ENGINEER or CITY, is obligated to act, at its discretion, to prevent threatened damage, injury or loss. It shall give the ENGINEER prompt written notice of any significant changes in the work or deviations from the Contract Documents caused thereby. If the CONTRACTOR believes that additional work done by it in an emergency, which arose from causes beyond its control, entitles it to an increase in the Contract Price or an extension of the Contract Time, it may make a claim therefor as provided in Paragraphs 20.8 and 20.34.
- 20.32.6 If at any time, in the opinion of the ENGINEER, the work is not properly lighted, barricaded, and in all respects safe in regard to public travel, persons on or about the work, or public or private property, the ENGINEER shall have the right to order such safeguards to be erected and such precautions to be taken as it deems advisable, and the CONTRACTOR shall comply promptly with such orders. If, under such circumstances, the CONTRACTOR does not, or cannot, immediately put the work and the safeguards into proper and approved condition, or if the CONTRACTOR or its representative is not upon the site so that it can be

notified immediately of the insufficiency of safety precautions, the ENGINEER may put the work into such a condition that it shall, in the ENGINEER'S opinion, in all respects be safe. The CONTRACTOR shall pay all expenses of such labor and materials as may have been used for this purpose by it or by the ENGINEER. Such action of the ENGINEER, or the ENGINEER'S failure to take such action, shall in no way relieve the CONTRACTOR of the entire responsibility for any cost, loss or damage sustained on account of the insufficiency of the safety precautions taken by it or by the ENGINEER under authority of this section.

- 20.32.7 The CONTRACTOR'S attention is specifically directed to the published regulations of the Florida Department of Commerce on the "Use of Cranes, Draglines, and Similar Equipment Near Power Lines", "Excavations and Trenching Operations" and "Construction and Use of Scaffolds," and similar regulations of the Department.
- 20.32.8 The CONTRACTOR shall designate in writing a responsible member of his organization at the site whose duty shall be the prevention of accidents. This person shall be the CONTRACTOR'S superintendent unless otherwise designated by the CONTRACTOR in writing and approved by the CITY ENGINEER. In any emergency affecting the safety of any person or property, the CONTRACTOR shall act, at his discretion, to prevent threatened damage, injury or loss.
- 20.32.9 The CONTRACTOR shall use extreme care in safe operations and shall provide adequate facilities for proper storage of materials, tools and/or equipment, and it shall be the responsibility of the CONTRACTOR to provide locked storage and/or sufficient guards to prevent injury or vandalism. The CONTRACTOR shall not (except after written consent from the property owner) enter or occupy with men, tools or equipment, any land outside the rights-of-way or property of the CITY. A copy of the written consent shall be given to the ENGINEER.
- 20.32.10 The CONTRACTOR shall be solely responsible for providing safe and acceptable support of excavations for the protection of workers, proposed work, existing structures, existing utilities and utility poles, trees, or any other existing or new element requiring protection. The method of support utilized by the CONTRACTOR for worker safety shall meet the requirement of the Florida Trench Safety Act (Occupational Safety and Health Administration's Safety Standards, 29C.F.R.S. 1926-65, Subpart P) and shall be sufficient to allow for proper installation and inspection of the work. Should, in the opinion of the ENGINEER, the excavation not be properly supported to prevent the damage or loss of any element, the CONTRACTOR shall immediately change, modify, and/or increase the support system to the satisfaction of the

ENGINEER, at no additional cost to the Contract. The cost for whatever method of excavation support the CONTRACTOR elects to utilize shall be included in the cost of the item being installed.

#### 20.33 ACCESS TO THE WORK, UNCOVERING FINISHED WORK, USE OF NEW WORK

- The CONTRACTOR shall provide safe, sufficient and proper 20.33.1 facilities at all times for the inspection of the work by the ENGINEER, the CITY or its agencies, the St. Johns River Water Management District, the Florida Department Environmental Protection, the Environmental Protection Agency, the Department of Labor, the Florida Department of Pollution Control, the Florida Department of Health and Rehabilitative Services and the Florida Department of Commerce, it being agreed that these agencies have the right of entry at any time. The CONTRACTOR shall, within twenty-four (24) hours after receiving written notice from the ENGINEER to that effect, proceed to remove all materials rejected by the ENGINEER, whether worked or unworked, and take down all portions of the work which the ENGINEER shall by written notice reject as unsound or improper, or which is in any way failing to conform to the Contract Documents.
- 20.33.2 If any work is covered contrary to the request of the ENGINEER, it must, if requested by the ENGINEER, be uncovered for its observation and replaced at the CONTRACTOR'S expense.
- 20.33.3 Should it be considered necessary or advisable by the ENGINEER, at any time before acceptance of the entire work, to make an examination of work already completed by uncovering, removing or tearing out same, the CONTRACTOR shall, on written request, promptly furnish all necessary facilities, labor, and material for that purpose. If such work is found to be defective or non-conforming in any material respect, due to the fault of the CONTRACTOR or its Subcontractors, it shall defray all the expenses of such examination and of satisfactory reconstruction. however, such work is found to meet the requirements of the Contract, an equitable adjustment shall be made in the Contract Price to compensate the CONTRACTOR for the additional services involved in such examination and reconstruction, and if completion of the work has been delayed thereby, the CONTRACTOR shall, in addition, be granted a suitable extension of time.
- 20.33.4 Whenever any portion of the new work is in suitable condition, it may be used by the CITY for the purpose for which it was intended, provided such use does not hinder or make more expensive the work still to be done by the CONTRACTOR in the completion of the Contract. Such use, however, shall not be held in any way as an acceptance of

that portion of the work or as a waiver of any of the provisions of the Contract Documents. Any necessary repairs or renewals made to any portion of the work due to, or on account of, defective materials or work, shall be performed by the CONTRACTOR at its own expense. Use of any portion of the work by the CITY shall not relieve the CONTRACTOR of its responsibility.

#### 20.34 CHANGES

- 20.34.1 The CITY and/or the ENGINEER shall have the right to make changes within the scope of the work or change the quantities of the work to be performed. Requests by the CONTRACTOR for changes in the work must be made in writing to the ENGINEER within three working (3) days after the need for such change becomes known to the CONTRACTOR; and, without such written request, any claim for additional compensation or time based on such work is specifically waived by the CONTRACTOR. No such change shall be valid unless made in writing by the ENGINEER and the CITY.
- 20.34.2 In the event such changes cause an increase or decrease in the CONTRACTOR'S cost of or time required for performance of the Contract Agreement, the Contract Amount and/or period of performance shall be equitably adjusted upon the ENGINEER'S recommendation and mutual agreement between the CITY and CONTRACTOR.
  - 20.34.2.1 An increase or decrease in the work for which unit prices apply under the Contract Documents shall be computed by multiplying the change in quantities (measured as provided in the Contract Documents) of such work by such unit prices.
  - 20.34.2.2 In the absence of applicable unit prices in the Contract Documents, or work not provided for nor fairly included under unit prices for other work items, an increase or decrease in the Contract Amount and period of performance may be negotiated between the CITY and CONTRACTOR. Any negotiated increase or decrease in the shall be based on Amount Contract CONTRACTOR'S costs for labor, materials and supplies directly applicable to the increase or decrease plus 15 percent (15%) thereof for CONTRACTOR'S supervision, overhead, bonds and profit.
  - 20.34.2.3 The CONTRACTOR'S subcontractors will be allowed a 15% mark-up on work performed by their own forces. The CONTRACTOR will be allowed a 10% mark-up on the subcontractor's costs only. No mark-up will be allowed on the subcontractor's

profit. These mark-ups include CONTRACTOR'S
supervision, overhead, bond, insurance and
profit.

- 20.34.2.4 For any proposed increase or decrease in the value or scope of the Contract, the Contractor shall provide a detailed breakdown of all labor, material, equipment, and other costs associated with the change. The required breakdown and supporting documentation shall be as described in Paragraph 20.34.4. Proposed subcontractor costs shall be provided similar detail. A proposal submitted without sufficient detail to fully support the cost proposed shall be returned to the Contractor without review. No time extensions or claims of increased costs will be allowed for delay caused by the Contractor's failure to provide the required detailed documentation.
- 20.34.3 No increase or decrease in the Contract Amount or the period of time for performance of the Contract shall be valid unless approved by the ENGINEER and agreed to in writing by both the CITY and CONTRACTOR, and until a formal Change Order has been fully executed by the CITY.
- 20.34.4 Whenever the CONTRACTOR and the CITY are unable to agree on costs for an increase in the work and the CITY, directly or acting through the ENGINEER, orders the CONTRACTOR to proceed with the work by force account, the work will be paid for in the manner hereinafter described. The compensation thus provided shall constitute full payment for said work. The ENGINEER shall issue a written directive for the CONTRACTOR to perform the specific work. Payment will be determined as follows:
  - 20.34.4.1 For all materials purchased by the CONTRACTOR and used in the force account work, it will be paid the actual cost of such materials, including sales taxes if required, and freight and delivery charges as shown by original receipted bills, to which will be added an amount equal to 15 percent of the sum thereof. The ENGINEER, however, reserves the right to approve or to reject the materials to be used and the sources of supply of any materials furnished by the CONTRACTOR.
  - 20.34.4.2 For all equipment and machinery used in the force account work, the CONTRACTOR will be paid reasonable operated and maintained monthly rental prices to which no percentages will be added.

- The CONTRACTOR will be paid the cost of wages 20.34.4.3 for all labor which is engaged in the force account work plus the actual cost chargeable to the force account work of worker's compensation insurance, social security taxes, unemployment compensation insurance and such additional amounts as are paid by the CONTRACTOR by reason of an employment contract generally applicable to its employees, to which total sum will be added an amount equal to 15 percent of wages and other costs listed above. Subcontractor labor costs shall be computed in the same manner. The CONTRACTOR shall be allowed an additional 5% markup on his subcontractor's labor costs. In evidence of the costs of labor, equipment and materials for which payment is to be made under the force account order, the CONTRACTOR and his subcontractor(s) shall provide a certified statement of wages actually paid, together with copies supporting payrolls, of equipment rental charges, and of bills for materials.
- 20.34.4.4 Wage rates used in determining the amount of the payment will be the actual wage rates paid by the CONTRACTOR for work under this Contract, except that no rate used shall exceed the rate of comparable labor currently employed on the Project.
- 20.34.4.5 Payment for the services of foremen in direct charge of the specific operation will be made. Payment for the service of superintendents, timekeepers or other overhead personnel will not be made nor will payment for the services of watchmen be made unless required specifically by the force account work. The actual function performed by an employee rather than its payroll title will be the criterion used in determining the eligibility of an employee's services for payment under this provision.
- 20.34.4.6 The types and amounts of equipment and machinery used by the CONTRACTOR in carrying out its work under the force account order shall be made in keeping with normal practice for work of similar nature, except that the ENGINEER may, at its discretion, limit by specific instruction the types and amounts of equipment and machinery to be used.

- 20.34.4.7 In computing the hourly rental of such equipment, less than 30 minutes shall considered 1/2 hour except when the minimum rental time to be paid is one hour. Rental time will not be allowed while equipment is inoperative due to breakdowns. The rental time of equipment to be paid for shall be the time the equipment is in operation on the force account work being performed, and, in addition, shall include the time required to move the equipment to the work and return it to its original location. When approved in advance by the ENGINEER, towing or transporting costs will be allowed when the equipment is moved by means other than its own power. No payment will be made for moving time, towing or transporting the equipment if it is used at the site of the work on other than force account work. No payment will be allowed for the use of small tools and minor items of equipment which, as used herein, are defined as individual tools or pieces of equipment having a replacement value of \$100.00 or less.
- 20.34.4.8 For additional premiums paid on Performance and Payment Bonds by reason of increases in the amount of work over and above that called for in the original Contract Agreement due to the inclusion of the force account work, and for additional premiums paid on Public Liability and Property Damage Insurance by reason of extra hazard inherent in the force account work over and above the hazard normally encountered in work of the type called for in the original Contract Agreement, the CONTRACTOR will, on presentation of substantiation evidence from its bonding and insurance carriers, be paid the actual costs to which sums no percentage will be added. Payment for the cost of additional premiums paid on Worker's Compensation Insurance by reason of extra hazard introduced into the CONTRACTOR'S operations by the inclusion of force account work is covered by the provisions above, except that any claim for additional cost based on the application, by reason of extra hazard, of a higher insurance rate to any portion of the payroll over and above that chargeable to the force account work provisions above, the substantiated by evidence from the CONTRACTOR'S insurance carrier.
- 20.34.4.9 The CONTRACTOR and ENGINEER shall compare records of the work performed on a force

account basis at the end of each day. These records shall be prepared in triplicate by the CONTRACTOR and shall be signed by both the ENGINEER and the CONTRACTOR'S representative, one copy being retained by the CONTRACTOR and two copies retained by the ENGINEER.

- 20.34.4.10 Payment for force account work shall be made at such time as the amount is agreed to by the ENGINEER and CONTRACTOR, and after said amount is added to the Contract by Change Order. This can be done monthly, if necessary.
- 20.34.4.11 Whenever the CONTRACTOR and the CITY are unable to agree on the time required for changed work, the CONTRACTOR will submit a time impact analysis in accordance with Article 20.8.4. If the CONTRACTOR and the CITY still cannot reach an agreement on the time required, the CONTRACTOR will perform the work and the dispute submitted to the CITY Construction Dispute Review Board in accordance with Article 20.49.11.
- 20.34.5 The CITY'S PROJECT ENGINEER may authorize minor changes or alterations in the work involving extra cost or time which are consistent with the overall intent of the Contract Documents. Payment for such minor changes shall be made after execution of a formal Change Order.

#### 20.35 UNAUTHORIZED WORK

20.35.1 Work done without lines and grades given, work done beyond lines and grades shown on the Contract Documents or as given, or any extra work done without prior written authority will be considered as unauthorized work and will not be paid for by the CITY, and when so ordered by the ENGINEER, such work shall be removed and properly replaced by the CONTRACTOR at its own expense.

#### 20.36 CASH ALLOWANCES

20.36.1 The CONTRACTOR shall include in the Contract Price all allowances so named in the Contract Documents and shall cause the work so covered to be done by such suppliers or Subcontractors and for such sums within the limit of the allowances as the ENGINEER may approve. Before final payment, the Contract Price shall be decreased as required by execution of an appropriate Change Order. The CONTRACTOR agrees that the original Contract Price includes such sums as it deems proper for costs and profit on account of cash allowances. No demand for additional cost or profit in connection therewith will be allowed.

## 20.37 WARRANTY AND GUARANTEE

- 20.37.1 The CONTRACTOR warrants to the CITY and the ENGINEER that all materials and equipment furnished under this Contract will be new unless otherwise specified and that all work will be of good quality, and free from faults or defects and in compliance with the Contract Documents. All work not in conformance to these requirements, including substitutions not properly approved and authorized, may be considered defective. If required by the ENGINEER, the CONTRACTOR shall provide satisfactory evidence as to the quality, type and kind of equipment and materials furnished. This warranty is not limited by, nor limits any other warranty-related provision in these Contract Documents.
- 20.37.2 If, within one year of substantial completion of the work or of a designated portion thereof, or with such longer period of time prescribed by law or by the terms of any special warranty provision of these Contract Documents, any of the work is found to be defective or not in conformance with the Contract Documents, the CONTRACTOR shall correct it promptly after notice of such defect or nonconformance. Corrective work during the warranty period shall also be warranted for a period of one year, with each corrective effort in turn being warranted for a period of one year of satisfactory performance. This obligation shall survive termination, expiration or completion of the Contract. The CITY shall give notice to the CONTRACTOR promptly after discovery of the condition.

The CONTRACTOR shall bear the cost of correcting or removing all defective or nonconforming Work, including the cost for correcting any damage caused to equipment, materials or other work by such defect or the correcting thereof.

A warranty inspection will be held approximately eleven (11) months after substantial completion of the work or any designated portion thereof. The CONTRACTOR shall have a representative attend this warranty inspection. Any defective or nonconforming work identified during this warranty inspection, or previously identified to the CONTRACTOR, shall be corrected promptly.

The CONTRACTOR shall correct any defective or nonconforming work to the satisfaction of the CITY, and any of the work, equipment or materials damaged as a result of such condition or the correcting of such condition, within thirty (30) calendar days of notice of such condition. Should the CONTRACTOR fail to timely correct defective work under warranty, the CONTRACTOR may be removed from the CITY'S Approved Bidders List. After a period of twelve (12) months the CONTRACTOR may apply for reinstatement.

- 20.37.3 The Performance Bond shall be maintained, at the CONTRACTOR'S expense, during the one year warranty period described herein and for any additional time required to complete correction of defective or nonconforming work, including any extension of the warranty period that may be required as a condition of the CITY'S acceptance of defective or nonconforming work.
- 20.37.4 Nothing contained herein shall be construed to establish a period of limitation with respect to any other obligation which the CONTRACTOR may have under the Contract Documents. The establishment of time period of one year after the date of substantial completion, or such longer period of time as may be prescribed by law or by the items of any warranty required by the Contract Documents, relates only to the specific obligation of the CONTRACTOR to correct the work and has no relationship to the time within which its obligation to comply with the Contract Documents may be sought to be enforced, nor the time within which proceedings may be commenced to establish the CONTRACTOR'S liability with respect to its obligations other than specifically to correct the work.

# 20.38 CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

- 20.38.1 All unsatisfactory work, all faulty or defective work and all work not conforming to the requirements of the Contract Documents or of such inspections, tests or approvals referenced in Subparagraph 20.37.1 shall be considered defective. Notice of all defects shall be given to the CONTRACTOR. All defective work, whether or not in place, may be rejected.
- If required by the ENGINEER prior to approval of final 20.38.2 payment, the CONTRACTOR will promptly, without cost to the CITY and as required by the ENGINEER, either correct any defective work, whether or not fabricated, installed or completed, or, if the work has been rejected by the ENGINEER, remove it from the site and replace it with nondefective work. If the CONTRACTOR does not correct such defective work or remove and replace such defective work within a reasonable time, all as required by written notice from the ENGINEER, the CITY may have the deficiency corrected or the rejected work removed and replaced. All direct and indirect costs of such correction or removal and replacement by the CITY, including costs for additional professional services shall be paid directly by the CONTRACTOR, or an appropriate Change Order shall be issued deducting all such costs from the Contract Price. CONTRACTOR will also bear the expenses of making good all work of others destroyed or damaged by its correction, removal or replacement. Should the CONTRACTOR fail to timely reimburse the CITY for these costs within thirty

- (30) days after the date on the CITY'S invoice, the CONTRACTOR may be removed from the CITY'S Approved Bidders List. After a period of twelve (12) months the CONTRACTOR may apply for reinstatement.
- If, instead of requiring correction or removal and replacement of defective work, the CITY (and, prior to approval of final payment, also the ENGINEER) prefers to accept it, it may do so. In such case, if acceptance occurs prior to final payment, a Change Order shall be issued incorporating the necessary revisions in the Contract Documents, including appropriate reduction in the Contract Price; or, if the acceptance of defective work occurs after the approval of final payment, an appropriate amount shall be paid by the CONTRACTOR.

# 20.39 PROGRESS PAYMENTS

- 20.39.1 The CONTRACTOR shall receive as full compensation for all work hereunder a sum equal to the value of the work done based on its proposal, attached hereto and made a part of this Contract.
- 20.39.2 Prior to contract execution or within 20 calendar days after the date of formal written notification of contract award, whichever occurs first, CONTRACTOR shall provide: (i) a Schedule of Subcontractors, which, at a minimum, shall list ALL JSEB and Non-JSEB subcontractors, suppliers and shop fabricators, their respective scope(s) of work and the specific dollar or subcontract amount for each of their respective scope(s) of work; and (ii) a Schedule of Values of the work, which, at a minimum, shall include quantities and unit prices, aggregating the Contract Price. Schedule of Values shall be satisfactory to the ENGINEER in form and substance and shall subdivide the work into component parts in sufficient detail to serve as the basis for progress payments during construction. Upon approval of the schedules by the ENGINEER, they shall incorporated into the Contract and the form Application for Payment furnished by the CITY.
- 20.39.3 Within ten (10) calendar days following the end of EACH calendar month, the CONTRACTOR SHALL submit to the ENGINEER an Application for Payment containing an estimate of the percentage of the total work under the Contract accomplished to the end of the prior month. The form "Application for Payment" will serve as the invoice. Six (6) copies of this form along with all required certifications will be submitted for each partial payment. CONTRACTOR's failure to submit an Application for Payment every month shall, in no way, negate CONTRACTOR's payment obligations required pursuant to section 20.72, Prompt Payment to Subcontractors and Supplier, hereunder.

- 20.39.4 If satisfactory progress is made and the contract requirements are being complied with by the CONTRACTOR, the CONTRACTOR will receive partial payments on monthly estimates, based on the value of Work done or completed. The monthly payments shall be approximate only, and all partial estimates and payments shall be subject to correction in the final estimate and payment. Payment by the CITY of an unreduced partial payment shall not be construed as acceptance or approval of the CONTRACTOR'S work by the CITY.
- 20.39.5 Payment shall be made to the CONTRACTOR monthly for the value of work done based upon certificate of the ENGINEER less 5% Retainage of the total amount earned, provided the CONTRACTOR has met and continues to meet the project schedule and complies with all contract requirements. If at any time the CONTRACTOR falls behind schedule, the CITY shall have the right to increase the retainage to 10% of the total amount earned. Retainage shall be paid to the CONTRACTOR within thirty (30) days following the completion and acceptance of the entire Work (including punch list after substantial completion and receipt of approved "asbuilt" drawings) herein contracted for and delivery by the CONTRACTOR to the CITY of a release in such form as the CITY may require.
- 20.39.6 Reduction or release of retainage is based on satisfactory progress within the sole discretion of the CITY, and neither the CITY nor the ENGINEER shall be liable to the CONTRACTOR for failure to reduce or release retainage. The CITY may withhold additional retainage in whatever amount it deems appropriate up to 10%, if the CONTRACTOR fails to comply with the contract requirements.
- 20.39.7 Critical materials and equipment received by the CONTRACTOR with the approval of the ENGINEER, materials procured in substantial quantities and major items of equipment scheduled to be incorporated in the construction within thirty (30) days from the date of the Application for Payment and all other materials and equipment actually incorporated in the construction, shall be considered as material stored for the purpose of invoicing or making monthly payments.
- 20.39.8 The ENGINEER will, within ten (10) days after receipt of each Application for Payment, either indicate in writing its approval of payment and present the Application to the CITY, or return the Application to the CONTRACTOR indicating in writing its reasons for refusing to approve payment. In the latter case, the CONTRACTOR may make the necessary correction and resubmit the Application. The CITY will, within the number of days required under the Florida Prompt Payment Act (F.S. Ch. 218) of presentation

to it of an Approved Application for Payment, pay the CONTRACTOR the amount approved by the ENGINEER.

20.39.9 Refer to Article 20.72 for requirements on prompt payments to subcontractors and suppliers.

#### 20.40 APPROVAL OF PAYMENTS

- 20.40.1 No certificate for payment or payment made under the Contract Agreement, except the final certificate of final payment, shall be evidence of the satisfactory performance of this Contract, either wholly or in part. No payment shall be construed to be an acceptance of defective work or improper materials.
- 20.40.2 The ENGINEER'S approval of any payment requested in an Application for Payment shall constitute a representation by it to the CITY, based on the ENGINEER'S on-site observations of the Work in progress as an experienced and qualified design professional and on its review of the Application for Payment and the supporting data, that the Work has progressed to the point indicated; that, to the best of its knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning Project upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents and any qualifications stated in its approval); and that the CONTRACTOR is entitled to payment of the amount approved. However, by approving any such payment the ENGINEER shall not thereby be deemed to have represented that it made exhaustive or continuous on site inspections to check the quality or the quantity of the Work, or that it has reviewed the means, methods, techniques, sequences, and procedures of construction or that it has made any examination to ascertain how or for what purpose the CONTRACTOR has used the moneys paid or to be paid to it on account of the Contract Price.
- 20.40.3 The ENGINEER may refuse to approve the whole or any part of any payment if, in its opinion, it is unable to make representations to the CITY that the Work has been completed and the CONTRACTOR has fulfilled all of its obligations under the Contract Documents. It may also refuse to approve any such payment, or, because of subsequently discovered evidence or the results subsequent inspections or tests, nullify any such payment previously approved, to such extent as may be necessary in its opinion to protect the CITY from loss because: the Work is defective; claims have been filed or there is reasonable evidence indicating the probable filing thereof; the Contract Price has been reduced because of Modifications; the CITY has been required to correct defective Work or complete the Work in accordance with Paragraph 20.38; or,

unsatisfactory prosecution of the Work, including failure to clean up.

## 20.41 FINAL PAYMENT

- 20.41.1 Upon written notice from the CONTRACTOR that the Project is Complete, the ENGINEER will make a final inspection with the CITY and the CONTRACTOR and will notify the CONTRACTOR in writing of any particulars in which this inspection reveals that the Work is defective or incomplete. The CONTRACTOR shall immediately make such corrections as are necessary to remedy such defects and otherwise conform its performance to comply with the contract requirements.
- After the CONTRACTOR has completed any such corrections to 20.41.2 the satisfaction of the ENGINEER and delivered all and operating instructions, schedules, maintenance quarantees, bonds, certificates of inspection, a list of contacts for correction of warranty problems and other documents including "as-builts", all as required by the Contract Documents, it may make application for final payment following the procedure for progress payments. The final Application for payment shall be accompanied by such supporting data as the ENGINEER may require, together with complete and legally effective releases or waivers (satisfactory to the CITY) of all liens arising out of the Contract Documents and the labor and services performed and the material and equipment furnished thereunder. thereof and as approved by the CITY, the CONTRACTOR may furnish receipts or releases in full; an affidavit of the CONTRACTOR that the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and that all payrolls, material and equipment bills, and other indebtedness connected with the Work for which the CITY or its property might in any way be responsible, have been paid or otherwise satisfied; and consent of the surety, if any, to final payment. If any Subcontractor or supplier fails to furnish a release or receipt in full, the CONTRACTOR may furnish a bond satisfactory to the CITY to indemnify it against any lien or claim by any subcontractor or supplier.
- 20.41.3 If, on the basis of its observation and review of the work during construction, its final inspection and its review of the final Application for Payment, all as required by the Contract Documents, the ENGINEER is satisfied that the Work has been completed and the CONTRACTOR has fulfilled all of its obligations under the Contract Documents, it will, within ten (10) days after receipt of the final application for Payment, indicate in writing its approval of payment and present the Application to the CITY for Payment. Otherwise, it will return the Application to the CONTRACTOR, indicating in writing its reasons for refusing to approve final payment, in which case the CONTRACTOR will

make the necessary corrections and resubmit the Application. The CITY will, within the number of days required under the Florida Prompt Payment Act (F.S. Ch. 218) of presentation to it of an approved final Application for Payment, pay the CONTRACTOR the amount approved by the ENGINEER.

#### 20.42 LIENS AND CLAIMS:

- 20.42.1 In addition to other remedies available to the CITY hereunder, in all cases of nonpayment by the CONTRACTOR or a Subcontractor of any sums of money due for labor, materials, supplies, equipment, or other items in performing under this Contract, or at any time there should be evidence of a lien or claim chargeable to the CONTRACTOR or Subcontractor for which, if established, the CITY might become liable, the Surety or Bonding Company shall indemnify and hold harmless the CITY against any such liens or claims in accordance with these specifications.
- 20.42.2 This section intentionally left blank.
- 20.42.3 Neither final payment nor any part of the retained percentage shall become due until the CONTRACTOR shall deliver to the ENGINEER a complete waiver or release by the CONTRACTOR and its Subcontractors and others of all liens and claims arising out of the work, or receipts in full in lieu thereof, and if required, an affidavit that so far as it has knowledge or information, the releases and receipts include all the labor and materials for which a lien could be filed.
- 20.42.4 If required by the ENGINEER, such waiver or release shall also be furnished by the CONTRACTOR before a monthly payment or payments shall become due.

## 20.43 INDEMNIFICATION:

CONTRACTOR shall hold harmless, indemnify, and defend the City of Jacksonville and City's members, officers, officials, employees and agents (collectively the "Indemnified Parties") from and against, without limitation, any and all claims, suits, actions, losses, damages, injuries, liabilities, fines, penalties, costs and expenses of whatsoever kind or nature, which may be incurred by, charged to or recovered from any of the foregoing Indemnified Parties for:

1. General Tort Liability, for any negligent act, error or omission, recklessness or intentionally wrongful conduct on the part of the Indemnifying Parties that causes injury (whether mental or corporeal) to persons (including death) or damage to property, whether arising out of or incidental to the Indemnifying Parties' performance of the Contract, operations, services or work performed hereunder; and

- 2. Environmental Liability, to the extent this Contract contemplates environmental exposures, arising from or in connection with any environmental, health and safety liabilities, claims, citations, clean-up or damages whether arising out of or relating to the operation or other activities performed in connection with the Contract; and
- 3. Intellectual Property Liability, to the extent this Contract contemplates intellectual property exposures, arising directly or indirectly out of any allegation that the Services, any product generated by the Services, or any part of the Services as contemplated in this Contract, constitutes an infringement of any copyright, patent, trade secret or any other intellectual property right. If in any suit or proceeding, the Services, or any product generated by the Services, is held to constitute an infringement and its use is permanently enjoined, the Indemnifying Parties shall, immediately, make every reasonable effort to secure within 60 days, for the Indemnified Parties a license, authorizing the continued use of the Service or product. If the Indemnifying Parties fail to secure such a license for the Indemnified Parties, then the Indemnifying Parties shall replace the Service or product with a non-infringing Service or product or modify such Service or product in a way satisfactory to Buyer, so that the Service or product is non-infringing.

If an Indemnifying Party exercises its rights under this Contract, the Indemnifying Party will (1) provide reasonable notice to the Indemnified Parties of the applicable claim or liability, and (2) allow Indemnified Parties, at their own expense, to participate in the litigation of such claim or liability to protect their interests. The scope and terms of the indemnity obligations herein described are separate and apart from, and shall not be limited by any insurance provided pursuant to the Contract or otherwise. Such terms of indemnity shall survive the expiration or termination of the Contract.

In the event that any portion of the scope or terms of this indemnity is in derogation of Section 725.06 or 725.08 of the Florida Statutes, all other terms of this indemnity shall remain in full force and effect. Further, any term which offends Section 725.06 or 725.08 of the Florida Statutes will be modified to comply with said statutes.

#### 20.44 INSURANCE:

Without limiting its liability under this Contract, CONTRACTOR shall at all times during the term of this Contract procure prior to commencement of work and maintain at its sole expense during the life of this Contract (and Provider shall require its, subcontractors, laborers, materialmen and suppliers to provide, as applicable), insurance of the types and limits not less than amounts stated below:

Insurance Coverages Schedule

Limits

Worker's Compensation

Florida Statutory Coverage

Employer's Liability

\$1,000,000 Each Accident \$1,000,000 Disease Policy Limit \$1,000,000 Each Employee/Disease

This insurance shall cover the CONTRACTOR (and, to the extent they are not otherwise insured, its subcontractors) for those sources of liability which would be covered by the latest edition of the standard Workers' Compensation policy, as filed for use in the State of Florida by the National Council on Compensation Insurance (NCCI), without any restrictive endorsements other than the Florida Employers Liability Coverage Endorsement (NCCI Form WC 09 03), those which are required by the State of Florida, or any restrictive NCCI endorsements which, under an NCCI filing, must be attached to the policy (i.e., mandatory endorsements). In addition to coverage for the Florida Workers' Compensation Act, where appropriate, coverage is to be included for the Federal Employers' Liability Act, USL&H and Jones, and any other applicable federal or state law.

Commercial General Liability

\$2,000,000 General Aggregate \$2,000,000 Prod/Comp.Ops.Agg. \$1,000,000 Personal/Adv. Injury \$1,000,000 Each Occurrence

\$ 50,000 Fire Damage \$ 5,000 Medical Expenses

Such insurance shall be no more restrictive than that provided by the most recent version of the standard Commercial General Liability Form (ISO Form CG 00 01) as filed for use in the State of Florida without any restrictive endorsements other than those reasonably required by the City's Office of Insurance and Risk Management. An Excess Liability policy or Umbrella policy can be used to satisfy the above limits.

Automobile Liability \$1,000,000 Combined Single Limit (Coverage for all automobiles, owned, hired or non-owned used in performance of the Services)

Such insurance shall be no more restrictive than that provided by the most recent version of the standard Business Auto Coverage Form (ISO Form CA0001) as filed for use in the State of Florida without any restrictive endorsements other than those which are required by the State of Florida, or equivalent manuscript form, must be attached to the policy equivalent endorsement as filed with ISO (i.e., mandatory endorsement).

Builders Risk 100% Completed Value of the Project

Such insurance shall be on a form acceptable to the CITY's Office of Insurance and Risk Management. The Builder's Risk policy shall include the SPECIAL FORM/ALL RISK COVERAGES. The Builder's Risk and/or Installation policy shall not be subject to a coinsurance clause. A maximum \$10,000 deductible for other than windstorm and

hail. For windstorm and hail coverage, the maximum deductible applicable shall be 2% of the completed value of the project. Named insured's shall be: CONTRACTOR, the CITY, and respective members, officials, employees and agents, the ENGINEER, and the PROGRAM MANAGEMENT FIRM(S) (when program management services are provided). The City of Jacksonville, its members, officials, officers, employees and agents are to be named as a loss payee.

Pollution Liability

\$1,000,000 per Loss \$2,000,000 Annual Aggregate

Any entity hired to perform services as part of this contract for environmental or pollution related concerns shall maintain Contractor's Pollution Liability coverage. Such Coverage will include bodily injury, sickness, and disease, mental anguish or shock sustained by any person, including death; property damage including physical injury to destruction of tangible property including resulting loss of use thereof, cleanup costs, and the loss of use of tangible property that has not been physically injured or destroyed; defense including costs charges and expenses incurred in the investigation, adjustment or defense of claims for such compensatory damages; coverage for losses caused by pollution conditions that arises from the operations of the contractor including transportation.

Pollution Legal Liability

\$1,000,000 per Loss \$2,000,000 Aggregate

Any entity hired to perform services as a part of this contract that require disposal of any hazardous material off the job site shall maintain Pollution Legal Liability with coverage for bodily injury and property damage for losses that arise from the facility that is accepting the waste under this contract.

Watercraft Liability

\$1,000,000 Per Occurrence

To the extent watercraft are utilized in the Work, the CONTRACTOR shall purchase and maintain, or cause its subcontractors to purchase and maintain, insurance with amounts not less than limits of \$1,000,000 per occurrence, and which shall, at a minimum, cover the CONTRACTOR and subcontractor for injuries or damage arising out of the use of all owned, non-owned and hired watercraft. Such coverage will name the CITY and respective members, officials, employees and agents, the ENGINEER, and the PROGRAM MANAGEMENT FIRM(S) (when program management services are provided) shall be named in the Commercial Watercraft Liability policy as "an additional insured."

In the event that any part of the work to be performed hereunder shall require the CONTRACTOR or its Subcontractors to enter, cross or work upon or beneath the property, tracks, or right-of-way of a railroad or railroads, the CONTRACTOR shall, before commencing any such work, and at its expense, procure and carry liability or protective insurance coverage in such form and amounts as each railroad shall require.

The original of such policy shall be delivered to the railroad involved, with copies to the CITY, the ENGINEER and, if applicable, the CITY'S PROGRAM MANAGER. The CONTRACTOR shall not be permitted to enter upon or perform any work on the railroad's property until such insurance has been furnished to the satisfaction of the railroad. The insurance herein specified is in addition to any other insurance which may be required by the CITY and shall be kept in effect at all times while work is being performed on or about the property, tracks, or right-of-way of the railroad.

#### Additional Insurance Provisions

- A. Additional Insured: All insurance except Worker's Compensation shall be endorsed to name the City of Jacksonville and City's members, officials, officers, employees and agents as Additional Insured. Additional Insured for General Liability shall be in a form no more restrictive than CG2010 and CG2037, Automobile Liability CA2048.
- B. Waiver of Subrogation. All required insurance policies shall be endorsed to provide for a waiver of underwriter's rights of subrogation in favor of the City of Jacksonville and its members, officials, officers employees and agents.
- C. CONTRACTOR'S Insurance Primary. The insurance provided by the CONTRACTOR shall apply on a primary basis to, and shall not require contribution from, any other insurance or self-insurance maintained by the City or any City members, officials, officers, employees and agents.
- D. Deductible or Self-Insured Retention Provisions. All deductibles and self-insured retentions associated with coverages required for compliance with this Contract shall remain the sole and exclusive responsibility of the named insured CONTRACTOR. Under no circumstances will the City of Jacksonville and its members, officers, directors, employees, representatives, and agents be responsible for paying any deductible or self-insured retentions related to this Contract.
- E. CONTRACTOR'S Insurance Additional Remedy. Compliance with the insurance requirements of this Contract shall not limit the liability of the CONTRACTOR or its Subcontractors, employees or agents to the City or others. Any remedy provided to City or City's members, officials, officers, employees or agents shall be in addition to and not in lieu of any other remedy available under this Contract or otherwise.
- F. Waiver/Estoppel. Neither approval by City nor failure to disapprove the insurance furnished by CONTRACTOR shall relieve CONTRACTOR of CONTRACTOR'S full responsibility to provide insurance as required under this Contract.

- G. Certificates of Insurance. CONTRACTOR shall provide the City Certificates of Insurance that shows the corresponding City Contract Number in the Description, if known, Additional Insureds as provided above and waivers of subrogation. The certificates of insurance shall be mailed to the City of Jacksonville (Attention: Chief of Risk Management), 117 W. Duval Street, Suite 335, Jacksonville, Florida 32202.
- H. Carrier Qualifications. The above insurance shall be written by an insurer holding a current certificate of authority pursuant to chapter 624, Florida State or a company that is declared as an approved Surplus Lines carrier under Chapter 626 Florida Statutes. Such Insurance shall be written by an insurer with an A.M. Best Rating of A- VII or better.
- I. Notice. The CONTRACTOR shall provide an endorsement issued by the insurer to provide the City thirty (30) days prior written notice of any change in the above insurance coverage limits or cancellation, including expiration or non-renewal. If such endorsement is not available then the CONTRACTOR, as applicable, shall provide said a thirty (30) days written notice of any change in the above coverages or limits, coverage being suspended, voided, cancelled, including expiration or non-renewal.
- J. Survival. Anything to the contrary notwithstanding, the liabilities of the CONTRACTOR under this Contract shall survive and not be terminated, reduced or otherwise limited by any expiration or termination of insurance coverage.
- K. Additional Insurance. Depending upon the nature of any aspect of any project and its accompanying exposures and liabilities, the City may reasonably require additional insurance coverages in amounts responsive to those liabilities, which may or may not require that the City also be named as an additional insured.
- L. Special Provisions: Prior to executing this Agreement, CONTRACTOR shall present this Contract to its Insurance Agent affirming: 1) That the Agent has personally reviewed the insurance requirements of the Contract Documents, and (2) That the Agent is capable (has proper market access) to provide the coverages and limits of liability required on behalf of CONTRACTOR.

## 20.45 CONTRACT BONDS:

20.45.1 If required in Article 2.11, the CONTRACTOR, at its own expense, shall furnish Performance and Payment Bonds as security for the faithful performance under the Contract Documents. The Bonds shall be in an amount at least equal to the Contract price, in the form provided in these Contract Documents, and with a surety that is acceptable to the CITY'S Division of Insurance and Risk Management.

- 20.45.2 The Performance and Payment Bonds shall accompany the executed Contract Agreement when it is returned by the CONTRACTOR to the CITY. Said Bonds and Agreement shall be furnished to the CITY within ten (10) days after notification of Contract Award. See Section 2, "Instructions to Bidders".
- 20.45.3 Prior to execution of the Contract Agreement, the CITY may require the CONTRACTOR to furnish other Bonds, in such form and with such sureties as it may require. If such other Bonds are required by written instructions given prior to opening of Bids, the premiums shall be paid for by the CONTRACTOR; subsequent thereto, it shall be paid by the CITY, except as specified in the following Sub-Paragraph.
- 20.45.4 If any surety upon any bond furnished in connection with the Contract Documents becomes unacceptable to the CITY, or if any such surety fails to furnish reports as to its financial condition from time to time as requested by the CITY, the CONTRACTOR shall, at its own expense, promptly furnish such additional security as may be required from time to time to protect the interests of the CITY and of persons supplying labor or materials in the prosecution of the work contemplated by this Contract.
- 20.45.5 The Performance Bond (see Section 12 of Division II, of the Contract Documents) may be waived under the following conditions:
  - (1) a successful bidder shall not be required to submit a performance bond for the work which it is required to perform under a capital improvement project contract if the amount of the contract price is one hundred thousand dollars or less, subject to the limitation in paragraph (2). A payment bond is required for all Contracts, including purchase orders, regardless of the amount of the Contract or purchase order.
  - (2) notwithstanding the provisions of paragraph (1), a CONTRACTOR shall be entitled to exclude only one hundred thousand dollars of its total contractual obligations to the CITY under all capital improvement project contracts at any one time but it may submit a performance bond for less than the contract price of a newly awarded capital improvement project contract if the amount excluded from the performance bond under the newly awarded contract, together with amounts already excluded, do not exceed one hundred thousand dollars of its total contractual obligations to the CITY under all capital improvement project contracts.

## 20.46 CLEANING UP AND RESTORATION:

- 20.46.1 The CONTRACTOR shall keep the premises, rights-of-way and adjacent property free from accumulations of waste materials, rubbish and other debris resulting from the work, and progressively as the work is completed it shall remove all waste materials, rubbish and debris from and about the work areas as well as all tools, construction equipment and machinery, and surplus materials, and shall leave the site clean.
- 20.46.2 When the work involves the laying of utility lines across grassed areas, streets, sidewalks, and other paved areas, it shall be the responsibility of the CONTRACTOR to restore such areas to its original sound condition using construction techniques and materials which are the same as existing. In the case of planted areas, the CONTRACTOR shall maintain the restoration work until positive growth has evidenced.
- 20.46.3 In case of dispute, the CITY may remove the rubbish and surplus materials or perform restoration work and charge the cost to the CONTRACTOR. Such costs shall be deducted from the Contract amount or the CONTRACTOR'S next application for payment, at the Owner's option.

## 20.47 DRAINAGE ALONG RIGHTS-OF-WAY:

- 20.47.1 The CONTRACTOR shall conduct its operations and maintain the work in such condition that adequate drainage shall be provided and in effect at all times for the full duration of this contract. This requirement is in addition to any temporary drainage provisions included in the Contract Documents.
- 20.47.2 The CONTRACTOR will not obstruct existing gutters, ditches and other runoff facilities. The CONTRACTOR shall be solely liable for any damages caused by its failure to provide and maintain adequate drainage.

#### 20.48 TRAFFIC INTERFERENCE:

- 20.48.1 CONTRACTOR shall plan and coordinate its work with the City of Jacksonville Traffic Engineering Division so as to minimize traffic interferences. The rules and instructions of the Traffic Engineering Division shall be followed for the public benefit.
- 20.48.2 Construction operations on this Project shall be carefully planned and scheduled so that, except as provided for in the Contract Documents, the normal flow of local traffic shall be maintained at all times. It is understandable that providing for such local traffic will require some inconvenience to the users, but such inconvenience must be

kept to an absolute minimum. Ingress and egress shall be provided at all times for local residents. The CONTRACTOR shall furnish detour and construction signing and lighting as required and other special advanced detour signs as required by the Traffic Engineer for the City of Jacksonville. Payment for Maintenance of traffic costs shall be at the lump sum price and/or unit prices submitted in the Proposal. In the absence of Maintenance of Traffic pay items, payment for maintenance of traffic shall be included in the lump sum bid price for Site Preparation.

- 20.48.3 The CONTRACTOR has the responsibility to maintain ingress and egress at all times for local residents, to the extent of having towing equipment on site to promptly pull out local vehicles which have become "stuck", or shall provide outside tow service to promptly extricate such vehicles. In the event a local resident has paid for such tow service, the CONTRACTOR will promptly reimburse the resident for documented towing costs incurred.
- 20.48.4 The CONTRACTOR will be financially responsible for damage to local vehicles caused by or as a result of construction activities. In the event of delay in CONTRACTOR honoring such financial claims, the CITY will, after 3 days written notice, honor the claim and deduct the cost thereof from any monies due the CONTRACTOR.

#### 20.49 MISCELLANEOUS:

- 20.49.1 The CONTRACTOR shall be liable to the CITY for damage resulting from errors, inconsistencies, or omissions in the Contract Documents. If the CONTRACTOR performs any construction activity knowing it involves a recognized error, inconsistency, or omission in the Contract Documents, the CONTRACTOR shall correct all such errors, inconsistencies, or omissions at its own expense. No such corrective action shall be undertaken without prior notification of the ENGINEER.
- 20.49.2 Whenever any provision of the Contract Documents requires the giving of written notice, it shall be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered or sent by registered or certified mail, postage prepaid, to the last business address known to whomever gives the notice.

#### 20.49.3 VACANT

20.49.4 Should the CITY suffer injury or damage to its person or property because of any error, omission or act of the CONTRACTOR (including subcontractors, vendors or others for whose acts the CONTRACTOR may be liable) claim shall be

- made in writing to the CONTRACTOR within a reasonable time of the first observance of such injury or damage.
- 20.49.5 Each and every provision of law and clause required by law to be inserted in the Contract shall be deemed to be inserted herein, and the Contract shall be read and enforced as though it were included herein. If through mistake, or otherwise, any such provision is not inserted or is not correctly inserted, then upon the application of either party, the Contract shall forthwith be physically amended to make such insertion.
- 20.49.6 Should the "no damages for delay" clause not be enforced by the Court, the CONTRACTOR waives any claim for extended home office overhead that may result from any delay on the project.
- 20.49.7 The CONTRACTOR specifically waives any right to seek Attorney's fees and construction claim preparation costs from the CITY.
- 20.49.8 The CONTRACTOR shall not present nor recover on any claim from the CITY based on any formula(s), hypothetical or statistical methodologies used in damage computation. The CONTRACTOR may only recover if it can provide documented pay records specifically indicating any alleged damage, loss or cost.
- 20.49.9 The CONTRACTOR agrees to indemnify the CITY based on any claim or damage resulting from the CONTRACTOR'S alleged breach of its contract. This is in addition to the provisions of Section 20.43, supra.
- 20.49.10 The CITY may at any time have access to the CONTRACTOR'S records for the purposes of auditing the financial and contractual performance of the CONTRACTOR during the entire contract period and for three (3) years after final payment. The CITY may obtain copies of all financial and scheduling computer disks at any time from the CONTRACTOR and also shall have reasonable access to and obtain copies of all other documents, which includes photographs, tapes and electronics, except those that would be privileged under Florida law.
- 20.49.11 All claims between the CONTRACTOR and the Owner or its representatives shall be submitted to the CITY Construction Dispute Review Board, as set forth in Executive Order 98-01, as a condition precedent to bringing any action in a court of competent jurisdiction.

#### 20.50 UTILITIES AND SANITARY PROVISIONS:

20.50.1 CONTRACTOR shall, unless otherwise stated in the Special Conditions, provide and pay for all water, electricity, fuel for testing equipment, and any other utilities

required for construction, testing and adjustment. Upon completion of the work, all evidence of temporary lines shall be removed.

20.50.2 The CONTRACTOR shall provide and maintain in a neat, sanitary condition such accommodations for use of its employees and CITY inspection personnel as may be necessary to comply with the regulations of the public bodies having jurisdiction. Employees shall commit no public nuisance.

### 20.51 REFERENCED SPECIFICATION AND CONFLICTS:

- 20.51.1 All materials, systems or operations specified by reference to standard trade specifications or to manufacturer's published specifications shall in all respects comply with the requirements of the referenced specifications, except as modified by the requirements of these Contract Documents. Except when a particular edition is called for, the referenced specification used shall be the latest published edition on the date of the Contract Documents. In case of a conflict between the referenced specification and the Contract Document, the Contract Document shall govern. In case of a conflict between referenced specifications, the specification having the more stringent requirements shall govern.
- 20.51.2 In case of a conflict between various portions of the Contract Documents, the more stringent requirements, as determined by the ENGINEER, will be enforced. The CONTRACTOR shall refer requirements that are different, but apparently equal, and uncertainties as to which quality level is more stringent, to the ENGINEER before proceeding.

