

INVITATION FOR BID (IFB) #09-2574DC FLEET SERVICES BUILDING ADDITION PHASE 2

Manatee County, a political subdivision of the State of Florida, (hereinafter "Manatee County" or the "County" or "Owner") will receive sealed bids from individuals, corporations, partnerships, and other legal entities organized under the laws of the State of Florida or authorized to conduct business in the State of Florida.

NON-MANDATORY INFORMATION CONFERENCE AND SITE VISIT

In order to insure that all prospective bidders or proposers have sufficient information and understanding of the County's needs, an <u>information conference</u> will be held <u>August 6, 2009 at 11:00 A.M.</u> at the Manatee County Administrative Building, Purchasing Office, 1112 Manatee Avenue West, Suite 803, Bradenton, Florida. All interested bidders are encouraged to attend. An inspection of the project site will immediately follow the Information Conference. (Note: Prior to bidding, a site visit must be documented.)

DEADLINE FOR CLARIFICATION REQUESTS: August 7, 2009 at 11:00 A.M.

TIME AND DATE DUE: August 13, 2009 at 3:00 P.M.

Manatee County Purchasing, 1112 Manatee Avenue West, Bradenton, FL 34205

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Important Note: A prohibition of Lobbying has been enacted. Please review paragraph A.23 carefully to avoid violation and possible sanctions.

FOR INFORMATION CONTACT: <u>DEBORAH CAREY-REED</u> (941) 749-3074 FAX (941) 749-3034 deborah.carey-reed@mymanatee.org

AUTHORIZED FOR RELEASE:

SECTION 00010 INFORMATION TO BIDDERS OR PROPOSERS

A.01 OPENING LOCATION

These bids will be <u>publicly opened</u> at Manatee County Purchasing, 1112 Manatee Avenue West, Suite 803, Bradenton, Florida 34205 in the presence of County officials at the time and date stated, or soon thereafter. All bidders or proposers or their representatives are invited to be present.

A.02 INSPECTION OF THE SITE

Prior to the submission of a bid, each bidder or proposer shall visit the site to become familiar with all conditions that may affect services that are required to completely execute the full intent of these specifications. For **coordination of site inspection**, **bidders can contact the Owner's Representative, Mr. Alan Meronek, at 941/748-4501 extension 3097**. Inspection of the site is a requirement to be considered for award of this contract.

A.03 BID AND PROPOSAL DOCUMENTS

Bids and Proposals on http://www.mymanatee.org

Bid or Proposal documents and the Notices of Source Selection related to those Bids or Proposals are available for download in a portable document format (.PDF) file on the Manatee County web page on the Purchasing tab under "Bids and Proposals." You may view and print these files using Adobe Acrobat software. You may download a free copy of this software (Adobe) from the County's web page if you do not have it. **Manatee County collaborates with the Manatee Chamber of Commerce** on distributing solicitations using the RFP Tool web page on the Chambers website: http://www.Manateechamber.com to post Bid and Proposal documents in a portable document format (.PDF) file. This step is in addition to the posting on Manatee County Government web pages.

Manatee County may also use an internet service provider to distribute Bids and Proposals. A link to that service http://www.DemandStar.com, is provided on this website under the Tab "DemandStar". Participation in the DemandStar system is not a requirement for doing business with Manatee County.

Note: The County posts the Notice of Source Selection seven calendar days prior to the effective date of the award.

IT IS THE RESPONSIBILITY OF EACH VENDOR, PRIOR TO SUBMITTING THEIR BID or PROPOSAL, TO CONTACT THE MANATEE COUNTY PURCHASING OFFICE (see contact information on page one of this document) TO DETERMINE IF ADDENDA WERE ISSUED AND TO MAKE SUCH ADDENDA A PART OF THEIR BID or PROPOSAL.

A public internet connection is available during regular business hours in the lobby of the Purchasing Division. If you have questions which cannot be answered by these sources, please contact the individual named on the front page of the bid or proposal.

A.04 BID AND PROPOSAL FORM DELIVERY REQUIREMENTS

Any bids or proposals received after the stated time and date will not be considered. It shall be the sole responsibility of the bidder or proposer to have their bid or proposal delivered to the Manatee County Purchasing Division for receipt on or before the stated time and date. If a bid or proposal is sent by U.S. Mail, the bidder or proposer shall be responsible for its timely delivery to the Purchasing Division. Bids or proposals delayed by mail shall not be considered, shall not be opened at the public opening, and arrangements shall be made for their return at the respondent's request and expense.

A.05 DEADLINE FOR CLARIFICATION REQUESTS

August 7, 2009 at 11:00 A.M. shall be the deadline to submit all inquiries, suggestions, or requests concerning interpretation, clarification or additional information pertaining to the Invitation for Bids to the Manatee County Purchasing Office.

This deadline has been established to maintain fair treatment for all potential bidders, while maintaining the expedited nature of the Economic Stimulus that the contracting of this work may achieve.

A.06 CLARIFICATION & ADDENDA

Each bidder shall examine all Invitation for Bids documents and shall judge all matters relating to the adequacy and accuracy of such documents. Any inquiries, suggestions or requests concerning interpretation, clarification or additional information pertaining to the Invitation for Bids shall be made through the Manatee County Purchasing Office. The County shall not be responsible for oral interpretations given by any County employee, representative, or others. The issuance of a written addendum is the only official method whereby interpretation, clarification or additional information can be given.

If any addenda are issued to this Invitation for Bid, the County will Broadcast the addenda on the Demand Star distribution system to "Planholders" on this web service, and post the documents on the Purchasing Division's web page at http://www.mymanatee.org which can be accessed by clicking on the "Purchasing" button on the left side of the screen and then clicking on the "Bids and Proposals" button. It shall be the responsibility of each bidder, prior to submitting their bid, to contact Manatee County Purchasing (see contact on page 1) to determine if addenda were issued and to make such addenda a part of their bid.

A.07 SEALED & MARKED

One original and two copies of your bid shall be submitted in one <u>sealed</u> package, clearly marked on the outside <u>"Sealed Bid #09-2574DC Fleet Services Building Addition Phase 2</u> with your company name.

Address package to: Manatee County Purchasing Division

1112 Manatee Avenue West, Suite 803

Bradenton, Florida 34205

A.08 LEGAL NAME

Bids or proposals shall clearly indicate the <u>legal name</u>, <u>address</u> and <u>telephone number</u> of the bidder or proposer. Bids or proposals shall be <u>signed</u> above the <u>typed or printed name</u> and <u>title</u> of the signer. The signer must have the authority to bind the bidder or proposer to the submitted bid or proposal.

A.09 BID AND PROPOSAL EXPENSES

All expenses for making bids or proposals to the County are to be borne by the bidder.

A.10 IRREVOCABLE OFFER

Any bid may be withdrawn up until the date and time set for opening of the bid. Any bid not so withdrawn shall, upon opening, constitute an <u>irrevocable offer for a period of 90 days</u> to sell to Manatee County the goods or services set forth in the attached specifications until one or more of the bids have been duly accepted by the County.

A.11 DISCLOSURE

Upon receipt, all inquires and responses to inquires related to this Invitation for Bid become "Public Records" and are subject to public disclosure consistent with Chapter 119, Florida Statutes.

Bids become "Public Records" ten (10) days after the bid opening or if an award decision is made earlier than this time as provided by Florida Statue 119.071. No announcement or review of the bid documents shall be conducted at the public opening of the bids.

Based on the above, Manatee County will receive bids at the date and time stated, and will make public at the opening the names of the business entities of all that submitted an offer and any amount presented as a total offer without any verification of the mathematics or the completeness of the offer. Upon the expiration of the statutory term for exemption the actual documents may be inspected or copied. When County staff have completed a mathematic validation and inspected the completeness of the offers, a tabulation shall be posted on www.mymanatee.org.

A.12 RESERVED RIGHTS

The County reserves the right to accept or reject any and/or all bids, to waive irregularities and technicalities, and to request resubmission. Also, the County reserves the right to accept all or any part of the bid and to increase or decrease quantities to meet additional or reduced requirements of the County. Any sole response received by the first submission date may or may not be rejected by the County depending on available competition and current needs of the County. For all items combined, the bid of the lowest responsive, responsible bidder will be accepted, unless all bids are rejected. The lowest responsible bidder shall mean that bidder who makes the lowest bid to sell goods and/or services of a quality which conforms closest to or most exceeds the quality of goods and/or services set forth in the attached specifications or otherwise required by the County, and who is fit and capable to perform the bid as made.

A.12 RESERVED RIGHTS (cont'd)

To be <u>responsive</u>, a bidder shall submit a bid which conforms in all material respects to the requirements set forth in the Invitation For Bid. To be a <u>responsible</u> bidder, the bidder shall have the capability in all respects to perform fully the contract requirements, and the tenacity, perseverance, experience, integrity, reliability, capacity, facilities, equipment, and credit which will assure good faith performance. Also, the County reserves the right to make such investigation as it deems necessary to determine the ability of any bidder to furnish the service requested. Information the County deems necessary to make this determination shall be provided by the bidder. Such information may include, but shall not be limited to: current financial statements, verification of availability of equipment and personnel, and past performance records.

A.13 APPLICABLE LAWS

Bidder or proposer must be authorized to transact business in the State of Florida. All applicable laws and regulations of the <u>State of Florida</u> and ordinances and regulations of Manatee County will apply to any resulting agreement. Any involvement with any Manatee County procurement shall be in accordance with <u>Manatee County Purchasing Code Ordinance 08-43</u>, as amended. Any actual or prospective bidder or proposer who is aggrieved in connection with the solicitation or award of a contract may protest to the Board of County Commissioners of Manatee County as required in <u>Section 2-26/61 of the Purchasing Code</u>.

A protest with respect to this Invitation For Bid or Request for Proposal shall be submitted in writing prior to the scheduled opening date of this bid or proposal, unless the aggrieved person did not know and could not have been reasonably expected to have knowledge of the facts giving rise to such protest prior to the scheduled opening date of this bid or proposal. The protest shall be submitted within seven calendar days after such aggrieved person knows or could have reasonably been expected to know of the facts giving rise thereto.

A.14 CODE OF ETHICS

With respect to this bid or proposal, if any bidder or proposer violates or is a party to a violation of the <u>Code of Ethics</u> of Manatee County per Manatee County Purchasing Code Ordinance 08-43, Article 3, Ethics in Public Contracting, and/or the State of Florida per Florida Statutes, Chapter 112, Part III, Code of Ethics for Public Officers and Employees, such bidder or proposer may be disqualified from performing the work described in this bid or proposal or from furnishing the goods or services for which the bid or proposals is submitted and shall be further disqualified from submitting any future bids or proposals for work or for goods or services for Manatee County.

The County anticipates that all statements made and materials submitted in a bid or proposal will be truthful. If a bidder or proposer is determined to be untruthful in its bid or proposal or any related presentation, such bidder or proposer may be disqualified from further consideration regarding this Invitation For Bid or Request For Proposal.

A.15 COLLUSION

By offering a submission to this Invitation For Bid or Request for Proposal, the bidder or proposer certifies that he has not divulged, discussed or compared their bid or proposal with other bidder or proposer, and <u>has not colluded</u> with any other bidder or proposer or parties to this bid or proposal whatsoever. Also, bidder or proposer certifies, and in the case of a joint bid or proposal each party thereto certifies as to their own organization, that in connection with this bid:

- a. any prices and/or cost data submitted have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices and/or cost data, with any other bidder or with any competitor;
- b. any prices and/or cost data quoted for this bid or proposal have not been knowingly disclosed by the bidder or proposer and will not knowingly be disclosed by the bidder or proposer, prior to the scheduled opening, directly or indirectly to any other bidder or to any competitor;
- c. no attempt has been made or will be made by the bidder or proposer to induce any other person or firm to submit or not to submit a bid or proposal for the purpose of restricting competition;
- d. the only person or persons interested in this bid or proposal, principal or principals is/are named therein and that no person other than therein mentioned has any interest in this bid or proposal or in the contract to be entered into; and
- e. no person or agency has been employed or retained to solicit or secure this contract upon an agreement or understanding or a commission, percentage, brokerage, or contingent fee excepting bona fide employees or established commercial agencies maintained by bidder or proposer for purpose of doing business.

A.16 BID OR PROPOSAL FORMS

Bids or proposals must be submitted on attached County forms, although additional pages may be attached. Bidders or proposers must fully comply with all bid or proposal specifications, terms and conditions. Failure to comply shall result in contract default, whereupon, the defaulting vendor shall be required to pay for any and all re-procurement costs, damages, and attorney fees as incurred by the County.

A.17 DISCOUNTS

Any and all discounts must be incorporated in the prices contained in the bid or proposal and not shown separately. The prices as shown on the bid or proposal form shall be the price used in determining award(s).

A.18 TAXES

Manatee County is exempt from Federal Excise and State Sales Taxes. (F.E.T. Exempt Cert. No. 59-78-0089K; FL Sales Tax Exempt Cert. No. 51-02-027548-53C); therefore, the vendor is prohibited from delineating a separate line item in his bid or proposal for any sales or service taxes. Nothing herein shall affect the vendor's normal tax liability.

A.19 MATHEMATICAL ERRORS

In the event of multiplication/extension error(s), the unit price shall prevail. In the event of addition error(s) the extension totals will prevail. All bids or proposals shall be reviewed mathematically and corrected, if necessary, using these standards, prior to additional evaluation.

A.20 DESCRIPTIVE INFORMATION

Unless otherwise specifically provided in the specifications, all equipment, materials and articles incorporated in the work covered by this contract shall be new and of the most suitable grade for the purpose intended. Unless otherwise specifically provided in the specifications, reference to any equipment, material, article or patented process, by trade name, brand name, make or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition.

A.21 MODIFICATION OF BID OR PROPOSAL SPECIFICATIONS

If a bidder wishes to recommend changes to the bid or proposal specifications, the bidder or proposer shall furnish in writing, data and information necessary to aid the County in evaluating the request to modify the specifications. The County is not obligated to make any changes to the bid or proposal specifications. Unless an addendum is issued as outlined in paragraph A.05, six calendar days prior to the bid or proposal, the bid or proposal specifications shall remain unaltered. Bidders or proposers must fully comply with the bid or proposal specifications, terms, and conditions.

A.22 AMERICANS WITH DISABILITIES ACT

The Board of County Commissioners of Manatee County, Florida, does not discriminate upon the basis of any individual's disability status. This non-discrimination policy involves every aspect of the County's functions including one's access to, participation, employment, or treatment in its programs or activities. Anyone requiring reasonable accommodation for an **Information Conference** or **Bid or Proposal Opening**, should contact the person named on the first page of this bid or proposal document at least twenty four (24) hours in advance of either activity.

A.23 LOBBYING

After the issuance of any Invitation For Bid or Request For Proposal, prospective bidders, proposers or any agent, representative or person acting at the request of such bidder or proposer shall not contact, communicate with or discuss any matter relating in any way to the Invitation For Bid or Request For Proposal with any officer, agent or employee of Manatee County other than the Purchasing Director or as directed in the Invitation For Bid or Request For Proposal. This prohibition begins with the issuance of any Invitation For Bid or Request For Proposal, and ends upon execution of the final contract or when the invitation or request has been canceled. Violators of this prohibition shall be subject to sanctions as provided in the Manatee County Purchasing Code.

The County reserves the right to amend or to add to the names listed as persons to contact. All amendments or additions to the names listed as persons to contact shall be issued by the Purchasing Division, in writing.

A.24 DRUG FREE WORK PLACE

The Manatee County Board of County Commissioners adopted a policy regarding bidders or proposers maintaining a Drug Free Work Place, prohibiting the award of bids or proposals to any person or entity that has not submitted written certification to the County that it has complied with those requirements [Reference Resolution R-93-22, Manatee County Purchasing Policies, Section 4, E (1) (a)]. A Drug Free Work Place Certification Form is attached to this bid or proposal for this purpose.

A.25 PUBLIC ENTITY CRIMES

In accordance with Section 287.133, Florida Statutes, a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid or proposal on a contract to provide any goods or services to a public entity, may not submit a bid or proposal on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids or proposals on leases or 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 in excess of the threshold amount provided in Section 287.017 for Category Two (as of 1/01/2005 is \$25,000) for a period of 36 months from the date of being placed on the convicted vendor list.

A.26 PUBLIC CONTRACTING AND ENVIRONMENTAL CRIMES CERTIFICATION

In accordance with Ordinance 08-43, adding Article 5, Manatee County Board of County Commissioners adopted a policy prohibiting the award of County contracts to persons, business entities, or affiliates of business entities who have not submitted written certification to the County that they have not been convicted of bribery, attempted bribery, collusion, restraints of trade, price fixing, and violations of certain environmental laws. A Non-Conviction Certification Form is attached for this purpose.

A.27 EQUAL EMPLOYMENT OPPORTUNITY CLAUSE

Manatee County, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 and the Regulations of the Department of Commerce (15 CFR, Part 8) issued pursuant to such Act, hereby notifies all vendors that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids or proposals in response to this advertisement and will not be discriminated against on the grounds of race, color or national origin in consideration for an award.

A.28 MBE/WBE

The State of Florida, <u>Office of Supplier Diversity</u> provides the certification process and the database for identifying certified MBE/WBE firms. This service may be directly accessed at: http://www.osd.dms.state.fl.us/iframe.htm

If you have any questions regarding this State service, please contact their office at (850) 487-0915.

NOTE: ANY OR ALL STATEMENTS CONTAINED IN THE FOLLOWING SECTIONS: BASIS OF AWARD, TERMS AND CONDITIONS OF THE CONTRACT, OR SPECIFICATIONS WHICH VARY FROM THE INFORMATION TO BIDDERS OR PROPOSERS, SHALL HAVE PRECEDENCE.

SECTION 00020 BASIS OF AWARD

B.01 BASIS OF AWARD

Award shall be to the most responsive, responsible bidder meeting specifications and having the lowest Total Bid Price for **Bid "A"** or the lowest Total Bid Price for **Bid "B"** for the requirements listed on the Bid Form for the Work as set forth in this Invitation For Bid. Bid Prices shall include costs for furnishing all labor, equipment and/or materials for the completion of the Work in accordance with and in the manner set forth and described in this Bid Document to the County's satisfaction within the prescribed time. **Note: Inspection of the site is a prerequisite to be considered for award of this bid.**

Two schedules for Completion of the Work shall be considered. Each bid for completion by the specific stated time shall be offered as a separate Total Bid Price. The County has the sole authority to select the bid based on the Completion Time which is in the best interest of the County. Only one award shall be made.

In evaluating bids, the County shall consider the qualifications of the bidders; and if required, may also consider the qualifications of the subcontractors, suppliers, and other persons and organizations proposed. County may also consider the operating costs, maintenance requirements, performance data and guarantees of major items of materials and equipment proposed for incorporation in the Work.

Whenever two or more bids are equal with respect to price, quality and service, the bid received from a local business shall be given preference in award. Whenever two or more bids which are equal with respect to price, quality and service are received, and both bids or neither of these bids are received from a local business, the award shall be determined by a chance drawing conducted by the Purchasing Division and open to the public.

Local business is defined as a business duly licensed and authorized to engage in the sale of goods and/or services to be procured, which has a place of business in Manatee County with full time employees at that location.

B.02 SUBCONTRACTORS

Subcontractors shall be bound by the terms and conditions of this contract insofar as it applies to their Work, but this shall not relieve the prime contractor from the full responsibility to the Owner for the proper completion of all Work to be executed under this contract.

The employment of unauthorized aliens by any vendor is considered a violation of Section 274(e) of the Immigration and Employment Act. If the vendor knowingly employs unauthorized aliens, such violation shall be cause for unilateral cancellation of this agreement.

B.03 QUALIFICATIONS OF BIDDERS

Each bidder must secure all licenses required (in accordance with Chapter 489 Florida Statutes) for the Work which is the subject of this bid; and, upon request, shall submit a true copy of all applicable licenses. The minimum license requirement for this project is a General Contractor's License. Contractors that have failed to meet a project completion date within the past five years shall not be considered for award.

To demonstrate qualifications to perform the Work, each bidder must be prepared to submit within five days of County's request, written evidence such as financial data, previous experience, present commitments and other such data as may be requested. Bidder must be able to provide evidence of bidder's qualification to do business in the State of Florida. Each bidder shall submit as a portion of their bid a completed Contractor's Questionnaire included as Section 00430.

A complete list of all subcontractors proposed for any portion of the Work may be requested of any bidder deemed necessary by the Owner. Subcontracts shall be awarded only to those subcontractors considered satisfactory by the Owner.

B.04 PREPARING CONTRACT

A written notice confirming award or recommendation thereof will be forwarded to the successful bidder accompanied, if required, by the required number of unsigned counterparts of the agreement. Within a reasonable time, the successful bidder shall sign and deliver the required number of counterparts of the agreement with any other required documents to County. (Note: Contract must be approved in accordance with Purchasing Code Ordinance 08-43 to be valid.)

SECTION 00030 GENERAL TERMS AND CONDITIONS OF THE CONTRACT

C.01 CONTRACT FORMS

The agreement resulting from the acceptance of a bid shall be in the form of the agreement stated in this bid.

C.02 ASSIGNMENT OF CONTRACT

Contractor shall not assign, transfer, convey, sublet or otherwise dispose of this contract or of his right, title, or interest therein, or his power to execute such contract, or to assign any monies due or to become due thereunder to any other person, firm or corporation unless first obtaining the written consent of the County. The giving of such consent to a particular subcontractor assignment shall not dispense with the necessity of such consent to any further or other assignment.

C.03 COMPLETION OF WORK

The Work will be substantially complete and ready for occupancy within the specific calendar days from the date the Contract Time commences to run (upon issuance of Notice to Proceed). Two bids shall be considered based on **180** calendar days and based on **240** calendar days. The County has the sole authority to select the bid based on the Completion time which is in the best interest of the County. Only one award shall be made.

C.04 LIQUIDATED DAMAGES

If the contractor refuses or fails to prosecute the Work, or any separable part thereof, with such diligence as will hinder its completion within the time specified, the County may seek damages. The actual damages for delay will be impossible to determine and in lieu thereof, the contractor shall pay to the Owner the sum of \$715 as fixed, agreed, and liquidated damages for each calendar day of the delay until the Work is finally accepted by the County and the contractor and his Surety shall be liable for the amount thereof.

C.05 PAYMENT

Contractor may apply for partial payment on monthly estimates, based on the amount of Work done or completed in compliance with the provisions of the contract. Contractor shall submit an application, on a form provided or approved by the County, of an approximate estimate of the proportionate value of the Work done, items and locations of the Work performed up to and including the last day of the period then ending. The County will then review said estimate and make any necessary revisions so that the estimate can receive approval for payment. If the contractor and the County do not agree on the approximate estimate of the proportionate value of the Work done for any pay period, the determination of the County will be binding. The amount of said estimate after deducting any required retainage and all previous payments shall be due and payable to the contractor within 20 days after the pay estimate has been approved by the County. Any Periodical Pay Estimate signed by the contractor shall be final as to the contractor for any or all work covered by the Periodical Pay Estimate. It is the contractor's responsibility for the care of any stored materials. Any damage to or loss of said materials is the responsibility of the contractor.

C.05 PAYMENT (cont'd)

Any requests for payment of materials stored on site must be accompanied with a paid receipt. The contractor warrants and guarantees that title to all work, materials and equipment covered by any application for payment, whether incorporated in the project or not, will pass to the County at the time of payment free and clear of all liens, claims, security interests and encumbrances (hereafter referred to as "Liens").

The contractor agrees to furnish an affidavit stating that all laborers, materialmen, and subcontractors have been paid on the project for Work covered by the application for payment and that a partial or complete release of lien, as may be necessary, be properly executed by the materialmen, laborers, subcontractors on the project for Work covered by the application for payment, sufficient to secure the County from any claim whatsoever arising out of the aforesaid Work.

When the contractor has completed the Work in compliance with the terms of the Contract Documents, he shall notify the County in writing that the project is ready for final inspection. The County will then advise the contractor as to the arrangements for final inspection and what Work, if any, is required to prepare the project or a portion thereof for final inspection. When the County determines the project or portion thereof is ready for final inspection, the County shall perform same. Upon completion of final inspection, the County will notify contractor of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies. When all such errors have been corrected, a final reinspection will be made. The process will be repeated until, in the opinion of the County, the project has been completed in compliance with the terms of the Contract Documents.

When final acceptance has been made by the County, the County will make final payment of the contract amount, plus all approved additions, less approved deductions and previous payments made. The contract will be considered complete when all work has been finished, the final inspection made, approved as-builts received, and the project finally accepted in writing by the County. The contractor's responsibility shall then terminate except as otherwise stated.

C.06 RETAINAGE

A **retainage** of 2.5% of the total contract amount shall be withheld from payments after 75% completion of the Work. Upon substantial completion, this retainage shall be reduced to 1% of the total contract amount plus such amount as the Owner may reasonably deem necessary to repair, replace, complete or correct any damaged, defective, incorrect or incomplete work. Upon final acceptance, the remaining retainage shall be included in the final payment.

C.07 WARRANTY AND GUARANTEE PROVISIONS

All work, materials, and equipment furnished as defined herein shall be guaranteed and warranted by the contractor for a minimum period of three (3) years from final acceptance by the Owner, unless otherwise specified, to be free from defects due either to faulty materials or equipment or faulty workmanship. All materials,

C.07 WARRANTY AND GUARANTEE PROVISIONS (cont'd)

equipment, and workmanship furnished and installed by the contractor is warranted and guaranteed by the contractor to be such as to meet the required standards and to accomplish the purposes and functions of the project as defined, detailed, and specified herein. The Owner shall, following discovery thereof, promptly give written notice to the contractor of faulty materials, equipment, or workmanship within the period of the guarantee and the contractor shall promptly replace any part of the faulty equipment, material, or workmanship at his own cost. These warranty and guarantee provisions create no limitations on the Owner as to any claims or actions for breach of guaranty or breach of warranty that the Owner might have against parties other than the contractor, and do not constitute exclusive remedies of the Owner against the contractor.

C.08 ROYALTIES AND PATENTS

The contractor shall pay all royalties and license fees for equipment or processes in conjunction with the equipment and/or services being furnished. Contractor shall defend all suits or claims for infringement of any patent, trademark or copyright, and shall save the County harmless from loss on account thereof, including costs and attorney's fees.

C.09 AUTHORIZED PRODUCT REPRESENTATION

The contractor, by virtue of submitting the name and specifications of a manufacturer's product, will be required to furnish the named manufacturer's product. Failure to perform accordingly may, in the County's sole discretion, be deemed a breach of contract, and shall constitute grounds for the County's immediate termination of the contract.

C.10 REGULATIONS

It shall be the responsibility of the bidder to assure compliance with any OSHA, EPA and/or other federal or State of Florida rules, regulations or other requirements, as each may apply.

C.11 CANCELLATION

Any failure of the contractor to furnish or perform the Work (including, but not limited to, commencement of the Work, failure to supply sufficient skilled workers or suitable materials or equipment) in accordance with the contract, the County may order the stop of the Work, or any portion thereof, until the cause for such order has been eliminated. If the contractor persistently fails to perform the Work in accordance with the contract, the County reserves the right to terminate the contract and select the next qualified bidder or readvertise this procurement in part or in whole. The County reserves the right to cancel all or any undelivered or unexecuted portion of this contract with or without cause.

C.12 INDEMNIFICATION

The contractor covenants and agrees to <u>indemnify and save harmless</u> the County, its agents and employees, from and against all claims, suits, actions, damages, causes of action, or judgments arising out of the terms of the resulting agreement for any personal injury, loss of life, or damage to the property sustained as a result of the performance or non-performance of services or delivery of goods; from and

C.12 INDEMNIFICATION (cont'd)

against any orders, judgments, or decrees, which may be entered against the County, its agents or employees; and from and against all costs, attorney's fees, expenses and other liabilities incurred in the defense of any such claim, suit or action, and the investigation thereof. Nothing in the award, resulting agreement, contract or Purchase Order shall be deemed to affect the rights, privileges and immunities of the County as set forth in Florida Statute Section 768.28.

C.13 MANUALS, SCHEMATICS, HANDBOOKS

All manuals, schematics and handbooks shall be provided which are applicable to the equipment delivered. An operators manual, parts manual and technician manual must also be provided. Parts lists (manuals) must include OEM part numbers for items not manufactured by the bidder. Vendor shall furnish two (2) copies of each.

C.14 INSURANCE

The contractor will not commence work under a contract until <u>all insurance</u> under this section and such insurance coverage as might be required by the County has been obtained. The contractor shall obtain, and submit to Purchasing within 15 calendar days of request, at his expense, the following minimum amounts of insurance (inclusive of any amounts provided by an umbrella or excess policy):

a. Workers' Compensation/Employers' Liability

<u>Part One</u> - There shall be no maximum limit (other than as limited by the applicable statute) for liability imposed by Florida Worker's Compensation Act or any other coverage required by the contract documents which are customarily insured under Part One of the standard Worker's Compensation Policy.

<u>Part Two</u> - The minimum amount of coverage required by the contract documents which are customarily insured under Part Two of the standard Workers' Compensation Policy shall be:

 \$100,000
 (Each Accident)

 \$500,000
 (Disease-Policy Limit)

 \$100,000
 (Disease-Each Employee)

b. <u>Commercial General Liability</u>

The limits are to be applicable only to work performed under this contract and shall be those that would be provided with the attachment of the Amendment of Limits of Insurance (Designated Project or Premises) endorsement (ISO Form CG 25 03) to a Commercial General Liability Policy with the following minimum limits.

General Aggregate:

<u>\$1,000,000</u>
<u>\$300,000</u>
\$300,000
\$ Nil
\$ Nil

C.14 INSURANCE (cont'd)

c. <u>Business Auto Policy</u>

Each Occurrence Bodily Injury and
Property Damage Liability Combined
Annual Aggregate (if applicable): \$300,000

d. Owners Protective Liability Coverage

The minimum OPC Policy limits per occurrence and, if subject to an aggregate, annual aggregate to be provided by the contractor shall be the same as the amounts shown above as the minimum per occurrence and general policy aggregate limits respectively required for the Commercial General Liability coverage. The limits afforded by the OPC Policy and any excess policies shall apply only to the Owner and the Owner's officials, officers, agents and employees and only to claims arising out of or in connection with the work under this contract.

e. Property Insurance

If this contract includes construction of or additions to above ground buildings or structures, contractor shall provide "Builder's Risk" insurance with the minimum amount of insurance to be 100% of the value of such addition(s), building(s), or structure(s).

f. Installation Floater

If this contract does not include construction of or additions to above ground building or structures but does involve the installation of machinery or equipment, contractor shall provide an "Installation Floater" with the minimum amount of insurance to be 100% of the value of such addition(s), building(s), or structure(s).

g. Certificates of Insurance and Copies of Polices

Certificates of Insurance in triplicate evidencing the insurance coverage specified in the six above paragraphs a., b., c., d., e. and f., shall be filed with the Purchasing Director <u>before operations are begun</u>. The required certificates of insurance shall name the types of policy, policy number, date of expiration, amount of coverage, companies affording coverage, and also shall refer specifically to the bid number, project title and location of project. Insurance shall remain in force at least one year after completion and acceptance of the project by the County, in the amounts and types as stated herein, with coverage for all products and services completed under this contract.

ADDITIONAL INSURED: - The contractor shall name Manatee County as additional insured in each of the applicable policies.

If the initial insurance expires prior to the completion of operations and/or services by the contractor, renewal certificates of insurance and required copies of policies

C.14 INSURANCE (cont'd)

shall be furnished by the contractor and delivered to the Purchasing Director 30 days prior to the date of their expiration.

Nothing herein shall in any manner create any liability of the County in connection with any claim against the contractor for labor, services, or materials, or of subcontractors; and nothing herein shall limit the liability of the contractor or contractor's sureties to the County or to any workers, suppliers, materialmen or employees in relation to this contract.

C.15 BID BOND/CERTIFIED CHECK

By offering a submission to this Invitation For Bid the bidder agrees, should the bidder's bid be accepted, to execute the form of contract and present the same to Manatee County for approval within a reasonable amount of time after being notified of the awarding of the contract. The bidder further agrees that failure to execute and deliver said form of contract as agreed will result in damages to Manatee County and as guarantee of payment of same a bid bond/certified check shall be enclosed within the submitted sealed bid in the amount of five (5%) percent of the total amount of the bid. The bidder further agrees that in case the bidder fails to enter into a contract, as prescribed by Manatee County, the bid bond/certified check accompanying the bid shall be forfeited to Manatee County as agreed liquidated damages. If the County enters into a contract with a bidder, or if the County rejects any and/or all bids, accompanying bond will be promptly returned.

C.16 PERFORMANCE AND PAYMENT BONDS

The successful bidder shall furnish surety bonds as security for faithful performance of the contract awarded as a result of this bid, and for the payment of all persons performing labor and/or furnishing material in connection therewith. Surety of such bonds shall be in an amount equal to the bid award (100% each) and from a duly authorized and nationally recognized surety company, authorized to do business in Florida, satisfactory to this County. The attorney-in-fact who signs the bonds must file with the bonds a certificate and effective dated copy of power-of-attorney. (Reference Florida Statute 255.05)

Furnishing the performance and payment bonds shall be requisite to execution of a contract with the County. Said performance and payment bonds will remain in force for the duration of the contract with the premiums paid by the contractor. Failure of successful bidder to execute such contract and to supply the required bonds shall be just cause for annulment of the award. The County may then contract with another acceptable bidder or readvertise this Invitation For Bid. If another bidder is accepted, and notice given within 90 days after the opening of bids, this acceptance shall bind the bidder as though they were originally the successful bidder.

Failure of the County at any time, to require performance by the contractor of any provisions set out in the contract will in no way affect the right of the County, thereafter, to enforce the provisions. Bonds to remain in effect for one year after final payment becomes due.

C.17 PROJECT SCHEDULE

The successful bidder will be required to submit a detailed construction schedule upon notification of award or its intent.

C.18 NO DAMAGES FOR DELAY

No claim for damages or any claim other than for an extension of time shall be made or asserted against the County by reason of any delays. The contractor shall not be entitled to an increase in the Total Contract Price or payment or compensation of any kind from the County or direct, indirect, consequential impact or other costs, expenses for damages, including but not limited to costs of acceleration or inefficiency arising because of delay, disruption, interference or hindrance from any cause whatsoever; provided, however, that this provision shall not preclude recovery or damages by the contractor for hindrance or delays due solely to fraud, bad faith, or active interference on part of the County or its agents. Otherwise, the contractor shall only be entitled to extensions of the Contract Time as the sole and exclusive remedy for such resulting delay, in accordance with and to the extent specifically provided above.

C.19 NO INTEREST

Any monies not paid by the County when claimed to be due to the contractor under this contract shall not be subject to interest including prejudgment interest. Any monies not paid by the County when claimed to be due to the contractor for damages awarded in the case of construction delays shall not be subject to prejudgment interest.

C.20 CONSTRUCTION OF CONTRACT

This contract and the rights and responsibilities hereunder shall not be construed more strongly against either party, regardless of the extent to which such party may have participated in the preparation hereof.

SECTION 00100 INSTRUCTIONS TO BIDDERS

D.01 THE WORK

The project is generally described as the construction of a 2000 square feet two-story concrete block and steel frame building addition to the Fleet Services Division office located at 1200 26th Avenue East, Bradenton, Florida. The Work includes the demolition and removal of approximately 40' exterior block wall and portions of the roof and roof structure and interior block partitions; framing the new roof structure to the existing roof and installation of a matching metal roof; DX HVAC equipment new installation; plumbing work including the installation of new sanitary and supply lines for connection to existing; electrical work items; elevator installation; and design and installation of a fire protection and alarm system as outlined in this Invitation for Bid document. Construction and record drawings are required of the successful bidder and shall fully meet the requirements of all current federal, state and county laws, rules, regulations and standards, with the most stringent applying.

D.02 SUBCONTRACTORS, SUPPLIERS AND OTHERS

The identity of subcontractors, suppliers, and other persons and organizations (including those who are to furnish the principal items of material and equipment) may be requested by the Owner for each bid item from any of the bidders; and the bidder shall respond within five days after the date of such request. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such subcontractor, supplier, persons or organization if requested by Owner. If Owner, after due investigation has reasonable objection to any proposed subcontractor, supplier, other person or organization, Owner may request the apparent successful bidder to submit an acceptable substitute without an increase in Contract Price or Contract Time.

If apparent successful bidder declines to make any such substitution, Owner may award the contract to the next lowest qualified bidder that proposes to use acceptable subcontractors, suppliers, and other persons who Owner does not make written objection to. Contractor shall not be required to employ any subcontractor, supplier, other person or organization who contractor has reasonable objection to. Subcontractors shall be bound by the terms and conditions of this contract insofar as it applies to their Work, but this shall not relieve the prime contractor from the full responsibility to the Owner for the proper completion of all Work to be executed under this contract.

D.03 BIDS

Bids are to be submitted in triplicate, one original and two copies, upon the County supplied forms. All blank spaces must be filled in as noted with amounts extended and totaled and no changes shall be made in the wording of the forms or in the items mentioned therein. In the event a change is made in your submittal, the bidder shall write their initials by the change. Any bid may be rejected which contains any omissions, alterations, irregularities of any kind, or which shall in any manner fail to conform to bid requirements.

D.03 BIDS (cont'd)

A bid made by an individual, either in his/her own or proper person or under a trade or firm name, shall be executed under the individual's signature. If made by a partnership, the bid shall be executed by two or more of the general partners. If made by a corporation, the bid shall be executed by its President or other legally authorized corporate officer or agent.

D.04 EXAMINATION OF CONTRACT DOCUMENTS AND SITE

It is the responsibility of each bidder before submitting a bid, to (a) examine the Bid Documents thoroughly; (b) visit the site to become familiar with local conditions that may affect cost, progress, performance, or furnishing of the Work; (c) consider federal, state, and local codes, laws, and regulations that may affect costs, progress, performance, or furnishing of the Work; (d) study and carefully correlate bidder's observations with the Bid Documents; and (e) notify Owner of all conflicts, errors, or discrepancies in the Bid Document. The accuracy of the existing utility locations shown on the plans is approximate and without expressed or implied warranty. Each bidder may, at bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests and studies, and obtain any additional information and data which pertain to the physical conditions at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the Work and which bidder deems necessary to determine his bid for performing and furnishing the Work in accordance with the time, price and other terms and conditions of the Contract Documents.

Owner will provide each bidder access to the site to conduct such explorations and tests. Bidder shall fill all holes, clean up and restore the site to its former condition upon completion of such explorations. The lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and other lands designated for use by contractor in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by contractor. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by Owner unless otherwise provided in the Contract Documents.

D.05 PERMITS AND FEES

The contractor shall not be responsible for all permits and fees associated with the design and installation of the fire protection and alarm system. Manatee County will obtain all other permits.

D.06 MATERIALS AND WORKMANSHIP

All materials and apparatus required for the Work, except as specifically specified otherwise, shall be new, of first class quality, and shall be furnished, delivered, connected and finished in every detail. Construction shall be as prescribed by good industry practice and in accordance with manufacturer's recommendations for the type being installed.

Use skilled workman trained and experienced in the necessary trades and who are completely familiar with the specified requirements and the methods needed for proper performance of the Work of this section.

D.07 REGULATIONS AND MATERIAL DISPOSAL

It shall be the responsibility of the contractor to assure compliance with any OSHA, EPA, federal, state, and/or local rules, regulations or other requirements as each may apply.

D.08 PROJECT CLOSE-OUT

Clean construction site and remove any and all excess materials. Correct any damages to property that may have occurred as a result of installation and/or delivery. Repair and patch all surfaces cut for installation.

The Contractor shall remedy any deficiencies promptly should the County determine any work is incomplete or defective.

When the County determines the Work is acceptable in accordance with this Invitation For Bid, the Contractor shall provide the close out submittals, including but not necessarily limited to the following:

1 set - Certificate of warranties

1 set - Manufacturer's product literature

1 set - Project Record Drawings

D.09 DISCRETIONARY WORK

This Bid Item entails minor increases to existing bid item quantities or minor modification items not bid which were unforeseen and necessary during the construction to provide a safe, complete project in accordance with Bid Documents. (This will not affect the requirement for change orders involving major modifications to the project.) Payment for all Work under this item shall be made only at the Owner's discretion in order to satisfactorily complete the project. In general, this item is for unanticipated conflicts and/or design changes required during construction which are necessary to complete the project without changing the initial scope of the Work and without costly delays.

SECTION 00150

MANATEE COUNTY LOCAL PREFERENCE LAW AND VENDOR REGISTRATION

E.01 VENDOR REGISTRATION

All vendors are encouraged to register with Manatee County using the on-line "Vendor Registration" web page on www.mymanatee.org.

Enclosed is a copy of the current Manatee County law that details the County's Local Preference and definition of a Local Business.

If you assert that your firm meets the stated definition of a Local Business, we ask that in addition to registering on the County's Web page, you fill out the attached "Affidavit As To Local Business Form" that is included in this section of the bid, have the completed document notarized, and mail the original to the following address: Manatee County Administration Center, 1112 Manatee Avenue West, Suite 803, Bradenton, FL 34205.

Your cooperation in registering your business with Manatee County will enhance our opportunities to identify sources for goods and services, plus identify Local Businesses. This information is used for soliciting quotations up to \$250,000.00 and for competitive solicitations of larger purchases.

You will note that Manatee County collaborates with the Manatee Chamber of Commerce, posting bids on www.manateechamber.com as well as using the same vendor categories for registration.

Our staff can assist you with your registration as needed. Our office hours are 8:00 A.M. to 5:00 P.M., Monday through Friday on regular business days. Please call (941)749-3014 if you wish to have a purchasing staff member assist you.

Quick steps to on line registration: www.mymanatee.org

A link to "Purchasing" is listed under the "Quick Links" on page one of this County Web Site.

On the left hand side of the Purchasing Web page, click on "Vendor Registration."

This will bring up the Vendor Registration form for on-line input. Please note that the definition of a "Local Business" changed on March 17, 2009. The Web page will be updated to include the current Law which has been provided in this section of the bid.

Thank you for reviewing this information and considering registering your business with Manatee County. Registration is not mandatory, however, by taking the time to register, you are helping the County to provide timely notifications of quotation, bid, and proposal opportunities to your business.

E.02 SECTION 2-26-6 LOCAL PREFERENCE, TIE BIDS, LOCAL BUSINESS DEFINED

- Whenever a responsible local business bidder and a responsible non-local business bidder are found, upon the opening of bids, to have both submitted the lowest responsive bid, the bid of the local bidder shall be awarded the contract. Should more than one responsible local business bidder match the responsible non-local business bidder's lowest responsive bid, or should no responsible local business bidder match the lowest responsive bid but two or more responsible non-local business bidders submit lowest responsive bids for equal amounts, then the award of the contract shall be determined by a chance drawing, coin toss, or similar tie-breaking method conducted by the purchasing office and open to the public. Any bidders seeking to be recognized as local businesses for purposes of this local business preference provision may be required by the terms of the bid announcement to certify they meet the definition of local business set forth in this section, and to register as a local business with the county in the manner prescribed by the county to facilitate the county's ability to track the award of contracts to local businesses and to allow the county to provide future notifications to its local businesses concerning other bidding opportunities.
- 2. Nothing herein shall be deemed to prohibit the inclusion of requirements with respect to operating and maintaining a local place of business in any invitation for bids when the bidder's location materially affects the provisions of the services or supplies that are required by the invitation.
- 3. Local business is defined as a business legally authorized to engage in the sale of the goods and/or services to be procured, and which certifies within its bid that for at least six (6) months prior to the announcement of the solicitation of bids it has maintained a physical place of business in Manatee, Desoto, Hardee, Hillsborough, Pinellas or Sarasota County with at least one full-time employees at that location.
- 4. Each solicitation for bids made by the county shall contain terms expressly describing the local business preference policies of the county, and shall provide that by electing to submit a bid pursuant to a request for bids, all bidders are deemed to understand and agree to those policies.
- 5. For all contracts for architecture, professional engineering, or other professional services governed by Florida Statute § 287.055, the Consultants' Competitive Negotiation Act, the county shall include the local business status of a firm among the factors considered when selecting which firms are "most highly qualified." In determining which firm is the "most qualified" for purposes of negotiating a satisfactory contract, preference shall be given to a local business where all other relevant factors are equal.
- 6. Local preference shall not apply to the following categories of contracts:
 - a. Goods or services provided under a cooperative purchasing agreement or similar "piggyback" contract;

- b. Contracts for professional services subject to Florida Statute § 287.055, the Consultants' Competitive Negotiation Act, except as provided for in subsection (e) above;
- c. Purchases or contracts which are funded, in whole or in part, by a governmental or other funding entity, where the terms and conditions of receipt of the funds prohibit the preference;
- d. Purchases or contracts made pursuant to a non-competitive award process, unless otherwise provided by this section;
- e. Any bid announcement which specifically provides that the general local preference policies set forth in this section are suspended due to the unique nature of the goods or services sought, the existence of an emergency as found by either the county commission or county administrator, or where such suspension is, in the opinion of the county attorney, required by law.
- 7. To qualify for local preference under this section, a local business must certify to the County that it:
 - a. Has not within the five years prior to the bid announcement admitted guilt or been found guilty by any court or state or federal regulatory enforcement agency of violation of any criminal law, or a law or administrative regulation regarding fraud;
 - b. Is not currently subject to an unresolved citation or notice of violation of any Manatee County Code provision, except citations or notices which are the subject of a current legal appeal, as of the date of the bid announcement;
 - c. Is not delinquent in the payment of any fines, liens, assessments, fees or taxes to any governmental unit or taxing authority within Manatee County, except any such sums which are the subject of a current legal appeal.

Ref: Ordinance 09-21 and 09-23 **PASSED AND DULY ADOPTED** in open session, with a quorum present and voting, on the 17th day of March, 2009.

MANATEE COUNTY GOVERNMENT AFFIDAVIT AS TO LOCAL BUSINESS (Complete and Initial Items B-F)

(complete and main teme 2-1)	
A. <u>AUTHORIZED REPRESENTATIVE</u>	
I, [name], am the [title]	_
and the duly authorized representative of: [name of business] that I possess direct personal knowledge to make informed responses to these certifications and the legal authorized to make this Affidavit on behalf of myself and the business for which I am acting; and by electing to submit a pursuant to this Invitation for Bids, shall be deemed to understand and agree to the local business prefere policies of Manatee County; and that I have the direct knowledge to state that this firm complies with all of following conditions to be considered to be a Local Business as required by the Manatee County Code of Section 2-26-6.	a bid ence f the
B. <u>PLACE OF BUSINESS</u> : I certify that the above business is legally authorized to engage in the sale of grand/or services and has a physical place of business in Manatee, DeSoto, Hardee, Hillsborough, Pinella Sarasota County with at least one (1) fulltime employee at that location. The physical address of the location we meets the above criteria is: [Initial]	s or
C. <u>BUSINESS HISTORY:</u> I certify that business operations began at the above physical address with at one fulltime employee on [date] [Initial]	east
D. <u>CRIMINAL VIOLATIONS:</u> I certify that within the past five years of the date of this Bid announcement business has not admitted guilt nor been found guilty by any court or local, state or federal regulatory enforcer agency of violation of any criminal law or administrative regulation regarding fraud. [Initial]	
E. <u>CITATIONS OR CODE VIOLATIONS:</u> I certify that this business is not currently subject to any un-rescritation or notice of violation of any Manatee County Code provision, with the exception of citations or notices we are the subject of a legal current appeal within the date of this bid announcement. [Initial]	
F. <u>FEES AND TAXES:</u> I certify that within this business is not delinquent in the payment of fines, li assessments, fees or taxes to any governmental unit or taxing authority within Manatee County, with the except of those which are the subject of a legal current appeal. [Initial]	
Each of the above certifications is required to meet the qualification of "Local Business" under Manatee Count Code of Law, 2-26-6.	y
Signature of Affiant	- '
STATE OF FLORIDA COUNTY OF	
Sworn to (or affirmed) and subscribed before me this day of, 20, by (name of person making statement)	
(Notary Seal) Signature of Notary:	
Name of Notary (Typed or Printed):	
Personally Known OR Produced Identification Type of Identification Produced	

Submit executed copy to Manatee County Purchasing, Suite 803, 1112 Manatee Avenue W., Bradenton, FL 34205

SECTION 00300 BID FORM – BID A (Submit in Triplicate)

For: Fleet Services Building Addition Phase 2

ITEM	DESCRIPTION – BID "A" 180 COMPLETION DAYS	LUMP SUM
1.	Construct Building Addition Complete	\$
2.	Discretionary Work	\$ 70,000.00
	TOTAL BID PRICE – BID "A"	\$

Two schedules for Completion of the Work shall be considered. Each bid for completion by the specified stated time shall be offered as a separate "Total Bid Price." The County has the sole authority to select the bid based on the Completion Time which is in the best interest of the County. Only one award shall be made.

