

SUBSTITUTION REQUEST FORM

DATE: _____

TO: _____

ATTENTION: _____

PROJECT: _____

We submit for your consideration the following product as a substitution for the specified product:

Section No.	Paragraph	Specified Product
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_____	_____	_____
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Proposed Substitution: _____

Reason for Substitution: _____

Product Data:

Attach complete technical data for both the specified product and the proposed substitution. Include information on changes to Contract Documents that the proposed substitution will require for its proper installation.

Samples:

___ Attached ___ Will be furnished upon request

Does the substitution affect dimensions shown on Drawings?

___ No ___ Yes (explain) _____

Effects of proposed substitution on other Work:

Differences between proposed substitution and specified Product:

Manufacturer's warranties of the proposed substitution are:

☐ Same ☐ Different (explain) _____

Maintenance service and spare parts are available for proposed substitution from:

Previous installations where proposed substitution may be seen:

Project: _____	Project: _____
Owner: _____	Owner: _____
Architect: _____	Architect: _____
Date Installed: _____	Date Installed: _____

Cost savings to be realized by Owner, if proposed substitution is approved:

Change to Contract Time, if proposed substitution is approved:

☐ No Change ☐ Add _____ days ☐ Deduct _____ days

Submittal constitutes a representation that [Contractor] [Construction Manager] has read and agrees to the provisions of Section 01 2500.

Submitted by [Contractor:] [Construction Manager:]

Signature

Firm

For Use by Architect:

Based on the information supplied by the [Contractor,] [Construction Manager,] the Architect has reviewed the proposed substitution on the basis of design concept of the Work and conformance with information given in Contract Documents.

☐ Approved ☐ Approved as Noted ☐ Rejected

Submit Additional Information: _____

By: _____ Date: _____

SECTION 01 2600

CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Supplemental Instructions.
 - 2. Proposal Requests.
 - 3. Contractor proposed changes.
 - 4. Construction Change Directives.
 - 5. Change Orders.
- B. Related Sections:
 - 1. Supplemental Conditions of the Contract.

1.2 CHANGE PROCEDURES

- A. Architect's Supplemental Instructions:
 - 1. Format: AIA Document G710 - Architect's Supplemental Instructions, or similar instructions.
 - 2. Architect will advise of minor changes in Work not involving an adjustment to Contract Sum or Contract Time as authorized by the Conditions of the Contract.
- B. Proposal Requests:
 - 1. Format: AIA Document G709 - Proposal Request, or similar instructions.
 - 2. Architect may issue a Proposal Request that includes a detailed description of a proposed change with supplemental or revised Drawings and specifications.
 - 3. Prepare and submit an estimate of any change to Contract Sum or Contract Time within 7 calendar days after receipt. Include:
 - a. Quantities and unit costs, with total cost or credit to Owner. If requested, furnish documentation of quantities.
 - b. Taxes, delivery charges, equipment rentals, and trade discounts as applicable.
 - c. If change in Contract Time is involved, provide updated Progress Schedule.
 - 4. Do not stop work or initiate changes in response to a Proposal Request. If approved, Architect will prepare and issue a Change Order.
 - 5. Submit three (3) copies; or submit electronically in Adobe PDF format.
 - 6. Refer to Article 10 of the General Conditions of the Contract.
- C. Contractor Proposed Changes:
 - 1. Format: Contractor's standard format.
 - 2. Contractor may propose a change by submitting request for change to Architect.
 - 3. Describe proposed change, reason for change, its full effect on Work, and any change to Contract Sum or Contract Time. Include:
 - a. Quantities and unit costs, with total cost or credit to Owner. If requested, furnish documentation of quantities.
 - b. Taxes, delivery charges, equipment rentals, and trade discounts as applicable.
 - c. If change in Contract Time is involved, provide updated Progress Schedule.
 - 4. Submit three (3) copies, or submit electronically in Adobe PDF format.
- D. Construction Change Directive:
 - 1. Format: AIA Document G713 - Construction Change Directive.
 - 2. Architect may issue a directive, signed by Owner, instructing Contractor to proceed with a change for subsequent inclusion in a Change Order.
 - 3. Documentation will describe changes in Work and designate method of determining any change to Contract Sum or Contract Time. Promptly execute change.

- E. Change Orders:
 - 1. Format: AIA Document G701 - Change Order.
 - 2. Execution: Architect will issue Change Orders for signature of parties as provided in Conditions of the Contract.