#### 20.52 INTERPRETATION OF APPROXIMATE QUANTITIES:

20.52.1 The CONTRACTOR'S attention is called to the fact that any estimate of quantities of work to be done and materials to be furnished under the specifications as shown on the Proposal, or elsewhere, is approximate only and not guaranteed. The CITY does not assume any responsibility that the final quantities shall remain in strict accordance with the estimated quantities, nor shall the CONTRACTOR plead misunderstanding or deception because of such estimate of quantities or of the character, location of the work or other conditions pertaining thereto.

#### 20.53 ENGINEER'S FIELD OFFICE

20.53.1 The CONTRACTOR shall provide a field office for use by the ENGINEER. The ENGINEER'S Field Office shall have a minimum of two hundred square feet of working space and may be located in a suitable trailer or building in a separate room with locks on the door or doors. The CONTRACTOR shall furnish a desk, desk chair, drafting table, drafting

stools, four drawer metal filing cabinet, telephone on a private line, adequate lighting, toilet facilities, heating, ventilation and air conditioning for the ENGINEER'S Field Office.

20.53.2 The CONTRACTOR shall furnish janitor service and maintenance for the ENGINEER'S Field Office, maintaining the premises in a clean, neat and orderly fashion for the duration of this Contract. The cost of the ENGINEER'S Field Office shall be included in the costs for other items of work.

# 20.54 QUALIFICATIONS OF CONTRACTORS PERFORMING WORK ON CONSTRUCTION OF BUILDINGS AND/OR STRUCTURES:

20.54.1 All Contractors performing work on the project which Chapter 320 (Building Code), Jacksonville Ordinance Code or Chapter 489, Florida Statutes, requires CONTRACTOR qualification, shall be registered or hold a current Contractor Certificate in accordance with such laws.

# 20.55 QUALIFICATIONS OF CONTRACTORS AND CRAFTSMEN PERFORMING WORK IN CERTAIN SPECIALTY TRADES:

20.55.1 All Contractors, including subcontractors, and craftsmen performing work (including, but not limited to, electrical, plumbing, heating, and air-conditioning) on the project which Chapter 342, Jacksonville Ordinance Code or Chapter 489, Florida Statutes, requires qualification in certain specialty trades, shall hold current CONTRACTOR or Craftsman Certificates in appropriate trade as provided in such laws.

#### 20.56 STATE AND FEDERAL REGULATIONS:

20.56.1 The CONTRACTOR shall comply with all State and Federal laws, regulations, and codes applicable to the work as well as those of the City of Jacksonville. The CONTRACTOR'S attention is directed to the U. S. Department of Labor Safety and Health Regulations for construction promulgated under the Occupational Safety and Health Act of 1970 (PL 91-596) and under Section 107 of the Contract Work Hours and Safety Standards Act (DL 91-54).

#### 20.57 PROJECT SIGN DETAILS

20.57.1 At least five (5) days prior to the estimated start of construction, the CONTRACTOR shall provide a CITY Project Sign at its expense. Such sign shall be in a format and contain information as specified in appendix A of this Section. In addition to the CITY Project Sign, the CONTRACTOR may at its option erect a sign not to exceed 4' x 8' which identifies the builder, designer, subcontractors, materials, suppliers, etc. The wording and

format of such CONTRACTOR'S Sign shall be the CONTRACTOR'S option subject to approval by the ENGINEER. Both the CITY Project Sign and the CONTRACTOR'S Sign shall be erected on the site in a location approved by the ENGINEER. No other sign or advertisement of any type shall be allowed on the project site.

#### 20.58 CERTIFICATION OF CHEMICALS:

20.58.1 All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant or of other classification, must show approval of either EPA or USDA. Use of all such chemicals and disposal of residues shall be in strict conformance with instructions.

#### 20.59 TREE PROTECTION ON PUBLICLY-OWNED OR CONTROLLED PROPERTY

- 20.59.1 The CONTRACTOR shall protect all trees, in accordance with Chapter 656 (Part 12 Landscape and Tree Protection Regulations) of the Jacksonville Ordinance Code from damage by vehicles, equipment and machinery, except those trees designated for removal (via permit) on the construction drawings. Removal of any tree not so designated nor permitted, shall be only upon specific approval by the ENGINEER as provided in Section 20.59.9.
- 20.59.2 Excavated dirt shall not be piled around the base of the tree. The CONTRACTOR shall not bury or burn any refuse around or near the trees. The CONTRACTOR shall proceed with caution when excavating in the vicinity of root structure of any tree. Excavation shall be by hand if necessary.

Roots up to 2 inches in diameter when severed do not require any pruning paint. Roots from 2 inches to 4 inches in diameter must be severed with a pruning saw and painted.

An axe or similar tool is not acceptable for pruning. The wood shall be treated with asphalt-type pruning paint as soon as possible after pruning. Roots over 4 inches shall not be severed except as directed by the ENGINEER.

Pre-Construction Barriers: Prior to any site disturbance, barriers will be put up around each tree to be protected. These barriers should be constructed of 2 x 4's or any other practical materials which will discourage disturbance near the tree. To conform to the Jacksonville Ordinance Code, these barriers should be at least six feet away from the trunk of the tree and protect an area that is at least 50 percent of the unpaved area covered by the crown spread of the tree. When conditions permit, barriers are to be placed in such a manner as to provide the largest undisturbed area possible.

- 20.59.4 Cutting of Roots: Cutting tree roots will be kept to a minimum and only allowed when absolutely necessary. In such instances the CONTRACTOR shall insure that all cuts are made clean with a saw, free of all loose soil, and sealed with pruning paint or shellac. At no time will roots be pulled, ripped or cut with a blade, backhoe or other mechanical device.
- 20.59.5 Changing of Grade: Additional fill under the crown spread of trees will be kept to a minimum. If additional fill is unavoidable, all fill material shall consist of clean, coarse sand or gravel, free of silt and clay to allow for free movement of air and water. Lowering the grade under the crown spread of trees will not be permitted.
- 20.59.6 Pruning of Branches: Should branches require pruning to provide for roadway or other necessary clearance, it will be cut back to a main stem or crotch of the tree. All cuts will be made at the bench collar to allow the natural healing process of the tree to occur. To further promote the natural healing process, no pruning paint or other material will be applied to pruning cuts.
- 20.59.7 <u>Wounds</u>: If a tree is wounded during construction, all bark surrounding the wound shall be cut away and carefully removed. Care shall be taken to leave as much cambium as possible.
- Any tree whose root system has been disturbed or damaged 20.59.8 must be properly fertilized to aid in its recovery. The hole or punch-bar method shall be used for applying fertilizer. The holes should be approximately 12 inches to 18 inches deep, 1 inch to 2 inches in diameter, 2 feet apart, and extend 2 feet past the drip line of the tree. DO NOT apply fertilizer within one foot of the trunk of a small tree (up to 6 inches diameter) or within three feet of the trunk of a large tree (over 6 inches diameter). Injury to the root collar and trunk base may result. The type of fertilizer to be used shall be 25% organic 8-8-8 with minor elements included. Chemical analysis as follows: Total Nitrogen, not less than 8.0 percent available Phosphoric Acid, not less than 8.0 percent water soluble potash, not less than 8.0 percent. Fertilizer shall be applied at the following rates and shall be evenly distributed among the holes.

20.59.9 It shall be the responsibility of the ENGINEER to make all decisions pertaining to removal of trees. The ENGINEER is

granted authority, as a blanket permit, for the necessary removal of trees under the requirements of the Code. Each project file is to contain documentation and a brief explanation of the ENGINEER'S decision to remove trees so as to provide the justification for such action for later reference. The final authority in settling any conflict with trees on publicly-owned or controlled property shall remain with the Director of Public Works.

#### 20.60 CONSTRUCTION AND DEMOLITION DEBRIS

- 20.60.1 The CONTRACTOR shall dispose of construction and demolition debris only at approved sites within Duval County. Only sites designated by the CITY'S Director of Solid Waste and Resource Management may be used. The CONTRACTOR must identify the site to which construction and demolition debris under this contract will be removed for disposal. These sites must be further identified by Certificate of Necessity number and Solid Waste Department permit number. During performance of the contract, the CONTRACTOR will be required to obtain and retain receipts from the disposal site operator for all debris.
- 20.60.2 Prior to commencement of construction, the CONTRACTOR shall be required to submit the following completed statement of compliance:

Construction and Demolition Debris. Construction and demolition debris at the work site will be disposed of at

This location is subject to Certificate of Necessity No.

Solid Waste Department Permit No.

Will obtain receipts for each load of debris deposited at and will retain these receipts for the Contracting Officer's inspection for the duration of the contract and two (2) years thereafter.

# 20.61 PRECEDENCE OF DOCUMENTS:

- 20.61.1 In resolving conflicts, errors and discrepancies between the various Contract Documents, precedence shall be given in the following order:
  - 20.61.1.1 Approved Change Orders
  - 20.61.1.2 Contract Agreement, Including Proposal Form
  - 20.61.1.3 Addenda Issued Prior to Receipt of Bids
  - 20.61.1.4 Special Conditions of the Specifications
  - 20.61.1.5 Technical Provision of the Specifications
  - 20.61.1.6 Drawings
  - 20.61.1.7 Invitation to Bid
  - 20.61.1.8 Instructions for Bidders
  - 20.61.1.9 General Conditions

- 20.61.2 Any specific item stated in the General Conditions, Special Conditions, or Technical Specifications, takes precedence over an item which is made part of the documents by being added by reference.
- 20.61.3 If a situation or situations arise whereby it would be difficult or impossible for these Special Conditions to prevail then the final decision shall be made by the City Engineer.

## 20.62 AS-BUILT DRAWINGS:

- The CITY will provide the CONTRACTOR two (2) sets of 20.62.1 11"x17" plans and one (1) electronic copy of the drawing files suitable for editing. The CONTRACTOR will use the plan sets to document the as-built configuration and location of all work performed under this contract and to the level of detail described in the following paragraphs. The CONTRACTOR will be responsible for the care and cost of replacing these documents while in his possession. No erasures will be made to the plan sets. The original information will be stricken, and new information written. Information that is to remain unchanged shall have a check mark or be highlighted. The electronic copy will be updated utilizing the original CADD Program at the end of the project using a separate file level for the as-built edits such that the edits will have a unique font and line weight to distinguish the edits from the original drawing. The number of drawings from the contract plans shall be maintained and clearly marked "As-Builts", including those sheets where no changes were required when the work was constructed according to plan. The mark-up plans, edited electronic copy, mylar copy, two (2) signed and sealed hard copies of the electronically edited plans and electronic copies in both CADD and .pdf formats for the City of Jacksonville and the JEA separately, shall be provided to the Engineer two weeks prior to final inspection. The hard copy of the electronically edited plans shall be certified as to the location of all improvements constructed in this contract using forms shown in Section 13. certification shall be by a Professional Land Surveyor or an Engineer licensed to practice in the State of Florida. The CONTRACTOR shall also certify that the materials used and quantities paid for are in accordance with the plans by filling out the appropriate form in Section 13 and submitting with the documents.
- 20.62.2 "As-built" drawings on roadway, drainage or other public infrastructure projects shall be as follows:
  - 20.62.2.1 Paving: All horizontal control dimensions shall be to the nearest tenth of a foot. Elevations shall be to the nearest one-hundredth of a foot.

- 20.62.2.2 <u>Drainage</u>: All horizontal control dimensions shall be to the nearest tenth of a foot. Elevations shall be to the nearest one-hundredth of a foot.
- 20.62.2.3 All valves, fittings, fire hydrants, Water: etc. shall be located in two directions. One location shall be referenced perpendicular to the right-of-way line. The other location shall be parallel to the existing water main and shall be referenced perpendicular to the right-of-way line of the nearest street intersection. Locations of pavement, curb, sidewalk, or utility structures are acceptable unless these are in turn referenced to right-of-way lines. Centerline of right-ofway may be used for reference in lieu of the right-of-way line. Locations (depth) are required and shall be referenced to a bench mark of finished grade. All horizontal and vertical control dimensions shall be shown to the nearest tenth of a foot. Size and type of water piping, valves, fittings, fire hydrants, etc. shall also be shown (i.e. 8" cast iron pipe, 6" gate valve). Special detail drawings will be required where installations were not as shown on the Contract drawings due to field conditions.
- 20.62.2.4 Sewer: During the daily progress of the work, the CONTRACTOR shall record on its field set of drawings, the exact location of all piping, wyes, tees, valves, manholes, and specials, all referenced off of right-of-way lines, or street centerlines in two directions perpendicular to said lines. All horizontal control dimensions shall be to the nearest tenth of a foot. Elevations shall be to the nearest one-hundredth of a foot.
- 20.62.3 Payment for the cost of preparation and certification of the "As-Built" drawings shall be paid under the Lump Sum Item, "As-Built Drawings" in the contract and will include all costs associated with the preparation, reproduction, revision, and care of the documents. Final payment for this project will not be made until the "As-Built" drawings are reviewed and accepted by the Engineer.

## 20.63 SPECIAL CONDITIONS:

Deviations from these General Conditions shall be allowed only if detailed in the Special Conditions.

#### 20.64 DISPOSITION OF SALVABLE MATERIAL:

20.64.1 All material to be removed, relocated or salvaged, shall be inspected by the ENGINEER, immediately prior to removal, and the ENGINEER'S decision as to the salvability shall be final. Such material that is salvable, in the opinion of the ENGINEER or its representative, shall be stored on site by the CONTRACTOR, as and where directed by the ENGINEER, or delivered to a location as directed in the Contract Documents. Under no circumstances may existing structures, plant or facilities be removed or demolished without obtaining prior approval from the ENGINEER.

#### 20.65 PREVENTION, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION

- 20.65.1 In addition to any erosion controls and pollution abatement measures shown on the plans, the CONTRACTOR shall implement and comply with Best Management Practices (BMPs) and control which prevent the pollution of storm water discharges and minimize siltation and erosion of waterways which may result from, or as a result of, his operations during the course of construction of this Project. The CONTRACTOR is hereby advised that silt barriers are to be used at all times during construction operations that may result in siltation or erosion. The CONTRACTOR shall prepare and submit his own turbidity control plan in detail to the ENGINEER for approval. The ENGINEER'S approval shall not relieve the CONTRACTOR of liability in case of a citation by the Department of Environmental Regulation.
- 20.65.2 The CONTRACTOR is cautioned that construction or maintenance operations on the subject Project, which create turbidity and which directly or indirectly affects the water quality of any waterway to which storm water is discharged in such a manner as to exceed the limitations prescribed in Chapter 17-3 and 17-25, Florida Administrative Code, is a violation of the Water quality Standards of the State of Florida.
- 20.65.3 Turbidity shall not exceed twenty-nine (29) NTU's, above background level within one hundred (100) feet of the construction activity.
- 20.65.4 The CONTRACTOR shall be responsible for complying with all applicable rules, regulations, laws and ordinances and shall be solely liable for any fines, penalties, or costs caused by the CONTRACTOR'S failure to comply with said conditions. The execution of this work item by the CONTRACTOR is to be done on a proactive basis throughout the Contract.
- 20.65.5 This work shall include but not be limited to sandbagging, silt screens, hay bales, temporary grassing, sediment basins, and sediment checks as shown on the plans or deemed necessary by the CONTRACTOR and/or the ENGINEER. The costs required to

comply with permit conditions, including testing, shall be included in the Lump Sum bid price for Erosion Control and Pollution Abatement. Payment for this item shall be based on the percentage of work completed. In the event there is no bid item for Erosion Control and Pollution Abatement, this work shall be included in Site Preparation.

20.65.6 The CONTRACTOR shall be solely liable for any fines or penalties imposed by the regulatory agencies having jurisdiction over this project due to CONTRACTOR'S failure to comply with this section.

#### 20.66 RESIDENT NOTIFICATION AND TOWN MEETINGS

"Improvements in Progress" flyers, which notify local residents, homeowners and business personnel of impending construction, shall be prepared by the CITY and delivered to the CONTRACTOR at the Preconstruction Conference. (See sample in Section 13, pages 13-7 and 13-8). The CONTRACTOR will be responsible for distributing up to 500 "Improvements in Progress" flyers to the residents, homeowners and businesses in the immediate area of the project. The CONTRACTOR shall not be issued Notice to Proceed until the flyers have been delivered to him, and he shall not commence any work on the site until at least five (5) days after the flyers have been distributed.

When any part of the contract work requires relocation of a resident's fences, shrubbery, irrigation or similar items within easements or right-of-way, it shall be the CONTRACTOR's responsibility to notify (by certified mail, with copy to the ENGINEER) affected residents at least 14 days prior to commencement of construction. This notice will advise residents to remove any items they wish to save. It shall also be the responsibility of the CONTRACTOR to make personal contact with the residents 24 hours prior to construction on each specific parcel. If personal contact cannot be made, a written notice left at the residence will satisfy the 24-hour notice requirement. In no case shall work commence on a parcel where the required notification has not been made or without written consent of the ENGINEER.

At the CITY'S discretion, the CONTRACTOR'S project representative shall attend project related Town Meetings scheduled by the CITY and shall be prepared to discuss concerns expressed by residents and businesses affected by the construction.

The costs for distributing flyers, making personal contacts with property owners and attending Town Meetings shall be included in the lump sum amount bid for Site Preparation contained in the Proposal.

#### 20.67 CONTRACTOR'S DAILY REPORTS

The CONTRACTOR will be required to complete Daily Reports for each calendar day of the project, starting with the date of the Notice to Proceed. The Daily Reports are to be submitted to the ENGINEER or Inspector by 12 o'clock noon, of the following work day. Failure to

submit the reports will be grounds for withholding payments. A sample Daily Report form is included in Section 13, pages 13-9 and 13-10.

#### 20.68 REQUEST FOR INFORMATION FORMS

The CONTRACTOR will use the Request For Information form as shown in Section 13, page 13-11, for any requests for clarification on the contract drawings or specifications.

#### 20.69 VALUE ENGINEERING INCENTIVE

- 20.69.1 This Clause applies to any cost reduction proposal (hereinafter referred to as a Value Engineering Change Proposal or VECP) initiated and developed by the CONTRACTOR for the purpose of refining the contract documents so as to contribute to design cost effectiveness or significantly improve the quality of the end result. This Clause does not, however, apply to any such proposal unless it is identified by the CONTRACTOR, at the time of its submission to the ENGINEER as a proposal submitted pursuant to this Clause.
- 20.69.2 VECPs contemplated are those that would result in net savings to the CITY by providing either: (A) a decrease in the cost of performance of the Contract, or; (B) a reduction in cost of ownership (hereinafter referred to as collateral costs) of the work provided by this Contract, regardless of acquisition costs. VECPs must result in savings without impairing essential functions characteristics such as safety, service, life, reliability, economy of operation, ease of maintenance, aesthetics and necessary standard design features. Plan errors which are identified by the CONTRACTOR and which result in a cost reduction, will not qualify for submittal as a VECP. In addition, a proposal to substitute one manufactured product or material for another that performs the same essential function will not qualify as a VECP.
- 20.69.3 The ENGINEER reserves the right to reject at its discretion any VECP submitted which proposes a change in the design which would require additional and concurrent costs to the owner outside the VECP. Substitution of another design alternate, which is detailed in the plans, for the one on which the CONTRACTOR bid, will not be allowed under this Clause. Pending execution of a formal change order to implement an approved VECP, the CONTRACTOR shall remain obligated to perform in accordance with the terms of the existing contract. No time extensions will be granted due to the time required to review a VECP.
- 20.69.4 The CONTRACTOR shall include the provisions of this Clause in any subcontract of \$50,000 or more and is encouraged to include the provisions in subcontracts of less than

\$50,000. The CONTRACTOR shall encourage submission of VECPs from subcontractors, however, it is not mandatory that VECPs be submitted nor is it mandatory that the CONTRACTOR accept or transmit to the ENGINEER VECPs proposed by his subcontractors. The CONTRACTOR may choose any arrangement for subcontractor value engineering incentive payments; provided, that these payments shall not reduce the CITY'S share of the savings resulting from the VECP.

- 20.69.5 As a minimum, the following information shall be submitted by the CONTRACTOR with each VECP:
  - (1) A description of the difference between the existing contract requirement and the proposed change, and the comparative advantages and disadvantages.
  - (2) Separate detailed cost estimates for both the existing contract requirement and the proposed change. The cost estimates shall be broken down by contract pay item numbers indicating quantity increases or decreases and deleted pay items. In preparing the estimates, the CONTRACTOR shall include overhead, profit, and bond. No separate pay item(s) for these costs will be allowed.
  - (3) An estimate of the effects the VECP would have on collateral costs to the CITY.
  - (4) An itemization of plan details, plan sheets, design standards and specifications that must be changed or added if the VECP is adopted. Preliminary plan drawings must be sufficient to describe the proposed changes.
  - (5) Engineering or other analysis in sufficient detail to identify and describe specific features of the contract which must be changed if the VECP is accepted, with a proposal as to how these changes can be accomplished and an assessment of their effect on other project elements. The ENGINEER may require that design analyses be performed by a design professional licensed to practice in the State of Florida and qualified in the applicable class of work. Any design changes which result from the VECP must be supported by prints of drawings and computations signed and sealed by a Professional Engineer or Architect licensed to practice in the State of Florida, other than the Engineer/ Architect of Record or his Subcontracted Consultant, who undertakes the design and drawing preparation of components, systems or installation methods and equipment for the specific VECP portion of the project work. The cost for this

- design work will be the responsibility of the CONTRACTOR.
- (6) A statement of the date and time by which approval of the VECP must be issued by the ENGINEER in order to obtain the total estimated cost reduction during the remainder of this Contract.
- (7) A discussion of the impact of the proposed VECP upon the schedule for each activity impacted by the VECP as well as a discussion of the impact of the VECP on the overall contract completion time.
- (8) Identification of any previous submissions of the same or a similar VECP, including the dates submitted, the CITY department or agency involved, the contract involved and previous actions taken by the CITY concerning the VECP, if known.
- 20.69.6 Two copies of each VECP shall be submitted to the ENGINEER. VECPs will be processed expeditiously; however, the CITY will not be liable for any delay in acting upon a VECP submitted pursuant to this Clause. The CONTRACTOR may withdraw, in whole or in part, a VECP not accepted by the ENGINEER within the period specified in the VECP. The CITY shall not be liable for any VECP development cost in the case where a VECP is rejected or withdrawn.
- 20.69.7 The ENGINEER shall be the sole judge of the acceptability of a VECP and of the estimated net savings in construction and/or collateral costs from the adoption of all or any part of such proposal. In determining the estimated net savings, the right is reserved to disregard the contract bid prices if, in the judgment of the ENGINEER, such prices do not represent a fair measure of the value of work to be performed or to be deleted.
- 20.69.8 Prior to approval, the ENGINEER may modify a VECP, with the concurrence of the CONTRACTOR, to make it acceptable. If any modification increases or decreases the net savings resulting from the VECP, the CONTRACTOR'S fair share will be determined upon the basis of the VECP as modified and upon determination of final quantities. The net savings shall be computed by subtracting the revised total cost of all bid items affected by the VECP design from the total cost of the same bid items as represented in the original contract. Prior to approval of the VECP, which initiates the change order, the CONTRACTOR shall provide three sets of acceptable contract plan sheets revised to show the details consistent with the VECP design.
- 20.69.9 CONTRACTOR development and implementation costs for the VECP will not be recoverable. If the VECP is adopted, the CONTRACTOR'S share of the net savings as defined

hereinafter shall be considered full compensation to the CONTRACTOR for the VECP, including its costs of preparation.

- 20.69.10 The CITY'S costs of processing or implementing a VECP will not normally be considered in the estimate. However, the ENGINEER reserves the right, where it deems such action appropriate, to require the CONTRACTOR to pay the ENGINEER'S cost of investigating and implementing a VECP submitted by the CONTRACTOR as a condition of considering such proposal. Where such a condition is imposed, the CONTRACTOR shall indicate his acceptance thereof in writing, and such acceptance shall constitute full authority for the ENGINEER to deduct amounts payable to the CITY from any monies due or that may become due to the CONTRACTOR under the contract.
- 20.69.11 When collateral cost savings are sought by the CONTRACTOR, separate estimates must be prepared for collateral costs of both the existing contract requirement and the proposed change. Each estimate shall consist of an itemized breakdown of all costs and the basis for the data used in the estimate. Cost benefits to the CITY include, but are not limited to: reduced costs of operation, maintenance or repair, and extended useful service life. Increased collateral costs include the converse of such factors. Computations shall be as follows:
  - (1) Costs shall be calculated over a 20-year period on a uniform basis for each estimate.
  - (2) If the difference in the estimates as approved by the ENGINEER indicate a savings, the CONTRACTOR shall divide the resultant amount by 20 to arrive at the average annual net collateral savings. The resultant savings shall be shared as stipulated in 20.69.12.
- 20.69.12 If a VECP is approved by the ENGINEER, the CONTRACTOR may be entitled to share in both construction savings and collateral savings to the full extent provided for in this Clause. The CONTRACTOR and CITY shall each receive 50% of net reduction in the cost of performance of this Contract. When collateral savings occur, the CONTRACTOR shall receive 20% of the average 1 year's net collateral savings. The CONTRACTOR shall not receive construction savings or collateral savings on optional work listed in this Contract, until the CITY exercises its option to obtain that work.
- 20.69.13 If a proposed change is identical or essentially similar to a VECP previously approved by the CITY or an idea previously utilized by the CITY on another project, it will not be considered as a VECP, thus would not qualify for shared savings.

#### 20.70 DUST CONTROL

If the ENGINEER determines that it is necessary to control dust from time to time during the progress of the work, the CONTRACTOR shall do so with a method approved by the ENGINEER at no additional cost to the Contract.

#### 20.71 SURVEYS AND GRADE STAKES

The CONTRACTOR shall be responsible for setting all grade stakes, lines and levels. Any reference points, points of intersection, property corners, or bench marks which are disturbed during construction shall be restored by a land surveyor registered to practice in the State of Florida, and all costs thereof shall be borne by the CONTRACTOR. The setting of grade stakes and alignment to be accomplished by a registered land surveyor may be waived by the ENGINEER in the event the CONTRACTOR desires to utilize his own personnel and furnish, in writing, to the ENGINEER satisfactory evidence that his personnel are qualified to set the grade and all alignment stakes. The CONTRACTOR shall assume full responsibility for the correctness of the grade and alignment stakes. Payment for all work required by this Section shall be included in the Lump Sum price for Site Preparation contained in the Proposal.

#### 20.72 PROMPT PAYMENT TO SUBCONTRACTORS AND SUPPLIERS:

- GENERAL REQUIREMENTS When the CONTRACTOR receives payment 20.72.1 from the CITY for labor, services, or materials furnished by subcontractors and suppliers hired by the CONTRACTOR, the CONTRACTOR shall remit payment due (less proper retainage) to those subcontractors and suppliers within 15 calendar days after the CONTRACTOR'S receipt of payment CONTRACTOR's failure to submit an from the CITY. Application for Payment every month shall, in no way, negate CONTRACTOR's payment obligations required under this section. Nothing herein shall prohibit the CONTRACTOR from disputing, pursuant to the terms hereof, all or any portion of a payment alleged to be due to its subcontractors and suppliers. In the event of such a dispute, the CONTRACTOR may withhold the disputed portion of any such payment only after the CONTRACTOR has provided notice to the CITY and to the subcontractor or supplier whose payment is in dispute, which notice shall: (i) be in writing; (ii) state the amount in dispute; (iii) specifically describe the actions required to cure the dispute; and (iv) be delivered to the CITY and said subcontractor or supplier within 10 calendar days after CONTRACTOR'S receipt of payment from CITY. Contractor shall pay all undisputed amounts due within the time limits imposed by this section.
- 20.72.2 JACKSONVILLE SMALL AND EMERGING BUSINESS (JSEB) ENTERPRISE PARTICIPATION Notwithstanding Chapter 126, Part 6 of the Jacksonville Ordinance Code (the "Code"), the Contractor

shall pay all contracts awarded with certified JSEBs as defined therein their pro-rata share of their earned portion of the progress payments made by the CITY under the applicable contract (less proper retainage) within seven (7) business days after the CONTRACTOR'S receipt of payment the CITY; CONTRACTOR's failure to submit Application for Payment every month shall, in no way, negate CONTRACTOR's payment obligations required under this section. The pro-rata share shall be based on all work completed, materials, and equipment furnished or services performed by the DBE at the time of payment. As a condition precedent to progress and final payments to Contractor, the Contractor shall provide to the CITY, with its requisition for payment, documentation that sufficiently demonstrates that the CONTRACTOR has made proper payments to its certified JSEBs from all prior payments that the CONTRACTOR has received from the CITY. The CONTRACTOR shall not unreasonably withhold payments to certified JSEBs. If the CONTRACTOR withholds payment to its certified JSEBs, which payment has been made by the CITY to the CONTRACTOR, the CONTRACTOR shall return said payment to the CITY. The CONTRACTOR shall provide notice to the CITY and to the certified JSEBs whose payment is in dispute, which notice shall: (i) be in writing; (ii) state the amount in dispute; (iii) specifically describe the actions required to cure the dispute; and (iv) be delivered to CITY and said subcontractor or supplier within five (5) calendar days after the CONTRACTOR'S receipt of payment from the CITY. THE CONTRACTOR SHALL PAY ALL UNDISPUTED AMOUNTS DUE WITHIN THE TIME LIMITS IMPOSED BY THIS SECTION. Failure to pay undisputed amounts to the JSEB within seven (7) business days shall be a breach of contract, compensable by 1% of the outstanding invoice being withheld by the CITY as liquidated damages. Continued failure to adhere to this clause may be cause for termination of the contract.

20.72.3 THIRD-PARTY LIABILITY - The Prompt Payment requirements hereunder shall, in no way, create any contractual relationship or obligation between the CITY and any subcontractor, supplier, JSEB, or any third-party or create any CITY liability for the CONTRACTOR'S failure to make timely payments hereunder. However, the CONTRACTOR'S failure to comply with the Prompt Payment requirements shall constitute a material breach of its contractual obligations to the CITY. As a result of said breach, the CITY, without waiving any other available remedy it may have against the CONTRACTOR, may: (i) issue joint checks; and (ii) charge the CONTRACTOR a 0.2% daily interest penalty or penalties specified in Chapter 126 of the Code for JSEBs and Chapter 218, Florida Statutes, for non-JSEBs, whichever is greater.

#### 20.73 CONSTRUCTION NOISE REGULATIONS:

Noise generated by construction operations on this project is regulated by the Jacksonville Noise Control Ordinance (Chapter 368 of the City of Jacksonville Ordinance Code). It is the Contractor's responsibility to be familiar with the provisions of the ordinance and to arrange work activities in such a manner to be in compliance with the ordinance requirements. This ordinance can be viewed on the City's Web Page at coj.net by selecting "Government" at the top of the page, then selecting "Ordinance Code" from the dropdown listing. In the "SEARCH" box enter "368" and select the "Search" button. The Contractor shall ensure that all supervisory personnel and subcontractors on this project are familiar with and comply with the requirements of this Noise Control Ordinance. See Appendix B for copies of the following forms:

- APPLICATION TO CONSTRUCT OR OPERATE A NOISE POLLUTION SOURCE
- APPLICATION FOR VARIANCE FROM APB RULES

All applications prepared by the Contractor shall be forwarded to the Engineer for review prior to submittal.

#### 20.74 EXISTING UTILITIES

Known surface and subsurface utilities are shown or noted on the drawings based on available information. The Owner does not guarantee the information shown or that utilities other than those indicated do not exist.

The Contractor and Owner acknowledge that the work contained in this Contract includes the location and resolution of conflicts between existing utilities and the new facilities.

It shall be the Contractor's sole responsibility to locate overhead and underground utilities sufficiently in advance of construction activities to allow adequate time to propose and obtain the Engineer's approval of changes in the work necessary to resolve utility conflicts.

The Contractor shall contact One Call of Florida (1-800-432-4770) to request that it locate all facilities owned by the utilities, which participate in this locator program. Should the Contractor encounter any unidentified utility work in the immediate area, the Engineer shall be notified. The Contractor is reminded the laws of Florida require him to notify any gas company, which may have underground lines in the work area, at least 48 hours in advance of any digging operation. Failure by the Contractor to call One Call of Florida prior to digging shall obligate the Contractor for any damages resulting from his work to participating utility company facilities and associated repair costs thereto. It is the Contractor's responsibility to request line protection for power lines and support of power poles during trench operations (when needed) from JEA at least ten (10) working days in advance.

#### 20.75 TEMPORARY WATER/UTILITIES

All construction water required in accomplishing the work shall be furnished by the Contractor. The water required for carrying out the work may be obtained from fire hydrants, existing water main connections, or new connections approved by the Owner. In addition, a deposit will be required for back flow preventer and water meter assembly if construction water is obtained from JEA. The Contractor shall pay for any water required to complete the work in accordance with the meter reading at the established rate. Upon completion of the work, all evidence of temporary connections and lines shall be removed. The final billing of water used will be deducted from the deposit and the remainder returned to the Contractor upon return of the assembly.

#### 20.76 CITY DIRECT MATERIAL PURCHASES

- 20.76.1 The City may, at its discretion, elect to use its tax exempt status on this project by purchasing construction materials directly from suppliers/vendors for the Contractor's use, thereby saving the sales tax charges thereon. In preparing their bids, bidders shall include all costs of materials and taxes in their lump sum and unit price bid amounts. The successful bidder shall be awarded a contract in its total bid amount. However, only 70% of the total bid amount shall be encumbered because the City shall retain 30% of the total bid amount to purchase construction materials directly for the Contractor's use on the project.
- 20.76.2 Upon issuance of Notice-to-Proceed, the Contractor shall submit a preliminary list of items, with their approximate costs, that it desires the City to purchase directly for it. The City would expect the preliminary list to include all high quantity bulk items such as drainage structures and pipes, watermain materials, concrete, asphalt, limerock, sodding, trees, fencing, etc.; and other high dollar individual items of equipment such as signalization controllers, mast arms, etc. The City shall review the preliminary list with the Contractor to determine if any other materials should or should not be included thereon. Upon the City's approval, the Contractor shall proceed to obtain firm prices from its suppliers and vendors in advance of submitting purchase order requisition forms.
- 20.76.3 The Contractor shall serve as the City's agent to obtain quotes for materials and otherwise assist in the procurement of materials that will be purchased directly by the City in compliance with Section 212 Florida Statutes. As part of the Contractor's responsibility, it shall administer this procurement process consistent with the following procedures and requirements:
  - 1. A Purchase Order Requisition Form in a form acceptable to the City and the Contractor shall be prepared by the Contractor and submitted to the City prior to ordering

City purchased materials. An example of such form is included herein as Attachment "A". The requisition form will provide the name, address, telephone number and contact person for the materials supplier, a list of required items, the quantity needed, the price and sales tax associated with the materials, and the required delivery dates established by the Contractor.

- 2. The City will prepare and issue standard City Purchase Orders directly to the vendors. In conjunction with the execution of the City's Purchase Orders by the suppliers and vendors, the Contractor shall execute and deliver to the City, through its Program Manager, deductive change order proposals reflecting the full value of all materials directly purchased by the City, plus all sales tax savings associated with the materials.
- 3. The Contractor will be responsible for all matters relating to the receipt of materials purchased by the City including verifying correct quantities, and inspection and acceptance of the goods at the time of delivery. The Contractor will forward the invoice to the City through its Program Manager for payment.
- 4. Title to the City purchased materials will vest in the City at the time the materials are delivered to the City owned construction site (F.O.B. job site).
- 5. The City is billed directly by the selling vendor for purchases of construction materials.
- 6. Payment for the construction materials is made directly to the selling vendor by the City.
- 7. The Contractor shall bear the costs of all payment and performance bonds and insurance, including Builder's Risk insurance.
- 20.76.4 Contractor shall provide at its sole cost and expense a Builder's Risk policy in an amount equal to at least the replacement cost of all materials and supplies necessary for the construction of the project naming the City as loss payee and additional insured. In the event that Builder's Risk insurance is not available in the insurance marketplace due to the nature of the project, Contractor may alternately provide an Installation Floater equal to at least the replacement cost of all materials and supplies necessary for the construction of the project naming the City as loss payee and additional insured.
- 20.76.5 The Contractor shall be responsible for coordinating the delivery, storage and incorporation of material purchases made by the City pursuant to this section. Once the

materials are incorporated in the project they become the responsibility of the Contractor. Failure by the Contractor to comply with the tax exemption procedures which results in taxes, fines or damages to the City shall be the sole responsibility and liability of the Contractor.

- 20.76.6 Once the Contractor has submitted all of its Purchase Order Requisition Forms, and the City has entered and issued all Purchase Orders to the material supplier vendors, the City will then initiate a deductive change order to the contract as follows:
  - 1. The total purchase costs and sales tax savings from all of the purchase orders issued shall be totaled and deducted from the contract amount.
  - 2. The balance of funds remaining from the 30% initially held by the City which was not used for direct material purchases shall be returned to the contract via encumbrance.
- 20.76.7 A final reconciliation of the actual sales tax savings will be performed to account for changes, both increases and decreases, in actual final quantities purchased compared to estimates contained on the purchase orders.

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STANDARD Public Works Project Site Sign VERSION APPROVED 8/1/2006

Yellow: RGB 252/177/49 Blue: RGB 0/125/183 Black: RGB 0/0/0

Font: Sans Serif - Arial or similar

4 feet wide

Center logo

Size: 10" x 27"

4 feet high

# INSERT & CENTER PROJECT NAME AND EST. COMPLETION DATE HERE (size to fit)

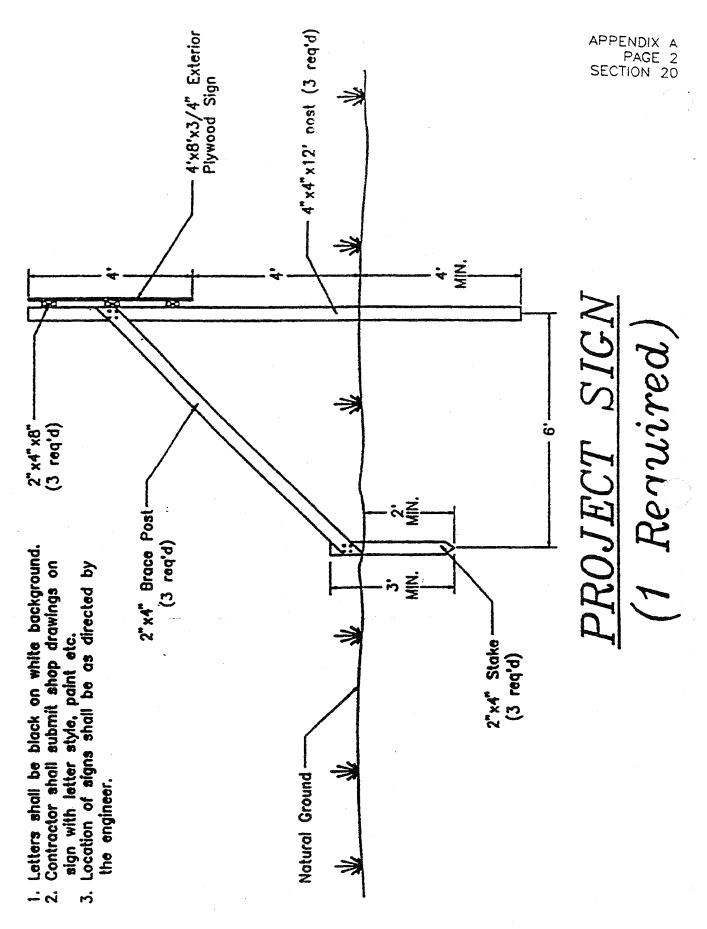
Where Florida Begins.

For more information, call

630-CITY (2489)

or visit

www.coj.net



#### APPENDIX B

#### CONTENTS:

- APPLICATION TO CONSTRUCT OR OPERATE A NOISE POLLUTION SOURCE
- APPLICATION FOR VARIANCE FROM APB RULES

## APPLICATION FOR VARIANCE FROM EPB RULES

Please type or print this application in blue or black ink and submit in person or by agent with 2 additional copies to:

Environmental Resource Management Department Attn: Christi Veleta City Hall at St. James 117 W. Duval Street, Suite 225 Jacksonville, Florida 32202

Application No.	
Set for Public Hearing on	
Notice of Violation:	

FOR INFORMATION REGARDING THIS FORM. CALL: (904) 630-3692

THIS SECTION FOR OFFICE USE ONLY

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1. Date Submitted:	Date Returned
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### TO BE COMPLETED BY APPLICANT

6. Location for which Variance is being sought:	7. Cross streets bracketing area:
8. Proximity of site to nearest residential neighborhoods:  Name of subdivision, apt, etc. Distance (miles)	9. Proximity of site to nearest schools:  Name of School  Distance (miles)
10. Has enforcement action commenced?	Yes I No II
Has enforcement action commenced:     (i.e. Notice to Correct, Warning Letter, Cease and December 1)	sist Citation or any other enforcement action)
11. Action or operation for which variance is being soug	
Air/Odor Pollution Rules	Rule 2.
Water Pollution Rules	Rule 3
Noise Pollution Rules	Rule 4.

RULES OF THE ENVIRONMENTAL PROTECTION BOARD CAN BE FOUND AT: http://www.coj.net/Departments/Regulatory+Boards+and+Commissions/Environmental+Protection+Board/EPB+Rules.htm

Please provide detailed responses to each of the following pertaining to the standards and criteria contained in Sec. 360.111. You may attach separate sheets if necessary.  Please note that failure by the applicant to adequately substantiate the need for the variance and to respond to and meet the criteria set forth below may result in a devial of the application or a return of the application for additional information. Any activity that violates EPB Rules accurring during the time between submissions of this application and the decremination of completeness may be cited as a violation of EPB Rules. Safe harbor provisions will only apply if the application is decreased sufficient).  (1) The law or rule, and sections thereof, from which a variance is sought.  (2) The facts which show that a variance should be granted because of one of the following reasons:  (i) There is no practicable means known or available for the adequate control of the pollution involved. A variance granted under the authority of this subparagraph shall be limited to a period of sixty months.  (ii) Compliance with the particular requirement or requirements from which a variance is sought will necessitate the taking of measures which, because of their extent or cost, must be spread over a considerable period of time (A variance granted for this reason shall prescribe a timetable for the taking of the measures required. A variance granted under the authority of this subparagraph shall be limited to a period of sixty months.  (iii) It is necessary to relieve or prevent hardship of a kind other than those provided in subparagraphs (i) and (ii). A variance granted under the authority of this subparagraph shall be limited to a period of twenty-four months.									
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(3)	The period of time for which the variance is sought, including the reasons and facts in support thereof.
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(4)	The damage or harm resulting or which may result to the person requesting the variance from a compliance with the law or rule.
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(5)	The requirements which the person requesting the variance can meet and the date when the person can comply with these requirements.
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6)	The steps the person requesting the variance is taking to meet the requirements from which the variance is sought and when compliance will be achieved.
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7)	Any beneficial or adverse impact to residents and the environment in the affected area resulting from the Board's requiring compliance or granting a variance.
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SIGNATURE OF OWNER/APPLICANT

## **SECTION 21**

## FEDERAL REQUIREMENTS

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#### **SECTION 22**

## INCINERATOR ASH MATERIAL

#### MANAGEMENT PLAN

#### **INDEX**

Section Name	ection No.
Introduction	22.1
Identification of Ash	22.2
Notification and Suspension of Work	22.3
Handling, Sampling and Characterization of Ash	22.4
Transportation and Disposal of Ash	22.5
Documentation	22.6
Safety	22.7

#### **SECTION 22**

## INCINERATOR ASH MATERIAL MANAGEMENT PLAN

#### 22.1 Introduction

The following Management Plan (hereinafter referred to as the "Plan") has been prepared as guidance on Incinerator Ash Material (hereinafter referred to "Ash") that may be encountered by Contractors performing construction/excavation projects for the City of Jacksonville (herein after referred to as "City"). This Plan may be incorporated into City construction contracts. If the contract does not include provisions on encounters with contaminated media generally, or Ash specifically, this guidance should be followed. The Plan includes the following:

- Procedures for identification of Ash.
- Procedures for notifications to City and regulatory officials,
- Procedures for handling, storing, and characterizing the Ash for proper disposal,
- Procedures for transporting the Ash to an approved facility for disposal, and
- Minimum requirements for documenting Ash handling and disposal activities.

The following sections detail the minimum procedures necessary for handling encountered Ash material.

#### 22.2 Identification of Ash

Ash is referred to as material generated by melting and burning of municipal and household waste at incinerator facilities. According to City of Jacksonville - Solid Waste and Resource Management, most of the incinerator activities were conducted between the 1950s and 1960s. The Ash may be found in areas of the City where non-native material was used as backfill for parks, small creeks, ponds, etc.

The Ash may be visually identified by inspecting excavated soils for the presence of broken glass, pottery, pieces of metal, etc., darkened by the burning process. Ash is also commonly found fused together into uneven-shaped, variable-size pieces, with a reddish-orange color.

#### 22.3 Notification and Suspension of Work

Immediately upon unexpectedly encountering suspected Ash-laden soils and unless the contract provides other procedures, the contractor must suspend work

into Ash-laden media and notify the City's Project Manager. If the Project Manager and contractor disagree that Ash-laden soils have been encountered, an environmental consultant should be engaged to positively identify the material. Regardless of any disagreement between the Project Manager and the contractor about the nature of the material, the Project Manager shall immediately notify the Environmental Law Division, Office of General Counsel (OGC) at 904/630-1723 or 630-1700. OGC shall advise the Project Manager about which federal, state, and/or local environmental regulatory authorities to notify, to include contacting FDEP representative Ashwin B. Patel at (904) 448-4320, ext 378.

#### 22.4 Handling, Sampling and Characterization of Ash

All Ash excavated before the suspension of work in contaminated soil shall be temporarily stored on-site, in lined roll-offs or, depending upon quantity, hazardous waste containers. On-site storage cannot exceed 90 days without a hazardous waste storage permit from the Florida Department of Environmental Protection (FDEP). Every reasonable effort should be made to remove Ash determined to be hazardous waste (HW) from the site within 30 days after characterization. In order to ensure disposal of HW within 90 days, if ash material is determined to be HW, the sampling should be completed within 15 days of discovery/excavation and sent for analysis. Under no circumstance should hazardous waste be stored on site for so long that a hazardous waste storage permit must be sought. Unless otherwise provided in the contract, the contractor, in consultation with the Project Manager, shall arrange for suitable storage containers, including roll-offs, and if necessary, off-site treatment or disposal. The City's Project Manager shall be responsible for determining when construction may resume.

The following is a recommended schedule of activities to ensure that excavated material gets disposed of in less than 90 days:

Day 1	Discovery or Removal and containerization of ash
material	
Day 15	Sampling
Day 16-60	Analysis
Day 60-70	Review analytical data/report and make HW
determination	
Day 70-75	Arrange for waste disposal
Day 80-85	Waste shipped off-site
	material Day 15 Day 16-60 Day 60-70 determination Day 70-75

Recognizing that some small amount of Ash-laden soil may have been excavated before the contractor's personnel conclude or suspect that Ash has been encountered, such excavated Ash material must initially be covered with visqueen, surrounded with a temporary fence, and posted with signs warning that the material may be hazardous. This work shall be performed by the contractor. This will limit the public's exposure to potential hazardous waste until suitable

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containers or roil-offs are mobilized onto the site, the appropriate regulatory authorities have been notified, and sampling the excavated soils has been done.