We, the undersigned, hereby declare that we have carefully reviewed the Bid Documents and with full knowledge and understanding of the aforementioned herewith submit this bid, meeting each and every specification, term, and condition contained in the Invitation For Bid.

We understand that the bid specifications, terms, and conditions in their entirety shall be made a part of any agreement or contract between Manatee County and the successful bidder. Failure to comply shall result in contract default, whereupon, the defaulting contractor shall be required to pay for any and all reprocurement costs, damages, and attorney fees as incurred by the County.

Communications concerning this Bid sh	all be addressed as follows:	
Person's Name:		
Address:		· · · · · ·
Date:	Date you visited site:	
Company's Name:		
Authorized Signature(s):		
	Name and Title of Above Signer(s)	
·		
Email address:		
Telephone: ()	Fax: ()	
Acknowledge Addendum Nos.	Dated:	

SECTION 00300 <u>BID FORM – BID B</u> (Submit in Triplicate)

For: Fleet Services Building Addition Phase 2

ITEM	DESCRIPTION – BID "B" 240 COMPLETION DAYS	LUMP SUM
1.	Construct Building Addition Complete	\$
2.	Discretionary Work	\$ 70,000.00
	TOTAL BID PRICE – BID "B"	\$

Two schedules for Completion of the Work shall be considered. Each bid for completion by the specified stated time shall be offered as a separate "Total Bid Price." The County has the sole authority to select the bid based on the Completion Time which is in the best interest of the County. Only one award shall be made.

We, the undersigned, hereby declare that we have carefully reviewed the Bid Documents and with full knowledge and understanding of the aforementioned herewith submit this bid, meeting each and every specification, term, and condition contained in the Invitation For Bid.

We understand that the bid specifications, terms, and conditions in their entirety shall be made a part of any agreement or contract between Manatee County and the successful bidder. Failure to comply shall result in contract default, whereupon, the defaulting contractor shall be required to pay for any and all reprocurement costs, damages, and attorney fees as incurred by the County.

Communications concerning this Bid sh	nall be addressed as follows:	
Person's Name:		
Address:		
Date:	Date you visited site:	
Company's Name:		
Authorized Signature(s):		
	Name and Title of Above Signer(s)	
Email address:		
Telephone: ()	Fax: ()	
Acknowledge Addendum Nos.	Dated:	

SECTION 00430 CONTRACTOR'S QUESTIONNAIRE

(Submit in Triplicate)

The bidder warrants the truth and accuracy of all statements and answers herein contained. (Include additional sheets if necessary.)

THIS QUESTIONNAIRE MUST BE COMPLETED AND SUBMITTED WITH YOUR BID.

1.	LICENSE # and COMPANY'S NAME:CO. PHYSICAL ADDRESS:
	STATE OF INCORPORATION, IF APPLICABLE:
	TELEPHONE NUMBER: () FAX: ()
2.	Bidding as an individual:; a partnership:; a corporation:; a joint venture:
3.	If a partnership: list names and addresses of partners; if a corporation: list names of officers, directors, shareholders, and state of incorporation; if joint venture: list names and address of venturers and the same if any venturer is a corporation for each such corporation, partnership, or joint venture:
1.	Your organization has been in business (under this firm's name) as a for how many years?
5.	Describe and give the date and owner of the last three government projects you've completed which are similar in cost, type, size, and nature as the one proposed (for a public entity). Include contact name and phone number:
3.	Have you ever been assessed liquidated damages under a contract during the past five (5) years? If so, state when, where (contact name, address, and phone number) and why.
7.	Have you ever failed to complete work awarded to you? If so, state when, where (contact name, address, phone number) and why?

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1					
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	cific steps have you ta ve you visited the site?				nt or contiguous
	cific physical conditions ave you found which w k?				
facilities h	ave you found which w				
facilities h	ave you found which w	ill, in any mann	er, affect cost	, progress, pe	rformance, or fi
facilities hof the work	ave you found which w k?	this Work? If	er, affect cost	, progress, pe	rformance, or fi
facilities hof the work Will you s	ave you found which wk?	this Work? If s	er, affect cost	, progress, pe	rformance, or fi

15.	What equipment will you purchase/rent for the Work? (specify which)
16.	List the following in connection with the Surety which is providing the Bond(s):
	Surety's Name:
	Surety's Address:
	Name, address and phone number of Surety's resident agent for service of process in Florida
	Phone:_()

SECTION 00491

Drug Free Work Place Certification

SWORN STATEMENT PURSUANT TO RESOLUTION R-01-36 SECTION 4, E(1)(a) MANATEE COUNTY PURCHASING POLICIES, ON DRUG FREE WORK PLACES

THE CORMAGE DE CICNED AND SWODN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL

	ORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL ORIZED TO ADMINISTER OATHS.
This sw	orn statement is submitted to the Manatee County Board of County Commissioners by
	[print individual's name and title]
	[print name of entity submitting sworn statement]
whose l	business address is:
and (if FEIN, i	applicable) its Federal Employer Identification Number (FEIN) is
	I understand that no person or entity shall be awarded or receive a county contract for public improvements, procurement of goods or services (including professional services) or a county lease, franchise, concession or management agreement, or shall receive a grant of county monies unless such person or entity has submitted a written certification to the County that it will provide a drug free work place by: (1) providing a written statement to each employee notifying such employee that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance as defined by §893.02(4), Florida Statutes, as the same may be amended from time to time, in the person's or entity's work place is prohibited specifying the actions that will be taken against employees for violation of such prohibition. Such written statement shall inform employees about:
	(i) the dangers of drug abuse in the work place;
	(ii) the person's or entity's policy of maintaining a drug free environment at all its work places, including but not limited to all locations where employees perform any task relating to any portion of such contract, business transaction or grant;
	(iii) any available drug counseling, rehabilitation, and employee assistance programs; and
	(iv) the penalties that may be imposed upon employees for drug abuse violations.

- (2) Requiring the employee to sign a copy of such written statement to acknowledge his or her receipt of same and advice as to the specifics of such policy. Such person or entity shall retain the statements signed by its employees. Such person or entity shall also post in a prominent place at all of its work places a written statement of its policy containing the foregoing elements (i) through (iv).
- (3) Notifying the employee in the statement required by subsection (1) that as a condition of employment the employee will:
 - (i) abide by the terms of the statement; and
 - (ii) notify the employer of any criminal drug statute conviction for a violation occurring in the work place no later than five (5) days after such a conviction.

- (4) Notifying the County within ten (10) days after receiving notice under subsection (3) from an employee or otherwise receiving actual notice of such conviction.
- (5) Imposing appropriate personnel action against such employee up to and including termination; or requiring such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, state, or local health, law enforcement, or other appropriate agency.
- (6) Making a good faith effort to continue to maintain a drug free work place through implementation of sections (1) through (5) stated above.

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR MANATEE COUNTY IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT ANY CONTRACT OR BUSINESS TRANSACTION SHALL PROVIDE FOR SUSPENSION OF PAYMENTS, OR TERMINATION, OR BOTH, IF THE CONTRACTING OFFICER OR THE COUNTY ADMINISTRATOR DETERMINES THAT:

- (1) Such person or entity has made false certification.
- Such person or entity violates such certification by failing to carry out the requirements of sections (1), (2), (3), (4), (5), or (6) or Resolution R-01-36 Section 4, E (1) (a) or
- (3) Such a number of employees of such person or entity have been convicted of violations occurring in the work place as to indicate that such person or entity has failed to make a good faith effort to provide a drug free work place as required by Resolution R-01-36 Section 4, E (1) (a).

		[Signature]	MALAY IN CO.	
STATE OF FLORIDA COUNTY OF	_			
Sworn to and subscribed before me this	day of	, 20 <u>0</u>	by	
Personally known	OR Produced identi	fication		
			[Type of identificat	ion]
	Му	commission expires		
Notary Public Signature				

SECTION 00491

PUBLIC CONTRACTING AND ENVIRONMENTAL CRIMES CERTIFICATION

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

This sv	worn statement is submitted to the Manatee County Board of County Commissioner	rs byprint individual's name and title]
	for	
	[print name of	of entity submitting sworn statement]
whose	business address is:	
and (if	f applicable) its Federal Employer Identification Number (FEIN) is	If the entity has no
FEIN,	include the Social Security Number of the individual signing this sworn statement:	-
or serv	rstand that no person or entity shall be awarded or receive a county contract for public vices (including professional services) or a county lease, franchise, concession or man of county monies unless such person or entity has submitted a written certification to	agement agreement, or shall receive a
	(1) been convicted of bribery or attempting to bribe a public officer or employee of Florida, or any other public entity, including, but not limited to the Government state, or any local government authority in the United States, in that officer's or employee.	ent of the United States, any
	(2) been convicted of an agreement or collusion among bidders or prospective bide competition, by agreement to bid a fixed price, or otherwise; or	ders in restraint of freedom of
	(3) been convicted of a violation of an environmental law that, in the sole opinior Director, reflects negatively upon the ability of the person or entity to conduct busing	
	(4) made an admission of guilt of such conduct described in items (1), (2) or (3) record, but has not been prosecuted for such conduct, or has made an admission of is a matter of record, pursuant to formal prosecution. An admission of guilt shall b of nolo contendere; or	guilt of such conduct, which
	(5) where an officer, official, agent or employee of a business entity has been conv to any of the crimes set forth above on behalf of such an entity and pursuant to the an official thereof (including the person committing the offense, if he is an official business shall be chargeable with the conduct herein above set forth. A business entity conduct of an affiliated entity, whether wholly owned, partially owned, or one work a common Board of Directors. For purposes of this Form, business entities indirectly, one business entity controls or has the power to control another business group of individuals controls or has the power to control both entities. Indicia of climitation, interlocking management or ownership, identity of interests amort organization of a business entity following the ineligibility of a business entity substantially the same management, ownership or principles as the ineligible entity	direction or authorization of all of the business entity), the ntity shall be chargeable with which has common ownership are affiliated if, directly or s entity, or if an individual or control shall include, without ng family members, shared under this Article, or using

Any person or entity who claims that this Article is inapplicable to him/her/it because a conviction or judgment has been reversed by a court of competent jurisdiction, shall prove the same with documentation satisfactory to the County's Purchasing Director. Upon presentation of such satisfactory proof, the person or entity shall be allowed to contract with the County.

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR MANATEE COUNTY IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT ANY CONTRACT OR BUSINESS TRANSACTION SHALL PROVIDE FOR SUSPENSION OF PAYMENTS, OR TERMINATION, OR BOTH, IF THE CONTRACTING OFFICER OR THE COUNTY ADMINISTRATOR DETERMINES THAT SUCH PERSON OR ENTITY HAS MADE FALSE CERTIFICATION.

		[Signature]]	
STATE OF FLORIDA COUNTY OF				
Sworn to and subscribed before me this Personally known	day of OR Produced ide	· · · · · · · · · · · · · · · · · · ·	by Type of identification]	
		My commission ex	pires	
Notary Public Signature				
[Print, type or stamp Commissioned name o	f Notary Public]			

Signatory Requirement - In the case of a business entity other than a partnership or a corporation, this affidavit shall be executed by an authorized agent of the entity. In the case of a partnership, this affidavit shall be executed by the general partner(s). In the case of a corporation, this affidavit shall be executed by the corporate president.

FORM OF AGREEMENT BETWEEN THE COUNTY OF MANATEE, FLORIDA AND THE CONTRACTOR AS IDENTIFIED BELOW ON THE BASIS OF A STIPULATED UNIT COST CONTRACT PRICE

THIS AGREEMENT is made and entered into by and between the COUNTY OF MANATEE, a political subdivision of the State of Florida, hereinafter referred to as the "OWNER" and (contractor) hereinafter referred to as the "CONTRACTOR," duly authorized to transact business in the State of Florida, with offices located at (address) (Phone:).

Article 1. WORK

CONTRACTOR shall furnish all labor, materials, supplies, and other items required to complete the Work for IFB No. **09-2574DC Fleet Services Building Addition Phase 2** in strict accordance with specifications and any duly authorized subsequent addenda thereto, all of which are made a part hereof.

Article 2. CONTRACT ADMINISTRATION

The County of Manatee, Property Management Division is responsible as the OWNER and is also responsible as the Architect and is responsible for technical/engineering reviews and decisions. All communications involving this project will be addressed to:

County of Manatee
Property Management Division
Attn: Alan Meronek, Project Manager
IFB 09-2574DC
1112 Manatee Avenue West, Suite 868
Bradenton, Florida, 34205
Phone: 941/749-3005 extension 3097

Where the terms ENGINEER and/or OWNER are used in the Contract Documents, it shall mean the OWNER'S project management team.

Article 3. CONTRACTOR'S REPRESENTATIONS

In order to induce OWNER to enter into this Agreement, CONTRACTOR makes the following representations:

- 3.1 CONTRACTOR has familiarized itself with the nature and extent of the Bid Documents, Work, site, locality and all local conditions and laws and regulations that in any manner may affect cost, progress, performance or furnishing of the Work.
- 3.2 CONTRACTOR has studied carefully all drawings of the physical conditions upon which CONTRACTOR is entitled to rely.
- 3.3 CONTRACTOR has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) all such examinations, investigations, explorations, tests, reports and studies which pertain to the physical conditions at or contiguous to the site or which otherwise may affect the cost, progress, performance or furnishing of the Work as CONTRACTOR considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Bid Documents; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by CONTRACTOR for such purposes.
- 3.4 CONTRACTOR has reviewed and checked all information and data shown or indicated on the Bid Documents with respect to existing underground facilities at or contiguous to the site and assumes responsibility for the accurate location of said underground facilities. Any additional examinations, investigations, explorations, tests, reports, studies or similar information or data in respect of said underground facilities conducted by the CONTRACTOR will be done at the CONTRACTOR's expense.
- 3.5 CONTRACTOR has correlated the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Bid.
- 3.6 CONTRACTOR has given OWNER written notice of all conflicts, errors or discrepancies that have been discovered in the Bid Documents and the written resolution thereof by OWNER is acceptable to CONTRACTOR.

3.7 CONTRACTOR shall schedule and perform the Work subject to OWNER's approval and shall hold OWNER harmless from all liabilities incurred due to CONTRACTOR's failure to coordinate with the OWNER.

Article 4. CONTRACT DOCUMENTS

The Contract Documents which comprise the entire Agreement between OWNER and CONTRACTOR concerning the Work consist of the following:

- 4.1 This Agreement and Bid Document IFB #09-2574DC
- 4.2 Performance and/or other Bonds and Insurance Certificate(s)
- 4.3 Drawings (attached by reference)
- 4.4 Addenda numbers ___ to ___, inclusive.
- 4.5 CONTRACTOR's Bid Form and any other information submitted by Contractor prior to Notice of Award.
- 4.6 The following which may be delivered or issued after the effective date of the Agreement and are not attached hereto: all written Change Orders and other documents amending, modifying, or supplementing the Contract Documents.
- 4.7 The documents listed in paragraphs above are attached to this Agreement (except as noted otherwise above). There are no Contract Documents other than those listed above in this Article 4.

Article 5. MISCELLANEOUS

- 5.1 Terms used in this Agreement are defined in Article 1 of the General Conditions.
- 5.2 No assignment by a party hereto of any rights under or interest in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, monies that may become due and monies that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law); and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignee from any duty or responsibility under the Contract Documents.

5.3 OWNER and CONTRACTOR each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect of all covenants, agreements and obligations contained in the Contract Documents.

The OWNER will pay, and the CONTRACTOR will a	accept in full consideration for the performance				
of the Work (IFB No. 09-2574DC Fleet Service	es Building Addition Phase 2), subject to				
additions and deductions as provided therein, the	sum of <u>(contract amount)</u> Dollars and				
Cents (<u>\$</u>) for Bid " <u>_</u> " based on Completion Time	e of <u>.</u> calendar days and the sum of \$ <u>715</u> as				
liquidated damages for each calendar day of delay	y .				
CC	CONTRACTOR				
BY: _	ignature				
S	Signature				
\overline{T}_{2}	Type Name and Title of Signer				
The foregoing instrument was acknowledged befo	re me this day of,				
20, by	, who is personally known to me or				
who has produced	as identification.				
(impress official seal)					
	Notary Public, State of Florida				
	My commission expires:				
COUNTY OF MANATEE, FLORIDA					
Authority to execute this contract per Manatee Co	ounty Code, Chapter 2-26, and per the				
delegation by the County Administrator effective 1	/26/2009				
BY:	DATE:				
R.C. "Rob" Cuthbert, CPM, Purchasing Manager					

SECTION 00700 GENERAL CONDITIONS

ARTICLE I - DEFINITIONS

Whenever used in the Bid Documents, the following terms have the meaning indicated which are applicable to both the singular and plural thereof:

<u>Addendum</u> - Written or graphic instruments issued prior to the opening of bids which clarify or change the bidding documents or the contract documents.

<u>Agreement</u> - The written Agreement between Owner and Contractor covering the Work to be performed; other contract documents are attached to the Agreement and made a part thereof as provided therein.

<u>Written Amendment</u> - A written amendment of the contract documents, signed by Owner and Contractor on or after the effective date of the Agreement and normally dealing with the non-engineering or non-technical rather than strictly work related aspects of the contract documents.

<u>Application for Payment</u> - The form accepted by Project Representative which is to be used by Contractor in requesting progress or final payments and which is to include such supporting documentation as is required by the contract documents.

<u>Award</u> - Acceptance of the bid from the person, firm, or corporation which in the Owner's sole and absolute judgment will under all circumstances best serve the public interest. Award shall be made by a majority vote of a quorum of Manatee County Board of County Commissioners in open session; or by the Purchasing Director in accordance with Ordinance 08-43, Manatee County Purchasing Ordinance.

<u>Bid</u> - The offer of the bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

<u>Bidder</u> - One who submits a bid directly to the Owner, as distinct from a sub-bidder, who submits a bid to a Bidder.

<u>Bidding Documents</u> - Consists of the Invitation For Bid, which includes but is not limited to: the bid form, drawings, technical specifications, terms and conditions, and the proposed contract documents (including all Addenda issued prior to receipt of bids); and becomes a part of the Agreement.

Bonds - Performance and payment bonds and other instruments of security.

<u>Change Order</u> - A document recommended by Project Representative which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work, or an adjustment in the contract price or the contract time, issued on or after the effective date of the Agreement.

<u>Compensable Delay</u> - Any delay beyond the control and without the fault or negligence of the Contractor resulting from Owner-caused changes in the Work, differing site conditions, suspensions of the Work, or termination for convenience by Owner.

<u>Contract Documents</u> - The Agreement, Addenda (which pertain to the contract documents), Contractor's bid (including documentation accompanying the bid and any post-bid documentation submitted prior to the Notice of Award), the bonds, the specifications and the drawings, together with all amendments, modifications and supplements issued on or after the effective date of the Agreement.

<u>Contract Price</u> - The monies payable by Owner to Contractor under the contract documents as stated in the Agreement.

<u>Contract Time</u> - The number of days or the date stated in the Notice to Proceed for the completion of the Work.

<u>Contractor</u> - The person, firm or corporation with whom Owner has entered into an Agreement.

<u>Days</u> - All references to days are to be considered calendar days except as specified differently.

<u>Defective</u> - An adjective which when modifying the work refers to work that is unsatisfactory, faulty or deficient, or does not conform to the contract documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the contract documents, or has been damaged prior to Project Representative's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner).

<u>Drawings</u> - The drawings which show the character and scope of the Work to be performed and which have been prepared or approved by Engineer and are referred to in the bidding and contract documents.

<u>Effective Date of the Agreement</u> - The date indicated in the Agreement on which it becomes effective (date of execution).

<u>Excusable Delay</u> - Any delay beyond the control and without the negligence of the Contractor, the Owner, or any other contractor caused by events or circumstances such as, but not limited to, acts of God or of the public enemy, fires, floods, freight embargoes, acts of government other than Owner, or epidemics. Labor disputes and above average rainfall shall give rise only to excusable delays.

<u>Float or Slack Time</u> - The time available in the progress schedule during which an unexpected activity can be completed without delaying substantial completion of the Work.

<u>Field Order</u> - A written order issued by Project Representative which orders minor changes in the Work, but which does not involve a change in the contract price or the contract time.

<u>Inexcusable Delay</u> - Any delay caused by events or circumstances within the control of the Contractor, such as inadequate crewing, slow submittals, etc., which might have been avoided by the exercise of care, prudence, foresight, or diligence on the part of the Contractor.

Non-prejudicial Delay - Any delay impacting a portion of the Work within the available total float or slack time and not necessarily preventing completion of the Work within the contract time.

<u>Notice of Award</u> - The written notice to the successful bidder stating Award has been approved by the Board of County Commissioners; or by the Purchasing Director in accordance with Ordinance 08-43, Manatee County Purchasing Code.

<u>Notice of Intent to Award</u> - The written notice to the apparent low bidder stating Award has been recommended with final Award to be authorized by Ordinance 08-43, Manatee County Purchasing Code.

<u>Notice to Proceed</u> - Written notice by Owner (after execution of contract) to Contractor fixing the date on which the contract time will commence to run and on which Contractor shall start to perform (ten (10) days from date of such notice) Contractor's obligations under the contract documents.

Owner - Manatee County, Florida, Board of County Commissioners.

<u>Preconstruction Conference</u> - Prior to starting the Work, a meeting scheduled by Owner with Contractor to review the Work schedules, to establish procedures for handling shop drawings and other submissions, for processing periodical pay estimates, and such other matters as may be pertinent to the project.

<u>Prejudicial Delay</u> - Any excusable or compensable delay impacting the Work and exceeding the total float available in the progress schedule, thus preventing completion of the Work within the contract time unless the Work is accelerated.

<u>Pre-operation Testing</u> - All field inspections, installation checks, water tests, performance tests and necessary corrections required of Contractor to demonstrate that individual components of the work have been properly constructed and do operate in accordance with the contract documents for their intended purposes.

<u>Project</u> - The total construction of which the Work to be provided under the contract documents may be the whole or a part as indicated elsewhere in the contract documents.

<u>Project Representative</u> - The authorized representative of Owner who is assigned to the project or any part thereof.

<u>Shop Drawings</u> - All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for Contractor to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a supplier and submitted by Contractor to illustrate material or equipment for some portion of the Work.

<u>Specifications</u> - Those portions of the contract documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.

<u>Subcontractor</u> - An individual or corporation having a direct contact with Contractor or with any other subcontractor for the performance of a part of the Work at the site. Such person or firm has contractual relations with the Contractor, not with the Owner.

<u>Substantial Completion</u> - The Work (or a specified part thereof) has progressed to the point when, in the opinion of the Engineer as evidenced by Engineer's definitive certificate of Substantial Completion, it is sufficiently complete in accordance with contract documents so that the work can be utilized for the purposes for which it is intended; or if there be no such certificate issued, when final payment is due.

<u>Successful Bidder</u> - The lowest qualified, responsible and responsive bidder to whom an award is made.

Supplier - A manufacturer, fabricator, supplier, distributor, materialman or vendor.

<u>Underground Facilities</u> - All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments and any encasement containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

Unit Price Work - Work to be paid for on the basis of unit prices.

<u>Work</u> - The entire completed construction or the various separately identifiable parts thereof required to be furnished under the contract documents. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the contract documents.

Work Directive Change - A written directive to contractor, issued on or after the effective date of the Agreement and signed by Owner and recommended by Project Representative ordering an addition, deletion or revision in the Work, or responding to differing or unforeseen physical conditions under which the Work is to be performed or to emergencies. A work directive change may not change the contract price or the contract time; but is evidence that the parties expect that the change directed or documented by a work directive change will be incorporated in a subsequently issued change order following negotiations by the parties as to its effect, if any, on the contract price or contract time.

ARTICLE 2 - PRELIMINARY MATTERS

Computation of Time: When time is referred to in the contract documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or legal holiday, such day will be omitted from the computation.

- The Contractor must submit a proposed schedule of the Work at the preconstruction 2.1 conference. The purpose of this schedule is to enable the Owner to govern the Work, to protect the functions of the local government and its citizens and to aid in providing appropriate surveillance. The Owner shall have the right to reschedule work provided such rescheduling is in accord with the remainder of terms of the contract. The schedule shall show, as a minimum, the approximate dates on which each segment of the work is expected to be started and finished, the proposed traffic flows during each month, the anticipated earnings by the Contractor for each month and the approximate number of crews and equipment to be used. The Owner, after necessary rescheduling and obtaining additional information for specific purposes, shall review and approve the schedule. The Contractor shall also forward to the Owner, as soon as practicable after the first day of each month, a summary report of the progress of the various parts of the work under the contract, in fabrication and in the field, stating the existing status, estimated time of completion and cause of delay, if any. Together with the summary report, the Contractor shall submit any necessary revisions to the original schedule for the Owner's review and approval. In addition, more detailed schedules may be required by the Owner for daily traffic control.
- 2.2 A Notice to Proceed may be given at any time within thirty (30) days after the effective date of the Agreement. The contract time will commence at the time specified in such notice. Contractor shall start to perform the Work on the date specified in the notice to proceed, but no work shall be done at the site prior to the date on which the contract time commences to run.
- 2.3 If at any time the materials and appliances to be used appear to the Owner as insufficient or improper for securing the quality of work required or the required rate of progress, the Owner may order the Contractor to increase his efficiency or to improve the character of his work and the Contractor shall conform to such an order. The failure of the Owner to demand any increase of such efficiency of any improvement shall not release the Contractor from his obligation to secure the quality of work or the rate of progress necessary to complete the Work within the limits imposed by the contract. The Owner may require the Contractor to remove from the Work such employees as the Owner deems incompetent, careless, insubordinate or otherwise objectionable, or whose continued employment on the Work is deemed to be contrary to the Owner's interest.
- 2.4 The Owner reserves the right to let other Contracts in connection with this Work. The Contractor shall afford other Contractors reasonable opportunity for the introduction and storage of their materials and execution of their Work, and promptly connect and coordinate the Work with theirs.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, RE-USE

3.1 The contract documents comprise the entire Agreement between Owner and Contractor concerning the work. The contract documents are complementary; what is called for by one is as binding as if called for by all. The contract documents will be construed in accordance with the laws and ordinances of the state of Florida and Manatee County.

Should a conflict exist within the Contract Documents, the precedence in ascending order of authority is as follows: 1) Standard Printed Technical Specifications, 2) Special Conditions, 3) General Conditions and 4) Drawings. Note: Computed dimensions shall govern over scaled dimensions.

- 3.2 It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the contract documents. Any work, materials or equipment that may reasonably be inferred from the contract documents as being required to produce the intended result will be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe work, materials, or equipment, such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code or laws or regulations in effect at the time of opening of bids, except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the contract documents) shall be effective to change the duties and responsibilities of Owner, Contractor or Engineer, or any of their agents or employees from those set forth in the Contract Documents.
- 3.3 The Contract Documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways:
 - 3.3.1 A Formal Written Amendment
 - 3.3.2 A Change Order
 - 3.3.3 A Work Directive Change
 - 3.3.4 An Administrative Contract Adjustment
- 3.4 In addition, the requirements of the contract documents may be supplemented and minor variations and deviations in the Work may be authorized in one or more of the following ways:
 - 3.4.1 A Field Order
 - 3.4.2 Engineer's approval of a Shop Drawing or sample.

ARTICLE 4 - CONTRACTOR'S RESPONSIBILITIES

4.1 Contractor shall keep on the Work at all times during its progress a competent resident superintendent; who shall be the Contractor's representative at the site and shall have authority to act on behalf of Contractor. All communications given to the superintendent shall be as binding as if given to Contractor.

- 4.2 Contractor shall provide competent, suitable qualified personnel to survey and lay out the Work and perform construction as required by the contract documents. Contractor shall at all times maintain good discipline and order at the site. Except in connection with the safety or protection of persons or the Work or property at the site or adjacent thereto and except as otherwise indicated in the contract documents, all Work at the site shall be performed during regular working hours and Contractor will not permit overtime work or the performance of work on Saturday or Sunday or legal holiday without Owner's written consent given after prior notice to Engineer (at least 72 hours in advance).
 - 4.2.1 Contractor shall pay for all additional engineering charges to the Owner for any overtime work which may be authorized. Such additional engineering charges shall be a subsidiary obligation of Contractor and no extra payment shall be made by Owner on account of such overtime work. At Owner's option, overtime costs may be deducted from Contractor's monthly payment request or Contractor's retainage prior to release of final payment.
- 4.3 Unless otherwise specified, Contractor shall furnish and assume full responsibility for all bonds, insurance, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.
- 4.4 All materials and equipment shall be of good quality and new, except as otherwise provided in the contract documents. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instruction of the applicable supplier except as otherwise provided in the contract documents.
- 4.5 Contractor shall be fully responsible to Owner for all acts and omissions of the subcontractors, suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with Contractor just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents shall create any contractual relationship between Owner or Engineer and any such subcontractor, supplier or other person or organization, nor shall it create any obligation on the part of Owner to pay or to see to the payment of any monies due any such subcontractor, supplier or other person or organization.
- 4.6 <u>Permits</u>: Unless otherwise provided, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work.
- 4.7 During the progress of the Work, Contractor shall keep the premises free from accumulation of waste materials rubbish and other debris resulting from the Work. At the completion of the Work, Contractor shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction

equipment and machinery and surplus materials and shall leave the site clean and ready for occupancy by Owner. Contractor shall restore to original conditions all property not designated for alteration by the Contract Documents.

- 4.8 Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.
- 4.9 Safety and Protection: Contractor shall comply with the Florida Department of Commerce Safety Regulations and any local safety regulations. Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of and shall provide the necessary protection to prevent damage, injury or loss to:
 - 4.9.1 all employees on the Work and other persons and organizations who may be affected thereby;
 - 4.9.2 all the work and materials and equipment to be incorporated therein, whether in storage on or off the site; and
 - 4.9.3 other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and underground facilities not designated for removal, relocation or replacement in the course of construction.

Contractor shall comply with all applicable laws and regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall provide and maintain all passageways, guard fences, lights and other facilities for the protection required by public authority or local conditions. Contractor shall provide reasonable maintenance of traffic way for the public and preservation of the Owner's business, taking into full consideration all local conditions. Contractor's duties and responsibilities for the safety and protection of the work shall continue until such time as all the work is completed.

4.10 Emergencies: In emergencies affecting the safety or protection of persons or the work or property at the site or adjacent thereto, Contractor, without special instruction or authorization from Engineer or Owner, is obligated to act to prevent threatened damage, injury or loss. Contractor shall give Owner prompt written notice if Contractor believes that any significant changes in the work or variations from the contract documents have been caused thereby. If Owner determines that a change in the contract documents is required because of the action taken in response to an emergency, a Work Directive Change or Change Order will be issued to document the consequences of the changes or variation.

- For substitutes not included with the bid, but submitted after the effective date of the 4.11 Agreement, Contractor shall make written application to Engineer for acceptance thereof, certifying that the 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 also contain an itemized estimate of all costs and delays or schedule impacts that will result directly or indirectly from review, acceptance and provisions of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which will be considered by the Engineer in evaluating the proposed substitute. Engineer may require Contractor to furnish at Contractor's expense, additional data about the proposed substitute. In rendering a decision, Owner/Engineer and Contractor shall have access to any available float time in the construction schedule. In the event that substitute materials or equipment not included as part of the bid, but proposed after the effective date of the agreement, are accepted and are less costly than the originally specified materials or equipment, then the net difference in cost shall be credited to the Owner and an appropriate change order executed.
 - 4.11.1 If a specific means, method, technique, sequence of procedure of construction is indicated in or required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to Engineer if Contractor submits sufficient information to allow Engineer to determine that the substitute proposed is equivalent to that indicated or required by the Contract Documents.
 - 4.11.2 Engineer will be allowed a reasonable time within which to evaluate each proposed substitute. Engineer will be the sole judge of acceptability and no substitute will be ordered, installed or utilized without Engineer's prior written acceptance which will be evidenced by either a change order or an approved shop drawing. Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
 - 4.11.3 Contractor shall reimburse Owner for the charges of Engineer and Engineer's Consultants for evaluating each proposed substitute submitted after the effective date of the Agreement and all costs resulting from any delays in the work while the substitute was undergoing review.
- 4.12 The Contractor shall furnish, free of charge, all labor, stakes, surveys, batter boards for structures, grade lines and other materials and supplies and shall set construction stakes and batter boards for establishing lines, position of structures, slopes and other controlling points necessary for the proper prosecution of the Work. Where rights-of-way, easements, property lines or any other conditions which make the lay-out of the project or parts of the project critical are involved, the Contractor will employ a competent surveyor who is registered in the state of Florida for lay-out and staking. These stakes and marks shall constitute the field control by and in accord with which the Contractor shall govern and execute the work. The Contractor will be held responsible for the preservation of all stakes, marks and if for any reason any of the

- stakes or marks or batter boards become destroyed or disturbed, they will be immediately and accurately replaced by the Contractor.
- 4.13 The Contractor has, by careful examination, satisfied himself as to the nature and location of the Work and all other matters which can in any way affect the Work under this contract, including, but not limited to details pertaining to boring, as shown on the drawings, are not guaranteed to be more than a general indication of the materials likely to be found adjacent to holes bored at the site of the work, approximately at the locations indicated. The Contractor shall examine boring data, where available, and make his own interpretation of the subsoil investigations and other preliminary data, and shall base his bid on his own opinion of the conditions likely to be encountered. In no event shall an extension of time be considered for any conditions that existed at the time of bidding, nor shall the Contractor receive extra compensation for completion of the project as intended by the drawings and in keeping with the Contact Documents. No verbal agreement or conversation with any officer, agent or employee of the Owner, before or after the execution of this contract, shall affect or modify any of the terms or obligations herein contained.
- 4.14 If the Contractor, in the course of the Work, finds that the drawings and/or technical specifications cannot be followed, he shall immediately inform the Owner in writing, and the Owner shall promptly check the accuracy of the information. Any work done after such discovery, until any necessary changes are authorized, will be done at the Contractor's risk.

ARTICLE 5 - OWNER'S RESPONSIBILITIES

- 5.1 Owner shall furnish the data required of Owner under the Contract Documents promptly and shall make payments to the Contractor within a reasonable time (no more than 20 days) after the Work has been accepted by the County. The form of all submittals, notices, change orders and other documents permitted or required to be used or transmitted under the contract documents shall be determined by the Owner/Engineer. Standard County forms shall be utilized.
- 5.2 The Owner shall provide the lands upon which the Work under this contract is to be done, except that the Contractor shall provide all necessary additional land required for the erection of temporary construction facilities and storage of his materials, together with right of access to same.
- 5.3 The Owner shall have the right to take possession of and use any completed portions of the work, although the time for completing the entire work or such portions may not have expired, but such taking possession and use shall not be deemed an acceptance of any work not completed in accordance with the Contract Documents.

ARTICLE 6 - CHANGES IN THE WORK

6.1 Without invalidating the Agreement and without notice to any surety, Owner may, at any time, order additions, deletions or revisions in the Work. These will be authorized by a written amendment, a change order, or a work directive change. Upon receipt of any

- such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the contract documents (except as otherwise specifically provided).
- 6.2 Contractor shall not be entitled to an increase in the contract price or an extension of the contract time with respect to any Work performed that is not required by the contract documents as amended, modified and supplemented.
- 6.3 Owner and Contractor shall execute appropriate change orders (or written amendments) covering changes in the Work which are ordered by Owner, or which may be required because of acceptance of defective Work.
- At any time Engineer may request a quotation from Contractor for a proposed change in the Work and within twenty-one (21) calendar days after receipt, Contractor shall submit a written and detailed proposal for an increase or decrease in the contract price or contract time for the proposed change. Engineer shall have 21 calendar days after receipt of the detailed proposal to respond in writing. The proposal shall include an itemized estimate of all costs and time for performance that will result directly or indirectly from the proposed change. Unless otherwise directed, itemized estimates shall be in sufficient detail to reasonably permit an analysis by Engineer of all material, labor, equipment, subcontracts, overhead costs and fees, and shall cover all Work involved in the change, whether such Work was deleted, added, changed or impacted. Notwithstanding the request for quotation, Contractor shall carry on the Work and maintain the progress schedule. Delays in the submittal of the written and detailed proposal will be considered non-prejudicial.

ARTICLE 7 - CHANGE OF CONTRACT PRICE

- 7.1 The contract price constitutes the total compensation (subject to authorized adjustments) payable to Contractor for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by Contractor shall be at his expense without change in the contract price.
- 7.2 The contract price may only be changed by change order or by a written amendment. Any claim for an increase or decrease in the contract price shall be based on written notice delivered by the party making the claim to the other party. Notice of the amount of the claim with supporting data shall be delivered within ten (10) days from the beginning of such occurrence and shall be accompanied by claimant's written statement that the amount claimed covers all known amounts (direct, indirect and consequential) to which the claimant is entitled as a result of the occurrence of said event.
- 7.3 The value of any Work covered by a change order or of any claim for an increase or decrease in the contract price shall be determined in one of the following ways (at Owner's discretion):

- 7.3.1 Where the Work involved is covered by unit prices contained in the contract documents, cost will be determined by application of such unit prices to the quantities of the items involved.
- 7.3.2 By mutual acceptance of lump sum.
- 7.3.3 On the basis of the cost of the Work, plus a 20% Contractor's fee for overhead and profit. (Contractor shall submit an itemized cost breakdown together with supporting data.)
- 7.4 Either Owner or Contractor may make a claim for an adjustment in the contract price. The unit price of an item of unit price Work shall be subject to re-evaluation and adjustment under the following conditions:
 - 7.4.1 If the total cost of a particular item of unit price Work amounts to 5% or more of the contract price and the variation in the quantity of the particular item of unit price Work performed by Contractor differs by more than 15% from the estimated quantity of such item indicated in the Agreement; and
 - 7.4.2 If there is no corresponding adjustment with respect to any other item of Work; and
 - 7.4.3 If a Contractor believes that it has incurred additional expense as a result thereof; or
 - 7.4.4 If Owner believes that the quantity variation entitles it to an adjustment in the unit price; or
 - 7.4.5 If the parties are unable to agree as to the effect of any such variations in the quantity of unit price Work performed.

ARTICLE 8 - CHANGE OF CONTRACT TIME

- 8.1 Contract time may only be changed by a change order or a written amendment. Any claim for an extension or shortening of the contract time shall be based on written notice delivered by the party making the claim to the other party. Notice of the extent of the claim with supporting data shall be delivered within fifteen (15) days from detection or beginning of such occurrence and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event.
- 8.2 The contract time will be extended in an amount equal to time lost due to delays beyond the control of Contractor. Such delays shall include, but not be limited to, acts or neglect by Owner or others performing additional work; or to fires, floods, epidemics, abnormal weather conditions or acts of God.
- 8.3 All time limits stated in the contract documents are of the essence.

ARTICLE 9 - WARRANTY, TEST/INSPECTION, CORRECTION

- 9.1 Contractor warrants (for a minimum period of three years or as otherwise stated herein) and guarantees to Owner that all work will be in accordance with the contract documents and will not be defective; that Owner, representatives of Owner, governmental agencies with jurisdictional interests will have access to the work at reasonable time for their observation, inspecting and testing (Contractor shall give Engineer timely notice of readiness of the work for all required approvals and shall assume full responsibility, including costs, in obtaining required tests, inspections, and approval certifications and/or acceptance, unless otherwise stated by Owner).
- 9.2 If any work (including work of others) that is to be inspected, tested, or approved is covered without written concurrence of Engineer, it must, if requested by Engineer, be uncovered for observation. Such uncovering shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice. Neither observations by Engineer nor inspections, tests, or approvals by others shall relieve Contractor from Contractor's obligations to perform the work in accordance with the Contract Documents.
- 9.3 If the work is defective, or Contractor fails to supply sufficient skilled workers, or suitable materials or equipment, or fails to furnish or perform the work in such a way that the completed work will conform to the contract documents, Owner may order Contractor to stop the work, or any portion thereof and terminate payments to the Contractor until the cause for such order has been eliminated. Contractor shall bear all direct, indirect and consequential costs for satisfactory reconstruction or removal and replacement with non-defective work, including, but not limited to fees and charges of engineers, architects, attorneys and other professionals and any additional expenses experienced by Owner due to delays to other Contractors performing additional work and an appropriate deductive change order shall be issued. Contractor shall further bear the responsibility for maintaining schedule and shall not be entitled to an extension of the contract time and the recovery of delay damages due to correcting or removing defective work.
 - 9.3.1 If Contractor fails within seven (7) days after written notice to correct defective work, or fails to perform the work in accordance with the contract documents, or fails to comply with any other provision of the contract documents, Owner may correct and remedy any such deficiency. To the extent necessary to complete corrective and remedial action, Owner may exclude Contractor from all or part of the site, take possession of all or part of the work, Contractor's tools, construction equipment and machinery at the site or for which Owner has paid Contractor but which are stored elsewhere. All direct, indirect and consequential costs of Owner in exercising such rights and remedies will be charged against Contractor in an amount approved as to reasonableness by Engineer and a change order will be issued incorporating the necessary revisions.

9.3.2 If within three years after the date of completion or such longer period of time as may be prescribed by laws or regulations or by the terms of any applicable special guarantee required by the contract documents, any work is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions, either correct such defective work or if it has been rejected by Owner, remove it from the site and replace it with non-defective work. If Contractor does not promptly comply with the terms of such instruction, Owner may have the defective work corrected/removed and all direct, indirect and consequential costs of such removal and replacement will be paid by Contractor.

ARTICLE 10 - SUSPENSION/TERMINATION OF WORK

- 10.1 Owner may, at any time and without cause, suspend the work or any portion thereof for a period of not more than ninety (90) days by written notice to Contractor, which will fix the date on which work will be resumed. Contractor shall be allowed an increase in the contract price or an extension of the contract time, or both, directly attributable to any suspension if Contractor makes an approved claim therefore.
- 10.2 Owner may terminate the contract if Contractor commences a voluntary case under any chapter of the Bankruptcy Code or any similar action by filing a petition under any other federal or state law relating to the bankruptcy or insolvency; if a petition is filed against the Contractor under any chapter of the Bankruptcy Code or similar relief under any other federal or state law; if Contractor persistently fails to perform the work in accordance with the contract documents; if Contractor disregards laws or regulations of any public body having jurisdiction or the Engineer; or otherwise violates in any substantial way any provisions of the contract.
 - 10.2.1 Owner may, after giving Contractor (and the surety, if there is one) seven (7) days written notice and to the extent permitted by laws and regulations, terminate the services of Contractor; exclude Contractor from the site and take possession of the work and of all Contractor's tools, construction equipment and machinery at the site and use the same to the full extent they could be used (without liability to Contractor for trespass or conversion); incorporate in the work all materials and equipment stored at the site or for which owner has paid Contractor but which are stored elsewhere, and finish the work as Owner may deem expedient. In such case, Contractor shall not be entitled to receive any further payment beyond an amount equal to the value of material and equipment not incorporated in the work, but delivered and suitably stored, less the aggregate of payments previously made. If the direct and indirect costs of completing the work exceed the unpaid balance of the contract price, Contractor shall pay the difference to Owner. Such costs incurred by Owner shall be verified by Owner and incorporated in a change order; but in finishing the work, Owner shall not be required to obtain the lowest figure for the work performed. Contractor's obligations to pay the difference between such costs and such unpaid balance shall survive termination of the Agreement.

10.3 If, through no act or fault of Contractor, the work is suspended for a period of more than ninety (90) days by Owner or under an order of court or other public authority, or Engineer fails to act on any application or fails to pay Contractor any sum finally determined to be due; then Contractor may, upon seven (7) days written notice to Owner terminate the Agreement and recover from Owner payment for all work executed, any expense sustained plus reasonable termination expenses. In lieu of terminating the Agreement, if Engineer has failed to act on any application of payment or Owner has failed to make any payment as aforesaid, Contractor may upon seven (7) days written notice to Owner stop the work until payment of all amounts then due.

ARTICLE 11 - CONTRACT CLAIMS

- 11.1 The rendering of a decision by Engineer with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment) will be a condition precedent to any exercised by Owner or Contractor of such right or remedies as either may otherwise have under the contract documents or by laws or regulations in respect of any such claim, dispute or other matter. No action, either at law or at equity, shall be brought in connection with any such claim, dispute or other matter later than thirty (30) days after the date on which Owner/Engineer has rendered such written decision in respect thereof. Failure to bring an action within said thirty (30) day period shall result in Engineer's decision being final and binding on the Contractor. In no event may any such action be brought after the time at which instituting such proceedings would be otherwise barred by the applicable statute of limitations.
- 11.2 Before bringing any action in court pertaining to any claim, dispute or other matter in question(s) arising out of or relating to the contract documents or the breach thereof, or Engineer's final decision, except for claims which have been waived by the making and acceptance of final payment, the Contractor shall first submit written notice(s) of contract claims to the Purchasing Director for a decision; the Contractor may request a conference with the Purchasing Director. Claims include, without limitation, disputes arising under the contract and those based upon breach of contract, mistake, misrepresentation, or other cause for contract modification or revision. Contract claims shall use the process detailed in Section 2-26-63, Manatee County Purchasing Code, Ordinance 08-43.

ARTICLE 12 - RESIDENT PROJECT REPRESENTATIVE - DUTIES, RESPONSIBILITIES

12.1 Resident Project Representative is Engineer/Owner's Agent, who will act as directed by and under the supervision of the Engineer, and who will confer with Owner/Engineer regarding his actions. Resident Project Representative's dealing in matters pertaining to the on-site work shall, in general, be only with the Owner/Engineer and Contractor and dealings with subcontractors shall only be through or with the full knowledge of Contractor.