PART 2 - PRODUCTS

Not used

PART 3 - EXECUTION

Not used

END OF SECTION

SECTION 01 2900

PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative procedures and submittal requirements for applications for payment.

1.2 SUBMITTALS

- A. Prior to submittal of the first Application for Payment, submit the following items for review and approval:
 - 1. Construction Schedule
 - 2. List of Subcontractors and Major Suppliers.
 - 3. Schedule of Values.
 - 4. Copy of Building Permit
 - 5. Other items listed in General and Supplemental Conditions.
- B. Construction Progress schedule:
 - 1. Within fourteen (14) days of date established for "commencement of the work", submit a comprehensive schedule indicating each significant category or unit of work to be performed at the site.
 - 2. Arrange schedule to indicate required sequencing of units, and to show time allowances for submittals review.
- C. Schedule of Values:
 - 1. Prepare a schedule of values to show breakdown of Contract Sum corresponding with payment request breakdown and progress schedule line items. Show dollar value and per cent of total for each unit of work scheduled. Use AIA Form G702 and G703; or HUD 51000, provide detail breakdown.
- D. Recording of the Contract for Construction and Bond:
 - 1. The Contractor must record the contract and bond with the Recorder of Mortgages in the County where the Work is performed within Thirty (30) days of the commencement of the Work. A copy of these recorded documents shall be forwarded to the Architect with the first application for payment. Payment will be withheld until copies of these recorded documents are received.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.1 PROGRESS SCHEDULE

- A. Submittal: Submit updated schedule with each Application for Payment. Provide copies required with payment requests.

3.2 PAYMENT REQUESTS

- A. Prior to initial payment request, submit:
 - 1. List of principal subcontractors and suppliers.

2. Schedule of values.
 3. Progress schedule and first progress report.
 4. Copies of building permits and similar start-up authorization or certifications.
- B. Submit request for each calendar month, not later than 25th day of the month. Use AIA Forms G702 and G703; or HUD Forms 51000, 51001, 51002, 51003, 51004 fully completed and executed; submitted in triplicate, including attachment of waivers and similar documentation with one copy. Contractor must submit copies of invoices for stored materials with application for payment when billing for stored materials. Applications for payment with insufficient back-up will be returned to the Contractor or will be revised accordingly by the Architect.
- C. Following issuance by Architect of Certificate of Substantial Completion, Contractor may submit special payment request, provided the following have been completed:
1. Obtain permits, certificates of inspection and other approvals and releases by governing authorities, required for Owner's occupancy and use of projects.
 2. Submit warranties and similar documentation.
 3. Complete final cleaning of work.
 4. Submit record documents.
- Refer to Section 01 7700 for other requirements.
- D. If the Work extends beyond the Completion Date established in the Notice to Proceed and time adjustments by Change Order; then no further Progress Payments shall be made until the Work is Substantially Complete. The Architect shall establish the date of substantial completion.
- E. Following completion of the following requirements, final payment request may be submitted:
1. Complete work listed as incomplete at time of Substantial Completion, or otherwise assure Owner of subsequent completion of individual incomplete items.
 2. Submit "Clear Lien Certificate" from Clerk of Court.
 3. Submit proof of payment on fees, taxes and similar obligations.
 4. Remove temporary facilities, tools and similar items.
 5. Complete requirements specified in "Project Closeout" section.
 6. Obtain Consent of Surety for final payment.
 7. Provide Certificate of Completion forms and Contractor's Release
 8. Refer to Section 01 7700 for other requirements.

END OF SECTION

SECTION 01 3100

PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Project coordination.
 - 2. Coordination drawings.
 - 3. Project meetings.
- B. Related Sections:
 - 1. Section 01 7700 - Contract Closeout.

1.2 PROJECT COORDINATION

- A. Submit required project submittals in three (3) copies, or electronically in Adobe PDF format.
- B. Coordinate scheduling, submittals, and work of various Sections of specifications to assure efficient and orderly sequence of installation of interdependent construction elements.
- C. Coordinate completion and clean up of work of separate Sections in preparation for Substantial Completion.
- D. After Owner occupancy, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents to minimize disruption of Owner's activities.