At a minimum, three to five samples from each roll-off, or one from each container must be collected for analyses of the eight Resource Conservation and Recovery Act (RCRA) metals (arsenic, barium, cadmium, chromium, lead, selenium, silver, and mercury) according to the Toxicity Characteristic Leaching Procedure (TCLP) (EPA Method 1311) to evaluate whether the excavated Ash is hazardous waste. Three to five samples with evidence of Ash from each roll-off or container must also be submitted for analyses of the parameters listed in EPA Method 6010 for total metal, EPA Method 8260 for Volatile Organic Compounds (VOCs), EPA Method 8270 for Semi-Volatile Organic Compounds (SVOCs), Polychlorinated Biphenyls (PCBs), Pesticides and Herbicides, Oil & Grease, and Total Recoverable Petroleum Hydrocarbons (TRPH) by the FL-PRO Method. Sample collection must be conducted under FDEP-approved Comprehensive Quality Assurance Project Plan (CQAPP), in accordance with the requirements listed by FDEP in DER QA-O01-"Standard Operating Procedures for Laboratory Operations and Sample Collection Activities."

When the environmental consultant for the contractor receives the laboratory analyses a copy of the laboratory reports shall be provided to the City's Project Manager. Also, copies of all analytical results should be provided to Ashwin B. Patel, FDEP. If the City has arranged for the laboratory analyses, copies of the laboratory report will be given to the contractor upon receipt. The contractor, or authorized environmental consultant, must review the results of the laboratory analyses to determine the hazardous characteristics of the Ash material. If the results of the TCLP (lower detection limits would have to be requested from the lab before the samples are run) or of the Synthetic Precipitation Leaching Procedure (SPLP) (EPA Method 1312) exceed the groundwater cleanup levels established in Chapter 62-277, FAC, or if total analyses concentrations exceed the Florida residential cleanup target goals, the material shall not be returned to the original excavation. If the results from the SPLP or the TCLP (modified for lower detection limits) are below the Florida groundwater cleanup levels and the total analyses concentrations are below Florida residential soil cleanup targets goals, the material may be returned to the original excavation area only with approval from the OGC and the FDEP.

#### 22.5 Transportation and Disposal of Ash

If the ash has not been characterized as hazardous waste by TCLP, has SPLP (or TCLP with lower detection limits) results below Florida groundwater cleanup levels, and any hazardous substances in the material are below Florida residential soil cleanup target goals under Chapter 62-277, FAC, it may be returned to the excavation or used elsewhere in the vicinity of the excavation/construction (if the material is suitable for that purpose). If the ash is characterized as containing a hazardous substance in excess of State soil cleanup target goals, but not as

hazardous waste, arrangements may be made, with guidance from OGC, to dispose of the material as a special waste at an appropriately licensed landfill. If, however, the Ash is characterized as hazardous waste, it must be taken to a licensed hazardous waste treatment or disposal facility.

Upon characterization of the Ash by TCLP as a hazardous waste that must be taken to a licensed hazardous waste treatment or disposal facility, it need not be further characterized using the Toxicity Characteristic Leaching Procedure (TCLP) for the eight RCRA metals, unless required by the treatment or disposal facility. The fencing and signage originally installed shall remain in place until the material has been removed from the site.

Disposal of excavated Ash that has been characterized as hazardous waste shall be properly packaged for transportation, which shall be conducted by a licensed hazardous waste transporter to a licensed treatment or disposal facility.

Ash that is not hazardous waste may, with the concurrence of the City's Solid Waste and Resource Management Department, be sent to Trail Ridge Landfill in Jacksonville, Florida for proper disposal. The procedures for non-hazardous waste transport to and disposal at Trail Ridge Landfill are as follows:

- Notify Trail Ridge Landfill with the estimated amount of material requiring disposal,
- Prepare and submit disposal profiles to the landfill for approval. Profiles sheets may be obtained directly from the landfill by calling Linda Hair at (904) 289-9100. Laboratory results must be included with the profile sheets for approval by the landfill,
- Obtain transportation manifests after approval of the profiles by the landfill, and
- Mobilize roll-offs to landfill for disposal.

*Note:* 

Transportation manifests will be provided by the landfill upon approval of the material for disposal. The number of manifests will depend on the number of loads or roll-offs requiring transportation to the landfill.

The contractor or designated environmental consultant will be responsible for signing the transportation manifest on behalf of the City.

In the event large quantities must be handled, the contractor or environmental consultant shall:

• Properly identify the analytes exceeding TCLP levels that characterize the Ash as a hazardous waste. The contractor or environmental consultant must notify the City immediately upon determining that the Ash is a hazardous waste,

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- Determine the most cost effective method for transportation and disposal of the hazardous waste,
- Contact an approved hazardous waste transportation facility to mobilize the Ash material. The contractor or environmental consultant will be responsible for obtaining all applicable transportation manifests,
- Obtain acceptance of the material for disposal into an approved hazardous waste disposal facility, and ensure compliance with all local, State and Federal disposal requirements.

#### 22.6 Documentation

The environmental consultant conducting the analyses shall submit a report to the contractor and the Project Manager indicating the results of the laboratory analyses. If the material is to be disposed of as hazardous waste or non-hazardous special waste, the contractor shall determine the amount of Ash material to be containerized and/or transported to an appropriate treatment or disposal facility. The contractor shall be responsible for documenting the proper disposition of the Ash, including but not limited to, transportation and disposal manifest, characterization reports, and disposal weigh tickets.

#### 22.7 Safety

Depending upon the laboratory analyses of the Ash material, further excavation of Ash may require the use of 40-hour OSHA trained personnel. Ordinarily, environmental consultants assign such trained personnel to conduct Ash sample collection. Investigations have concluded that Ash may contain elevated levels of arsenic and lead; therefore, proper handling of the material by trained OSHA personnel may be necessary.

## SECTIONS 23 through 29 VACANT

#### MARY SINGLETON SENIOR CENTER RENOVATIONS SECTION 30

#### SCOPE OF WORK

- 30.1 <u>Scope</u> The work covered by these plans and specifications consists of furnishing all labor, materials and equipment; and performing all operations necessary for the Renovations of the existing Mary Singleton Senior Center as specified in the Contract Documents.
- 30.2 <u>Location</u> This project is located within the limits of the City of Jacksonville, Florida. The construction area is on 150 East 1<sup>st</sup> Street, Jacksonville, FL 32202.
- 30.3 <u>Intent</u> It is the intent of these Contract Documents to construct the Renovations of the existing Mary Singleton Senior Center project as shown on the plans and including but not limited to:

Interior renovations including new flooring (main corridors, dining room and front entrance), restrooms, wall framing, interior paint, tile, signage, exterior doors, carpet replacement, asbestos removal, HVAC systems, minor renovations to the electrical, plumbing systems and upgrades to repair the existing freight lift (including gates on landings at both sides) and approximately 40' of concrete sidewalk connecting to an existing sidewalk on the 1<sup>st</sup> Street side of the building (where a path has been created from foot traffic). All the work required for completing the Architectural Renovations in accordance with the drawings and specifications are to be included in the base bid.

The additive alternates include removal of existing pavement, asphalt parking, signage, wheel stops, tree protection, sediment barrier, inlet protection, clearing and grubbing, excavation, embankment, concrete curbing, sidewalk, stabilization, landscape, pressure wash exterior façade, ramps & knee walls and any other item needed to complete the work in accordance with the contract drawings and specifications.

It is not the intent of these Contract Documents to minutely define the mode and fabric of construction of this project, but rather to set forth reasonable and rational criteria for the construction thereof.

#### MARY SINGLETON SENIOR CENTER RENOVATIONS

#### SECTION 31 SPECIAL CONDITIONS

#### **INDEX**

<u>Paragrapl</u>	<u>1 No.</u>	TITLE			
31.1	APPLICA	TION OF	SECTION 31, SPECIAL CONDITIONS		
31.2	STANDA	RD SPECI	FICATIONS AND DETAILS		
31.3	DELETIC	NS, ADDI	TIONS, OR CHANGES TO THE CONTRACT DOCUMENTS		
	31.3.1	Division I	II General Conditions		
		31.3.2.1	TIME OF COMPLETION AND LIQUIDATED DAMAGES		
		31.3.2.2	REVISED SECTION 2, 3 AND 20		
31.4	CONTRACT DRAWINGS				
31.5	PERSONS TO CONTACT				
31.6	MOBILIZ	ZATION			
31.7	SITE PRI	EPARATIO	ON (GC Section 20.24 & 20.64)		
31.8	COORDINATION OF CONSTRUCTION WITH EXISTING UTILITIES				
31.9	PROJECT	Г SIGN DE	ETAILS		

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#### MARY SINGLETON SENIOR CENTER RENOVATIONS

#### **SECTION 31**

#### SPECIAL CONDITIONS

#### 31.1 APPLICATION OF SECTION 31, SPECIAL CONDITIONS

#### 31.1.1 CONFLICTS

Where conflicts exist between the Special Conditions and other parts of the Contract Documents, the order of precedence, as set forth in Section 20.61, General Conditions, shall apply. If certain situations arise whereby it would be difficult or impossible for the Special Conditions to prevail then the final decision shall be made by the City Engineer.

#### 31.2 STANDARD SPECIFICATIONS AND DETAILS

## 31.2.1 CITY OF JACKSONVILLE STANDARD SPECIFICATIONS AND DETAILS

The current City of Jacksonville Standard Specifications and City of Jacksonville Standard Details, along with the 2010 ADA Standards for Accessible Design, shall be considered part of the Technical Specifications insofar as these Documents apply to the proposed work included in the Contract Documents and Addenda.

## 31.3 <u>DELETIONS, ADDITIONS, OR CHANGES TO THE CONTRACT</u> <u>DOCUMENTS</u>

#### 31.3.1 DIVISION III GENERAL CONDITIONS

#### 31.3.1.1 TIME OF COMPLETION AND LIQUIDATED DAMAGES

Section 20.6 is amended as follows:

The Liquidated damages shall not be calculated as specified in Section 20.6.5, but shall be set at \$100.00 per day.

#### 31.3.1.2 **REVISED SECTION 2, 3 AND 20**

Many of items that were previously covered in Section 31 of the bid documents have been moved to revised Sections 2 and 20. The Disqualified/Probationary Vendors List is now Attachment J in Section 3. Contractors are advised to read and refamiliarize themselves with the requirements of the revised sections.

#### 31.4 <u>CONTRACT DRAWINGS</u>

The construction drawings titled Interior Renovations at the Mary L. Singleton Senior Center consist of <u>38</u> drawings and are considered a part of the Contract Documents. The construction drawings contain the following:

<u>Description</u>	Sheet Number
GENERAL	
Cover Sheet	G1.0
Index	G1.1
Life Safety Plan	G1.2
Life Surety Than	
CIVIL	
Cover Sheet	C0.1
General Site Notes	C0.2
Demo – Tree Mitigation Plan	C0.3
Overall Site Plan	C1.0
Site Geometry Plan	C1.1
Grading & Drainage Plan	C2.0
Sediment & Erosion Control Plan	C3.0
Site Details	C4.0
Sediment & Erosion Control Details	C5.0
LANDSCAPE	
Landscape Plan	L-1
Irrigation Plan	IR-1
irrigation r ian	IK1
ARCHITECTURE	•
Demolition Overall Plan	D1.0
Restroom Demo Plans	D1.1
New Overall Plan	A1.0
Restroom Floor Plans	A1.1
Reflected Ceiling Plan	A1.2
Accessory Plans	A1.3
Interior Elevations	A1.4
Millwork & Wall Types	A2.0
Schedules & Details	A2.1
MECHANICAL	
MECHANICAL Partial HVAC Floor Plans – Demo, Schedules & Details	M1.0
Partial Mechanical Floor Plans – New	M2.0
<del> </del>	M3.0
Mechanical Specifications	W15.U
ELECTRICAL	
Electrical Legend, Schedule & Diagram	E1.0
Partial First Floor Plan – New Electrical	E2.1
Partial First Floor Plan – Existing Electrical	E2.2
Partial Second Floor Plan – Existing Electrical	E2.3
Partial First Floor Plan – New Electrical	E3.1
Partial First Floor Plan – New Electrical	E3.2

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Partial Second Floor Plan – New Electrical	E3.3
Electrical Specifications	E4.0
•	
PLUMBING	
Plumbing Notes, Details & Legend	P1.0
Partial Plumbing Floor Plans – Demo	P2.0
Partial Plumbing Floor Plans & Riser Diagrams – New	P3.0
Plumbing Specifications	P4.0

#### 31.5 PERSONS TO CONTACT

31.5.1 If there are any questions concerning the design or bidding of this project, please contact Marilyn Laidler from the Procurement Division in writing to MLaidler@coj.net.

The renovation of all the Mary Singleton Senior Center Renovations are to be approved by the senior center division. Coordinate with Charles Curry, Senior Centers Custodial Supervisor- email address: <a href="mailto:ccurry@coj.net">ccurry@coj.net</a>, phone number: (904) 219-2399 on all matters relating to the access, safety and security requirements for the facility.

#### 31.6 MOBILIZATION

#### 31.8.1 DESCRIPTION

Perform preparatory work and operations in mobilizing for beginning work on the project, including, but not limited to, those operations necessary for the movement of personnel, equipment, supplies, and incidentals to the project site and for establishment of temporary offices, buildings, safety equipment and first aid supplies, and sanitary and other facilities.

Mobilization shall include any required insurance and any other preconstruction expense necessary for the start of the work, excluding the cost of construction materials.

#### 31.7 SITE PREPARATION

31.7.1 GENERAL – Site Preparation consists of but is not limited to, dust control, removal and disposal of existing wires or other existing items indicated on the Contract Documents as "to be relocated", the complete removal and disposal of any existing obstructions on the ground, including but not limited to utility lines, foundations, water and sewer pipes. Also included in this item is any other work necessary to accomplish the contract requirements as indicated in the plans.

#### **31.7.2 PROTECTION OF EXISTING PROPERTY** - Section 20.24 is amended

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to provide:

The Contractor shall inform himself concerning the location of existing utilities, pipelines, and structures of every type, which may interfere with his operations. He shall prepare his Bid and enter into the Contract in full understanding of the conditions that may be encountered and his responsibility in connection therewith. All existing utilities, pipes, and other structures or items, which must be preserved in place, shall be protected from damage by the Contractor. Should such items be damaged as a result of the Contractor's operations, they shall be restored by the Contractor to at least as good conditions as that in which they were found immediately before the work was begun, at no additional cost to the City, and to the satisfaction of the Owner.

All required repairs shall be made within 48 hours of notification from the Engineer, whose judgment is final in such matters. If the Contractor fails to make the required repairs, the City will make the repairs and deduct the costs from the Contract. No separate measurement or payment will be made for protection of existing property.

#### 31.7.3 DUST CONTROL

Dust control shall be as often as conditions dictate and when directed by the Engineer. Payment for dust control shall be included in the lump sum price in the Bid proposal.

#### 31.8 COORDINATION OF CONSTRUCTION WITH EXISTING UTILITIES

The Contractor shall establish liaison with, and coordinate his work with all utilities, but not limited to: JEA (formerly Jacksonville Electric Authority), AT&T (formerly BellSouth), Comcast, City of Jacksonville, and any other utility providers in the project limits to prevent interference with electrical, water, sewer, telephone, TV cables and gas facilities.

The following is a list of utility companies or businesses which may have utilities in the job site and their coordination representative:

(a)	JEA Water & Sewer	Michael Barber	904-665-6754
(b)	JEA Electric	Ryan Heaton	904-665-6171
(c)	JEA Fiber	Greg Rager	904-665-8136
(d)	Comcast	James Graham	904-380-6341
(e)	AT&T	P.K. Patel	904-727-1568
(f)	TECO Gas	Landon B. Meahl	904-443-7308

If utility conflicts are encountered, these various utility owners will need time to relocate their facilities. The Contractor shall coordinate his work with the utility companies to minimize the length of time (duration) that the project may be delayed.

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### 31.9 **PROJECT SIGN DETAILS**:

Modify the construction sign indicated in Section 20.57, Appendix A (Pages 1 and 2) as follow:

Page 1: Under the Estimated Completion add the project number:

PROJECT NUMBER: PW2018-0044

Page 2: The exterior plywood sign dimensions are 4'x 4' x 34" instead of 4'x 8' x 34".

#### SECTION 32

### ASBESTOS CONTAINING MATERIALS AND LEAD-BASED PAINT SURVEY REPORT

- Leaded coatings are not present on the building components tested.
- Asbestos containing material (ACM) in the form of tan floor tiles and adhesive in two locations was reported by the laboratory at 3-8% chrysotile. The extent of ACM encompasses the General Crafts office and the corridor at Room 103. It is assumed tan floor in each activity room office is similar in ACM content and is estimated to cover 2,700 square feet. It is recommended that this material is handled by a State of Florida Licensed Asbestos Abatement company during renovation and removal actions. See Wood Environment & Infrastructure Solutions, Inc. report.



8381 Dix Ellis Trail, Suite #400 Jacksonville, Florida 32256 tel: 904-527-6715

January 17, 2019

Maria C. Williams, P.E. City of Jacksonville I Department of Public Works 214 N. Hogan Street – 10th Floor Jacksonville, FL 32202

Subject:

Mary Singleton Senior Center, 150 East First Street, Jacksonville, FL. Pre-Renovation Asbestos Survey and Testing for Leaded Coatings

COJ Purchase Order No. 9A03220, Contract No. 63-54-15

CDM Project No. 234222

Dear Ms. Williams:

CDM Smith is pleased to present the Asbestos Survey and Testing for Leaded Coatings at the above-reference project location. The work was performed by Wood Environment and Infrastructure Solutions, Inc. (Wood). The field work was performed by Mr. James Marsh of Wood and Ms. Gloria Teague, P.E., of CDM Smith on December 20, 2018. Attached is the report prepared by Wood, dated January 14, 2019. A total of 22 XRF tests for lead and 15 bulk samples were collected for laboratory analysis of asbestos. The report indicates that no leaded coatings were identified exceeding threshold limits.

Asbestos containing material (ACM) in the form of tan floor tiles and adhesive in two locations was reported by the laboratory at 3-8% chrysotile. The extent of ACM encompasses the General Crafts office and the corridor at Room 103. It is assumed tan floor in each activity room office is similar in ACM content and is estimated to cover 2,700 square feet. It is recommended that this material is handled by a State of Florida Licensed Asbestos Abatement company during renovation and removal actions.

Feel free to contact me if you have questions or require additional information at 904-625-2125.

Sincerely,

Clint Noble P.G. Endled by Clint Noble P.G. DN: C=US.

Clint Noble P.G. Endled Outside Committee Committee

Clint Noble, P.G. Senior Project Manager CDM Smith Inc.

cc: Lisa Sterling, P.E.

	·	

January 14, 2019

wood.

Wood Environment & Infrastructure Solutions, Inc. 6256 Greenland Road Jacksonville, Florida 32258

Phone: 904.396.5173 • Fax: 904.396.5703

www.woodplc.com

Ms. Lisa Sterling CDM Smith, Inc. 8381 Dix Ellis Trail: #400 Jacksonville, Florida 32256

Email: SterlingLM@cdmsmith.com

Subject: Report of Environmental Consulting Services

**Pre-Renovation Asbestos Survey and Testing for Leaded Coatings** 

**Mary Singleton Senior Center** 

150 East First Street Jacksonville, Florida 32206

Wood Project Number 6741-18-4277.04

Dear Ms. Sterling:

Wood Environment & Infrastructure Solutions Inc. (Wood) is pleased to provide you with the results of the testing/sampling performed for the presence of asbestos-containing building materials and testing for leaded coatings within the Mary Singleton Senior Center structure located at 150 East First Street in Jacksonville, Florida.

This study was authorized by you in accordance with our Proposal No. PROP18JAXV.275 dated November 14, 2018. The sampling of suspect asbestos-containing building materials and X-Ray Fluorescence (XRF) testing for the presence of leaded coatings was performed by Mr. James Marsh of Wood on December 20, 2018. This report includes a brief description of background information, testing strategy and locations, testing procedures and results, and our conclusions and recommendations. Summaries of test results and accreditations are included in the attachments to this report.

#### **Background Information/Structure Description**

It is our understanding that the renovations will occur throughout the interior of the structure. As part of planning for the renovations, testing for the presence of leaded coatings and asbestos-containing materials was performed. You requested a proposal from Wood to perform the testing/ sampling for leaded coatings and asbestos.

The Mary Singleton Senior Center is a single-story structure. Exterior walls are concrete. The base structure covers approximately 29,600 square feet and was constructed in 1979.

#### **Testing/Sampling for Leaded Coatings and Asbestos**

#### **Leaded Coatings**

The purpose of the XRF testing was to confirm the presence of leaded coatings. Paint coatings visually representative of the Mary Singleton Senior Center structure were evaluated during this testing. The

Mary Singleton Senior Center

"Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing," dated June 1995 and the 2012 revisions, issued by the HUD were used as a guide on this project. The areas tested were chosen by Mr. Marsh based on accessibility.

During the testing of walls, the test equipment was placed on the wall at varying vertical heights (high, middle, low). During the testing of the floors, the test equipment was placed near a corner of the floor surface. During the testing of ceilings, the equipment was placed near the center of the room being tested.

A total of 22 XRF tests were performed at the project site. Testing was performed in general compliance with the HUD 1995 Guidelines and 2012 revisions as they applied to the pre-renovation testing being performed. Paint concentrations below the HUD threshold (detectable concentrations) were also considered.

#### **Asbestos**

The purpose of the sampling was to evaluate the presence of asbestos-containing materials. Suspect materials visually representative of the structure were evaluated during this testing. The areas sampled were chosen by Mr. Marsh based on accessibility.

A total of 15 bulk samples were obtained at the project site. Asbestos analysis results are included in Attachment C. Sampled suspect building materials included the following:

Ceiling Panels	2 Samples
Covebase Adhesive	2 Samples
12" Tan Floor Tile	2 Samples
12" Blue Feathered Floor Tile	2 Samples
Carpet Adhesive: Tan	2 Samples
Wood Flooring: Tan Adhesive	1 Sample
12" White Floor Tile	3 Samples
Floor Filler	1 Sample

The samples were analyzed by CEI labs using Polarized Light Microscopy (PLM) coupled with Dispersion Staining as outlined in the Environmental Protection Agency's (EPA's) "Method for the Determination of Asbestos in Bulk Building Material (EPA-600/R-93/116)."

#### **Lead XRF Testing Procedures**

Wood performed the paint coatings evaluation using the *Lead Paint Analyzer (LPA-1)*, manufactured by the *Radiation Monitoring Devices (RMD)*. The LPA-1 is a portable, in-situ test and measurement instrument that operates on the principal of X-Ray Fluorescence. The instrument contains a small, radioactive sealed source of Cobalt 57. LPA-1 is a hand-held scanner which contains the radioactive source and is held to the surface to be tested. The device provides an almost instantaneous measurement of K Shell atomic structure values of the material being tested in milligrams per square

Mary Singleton Senior Center

centimeter (mg/cm<sup>2</sup>). The lead electrons in the K (inner electron shell) are excited by the Cobalt 57 and release identifying energies that are recognized by the microprocessor by their respective spectrums, thus identifying the presence of lead and its quantity.

#### **Testing Criteria and Results**

#### Lead

**None** of the 22 XRF tests performed were found to have detectable lead concentrations. Test results are located in Attachment B to this report.

#### **Asbestos**

**Two** of the 15 samples was found to be asbestos-containing. Laboratory analysis results are located in Attachment C to this report. Both samples were 12" Tan Floor Tile and Adhesive

#### **Conclusions**

#### Lead

As a result of the field XRF testing performed it appears that leaded coatings are not present on the building components tested.

#### **Asbestos**

Tan floor tile and adhesive (12") were found to be asbestos-containing which were sampled in the General Crafts area office and the corridor at Room 103. We also observed where the 12" tan floor tile had been removed, but the asbestos adhesive was still in place in the activity room under entry carpeting.

Approximate extent of tan 12" tile: Activity room entry area and office/Corridor

2,700 Square Feet

#### Recommendations

#### Lead

Based on the XRF test results, recommendations related to leaded coatings are not warranted at this time.

#### Asbestos

Based on the analysis results, should the renovation include disturbance of the 12" tan flooring, the flooring and adhesive would need to be removed by a State of Florida Licensed Asbestos Abatement firm. We assume that the tan floor and/or mastic is located in each of the activity room offices and in spme at the room entry under carpeting and in the rear corridor near Room 103.

Project No. | 6741-18-4277.04 January 14, 2019

Page 3

Mary Singleton Senior Center

#### Qualifications

Wood has endeavored to observe the existing conditions with respect to lead and asbestos within the Mary Singleton Senior Center structure using generally accepted XRF and EPA procedures.

Regardless of the thoroughness of our testing, there is the possibility that some areas containing lead-based paint or asbestos were overlooked or inaccessible, or were different from those at specific test locations.

Our conclusions and recommendations are based on the background information furnished to us, the test data obtained from previous renovation projects and building surveys and the test data from the current sampling. If the background information is incorrect, or if other test data becomes available, please contact us so that our conclusions and recommendations can be reviewed.

This report is intended for the exclusive use of CDM Smith and the City of Jacksonville under the terms and conditions of our agreement. Use of this report or reliance upon information contained in this report by any other party implies an agreement by that party to the same terms and conditions under which our services were provided. Furthermore, the use of this report by a party for purposes beyond those intended by Wood will be at their sole risk. These findings are relevant to the dates of our services and should not be relied upon to represent conditions at substantially earlier or later dates.

It has been our privilege to perform these services and prepare this report. If we can be of further assistance or answer any questions about the report content or our services, please contact us.

Sincerely,

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

Jámes E. Marsh

EPA Lead Risk Assessor AHERA Asbestos Inspector

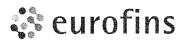
Attachments

John M. Stump P.G., LAC

Qualifying Agent

Asbestos Consultant: Florida

License No. AX0000042



December 28, 2018

Wood Environment & Infrastructure Solutions 6256 Greenland Rd Jacksonville, FL 32258

**CLIENT PROJECT:** 

Mary Singleton Center, 6741-18-4277.04

**CEI LAB CODE:** 

A1817482

Dear Customer:

Enclosed are asbestos analysis results for PLM Bulk samples received at our laboratory on December 21, 2018. The samples were analyzed for asbestos using polarizing light microscopy (PLM) per the EPA 600 Method.

Sample results containing >1% asbestos are considered asbestos-containing materials (ACMs) per EPA regulatory requirements. The detection limit for the EPA 600 Method is <1% asbestos by weight as determined by visual estimation.

Thank you for your business and we look forward to continuing good relations.

Kind Regards,

Tianbao Bai, Ph.D., CIH

Laboratory Director





# **ASBESTOS ANALYTICAL REPORT** By: Polarized Light Microscopy

### Prepared for

## **Wood Environment & Infrastructure Solutions**

CLIENT PROJECT: Mary Singleton Center, 6741-18-4277.04

LAB CODE:

A1817482

TEST METHOD:

EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORT DATE: 12/28/18

TOTAL SAMPLES ANALYZED:

15

# SAMPLES > 1% ASBESTOS:



# **Asbestos Report Summary**

By: POLARIZING LIGHT MICROSCOPY

PROJECT: Mary Singleton Center, 6741-18-4277.04 LAB CODE: A1817482

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
MS-1		A222354	Yellow	Adhesive	None Detected
MS-2		A222355	Gray	Ceiling Tile	None Detected
MS-3	······································	A222356	Yellow,Brown	Adhesive	None Detected
MS-4	***************************************	A222357A	Tan	Floor Tile	Chrysotile 3%
		A222357B	Black	Adhesive	Chrysotile 5%
MS-5		A222358A	Blue	Floor Tile	None Detected
		A222358B	Yellow	Adhesive	None Detected
MS-6	······································	A222359A	Blue	Floor Tile	None Detected
**************************************	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	A222359B	Yellow	Adhesive	None Detected
MS-7	***************************************	A222360	Tan	Carpet Adhesive	None Detected
MS-8	Layer 1	A222361	Tan	Wood	None Detected
, page 2000 Marco Scota Sales Scota M	Layer 2	A222361	Tan	Adhesive	None Detected
MS-9		A222362A	White	Floor Tile	None Detected
	**************************************	A222362B	Yellow	Adhesive	None Detected
MS-10	00000000000000000000000000000000000000	A222363	Gray	Ceiling Tile	None Detected
MS-11		A222364A	White	Floor Tile	None Detected
······································		A222364B	Yellow	Adhesive	None Detected
MS-12	Layer 1	A222365	White	Mud	None Detected
	Layer 2	A222365	Yellow,Blue	Adhesive	None Detected
MS-13	***************************************	A222366A	Tan	Floor Tile	Chrysotile 3%
		A222366B	Black	Adhesive	Chrysotile 8%
MS-14		A222367	Brown, Yellow	Covebase Adhesive	None Detected
MS-15		A222368A	White	Floor Tile	None Detected
		A222368B	Yellow	Adhesive	None Detected



By: POLARIZING LIGHT MICROSCOPY

Client: Wood Environment & Infrastructure Solutions

CEI

6256 Greenland Rd Jacksonville, FL 32258 Lab Code:

A1817482

Date Received: 12-21-18

Date Analyzed: 12-28-18 Date Reported: 12-28-18

Project: Mary Singleton Center, 6741-18-4277.04

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous Non-Fibrous				ASBESTOS %
MS-1 A222354	Adhesive	Heterogeneous Yellow Fibrous Bound	<1% <1%	Synthetic Fiber Cellulose		Mastic Non-Fibrous Debris Silicates	None Detected
<b>MS-2</b> A222355	Ceiling Tile	Heterogeneous Gray Fibrous Loosely Bound	30% 30%	Cellulose Fiberglass	25% 10% 5%	Perlite Binder Silicates	None Detected
<b>MS-3</b> A222356	Adhesive	Heterogeneous Yellow,Brown Non-fibrous Bound			95% 5%	Mastic Non-Fibrous Debris	None Detected
<b>MS-4</b> A222357A	Floor Tile	Heterogeneous Tan Non-fibrous Bound			92% 5%	Vinyl Non-Fibrous Debris	3% Chrysotile
A222357B	Adhesive	Heterogeneous Black Fibrous Bound			90% 5%	Mastic Non-Fibrous Debris	5% Chrysotile
<b>MS-5</b> A222358A	Floor Tile	Heterogeneous Blue Non-fibrous Bound		- COME OF CARCILO AND REAL PROPERTY OF THE PRO	100%	Vinyl	None Detected
A222358B	Adhesive	Heterogeneous Yellow Non-fibrous Bound		CERT TO NAME OF THE PROPERTY O	98% 2%	Mastic Non-Fibrous Debris	None Detected



By: POLARIZING LIGHT MICROSCOPY

Client: Wood Environment & Infrastructure Solutions

CEI

6256 Greenland Rd Jacksonville, FL 32258 Lab Code:

A1817482

Date Received: 12-21-18

**Date Analyzed:** 12-28-18 **Date Reported:** 12-28-18

Project: Mary Singleton Center, 6741-18-4277.04

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBESTO Fibrous	NON-ASBESTOS COMPONENTS Fibrous Non-Fibrous		
<b>MS-6</b> Floor Tile A222359A		Heterogeneous Blue Non-fibrous Bound		100% Vinyl	None Detected	
A222359B	Adhesive	Heterogeneous Yellow Non-fibrous Bound		98% Mastic 2% Non-Fibrous Debris	None Detected	
<b>MS-7</b> A222360	Carpet Adhesive	Heterogeneous Tan Non-fibrous Bound	5% Cellulose	90% Mastic 5% Non-Fibrous Debris	None Detected	
<b>MS-8</b> Layer 1 A222361	Wood	Heterogeneous Tan Fibrous Bound	95% Cellulose	5% Binder	None Detected	
Layer 2 A222361	Adhesive	Heterogeneous Tan Non-fibrous Bound		100% Mastic	None Detected	
<b>MS-9</b> A222362A	Floor Tile	Heterogeneous White Non-fibrous Bound		100% Vinyl	None Detected	
A222362B	Adhesive	Heterogeneous Yellow Non-fibrous Bound		98% Mastic 2% Non-Fibrous Debris	None Detected	



By: POLARIZING LIGHT MICROSCOPY

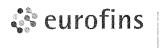
Client: Wood Environment & Infrastructure Solutions

6256 Greenland Rd Jacksonville, FL 32258 **Lab Code:** A1817482

Date Received: 12-21-18
Date Analyzed: 12-28-18
Date Reported: 12-28-18

Project: Mary Singleton Center, 6741-18-4277.04

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous Non-Fibrous				ASBESTOS %
<b>MS-10</b> A222363	Ceiling Tile	Heterogeneous Gray Fibrous Loosely Bound	30% 30%	Cellulose Fiberglass	25% 10% 5%	Perlite Binder Silicates	None Detected
<b>MS-11</b> A222364A	Floor Tile	Heterogeneous White Non-fibrous Bound			100%	Vinyl	None Detected
A222364B	Adhesive	Heterogeneous Yellow Non-fibrous Bound			98% 2%	Mastic Non-Fibrous Debris	None Detected
<b>MS-12</b> Layer 1 A222365	Mud	Heterogeneous White Non-fibrous Bound			60% 30% 10%	Calc Carb Silicates Mica	None Detected
Lab Notes: S	Sample appears to con-	tain mud compound a	nd adh	esive.			
Layer 2 A222365	Adhesive	Heterogeneous Yellow,Blue Fibrous Bound	2% <1%	Synthetic Fiber Cellulose	95% 3%	Mastic Non-Fibrous Debris	None Detected
<b>MS-13</b> A222366A	Floor Tile	Heterogeneous Tan Non-fibrous Bound		THE CONTROL TO SECURE AND ADDRESS OF THE SECURE AND ADDRESS OF THE CONTROL TO SECURE	92% 5%	Vinyl Non-Fibrous Debris	3% Chrysotile
A222366B	Adhesive	Heterogeneous Black Fibrous Bound			90% 2%	Mastic Non-Fibrous Debris	8% Chrysotile



By: POLARIZING LIGHT MICROSCOPY

Client: Wood Environment & Infrastructure Solutions

CEL

6256 Greenland Rd Jacksonville, FL 32258 Lab Code:

A1817482

Date Received: 12-21-18

**Date Analyzed:** 12-28-18 **Date Reported:** 12-28-18

Project: Mary Singleton Center, 6741-18-4277.04

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPOR Fibrous Non-F		NENTS ibrous	ASBESTOS %
<b>MS-14</b> A222367	Covebase Adhesive	Heterogeneous Brown,Yellow Non-fibrous Bound	2% Synthetic Fiber	· 95% 3%	Mastic Non-Fibrous Debris	None Detected
<b>MS-15</b> A222368A	Floor Tile	Heterogeneous White Non-fibrous Bound		100%	Vinyl	None Detected
A222368B	Adhesive	Heterogeneous Yellow Non-fibrous Bound		98% 2%	Mastic Non-Fibrous Debris	None Detected



CEI

LEGEND:

Non-Anth

= Non-Asbestiform Anthophyllite

Non-Trem

= Non-Asbestiform Tremolite

Calc Carb

= Calcium Carbonate

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

**REPORTING LIMIT:** <1% by visual estimation

REPORTING LIMIT FOR POINT COUNTS: 0.25% by 400 Points or 0.1% by 1,000 Points

**REGULATORY LIMIT: >1% by weight** 

Due to the limitations of the EPA 600 method, nonfriable organically bound materials (NOBs) such as vinyl floor tiles can be difficult to analyze via polarized light microscopy (PLM). EPA recommends that all NOBs analyzed by PLM, and found not to contain asbestos, be further analyzed by Transmission Electron Microscopy (TEM). Please note that PLM analysis of dust and soil samples for asbestos is not covered under NVLAP accreditation. *Estimated measurement of uncertainty is available on request.* 

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by Eurofins CEI. Eurofins CEI makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. Samples were received in acceptable condition unless otherwise noted. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. Government.

Information provided by customer includes customer sample ID, location, volume and area as well as date and time of sampling.

ANALYST.

Vivaes 7 Gixie

APPROVED BY:

Tianbao Bai, Ph.D., CIH

Laboratory Director

Candace Burrus

TESTING
NVLAP LAB CODE 101768-0

#### LEAD-BASED PAINT TEST LOCATIONS AND RESULTS

Mary Singleton Senior Center 150 E. 1<sup>st</sup> Street Jacksonville, Florida Project No. 6741-18-4277.04 Date of Survey: <u>December 20, 2018</u>

Sample ID	Floor	Suite/Room Area	Orientation	Component	Substrate	Lead K-Shell Measurement (mg/cm²)
1	1	Admin Entry	East	Wall	D	-0.0
2	1	Admin Entry	West	Wall	D	-0.1
3	1	Admin Entry Closet	West	Door	W	-0.2
4	1	Storage Room	West	Wall	D	-0.1
5	1	Storage Room		Door	W	-0.1
6	1	Storage Room		Door Frame	М	-0.2
7	1	Central Area	East	Wall	D	-0.0
8.	1	Central Area	East	Ceiling Chase	D	-0.1
9	1	Central Area	West	Wall	D	-0.1
10	1	Alva's Office	West	Door	W	-0.1
11	1	Alva's Office		Door Frame	М	-0.2
12	1	Auditorium	West	Wall	D	-0.1
13	1 .	Auditorium	West	Baseboard	W	-0.0
14	1	Auditorium	East	Wall	D	-0.1
15	1	Dining Room		Cone Column	С	-0.2
16	1	Dining Room Ice Machine		Wall -	D	-0.0
17	1.	Needlework Office		Ceiling	. D	-0.2
18	1	General Craft Entry		Wall	D	-0.1

<sup>\*</sup> Denotes lead concentration at or above 1.0 mg/cm².

Substrate:				Condition:	G = Good (Less than 1% Damage)
W = Wood	D = Drywall	B = Brick	V = Vinyl		F = Fair (Less than 10% Damage)
M = Metal	P = Plaster	CER = Ceramic			P = Poor (Greater than 10% Damage)
C = Concrete	S = Stucco	WP = Wallpaper			
Wall Height:				Component	Aspect:
(U) = Upper Wall	(M) = Mid W	all $(L) = Lower V$	Vall	I - Interior Su	rface E = Exterior Surface

0.5

wood.

XRF Unit No.:	1198	Last Source Change	Nov 2017
XRF Type:	Lead Paint Analyzer LPA-1	Screening Reading Time:	5 Sec Mode
Field Calibration Date	Dec 20, 2018	·	

Initial a.m. Calibration	NIST Level Quick Mode		Within Limits
	I	3.7	Yes
	Manufacturer Standard	1.9	Yes
	Blank	-0.0	Yes
End of Day	I	3.6	Yes
·	Blank	-0.1	Yes
	Manufacturer Standard	1.8	Yes

Checked by: JEM

#### LEAD-BASED PAINT TEST LOCATIONS AND RESULTS

Mary Singleton Senior Center 150 E. 1<sup>st</sup> Street Jacksonville, Florida Project No. 6741-18-4277.04 Date of Survey: <u>December 20, 2018</u>

Sample ID	Floor	Suite/Room Area	Orientation	Component	Substrate	Lead K-Shell Measurement (mg/cm²)
19	1	General Craft		Chase Wall	D	0.0
20	1	General Craft Office		Door	W	-0.1
21	1	General Craft Office		Door Frame	М	-0.2
22	1	General Craft Office		Ceiling	D	-0.2

\* Denotes lead concentration at or above 1.0 mg/cm $^2$ .

Substrate:				Condition:	G = Good (Less than 1% Damage)	
W = Wood	D = Drywall	B = Brick	V = Vinyl		F = Fair (Less than 10% Damage)	
M = Metal	P = Plaster	CER = Ceramic			P = Poor (Greater than 10% Damage)	
C = Concrete	S = Stucco	WP = Wallpaper				
Wall Height:				Component A	Aspect:	
(U) = Upper Wall	(M) = Mid W	all (L) = Lower $V$	Wall	I - Interior Sur	urface E = Exterior Surface	

0 0

ΛT	ТΛ	~	J B	AC	NT	
A	144	L.P	-111	/1 =	NI	١.

**ASBESTOS SAMPLE ANALYSIS RESULTS** 

PHOTOGRAPHIC DOCUMENTATION

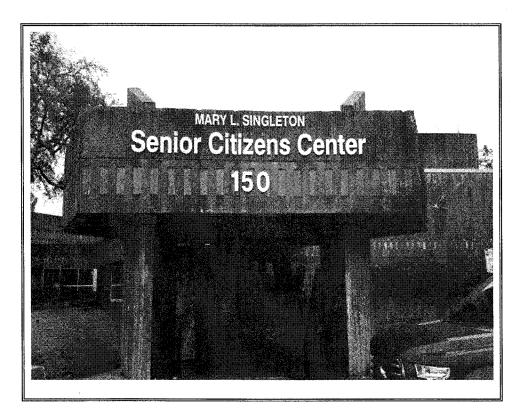


PHOTO 1: Mary Singleton Senior center.

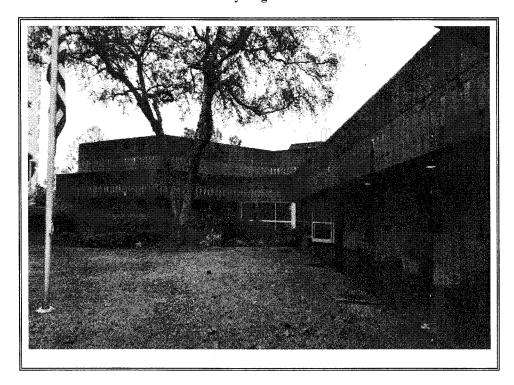


PHOTO 2: Front View.

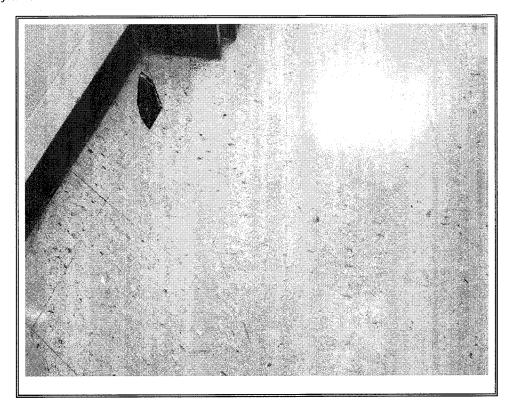


PHOTO 3: 12" Tan Floor Tile in Corridor at Room 103.

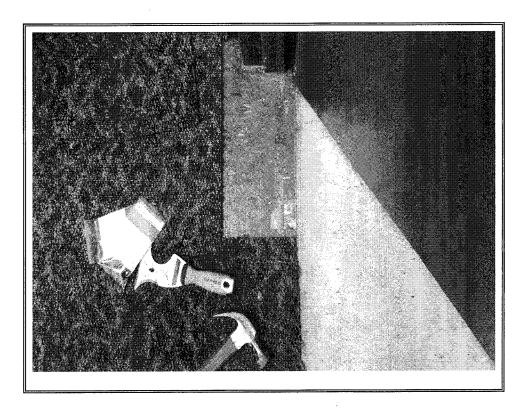


PHOTO 4: 12" Blue Floor Tile in Corridor abutting 12' Tan Flooring.

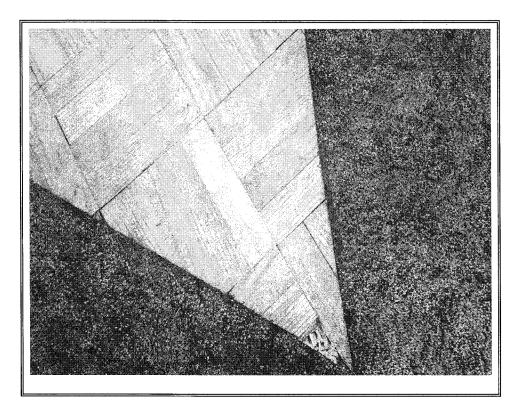


PHOTO 5: Wood Parquet Flooring in Dining Area.

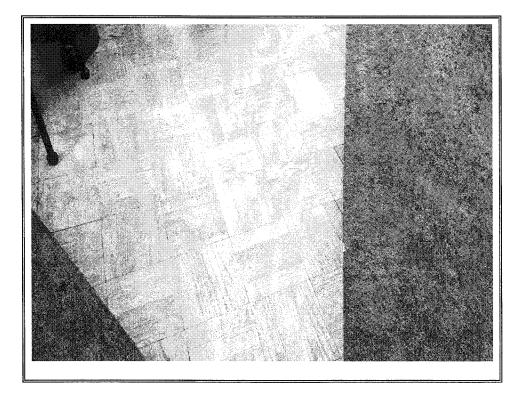


PHOTO 6: Additional View of Parquet Flooring.

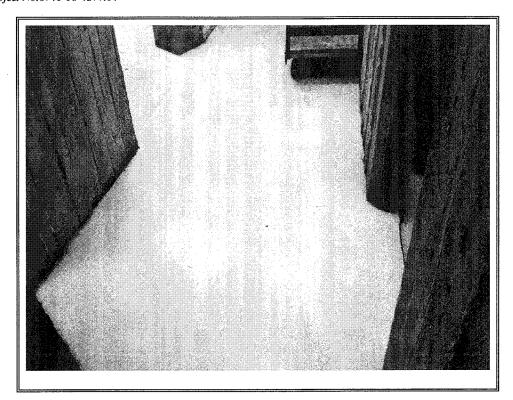


PHOTO 7: 12" White Floor Tile.

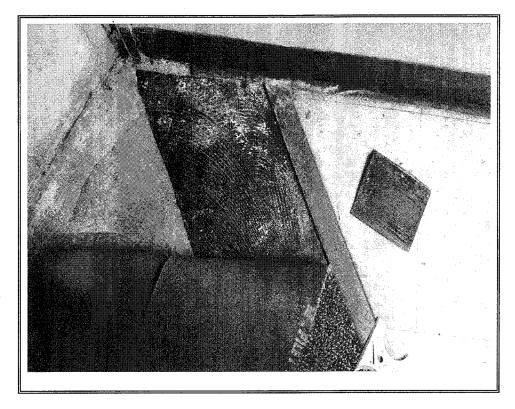


PHOTO 8: Black Mastic (Asbestos) under Carpet in Activity Room.

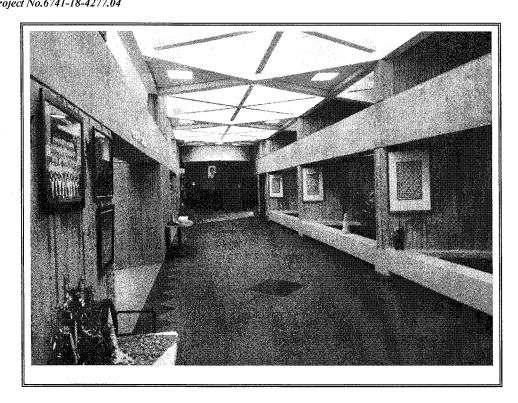


PHOTO 9: Corridor View: Activity Rooms on left



PHOTO 10: Crafts Activity Room Entry View.

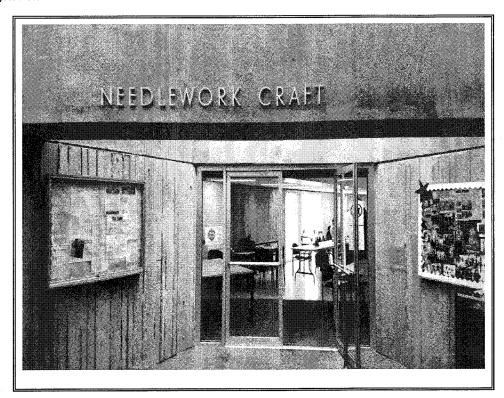


PHOTO 11: Needlework Activity Room Entry View.

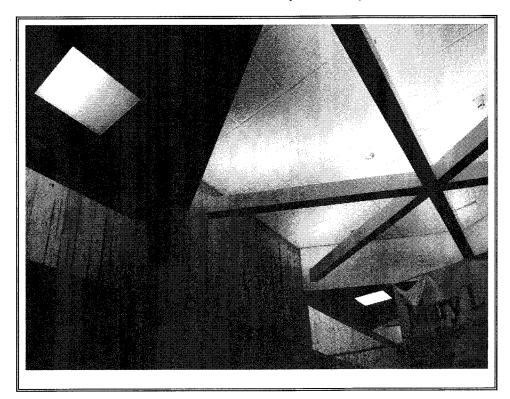


PHOTO 12: Ceiling View.