12.2 Resident Project Representative will:

- 12.2.1 Review the progress schedule, schedule of shop drawing submissions and schedule of values prepared by Contractor and consult with Owner/Engineer concerning their acceptability.
- 12.2.2 Attend preconstruction conferences. Arrange a schedule of progress meetings and other job conferences as required in consultation with Owner/Engineer and notify those expected to attend in advance. Attend meetings and maintain and circulate copies of minutes thereof.
- 12.2.3 Serve as Owner/Engineer's liaison with Contractor, working principally through Contractor's superintendent and assist him in understanding the intent of the contract documents. As requested by Owner/Engineer, assist in obtaining additional details or information when required at the job site for proper execution of the Work.
- 12.2.4 Receive and record date of receipt of shop drawings and samples, receive samples which are furnished at the site by Contractor and notify Owner/Engineer of their availability for examination.
- 12.2.5 Advise Owner/Engineer and Contractor or his superintendent immediately of the commencement of any work requiring a shop drawing or sample submission if the submission has not been approved by the Owner/Engineer.
- 12.2.6 Conduct on-site observations of the work in progress to assist Owner/Engineer in determining if the work is proceeding in accordance with the contract documents and that completed work will conform to the contract documents.
- 12.2.7 Report to Owner/Engineer whenever he believes that any work is unsatisfactory, faulty or defective or does not conform to the contract documents, or does not meet the requirements of any inspections, tests or approvals required or if work has been damaged prior to final payment; and advise Owner/Engineer when he believes work should be corrected or rejected or should be uncovered for observation or requires special testing, inspection or approval.
- 12.2.8 Verify that tests, equipment and system start-ups and operating and maintenance instructions are conducted as required by the contract documents and in the presence of the required personnel, and that Contractor maintains adequate records thereof; observe, record and report to Engineer appropriate details relative to the test procedures and start-ups.
- 12.2.9 Accompany visiting inspectors representing public or other agencies having jurisdiction over the project, record the outcome of these inspections and report to Owner/Engineer.

- 12.2.10 Transmit to Contractor, Owner/Engineer's clarifications and interpretations of the contract documents.
- 12.2.11 Consider and evaluate Contractor's suggestions or modifications in drawings or technical specifications and report them with recommendations to Owner/Engineer.
- 12.2.12 Maintain at the job site orderly files for correspondence, reports of job conferences, shop drawings and sample submissions, reproductions of original contract documents including all addenda, change orders, field orders, additional drawings issued subsequent to the execution of the contract, Owner/Engineer's clarifications and interpretations of the contract documents, progress reports and other project related documents.
- 12.2.13 Keep a diary or log book, recording hours on the job site, weather conditions, data relative to questions of extras or deductions; list of visiting officials and representatives or manufacturers, fabricators, suppliers and distributors; daily activities, decisions, observations in general and specific observations in more detail as in the case of observing test procedures. Send copies to Owner/Engineer.
- 12.2.14 Record names, addresses and telephone numbers of all Contractors, subcontractors and major suppliers of materials and equipment.
- 12.2.15 Furnish Owner/Engineer periodic reports as required of progress of the work and Contractor's compliance with the approved progress schedule and schedule of shop drawing submissions.
- 12.2.16 Consult with Owner/Engineer in advance of scheduling major tests, inspections or start of important phases of the work.
- 12.2.17 Report immediately the occurrence of any accident.
- 12.2.18 Review applications for payment with Contractor for compliance with the established procedure for their submission and forward them with recommendations to Owner/Engineer, noting particularly their relation to the schedule of values, work completed and materials and equipment delivered at the site but not incorporated in the work.
- 12.2.19 During the course of the work, verify that certificates, maintenance and operations manuals and other data required to be assembled and furnished by Contractor are applicable to the items actually installed, and deliver this material to Owner/Engineer for his review prior to final acceptance of the work.

- 12.2.20 Before Owner/Engineer issues a Certificate of Substantial Completion, submit to Contractor a list of observed items requiring completion or correction.
- 12.2.21 Conduct final inspection in the company of Owner/Engineer and Contractor and prepare a final list of items to be completed or corrected.
- 12.2.22 Verify that all items on final list have been completed or corrected and make recommendations to Owner/Engineer concerning acceptance.
- 12.3 Except upon written instructions of Owner/Engineer, Resident Project Representative:
 - 12.3.1 Shall not authorize any deviation from the contract documents or approve any substitute materials or equipment;
 - 12.3.2 Shall not exceed limitations on Owner/Engineer's authority as set forth in the contract documents;
 - 12.3.3 Shall not undertake any of the responsibilities of Contractor, Subcontractors or Contractor's Superintendent, or expedite the work;
 - 12.3.4 Shall not advise on or issue directions relative to any aspect of the means, methods, techniques, sequences or procedures of construction unless such is specifically called for in the contract documents;
 - 12.3.5 Shall not advise on or issue directions as to safety precautions and programs in connection with the work;
 - 12.3.6 Shall not authorize Owner to occupy the project in whole or in part; and
 - 12.3.7 Shall not participate in specialized field or laboratory tests.

ARTICLE 13 - APPRENTICES

- 13.1 In accordance with the requirement of Section 446.011, Florida Statutes, the following requirements to safeguard the welfare of apprentices and trainees shall be a part of this contract, if applicable.
 - 13.1.1 Contractor agrees to hire for the performance of the contract, a number of apprentices or trainees in each occupation which bears to the average number of the journeymen in that occupation to be employed in the performance of the contract, the ratio of at least one apprentice or trainee to every five journeymen.
 - 13.1.2 Contractor agrees, when feasible to assure that 25% of such apprentices or trainees are in their first year of training, except when the number of apprentices or trainees to be hired is fewer than four.
 - 13.1.3 Contractor agrees to submit, at three month intervals, to the Bureau of Apprenticeship of the Division of Labor, records of employment by trade of the number of apprentices or trainees employed; race of all apprentices; the number of apprentices or trainees in their first year of training; and total hours of work of all apprentices, trainees, and journeymen.
 - 13.1.4 Contractor agrees to submit to the Bureau of Apprenticeship of the Division of Labor, at three month intervals, a statement describing steps taken toward making a diligent effort in the hiring of apprentices and trainees and containing a breakdown by craft of hours worked and wages paid for first year apprentices or trainees, other apprentices or trainees and journeymen.

NOTE: The form of all submittals, notices, change orders and other documents permitted or required to be used or transmitted under the Contract shall be determined by the County.

END OF SECTION

STATEMENT OF NO BID

If you do not intend to bid please complete and return this form immediately to:

Manatee County Purchasing 1112 Manatee Avenue West, Suite 803 Bradenton, Florida 34205

We, the undersigned, have Addition Phase 2 for the fo	declined to bid on Bid No.: <u>09-2574DC Fleet Services Build</u> sllowing reason(s):	<u>ing</u>					
Specifications too resInsufficient time to re	trictive, i.e., geared toward one brand or manufacturer.						
We do not offer this p	roduct or service						
Our schedule would	not permit us to perform						
Unable to meet specifications							
Unable to meet Bond requirement							
Specifications unclear (explain below)							
Unable to meet insur	•						
Remove us from you Other (specify below)							
Other (specify below)							
REMARKS:							
and returned, our compan	o not submit a Bid and this Statement of No Bid is not execu y may not be contacted by you for this commodity or service						
Company Name: _							
Company Address:							
Telephone:	Fax:						
Date:							
Signature:							
	(Print or type name and title of above signer)						
email address							

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DIVISION 6 06100 - ROUGH CARPENTRY

06100.01 SCOPE OF WORK

A. WORK SPECIFIED IN THIS SECTION

- 1. PROVIDE ALL ROUGH CARPENTRY INCLUDING, BUT NOT NECESSARILY LIMITED TO:
 - a) FRAMING, NAILERS, BLOCKING, NAILING BLOCKS, WOOD PLATES AND OTHER ROUGH LUMBER.
 - b) PROTECTION OF TEMPORARY OPENINGS.
 - c) TEMPORARY PARTITIONS.
 - d) PRESSURE TREATED LUMBER.
- PROVIDE GENERAL BUILDING INSULATION OF TYPE, THICKNESS AND MATERIAL AS REQUIRED. PROVIDE FASTENERS, ADHESIVES AND ACCESSORIES REQUIRED.
- 3. PROVIDE ALL CONSTRUCTION SCAFFOLDING, FALSE WORK, LADDERS, TEMPORARY BRACINGS, AND ANY OTHER REQUIRED APPARATUS TO ACCOMPLISH WORK SPECIFIED HEREIN.

B. WORK SPECIFIED IN OTHER SECTIONS

- FINISH CARPENTRY AND MILLWORK
- CONCRETE FORM CARPENTRY

C. APPLICABLE PUBLICATIONS

- 1. WESTERN WOOD PRODUCTS ASSOCIATION PUBLICATION: STANDARD GRADING RULES FOR WESTERN LUMBER.
- 2. AMERICAN WOOD PRESERVERS INSTITUTE STANDARDS: PRESERVATIVE TREATMENT OF WOOD BY PRESSURE METHODS.
- 3. NATIONAL FOREST PRODUCTS ASSOCIATION PUBLICATION: NATIONAL DESIGN SPECIFICATION FOR STRESS GRADED LUMBER AND ITS FASTENINGS.
- 4. SOUTHERN PINE INSPECTION BUREAU: STANDARD GRADING RULES FOR SOUTHERN PINE LUMBER.

D. JOB CONDITIONS

1. EXAMINE SUBSTRATES AND SUPPORTING STRUCTURE, AND CONDITIONS UNDER WHICH CARPENTRY IS TO BE INSTALLED. NOTIFY (OWNER'S REPRESENTATIVE) IN WRITING OF CONDITIONS DETRIMENTAL TO THE WORK. DO NOT PROCEED WITH THE INSTALLATION UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

06100 - ROUGH CARPENTRY

E. SUBMITTALS

- 1. SHOP DRAWINGS TO INDICATE FRAMING METHODS IF OTHER THAN INDICATED.
- 2. SUBMIT SAMPLES OF INSULATION PROPOSED FOR USE.
- 3. FURNISH AN AFFIDAVIT STATING THE TREATED LUMBER PRODUCTS INSTALLED ON THIS PROJECT. COMPLY WITH THE TREATMENT STANDARDS SPECIFIED HEREIN.
- INDICATE CHEMICAL USED AND RETENTION OBTAINED.

F. HANDLING AND STORAGE

1. SHIP, HANDLE AND STORE MATERIALS IN A MANNER WHICH WILL PREVENT DAMAGE, CONTAMINATION, DETERIORATION AND DEFORMATION. PROVIDE ADEQUATE PROTECTION FROM DAMAGE, MOISTURE OR EXCESSIVE EXPOSURE. STACK LUMBER AND PLYWOOD, AND PROVIDE AIR CIRCULATION WITHIN STACKS. DO NOT DELIVER TO JOBSITE UNTIL JUST PRIOR TO INSTALLATION. DO NOT STORE TREATED LUMBER OR PLYWOOD OUTDOORS.

G. SCHEDULING AND COORDINATING

1. SCHEDULE AND COORDINATE WORK SPECIFIED IN THIS SUBDIVISION WITH WORK SPECIFIED IN OTHER SUBDIVISIONS. MAKE TIMELY DELIVERY TO AVOID CONSTRUCTION DELAYS.

06100.02 **PRODUCTS**

A. LUMBER

- 1. THE TERM "LUMBER" INCLUDES ALL ROUGH WOODWORK, PERMANENT OR TEMPORARY.
- 2. LUMBER SIZES TO CONFORM TO U.S. DEPARTMENT OF COMMERCE SIMPLIFIED PRACTICE RECOMMENDATION 16. SIZE REFERENCES ARE NOMINAL AND SIZES ACTUAL ARE TO CONFORM TO AMERICAN LUMBER STANDARDS. FACTORY MARK EACH PIECE OF LUMBER WITH TYPE, GRADE, MILL AND GRADING AGENCY.

B. STRESS GRADING

- 1. GRADE LUMBER IN ACCORDANCE WITH WESTERN WOOD PRODUCTS ASSOCIATION RULES AND REGULATIONS FOR TYPE USED. PROVIDE DRESSED LUMBER, S4S UNLESS OTHERWISE SPECIFIED, SOUND AND FREE OF WARPAGE.
- 2. FOR FRAMING, NAILERS, PLATES, BLOCKING GROUNDS AND FURRING STRIPS, PROVIDE COAST REGION DOUGLAS FIR, STANDARD DOUGLAS FIR, WEST COAST HEMLOCK, WESTERN HEMLOCK, DENSE CONSTRUCTION GRADE, F = 1,750 PSI.
- 3. PINE, NO. 1 STRESS: RATED, DENSE.

06100 - ROUGH CARPENTRY

C. MOISTURE CONTENT

 MAXIMUM MOISTURE CONTENT OF UNTREATED LUMBER AT TIME OF INSTALLATION 18 PERCENT.

D. PLYWOOD

- GRADE PLYWOOD IN ACCORDANCE WITH AMERICAN PLYWOOD ASSOCIATION.
- 2. PROVIDE PLYWOOD IDENTIFIED BY GRADE-TRADEMARK OF AMERICAN PLYWOOD ASSOCIATION TO INDICATE TYPE, GRADE, AND SPECIES. FACTORY MARK EACH PIECE OR PLYWOOD WITH TYPE GRADE MILL AND AGENCY.
- 3. ALL PLYWOOD ABOVE SUSPENDED CEILINGS SHALL BE FIRE-RETARDANT.

E. GRADING

USE A-C, GROUP 1, EXTERIOR GRADE, FOR EXTERIOR EXPOSURE.

F. TREATED LUMBER

- 1. PRESSURE TREAT CONCEALED LUMBER INCLUDING FURRING, STRIPPING, SLEEPERS, BLOCKING, NAILERS, PLATES AND CANTS, WITH CHROMATED ZINC CHLORIDE IN ACCORDANCE WITH FEDERAL SPECIFICATION TT-W-551, RETENTION 0.75 LB. PER CU. FT., OR WITH CHROMATED COPPER ARSENATE (CC) IN ACCORDANCE WITH FEDERAL SPECIFICATION TT-W-550, RETENTION OF 0.25 LB. PER CUBIC FOOT. KILN DRY ALL MATERIAL TO AN AVERAGE MOISTURE CONTENT OF 19%.
- 2. MARK TREATED LUMBER IN ACCORDANCE WITH AWPI STANDARDS. BRUSH COAT TREATED WOOD WHICH HAS BEEN DRILLED OR CUT, WITH 2 HEAVILY BRUSHED COATS OF PRESERVATIVE USED IN ORIGINAL TREATMENT.
- 3. FOR EACH TYPE SPECIFIED, INCLUDE CERTIFICATION BY TREATING PLANT STATING CHEMICALS AND PROCESS USED, NET AMOUNT OF SALTS RETAINED AND CONFORMANCE WITH APPLICABLE STANDARDS.
- 4. WHENEVER A WOOD MEMBER IS CUT OR DRILLED ON THE JOB, THE CUT PORTION SHALL BE GIVEN A HEAVY BRUSHING WITH ROOFING CEMENT.

G. FIRE-RETARDANT TREATMENT

- 1. PROVIDE FIRE-RETARDANT WOOD AND OR PLYWOOD FOR ALL INTERIOR WORK ABOVE SUSPENDED CEILINGS.
- 2. PRESSURE TREAT LUMBER PER AWPA C20 AND PLYWOOD PER AWPA C27 TO DEVELOP NO GREATER FLAME SPREAD THAN 25 WHEN TESTED IN ACCORDANCE WITH ASTM E84. AFFIX UL LABEL TO EACH PIECE OF TREATED LUMBER AND PLYWOOD. KILN DRY ALL MATERIAL AFTER TREATMENT TO AVERAGE MOISTURE CONTENT OF 19% OR LESS.

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H. FASTENERS

BUILDERS IRON AND ROUGH HARDWARE: PROVIDE ANCHORS, HANGERS, TIES, NUTS, BOLTS, WASHERS, SCREWS, NAILS, AND OTHER ROUGH HARDWARE AND BUILDERS IRON REQUIRED TO SECURE CARPENTRY WORK AND WOOD FRAMING. ROUGH HARDWARE TO BE GALVANIZED. RECESS ANCHOR BOLTS AND PROVIDE WITH NUTS AND WASHERS.

I. NAIL SIZES

PROVIDE FOLLOWING SIZE NAILS, UNLESS OTHERWISE REQUIRED:

- 8DCOMMON FOR 1" THICK STOCK
- 16DCOMMON FOR 2" THICK STOCK
- 16DCOMMON FOR GENERAL FRAMING
- 20DCOMMON FOR SPIKING, PLATES, SILLS, ETC.

06100.03 **EXECUTION**

A. BATT OR BLANKET TYPE INSULATION

GLASS FIBER BLANKET INSULATION, CONFORMING TO FEDERAL SPECIFICATION HH-1-521: TYPE 1, NO MEMBRANE COVERING. PROVIDE INSULATION OF THICKNESS AS INDICATED ON DRAWINGS. PROVIDE TACKING TABS WHERE REQUIRED.

B. BUILDING INSULATION

- 1. INSTALL RIGID OR SEMIRIGID INSULATION USING ADHESIVE OR MECHANICAL FASTENINGS RECOMMENDED BY MANUFACTURER FOR THE TYPE OF INSULATION SPECIFIED IN LOCATIONS AND ON SURFACES INDICATED.
- 2. INSTALL BLANKET TYPE INSULATION, UNFACED, WITHOUT PUNCTURES.
- 3. LAY BLANKETS ON HORIZONTAL SURFACES SNUGLY TO ONE ANOTHER BUT NOT UNDULY PRESSED OR FORCED.
- 4. INSTALL BLANKETS ON VERTICAL SURFACES USING SUITABLE FASTENERS THROUGH TACKING TABS.

C. POLYETHYLENE FILM

PROVIDE POLYETHYLENE FILM, 6 MIL THICK, CLEAR.

D. TEMPORARY PROTECTION

- EXTERIOR OPENINGS:
 - a) PROVIDE COVERS AND BARRICADES OVER OPENINGS AS INDICATED.
 - b) PROVIDE WEATHERPROOF AND INSECT PROOF PROTECTION USING WOOD FRAMEWORK COVERED WITH PLYWOOD RODENT PROOF ON

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EXTERIOR FACE, FRAMEWORK TO BE PROPERLY CONSTRUCTED, CLOSELY FITTED, ACCURATELY SET TO LINES, LEVELS AND DIMENSIONS, RIGIDLY SECURED IN PLACE AND ADEQUATELY BRACED. PROVIDE COMPLETELY WEATHERTIGHT CONSTRUCTION AND MAINTAIN IN A WEATHERTIGHT CONDITION UNTIL PERMANENT CONSTRUCTION IS IN PLACE. PROVIDE ACCESS OPENING OR TEMPORARY DOORS AND OR TEMPORARY INSECT LOCKS WHERE REQUIRED.

2. INTERIOR PARTITIONS: PROVIDE DUST-TIGHT PROTECTION USING WOOD FRAMEWORK COVERED WITH PLYWOOD TO 8'-0" ABOVE FLOOR AND POLYETHYLENE FILM, TO ROOF DECK OR OTHER SUITABLE COVERING. TAPE ALL LAPS AND JOINTS TO MAKE INSTALLATION DUST-TIGHT. ALL FRAMEWORK FITTED AND SET TO LINES, LEVELS AND DIMENSIONS AND PROPERLY SECURED. CAULK ALONG BASE SHOE AND PLATE.

FRAMING:

- a) PROVIDE FRAMING AS SHOWN OR AS REQUIRED, PROPERLY FRAMED, CLOSELY FITTED AND ACCURATELY SET TO REQUIRED LINES, LEVELS AND DIMENSIONS, RIGIDLY SECURED IN PLACE AND ADEQUATELY BRACED.
- b) INSTALL WOOD NAILERS AND PLATES AT ROOF EDGES, PARAPETS, CURBS AND ELSEWHERE AS INDICATED. SECURE TO MASONRY AND STEEL FRAMING WITH BOLTS AND WASHERS AS INDICATED. COUNTERSINK BOLTS AND NUTS FLUSH WITH SURFACES UNLESS OTHERWISE SHOWN.
- c) PROVIDE WOOD BLOCKING, PLUGS. STRIPS, WEDGES, AND OTHER ITEMS WHERE INDICATED OR REQUIRED FOR SECURING FINISHED WORK OF ALL TRADES.
- d) SET GROUNDS ACCURATELY TO LINE AND SECURE IN A SUITABLE MANNER, TRUE, PLUMB, STRAIGHT AND EVEN, AND SPACED ACCURATELY.

END OF SECTION

DIVISION 6 06200 - FINISH CARPENTRY/ARCHITECTURAL WOODWORK

06200.01 SCOPE OF WORK

A. WORK SPECIFIED IN THIS SECTION

- 1. THE GENERAL REQUIREMENTS ARE MADE A PART OF THIS SECTION AND APPLY TO THE WORK SPECIFIED.
- THIS SECTION OF SPECIFICATIONS COVERS THE FURNISHING OF MATERIALS, PRODUCTS, ACCESSORIES, TOOLS, EQUIPMENT SERVICES, SCAFFOLDING, LADDERS, TRANSPORTATION, SUPERVISION, LABOR AND OTHER ITEMS WHICH MAY NOT BE MENTIONED, BUT ARE NECESSARY FOR THE FABRICATION AND INSTALLATION OF CARPENTRY, INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:
 - COUNTER TOPS
 - PLYWOOD FOR FINISHED WORK
 - WOOD GROUNDS, NAILERS AND BLOCKING
 - SHOP FINISHES
 - INSTALLATION OF DOORS, WINDOWS AND FRAMES
 - INSTALLATION OF HARDWARE

B. WORK SPECIFIED IN OTHER SECTIONS

- ROUGH CARPENTRY
- GYPSUM WALL BOARD
- CONCRETE FORMWORK
- FINISH PAINTING
- FINISH HARDWARE
- HARDWARE LIST

C. QUALITY ASSURANCE AND STANDARDS

1. GENERAL:

- a) ARCHITECTURAL WOODWORK TO BE MANUFACTURED IN ACCORDANCE WITH STANDARDS IN CURRENT EDITION OF ARCHITECTURAL WOODWORK QUALITY STANDARDS OF ARCHITECTURAL INSTITUTE IN GRADE OR GRADES HEREINAFTER SPECIFIED.
- b) IN EVENT OF DISPUTE AS TO QUALITY GRADE OR GRADES OF ARCHITECTURAL WOODWORK, PARTIES INVOLVED TO CALL UPON ARCHITECTURAL WOODWORK INSTITUTE FOR INSPECTION UNDER AWI'S ESTABLISHED INSPECTION PROCEDURES AND AGREE TO ABIDE BY AWI DECISION.

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- c) LUMBER STANDARD: FOR EACH USE, PROVIDE LUMBER COMPLYING WITH PRODUCT STANDARD PS 20 "AMERICAN SOFTWOOD LUMBER STANDARD" BY NBS. NOMINAL SIZES ARE INDICATED, PROVIDE ACTUAL SIZES COMPLYING WITH THE MINIMUM SIZE REQUIREMENTS OF PS 20 FOR THE MOISTURE CONTENT SPECIFIED FOR EACH USE.
- d) PLYWOOD STANDARD: COMPLY WITH PS 1, EXCEPT AS OTHERWISE INDICATED FOR EACH USE.
- e) FACTORY-MARK EACH PIECE OF LUMBER AND PLYWOOD WITH TYPE, GRADE, MILL AND GRADING AGENCY IDENTIFICATION; EXCEPT OMIT MARKING FROM SURFACES TO RECEIVE TRANSPARENT FINISH, AND SUBMIT MILL CERTIFICATE THAT MATERIAL HAS BEEN INSPECTED AND GRADED IN ACCORDANCE WITH REQUIREMENTS IF IT CANNOT BE MARKED ON A CONCEALED SURFACE.
- f) SHOP-FABRICATE CARPENTRY WORK TO THE GREATEST EXTENT. POSSIBLE, USING EQUIPMENT AND WORKMANSHIP CONTROL METHODS WHICH WILL RESULT IN WORK OF BETTER QUALITY THAN IS FEASIBLE FOR ON-SITE FABRICATION.
- 2. APPLICABLE PUBLICATIONS:

AWPB - AMERICAN WOOD PRESERVES BUREAU

AWPI - AMERICAN WOOD PRESERVER'S INSTITUTE:

PRESERVATIVE TREATMENT OF WOOD BY PRESSURE METHODS

AWI - AMERICAN WOODWORK INSTITUTE:

ARCHITECTURAL WOODWORK QUALITY STANDARDS, GUIDE SPECIFICATIONS AND QUALITY CERTIFICATION PROGRAM

U.S. DEPARTMENT OF COMMERCE:

COMMERCIAL STANDARD CS 236-66 MAT FORMED PARTICLEBOARD

U.S. PRODUCT STANDARDS:

PS 51-71 - HARDWOOD PLYWOOD PS 1-74 - SOFTWOOD PLYWOOD

D. <u>SUBMITTALS</u>

- 1. SHOP DRAWINGS:
 - a) SUBMIT COMPLETE SHOP DRAWINGS FOR REVIEW OF SHOP FABRICATED, EXCEPT STOCK ITEMS OR THOSE ITEMS SHOWN FULL SCALE BY CONTRACT DRAWINGS. SHOW FIELD JOINTS, CONSTRUCTION JOINTS, DIMENSIONS, FABRICATION NOTES, AND INSTALLATION NOTES. MILLWORKER IS RESPONSIBLE FOR DETAILS AND DIMENSIONS EXCEPT THOSE CONTROLLED BY JOB CONDITIONS.
 - b) FOR INFORMATION ONLY, SUBMIT TWO COPIES OF CHEMICAL TREATMENT MANUFACTURER"S INSTRUCTIONS FOR PROPER USE OF EACH TYPE OF TREATED MATERIAL.

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- c) DIP TREATMENT: FOR EACH TYPE SPECIFIED, INCLUDE CERTIFICATION BY TREATING PLANT STATING CHEMICAL SOLUTIONS USED, SUBMERSION PERIOD AND CONFORMANCE WITH SPECIFIED STANDARDS.
- d) PRESSURE TREATMENT: FOR EACH TYPE SPECIFIED, INCLUDE CERTIFICATION BY TREATING PLANT STATING CHEMICALS AND PROCESS USED, NET AMOUNT OF SALTS RETAINED AND CONFORMANCE WITH APPLICABLE STANDARDS.
- e) FOR WATER-BORNE PRESERVATIVES, INCLUDE STATEMENT THAT MOISTURE CONTENT OF TREATED MATERIALS WAS REDUCED TO A MAXIMUM OF 15% PRIOR TO SHIPMENT TO PROJECT SITE.
- 2. SAMPLES: SUBMIT SAMPLES OF EACH WOOD SPECIES TO RECEIVE TRANSPARENT FINISH AT JOBSITE.

E. DELIVERY, STORAGE AND PROTECTION

SHIP AND HANDLE MATERIAL IN MANNER WHICH WILL PREVENT DAMAGE, CONTAMINATION, DETERIORATION AND DEFORMATION. DELIVER MATERIAL ONLY AFTER BUILDING HAS REACHED NORMAL SERVICE TEMPERATURE AND HUMIDITY LEVELS. STORE MATERIAL INDOORS UNDER CONTROLLED TEMPERATURE AND HUMIDITY CONDITIONS. PROTECT INSTALLED WORK UNTIL FINAL ACCEPTANCE.

F. JOB CONDITIONS

- 1. SCHEDULING: TIME DELIVERY AND INSTALLATION OF CARPENTRY WORK TO AVOID DELAYING OTHER TRADES WHOSE WORK IS DEPENDENT ON OR AFFECTED BY THE CARPENTRY WORK, AND TO COMPLY WITH PROTECTION AND STORAGE REQUIREMENTS.
- 2. INSPECTION: EXAMINE THE SUBSTRATES AND SUPPORTING STRUCTURE AND THE CONDITIONS UNDER WHICH THE CARPENTRY WORK, DOOR FRAMES, WINDOW FRAMES AND DOORS ARE TO BE INSTALLED, AND NOTIFY IN WRITING OF CONDITIONS DETRIMENTAL TO THE WORK. DO NOT PROCEED WITH THE INSTALLATION UNTIL SATISFACTORY CONDITIONS HAVE BEEN CORRECTED IN AN APPROVED MANNER.

3. COORDINATION:

- a) ADVISE OF HEATING OR COOLING REQUIREMENTS FOR INSTALLATION AREAS, AND FOR MAINTAINING REQUIRED AMBIENT CONDITIONS DURING AND AFTER INSTALLATION.
- b) CORRELATE LOCATION OF NAILERS, BLOCKING, AND SIMILAR SUPPORTS SO THAT ATTACHED WORK WILL COMPLY WITH DESIGN REQUIREMENTS.

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06200.02 PRODUCTS

A. LUMBER

- 1. PROVIDE SEASONED DIMENSION LUMBER WITH 19% MAXIMUM MOISTURE CONTENT AT TIME OF DRESSING AND COMPLYING WITH THE DRY SIZE REQUIREMENTS OF PS 29. MARK LUMBER "S-DRY."
- 2. CONCEALED BOARDS: WHERE BOARDS WILL BE CONCEALED BY OTHER WORK, PROVIDE LUMBER OF 19% MAXIMUM MOISTURE CONTENT (S-DRY) AND OF THE FOLLOWING SPECIES AND GRADE: SOUTHERN PINE NO.3 BOARDS OR STD., WEST COAST LUMBER INSPECTION BUREAU (WCLB) OR WESTERN WOOD PRODUCTS ASSOCIATION (WWPA).

B. PLYWOOD

EXPOSED PLYWOOD: WHERE PLYWOOD WILL BE EXPOSED IN THE FINISHED WORK, PROVIDE THE FOLLOWING: WHERE TRANSPARENT OR NATURAL FINISH OR NO FINISH IS INDICATED, PROVIDE EXTERIOR TYPE PLYWOOD FOR EXTERIOR USE AND INTERIOR TYPE WITH EXTERIOR GLUE FOR INTERIOR USE, OF THE SPECIES INDICATED USING HARDWOOD EDGE STRIP FOR WOOD SHELVING.

C. FASTENING AND ANCHORING MATERIALS

FASTENERS AND ANCHORAGES: PROVIDE SIZE AND TYPE AS INDICATED AND AS RECOMMENDED BY APPLICABLE STANDARDS, COMPLYING WITH APPLICABLE SPECIFICATIONS FOR NAILS, STAPLES, SCREWS, BOLTS, NUTS, WASHERS, AND ANCHORING DEVICES, ETC.

D. COUNTER TOPS

- 1. LAMINATED WOOD COUNTER TOP: PROVIDE AWI PREMIUM QUALITY GRADE.
- 2. PLASTIC LAMINATE COUNTER TOP:
 - a) PROVIDE AWI PREMIUM QUALITY GRADE.
 - PROVIDE THE FOLLOWING PLASTIC LAMINATE FOR EXPOSED SURFACES.
 - (1) MANUFACTURER: FORMICA CORP., NEVAMAR CORP., CONSOWELD CORP., OR EQUAL AS APPROVED BY THE ARCHITECT.
 - (2) PATTERN OR COLOR: AS SELECTED BY OWNER.
 - (3) THICKNESS: 0.50" NOMINAL.

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E. WOOD TREATMENT

- 1. GENERAL: TREAT LUMBER AND PLYWOOD, WHERE INDICATED AS "TREATED" TO COMPLY WITH THE APPLICABLE REQUIREMENTS OF THE AMERICAN WOOD PRESERVERS BUREAU.
- 2. FIRE RETARDANT TREATMENT: PRESSURE TREAT LUMBER PER AWPA C20 AND PLYWOOD PER AWPA C27 TO ACHIEVE NUMERICAL RATINGS NOT MORE THAN 25 FOR FLAME SPREAD WHEN TESTED IN ACCORDANCE WITH ASTM E84. AFFIX CLASS 1 UL LABEL TO EACH PIECE OF TREATED LUMBER AND PLYWOOD. KILN DRY MATERIALS BEFORE TREATMENT OF 19% OR LESS.
- 3. PRESERVATIVE TREATMENT: PROVIDE PRESSURE TREATMENT FOR LUMBER AND PLYWOOD WHERE INDICATED WITH WATER-BORNE PRESERVATIVES CONFORMING TO AWPB STANDARD LP-2 TO RETENTION OF 0.40 LB. PER CU. FT. FOR ABOVEGROUND USES AND 0.50 LB. PER CU. FT. FOR GROUND OR WATER CONTACT USES. PROVIDE SOLUTIONS WITH WATER REPELLENT ADDED. KILN DRY MATERIAL BEFORE TREATMENT TO AVERAGE MOISTURE CONTENT OF 19% OR LESS.
- 4. PROVIDE FIRE RETARDANT TREATMENT FOR LISTED ITEMS: ALL WOOD BLOCKING AND PLYWOOD USED ABOVE CEILINGS.
- 5. PROVIDE PRESERVATIVE TREATMENT FOR LISTED ITEMS:
 - a) WOOD CANTS, NAILERS, BLOCKING STRIPPING AND SIMILAR MEMBERS IN CONNECTION WITH ROOFING, FLASHING, VAPOR BARRIERS AND WATERPROOFING.
 - b) WOOD DECKING FOR ROOF PLATFORM.
 - c) WOOD SLEEPERS, BLOCKING, AND SIMILAR CONCEALED MEMBERS IN CONTACT WITH CONCRETE.
 - d) EXPOSED INTERIOR WOODWORK SHOWN OR SCHEDULED AS "TREATED," AND ALL WOOD MEMBERS LESS THAN 24" ABOVE GRADE.
 - e) KILN-DRY WOOD TO A MAXIMUM MOISTURE CONTENT OF 15% AFTER TREATMENT WITH WATER-BORNE PRESERVATIVES.

06200.03 EXECUTION

A. <u>INSTALLATION OF CARPENTRY WORK - GENERAL</u>

- 1. DISCARD UNITS OF MATERIAL WITH DEFECTS WHICH MIGHT IMPAIR THE QUALITY OF THE WORK, AND UNITS WHICH ARE TOO SMALL TO FABRICATE THE WORK WITH MINIMUM JOINTS OR THE OPTIMUM JOINT ARRANGEMENT.
- 2. SET WORK ACCURATELY TO REQUIRED LEVELS AND LINES, WITH MEMBERS PLUMB AND TRUE AND ACCURATELY CUT AND FITTED.

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- 3. SECURELY ATTACH WORK TO SUBSTRATES BY ANCHORING AND FASTENING AS SHOWN AND AS REQUIRED BY RECOGNIZED METHODS. COUNTERSINK NAIL HEADS ON EXPOSED CARPENTRY WORK AND FILL HOLES. USE COMMON WIRE NAILS, EXCEPT AS OTHERWISE INDICATED. USE FINISHING NAILS FOR FINISH WORK. 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.
- 4. PROVIDE WHEREVER SHOWN AND WHERE REQUIRED FOR SCREEDING OR ATTACHMENT OF OTHER WORK. FORM TO SHAPES AS SHOWN AND CUT AS REQUIRED FOR TRUE LINE AND LEVEL OF WORK TO BE ATTACHED. COORDINATE LOCATION WITH OTHER WORK INVOLVED.
- 5. ATTACH TO SUBSTRATES AS REQUIRED TO SUPPORT APPLIED LOADING. COUNTERSINK BOLTS AND NUTS FLUSH WITH SURFACES, UNLESS OTHERWISE SHOWN. BUILD INTO MASONRY DURING INSTALLATION OF MASONRY WORK WHERE POSSIBLE, ANCHOR TO FORMWORK BEFORE CONCRETE PLACEMENT.

B. <u>INSTALLATION OF PLYWOOD</u>

COMPLY WITH RECOMMENDATIONS OF THE AMERICAN PLYWOOD ASSOCIATION (APA), FOR THE INSTALLATION OF PLYWOOD.

C. INSTALLATION OF WINDOWS, DOORS AND FRAMES

- 1. INSTALL WINDOWS, DOORS AND FRAMES AS LISTED ON ACCOMPANYING DRAWINGS AND AS SPECIFIED HEREIN.
- 2. EXAMINE WORK IN PLACE ON WHICH THIS WORK IS DEPENDENT. NOTIFY THE OWNER AND THE ARCHITECT IN WRITING OF DEFECTS WHICH MAY INFLUENCE SATISFACTORY COMPLETION AND PERFORMANCE OF THIS WORK. ALL SUCH DEFECTS SHALL BE CORRECTED BY THE OWNER AND THE ARCHITECT IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE PROJECT SPECIFICATION PRIOR TO COMMENCEMENT OF THIS WORK. COMMENCEMENT SHALL BE CONSTRUED AS WORK IN PLACE BEING ACCEPTABLE FOR SATISFYING THE REQUIREMENTS OF THIS SPECIFICATION.
- 3. INSTALL HOLLOW METAL WORK, INCLUDING POWER OPERATING EQUIPMENT, IN CORRECT LOCATIONS AND IN ALIGNMENT PLUMB AND TO TRUE PLANES. MAKE BREAKS, ANGLES AND CORNERS SQUARE WITH WALLS. WHERE COORDINATION WITH ADJOINING WORK IS NECESSARY, TAKE JOB MEASUREMENTS. INSTALL IN ACCORDANCE WITH APPROVED SHOP DRAWINGS AND THIS SPECIFICATION.

FRAMES:

a) INSTALL HOLLOW METAL FRAMES PRIOR TO CONSTRUCTION OF ENCLOSING WALLS AND CEILINGS. BRACE FRAMES SECURELY INCLUDING ALL WEDGING AND BLOCKING UNTIL PERMANENT ANCHORS ARE SET.

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- b) BUILD FRAME ANCHORS INTO WALLS OR SECURE TO ADJOINING CONSTRUCTION AS SPECIFIED. FILL FRAMES WITH MORTAR. WHERE SEPARATE FLOOR TOPPING IS INDICATED, EXTEND FRAMES AND MULLIONS TO CONCRETE SUBSLAB.
- c) ANCHOR BOTTOM OF FRAMES WITH ANCHOR BOLTS AND LEAD EXPANSION SHIELDS, OR WITH DROP-IN EXPANSION BOLTS. USE CARBON STEEL SHIMS WHERE REQUIRED UNDER FLOOR ANCHORS.
- d) INSTALLED FRAMES WHICH EXCEED THE RECOMMENDED TOLERANCES SHALL BE REMOVED AND REINSTALLED PROPERLY AT NO ADDITIONAL COST TO THE OWNER.
- e) APPLY TRIM MOLDINGS AS INDICATED OR REQUIRED TO COMPLETE THE INSTALLATION.

5. DOORS:

a) ADJUST DOORS TO FIT ACCURATELY IN THEIR FRAMES. MAINTAIN MAXIMUM DOOR CLEARANCES AS FOLLOWS:

AT HEADS AND JAMBS ------ 3/32'
AT BOTTOM WHERE THERE ARE NO
THRESHOLDS AND DOORS ARE NOT UNDERCUT ----- 1/4"
AT BOTTOM OVER THRESHOLDS------ 1/4"
BETWEEN PAIRS OF DOORS------ 1/8"

b) INSTALL ASTRAGALS FURNISHED FOR PAIRS OF DOORS.

6. COMPLETION:

- a) REMOVE DIRT AND EXCESS SEALANTS OR GLAZING COMPOUND FROM EXPOSED SURFACES.
- b) TOUCH UP PAINT DAMAGED DURING INSTALLATION.
- c) PROTECT FRAMES AND DOORS FROM DAMAGE DURING SUBSEQUENT CONSTRUCTION.

D. INSTALLATION OF HARDWARE

- 1. KEYS SHALL BE CLEARLY MARKED AS TO WHICH DOORS THEY ARE APPLICABLE TO, AND TURNED OVER TO OWNER AT THE OWNER'S ACCEPTANCE OF THE WORK.
- 2. INSTALL EACH ITEM OF FINISH HARDWARE IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS.
- 3. WHERE INSTALLATION OF HARDWARE INVOLVES CUTTING AND FITTING INTO SURFACES WHICH ARE TO BE PAINTED, SUCH HARDWARE SHALL BE INSTALLED,

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REMOVED, AND LATER REINSTALLED AFTER PAINTING IS COMPLETED. DO NOT INSTALL SURFACE MOUNTED ITEMS UNTIL PAINTING HAS BEEN COMPLETED ON THE SUBSTRATE.

4. INSTALL ALL FINISH HARDWARE AT THE HEIGHT AND LOCATION RECOMMENDED IN THE DHI "RECOMMENDED LOCATIONS FOR BUILDERS HARDWARE FOR CUSTOM STEEL DOORS AND FRAMES."

5. FINAL ADJUSTMENT:

- a) AFTER INSTALLATION OF ALL FINISH HARDWARE, ADJUST AND CHECK EACH OPERATING HARDWARE ITEM TO ASSURE PROPER OPERATION.
- b) LUBRICATE THE MOVING PARTS OF THE HARDWARE WITH THE TYPE OF LUBRICANT RECOMMENDED BY THE MANUFACTURER.
- c) REPLACE ALL MALFUNCTIONING FINISH HARDWARE ITEMS.
- d) INSTRUCT THE OWNER'S AUTHORIZED MAINTENANCE PERSONNEL IN THE PROPER PROCEDURES FOR ADJUSTMENT AND MAINTENANCE OF HARDWARE AND HARDWARE FINISHES.
- 6. INSTALLER SHALL COORDINATE THE KEYING OF CYLINDERS WITH THE OWNER'S AUTHORIZED REPRESENTATIVE, TO ASSURE THAT ALL LOCKS AND LOCK SETS ARE KEYED INTO THE EXISTING OR OWNER DEFINED KEYING SYSTEM.
- 7. CLEAN UP ALL DEBRIS, DISCARDED PACKAGING MATERIALS, AND MISCELLANEOUS ITEMS AS RELATES TO THE WORK ON A DAILY BASIS.
- 8. A FINAL INSPECTION SHALL BE HELD WITH THE RESPONSIBLE CONTRACTOR, INSTALLER, ARCHITECT, SITE ENGINEER, AND ANY OTHER DESIGNATED OWNER'S REPRESENTATIVE TO REVIEW THE FUNCTION AND OPERATION OF ALL DOORS RECEIVING HARDWARE.

E. INSTALLATION OF COUNTER TOPS

COUNTER TOPS TO BE FABRICATED IN ONE PIECE OR IN LONGEST PIECES PRACTICAL, WITH ENDS AND EDGES TIGHTLY SCRIBED AND SEALED TO MATE WITH ABUTTING CONSTRUCTION. HORIZONTAL SURFACE TO BE SMOOTH AND LEVEL WITH NO RAISED EDGES OR JOINTS. COUNTER TOPS TO BE SECURED TO CASEWORK AND OR WALL WITH CONCEALED FASTENERS.

F. INSTALLATION OF MISCELLANEOUS ITEMS AND ACCESSORIES

- 1. PROVIDE AND INSTALL BOLTS, ANCHORS, SCREWS, NAILS, AND ADHESIVES AS INDICATED OR REQUIRED TO CONCEAL FASTENING WORK.
- 2. PROVIDE AND INSTALL WOOD BLOCKING, WEDGES, SHIMS, PLUGS AND BRACES WHERE REQUIRED FOR SECURING FINISHED WORK INDICATED:

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- a) WOOD CANTS, NAILERS, BLOCKING, STRIPPING AND SIMILAR MEMBERS IN CONNECTION WITH ROOFING, FLASHING, VAPOR BARRIERS AND WATERPROOFING.
- b) WOOD DECKING FOR ROOF PLATFORM.
- c) WOOD RACKS.
- d) WOOD SLEEPERS, BLOCKING, AND SIMILAR CONCEALED MEMBERS IN CONTACT WITH CONCRETE.
- e) EXPOSED INTERIOR WOODWORK SHOWN OR SCHEDULED AS "TREATED", AND ALL WOOD MEMBERS LESS THAN 24" ABOVE GRADE.

G. COMPLETION

AT COMPLETION OF WORK, REMOVE EQUIPMENT, MATERIALS AND DEBRIS FROM JOB. LEAVE FINISHED WORK IN CONDITION TO RECEIVE DECORATIVE AND PROTECTIVE COVERINGS OF TYPES SELECTED.

END OF SECTION

DIVISION 6 06240 - LAMINATED PLASTIC

06240.01 SCOPE OF WORK

A. WORK SPECIFIED IN THIS SECTION

- 1. THE GENERAL REQUIREMENTS ARE MADE A PART OF THIS SECTION AND APPLY TO THE WORK SPECIFIED.
- PROVIDE LAMINATED PLASTIC COVERED ITEMS AS INDICATED AND SPECIFIED, INCLUDING:
 - COUNTER TOPS
 - CABINETS
 - SURFACED PANELS
 - FIELD APPLIED WALL SURFACING
 - APPLIED TO MISCELLANEOUS SURFACES

B. WORK SPECIFIED IN OTHER SECTIONS

FINISH CARPENTRY

C. <u>SUBMITTALS</u>
SUBMITTALS TO INCLUDE SAMPLES OF EACH COLOR, MATERIAL OR PRODUCT SPECIFIED, OR TO BE SELECTED BY THE ARCHITECT.

B. <u>DELIVERY, STORAGE AND HANDLING</u>

DELIVER MATERIALS IN MANUFACTURER'S ORIGINAL UNOPENED CONTAINERS. SHIP MATERIAL OF SINGLE TYPE AND PATTERN FROM SAME BATCH TO MAINTAIN UNIFORMITY. HANDLE AND STORE MATERIALS CAREFULLY IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS TO AVOID BREAKING OR DISTORTING SHAPE. STORE IN ORIGINAL CONTAINERS, AT AN AMBIENT TEMPERATURE OF 70°F TO 80°F AND IN RELATIVE HUMIDITY OF 50 TO 55.

C. MANUFACTURERS AND TRADE NAMES

- FORMICA CORPORATION: FORMICA
- NEVAMAR CORPORATION
- WILSON ART

OR EQUAL AS APPROVED BY THE ARCHITECT

D. STANDARDS

- 1. ARCHITECTURAL WOODWORK INSTITUTE (AWI) (PREMIUM GRADE REQUIREMENTS).
- 2. NEMA PUBLICATION LD-1-1964 (LAMINATED PLASTIC.), LD-3, GP-50 FOR GENERAL PURPOSE TYPE FOR HORIZONTAL APPLICATIONS, GP-28 FOR VERTICAL APPLICATIONS.
- 3. FEDERAL SPECIFICATIONS (FS).

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06240 - LAMINATED PLASTIC

E. SUBSTRATE SURFACES

INSPECT SUBSTRATES FOR LAMINATED PLASTIC DECORATIVE SURFACE FACINGS TO ASSURE SURFACE IS FREE FROM IRREGULARITIES AND REMOVE RAISED AREAS TO AVOID "TELEGRAPHING" ON LAMINATED PLASTIC SURFACE.

06240.02 PRODUCTS

A. GENERAL

- 1. HIGH PRESSURE LAMINATED PLASTIC CONFORMING TO NEMA LD-1-64 PERFORMANCE STANDARDS FOR CLASS 1 HIGH PRESSURE DECORATIVE LAMINATES, FOR RESISTANCE TO WEAR, BURNS, STAINS, MOISTURE, WATER, AND DIMENSIONAL CHANGES.
- 2. PROVIDE 0.020" THICK BACKING SHEET FOR VERTICAL AND HORIZONTAL APPLICATIONS. ADHESIVE: FS MMM-A-130A. TYPE AS RECOMMENDED BY LAMINATE MANUFACTURER AND ADHESIVE MANUFACTURER FOR INTENDED USE.

B. GRADES

- GENERAL PURPOSE: 1/16" THICK.
- POSTFORMING: 0.050" THICK.
- POSTFORMING: 1/32" THICK.
- 4. FIRE RESISTANT: 0.050" THICK.
- 5. VERTICAL GRADE: 0.035" THICK.

C. COLORS AND PATTERNS

COLORS AND PATTERNS SHALL BE AS SELECTED BY THE ARCHITECT FROM MANUFACTURERS STANDARDS.

06240.03 EXECUTION

A. BOND LAMINATED PLASTIC TO A CORE MATERIAL NOT LESS THAN 1" THICK, SUCH AS 40 LBS. DENSITY PARTICLE BOARD OR FLAKEBOARD, OR MINIMUM 3/4" THICK 5 PLY HARDWOOD FACED PLYWOOD, TYPE II, GRADED BC OR BETTER, USING METHODS APPROVED BY THE MANUFACTURER OF THE LAMINATED PLASTIC.