1.3 COORDINATION DRAWINGS

- A. Coordination Drawings:
 - 1. Prior to commencement of Work, prepare coordination drawings (as required) to define relationship of mechanical, plumbing, and electrical components with roof components.
 - 2. Include plans, elevations, sections, and details required to define relationships between components.
 - 3. Prepare drawings at 1/4 inch = 1'-0" scale for general layout and 3/8 inch = 1'-0" for plans and sections in congested areas including equipment spaces.
 - 4. Submit three (3) copies, or submit electronically in Adobe PDF format.
- B. Hold coordination meetings with trades providing mechanical, plumbing, and electrical work as relates to roofing work.
- C. When conflicts cannot be resolved:
 - 1. Cease work in areas of conflict and request clarification prior to proceeding.
 - 2. Prepare drawings to define and to indicate proposed solution.
 - 3. Submit drawings for approval when actual measurements and analysis of Drawings and Project Manual indicate that various systems cannot be installed without significant deviation from intent of Contract Documents.
- D. Submit original composite coordination drawings as part of Project Record Documents specified in Section 01 7700.

1.4 PROJECT MEETINGS

- A. Schedule and administer preconstruction conference and pre-installation conferences.

- B. Make physical arrangements for meetings; notify involved parties at least three (3) days in advance.
- C. Record significant proceedings and decisions at each meeting; reproduce and distribute copies to parties in attendance and others affected by proceedings and decisions made.

1.5 PRECONSTRUCTION CONFERENCE

- A. Schedule within 15 calendar days after date of Notice to Proceed at Project Site at a time convenient to all parties.
- B. Attendance:
 - 1. Contractor.
 - 2. Owner.
 - 3. Architect.
 - 4. Major subcontractors and suppliers as Contractor deems appropriate.
- C. Review and Discuss:
 - 1. Relation and coordination of various parties, and responsible personnel for each party.
 - 2. Use of premises, including office and storage areas, temporary controls, and security procedures.
 - 3. Construction schedule and critical work sequencing.
 - 4. Processing of:
 - a. Contract modifications.
 - b. Shop Drawings, Product Data, and Samples.
 - c. Applications for Payment.
 - d. Substitutions.
 - e. Other required submittals.
 - 5. Adequacy of distribution of Contract Documents.
 - 6. Procedures for maintaining contract closeout submittals.
 - 7. Installation and removal of temporary facilities.
 - 8. Notification procedures and extent of testing and inspection services.

1.6 PROGRESS MEETINGS

- A. Schedule monthly (as needed) progress meetings.
- B. Location: Contractor's project field office.
- C. Attendance:
 - 1. Contractor.
 - 2. Owner.
 - 3. Architect.
 - 4. Subcontractors and suppliers as appropriate to agenda.
- D. Review and Discuss:
 - 1. Work progress since previous meeting, including:
 - a. Field observations, deficiencies, conflicts, and problems.
 - b. Progress and completion date.
 - c. Corrective measures needed to maintain quality standards, progress, and completion date.
 - 2. Status of:
 - a. Requests for information.
 - b. Submittals.
 - c. Contract modifications.
 - 3. Coordination between various elements of Work.
 - 4. Maintenance of Project Record Documents.

1.7 PRE-INSTALLATION CONFERENCES

- A. Conduct a Pre-installation conference at Project site before each construction activity that requires coordination with other construction; and at major Work activities.
- B. Require attendance of parties directly affecting or affected by work of the specific Section.
- C. Review conditions of installation, preparation and installation procedures, and coordination with related work.

PART 2 - PRODUCTS

Not used

PART 3 - EXECUTION

Not used

END OF SECTION

SECTION 01 3300

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes procedures and requirements for Contractor submittals of product data, shop drawings, samples and other information not considered as part of the Contract Documents but required under their provisions.
- B. Excessive re-submittal penalty.

1.2 PRODUCT DATA, SHOP DRAWINGS

- A. General: Where contents of submittal include data not pertinent to the project, clearly indicate which portion is being submitted for review.
- B. Number of copies required: Submit the number of copies which are required to be returned plus two copies which will be retained by the Architect.
- C. Scale and measurements: Make all Shop Drawings accurately to a scale sufficiently large to show all pertinent aspects of the item and its method of connection to the Work.
- D. Design drawings shall not be reproduced and used as shop drawings.

1.3 SAMPLES

- A. Accuracy of samples: Samples shall be of the precise article proposed to be furnished.
- B. Number of samples required: Unless otherwise specified, submit all Samples in the quantity which is required to be returned plus one which will be retained by the Architect.

1.4 QUALITY ASSURANCE

- A. Coordination of submittals: Prior to each submittal, review and coordinate all aspects of each item being submitted and verify that each item and the submittal for it conforms in all respects with the requirements of the Contract Documents. By affixing the Contractor's signature to each submittal, certify that this coordination has been performed.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.1 SUBMITTAL SCHEDULE

- A. General: Within fourteen (14) days after award of Contract, compile a complete and comprehensive schedule of all submittals anticipated to be made during progress of the Work. Provide two (2) copies of this schedule to the Architect for approval prior to the submittal of any items for review.
- B. Coordination: Coordinate the schedule with subcontractors and materials suppliers to ensure their understanding of the importance of adhering to the approved schedule and their ability to so adhere.