## SECTIONS 33-99

#### THESE SECTIONS INTENTIONALLY LEFT BLANK

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## **DIVISION V**

# **TECHNICAL SPECIFICATIONS**

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	•			

# PROJECT MANUAL AND SPECIFICATIONS

MARY SINGLETON SENIOR CENTER
RENOVATIONS
at
150 E 1<sup>st</sup> Street
Jacksonville, FL
32202

for

# CITY OF JACKSONVILLE PUBLIC WORKS DEPARTMENT

**100% Submittal October 19, 2018** 

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TTV ARCHITECTS, INC. 115 EAST FORSYTH STREET JACKSONVILLE, FLORIDA

Florida License #AA0002609

PHONE (904) 798-8333

FAX (904) 798-8335

# City of Jacksonville Mary Singleton Senior Center Renovation SPECIFICATIONS

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	Division 1 Section 2
	Division 1 Section 3
	Division 1 Section 4 ~ Ex-Offenders Re. 08-30-17
	Division 1 Section 5 – EBO Participation Rev. 01-08
	Division 1 Section 6 Set-Aside NIC Title Rev. 01-08
	Division 1 Section 7 (NIC) Rev. 02-08
	Division 1 Section 8 Protest Procedures Rev. 03-12
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01 42 19	Reference Standards
01 74 19	Construction Waste Management
	DIVISION 2 – EXISTING CONDITIONS
02 41 19	Selective Demolition
<u> </u>	1 colocate benighton

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	Not Used
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06 42 60	Architecture Woodwork
	DIVISION 7 - THERMAL AND MOISTURE PROTECTION
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08 25 10	Concrete Sealer
08 31 13	Access Doors and Frames
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	DIVISION 10 - SPECIALTIES
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10 28 13	Toilet Compartments
10 44 16	Fire Extinguisher
	DIVISION 11 – EQUIPMENT
	Not Used

DIVISION 12 - FURNISHINGS
Not Used
DIVISION 13 - SPECIAL CONSTRUCTION
Not Used

# SECTION 00 01 15 LIST OF DRAWINGS

#### 1.1 DESCRIPTION

A. Applicable Drawings: The drawings applicable to this Project are titled:

# Mary Singleton Senior Center Renovation

at 150 E 1st Street Jacksonville, FL 32202

B. The drawings are part of the Contract Documents are bound separately. In case of dispute, the Architect will identify the drawings. The applicable drawings consist of the following sheets:

#### **GENERAL**

- G1.0 COVER SHEET & PROJECT INFORMATION
- G1.1 INDEX
- G1.2 LIFE SAFETY PLAN

# CIVIL

- C0.1 COVER SHEET
- C0.2 GENERAL SITE NOTES
- C0.3 DEMO TREE MITIGATION PLAN
- C1.0 OVERALL SITE PLAN
- C1.1 SITE GEOMETRY PLAN
- C2.0 GRADING & DRAINAGE PLAN
- C3.0 SEDIMENT & EROSION CONTROL PLAN
- C4.0 SITE DETAILS
- C5.0 SEDIMENT & EROSION CONTROL DETAILS

# **LANDSCAPE**

- L-1 LANDSCAPE PLAN
- IR-1 IRRIGATION PLAN

#### **ARCHITECTURE**

- D1.0 DEMOLITION OVERALL PLAN
- D1.1 RESTROOM DEMO PLANS
- A1.0 NEW OVERALL PLAN
- A1.1 RESTROOM FLOOR PLANS
- A1.2 REFLECTED CEILING PLANS
- A1.3 ACCESSORY PLANS
- A1.4 INTERIOR ELEVATIONS
- A2.0 MILLWORK & WALL TYPES
- A2.1 SCHEDULES & DETAILS

# **MECHANICAL**

- M1.0 PARTIAL HVAC FLOOR PLANS DEMO, SCHEDULES & DETAILS
- M2.0 PARTIAL MECHANICAL FLOOR PLANS NEW
- M3.0 MECHANICAL SPECIFICATIONS

#### **ELECTRICAL**

- E1.0 ELECTRICAL LEGEND, SCHEDULE AND DIAGRAM
- E2.1 PARTIAL FIRST FLOOR PLAN NEW ELECTRICAL
- E2.2 PARTIAL FIRST FLOOR PLAN EXISTING ELECTRICAL
- E2.3 PARTIAL SECOND FLOOR PLAN EXISTING ELECTRICAL
- E3.1 PARTIAL FIRST FLOOR PLAN NEW ELECTRICAL
- E3.2 PARTIAL FIRST FLOOR PLAN NEW ELECTRICAL
- E3.3 PARTIAL SECOND FLOOR PLAN NEW ELECTRICAL
- E4.0 ELECTRICAL SPECIFICATION

# **PLUMBING**

- P1.0 PLUMBING NOTES, DETAILS & LEGEND
- P2.0 PARTIAL PLUMBING FLOOR PLANS DEMO
- P3.0 PARTIAL PLUMBING FLOOR PLANS & RISER DIAGRAMS NEW
- P4.0 PLUMBING SPECIFICATIONS

**END OF SECTION** 

> SECTION 013300 SUBMITTAL PROCEDURES

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

### 1.2 SUMMARY

A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.

#### 1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."
- C. File Transfer Protocol (FTP): Communications protocol that enables transfer of files to and from another computer over a network and that serves as the basis for standard Internet protocols. An FTP site is a portion of a network located outside of network firewalls within which internal and external users are able to access files.
- D. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

#### 1.4 ACTION SUBMITTALS

A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.

- 1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
- 2. Initial Submittal: Submit concurrently with startup construction schedule. Include submittals required during the first 60 days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
- 3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's construction schedule.
  - a. Submit revised submittal schedule to reflect changes in current status and timing for submittals.
- 4. Format: Arrange the following information in a tabular format:
  - a. Scheduled date for first submittal.
  - Specification Section number and title.
  - c. Submittal category: Action; informational.
  - d. Name of subcontractor.
  - e. Description of the Work covered.
  - f. Scheduled date for Architect's final release or approval.
  - g. Scheduled date of fabrication.
  - h. Scheduled dates for purchasing.
  - i. Scheduled dates for installation.
  - j. Activity or event number.

#### 1.5 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Architect's Digital Data Files: Electronic digital data files of the Contract Drawings will be provided by Architect for Contractor's use in preparing submittals.
  - 1. Architect will furnish Contractor one set of digital data drawing files of the Contract Drawings for use in preparing Shop Drawings
    - a. Architect makes no representations as to the accuracy or completeness of digital data drawing files as they relate to the Contract Drawings.
    - b. Contractor shall execute a data licensing agreement in the form of **Agreement form** acceptable to Owner and Architect.
    - c. The following digital data files will by furnished for each appropriate discipline:
      - 1) Floor plans.
      - 2) Reflected ceiling plans.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
  - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.

- 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
- 3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
- 4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
  - a. **Architect reserves** the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on [Architect's] receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
  - 1. Initial Review: Allow [15] days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. [Architect] will advise Contractor when a submittal being processed must be delayed for coordination.
  - 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
  - 3. Resubmittal Review: Allow [15] days for review of each resubmittal.
  - 4. Sequential Review: Where sequential review of submittals by Architect's consultants, Owner, or other parties is indicated, allow [21] days for initial review of each submittal.
  - 5. Concurrent Consultant Review: Where the Contract Documents indicate that submittals may be transmitted simultaneously to Architect and to Architect's consultants, allow [15] days for review of each submittal. Submittal will be returned to [Architect] before being returned to Contractor.
- D. Paper Submittals: Place a permanent label or title block on each submittal item for identification.
  - 1. Indicate name of firm or entity that prepared each submittal on label or title block.
  - 2. Provide a space approximately [6 by 8 inches (150 by 200 mm)] on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
  - 3. Include the following information for processing and recording action taken:
    - a. Project name.
    - b. Date.
    - c. Name of Architect.
    - d. Name of Construction Manager.
    - e. Name of Contractor.
    - f. Name of subcontractor.
    - g. Name of supplier.
    - h. Name of manufacturer.
    - i. Submittal number or other unique identifier, including revision identifier.
      - 1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 061000.01.A).

- j. Number and title of appropriate Specification Section.
- k. Drawing number and detail references, as appropriate.
- I. Location(s) where product is to be installed, as appropriate.
- m. Other necessary identification.
- 4. Additional Paper Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
  - a. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Architect.
- 5. Transmittal for Paper Submittals: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will **return without review** submittals received from sources other than Contractor.
  - a. Transmittal Form for Paper Submittals: Use CSI Form 12.1A.
  - b. Transmittal Form for Paper Submittals: Provide locations on form for the following information:
    - 1) Project name.
    - 2) Date.
    - 3) Destination (To:).
    - 4) Source (From:).
    - 5) Name and address of Architect.
    - 6) Name of Construction Manager.
    - 7) Name of Contractor.
    - 8) Name of firm or entity that prepared submittal.
    - 9) Names of subcontractor, manufacturer, and supplier.
    - 10) Category and type of submittal.
    - 11) Submittal purpose and description.
    - 12) Specification Section number and title.
    - 13) Specification paragraph number or drawing designation and generic name for each of multiple items.
    - 14) Drawing number and detail references, as appropriate.
    - 15) Indication of full or partial submittal.
    - 16) Transmittal number
    - 17) Submittal and transmittal distribution record.
    - 18) Remarks.
    - 19) Signature of transmitter.
- E. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:
  - 1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item
  - 2. Name file with submittal number or other unique identifier, including revision identifier.

- a. File name shall use project identifier and Specification Section number followed by a decimal point and then a sequential number (e.g., LNHS-061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., LNHS-061000.01.A).
- 3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect.
- 4. Transmittal Form for Electronic Submittals: Use **software-generated form from electronic project management software** acceptable to Owner, containing the following information:
  - a. Project name.
  - b. Date.
  - c. Name and address of Architect.
  - d. Name of Construction Manager.
  - e. Name of Contractor.
  - f. Name of firm or entity that prepared submittal.
  - g. Names of subcontractor, manufacturer, and supplier.
  - h. Category and type of submittal.
  - i. Submittal purpose and description.
  - j. Specification Section number and title.
  - k. Specification paragraph number or drawing designation and generic name for each of multiple items.
  - I. Drawing number and detail references, as appropriate.
  - m. Location(s) where product is to be installed, as appropriate.
  - n. Related physical samples submitted directly.
  - o. Indication of full or partial submittal.
  - p. Transmittal number
  - q. Submittal and transmittal distribution record.
  - r. Other necessary identification.
  - s. Remarks.
- 5. Metadata: Include the following information as keywords in the electronic submittal file metadata:
  - a. Project name.
  - b. Number and title of appropriate Specification Section.
  - c. Manufacturer name.
  - d. Product name.
- F. Options: Identify options requiring selection by Architect.
- G. Deviations and Additional Information: On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.
- H. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
  - 1. Note date and content of previous submittal.
  - 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
  - 3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.

- I. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- J. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

# PART 2 - PRODUCTS

#### 2.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
  - 1. Post electronic submittals as PDF electronic files directly to **Project Web site** specifically established for Project.
    - a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
  - 2. Submit electronic submittals via email as PDF electronic files.
    - a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
  - Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
    - a. Provide a digital signature with digital certificate on electronically submitted certificates and certifications where indicated.
    - b. Provide a notarized statement on original paper copy certificates and certifications where indicated.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
  - 1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
  - 2. Mark each copy of each submittal to show which products and options are applicable.
  - 3. Include the following information, as applicable:
    - a. Manufacturer's catalog cuts.
    - b. Manufacturer's product specifications.
    - c. Standard color charts.
    - d. Statement of compliance with specified referenced standards.
    - e. Testing by recognized testing agency.
    - f. Application of testing agency labels and seals.

- g. Notation of coordination requirements.
- h. Availability and delivery time information.
- 4. For equipment, include the following in addition to the above, as applicable:
  - a. Wiring diagrams showing factory-installed wiring.
  - b. Printed performance curves.
  - c. Operational range diagrams.
  - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
- 5. Submit Product Data before or concurrent with Samples.
- 6. Submit Product Data in the following format:
  - a. PDF electronic file.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data **unless submittal based on Architect's digital data drawing files is otherwise permitted**.
  - 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
    - a. Identification of products.
    - b. Schedules.
    - c. Compliance with specified standards.
    - d. Notation of coordination requirements.
    - e. Notation of dimensions established by field measurement.
    - f. Relationship and attachment to adjoining construction clearly indicated.
    - g. Seal and signature of professional engineer if specified.
  - 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least [8-1/2 by 11 inches (215 by 280 mm), but no larger than 30 by 42 inches (750 by 1067 mm)]
  - 3. Submit Shop Drawings in the following format:
    - a. PDF electronic file.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
  - 1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
  - 2. Identification: Attach label on unexposed side of Samples that includes the following:
    - a. Generic description of Sample.
    - b. Product name and name of manufacturer.
    - c. Sample source.

- d. Number and title of applicable Specification Section.
- e. Specification paragraph number and generic name of each item.
- 3. For projects where electronic submittals are required, provide corresponding electronic submittal of Sample transmittal, digital image file illustrating Sample characteristics, and identification information for record.
- 4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
  - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
  - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
- 5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
  - a. Number of Samples: Submit [one] full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
- 6. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
  - a. Number of Samples: Submit [three sets of Samples. Architect will retain ONE. Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a project record sample.
    - Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
    - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least [three] sets of paired units that show approximate limits of variations.
- E. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
  - 1. Type of product. Include unique identifier for each product indicated in the Contract Documents or assigned by Contractor if none is indicated.
  - 2. Manufacturer and product name, and model number if applicable.
  - 3. Number and name of room or space.

- 4. Location within room or space.
- 5. Submit product schedule in the following format:
  - a. PDF electronic file.
  - b. [Three] paper copies of product schedule or list unless otherwise indicated. Architect will return [two] copies.
- F. Coordination Drawing Submittals: Comply with requirements specified in Section 013100 "Project Management and Coordination."
- G. Contractor's Construction Schedule: Comply with requirements specified in Section 013200 "Construction Progress Documentation."
- H. Application for Payment and Schedule of Values: Comply with requirements specified in Section 012900 "Payment Procedures."
- I. Test and Inspection Reports and Schedule of Tests and Inspections Submittals: Comply with requirements specified in Section 014000 "Quality Requirements."
- J. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Section 017700 "Closeout Procedures."
- K. Maintenance Data: Comply with requirements specified in Section 017823 "Operation and Maintenance Data."
- L. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- M. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on AWS forms. Include names of firms and personnel certified.
- N. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- O. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- P. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- Q. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.

- R. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- S. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- T. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
  - 1. Name of evaluation organization.
  - Date of evaluation.
  - 3. Time period when report is in effect.
  - 4. Product and manufacturers' names.
  - 5. Description of product.
  - 6. Test procedures and results.
  - 7. Limitations of use.
- U. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
- V. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- W. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- X. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

# 2.2 DELEGATED-DESIGN SERVICES

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
  - 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.

- B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit Digitally signed PDF electronic file paper copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
  - 1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

#### PART 3 - EXECUTION

#### 3.1 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Project Closeout and Maintenance Material Submittals: See requirements in Section 017700 "Closeout Procedures."
- C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

#### 3.2 ARCHITECT'S ACTION

- A. Action Submittals: Architect will review each submittal, make marks to indicate corrections or revisions required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate [action.]
- B. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Submittals not required by the Contract Documents may be returned by the Architect without action.

# END OF SECTION 013300

# SECTION 01 74 19 CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
  - 1. Salvaging nonhazardous demolition and construction waste.
  - 2. Recycling nonhazardous demolition and construction waste.
  - 3. Disposing of nonhazardous demolition and construction waste.

#### B. Related Requirements:

1. Section 02 41 00 "Selective Demolition" for disposition of waste resulting from partial demolition of buildings, structures, and site improvements

#### 1.3 DEFINITIONS

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
- C. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

#### 1.4 PERFORMANCE REQUIREMENTS

- A. General: Achieve end-of-Project rates for salvage/recycling of 50 percent by weight of total non-hazardous solid waste generated by the Work. Practice efficient waste management in the use of materials in the course of the Work. Use all reasonable means to divert construction and demolition waste from landfills and incinerators. Facilitate recycling and salvage of materials, including the following:
  - Demolition Waste:

- a. Asphalt paving.
- b. Concrete.
- c. Concrete reinforcing steel.
- d. Brick.
- e. Concrete masonry units.
- f. Wood studs.
- g. Wood joists.
- h. Plywood and oriented strand board.
- i. Wood paneling.
- j. Wood trim.
- k. Structural and miscellaneous steel.
- I. Rough hardware.
- m. Roofing.
- n. Insulation.
- o. Doors and frames.
- p. Door hardware.
- q. Windows.
- r. Glazing.
- s. Metal studs.
- t. Gypsum board.
- u. Acoustical tile and panels.
- v. Carpet.
- w. Carpet pad.
- x. Demountable partitions.
- y. Equipment.
- z. Cabinets.
- aa. Plumbing fixtures.
- bb. Piping.
- cc. Supports and hangers.
- dd. Valves.
- ee. Sprinklers.
- ff. Mechanical equipment.
- gg. Refrigerants.
- hh. Electrical conduit.
- ii. Copper wiring.
- ij. Lighting fixtures.
- kk. Lamps.
- II. Ballasts.
- mm. Electrical devices.
- nn. Switchgear and panelboards.
- oo. Transformers.

# 2. Construction Waste:

- Masonry and CMU.
- b. Lumber.
- c. Wood sheet materials.
- d. Wood trim.
- e. Metals.
- f. Roofing.
- g. Insulation.
- h. Carpet and pad.
- i. Gypsum board.

- j. Piping.
- k. Electrical conduit.
- I. Packaging: Regardless of salvage/recycle goal indicated in "General" Paragraph above, salvage or recycle 100 percent of the following uncontaminated packaging materials:
  - 1) Paper.
  - 2) Cardboard.
  - Boxes.
  - 4) Plastic sheet and film.
  - 5) Polystyrene packaging.
  - 6) Wood crates.
  - 7) Plastic pails.

#### 1.5 ACTION SUBMITTALS

A. Waste Management Plan: Submit plan within 7 days of date established for the Notice to Proceed

#### 1.6 INFORMATIONAL SUBMITTALS

- A. Waste Reduction Progress Reports: Concurrent with each Application for Payment, submit report. Use Form CWM-7 for construction waste and Form CWM-8 for demolition waste. Include the following information:
  - 1. Material category.
  - 2. Generation point of waste.
  - 3. Total quantity of waste in tons (tonnes).
  - 4. Quantity of waste salvaged, both estimated and actual in tons (tonnes).
  - 5. Quantity of waste recycled, both estimated and actual in tons (tonnes).
  - 6. Total quantity of waste recovered (salvaged plus recycled) in tons (tonnes).
  - 7. Total quantity of waste recovered (salvaged plus recycled) as a percentage of total waste.
- B. Waste Reduction Calculations: Before request for Substantial Completion, submit calculated end-of-Project rates for salvage, recycling, and disposal as a percentage of total waste generated by the Work.
- C. Records of Donations: Indicate receipt and acceptance of salvageable waste donated to individuals and organizations. Indicate whether organization is tax exempt.
- D. Records of Sales: Indicate receipt and acceptance of salvageable waste sold to individuals and organizations. Indicate whether organization is tax exempt.
- E. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
- F. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
- G. Qualification Data: For waste management coordinator and refrigerant recovery technician.

H. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations. Include name and address of technician and date refrigerant was recovered.

#### 1.7 QUALITY ASSURANCE

- A. Waste Management Coordinator Qualifications: Experienced firm, with a record of successful waste management coordination of projects with similar requirements.
- B. Refrigerant Recovery Technician Qualifications: Certified by EPA-approved certification program.
- C. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.
- D. Waste Management Conference: Conduct conference at Project site. Review methods and procedures related to waste management including, but not limited to, the following:
  - 1. Review and discuss waste management plan including responsibilities of waste management coordinator.
  - 2. Review requirements for documenting quantities of each type of waste and its disposition.
  - 3. Review and finalize procedures for materials separation and verify availability of containers and bins needed to avoid delays.
  - 4. Review procedures for periodic waste collection and transportation to recycling and disposal facilities.
  - 5. Review waste management requirements for each trade.

#### 1.8 WASTE MANAGEMENT PLAN

- A. General: Develop a waste management plan according to ASTM E 1609 and requirements in this Section. Plan shall consist of waste identification, waste reduction work plan, and cost/revenue analysis. Indicate quantities by weight or volume, but use same units of measure throughout waste management plan.
- B. Waste Identification: Indicate anticipated types and quantities of demolition and construction waste generated by the Work. Use Form CWM-1 for construction waste and Form CWM-2 for demolition waste. Include estimated quantities and assumptions for estimates.
- C. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled, or disposed of in landfill or incinerator. Use Form CWM-3 for construction waste and Form CWM-4 for demolition waste. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.
  - Salvaged Materials for Reuse: For materials that will be salvaged and reused in this Project, describe methods for preparing salvaged materials before incorporation into the Work.
  - 2. Salvaged Materials for Sale: For materials that will be sold to individuals and organizations, include list of their names, addresses, and telephone numbers.
  - 3. Salvaged Materials for Donation: For materials that will be donated to individuals and organizations, include list of their names, addresses, and telephone numbers.
  - 4. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.

- 5. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and incinerator facility.
- 6. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location where materials separation will be performed.
- D. Cost/Revenue Analysis: Indicate total cost of waste disposal as if there was no waste management plan and net additional cost or net savings resulting from implementing waste management plan. Use Form CWM-5 for construction waste and Form CWM-6 for demolition waste. Include the following:
  - 1. Total quantity of waste.
  - 2. Estimated cost of disposal (cost per unit). Include hauling and tipping fees and cost of collection containers for each type of waste.
  - 3. Total cost of disposal (with no waste management).
  - 4. Revenue from salvaged materials.
  - 5. Revenue from recycled materials.
  - 6. Savings in hauling and tipping fees by donating materials.
  - 7. Savings in hauling and tipping fees that are avoided.
  - 8. Handling and transportation costs. Include cost of collection containers for each type of waste.
  - 9. Net additional cost or net savings from waste management plan.

### PART 2 - PRODUCTS (Not Used)

#### PART 3 - EXECUTION

#### 3.1 PLAN IMPLEMENTATION

- A. General: Implement approved waste management plan. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.
  - 1. Comply with operation, termination, and removal requirements in Section 015000 "Temporary Facilities and Controls."
- B. Waste Management Coordinator: Engage a waste management coordinator to be responsible for implementing, monitoring, and reporting status of waste management work plan. Coordinator shall be present at Project site full time for duration of Project.
- C. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work.
  - 1. Distribute waste management plan to everyone concerned within 3 days of submittal return.
  - 2. Distribute waste management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling, and disposal.
- D. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
  - 1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, reused, donated, and sold.

#### 3.2 SALVAGING DEMOLITION WASTE

- A. Salvaged Items for Reuse in the Work: Salvage items for reuse and handle as follows:
  - 1. Clean salvaged items.
  - 2. Pack or crate items after cleaning. Identify contents of containers with label indicating elements, date of removal, quantity, and location where removed.
  - 3. Store items in a secure area until installation.
  - 4. Protect items from damage during transport and storage.
  - 5. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.
- B. Salvaged Items for Sale and Donation: Permitted on Project site.

# 3.3 RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL

- A. General: Recycle paper and beverage containers used by on-site workers.
- B. Allowing Contractor to accrue some portion of the incentives in "Recycling Incentives" Paragraph below could result in better recovery rates than if Owner accrues all of the incentives.
- C. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall accrue to Contractor.
- D. Preparation of Waste: Prepare and maintain recyclable waste materials according to recycling or reuse facility requirements. Maintain materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to the recycling process.
- E. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical according to approved construction waste management plan.
  - 1. Provide appropriately marked containers or bins for controlling recyclable waste until removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.
    - a. Inspect containers and bins for contamination and remove contaminated materials if found.
  - 2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
  - 3. Stockpile materials away from construction area. Do not store within drip line of remaining trees.
  - 4. Store components off the ground and protect from the weather.
  - 5. Remove recyclable waste from Owner's property and transport to recycling receiver or processor.

# 3.4 RECYCLING DEMOLITION WASTE

- A. Asphalt Paving: Grind asphalt to maximum 1-1/2-inch (38-mm) size.
  - 1. Crush asphaltic concrete paving and screen to comply with requirements in Section 31 20 00 "Earth Moving" for use as general fill.
- B. Asphalt Paving: Break up and transport paving to asphalt-recycling facility.

- C. Concrete: Remove reinforcement and other metals from concrete and sort with other metals.
  - 1. Pulverize concrete to maximum 1-1/2-inch (38-mm) size.
  - 2. Crush concrete and screen to comply with requirements in Section 31 20 00 "Earth Moving" for use as satisfactory soil for fill or subbase.
- D. Masonry: Remove metal reinforcement, anchors, and ties from masonry and sort with other metals.
  - 1. Pulverize masonry to maximum 1-inch (25-mm)] [size.
    - a. Crush masonry and screen to comply with requirements in Section 312000 "Earth Moving" for use as general fill.
    - b. Crush masonry and screen to comply with requirements in Section 329300 "Plants" for use as mineral mulch.
  - 2. Clean and stack undamaged, whole masonry units on wood pallets.
- E. Wood Materials: Sort and stack members according to size, type, and length. Separate lumber, engineered wood products, panel products, and treated wood materials.
- F. Metals: Separate metals by type.
  - 1. Structural Steel: Stack members according to size, type of member, and length.
  - 2. Remove and dispose of bolts, nuts, washers, and other rough hardware.
- G. Asphalt Shingle Roofing: Separate organic and glass-fiber asphalt shingles and felts. Remove and dispose of nails, staples, and accessories.
- H. Gypsum Board: Stack large clean pieces on wood pallets or in container and store in a dry location. Remove edge trim and sort with other metals. Remove and dispose of fasteners.
- Acoustical Ceiling Panels and Tile: Stack large clean pieces on wood pallets and store in a dry location.
- J. Metal Suspension System: Separate metal members including trim, and other metals from acoustical panels and tile and sort with other metals.
- K. Carpet: Roll large pieces tightly after removing debris, trash, adhesive, and tack strips.
  - 1. Store clean, dry carpet in a closed container or trailer provided by Carpet Reclamation Agency or carpet recycler.
- L. Carpet Tile: Remove debris, trash, and adhesive.
  - 1. Stack tile on pallet and store clean, dry carpet in a closed container or trailer provided by Carpet Reclamation Agency or carpet recycler.
- M. Piping: Reduce piping to straight lengths and store by type and size. Separate supports, hangers, valves, sprinklers, and other components by type and size.
- N. Conduit: Reduce conduit to straight lengths and store by type and size.
- 3.5 RECYCLING CONSTRUCTION WASTE
  - A. Packaging:
    - 1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.
    - 2. Polystyrene Packaging: Separate and bag materials.

- 3. Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.
- 4. Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.

#### 3.6 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
  - Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
  - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn waste materials.
- C. Burning: Burning of waste materials is permitted only at designated areas on Owner's property, provided required permits are obtained. Provide full-time monitoring for burning materials until fires are extinguished.
- D. Disposal: Remove waste materials and dispose of at designated spoil areas on Owner's property.
- E. Disposal: Remove waste materials from Owner's property and legally dispose of them.

### 3.7 ATTACHMENTS

- A. Form CWM-1 for construction waste identification.
- B. Form CWM-2 for demolition waste identification.
- C. Form CWM-3 for construction waste reduction work plan.
- D. Form CWM-4 for demolition waste reduction work plan.
- E. Form CWM-5 cost/revenue analysis of construction waste reduction work plan.
- F. Form CWM-6 cost/revenue analysis of demolition waste reduction work plan.
- G. Form CWM-7 for construction waste
- H. Form CWM-8 for demolition waste.

END OF SECTION 01 74 19

# SECTION 02 41 19 SELECTIVE DEMOLITION

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract.
- B. Refer to Section 01 73 10, Cutting and Patching

#### 1.2 SUMMARY

- A. This section includes the following:
  - 1. Demolition and removal of selected portions of a building.
  - 2. Patching and repairs.

#### 1.3 DEFINITIONS

- A. Remove: Remove and legally dispose of items except those indicated to be reinstalled, salvaged, or to remain COJ property.
- B. Remove and Reinstall: Remove items indicated; clean, service, and otherwise prepare them for reuse; store and protect against damage. Reinstall items in the same locations or in locations indicated.
- C. Existing to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by the Architect, items may be removed to a suitable, protected storage location during selective demolition and then cleaned and reinstalled in their original locations.

#### 1.4 MATERIALS OWNERSHIP

- A. Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain COJ's property, demolished materials shall become the Contractor's property and shall be removed from the site with further disposition at the Contractor's option.
  - Remove and salvage the following items that are in good condition: lighting fixtures, doors and frames.

#### 1.5 SUBMITTALS

- A. General: Submit each item in this Article according to the Conditions of the Contract and Division 1 Specification sections, for information only, unless otherwise indicated.
- B. Proposed noise-control measures.
- C. Schedule of selective demolition activities indicating the following:
  - Detailed sequence of selective demolition and removal work with starting and ending dates for each
    activity.
  - 2. Use of corridor and entrances.
  - 3. Coordination of COJ's continuing occupancy of portions of existing building.
  - 4. Location of duct partitions and any other temporary partitions.
  - 5. Inventory of items to be removed, salvaged and returned to COJ.
  - 6. Show locations and sizes of temporary return air grille filters to protect existing main HVAC systems

from dust from all selective demolition work.

# 1.6 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with governing EPA notification regulations before starting selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

#### 1.7 PROJECT CONDITIONS

- A. COJ will occupy portions of the building immediately adjacent to selective demolition area. Conduct selective demolition so that COJ's operations will not be disrupted.
  - 1. Conditions existing at time of inspection for bidding purpose will be maintained by COJ as far as practical.
  - 2. Coordination meeting shall be scheduled with COJ, Contractor, and any other parties involved in this area of operation. Meeting shall be held prior to commencing any selective demolition work.
  - 3. Contractor will be furnished with list of any other items to be salvaged and returned to COJ.
- B. Storage or sale of removed items or materials on-site will not be permitted.

#### 1.8 SCHEDULING

A. Arrange selective demolition schedule so as not to interfere with COJ's daily use of adjacent area or means of egress from building.

PART 2 (Not Used)

#### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. In company with COJ or COJ's Representative, the Contractor is to survey existing conditions and correlate with requirements indicated on drawings to determine extent of selective demolition required.
- B. Inventory and record the condition of items to be removed and reinstalled, items to be removed and salvaged, and items to be removed and returned to the COJ.
- C. When unanticipated mechanical, electrical, or structural elements that conflict with the intended function or design are encountered, investigate and measure the nature and extent of the conflict. Promptly submit a written report to COJ and Architect.
- Perform surveys as the work progresses to detect and correct as required hazards resulting from selective demolition activities.

#### 3.2 PREPARATION

- A. Conduct demolition operations and remove debris daily to ensure minimum interference with other adjacent occupied and used spaces.
- B. Conduct demolition operations to prevent injury to people and damage to adjacent facilities to remain. Ensure safe passage of people around selective demolition area.

- Erect temporary barriers and access doors as shown and called for on the Demolition Plan Sheet.
- 2. Protect walls, ceilings, floors, and other existing finish work that are to remain and are exposed during selective demolition operations.
- Utilize the safest method possible for removing demolition debris while protecting existing finished materials.

#### 3.3 POLUTION CONTROLS

- A. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before start of selective demolition.

#### 3.4 SELECTIVE DEMOLITION

- A. Demolish and remove existing construction only to the extent required by new construction and as indicated on drawings. Use methods required to complete work within limitations of governing regulations and as follows:
  - 1. Proceed with selective demolition systematically in area as scheduled.
  - Mark interface surfaces as required to enable workmen to identify items to be removed and items to be left in place intact.
  - 3. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. To minimize disturbance of adjacent surfaces, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
  - Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
  - 5. Do not use cutting torches.
  - 6. Return elements of construction and surfaces to remain to condition existing before start of selective demolition operations.
  - 7. Do not cut any building structure without written authorization of the Architect. Any structural members accidentally or intentionally cut without proper authorization shall be restored to their original integrity and condition.

# 3.5 PATCHING AND REPAIRS

- A. Refer to Section 01 73 10, Cutting and Patching.
- B. Promptly patch and repair holes and damaged surfaces caused to adjacent construction by selective demolition operations.
- C. Where repairs to existing surfaces are required, patch to produce surfaces suitable for new materials.
  - 1. Completely fill holes and depressions in existing walls to remain with an approved patching material, applied according to manufacturer's printed recommendations.
- D. Restore exposed finishes of patched areas and extend finish restoration into adjoining construction to remain in a manner that eliminates evidence of patching and refinishing.
- E. Use repair materials identical to existing materials.
  - Where identical materials are unavailable or cannot be used for exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.

2. Use materials whose installed performance equals or surpasses that of existing materials.

# 3.6 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Promptly dispose of demolished materials. Do not allow demolished materials to accumulate onsite.
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off COJ's property and legally dispose of them.

# 3.7 CLEANING

A. Sweeping not allowed. Clean the area affected by demolition and the debris-hauling route on completion of selective demolition operation.

**END OF SECTION** 

# SECTION 03 65 10 SELF LEVELING UNDERLAYMENT CONCRETE

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings, general provisions of the Contract, and other related construction documents such as Division 01 specifications apply to this Section
- B. Provide a self-leveling cementitious underlayment over existing floor areas where recommended by flooring manufacturer to receive new flooring finishes
- C. Provide labor, material, equipment, and services necessary to complete the cementitious underlayment work as herein specified.

#### 1.2 SUMMARY

- A. This Section includes a cement-based self-leveling underlayment system formulated with a special blend of polymers used to level and smooth interior concrete, terrazzo, ceramic & quarry tile, metal, wooden substrates, and non-soluble adhesive residue on concrete prior to the installation of finished flooring on all grade levels.
  - 1. ARDEX HC 100R™ High-Capacity Rapid Self-Leveling Underlayment
  - 2. ARDEX K15® Self-Leveling Flooring Underlayment
  - 3. ARDEX P 51™ Primer
  - 4. ARDEX P 82™ Ultra Prime
- B. Related Sections include the following:
  - 1. Division 09 Flooring Sections

#### 1.3 REFERENCES

- A. ASTM C 109M, Compressive Strength Air-Cure Only
- B. ASTM C348, Flexural Strength of Hydraulic-Cement Mortars
- C. ASTM E84, Surface Burning Characteristics of Building Materials
- D. ASTM F2170, Relative Humidity in Concrete Floor Slabs Using in situ Probes
- E. ASTM F1869, Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride
- F. ASTM 710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring
- G. ASTM C1708 12 Standard Test Methods for Self leveling Mortars Containing Hydraulic Cements

#### 1.4 SUBMITTALS

- A. Product Data
  - 1. Materials list of items proposed to be provided under the section.
  - 2. Manufacturer's specifications, current product literature, and other data needed to prove compliance with the specified requirements.

- 3. Manufacturer's certification that the product specified is suitable for the intended use when installed according to the parameters described in the manufacturer's printed literature and installation instructions.
- B. Test Areas At an area on-site, where approved by the Architect, provide a test installation as follows:
  - 1. The size of the test area shall be 4' x 4'.
  - The test area shall be installed using procedures and under conditions which will reflect the actual installation.
  - The test area shall be placed and evaluated for a period of 5 days prior to acceptance by the Owner's Representative.
  - 4. Acceptance shall deem the test area to be the standard by which the remainder of the work in that section shall be compared for the purposes of acceptance or rejection.

#### C. Qualifications:

 Submit Manufacturer's written confirmation that the proposed installer is a factory trained applicator approved by the Manufacturer.

# 1.5 QUALITY ASSURANCE

- A. Installation of the ARDEX ArdiFlo™ Pump System must be completed by a factory-trained applicator using equipment and tools approved by the manufacturer.
- B. Product must have a hydraulic cement-based inorganic binder content as the primary binder which includes portland cement per ASTM C150: Standard Specification for Portland Cement and other specialty hydraulic cements. Gypsum-based products are not acceptable.
- C. Manufacturer Experience: Products used for work in this section shall be manufactured by companies which have successfully specialized in production of this type of work for not less than 10 years. Contact Manufacturer Representative prior to installation.

#### 1.6 MANDATORY PRE-INSTALLATION CONFERENCE

A. Prior to scheduled commencement of the self-leveling underlayment installation and associated work, conduct a mandatory meeting at the project site with the GC, Epoxy Terrazzo Installer, Self-Leveling underlayment installer, Architect, GSA, Ardex Technical Representative and any other persons directly involved with the performance of the work. The installer shall record conference discussions to include decisions and agreements reached (or disagreements), and furnish copies of recorded discussions to each attending party. The main purpose of this meeting is to review/confirm foreseeable methods and procedures related to self-leveling underlayment work, prior to any installation.

# 1.7 WARRANTY

A. ARDEX HC 100R™ or K15® installed as part of a floor system, shall be installed in conjunction with the recommended ARDEX Tile & Stone Installation Materials or WW HENRY Flooring Adhesive, as appropriate, to provide the ARDEX SystemOne 10-year comprehensive warranty.

### 1.8 DELIVERY, STORAGE AND HANDLING

 Deliver products in original packaging, labeled with product identification, manufacturer, batch number and shelf life.

- B. Store products in a dry area with temperature maintained between 50° and 85° F (10° and 29° C) and Protect from direct sunlight.
- C. Handle products in accordance with manufacturer's printed recommendations.

#### 1.9 PROJECT CONDITIONS

A. Do not install material below 50° F (10° C) surface and air temperatures. These temperatures must also be maintained during and for 48 hours after the installation of products included in this section. Install quickly if substrate is warm and follow warm weather instructions available from the ARDEX Technical Service Department.

#### PART 2 - PRODUCTS

#### 2.1 HYDRAULIC CEMENT UNDERLAYMENT

- A. Hydraulic Cement-based Self-Leveling Underlayment
  - Products:
    - a. ARDEX HC 100R™ High Capaicity Rapid Self-Leveling Underlayment; Manufactured by ARDEX Engineered Cements: 400 Ardex Park Drive, Aliquippa, Pa 15001 USA, (724) 203-5000, www.ardex.com, OR APPROVED EQUAL.
      - i. Standard Porous Concrete: ARDEX P 51™ Primer
      - ii. Primer Non-porous substrates, ceramic & quarry tile, non-water soluble adhesive residue, concrete treated with silicate compounds, metal, and wooden subfloors: ARDEX P 82™ Ultra Prime
    - b. ARDEX K15® Self-Leveling Flooring Underlayment, OR APPROVED EQUAL
      - i. Primer Standard Porous Concrete: ARDEX P 51™ Primer
      - ii. Primer Non-porous substrates, ceramic & quarry tile, non-water soluble adhesive residue, concrete treated with silicate compounds, metal, and wooden subfloors: ARDEX P 82™ Ultra Prime
  - 2. Performance and Physical Properties: Meet or exceed the following values for material cured at 70° F+/-3°F (21° C+/-3°C) and 50% +/-5% relative humidity:
    - a. Application: ARDEX ARDIFLO™ Pump System
    - b. Flow Time: 10 minutes
    - c. Initial Set: Approx. 30 minutes
    - d. Final Set: Approx. 90 minutes
    - e. Compressive Strength: 4100 psi at 28 days, ASTM C109M.
    - f. Flexural Strength: 1000 psi at 28 days, ASTM C78.
    - g. VOC: 0 g/l, calculated SCAQMD 1168
- **2.2 WATER:** Water shall be clean, potable, and sufficiently cool (not warmer than 70°F).

#### PART 3 - EXECUTION

# 3.1 PREPARATION

- A. Concrete Subfloors: Prepare substrate in accordance with manufacturer's instructions.
  - Prior to proceeding please refer to ASTM F710 Standard Practice for Preparing Concrete Floors
    to Receive Resilient Flooring. All concrete subfloors must be sound, solid, clean, and free of all
    oil, grease, dirt, curing compounds and any substance that might act as a bond breaker before
    priming. Mechanically clean if necessary using shot blasting (small shot) or other mechanical

- method that will not bruise the underlying concrete. Acid etching and the use of sweeping compounds and solvents are not acceptable.
- 2. All cracks in the subfloor shall be repaired to minimize telegraphing through the underlayment.
- 3. Substrate must be measured and documented by the Installer prior to the installation of the Self-Leveling Underlayment. Pins can be installed to achieve specified tolerances.
- 4. Substrate shall be inspected in accordance with ASTM F1869 or ASTM F2170 and corrected for moisture or any other conditions that could affect the performance of the underlayment or the finished floor covering. For areas where moisture vapor emissions exceed the limits required by the floor covering manufacturer install the appropriate Manufacturer's Recommended Moisture Control System.

# B. Joint Preparation:

- Moving Joints honor all expansion and isolation joints up through the underlayment. A flexible sealing compound such as ARDEX ARDISEAL™ Rapid Plus may be installed.
- 2. Saw Cuts and Control Joints fill all non-moving joints with ARDEX ARDIFIX™ Joint Filler or ARDEX SD-F™ FEATHER FINISH® as recommended by the manufacturer.
- C. Cutback and other non-water soluble adhesive residues must be wet scraped to a thin, well-bonded layer. Please note that asbestos containing materials should be handled and disposed of in accordance with applicable federal, state, and local regulations.
- D. Non-porous subfloors such as ceramic and quarry tile as well as terrazzo should be clean and free of all waxes and sealers. If necessary, clean by mechanical methods such as shot blasting or other.

# 3.2 APPLICATION OF ARDEX HC 100R™ or K15®

- A. Examine substrates and conditions under which materials will be installed. Do not proceed with installation until unsatisfactory conditions are corrected.
- B. Coordinate installation with adjacent work to ensure proper sequence of construction. Protect adjacent areas from contact due to mixing and handling of materials.

#### C. Priming:

- 1. Primer for standard absorbent concrete subfloors: Mix ARDEX P-51 1:1 with water and apply evenly with a soft push broom. Do not leave any bare spots. Remove all puddles and excess primer. Allow to dry to a clear, thin film (min. 3 hours, max. 24 hours). Underlayment shall not be applied until the primer is dry. Primer coverage is approximately 400 to 600 sq. ft. per gallon.
- Primer for extremely absorbent concrete subfloors: Make an initial application of ARDEX P-51 mixed with 3 parts water using a soft push broom. Do not leave any bare spots. Remove all puddles and excess primer. Allow to dry thoroughly before proceeding with the standard application of primer as described above for standard absorbent concrete.
- 3. Primer for non-porous subfloors, wooden or metal subfloors, or cutback and other non-water soluble adhesive residues over concrete: Prime with ARDEX P-82 Ultra Prime. Mix Part A (red) with Part B (white) and apply with a short-nap or sponge paint roller, leaving a thin coat of primer no heavier than a thin coat of paint. Do not leave any bare spots. Remove all puddles and excess primer. Allow to dry to a clear, slightly tack film (minimum 3 hours, maximum 24 hours). Underlayment shall not be installed until primer is dry. Primer coverage is approximately 200 to 400 square feet per gallon.
- 4. Minimum drying time for ARDEX P-82 Ultra-Prime over cutback adhesive is 18 hours.
- D. Mixing and Application: Comply with manufacturer's printed instructions and the following.

- 1. ARDEX HC 100R™ and K15® can be pumped using the ARDEX ARDIFLO™ Pump System. Contact the ARDEX Technical Service Department for pump options and operation instructions.
- 2. ARDEX HC 100R™ and K15® has a flow time of 10 minutes at 70° F (21° C). Pump the mix on the floor and spread in place with the ARDEX T-4 Spreader. Immediately smooth using the ARDEX T-5 Smoother. Wear non-metallic cleats to avoid leaving marks in the liquid ARDEX HC 100R™ or K15®.

#### E. Curing

1. ARDEX HC 100R™ and K15® can be walked on in 2-3 hours. Moisture-insensitive tiles such as ceramic quarry and porcelain can be installed after 6 hours. Underlayment can accept all other finish floor covering materials after 16 hours at 70°F and 50% relative humidity. For resinous systems such as epoxy and polyurethane floors please contact the ARDEX Technical Services Department.

#### 3.3 FIELD QUALITY CONTROL

A. Field sampling of the Ardex underlayment is to be done by taking an entire unopened bag of the product being installed to an independent testing facility to perform compressive strength testing in accordance with ASTM C 109/modified: air-cure only. There are no in situ test procedures for the evaluation of compressive strength.

#### 3.4 TOLERANCES

- A. Floor Flatness (FF) and Floor Levelness (FL): Tolerances for completed underlayment shall be in accordance with ACI 117 as follows:
  - 1. Specified Overall Value (SOV) FF 35 / FL 25
  - 2. Minimum Local Value (MLV) FF 25 / FL 20
  - 3. The minimum local area shall be bound on each side by column lines.

# 3.5 PROTECTION

A. Prior to the installation of the finish flooring, the surface of the underlayment should be protected from abuse by other trades by the use of plywood, Masonite or other suitable protection course.

**END OF SECTION** 

# SECTION 06 10 00 ROUGH CARPENTRY

#### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. Provide carpentry work specified and shown on drawings.
- B. Provide all framing lumber, nailers, blocking, grounds, furring and other wood items required to be Fire Retardant Treated.
- C. Finish Carpentry: Specified in Section 06 42 60 ARCHITECTURAL WOODWORK.

#### 1.2 QUALITY ASSURANCE

- A. Lumber Standard: Comply with NBS Voluntary Product Standard PS 20, American Softwood Lumber Standard.
- B. Plywood Standard: Comply with U.S. Product Standard PS 1, Construction and Industrial Plywood.
- C. Wood Treatment: American Wood Preservers Assoc., (AWPA) and American Wood Preservers Bureau (AWPB).

### 1.3 SUBMITTALS

- A. Submit certification of treatment for preservative treated wood and fire retardant treated wood.
- B. Submit certificates of inspection for species and grade for each type lumber.
- C. Submit certification for each type and grade of plywood.

# 1.4 PRODUCT HANDLING

A. Keep materials dry during delivery and storage. Stack lumber and plywood, and provide air circulation within stacks.

#### PART 2 - PRODUCTS

#### 2.1 LUMBER

- A. Nominal sizes are indicated, except where shown by detail dimensions to be actual sizes, provide dressed sizes as required by PS 20.
  - 1. Provide S4S lumber, unless otherwise shown or specified.
  - 2. Provide seasoned lumber with 19% maximum moisture content at time of dressing.

#### 2.2 FIRE RETARDANT TREATMENT

A. Provide fire retardant treated lumber and plywood anywhere wood framing is indicated on drawings and where required by authorities having jurisdiction.

- B. Treatment: Conform to American Wood Preservers' Association (AWPA) standards C 20 for lumber and C 27 for plywood. Treatment shall be by pressure impregnation of fire-retardant chemicals to achieve flame-spread rating required for U.L. Classification by U.L. Test 723, ASTM E 84 or NFPA 355.
- C. Provide Interior type A or type B as applicable for location, type material and humidity.
- D. Provide exterior type treatment for exposed exterior wood.
- E. Provide U.L. label on each piece of fire-retardant lumber or plywood.
- F. Kiln-dry treated items to maximum moisture content of 19%.

#### 2.3 FRAMING LUMBER

A. Framing: Provide No. 2 Southern Pine, fire-treated, 1200 psi allowable bending stress.

## 2.4 BOARDS NOT EXPOSED TO VIEW

A. Provide fire-treated Southern Pine No. 2 boards (SPIB) with 19% maximum moisture content.

# 2.5 PLYWOOD

- A. Plywood shall conform to PS 1 and shall have APA Grade Marks. Provide fire retardant treated plywood for interior uses and as required by authorities having jurisdiction.
- B. Interior Plywood: For exposed interior uses not otherwise indicated shall be Interior Type with Grade A exposed face and Grade D or B concealed face; A-D or AB-INT-APA-PSI.
- C. Back Boards: Plywood for backing panels for electrical and telephone equipment shall be fire-retardant treated Exterior Grade Plywood, A-C-EXT-APA-PS 1, 3/4 inch unless otherwise indicated.