B. **QUALITY GRADE**

WORKMANSHIP OF PLASTIC LAMINATE SHALL CONFORM TO PREMIUM GRADE REQUIREMENTS OF AWI QUALITY STANDARD.

C. FABRICATION

1. APPLY PLASTIC LAMINATE FINISH IN FULL UNINTERRUPTED SHEETS CONSISTENT WITH MANUFACTURED SIZES. GLUE JOINTS IN SHOP, USING HARDWOOD SPLINE,

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EXCEPT WHERE FIELD JOINTS ARE NECESSARY FOR SHIPPING OR PLACING IN WORK. PREPARE COUNTERFIELD JOINTS IN SHOP USING BOLT-UP TITE-JOINT FASTENERS AT SPACING RECOMMENDED BY FASTENER MANUFACTURER. UNLESS SPECIFICALLY SHOWN OTHERWISE, APPLY MATCHING LAMINATE TO ALL EXPOSED EDGES (INCLUDING BACK EDGE NOT TIGHT TO WALL) AND PROVIDE APPROVED BEVEL EDGE AT JOINT WITH FACE OR TOP. SEAL ALL CORE SURFACES NOT LAMINATE-FACED WITH CLEAR SYNTHETIC RESIN SEALER RECOMMENDED BY LAMINATE MANUFACTURER.

2. ALL FABRICATION, ASSEMBLY AND INSTALLATION WORK MUST BE EXECUTED AS INDICATED, AND IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED DIRECTIONS.

D. OPENINGS

WHERE OPENINGS ARE CUT IN PLASTIC LAMINATED PANELS FOR GLASS LIGHTS, LOUVERS, SINK OPENINGS IN COUNTER TOPS, ALL REENTRANT ANGLES MUST BE EASED TO AVOID SPLITTING, BY DRILLING _" DIAMETER HOLE AT EACH CORNER BEFORE CUTTING.

END OF SECTION

DIVISION 6 06405 - CABINETS AND FIXTURES

06405.01 <u>SCOPE OF WORK</u>

- A. WORK SPECIFIED IN THIS SECTION
- 1. PROVIDE PREFINISHED CABINETS, SHOW CASES, DISPLAY RACKS, AND SIMILAR ITEMS WHERE SHOWN ON THE DRAWINGS, AS SPECIFIED HEREIN, AND AS NEEDED FOR A COMPLETE AND PROPER INSTALLATION.
- DOCUMENTS AFFECTING WORK OF THIS SECTION INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS, AND DIVISION 1 OF THESE SPECIFICATIONS.
- B. WORK SPECIFIED IN OTHER SECTIONS

FINISH CARPENTRY PLASTIC LAMINATE

SECTION 06200 SECTION 06240

- C. <u>DEFINITIONS</u>
- 1. "EXPOSED WORK" INCLUDES ALL SURFACES VISIBLE WHEN DOORS AND DRAWERS ARE CLOSED.
 - a) BOTTOMS OF CASES MORE THAN 4'-0" ABOVE THE FLOOR WILL BE CONSIDERED EXPOSED.
 - b) VISIBLE MEMBERS IN OPEN CASES, OR BEHIND DOORS OF CLEAR GLASS WILL BE CONSIDERED AS EXPOSED.
- 2. "SEMI-EXPOSED WORK" INCLUDES THOSE MEMBERS BEHIND OPAQUE DOORS, SUCH AS SHELVES, DIVISIONS, INTERIOR FACES OF ENDS, CASE BACKS, DRAWER SIDES, DRAWER BACKS AND BOTTOMS, AND THE BACK FACE OF DOORS.
- 3. "CONCEALED WORK" INCLUDES SLEEPERS, WEB FRAMES, DUST PANELS, AND OTHER SURFACES NOT USUALLY VISIBLE AFTER INSTALLATION.
- D. SUBMITTALS
- 1. COMPLY WITH PERTINENT PROVISION OF SECTION 01300.
- 2. PRODUCT DATA: WITHIN 45 CALENDAR DAYS AFTER THE CONTRACTOR HAS RECEIVED THE OWNER'S NOTICE TO PROCEED SUBMIT THE FOLLOWING:
 - a) MATERIALS LIST OF ITEMS PROPOSED TO BE PROVIDED UNDER THIS SECTION.
 - b) SHOP DRAWINGS IN SUFFICIENT DETAIL TO SHOW FABRICATION, INSTALLATION, ANCHORAGE, AND INTERFACE OF THE WORK IN THIS SECTION WITH THE WORK OF ADJACENT TRADES:
 - (1) IDENTIFY CABINETS, FIXTURES, MOLDINGS AND OTHER ITEMS IN

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ACCORDANCE WITH THE SYSTEM USED ON THE DRAWINGS.

- (2) SHOW OVERALL DIMENSIONS AND CALL SPECIFIC ATTENTION TO ALL DIMENSIONS AND CONDITIONS WHICH VARY FROM THOSE SHOWN ON THE DRAWINGS.
- (3) INDICATE COMPLIANCE WITH ARCHITECTURAL WOODWORK INSTITUTE.
- 3. SAMPLES: ACCOMPANYING THE SHOP DRAWINGS, SUBMIT SAMPLES OF ALL ITEMS OF FINISH HARDWARE, METAL WORK, TRIM, GLASSWORK, PLASTIC OVERLAYS, AND SIMILAR ITEMS PROPOSED TO BE PROVIDED UNDER THIS SECTION.
 - a) AFTER GENERAL COLORS AND TYPES OF FINISH HAVE BEEN SELECTED BY THE ARCHITECT, PREPARE AND SUBMIT SAMPLES OF THE SELECTED FINISHES ON SPECIES OF THE ACTUAL CABINET AND FIXTURE MATERIAL.
 - b) PREPARE SAMPLES BY SUCCESSIVE MASKING IN SUCH A MANNER THAT THE COMPLETED SYSTEM WILL DISPLAY EXAMPLES OF EACH STEP IN THE TOTAL FINISH SYSTEM.
 - c) MAKE EACH STEP EXAMPLE NOT LESS THAN 2" X 4".
 - d) CLEARLY IDENTIFY THE TOTAL FINISH SYSTEM REPRESENTED BY THE SAMPLE AND CLEARLY IDENTIFY EACH STEP IN THE TOTAL SYSTEM.
 - e) REVISE AND RESUBMIT THE SAMPLES AS NEEDED TO SECURE THE ARCHITECT'S APPROVAL.

D. QUALITY ASSURANCE

- 1. USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND THE METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK OF THIS SECTION.
- 2. IN ADDITION TO COMPLYING WITH ALL PERTINENT CODES AND REGULATIONS OF GOVERNMENTAL AGENCIES HAVING JURISDICTION, COMPLY WITH THE FOLLOWING FOR THE GRADE OR GRADES SPECIFIED: "ARCHITECTURAL WOODWORK QUALITY STANDARDS" OF THE ARCHITECTURAL WOODWORK INSTITUTE.
- 3. IDENTIFICATION OF COMPONENTS:
 - a) ON A CONCEALED BUT ACCESSIBLE SURFACE OF EACH ITEM OF THE WORK OF THIS SECTION, WHERE APPROVED BY THE ARCHITECT, PLAINLY STAMP THE IDENTIFYING NUMBER OR NUMBER'S SHOWN ON THE DRAWINGS FOR THAT ITEM.
 - b) ON A CONCEALED BUT ACCESSIBLE SURFACE OF EACH REMOVABLE PART OF EACH ITEMS OF THE WORK OF THIS SECTION, WHERE APPROVED BY THE ARCHITECT, PLAINLY STAMP AN IDENTIFYING NUMBER OR NUMBERS FOR THAT ITEM TO AID IN RAPID AND EFFICIENT IDENTIFICATION AND REINSTALLATION OF

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REMOVABLE PARTS.

E. DELIVERY, STORAGE AND HANDLING

- 1. PROVIDE PROTECTION AS NEEDED TO ASSURE THAT THE WORK OF THIS SECTION REMAINS UNDAMAGED DURING FABRICATION, INSTALLATION AND THE TIME BETWEEN COMPLETION OF INSTALLATION AND ACTUAL ACCEPTANCE OF THE TOTAL WORK.
- 2. DO NOT DELIVER CABINETS AND FIXTURE MATERIALS OR PRODUCTS TO THE JOBSITE UNTIL CONCRETE AND PLASTER INSTALLATIONS ARE COMPLETED AND DRY, NOR UNTIL BUILDING INTERIOR HAS ATTAINED A RELATIVE HUMIDITY OF 50% TO 55% AT 70°F.

06405.02 PRODUCTS

A. WOOD

GENERAL:

- a) PROVIDE WOOD MATERIALS OF THE GRADES AND SPECIES INDICATED IN PART 06405.03 OF THIS SECTION.
- b) PROVIDE SOLID STOCK LUMBER AT ALL LOCATIONS EXCEPT WHERE OTHER MATERIAL IS SPECIFIED OR IS CALLED FOR ON THE DRAWINGS.

2. HARDWOOD LUMBER:

- a) FOR USE AS SOLID STOCK IN WORK WITH TRANSPARENT FINISH, PROVIDE LUMBER IN GRAIN AND UNIFORM COLOR MATCHING THE ADJACENT WORK.
- b) FOR USE AS SOLID STOCK IN ALL FINISH WORK, PROVIDE LUMBER HAVING NOT MORE THAN 12% MOISTURE CONTENT.

3. PLYWOOD:

- a) VENEER CORE: COMPLY WITH PS-51 FOR HARDWOOD AND DECORATIVE PLYWOOD.
- b) PARTICLEBOARD CORE: COMPLY WITH CS-236, TYPE 1-B-2.
- c) LUMBER CORE: WHEN USED, PROVIDE AT LEAST 15 PLY CONSISTING OF FACE VENEER, BACK VENEER, 2 CROSSBAND VENEERS, AND A CORE COMPOSED OF STRIPS OF LUMBER EDGE GLUED INTO A SOLID SLAB.
- d) PROVIDE ONLY PLYWOOD FABRICATED WITH WATER-RESISTANT GLUE BY THE HOT PLATE METHOD.
- e) FOR USE WITH TRANSPARENT FINISH, ACHIEVE UNIFORMITY OF COLOR, FIGURE AND GRAIN CHARACTER WITHIN EACH PANEL, AND FROM PANEL TO PANEL WITHIN EACH FIXTURE AND GROUP OF FIXTURES, AS APPROVED BY THE ARCHITECT.

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- f) PROVIDE BACK VENEERS TO PROPERLY BALANCE THE FACE VENEERS.
- g) SANDING:
 - (1) GOOD-ONE-SIDE (G1S) PANELS: SAND BOTH SIDES AND FINE BELT-SAND THE FACE SIDE.
 - (2) GOOD-TWO-SIDE (G2S) PANELS: FINE BELT-SAND BOTH SIDES.
 - (3) PROVIDE ADDITIONAL SANDING AS DESCRIBED UNDER PAINTING AN FINISHING IN THIS SECTION.

COMPOSITION BOARD:

- a) PARTICLEBOARD:
 - (1) PROVIDE HIGH DENSITY PARTICLEBOARD WHERE SHOWN ON THE DRAWINGS, WHERE SPECIFICALLY APPROVED BY THE ARCHITECT, AND ELSEWHERE AS APPROPRIATE THROUGHOUT THE WORK OF THIS SECTION.
 - (2) DO NOT USE PARTICLEBOARD IN DRAWER SIDES OR BOTTOMS, IF FACE EDGINGS, IN BASE OR FRAMING MEMBERS, OR IN SHELVES OR PANELS OF ANY TYPE LESS THAN ½" THICK.
 - (3) APPROVED PRODUCTS ARE "TIMBLEND", "DURAFLAKE" OR "NOVAPLY".

B. <u>HARDWARE</u>

GENERAL:

- a) PROVIDE FINISHES AS SELECTED BY THE ARCHITECT FROM THE STANDARD FINISHES OF PRODUCTS APPROVED FOR USE IN THIS WORK.
- b) WHERE MANUFACTURER'S NAME OR CATALOG NUMBER IS NOT INDICATED, PROVIDE BEST QUALITY COMMERCIALLY AVAILABLE IN THE SPECIFIED ITEM.

2. HINGES:

- a) PROVIDE HEAVY DUTY 170° CONCEALED HINGES WITH 3 DIMENSIONAL INDEPENDENT ADJUSTMENTS AS MANUFACTURED BY JULIUS BLUM, INC., STANLEY, NC (704) 827-1345, MODUL 170 SYSTEM SERIES.
- b) ON DOORS OVER 48" IN HEIGHT, PROVIDE 3 HINGES.
- PROVIDE MODUL GLASS DOOR HINGES, 100° OPENING AS MANUFACTURED BY JULIUS BLUM, INC. AT GLASS DOORS. PROVIDE FULL OVERLAY AND HALF OVERLAY APPLICATIONS. PROVIDE COVER CAPS IN TEXTURE, COLOR, AND SHAPE AS SELECTED BY OWNER.

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- MAGNETIC CATCHES ACCEPTABLE PRODUCTS:
 - EPCO NO.591
 - MCKINNEY NO.2911
 - NATIONAL LOCK NO.24A
- 4. DRAWER GUIDES ACCEPTABLE PRODUCTS FOR LIGHTWEIGHT DRAWERS:
 - GRANT NO.336
 - KV 1300
 - KV 1336
- 5. ADJUSTABLE SHELF CLIPS ACCEPTABLE PRODUCTS:
 - GRANT NO. 120, RECESSED STANDARD
 - GRANT NO.21, SHELF SUPPORT
- 6. BASE ADJUSTERS:
 - a) PROVIDE LEVERING FEET FOR FIXED CABINETS OF THE ADJUSTABLE SCREW TYPE HAVING A FLOOR BEARING SURFACE OF AT LEAST 9 SQ. IN. AT EACH FOOT.
 - b) PROVIDE FOR LEVELING THE CABINETRY FORM INSIDE, THROUGH HOLES PROVIDED IN THE CABINET BOTTOM.
 - c) PROVIDE BASE ADJUSTER COVERS SUCH AS:
 - FASTENER SUPPLY NO.51026
 - DOT PLUG BOTTOM NO.55-481721
 - KV 731
- 7. LOCKS ACCEPTABLE PRODUCTS:
 - CABINET LOCKS: CORBIN NO.764L
 - DRAWER LOCKS: CORGIN NO.02065-1/2
 - SLIDING GLASS DOOR LOCKS: GARCY NO.D410
 - GLASS DOOR LOCK: LAMP NO.1300GL
- C. MISCELLANEOUS MATERIALS
- 1. ADHESIVES: FOR WOODWORK AND MILLWORK, USE WATER RESISTANT AND MOLD RESISTANT ADHESIVE COMPLYING WITH FEDERAL SPECIFICATIONS MM-A-181 IN TYPE GRADE, AND CLASS BEST SUITED FOR THE INTENDED USE.
- 2. PLASTIC LAMINATES: PROVIDE PATTERNS AND COLORS SELECTED BY THE ARCHITECT FROM STANDARD PATTERNS AND COLORS OF PRODUCTS APPROVED FOR USE IN THIS

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WORK AND COMPLYING WITH NEMA LD3, IN THE FOLLOWING MINIMUM THICKNESSES:

- HORIZONTAL SURFACES: 0.050" - VERTICAL SURFACES: 0.028" - POST FORMING: 0.042" - SELF-EDGE BANDS: 0.028" - CABINET LINERS: 0.020" - BACKING SHEETS: 0.020"

06405.03 EXECUTION

A. FABRICATION

GENERAL:

- a) FABRICATE AND ASSEMBLE UNITS COMPLETE AT THE MILL INSOFAR AS THEIR DIMENSIONS WILL PERMIT FOR TRANSPORTATION AND PROPER HANDLING.
- b) FOR UNITS WITH SECTIONAL CONSTRUCTION:
- (1) ACCURATELY FIT AND ALIGN THE SEPARATE PARTS.
- (2) PROVIDE AMPLE SCREW, GLUE-AND BOLT BLOCKS, DRAW-BOLTS, TONGUES, GROOVES, SPLINES, DOWELS, TENONS, MORTISES, AND OTHER MEANS OF FASTENING TO RENDER THE WORK OF THIS SECTION SUBSTANTIAL, RIGID, AND PERMANENTLY SECURED IN THE PROPER POSITION.

2. SCRIBE MEMBERS:

- a) PROVIDE SUFFICIENT ADDITIONAL MATERIAL TO PERMIT SCRIBING TO WALLS, FLOORS AND RELATED WORK.
- b) COUNTERSINK THE HEADS OF ALL SCREWS IN EVERY SURFACE.
- 3. CUT AND FIT THE WORK OF THIS SECTION AS NECESSARY TO RECEIVE, CLEAR, ENGAGE, OR SUPPORT OTHER PARTS OF THE WORK, AND AS NEEDED FOR INTERFACE WITH ELECTRICAL, PLUMBING AND OTHER UNITS.
- 4. CABINETS, FIXTURES AND DOORS:
 - a) GENERAL:
 - (1) USE SOLID STOCK FOR FRAMES, JAMBS, HEADS, STOPS AND EDGES.
 - (2) USE PLYWOOD FOR BODY CONSTRUCTION OF CABINETS WHERE MEMBER ARE MORE THAN 11" WIDE.
 - (3) WHERE PLYWOOD IS USED, TRIM EXPOSED EDGES WITH HARDWOOD WITHOUT FACE NAILING.

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b) DRAWERS:

- (1) PROVIDE SLIP DOVETAIL CONSTRUCTION, WELL GLUED.
- (2) FRONTS: FOR FLUSH SLAB DESIGN, PROVIDE SOLID STOCK OR PROVIDE NOT LESS THAN 3/4" THICK 5-PLY VENEERCORE PLYWOOD WITH TOP EDGES BOUND WITH WOOD MATCHING THE FACE. FOR PANEL DESIGN AND CARVED DESIGN, PROVIDE SOLID STOCK OR PROVIDE STILE-AND-RAIL CONSTRUCTION IN ACCORDANCE WITH PERTINENT STANDARDS.
- (3) SIDES AND BACKS: PROVIDE EXTENSION SLIDES AT ALL DRAWERS, AND PROVIDE 1/2" THICK SIDES AND BACKS OF SOLID BIRCH, BEECH OR ASH, WITH NO DEFECTS, PLUGS OR PATCHES.
- (4) BOTTOMS: PROVIDE 1/4" THICK (1/2" THICK FOR BOTTOMS OVER 4 SQ. FT.) OF BIRCH, BEECH OR ASH PLYWOOD DADOED INTO SIDES, FRONTS AND BACKS.

c) WOOD DOORS FOR CABINETS:

- (1) FOR FLUSH SLAB DESIGN, UNLESS OTHERWISE SHOWN ON THE DRAWINGS, CONSTRUCT OF 5-PLY VENEER CORE PLYWOOD, AND TRIM THE EXPOSED EDGES WITH WOOD MATCHING THE FACE.
- (2) FOR LAMINATED PLASTIC COVERED DOORS, PROVIDE MATCHING PLASTIC ON EXPOSED EDGES AND PROVIDE CABINET LINER OR OTHER APPROPRIATE MATERIAL APPROVED BY THE ARCHITECT ON SEMI-EXPOSED SIDE TO ACHIEVE EQUAL TENSION.
- (3) FOR PANEL DESIGN AND CARVED DOORS, PROVIDE STILE-AND-RAIL CONSTRUCTION IN ACCORDANCE WITH THE PERTINENT STANDARD.
- (4) PROVIDE RUBBER STOPS AT ENDS AND BACKS OF DOORS.
- (5) FIT AND ADJUST AS NECESSARY TO ACHIEVE SMOOTH AND NOISELESS OPERATION.
- 5. ROUT, DRILL, AND OTHERWISE PREPARE THE SURFACES AS NEEDED, AND FIRMLY INSTALL ALL FINISH HARDWARE AND ACCESSORIES IN ACCORDANCE WITH THE APPROVED DESIGN AND THE MANUFACTURER'S RECOMMENDATIONS.
- 6. GLAZE IN ACCORDANCE WITH PERTINENT RECOMMENDATIONS CONTAINED IN THE "GLAZING MANUAL" OF THE FLAT GLASS MARKETING ASSOCIATION.

B. PAINTING AND FINISHING

1. DESIGN IS BASED ON STANDARD PRODUCTS OF SINCLAIR PAINT CO., AND THE CATALOG NUMBER OF THAT MANUFACTURER ARE SPECIFIED. USE THE SPECIFIED PRODUCTS OR EQUALS APPROVED IN ADVANCE BY THE ARCHITECT.

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2. PROVIDE UNIFORM FINISHES, EVEN, FREE FROM CLOUDY AND MOTTLED APPEARANCE, WITHOUT DIRT, RUNS, BRUSH MARKS, SAGS OR LAPS, AND IN ACCORDANCE WITH THE APPROVED SAMPLES.

SANDING:

- a) THOROUGHLY HAND-SCRAPE AND SAND THE SURFACES BEFORE ANY FINISH IS APPLIED.
- b) SAND EACH COAT OF FINISH SMOOTH PRIOR TO APPLYING THE NEXT COAT, ALWAYS SANDING IN DIRECTION OF THE GRAIN.

4. FILLING AND PUTTYING:

- a) KNIFE-PUTTY OPEN JOINTS, CRACKS AND NAIL HOLES FULL, SMOOTH AND FLUSH WITH SURROUNDING SURFACES.
- b) USE PUTTY TINTED TO MATCH THE COLOR OF THE FINISHED WOOD.
- c) SEAL PITCH POCKETS AND KNOTS; FLUSH-GLAZE EXPOSED END GRAIN.
- d) ON OPEN-GRAIN WOOD, APPLY AN APPROVED WOOD FILLER IN ACCORDANCE WITH ITS MANUFACTURER'S RECOMMENDATIONS.
 - (1) APPLY 2 COATS IF NEEDED.
 - (2) SAND THOROUGHLY AFTER EACH COAT.

5. OPAQUE FINISHES:

- a) WHERE "HEAVY-DUTY" FINISH IS CALLED FOR, PROVIDE:
 - (1) FIRST COAT: SINCLAIR #14 UNDERCOATER.
 - (2) SECOND COAT: SINCLAIR AF6-11 EPOXY ENAMEL.
 - (3) THIRD COAT: SINCLAIR AF6-11 EPOXY ENAMEL.
- b) FOR ALL OTHER OPAQUE FINISHES, PROVIDE:
 - (1) FIRST COAT: SINCLAIR #2698 LACQUER UNDERCOATER.
 - (2) SECOND COAT: SINCLAIR #2656 PIGMENTED SEMIGLOSS LACQUER.
 - (3) THIRD COAT: SINCLAIR #2656 PIGMENTED SEMIGLOSS LACQUER.
- c) APPLY THE UNDERCOATERS ONLY AFTER THE SURFACE HAS BEEN FILLED FREE FROM GRAIN MARKS.
- d) WHEN THE UNDERCOATER HAS DRIED, SAND THOROUGHLY AND INSPECT FOR

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SURFACE DEFECTS.

- e) CAULK, FEATHER WITH FILLERS, AND TOUCH-UP AS NEEDED.
- f) APPLY THE FINISH COATS IN COLORS SELECTED BY THE ARCHITECT, AND IN STRICT ACCORDANCE WITH RECOMMENDATIONS OF THE MANUFACTURER, SANDING BETWEEN COATS.

6. TRANSPARENT FINISHES:

- a) WHERE "HEAVY-DUTY" FINISH IS CALLED FOR, PROVIDE:
 - (1) STAIN: SINCLAIR #3350 COLORMATIC AS DIRECTED.
 - (2) THREE COATS: SINCLAIR AF6-9 EPOXY ENAMEL.
- b) FOR ALL OTHER TRANSPARENT FINISHES, PROVIDE:
 - (1) STAIN: SINCLAIR #2640 LAC-O-RITE AS DIRECTED.
 - (2) SEALER: SINCLAIR #2600 LACQUER SANDING SEALER AS DIRECTED.
 - (3) TWO COATS: SINCLAIR #2602 CLEAR SEMI-GLOSS LACQUER.
- c) APPLY STAIN ONLY AFTER THE SURFACE HAS BEEN FILLED FREE FROM GRAIN MARKS.
 - (1) TINT FILLER TO MATCH COLOR OF THE UNFINISHED WOOD.
 - (2) APPLY AND SAND THE FILLER AS SPECIFIED UNDER FILLING AND PUTTING ABOVE.
- d) APPLY THE SPECIFIED STAIN AND ALLOW TO DRY, ACHIEVING THE FINISH COLOR OF THE SAMPLE APPROVED BY THE ARCHITECT.

7. MISCELLANEOUS SURFACES:

- a) CONCEALED SURFACES OF CABINETS AND FIXTURES: APPLY A SINGLE COAT OF THE SPECIFIED "HEAVY DUTY" UNDERCOATER.
- b) DRAWERS: APPLY 2 COATS OF THE SPECIFIED TRANSPARENT SEALER TO INTERIOR SURFACES AND TO EXTERIOR SURFACES OF SIDES AND BACKS.
- c) SHELVING:
 - (1) EXPOSED WOOD SHELVES: MATCH THE FINISH OF CABINET UNIT IN WHICH THEY ARE LOCATED OR TO WHICH THEY ARE ADJACENT.
 - (2) BEHIND WOOD DOORS: APPLY 2 COATS OF THE SPECIFIED TRANSPARENT SEALER.

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d) CABINET INTERIORS:

- (1) EXPOSED SURFACES: UNLESS OTHERWISE DIRECTED, MATCH EXTERIOR FINISH OF THE CABINET.
- (2) SEMI-EXPOSED SURFACES: APPLY STAIN AS DIRECTED BY THE ARCHITECT. PLUS 2 COATS OF THE SPECIFIED TRANSPARENT SEALER.

C. SURFACE CONDITIONS

EXAMINE THE AREAS AND CONDITIONS UNDER WHICH WORK OF THIS SECTION WILL BE PERFORMED. CORRECT CONDITIONS DETRIMENTAL TO TIMELY AND PROPER COMPLETION OF THE WORK. DO NOT PROCEED UNTIL UNSATISFACTORY CONDITIONS ARE CORRECTED.

D. PREPARATION FOR INSTALLATION

- 1. COORDINATE AS REQUIRED WITH OTHER TRADES TO ASSURE PROPER AND ADEQUATE PROVISION IN THE WORK OF THOSE TRADES FOR INTERFACE WITH THE WORK OF THIS SECTION.
- 2. MAKE NECESSARY MEASUREMENTS IN THE FIELD TO ASSURE PROPER FIT OF SHOP FABRICATED ITEMS.
- 3. PRIOR TO START OF INSTALLATION, VERIFY THAT THE WORK OF OTHER TRADES IS SUFFICIENTLY COMPLETE TO PROPERLY PERMIT THIS INSTALLATION TO PROCEED.

E. <u>INSTALLATION</u>

- 1. INSTALL THE WORK OF THIS SECTION AT THE LOCATIONS SHOWN ON THE DRAWINGS, AND IN ACCORDANCE WITH THE APPROVED SHOP DRAWINGS.
 - a) SCRIBE UNITS TO WALL, FLOOR AND OTHER SURFACES AS APPROPRIATE, WITH NOT MORE THAN 1/32" CLEAR BETWEEN THE CABINET OR FIXTURE AND THE ABUTTING PERMANENT SURFACE, AND WITH NO CHANGE OF CLEARANCE IN EXCESS OF 0.01" IN ANY 4".
 - b) SET EACH UNIT SQUARE, LEVEL, PLUMB AND ALIGNED WITHIN A TOLERANCE OF 1 IN 1000 VERTICALLY AND HORIZONTALLY, AND WITHIN 1/4" OF THE DESIGNATED LOCATION FOR FREE-STANDING WORK.
- 2. COORDINATE THE TIME OF INSTALLATION WITH AVAILABILITY OF OTHER TRADES TO MAKE REQUIRED UTILITY CONNECTIONS.
 - a) PROVIDE ACCESS PANELS AS NEEDED FOR CONNECTION AND MAINTENANCE OF UTILITIES.

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- b) TEST EACH PLUMBING AND ELECTRICAL ITEM THROUGH AT LAST 5 OPERATING CYCLES, AND ADJUST AS NEEDED TO ACHIEVE OPTIMUM OPERATION.
- 3. UPON COMPLETION OF INSTALLATION, THOROUGHLY CLEAN EACH ITEM BY USE OF ONLY SUCH CLEANING MATERIALS AS ARE RECOMMENDED BY THE MANUFACTURER OF THE ITEM BEING CLEANED.
- 4. TOUCH-UP SCRATCHES AND ABRASIONS TO BE COMPLETELY INVISIBLE TO THE UNAIDED EYE FROM A DISTANCE OF 5'.
- F. SPECIFIC UNITS
- 1. RECEPTION COUNTER:
 - a) PREMIUM GRADE, RED OAK.
 - b) PROVIDE CUSTOM MOLDING.

END OF SECTION

DIVISION 7 07200 - INSULATION

07200.01 <u>SCOPE OF WORK</u>

A. WORK SPECIFIED IN THIS SECTION

- 1. THE GENERAL REQUIREMENTS ARE MADE A PART OF THIS SECTION AND APPLY TO THE WORK SPECIFIED.
- 2. PROVIDE INSULATION AND FINISH SYSTEM COMPLETE. WORK INCLUDES, BUT IS NOT NECESSARILY LIMITED TO, THE FOLLOWING COMPONENTS:
 - ACOUSTICAL INSULATION
 - THERMAL INSULATION
 - RIGID INSULATION
 - FIRE SAFING INSULATION
 - ADHESIVE
 - MASTIC
 - BONDING FILAMENT TYPE
 - DUCT TAPE
 - JOINT SEALANTS ASSOCIATED WITH THE SYSTEM
 - FASTENERS

B. RELATED WORK SPECIFIED IN OTHER SECTIONS

- SEALANTS (FIRE SAFING) AND JOINT SEALANT WORK NOT ASSOCIATED WITH THE SYSTEM
- GYPSUM WALLBOARD WORK

C. <u>SUBMITTALS</u>

- 1. INSTALLERS QUALIFICATIONS: SUBMIT INSTALLATION EXPERIENCE AND QUALIFICATIONS, STATING NAMES AND LOCATIONS OF INSTALLATIONS PERFORMED BY CONTRACTOR OF EXTERIOR WALL INSULATION AND FINISH SYSTEM IN THE PREVIOUS 5 YEARS. SUBMIT NAMES OF SUPERVISORS WHO WILL CONTINUOUSLY INSPECT INSTALLATION, STATING PREVIOUS EXPERIENCE.
- 2. SAMPLES: SAMPLES OF EACH TYPE OF INSULATION AND OTHER MATERIALS TO BE PROVIDED.

3. SHOP DRAWINGS:

- a) SHOP DRAWINGS TO INCLUDE LOCATIONS, DIMENSIONS, MATERIALS, INSTALLATION PROCEDURES AND DETAILS AND OTHER INFORMATION NECESSARY FOR COMPLETE REVIEW OF PROPOSED INSULATION SYSTEMS.
- b) SHOP DRAWINGS TO INCLUDE MANUFACTURER'S STANDARD PRINTED INSTRUCTIONS OF INSTALLATION OF THE SYSTEM, HOT WEATHER APPLICATION INSTRUCTIONS, AND MAXIMUM AND MINIMUM TEMPERATURES FOR APPLYING SYSTEM.

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D. <u>DELIVERY, STORAGE AND HANDLING</u>

- 1. DELIVER MATERIALS IN ORIGINAL UNOPENED PACKAGES BEARING BRAND NAME, DESCRIPTION OF CONTENTS, AND NAME OF MANUFACTURER. KEEP MATERIALS DRY AND PROTECT FROM WEATHER.
- 2. STORE ON SITE AS RECOMMENDED BY MANUFACTURER AT AMBIENT TEMPERATURE NOT LESS THAN 40°F, IN CLEAN, DRY WELL, VENTILATED AREA. PROTECT MATERIALS FROM EXCESSIVE HEAT AND SUNLIGHT. PROTECT INSULATION BOARD FROM FLAME OR OTHER IGNITION SOURCES.

07200.02 PRODUCTS

A. THERMAL INSULATION

PROVIDE UNITED STATES GYPSUM "THERMAFIBER" UNFACED BLANKETS IN THICKNESS AS SHOWN ON THE DRAWINGS.

B. <u>ACOUSTICAL INSULATION</u>

PROVIDE UNITED STATES GYPSUM "THERMAFIBER SOUND ATTENUATION" BLANKETS, 2" THICK.

C. RIGID INSULATION

1. RIGID INSULATION FOR WALLS AND FLOORS WHERE INDICATED ON THE DRAWINGS SHALL BE THERMAX SERIES 600 UNFACED INSULATION BY THE CELOTEX CORPORATION, P.O. BOX 22602, TAMPA, FL 33622, OR APPROVED EQUIVALENT. INSULATION SHALL BE OF THICKNESSES INDICATED ON THE DRAWINGS.

D. SPRAY INSULATION

- 1. SPRAY INSULATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND APPLIED IN THICKNESSES REQUIRED FOR THERMAL DESIGNATIONS AS INDICATED ON THE DRAWINGS.
- 2. THE SPRAY MATERIAL SHALL BE FREE OF ALL FORMS OF ASBESTOS, ASBESTOS CONTAMINATED VERMICULITE, FREE CRYSTALLINE SILICA, MICA AND ALL OTHER FORMS OF ASBESTOS CONTAMINATION. EXPANDING FOAM INSULATIONS ARE PROHIBITED.

E. <u>FIRE SAFING INSULATION</u>

PROVIDE FIREMASTER FIRE SAFING INSULATION, MASTIC, BANDING FILAMENT TAPE AND INSULATION BLANKETS WHERE REQUIRED ON THE DRAWINGS. (MORGAN THERMAL CERAMICS "FIREMASTER", (800) 245-8008).

07200 - INSULATION

F. JOINT TAPE AND SEALANT

FOR MOISTURE CONTROL, PROVIDE 2" WIDE DUCT TAPE FOR TAPING THERMAFIBER BLANKETS AND THERMAX RIGID INSULATION JOINTS. 2" WIDE THERMAX TAPE IS ALSO ACCEPTABLE. SEALANT IS TO BE SILICONE TYPE AS MANUFACTURED BY Q.E. SILICONES, DOW-CORNING CORP., PECORA CORPORATION, TREMCO INC., OR EQUAL AS APPROVED BY THE ARCHITECT.

07200.03 <u>EXECUTION</u>

A. <u>INSTALLATION - GENERAL</u>

- 1. SYSTEMS SPECIFIED HEREIN TO BE INSTALLED BY APPLICATOR CURRENTLY LICENSED BY MANUFACTURER.
- 2. INSPECT AREAS AND SURFACES THAT RECEIVE SYSTEMS SPECIFIED HEREIN. REPORT IN WRITING ANY CONDITIONS DETRIMENTAL TO PERFORMANCE OF THIS WORK. STARTING WORK CONSTITUTES ACCEPTANCE OF AREAS AND SURFACES BY INSTALLER.
- 3. MIX AND APPLY MATERIALS IN STRICT CONFORMANCE WITH MANUFACTURER PRINTED INSTRUCTIONS, EXCEPT AS OTHERWISE SPECIFIED.

B. BLANKET INSULATION

- UNFACED BLANKET INSULATION IS TO BE TAPED ALONG BLANKET JOINTS.
- 2. TAPE ALL BLANKET INSULATION TO METAL STUDS TO PREVENT SAFING AND DEVELOPMENT OF UNINSULATED CAVITIES IN WALLS THAT ARE TO BE INSULATED. TAPING MUST OCCUR FOR 3" EVERY 24" O.C. VERTICALLY. FAILURE TO SECURE INSULATION IN THE STUD CAVITIES IN THIS MANNER OR BY OTHER ENGINEER APPROVED MEANS IS REASON FOR REJECTION OF THIS WORK.

C. RIGID INSULATION

UNFACED RIGID INSULATION IS TO BE MECHANICALLY FASTENED TO CONCRETE MASONRY SURFACES WITH SENCO 2½" HARDENED STEEL FLATHEAD NAILS AT 12" O.C. HORIZONTALLY AND VERTICALLY. ALL JOINTS BETWEEN INSULATION SHEETS ARE TO BE TAPED WITH 2" WIDE DUCT TAPE. NAIL HEADS ARE TO BE TAPED OVER OR COVERED WITH SILICONE SEALANT TO CONTROL VAPOR PENETRATION. JOINTS BETWEEN INSULATION BOARDS AND STRUCTURAL STEEL MEMBERS ARE TO BE SEALED WITH A CONTINUOUS BEAD OF SILICONE SEALANT.

D. <u>FIRE SAFING</u>

FIRE SAFING SHALL BE INSTALLED IN THE ASSEMBLIES NECESSARY TO ACHIEVE THE FIRE RATING REQUIRED ON THE DRAWINGS. INSTALLATION SHALL BE AS RECOMMENDED BY THE FIRE SAFING MATERIAL MANUFACTURER.

07200 - INSULATION

E. <u>CLEAN-UP</u>

AFTER INSULATION WORK HAS BEEN SATISFACTORILY COMPLETED, CLEAN UP ALL EXCESS MATERIALS, DEBRIS, ETC. FROM WORK AREAS AND LEAVE THEM IN ACCEPTABLE CONDITION.

END OF SECTION

DIVISION 7 07600 - FLASHING AND SHEET METAL

07600.01 SCOPE OF WORK

A. WORK INCLUDED IN THIS SUBDIVISION

PROVIDE FLASHING, SHEET METAL AND RELATED ITEMS INCLUDING, BUT NOT NECESSARILY LIMITED TO:

- METAL FLASHINGS, COUNTER FLASHINGS AND EDGINGS
- METAL EXPANSION AND CONTROL JOINT COVERS
- METAL COPINGS
- GUTTERS AND DOWNSPOUTS
- SCUPPERS
- GRAVEL STOPS, FASCIAS, AND METAL CANTS
- PITCH POCKETS
- FURNISH SPLASH PANS

B. WORK SPECIFIED IN OTHER SECTIONS

- HEATING AND AIR CONDITIONING DUCTS, FLUES AND PIPING
- ALUMINUM WINDOW AND DOOR FRAME TRIM
- THROUGHWALL FLASHING ASSOCIATED WITH MASONRY WORK
- CAST-IN PLACE REGLETS
- WOOD BLOCKING AND NAILER STRIPS
- FLASHING ASSOCIATED WITH METAL SIDING
- ROOF ACCESSORIES
- PREFORMED EXPANSION JOINT COVERS
- COMPOSITION BASE FLASHING
- ROOF DRAIN FLASHING
- ELASTOMERIC BASE FLASHING
- BUILDING OF FLASHING AND SHEET METAL ITEMS INTO ROOFING
- BUILDING OF FLASHING AND REGLETS INTO MASONRY
- ROOF CURBS FOR ROOF-MOUNTED MECHANICAL EQUIPMENT
- SHEET METALWORK IN CONNECTION WITH PIPING AND DUCTWORK
- REMOVING MATERIAL FOR SALVAGE

C. APPLICABLE PUBLICATIONS AND STANDARDS

COMPLY WITH CODES, ORDINANCES, RULES AND REGULATIONS OF ALL GOVERNMENT AUTHORITIES HAVING JURISDICTION APPLICABLE TO THE WORK.

ASTM - AMERICAN SOCIETY FOR TESTING AND MATERIALS

AWS - AMERICAN WELDING SOCIETY

FS - FEDERAL SPECIFICATIONS

NAAMM - NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS SMACNA- SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC.

SSPA - STEEL STRUCTURES PAINTING COUNCIL

07600 - FLASHING AND SHEET METAL

D. <u>SUBMITTALS</u>

SHOP DRAWINGS ARE TO BE SUBMITTED IN ACCORDANCE WITH THE GENERAL REQUIREMENTS. SHOP DRAWINGS SHALL SHOW ALL SHEET METAL WORK, ABUTTING SURFACES, DIMENSIONS, GAUGE, AND METHODS OF FASTENING AND JOINING.

E. STORAGE AND PROTECTION

HANDLE AND STORE MATERIALS TO PREVENT DAMAGE, DETERIORATION AND BREAKAGE. STORE IN PROPERLY PROTECTED AND DRY STORAGE FACILITIES. REPLACE DAMAGED MATERIALS.

07600.02 **PRODUCTS**

A. GENERAL

HEM EXPOSED EDGES OF SHEET METAL, AND FABRICATE IN 10' LENGTHS EXCEPT AS OTHERWISE RECOMMENDED OR REQUIRED.

B. SHEET METAL

1. GALVANIZED STEEL:

- a) GALVANIZED STEEL SHALL BE "ARMCO INGOT ZINCGRIP PAINTGRIP" OR OTHER COPPER BEARING GALVANIZED SHEETS, ASTM A526, HOT DIPPED GALVANIZED CONFORMING TO ASTM A525 WITH G90 ZINC COATING AND AS APPROVED BY THE ARCHITECT; SHALL BE STAMPED WITH NAME AND WEIGHT OF MATERIAL.
- b) COPPER BEARING GALVANIZED STEEL SHEETS, ASTM A526, HOT-DIP GALVANIZED CONFORMING TO ASTM A525 WITH G90 ZINC COATING.
- c) EXCEPT AS OTHERWISE SCHEDULED, SHOWN ON DRAWINGS OR REQUIRED, PROVIDE 22 GAUGE MINIMUM THICKNESS GALVANIZED STEEL SHEET.

2. SHEET ALUMINUM:

- a) 3003 ALLOY, CONFORMING TO FEDERAL SPECIFICATION QQ-A-250/2D AND ASTM B209, TEMPER TO SUIT FORMING AND APPLICATION, THICKNESS SHALL BE AS SHOWN ON THE DRAWINGS OR HEREIN SPECIFIED.
- PROVIDE ALUMINUM MANUFACTURER'S STANDARD MILL FINISH.
- c) ALUMINUM SHALL BE PRIME PAINTED IF FIELD PAINTING IS REQUIRED AS INDICATED ON THE DRAWINGS.
- 3. LEAD: HARD TYPE, NOT LESS THAN 4 LBS. PER SQUARE FOOT, CONFORMING TO FEDERAL SPECIFICATION QQ-L-201F.

07600 - FLASHING AND SHEET METAL

C. SHEET METAL GRAVEL STOP AND FASCIA

- 1. PROVIDE FORMED GRAVEL STOP AND FASCIA, COMPLETE WITH EXPANSION JOINTS, CONCEALED JOINT COVERS AND FASTENING DEVICES. MITER CORNERS AND SOLDER OR WELD AS APPLICABLE.
- 2. FABRICATE FROM MATERIAL OF TYPE AND MINIMUM THICKNESS AS INDICATED HERE IN AND AS SHOWN ON THE DRAWINGS.

MINIMUM GAUGES GRAVEL STOP AND FASCIA

DEPTH MAXIMUM (INCHES)	GALVANIZED STEEL (GAUGE)	ALUMINUM (INCHES)
4	24	0.032
5	24	0.032
6	22	0.040
7	22	0.040
8	20	0.050

D. SHEET METAL COPINGS

- 1. PROVIDE FORMED SHEET METAL COPINGS COMPLETE WITH EXPANSION JOINTS, CONCEALED JOINT COVERS AND FASTENING DEVICES.
- 2. PROVIDE SHOP FABRICATED AND WATERTIGHT END CAPS AND CORNERS. FIELD SOLDERED OR WELDED END CAPS OR CORNERS WILL NOT BE PERMITTED.
- 3. FABRICATE FROM MATERIAL OF FOLLOWING TYPE AND MINIMUM THICKNESS AS SPECIFIED HERE IN AND AS SHOWN ON THE DRAWINGS.

WIDTH OF COPING (INCHES)	GALVANIZED STEEL (GAUGE)	ALUMINUM (INCHES)
UNDER 12 12 TO 18	24	0.032 0.040

E. SHEET METAL COUNTERFLASHINGS

PROVIDE FORMED COUNTERFLASHING, COMPLETE WITH FASTENING DEVICES OR RECEIVERS. FABRICATE TO SUIT INSTALLATION AND TO EXTEND REQUIRED DISTANCE OVER BASE FLASHING. MITER CORNERS AND SOLDER OR WELD AS APPLICABLE. MATERIAL SHALL BE AS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN.

07600 - FLASHING AND SHEET METAL

F. GUTTERS AND DOWNSPOUTS

1. GUTTERS:

- a) CONSTRUCT GUTTERS OF SIZE AND SHAPE INDICATED. PROVIDE WATERTIGHT SLIP JOINTS BETWEEN SECTIONS. PROVIDE HEAVY-DUTY STRAP HANGERS OR BRACKETS OF SAME MATERIAL TYPE AS GUTTER. FOLD BACK SHEET METAL TO FORM HEM ON CONCEALED SIDE OF EXPOSED EDGES.
- b) FABRICATE GUTTERS FROM MATERIAL OF FOLLOWING TYPE AND MINIMUM THICKNESS AS DETERMINED BY GIRTH:

GIRTH (INCHES)	GALVANIZED STEEL (GAUGE)	ALUMINUM (INCHES)
UP TO 15	26	0.025
16 TO 20	24	0.032
21 TO 25	22	0.051

3. CONDUCTOR HEADS: FABRICATE CONDUCTOR HEADS OF SAME MATERIAL TYPE AS DOWNSPOUTS TO DESIGN AND SIZE INDICATED, COMPLETE WITH INSTALLATION ACCESSORIES. PROVIDE STIFFENED EDGES.

4. DOWNSPOUTS:

- a) FABRICATE DOWNSPOUTS IN SIZE INDICATED, COMPLETE WITH INSTALLATION ACCESSORIES AND STRAINER OF 0.06" DIAMETER WIRE, ½" MESH WHICH IS NONCORROSIVE AND COMPATIBLE WITH SHEET METAL. TELESCOPE END JOINTS 1½". LOCK SEAM VERTICAL JOINTS. PROVIDE METAL STRAPS 2 GAUGES HEAVIER THAN DOWNSPOUTS FOR ATTACHING DOWNSPOUTS TO BUILDING.
- b) FABRICATE DOWNSPOUTS FROM MATERIAL OF FOLLOWING TYPE AND THICKNESS: GALVANIZED STEEL--26 GAUGE MINIMUM OR ALUMINUM--0.025" MINIMUM.

G. MISCELLANEOUS FLASHING MATERIALS

1. SOLDER: SHALL BE OF THE BEST GRADE, CONFORMING TO ASTM B32, AND SHALL BE COMPOSED OF ½ PIG LEAD AND ½ BLOCK TIN (NEW METALS). SOLDERING SHALL BE DONE SLOWLY WITH HEATED COPPER SO AS TO THOROUGHLY HEAT THE SEAM AND FILL IT COMPLETELY WITH THE SOLDER.

2. FLUX FOR IRON:

a) USE 2 PARTS OF FULL STRENGTH MURIATIC ACID (RAW ACID) 1 PART DENATURED ALCOHOL, AND 1 PART WATER.