3.2 IDENTIFICATION OF SUBMITTALS

- A. General: Accompany each submittal with a letter of transmittal containing all pertinent information required for identification and checking of submittals.
- B. Internal Identification: On at least the first page of each copy of each submittal, and elsewhere as required for positive identification, clearly label the submittal as to project, subcontractor, supplier, etc.
- C. Resubmittals: When material is resubmitted for any reason, transmit under a new letter of transmittal.

3.3 COORDINATION OF SUBMITTALS

- A. General: Prior to submittal for approval, use all means necessary to fully coordinate all material including, but not necessarily limited to:
 - 1. Determine and verify all interface conditions, catalog numbers, and similar data.
 - 2. Coordinate with other trades as required.
 - 3. Clearly indicate all deviations from requirements of the Contract Documents.

3.4 TIMING OF SUBMITTALS

- A. General: Make all submittals far enough in advance of scheduled dates for installation to provide all time required for reviews, for securing necessary approvals, for possible revisions and resubmittals, and for placing orders and securing delivery.
- B. Architect's review time: In scheduling, allow at least fourteen (14) calendar days for review by the Architect following his receipt of the submittal.
- C. Delays: Delays caused by tardiness in receipt of submittals will not be an acceptable basis for extension of the Contract completion date.

3.5 ARCHITECT'S REVIEW

- A. General: Review by the Architect shall not be construed as a complete check, but only that the general method of construction and detailing is satisfactory. Review shall not relieve the Contractor from responsibility for errors which may exist.
- B. Authority to proceed: The notations "NO EXCEPTIONS TAKEN", or "MAKE CORRECTIONS NOTED" authorize the Contractor to proceed with fabrication, purchase, or both, of the items so noted, subject to the revisions, if any, required by the Architect's review comments.
- C. Revisions: Make all revisions required by the Architect. If the Contractor considers any required revision to be a change, he shall so notify the Architect as provided for under "Changes" in the General Conditions. Show each drawing revision by number, date, and subject in a revision block on the drawing. Make only those revisions directed or approved by the Architect.
- D. Revisions after approval: When a submittal has been reviewed by the Architect, resubmittal for substitution of materials or equipment will not be considered unless accompanied by an acceptable written explanation as to why the substitution is necessary. Such explanation shall be submitted to the Architect as scheduled in the submittal schedule.
- E. The Contractor shall be billed for the costs of extra review(s) due to excessive re-submittals.
 - 1. Excessive re-submittals is defined as more than two (2) submission of any single submittal.
 - 2. The amount billed shall be calculated based on the Architect's time required for the review(s) at the Architect's current hourly rate schedule.

END OF SECTION

SECTION 01 4000

QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. References.
 - 2. Quality assurance and control of installation.
 - 3. Mockups.
 - 4. Manufacturer's field services and reports.
 - 5. Design data and calculations.
 - 6. Test reports and certifications.
 - 7. Manufacturer's installation instructions.

1.2 REFERENCES

- A. For products or workmanship specified by reference to association, trade, or industry standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Should specified reference standards conflict with Contract Documents, request clarification from Architect before proceeding.
- C. Conform to edition of reference standard in effect as of date of Project Manual.
- D. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.3 QUALITY ASSURANCE AND CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply fully with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
- D. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce workmanship of specified quality.
- F. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

1.4 MOCKUPS

- A. Definition:
 - 1. Mockups are field samples constructed, applied, or assembled at the project site for review by the Owner and Architect that illustrate materials, equipment, or workmanship.
 - 2. Approved mockups establish the standard of quality by which the Work will be judged.

- B. Construct, apply, or assemble specified items, with related attachment and anchorage devices, flashings, seals, and finishes.
- C. Perform work in accordance with applicable specifications sections.
- D. Erect at project site at location acceptable to Architect. Protect from damage.
- E. Removal:
 - 1. Mockups may remain as part of the Work only when so designated in individual specification sections.
 - 2. Do not remove mockups until removal is approved by Architect or upon Final Completion.
 - 3. Where mockup is not permitted to remain as part of the Work, clear area after removal of mockup has been approved by Architect.