## 2.6 PRESERVATIVE TREATED WOOD

- A. Pressure Treated Lumber: Comply with applicable requirements of American Wood Preservers Bureau (AWPB). Mark each treated item to comply with the AWPB Quality Mark requirements. Kiln-dry to maximum moisture content of 19%.
- B. Treatment Methods, preservative and analysis shall conform to American Wood Preserver's Association (AWPA), C2 for lumber and C9 for plywood.
- C. Provide treated wood and plywood conforming to the following:
  - 1. Wood in Contact with Soil: AWPB Standard LP-22 with .60 net retention.
  - 2. Wood Above Grade Not Exposed to Weather: AWPB Standard LP-2, LP-3, LP-4 or LP-7.
  - 3. Wood Above Grade Exposed to Weather (Not Painted): AWPB Standard LP-22 or LP-33 with 0.05 net retention.
  - 4. Wood Post Set in Ground: AWPB Standard MLP.
- D. Do not use oil borne pentachlorophenol for surfaces that are to be painted and surfaces in contact with

roofing.

E. Provide pressure treated lumber for all wood in ground contact, all wood decking and framing exposed to weather, blocking, grounds, nailers and other uses indicated to be pressure treated. All wood in contact with concrete, stucco, steel and masonry shall be pressure treated.

#### 2.7 MISCELLANEOUS MATERIALS

- A. Fasteners and Anchorages: Provide size and type as indicated and as recommended by applicable standards, complying with applicable Federal Specifications for nails, staples, screws, bolts, nuts, washers and anchoring devices.
  - 1. Bolts and other fasteners for framing shall be hot dip galvanized. Electro-galvanize is not acceptable.
  - 2. Nails for exterior use shall be hot-dip galvanized or aluminum.
  - 3. Nails for concealed framing shall be cement-coated.
- B. Building Paper: Asphalt saturated felt, non-perforated, ASTM D 226. Use 15 lb. for application over wall sheathing.
- C. Framing Anchors: Provide anchors and accessories, including hurricane anchors as indicated and required to complete the work. Anchors and accessories shall be 18-gage sheet steel minimum, hot-dip galvanized after fabrication.
- D. Bolts, nuts and washers for exterior wood framing shall be hot-dip galvanized after fabrication, ASTM A 153.

#### PART 3 - EXECUTION

## 3.1 GENERAL

- A. Set carpentry work accurately to required levels and lines, with members plumb and true and accurately cut and fitted.
- B. Securely attach carpentry work to substrates by anchoring and fastening as shown and as required by carpentry standards. Select fasteners of size that will not penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting of wood; predrill as required.

# 3.2 WOOD GROUNDS, NAILERS AND BLOCKING

- A. Provide of fire retardant pressure treated material where required for attachment of finish hardware, mirrors, toilet accessories and other work supported from drywall walls and ceilings. Form to shapes and cut as required for true line and level of work to be attached. Coordinate location with other work involved.
- B. Attach to substrates as required to support applied loading. Countersink bolts and nuts flush with surfaces, unless otherwise shown. Build anchors into masonry during installation of masonry work. In concrete, set and anchor to formwork before concrete placement.
- C. Provide permanent grounds, where required, of dressed, pressure-treated, key-beveled lumber not less than 1-1/2 inch wide and of the thickness required to bring face of grounds to exact thickness of finish material involved.

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# 3.3 WOOD FRAMING

- A. Provide framing members of sizes and on spacing shown, and frame openings as shown, or, if not shown, comply with the recommendation of the Manual for House Framing of the National Forest Products Association NFPA.
- B. Anchor and nail as shown, and to comply with the Recommended Nailing Schedule of the Manual for House Framing and National Design Specifications for Wood Construction published by NFPA.

# 3.4 INSTALLATION OF PLYWOOD

A. Comply with the recommendation of the American Plywood Association (APA). Comply with applicable recommendations contained in Form No. E 30D, APA Design/Construction Guide - Residential and Commercial, for types of plywood panels and applications indicated.

**END OF SECTION** 

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# SECTION 06 42 60 ARCHITECTURAL WOODWORK

#### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. Provide interior standing and running trim, interior ornamental work, interior frames and jambs; flat panels, plastic laminate clad cabinets and countertops, and other millwork items indicated on drawings.
- B. Steel Studs and Framing: Specified in Section 09 26 00 GYPSUM DRYWALL.
- C. Flush Wood Doors: Specified in Section 08 21 20 FLUSH WOOD DOORS
- D. Refer to Division 23 for mechanical work and Division 26 for electrical work associated with millwork.

#### 1.2 QUALITY ASSURANCE

- A. Quality Standards: Mark each unit with mill or fabricator identification and grade mark, located on surfaces which will not be exposed after installation.
- B. Installer Qualifications: An experienced installer who has completed architectural woodwork similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in service performance.
- C. Fabricator Qualifications: A firm experienced in producing architectural woodwork similar to that indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Single Source Responsibility: Arrange for production by a single firm of architectural woodwork with sequence matched wood veneers.
  - Include the veneering of wood doors in the single firm production, where veneer matching extends across wood doors.
- E. Single Source Manufacturing and Installation Responsibility: Engage a qualified Manufacturer to assume undivided responsibility for woodwork specified in this section, including fabrication, finishing, and installation.
- F. Quality Standard: Unless otherwise indicated, comply with AWI's "Architectural Woodwork Quality Standards" for grades of interior architectural woodwork, construction, finishes, and other requirements.
  - 1. Provide AWI certification labels or compliance certificate indicating that woodwork complies with requirements of grades specified.
- G. Fire-Test-Response Characteristics: Where fire retardant materials or products are indicated, provide materials and products with specified fire –test-response characteristics as determined by testing identical products per test method indicated by UL, ITS, or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify with appropriate markings of applicable testing and inspecting agency in the form of separate paper label or, where required by authorities having jurisdiction, imprint on surfaces of materials that will be concealed from view after installation.
- H. Composite panels, furniture and agrifiber products (particle board) cannot contain any added ureaformaldehyde resins.

# 1.3 SUBMITTALS

- A. Manufacturer Product Data: Submit data for each material and product to be provided in the work. Include installation instructions for each item.
- Quality Certification: Submit manufacturer's certification, stating that the fabricated work conforms to AWI Grade specified.
- C. Shop Drawings: Submit shop drawings showing location of each item, dimensions of plans and elevations, large scale details, attachment devices and other components.
- D. Samples: Submit the following samples:
  - 1. Hard Wood: Species, cut and match as specified.
  - 2. Trim: 12" length of each shape for standing or running wood trim.
  - 3. Veneer: Species, cut, sequence and match as specified.
  - Veneer leaves representative of and selected from flitches to be used for transparent finished woodwork.
  - 5. Wood veneer faced panel products; with or for transparent finish, minimum 200 x 250 mm, for each species and cut with one half of exposed surface finished, with separate samples of unfaced panel product used for core.
  - 6. Laminate clad panel products, minimum 200 x 250 mm for each type, color, pattern, and surface finish, with separate samples of unfaced panel product used for core.
  - 7. Corner pieces as follows:
    - a. Cabinet front frame joints between stiles and rail as well as exposed end pieces, minimum 450 mm high x 450 mm wide x 150 mm deep.
    - b. Miter joints for standing trim.
  - 8. Exposed cabinet hardware, one unit of each type and finish.
- E. Product Certificates: Signed by manufacturers of woodwork certifying that products furnished comply with requirements.
- F. Qualification Data: For firms and persons specified in "Quality Assurance" article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

# 1.4 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Protect millwork during transit, delivery, storage and handling to prevent damage, soiling and deterioration.
- B. Do not deliver millwork until painting, wet work, grinding and similar operations which could damage, soil or deteriorate woodwork have been completed in installation areas.

#### 1.5 JOB CONDITIONS

- A. Conditioning: Do not install millwork until the required temperature and relative humidity have been stabilized and will be maintained in installation areas.
- B. Maintain temperature and humidity in installation area as required to maintain moisture content of installed millwork within a reasonable tolerance of the optimum moisture content, from the date of installation through the remainder of the construction period. The fabricator of the millwork shall determine the optimum moisture content and required temperature and humidity conditions.

#### PART 2 - PRODUCTS

#### 2.1 MATERIALS AND FABRICATION

- A. Wood Moisture Content: Provide kiln-dried lumber and maintain optimum moisture content of 8% to 13% in solid hardwood and softwood through fabrication, installation and finishing operations of interior work.
- B. Wood Work Quality Standards: Comply with AWI Quality Standards as applicable:
  - 1. Standing and Running Trim: AWI Section 300.
  - 2. Miscellaneous Work: AWI Section 700.
  - 3. Installation of Architectural Woodwork: AWI Section 1700.
  - 4. Factory Finishing: AWI Section 1500.
  - 5. Modular Casework: AWI Section 1600; Custom Casework: AWI Section 400, 400A.
- D. Construction Type: As detailed in drawings.
- E. Measurements: Before proceeding with fabrication of woodwork required to be fitted to other construction, obtain measurements and verify dimensions and shop drawing details as required for accurate fit. Ample borders and edges shall be provided to allow for subsequent scribing and trimming of woodwork for accurate fit.
- F. Factory cut openings to maximum extent possible to receive hardware, appliances, plumbing fixtures, electrical work, and similar items. Locate openings accurately and use templates or roughing in diagrams to produce accurately sized and shaped openings. Smooth edges of cutouts and, where located in countertops and similar exposures, seal edges of cutouts with a water resistant coating.

## 2.2 PLASTIC LAMINATE

- A. Plastic Laminate Type:
  - 1. Horizontal Surfaces: GP 50 (0.050" thick), General-Purpose Type (high pressure).
  - Vertical Surfaces: GP 28 (0.028" thick), General-Purpose Type (high pressure).

- 3. Concealed Panel Backing: BK 20 (0.020" thick), Backer Type (high pressure).
- B. Plastic laminate colors and finish as shown in drawings.
- C. Acceptable Manufacturers:
  - 1. Wilson Art.
  - 2. Formica Corporation.
  - 3. International Paper.
  - 4. Laminart.
  - 5. Pioneer Plastics Corp.
  - 6. Westinghouse Electric Corp.
- D. Adhesive for Bonding Plastic laminate: Un-pigmented contact cement.

#### 2.3 FIRE RETARDANT TREATED MATERIALS

- A. General: where indicated, use materials impregnated with fire retardant chemical formulations indicated by a pressure process or other means acceptable to authorities having jurisdiction to produce products with fire test response characteristics specified.
  - Do not use treated material that does not comply with requirements of referenced woodworking standard or that is warped, discolored, or otherwise defective.
  - 2. Use fire retardant treatment formulations that do not bleed through or otherwise adversely affect finishes. Do not use colorants in solution to distinguish treated material from untreated material.
- B. Fire retardant Treated Lumber and Plywood by Pressure Process: Comply with AWPA C20(lumber) and AWPA C27 (plywood), for woodwork items indicated as fire retardant treated. Use the following treatment type:
  - 1. Interior Type A: Low –hygroscopic formulation.
  - Mill lumber after treatment, within limits set for wood removal that does not affect listed fire test
    response characteristics, using a woodworking plant certified by testing and inspecting agency.
  - Mill lumber before treatment and implement special procedures during treatment and drying
    processes that prevent lumber from warping and developing discolorations from drying sticks or
    other causes, marring, and other defects affecting appearance of treated woodwork.
  - 4. Kiln-fry material before and after treatment to levels required for untreated material.

# 2.4 STANDING AND RUNNING TRIM

- A. Quality Standard: Comply with AWI Section 700, Premium Grade.
- B. Backout or groove backs of flat trim members and kerf backs of other wide flat members, except for members where such preparation would be exposed.
- C. Provide milled profiles as indicated on drawings.
- D. Wood species: Plain Sliced Cherry.

#### 2.5 FLUSH WOOD PANELING FOR TRANSPARENT FINISH

- A. Quality Standard: Comply with AWI Section 500 and its Division 500A.
- B. Grade: Premium.

- C. Veneer Species: Plain sliced cherry.
- D. Matching of Adjacent Veneer Leaves: Book match.
- E. Veneer Matching Within Panel Face: Slip match.
- F. Panel Matching Method: Match panels to one another within each separate area by the following method:
  - 1. Blueprint sequenced panels. Sequence match horizontally. Equal leaf, count match vertically.
- G. Fire Performance Characteristics: Provide paneling composed of panels of wood veneer density and fire-retardant formaldehyde-free MDF board core that are identical in construction to units tested for the following surface burning characteristics per ASTM E 84 by UL or other testing and inspecting organization acceptable to authorities having jurisdiction. Identify panels with appropriate markings of applicable testing and inspecting organization on surfaces that will be concealed from view after installation.
  - 1. Flame Spread: 75 or less.
  - 2. Smoke Developed: 40 or less.
- H. Wood Doors in Paneled Walls: Include the veneering of wood doors specified in Division 8 "Flush Wood Doors" section in the work of this section, where veneer matching extends across wood doors. End match and side match veneering to coordinate with flush wood paneling to ensure a monolithic appearance for paneled wall.

# 2.7 INTERIOR FRAMES AND JAMBS

- A. Grain and Match: Grain direction and wood match to match existing wood wainscot.
- B. Grade: AWI Section 900. Premium Grade.
- C. Wood species: Plain sliced cherry matching species and cut indicated for other types of transparent finished architectural woodwork located in same areas of building unless otherwise indicated.

#### 2.8 CLOSET AND UTILITY SHELVING:

- A. Quality Standard: Comply with AWI Section 600.
- B. Shelving for Opaque Finish: Comply with the following requirements:
  - 1. Grade: Custom.
  - 2. Shelving Material: Birch faced veneer core plywood with solid-stock edge banding.

# 2.9 LAMINATE CLAD CABINETS (PLASTIC-COVERED CASEWORK)

- A. Quality Standard: Comply with AWI Section 400 and its Division 400B "Laminate Clad Cabinets."
- B. Grade: Custom.
- C. AWI Type of Cabinet Construction: Flush overlay.

- D. Laminate Cladding: High pressure decorative laminate complying with the following requirements:
  - 1. Colors, Patterns, and Finishes: Provide materials and products that result in colors and textures of exposed laminate surfaces matching the specified finish.
  - 2. Laminate Grade for Exposed Surfaces: Provide laminate cladding complying with the following requirements for type of surface and grade.
    - a. Horizontal Surfaces Other Than Tops: GP-50 (0.050" nominal thickness).
    - b. Postformed Surfaces: PF-42 (0.042 inch nominal thickness.).
    - c. Vertical Surfaces: GP-50 (0.050" nominal thickness).
    - Edges: GP-50 (0.050" nominal thickness).
  - 3. Semiexposed Surfaces: Provide high pressure laminate, CL-20.
- E. Provide dust panels of 1/4" plywood or tempered hardboard above compartments and drawers except where located directly under tops.

# 2.10 CABINET HARDWARE AND ACCESSORY MATERIALS

- A. General: Provide cabinet hardware and accessory materials associated with architectural cabinets, except for items specified in Division 8 Section "Finish Hardware."
- B. Hardware Standard: Comply with ANSI/BHMA A156.9 "American National Standard for Cabinet Hardware" for items indicated by reference to BHMA numbers or referenced to this standard.
- C. Exposed Hardware Finishes: For exposed hardware, provide finish that complies with ANSI/BHMA A156.18 for BHMA code number indicated.
  - 1. Satin Stainless Steel, Stainless Steel Base: BHMA 630.
- D. For concealed hardware provide manufacturer's standard finish that complies with product class requirements of ANSI/BHMA A156.9.

# 2.11 ARCHITECTURAL CABINET TOPS (COUNTERTOPS)

- A. Quality Standard: Comply with AWI Section 400 and its Division 400C.
- B. Type of Top: Panel product for transparent finish (wood veneer laminated over various cores) as follows:
  - 1. Grade: Premium.
  - 2. Veneer Species: Plain sliced cherry.
  - 3. Matching of Adjacent Veneer Leaves: Book match.
  - 4. Veneer Matching Within Panel Face: Running match.
  - 5. Edge Treatment: Lumber matching wood veneer face for species and cut.
- C. Type of Top: High pressure decorative laminate complying with the following:
  - 1. Grade: Custom.
  - 2. Laminate Cladding for Horizontal Surface: High pressure decorative laminate as follows:
    - a. Colors, Patterns, and Finishes: Provide materials and products that result in colors and

textures of exposed laminate surfaces matching the Contracting Officer Representative's sample.

- b. Grade: GP-50 (0.050" nominal thickness).
- Edge Treatment: Same as laminate cladding on horizontal surfaces.

#### 2.12 SHOP FINISHING

- A. Quality Standard: Comply with AWI Section 1500 unless otherwise indicated.
- B. General: The entire finish of interior architectural woodwork is specified in this section, regardless of whether factory applied or applied after installation.
  - 1. Factory Finishing: The extent to which the final finish is applied to architectural woodwork at factory is Contractor's option, except factory apply at least prime/base coat to the greatest extent possible before delivery.
- C. Preparations for Finishing: Comply with referenced quality standard for sanding, filling countersunk fasteners, sealing concealed surfaces and similar preparations for finishing of architectural woodwork, as applicable to each unit of work.

#### **PART 3 - EXECUTION**

#### 3.1 PREPARATION

- A. Condition millwork to average prevailing humidity conditions in installation areas prior to installing.
- B. Prior to installation examine shop fabricated work for completion and complete work as required, including back priming and removal of packing.

## 3.2 INSTALLATION

- A. Quality Standard: Install woodwork to comply with AWI Section 1700 for same grade specified in Part 2 of this section for type of woodwork involved.
- B. Install woodwork plumb, level, true, and straight with no distortions. Shim as required with concealed shims. Install to a tolerance of 1/8" in 8'-0" or plumb and level (including tops) and with no variations in flushness of adjoining surfaces.
- C. Scribe and cut woodwork to fit adjoining work and refinish cut surfaces or repair damaged finish at cuts.
- D. Fire-Retardant-Treated Wood: Handle, store, and install fire- retardant-treated wood to comply with recommendations of chemical treatment manufacturer including those for adhesives where are used to install woodwork.
- E. Anchor woodwork to anchors or blocking built in or directly attached to substrates. Secure to grounds, stripping and blocking with countersunk, concealed fasteners and blind nailing as required for a complete installation. Except where prefinished matching fastener heads are required, use fine finishing nails for exposed nailing, countersunk and filled flush with woodwork and matching final finish where transparent finish is indicated.
- F. Standing and Running Trim and Rails: Install with minimum number of joints possible, using full-length

- pieces (from maximum length of lumber available) to the greatest extent possible. Stagger joints in adjacent and related members. Cope at returns and miter at corners.
- G. Cabinets: Install without distortion so that doors and drawers fit openings properly and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete the installation of hardware and accessory items as indicated. Maintain veneer sequence matching (if any) of cabinets with transparent finish.
- H. Tops: Anchor securely to base units and other support systems as indicated.
- Paneling: Anchor paneling to supporting substrate with concealed panel-hanger clips and by blind nailing on backup strips, splined-connection strips, and similar associated trim and framing. Do not face nail unless otherwise indicated.
- J. Complete finishing work specified in this section to whatever extent not completed at shop or before installation of woodwork.

# 3.3 CLEANING, FINISHING AND PROTECTION

- Repair damaged and defective millwork wherever possible to eliminate defects, functionally and visually; where not possible to repair properly, replace with new work.
- Clean exposed and semi-exposed surfaces. Touch-up shop applied finished to restore damaged or soiled areas.
- C. Protection: Protect and maintain conditions necessary to ensure that the work will be without damage or deterioration at the time of acceptance.

**END OF SECTION** 

# SECTION 07 27 00 FIRESTOPPING

# **PART 1 - GENERAL**

#### 1.1 DESCRIPTION

- A. Firestopping shall include sealing (firestopping) all openings, spaces and penetrations through fire and smoke barriers including floors, walls, partitions and decks. <u>Contractor is responsible to firestop all new and existing openings/penetrations within the area of work.</u>
- B. Seal floor to floor, floor-ceiling and ceiling-roof penetrations openings and passages.
- C. Seal pipes, conduits, wiring, sleeves, ducts and other utilities that penetrate fire-rated walls, partitions, ceilings and floors.

#### 1.2 STANDARDS

- A. All materials used shall be tested in accordance with ASTM #-814. Each system used for firestopping shall be tested, approved and listed by U.L. or other approved testing agency. The rating of the firestopping system shall provide the same or greater hourly fire rating as that of the fire barrier through which it is penetrating and sealed.
- B. U.L. Test: ASTM E-814 Fire Tests of Through-Penetration Fire Stops.

## 1.3 SUBMITTALS

- Manufacturer's Product Data: Submit descriptive technical data and installation instructions for each material and product.
- Test Report: Submit copy of test report from UL or other testing agency for each firestopping system to be used.

# **PART 2 - PRODUCTS**

# 2.1 MINERAL FIBER TYPE FIRE STOPS

- A. Mineral fiber insulation with special fire and smoke resistant sealant.
- B. Accessories: Provide metal clips, sheet metal closures, anchor bolts, impaling clips and pins and other accessories required to provide firestopping in accordance with the fire test report for each system provided.
- C. Manufacturer: Provide USG Thermafiber Smoke-Stop System or approved equivalent system of Pyro-Fiber by Manville Engineered Systems Group. System shall consist of Thermafiber Safing Insulation 4" thick, 4-lb. density, without facing, sealed with Thermafiber Smoke Seal Compound.

## 2.2 WRAP/CALK TYPE FIRESTOPPING

A. Provide a UL tested, approved, listed and classified system of intumescent materials for firestopping penetrations through fire and smoke barriers for penetrating materials where mineral fiber type firestopping systems are not approved or not practical for firestopping.

- B. Provide metal closures and collars, anchor bolts, fillers and other accessories required by the U.L. Design Test Report.
- C. Manufacturer: Provide 3M Fire Barrier Caulk, Dow Corning Fire Stop System, Hilti Firestop System, Metalines Metacaulk or approved equivalent intumescent wrap and sealant forms as required.

# **PART 3 - EXECUTION**

# 3.1 PREPARATION

- A. Penetration shall be clean and free of debris, dirt and dust and dry.
- B. Apply metal primer when recommended by manufacturer of the firestopping material.
- C. Dam penetration with acceptable material.

# 3.2 APPLICATION

- A. Apply materials in accordance with manufacturer's directions.
- B. Install the system in accordance with UL Design Test Report.
- C. Work to be done only by experienced installers of specific products.

END OF SECTION

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# SECTION 07 92 00 SEALANTS AND CALKING

#### PART 1 - GENERAL

# 1.1 SUMMARY

- A. This Section includes joint sealants for the following applications, including those specified by reference to this Section:
  - 1. Interior joints in vertical surfaces and horizontal nontraffic surfaces.
  - 2. Interior joints in horizontal traffic surfaces.
  - 3. Pick-proof sealant for all cellblock areas/spaces.
- B. Colors for exposed materials will be selected by Architect.

#### 1.2 PERFORMANCE REQUIREMENTS

- A. Provide elastomeric joint sealants that establish and maintain watertight and airtight continuous joint seals without staining or deteriorating joint substrates.
- B. Provide joint sealants for interior applications that establish and maintain airtight and water-resistant continuous joint seals without staining or deteriorating joint substrates.

#### 1.3 SUBMITTALS

- A. Product Data: For each joint-sealant product indicated.
- B. Preconstruction field test reports.
- C. Compatibility and adhesion test reports.
- D. Product certificates.

# 1.4 QUALITY ASSURANCE

- A. Preconstruction Compatibility and Adhesion Testing: Submit samples of materials that will contact or affect joint sealants to joint-sealant manufacturers for testing according to ASTM C 1087 to determine whether priming and other specific joint preparation techniques are required to obtain rapid, optimum adhesion of joint sealants to joint substrates.
- B. Preconstruction Field-Adhesion Testing: Before installing elastomeric sealants, field test their adhesion to Project joint substrates according to the method in ASTM C 1193 that is appropriate for the types of Project joints.
- C. Mockups: Build mockups incorporating sealant joints, as follows, to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution:
  - 1. Joints in mockups of assemblies specified in other Sections that are indicated to receive elastomeric joint sealants, which are specified by reference to this Section.

#### 1.5 WARRANTY

- A. Special Installer's Warranty: Installer's standard form in which Installer agrees to repair or replace elastomeric joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
  - 1. Warranty Period: Five years from date of Substantial Completion.
- B. Special Manufacturer's Warranty: Manufacturer's standard form in which elastomeric sealant manufacturer agrees to furnish elastomeric joint sealants to repair or replace those that do not comply with performance and other requirements specified in this Section within specified warranty period.

#### PART 2 - PRODUCTS

# 2.1 MANUFACTURERS

A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, products listed in other Part 2 articles.

# 2.2 MATERIALS, GENERAL

- A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer, based on testing and field experience.
- B. VOC Content of Interior Sealants: Provide interior sealants and sealant primers that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
  - 1. Sealants: 250 g/L.
  - 2. Sealant Primers for Nonporous Substrates: 250 g/L.
  - 3. Sealant Primers for Porous Substrates: 775 g/L.
- C. Colors of Exposed Joint Sealants: As selected by Contracting Officer's Representative or as required to match adjoining materials from manufacturer's full range.

# 2.3 ELASTOMERIC JOINT SEALANTS

- A. Elastomeric Sealants: Comply with ASTM C 920 and other requirements indicated for each liquidapplied chemically curing sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.
- B. Stain-Test-Response Characteristics: Where elastomeric sealants are specified to be nonstaining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.
- C. Single-Component Neutral-Curing Silicone Sealant ES-1:
  - 1. Available Products:
    - a. Dow Corning Corporation; 799.
    - b. GE Silicones; UltraGlaze SSG4000.
    - c. GE Silicones; UltraGlaze SSG4000AC.
    - d. Polymeric Systems Inc.; PSI-631.
    - e. Schnee-Morehead, Inc.; SM5731 Poly-Glaze Plus.
    - f. Tremco; Proglaze SG.
    - Tremco; Spectrem 2.
    - h. Tremco: Tremsil 600.

- 2. Type and Grade: S (single component) and NS (nonsag).
- 3. Class: 25.
- 4. Use Related to Exposure: NT (nontraffic).
- 5. Uses Related to Joint Substrates: G, A, and, as applicable to joint substrates indicated, O.
- 6. Applications: Glazing sealant.
- D. Single-Component Mildew-Resistant Neutral-Curing Silicone Sealant ES-2:
  - 1. Available Products:
    - a. Pecora Corporation; 898.
    - Tremco; Tremsil 600 White.
  - 2. Type and Grade: S (single component) and NS (nonsag).
  - 3. Class: 25.
  - 4. Use Related to Exposure: NT (nontraffic).
  - 5. Uses Related to Joint Substrates: M, G, A, and, as applicable to joint substrates indicated, O.
  - 6. Applications: Joints between countertop and backsplash at wet conditions.
- E. Multicomponent Nonsag Urethane Sealant ES-3:
  - 1. Available Products:
    - Pecora Corporation; Dynatrol II.
    - b. Tremco; Dymeric 511.
    - c. Tremco; Vulkem 922.
  - 2. Type and Grade: M (multicomponent) and NS (nonsag).
  - 3. Class: 50.
  - Uses Related to Exposure: NT (nontraffic) and T (traffic).
  - 5. Uses Related to Joint Substrates: M, G, A, and, as applicable to joint substrates indicated, O.
  - Applications:
    - a. Control, expansion, and soft joints in masonry.
    - b. Joints between concrete and other materials.
    - c. Joints between metal frames and other materials.
    - Other exterior joints for which no other sealant is indicated.
- F. Multicomponent Pourable Urethane Sealant ES-4:
  - 1. Available Products:
    - Bostik Findley; Chem-Calk 550.
    - b. Meadows, W. R., Inc.; POURTHANE.
    - c. Pacific Polymers, Inc.; Elasto-Thane 227 High Shore Type I (Self Leveling).
    - d. Pacific Polymers, Inc.; Elasto-Thane 227 Type I (Self Leveling).
    - e. Pecora Corporation; Urexpan NR-200.
    - f. Polymeric Systems Inc.; PSI-270SL.
    - g. Schnee-Morehead, Inc.; Permathane SM 7201.
    - h. Tremco; THC-901.
    - i. Tremco; THC-900.
    - j. Tremco; Vulkem 245.
    - k. Pecora Corporation; Urexpan NR 300, Type H.
    - I. Pecora Corporation: Urexpan NR 300, Type M.
  - 2. Type and Grade: M (multicomponent) and P (pourable).
  - 3. Class: 25.
  - 4. Use Related to Exposure: T (traffic).
  - 5. Uses Related to Joint Substrates: M, A, and, as applicable to joint substrates indicated, O.
  - 6. Applications: Joints in sidewalks and vehicular paving.

#### 2.4 SOLVENT-RELEASE JOINT SEALANTS

A. Butyl-Rubber-Based Solvent-Release Joint Sealant SRS-1: Comply with ASTM C 1085.

- Available Products:
  - a. Bostik Findley; Bostik 300.
  - b. Fuller, H. B. Company; SC-0296.
  - c. Fuller, H. B. Company; SC-0288.
  - d. Pecora Corporation; BC-158.
  - e. Polymeric Systems Inc.; PSI-301.
  - f. Sonneborn, Division of ChemRex Inc.; Sonneborn Multi-Purpose Sealant.
  - g. Tremco; Tremco Butyl Sealant.
- 2. Applications:
  - Concealed sealant bead in sheet metal work.
  - Concealed sealant bead for exterior door thresholds.

#### 2.5 LATEX JOINT SEALANTS

- A. Latex Sealant LS-1: Comply with ASTM C 834, Type O P, Grade NF.
  - Available Products:
    - a. Bostik Findley; Chem-Calk 600.
    - b. Pecora Corporation; AC-20+.
    - c. Schnee-Morehead, Inc.; SM 8200.
    - d. Sonneborn, Division of ChemRex Inc.; Sonolac.
    - e. Tremco: Tremflex 834.
  - Applications:
    - a. Perimeter joints between interior wall surfaces and frames of interior doors windows.
    - b. Perimeter joints between interior wall surfaces and millwork.

## 2.6 JOINT-SEALANT BACKING

- A. General: Provide sealant backings of material and type that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
- B. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin) or as approved in writing by joint-sealant manufacturer for joint application indicated, and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance:
- C. Elastomeric Tubing Sealant Backings: Neoprene, butyl, EPDM, or silicone tubing complying with ASTM D 1056, nonabsorbent to water and gas, and capable of remaining resilient at temperatures down to minus 26 deg F. Provide products with low compression set and of size and shape to provide a secondary seal, to control sealant depth, and to otherwise contribute to optimum sealant performance.
- D. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self-adhesive tape where applicable.

# 2.7 PICK-PROOF SECURITY SEALANT

- A. Security Sealant: Manufacturer's standard, high-modulus, nonsag, two-part, pick-proof, epoxy sealant recommended for sealing nonmoving interior joints for use in all cellblock areas/spaces, typical.
  - Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Degussa Building Systems; Sonneborn EpoGel.
    - b. Pecora Corporation; DynaPoxy EP-1200.

#### 2.8 MISCELLANEOUS MATERIALS

- A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
- B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.
- C. Masking Tape: Non staining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

#### **PART 3 - EXECUTION**

# 3.1 PREPARATION

- A. Confirm compatibility of sealants with bentonite waterstop where occurs.
- B. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants.
  - Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant.
    - a. Clean porous joint substrate surfaces by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air.
  - 2. Remove laitance and form-release agents from concrete.
    - Clean nonporous surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.
- C. Joint Priming: Prime joint substrates, where recommended in writing by joint-sealant manufacturer, based on preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.
- D. Masking Tape: Use masking tape where required to prevent contact of sealant with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

#### 3.2 INSTALLATION

- A. Environmental Limitations:
  - 1. Do not proceed with installation of joint sealants under following conditions:
    - a. When ambient and substrate temperature conditions are outside limits permitted by joint sealant manufacturer or are below 4.4 °C (40 °F).
    - b. When joint substrates are wet.
- B. Joint-Width Conditions:
  - Do not proceed with installation of joint sealants where joint widths are less than those allowed by joint sealant manufacturer for applications indicated.

- C. Joint-Substrate Conditions:
  - Do not proceed with installation of joint sealants until contaminants capable of interfering with adhesion are removed from joint substrates.
- D. SEALANT DEPTHS AND GEOMETRY:
  - 1. At widths up to 6 mm (1/4 inch), sealant depth equal to width.
  - 2. At widths over 6 mm (1/4 inch), sealant depth 1/2 of width up to 13 mm (1/2 inch) maximum depth at center of joint with sealant thickness at center of joint approximately 1/2 of depth at adhesion surface.
- E. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- F. Acoustical Sealant Application Standard: Comply with recommendations in ASTM C 919 for use of joint sealants in acoustical applications as applicable to materials, applications, and conditions indicated.
- G. Install sealant backings of type indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
  - 1. Do not leave gaps between ends of sealant backings.
  - 2. Do not stretch, twist, puncture, or tear sealant backings.
  - Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.
- H. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.
- Install sealants using proven techniques that comply with the following and at the same time backings are installed:
  - 1. Place sealants so they directly contact and fully wet joint substrates.
  - 2. Completely fill recesses in each joint configuration.
  - 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
- J. Tooling of Non-sag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
  - 1. Remove excess sealant from surfaces adjacent to joints.
  - Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
  - Provide concave joint configuration per Figure 5A in ASTM C 1193, unless otherwise indicated.
- K. Installation of Preformed Silicone-Sealant System: Comply with manufacturer's written instructions.
- L. Installation of Preformed Foam Sealants: Install each length of sealant immediately after removing protective wrapping, taking care not to pull or stretch material, producing seal continuity at ends, turns, and intersections of joints. For applications at low ambient temperatures where expansion of sealant requires acceleration to produce seal, apply heat to sealant in compliance with sealant manufacturer's written instructions.

M. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

#### 3.3 FIELD QUALITY CONTROL:

- A. Field-Adhesion Testing: Field-test joint-sealant adhesion to joint substrates as recommended by sealant manufacturer:
  - 1. Extent of Testing: Test completed elastomeric sealant joints as follows:
    - Perform 10 tests for first 100 feet of joint length for each type of elastomeric sealant and joint substrate.
    - Perform one test for each 100 feet of joint length thereafter or one test per each floor per elevation.
- B. Inspect joints for complete fill, for absence of voids, and for joint configuration complying with specified requirements. Record results in a field adhesion test log.
- C. Inspect tested joints and report on following:
  - Whether sealants in joints connected to pulled-out portion failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each type of product and joint substrate.
  - Compare these results to determine if adhesion passes sealant manufacturer's field-adhesion hand-pull test criteria.
  - 3. Whether sealants filled joint cavities and are free from voids.
  - 4. Whether sealant dimensions and configurations comply with specified requirements.
- D. Record test results in a field adhesion test log. Include dates when sealants were installed, names of persons who installed sealants, test dates, test locations, whether joints were primed, adhesion results and percent elongations, sealant fill, sealant configuration, and sealant dimensions.
- E. Repair sealants pulled from test area by applying new sealants following same procedures used to originally seal joints. Ensure that original sealant surfaces are clean and new sealant contacts original sealant.
- F. Evaluation of Field-Test Results: Sealants not evidencing adhesive failure from testing or noncompliance with other indicated requirements would be considered satisfactory. Remove sealants that fail to adhere to joint substrates during testing or to comply with other requirements. Retest failed applications until test results prove sealants comply with indicated requirements.

**END OF SECTION** 

# SECTION 08 10 00 STEEL DOORS AND FRAMES

#### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. Provide steel frames for wood doors indicated on drawings.
- B. Provide acoustically rated door and frame assembly where indicated on drawings.
- C. Hardware is specified in Section 08 71 00 FINISH HARDWARE.

#### 1.2 STANDARDS

- A. Steel doors and frames shall conform to one of the following standards except as specified herein.
  - 1. ANSI/SDI (Steel Door Institute): SDI-100 "Recommended Specifications Standard Steel Doors and Frames" and Appendices A, B, C and D.
  - 2. HMMA (Hollow Metal Manufacturer's Assoc.) a Division of NAAMM (National Association of Architectural Metal Manufacturers): Standards for hollow metal doors and frames of the Hollow Metal Manual.
- B. Hardware preparations and locations shall conform to the following except as modified herein or in Section 08 71 00 FINISH HARDWARE.
  - 1. DHI (Door and Hardware Institute): Recommend Locations for Builder's Hardware.
  - 2. ANSI A 115 Series: Preparation of doors and frames for finish hardware.

# 1.3 SUBMITTALS

- A. Manufacturer's Product Data: Submit for each type door and frame and each accessory required.
- B. Shop Drawings: Submit details for installation and anchorage of each frame type, elevations of each door type. Include finish hardware location and reinforcements.
  - 1. Provide schedule of doors and frames using same reference numbers for details and openings as the drawings.
  - 2. Provide schedule of glazing frames and stops with glazing requirements.
  - 3. Submit manufacturer's certification for each fire door and frame assembly with name of testing agency.

# 1.4 DELIVERY, STORAGE AND HANDLING

 Protect doors and frames from damage and exposure. Store in dry location indoors, stacked on wood runners.

# PART 2 - PRODUCTS

# 2.1 ACCEPTABLE MANUFACTURERS

- A. Provide steel doors and frames manufactured by one of the following members of the Steel Door Institute:
  - 1. Allied Steel Products, Inc.
  - 2. Amweld.
  - Ceco Corp.

Steelcraft.

#### 2.2 MATERIALS

- A. Steel Sheets: Hot-rolled ASTM A 569 and ASTM A 568 or cold-rolled ASTM A 366 and ASTM A 568.
- B. Galvanized Steel Sheets: ASTM A 526, with ASTM A 525, G60 zinc coating, mill phosphatized.
- C. Supports and Anchors: Fabricate of not less than 18-gage galvanized sheet steel.
- D. Inserts, Bolts and Fasteners: Manufacturer's standard units hot-dip galvanized complying with ASTM A 153, Class C or D as applicable.
- E. Shop Primer: Manufacturer's standard rust-inhibitive coating.

#### 2.3 FABRICATION

- A. Fabricate door and frame units to be rigid, neat in appearance and free from defects, warp or buckle.
- B. Doors: Full flush or seamless, seams and joints welded and ground smooth. All doors shall be sound deadened by filling core with non-combustible mineral fiber.
  - Glass Openings: Where glass lights are indicated, prepare openings inn the factory and provide 20 gage steel moldings and stops attached with countersunk Phillips head screws.
  - 2. Face sheets shall be stiffened by continuous vertical formed steel sections, not less than 22 gage, and spot-welded to face sheets.
- C. Frames: Integral buck and stop to profile indicated.
- D. Exposed Fasteners: Provide countersunk flat Phillips heads.

# 2.5 FINISH HARDWARE PREPARATION

A. Prepare doors and frames to receive finish hardware in accordance with approved Finish Hardware Schedule and templates provided by hardware supplier. Comply with ANSI A 115 series. Reinforce doors and frames to receive surface-applied hardware. Locate finish hardware in accordance with referenced DHI Standard.

# 2.6 SHOP PRIME

A. Clean and treat all exposed steel surfaces including galvanized surfaces of mill scale, rust, oil and other foreign materials. Apply shop prime not less than 1.5 mils dry to provide uniformly finished surface ready to receive finish paint.

# 2.7 STEEL DOORS

- A. Provide steel doors of type indicated on drawings.
  - 1. Exterior doors shall have 16 gage face panels.
  - 2. Interior doors shall have 18 gage face panels, unless noted otherwise.

- B. Transom Panels: Fabricate same as door scheduled to have transom panel. Provide fasteners for attaching to frame.
- C. Door Louvers: Provide sight-proof stationary louvers in doors where indicated, fabricate of inverted Y-shaped blades formed of 16-gage steel set into 18-gage steel frame. Galvanize louvers and frames for all exterior doors.

# 2.8 STEEL FRAMES, WELDED

- A. Provide welded metal frames for interior doors, transoms, sidelights, view windows and other openings indicated on drawings.
  - 1. Fabricate all exterior frames, all frames in masonry and all frames over 4 ft. wide of 14 gage steel.
  - Fabricate interior frames (except frames in masonry) up to 4 ft. wide of 16-gage steel; frames over 4 ft. wide of 14-gage steel.
- B. Each jamb shall have 14-gage steel floor anchor welded to inside of jamb. All frames over 4 ft. wide shall have 12 gage channel stiffener welded in head member. Corners shall have 18-gage interlocking clips for backup and holding corner miter flush with hairline joint.
- C. Drywall Frames: Back edge of jamb returns shall have minimum 5/16" back bend to receive drywall.
- D. Door Silencers: Except on fire-rated frames, drill stops to receive 3 silencers on strike jambs of single-swing frames and 2 silencers on heads of double-swing frames.
- E. Plaster-Mortar Guards: Provide 26-gage steel guards welded to frame, at back of finish hardware cutouts to close off interior of openings and to prevent mortar from entering cutouts.
- F. Jamb Anchors: Fabricate of 16-gage steel minimum. Anchors in masonry and concrete shall be galvanized, T-shaped and corrugated or punched for embedding in mortar. Anchors for steel studs shall be T-shaped with integral stirrup straps for attaching to studs.
- G. Spreaders: Each welded frame shall be provided with a factory installed spreader bar at bottom of jambs.
- H. Provide UL labeled fire doors and frames where indicated.

#### **PART 3 - EXECUTION**

# 3.1 INSTALLATION

 Install steel doors, frames and accessories in accordance with approved shop drawings, referenced standards and manufacturer's data.

#### 3.2 FRAME INSTALLATION

- A. Comply with SDI-105 or CHM 1-74, unless otherwise specified or indicated.
- B. Set frames accurately in position, plumbed, aligned and braced securely until permanent anchors are set. Anchor floor anchors to floor with 3/8-inch bolts and drilled-in steel expansion sleeves. After wall construction is completed, remove temporary braces and spreaders leaving surfaces smooth and undamaged.
  - Jamb Anchors: Provide 3 jamb anchors per jamb for frames up to 7'-6". Install at hinge and strike levels. Frames to 8'-0" shall have 4 anchors per jamb; frames over 8'-0" shall have 5 anchors per

jamb.

- 2. In-Place Steel, Concrete and Masonry Construction: Set frames and secure to adjacent construction with machine screws and in-place type anchorage devices furnished by frame manufacturer.
- 3. Metal Stud Partitions: Attach jamb anchors to studs with self-tapping screws.
- 4. Masonry: Install anchors in masonry joints as masonry is laid up, fill frames with mortar.

# 3.3 DOOR INSTALLATION

A. Fit hollow metal doors accurately in frames, within clearances specified in SDI-100 or CHM-1-74.

# 3.4 ADJUST AND TOUCH-UP

- A. After erection, sand rusted and damaged areas smooth and touch-up all damaged primer.
- B. Adjustments: Check and readjust hardware so that doors operate as intended.

**END OF SECTION** 

# SECTION 08 21 20 FLUSH WOOD DOORS

#### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. Provide flush wood doors specified and indicated on drawings and in door schedule. New flush wood doors to match existing on the floor..
- B. Related Section for wood veneer: Section 06 42 60- ARCHITECTURAL WOODWORK
- C. Related Section for door hardware: Section 08 71 00- FINISH HARDWARE
- D. Related Section for steel door frames: Section 08 10 00- STEEL DOORS AND FRAMES

#### 1.2 SUBMITTALS

- A. Manufacturer's Product Data: Submit for each type of door, including details of core and edge construction and trim for openings.
- B. Shop Drawings: Submit shop drawings indicating location and size of each door, elevation of each kind of door, details of construction, location and extent of hardware blocking, fire ratings, requirements for factory finishing and other pertinent data.
  - For factory premachined doors, indicate dimensions and locations of cutouts for locksets and other cutouts adjacent to light openings.
- C. Samples: Submit samples, 12" by 12" or as indicated, for the following:
  - Doors for Transparent Finish: Door faces with solid wood edging representing typical range of color and grain for each species of veneer and solid lumber required.
  - Metal Frames for Light Openings: Metal light frames in 6" lengths; for each material, type and finish required.

# 1.3 STANDARDS

- A. Comply with the following standards:
  - 1. NWWDA Quality Standard IS 1A latest edition Wood Flush Doors by National Wood Window and Door Association (NWWDA).
  - 2. AWI Quality Standard Architectural Woodwork Quality Standards, including Section 1300 Architectural Woodwork Institute (AWI).
- C. NWWDA Quality Marking: Mark each door with NWWDA Wood Flush Door Certification Hallmark certifying compliance with applicable requirements of NWWDA I.S. 1-87.
- D. Manufacturer: Obtain doors from a single manufacturer.
- E. Security Hardware and Devices: Contractor is responsible to coordinate preparation for and installation of all special security hardware and security devices specified elsewhere for inclusion into solid core flush

wood doors.

## 1.4 FIRE-RATED WOOD DOORS

A. Wood fire doors shall have been tested in door and frame assemblies per ASTM E 152 and shall be labeled and listed for ratings indicated by UL, Warnock Hersey or other testing and inspection agency acceptable to authorities having jurisdiction.

# 1.5 DELIVERY, STORAGE AND HANDLING

- A. Package doors at factory in manufacturer's recommended protective packaging.
- B. Protect doors during transit, storage and handling to prevent damage, soiling and deterioration. Comply with NWWDA pamphlet How to Store, Handle, Finish, Install and Maintain Wood Doors and manufacturer's instructions.
- C. Identify each door with same designation as Door Schedule.

# 1.6 PROJECT CONDITIONS

A. Store and install doors only when temperature and relative humidity comply with requirements of AWI quality standard including Section 100-S-3 Moisture Content applicable to project's geographical location.

#### 1.7 WARRANTY

- A. Door Manufacturer's Warranty: Submit written agreement on door manufacturer's standard form signed by Manufacturer, Installer and Contractor, agreeing to repair or replace defective doors that do not conform to tolerance limitations of referenced quality standards.
- B. Warranty shall also include reinstallation which may be required due to repair or replacement of defective doors where defect was not apparent to hanging.
- C. Guarantee shall be for life of installation.

# **PART 2 - PRODUCTS**

# 2.1 ACCEPTABLE MANUFACTURERS

- A. Provide doors by one of the following:
  - 1. Algoma Hardwoods, Inc.
  - 2. Eggers Industries, Architectural Door Division.
  - 3. Marshfield Door Systems.
- B. Provide all doors to receive 5/8" (10 mm) wide factory routed and stained reveals to match existing door design.

# 2.2 FLUSH SOLID CORE WOOD DOORS FOR TRANSPARENT FINISH

A. Faces: To match existing doors. Veneer of species to match pattern and faces of flush wood paneling

specified in Division 6 "Architectural Woodwork" section. Veneers shall match that of flush wall paneling of respective spaces in which wood doors are installed. Receive veneer facing from and coordinate application of veneer with supplier of veneer for flush wood paneling provided under referenced architectural woodwork specification.

- B. Grade: AWI Premium Grade.
- C. Adhesive: Type I, AWI Section 1300.
- D. Core: Special sound dampening core encapsulated by stiles, rails, crossbands and face veneers. Provide blocking at all locations for hardware as required to be attached without using through-bolts.
- E. Door thickness: 13/4".
- F. STC Rating: STC 45, or as indicated otherwise
- G. Compliance: WDMA I.S 1-A, Premium Grade.
- H. Testing Methods: ASTM E 90 and E 413.
- Perimeter Gasketing, Drop Seals and Threshold where specified: Hardware materials required to achieve scheduled STC ratings.

# 2.3. FLUSH SOLID CORE DOORS FOR OPAQUE FINISH:

- A. Faces: Medium density overlay over standard thickness hardwood face veneers.
- B. AWI Grade: Custom.
- C. Adhesive: Type I, AWI Section 1300.
- D. Core: Special sound dampening core encapsulated by stiles, rails, crossbands and face veneers. Provide blocking at all locations for hardware as required to be attached without using through-bolts.
- E. Door thickness: 13/4".
- F. STC Rating: STC 45, or as indicated otherwise
- G. Compliance: WDMA I.S 1-A, Custom Grade.
- H. Testing Methods: ASTM E 90 and E 413.
- Perimeter Gasketing, Drop Seals and Threshold where specified: Hardware materials required to achieve scheduled STC ratings.

#### 2.4 WOOD FIRE DOORS

- A. Faces and grade shall match non-rated doors.
- B. Provide doors with fire-resistance rating indicated in Door Schedule.
- C. Edge Construction: Laminated edge construction.