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- b) PROVIDE STAINLESS STEEL FASTENERS FOR ALUMINUM WORK.
- 3. TIN: USED FOR TINNING SEAMS FOR SOLDERING, ETC., SHALL BE BEST GRADE, PURE BLOCK METAL. THE EDGES OF SHEETS TO BE SOLDERED SHALL BE TINNED 1½" ON BOTH SIDES WITH PURE TIN OR SOLDER.
- 4. NAILS AND SCREWS: FOR FASTENING METAL SHALL BE CADMIUM PLATED, OF STRONG HOLD TYPE WITH LARGE FLAT BEADS WITH BARDS EXTENDING THE FULL LENGTH OF THE NAIL. THEY SHALL NOT BE SMALLER THAN #12 GAUGE, OF SUFFICIENT LENGTH TO PENETRATE WOOD ANCHORAGE NOT LESS THAN 1 1/2".
- 5. SCREWS FOR FASTENING ALUMINUM: SHALL BE STAINLESS STEEL, WITH NEOPRENE WASHERS.
- 6. SEALANTS: SEALANTS SHALL BE AS SPECIFIED IN SECTION 07900.
- 7. PITCH POCKETS: PROVIDE FORMED PITCH POCKETS, SIZED FOR 2" MINIMUM CLEARANCE AROUND PENETRATING ITEM, AND WITH 4" FLANGE AT ROOF. SOLDER OR WELD JOINTS AS APPLICABLE. FABRICATED FROM GALVANIZED STEEL METAL OR COPPER.
- 8. SPLASH PANS: FURNISH SPLASH PANS WHERE DOWNSPOUTS SPILL ONTO ROOFING, 18" BY 30" WITH 3" HIGH BACK AND SIDES TAPERED FROM 3" TO 1" HIGH OR AS SHOWN ON THE DRAWINGS. FABRICATED FROM GALVANIZED STEEL, 20 GAUGE MINIMUM OR COPPER, 20 OZ. MINIMUM.
- 9. SCUPPERS: PROVIDE SCUPPERS WITH INTEGRAL FLANGES EXTENDING 4" MINIMUM ONTO ROOFING OR BASE FLASHING. SOLDER OR WELD JOINTS AS APPLICABLE. FABRICATE FROM GALVANIZED STEEL OR COPPER.

07600.03 **EXECUTION**

A. JOB CONDITIONS AND GENERAL REQUIREMENTS

- 1. INSPECT SURFACES THAT RECEIVE FLASHING ITEMS FOR CONDITIONS DETRIMENTAL TO PERFORMANCE OF WORK. STARTING OF WORK CONSTITUTES ACCEPTANCE OF SURFACES BY INSTALLER.
- 2. SURFACES TO BE COVERED WITH SHEET METAL SHALL BE SMOOTH AND FREE FROM HOLES. SURFACES SHALL BE CLEANED OF DIRT, RUBBISH AND FOREIGN MATERIALS BEFORE SHEET METAL WORK IS STARTED.
- 3. SHEET METAL WORK SHALL BE WATERTIGHT AND WEATHERTIGHT WITH LINES, ARISES AND ANGLES SHARP AND TRUE AND PLAIN SURFACES FREE FROM WAVES AND BUCKLES.
- 4. JOINTS AND SEAMS SHALL BE AVOIDED AS MUCH AS POSSIBLE. OVERLAP SEAMS IN DIRECTION OF FLOW OF WATER. MAKE AMPLE PROVISION OF EXPANSION.

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5. SOLDERED SEAMS AND JOINTS SHALL HAVE METAL TINNED FOR FULL AREA CONTACT. SOAK SINGLE LOCKED SEAMS WITH SOLDER. DO SOLDERING SLOWLY, THOROUGHLY HEATING SEAMS AND COMPLETELY FILLING THEM WITH SOLDER.

B. <u>ACCESSORIES</u>

PROVIDE ACCESSORIES OR OTHER ITEMS NECESSARY TO COMPLETE FLASHING ITEMS INSTALLATION.

C. COUNTERFLASHING

SHALL BE 22 GAUGE METAL FORMED IN LENGTHS NOT TO EXCEED 10'. THE COUNTERFLASHING SHALL BE AS DETAILED AND SHALL EXTEND DOWN OVER FLASHING NOT LESS THAN 4". JOINTS SHALL BE LAPPED 4". METAL SHALL BE FORMED TO PROVIDE SPRING ACTION AGAINST BASE FLASHING. SECURE FLASHING IN OPENING AND FILL JOINT WITH BITUMINOUS PLASTIC CEMENT. COUNTERFLASHING AS INSTALLED IN A REGLET SHALL BE CAULKED TIGHT MAKING WATERTIGHT. CAULKING TO BE BUTYL RUBBER SEALER.

D. <u>CURB FLASHING</u>

CURBS FOR ROOF VENTILATORS AND METAL STACKS SHALL BE 22 GAUGE GALVANIZED IRON BENT CAP FLASHINGS FORMED WITH A DRIP. MITERED AND SOLDERED AT CORNERS OF CURB AND SECURED.

E. <u>VENT FLASHING</u>

ALL VENTS OR OTHER PROJECTIONS THROUGH THE ROOF SURFACE SHALL BE FLASHED WITH LEAD BASE FLASHING EXTENDING OUT ON THE ROOF NOT LESS THAN 6" AND CAPPED WITH LEAD COLLAR FLASHING. THE ROOF FLANGE OF SUCH FLASHINGS SHALL BE COVERED WITH 4 PILES OF ROOFING FELT. ALL LEAD FLASHING SHALL BE 4 LBS. PER SQUARE FOOT SHEET LEAD TO CONFORM WITH FEDERAL SPECIFICATION QQ-L-201.

F. <u>COPINGS AND FASCIA STRIPS</u>

COPINGS AND FASCIA STRIPS EXPOSED TO VIEW SHALL BE 22 GAUGE GALVANIZED IRON, FASTENED WITH CONTINUOUS CONCEALED CLEATS AND STAINLESS STEEL SCREWS WITH NEOPRENE WASHERS. SPLICE PLATES SHALL BE 22 GAUGE.

G. <u>DOWNSPOUTS</u>

DOWNSPOUTS SHALL BE SCHEDULE 40 PVC, OR 22 GAUGE GALVANIZED IRON FORMED AND SEAMED TO SIZE SHOWN AS NOTED ON DRAWINGS.

H. <u>GUTTERS</u>

GUTTERS SHALL BE 22 GAUGE GALVANIZED IRON FORMED TO SIZE AND PROFILE SHOWN, WITH GUTTER STRAPS AT 24" O.C.

07600 - FLASHING AND SHEET METAL

I. GRAVEL STOPS AND FASCIA

- 1. INSTALL GRAVEL STOP AND FASCIA WITH EXPANSION JOINTS BETWEEN SECTIONS, CONCEALED JOINT COVERS AND NO EXPOSED FASTENERS AT FASCIA. INSTALL TO ALLOW MOVEMENT AT JOINTS AND SEAL LAPS.
- 2. PROVIDE JOINTS IN GRAVEL STOP AND FASCIA AT WALL EXPANSION AND CONTROL JOINTS.
- 3. SECURE BOTTOM EDGE OF FASCIA WITH CONTINUOUS CLEATS.
- 4. COAT FLANGE OF GRAVEL STOP AND FASCIA WITH ASPHALTIC PRIMER, EMBED IN ELASTIC CEMENT OVER ROOF MEMBRANE AND SECURE TO ROOF EDGE BLOCKING WITH NAILS AT 3" ON CENTER STAGGERED.
- 5. SECURE OUTSIDE FACE OF COPING WITH CONTINUOUS CLEATS. SECURE ROOF SIDE OF COPING WITH FASTENERS AND NEOPRENE WASHERS IN SLOTTED HOLES AT 2' CENTERS MAXIMUM.

J. TINNING AND SOLDERING

TIN EDGES OF SHEET METAL TO BE SOLDERED ON BOTH SIDES FOR A WIDTH OF 1½". USE WELL-HEATED SOLDERING IRONS TO THOROUGHLY HEAT SHEET AND COMPLETELY SWEAT SOLDER THROUGH FULL WIDTH OF SEAM SHOWING AN EVEN FLOW OF SOLDER AT EDGE OF SEAM. SOLDER EXPOSED NAILHEADS AND OTHER FASTENINGS.

K. PROTECTION OF DISSIMILAR METALS

PROTECT ALUMINUM AND COPPER FROM CONTACT WITH DISSIMILAR METALS, CONCRETE AND MASONRY WITH A HEAVY COATING OF ALKALI-RESISTANT BITUMINOUS PAINT. ALLOW PAINT TO DRY BEFORE INSTALLATION OF METALS.

L. WORKMANSHIP

- 1. ALL WORKMANSHIP WILL COMPLY WITH THE STANDARDS OF THE SHEET METAL CONTRACTOR'S NATIONAL ASSOCIATION.
- 2. ALL SHEET METAL FLASHINGS, SCUPPERS AND DOWNSPOUTS SHALL BE PROPERLY SEAMED, JOINED AND SOLDERED.
- 3. ALL SURFACES NOT ACCESSIBLE FOR PAINTING AFTER ERECTION SHALL BE GIVEN A THROUGH UNIFORM SHOP COAT OF RUST INHIBITIVE PAINT, BRUSHED OR SPRAYED ON. PAINT SHALL BE AS SPECIFIED IN SECTION 09900, PAINTING, FOR GALVANIZED IRON AND ALUMINUM.
- 4. COOPERATE WITH THE CONTRACTORS OF OTHER WORK IN THE INSTALLATION OF ALL FLASHINGS COMING IN CONTACT WITH THEIR WORK. ALL SUCH SHEET METAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE MANUFACTURER WHERE ROOFING IS TO BE INSTALLED.

07600 - FLASHING AND SHEET METAL

M. SHEET METAL WORK

- 1. WORKMANSHIP SHALL BE FIRST CLASS IN EVERY RESPECT, THE SHEET METAL WORK BEING ASSEMBLED AND SECURE WITH LOCKED SEAMS FLAT OR STANDING, SOLDERED OR LOOSE, AS HEREIN SPECIFIED OR AS SHOWN. DO ALL CUTTING AND DRILLING NECESSARY FOR FITTING WORK IN PLACE, AND ERECT ALL WORK IN PLACE IN A FIRM, RIGID AND WORKMANLIKE MANNER SATISFACTORY TO THE ENGINEER. JOINTS SHALL BE CLOSE AND FLUSH. CONNECTIONS AT ANGLES, MITERS AND JUNCTIONS WHICH CANNOT BE WELDED OR SOLDERED SHALL BE MADE WITH BLIND SCREWS FROM THE BACK OR OTHER CONCEALED FASTENINGS. FURNISH AND INSTALL ADDITIONAL CLIPS, ETC., REQUIRED FOR ANCHORING THIS WORK TO THE MASONRY OR STRUCTURAL FRAME OF BUILDING. PROVIDE PROPER EXPANSION JOINTS IN CONTINUOUS METAL WORK, WHERE REQUIRED. EXPOSED EDGES SHALL BE RETURNED BOTH FOR STRENGTH AND APPEARANCE.
- 2. SHEET METAL WORK SHALL BE INSTALLED WITH CARE BEING TAKEN TO AVOID BREAKING AND UNNECESSARY SCRATCHING OF GALVANIZED COATING WHILE FORMING OR APPLYING GALVANIZED SHEETS. HAMMERING ON SHEETS SHALL BE DONE WITH A WOOD MALLET.

N. CLEAN-UP

ALL RUBBISH AND DEBRIS CAUSED UNDER THIS HEADING SHALL BE CLEANED UP, HAULED FROM SITE AND LEGALLY DISPOSED OF. ALL DRIPPINGS OF PITCH AND ASPHALT IN EXPOSED PLACES SHALL BE REMOVED.

O. **GUARANTEE**

- 1. THE CONTRACTOR SHALL FURNISH TO THE OWNER A WRITTEN GUARANTEE ON ALL FLASHING WORK INSTALLED UNDER THIS CONTRACT FOR A PERIOD OF 1 YEAR FROM AND AFTER COMPLETION OF THE WORK.
- 2. THE OWNER, UPON COMPLETION OF THE PROJECT, SHALL ALSO RECEIVE A GUARANTEE FOR ALL WORK DONE IN ASSOCIATION WITH THE ROOFING WORK. ALL WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS FOR A 20 YEAR BONDABLE ROOFING SYSTEM.

END OF SECTION

DIVISION 7 07900 - JOINT SEALANTS

07900.01 <u>SCOPE OF WORK</u>

A. WORK SPECIFIED IN THIS SECTION

- 1. THE GENERAL REQUIREMENTS ARE MADE A PART OF THIS SECTION AND APPLY TO THE WORK SPECIFIED.
- 2. PROVIDE CAULKING AND SEALANTS REQUIRED TO MAKE BUILDING AIRTIGHT AND WEATHERTIGHT.

B. WORK SPECIFIED IN OTHER SECTIONS

- CAULKING OF DOORS AND WINDOWS EXTERIOR AND INTERIOR JOINTS
- CAULKING RELATED TO ROOF FLASHING
- CAULKING OF JOINTS IN MASONRY AND CONCRETE WORK EXTERIOR AND INTERIOR
- CAULKING OF ALL INTERIOR EXPOSED JOINTS
- COMPRESSIBLE FILLERS IN UNCAULKED EXPANSION JOINTS
- FIRE BARRIER SEALING STRIPS, WRAPS, PUTTY AND CAULK
- SEAL AROUND PIPE PENETRATIONS THROUGH WALLS, FLOOR, CEILINGS

C. SUBMITTALS

1. SAMPLES:

- a) SAMPLES TO INCLUDE SEALANT, BACKUP MATERIAL AND JOINT PRIMER. SAMPLES MUST DEMONSTRATE COLOR AND TEXTURE OF MATERIAL.
- b) LITERATURE FOR INFORMATION ONLY: SUBMIT TWO COPIES OF MANUFACTURER'S SPECIFICATIONS, RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS FOR EACH TYPE OF SEALANT, CAULKING COMPOUND AND ASSOCIATED MISCELLANEOUS MATERIAL REQUIRED. INCLUDE MANUFACTURER'S PUBLISHED DATA, OR LETTER OF CERTIFICATION, OR CERTIFIED TEST LABORATORY REPORT INDICATING THAT EACH MATERIAL COMPLIES WITH THE REQUIREMENTS AND IS INTENDED GENERALLY FOR THE APPLICATIONS SHOWN.
- 2. JOINT PRIMER: SUBMIT WRITTEN DIRECTIONS OF PRIMER MANUFACTURER FOR EACH TYPE OF APPLICATION. INCLUDE WRITTEN EXEMPTION FOR JOINTS NOT REQUIRING PRIMER.
- 3. QUALITY ASSURANCE: SUBMIT UPON REQUEST LIST OF PROJECTS, CONTACT PERSONS, TELEPHONE NUMBERS AND ADDRESSES AS REQUIRED TO CONFIRM MINIMUM FIVE YEARS SUCCESSFUL EXPERIENCE IN APPLICATION OF SPECIFIED MATERIALS.

07900 - JOINT SEALANTS

D. STORAGE

DELIVER SEALANT MATERIALS TO JOBSITE IN ORIGINAL PACKAGES INDICATING TYPE AND MANUFACTURER'S NAME. STORE IN DRY LOCATION, PROPERLY PROTECTED FROM DIRECT SUNLIGHT, FREEZING AND PHYSICAL DAMAGE.

07900.02 PRODUCTS

A. MATERIALS - GENERAL

- 1. PROVIDE MATERIALS OF MANUFACTURERS WHO WILL RENDER QUALIFIED TECHNICAL ASSISTANCE AT PROJECT SITE, ADVISING INSTALLER OF PROPER PROCEDURES FOR USE OF MATERIALS.
- 2. COMPATIBILITY: BEFORE PURCHASE OF EACH SPECIFIED SEALANT, INVESTIGATE ITS COMPATIBILITY WITH THE JOINT SURFACES, JOINT FILLERS AND OTHER MATERIALS IN THE JOINT SYSTEM. PROVIDE ONLY MATERIALS (MANUFACTURER'S RECOMMENDED VARIETY OF THE SPECIFIED MATERIALS) WHICH ARE KNOWN TO BE FULLY COMPATIBLE WITH THE ACTUAL INSTALLATION CONDITION, AS SHOWN BY MANUFACTURER'S PUBLISHED DATA OR CERTIFICATION.
- 3. PROVIDE SIZE AND SHAPE OF PREFORMED SEALANT UNITS AS SHOWN OR, IF NOT SHOWN, AS RECOMMENDED BY THE MANUFACTURER, EITHER IN HIS PUBLISHED DATA OR UPON CONSULTATION WITH HIS TECHNICAL REPRESENTATIVE.
- 4. DO NOT USE POLYSULFIDE SEALANTS IN CONJUNCTION WITH BITUMINOUS OR PLASTIC MATERIALS. USE ONE COMPONENT POLYSULFIDE ONLY WHERE UNPLEASANT CURING ODOR, 14 TO 60 DAY CURE TIME, 1" MAXIMUM JOINT WIDTH, 25% TO 50% JOINT MOVEMENT, AND 10 TO 20 YEAR SERVICE LIFE IS ACCEPTABLE.

B. <u>COLORS</u>

- 1. PROVIDE COLOR SELECTED FROM FULL RANGE OF MANUFACTURER'S STANDARD COLOR RANGE FOR EACH SEALANT TYPE.
- 2. COLORS: PROVIDE CLEAR, WHITE OR OTHER NATURAL COLOR WHEREVER NO OTHER COLOR IS AVAILABLE. WHEREVER COMPOUND IS NOT EXPOSED TO VIEW, PROVIDE MANUFACTURER'S STANDARD COLOR WHICH HAS THE BEST OVERALL PERFORMANCE CHARACTERISTICS FOR THE APPLICATION SHOWN.
- 3. PROVIDE CUSTOM COLORS AS SELECTED BY THE ARCHITECT.

C. POLYSULFIDE, ONE-COMPONENT

 ONLY USE ONE-COMPONENT POLYSULFIDE WHERE UNPLEASANT CURING ODOR, 14 TO 60 DAY CURE TIME, 1" MAXIMUM JOINT WIDTH, 25% TO 50% JOINT MOVEMENT, AND 10 TO 20 YEAR SERVICE LIFE ARE ACCEPTABLE.

07900 - JOINT SEALANTS

- 2. ONE-COMPONENT POLYSULFIDE BASE SEALANT, GUN GRADE, NONSAGGING SHALL CONFORM TO LATEST FEDERAL SPECIFICATION TT-S-00230C.
- 3 ACCEPTABLE MANUFACTURERS:
 - SONOLASTIC 1-PART BY SONNEBORN CONTECH
 - SYNTHACAULK GC-9 BY PECORA
 - THIOTOK RM SEALANT BY TOCH
 - FLEXISEAL 1-PART POLYSULFIDE SEALANT BY DAP

D. POLYSULFIDE, TWO-COMPONENT

- 1. USE TWO-COMPONENT POLYSULFIDE WHERE UNPLEASANT CURING ODOR, 44 TO 77 DAY CURE TIME, 2" MAXIMUM JOINT WIDTH, 25% TO 50% JOINT MOVEMENT, AND 10 TO 20 YEAR SERVICE LIFE ARE ACCEPTABLE.
- 2. TWO-COMPONENT POLYSULFIDE POLYMER BASE SEALANT, GUN GRADE, NONSAGGING SHALL CONFORM TO LATEST FEDERAL SPECIFICATION TT-S-00227. PROVIDE COMPOUND BEARING THE THIOKOL CHEMICAL CORPORATION SEAL OF APPROVAL.
- 3. ACCEPTABLE MANUFACTURERS PROVIDE ONE OF THE FOLLOWING PRODUCTS:
 - FLEXISEAL 700 SERIES DAP, INC.
 - HORNFLEX & VERTICAL W.R. GRACE & CO.
 - NOVACALK 200 SERIES NOVAGARD CORP.
 - SYNTHACAULK GC-5 SERIES PECORA CORP.
 - PRC RUBBER CAULK 150 & 250 PRODUCTS RE. & CHEM. CORP.
 - SONOLASTIC TWO-PART SONNEBORN/CONTECH, INC.
 - THIOCAULK ARCH. GRADE STEELCOTE MFT. CO.
 - ULTRATITE 101 TELEDYNE COAST PRO-SEAL
 - LASTO-MERIC TREMCO MFG. CO.
 - SEALTIGHT CM-60 W.R. MEADOWS, INC.
 - COLMA J.S. NS SICA CHEMICAL CORP.
 - THORSPAN (TWO-PART) STANDARD DRYWALL PRODUCTS, INC.
 - THIOTOK SEALANT TOCH BROTHERS, INC.
- 4. OPTIONAL SEALANT WHEN APPROVED, PROVIDE "DYMERIC" SEALANT BY TREMCO, IN LIEU OF THE SPECIFIED ABOVE, PROVIDED MANUFACTURER FURNISHES CERTIFICATION THAT SEALANT PERFORMANCE IS EQUAL TO OR BETTER THAN THE SPECIFIED IN EVERY RESPECT, AND IS RECOMMENDED FOR THE APPLICATION SHOWN.

E. URETHANE, ONE-COMPONENT

1. USE ONE-COMPONENT URETHANE WHERE ¾" MAXIMUM JOINT WIDTH, 14 TO 30 DAY CURE TIME, 25% TO 40% JOINT MOVEMENT, AND 20 PLUS YEAR SERVICE LIFE ARE APPLICABLE. URETHANE MAY BE APPLIED TO BITUMINOUS OR ASPHALTIC COMPOUNDS, BUT NOT ON PLASTICS. URETHANE MAY STAIN ADJACENT SURFACES.

07900 - JOINT SEALANTS

- 2. ONE-COMPONENT URETHANE SEALANT, GUN GRADE SHALL CONFORM TO LATEST FEDERAL SPECIFICATION TT-00230, TYPE II, CLASS A.
- 3. ACCEPTABLE MANUFACTURERS:
 - SONOLASTIC NPI BY SONNEBORN CONTECH
 - VULKEM 116 BY MAMECO
 - DYNASEAL W-100 BY WILLIAMS PRODUCTS, INC.
 - SIKAFLEX 1A BY SIKA

F. URETHANE, TWO-COMPONENT

- 1. USE TWO-COMPONENT URETHANE WHERE 1½" MAXIMUM JOINT WIDTH, 3 TO 6 DAY CURE TIME, 25% TO 40% MOVEMENT, AND 20 PLUS YEAR SERVICE LIFE ARE APPLICABLE. NOTE THAT 3-COMPONENT IIS AVAILABLE FOR JOINTS UP TO 5" WIDE.
- 2. TWO COMPONENT URETHANE SEALANT, GUN GRADE, CONFORMING TO LATEST FEDERAL SPECIFICATION TT-S-00227E, TYPE II, CLASS A.
- 3. ACCEPTABLE MANUFACTURERS:
 - SONOLASTIC NP II BY SONNEBORN
 - SYNATROL II DYNAMIC SEALANT BY PECORA
 - VULKEM 227 BY MAMECO
 - DUALTHANE BY W.R. MEADOWS

G. <u>ACRYLIC, ONE-COMPONENT</u>

- 1. USE ACRYLIC SEALANT WHERE 3/4" MAXIMUM JOINT WIDTH, 14 TO 21 DAY CURE TIME 30F TO 300F, 10% TO 20% MAXIMUM JOINT MOVEMENT, AND 20 PLUS YEAR SERVICE LIFE ARE APPLICABLE. ACRYLICS RELEASE OFFENSIVE ODOR AND SHOULD NOT BE USED IN FOOD STORAGE OR PREPARATION AREAS. ACRYLIC WILL SELF-HEAL AFTER COHESIVE FAILURE. SELF-BONDS TO METAL, WOOD, MASONRY, PLASTIC, GLASS.
- 2. ONE-COMPONENT ACRYLIC POLYMER SEALANT, GUN GRADE, CONFORMING TO LATEST FEDERAL SPECIFICATION TT-S-00230, CLASS B, TYPE II.
- 3. ACCEPTABLE MANUFACTURERS:
 - MONO BY TREMOC
 - DAP 1-PART ACRYLIC SEALANT BY DAP
 - 60 UNICRYLIC BY PECORA
 - SOLAPLY BY W.R. MEADOWS

H. SILICONE, ONE-COMPONENT

1. USE SILICONE WHERE 11" MAXIMUM JOINT WIDTH, 22 TO 55 DAY CURING TIME, 12% TO 50% MAXIMUM JOINT MOVEMENT, AND 20 PLUS YEAR LIFE ARE

07900 - JOINT SEALANTS

APPLICABLE. FOR WIDER JOINTS, 2-PART SILICONE IS AVAILABLE. MOST SILICONES CANNOT BE PAINTED. STRONG ACETIC ACID SMELL WHILE SILICONE CURES.

- 2. EXTERIOR SILICONE ACID-TYPE, NON-SAG, ELASTOMERIC RUBBER-BASED SEALANT, GUN GRADE SHALL CONFORM TO FEDERAL SPECIFICATION TT-S-001543, CLASS A AS RECOMMENDED BY MANUFACTURER FOR NON-POROUS EXTERIOR JOINT SURFACES.
- 3. ACCEPTABLE MANUFACTURERS (EXTERIOR SILICONE):
 - RHODORSIL SEALANT 3B BY RHODIA, INC.
 - SILICONE SEALANT 1200 BY GENERAL ELECTRIC
 - SILICONE RUBBER SEALANT BY DOW CORNING
- 4. EXTERIOR SILICONE NONACID TYPE, NON SAG, ELASTOMERIC RUBBER-BASED SEALANT, GUN GRADE SHALL CONFORM TO FEDERAL SPECIFICATION TT-S-001543, CLASS A; AS RECOMMENDED BY MANUFACTURER FOR POROUS EXTERIOR JOINT SURFACES.
- 5. ACCEPTABLE MANUFACTURERS (EXTERIOR SILICONE, NON-ACID TYPE):
 - 790 BUILDING SEALANT DOW CORNING CORP.
 - SILICONE SEALANT 1300 GENERAL ELECTRIC CO.
 - 862 SILICONE ARCH. SEALANT PECORA CORP.
 - RHODORSIL SEALANT 4C RHODIA, INC.
 - SEALANT SWS-940 STAUFFER-WACKER SILICONE CORP.
- 6. INTERIOR SILICONE RUBBER SEALANT SILICONE RUBBER-BASED, ONE-PART, NON-SAFING, ELASTOMERIC SEALANT, AS RECOMMENDED BY THE U.S.D.A. FOR INTERIOR APPLICATIONS, INCLUDING FOOD PREPARATION AREAS, PHARMACEUTICAL CLEAN AREAS, AND SIMILAR APPLICATIONS SUBJECTED TO ATTACK BY MILDEW. PROVIDE TYPE RECOMMENDED BY MANUFACTURER FOR THE POROSITY OF THE JOINT SURFACES (NON-ACID FOR POROUS SURFACES, ACID FOR NON-POROUS).

I. BUTYL SEALANT (VULCANIZED)

- 1. GUN GRADE, BUTYL RUBBER BASE SEALANT, NONSAFING SHALL CONFORM TO FEDERAL SPECIFICATION TT-S-001657, TYPE I.
- 2. ACCEPTABLE MANUFACTURERS:
 - BC-158 BY PECORA
 - BUTYL-FLEX BY DAP
 - BUTAKAUK BY SONNEBORN

07900 - JOINT SEALANTS

J. FIRE BARRIER SEALANT

PROVIDE INTUMESCENT FIRE, SMOKE AND WATER BLOCKING STRIPS, PIPE WRAP SHEETS, PUTTY OR CAULKING AT ALL PENETRATIONS THROUGH FIRE WALLS OR WHEREVER ELSE INDICATED ON THE DRAWINGS. PRODUCTS TO BE USED MUST BE FACTORY MUTUAL APPROVED. ACCEPTABLE PRODUCTS ARE THOSE OF THE 3M BRAND FIRE BARRIER SEALING SYSTEMS, STANDARD OIL FYRE PUTTY, OR ENGINEER APPROVED EQUALS.

K. PRECOMPRESSED FOAM SEALANT

- 1. WHERE INDICATED ON THE DRAWINGS AND ESPECIALLY IN ALL PIPE PENETRATIONS IN PRODUCTION AREA WALLS AND CEILINGS, PROVIDE A PRECOMPRESSED FOAM SEALANT WRAP AROUND PENETRATING PIPES TO SEAL THE WALL OPENING THROUGH WHICH THE PIPES PASS AND TO PROVIDE A FIRM, FLEXIBLE BACK-UP FOR OTHER SEALANTS APPLIED FROM THE ROOM SIDE TO THE RESULTING JOINT.
- 2. PRECOMPRESSED FOAM SEALANT SHALL BE WILL-SEAL 150G TAPE AS MANUFACTURED BY WILL-SEAL CONSTRUCTION FOAMS, 447 ELMWOOD, TROY, MICHIGAN 48084, (313) 585-4363, OR APPROVED EQUIVALENT.

L. FLOOR AND WALL PIPE PENETRATION SEALS

THE PIPE TO WALL PENETRATION CLOSURES SHALL BE "LINK-SEAL" AS MANUFACTURED BY THUNDERLINE CORPORATION - BELLEVILLE, MI. 48111. SEALS SHALL BE MODULAR MECHANICAL TYPE, CONSISTING OF INTERLOCKING SYNTHETIC RUBBER LINKS SHAPED TO CONTINUOUSLY FILL THE ANNULAR SPACE BETWEEN THE PIPE AND WALL OPENING. LINKS SHALL BE LOOSELY ASSEMBLED WITH BOLTS TO FORM A CONTINUOUS RUBBER BELT AROUND THE PIPE WITH A PRESSURE PLATE UNDER EACH BOLT HEAD AND NUT. AFTER THE SEAL ASSEMBLY IS POSITIONED IN THE SLEEVE, TIGHTENING OF THE BOLTS SHALL CAUSE THE RUBBER SEALING ELEMENTS TO EXPAND AND PROVIDE AN ABSOLUTELY WATERTIGHT SEAL BETWEEN THE PIPE AND WALL OPENING. THE SEAL SHALL BE CONSTRUCTED SO AS TO PROVIDE ELECTRICAL INSULATION BETWEEN THE PIPE AND WALL, THUS REDUCING CHANGES OF CATHODIC REACTION BETWEEN THESE TWO MEMBERS.

M. <u>BUTYL RUBBER SEALANT TAPE</u>

- 1. A PARTIALLY-VULCANIZED, SELF-ADHESIVE, NON-STAINING, ELASTOMERIC BUTYL RUBBER TAPE, RECOMMENDED BY THE MANUFACTURER FOR WATERPROOF CONSTRUCTION WHEN COMPRESSED 35% IN DYNAMICALLY MOVING JOINTS; NOT LESS THAN 98% SOLIDS; NO DETERIORATION AFTER 3,000-MAN HOUR TEST IN ATLAS WEATHERMETER.
- 2. ACCEPTABLE MANUFACTURERS PROVIDE ONE OF THE FOLLOWING PRODUCTS:
 - INCOLASTIC 7500 INTERCOASTAL CORP.
 - PTI 606 PROTECTIVE TREATMENTS, INC.

07900 - JOINT SEALANTS

N. JOINT BACKING

1. SEALANT BACKER ROD - COMPRESSIBLE ROD STOCK POLYETHYLENE FOAM, POLYETHYLENE JACKETED POLYURETHANE FOAM, BUTYL RUBBER FOAM, NEOPRENE FOAM OR JOINT PRIMER/SEALER - PROVIDE THE TYPE OF JOINT CLEANING COMPOUND RECOMMENDED BY THE SEALANT MANUFACTURER, FOR THE JOINT SURFACES TO BE PRIMED OR SEALED. USE NEOPRENE IN VARYING WIDTH JOINTS. PROVIDE SIZE AND SHAPE OF ROD WHICH WILL CONTROL THE JOINT DEPTH FOR SEALANT PLACEMENT, BREAK BOND OF SEALANT AT BOTTOM OF JOINT, FOR OPTIMUM SHAPE OF SEALANT BEAD ON BACK SIDE, AND PROVIDE A HIGHLY COMPRESSIBLE BACKER TO MINIMIZE THE POSSIBILITY OF SEALANT EXTRUSION WHEN JOINT IS COMPRESSED. THE USE OF ANY POLYSTYRENE FOAM SHALL NOT BE PERMITTED.

2. ACCEPTABLE MANUFACTURERS:

- WILLIAMS PRODUCTS, INC.
- DOW CORNING CORPORATION
- SONNEBORN-CONTECH

O. <u>JOINT PRIMER</u> PROVIDE TYPE RECOMMENDED BY MANUFACTURER OF SEALANT. USE STAINING, SURFACE PRIMER, WITH MASKING.

P. BOND BREAKER TAPE

PROVIDE POLYETHYLENE OR OTHER PLASTIC TAPE AS RECOMMENDED BY SEALANT MANUFACTURER TO PREVENT ADHESION OF SEALANT TO SUBSTRATE WHERE JOINT BACKING CANNOT BE USED. PROVIDE SELF-ADHESIVE TAPE WHEREVER APPLICABLE.

Q. JOINT CLEANER

PROVIDE THE TYPE OF JOINT CLEANING COMPOUND RECOMMENDED BY THE SEALANT OR CAULKING COMPOUND MANUFACTURER, FOR THE JOINT SURFACES TO BE CLEANED.

07900.03 **EXECUTION**

A. JOB CONDITIONS

EXAMINE THE JOINT SURFACES, BACKING, AND ANCHORAGE OF UNITS FORMING SEALANT RABBET, AND THE CONDITIONS UNDER WHICH THE SEALANT WORK IS TO BE PERFORMED, AND NOTIFY IN WRITING OF CONDITIONS DETRIMENTAL TO THE PROPER AND TIMELY COMPLETION OF THE WORK AND PERFORMANCE OF THE SEALANTS. DO NOT PROCEED WITH THE SEALANT WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED IN AN APPROVED MANNER.

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B. WEATHER CONDITIONS

- 1. DO NOT PROCEED WITH INSTALLATION OF SEALANTS UNDER ADVERSE WEATHER CONDITIONS, OR WHEN TEMPERATURES ARE BELOW OR ABOVE MANUFACTURER'S RECOMMENDED LIMITATIONS FOR INSTALLATION.
- 2. PROCEED WITH THE EXTERIOR WORK ONLY WHEN FORECASTED WEATHER CONDITIONS ARE FAVORABLE FOR PROPER CURE AND DEVELOPMENT OF HIGH EARLY BOND STRENGTH. WHEREVER JOINT WIDTH IS AFFECTED BY AMBIENT TEMPERATURE VARIATIONS, INSTALL ELASTOMERIC SEALANTS ONLY WHEN TEMPERATURE ARE IN THE LOWER THIRD OF MANUFACTURER'S RECOMMENDED INSTALLATION TEMPERATURE RANGE, SO THAT SEALANT WILL NOT BE SUBJECTED TO EXCESSIVE ELONGATION AND BOND STRESS AT SUBSEQUENT LOW TEMPERATURES. COORDINATE TIME SCHEDULE WITH OTHERS TO AVOID DELAY OF PROJECT.

C. CLEANING JOINTS

RAKE OUT AND CLEAN JOINTS TO REMOVE SPALL AND DEBRIS. REMOVE DUST AND FILM FROM JOINT SURFACES WITH CLEANER RECOMMENDED BY MANUFACTURER OF SEALANT.

D. TESTING FOR ADHESION, SURFACE PREPARATION

- 1. VERIFY BY TESTING, IF NECESSARY, THAT SEALANT SPECIFIED WILL ADHERE TO EVERY SURFACE WHICH IS REQUIRED TO RECEIVE SEALANT.
- 2. PRIOR TO INSTALLATION OF SEALANT OVER JOINT SURFACES WHICH HAVE BEEN PAINTED, LACQUERED, WATERPROOFED, TREATED WITH WATER REPELLENT OR OTHER TREATMENT OR COATING, SUBMIT LABORATORY TEST DEMONSTRATING THAT ADHESION AND SEALANT BOND ARE NOT IMPAIRED BY COATING OR TREATMENT OF JOINT SURFACES BEFORE INSTALLING SEALANT. PERFORM TEST IN CONFORMANCE WITH APPLICABLE REQUIREMENTS OF FEDERAL SPECIFICATION TT-S-00227 FOR SEALANT BOND (ADHESION IN PEEL).
- 3. ETCH CONCRETE AND MASONRY SURFACES TO REMOVE EXCESS ALKALINITY, UNLESS SEALANT MANUFACTURER'S PRINTED INSTRUCTIONS INDICATE THAT ALKALINITY DOES NOT INTERFERE WITH SEALANT BOND AND PERFORMANCE. ETCH WITH 5% SOLUTION OF MURIATIC ACID; NEUTRALIZE WITH DILUTED AMMONIA SOLUTION, RINSE THOROUGHLY WITH WATER AND ALLOW TO DRY BEFORE SEALANT INSTALLATION.

E. PRIMING

- 1. APPLY MASKING TAPE TO PROTECT ADJACENT SURFACES WHERE REQUIRED BEFORE PRIMING.
- 2. PRIME JOINTS IN MASONRY AND OTHER LOCATIONS. APPLY WITH BRUSH TO PENETRATE IRREGULARITIES.

07900 - JOINT SEALANTS

3. PRIME OR SEAL THE JOINT SURFACES WHEREVER SHOWN OR RECOMMENDED BY THE SEALANT MANUFACTURER. DO NOT ALLOW PRIMER/SEALER TO SPILL OR MIGRATE ONTO ADJOINING SURFACES.

F. BACKING

- 1. PROVIDE BACKING COMPATIBLE WITH SPECIFIED SEALANT.
- 2. INSTALL BACKING FOR SEALANTS TO DEPTH BELOW SURFACE EQUAL TO ½ JOINT WIDTH, BUT NEVER MORE THAN ½" OR LESS THAN ¼" BELOW SURFACE.
- 3. INSTALL POLYETHYLENE BACKING EXCEPT AS OTHERWISE SPECIFIED OR REQUIRED.
- 4. INSTALL VINYL BACKING AT EXTERIOR JOINTS.
- 5. INSTALL NEOPRENE BACKING AT EXTERIOR DYNAMIC JOINTS AND JOINTS OF VARYING WIDTH. DO NOT USE NEOPRENE WITH SILICONE JOINTS.
- 6. INSTALL COMPRESSIBLE NEOPRENE TUBE AT EXTERIOR JOINTS OVER 3/4" IN WIDTH.
- 7. INSTALL SEALANT BACKER ROD FOR LIQUID ELASTOMERIC SEALANTS, EXCEPT WHERE SHOWN TO BE OMITTED OR RECOMMENDED TO BE OMITTED BY SEALANT MANUFACTURER FOR THE APPLICATION SHOWN.
- 8. INSTALL BOND BREAKER TAPE WHEREVER SHOWN AND WHEREVER REQUIRED BY MANUFACTURER'S RECOMMENDATIONS TO ENSURE THAT ELASTOMERIC SEALANTS WILL PERFORM PROPERLY.

G. SEALANTS - GUN GRADE

- 1. MIX AND APPLY SPECIFIED SEALANT IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- 2. POINT UP FREE OF WRINKLES, SMOOTH, SLIGHTLY COVED AND APPROXIMATELY 1/32" BELOW ADJACENT SURFACES. KNIFE FLOOR JOINT SEALANTS FLUSH WITH FLOOR SURFACE.
- 3. AVOID EXCESSIVE WORKING OF SURFACE. REMOVE TAPE AFTER FINAL TOOLING AND BEFORE CAULKING SETS. CLEAN ADJACENT SURFACES AFTER COMPLETION OF CAULKING WORK.

H. CURE AND PROTECTION

1. CURE SEALANTS AND CAULKING COMPOUNDS IN COMPLIANCE WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS, TO OBTAIN HIGH EARLY BOND STRENGTH, INTERNAL COHESIVE STRENGTH, AND SURFACE DURABILITY.

07900 - JOINT SEALANTS

2. TAKE NECESSARY PROCEDURES REQUIRED FOR THE CURING AND PROTECTION OF SEALANTS AND CAULKING COMPOUNDS DURING THE CONSTRUCTION PERIOD, SO THAT THEY WILL BE WITHOUT DETERIORATION OR DAMAGE (OTHER THAN NORMAL WEAR AND WEATHERING) AT THE TIME OF ACCEPTANCE.

I. FLOOR AND WALL PIPE PENETRATION SEAL

THE CONTRACTOR SHALL DETERMINE THE REQUIRED INSIDE DIAMETER OF EACH INDIVIDUAL WALL OPENING OR SLEEVE BEFORE ORDERING, FABRICATING OR INSTALLING. THE INSIDE DIAMETER OF EACH WALL OPENING SHALL BE SIZED AS RECOMMENDED BY THE MANUFACTURER. INSTALLATION SHALL BE AS REQUIRED BY MANUFACTURER'S INSTRUCTIONS.

J. GUARANTEE

PROVIDE TWO YEAR WRITTEN GUARANTEE OF WORK PERFORMED UNDER THIS SECTION. UNDER GUARANTEE, SIGNED BY CONTRACTOR AND SEALANT INSTALLER, REPAIR OR REPLACE SEALANTS WHICH FAIL TO PERFORM AS AIRTIGHT AND WATERTIGHT JOINTS, OR FAIL IN JOINT ADHESION, COHESION, ABRASION RESISTANCE, WEATHER RESISTANCE, EXTRUSION RESISTANCE, MIGRATION RESISTANCE, STAIN RESISTANCE, OR GENERAL DURABILITY.

END OF SECTION

DIVISION 8 08700 - FINISH HARDWARE

08700.01 <u>SCOPE OF WORK</u>

A. WORK SPECIFIED IN THIS SECTION

THE GENERAL REQUIREMENTS ARE MADE PART OF THIS SECTION AND APPLY TO THE WORK SPECIFIED. THE WORK REQUIRED UNDER THIS SECTION CONSISTS OF FURNISHING ALL FINISH HARDWARE AND RELATED ITEMS NECESSARY TO COMPLETE THE WORK INDICATED ON THE DRAWINGS AND DESCRIBED IN THE SPECIFICATION.

B. WORK SPECIFIED IN OTHER SECTIONS

- 1. FINISH HARDWARE WORK ASSOCIATED WITH SLIDING DOORS, VERTICAL LIFT SECTIONAL DOORS, STEEL ROLLING DOORS, BLAST RESISTANT DOORS, AND OTHER LIKE WORK WHERE THE INCLUSION OF THEIR FINISH HARDWARE IS THE NORMAL AND ESTABLISHED PRACTICE IS NOT INCLUDED HEREIN. WHEN SO DIRECTED, FINISH HARDWARE ITEMS SHALL BE FURNISHED FOR INSTALLATION BY OTHERS IN CONJUNCTION WITH THE WORK OF THESE OTHER TRADES.
- 2. FOR DETAILED HARDWARE LIST WITH MANUFACTURERS' NAMES AND MODEL NUMBERS, AS WELL AS A LISTING OF ALL HARDWARE SETS, SEE SECTION 08710.
- C. QUALITY ASSURANCE AND STANDARDS
- 1. COMPLY WITH CODES, ORDINANCES, RULES AND REGULATIONS OF ALL GOVERNMENTAL AUTHORITIES HAVING JURISDICTION ON THE WORK, AND WITH THE FOLLOWING STANDARDS ALL AS APPLICABLE TO THE WORK.

DHI - DOOR AND HARDWARE INSTITUTE

NFPA - NATIONAL FIRE PROTECTION ASSOCIATION

UL - UNDERWRITERS' LABORATORIES, INC.

- 2. "RECOMMENDED PROCEDURES FOR PROCESSING HARDWARE SCHEDULES AND TEMPLATES" AND "ARCHITECTURAL FORMAT" AS PUBLISHED BY ASAHC (AMERICAN SOCIETY OF ARCHITECTURAL HARDWARE CONSULTANTS) AND NBHA (NATIONAL BUILDERS HARDWARE ASSOCIATION).
 - ASA AMERICAN STANDARDS ASSOCIATION

FS - FEDERAL SPECIFICATION

- 3. REFERENCES TO SPECIFIC PROPRIETARY PRODUCTS ARE USED TO ESTABLISH MINIMUM STANDARDS OF UTILITY AND QUALITY. UNLESS OTHERWISE SPECIFIED, COMPARABLE PRODUCTS OF OTHER MANUFACTURERS SHALL BE ACCEPTABLE, SUBJECT TO THE APPROVAL OF THE ARCHITECT. THE FINISH HARDWARE SHALL BE THE PRODUCTS OF MANUFACTURERS THAT HAVE BEEN CONTINUOUSLY ENGAGED IN THE PRODUCTION OF SUCH PRODUCTS FOR A PERIOD OF NOT LESS THAN 10 YEARS.
- 4. HARDWARE THROUGHOUT TO BE SUBSTANTIALLY MANUFACTURED, FABRICATED AND ASSEMBLED, PARTS WELL FITTED AND OF EASY OPERATION. CAST WORK TO BE TRUE, FREE FROM SEAMS, BLISTERS OR OTHER DEFECTS. ALL LINES, EDGES AND

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ORNAMENTAL WORK TO BE SHARP AND TRUE. FINISH NUMBERS ARE FROM BUILDERS HARDWARE MANUFACTURERS ASSOCIATION STANDARD 1301.

D. SUBMITTALS

- 1. PROVIDE 6 COPIES OF DETAIL FINISH HARDWARE SCHEDULES BASED ON THE FINISH HARDWARE REQUIREMENTS INDICATED HERE AND ON THE DRAWINGS. FINISH HARDWARE SCHEDULE SHALL INDICATE THE COMPLETE DESIGNATION OF EVERY ITEM REQUIRED FOR EACH DOOR AND OPENING. DRAWINGS SHALL BE SUBMITTED FOR ARCHITECT'S REVIEW AND APPROVAL PRIOR TO PURCHASE AND INSTALLATION.
- 2. PROVIDE 6 COPIES OF MANUFACTURER'S DATA FOR EACH ITEM OF FINISH HARDWARE. INCLUDE INFORMATION NECESSARY FOR INSTALLATION AND FOR MAINTENANCE OF OPERATING PARTS AND EXPOSED FINISHES.
- 3. PROPOSED SUBSTITUTIONS TO THE FINISH HARDWARE PRODUCTS SPECIFIED ON THE DRAWINGS SHALL BE SUBMITTED WITH THE BID PROPOSAL AND ACCOMPANIED BY MANUFACTURER'S DETAILED DESCRIPTIVE DATA. SUBSTITUTIONS WILL NOT BE ALLOWED AFTER BID AWARD EXCEPT IN EXTREME EXTENUATING CIRCUMSTANCES AND IF OWNER APPROVED.
- 4. FURNISH HARDWARE TEMPLATES TO EACH FABRICATOR OF DOORS, FRAMES AND OTHER WORK TO BE FACTORY PREPARED FOR THE INSTALLATION OF FIELD APPLIED HARDWARE.

E. PACKAGING

INDIVIDUALLY PACKAGE EACH UNIT OF FINISH HARDWARE COMPLETE WITH FASTENERS AND APPURTENANCES. EACH HARDWARE PACKAGE SHALL INDICATE THE CONTENTS AND SHALL BE CLEARLY MARKED WITH IDENTIFICATION RELATED TO THE FINISH HARDWARE SCHEDULE AS SHOWN ON THE CONSTRUCTION DRAWINGS. ALL SPECIAL WRENCHES OR OTHER INSTALLATION TOOLS SHALL BE INCLUDED WITH THE HARDWARE SETS.

08700.02 **PRODUCTS**

A. GENERAL

SPECIFIC PROPRIETARY PRODUCTS INDICATED ON THE DRAWINGS OR HEREIN ARE THE MINIMUM ACCEPTABLE STANDARDS OF UTILITY AND QUALITY. UNLESS OTHERWISE APPROVED BY THE ARCHITECT, PROVIDE ONLY THOSE SPECIFIC PRODUCTS INDICATED ON THE DRAWINGS OR HEREIN. SUBSTITUTE ITEMS OF FINISH HARDWARE SHALL NOT BE ACCEPTABLE AFTER FINAL REVIEW OF THE FINISH HARDWARE SCHEDULE.