1.5 MANUFACTURERS' FIELD SERVICES AND REPORTS

- A. When specified in individual specification Sections, require material or Product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, or startup of equipment, as applicable, and to initiate instructions when necessary.
- B. Individuals to report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- C. Submit report to Architect within [10] days of observation.

1.6 DESIGN DATA AND CALCULATIONS

- A. When specified in individual specification Sections, require material or Product suppliers or manufacturers to provide design data and calculations.
- B. Accuracy of design data and calculations is the responsibility of the [Contractor.]
- C. When so specified, prepare design data and calculations under the direction of a professional engineer licensed in the state in which the Project is located. Affix engineer's seal to submittals.
- D. Submit three (3) copies. Submit electronically in Adobe PDF format.

1.7 TEST REPORTS AND CERTIFICATIONS

- A. When specified in individual specification Sections, require material or Product suppliers or manufacturers to provide test reports and manufacturers' certifications.
- B. Indicate that material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Submittals may be recent or previous test results on material or Product, but must be acceptable to Architect.
- D. Submit three (3) copies. Submit electronically in Adobe PDF format.

1.8 MANUFACTURER'S INSTALLATION INSTRUCTIONS

- A. When Contract Documents require that Products be installed in accordance with manufacturer's instructions:

1. Submit manufacturer's most recent printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, as applicable.
 - a. Submit in quantities specified for Product Data.
 - b. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.
 - c. Identify conflicts between manufacturers' instructions and requirements of Contract Documents.
2. Perform installation of Products to comply with requirements of manufacturer's instructions.
3. If installation cannot be performed in accordance with manufacturer's instructions, notify Architect and await instructions.
4. Submit three (3) copies. Submit electronically in Adobe PDF format.

PART 2 - PRODUCTS

Not used

PART 3 - EXECUTION

Not used

END OF SECTION

SECTION 01 5000

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes requirements for temporary utilities, Port-O-Let facility, support facilities, and security and protection facilities.

B. Related Requirements:

1. Section 011000 "Summary" for work restrictions and limitations on utility interruptions.

1.2 USE CHARGES

A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated.

B. Water and Sewer Service from Existing System: Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.

C. Electric Power: Contractor shall provide a portable electrical generator for construction electrical usage. Contractor may utilize existing electrical power for charging equipment at the Housing Authority Maintenance Building. The Contractor shall not use electric power from the Residents house power.

D. If usage is considered excessive or wasteful, the Owner and Architect can deduct utility charges from the Contractor's final payment.

1.3 QUALITY ASSURANCE

A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.

PART 2 - PRODUCTS

2.1 TEMPORARY FACILITIES

A. Field Offices, General: If needed by Contractor, provide prefabricated or mobile units for construction operations.

B. Storage Trailers: If needed by Contractor, provide storage trailers sized, furnished, and equipped to accommodate materials and equipment for construction operations. Park where approved by Owner.

2.2 EQUIPMENT

A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Locate facilities approved by Owner and where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
 2. The Contractor shall not use the electrical power at the Dwelling Units. Contractor shall provide temporary power or generators for electrical use during this construction project.

3.3 SUPPORT FACILITIES INSTALLATION

- A. General: Comply with the following:
1. Maintain support facilities until near Substantial Completion inspection. Remove before Substantial Completion.
- B. RESTROOM FACILITIES: Contractor shall Port-O-Let facility at the construction site for use by Construction workers. The Contractor shall not use the Tenant's Restroom, or the Office Restroom facilities
- C. Parking: Use designated areas of Owner's existing parking areas for construction personnel.
- D. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.
1. Identification Signs: Provide Project identification signs as indicated on Drawings.
 2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.
 3. Maintain and touchup signs so they are legible at all times.
- E. Construction signs for Department of Labor, shall be placed at the construction site on a plywood sign elevated on wood posts. Construction signs shall be protected from the weather with a clear plastic cover.
- F. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction.
- KEEP THE JOB SITE CLEAR OF CONSTRUCTION DEBRIS AT ALL TIMES.**
1. General: Except for items or materials to be salvaged, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
 2. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
 3. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 4. Disposal: Transport waste materials off Owner's property and legally dispose of them.
 5. Repair damage to the site resulting from waste disposal by returning to the pre-construction condition.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.

B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

C. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire prevention program.

1. Prohibit smoking in construction areas.
2. Provide portable fire extinguisher within each construction area.

3.5 OPERATION, TERMINATION, AND REMOVAL

A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.