#### 2.5 LOUVERS AND LIGHT FRAMES

- Furnish manufacturer's standard 20-gage steel, sightproof type louvers, of sizes indicated, unless otherwise noted. Galvanize and factory finish to match door.
- B. Framed Lights: Manufacturer's standard frame formed of hard wood for field finishing and approved for use in label doors for the ratings indicated.

# 2.6 FABRICATION

- A. Factory pre-fit and pre-machine doors to fit frame opening sizes as scheduled with the following uniform clearances and bevels:
  - 1. Comply with pre-fitting and pre-machining requirements of AWI Section 1300-S-6.
  - 2. Comply with hardware template and door frame shop drawing requirements.
  - 3. Coordinate measurements of hardware mortises in metal frames to verify dimensions and alignment before proceeding with factory pre-machining.
- B. Openings: Factory cut and trim openings in doors to comply with applicable standards of AWI for door types required.
  - 1. Louvers: Field install louvers in prepared openings.

#### 2.7 FACTORY FINISHING:

- A. General: Comply with referenced AWI quality standard including Section 1500 "Factory Finishing".
- B. Prefinish wood doors scheduled for transparent finish at factory.
- C. Transparent Finish: Comply with requirements indicated for grade, finish system, staining effect and sheen. Coordinate with and match finish of flush wood paneling specified in Division 6 "Architectural Woodwork" section.

# PART 3 - EXECUTION

## 3.1 INSTALLATION

A. Install doors to comply with manufacturer's instructions, referenced AWI standard and as indicated.

# 3,2 ADJUSTING AND PROTECTION

- A. Re-hang doors which do not swing or operate freely or replace with new doors.
- B. Refinish or replace doors damaged during installation.
- C. Protect doors from damage and abuse as recommended by door manufacturer.

# **END OF SECTION**

TTVARCHITECTS, INC.
City of Jacksonville
Mary Singleton Senior Center Renovation

SECTION 08 25 16 Concrete Cleaner

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

A. Section includes a general-purpose, non-etching acidic cleaner that removes rust, mud, atmospheric dirt, mortar smears and other stains without altering the surface texture. Light Duty Concrete Cleaner is specially formulated to remove common construction and atmospheric staining from a variety of substrates, including smooth architectural and engineered concrete, custom masonry, concrete brick, manufactured stone and decorative pavers.

# 1.3 ACTION SUBMITTALS

A. Product Data: For each type of product. Include material descriptions, application instructions, and MSDS Sheets.

# 1.4 COORDINATION

A. Coordinate cleaning with facility in advance. Provide all necessary barricades, directional signage, and protective measures to protect the visitor and staff from potential exposure and slip hazards.

# **PART 2 - PRODUCTS**

# 2.1 PERFORMANCE REQUIREMENTS

- A. Manufacturer: PROSOCO, Inc., 3741 Greenway Circle, Lawrence, KS 66046. Phone: (800) 255-4255; Fax: (785) 830-9797. E-mail: CustomerCare@prosoco.com
- B. Product: Sure Klean® Light Duty Concrete Cleaner
- C. Typical Technical Data
  - 1. FORM: Clear, colorless liquid with slight odor
  - 2. SPECIFIC GRAVITY: 1.129
  - 3. pH: 0.976 (at 1 to 2 dilution)
  - 4. WEIGHT/GAL: 9.39 pounds
  - 5. TOTAL SOLIDS: not applicable
  - 6. VOC CONTENT: not applicable
  - 7. FLASH POINT: not applicable
  - 8. FREEZE POINT: 12 degrees F ( -11 degrees C)
  - 9. SHELF LIFE: 3 years in tightly sealed, unopened container

## D. Limitations

- 1. Acidic contents may damage polished masonry, some non-masonry and acid-sensitive surfaces.
- May remove some surface-applied accent colors. Always test to confirm suitability and results before overall
  application.
- 3. Not for use on treated low-E glass; acrylic or polycarbonate sheet glazing; and glazing with surface-applied reflective, metallic or other synthetic coatings and films.

# **PART 3 - EXECUTION**

#### 3.1 EXAMINATION

A. Examine all substrates a prior to applications.

#### 3.2 TEST AREA

A. Test a minimum 4 ft. by 4 ft. area on each type of masonry. Use manufacturer's application instructions. Let the test panel dry 3 to 7 days before inspection. Keep test panels available for comparison throughout the cleaning project.

#### 3.3 APPLICATION

- B. Before applying, read "Preparation" and "Safety Information" sections in the Manufacturer's Product Data Sheet for Light Duty Concrete Cleaner. Dilute Light Duty Concrete Cleaner concentrate with 2 to 6 parts water depending upon the substrate. Refer to Product Data Sheet for recommended dilution for intended use.
- C. Working from the bottom to the top, always prewet surface with fresh water. When cleaning vertical surfaces, keep lower areas wet to avoid streaks.
- D. Apply diluted cleaning solution directly to surface with recommended masonry rush or low-pressure spray.
- E. Let cleaner stay on the surface for 3-5 minutes or until stains are gone. Do not allow cleaner to dry on the surface; staining may result. If drying occurs, lightly wet treated surfaces with fresh water and reapply in a gentle scrubbing manner. If treated surfaces are left unattended, keep people away from the cleaner.
- F. Working from the bottom to the top, reapply cleaner and rinse thoroughly with fresh water to get all residues off the surface. If pressure-rinsing equipment is not available, brush the surface while rinsing with clean water. The best combination of rinsing pressure and water volume is provided by masonry washing equipment generating 400-1000 psi with a water flow rate of 6-8 gallons per minute delivered through a 15-45 degree fan spray tip. Equipment should be adjustable to reduce water flow rate and rinsing pressure as required for controlled cleaning of more sensitive surfaces. See also "Equipment" section of the Product Data Sheet.
- G. Cleanup: clean tools and equipment using fresh water.

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END OF SECTION 08 25 16

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SECTION 08 25 30 CONCRETE SEALER

#### PART 1 - GENERAL

# 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Provide all materials, equipment and labor too:
  - 1. Clean and prepare concrete surfaces as indicated prior to the application of the repellent.
  - 2. Apply water-based alkylalkoxysilane water-repellent sealer to all concrete surfaces as indicated.

# 1.3 ACTION SUBMITTALS

A. Product Data: For each type of product. Include material descriptions, application instructions, and MSDS Sheets.

Quality Control Submittals: Provide protection plan of surrounding areas and non-work surfaces. .

## 1.4 QUALITY ASSURANCE

- A. Application Qualifications
- B. Qualifications:
  - 1. Manufacturer Qualifications: Company with minimum 15 years of experience in manufacturing of specified products.
  - 2. Manufacturer Qualifications: Company shall be ISO 9001:2000 Certified.
  - 3.Applicator Qualifications: Company with minimum of 5 years experience in application of specified products on projects of similar size and scope, and is acceptable to product manufacturer.

# 1.5 COORDINATION

- A. Contractor, architect, coating applicator and manufacturer's representative will meet on site to review project and discuss coating application aesthetic concerns and mock-up.
- B. Coordinate cleaning with facility in advance. Provide all necessary barricades, directional signage, and protective measures to protect the visitor and staff from potential exposure and slip hazards.

# 1.6 DELIVERY, STORAGE, AND HANDLING

A. Comply with manufacturer's ordering instructions and lead-time requirements to avoid construction delays.

- B. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- C. Store in unopened containers in a clean, dry area between 35 degrees F (2 degrees C) and 110 degrees F (43 degrees C).

# 1.7 PROJECT CONDITIONS

- A. Environmental Requirements:
  - 1. Apply sealer with surface, air, and material temperatures between 40 and 110 degrees F (4 and 43 degrees C) during application.
  - 2. Do not apply in rain or when rain is expected with 12 hours. Do not apply below 40 degrees F (4 degrees C) or when temperatures are expected to fall below 40 degrees F (4 degrees C) within 12 hours.

#### 1.8 WARRANTY

- A. Manufacturer's Warranty: Submit manufacturer's standard warranty form for repellent system products, including affirmation of repellent system inspection by manufacturer required by warranty provisions. Approval by manufacturer for warranty is required prior to system application. This warranty is in additional to, and not a limitation of, other rights the Owner may have under contract.
  - 1. Beneficiary: Issue warranty in legal name of project Owner.
  - 2. Warranty Period: 10 year commencing on date of substantial completion.
  - 3. Warrant Areas: All vertical concrete areas as identified in this specification.

# PART 2 - PRODUCTS

# 2.1 Manufacturer

- A. Subject to compliance with requirements, provide products from the following manufacturer:
  - BASF Building Systems 889 Valley Park Drive

Shakopee, MN 55379

Customer Service; 800-433-9517 Technical Service: 800-243-6739 Direct Phone: 952-496-6000

Internet: www.BASFbuildingsystems.com

# 2.2 MATERIALS

- A. Clear, water-based, 40 percent alkylalkoxysilane penetrating sealer providing protection against moisture intrusion, freeze/thaw cycles, and chloride intrusion. Basis of Design MasterProtect H400
  - 1. Compliance: Alberta DOT, Type 1b.
  - 2. Flash Point, ASTM D3278, SETA: Greater than 200 degrees F (93 degrees C).
  - 3. Water Absorption, ASTM C 642:
    - a. 48 Hours: 0.42 percent
    - b. 50 Days: 1.2 percent.

- 4. Scaling Resistance Rating, ASTM C672, non-air-entrained concrete, 100 cycles treated concrete: 0; no scaling.
- Resistance to Chloride-Ion Penetration, AASHTO T259 and T260:
  - a. Criteria of 1.5 at ½ inch (13mm): Less than 0.52 lbs per CY (0.31 kg/m3).
  - b. Criteria of 0.75 at one inch (25 mm): 0.00 lbs per CY (0.00 kg/m3).
- 6. Water Weight Gain, NCHRP 244 Series II Cube Test: 85 percent reduction exceeds criteria.
- 7. Absorbed Chloride, NCHRP 244 Series II Cube Test: 87 percent reduction exceeds criteria.
- 8. Absorbed Chloride, NCHRP 244 Series IV Southern Climate: 99 percent reduction exceeds criteria.
- 9. Water Repellent Performance, Alberta Transportation and utilities Procedures Type 1b:
  - a. Initial Performance: 89 percent.
  - b. Post-Abrasion Performance: 89.4 percent.
- 10. Solids and Active ingredients: 40 percent by weight.
- 11. Specific Gravity, 77 degrees F (25 degrees C): 0.95.
- 12. Density: 7.9 lbs per gallon.
- 13. Penetration, average depth, depending upon substrate: 0.24 inch (6.1 mm).
- 14. VOC Content, EPA Method 24: Less than 2.92 lbs per gallon (350 g/L) less water and exempt solvents.

#### PART 3 - EXECUTION

# 3.1 EXAMINATION

A. Examine all substrates a prior to applications.

#### 3.2 TEST AREA

- A. Install at Project site or pre-selected area of building an area for field sample, as directed by Architect or Owner.
  - 1. Provide mock-up of at least 100 sq.ft. (9.3 m2) to include surface preparation, sealant joint, and juncture details and allow for evaluation of repellent performance and finish.
  - 2. Apply material in accordance with manufacturer's written application instructions.
- B. Manufacturer's representative or designated representative will review technical aspects, surface preparation, application, and workmanship.

## 3.3 SURFACE PREPRATION

- A. Protection: Protect plant life and surfaces to remain uncoated during application. Use drop cloths or masking as required.
- B. Prepare surfaces in accordance with manufacturer's instructions.
- C. Surfaces shall be clean and structurally sound. Remove dust, dirt, oil, grease, chemical films, coatings and other contaminants before application.

## 3.4 APPLICATION

- A. Apply sealer in accordance with manufacturer's instructions.
- B. Stir material thoroughly before and periodically during use. Do not dilute.
- C. Apply to saturation to achieve a coverage rate achieved during completion of sample mock-up.
- D. Apply even distribution of sealer. Do not let ponding occur. Cleanup: clean tools and equipment using fresh water.

# 3.5 PROTECTION

A. Protect sealer from damage during construction

**END OF SECTION 08 25 30** 

# SECTION 08 31 13 ACCESS DOORS AND FRAMES

## **PART 1 - GENERAL**

#### 1.1 DESCRIPTION:

- A. Section specifies access doors or panels where access is needed to maintain equipment. Contractor to provide all access doors as required to maintain equipment, whether indicated in drawings or not.
- B. Where ceiling is already accessible sufficient to maintain equipment, no access door is required.
- C. All final locations of access doors shall be approved by COJ Project Manager.

#### 1.2 RELATED WORK:

A. Refer to Divisions 23, 26, 27, & 28 for Mechanical, Electrical, Communications, and Fire Alarm for additional requirements for Access Doors.

#### 1.3 SUBMITTALS:

- A. Submit in accordance with Section 01 33 00 SUBMITTAL PROCEDURES.
- B. Shop Drawings: Access doors, each type, showing construction, and installation details. Show all the proposed locations of access door for approval.
- C. Manufacturer's Literature and Data: Access doors, each type.

#### 1.4 APPLICABLE PUBLICATIONS

- A. Publications listed below form a part of this specification to extent referenced. Publications are referenced in the text by basic designation only.
- American Society for Testing and Materials (ASTM):
   A167-99(2004)......Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet and Strip A1008-08a.....Steel Sheet, Cold-Rolled, Carbon, Structural, High Strength Low-Alloy
- C. American Welding Society (AWS):
  D1.3-08 ......Structural Welding Code Sheet Steel
- D. National Fire Protection Association (NFPA): 80-07.....Fire Doors and Windows
- E. The National Association of Architectural Metal Manufacturers (NAAMM): AMP 500-06.....Metal Finishes Manual
- F. Underwriters Laboratories, Inc. (UL): Fire Resistance Directory

#### **PART 2 - PRODUCTS**

## 2.1 FABRICATION, GENERAL

A. Fabricate components to be straight, square, flat and in same plane where required.

- 1. Slightly round exposed edges and without burrs, snags and sharp edges.
- 2. Exposed welds continuous and ground smooth.
- 3. Weld in accordance with AWS D1.3.
- B. Number of locks and non-continuous hinges as required to maintain alignment of panel with frame. For fire rated doors, use hinges and locks as required by fire test.
- C. Provide anchors or make provisions in frame for anchoring to adjacent construction. Provide size, number and location of anchors on four sides to secure access door in opening. Provide anchors as required by fire test.

# 2.3 ACCESS DOORS, FLUSH PANEL (NON-SECURE TYPE):

#### A. Door Panel:

- Form of 1.9 mm (0.0747 inch) thick steel (typ.), or 1.5 mm (0.0598 inch) thick stainless steel sheet (in restrooms).
- Reinforce to maintain flat surface.

## B. Frame:

- 1. Form of 1.5 mm (0.0598 inch) thick steel (typ.), or stainless steel sheet (in restrooms) of depth and configuration to suit material and type of construction where installed.
- 2. Provide surface mounted units having frame flange at perimeter where installed in concrete, masonry, or gypsum board construction.
- 3. Weld exposed joints in flange and grind smooth.
- Provide expanded galvanized metal lath perimeter wings when installed in plaster except veneer plaster.

# C. Hinge:

- 1. Concealed spring hinge to allow panel to open 175 degrees.
- 2. Provide removable hinge pin to allow removal of panel from frame.

#### D. Lock:

- 1. Flush, screwdriver operated cam lock.
- 2. Provide tamper proof screws (spanner head locks) for access panels in Psychiatric Areas.

## 2.4 FINISH:

- A. Provide in accordance with NAAMM AMP 500 series on exposed surfaces.
- B. Steel Surfaces: Baked-on prime coat over a protective phosphate coating, finish coat to match surrounding color (typical).

## 2.5 SIZE:

A. Minimum 600 mm (24 inches) square door unless otherwise shown.

#### PART 3 - EXECUTION

# 3.1 LOCATION:

A. Provide access panels or doors wherever any valves, traps, dampers, cleanouts, and other control items of mechanical, electrical and conveyor work are concealed in wall or partition, or are above ceiling of gypsum board or plaster.

B. Use flush panels in partitions and gypsum board or plaster ceilings, except lay-in acoustical panel ceilings or upward access acoustical tile ceilings.

# 3.2 INSTALLATION, GENERAL:

- A. Install access doors in openings to have sides vertical in wall installations, and parallel to ceiling suspension grid or side walls when installed in ceiling.
- B. Set frames so that edge of frames without flanges will finish flush with surrounding finish surfaces.
- C. Set frames with flanges to overlap opening and so that face will be uniformly spaced from the finish surface.

# 3.3 ANCHORAGE:

- A. Secure frames to adjacent construction using anchors attached to frames or by use of bolts or screws through the frame members.
- B. Type, size and number of anchoring device suitable for the material surrounding the opening, maintain alignment, and resist displacement during normal use of access door.
- C. Anchors for fire rated access doors shall meet requirements of applicable fire test.

## 3.4 ADJUSTMENT:

- A. Adjust hardware so that door panel will open freely.
- B. Adjust door when closed so door panel is centered in the frame.

**END OF SECTION** 

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# SECTION 08 71 00 FINISH HARDWARE

#### PART 1 - GENERAL

## 1.1 DESCRIPTION

- A. Provide hardware for all doors shown on drawings and scheduled in Hardware Schedule herein.
- B. Provide new finish hardware to match existing building standard manufacturer with minimum performance requirements, finish, and appearance as specified here-in. Refer to Hardware group for specific hardware requirements for each door.
- C. Related Section 08 10 00 STEEL DOORS AND FRAMES

# 1.2 SUBMITTALS

- A. Hardware Schedule: Submit in vertical format. Indicate manufacturer's name, product description, finish and location of each item and complete keying schedule. Include manufacturer's cut sheets for each hardware item.
- B. Samples: Furnish samples of hardware items where requested for Architect's approval. Submit at same time as hardware schedule. Samples will be returned to supplier.
- C. Templates: Furnish templates and approved finish hardware schedule to door frame manufacturers and to gate fabricator for use in fabrication.

## 1.3 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver finish hardware to project site packaged with hardware set number and door number marked on package. Include manufacturer's printed installation instructions, fasteners and installation tools.
- B. Store finish hardware in a clean, dry storage area.

#### 1.4 QUALITY ASSURANCE

- A. Supplier's Qualifications: Furnish services of an Architectural Hardware Consultant responsible for hardware scheduling, keying, coordinating with other trades, consulting with Architect and Owner and on-site inspections. Supplier shall also be a recognized architectural finish hardware supplier, with warehousing facilities, who has been furnishing hardware in the project's vicinity of not less than 2 years, and who is, or who employs an experienced architectural hardware consultant (AHC).
- B. Hardware shall comply with state accessibility codes and provisions of the Americans with Disabilities Act.
- Provide hardware for fire-rated openings in compliance with current requirements of NFPA 80 and NFPA
   101. Exit hardware for fire-rated openings shall bear Underwriter's Laboratories, Inc. (UL) markings.
- NFPA 80 Fire Doors and Windows will normally be applicable in conjunction with NFPA 101, Life Safety Code.

#### 1.5 GUARANTIES

- Refer to the General Conditions for one-year guaranty.
- B. Door closers shall be guaranteed by manufacturer for lifetime from date of substantial completion.
- C. All locksets shall carry a minimum five year limited warranty. Furnish a copy of the warranty with the hardware schedule.

#### **PART 2 - PRODUCTS**

#### 2.1 KEYING

- A. <u>Coordinate all final keying system, sequencing, and requirements with</u>. All locks to be factory master-keyed with following additional requirements:
  - 1. Construction master key the project.
  - The quantity and control of construction master keys used during the construction period and the timing and procedure for conversion of the locks to the permanent keying system upon completion of construction will be determined by the Clty.
  - 3. Provide construction master keys that will not be capable of passing any lock cylinder in the project once conversion is made to the permanent keying system.
  - 4. Provide removable core cylinders.
  - 5. The city shall determine keying instructions including master key and Grand Master key systems.
- B. Operate locksets by construction key system until date of Substantial Completion. At that time, assist Owner in voiding construction key system.
- C. Transmit keys, except construction master keys, to Owner from hardware supplier. Index, tag and deliver keys in sealed container.
- D. Provide the following minimum number of keys or as directed otherwise by Owner:
  - Two change keys per cylinder.
  - 2. Six master keys per group.
  - 3. Three grand master keys.

# 2.2 FINISH

- All new hardware unless otherwise specified, scheduled or indicated on drawings shall be US-32D Dull Stainless Steel Finish.
- B. Closers shall have finish to match existing closers.

## 2.3 HINGES

- A. ANSI A 156.1.
- B. Furnish an additional hinge for each door leaf with a height exceeding 7'-6" to a maximum of 10'-0". When door leaf exceeds width of 3'-1" or both width and height limits furnish heavy weight bearing hinges.
- C. Finish shall match lockset or latchset finish unless otherwise scheduled.

- D. All hinges shall be heavy duty type with non-removable pins.
- E. Sizes and types other than specified herein are indicated in Hardware Schedule.

## 2.4 CYLINDERS

A. High Security Type cylinders by Best to match existing finish hardware with all components as required for fully operable/compatible condition. Provide all accessory components if required for specified lockset to accept Best Cores as required for fully integrated and operable condition.

## 2.5 LOCKSETS AND LATCHSETS

- A. To match existing building standard manufacturer, model, and finish.
- B. Provide locksets with three-piece anti-friction device.

## 2.7 CLOSERS

- A. ANSI A 156.4, Grade 1, labeled for use on fire doors.
- B. To match existing model and type. Provide Parallel Arm Type closers mounted on doors where closers would be exposed to public view from corridors, lobbies, or vestibules.
  - Where Parallel Arm type Closers are provided- provide closer to be one size larger than the manufacturer's recommendation.
- C. Type: Hydraulic closers with non-ferrous cover, high-strength cylinder having full rack and pinion operation, non-critical and independent tamper-proof regulating screws for adjustment of latch speed, general speed, back-check and spring power. Adjustment sizes 2 through 6.
  - 1. Provide non-gumming, non-freezing fluid.
  - Provide companion soffit plates and brackets furnished by closer manufacturer to accommodate each type of closer installation.
  - 3. Provide working parts inside of cases of drop-forged bronze.
- D. All surface closers shall be the products of one manufacturer.
- E. Provide mounting plates as required, sex nuts and bolts for application to hollow metal doors and through bolts for application to wood doors; finish on exposed fasteners shall match closers.

# 2.8 BOLTS

- A. Flush Bolts: 1" x 6-3/4" brass, rectangular front. 1'-0" bottom bolt by 2'-0" length top bolt for full height doors; 3/4" throw. Furnish dustproof bottom strike and top strike plate. Provide Ives Model No. 258 for non-rated doors and Model No. 358 for rated doors as specified or equivalent by Baldwin; Builder's Brass; Quality Hardware.
- B. Bolts and Accessories: For use on fire-rated doors shall be Underwriter's Laboratories, Inc. (UL) listed.

#### 2.9 PUSH/PULLS AND PLATES

A. Rockwood as specified or approved equivalent by Baldwin; Builder's Brass; Burns; Cipco; Quality Hardware.

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B. Straight Push Pull Set with Grooves- Square Ends RM3212 Groove, 1 1/4" Dia., 80" tall- Rockwood Bandwidth Design, finish as specified.

#### 2.10 STOPS AND HOLDERS

A. Provide stops for all scheduled doors to receive new hardware to match existing manufacturers.

B. Types: As required. Use wall stop when possible.

Wall Stop - Drywall

Match existing

Wall Stop - Masonry/Concrete

Match existing

Floor Stop

Match existing

Floor Stop w/ Holder

Match existing

#### 2.11 THRESHOLDS AND DOOR BOTTOM

- Pemko Model No. 2005BP threshold as scheduled or approved equivalent by National Guard, Viola, or Zero for use on acoustical doors.
- B. Provide threshold to be US32D Finish Stainless Steel with Black Pile insert- Pemko 2005 threshold
- C Recessed Door Bottom:
  - Automatic: Pemko Model No. PDB411 E

## 2.12 SOUND SEALS

A. Double Row Pemko Model No. S-88 gasket at head and jambs of doors. Approved equivalent products by the following manufacturers may be used: National Guard, Viola, Zero.

## 2.13 SMOKE SEALS

A. Pemko Model No. S88BL at head and jambs of doors. Approved equivalent products by the following manufacturers may be used: National Guard, Viola, Zero.

#### 2.14 SILENCERS

A. Ives Model No. 20 for steel door frames, and Model No. 21 for wood door frames, or approved equivalent by Baldwin and Trimco.

# 2.15 DOOR PLATES

- A. Rockwood as specified or equivalent by Baldwin, Builders Brass, Burns, Cipco, Quality Hardware or Trimco.
- B. Kick Plates: 0.050" thick US-32D Dull Stainless Steel Finish, 8" high by 2" less than door width (LDW).
- C. Mop Plates: 0.050" thick US-32D Dull Stainless Steel Finish, 4" high by 1-1/2" less than door width (LDW).

# 2.16 EXIT DEVICES

- A. Provide vertical rod devices at pair doors to match existing building standard manufacturer, model, and finish.
- B. Provide electrified rim type exit devices at single door as specified here-in to match existing building standard finish.

## 2.17 AUTOMATIC DOOR OPERATOR

A. Provide Low Energy Power Operator with 170 degree swing equal to Norton 5730 with all required components for complete and fully operable installation, or approved equal.

#### **PART 3 - EXECUTION**

## 3.1 HARDWARE INSTALLATION

- A. Install finish hardware plumb level and true to line, in accord with manufacturer's product data. Locations of hardware, where applicable, shall be in accord with Recommended Locations for Builders Hardware for Standard Steel Doors and Frames.
- B. Install finish hardware to template. Cut and fit substrate to avoid substrate damage and weakening. Cover cut-outs with hardware item. Mortise work to correct location and size, without gouging, splintering or causing irregularities in exposed finished work.
- C. Where cutting and fitting is required on substrates to be painted, install, fit and adjust hardware prior to finishing, then remove and place in original packaging. Reinstall hardware after finishing operation is completed.
- Attach thresholds to concrete surfaces using steel expansion shields and countersunk flat head bronze or stainless screws to match threshold color.

#### 3.2 CLEANING AND ADJUSTMENT

- A. At time of hardware installation, adjust each hardware item to perform function intended. Lubricate moving parts using lubricant acceptable to hardware manufacturer.
- B. Prior to Date of Substantial Completion, readjust and relubricate hardware. Repair or replace defective materials. Clean hardware as recommended by manufacturer to remove dust and stains.
- C. Instruct Owner's designated personnel in adjustment and maintenance of hardware and finishes at the time of final hardware adjustment.

#### 3.3 HARDWARE SCHEDULE

A. REFER TO DRAWINGS.

**END OF SECTION** 

# SECTION 08 80 00 GLAZING

#### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. Provide glazing work specified and shown on drawings.
- B. Requirements for glazing work include the following:
  - 1. Interior partitions and miscellaneous interior glazing.
- C. Glazing requirements herein apply to windows and other items that are specified in other sections to be factory glazed.

## 1.2 DESIGN REQUIREMENTS

A. Provide glazing systems in the thickness and strengths capable of withstanding normal thermal movements, wind loads and impact loads, without failure, including loss due to defective manufacture, fabrication, and installation; deterioration of glazing materials; and other defects in construction.

#### 1.3 STANDARDS

- A. ANSI Z97.1 American National Standard for Glazing Materials Used in Buildings -- Safety Performance Specifications and Methods of Test.
- B. ASTM C 162 Standard Terminology of Glass and Glass Products.
- C. ASTM C 864 Standard Specification for Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers.
- D. ASTM C 1036 Standard Specification for Flat Glass.
- E. ASTM C 1048 Standard Specification for Heat-Treated Flat Glass -- Kind HS, Kind FT Coated and Uncoated Glass.
- F. ASTM C 1172 Standard Specification for Laminated Architectural Flat Glass.
- G. ASTM C 1193 Standard Guide for Use of Joint Sealants.
- H. ASTM E 283 Standard Test Method For Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.
- ASTM E 330 Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
- J. ASTM E 773 Standard Test Method for Seal Durability of Sealed Insulating Glass Units.
- K. ASTM E 774 Standard Specification for Sealed Insulating Glass Units.

- L. ASTM E 1300 Standard Practice for Determining the Minimum Thickness and Type of Glass Required to Resist a Specified Load.
- M. GANA (GM) FGMA Glazing Manual; Glass Association of North America.
- N. GANA (SM) FGMA Sealant Manual; Glass Association of North America.
- O. GANA (LGDG) Laminated Glass Design Guide; Glass Association of North America.
- P. ASTM D1929 Standard Test Method for Determining Ignition Temperature of Plastics
- Q. ASTM D635 Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position
- R. ASTM D792 Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement
- ASTM D1003 Standard Test Method for Haze and Luminous Transmittance of Transparent Plastics
- T. ASTM D542 Standard Test Method for Index of Refraction of Transparent Organic Plastics
- U. ASTM D696 Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics Between 30°C and 30°C With a Vitreous Silica Dilatometer
- V. ASTM D648 Standard Test Method for Deflection Temperature of Plastics Under Flexural Load in the Edgewise Position

## 1.4 SUBMITTALS

- A. Manufacturer's Product Data: Submit data and installation instructions for each type of glass and each glazing material required. Include test data substantiating that materials comply with specified requirements and certificates stating materials comply with requirements.
- B. Test Reports: Submit sealant-substrate adhesion and sealant compatibility test reports including glazing sealant manufacturer's findings and recommendations. Reports shall include each type glazing and each type installation.
- C. Samples: Provide 12" x 12" square sample of each glass type, tint, specified. Provide 12" long sample of each sealant and gasket indicating color and shape to be used.
- D. Warranty: Submit written warranty agreeing to repair or replace defective materials and workmanship of the wall work during the warranty period. Defective materials and workmanship include abnormal deterioration, aging or weathering of the work, leakage of water or air exceeding specified limits, structural failure of components resulting from exposure to pressures and forces up to specified limits, failure of operating parts to function normally, deterioration or discoloration of finishes in excess of normal weathering and aging, glass breakage, secondary glass damage or breakage due to falling glass fragments, deterioration of glass reflective coating, dust or film formation

on internal glass surfaces of insulated units, de-lamination of laminated glass and failure of the work to fulfill other specified performance requirements. The warranty does not include damages caused by vandalism, or natural conditions exceeding the performance requirements. However, the warranty does include failures or defects for which the causes cannot be determined. This warranty and its enforcement shall not deprive the Owner of other action, right or remedy available to him.

 The general warranty period is the five (5) year period after the date of final acceptance. The warranty period for material obstruction of vision as a result of dust or film formation on the internal glass surface is the ten (10) year period after the date of final acceptance. The warranty period for peeling or deterioration of glass reflective coating shall be the ten (10) year period after the date of final acceptance.

#### PART 2 - PRODUCTS

## 2.1 ACCEPTABLE MANUFACTURERS

- A. Manufacturers: Provide products of one of the following:
  - 1. Guardian Industries Corp.
  - 2. LOF Co.
  - PPG Industries. Inc.
  - 4. Security Impact Glass.

## 2.2 FLAT GLASS

A. Clear Float Glass: ASTM C 1036, Type I, Class 1, Quality q3, 1/2" thick, except as otherwise specified or indicated.

#### 2.3 INTERIOR GLAZING TYPE

A. 1/2" clear tempered glass throughout, unless otherwise noted.

## 2.4 MIRRORS

- A. Glass: Clear float glass ASTM C 1036 type I, Class 1, Quality q2 mirror.
- B. Mirror Coating: Silver coating, copper protective coating and non-metallic coating conforming to Fed. Spec DD-M-411.

#### 2.5 GLAZING SEALANTS AND COMPOUNDS

A. Comply with recommendations of sealant and glass manufacturers for the required application and condition of installation. Provide only compounds that have been tested and proven to be fully compatible with surfaces contacted.

#### 2.6 GLAZING GASKETS

A. Type, size and material recommended by glass and frame manufacturers for exterior, exposed, watertight installation of glass, with only nominal pressure in the glazing channel; comply with ASTM D 1667.

#### 2.7 MISCELLANEOUS GLAZING MATERIALS

- A. Setting Blocks: Neoprene, EPDM or silicone, 80-90 Shore A durometer hardness, with proven compatibility with sealants used.
- B. Spacers and Edge Blocks: Neoprene EPDM or silicone, of hardness as recommended by glass manufacturer with proven compatibility with sealants used.
- C. Backer Rod: Closed-cell or waterproof-jacketed rod stock of synthetic rubber or plastic foam, proven to be compatible with sealants used, flexible and resilient, with 5-10 psi compression strength for 25% deflection.
- Cleaners, Primers and Sealers: Type recommended by glass, sealant and gasket manufacturers.
- E. Mirror Adhesive: Type recommended by mirror and adhesive manufacturer for spotapplication system, with mirror supported only at lower edge. Provide Mirror-Mastic and recommended primer by Palmer Products Corp. or approved equivalent.
- F. Stainless Steel Angle: At bottom edge of mastic attached mirrors, provide 3/8" x 1-1/4" polished stainless steel angle with long leg vertical and attached to wall back of mirror. Provide wood frame around 4 sides of mirror. Miter all corners. Paint wood frame with color as selected by Architect- refer to drawings for wood frame detail.

#### PART 3 - EXECUTION

# 3.1 STANDARDS AND PERFORMANCE

- A. Glass shall be installed watertight and airtight. The glazed installation shall withstand normal temperature changes, wind loading and impact loading for doors without failure of sealants or gaskets to remain watertight and airtight, deterioration of glazing materials and other defects in glazing systems.
- B. Protect glass from edge damage at all times during handling and installation.
- C. Comply with recommendations of glass manufacturer and manufacturer of sealants and other materials used in glazing.
- D. Comply with FGMA Glazing Manual except as shown and specified otherwise, and except as specifically recommended otherwise by the manufacturers of the glazing materials.
- E. Inspect each piece of glass immediately before installation, and eliminate any that have observable edge damage or face imperfections.
- F. Unify appearance of each series of lights by setting each piece to match others as nearly as possible. Inspect each piece and set with pattern, draw and bow oriented in the same direction as other pieces.

G. Install sealants as recommended by sealant manufacturer.

## 3.2 PREPARATION FOR GLAZING

- A. Clean the glazing channel, or other framing members to receive glass, immediately before glazing. Remove coatings that are not firmly bonded to the substrate. Remove lacquer from metal surfaces wherever elastomeric sealants are used.
- B. Apply primer or sealer to joint surfaces wherever recommended by sealant manufacturer.

# 3.3 GLAZING

A. Install setting blocks of proper size at quarter points of sill rabbet. Set blocks in thin course of the heelbead compound.

**END OF SECTION** 

# SECTION 09 26 00 GYPSUM DRYWALL

#### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. Provide gypsum drywall work shown on drawings and specified.
- B. All interior walls shall receive sound insulation full height to underside of deck above, whether indicated or not.
- C. Related Section 07 92 00 SEALANT AND CALKING.
- D. Related section 09 51 00 ACOUSTICAL CEILINGS, EXPOSED GRID

#### 1.2 QUALITY ASSURANCE

- A. Fire Resistance Ratings: Provide assemblies that have been tested, approved and listed by Underwriter's Laboratories, Inc., Factory Mutual or other testing agency acceptable to local authorities and code.
- B. ASTM Standards: Comply with applicable requirements of the following:
  - 1. ASTM C 36-85 Gypsum Wallboard.
  - 2. ASTM C 475 Joint Compound and Joint Tape for Finishing Gypsum Board.
  - ASTM C 514-84 Nails for the Application of Gypsum Board.
  - 4. ASTM C 630 Water-Resistant Gypsum Backing Board.
  - 5. ASTM C 645 Non-Load (Axial) Bearing Steel Studs, Runners (Track) and Rigid Furring Channels for Screw Application of Gypsum Board.
  - 6. ASTM C 665 Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing.
  - 7. ASTM C 754 Installation of Steel Framing Members to Receive Screw-Attached Gypsum (Wallboard, Backing Board or Water-Resistant Backing Board).
  - 8. ASTM C 840 Application and Finishing of Gypsum Board.
  - ASTM C 954 Steel Drill Screws for Application of Gypsum Board or Metal Plaster Bases to Steel Studs from 0.033" to 0.112" Thickness.
  - 10. ASTM C 1002 Steel Drill Screws for the Application of Gypsum Board or Metal Plaster Bases.

# 1.3 SUBMITTALS

- A. Submit manufacturer's product data, specifications and installation instructions for each product, system and component.
- B. Submit shop drawings for details not in manufacturer's data. Include drawings locating ceiling and wall control joints as required by ASTM C 840 and drywall manufacturer. Control joint location is subject to approval by the Architect.
- C. Submit a copy of the test(s) reports for each proposed Fire-Resistance Rated assembly.
- D. If condition applies due to material delivery size constraints, Submit Structural Engineer certified fabrication drawings for all spliced studs.

## 1.4 PRODUCT HANDLING

A. Deliver materials in sealed containers and bundles, fully identified with manufacturer's name, brand, type, and grade. Store in a dry, well ventilated space, protected from the weather and off the ground.

#### PART 2 - PRODUCTS

#### 2.1 SUSPENDED CEILING FRAMING AND FURRING

- A. Comply with ASTM C 754 and manufacturer's recommendations.
- B. Ceiling Suspension Main Runners: ASTM C-754, 1-1/2" steel channels, 0.475 lb. per ft., cold-rolled, galvanized.
  - Hanger Wire: ASTM C-754 galvanized, soft annealed steel wire, sized in accordance with Table 5, ASTM C-754.
  - Hanger Anchorage Devices: Size for 3 x calculated loads, except size direct-pull concrete inserts for 5 x calculated loads.
  - 3. Steel Furring: ASTM C-645; minimum 20 gage, hat-shaped, galvanized. **NOTE THAT EQUIVALENT GAGE STUDS WILL NOT BE ACCEPTED.**
- C. Direct Hung Suspension System: In lieu of suspended main runner channels and hat-shaped furring, a direct hung system of tees or channel studs may be provided. Members shall be prepared to receive screwattached gypsum board and system shall have structural strength and rigidity equal to the suspended main runner system.

## 2.2 STEEL STUD FRAMING AND FURRING

- A. Steel Studs: Conform to ASTM C 645: Minimum 20 gauge (33 mil) (unless noted here-in and on drawings otherwise); galvanized steel; profile, size and spacing shown on drawings. Deflection shall not exceed L/240 at 5 psf. NOTE THAT EQUIVALENT GAGE STUDS WILL NOT BE ACCEPTED.
- B. Stud Accessories: Provide galvanized steel.
  - 1. Runners: Provide type recommended by stud manufacturer to match studs, for floor and ceiling support of studs, and for abutment to other work.
  - Stud System Accessories: Provide stud manufacturer's standard reinforcements, fasteners and other accessories.
- C. Steel Furring: ASTM C-645; Minimum 20 gauge, hat-shaped galvanized. **NOTE THAT EQUIVALENT GAGE STUDS WILL NOT BE ACCEPTED.**
- D. Resilient Steel Furring: ASTM C 645, Minimum 20 gauge, manufacturer's standard design to reduce sound transmission. NOTE THAT EQUIVALENT GAGE STUDS WILL NOT BE ACCEPTED.
- E. Fasteners for Steel: ASTM C954; size recommended by gypsum board manufacturer.
- F. Shaftwall Framing: Provide minimum 3 5/8" metal studs to be 18 gauge minimum with spans based on L/240 deflection and twice the dead load weight, and 16" o.c. stud spacing.

## 2.3 GYPSUM WALLBOARD

A. Regular Gypsum Wallboard: ASTM C 36, regular type with tapered long edges.

- 1. Sheet Size: Maximum length available by 4'-0" wide.
- 2. Thickness: 5/8" for walls, and ceilings unless otherwise shown on drawings.
- 3. Use sag-resistant type for ceiling surfaces.
- B. Fire Retardant Gypsum Wallboard: ASTM C 36, Type X, provide where fire rated construction is indicated.
  - 1. Size: 4'-0" wide sheets by maximum length available.
  - 2. Thickness: 5/8".
- C. Gypsum Backing Board and Coreboard: ASTM C 442, Type X, coreboard with moisture-resistant paper facings in thickness required for rated assembly system indicated.
- D. Water Resistant Gypsum Wallboard: Provide at all high moisture areas and on the interior side of the exterior walls, and where specified. ASTM C 630, 5/8" thick, USG "Mold Tough AR", National Gypsum " Gold Bond® Hi-Abuse® XP® Gypsum Board" or equivalent, having enhanced mold and moisture resistant, fire-resistant Type X gypsum core encased in a heavy, abrasion and mold/mildew/moisture resistant, 100% recycled.
- E. Sound damping drywall: STC rating of 50-65 (ASTM E90), weight 2.7 lbs/sqft, fire rated 1hr, type X (ASTM E119), 5/8" thick. Equal to Quiet Rock #527 manufactured by Serious Materials.
- F. Fire-Resistant Mold-Resistant Gypsum Shaftliner Board: A gypsum core shaftwall board with additives to enhance fire resistance of the core and surfaced with a moisture/mold/mildew resistant paper on front, back, and long edges; and complying with ASTM C1396, Type X equal to Gold Bond BRAND Fire-Shield Shaftliner XP.
  - 1. Thickness: 1"
  - 2. Width: 2'
  - 3. Length: 7' through 14'
  - Edges: Beveled
  - 5. Mold and Mildew Resistance: Panel score of 10, when tested in accordance with ASTM D 3273

## 2.4 GYPSUM SHEATHING

A. To be used at all walls where stone panels are to be installed. Complying with ASTM C1177 standards (Standard Specification for Manufacturer's First Line Glass-Mat Gypsum Substrate for Use as Sheathing), 5/8" thickness as indicated and of maximum widths and lengths available to minimize joints equal to SECUROCK glass-mat sheathing panels, FIRECODE Type X.

#### 2.5 CEMENTITIOUS BACKER UNITS

- A. To be used behind all plumbing walls. Glass mesh reinforced mortar units complying with ANSI A118.9, 5/8" thickness as indicated and of maximum widths and lengths available to minimize joints.
- B. Acceptable: DomCrete by Domtar; Durock by USG; Wonder-Board by Glascrete; or approved equivalent.

## 2.5 TRIM ACCESSORIES

- A. Provide galvanized steel trim accessories manufactured by U.S. Gypsum Company, or approved equivalent.
  - 1. Casing Trim: USG No. 200 series, type as detailed.
  - 2. Corner Beads: USG No. 103 durabead reinforcement, 1-1/4" x 1-1/4".

- 3. Control Joints: USG No. 093.
- B. Provide at General Contractor's option, plastic accessories by Plastic Components, Inc. (PCI) or approved equivalent.
  - 1. L-Bead: PCI No. 221.
  - 2. Casing Bead: PCI No. 200-58 and 200-50.
  - 3. Corner Beads: PCI No. 209.
- B. Trim accessories shall all be galvanized steel or plastic. A combination is not permitted.

## 2.6 JOINT TREATMENT MATERIALS

- A. Comply with ASTM C 475.
- B. Joint Tape: U.S. Gypsum Perf-A-Tape and U.S. Gypsum Imperial type P or S for water-resistant wallboard or approved equivalent by Georgia Pacific or National Gypsum Co.
- C. Joint Compound: U.S. Gypsum All-Purpose Ready-Mixed Joint Compound, vinyl tape or approved equivalent by Georgia Pacific or National Gypsum Co.

## 2.7 MISCELLANEOUS MATERIALS

- A. Fastening to Metal: Screws, ASTM C 954.
- B. Adhesive Fastening to Wood: ASTM C 557.
- Spot Grout: ASTM C 475, setting-type joint compound of type recommended for spot grouting hollow metal door frames.

## 2.8 SOUND INSULATION

- A. Sound Attenuation Blankets: ASTM C 665-86, semi-rigid mineral wool blanket; Type I unfaced FS-15; Type III foil faced FS-25. Thickness 3 inches unless otherwise indicated. U.S. Gypsum Thermafiber, Manville Pyro-Fiber or approved equal.
  - 1. Use Type I in interior drywall partitions where not exposed in plenum.
  - Use Type III exposed above ceilings and all locations where Type I is not appropriate.

## 2.9 ACOUSTICAL SEALANT

A. Non-drying, non-hardening, non-skinning, non-staining, gunnable synthetic rubber sealant complying with requirements of Section 07 92 00 - SEALANT AND CALKING.

# PART 3 - EXECUTION

#### 3.1 INSTALLING STEEL FRAMING AND FURRING, GENERAL

- A. Comply with ASTM C 754 for installation of steel framing members; ASTM C 1007 for load bearing partitions, and manufacturer's instructions for screw attachment of gypsum board.
- B. Install supplementary framing, blocking, and bracing at terminations in gypsum board assemblies to support fixtures, trim, grab bars, toilet accessories, furnishings or other similar items supported from ceiling or

- partition framing. Comply with details indicated and with recommendations of gypsum board manufacturer or, if none available, with "Gypsum Construction Handbook: published by U.S. Gypsum Company.
- C. Install framing to an alignment tolerance not to exceed 1/8" in 10'-0" vertically and horizontally. Square corners to a tolerance not to exceed 1/8" in 4'-0" each side of corner.
- Do not bridge building expansion joints with support system, frame both side of joints with furring and other support as indicated.

## 3.2 INSTALLING CEILING FRAMING

- A. Space ceiling suspension main runners not more than 4'-0" o.c., and space hangers at not more than 4'-0" o.c. along runners unless shown otherwise. Coordinate ceiling framing with structure. Provide additional hangers and runners to support two layers of drywall where indicated, electrical, mechanical and other work indicated and required.
- B. Space ceiling furring members 16" o.c., except as otherwise indicated on drawings.
- C. Attach furring members to main ceiling runners and to other structural supports as indicated and in accordance with ASTM C754 and manufacturer's directions.

#### 3.3 INSTALLING STEEL FRAMING FOR PARTITIONS AND WALLS

- A. Install steel studs and furring in sizes and at spacings indicated but not less than that required by the referenced steel framing installation standard to comply with maximum loading requirements specified.
- B. Space studs at 16" o.c. unless otherwise specified or shown on drawings. Note that studs behind stone panels to be at 12" o.c.
- C. Terminate partition stud system at ceilings, except where shown to be extended through ceiling or to structural support or substrate above.
- D. Door Frames: Install a minimum of two jamb studs at door frames. Space jack studs over door frames at same spacing as partition studs.
- E. Space wall furring members 16" o.c. except as otherwise specified or indicated on drawings.

#### 3.4 FIRE RATED ASSEMBLIES

A. Installation, spacing of framing members and spacing of fasteners shall conform to the test report of each fire rated assembly.

#### 3.5 GYPSUM WALLBOARD INSTALLATION

- A. Comply with ASTM C 840 systems as listed below, manufacturer's instructions and the requirements specified and indicated for fire-resistance ratings.
  - 1. System VIII; Application of Gypsum Board to Steel Framing and Furring.
  - 2. System X; Application of Gypsum Board to Receive Tile by Adhesive Application.
  - 3. System XI; Exterior Application of Gypsum Wallboard and Exterior Gypsum Soffit Board.
  - 4. System XIII; Control (Expansion) Joints.

- B. Space Fasteners in wallboard in accordance with ASTM C 840.
- C. Provide control joints where indicated. When not indicated provide, with approval by the Architect, in accordance with ASTM C 840 to limit ceiling areas to 2500sf maximum with joints not exceeding 50'-0" in each direction. Joints in walls shall not exceed 30'-0" spacing.

#### 3.6 INSTALLATION TRIM ACCESSORIES

- A. Use the same screw fasteners to anchor necessary trim flanges as required to fasten gypsum board to the supports. Stapling flanges is not permitted.
- B. Install corner beads at external corners of gypsum board work.
- C. Install edge trim whenever edge of wallboard would otherwise be exposed or semi-exposed. Install L-type trim where work is tightly abutted to other work, and install U-type trim where indicated and where edge is exposed.

#### 3.7 SOUND ATTENUATION BLANKETS

- A. Install in accordance with manufacturer's directions.
- B. Provide in partitions and walls indicated for sound insulation.
- C. Partitions indicated as sound rated shall have calked joint at top and bottom edges, along with full perimeter sealant and continuous sealant around all penetration, typical.