B. <u>HINGES</u>

1. WHERE DOORS ARE TO OPEN 180 DEGREES OR WHERE DOOR TRIM OR FRAMES PROJECT, THE BUTTS SHALL BE OF WIDTH TO THROW CLEAR.

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- 2. EXTERIOR BUTTS ON OUTSWINGING DOORS TO HAVE NON-REMOVABLE PINS.
- 3. FURNISH 3 BUTTS OR HINGES FOR EACH DOOR LEAF UP TO 90" HIGH OR 36" WIDE AND 1 ADDITIONAL BUTT OR HINGE FOR EACH 30" OR FRACTION THEREOF OVER 90" HIGH OR 12" WIDE. DOORS LESS THAN 72" SHALL HAVE 2 BUTTS PER LEAF, UNLESS NOTED OTHERWISE IN SCHEDULE.

C. LOCKS AND LATCHES

SHALL BE UNIT LOCKSETS AND LATCHSETS. LOCKS AND LATCHSETS ARE TO BE FURNISHED COMPLETE WITH KNOBS, ROSES, ASA STRIPS, ETC. SUPPLIERS OF HARDWARE SHALL INSPECT EACH LOCK TO CHECK THE KEYING SYSTEM AND SEE THAT SAME MEETS WITH APPROVED KEYING DIAGRAM.

D. DOOR CLOSERS

ALL CLOSERS MUST BE OF THE SAME MANUFACTURER'S MODEL SERIES, EXCEPT FOR CONCEALED CLOSERS. SUPPLIER MUST PROVIDE SPECIAL TEMPLATE FOR DOOR CHECKS. SIZE OF CLOSERS SHALL BE AS RECOMMENDED BY MANUFACTURER FOR EACH DOOR SIZE, EXCEPT EXTERIOR DOORS WHICH SHALL BE ONE SIZE LARGER. ALL CLOSERS MUST BE ABLE TO CLOSE DOORS AGAINST, WEATHERSTRIP WHEN USED. FURNISH PARALLEL-ARM DOOR CLOSERS AT OUTSWINGING EXTERIOR DOORS AND INTERIOR DOORS WHERE NOTED IN SCHEDULE.

E. DOOR TRIM

- 1. DOOR TRIM AND DOOR PULLS, MANUFACTURED BY SARGENT, FLUSH BOLTS BY QUALITY, UNLESS OTHERWISE SPECIFIED.
- 2. DOOR STOPS SHALL BE USED WHEN POSSIBLE. WHERE WALL TYPE CANNOT BE USED, FLOOR TYPE MAY BE SUPPLIED.
- 3. THRESHOLDS AND WEATHERSTRIP SHALL BE MANUFACTURED BY SAME COMPANY. THRESHOLD SHALL BE COPED AROUND FRAMES.
- 4. DOOR SILENCERS: 3 EACH SINGLE, 4 EACH PAIR HOLLOW METAL DOORS.

F. FINISHES

ALL HARDWARE SHALL HAVE FINISH US26D UNLESS OTHERWISE SPECIFIED. DOOR CLOSERS TO BE PAINTED TO MATCH. STEEL BUTTS ARE TO BE US26D. ARMOUR PLATES AND KICK PLATES TO BE US32D FINISH, UNLESS OTHERWISE NOTED ON DRAWINGS OR HARDWARE SCHEDULE.

G. STRIKES

FURNISH ALL HARDWARE TO TEMPLATE. FURNISH ASA STRIKES AND BOX STRIKES FOR FRAMES.

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H. FASTENERS

- 1. PROVIDE THE FINISH HARDWARE WITH SCREWS, BOLTS, AND OTHER FASTENERS OF SUITABLE SIZE AND TYPE TO SECURELY ANCHOR THE HARDWARE IN PLACE.
- 2. FINISH HARDWARE FASTENERS SHALL BE COMPATIBLE WITH BOTH THE UNIT FASTENED AND THE SUBSTRATE AND SHALL NOT CAUSE DETERIORATION OF FINISH HARDWARE, SUBSTRATE, OR FASTENER.
- 3. ALL EXPOSED FASTENERS SHALL MATCH THE FINISH HARDWARE, AS TO MATERIAL AND FINISH.

I. LABEL HARDWARE

FURNISH UL APPROVED HARDWARE WHERE REQUIRED. ALL LABELED DOORS WHERE REQUIRED SHALL HAVE DOOR CLOSERS WHETHER SPECIFIED OR NOT. LABEL HARDWARE SHALL BE IN COMPLIANCE WITH NFPA 80, "STANDARDS FOR FIRE DOORS AND WINDOWS".

J. KEYING

- 1. LOCKS SHALL BE MASTER AND GROUND MASTER KEYED. HARDWARE SUPPLIER SHALL CONFER WITH ENGINEER AND OWNER TO DETERMINE KEYING SYSTEM, AND SHALL SUBMIT A KEYING DIAGRAM IN TRIPLICATE FOR APPROVAL. KEYING SHALL BE REQUIRED BY LOCKSETS PIN REQUIREMENTS SPECIFIED IN SECTION 08710.
- 2. TYPICALLY, FURNISH 3 KEYS FOR EACH LOCK, 6 MASTER KEYS FOR EACH GROUP. ALL CYLINDERS SHALL BE KEYED BY THE MANUFACTURER.
- 3. MASTER KEYS SHALL BE DELIVERED DIRECTLY TO THE OWNER IN A SEALED CONTAINER, DIRECTLY FROM THE MANUFACTURER.
- 4. ALL LOCKS SHALL BE CONSTRUCTION KEYED.
- 5. FURNISH 12 KEY BLANKS FOR SECTIONS SUPPLIED ON THIS PROJECT.

K. DOOR PROTECTIONS

KICK PLATES, MOP PLATES, DOOR ARMOUR AND PUSH PLATES SHALL BE 16 GAUGE, TYPE 304 STAINLESS STEEL. PLATES SHALL BE PROVIDED WITH COUNTERSUNK SCREW HOLES, EDGES OF ALL PLATES SHALL BE BEVELED WITH NO SHARP CORNERS OR EDGES. ARMOUR PLATES SHALL BE SINGLE PIECE OR 2 PIECE DOOR EDGE WRAP TYPE EXCEPT WHERE FULL HEIGHT EDGE CHANGES ARE SCHEDULED.

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08700.03 **EXECUTION**

A. COORDINATION

SUPPLY ALL NECESSARY TEMPLATES AND TEMPLATE INFORMATION IN AMPLE TIME TO PREVENT DELAY IN THE PROGRESS OF THE PROJECT. HARDWARE SUPPLIER SHALL LAY OUT JOB BY ARRANGING HARDWARE IN A LOCKED ROOM FURNISHED BY GENERAL CONTRACTOR.

B. <u>INSTALLATION</u>

SEE SECTION 06200, FINISH CARPENTRY.

C. HARDWARE SETS AND DOOR HARDWARE SCHEDULE

- THE HARDWARE LIST IN SECTION 08710 SHALL BE TAKEN AS A GUIDE TO TYPE AND QUALITY OF HARDWARE FOR EACH ITEM. ANY OPENING WHICH MAY HAVE BEEN OMITTED SHALL TAKE THE SAME TYPE OF HARDWARE AS SPECIFIED FOR DOORS OF SIMILAR FUNCTION. ALL LOCKS, BOLTS, ETC. SHALL BE BEVELED, ROUNDED OR RABBETED TO FIT FINAL DETAILS. SEE DOOR SCHEDULE ON DRAWINGS FOR HARDWARE SET REQUIREMENTS.
- 2. THE HARDWARE SUPPLIER SHALL ORDER ALL ITEMS FROM VARIOUS FACTORIES UPON RECEIPT OF APPROVED SCHEDULE. TO AVOID ANY DELAY IN DELIVERY OR DELAY IN THE MANUFACTURING OF DOORS AND FRAMES, THE HARDWARE SUPPLIER IS TO PROVIDE TEMPLATES TO THE DOOR MANUFACTURER AT THAT TIME.

END OF SECTION

DIVISION 9 09221- PORTLAND CEMENT BOARD

09221.01 <u>SCOPE OF WORK</u>

- A. WORK SPECIFIED IN THIS SECTION
- 1. PROVIDE PORTLAND CEMENT BOARD AND RELATED ITEMS. WORK INCLUDES, BUT IS NOT NECESSARILY LIMITED TO, THE FOLLOWING ITEMS:
 - EXTERIOR CEMENT BOARD SOFFITS
 - EXTERIOR CEMENT BOARD CEILINGS
 - METAL SUPPORT SYSTEM FOR CEMENT BOARD
 - BACKERBOARD FOR EXTERIOR OR INTERIOR TILE, THIN BRICK OR OTHER FACING MATERIALS
 - INTERIOR WALLS
 - INTERIOR CEILINGS
- SUPERVISE SETTING OF INSERTED OR ANCHORED ITEMS FURNISHED AND INSTALLED UNDER OTHER SECTIONS.
- B. WORK SPECIFIED IN OTHER SECTIONS
 - SEALANTS
 - GYPSUM DRYWALL
 - ACCESS DOORS OR PANELS
 - INSULATION
 - VENTS
 - LIGHTING
 - CERAMIC TILE
- C. SUBMITTALS
- 1. SUBMIT COMPLETE SHOP DRAWINGS AND/OR MANUFACTURER'S LITERATURE AND DATA FOR REVIEW OF FOLLOWING ITEMS:
 - a) METAL SUPPORT SYSTEM FOR CEMENT BOARD APPLICATION.
 - b) CEILING SUSPENSION SYSTEM FOR CEMENT BOARD APPLICATION.
 - c) COLOR SELECTION CHARTS.
- 2. ALSO SUBMIT SAMPLES OF THE FOLLOWING MATERIALS FOR REVIEW:
 - a) METAL SUPPORT SYSTEM AND ACCESSORIES.
 - b) CONTROL JOINT.
 - c) CORNER BEAD.

09221 - PORTLAND CEMENT BOARD

- 2. SUBMIT MANUFACTURER'S CERTIFICATION THAT THE MATERIALS TO BE USED IN THE WORK MEET THE REQUIREMENTS OF THE SPECIFICATIONS.
- 3. SUBMIT UL CERTIFICATION INDICATING THE CEMENT BOARD SOFFIT OR CEILING ASSEMBLY HAS BEEN TESTED AND APPROVED FOR THE FIRE RATINGS INDICATED ON THE DRAWINGS.

D. JOB CONDITIONS

- 1. INSPECT SURFACES TO RECEIVE CEMENT BOARD. STARTING OF WORK CONSTITUTES ACCEPTANCE OF SURFACES.
- 2. DURING COOL WEATHER, MAINTAIN INSTALLATION AREAS AT A UNIFORM TEMPERATURE OF 55°F TO 70°F WHILE PERFORMING WORK SPECIFIED HEREIN AND DURING CURING PERIOD. PROVIDE ADEQUATE VENTILATION TO ELIMINATE EXCESSIVE MOISTURE.
- 3. HOT AND DRY WEATHER MAY AFFECT WORKING TIME OF LEVELING/SKIM OR BASECOAT AND FINISH MATERIALS. UNDER RAPID DRYING CONDITIONS, DAMPENING OF BOARD, LEVELING/SKIM OR BASECOAT SURFACE MAY BE REQUIRED TO IMPROVE WORKABILITY.
- 4. FINISHES LEVELING/SKIM COATS AND BASECOATS SHALL NOT BE APPLIED TO EXTERIOR CEMENT BOARD THAT IS WET. AFTER APPLICATION, AND FOR AT LEAST 24 HOURS, FINISHES, LEVELING/SKIM COATS AND BASECOATS SHALL BE EFFECTIVELY PROTECTED FROM RAIN AND MOISTURE.

09221.02 **PRODUCTS**

A. GENERAL

- 1. MATERIALS SHALL BE SUPPLIED BY UNITED STATES GYPSUM COMPANY OR NATIONAL GYPSUM COMPANY (GLASCRETE), OR AS OTHERWISE APPROVED BY THE ARCHITECT.
- 2. PROVIDE ALL CEMENT BOARD MATERIALS FROM ONE MANUFACTURER, MATERIAL AND INSTALLATION TO CONFORM TO ANSI STANDARDS, AS NOTED, ASTM C36, C947, C473 AND E84, AND UL LISTED CONSTRUCTION.

B. CEMENT BOARD

1. DUROCK CEMENT BOARD, ½" THICK X 48" WIDTH X 8' WITH FORMED, SMOOTH AND REINFORCED EDGES, SQUARE CUT ENDS OR WONDERBOARD CEMENTITIOUS BACKERBOARD 7/16" THICK X 36" WIDTH X 8' WITH FORMED, SMOOTH AND REINFORCED EDGES, SQUARE CUT ENDS.

C. FASTENERS

DUROCK STEEL SCREWS, $1\frac{1}{4}$ " OR 1 5/8" FOR 14 TO 20-GA. STEEL FRAMING; DUROCK WOOD SCREWS, $1\frac{1}{4}$ ", 1 5/8" OR $2\frac{1}{4}$ ", WAFER HEAD, FOR WOOD FRAMING; OR EQUIVALENT AS RECOMMENDED BY THE MANUFACTURER.

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D. JOINT/CORNER REINFORCEMENT

2" WIDE, POLYMER COATED, OPEN MESH, GLASS FIBER TAPE WITH PRESSURE SENSITIVE ADHESIVE.

E. <u>LEVELING/SKIM AND BOND COATS</u>

MEETING ANSI A118.4: LATEX FORTIFIED PORTLAND CEMENT MORTAR FOR CERAMIC TILE AND THIN-BRICK.

F. GROUT

MEETING ANSI A118.6: LATEX FORTIFIED PORTLAND CEMENT GROUT FOR CERAMIC TILE AND THIN-BRICK.

G. BASECOAT FOR EXTERIOR FINISH SYSTEM

EXTERIOR BASECOAT, GRAY, READY-TO-MIX PORTLAND CEMENT MORTAR CONTAINING DRY LATEX POLYMERS.

H. FINISH COAT FOR EXTERIOR FINISH SYSTEM

EXTERIOR FINISH, READY-MIXED ACRYLIC COATING, COLOR AS SELECTED BY THE ARCHITECT.

I. CONTROL JOINT

DUROCK ZINC CONTROL JOINT, OR AS OTHERWISE RECOMMENDED BY THE MANUFACTURER.

J. METAL TRIM

ZINC $\frac{1}{2}$ " J-TRIM AND $\frac{1}{2}$ " L-TRIM AS DETAILED ON THE DRAWINGS AND AS OTHERWISE REQUIRED.

K. CORNER REINFORCEMENT

CORNER BEAD AS RECOMMENDED BY THE MANUFACTURER.

09221.03 EXECUTION

A. GENERAL

INSTALL PORTLAND CEMENT BOARD, ACCESSORIES, BASECOAT AND FINISH MATERIALS AS RECOMMENDED BY THE MANUFACTURER AND AS HEREIN SPECIFIED.

B. FRAMING ERECTION

SPACE WOOD OR STEEL FRAMING, AS APPLICABLE, A MAXIMUM OF 16" O.C. ADEQUATE DIAGONAL BRACING MEETING DESIGN REQUIREMENTS MUST BE INSTALLED FLUSH WITH

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THE FRAMING MEMBERS PRIOR TO APPLICATION OF DUROCK BOARD. THE STUDS OF FREESTANDING FURRED WALLS MUST BE SECURED TO EXTERIOR WALL WITH WALL FURRING BRACKETS OR LATERALLY BRACED WITH HORIZONTAL STUDS OR RUNNERS SPACED 4' O.C. MAX.

C. MEMBRANE - WATER BARRIER

- 1. FOR STEEL FRAMING, SECURE MEMBRANE WITH TAPE OR ADHESIVE AND IMMEDIATELY APPLY EXTERIOR CEMENT BOARD, OR STAPLE MEMBRANE TO BACK OF EXTERIOR CEMENT BOARD WITH ½" CROWN, ¼" TO _" LEG STAPLES. EXTEND MEMBRANE 2" TO 3" BEYOND BOARD EDGES AND LAP MEMBRANE AT JOINTS IN SHINGLE-LIKE MANNER TO PREVENT WATER PENETRATION INTO STUD CAVITY.
- 2. FOR WOOD FRAMING, PLYWOOD OR GYPSUM SHEATHING, STAPLE MEMBRANE AND IMMEDIATELY APPLY CEMENT PANELS.

D. EXTERIOR CEMENT BOARD APPLICATION

- 1. APPLY EXTERIOR CEMENT BOARD WITH ROUGH SIDE TOWARD EXTERIOR AND WITH ENDS AND EDGES OVER SUPPORTS. FIT ENDS AND EDGES CLOSELY, BUT NOT FORCED TOGETHER. FOR EXTERIOR CEMENT BOARD WITH STAPLE-ATTACHED MEMBRANE, APPLY IN A SHINGLE-LIKE MANNER BEGINNING AT BOTTOM OF WALL. STAGGER END JOINTS IN SUCCESSIVE COURSES.
- 2. FASTEN EXTERIOR CEMENT BOARD TO FRAMING WITH SPECIFIED FASTENERS. DRIVE FASTENERS IN FIELD OF EXTERIOR CEMENT BOARD FIRST, WORKING TOWARDS ENDS AND EDGES. HOLD EXTERIOR CEMENT BOARD IN FIRM CONTACT WITH FRAMING WHILE DRIVING FASTENERS. SPACE FASTENERS MAX. 8" O.C. FOR WALLS, 6" O.C. FOR CEILINGS, WITH PERIMETER FASTENERS AT LEAST _" AND LESS THAN _" FROM ENDS AND EDGES. DRIVE NAILS AND SCREWS SO BOTTOM OF HEADS ARE FLUSH WITH SURFACE OF PANELS, TO PROVIDE FIRM PANEL CONTACT WITH FRAMING. DO NOT OVERDRIVE FASTENERS.
- 3. INSTALLATION PRACTICES: EXTERIOR CEMENT BOARD SHOULD BE CUT TO SIZE UTILIZING A KNIFE AND A STRAIGHT EDGE. (A POWER SAW SHOULD BE USED ONLY IF IT IS EQUIPPED WITH A DUST COLLECTION DEVICE. WORKER SHOULD WEAR NIOSHAPPROVED DUST MASK.)

E. JOINT REINFORCEMENT

EMBED EXTERIOR TAPE CENTERED OVER ALL JOINTS AND CORNERS BUT NOT OVERLAPPED. FOR EXTERIOR FINISH SYSTEM, PREFILL JOINTS WITH EXTERIOR BASECOAT AND THEN IMMEDIATELY EMBED TAPE AND LEVEL THE JOINTS. AS AN ALTERNATIVE, APPLY EXTERIOR TAPE OVER JOINT AND THEN APPLY LATEX FORTIFIED MORTAR OR EXTERIOR BASECOAT, FORCING IT THROUGH TAPE TO COMPLETELY FILL AND LEVEL JOINTS. THIS MAY REQUIRE SEVERAL PASSES. FOR EXPOSED AGGREGATE FINISHES, APPLY EXTERIOR TAPE AND IMMEDIATELY APPLY THE REQUIRED THICKNESS OF COATING OVER ENTIRE SURFACE AND EMBED STONE AGGREGATE.

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F. TRIM ACCESSORIES

- 1. TRIM ACCESSORIES ARE APPLIED USING SCREWS, HOT-DIPPED GALVANIZED ROOFING NAILS. MONEL OR STAINLESS STAPLES. SPACE STAPLES 6" TO 9" O.C. IN EACH FLANGE.
- 2. FOR EXTERIOR FINISH SYSTEM, TREAT TRIM ACCESSORIES WITH BASECOAT AND LEVEL WITH ADJACENT BOARD AREAS. FILL ALL VOIDS AND DEPRESSIONS WITH BASECOAT AND FEATHER MORTAR EDGES. THE TREATED JOINTS AND TRIM AREAS MUST BE ALLOWED TO CURE FOR A MINIM OF 4 HOURS BEFORE APPLICATION OF BASECOAT.

G. EXTERIOR FINISH

- 1. BASECOAT: APPLY A 1/16" MINIMUM THICK, UNIFORM LAYER OF EXTERIOR BASECOAT OVER THE ENTIRE SURFACE AFTER JOINTS AND TRIM HAVE CURED A MINIMUM OF 4 HOURS. APPLY MATERIAL BY TIGHTLY SCRATCHING IN AN INITIAL COAT, THEN DOUBLING UP TO THE 1/16" THICKNESS. DO NOT ADD SAND OR OTHER ADDITIVES. DO NOT APPLY MATERIAL GREATER THAN _" THICK IN A SINGLE APPLICATION. LEAVE SURFACE SMOOTH AND FLAT. UNDER RAPID DRYING CONDITIONS, DAMPEN SURFACES AS NECESSARY TO IMPROVE WORKABILITY. ALLOW BASECOAT TO CURE 24 HOURS BEFORE APPLICATION OF EXTERIOR FINISH COAT.
- 2. FINISH COAT: TROWEL-APPLY EXTERIOR FINISH IN A 1/16" MINIMUM THICK, UNIFORM LAYER OVER ALL BASE-COATED SURFACES. DO NOT ADD SAND OR OTHER ADDITIVES TO CREATE HEAVIER TEXTURES (MATERIAL IS NOT DESIGNED FOR TEXTURE HEAVIER THAN 3/16"). IF NECESSARY, ADJUST CONSISTENCY AND WORKING PROPERTIES BY ADDING UP TO 8 OZ. CLEAN WATER PER 70 LB. PAIL OF FINISH MATERIAL. ADD THE SAME AMOUNT OF WATER TO ALL SUBSEQUENT PAILS TO ENSURE COLOR UNIFORMITY. MIX WELL FOR UNIFORM CONSISTENCY. TEXTURE AS REQUIRED, USING PLASTIC OR WOOD FLOATS.
- 3. SPRAY APPLICATION: FOR INFORMATION ON SPRAY APPLICATION OF BASECOAT AND FINISH, CONTACT MANUFACTURER'S TECHNICAL REPRESENTATIVE.

END OF SECTION

DIVISION 9 09250 - GYPSUM DRYWALL

09250.01 SCOPE OF WORK

A. WORK SPECIFIED IN THIS SECTION

- 1. PROVIDE GYPSUM DRYWALL WORK AND RELATED ITEMS. WORK INCLUDES, BUT IS NOT NECESSARILY LIMITED TO, THE FOLLOWING ITEMS:
 - GYPSUM BOARD AND JOINT TREATMENT
 - METAL STUD SYSTEM FOR DRYWALL PARTITION
 - SUSPENSION SYSTEM FOR DRYWALL CEILING AND SOFFITS
 - ACCESSORIES FOR DRYWALL PARTITIONS AND CEILING INSTALLATIONS
- 2. SUPERVISE SETTING OF INSERTED OR ANCHORED ITEMS FURNISHED AND INSTALLED UNDER OTHER SECTIONS.

B. WORK SPECIFIED IN OTHER SECTIONS

- ACOUSTIC TILE CEILINGS
- ROUGH CARPENTRY
- PORTLAND CEMENT BOARD
- VENEER PLASTER
- AREA SEPARATION WALLS
- DOOR/FRAMES
- ACCESS DOORS
- INSULATION FOR METAL STUD INTERIOR WALL SYSTEM

C. <u>SUBMITTALS</u>

- 1. SUBMIT COMPLETE SHOP DRAWINGS AND/OR MANUFACTURER'S CATALOG DATA FOR REVIEW OF FOLLOWING ITEMS:
 - a) METAL PARTITION SYSTEM FOR DRYWALL APPLICATION.
 - b) CEILING SUSPENSION SYSTEM FOR DRYWALL APPLICATION.
- 2. IF REQUESTED, SUBMIT SAMPLES OF THE FOLLOWING MATERIALS FOR REVIEW:
 - a) METAL STUDS, TRACK AND ACCESSORIES, INTERIOR.
 - b) CONTROL JOINT.
 - c) CORNER BEAD, TRIM PIECES.
- 3. SUBMIT MANUFACTURER'S CERTIFICATION THAT THE MATERIALS TO BE USED IN THE WORK MEET THE REQUIREMENTS OF THE SPECIFICATIONS.
- 4. SUBMIT UL CERTIFICATION INDICATING THE GYPSUM WALL BOARD WALL OR CEILING ASSEMBLY HAS BEEN TESTED AND APPROVED FOR THE FIRE RATINGS INDICATED ON THE DRAWINGS.

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D. JOB CONDITIONS

- 1. INSPECT SURFACES TO RECEIVE GYPSUM DRYWALL. STARTING OF WORK CONSTITUTES ACCEPTANCE OF SURFACES.
- 2. DURING COLD WEATHER, MAINTAIN INSTALLATION AREAS AT A UNIFORM TEMPERATURE OF 55°F TO 70°F WHILE PERFORMING WORK SPECIFIED HEREIN AND DURING CURING PERIOD. PROVIDE ADEQUATE VENTILATION TO ELIMINATE EXCESSIVE MOISTURE.

E. MANUFACTURERS

- U.S. GYPSUM COMPANY
- THE CELOTEX CORP.
- GENSTAR (DOMTAR) GYPSUM, DOMTAR, INC.
- GEORGIA PACIFIC GYPSUM DIVISION
- GOLD BOND BUILDING PRODUCTS, NATIONAL GYPSUM COMPANY

F. DELIVERY AND STORAGE

DELIVER MATERIALS IN ORIGINAL PACKAGES BEARING BRAND NAME AND NAME OF MANUFACTURER. KEEP DRY AND PROTECT FROM WEATHER UNTIL READY FOR USE. WATER-DAMAGED OR DEFECTIVE MATERIAL WILL BE REJECTED.

G. SOUND RATING

SOUND RATED GYPSUM BOARD PARTITIONS TO HAVE SOUND TRANSMISSION COEFFICIENT OF STC 46 OR BETTER, BASED ON 3 5/8" AND/OR 6" METAL STUDS, 5/8" THICK GYPSUM WALLBOARD WITH TAPED JOINTS ON BOTH SIDES OF STUDS, COMPLETE PERIMETER CAULKING BOTH SIDES, AND 3" THICK SOUND ATTENUATION BLANKET OF TYPE SPECIFIED.

09250.02 PRODUCTS

A. STANDARDS

PROVIDE ALL DRYWALL MATERIALS FROM ONE MANUFACTURER, CONFORMING TO FEDERAL SPECIFICATION SS-L-30 AND ASTM C36.

B. FACE BOARD

GYPSUM WALL BOARD WITH TAPERED EDGE 5/8" THICK BY 48".

C. <u>FIRE-RATED BOARD</u>

- 1. TAPERED EDGE FIRE-RATED GYPSUM WALLBOARD 5/8" THICK BY 48" WIDE. BOARD TO CONFORM TO ASTM C36, TYPE X.
- 2. FIRECODE BY U.S. GYPSUM.

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- FIRE-SHIELD BY NATIONAL GYPSUM.
- PROVIDE FIRE-RATED BOARD TO ACHIEVE HOUR RATING AS CALLED FOR ON DRAWINGS.

D. <u>WATER-RESISTANT GYPSUM WALLBOARD</u>

SHEETROCK W/R BY U.S. GYPSUM, GOLD BOND MR BOARD, OR EQUAL, 5/8" THICK.

E. SOUND ATTENUATION BLANKET

THERMAFIBER SOUND ATTENUATION BLANKET, MINERAL FIBER, WITHOUT BACKING, 3" THICK, DENSITY 4 LBS. PER CUBIC FOOT, CONFORMING TO FEDERAL SPECIFICATION HH-I-521D, TYPE 1.

F. ACOUSTICAL SEALANT

TYPE RECOMMENDED BY GYPSUM WALLBOARD MANUFACTURER.

G. <u>LAMINATING ADHESIVE</u>

JOINT COMPOUND, OR LAMINATING ADHESIVE AS RECOMMENDED BY MANUFACTURER OF THE GYPSUM WALL BOARD, FOR APPLICATION TO SPECIFIC SURFACES.

H. JOINT TREATMENT

PERFORATED TAPE JOINT REINFORCEMENT AND JOINT COMPOUND. JOINTS TO RECEIVE TAPE AND A MINIMUM OF 3 COATS OF JOINT COMPOUND.

I. METAL TRIM AND ACCESSORIES

PROVIDE FOLLOWING ITEMS, AS REQUIRED, AS MANUFACTURED BY U.S. GYPSUM OR EQUAL AS APPROVED BY THE ARCHITECT:

- a) NO.800 CORNER BEAD GALVANIZED STEEL WITH EXPANDED METAL LEGS.
- b) DUR-A-BEAD GALVANIZED STEEL REINFORCEMENT FOR EXTERNAL CORNERS, NO.103.
- c) NO.200A METAL TRIM, U-SHAPED.
- d) NO.801-A AND 801-B GALVANIZED, U-SHAPED, WITH EXPANDED METAL FLANGE.
- e) NO.400 SERIES METAL TRIM, U-SHAPED.
- f) METAL STUDS, 25 GAUGE GALVANIZED STEEL.
- g) NO.358ST20 & 600ST20, 3 5/8" OR 6" WIDE.

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- h) USG METAL FURRING CHANNELS, 20 GAUGE, GALVANIZED STEEL.
- i) USG ADJUSTABLE WALL FURRING BRACKETS, 25 GAUGE, GALVANIZED STEEL.
- j) USG CEILING CARRYING CHANNEL, 22 GAUGE COLD-ROLLED STEEL, 1-1/2" WIDE.
- k) USG CONTROL JOINT, NO.093, MADE FROM ROLL-FORMED ZINC.
- 2. COMPARABLE PRODUCTS BY OTHER MANUFACTURERS ARE ACCEPTABLE.

J. HANGERS AND TIE WIRE

- 1. PROVIDE 12 GAUGE OR HEAVIER GALVANIZED STEEL WIRE FOR HANGERS.
- PROVIDE 12 GAUGE GALVANIZED ANNEALED WIRE FOR TIES.

K. MISCELLANEOUS ACCESSORIES

- 1. PROVIDE BOLTS, NAILS, SCREWS, CLIPS, SPLICE PLATES AND OTHER DEVICES NECESSARY FOR A COMPLETE INSTALLATION.
- 2. INCLUDE ATTACHMENT DEVICES FOR ANCHORING TO CONCRETE.

09250.03 EXECUTION

A. GENERAL

- 1. PROVIDE COMPLETE MECHANICAL SUPPORT SYSTEM SUITABLE TO RECEIVE GYPSUM WALLBOARD SPECIFIED HEREIN, CONSISTING OF ALL CARRYING CHANNELS, FURRING CHANNELS, METAL STUDS, TRIM AND ACCESSORIES.
- 2. INSTALL AND APPLY MATERIALS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PRINTED DIRECTIONS. EMPLOY AUTHORIZED INSTALLER, APPROVED BY THE MANUFACTURER TO DO ALL INSTALLATION WORK. INSTALL GYPSUM BOARD TO THE SIDE WALLS AFTER GYPSUM BOARD CEILINGS ARE ERECTED. APPLY GYPSUM BOARD FACINGS ON PARTITIONS SO THAT ALL OUTSIDE FACES OF DIFFERENT PARTITION THICKNESSES ARE ALIGNED FLUSH TO CONCEAL THICKNESS CHANGE.

B. <u>METAL STUDS</u>

- 1. ALIGN CEILING AND FLOOR RUNNER CHANNELS ACCURATELY AND ANCHOR SECURELY WITH SUITABLE FASTENERS SPACED NO MORE THAN 24" ON CENTERS.
- INSTALL STUDS VERTICALLY IN THE RUNNERS, 16" ON CENTERS. PROVIDE ADDITIONAL FRAMING AND HEADERS AT ALL OPENINGS AS REQUIRED.

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3. PROVIDE NECESSARY REINFORCEMENT IN PARTITIONS, AS RECOMMENDED BY THE MANUFACTURER, TO SUPPORT WALL-MOUNTED ITEMS AND THEIR DESIGN LOADS. INCLUDING ELECTRIC PANELS.

C. GYPSUM BOARD SUSPENDED CEILING SUSPENSION SYSTEM

- 1. INSTALL COMPLETE SUSPENSION SYSTEM WITH 1 1/2" CARRYING CHANNELS 4'0" ON CENTERS, SUPPORTED AT 4'0" INTERVALS FROM STRUCTURE ABOVE WITH 12 GAUGE GALVANIZED HANGER WIRES AND AT EACH END WITH FULL SADDLE TIES. LOCATE CARRYING CHANNELS AND FURRING CHANNELS TO AVOID RECESSED LIGHTING FIXTURES, AIR SUPPLY AND RETURN OPENINGS, AND OTHER EQUIPMENT IN CEILINGS. INSTALL HANGERS BETWEEN DUCTS. COORDINATE HANGER LOCATIONS WITH DUCT LOCATIONS WHEN STRUCTURAL FRAMING IS INSTALLED. PROVIDE CHANNEL WITHIN 6" OF WALLS. KEEP ENDS OF CARRYING AND FURRING CHANNELS 1" CLEAR OF WALLS. WHERE CHANNELS ARE LAPPED, LAPS MUST BE 12" MINIMUM.
- 2. SUPPORT FURRING CHANNELS WITH HANGER CLIPS FROM THE CARRYING CHANNELS.
- 3. DO ALL CUTTING, DRILLING, FITTING AND FIELD WELDING REQUIRED FOR INSTALLATION AND ATTACHMENT OF THIS WORK. SECURE GYPSUM WALLBOARD TO SUPPORTING STRUCTURE WITH POWER-DRIVEN SCREWS, SPACED 12" ON CENTERS.
- 4. INSTALL GYPSUM BOARD AT RIGHT ANGLES TO FURRING CHANNELS. FINISH JOINTS AND AROUND INSERTED ITEMS WITH PERFORATED TAPE AND COMPOUND, AND METAL EDGE TRIM WHERE INDICATED OR REQUIRED.
- 5. FINISHED CEILING TO BE LEVEL AND TRUE AT INDICATED HEIGHTS. CEILING JOINTS TO BE CONTINUOUS, STRAIGHT AND TIGHT. ALLOW FOR INSTALLATION OF LUMINARIES, HEATING, AIR-CONDITIONING AND VENTILATING OUTLETS, AND ALL OTHER CEILING PENETRATIONS. SUPERVISE SETTING OF INSERTED ITEMS.
- 6. PROVIDE METAL PLATE HANGERS, WHERE REQUIRED, FOR PENETRATIONS AND SUPPORT OF LIGHTING FIXTURES.

D. RESILIENT CHANNEL SYSTEM

- 1. ATTACH RESILIENT CHANNELS TO STUDS USING POWER-DRIVEN SCREWS AT EACH CHANNEL STUD INTERSECTION. LOCATE CHANNELS AT THE FLOOR, 24" UP FROM THE FLOOR, WITHIN 6" OF THE CEILING LINE, AND NO MORE THAN 24" ON CENTERS. EXTEND CHANNELS INTO ALL CORNERS AND FASTEN TO CORNER FRAMING.
- 2. SPLICE CHANNEL DIRECTLY OVER STUDS BY NESTING THE CHANNELS AND FASTENING BOTH FLANGES TO THE SUPPORT. APPLY GYPSUM BOARD HORIZONTALLY WITH ONE DIMENSION PARALLEL TO RESILIENT CHANNELS. ATTACH GYPSUM BOARD WITH 1" USG DRYWALL SCREWS TYPE S, SPACED 12" ON CENTERS ALONG THE CHANNELS. CENTER HORIZONTAL ABUTTING EDGES

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OF GYPSUM BOARD OVER SCREW FLANGE OF CHANNEL, AND SCREW FASTEN EACH EDGE. BACK-BLOCK ALL VERTICAL BUTT JOINTS WITH A MINIMUM 8" WIDE STRIP OF 5/8" GYPSUM BOARD.

3. APPLY METAL TRIM AND CORNER BEAD, CAULK PERIMETER, TREAT ALL JOINTS, FASTENER HEADS AND TRIM AS SPECIFIED.

E. GYPSUM FACING BOARD INSTALLATION

- 1. SCREW-ATTACHED METHOD: LOCATE SCREWS 1" FROM EDGE OF WALLBOARD AND 12" ON CENTER. DRIVE SCREWS 1/32" BELOW SURFACE. USE BOARDS OF MAXIMUM PRACTICAL LENGTHS AND WIDTHS TO MINIMIZE JOINTS. STAGGER END JOINTS IN ADJACENT COURSES. TREAT JOINTS, FASTENER HEAD DEPRESSIONS, AND ANY MINOR DEFECTS WITH PERFORATED TAPE JOINT SYSTEM. INSTALL METAL EDGE TRIM WHERE WALLBOARD ABUTS VERTICAL SURFACES OF DIFFERENT MATERIALS, AND AROUND CUTOUTS AND OPENINGS AS REQUIRED. DO NOT USE BOARDS WITH BROKEN OR DAMAGED EDGES. CUT FACING UNITS TO FULL CEILING HEIGHT LENGTHS. CUT AND FIT BOARDS IN NEAT AND WORKMANLIKE MANNER. POSITION FACING UNITS WITH VERTICAL EDGES ABUTTING AND WITH SURFACES FLUSH. LEAVE FINISHED WORK IN CONDITION TO RECEIVE DECORATIVE AND PROTECTIVE COVERINGS.
- 2. SOUND ATTENUATION BLANKET: PROVIDE 3" THICK SOUND-ATTENUATING BLANKET, AND ADHERE TO BACK OF BASE LAYER BOARD WITH STAPLES OR DABS OF ADHESIVE OF TYPE RECOMMENDED BY THE MANUFACTURER OF THE GYPSUM WALLBOARD.
- 3. METAL TRIM: INSTALL METAL EDGE TRIM WHERE GYPSUM WALLBOARDS WALLS AND CEILINGS ABUT SURFACES OF DIFFERENT MATERIALS AND AROUND CUTOUTS AND OPENINGS. FINISH METAL TRIM WITH JOINT COMPOUND AND SAND SMOOTH READY FOR SEALER OR PRIMER.
- 4. OPENINGS IN GYPSUM BOARD PARTITIONS: NEATLY CUT AND SCRIBE AROUND ALL DUCTS, PIPES AND SIMILAR PENETRATIONS OF PARTITIONS ABOVE AND BELOW THE CEILING LINE.

5. CONTROL JOINTS:

- a) PROVIDE CONTROL JOINTS AT ALL INTERSECTIONS OF GYPSUM WALLBOARD AND STRUCTURAL ELEMENTS OR DISSIMILAR MATERIALS.
- b) PROVIDE CONTROL JOINTS AT POINTS WHERE FURRING OR FRAMING MEMBERS CHANGE DIRECTIONS WITHIN THE PLANE OF A WALL OR CEILING.
- c) PROVIDE CONTROL JOINTS AT 60' INTERVALS IN EXPANSIVE CEILINGS AND OTHER AREAS EXCEEDING 2,400 SQ. FT. IN AREA.

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- d) PROVIDE CONTROL JOINTS AT 30 FOOT INTERVALS IN LONG UNINTERRUPTED RUNS OF WALLS.
- e) ATTACH CONTROL JOINT MATERIAL AS RECOMMENDED BY MANUFACTURER.

F. FIRE-RATED FACINGS

- 1. INSTALL FIRE-RATED FACINGS IN ACCORDANCE WITH THE REQUIREMENTS OF UNDERWRITERS' LABORATORIES INC. (UL), FOR THE REQUIRED HOUR FIRE RATING, AS INDICATED ON DRAWINGS.
- 2. PROVIDE FIRE-RATED PARTITIONS BY INSTALLING 2 LAYERS OF FIRE-RATED FACING BOARD ON EACH SIDE OF STEEL STUD PARTITION.
- 3. SECURE BASE LAYER BOARD VERTICALLY WITH SCREWS SPACED 12" ON CENTERS. DIMPLE HEAD BELOW SURFACE. APPLY RECOMMENDED ADHESIVE OR JOINT COMPOUND TO BACK OF FACING BOARD AS RECOMMENDED BY THE MANUFACTURER, AND LAMINATE TO BASE LAYER BOARD HORIZONTALLY. STAGGER ALL JOINTS OF FACE BOARD WITH RESPECT TO BASE LAYER BOARD. FINISH ALL JOINTS AND HOLES WITH PERFORATED TAPE AND JOINT COMPOUND.
- 4. PROVIDE CUTOUTS FOR PENETRATIONS AND TRIM AND SEAL JOINTS.

G. WATER-RESISTANT WALLBOARD

- 1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS. SPACE DRYWALL SCREWS 8" ON CENTERS. APPLY SHEETROCK BRAND W/R SEALANT TO ALL RAW CUT EDGES, INCLUDING UTILITY HOLES, JOINTS, CORNER INTERSECTIONS AND SCREW HEADS.
- 2. TAPE, CAULK AND SEAL ALL CUTOUTS. TAPE ALL JOINTS WHICH WILL BE EXPOSED. DO NOT TAPE JOINTS WHICH WILL BE COVERED WITH TILE.

H. FURRED MASONRY WALLS WITH FURRING CHANNELS

INSTALL FURRING ON 16" CENTERS MAXIMUM. SECURELY FASTEN TO MASONRY AND SET FURRING TRUE TO LINE, STRAIGHT AND PLUMB. ERECT WALLBOARD AT RIGHT ANGLES TO FURRING. SECURE TO FURRING WITH NAILS OR POWER-DRIVEN SCREWS AS RECOMMENDED BY THE MANUFACTURER. FINISH ALL JOINTS AND NAIL HOLES WITH PERFORATED TAPE AND JOINT COMPOUND. APPLY METAL TRIM.

I. FINISHING

TAPE, FILL WITH JOINT COMPOUND AND SAND ALL JOINTS IN DRYWALL CONSTRUCTION FULL HEIGHT OF WALLS AND ALL CEILING JOINTS. AFTER SANDING, TOUCH UP AND RESAND TO PRODUCE SMOOTH SURFACES READY TO RECEIVE SEALER AND PRIMERS.

09250 - GYPSUM DRYWALL

J. <u>CLEAN-UP AND PATCHING</u>

REMOVE DEBRIS AS WORK PROGRESSES AND AT COMPLETION OF WORK REMOVE ALL EQUIPMENT, EXCESS MATERIALS, AND DEBRIS FROM THE JOB. PATCH ALL DAMAGED OR DEFECTIVE DRYWALL SURFACES. LEAVE FINISHED WORK IN CONDITION TO RECEIVE DECORATIVE AND PROTECTIVE COVERINGS.

END OF SECTION

DIVISION 9 09310 - CERAMIC TILE

09310.01 <u>SCOPE OF WORK</u>

A. WORK SPECIFIED IN THIS SECTION

- 1. THE GENERAL REQUIREMENTS ARE MADE PART OF THIS SECTION AND APPLY TO THE WORK SPECIFIED.
- 2. FURNISH ALL LABOR, MATERIALS AND TOOLS NECESSARY TO INSTALL THE CERAMIC TILE FLOOR AND WALL FINISHES WHERE INDICATED ON THE DRAWINGS. SEE ROOM FINISH SCHEDULE FOR AREAS REQUIRING CERAMIC TILE SURFACES.

B. WORK SPECIFIED IN OTHER SECTIONS

- CAST-IN-PLACE CONCRETE
- GYPSUM DRYWALL

C. SUBMITTALS

- 1. SAMPLES: PROVIDE SAMPLES OF CERAMIC TILE FOR COLOR AND FINISH SELECTION. PROVIDE A COLOR CHART FOR GROUT COLOR SELECTION. NUMBER OF SAMPLES SUBMITTED SHALL BE OF SUFFICIENT QUANTITY FOR A REALISTIC REPRESENTATION OF COLOR RANGE AND PATTERN.
- 2. ADDITIONAL TILE AND OTHER MATERIAL: PROVIDE "ATTIC STOCK" TO OWNER OF 5 S.F. OR 5% OF EACH TYPE OF TILE USED, WHICHEVER IS GREATER, AND OTHER MATERIALS REQUIRED FOR COMPLETE AND PROPER INSTALLATION, FOR FUTURE REPLACEMENT OR REPAIR BY THE OWNER'S MAINTENANCE PERSONNEL.

D. GUARANTEE

- 1. THE CONTRACTOR SHALL GUARANTEE ALL WORK TO BE PERFORMED UNDER THIS CONTRACT AGAINST DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF 1 YEAR.
- 2. THE FOLLOWING TYPES OF FAILURE SHALL BE CONSIDERED AS DEFECTIVE FLOOR COVERING WORK:
 - CRACKED TILES
 - LOOSE TILES
 - INADEQUATELY GROUTED JOINTS

E. STANDARDS AND QUALITY ASSURANCE

1. USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND THE METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK OF THIS SECTION.

09310 - CERAMIC TILE

2. CERAMIC TILE AND ACCESSORIES ARE TO BE PROVIDED IN ACCORDANCE WITH AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) STANDARD A137.01 AND ARE TO MEET THE REQUIREMENTS OF AMERICANS WITH DISABILITIES ACT (ADA).

09310.02 PRODUCTS

A. MANUFACTURERS

- AMERICAN OLEAN TILE CO., LANDSDALE, PA 19446
- DAL-TILE, DALLAS, TX 75217
- MANNINGTON CERAMIC TILE, LEXINGTON, NC 27293-1777
- MONARCH TILE, FLORENCE, AL 35630
- SUMMITVILLE, SUMMITVILLE, OH 43962

B. <u>CERAMIC FLOOR TILE</u>

CERAMIC FLOOR TILE SHALL BE 2" X 2" X 1/4" UNGLAZED CERAMIC MOSAIC TILE, AND MATCHING COVER, CAP BULL NOSE AND COVE BASES. PROVIDE IN COLOR(S) AS SELECTED BY THE ARCHITECT FROM COLOR CHART, OR STANDARD PATTERN, AS MANUFACTURED BY DAL-TILE_OR EQUAL AS APPROVED BY THE ARCHITECT.

C. CERAMIC WALL TILE

CERAMIC WALL TILE SHALL BE 2" X 2" BRIGHT AND MATTE GLAZED WALL TILE, AS MANUFACTURED BY DAL-TILE OR EQUAL AS APPROVED BY THE ARCHITECT. COLOR SHALL BE AS SELECTED BY THE ARCHITECT.

09310.03 **EXECUTION**

A. SURFACE CONDITIONS

EXAMINE THE AREAS AND CONDITIONS UNDER WHICH WORK OF THIS SECTION WILL BE PERFORMED. CORRECT CONDITIONS DETRIMENTAL TO TIMELY AND PROPER COMPLETION OF THE WORK. DO NOT PROCEED UNTIL UNSATISFACTORY CONDITIONS ARE CORRECTED.

B. <u>CERAMIC FLOOR TILE INSTALLATION</u>

- 1. INSPECT SUB-FLOOR SURFACES AND REPORT ANY UNACCEPTABLE SURFACES OR CONDITIONS TO THE ENGINEER PRIOR TO INSTALLATION. DO NOT INSTALL GROUT BASE OR TILE ON UNACCEPTABLE SUB-FLOOR. ALL COATINGS, CURING MEMBRANES, OIL, GREASE, AND WAX TO BE REMOVED FROM SUB-FLOOR BEFORE PROCEEDING WITH INSTALLATION. SUB-FLOOR SHALL PITCH TO DRAINS AND HAVE A BROOM FINISH.
- 2. ALL MATERIALS SHALL BE STORED ON THE JOB AT A MINIMUM TEMPERATURE OF 70°F FOR 24 HOURS BEFORE, DURING AND 24 HOURS AFTER INSTALLATION.
- 3. LAY OUT TILE JOINTS AND EXPANSION JOINTS WITH RESPECT TO MAJOR WALLS IN ROOMS TO MINIMIZE CUTS, EXPANSION JOINTS. JOINTS SHALL BE PARALLEL TO PRINCIPAL WALLS, IN STRAIGHT, UNIFORM LINES.

09310 - CERAMIC TILE

- 4. MOSAIC FLOOR TILE AND WALL BASE ARE TO BE SET IN AN APPROVED LATEX PORTLAND CEMENT MORTAR ON A CURED BED, IN ACCORDANCE WITH TILE COUNCIL OF AMERICA METHOD F112, AND ANSI 108.1 AND A108.10. JOINTS TO BE GROUTED FULL AND RUBBED DOWN.
- 5. FLOOR TILE SHALL BE INSTALLED BY EXPERIENCED AND SKILLED WORKMEN ONLY. SPREAD ON EVENLY A THIN FILM OF ADHESIVE AND AS SOON AS IT IS TACKY, BED FLOORING FINISH SO THAT IT IS WELL BONDED IN PLACE.
- 6. FLOOR TILE UNITS SHALL BE CUT TO FIT NEATLY AND SNUGLY AT PIPES AND OTHER VERTICAL PROJECTIONS. JOINTS AT PIPES SHALL BE SEALED WITH WATERPROOF CEMENT. JOINTS SHALL BE STRAIGHT AND TRUE. SURFACES SHALL BE FLUSH AND LEVEL, LAND FLUSH WITH THE SURFACE OF ADJACENT FLOOR FINISH. SPOTS AND SMEARS OF ADHESIVE, AND STAINS, SHALL BE REMOVED IMMEDIATELY. CLEAN AND WAX TILE AS RECOMMENDED BY THE MANUFACTURER PRIOR TO TURNING OVER TO OWNER.

C. CERAMIC WALL TILE INSTALLATION

WALLS TO RECEIVE WALL TILE SHALL BE INSPECTED PRIOR TO INSTALLATION OF TILE AND ALL DEFECTS REMEDIED. TILE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS AND TILE COUNCIL OF AMERICAN INSTALLATION METHOD W242, ANSI A108.4 AND ANSI A108.10 USING AN ORGANIC ADHESIVE TYPE 1, AND ACRI-FIL GROUT. FURNISH ALL NECESSARY BULL NOSE, COVE AND BEAD TRIM PIECES.

D. CLEAN-UP AND PROTECTION

- 1. UPON COMPLETION OF PLACING AND GROUTING, CLEAN THE WORK OF THIS SECTION IN ACCORDANCE WITH RECOMMENDATIONS OF THE MANUFACTURERS OF THE MATERIALS USED.
- 2. PROTECT METAL SURFACES, CAST IRON, AND VITREOUS ITEMS FROM EFFECTS OF ACID CLEANING.
- 3. FLUSH SURFACES WITH CLEAN WATER BEFORE AND AFTER CLEANING.
- 4. PROVIDE REQUIRED PROTECTION OF TILE SURFACES TO PREVENT DAMAGE AND WEAR PRIOR TO ACCEPTANCE OF THE WORK BY THE OWNER.

E. <u>FINISHED WORK</u>

PROVIDE TILE SURFACES CLEAN AND FREE FROM CRACKED, BROKEN, CHIPPED, UNBONDED, AND OTHERWISE DEFECTIVE UNITS.

END OF SECTION

DIVISION 9 09510 - SUSPENDED ACOUSTICAL CEILINGS

09510.01 SCOPE OF WORK

A. WORK SPECIFIED IN THIS SECTION

- 1. THE GENERAL REQUIREMENTS ARE MADE A PART OF THIS SECTION AND APPLY TO THE WORK SPECIFIED.
- 2. FURNISH AND INSTALL ACOUSTICAL UNIT CEILINGS AND RELATED ITEMS REQUIRED TO COMPLETE THIS WORK AS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN, INCLUDING BUT NOT NECESSARILY LIMITED TO, THE FOLLOWING:
 - a) SUSPENSION SYSTEMS COMPLETE WITH SUPPLEMENTAL FRAMING AND HANGER WIRES AS REQUIRED TO ADEQUATELY SUPPORT THE ACOUSTICAL UNITS AND LIGHT FIXTURES.
 - b) ACOUSTICAL UNITS.
 - c) PERIMETER CLOSURES AND TRIM.
 - d) FASTENERS AND OTHER ACCESSORIES.
- B. WORK SPECIFIED IN OTHER SECTIONS

SUSPENDED CLEANABLE CEILINGS

C. STANDARDS, QUALITY ASSURANCE

1. THE WORK SHALL BE IN STRICT ACCORDANCE WITH THE STANDARDS, REQUIREMENTS AND RECOMMENDATIONS OF THE FOLLOWING:

AIMA - ACOUSTICAL AND INSULATING MATERIALS ASSOCIATION
ASTM - AMERICAN SOCIETY FOR TESTING AND MATERIALS
FS - FEDERAL SPECIFICATIONS

ALL APPLICABLE LOCAL CODES AND ORDINANCES

- 2. INSTALLATION SHALL BE MADE BY AN EXPERIENCED CONTRACTOR APPROVED BY THE MANUFACTURER OF THE ACOUSTICAL SYSTEMS AND MATERIALS AS SHOWN BY WRITTEN STATEMENT FROM MANUFACTURER, AND SHALL BE IN STRICT ACCORDANCE WITH THE ACOUSTICAL MATERIAL MANUFACTURER'S INSTRUCTIONS AND THESE SPECIFICATIONS.
- 3. INSTALLERS SHALL HAVE A MINIMUM OF 5 YEARS EXPERIENCE ON COMPARABLE PROJECTS.
- 4. TOLERANCES FOR OUT-OF-LEVEL OR LINE, AND/OR ANGULAR DISPLACEMENTS AND OPEN JOINTS SHALL NOT EXCEED THOSE LISTED IN ASTM C636, "INSTALLATION OF METAL CEILING SUSPENSION SYSTEMS FOR ACOUSTICAL TILE AND LAY-IN PANELS" (LATEST REVISION) EXCEPT AS SPECIFIED HEREIN.

09510 - SUSPENDED ACOUSTICAL CEILINGS

D. <u>SUBMITTALS</u>

- 1. PRODUCT SPECIFICATIONS AND INSTRUCTIONS:
 - a) SUBMIT MANUFACTURER'S PRODUCT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS FOR EACH ACOUSTICAL CEILING MATERIAL REQUIRED, AND FOR EACH SUSPENSION SYSTEM, INCLUDING LOAD-CARRYING DATA, CERTIFIED LABORATORY TEST REPORTS AND OTHER DATA AS REQUIRED TO SHOW COMPLIANCE WITH THESE SPECIFICATIONS. DISTRIBUTE ONE ADDITIONAL COPY OF EACH INSTALLATION INSTRUCTION TO THE INSTALLER.
 - b) CERTIFY COMPLIANCE WITH ASTM C635 (INCLUDING STRUCTURAL CLASSIFICATION) AND ANY OTHER SPECIFIED REQUIREMENTS, FOR EACH TYPE OF SUSPENSION SYSTEM.
 - c) INCLUDE MANUFACTURER'S RECOMMENDATIONS FOR CLEANING AND REFINISHING ACOUSTICAL UNITS, INCLUDING PRECAUTIONS AGAINST MATERIALS AND METHODS WHICH MAY BE DETRIMENTAL TO FINISHES AND ACOUSTICAL PERFORMANCE.
- 2. SAMPLES: SUBMIT 12" SQUARE SAMPLE FOR EACH ACOUSTICAL UNIT REQUIRED, AND 12" LONG SAMPLES OF EACH COMPONENT IN THE SUSPENSION SYSTEM. IN ALL SAMPLES SHOW THE FULL RANGE OF EXPOSED COLOR AND TEXTURE TO BE EXPECTED IN THE COMPLETED WORK. SAMPLE SUBMITTAL AND OWNER'S REVIEW WILL BE FOR COLOR AND TEXTURE ONLY. COMPLIANCE WITH OTHER REQUIREMENTS IS THE EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR.
- 3. SHOP DRAWINGS: SUBMIT SHOP DRAWINGS AND/OR MANUFACTURER'S LITERATURE SHOWING RELATION OF SUSPENSION SYSTEM AND PANELS TO LIGHTING FIXTURES, DIFFUSERS, PARTITIONS AND OTHER ITEMS AFFECTING THE INSTALLATION.

E. <u>DELIVERY</u>, STORAGE AND HANDLING

DELIVER, HANDLE AND STORE MATERIAL AT THE JOB IN SUCH A MANNER AS TO PREVENT THE INTRUSION OF FOREIGN MATTER OR MOISTURE AND TO PREVENT DAMAGE. PACKAGED MATERIAL SHALL BE IN ORIGINAL CONTAINERS WITH SEALS UNBROKEN AND LABELS INTACT UNTIL TIME OF USE. WRAPPED OR BUNDLED MATERIAL SHALL BEAR THE NAME OF THE MANUFACTURER AND THE PRODUCT. IMMEDIATELY REMOVE ALL DAMAGED OR OTHERWISE UNSUITABLE MATERIAL FROM THE JOBSITE.

F. SPARE MATERIAL

FURNISH OWNER A MINIMUM OF 10% OF TOTAL INSTALLED ACOUSTICAL UNITS. MARK PACKAGES FOR IDENTIFICATION AND DELIVER TO STORAGE AREA AS DIRECTED. INCLUDE UNITS THAT MATCH INSTALLED UNIT ORIGINAL ORDER, IN THE SAME PROPORTION IF MORE THAN ONE TYPE IS USED. AMOUNT IS APPROXIMATE; FURNISH TO THE NEAREST FULL CONTAINER OR PACKAGE, BUT A MINIMUM OF ONE CONTAINER.

09510 - SUSPENDED ACOUSTICAL CEILINGS

G. JOB CONDITIONS

- 1. INSPECT AREAS TO RECEIVE ACOUSTICAL TREATMENT. STARTING OF WORK CONSTITUTES ACCEPTANCE OF SURFACES BY THE INSTALLER. NOTIFY THE OWNER'S REPRESENTATIVE OF ANY AREAS THAT ARE UNSUITABLE AND CORRECT ANY DEFICIENCIES BEFORE PROCEEDING WITH THE WORK.
- 2. DURING AND AFTER ACOUSTICAL CEILING INSTALLATION, MAINTAIN AMBIENT TEMPERATURE AND RELATIVE HUMIDITY AT VALUES THAT WILL BE NORMAL FOR THE OCCUPIED SPACE.
- 3. DO NOT INSTALL ACOUSTICAL UNITS UNTIL ALL EXTERIOR OPENINGS HAVE BEEN CLOSED, ALL WET WORK IS COMPLETED, AND THE BUILDING HUMIDITY IS ACCEPTABLE TO THE INSTALLER.
- 4. COORDINATE WITH THE WORK OF ALL TRADES ABOVE THE CEILING, AND PENETRATING OR SUPPORTED BY IT. DO NOT START THIS WORK UNTIL ALL APPROPRIATE WORK ABOVE THE CEILING IS COMPLETE.
- 5. COORDINATE WITH ELECTRICAL AND MECHANICAL TRADES TO ENSURE THAT EDGE CONFIGURATION OF FIXTURES, DIFFUSERS, GRILLES, ETC. MATCHES THE SUSPENSION SYSTEM, AND THAT THEIR LAYOUT ACCOMMODATES THE CEILING PATTERN.

09510.02 **PRODUCTS**

A. <u>SUSPENSION SYSTEMS</u>

- 1. GENERAL REQUIREMENTS:
 - a) SUSPENSION SYSTEM, INCLUDING HANGERS, RUNNERS, MOLDINGS AND ACCESSORIES, TO BE FACTORY FABRICATED AND COORDINATED TO SUIT SPECIFIED ACOUSTIC MATERIAL SIZES.
 - b) MATERIAL AND INSTALLATION TO CONFORM TO MANUFACTURER'S PRINTED INSTRUCTIONS, ASTM C635 AND ASTM C636.
 - c) COMPLY WITH ASTM C635 INTERMEDIATE DUTY, AS APPLICABLE TO THE TYPE OF SUSPENSION SYSTEM REQUIRED FOR THE TYPE OF CEILING UNITS INDICATED. COORDINATE WITH OTHER WORK SUPPORTED BY OR PENETRATING THROUGH THE CEILINGS, INCLUDING LIGHT FIXTURES, HVAC EQUIPMENT, AND PARTITION SYSTEM. LIMIT DEFLECTION LOADING TO 1/360 OF THE SPAN.
 - d) ATTACHMENT DEVICES: SIZE FOR 5 TIMES THE DESIGN LOAD INDICATED IN ASTM C635, TABLE 1, DIRECT HUNG.
 - e) HANGER WIRES: GALVANIZED CARBON STEEL, ASTM A641, SOFT TEMPER, PRESTRETCHED, YIELD-STRESS LOAD OF AT LEAST 3 TIMES DESIGN LOAD, BUT NOT LESS THAN 12 GAUGE (0.016").

09510 - SUSPENDED ACOUSTICAL CEILINGS

f) SUSPENSION SYSTEM COMPONENTS: EDGE MOLDINGS AND DIRECT-HUNG EXPOSED RUNNERS, CROSS RUNNERS AND ACCESSORIES. EXPOSED CROSS RUNNERS COPED TO LAY FLUSH WITH MAIN RUNNERS. ALUMINUM WITH WHITE BAKED ENAMEL FINISH TO MATCH COLOR OF ACOUSTICAL BOARD AS ACCEPTABLE TO THE OWNER AND ARCHITECT.

2. MANUFACTURERS:

- a) NON-FIRE RATED SYSTEM:
 - CHICAGO METALLIC CORP., SYSTEM 830, ALL ALUMINUM
 - GORDON, INC., TYPE MT-7, STANDARD ALUMINUM SYSTEM
 - U.S. GYPSUM, DONN DX SYSTEM, STEEL
- b) FIRE RATED SYSTEMS:
 - CHICAGO METALLIC CORP., SYSTEM 1830, GALVANIZED STEEL, FINISH AS SELECTED BY THE ARCHITECT
 - U.S. GYPSUM, DONN DXL SYSTEM, STEEL

B. <u>ACOUSTICAL MATERIALS</u>

1. GENERAL: ACOUSTICAL MATERIAL TO CONFORM TO FEDERAL SPECIFICATION SS-S-118A, CLASS 25, AND HAVE A FLAME SPREAD RATING OF 25 OR LESS (ASTM E84).

2. ACOUSTIC PANELS:

- a) PROVIDE SIZE SHOWN BY REFLECTED CEILING PLANS. PROVIDE WHITE CLEANABLE FINISH. PROVIDE UNITS NOT LESS THAN 3/4" THICK AND OF DENSITY NOT LESS THAN 10 LBS. PER CU. FT., MEDIUM COARSE NON-DIRECTIONAL TEXTURE, NRC 0.050 TO 0.060, STC 35-39, LIGHT REFLECTANCE OVER 75%.
- b) PANELS SHALL BE OF THE FOLLOWING MANUFACTURE MINERAL FIBER STANDARD ACOUSTICAL UNITS:

2X2 AND 2X4 STANDARD LAY-IN SHALL MATCH EXISTING CONWED PREMIER TILES AND BE BY:
AS DETAILED ON THE DRAWINGS, PROVIDE 2X2 OR 2X4 STANDARD LAY-IN TILES, AS SELECTED BY THE ARCHITECT AND AS MANUFACTURED BY:

- ARMSTRONG
- CELOTEX
- CONWED
- GOLD BOND, NATIONAL GYPSUM
- U.S. GYPSUM

09510 - SUSPENDED ACOUSTICAL CEILINGS

C. MISCELLANEOUS DEVICES

PROVIDE SCREWS, NAILS, TOGGLE BOLTS, COUPLINGS AND OTHER ACCESSORIES AS REQUIRED TO COMPLETE THE WORK.

09510.03 EXECUTION

A. GENERAL

- 1. PROVIDE SUSPENSION SYSTEM ADEQUATE TO SUPPORT ACOUSTICAL MATERIAL, LIGHTING FIXTURES AND VENTILATION SYSTEM COMPONENTS. DO ALL CUTTING, DRILLING, FITTING AND FIELD WELDING REQUIRED FOR INSTALLATION AND ATTACHMENT OF WORK.
- 2. MAINTAIN ACCURATE LEVELING OF SUSPENSION SYSTEM TO PROVIDE UNIFORM AND FLUSH SURFACES AT FINISHED CEILING ELEVATIONS.
- 3. COORDINATE SPACING OF HANGERS, CARRYING CHANNELS, RUNNERS, AND MOLDINGS WITH THE RELOCATION OF ELECTRICAL FIXTURES AND OTHER ITEMS OCCURRING ON OR IN THE CEILING. HANGERS SHALL NOT CONTACT INSULATION COVERING DUCTS OR PIPES. SPLAY HANGERS ONLY WHERE OBSTRUCTIONS OR CONDITIONS PREVENT PLUMB INSTALLATION. OFFSET HORIZONTAL FORCES OF SPLAYED HANGERS BY COUNTER-SPLAYING, BRACING, OR OTHER SUITABLE METHOD. PROVIDE INDEPENDENT FRAMING BELOW DUCTWORK TO SUPPORT THE CEILING. DO NOT ATTACH FRAMING TO, OR THROUGH, DUCTWORK.

B. COORDINATION

COORDINATE LAYOUT WITH WORK WHICH PENETRATES OR IS SUPPORTED BY SUSPENSION SYSTEM. CONSULT OTHER TRADES AND CONTRACTORS INVOLVED AND RESOLVE ALL INTERFERENCES PRIOR TO SUSPENSION SYSTEMS.

C. CEILING GRID

- 1. ARRANGE ACOUSTICAL UNITS AND ORIENT DIRECTIONALLY PATTERNED UNITS IN THE MANNER SHOWN BY REFLECTED CEILING PLANS.
- 2. SECURE WIRE HANGERS BY LOOPING AND WIRE-TYING, EITHER DIRECTLY TO STRUCTURE OR TO INSERTS, EYE-SCREWS OR OTHER DEVICES WHICH ARE SECURE AND APPROPRIATE FOR THE SUBSTRATE, AND WHICH WILL NOT DETERIORATE OR FAIL WITH AGE OR ELEVATED TEMPERATURES. WRAP HANGER WIRES TIGHTLY AT LEAST THREE FULL TURNS. HANGER WIRES MAY NOT BE SUSPENDED FROM METAL ROOF DECK.
- 3. INSTALL MAIN RUNNERS 24" OR 48" O.C., AND DIRECTLY SUSPEND BY WIRE HANGERS SPACED AT MAXIMUM 48" O.C.

09510 - SUSPENDED ACOUSTICAL CEILINGS

- 4. PROVIDE HANGER WIRE AT ALL FOUR CORNERS OF EACH ACOUSTICAL CEILING AREA, AND AT LOCATIONS WHERE EDGE OF UNITS WOULD OTHERWISE BE EXPOSED AFTER COMPLETION OF THE WORK.
- 5. INSTALL EDGE MOLDINGS AT EDGES OF EACH CEILING AREA, AND AT LOCATIONS WHERE EDGE OF UNITS WOULD OTHERWISE BE EXPOSED AFTER COMPLETION OF THE WORK:
 - a) 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.
 - b) LEVEL MOLDINGS WITH CEILING SUSPENSION SYSTEM TO A LEVEL TOLERANCE OF 1/8" IN 12'-0".
 - c) MITER CORNERS OF MOLDINGS ACCURATELY TO PROVIDE HAIRLINE JOINTS, SECURELY CONNECTED TO PREVENT DISLOCATION.
 - d) COPE EXPOSED FLANGES OF INTERSECTING SUSPENSION SYSTEM MEMBERS, SO THAT FLANGE FACES WILL BE FLUSH (COPE FLANGE OF SECONDARY MEMBER AT MAIN RUNNER MEMBER, EXCEPT NOT REQUIRED AT A WALL ANGLE).
 - e) EXPOSED POP RIVETS ARE ALLOWED AT EDGE MOLDING ONLY.
- 6. PROVIDE SOFFITS OF CEILING MATERIAL WHERE INDICATED ON DRAWINGS.

D. ACOUSTICAL PANELS

- 1. INSTALL ACOUSTICAL PANELS IN COORDINATION WITH SUSPENSION SYSTEM, WITH EDGES CONCEALED BY SUPPORT OF SUSPENSION MEMBERS.
- 2. SCRIBE OR CUT PANELS TO FIT ACCURATELY AT PENETRATIONS.
- 3. INSTALL EDGE TRIM MOLDINGS AS NEEDED TO CONCEAL EDGES OF ACOUSTICAL UNITS WHICH WOULD OTHERWISE BE EXPOSED TO VIEW AFTER COMPLETION OF THE WORK.

E. CLEAN-UP AND PROTECTION

- 1. CLEAN EXPOSED SURFACES OF ACOUSTIC UNITS AND OTHER CEILING COMPONENTS. COMPLY WITH MANUFACTURER'S INSTRUCTIONS. REMOVE AND REPLACE WORK WHICH CANNOT BE SUCCESSFULLY CLEANED OR HAS BEEN SEPARATED, MARRED, CRACKED OR OTHERWISE DAMAGED.
- 2. PROTECT ACOUSTIC CEILINGS FROM DAMAGE OR DETERIORATION UNTIL ACCEPTANCE OF THE WORK AS RECOMMENDED BY ACOUSTICAL MATERIAL MANUFACTURER.

END OF SECTION

DIVISION 9 09650 - RESILIENT FLOORING

09650.01 SCOPE OF WORK

A. WORK SPECIFIED IN THIS SECTION

- 1. THE GENERAL REQUIREMENTS ARE MADE A PART OF THIS SECTION AND APPLY TO THE WORK SPECIFIED.
- 2. PROVIDE AND INSTALL ALL VINYL FLOORING AND ACCESSORY ITEMS WHICH INCLUDE:
 - a) PREPARATION OF SUBSTRATE SURFACES.
 - b) APPLICATION OF REINFORCED VINYL TILE.
 - c) APPLICATION OF REINFORCED SHEET VINYL.
 - d) APPLICATION OF VINYL BASE.
 - e) APPLICATION OF INTEGRATED VINYL BASE.
 - f) CLEANING OF ALL SURFACES AND AREAS OF WORK.
 - g) APPLICATION OF SURFACE FINISH.

B. WORK SPECIFIED IN OTHER SECTIONS

- CAST-IN-PLACE CONCRETE
- THRESHOLD SADDLES OR EDGING PROVIDED WITH ADJACENT MATERIALS

C. DELIVERY, HANDLING AND STORAGE

- 1. DELIVER MATERIALS TO SITE IN MANUFACTURER'S ORIGINAL, UNOPENED CONTAINERS WITH MANUFACTURER'S BRAND AND NAME CLEARLY MARKED THEREON. SHOW COLOR, PATTERN AND BATCH NUMBERS ON EACH PACKAGE. SHIP ALL MATERIAL OF 1 COLOR FROM 1 BATCH TO MAINTAIN UNIFORM SHADE. HANDLE AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- 2. AVOID BREAKING OR DISTORTING SHAPE OF TILE. STORE MATERIALS IN ORIGINAL CONTAINERS AT MINIMUM TEMPERATURE OF 65°F FOR AT LEAST 48 HOURS BEFORE INSTALLATION.

D. SUBMITTALS

 BEFORE STARTING ANY WORK, SUBMIT THE FOLLOWING SAMPLES FOR APPROVAL, IN ACCORDANCE WITH THE SUPPLEMENTARY GENERAL CONDITIONS:
 SETS OF SAMPLES, FROM NEW STOCK, OF EACH TYPE, PATTERN, AND COLOR REQUIRED. PROVIDE 12" X 12" SIZE SAMPLES OF EACH TYPE OF TILE SQUARES AND SHEET VINYL AND 6" LONG PIECES OF BASE.

09650 - RESILIENT FLOORING

E. MANUFACTURERS

- PROVIDE FLOORING MATERIALS AS MANUFACTURED BY:
 - ARMSTRONG WORLD INDUSTRIES, INC.
 - KENTILE FLOORS, INC.
 - VPI FLOOR PRODUCTS DIVISION
 - MERCER
- 2. PROVIDE STAIR TREADS AND ACCESSORIES AS MANUFACTURED BY:
 - AMERICAN FLOOR PRODUCTS COMPANY
 - R.C. MUSSON RUBBER COMPANY
 - JOHNSON RUBBER COMPANY
 - MERCER PLASTICS COMPANY, INC.
 - R.C.A. RUBBER COMPANY

F. SPARE MATERIAL

PROVIDE OWNER, AT THE PROJECT SITE, SPARE TILE AND SHEET VINYL FOR MAINTENANCE USE OF EACH TYPE, PATTERN AND COLOR OF TILE AND SHEET VINYL TO REPLACE, AS NEEDED, A MINIMUM OF 10% OF TOTAL SQUARE FOOTAGE OF TILE INSTALLED. CLEARLY IDENTIFY EACH BOX OR PACKAGE.

G. JOB CONDITIONS

- 1. EXAMINE ALL SURFACES PREPARED TO RECEIVE THE WORK UNDER THIS SUBDIVISION. MAKE A MOISTURE TEST OF CONCRETE FLOORS TO DETERMINE THAT THEY COMPLY WITH RECOMMENDATIONS OF THE FLOOR COVERING MANUFACTURER. DO NOT BEGIN INSTALLATION OF THIS WORK UNTIL ALL SURFACES ARE ACCEPTABLE AND THE AREA IS AT THE PROPER TEMPERATURE. STARTING OF WORK WILL CONSTITUTE ACCEPTANCE OF THE SUBFLOOR. CHECK FLOORS WITH A 10' STRAIGHTEDGE. WHERE FLOORS VARY MORE THAN 1/8" IN 10', BRING TO LEVEL AS SPECIFIED HEREIN.
- 2. AREAS TO RECEIVE RESILIENT FLOOR TO BE MAINTAINED AT A MINIMUM TEMPERATURE OF 70°F FOR A PERIOD OF 48 HOURS PRIOR TO INSTALLATION OF FLOORING, DURING INSTALLATION, AND FOR A MINIMUM OF 48 HOURS AFTER WARDS.

09650.02 **PRODUCTS**

A. MATERIALS - GENERAL

PROVIDE FIRST QUALITY MATERIALS, UNIFORM IN THICKNESS AND SIZE, COLOR AND PATTERN, CUT ACCURATELY WITH SQUARE TRUE EDGES. COLORS AND PATTERNS SHALL BE AS SELECTED BY THE OWNER.

09650 - RESILIENT FLOORING

B. <u>VINYL TILE</u>

- COLORS AND PATTERNS WILL BE SELECTED BY OWNER.
- 2. REINFORCED VINYL TILE SHALL BE ARMSTRONG 12" X 12" X 1/8" THICK IMPERIAL TEXTURE EXCELON OR AS OTHERWISE SELECTED AND APPROVED BY THE ARCHITECT. IN ANY CASE, PROVIDE HOMOGENOUS VINYL TILE, 1/8" THICK 12" X 12" CONFORMING TO FEDERAL SPECIFICATION SS-T-312B, TYPE III. TILE TO BE GUARANTEED IN WRITING BY MANUFACTURER TO BE DIMENSIONALLY STABLE FOR A PERIOD OF 10 YEARS WITHIN SHRINKAGE LIMITS PERMITTED BY ABOVE SPECIFICATION.

C. BASE FOR VINYL TILE FLOORS

- 1. PROVIDE TOP-SET EXTRUDED VINYL COVE TYPE BASE, 4" HIGH, .125 GAUGE, COVED BOTTOM LIP IN AREAS TO BE FINISHED WITH REINFORCED VINYL TILE.
- PROVIDE PREFORMED INTERNAL AND EXTERNAL CORNERS.

D. ADHESIVES, SEALERS

- 1. PROVIDE WATER-RESISTING AND WATERPROOF CEMENTS, EMULSIONS AND PASTES AS RECOMMENDED BY FLOOR COVERING MANUFACTURER, PROVIDE CERTIFICATION OF SUITABILITY FOR INTENDED USE.
- SUB-FLOOR FILLER: WHITE PREMIX LATEX, TO BE MIXED WITH WATER TO PRODUCE CEMENTITIOUS PASTE.
- 3. PROVIDE WATER-RESISTANT HIGH STRENGTH MASTIC FOR INSTALLING VINYL BASE.

E. EDGE STRIPS

PROVIDE A VINYL TAPERED TRANSITION EDGE STRIP 1" WIDE BY SAME THICKNESS AS FLOOR COVERING. COLOR TO MATCH FLOOR TILE AS SELECTED BY THE OWNER.

F. PRIMER

PROVIDE PRIMER OF NONSTAINING TYPE AND BRAND AS RECOMMENDED BY MANUFACTURER.

09650.03 **EXECUTION**

A. SITE AND SUBSTRATE CONDITIONS

1. ENSURE FLOOR SURFACES ARE SMOOTH AND FLAT WITH MAXIMUM VARIATION OF 1/8" IN 10' (1/960).

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- 2. ENSURE CONCRETE FLOORS ARE DRY (MAXIMUM 7% MOISTURE CONTENT) AND EXHIBIT NEGATIVE ALKALINITY, CARBONIZATION, OR DUSTING.
- 3. MAINTAIN MINIMUM 70°F (21°C) AIR TEMPERATURE AT FLOORING INSTALLATION AREA FOR 3 DAYS PRIOR TO, DURING, AND FOR 3 DAYS AFTER INSTALLATION.
- 4. STORE FLOORING MATERIALS IN AREA OF APPLICATION. ALLOW 3 DAYS FOR MATERIAL TO REACH SAME TEMPERATURE AS AREA.

B. <u>LEVELING</u>

- 1. REMOVE SUB-FLOOR RIDGES AND BUMPS. FILL LOW SPOTS, CRACKS, JOINTS, HOLES AND OTHER DEFECTS WITH SUB-FLOOR FILLER.
- 2. CLEAN FLOOR; APPLY, TROWEL AND FLOAT FILLER TO LEAVE SMOOTH, FLAT, HARD SURFACE. PROHIBIT TRAFFIC UNTIL FILLER IS CURED.

C. INSTALLATION - GENERAL

- 1. INSTALL FLOORING AFTER WORK OF OTHER TRADES, INCLUDING PAINTING, HAS BEEN SUBSTANTIALLY COMPLETED. CLOSE SPACES TO TRAFFIC OR OTHER WORK WHILE FLOOR COVERINGS ARE BEING LAID. STORE MATERIALS IN AREA OF APPLICATION. ALLOW 7 DAYS FOR MATERIAL TO REACH SAME TEMPERATURE AS AREA.
- 2. PLACE FLOORING IN ADHESIVE ON PREPARED SURFACES IN STRICT COMPLIANCE WITH MANUFACTURER'S RECOMMENDATIONS. BUTT TIGHTLY TO VERTICAL SURFACES, THRESHOLDS, NOSINGS AND EDGINGS. SCRIBE AROUND OBSTRUCTIONS AND PENETRATIONS THROUGH THE FLOOR COVERING. LAY FLOORING WITH NEAT JOINTS, TIGHT, EVEN AND STRAIGHT. EXTEND INTO TOE SPACES, DOOR REVEALS, AND INTO CLOSETS.

D. VINYL TILE

- 1. OPEN FLOOR TILE CARTONS, ENOUGH TO COVER EACH AREA, AND MIX TILE TO PREVENT SHADE VARIATIONS WITHIN ANY ONE AREA.
- 2. CLEAN SUBSTRATE, SPREAD CEMENT EVENLY IN QUANTITY RECOMMENDED BY MANUFACTURER TO ENSURE ADHESION OVER ENTIRE AREA OF INSTALLATION. SPREAD ONLY ENOUGH ADHESIVE TO PERMIT INSTALLATION OF FLOORING BEFORE INITIAL SET.
- 3. SET FLOORING IN PLACE, WITH JOINTS AS TIGHT AS POSSIBLE; PRESS WITH HEAVY ROLLER TO ENSURE FULL ADHESION.
- 4. LAY FLOORING WITH JOINTS AND SEAMS PARALLEL TO BUILDING LINES TO PRODUCE MINIMUM NUMBER OF SEAMS.
- 5. TERMINATE RESILIENT FLOORING AT CENTERLINE OF DOOR OPENING(S) WHERE ADJACENT FINISH IS DISSIMILAR.

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- 6. INSTALL EDGE STRIPS AT UNPROTECTED OR EXPOSED EDGES WHERE FLOOR TERMINATES.
- 7. SCRIBE FLOORING TO WALLS, COLUMNS, CABINETS, FLOOR OUTLETS AND OTHER APPURTENANCES TO PRODUCE TIGHT JOINTS.

E. TOPSET VINYL BASE TRIM

- INSTALL VINYL BASE TRIM USING AS LONG A LENGTH AS PRACTICAL.
- 2. APPLY BASE ADHESIVE IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- 3. PROVIDE PRE-MOLDED INSIDE AND OUTSIDE CORNERS.
- 4. SCRIBE AND CUT BASE NEATLY AT DOORS.
- 5. VINYL BASE TO SET NEATLY AND TIGHTLY TO WALLS.
- 6. UPON COMPLETION, REMOVE ALL EXCESS CEMENT AND REPLACE ANY VINYL BASE WHICH DOES NOT ADHERE TIGHTLY TO WALLS.

F. BASE

- 1. FIT JOINTS TIGHT AND VERTICAL. DO NOT STRETCH BASE DURING APPLICATION. MAINTAIN MINIMUM MEASUREMENT OF 18" (457MM) BETWEEN JOINTS.
- 2. MITER INTERNAL CORNERS. USE PREMOLDED SECTIONS FOR EXTERNAL CORNERS AND EXPOSED ENDS.
- 3. INSTALL BASE ON SOLID BACKING. ADHERE TIGHTLY TO WALL AND FLOOR SURFACES.
- 4. SCRIBE AND FIT TIGHT TO DOOR FRAMES AND OTHER OBSTRUCTIONS.
- 5. INSTALL STRAIGHT AND LEVEL TO VARIATION OF PLUS OR MINUS 1/8" OVER 10' (1/960).

G. TREADS OR NOSINGS

INSTALL STAIR TREAD OR NOSINGS IN COMPLIANCE WITH MANUFACTURER'S INSTRUCTIONS FOR TYPE OF SUBSTRATE. SECURELY ADHERE TREADS TO SUBSTRATE AND FILL ANY VOIDS AT NOSINGS OR TREAD SURFACES.

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H. CLEANING

REMOVE EXCESS ADHESIVE OR OTHER SURFACE BLEMISHES FROM FLOORING OR ACCESSORY ITEMS, USING NEUTRAL TYPE CLEANERS AS RECOMMENDED BY THE MANUFACTURER. WHEN RESILIENT FLOOR MATERIALS HAVE BEEN IN PLACE LONG ENOUGH FOR ADHESIVES TO DEVELOP ADEQUATE STRENGTH, CLEAN WITH NEUTRAL DETERGENT AND A MINIMUM OF WATER.

I. WAXING AND POLISHING

AFTER FLOOR MATERIALS HAVE BEEN CLEANED AND ALLOWED TO DRY, APPLY 2 THIN COATS OF WAX RECOMMENDED BY FLOOR COVERING MANUFACTURER. ALLOW EACH COAT TO DRY, AND BUFF WITH MECHANICAL BUFFER.

J. PROTECTION

KEEP TRAFFIC OFF RESILIENT FLOOR COVERING UNTIL ADHESIVES HAVE HARDENED AND THE FLOORS HAVE BEEN CLEANED, WAXED AND PROTECTED. AFTER WAXING AND POLISHING, COVER THE FLOORS WITH HEAVY KRAFT PAPER, OR OTHER SUITABLE PROTECTION, AND MAINTAIN PROTECTION UNTIL ACCEPTANCE.

END OF SECTION

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09900.01 SCOPE OF WORK

A. WORK SPECIFIED IN THIS SECTION

- 1. THE GENERAL REQUIREMENTS ARE MADE PART OF THIS SECTION AND APPLY TO THE WORK SPECIFIED.
- 2. PAINTING WORK INCLUDES PAINTING AND FINISHING OF INTERIOR AND EXTERIOR SURFACES AND ITEMS THROUGHOUT THE PROJECT, USUALLY PAINTED OR FINISHED TO MAKE A COMPLETE JOB IN EVERY RESPECT, EXCEPT AS SPECIFIED OR SCHEDULED OTHERWISE.
- 3. WHEN AN ITEM OR AREA IS NOT MENTIONED OR PARTICULARLY SCHEDULED, PAINT OR FINISH TO MATCH WORK IN SIMILAR LOCATIONS, OR AS DIRECTED BY THE ARCHITECT.
- 4. SURFACE PREPARATION, PRIMING AND COATS OF PAINT SPECIFIED ARE IN ADDITION TO SHOP PRIMING AND SURFACE TREATMENT SPECIFIED IN OTHER SUBDIVISIONS, EXCEPT AS OTHERWISE SPECIFIED. SURFACE PREPARATION, APPLICATION AND PAINT MATERIALS SHALL BE AS SPECIFIED IN THE PAINT SYSTEM SPECIFICATION SHEETS. THE PAINT SYSTEM SPECIFICATION SHEETS ARE A PART OF THIS SPECIFICATION.
- 5. THE TERM "PAINTING" AS USED HEREIN MEANS ALL COATING SYSTEM MATERIALS, INCLUDING PRIMERS, EMULSIONS, EPOXY COATINGS, ENAMELS, STAINS, SEALERS AND FILLERS, AND OTHER APPLIED MATERIALS WHETHER USED AS PRIME, INTERMEDIATE, OR FINISH COATS AND THE APPLICATION OF THESE MATERIALS.

B. WORK SPECIFIED IN OTHER SECTIONS

- 1. SHOP APPLIED PAINT PRIMER ASSOCIATED WITH SHOP FABRICATED ITEMS SUCH AS MECHANICAL AND ELECTRICAL EQUIPMENT, METAL FABRICATIONS, AND OTHER LIKE WORK WHERE PROVISION OF PAINT PRIMER IS THE NORMAL AND ESTABLISHED PRACTICE, IS NOT INCLUDED HEREIN.
- 2. EQUIPMENT AND VESSEL INTERIOR PAINTING, FOR THE PRODUCT CONTACT SURFACES OF SUCH EQUIPMENT, IS NOT INCLUDED HEREIN.

C. WORK NOT SPECIFIED IN THIS SECTION

- SHOP APPLIED PRIMERS
- FACTORY FINISHED WOOD PANELING AND DOORS

D. <u>STANDARDS</u>

COMPLY WITH CODES, ORDINANCES, RULES AND REGULATIONS OF ALL GOVERNMENTAL AUTHORITIES HAVING JURISDICTION ON THE WORK; AND WITH THE FOLLOWING STANDARDS, ALL AS APPLICABLE TO THE WORK:

ANSI - AMERICAN NATIONAL STANDARDS INSTITUTE

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SSPC - STEEL STRUCTURES PAINTING COUNCIL

OSHA - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION ASTM - AMERICAN SOCIETY FOR TESTING AND MATERIALS

E. QUALITY ASSURANCE

- 1. THE APPLICATOR OF PAINT SYSTEMS SHALL BE ACCEPTABLE TO THE OWNER AND ARCHITECT.
- 2. THE APPLICATION OF PAINT SYSTEMS SHALL BE THE RESPONSIBILITY OF A SINGLE APPLICATOR, UNLESS OTHERWISE APPROVED BY THE ARCHITECT.
- 3. UNLESS OTHERWISE SPECIFIED HEREIN, THE PAINT MATERIALS FOR EACH SYSTEM, FROM BASE SUBSTRATE TO FINISH COATING, SHALL BE THE PRODUCTS OF 1 MANUFACTURER. USING PRODUCTS OF DIFFERENT MANUFACTURERS FOR A SINGLE SYSTEM SHALL BE STRICTLY PROHIBITED. IF DIFFERENT MANUFACTURERS ARE USED AND FOUND INCOMPATIBLE, ANY SUBSEQUENT REMOVAL, PREPARATION, OR REAPPLICATION COSTS SHALL BE BORNE SOLELY BY THE APPLICATOR.
- 4. SAMPLE PANELS, ITEMS, OR AREAS SHALL BE PAINTED IN ACCORDANCE WITH THE SELECTED PAINT MANUFACTURER'S RECOMMENDED RATES OF COVERAGE. WHERE A RANGE EXISTS FOR RATE OF COVERAGE, THE AVERAGE AMOUNT OF AREA COVERED PER UNIT OF VOLUME SHALL BE USED.
- 5. EACH SAMPLE AREA SHALL CLEARLY SHOW COVERAGE OF EACH COATING APPLIED TO MAKE UP ENTIRE SYSTEM.
- 6. SAMPLE APPLICATIONS OF ALL SYSTEMS SHALL BE REVIEWED AND APPROVED OR MODIFIED BY THE ARCHITECT PRIOR TO CONTINUING APPLICATIONS.
- 7. WHEN MASONRY UNITS ARE TO RECEIVE A BLOCK FILLER, THE BLOCK FILLER SPECIFIED SHALL BE ROLLER APPLIED AT THE LESSER RATE OF COVERAGE AS RECOMMENDED BY THE PAINTING MANUFACTURER, SQUEEGEED AND FINAL ROLLED. NOTE: SPRAY APPLICATION IS ACCEPTABLE EXCEPT THAT BLOCK FILLER MUST STILL BE ROLLED PRIOR TO SQUEEGEEING. ARCHITECT SHALL REVIEW A SAMPLE SECTION PRIOR TO PROCEEDING IN ORDER TO ESTABLISH APPLICATION OF MORE OR LESS BLOCK FILLER PER AREA OF COVERAGE.

F. SUBMITTALS

- 1. MANUFACTURER'S LITERATURE:
 - a) SUBMIT COPIES OF MANUFACTURER'S DATA INCLUDING SPECIFICATIONS AND DETAILED PREPARATION. INCLUDE MIXING AND APPLICATION INSTRUCTIONS FOR EACH TYPE OF PAINT TO BE USED IN THE WORK.
 - b) WHEN SPECIFIC COLORS ARE NOT INDICATED ON THE DRAWINGS OR SCHEDULES, THE APPLICATOR SHALL SUBMIT COMPLETE COLOR CHARTS FOR EACH FINISH TOPCOAT PAINT TO BE USED IN THE WORK.

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- c) WHEN REQUESTED, SAMPLES SHALL BE SUBMITTED FOR EACH TYPE, COLOR, AND SHEEN OF PAINT SELECTED. SAMPLES SHALL CONSIST OF PAINT APPLIED TO APPROXIMATELY 12" SQUARE DRAWDOWN CARDS.
- 2. SAMPLES: ALL FINISHED WORK MUST CONFORM TO ACCEPTED SAMPLES. PAINTING WORK SHALL NOT BEGIN UNTIL SUBMITTALS HAVE BEEN APPROVED BY THE ARCHITECT.

3. SAMPLE WALL PANELS:

- a) AS REQUIRED BY THE ARCHITECT AND BEFORE PROCEEDING WITH PAINTING, PREPARE SAMPLES ON ACTUAL WALL SURFACES. SAMPLE PANELS ARE TO BE AT LEAST 100 SQUARE FEET IN SIZE. APPLY SPECIFIED NUMBER OF COATS AND IN COLORS SELECTED. USE THE SAMPLE PANELS AS STANDARD FOR APPEARANCE AND WORKMANSHIP FOR SIMILAR SURFACES OR ITEMS THROUGHOUT THE PROJECT.
- b) DUPLICATE FINISHED LIGHTING CONDITIONS FOR REVIEW OF SAMPLE PANELS.

G. <u>DELIVERY</u> AND STORAGE

- 1. THE PAINT MATERIALS SHALL BE DELIVERED TO THE SITE IN THE MANUFACTURER'S SEALED CONTAINERS, WITH A LABEL ATTACHED SHOWING THE MANUFACTURER'S NAME, BRAND NAME, TYPE OF PAINTS, STOCK NUMBER, BATCH NUMBER, AND DATE OF MANUFACTURE. ATTACHED LABEL OR DATA SHEETS SHALL ALSO INDICATE ANALYSIS OF SOLIDS AND VEHICLE, DATE OF MANUFACTURE, REDUCING INSTRUCTIONS, TINTING INSTRUCTIONS, CURE AND RE-COAT TIME, APPLICATION INSTRUCTIONS WITH RECOMMENDED METHODS AND ENVIRONMENTAL RESTRICTIONS. PRODUCTS IN CONTAINERS WITHOUT LABELS OR WITH ILLEGIBLE LABELS SHALL BE PERMANENTLY REMOVED FROM THE JOB SITE.
- STORE ALL PAINT, SOLVENTS, THINNERS AND ASSOCIATED MATERIALS IN METAL CONTAINERS WITH TIGHT-FITTING COVERS.
- 3. STORE USED RAGS IN COVERED METAL CONTAINERS. USED RAGS SHALL BE REMOVED FROM THE PREMISES AT THE END OF EACH WORK DAY.
- 4. DO NOT ALLOW SMOKING IN STORAGE SPACES AND WHILE USING OR MIXING PAINT AND OTHER COMBUSTIBLE MATERIALS.
- 5. PROVIDE FIRE PROTECTION EQUIPMENT AT ALL LOCATIONS WHERE PAINT IS STORED OR PAINTING IS IN PROGRESS, IN ACCORDANCE WITH APPLICABLE CODES AND OWNER'S SAFETY CRITERIA.
- 6. STORE MATERIALS USED ON JOB IN A SINGLE AREA. KEEP STORAGE AREA NEAT AND CLEAN. PROTECT FLOOR AND OTHER SURFACES WITH DROP CLOTHS OR BUILDING PAPER. TAKE NECESSARY PRECAUTIONS TO PREVENT FIRE.

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H. JOB CONDITIONS

- 1. INSPECT SURFACE TO BE PAINTED. STARTING OF WORK CONSTITUTES ACCEPTANCE OF SURFACES.
- 2. APPLY PAINT WHEN THE SURFACE AND SURROUNDING ENVIRONMENTAL CONDITIONS ARE WITHIN THE LIMITATIONS SPECIFIED BY THE PAINT MANUFACTURER.
- 3. INTERIOR PAINTING SHALL NOT BE PERFORMED IN AREAS WHERE DUST IS IN THE AIR OR MAY BE GENERATED BEFORE PAINT CAN CURE TO A TACK-FREE STATE. EXTERIOR PAINTING SHALL NOT BE PERFORMED DURING DUSTY, WINDY, OR RAINY CONDITIONS.
- 4. PROVIDE VENTILATION AND PERSONAL PROTECTIVE EQUIPMENT IN ACCORDANCE WITH APPLICABLE CODES. PROVIDE VENTILATION TO PERMIT THE REMOVAL OF SOLVENT AND WATER VAPORS DURING THE DRYING OR CURING PERIOD.