#### 3.8 WALLBOARD FINISHING

- A. Comply with ASTM C 840. Apply treatment at wallboard joints, flanges of trim accessories, penetrations, fasteners heads, surface defects and elsewhere as required to prepare work for painting or other decoration. Prefill open joints and beveled edges, using type of compound recommended by manufacturer.
  - Apply joint tape at joints between wallboards, except where a trim accessory is to be provided.
  - Apply joint compound in three coats, not including prefill of openings in base, and sand after second coat and after last coat.

## 3.9 CLEANING AND PROTECTION

- A. Promptly remove all residual joint compound from adjacent surfaces.
- B. Provide final protection and maintain conditions, in a manner that ensures that gypsum board assemblies remain free from damage or deterioration at time of substantial completion.

**END OF SECTION** 

# SECTION 093000 - TILING

## PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

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

## 1.2 SUMMARY

# A. Section Includes:

- 1. Ceramic tile.
- Stone thresholds.
- 3. Waterproof membrane.
- Crack isolation membrane.
- 5. Tile backing panels.
- 6. Metal edge strips.

# B. Related Sections:

- 1. Section 079200 "Joint Sealants" for sealing of expansion, contraction, control, and isolation joints in tile surfaces.
- 2. Section 092900 "Gypsum Board" for [cementitious backer units] [glass-mat, water-resistant backer board].

## 1.3 DEFINITIONS

- A. General: Definitions in the ANSI A108 series of tile installation standards and in ANSI A137.1 apply to Work of this Section unless otherwise specified.
- B. ANSI A108 Series: ANSI A108.01, ANSI A108.02, ANSI A108.1A, ANSI A108.1B, ANSI A108.1C, ANSI A108.4, ANSI A108.5, ANSI A108.6, ANSI A108.8, ANSI A108.9, ANSI A108.10, ANSI A108.11, ANSI A108.12, ANSI A108.13, ANSI A108.14, ANSI A108.15, ANSI A108.16, and ANSI A108.17, which are contained in "American National Standard Specifications for Installation of Ceramic Tile."
- C. Module Size: Actual tile size plus joint width indicated.
- D. Face Size: Actual tile size, excluding spacer lugs.

# 1.4 PERFORMANCE REQUIREMENTS

A. Static Coefficient of Friction: For tile installed on walkway surfaces, provide products with the following values as determined by testing identical products per ASTM C 1028:

- 1. Level Surfaces: Minimum < Insert required static coefficient of friction >.
- 2. Step Treads: Minimum < Insert required static coefficient of friction >.
- 3. Ramp Surfaces: Minimum < Insert required static coefficient of friction >.

#### 1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Show locations of each type of tile and tile pattern. Show widths, details, and locations of expansion, contraction, control, and isolation joints in tile substrates and finished tile surfaces.
- C. Samples for Initial Selection: For each type of tile and grout indicated. Include Samples of accessories involving color selection.
- D. Samples for Verification:
  - 1. Full-size units of each type and composition of tile and for each color and finish required.[ For ceramic mosaic tile in color blend patterns, provide full sheets of each color blend.]
  - Assembled samples mounted on a rigid panel, with grouted joints, for each type and composition of tile and for each color and finish required. Make samples at least [12 inches (300 mm) square]
     Insert size>, but not fewer than 4 tiles. Use grout of type and in color or colors approved for completed Work.
  - 3. Full-size units of each type of trim and accessory[ for each color and finish required].
  - 4. Stone thresholds in 6-inch (150-mm) lengths.
  - 5. Metal edge strips in 6-inch (150-mm) lengths.

#### 1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified Installer.
- B. Master Grade Certificates: For each shipment, type, and composition of tile, signed by tile manufacturer and Installer.
- C. Product Certificates: For each type of product, signed by product manufacturer.
- D. Material Test Reports: For each tile-setting and -grouting product[ and special purpose tile].

#### 1.7 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match and are from same production runs as products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Tile and Trim Units: Furnish quantity of full-size units equal to 3 percent of amount installed for each type, composition, color, pattern, and size indicated.]
    - a. < Insert, in separate subparagraphs, tile-type designation or description and quantity required for each category of tile for which extra material is required>.

2. Grout: Furnish quantity of grout equal to 3 percent of amount installed for each type, composition, and color indicated.

#### 1.8 QUALITY ASSURANCE

- A. Source Limitations for Tile: Obtain **tile of each type and color or finish** from one source or producer.
  - 1. Obtain tile of each type and color or finish from same production run and of consistent quality in appearance and physical properties for each contiguous area.
- B. Source Limitations for Setting and Grouting Materials: Obtain ingredients of a uniform quality for each mortar, adhesive, and grout component from one manufacturer and each aggregate from one source or producer.
- C. Source Limitations for Other Products: Obtain each of the following products specified in this Section from a single manufacturer for each product:
  - Stone thresholds.
  - 2. Waterproof membrane.
  - 3. Crack isolation membrane.
  - Joint sealants.
  - 5. Cementitious backer units.
  - Metal edge strips.

## 1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use. Comply with requirements in ANSI A137.1 for labeling tile packages.
- B. Store tile and cementitious materials on elevated platforms, under cover, and in a dry location.
- C. Store aggregates where grading and other required characteristics can be maintained and contamination can be avoided.
- D. Store liquid materials in unopened containers and protected from freezing.
- E. Handle tile that has temporary protective coating on exposed surfaces to prevent coated surfaces from contacting backs or edges of other units. If coating does contact bonding surfaces of tile, remove coating from bonding surfaces before setting tile.

# 1.10 PROJECT CONDITIONS

A. Environmental Limitations: Do not install tile until construction in spaces is complete and ambient temperature and humidity conditions are maintained at the levels indicated in referenced standards and manufacturer's written instructions.

## PART 2 - PRODUCTS

# 2.1 PRODUCTS, GENERAL

- A. ANSI Ceramic Tile Standard: Provide tile that complies with ANSI A137.1 for types, compositions, and other characteristics indicated.
  - 1. Provide tile complying with Standard grade requirements unless otherwise indicated.
- B. ANSI Standards for Tile Installation Materials: Provide materials complying with ANSI A108.02, ANSI standards referenced in other Part 2 articles, ANSI standards referenced by TCA installation methods specified in tile installation schedules, and other requirements specified.
- C. FloorScore Compliance: Tile for floors shall comply with requirements of FloorScore Standard.
- D. Low-Emitting Materials: Tile flooring systems shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- E. Factory Blending: For tile exhibiting color variations within ranges, blend tile in factory and package so tile units taken from one package show same range in colors as those taken from other packages and match approved Samples.
- F. Mounting: For factory-mounted tile, provide back- or edge-mounted tile assemblies as standard with manufacturer unless otherwise indicated.
  - 1. Where tile is indicated for installation [in swimming pools] [on exteriors] [or] [in wet areas], do not use back- or edge-mounted tile assemblies unless tile manufacturer specifies in writing that this type of mounting is suitable for installation indicated and has a record of successful in-service performance.
- G. Factory-Applied Temporary Protective Coating: Where indicated under tile type, protect exposed surfaces of tile against adherence of mortar and grout by precoating with continuous film of petroleum paraffin wax, applied hot. Do not coat unexposed tile surfaces.

# 2.2 TILE PRODUCTS

- A. Tile Type [CT-<#>]: Factory-mounted [unglazed] [glazed] ceramic mosaic tile.
  - 1. 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:
  - 2. <u>Basis-of-Design Product</u>: Subject to compliance with requirements, provide [**product indicated on Drawings**] or comparable product by one of the following:
    - a. American Olean: Division of Dal-Tile International Inc.
    - b. Crossville, Inc.
    - c. Daltile: Division of Dal-Tile International Inc.

- B. Accessories: Provide vitreous china accessories of type and size indicated, suitable for installing by same method as adjoining wall tile.
  - 1. One soap holder with grab handle for each shower and tub indicated.
  - 2. One paper holder at each water closet.
  - 3. Color and Finish: [Match adjoining glazed wall tile] [As indicated by manufacturer's designations] [Match Architect's sample] [As selected by Architect from manufacturer's full range] [White, bright glaze] < Insert color and finish >.

## 2.3 THRESHOLDS

- A. General: Fabricate to sizes and profiles indicated or required to provide transition between adjacent floor finishes.
  - 1. Bevel edges at 1:2 slope, with lower edge of bevel aligned with or up to 1/16 inch (1.5 mm) above adjacent floor surface. Finish bevel to match top surface of threshold. Limit height of threshold to 1/2 inch (12.7 mm) or less above adjacent floor surface.
- B. Marble Thresholds: ASTM C 503, with a minimum abrasion resistance of [10] [12] per ASTM C 1353 or ASTM C 241 and with honed finish.
  - 1. Description: Uniform, fine- to medium-grained white stone with gray veining.

# 2.4 TILE BACKING PANELS

- A. Cementitious Backer Units: ANSI A118.9 or ASTM C 1325, in maximum lengths available to minimize end-to-end butt joints.
  - 1. <u>Products</u>: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
    - a. USG Corporation; DUROCK Cement Board.
  - 2. Thickness5/8 inch

## 2.5 SETTING MATERIALS

- A. Latex-Portland Cement Mortar (Thin Set): ANSI A118.4.
  - 1. 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:
  - 2. <u>Basis-of-Design Product</u>: Subject to compliance with requirements, provide product by one of the following:
    - a. Bostik, Inc.
    - b. Custom Building Products.
    - c. Laticrete International. Inc.

- d. MAPEl Corporation.
- 3. Provide prepackaged, dry-mortar mix containing dry, redispersible, vinyl acetate or acrylic additive to which only water must be added at Project site.
- 4. Provide prepackaged, dry-mortar mix combined with liquid-latex additive at Project site.
- 5. For wall applications, provide mortar that complies with requirements for nonsagging mortar in addition to the other requirements in ANSI A118.4.

#### 2.6 GROUT MATERIALS

- A. Sand-Portland Cement Grout: ANSI A108.10, composed of white or gray cement and white or colored aggregate as required to produce color indicated.
- B. Polymer-Modified Tile Grout: ANSI A118.7.
  - 1. Manufacturers: Subject to compliance with requirements, [provide products by one of the following
  - 2. <u>Basis-of-Design Product</u>: Subject to compliance with requirements, provide product by one of the following:
    - a. Bostik, Inc.
    - b. <u>Custom Building Products.</u>
    - c. Laticrete International, Inc.
    - d. MAPEI Corporation.
  - 3. Polymer Type: Ethylene vinyl acetate or acrylic additive, in dry, redispersible form, prepackaged with other dry ingredients.
  - 4. Polymer Type: [Acrylic resin] [or] [styrene-butadiene rubber] in liquid-latex form for addition to prepackaged dry-grout mix.

## 2.7 ELASTOMERIC SEALANTS

- A. General: Provide sealants, primers, backer rods, and other sealant accessories that comply with the following requirements and with the applicable requirements in Section 079200 "Joint Sealants."
- B. Retain first subparagraph below if required for LEED-NC, or LEED-CI, or LEED-CS Credit IEQ 4.1.
  - 1. Sealants shall have a VOC content of [250] <Insert value> g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
  - 2. Sealants shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
  - 3. Use primers, backer rods, and sealant accessories recommended by sealant manufacturer.
- C. Colors: Provide colors of exposed sealants to match colors of grout in tile adjoining sealed joints unless otherwise indicated.
- D. One-Part, Mildew-Resistant Silicone Sealant: ASTM C 920; Type S; Grade NS; Class 25; Uses NT, G, A, and, as applicable to nonporous joint substrates indicated, O; formulated with fungicide, intended for

sealing interior ceramic tile joints and other nonporous substrates that are subject to in-service exposures of high humidity and extreme temperatures.

- 1. <u>Products</u>: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
  - a. Dow Corning Corporation; Dow Corning 786.
  - b. GE Silicones; a division of GE Specialty Materials; Sanitary 1700.
  - c. Laticrete International, Inc.: Latasil Tile & Stone Sealant.
  - d. Pecora Corporation; Pecora 898 Sanitary Silicone Sealant.
  - e. Tremco Incorporated: Tremsil 600 White.

## 2.8 MISCELLANEOUS MATERIALS

- A. Trowelable Underlayments and Patching Compounds: Latex-modified, portland cement-based formulation provided or approved by manufacturer of tile-setting materials for installations indicated.
- B. Metal Edge Strips: Angle or L-shape, height to match tile and setting-bed thickness, metallic or combination of metal and PVC or neoprene base, designed specifically for flooring applications; [half-hard brass] [white zinc alloy] [nickel silver] [stainless-steel, ASTM A 666, 300 Series] exposed-edge material.
- C. Temporary Protective Coating: [Either product] [Product] indicated below that is formulated to protect exposed surfaces of tile against adherence of mortar and grout; compatible with tile, mortar, and grout products; and easily removable after grouting is completed without damaging grout or tile.
  - 1. Petroleum paraffin wax, fully refined and odorless, containing at least 0.5 percent oil with a melting point of 120 to 140 deg F (49 to 60 deg C) per ASTM D 87.
  - 2. Grout release in form of manufacturer's standard proprietary liquid coating that is specially formulated and recommended for use as temporary protective coating for tile.
- D. Tile Cleaner: A neutral cleaner capable of removing soil and residue without harming tile and grout surfaces, specifically approved for materials and installations indicated by tile and grout manufacturers.
- E. Grout Sealer: Manufacturer's standard[ **silicone**] product for sealing grout joints and that does not change color or appearance of grout.
  - 1. <u>Products</u>: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Bonsal American; an Oldcastle company; Grout Sealer.
    - b. Bostik, Inc.; CeramaSeal [Grout & Tile Sealer] [Magic Seal] [Silox 8] [Siloxane 220].
    - c. C-Cure; Penetrating Sealer 978.
    - d. Custom Building Products; [Surfaceguard] [Grout and Tile] [Grout] Sealer.
    - e. Jamo Inc.; [Matte Finish] [Penetrating] Sealer.
    - f. MAPEI Corporation; KER [003, Silicone Spray Sealer for Cementitious Tile Grout] [004, Keraseal Penetrating Sealer for Unglazed Grout and Tile].
    - g. Southern Grouts & Mortars, Inc.; Silicone Grout Sealer.
    - h. Summitville Tiles, Inc.; SL-15, Invisible Seal Penetrating Grout and Tile Sealer.

i. <u>TEC</u>; a subsidiary of H. B. Fuller Company; [TA-256 Penetrating Silicone] [TA-257 Silicone] Grout Sealer.

# 2.9 MIXING MORTARS AND GROUT

- A. Mix mortars and grouts to comply with referenced standards and mortar and grout manufacturers' written instructions.
- B. Add materials, water, and additives in accurate proportions.
- C. Obtain and use type of mixing equipment, mixer speeds, mixing containers, mixing time, and other procedures to produce mortars and grouts of uniform quality with optimum performance characteristics for installations indicated.

#### PART 3 - EXECUTION

## 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions where tile will be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of installed tile.
  - Verify that substrates for setting tile are firm, dry, clean, free of coatings that are incompatible with tile-setting materials including curing compounds and other substances that contain soap, wax, oil, or silicone; and comply with flatness tolerances required by ANSI A108.01 for installations indicated.
  - 2. Verify that concrete substrates for tile floors installed with **thin-set mortar** comply with surface finish requirements in ANSI A108.01 for installations indicated.
    - a. Verify that surfaces that received a steel trowel finish have been mechanically scarified.
    - b. Verify that protrusions, bumps, and ridges have been removed by sanding or grinding.
  - 3. Verify that installation of grounds, anchors, recessed frames, electrical and mechanical units of work, and similar items located in or behind tile has been completed.
  - 4. Verify that joints and cracks in tile substrates are coordinated with tile joint locations; if not coordinated, adjust joint locations in consultation with Architect.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

## 3.2 PREPARATION

A. Fill cracks, holes, and depressions in concrete substrates for tile floors installed with **thin-set mortar** with trowelable leveling and patching compound specifically recommended by tile-setting material manufacturer.

- B. Where indicated, prepare substrates to receive waterproofing by applying a reinforced mortar bed that complies with ANSI A108.1A and is sloped 1/4 inch per foot (1:50) toward drains.
- C. Blending: For tile exhibiting color variations, verify that tile has been factory blended and packaged so tile units taken from one package show same range of colors as those taken from other packages and match approved Samples. If not factory blended, either return to manufacturer or blend tiles at Project site before installing.
- D. Field-Applied Temporary Protective Coating: If indicated under tile type or needed to prevent grout from staining or adhering to exposed tile surfaces, precoat them with continuous film of temporary protective coating, taking care not to coat unexposed tile surfaces.

## 3.3 TILE INSTALLATION

- A. Comply with TCA's "Handbook for Ceramic Tile Installation" for TCA installation methods specified in tile installation schedules. Comply with parts of the ANSI A108 Series "Specifications for Installation of Ceramic Tile" that are referenced in TCA installation methods, specified in tile installation schedules, and apply to types of setting and grouting materials used.
  - 1. For the following installations, follow procedures in the ANSI A108 Series of tile installation standards for providing 95 percent mortar coverage:
    - a. Exterior tile floors.
    - b. Tile floors in wet areas.
    - c. Tile swimming pool decks.
    - d. Tile floors in laundries.
    - e. Tile floors composed of tiles 8 by 8 inches (200 by 200 mm) or larger.
    - f. Tile floors composed of rib-backed tiles.
- B. Extend tile work into recesses and under or behind equipment and fixtures to form complete covering without interruptions unless otherwise indicated. Terminate work neatly at obstructions, edges, and corners without disrupting pattern or joint alignments.
- C. Accurately form intersections and returns. Perform cutting and drilling of tile without marring visible surfaces. Carefully grind cut edges of tile abutting trim, finish, or built-in items for straight aligned joints. Fit tile closely to electrical outlets, piping, fixtures, and other penetrations so plates, collars, or covers overlap tile.
- D. Provide manufacturer's standard trim shapes where necessary to eliminate exposed tile edges.
- E. Jointing Pattern: Lay tile in grid pattern unless otherwise indicated. Lay out tile work and center tile fields in both directions in each space or on each wall area. Lay out tile work to minimize the use of pieces that are less than half of a tile. Provide uniform joint widths unless otherwise indicated.
  - 1. For tile mounted in sheets, make joints between tile sheets same width as joints within tile sheets so joints between sheets are not apparent in finished work.
  - 2. Where adjoining tiles on floor, base, walls, or trim are specified or indicated to be same size, align ioints.

- 3. Where tiles are specified or indicated to be whole integer multiples of adjoining tiles on floor, base, walls, or trim, align joints unless otherwise indicated.
- F. Joint Widths: Unless otherwise indicated, install tile with the following joint widths:
  - 1. Ceramic Mosaic Tile: 1/16 inch (1.6 mm).
  - Quarry Tile: [1/4 inch (6.35 mm)] [3/8 inch (9.5 mm)].
  - 3. Paver Tile: [1/4 inch (6.35 mm)] [3/8 inch (9.5 mm)].
  - 4. Glazed Wall Tile: 1/16 inch (1.6 mm).
  - 5. Decorative Thin Wall Tile: 1/16 inch (1.6 mm).
- G. Lay out tile wainscots to dimensions indicated or to next full tile beyond dimensions indicated.
- H. Expansion Joints: Provide expansion joints and other sealant-filled joints, including control, contraction, and isolation joints, where indicated. Form joints during installation of setting materials, mortar beds, and tile. Do not saw-cut joints after installing tiles.
  - 1. Where joints occur in concrete substrates, locate joints in tile surfaces directly above them.
  - 2. Prepare joints and apply sealants to comply with requirements in Section 079200 "Joint Sealants."
- I. Metal Edge Strips: Install where exposed edge of tile flooring meets carpet, wood, or other flooring that finishes flush with or below top of tile and no threshold is indicated.
- J. Grout Sealer: Apply grout sealer to grout joints, according to grout-sealer manufacturer's written instructions. As soon as grout sealer has penetrated grout joints, remove excess sealer and sealer from tile faces by wiping with soft cloth.

# 3.4 TILE BACKING PANEL INSTALLATION

A. Install **cementitious backer units** and treat joints according to ANSI A108.11 and manufacturer's written instructions for type of application indicated. **Use latex-portland cement mortar for bonding material unless otherwise directed in manufacturer's written instructions.** 

## 3.5 CLEANING AND PROTECTING

- A. Cleaning: On completion of placement and grouting, clean all ceramic tile surfaces so they are free of foreign matter.
  - 1. Remove **latex-portland cement** grout residue from tile as soon as possible.
  - 2. Clean grout smears and haze from tile according to tile and grout manufacturer's written instructions but no sooner than 10 days after installation. Use only cleaners recommended by tile and grout manufacturers and only after determining that cleaners are safe to use by testing on samples of tile and other surfaces to be cleaned. Protect metal surfaces and plumbing fixtures from effects of cleaning. Flush surfaces with clean water before and after cleaning.
  - 3. Remove temporary protective coating by method recommended by coating manufacturer and that is acceptable to tile and grout manufacturer. Trap and remove coating to prevent drain clogging.

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- B. Protect installed tile work with kraft paper or other heavy covering during construction period to prevent staining, damage, and wear. If recommended by tile manufacturer, apply coat of neutral protective cleaner to completed tile walls and floors.
- C. Prohibit foot and wheel traffic from tiled floors for at least seven days after grouting is completed.
- D. Before final inspection, remove protective coverings and rinse neutral protective cleaner from tile surfaces.

END OF SECTION 093000

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# SECTION 09 51 00 ACOUSTICAL CEILINGS, EXPOSED GRID

#### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. Provide new acoustical panel ceilings with exposed suspension system as shown on the drawings, schedules and as specified.
- B. Where acoustical ceiling is scheduled to remain. Contractor shall replace any damaged or stained ceiling panel. The replaced panels shall match with the existing panels to remain.
- C. Where part of the ceiling system is being replaced, the new ceiling system shall match with the existing system to remain.

#### 1.2 QUALITY ASSURANCE

- A. Standards for Terminology and Performance: Applicable publications by the Acoustical and Insulating Materials Association (AIMA), including "Performance Data, Architectural Acoustical Materials".
- B. Suspension Systems: ASTM C 635 Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings. ASTM C 636 Installation of Metal Suspension Systems for Acoustical Tile and Lay-In Panels.
- C. Acoustical Panels: ASTM E 1264 Standard Classification for Acoustical Ceiling Products.
- D. Fire Hazard Classification: Panels UL tested, listed and labeled as "Class 0-25".
- E. Fire Resistance Rating: System UL tested listed and labeled for the UL design and hours of resistance as indicated on the drawings.

# 1.3 SUBMITTALS

- A. Submit manufacturer's product data and installation instructions for each material and each suspension system.
- B. Submit certified laboratory test reports and other data for suspension system and acoustical units to show compliance with these specifications. Include metal thickness of each member in suspension systems.
- C. Submit manufacturer's recommendations for cleaning and refinishing acoustical units.
- D. Samples:
  - 1. Submit 2 -12" square samples for each acoustical unit required.
  - Submit two 6" long samples of each main runner, cross runner and molding.
- E. Information necessary to show compliance with LEED certification requirements
  - 1. Recycled Content Certification MR 4.1, 4.2
  - 2. Regional Materials MR 5.1, 5.2

#### 1.4 MAINTENANCE STOCK

A. At completion of project, deliver to COJ full size acoustical units matching the units installed, along with all Suspension System Components, packaged with protective covering for storage, and identified with

appropriate labels. Quantity shall be 2.0% of the amount of each type installed. All usable scraps shall also be delivered to designated storage.

B. Usable scraps are to be counted towards Construction Waste Management Credits MR2- See Section 017419 for additional information.

## 1.5 JOB CONDITIONS

A. Space Enclosure: Do not install acoustical ceilings until space has been enclosed and is weathertight; until wet-work in the space has been completed and is nominally dry; until work above ceilings has been completed, and ambient conditions of temperature and humidity will be continuously maintained at values near those indicated for final occupancy.

#### **PART 2 - PRODUCTS**

#### 2.1 ACOUSTICAL PANELS

- A. General: Provide acoustical lay-in panels to match existing. Provide sizes to construct the grid patterns shown by reflected ceiling plans. Provide white washable finish.
- B. Panel Size: 24x24
- C. Edge/Joint detail: Match similar condition in existing spaces.
- D. Acoustical Panels: Provide mineral fiber units to match existing not less than 7/8 (19mm) inch thick and of density not less than 10 lbs. per cu. ft., min. NRC 0.070, light reflectance over 85%.
- E Provide ceiling tile color, pattern, and texture to match existing.
- F. Antimicrobial Treatment: Broad spectrum fungicide and bactericide based.

## 2.2 SUSPENSION SYSTEM MATERIALS

- A. Comply with ASTM C 635, as applicable to the type of suspension system required for the type of ceiling units indicated.
- B. System Manufacturer: One of the following:
  - 1. Armstrong World Industries, Inc.
  - 2. Chicago Metallic Corp.
  - 3. National Rolling Mills, Inc.
  - 4. Roblin Building Products.
  - U.S. Gypsum (Donn).
- C. Attachment Devices: Size for five times the design load indicated in ASTM C 635, Type 1, direct hung.
- D. Hanger Wires: Galvanized carbon steel, ASTM A 641, soft temper, prestretched, yield-stress load of at least three times design load, but not less than 12 gage.
- E. Type of System: Direct-hung suspension system.
- F. Carrying Channels: 1-1/2" steel channels, hot-rolled or cold-rolled, not less than 0.47 lbs. per lin. ft., galvanized after fabrication.

- G. Suspension System Members:
  - Main Runners and Support Cross Runners: Steel double web bulb tees, not less than 1-1/2" high, designed for ASTM C 635 structural classification specified.
  - 2. Cross Runners: Steel double web bulb tees, not less than 1-3/8" high designed for ASTM C 635 structural classification specified.
  - 3. Finish: Electro-galvanized, hot dip galvanized or cadmium plated. Exposed face capped with factory finished metal cap.
- H. Structural Classification: Minimum load carrying capabilities of main runner member shall conform to ASTM C 635, Table 1 for direct hung: Intermediate Duty, 12.0 lbs. per lin. ft.
- I. Edge Moldings: Provide angle molding, not less than 24 gage for edges and penetrations of ceiling with exposed white baked enamel finish to match exposed main runners and cross runners.

# 2.3 EXPOSED SUSPENSION SYSTEM

- A. Provide exposed main runners, cross-runners and accessories, of the types and profiles specified and indicated, with exposed cross runners coped to lie flush with main runners.
- B. Cross runners shall lock into main runners to prevent turnial of members and provide a tight hairline joint on exposed face.
- C. Finish of Exposed Members: Provide manufacturer's standard uniform factory-applied white finish on exposed surfaces of ceiling suspension system including moldings, trim and accessories.

# 2.4 MISCELLANEOUS MATERIALS

- A. Acoustical Sealant: A heavy-bodied, non-shrinking, non-drying, non-sag grade mastic compound intended for interior sealing of concealed construction joints.
- B. Metal Deck Inserts: Galvanized steel, type recommended by suspension system manufacturer.
- C. Hold-Down Clips: Manufacturer's standard, UL approved, to snap on runners to hold panels securely in grid system.

## **PART 3 - EXECUTION**

#### 3.1 INSPECTION AND PREPARATION WORK

- A. Examine the conditions under which the acoustical ceiling work is to be performed. Do not proceed with the work until unsatisfactory conditions have been corrected.
- B. Measure each ceiling area and establish layout of acoustical units to balance border widths at opposite edges of each ceiling. Avoid the use of less than half-width unit at borders, and comply with reflected ceiling plans shown on drawings.

## 3.2 INSTALLATION

A. Install materials in accordance with ASTM C 636 and manufacturer's printed instructions. Comply with governing regulations, fire resistance rating requirements as shown or specified, and industry standards applicable to the work.

- B. Lay out ceilings as shown by reflected ceiling plans.
- C. Install suspension systems in compliance with ASTM C 636, with hangers supported only from building structural members as indicated. Locate hangers near each end and spaced 4'-0" along each carrying channel or main runner, unless otherwise indicated.
- D. Secure wire hangers by looping and wire-typing, either directly to structural members; to inserts or eye-screws or to devices bolted or welded to structural members.
  - 1. Drive-on type hanger supports are not acceptable.
  - 2. Do not support suspension from metal deck.
- E. Install edge moldings of the type indicated at edges of each acoustical ceiling area, and at locations where edge of units would otherwise be exposed after completion of the work.
  - Secure moldings to building construction by fastening with screw-anchors into the substrate, through holes drilled in vertical leg. Space holes not more than 3" from each end and not more than 16" o.c. along each molding.
  - 2. Level moldings with ceiling suspension system, to a level tolerance of 1/8" in 12'-0".
  - Miter corners of moldings accurately to provide hair-line joints, securely connected to prevent dislocation.
  - 4. Sealant Bed: Apply continuous ribbon of acoustical sealant, concealed on back of vertical leg before fastening to vertical surface.
- F. Cope exposed flanges of intersecting suspension system members, so that flange faces will be flush. Cope flange of member supported by other member.
- G. Provide additional hangers, carrying channels, hanger supports and accessories for support of light fixtures, mechanical devices and other equipment where hanger spacing is interrupted and where the design load of suspension member is exceeded.
- H. Scribe and cut panels to fit accurately at walls, columns and penetrations.
- I. Provide hold-down clips within a 10'-0" radius of all exterior doors and where required for fire-rated ceilings.

#### 3.3 CLEANING AND PROTECTION

- A. 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. Remove and replace work which cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.
- B. Protect the acoustical ceilings, including temperature and humidity limitations and dust control, so that the work will be without damage and deterioration at the time of acceptance by the COJ PM

**END OF SECTION** 

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# SECTION 09 65 10 RESILIENT TILE FLOOR COVERINGS

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes sheet vinyl floor covering with backings and resilient vinyl floor tiles.
- B. Related Sections include the following:
  - Division 9 Section for other accessories for use in installation of carpeting and resilient vinyl floor tiles.

#### 1.3 SUBMITTALS

- Product Data: For each type of product indicated.
- B. Samples for Initial Selection: For each type of floor covering indicated.
  - 1. Include similar Samples of installation accessories involving color selection.
- C. Samples for Verification: In manufacturer's standard size, but not less than 2 inch section of each different color and pattern of floor covering required.
- D. Qualification Data: For Installer.
- E. Maintenance Data: For floor coverings to include in maintenance manuals.

#### 1.4 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified installer who employs workers for the Project that are competent in heat-welding techniques required by manufacturer for floor covering installation.
- B. Fire-Test-Response Characteristics: Provide products identical to those tested for fire-exposure behavior per test method indicated by a testing and inspecting agency acceptable to authorities having jurisdiction.

# 1.5 DELIVERY, STORAGE, AND HANDLING

A. Store floor coverings and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 deg F (10 deg C) or more than 90 deg F (32 deg C).

#### 1.6 PROJECT CONDITIONS

- A. Maintain temperatures within range recommended by manufacturer, but not less than 70 deg F (21 deg C) or more than 85 deg F (29 deg C), in spaces to receive floor tile during the following time periods:
  - 1. 48 hours before installation.
  - 2. During installation.
  - 3. 48 hours after installation.
- B. After post-installation period, maintain temperatures within range recommended by manufacturer, but not less than 55 deg F (13 deg C) or more than 95 deg F (35 deg C).
- C. Close spaces to traffic during floor covering installation.
- D. Close spaces to traffic for 48 hours after floor covering installation.
- E. Install floor coverings after other finishing operations, including painting, have been completed.

#### 1.7 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Furnish not less than 5% of floor covering installed.

#### PART 2 - PRODUCTS

# 2.1 RESILIENT VINYL FLOOR TILES:

- A. Basis-of-Design Manufacturer: See Interior Finish Schedule and Legend. The design is based on the products, patterns, and colors by the manufacturer named. Subject to compliance with requirements, provide any comparable products by the acceptable manufacturers. Comparable products are subject to review and approval through the submittal process specified.
- B. Available Products: Tile floor covering composed of vinyl composition overall min. thickness of 1/8 gauge, with a smooth surface. Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
  - 1. Armstrong
  - 2. Mannington
- C. Vinyl Tile Floor Covering: ASTM F 1700-9
  - 1. Slip Resistance: D-2047- current edition
  - 2. Recommended Static Load: 285 lbs. Per sq. inch.
- D. Color and Pattern: See Interior Finish Schedule Legend.
- E. Size: 12" x 12", with square edges for tile.
- F. Fire-Test-Response Characteristics:
  - 1. Critical Radiant Flux: ASTM E-648>.45/cm2.
  - 2. NFPA 101 Life Safety Code: Passes
  - 3. Flame Spread Rating: ASTM-E-84<75. Class B.
  - 4. Smoke Generation: ATM E-662<450 in flaming mode.

- G. Adhesives: Waterproof, stabilized type recommended by tile manufacturer for type of service indicated. All Adhesives to meet VOC limits as outlined in LEED credit EQ4.1
- H. Concrete Slab Primer: Non-staining type recommended by tile manufacturer. All Primer to meet VOC limits as outlined in LEED credit EQ4.2

#### 2.2 INSTALLATION MATERIALS FOR RESILIENT VINYL FLOOR TILES:

- A. Trowelable Leveling and Patching Compounds: Latex-modified, Portland cement-based or blended hydraulic cement based formulation provided or approved by floor covering manufacturer for applications indicated.
- B. Adhesive: Water-resistant type only as recommended by manufacturer to each product floor covering and substrate conditions indicated.

#### **PART 3 - EXECUTION**

#### 3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for installation tolerances, moisture content, and other conditions affecting performance.
  - 1. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of floor coverings.
  - 2. Proceed with installation only after unsatisfactory conditions have been corrected.

# 3.2 PREPARATION

- A. Prepare substrates according to manufacturer's written recommendations to ensure adhesion of floor coverings.
- B. Concrete Substrates: Prepare according to ASTM F 710.
  - 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
  - 2. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.
  - 3. Moisture Testing:
    - Perform anhydrous calcium chloride test, ASTM F 1869. Proceed with installation only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. (1.36 kg of water/92.9 sq. m) in 24 hours.
    - b. Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.
- C. Remove substrate coatings and other substances that are incompatible with floor covering adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended in writing by manufacturer. Do not use solvents.
- D. Use trowelable leveling and patching compound to fill cracks, holes, and depressions in substrates.
- E. Move floor coverings and installation materials into spaces where they will be installed at least 48 hours in advance of installation.
  - 1. Do not install floor coverings until they are same temperature as space where they are to be installed.

F. Sweep and vacuum clean substrates to be covered by floor coverings immediately before installation. After cleaning, examine substrates for moisture, alkaline salts, carbonation, and dust. Proceed with installation only after unsatisfactory conditions have been corrected.

# 3.3 INSTALLATION

- A. Unbox vinyl tile floor coverings and allow them to stabilize before cutting and fitting.
- B. Install as shown on drawings in Finish Schedule.

Lay out the floor coverings as follows:

- 1. Maintain uniformity of floor covering direction and parallel to walls.
- C. Scribe and cut floor coverings to butt neatly and tightly to vertical surfaces, permanent fixtures, and built-in furniture including cabinets, pipes, outlets, edgings, thresholds, and nosings.
- Extend floor coverings into toe spaces, door reveals, closets, and similar openings.
- E. Maintain reference markers, holes, or openings that are in place or marked for future cutting by repeating on floor coverings as marked on substrates. Use chalk or other non-permanent marking device.
- F. Adhere floor coverings to substrates using a full spread of adhesive applied to substrate to produce a completed installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.

#### 3.4 CLEANING AND PROTECTION

- A. Perform the following operations immediately after completing floor covering installation.
  - 1. Remove adhesive and other blemishes from floor covering surfaces.
  - 2. Sweep and vacuum floor coverings to remove marks and soil.
  - 3. Vinyl Tile:
    - a. Do not wash floor coverings until after time period recommended by manufacturer.
    - b. Clean vinyl tile floor covering only as recommended by manufacturer removing marks and soil and apply sealer and finisher exactly and only as recommended by manufacturer.
- B. Protect floor coverings from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period. Use protection methods recommended in writing by manufacturer.
  - 1. Apply protective floor polish to surfaces that are free from soil, visible adhesive, and blemishes if recommended in writing by manufacturer.
  - 2. Cover floor coverings with undyed, untreated building paper until Substantial Completion.
  - Do not move heavy and sharp objects directly over floor coverings. Place plywood or hardboard panels over floor coverings and under objects while they are being moved. Slide or roll objects over panels without moving panels.

SECTION 09 65 30 RESILIENT WALL BASE AND ACCESSORIES

#### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes the following:
  - Resilient wall base.
  - 2. Resilient accessories.
- B. Contractor is required to remove existing base and accessories, prep wall and floor as required, and install new base and accessories as specified. New base where scheduled and accessories are to match existing in similar spaces.

#### 1.2 SUBMITTALS

- A. Product Data: For each type of product specified.
- B. Samples for Initial Selection: Manufacturer's standard sample sets consisting of sections of units showing the full range of colors and patterns available for each type of product indicated.
- C. Samples for Verification: In manufacturer's standard sizes, but not less than 12-inches (300 mm) long, of each product color and pattern specified.
- D. Product Certificates: Signed by manufacturers of resilient wall base and accessories, certifying that each product furnished complies with requirements.

# 1.3 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced installer to perform work of this Section who has specialized in installing resilient products similar to those required for this Project and with a record of successful in-service performance.
- B. Source Limitations: Obtain each type and color of product specified from one source with resources to provide products of consistent quality in appearance and physical properties without delaying the Work.
- C. Fire-Test-Response Characteristics: Provide products with the following fire-test-response characteristics as determined by testing identical products per test method indicated below by a testing and inspecting agency acceptable to authorities having jurisdiction.
  - 1. Critical Radiant Flux: 0.45 W/sq. cm of greater when tested per ASTM E 648.
  - Smoke Density: Maximum specific optical density of 450 or less when tested per ASTM E 662.

# 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to Project site in manufacturer's original, unopened cartons and containers, each bearing names of product and manufacturer, Project identification, and shipping and handling instructions.
- B. Store products in dry spaces protected from the weather, with ambient temperatures maintained between 50 and 90 deg F (10 and 32 deg C).
- C. Move products into spaces where they will be installed at least 48 hours before installation, unless longer conditioning period is recommended in writing by manufacturer.

#### 1.5 PROJECT CONDITIONS

- A. Maintain a temperature not less than 70 deg F (21 deg C) or more than 95 deg F (35 deg C), in spaces to receive resilient products for at least 48 hours before installation, during installation and for at least 48 hours after installation, unless manufacturer's written recommendations specify longer time periods. After post-installation period, maintain a temperature of not less than 55 deg F (13 deg C) or more than 95 deg F (35 deg C).
- B. Do not install products until they are at the same temperature as the space where they are to be installed.
- C. For resilient products installed on traffic surfaces, close spaces to traffic during installation and for time period after installation recommended in writing by manufacturer.
- D. Coordinate resilient product installation with other construction to minimize possibility of damage and soiling during remainder of construction period. Install resilient products after other finishing operations, including painting, have been completed.

#### 1.6 EXTRA MATERIALS

A. Furnish 5% extra materials described below that match products installed, are packaged with protective covering for storage, and are identified with labels describing contents and deliver extra materials to Owner.

#### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Basis-of-Design: See Interior Finish Schedule Legend for type and color. The design is based on the manufacturer and product named. Subject to compliance with requirements, provide comparable products and colors, subject to review and approval through the submittal process specified.
- B. Manufacturers: Subject to compliance with requirements, provide products of one of the following:
  - Roppe
  - 2. Johnsonite
  - 3. Armstrong

# 2.2 RESILIENT WALL BASE

A. Products: Subject to compliance with requirements, provide products indicated in the Finish Schedule Legend. Provide 4" H. wall base for all spaces.

# 2.3 RESILIENT ACCESSORIES

- A. Rubber Accessories: Provide the following products:
  - 1. Reducer Strip: Roppe Model #24, #25, or #26 as required for floor material thickness.
  - 2. Glue Down Carpet Edge: Roppe Model #38 or #39 as required for floor material thickness.
  - 3. Tile/Carpet Joiner: Roppe Model #50 or #56 as required for floor material thickness.

## 2.4 INSTALLATION ACCESSORIES

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement-based formulation provided or approved by resilient product manufacturer for applications indicated.
- B. Adhesive: Water-resistant type recommended by manufacturer to suit resilient products and substrate conditions indicated.

# **PART 3 - EXECUTION**

## 3.1 EXAMINATION

A. Examine substrates and conditions where installation of resilient products will occur, with Installer present, for compliance with manufacturer's requirements, including those for maximum moisture content. Verify that substrates and conditions are satisfactory for resilient product installation and comply with requirements specified. Do not proceed with installation until unsatisfactory conditions have been corrected.

# 3.2 PREPARATION

- A. General: Comply with manufacturer's written installation instructions for preparing substrates indicated to receive resilient products.
- B. Use trowelable leveling and patching compounds, according to manufacturer's written instructions, to fill cracks, holes, and depressions in substrates.
- C. Remove coatings, including curing compounds, and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended in writing by manufacturer. Do not use solvents.
- D. Broom and vacuum clean substrates to be covered immediately before installing resilient products. After cleaning, examine substrates for moisture, alkaline salts, carbonation, or dust. Do not proceed with installation until unsatisfactory conditions have been corrected.

## 3.3 INSTALLATION

- A. General: Install resilient products according to manufacturer's written installation instructions.
- B. Apply resilient wall base to walls, columns, pilasters, casework and cabinets in toe spaces, and other permanent fixtures in rooms and areas where base is required, unless otherwise noted.
  - 1. Install wall base in lengths as long as practicable without gaps at seams and with tops of adjacent pieces aligned.
  - Tightly adhere wall base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates.
  - Do not stretch base during installation.
  - 4. On masonry surfaces or other similar irregular substrates, fill voids along top edge of resilient wall base with manufacturer's recommended adhesive filler material.
  - 5. Install pre-molded outside and inside corners before installing straight pieces.
- C. Place resilient products so they are butted to adjacent materials and bond to substrates with adhesive. Install reducer strips at edges of flooring that would otherwise be exposed.
- D. Apply resilient products to stairs as indicated and according to manufacturer's written installation instructions.

# 3.4 CLEANING AND PROTECTION

- A. Perform the following operations immediately after installing resilient products:
  - 1. Remove adhesive and other surface blemishes using cleaner recommended by resilient product manufacturers.
  - Sweep and vacuum horizontal surfaces thoroughly.
  - 3. Do not wash resilient products until after time period recommended by resilient product manufacturer.
  - 4. Damp-mop or sponge resilient products to remove marks and soil.

B. Protect resilient products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period. Use protection methods indicated or recommended in writing by resilient product manufacturer.

SECTION 09 65 30 RESILIENT WALL BASE AND ACCESSORIES

#### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes the following:
  - 1. Resilient wall base.
  - Resilient accessories.
- B. Contractor is required to remove existing base and accessories, prep wall and floor as required, and install new base and accessories as specified.

# 1.2 SUBMITTALS

- A. Product Data: For each type of product specified.
- B. Samples for Initial Selection: Manufacturer's standard sample sets consisting of sections of units showing the full range of colors and patterns available for each type of product indicated.
- C. Samples for Verification: In manufacturer's standard sizes, but not less than 12-inches (300 mm) long, of each product color and pattern specified.
- D. Product Certificates: Signed by manufacturers of resilient wall base and accessories, certifying that each product furnished complies with requirements.

#### 1.3 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced installer to perform work of this Section who has specialized in installing resilient products similar to those required for this Project and with a record of successful in-service performance.
- B. Source Limitations: Obtain each type and color of product specified from one source with resources to provide products of consistent quality in appearance and physical properties without delaying the Work.
- C. Fire-Test-Response Characteristics: Provide products with the following fire-test-response characteristics as determined by testing identical products per test method indicated below by a testing and inspecting agency acceptable to authorities having jurisdiction.
  - 1. Critical Radiant Flux: 0.45 W/sq. cm of greater when tested per ASTM E 648.
  - 2. Smoke Density: Maximum specific optical density of 450 or less when tested per ASTM E 662.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to Project site in manufacturer's original, unopened cartons and containers, each bearing names of product and manufacturer, Project identification, and shipping and handling instructions.
- B. Store products in dry spaces protected from the weather, with ambient temperatures maintained between 50 and 90 deg F (10 and 32 deg C).
- C. Move products into spaces where they will be installed at least 48 hours before installation, unless longer conditioning period is recommended in writing by manufacturer.

#### 1.5 PROJECT CONDITIONS

- A. Maintain a temperature not less than 70 deg F (21 deg C) or more than 95 deg F (35 deg C), in spaces to receive resilient products for at least 48 hours before installation, during installation and for at least 48 hours after installation, unless manufacturer's written recommendations specify longer time periods. After post-installation period, maintain a temperature of not less than 55 deg F (13 deg C) or more than 95 deg F (35 deg C).
- B. Do not install products until they are at the same temperature as the space where they are to be installed.
- C. For resilient products installed on traffic surfaces, close spaces to traffic during installation and for time period after installation recommended in writing by manufacturer.
- D. Coordinate resilient product installation with other construction to minimize possibility of damage and soiling during remainder of construction period. Install resilient products after other finishing operations, including painting, have been completed.

# 1.6 EXTRA MATERIALS

A. Furnish 5% extra materials described below that match products installed, are packaged with protective covering for storage, and are identified with labels describing contents and deliver extra materials to Owner.

#### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Basis-of-Design: See Interior Finish Schedule Legend for type and color. The design is based on the manufacturer and product named. Subject to compliance with requirements, provide comparable products and colors, subject to review and approval through the submittal process specified.
- B. Manufacturers: Subject to compliance with requirements, provide products of one of the following:
  - 1. Roppe
  - 2. Johnsonite
  - 3. Armstrong

# 2.2 RESILIENT WALL BASE

A. Products: Subject to compliance with requirements, provide products indicated in the Finish Schedule Legend. Provide 4" H. wall base for all spaces.

# 2.3 RESILIENT ACCESSORIES

- A. Rubber Accessories: Provide the following products:
  - 1. Reducer Strip: Roppe Model #24, #25, or #26 as required for floor material thickness.
  - 2. Glue Down Carpet Edge: Roppe Model #38 or #39 as required for floor material thickness.
  - 3. Tile/Carpet Joiner: Roppe Model #50 or #56 as required for floor material thickness.

# 2.4 INSTALLATION ACCESSORIES

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement-based formulation provided or approved by resilient product manufacturer for applications indicated.
- Adhesive: Water-resistant type recommended by manufacturer to suit resilient products and substrate conditions indicated.

#### PART 3 - EXECUTION

#### 3.1 EXAMINATION

A. Examine substrates and conditions where installation of resilient products will occur, with Installer present, for compliance with manufacturer's requirements, including those for maximum moisture content. Verify that substrates and conditions are satisfactory for resilient product installation and comply with requirements specified. Do not proceed with installation until unsatisfactory conditions have been corrected.

#### 3.2 PREPARATION

- A. General: Comply with manufacturer's written installation instructions for preparing substrates indicated to receive resilient products.
- B. Use trowelable leveling and patching compounds, according to manufacturer's written instructions, to fill cracks, holes, and depressions in substrates.
- C. Remove coatings, including curing compounds, and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended in writing by manufacturer. Do not use solvents.
- D. Broom and vacuum clean substrates to be covered immediately before installing resilient products. After cleaning, examine substrates for moisture, alkaline salts, carbonation, or dust. Do not proceed with installation until unsatisfactory conditions have been corrected.

# 3.3 INSTALLATION

- A. General: Install resilient products according to manufacturer's written installation instructions.
- B. Apply resilient wall base to walls, columns, pilasters, casework and cabinets in toe spaces, and other permanent fixtures in rooms and areas where base is required, unless otherwise noted.
  - 1. Install wall base in lengths as long as practicable without gaps at seams and with tops of adjacent pieces aligned.
  - 2. Tightly adhere wall base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates.
  - 3. Do not stretch base during installation.
  - 4. On masonry surfaces or other similar irregular substrates, fill voids along top edge of resilient wall base with manufacturer's recommended adhesive filler material.
  - 5. Install pre-molded outside and inside corners before installing straight pieces.
- C. Place resilient products so they are butted to adjacent materials and bond to substrates with adhesive. Install reducer strips at edges of flooring that would otherwise be exposed.
- D. Apply resilient products to stairs as indicated and according to manufacturer's written installation instructions.

# 3.4 CLEANING AND PROTECTION

- A. Perform the following operations immediately after installing resilient products:
  - 1. Remove adhesive and other surface blemishes using cleaner recommended by resilient product manufacturers.
  - 2. Sweep and vacuum horizontal surfaces thoroughly.
  - 3. Do not wash resilient products until after time period recommended by resilient product manufacturer.
  - 4. Damp-mop or sponge resilient products to remove marks and soil.

B. Protect resilient products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period. Use protection methods indicated or recommended in writing by resilient product manufacturer.

# SECTION 09 68 00 CARPET TILE

#### PART 1 - GENERAL

#### 1.1 DESCRIPTION

A. Provide carpet tile and accessories specified and indicated on drawings and finish schedule.

#### 1.2 QUALITY ASSURANCE

A. Carpet shall be installed by a firm with not less than 2 years of experience laying carpet as specified.

# 1.3 SUBMITTALS

- A. Manufacturer's Product Data: Data to show compliance with requirements. Include test laboratory reports, manufacturer's certification and installation/maintenance instructions and recommendations. Flammability test report in compliance with ASTM E-84 and U.L. 992.
- B. Samples: Submit two 24" x 24" sample of each type of carpet required, and 6" lengths of exposed edge stripping.

# 1.4 TESTING: Testing must be performed in a NVLAP accredited laboratory.

- A. Radiant Panel Flammability Test: meet or exceed requirements for NFPA Class I when tested under ASTM E-648 for direct glue installation.
- B. Smoke Density Test: NBS Smoke Chamber Test, less than 450 when tested under ASTM E-662.
- C. Static: less than or equal to 3.5kV when tested by AATCC Test Method 134 (Step Test Option).
- D. Flammability: Meets CPSC-FF-!-70, DOC-FF-1-70 Methylamine Tablet Test Criteria.
- E. The carpet and floor adhesive (for glue down installations) must meet the Green Label Plus (GLP) and floor adhesive (for direct glue down) requirements of the Carpet and Rug Institute (CRI). Carpet cushion must also meet the requirements of the CRI Green label Testing Program (www.carpet-rug.com).
- F. Carpet and all installation components including adhesives, sealers, seam welds and seam sealers must meet the Low Emitting Materials standards as outlined in U.S. Green Building Council LEED EA4.3 criteria.
- G. Adhesives must meet VOC content standards per South Coast Air Quality Management District (SCAQMD) Rule #1168, or sealant used as fillers that meet or exceed the requirements of the Bay Area Air Quality Management District Regulations 8, Rule 51.
- H. Carpet must have third party certification in accordance with NSF 140 2007e Sustainable Carpet Assessment Standard at a "Gold" level minimum.
- All Loop pile carpet must meet a minimum 1 lb Edge Ravel in accordance with ASTM D-7267.
- J. All carpet must meet a minimum 3.5 lb per inch of width Delamination in accordance with ASTM D-3936.
- K. All Loop Pile carpet must meet a minimum 10 lb average tuft bind in accordance with ASTM D-1335 for broadloom carpet and 8 lb average tuft bind in accordance with ASTM D-1335 for carpet tile.

- L. Carpet must be evaluated using ASTM D5252 Hexapod Drum test as per the commercial carpet test procedure and TARR classification determined using ASTM D7330. Carpet must meet minimum TARR ratings specified below:
  - For Private Offices Traffic Classification "Moderate" with TARR classification greater than or equal to 3.0.
  - 2. For Training Rooms, Conference rooms, Courtrooms, etc Traffic Classification "Heavy" with TARR classification greater than or equal to 3.0.
  - 3. For Open Office areas, Cafeterias, Corridors and Lobbies Traffic Classification "Severe" with TARR classification greater than or equal to 3.5.

# 1.5 MAINTENANCE STOCK

A. Furnish 5% of total of each type carpet installed to GSA for maintenance. Carpet shall be in standard packaging and labeled. Deliver to the job site and store where directed. All usable scraps shall also be delivered to designated storage.

# 1.6 PRODUCT DELIVERY AND STORAGE

 Deliver carpeting materials in protective wrapping and store inside, protected from weather, moisture and soiling.

# 1.7 WARRANTY

A. Provide a ten year written warranty for replacement of all defective materials and a one year written warranty for workmanship and installation including any relaying which may be required.

#### 1.8 SEQUENCING AND SCHEDULING

Sequence carpet installation with other work to minimize possibility of damage and soiling during remainder
of the construction period.

# 1.9 PROJECT CONDITIONS

- A. General: Comply with CRI 104, Section 6: "Site Conditions".
- B. Space Enclosure and Environmental Limitations: Do not install carpet until space is enclosed and weatherproof, wet-work in space is completed and nominally dry, work above ceilings is complete, and ambient temperature and humidity conditions are and will be continuously maintained at values near those indicated for final occupancy. Maintain the temperature of the site, carpet, adhesive and seam sealer between 65 degrees and 95 degrees F with a maximum relative humidity between 10% and 65%.
- C. Sub floor Moisture Conditions: Moisture emission rate of not more than 5 lbs/1000 sq. m/24 hours (14.6 kg/1000 sq. m/24 hours) for broadloom carpet, when tested by calcium chloride moisture test in compliance with CRI 104, 6.3.1, with sub floor temperatures not less than 55 degrees F (12.7 degrees C).
- D. Sub floor Alkalinity Conditions: a pH range of not more than 9 when tested according to the adhesive manufacturer's pH test recommendations in compliance with CRT 104 6.3.2. A reading above 9.0 or below 5.0 requires corrective measures. Comply with manufacturer's recommended corrective method.
- E. Sub-contractor shall submit moisture and alkalinity testing data to the Design-Builder upon their completion and prior to start of flooring installation. Design-Builder shall provide the architect with a copy of this testing data.

## PART 2 - PRODUCTS

## 2.1 FLAME/SMOKE RESISTANCE STANDARDS

- A. Provide carpet complying with ratings as indicated for the following test standards.
- B. Tunnel Test: Test for surface burning characteristics, with ratings of flame spread, fuel contribution, and/or smoke density: ASTM E-84, UL 723, or NFPA No. 255.
  - 1. Flame Spread: Not more than 25.
  - 2. Smoke Developed: Not more than 50.
- C. Pill Test: Carpet shall pass test for flammability; ASTM D-2859, or DOC FF-1-70.
- D. Floor Radiant Panel Test: Test for burning under varying radiant flux ratings not less than 0.45 watts/sq. cm. (NFPA Class I)
- E. Smoke Density Test: Test in radiant heat chamber, with and without flame, for density of smoke generated; ASTM E 662, or NFPA No. 258, also known as NBS Smoke Density Chamber Test.
  - 1. With Flame: 15.4 minimum.
  - 2. Without Flame: 9.1 minimum.

# 2.2 FADE RESISTANCE

A. Provide materials which have been tested by AATCC Test Method 16E, for a maximum gray scale factor of 4 when tested for a period of 40 hours except as otherwise indicated.

# 2.3 STATIC RESISTANCE

A. Provide carpet construction to provide / 3.5 KV / 2.0 KV resistance for 20% R.H. at 70° F. (21° C), AATCC 134.

#### 2.4 CARPET

Types: Refer to drawings.

# 2.5 CARPET ACCESSORIES

#### A. Carpet Edge

- 1. Provide aluminum carpet edge strips 1/8" x height required by carpet thickness. Schluter Upsland "M" type or approved equivalent.
- 2. Provide vinyl joiner between carpet/vinyl tile equal to Rappe #50. Color to be selected.
- 3. Provide carpet / tile transition as specified in Section 09320.
- B. Concrete-Slab Primer: Non-staining type as recommended by the carpet manufacturer.
- C. Towelable Underlayments and Patching Compounds: As recommended by the carpet manufacturer.
- Installation Adhesive: Water resistance, release type as recommended by carpet manufacturer, which complies with flammability requirements for installed carpet.
- E. Miscellaneous Materials: As recommended by manufacturers of carpet and other carpeting products.

# **PART 3 - EXECUTION**

# 3.1 SUB FLOOR CONDITIONS:

A. Examine sub floors and conditions for compliance with requirements for maximum moisture content, alkalinity range, installation tolerances, and other conditions affecting performance of carpet.

# 3.2 PREPARATION:

- A. General: Comply with carpet manufacturer's written installation recommendations and instructions to ensure that each substrate is properly prepared to receive type(s) of carpet to be installed. Carpet should be brought into the space 24 hours prior to installation for proper conditioning.
- B. Sub floor should be dry and free from contaminants that will prevent good adhesion. Remove sub floor coatings, including curing compounds and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone.
- C. Broom or vacuum clean sub floors thoroughly, immediately before installation of carpet. Following cleaning, examine sub floors for moisture, alkaline salts, carbonation, or dust.
- D. Concrete Sub floor Preparation: Apply concrete slab primer, according to manufacturer's directions, where recommended by the carpet manufacturer.

# 3.3 DIRECT-GLUE INSTALLATION

- A. General: Comply with carpet manufacturer's written installation instructions, including pattern match and tolerances. Comply with CRI 104, Section 8: "Direct Glue-Down Installation".
- B. Install carpet under open-bottomed obstructions and under removable flanges and furnishings. Extend carpet into alcoves and closets of each space.
- C. Follow manufacturer's instructions for cutting the carpet, using tools designed for type of carpet being installed.
- D. Butt edges together with proper pressure to produce tightest joint possible without distortion.
- E. Comply with carpet manufacturer's recommendations for seam locations and direction of carpet; maintain uniformity of carpet direction and lay of pile. At doorways, center seams under door in closed position. Do not bridge building expansion joints with continuous carpet. All seams must be sealed with an approved "premium low VOC" seam sealer.
- F. Cut and fit carpet to butt tightly to vertical surfaces, permanent fixtures, and built-in furniture including cabinets, pipes, outlet, edgings, thresholds, and nosings. Bind or seal cut edges as recommended by carpet manufacturer.
- G. Extend carpet into toe spaces, door reveals, open-bottomed obstructions, removable flanges, alcoves and similar openings.
- H. Provide cutouts where required. Bind cut edges properly where not concealed by protective edge guards or overlapping flanges.
- Install edge guards wherever carpet edge is exposed, unless indicated otherwise. Anchor guards to substrate.
- J. Install appropriate transition strips when carpet butts up to other floor finishes. Anchor transition strips to substrate.
- K. Fit section of carpet into each space prior to application of adhesive. Trim edges and butt cuts with seaming cement.
- L. Apply adhesive uniformly to substrate following manufacturer's written instructions. Use trowel with notch size recommended by carpet manufacturer for carpet type and substrate.
- M. Lightly roll carpet as recommended by carpet manufacturer to eliminate air pockets and ensure uniform bond.

## 3.4 CLEANING

- A. Perform the following operations immediately after completing installation:
  - 1. Remove visible adhesive, seam sealer, and other surface blemishes/spots using a cleaner recommended by carpet manufacturer.
  - 2. Remove protruding yarns from the carpet surface in accordance with the manufacturer's recommendations as to not compromise tuft bind of loop carpet.
  - 3. Vacuum carpet using a commercial grade machine with a face-beater element. Do not use a machine with a rotary brush unless it can be suspended and lifted to not touch face of loop carpet.

# 3.5 PROTECTION

- A. General: Comply with CRI 104, Section 15: "Protection of Indoor Installations."
- B. Provide final protection as recommended by the carpet manufacturer and installer to ensure that carpeting will be without deterioration or damage at the time of substantial completion. Maintain project conditions in an acceptable manner.
- C. Protect carpet with a non-staining building material paper, such as "kraft" paper. Never use plastic sheeting as it will trap moisture and prevent proper curing of the adhesive. Plastic may also leave residues that can result in rapid soiling after removal.
- D. Furniture placement and heavy traffic should be avoided for at least 24 hours after a glue-down installation, 48 hours for double stick pad installation.
- E. Place plywood or Masonite boards over the carpet during the move-in phase to spread the concentrated weight of furniture and heavy equipment.

# SECTION 09 91 00 PAINTING

# PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes surface preparation and field painting of the following.
  - 1. Exposed interior and exterior items and surfaces.
  - 2. Surface preparation, priming and finish coats specified in the Section are in addition to shop priming and surface treatment specified in other Sections.
- B. Refer to related SECTION 06 42 60, ARCHITECTURAL WOODWORK for interior woodwork.
- C. Painted exposed surfaces, except where the paint schedules indicate that a surface or material is not to be painted or is to remain natural. If the paint schedules do not specifically mention an item or a surface, paint the item or surface the same as similar adjacent materials or surfaces whether or not schedules indicate colors. If the schedules do not indicate color or finish, the Architect will select from standard colors and finishes available.
  - Painting includes field painting of exposed bare and covered pipes and ducts (including color coding), hangers, access panels, exposed steel and iron-work, and primed metal surfaces of mechanical and electrical equipment.
- D. Do not paint prefinished items, concealed surfaces, finished metal surfaces, operating parts, and labels.
  - 1. Prefinished items include the following factory-finished components:
    - a. Architectural woodwork and casework.
    - b. Metal toilet enclosures
    - c. Factory finished mechanical and electrical equipment.
    - d. Light fixtures.
    - e. Distribution cabinets.
  - 2. Concealed surfaces include walls or ceilings in the following generally inaccessible spaces:
    - a. Foundation spaces.
    - b. Furred areas.
    - c. Ceiling plenums.
    - d. Utility tunnels.
    - e. Pipe spaces.
    - f. Duct shafts
  - 3. Finished metal surfaces include the following:
    - a. Anodized aluminum.
    - b. Stainless steel.
    - c. Chromium plate.
    - d. Copper
    - e. Bronze and brass
  - Operating parts include moving parts of operating equipment and the following:
    - a. Valve and damper operators.
    - b. Linkages.
    - c. Sensing devices.
    - d. Motor and fan shafts.
  - 5. Labels: Do not paint over Underwriters Laboratories (UL), Factory Mutual (FM), or other coderequired labels or equipment name, identification, performance rating, or nomenclature plates.
- E. Related Sections include the following:
  - 1. Division 6 Section "Architectural Woodwork" for shop finishing architectural woodwork.
  - 2. Section 26 05 53 "Electrical Identification: Painted Identification.

#### 1.2 DEFINITIONS

- A. General: Standard coating terms defined in ASTM D 16 apply to this Section.
- B. ASTM D4442 Standard test methods for Direct Moisture Content Measurement of Wood, Wood-Based Materials 1992 (re-approved 1997).
- C. Gloss Levels: The following gloss ranges as determined in accordance with ASTM D 523 apply to paint products specified in this Section:
  - Flat refers to a lusterless or matte finish with a gloss range below 15 when measured at an 85degree meter.
  - Eggshell refers to low-sheen finish with a gloss range between 5 and 20 when measured at a 60-degree meter.
  - Satin refers to low-sheen finish with a gloss range between 15 and 35 when measured at a 60degree meter.
  - Semi-gloss refers to medium-sheen finish with a gloss range between 30 and 65 when measured at a 60-dgree meter.
  - 5. Full Gloss refers to high-sheen finish with a gloss range more than 65 when measured at a 60-degree meter.
- D. Areas Subject to Moisture and Food Preparation: These spaces are those that have permanent plumbing connections and appliances. These include, but are not limited to, toilet rooms, janitor's closets, break and kitchenette.

# 1.3 SUBMITTALS

- A. Product Data: For each paint system specified. Include block fillers and primers.
  - Material List: Provide an inclusive list of required coating materials. Indicate each material and cross-reference Room Finish Schedule with specific coating, finish system, color designation, sheen, and application methods. Identify each material by manufacturer's catalog number and general classification.
  - Manufacturer's Information: Provide manufacturer's technical information, including label analysis and instructions for handling, storing and applying each coating material proposed for use.
  - 3. VOC Compliance: Provide manufacturer's certified documentation that products supplied comply with local regulations controlling use of volatile organic compounds (VOCs).
- B. Samples for Verification: Of each color and material to be applied, with texture to simulate actual conditions, 3" x 5" (min.).
- C. Qualification Data: For firms and persons specified in the "Quality Assurance" Article to demonstrate their capabilities and experience. Include list of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

# 1.4 QUALITY ASSURANCE

- A. Applicator Qualifications: Engage an experienced applicator who has a minimum of 10 years experience.
- B. Source Limitations: Obtain primers and undercoat materials for each coating system from the same manufacturer as the finish coats. Block fillers are excluded from this requirement.

# 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver material to the Project Site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label, and the following information:
  - 1. Product name or title of material.
  - 2. Product description (generic classification or binder type).
  - 3. Manufacturer's stock number and date of manufacture.
  - 4. Contents by volume, for pigment and vehicle constituents.
  - 5. Color name and number.
- B. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 degrees F. Maintain containers used in storage in a clean condition free of foreign materials and residue.
  - 1. Protect from freezing. Keep storage area neat and orderly. Remove oily rags and waste daily. Take necessary measures to ensure that workers and work areas are protected from fire and health hazards resulting from handling, missing, and application.

#### 1.6 PROJECT CONDITIONS

- A. Apply water-based paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 50 and 90 degrees F.
- B. Apply solvent-thinned paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 45 and 95 degrees F.
- C. Do not apply paint in snow, rain, fog, or mist; or when the relative humidity exceeds 85 percent; or at temperatures less than 5 degrees F above the dew point; or to damp or wet surfaces.
  - Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by manufacturer during application and drying periods.

#### 1.7 EXTRA MATERIALS

A. Furnish 2%, but not less than 1 gallon, extra paint materials from the same production run as the materials applied in the quantities described below. Package paint materials in unopened, factory-sealed containers for storage and identify with labels describing content. Deliver extra materials to the Owner.

## PART 2 - PRODUCTS

# 2.1 MANUFACTURERS

- A. Basis of Design: See Interior Finish Schedule Legend for Paints and Transparent stain finish using Manufacturer's Best Quality, Zero VOC Paint Systems. The design is based on colors by the manufacturers named. Subject to compliance with requirements, provide any of the comparable products for the application by acceptable manufacturers. Comparable products and colors are subject to review and approval through the submittal process specified.
- B. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
  - 1. Benjamin Moore & Co.
  - 2. ICI Devoe
  - 3. Sherwin-Williams Co.
  - 4. Pratt & Lambert

# 2.2 PAINT MATERIALS, GENERAL

- A. Material Compatibility: Provide block fillers, primers, undercoats, and finish-coat materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
- B. VOC Compliance: Provide materials that comply with the Air Quality Control regulations of the local Air Quality Management District having jurisdiction over the location of the project or EPA Region II. In the event that local regulations are silent on specific applications, comply with the National Volatile Organic Compound Emission Standards for Architectural Coatings (40 CFR Part 59).
- C. Material Quality: Provide manufacturer's best-quality Zero VOC paint material of the various coating types specified. Paint-material containers not displaying manufacturer's product identification will not be acceptable.
  - Proprietary Names: Use of manufacturer's proprietary product names to designate colors of
    material is not intended to imply that products named are required to be used to the exclusion of
    equivalent products of other manufacturers. Furnish manufacturer's material data and
    certificates of performance for proposed substitutions.

# 2.3 PAINT MATERIALS

- A. Basis-of-Design Product: The design for each type of paint is based on the products named. Subject to compliance with requirements, provide either the named product or a comparable product by one of the other manufacturers specified.
- B. Primers:
  - 1. Block Filler: Tnemec 130-6602 Acrylic Cementitious Block Filler
  - 2. Latex Based Interior Primer: Tnemec 51-792, "PVA Sealer."
  - 3. Rust Inhibiting Primer: Tnemec Series 4, "Versare Primer."
  - 4. Galvanized Steel and Non-Ferrous Metal Primer: Tnemec Series 27, F.C. "Typoxy."
  - 5. Miscellaneous Metals and Steel Primer: Tnemec Series
- C. Special coatings for interior use in areas subject to moisture and food preparation:
  - Two components, high-performance, modified aliphatic amine epoxy coating: Tnemec, Series 84, "Ceramlon ENV."
- D. Interior Finish Coat Material:
  - 1. Matte Acrylic Emulsion: Tnemec Series 6, "Tnemec-Cryl."
  - Semi-Gloss Acrylic Polymer: Tnemec Series 29. "Tufcryl."
  - 3. Semi-Gloss Waterborne Acrylic Epoxy: Tnemec 113, "HB. Tnemec-Tufcoat."
  - 4. Latex-based Eggshell Enamel: Sherwin Williams ProMar 200 B20W200 Series.
  - Latex-based Interior Flat Paint: Sherwin Williams ProMar 200 B30W200 Series.

#### 2.4 TRANSPARENT FINISH (STAIN)

A. Refer to Finish Schedule for information.

## PART 3 - EXECUTION

## 3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with the applicator present, under which painting will be performed for compliance with paint application requirements.

- Do not begin to apply paint until unsatisfactory conditions have been corrected and surfaces receiving paint are thoroughly dry.
- Start of painting will be construed as the Applicator's acceptance of surfaces and conditions within a particular area.
- B. Coordination of Work: Review other Sections in which primers are provided to ensure compatibility of the total system for various substrates. On request, furnish information on characteristics of finish materials to ensure use of compatible primers.
  - 1. Notify the Architect about anticipated problems using the materials specified over substrates primed by others.

#### 3.2 PREPARATION

- A. General: Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, and similar items already installed that are not to be painted. If removal is impractical or impossible because of the size or weight of the item, provide surface-applied protection before surface preparation and painting.
  - After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.
- B. Cleaning: Before applying paint or other surface treatments, clean the substrates of substances that could impair the bond of the various coatings. Remove soil and grease before cleaning.
  - Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.
- C. Surface Preparation: Clean and prepare surfaces to be painted according to manufacturer's written instructions for each particular substrate condition and as specified.
  - 1. Provide barrier coats over incompatible primers or remove and re-prime.
  - 2. Cementitious Materials: Prepare concrete, concrete masonry units, cement plaster, and glass fiber reinforced gypsum board surfaces to be painted, according to manufacturer's written instructions. Remove efflorescence, chalk, dust, dirt, grease, oils, and release agents. Roughen as required to remove glaze. If hardeners or sealers have been used to improve curing, use mechanical methods of surface preparation.
    - Use abrasive blast-cleaning methods if recommended by paint manufacturer.
    - b. Determine alkalinity and moisture content of surfaces by performing appropriate tests. If surfaces are sufficiently alkaline to cause the finish paint to blister and burn, correct this condition before application. Do not paint surfaces where moisture content exceeds that permitted in manufacturer's written instructions.
  - 3. Wood: Clean surfaces of dirt, oil, and other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Sand surfaces exposed to view smooth and dust off.
    - Scrape and clean small, dry, seasoned knots, and apply a thin coat of white shellac or other recommended knot sealer before applying primer. After priming, fill holes and imperfections in finish surfaces with putty or plastic wood filler. Sand smooth when dried.
    - b. Prime, stain, or seal wood to be painted immediately on delivery. Prime edges, ends, faces, undersides, and back sides of wood, including cabinets, counters, cases, and paneling.
    - c. If transparent finish is required, backprime with spar varnish.
    - Backprime paneling on interior partitions where masonry, plaster, or other wet wall
      construction occurs on back side.
    - e. Seal tops, bottoms, and cutouts of unprimed wood doors with a heavy coat of varnish or sealer immediately on delivery.
  - 4. Ferrous Metals: Clean ungalvanized ferrous-metal surfaces that have not been shop coated; remove oil, grease, dirt, loose mill scale, and other foreign substances. Use solvent or

mechanical cleaning methods that comply with surface preparation specifications prepared by The Society for Protective Coatings (SSPC).

- Blast steel surfaces clean as recommended by paint system manufacturer and according to requirements of SSPC-SP 6, Commercial Blast Cleaning.
- b. Touch up bare areas and shop-applied prime coats that have been damaged. Wirebrush, clean with solvents recommended by paint manufacturer, and touch up with the same primer as the shop coat.
- Galvanized Surfaces: Clean galvanized surfaces with non-petroleum-based solvents so surface
  is free of oil and surface contaminants. Remove pretreatment from galvanized sheet metal
  fabricated from coil stock by mechanical methods.
- D. Materials Preparation: Mix and prepare paint materials according to manufacturer's written instructions.
  - Maintain containers used in mixing and applying paint in a clean condition, free of foreign materials and residue.
  - 2. Stir material before application to produce a mixture of uniform density. Stir as required during application. Do not stir surface film into material. If necessary, remove surface film and strain paint before using.
  - 3. Use only thinners approved by paint manufacturer and only within recommended limits.

#### 3.3 APPLICATION

- A. General: Apply paint according to manufacturer's written instructions. Use applicators and techniques best suited for substrate and type of material being applied.
  - 1. Paint colors, surface treatments, and finishes are indicated in the Finish Schedule Legend.
  - Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to formation of a durable paint film.
  - 3. Provide finish coats that are compatible with primers used.
  - 4. The term "exposed surfaces" includes areas visible when permanent or built-in fixtures, convector covers, covers for finned-tube radiators, grilles, and similar components are in place. Extend coatings into these areas, as required, to maintain the system integrity and provide desired protection.
  - 5. Paint surfaces behind movable equipment and furniture the same as similar exposed surfaces. Before the final installation of equipment, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
  - 6. Paint interior surfaces of ducts with a flat, nonspecular black paint where visible through registers or grilles.
  - 7. Paint backsides of access panels and removable or hinged covers to match exposed surfaces.
- B. Scheduling Painting: Apply first coat to surfaces that have been cleaned, pretreated, or otherwise prepared for painting within eight hours of preparation and before subsequent surface deterioration.
  - 1. The film thicknesses required are the same regardless of application method. Do not apply succeeding coats until the previous coat has cured as recommended by the manufacturer. Sand between applications to produce a smooth, even surface according to manufacturer's written instructions.
  - 2. Omit primer on metal surfaces that have been shop primed and touchup painted.
  - If undercoats or other conditions show through final coat of paint, apply additional coats until
    paint film is of uniform finish, color, and appearance. Give special attention to ensure edges,
    corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of
    flat surfaces.
  - 4. Allow sufficient time between successive coats to permit proper drying. Do not recoat surfaces until paint has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and where application of another coat of paint does not cause the undercoat to lift or lose adhesion.

- C. Application Procedures: Apply paints and coatings by brush, roller, spray, or other applicators according to manufacturer's written instructions.
  - Brush Application: Use brushes best suited for material applied and of appropriate size for the surface or item being coated.
    - Apply primers and first coats by brush unless manufacturer's written instructions permit using roller or mechanical applicators.
    - b. Brush out and work brush coats into surfaces in an even film.
    - Eliminate cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections. Neatly draw glass lines and color breaks.
  - Rollers: Use rollers of carpet, velvet back, or high-pile sheep's wool as recommended by manufacturer for the material and texture required.
  - Spray Equipment: Use mechanical methods to apply coating if permitted by manufacturer's written instructions and governing regulations.
    - Use spray equipment with orifice size recommended by manufacturer for material and texture required.
    - b. Apply each coat to provide the equivalent hiding of brush-applied coats.
    - c. Do not double back with spray equipment building-up film thickness of two coats in one pass, unless recommended by manufacturer.
- D. Minimum Coating Thickness: Apply paint materials no thinner than manufacturer's recommended spreading rate. Provide the total dry film thickness of the entire system as recommended by the manufacturer. Finish coats shall be provided in the dry film thickness specified in the schedules located at the end of this Section.
- E. Mechanical and Electrical work: Painting of mechanical and electrical work includes both interior and exterior items.
- F. Mechanical items to be painted include, but are not limited to, the following:
  - 1. Piping, pipe hangers, and supports.
  - 2. Heat exchangers.
  - 3. Tanks.
  - 4. Ductwork.
  - 5. Insulation.
  - 6. Motors and mechanical equipment.
  - Accessory Items.
  - 8. Diffusers in drywall ceilings & soffits
- G. Electrical items to be painted include, but are not limited to, the following:
  - 1. Conduit and fittings.
  - 2. Switchgear.
  - 3. Panelboards
- H. Block Fillers: Apply block fillers to concrete masonry block and cast-in-place concrete at a rate to ensure complete coverage with all pores filled.
- I. Sealants: Apply a sealant joint along the floor line of all interior concrete masonry block walls.
- J. Prime Coats: Before applying finish coats, apply a prime coat of material, as recommended by the manufacturer, to surfaces that are required to be painted or finished and that have not been prime coated by others.
  - 1. Recoat primed and sealed surfaces where evidence of suction spots or unsealed areas in first coat appears, to ensure a finish coat with no burn through or other defects due to insufficient sealing.

- K. Pigmented (Opaque) Finishes: Completely cover surfaces as necessary to provide a smooth, opaque surface of uniform finish, color, appearance, and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections will not be acceptable.
- L. Completed Work: Match approved samples for color, texture, and coverage. Remove, refinish, or repaint work not complying with requirements.

# 3.4 FIELD QUALITY CONTROL

- A. The Owner reserves the right to invoke the following test procedure at any time and as often as the Owner deems necessary during the period when paint is being applied:
  - 1. The Owner will engage the services of an independent testing agency to sample the paint material being used. Samples of material delivered to the Project will be taken, identified sealed, and certified in the presence of the Contractor.
  - The testing agency will perform appropriate tests for the following characteristics as required by the Owner:
    - a. Quantitative material analysis.
    - b. Abrasion resistance.
    - c. Apparent reflectivity.
    - d. Flexibility,
    - e. Washability.
    - f. Absorption.
    - g. Accelerated weathering.
    - h. Dry opacity.
    - i. Accelerated yellowness.
    - Recoating.
    - k. Skinning.
    - I. Color retention.
    - m. Alkali and mildew resistance.
  - 3. The Owner may direct the Contractor to stop painting if test results show material being used does not comply with specified requirements. The Contractor shall remove non-complying paint from the site, pay for testing, and repaint surfaces previously coated with the rejected paint. If necessary, the Contractor may be required to remove rejected paint from previously painted surfaces if on repainting with specified paint, the two coatings are incompatible.

# 3.5 CLEANING

- A. Cleanup: At the end of each workday, remove empty cans, rags, rubbish, and other discarded paint materials from the site.
  - After completing painting, clean glass and paint-spattered surfaces. Remove spattered paint by washing and scraping without scratching or damaging adjacent finished surfaces.

## 3.6 PROTECTION

- A. Protect work of other trades, whether being painted or not, against damage by painting. Correct damage by cleaning, repairing or replacing, and repainting, as approved by Architect.
- B. Provide 'Wet Paint" signs to protect newly painted finishes. Remove temporary protective wrappings provided by others to protect their work after completing painting operations.
  - At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces. Comply with procedures specified in Painting and Decorating Contractors of America (PDCA) Specification P1

# 3.7 INTERIOR PAINT SCHEDULE

- A. General: Provide the designated paint systems for the various substrates, as indicated in the Room Finish Schedule and Legend.
- B. Concrete Paint System 1 (PS-1):
  - Acrylic Emulsion: three coats
    - a. Block Filler: Acrylic block filler
    - b. First Coat: Acrylic Emulsion (3 mils)
    - c. Second Coat: Acrylic Emulsion (3 mils)
- C. Concrete Masonry Units Paint System 2 (PS-2):
  - 1. Acrylic Emulsion: Three coats
    - a. Block Filler: Acrylic block filler
    - b. First Coat: Acrylic Emulsion (3 mils)
    - c. Second Coat: Acrylic Emulsion (3 mils)
- D. Gypsum Board Paint System 3 (PS-3):
  - Eggshell Enamel Finish: Three coats
    - a. Primer: Latex-Based Interior Primer
    - b. First Coat: Eggshell Enamel
    - c. Second Coat: Eggshell Enamel
- E. Ferrous Metal Paint System 5 (PS-5):
  - 1. Acrylic Emulsion: Three coats
    - a. Primer: Rust Inhibiting Primer
    - b. First Coat: Acrylic Emulsion (3 mils)
    - c. Second Coat: Acrylic Emulsion (3 mils)
- F. Zinc-coated Metal Paint System 6 (PS-6):
  - 1. Acrylic Emulsion: Three coats
    - a. Primer: Galvanized Metal Primer
    - b. First Coat: Acrylic Emulsion (3 mils)
    - c. Second Coat: Acrylic Emulsion (3 mils)
- G. Wood: W1-OP-2A, semi-gloss Premium Grade finish with minimum 99% UV Protection and VOC Content less than 1g/liter
- H. Wood: Transparent paint finish. Premium Grade finish to match existing with Minimum of 2 coats of finish coat and minimum of 2 coats of clear protective coating- Refer to other sections for additional information.

# 3.8 INTERIOR SPECIAL COATINGS

- A. Gypsum Board Partitions and Ceilings in Rooms subject to Moisture Paint System SC (PS-SC1):
  - 1. High-performance, Amine-epoxy Coating:
    - a. First Coat: Vinyl-acrylic Latex Drywall Sealer
    - b. Second Coat: High-solids, modified aliphatic amine epoxy coating.

# 3.9 EXTERIOR PAINT SCHEDULE

- A. Non-ferrous Metals: Exterior metal primer and two coats exterior alkyd enamel.
- B. Ferrous Metals: Exterior ferrous metal primer and two coats alkyd exterior enamel.

# SECTION 10 28 13 TOILET ACCESSORIES

#### PART 1 - GENERAL

#### 1.1 DESCRIPTION

A. Provide toilet accessories indicated on drawings and schedules.

# 1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data, installation instructions and maintenance instructions for each accessory.
- B. Manufacturer's Guarantee: Submit two copies.

#### PART 2 - PRODUCTS

#### 2.1 TOILET ACCESSORIES

- A. General: Manufacturer and Model Numbers are specified in Schedule of Accessories to establish quality, design and type units required. Approved equal units of other listed manufacturers will be acceptable.
- B. Acceptable Manufacturers:
  - 1. Accessory Specialties, Inc.
  - 2. American Dispenser Co., Inc.
  - 3. Bobrick Washroom Equipment, Inc.
  - 4. Bradley Corp.
  - 5. McKinney-Parker Co.
  - 6. Watrous, Inc.

# 2.2 MATERIALS

- A. Stainless Steel: AISI Type 302 or 304, with satin stainless steel finish.
- B. Chromium Plating: Nickel and chromium electro-deposited on metal, ASTM B 456, Type SC-2.
- C. Galvanized Steel Mounting Devices: ASTM A 386, hot dipped galvanized after fabrication.
- D. Locks: Provided for all dispensing accessories. All locks shall be keyed alike. Provide 2 keys for each accessory.
- E. Labels/Nameplates: Not permitted on exposed faces.
- F. Embedded Items: Furnish anchors and attachment items which must be set in concrete or built into masonry for installation of toilet accessories.
- G. Provide a minimum of 60% recycled content

# 2.3 SCHEDULE OF ACCESSORIES

A. Refer to drawings for Schedule of toilet accessories. All items are by Bradley, Inc., approved equivalents by the listed manufacturers are acceptable. Contractor to coordinate requirements of items scheduled to be CSX provided and GC installed.

# **PART 3 - EXECUTION**

#### 3.1 INSTALLATION

- A. Use concealed fastenings wherever possible.
- B. Provide anchors, bolts and other necessary anchorages, and attach accessories securely to walls and partitions in locations as shown on the drawings or specified herein.
- C. Install concealed mounting devices and fasteners provided by manufacturer.
- D. Provide theft-resistant fasteners for all accessory mountings.
- E. Secure toilet room accessories in accordance with the manufacturer's instructions for each item and each type of substrate construction.
- F. Mounting Height: As recommended by manufacturer unless otherwise indicated on drawings.
- G. Wall mount signs adjacent to door opening at height and distance from door jamb required to comply with ADA mounting.

# 3.2 ADJUSTING AND CLEANING

- A. Adjust accessories for proper operation. Replace damaged or defective accessories.
- B. Clean and polish all exposed surfaces after removing temporary labels and protective coatings.

SECTION 104416 FIRE EXTINGUISHERS

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

# 1.2 SUMMARY

A. Section includes portable, hand-carried fire extinguishers and mounting brackets for fire extinguishers.

# 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include rating and classification, material descriptions, dimensions of individual components and profiles, and finishes for fire extinguisher and mounting brackets.
- B. Product Schedule: For fire extinguishers. Coordinate final fire-extinguisher schedule with fire-protection cabinet schedule to ensure proper fit and function.

# 1.4 INFORMATIONAL SUBMITTALS

A. Warranty: Sample of special warranty.

# 1.5 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For fire extinguishers to include in maintenance manuals.

#### 1.6 COORDINATION

A. Coordinate type and capacity of fire extinguishers with fire-protection cabinets to ensure fit and function.

# 1.7 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace fire extinguishers that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Failure of hydrostatic test according to NFPA 10.
    - b. Faulty operation of valves or release levers.
  - 2. Warranty Period: Six years from date of Substantial Completion.

## **PART 2 - PRODUCTS**

## 2.1 PERFORMANCE REQUIREMENTS

- A. NFPA Compliance: Fabricate and label fire extinguishers to comply with NFPA 10, "Portable Fire Extinguishers."
- B. Fire Extinguishers: Listed and labeled for type, rating, and classification by an independent testing agency acceptable to authorities having jurisdiction.
  - 1. Provide fire extinguishers approved, listed, and labeled by FM Global.

# 2.2 PORTABLE, HAND-CARRIED FIRE EXTINGUISHERS

- A. Fire Extinguishers: Type, size, and capacity for each **mounting bracket** indicated.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 2. <u>Basis-of-Design Product</u>: Subject to compliance with requirements, provide comparable product by one of the following:
    - a. Guardian Fire Equipment, Inc.
    - b. JL Industries, Inc.; a division of the Activar Construction Products Group.
    - c. <u>Kidde Residential and Commercial Division</u>; Subsidiary of Kidde plc.
    - d. Larsens Manufacturing Company.
  - Valves: Manufacturer's standard.
  - 4. Handles and Levers: Manufacturer's standard.
  - 5. Instruction Labels: Include pictorial marking system complying with NFPA 10, Appendix B
- B. Multipurpose Dry-Chemical Type in Steel: UL-rated 3-A:40-B:C, 6-lb (2.7-kg) nominal capacity, with monoammonium phosphate-based dry chemical in enameled-steel container.

#### 2.3 MOUNTING BRACKETS

- A. Mounting Brackets: Manufacturer's standard steel, designed to secure fire extinguisher to wall or structure, of sizes required for types and capacities of fire extinguishers indicated, with plated or [red] [black] baked-enamel finish.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Guardian Fire Equipment, Inc.
    - b. <u>JL Industries, Inc.; a division of the Activar Construction Products Group.</u>
    - c. Larsens Manufacturing Company.
- B. Identification: Lettering complying with authorities having jurisdiction for letter style, size, spacing, and location. Locate as indicated by Architect.
  - 1. Identify bracket-mounted fire extinguishers with the words "FIRE EXTINGUISHER" in red letter decals applied to mounting surface.
    - a. Orientation: Vertical

# **PART 3 - EXECUTION**

# 3.1 EXAMINATION

- A. Examine fire extinguishers for proper charging and tagging.
  - Remove and replace damaged, defective, or undercharged fire extinguishers.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

# 3.2 INSTALLATION

- A. General: Install fire extinguishers and mounting brackets in locations indicated and in compliance with requirements of authorities having jurisdiction.
  - 1. Mounting Brackets: 54 inches (1372 mm) above finished floor to top of fire extinguisher.
- B. Mounting Brackets: Fasten mounting brackets to surfaces, square and plumb, at locations indicated.

#### SECTION 102113 - TOILET COMPARTMENTS

#### PART 1 - GENERAL

# 1.1 RELATED DOCUMENTS

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

# 1.2 SUMMARY

- A. Section Includes:
  - Solid-polymer toilet compartments configured as toilet enclosures
- B. Related Sections:
  - 1. Section 061000 "Rough Carpentry for blocking
  - Section 102800 "Toilet, Bath, and Laundry Accessories" for toilet tissue dispensers, grab bars, purse shelves, and similar accessories.

## 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
- B. Shop Drawings: For toilet compartments. Include plans, elevations, sections, details, and attachments to other work.
  - 1. Show locations of cutouts for compartment-mounted toilet accessories.
  - 2. Show locations of reinforcements for compartment-mounted grab bars.
  - 3. Show locations of centerlines of toilet fixtures.
- C. Samples for Initial Selection: For each type of unit indicated. Include Samples of hardware and accessories involving material and color selection.
- D. Samples for Verification: For the following products, in manufacturer's standard sizes unless otherwise indicated:
  - 1. Each type of material, color, and finish required for units, prepared on 6-inch- (152-mm-) square Samples of same thickness and material indicated for Work.
  - 2. Each type of hardware and accessory.

# 1.4 INFORMATIONAL SUBMITTALS

A. Product Certificates: For each type of toilet compartment, from manufacturer.

# 1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For toilet compartments to include in maintenance manuals.

#### 1.6 QUALITY ASSURANCE

- A. Comply with requirements in GSA's CID-A-A-60003, "Partitions, Toilets, Complete."
- B. Surface-Burning Characteristics: As determined by testing identical products according to ASTM E 84, or another standard acceptable to authorities having jurisdiction, by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
  - 1. Flame-Spread Index: 25 or less.
  - 2. Smoke-Developed Index: 450 or less.
- C. Regulatory Requirements: Comply with applicable provisions in **The Florida Accessibility Code** for toilet compartments designated as accessible.

#### 1.7 PROJECT CONDITIONS

A. Field Measurements: Verify actual locations of toilet fixtures, walls, columns, ceilings, and other construction contiguous with toilet compartments by field measurements before fabrication.

# PART 2 - PRODUCTS

# 2.1 MATERIALS

- A. Aluminum Castings: ASTM B 26/B 26M.
- B. Aluminum Extrusions: ASTM B 221 (ASTM B 221M).
- C. Brass Castings: ASTM B 584.
- D. Brass Extrusions: ASTM B 455.
- E. Steel Sheet: Commercial steel sheet for exposed applications; mill phosphatized and selected for smoothness.
  - 1. Electrolytically Zinc Coated: ASTM A 879/A 879M, 01Z (03G).
  - 2. Hot-Dip Galvanized: ASTM A 653/A 653M, either hot-dip galvanized or galvannealed.
- F. Stainless-Steel Sheet: ASTM A 666, Type 304, stretcher-leveled standard of flatness.
- G. Stainless-Steel Castings: ASTM A 743/A 743M.
- H. Zamac: ASTM B 86, commercial zinc-alloy die castings.
- I. Adhesives: Manufacturer's standard product that complies with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

#### 2.2 SOLID-POLYMER UNITS

- A. 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:
- B. <u>Basis-of-Design Product</u>: Subject to compliance with requirements, provide comparable product by one of the following:
  - 1. Ampco, Inc.
  - 2. Bradley Corporation; Mills Partitions.
  - 3. Santana Products, Inc.
- C. Toilet-Enclosure Style: Overhead braced.
- D. Urinal-Screen Style: Wall hung
- E. Door, Panel and Pilaster Construction: Solid, **high-density polyethylene** (HDPE) panel material, not less than 1 inch (25 mm) thick, seamless, with eased edges and with homogenous color and pattern throughout thickness of material.
  - 1. Integral Hinges: Configure doors and pilasters to receive integral hinges.
  - 2. Heat-Sink Strip: Manufacturer's standard continuous, extruded-aluminum
  - 3. strip fastened to exposed bottom edges of solid-polymer components to prevent burning.
  - 4. Color and Pattern: as selected by Architect from manufacturer's full range.
- F. Pilaster **Shoes**: Manufacturer's standard design; **polymer**.
  - 1. Polymer Color and Pattern: Matching pilaster
- G. Urinal-Screen Post: Manufacturer's standard post design of material matching the thickness and construction of pilasters; with shoe matching that on the pilaster.
- H. Brackets (Fittings):
  - 1. Full-Height (Continuous) Type: Manufacturer's standard design; extruded aluminum.
- I. Overhead Cross Bracing for Ceiling-Hung Units: As recommended by manufacturer and fabricated from solid polymer.

# 2.3 ACCESSORIES

- A. Hardware and Accessories: Manufacturer's standard design, heavy-duty operating hardware and accessories.
  - 1. Material: Clear-anodized aluminum.
  - 2. Hinges: Manufacturer's standard paired, self-closing type that can be adjusted to hold doors open at any angle up to 90 degrees.
  - 3. Latch and Keeper: Manufacturer's standard **surface-mounted** latch unit designed for emergency access and with combination rubber-faced door strike and keeper. Provide units that comply with regulatory requirements for accessibility at compartments designated as accessible.
  - Coat Hook: Manufacturer's standard combination hook and rubber-tipped bumper, sized to prevent inswinging door from hitting compartment-mounted accessories.
  - 5. Door Bumper: Manufacturer's standard rubber-tipped bumper at out-swinging doors
  - 6. Door Pull: Manufacturer's standard unit at out-swinging doors that complies with regulatory requirements for accessibility. Provide units on both sides of doors at compartments designated as accessible.

- B. Overhead Bracing: Manufacturer's standard continuous, extruded-aluminum head rail with antigrip profile and in manufacturer's standard finish.
- C. Anchorages and Fasteners: Manufacturer's standard exposed fasteners of stainless steel or chrome-plated steel or brass, finished to match the items they are securing, with theft-resistant-type heads. Provide sex-type bolts for through-bolt applications. For concealed anchors, use stainless steel, hot-dip galvanized steel, or other rust-resistant, protective-coated steel.

# 2.4 FABRICATION

- A. Overhead-Braced Units: Provide manufacturer's standard corrosion-resistant supports, leveling mechanism, and anchors at pilasters to suit floor conditions. Provide shoes at pilasters to conceal supports and leveling mechanism.
- B. Floor-Anchored Units: Provide manufacturer's standard corrosion-resistant anchoring assemblies with leveling adjustment nuts at pilasters for structural connection to floor. Provide shoes at pilasters to conceal anchorage.
- C. Ceiling-Hung Units: Provide manufacturer's standard corrosion-resistant anchoring assemblies with leveling adjustment nuts at pilasters for connection to structural support above finished ceiling. Provide assemblies that support pilasters from structure without transmitting load to finished ceiling. Provide sleeves (caps) at tops of pilasters to conceal anchorage.
- D. Floor-and-Ceiling-Anchored Units: Provide manufacturer's standard corrosion-resistant anchoring assemblies with leveling adjustment at tops and bottoms of pilasters. Provide shoes and sleeves (caps) at pilasters to conceal anchorage.
- E. Urinal-Screen Posts: Provide manufacturer's standard corrosion-resistant anchoring assemblies with leveling adjustment at [tops and] bottoms of posts. Provide shoes[and sleeves (caps)] at posts to conceal anchorage.
- F. Door Size and Swings: Unless otherwise indicated, provide 24-inch- (610-mm-) wide, in-swinging doors for standard toilet compartments and 36-inch- (914-mm-) wide, out-swinging doors with a minimum 32-inch- (813-mm-) wide, clear opening for compartments designated as accessible.

# PART 3 - EXECUTION

# 3.1 INSTALLATION

- A. General: Comply with manufacturer's written installation instructions. Install units rigid, straight, level, and plumb. Secure units in position with manufacturer's recommended anchoring devices.
  - 1. Maximum Clearances:
    - a. Pilasters and Panels: 1/2 inch (13 mm).
    - b. Panels and Walls: 1 inch (25 mm).
- B. Overhead-Braced Units: Secure pilasters to floor and level, plumb, and tighten. Set pilasters with anchors penetrating not less than 1-3/4 inches (44 mm) into structural floor unless otherwise indicated in manufacturer's written instructions. Secure continuous head rail to each pilaster with no fewer than two fasteners. Hang doors to align tops of doors with tops of panels, and adjust so tops of doors are parallel with overhead brace when doors are in closed position.
- C. devices to suit supporting structure. Set units level and plumb, rigid, and secured to resist lateral impact.

# 3.2 ADJUSTING

A. Hardware Adjustment: Adjust and lubricate hardware according to hardware manufacturer's written instructions for proper operation. Set hinges on in-swinging doors to hold doors open approximately 30 degrees from closed position when unlatched. Set hinges on out-swinging doors to return doors to fully closed position.