CLEAN-UP AND PROTECTION

- 1. PROVIDE DROP CLOTHS TO PROTECT SURFACES ADJACENT TO PAINTING WORK, FROM PAINT DROPPINGS. ALL DROP CLOTHS SHALL BE FIRE RETARDANT AND FREE OF DUST, LINT, AND EXCESSIVE PAINT DROPPINGS.
- 2. PROTECT WORK OF OTHER TRADES, WHETHER TO BE PAINTED OR NOT, FROM DAMAGE BY PAINTING WORK. CORRECT DAMAGES BY CLEANING, REPAIRING OR REPLACING, AND REPAINTING AS DIRECTED.
- 3. REMOVE HARDWARE AND SIMILAR ITEMS BEFORE PAINTING AND REPLACE AFTER COMPLETION OF PAINTING. DO NOT DISPOSE OF PAINT MATERIALS IN ANY PLUMBING FIXTURE, OPEN WASTE OR VENT PIPE, OR OTHER PIPE OF ANY KIND. DO NOT USE WATER CLOSETS OR OTHER PLUMBING FIXTURES AS SUPPORTS FOR PLANKING.
- 4. AS WORK PROGRESSES AND UPON COMPLETION, PROMPTLY REMOVE PAINT WHERE SPILLED, SPLASHED, OR SPATTERED. CLEAN SURFACES WITH SOLVENT, CLEANING AGENT, OR OTHER MEANS AS REQUIRED TO ELIMINATE EVIDENCE OF SPILLAGE WITHOUT DAMAGE TO THE SURFACES, IN ACCORDANCE WITH THE PAINT MANUFACTURER'S INSTRUCTIONS.
- 5. DURING PROGRESS OF WORK, KEEP PREMISES FREE OF UNNECESSARY ACCUMULATION OF TOOLS, EQUIPMENT, SURPLUS MATERIAL, AND DEBRIS.
- 6. AT THE COMPLETION OF THE WORK, THE APPLICATOR SHALL CLEAR THE SITE OF SURPLUS MATERIAL AND DEBRIS RESULTING FROM THE WORK, AND DISPOSE OF IN A LAWFUL MANNER, OFF THE JOB SITE.

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J. PIPE IDENTIFICATION

- 1. PIPE IDENTIFICATION AND OTHER IDENTIFYING DEVICES ARE SPECIFIED IN THE PROCESS AND MECHANICAL DIVISIONS OF THESE SPECIFICATIONS.
- 2. UNLESS OTHERWISE SCHEDULED AND/OR SPECIFIED, BARE FERROUS PIPING AND PIPE INSULATION ARE TO BE PAINTED TO MATCH ADJACENT SURFACES.

09900.02 PRODUCTS

A. PAINT MATERIALS

- 1. THE PAINT MATERIALS SHALL BE THE SPECIFIED PRODUCTS OF THE MANUFACTURERS INDICATED ON THE PAINT SYSTEMS SPECIFICATIONS.
- 2. COLORS OF THE PAINT SHALL BE AS INDICATED ON THE DRAWINGS, SCHEDULES,, OR AS SELECTED BY THE ARCHITECT.
- 3. COLOR OF THE PRIMER AND INTERMEDIATE COATS SHALL APPROXIMATE THE FINISH COLOR, EXCEPT THAT SUCH COAT SHALL BE A DIFFERENT TINT FROM THAT OF THE PRECEDING COAT.
- 4. THINNERS, SOLVENTS AND OTHER MATERIALS REQUIRED FOR EACH PAINT PRODUCT SHALL BE AS SPECIFIED BY THE PAINT MANUFACTURER AND SHALL BE ACCEPTABLE TO THE ARCHITECT.
- 5. ALL PIPING AND CONDUITS EXPOSED AND ABOVE CEILING EQUIPMENT SHALL BE PAINTED TO MATCH THE OWNER'S COLOR CODING FOR UTILITIES.

A. PREPARATION OF SURFACES

1. GENERAL:

- a) PERFORM SURFACE PREPARATION IN STRICT ACCORDANCE WITH PAINT MANUFACTURER'S INSTRUCTIONS AND AS SPECIFIED HEREIN, FOR EACH PARTICULAR SURFACE.
- b) REMOVE HARDWARE, HARDWARE ACCESSORIES, PLATES, LIGHTING FIXTURES, AND SIMILAR ITEMS IN PLACE AND NOT TO BE FINISH PAINTED, OR PROVIDE SURFACE APPLIED PROTECTION PRIOR TO SURFACE PREPARATION AND PAINTING OPERATIONS. AT COMPLETION OF PAINTING OR EACH AREA, REINSTALL REMOVED ITEMS BY WORKMEN SKILLED IN TRADES INVOLVED.
- c) BRUSH SURFACES CLEAN OF DUST AND DIRTS. PREPARED SURFACES ARE TO BE SMOOTH, DRY, FREE OF OIL, GREASE, SCALE GRIT, AND IN CONDITION SUITABLE TO RECEIVE PAINT OR OTHER SPECIFIED MATERIALS.
- d) PRIOR TO THE START OF SURFACE PREPARATION AND PAINT APPLICATION, THE APPLICATOR SHALL INSPECT THE SUBSTRATES WHICH

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ARE TO RECEIVE PAINT. NOTIFY THE ARCHITECT IN WRITING, OF SUBSTRATES AND OTHER CONDITIONS WHICH WILL ADVERSELY AFFECT THE EXECUTION, PERMANENCE, QUALITY AND APPEARANCE OF THE WORK. DO NOT PROCEED WITH THE WORK UNTIL UNSATISFACTORY CONDITIONS ARE CORRECTED. START OF WORK WILL BE CONSTRUED AS CONCLUSIVE EVIDENCE THAT THE EXISTING CONDITIONS HAVE BEEN EXAMINED AND ARE ACCEPTABLE TO THE APPLICATOR.

2. SHOP PRIMED STEEL:

- a) REMOVE RUST FROM BARE STEEL AND AREAS WHERE PRIMER IS DAMAGED. REMOVAL OF RUST SHALL BE BY WIRE BRUSH, SANDING, POWER TOOL CLEANING, OR BLASTING TO AN SSPC DEGREE OF CLEANLINESS AND SURFACE PROFILE AS SPECIFIED IN THE PAINT SYSTEM SPECIFICATIONS.
- b) REMOVE GREASE, OIL, DIRT AND DUST FROM ALL STEEL SURFACES BY SOLVENT CLEANING.
- c) TOUCH-UP ALL BARE STEEL WITH THE TYPE OF TOUCH-UP PRIMER AS RECOMMENDED BY THE PAINT MANUFACTURER.

3 GALVANIZED STEEL:

- a) REMOVE SURFACE CONTAMINATION AND OILS FROM GALVANIZED SURFACES BY SOLVENT CLEANING.
- b) APPLY MANUFACTURER'S ETCHING PRETREATMENT AS SPECIFIED IN PAINT SYSTEM SPECIFICATIONS. IF PRETREATMENT IS NOT SPECIFIED, APPLY A 5% SOLUTION OF PHOSPHORIC ACID, THOROUGHLY WETTING ALL SURFACES. PROTECT ALL ADJACENT SURFACES.
- c) RINSE SURFACES WITH CLEAN WATER AND ALLOW TO DRY.
- 4. CONCRETE AND CONCRETE BLOCK CONVENTIONAL CLEANING:
 - a) REMOVAL OF SURFACE PROJECTIONS, MORTAR SPATTER, AND OTHER SURFACE IMPERFECTIONS SHALL BE BY OTHERS.
 - b) CLEAN SURFACES OF GREASE AND OIL BY SOLVENT CLEANING OR ALKALI WASH.
 - C) REMOVE LOOSE DEPOSITS OF EFFLORESCENCE AND LAITANCE BY CLEANING WITH WIRE BRUSH OR SCRAPER. WET AFFECTED AREA WITH CLEAN WATER AND APPLY A SOLUTION OF 10% MURIATIC (HYDROCHLORIC) ACID. AFTER 5 MINUTES, SCRUB OFF DEPOSITS AND THOROUGHLY RINSE TREATED AREA WITH CLEAN WATER. ALLOW SURFACE TO DRY THOROUGHLY BEFORE APPLYING COATINGS.
 - d) ENSURE THAT PH AND MOISTURE CONTENT OF THE SURFACES TO BE PAINTED ARE WITHIN THE LIMITATIONS SPECIFIED BY THE PAINT

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MANUFACTURER. NEUTRALIZE EXCESSIVE ALKALINITY OR ACIDITY, IN ACCORDANCE WITH THE PAINT MANUFACTURER'S INSTRUCTIONS. ALLOW SURFACE TO DRY THOROUGHLY PRIOR TO APPLYING PAINT COATING.

- 5. CONCRETE AND CONCRETE BLOCK BRUSH BLAST CLEANING:
 - a) REMOVE GREASE AND OIL, CHECK PH AND MOISTURE CONTENT IN ACCORDANCE WITH PROCEDURES LISTED ABOVE.
 - b) BRUSH BLAST SURFACES TO REMOVE FOREIGN MATTER AND TO PROVIDE A TOOTH FOR BONDING, IN ACCORDANCE WITH THE PROCEDURES SPECIFIED IN THE PAINT SYSTEM SPECIFICATION SHEETS.
 - c) REMOVE DUST AND GRIT FROM BLASTED SURFACES BY VACUUMING OR OTHER METHOD AS APPROVED BY THE ARCHITECT.

6. WOOD SURFACES:

REMOVE GREASE, OIL, DIRT OR OTHER FOREIGN MATERIALS FROM SURFACES TO BE PAINTED OR STAINED WITH SCRAPERS, MINERAL SPIRITS, AND SANDPAPER, AS REQUIRED. SANDPAPER SMOOTH FINISHED SURFACES EXPOSED TO VIEW. SEAL KNOTS AND PITCH STREAKS WITH WHITE SHELLAC BEFORE APPLICATION OF PRIMER. AFTER PRIMING, FILL HOLES AND IMPERFECTIONS IN FINISHED SURFACES WITH PUTTY. SANDPAPER SMOOTH WHEN DRY.

7. GYPSUM DRYWALL:

REMOVE GREASE, OIL, DUST, DIRT, OR OTHER FOREIGN MATERIALS. SPOT SAND JOINTS, CORNERS, AND FASTENER HEADS, AS REQUIRED.

8. EXISTING SURFACES:

REMOVE GREASE, OIL, DUST, DIRT, OR OTHER FOREIGN MATERIALS BY SOLVENT OR DETERGENT CLEANING. REMOVE CHIPPED, PEELING OR BLISTERED PAINT BY HAND TOOL OR POWER TOOL CLEANING, OR AS RECOMMENDED BY THE COATING MANUFACTURER. DULL HARD OR GLOSSY OLD PAINT BY LIGHT SANDING., SANDBLASTING, OR OTHER ABRASIVE METHODS.

B. TOUCH-UP AND PRIMING

TOUCH-UP SHOP PRIMER WHEREVER DAMAGED OR BARE. CLEAN, AS SPECIFIED ABOVE, AND TOUCH-UP WITH SAME TYPE PAINT AS SHOP-APPLIED PRIMER. APPLY PRIME COAT OR COATS TO ANY SURFACE NOT SHOP PRIMED. BACK PRIME INTERIOR WOOD MEMBERS TO BE PAINTED, EXCEPT SURFACES TO BE STAINED.

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C. PATCH PAINTING

PAINT AREAS DISTURBED OR DAMAGED BY ALTERATION WORK TO MATCH ADJOINING SURFACES. PAINT EXISTING SURFACES BEYOND DAMAGED OR PATCHED AREAS TO NEAREST EXTERNAL OR INTERNAL CORNER, HORIZONTALLY AND VERTICALLY IN ALL DIRECTIONS.

D. APPLICATION

GENERAL:

- a) FOLLOW MANUFACTURER'S INSTRUCTIONS FOR TINTING, MIXING, THINNING, APPLICATION, RECOAT AND CURE TIME, AND ENVIRONMENTAL RESTRICTIONS.
- b) APPLY PAINT TO PREPARED SURFACES USING BRUSH, ROLLER, OR SPRAY EQUIPMENT, AS RECOMMENDED BY THE PAINT MANUFACTURER. SPRAY EQUIPMENT SHALL BE SUITABLE FOR THE TYPE OF PAINT TO BE APPLIED. SPRAY EQUIPMENT SHALL BE EQUIPPED WITH PROPERLY WORKING MOISTURE TRAP, REGULATORS, AND GAUGES.
- MINIMUM DRY FILM THICKNESS SPECIFIED FOR EACH COAT OF EACH PAINT SYSTEM SHALL BE UNIFORMLY ATTAINED AT ALL POINTS ON THE SURFACES. AREAS OF INSUFFICIENT FILM THICKNESS SHALL BE RECOATED TO BUILDUP THE PAINT COAT TO THE REQUIRED MINIMUM DRY FILM THICKNESS. FILM THICKNESS SHALL BE SO GREAT THAT EITHER THE APPEARANCE OR SERVICE LIFE OF THE PAINT WILL BE DETRIMENTALLY AFFECTED.
- d) EACH PAINT COAT SHALL BE UNIFORMLY APPLIED, FREE OF HOLIDAYS, VOIDS, PINHOLES, AIR BUBBLES, RUNS, AND SAGS. IN ADDITION, FINISH COATS SHALL BE FREE OF BRUSH OR ROLLER MARKS, STREAKS, LAPS AND PILE-UP.
- e) EACH COAT OF PAINT SHALL BE IN A PROPER STATE OF CURE OR DRYNESS, AS INSTRUCTED BY THE PAINT MANUFACTURER, BEFORE THE APPLICATION OF SUBSEQUENT COATS.
- f) TREAT EACH PAINT COAT TO REMOVE MINOR SURFACE DEFECTS AND FOR PROPER INTERCOAT ADHESION, BY LIGHTLY SANDING, SOLVENT TREATMENT OR OTHER SUITABLE PROCESS SPECIFIED BY THE PAINT MANUFACTURER. MAINTAIN THE SPECIFIED MINIMUM DRY FILM THICKNESS.

2. DETAILED WORK:

a) LEAVE DETAILED WORK, INCLUDING CORNERS, EDGES, PROJECTIONS AND DEPRESSIONS OF SURFACES, WITH NO BUILD-UP AND EXCESSIVE AMOUNT OF PAINT.

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- b) DURING APPLICATION, RUNS AND SAGS SHALL BE REMOVED TO BARE SURFACE OR TO PREVIOUS COAT AND THE AFFECTED AREA IMMEDIATELY REPAINTED.
- c) TERMINATION OF PAINTING AT CORNERS, ABUTTING SURFACES NOT TO BE PAINTED, OR WHERE COLOR OF FINISH COAT CHANGES SHALL BE STRAIGHT, CLEAN, SHARP EDGES WITH NO OVERLAP.

3. SPECIAL APPLICATION REQUIREMENTS:

a) GENERAL:

- (1) UNLESS NOTED OTHERWISE ON THE DRAWINGS, THE EXPOSED SURFACES OF EMBEDDED STEEL LOCATED IN CONCRETE OR MASONRY SHALL BE PAINTED THE SAME AS THE CONNECTING STEEL MEMBERS.
- (2) FINISH HARDWARE, COVER PLATES, FIXTURES, NAMEPLATES, RATING PLATES, AND OTHER LIKE ITEMS NOT TO BE PAINTED SHALL BE REMOVED TO ALLOW FOR PAINTING AND SHALL BE REPLACED AFTER COMPLETION OF PAINTING. ITEMS WHICH CANNOT BE REMOVED SHALL BE CAREFULLY MASKED.
- (3) WHERE PAINT WILL BE APPLIED TO SHOP PRIMED OR PAINTED SURFACES, AND THE MANUFACTURER AND TYPE OF THE EXISTING PAINT IS UNKNOWN, THE APPLICATOR SHALL PERFORM A COMPATIBILITY TEST TO ENSURE THAT PAINT WILL PROPERLY ADHERE WITHOUT LIFTING, SOFTENING OR CAUSING OTHER DETRIMENTAL EFFECTS. NOTIFY THE ARCHITECT OF PAINT INCOMPATIBILITY.

b) DOORS:

- (1) BOTH FACES, EDGES AT JAMBS, HEAD, AND SILL SHALL BE PAINTED ON ALL SWING DOORS.
- (2) HEAD AND SILL EDGES OF DOORS RECEIVING AN OPAQUE PAINT (SUCH AS ACRYLIC, ALKYD ENAMEL, EPOXY, ETC.) SHALL BE PRIMED WITH A PAINT COMPATIBLE WITH THE FINISH COAT.
- (3) HEAD AND SILL EDGES OF WOOD DOORS RECEIVING A TRANSLUCENT OR TRANSPARENT PAINT (SUCH AS STAIN OR VARNISH) SHALL BE PRIMED WITH A GLOSS VARNISH.
- (4) WHEN EACH FACE OF SWING DOOR IS TO BE A DIFFERENT COLOR, AND COLOR OF FRAME IS TO MATCH DOOR, CHANGE COLOR OR TERMINATE PAINTING ON FRAME AT THE LINE FORMED BY THE EXTERNAL CORNER OF DOOR STOP, ADJACENT TO THE DOOR. COLOR OF DOOR EDGES SHALL BE THE SAME AS THE "HINGE SIDE" FACE OF THE DOOR.

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- c) MECHANICAL AND ELECTRICAL EQUIPMENT:
 - (1) HAZARDOUS PARTS OF EQUIPMENT SHALL BE PAINTED IN ACCORDANCE WITH THE RECOMMENDATION OF ANSI Z 53.1, "SAFETY COLOR CODE FOR MARKING PHYSICAL HAZARDS".
 - (2) PAINT INTERIOR SURFACES OF AIR DUCTS, CONVECTOR AND BASEBOARD HEATING CABINETS THAT ARE VISIBLE THROUGH GRILLES AND LOUVERS WITH 1 COAT OF FLAT BLACK PAINT, TO THE LIMIT OF SIGHT LINE. PAINT DAMPERS EXPOSED IMMEDIATELY BEHIND LOUVERS AND GRILLES TO MATCH FACE PANELS.
 - (3) PAINT EXPOSED SURFACES OF UNFINISHED, GALVANIZED, AND PRIME PAINTED ELECTRICAL AND MECHANICAL ITEMS INCLUDING CONDUIT AND PIPING, WHICH OCCUR IN FINISHED AREA. UNLESS NOTED OTHERWISE, ELECTRICAL AND MECHANICAL ITEMS SHALL BE PAINTED TO MATCH ADJACENT SURFACES IN COLOR AND SHEEN.
 - (4) PROTECT ALL VALVE STEMS, GLASS, MOVING PARTS, BEARINGS, COUPLINGS, SHAFTS, LUBRICANT FITTINGS, AND OTHER SENSITIVE PARTS FROM DAMAGE RESULTING FROM PAINTING OPERATIONS INCLUDING SANDBLASTING, OVERSPRAYING AND DRIPPING.
 - (5) ALL FINISH MACHINED PARTS, TUBES AND FINS OF AIR COOLERS, NON-METALLIC PARTS SUCH AS PLASTICS, CERAMICS AND RUBBER, SHALL NOT BE PAINTED.
 - (6) UNLESS OTHERWISE SPECIFIED, ALUMINUM, BRASS, BRONZE, COPPER, AND STAINLESS STEEL ITEMS SHALL NOT BE PAINTED.

E. PAINT SYSTEMS

- 1. ALL PAINT AND STAIN FOR EXTERIOR AND INTERIOR WORK SHALL BE AS MANUFACTURED BY SCOTT PAINTS OR APPROVED EQUAL, EXCEPT AS SPECIFIED HEREIN. ALL PAINT, STAINS, AND VARNISHES WILL BE SUPPLIED BBY THE OWNER. THE CONTRACTOR SHALL CALCULATE THE REQUIRED QUANITIES FOR EACH MATERIAL AND COLOR AND DELIVER THIS INFORMATION TO THE OWNER
- 2. ALL OTHER MATERIALS, FILLER, TURPENTINE, MINERAL SPIRITS, DRYERS, ETC., SHALL BE OF THE HIGHEST QUALITY OF EACH MANUFACTURER AND SHALL BE FURNISHED BY THE CONTRACTOR, APPROVED BY THE ARCHITECT.

F. SYSTEMS PER FINISH SCHEDULE

1. EXTERIOR PLASTER, CONCRETE BLOCK AND CONCRETE SURFACES TO BE PAINTED SHALL RECEIVE A COAT OF MOBIL MOPACOTE UNIVERSAL PRIMER 6-6, OR BLOCKSEAL BLOCKFILL BASE 19-10, AND 2 COATS OF ACRYLIC MOBILE MOPACOTE.

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- 2. EXPOSED EXTERIOR FERROUS METAL, ROLLING OVERHEAD DOORS, SECTIONAL OVERHEAD DOORS, CHANNEL DOOR FRAMES, PIPE BUMPERS, (EXCEPT GALVANIZED BUMPERS), ETC. ARE TO RECEIVE 1 COAT OF MOBILE NO.9-42 PRIMER, UNLESS SHOP PRIMED, AND 2 FINISH COATS OF MOBILE PAINTS RUSKIL ENAMEL. SEE ITEM 17 FOR EXPOSED, UNINSULATED, METAL BOILER STACKS.
- 3. EXPOSED EXTERIOR GALVANIZED OR ALUMINUM METAL, EXHAUST FAN HOUSINGS, FLASHING, ROOF HATCH, SMOKE VENTS, GUTTERS, DOWNSPOUTS, ETC. ARE TO RECEIVE 1 COAT OF MOBILE PRIMER NO.20 AND 2 FINISH COATS OF MOBILE MOPACOTE NO.140.
- 4. FOR PARTS STORAGE AREAS, ROLL UP DOORS AND FRAMES SHALL RECEIVE 1 COAT MOBILE PAINT ENAMEL RUSKIL PRIMER 10-10 AND 2 FINISH COATS OF RUSKIL 10-LINE.
- 5. FOR ALL PARTS STORAGE AREAS, INTERIOR EXPOSED METAL DECK, STEEL BEAMS AND COLUMNS, FIRE-PROTECTION PIPING, ELECTRICAL CONDUIT, GAS, OIL, CONDENSATE, WATER PIPING, AND ALL OTHER NON-INSULATED, EXPOSED METAL PIPING ABOVE OR BELOW CEILINGS, VENT PIPING, ROD BRACING, BRIDGING, PIPE HANGERS, TRAPEZES, HANGER RODS, CLAMPS, ETC. PRIME ALL MATERIAL WITHOUT A SHOP COAT AND ALL SCRATCHES, WELDS AND BARE SPOTS WITH MOBILE PAINT PRIMER 9-42. APPLY 2 FINISH COATS OF MOBILE PAINTS RUSKIL ENAMEL. GALVANIZED METAL DECK IS TO BE WASHED TO REMOVE ALL OIL FILM PRIOR TO PRIMER PAINTING. THE GALVANIZED METAL SURFACE SHALL BE FREE OF ALL OIL, SOAP OR GREASE BEFORE PAINTING IS STARTED.
- 6. INTERIOR EXPOSED METAL PAN STAIRS, SECTIONAL STEEL DOORS, STEEL COLUMNS, STEEL BEAMS, GIRTS, SAG RODS, BRACING ANGLES, CAST-IN ANGLES AND CHANNELS, LADDERS, CHANNEL DOOR FRAMES, PIPING, HANDRAILS, CONDUIT, ETC. TO RECEIVE A PRIME COAT (UNLESS SHOP PRIMED) OF MOBIL PAINT PRIMER 9-42 AND 2 FINISH COATS OF MOBILE RUSKIL ENAMEL.
- 7. DRYWALL PARTITIONS AND CEILINGS, INSIDE AND OUT, SHALL RECEIVE 1 COAT MOBILE PAINT MOPACOTE WEATHER-TIE UNIVERSAL 100% ACRYLIC PRIMER 6-6 AND 2 COATS SHERWIN-WILLIAMS DTM ACRYLIC GLOSS FINISH, EXCEPT AS OTHERWISE SPECIFIED IN ITEM 17 BELOW.
- 8. HOLLOW METAL DOORS AND FRAMES IN ALL AREAS SHALL RECEIVE 1 COAT ENAMEL MOBILE PAINT RUSKIL PRIMER 10-10 AND 2 COATS RUSKIL 10-LINE FINISH.
- 9. FOR ALL OTHER ROOMS WITH INTERIOR CONCRETE BLOCK, CEMENT PLASTER, AND CONCRETE WALLS AND SLABS, ETC. TO RECEIVE 1 COAT OF MOBILE PAINTS MOPACOTE UNIVERSAL PRIMER 6-6, AND 2 FINISH COATS OF MOBILE PAINTS COVENTRY LATEX SEMIGLOSS.
- 10. WOODWORK, WOOD DOORS, MILLWORK, CABINETRY, AND CABINET SHELVES TO RECEIVE 1 COAT GLIDDEN ENAMEL UNDERCOATER 555, 2 COATS SPREAD GLOSS ENAMEL, EXCEPT AS OTHERWISE SPECIFIED IN ITEM 17 BELOW.

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- 11 FOR NON-PARTS STORAGE AREAS, INTERIOR DRYWALL PARTITIONS AND CEILINGS SHALL RECEIVE A PRIME COAT OF SPREAD PRIMER 3416 AND 2 FINISH COATS GLID GARD GLID TILE EPOXIDE OR PRIME COAT ULTRA HIDE PVA, 2 FINISH COATS ULTRA HIDE ALKYD FLAT OR SEMI-GLOSS.
- 12. WET AREAS ARE TO RECEIVE ON WALLS AND CEILINGS (WITHOUT PRIMER) 2 COATS OF TNEMEC CERAMLON SERIES 83 #083-2049 HI-BUILD EPOXY. WHERE SURFACES TO BE PAINTED HAVE BEEN PATCHED, OR THE PLASTER IS SUFFICIENTLY CURED, PRIME THOSE SURFACES WITH SIKA SIKAGARD 62.
- 13. WOOD, DRYWALL AND PRIMED PLASTICS WHERE CLASS A FLAME SPREAD IS NEEDED, DRAWINGS, SHALL RECEIVE 2 COATS FIRELAB, FIRECOAT 320 LATEX PAINT BY FIRE RESEARCH LABORATORIES, OR EQUAL AS APPROVED BY THE ARCHITECT, TO BE APPLIED AS RECOMMENDED BY THE MANUFACTURER; COLOR AND FINISH SHALL BE AS SELECTED BY THE ARCHITECT.

DIVISION 10 10155 - TOILET PARTITIONS

10155.01 <u>SCOPE OF WORK</u>

A. WORK SPECIFIED IN THIS SECTION

- 1. THE GENERAL REQUIREMENTS ARE MADE A PART OF THIS SPECIFICATION AND APPLY TO THE WORK SPECIFIED.
- 2. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND TOOLS NECESSARY FOR THE INSTALLATION OF THE TOILET PARTITIONS.

B. WORK SPECIFIED IN OTHER SECTIONS

- TOILET AND BATH ACCESSORIES
- STRUCTURAL SUPPORTS FOR CEILING HUNG OR WALL HUNG PARTITIONS

C. SUBMITTALS

- 1. SHOP DRAWINGS: PROVIDE SHOP DRAWINGS GIVING LAYOUT AND INSTALLATION DETAILS OF TOILET PARTITIONS FOR THE ARCHITECT'S APPROVAL. ALL ACCESSORY LOCATIONS AFFECTING THE PARTITION PANELS SHALL BE SHOWN.
- 2. COLOR SAMPLES: PROVIDE COLOR SAMPLES TO THE ARCHITECT FOR SELECTING PARTITION COLORS.

D. **GUARANTEE**

PROVIDE A ONE YEAR GUARANTEE ON ALL MATERIALS AND INSTALLATION OF MATERIALS IN THIS SECTION.

10155.02 **PRODUCTS**

- 1. FLOOR MOUNTED, HEAD-RAIL BRACED:
 - ACCURATE PARTITIONS CORPORATION: CONCORD
 - AAMCO: TYPE H/B
 - AMERICAN SANITARY PARTITION CORPORATION: TYPE BE, SS-FF OR PL-FF
 - AMPCO PRODUCTS, INC: OVERHEAD BRACED
 - BOBRICK WASHROOM EQUIPMENT, INC.: 1012 STAINLESS STEEL SERIES; 1042 DESIGNER SERIES; 1082 DURALINE SERIES
 - CAPITAL PARTITIONS, INC.: CONGRESS SERIES
 - GENERAL PARTITIONS MFG. CORP.: SERIES 40
 - GLOBAL STEEL PRODUCTS CORP.: EMBASSEY; STAINLESS STEEL
 - METPAR CORP.: TYPE FP-500 HD; CORINTHIAN TYPE FP-500
 - SANYMETAL: ACADEMY

10155 - TOILET PARTITIONS

A. MANUFACTURER

TOILET PARTITIONS SHALL BE AS MANUFACTURED BY THE KNICKERBOCKER PARTITION CORPORATION OR AS OTHERWISE APPROVED BY THE ARCHITECT. COMPARTMENTS SHALL BE METROPOLITAN FLOOR MOUNTED HEADRAIL BRACED TYPE, BAKED ENAMEL FINISH AND SHALL INCLUDE ALL DOOR HARDWARE AND PARTITION HARDWARE FOR A COMPLETE INSTALLATION, ALL REINFORCING AND CUT-OUTS FOR TOILET ROOM ACCESSORIES INDICATED ON THE DRAWINGS TO BE MOUNTED ON OR IN TOILET PARTITIONS.

B. MATERIALS AND COMPONENTS

- 1. METAL FACING VENEER FOR TOILET PARTITIONS AND URINAL SCREENS SHALL BE GALVANIZED, BONDERIZED, STEEL. ZINC COATING SHALL BE NOT LESS THAN FS QQ-S-775 CLASS 4 WHEN APPLIED BY HOT DIP PROCESS, AND ASTM A164 TYPE RS WHEN APPLIED BY ELECTROLYTIC PROCESS. EDGE STRIPE SHALL BE OF SIMILAR MATERIAL. CONCEALED REINFORCEMENT SHALL BE HOT ROLLED STEEL. FLASH COATED STEEL IS NOT ACCEPTABLE.
- 2. PARTITIONS AND DOORS SHALL BE 1" THICK INSULATED WITH SOUND DEADENING CORE. PANEL PLATES WILL CONSIST OF 2 SHEETS OF STEEL, NOT LESS THAN NO.22 U.S. STANDARD GAUGE THICKNESS, PRIOR TO ZINC COATING FOR DOORS AND NOT LESS THAN NO.20 U.S. STANDARD GAUGE THICKNESS PRIOR TO ZINC COATING FOR PARTITIONS. EDGES SHALL BE FORMED AND SEALED WITH NO.20 GAUGE CONTINUOUS OVALCROWN LOCKING STRIP. LOCKING STRIPS SHALL BE MITERED, WELDED AND FINISHED AT CORNERS. REINFORCEMENT FOR TAPPING SHALL BE NO.14 GAUGE. CONCEALED REINFORCEMENT FOR ANCHORING DEVICES SHALL BE NO.12 GAUGE. PILASTER TRIM SHALL BE 0.31 THICK STAINLESS STEEL. PARTITIONS SHALL BE REINFORCED FOR GRAB RAILS, AND TOILET ACCESSORIES, WITH NECESSARY CUT-OUTS.
- 3. PILASTERS SHALL BE 11/4" THICK INSULATED WITH SOUND-DEADENING CORE. PANEL PLATES WILL CONSIST OF 2 SHEETS OF STEEL, NOT LESS THAN NO.20 U.S. STANDARD GAUGE THICKNESS, PRIOR TO ZINC COATING, WELDED AND FINISHED AS SPECIFIED ABOVE.
- 4. CORES SHALL BE A VERMIN-PROOF, STRUCTURAL HONEYCOMB CORE 32 PSI, BONDED TO FACE PLATES WITH A WATER-PROOF THERMO-SETTING ADHESIVE.
- 5. HEX BOLTS AND MACHINE SCREWS SHALL BE TAMPER-PROOF CHROME PLATED BRASS OR STAINLESS STEEL. BOLTS AND SCREWS PENETRATING THROUGH MASONRY AND DRYWALL CONSTRUCTION SHALL BE CADMIUM PLATED. THE USE OF SELF-TAPPING SHEET METAL SCREWS IS PROHIBITED.
- 6. HARDWARE FOR EACH TOILET COMPARTMENT SHALL INCLUDE DOUBLE-ACTING GRAVITY HINGES ADJUSTED TO HOLD ENCLOSURE DOORS AJAR 30° WHEN UNLATCHED WITH ALL OPERATING PARTS CONCEALED WITHIN THE DOOR; COMBINATION COAT HOOK AND DOOR BUMPER, SLIDE LATCH AND KEEPER AND BUMPER.

10155 - TOILET PARTITIONS

- 7. FINISHES: EXPOSED SURFACES OF STEEL, ZINC ALLOY BRACKETS AND BUILT IN HINGE ATTACHMENTS SHALL BE FINISHED BY SPRAYING 1 COAT OF PRIMER AND FINISH COAT OF SYNTHETIC LOW GLOSS ENAMEL. THE APPLICATION SHALL BE BY THE ELECTROSTATIC SPRAYING METHOD.
- 8. HARDWARE AND STIRRUP BRACKET SUPPORT AT WALL AND FRONT OF PARTITIONS AND FOR WALL END PILASTERS SHALL BE CHROME PLATED CAST ZINC ALLOY OR EXTRUDED POLISHED ANODIZED ALUMINUM.

10155.03 **EXECUTION**

A. COMPARTMENT ERECTION

- 1. THE ENCLOSURES SHALL BE ERECTED IN A RIGID AND SUBSTANTIAL MANNER, STRAIGHT AND PLUMB WITH ALL HORIZONTAL LINES LEVEL. FINISHED SURFACES SHALL BE CLEANED AND LEFT FREE OF IMPERFECTIONS. CADMIUM PLATED BOLT HEADS SHALL BE BRUSH ENAMELED. ALL EVIDENCE OF DRILLING, CUTTING AND FITTING SHALL BE CONCEALED IN THE FINISHED WORK. THE CLEARANCE AT VERTICAL EDGES OF DOORS SHALL BE UNIFORM FROM TOP TO BOTTOM AND SHALL NOT EXCEED 3/16". ALL DOOR HARDWARE SHALL BE CAREFULLY ADJUSTED AND LEFT IN PERFECT WORKING ORDER. THE CLEARANCE OF PARTITIONS AT WALLS SHALL BE APPROXIMATELY 1".
- 2. TOUCH UP PAINT AS NECESSARY TO ERADICATE ANY KNICKS OR SCRATCHES IN THE FINISHED COMPARTMENTS.

B. <u>CLEAN-UP</u>

CLEAN UP ALL UNUSED MATERIALS AND DEBRIS AND REMOVE FROM JOBSITE.

10500 - LOCKERS

10500.01 **SCOPE OF WORK**

A. WORK SPECIFIED IN THIS SECTION

- 1. THE GENERAL REQUIREMENTS ARE A PART OF THIS SECTION AND APPLY TO THE WORK SPECIFIED.
- 2. PROVIDE LABOR, MATERIALS, TOOLS AND EQUIPMENT TO COMPLETE:
 - STEEL PERSONAL STORAGE LOCKERS
 - LOCKER ROOM BENCHES
 - CONCRETE BASE FOR LOCKERS

B. WORK SPECIFIED IN OTHER SECTIONS

- PORTABLE BENCHES
- PADLOCKS FOR LOCKERS

C. SUBMITTALS

PROVIDE SHOP DRAWINGS FOR THE STORAGE LOCKERS INCLUDING COLOR SECTIONS CHART AND PRODUCT SPECIFICATIONS OF ALL MATERIALS AND PARTS TO THE ARCHITECT FOR APPROVAL AND COLOR SELECTION.

D. GUARANTEE

PROVIDE A ONE-YEAR GUARANTEE FOR THE LOCKERS AGAINST DEFECTS OR MANUFACTURE AND INSTALLATION.

E. QUALITY ASSURANCE

USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND THE METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK OF THIS SECTION.

F. <u>DELIVERY</u>, <u>STORAGE AND HANDLING</u>

DELIVER, STORE AND HANDLE STEEL LOCKERS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND TO PREVENT DAMAGE TO MATERIALS OR FINISHES

10500 - LOCKERS

10500.02 **PRODUCTS**

A. MANUFACTURERS

COLOR COATED METAL PERSONAL STORAGE LOCKERS SHALL BE AS MANUFACTURED BY:

- MEDART, INC.
- PENCO PRODUCTS
- LYONS METAL PRODUCTS
- REPUBLIC STORAGE SYSTEMS CO., INC.
- AMERICAN LOCKER SECURITY SYSTEMS, INC.
- ART METAL PRODUCTS

B. SIZE AND LOCATION

- 1. LOCKERS SHALL BE WHERE SHOWN ON DRAWINGS AND:
 - SINGLE TIER
- 2. LOCKING DEVICE TO BE PRE-LOCKING TYPE, PERMITTING DOOR TO BE LOCKED WHEN OPEN, THEN CLOSED WITHOUT UNLOCKING IT.

C. STEEL GAUGE AND ACCESSORIES

THE LOCKERS SHALL HAVE A 24 GAUGE STEEL BODY WITH 16 GAUGE LOUVERED DOOR PANELS, 16 GAUGE STEEL FRAME, PADLOCK ATTACHMENT, NUMBER OF PLATES, END PANELS, FRONT CORNER PANELS AND SLOPING TOP, BOTTOM OF LOCKER COMPARTMENTS SHALL BE STAINLESS STEEL. PROVIDE COAT HOOKS, SHELF, COAT ROD. PROVIDE 3 POINT LATCHING AND 3 HINGES PER LOCKER AND BASE FOR MOUNTING ON CONCRETE BASE.

D. FINISH

ALL STEEL PARTS ARE TO BE BONDERIZED AND RECEIVE A HEAVY COAT OF BAKED ENAMEL OF COLOR TO BE SELECTED FROM MANUFACTURER'S STANDARD RANGE OF COLORS.

E. CONCRETE LOCKER BASE

PROVIDE CONCRETE BASE FOR LOCKER. CONCRETE TO CONFORM TO APPLICABLE REQUIREMENTS OF CONCRETE DIVISION.

F. LOCKER ROOM BENCHES

- 1. PROVIDE LOCKER BENCHES WITH HARDWOOD TOPS AND METAL PEDESTALS.
- 2. MADE FROM SELECTED CLEAR HARDWOOD, MAPLE OR BIRCH. TOPS TO BE

10500 - LOCKERS

MINIMUM 91/2" WIDE, AND FULL 11/4" THICK, FACTORY FINISHED CLEAR.

- PEDESTALS: PROVIDE STEEL PEDESTALS, FINISHED TO MATCH COLOR AND 3. TYPE FINISH OF STEEL LOCKERS. TOTAL BENCH HEIGHT, 18":
 - BENCHES UP TO 7'-10" LONG TO HAVE 2 PEDESTALS.
 - BENCHES 8'-10" LONG TO 14'-10" LONG TO HAVE 3 PEDESTALS. b)
 - BENCHES OVER 14'-10" LONG TO HAVE 4 PEDESTALS. c)
- INSTALL PEDESTALS ON FLOOR USING EXPANSION BOLTS OR AS REQUIRED.

10500.03 **EXECUTION**

Α. SURFACE CONDITIONS

EXAMINE THE AREAS AND CONDITIONS UNDER WHICH WORK OF THIS SECTION WILL BE PERFORMED. CORRECT CONDITIONS DETRIMENTAL TO TIMELY AND PROPER COMPLETION OF THE WORK. DO NOT PROCEED UNTIL UNSATISFACTORY CONDITIONS ARE CORRECTED.

INSTALLATION B.

INSTALL THE WORK OF THIS SECTION WHERE SHOWN ON THE DRAWINGS AND IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION RECOMMENDATIONS AS APPROVED BY THE ARCHITECT, ANCHORING FIRMLY INTO POSITION FOR LONG LIFE UNDER HARD USE.

DIVISION 10 10520 - FIRE EXTINGUISHERS

10520.01 <u>SCOPE OF WORK</u>

A. WORK SPECIFIED IN THIS SECTION

THE GENERAL REQUIREMENTS ARE MADE A PART OF THIS SECTION AND APPLY TO THE WORK SPECIFIED.

PROVIDE LABOR, MATERIALS AND EQUIPMENT TO COMPLETE FIRE EXTINGUISHERS AND FIRE EXTINGUISHER CABINETS.

B. RELATED WORK SPECIFIED IN OTHER SECTIONS

FIRE PROTECTION

C. SUBMITTALS

- 1. SUBMITTALS TO INCLUDE LITERATURE SHOWING EACH TYPE FIRE EXTINGUISHER PROPOSED AND CLASS OF FIRE FOR WHICH EACH EXTINGUISHER IS DESIGNED.
- 2. ALL SUBMITTALS SHALL CONFORM TO SECTION 01300 AS TO INFORMATION CONTENT AND PRESENTATION.

D. APPLICABLE PUBLICATIONS

UNDERWRITERS LABORATORIES, INC. NFPA VOLUME 10

10520.02 PRODUCTS

A. FIRE EXTINGUISHERS

- 1. GENERAL REQUIREMENTS:
 - a) PROVIDE UL LISTED FIRE EXTINGUISHERS COMPLYING WITH APPLICABLE REQUIREMENTS OF NFPA VOLUME 10 FOR CLASS A, B AND C FIRES. ALL MATERIALS USED FOR INSTALLATION, ALL EQUIPMENT AND ACCESSORIES SHALL BE UL LISTED, FM APPROVED.
 - b) ALL FIRE EXTINGUISHERS AND ACCESSORIES SHALL BE FURNISHED BY A SINGLE MANUFACTURER.
 - c) FIRE EXTINGUISHERS SHALL BE AS MANUFACTURED BY LARSEN'S MANUFACTURING CO., 741 COMMERCE LANE N.E., MINNEAPOLIS, MN 55432, TEL: (612) 571-1181.
 - d) FIRE EXTINGUISHERS SHALL BE AS REQUIRED BY LOCAL JURISDICTION.

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- 2. FIRE EXTINGUISHER TYPES:
 - MULTIPURPOSE 10 POUND DRY CHEMICAL FOR CLASS A, B, AND C FIRES.
 - MULTIPURPOSE 20 POUND DRY CHEMICAL FOR CLASS A, B AND C FIRES.
- MOUNTING:

PROVIDE MANUFACTURER'S STANDARD WALL BRACKET AND ATTACHMENT FOR FIRE EXTINGUISHERS NOT ENCLOSED IN CABINETS.

4. DISTRIBUTION:

PROVIDE FIRE EXTINGUISHER FOR EACH LOCATION SPACED AS REQUIRED BY NFPA OR OTHER APPLICABLE CODE REQUIREMENTS.

5. SERVICING:

PROVIDE INITIAL FILL AND SERVICE FOR EXTINGUISHERS PROVIDED.

B. FIRE EXTINGUISHER CABINETS

- 1. FIRE EXTINGUISHER CABINET TYPES:
 - CABINETS SHALL BE STEEL OR STAINLESS STEEL AS INDICATED ON THE DRAWINGS.
 - b) PROVIDE CABINETS OF THE FOLLOWING TYPES AT LOCATIONS INDICATED ON THE DRAWINGS:
 RECESSED, ONE EXTINGUISHER, RECESSED, TWO EXTINGUISHERS SEMIRECESSED, ONE EXTINGUISHER SEMIRECESSED, TWO EXTINGUISHERS SURFACE MOUNTED, TWO EXTINGUISHERS
- 2. CABINETS SHALL BE AS MANUFACTURED BY LARSEN MANUFACTURING COMPANY AND AS APPROVED BY THE ARCHITECT.
- 3. SIZE:

PROVIDE CABINET SIZE FOR TYPE, SIZE AND NUMBER OF FIRE EXTINGUISHERS REQUIRED.

4. DOOR TYPES:

GLASS PANEL DOOR

- 5. DOOR FINISH:
 - STAINLESS STEEL NO. 4 FINISH.

10520 - FIRE EXTINGUISHERS

6. DOOR DESIGN:

"FIRE EXTINGUISHER" SHALL BE LETTERED ON THE DOOR, WHITE LETTERING ON RED BACKGROUND.

7. DOOR HARDWARE:

HINGE - CONTINUOUS TYPE HINGE PERMITTING DOOR TO OPEN 180 DEGREES, DOOR PULL AND FRICTION LATCH.

10520.03 <u>EXECUTION</u>

A. <u>INSTALLATION</u>

INSTALL THE ITEMS OF THIS SECTION IN STRICT ACCORDANCE WITH THE ORIGINAL DESIGN, APPROVED SHOP DRAWINGS, AND REQUIREMENTS OF AGENCIES HAVING JURISDICTION, AS APPROVED BY THE OWNER'S REPRESENTATIVE, ANCHORING ALL COMPONENTS FIRMLY INTO POSITION.

B. GUARANTEE AND HANDBOOK

CONTRACTORS SHALL FURNISH TO THE OWNER'S REPRESENTATIVE A GUARANTEE ON WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE, AND SHALL FURNISH TO THE OWNER'S REPRESENTATIVE A BOUND COPY OF ALL MANUFACTURERS LITERATURE ON USE AND MAINTENANCE OF ALL ITEMS FURNISHED.

DIVISION 10 10800 - TOILET AND BATH ACCESSORIES

10800.01 SCOPE OF WORK

A. WORK SPECIFIED IN THIS SECTION

1 PROVIDE ALL LABOR, EQUIPMENT, TOOLS AND MATERIALS NECESSARY TO INSTALL ALL TOILET ACCESSORIES AS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN.

2. TOILET ACCESSORIES WILL INCLUDE:

- WASTE RECEPTACLES
- TOILET TISSUE DISPENSERS
- SOAP DISPENSERS/LIQUID
- METAL FRAMED MIRRORS
- GRAB BARS
- SANITARY NAPKIN DISPOSAL
- COMBINATION DOOR STOP AND HOOK
- ELECTRIC HAND DRYERS

B. WORK SPECIFIED IN OTHER SECTIONS

TOILET PARTITIONS

SECTION 10155

C. GUARANTEE

PROVIDE A ONE-YEAR GUARANTEE FOR ALL LABOR AND MATERIALS PROVIDED UNDER THIS SECTION.

D. SUBMITTALS

PROVIDE MANUFACTURER PRODUCT SHEETS OF ALL ACCESSORIES FOR APPROVAL BY THE ARCHITECT. COLORS SHALL BE AS SELECTED BY THE ARCHITECT FROM MANUFACTURER'S STANDARD COLORS.

10800.02 **PRODUCTS**

A. MANUFACTURER

AMERICA SPECIALTIES, INC., YONKERS, NY 10701-9986 (914) 476-9000
A.J. WASHROOM ACCESSORIES, INC., NEW WINDSOR, NY 12553-0569 (914) 562-3332
BRADLEY CORP., MENOMONEE FALLS, WI 53051 (414) 354-0100
GENERAL ACCESSORY MANUFACTURING CO., DURANT, OK 74701 (800) 451-5766
MCKINNEY/PARKER, SCRANTON, PA 18505 (717) 346-7551 OR (800) 346-7707
MIRRORS ONLY: MEEK MANUFACTURING CO., INC., FORT SMITH, AR 72917-1200 (800) 643-2533

HAND DRYERS AND HAIR DRYERS ONLY: WORLD DRYER, BERKELEY, IL 60163 (708) 449-6950 OR (800) 323-0701)

10800 - TOILET AND BATH ACCESSORIES

ALL TOILET ACCESSORIES ARE TO BE BOBRICK WASHROOM EQUIPMENT, INC. NORTH HOLLYWOOD, CALIFORNIA 91605-5882 UNLESS OTHERWISE SHOWN OR NOTED ON DRAWING OR SPECIFIED HEREIN, OR EQUAL AS APPROVED BY THE ARCHITECT, IN THE TYPES AND NUMBERS SCHEDULED AND SHOWN ON THE DRAWINGS.

10800.03 **EXECUTION**

THE GENERAL CONTRACTOR SHALL HAVE THE TOILET ROOM ACCESSORIES SPECIFIED MADE AVAILABLE AND INSTALLED BY THE BUILDING TRADE QUALIFIED TO PERFORM THE WORK OF BUILDING-IN, ANCHORING, CONNECTIONS, ETC., INTO MASONRY WALLS AND PARTITIONS, TOILET PARTITIONS OR OTHER WALL CONSTRUCTION, AND SHALL COORDINATE AND SUPERVISE THE INSTALLATION OF ALL ACCESSORY ITEMS. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.