B. Maintenance: Maintain facilities in good operating condition until removal.

C. Termination and Removal: Remove each temporary facility when need for its service has ended. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

END OF SECTION 01 5000

SECTION 01 7329

CUTTING AND PATCHING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes procedural requirements for cutting and patching.
- B. See Divisions 2 through 33 Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.

1.2 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
- B. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
- C. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
- D. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.
 - 1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers.
 - 2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. Protection: Protect in-place construction during cutting and patching to prevent damage.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

3.3 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction.
 - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Concrete: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 - 4. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
 - 5. Proceed with patching after construction operations requiring cutting are complete.
- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.
 - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
 - 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 - 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 - 4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
- D. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

END OF SECTION 01 7329

SECTION 01 7419
CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes administrative and procedural requirements for the following:

1. Disposing of nonhazardous demolition and construction waste.

1.2 DEFINITIONS

A. Construction Waste: Building and roofing materials, concrete and other solid waste resulting from construction, remodeling, renovation, or repair operations.

B. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PLAN IMPLEMENTATION

A. General: Provide handling, containers, storage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.

B. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, walks, lawns and other adjacent occupied and used facilities. Place waste container where approved by Owner.

3.2 DISPOSAL OF WASTE

A. General: Except for items or materials to be salvaged, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.

1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.

2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

B. Disposal: Transport waste materials off Owner's property and legally dispose of them.

C. Repair damage to the site resulting from waste disposal by returning to the pre-construction condition.

END OF SECTION 01 7419

SECTION 01 7700

CONTRACT CLOSEOUT

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes closeout requirements for substantial completion and final completion stages of the physical work.

1.2 CONTRACT CLOSEOUT SUBMITTALS

- A. Construction Record Documentation:
 - 1. Maintain a complete set of contract documents and shop drawings for record mark-up purposes throughout the Contract Time.
 - 2. Mark-up during course of the work to show changes and actual installation conditions, sufficient to form a complete record for Owner's purposes. Give particular attention to work which will be concealed and difficult to measure and record at a later date, and work which may require servicing or replacement during life of project. Require entities marking prints to sign and date each mark-up.
 - 3. Bind prints into manageable sets, with durable paper covers, appropriately labeled and deliver to the Architect for his use in preparing Project Record Documents. Review and approve of the Record Documents prior to submittal to Owner.
- B. Maintenance Manuals:
 - 1. Provide 3-ring vinyl-covered binders containing required maintenance manuals, properly identified and indexed.
 - 2. Include operating and maintenance instructions; extended to cover emergencies, spare parts, warranties, inspection procedures, diagrams, safety, security, and similar appropriate data for each system or equipment item.
- C. Final Payment Prerequisites; Contractor shall submit to the Architect the following items prior to submitting final pay request:
 - 1. Clear Lien Certificate.
 - 2. Consent of Contractor's Surety.
 - 3. Statement of Completed Punch List.
 - 4. "As Recorded" Drawings and Specifications.
 - 5. O & M Manuals.
 - 6. Executed Warranties.
 - 7. Inspection Certificates where applicable.
 - 8. Provide Owner with appropriate operating instructions.
 - 9. Deliver to Owner any required surplus finish materials, keys, tools and parts.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.1 SUBSTANTIAL COMPLETION

- A. Prerequisites: Comply with General Conditions and complete the following before requesting Architect's inspection of the work, or designated portion thereof, for Substantial Completion:
 - 1. Submit executed warranties, workmanship bonds, maintenance agreements, inspection certificates and similar required documentation for specific units of work, enabling Owner's unrestricted occupancy and use.

2. Submit record documentation, maintenance manuals, tools, spare parts, keys and similar operational items.
3. Complete instruction of Owner's operating personnel, and start-up of systems.

B. Substantial Completion Inspection Procedures:

1. Upon receipt of Contractor's written request, Architect will either proceed with Substantial Completion Inspection or advise contractor of prerequisites not fulfilled.
2. Following initial inspection, Architect will either prepare Certificate of Substantial Completion, or advise Contractor of work which must be performed prior to issuance of Certificate; and repeat inspection when requested and assured that work has been substantially completed.
3. Should the Work fail to pass the Substantial Completion Inspection, the inspection will be repeated upon receipt of Contractor's written notice that the Work is substantially complete.
4. Refer to Supplemental Conditions for Contractor's financial responsibility in the re-inspections.
5. Results of completed Substantial Completion Inspection will form initial "punch-list" for final acceptance.

3.2 FINAL ACCEPTANCE

A. Final Cleaning:

1. Prior to final acceptance, clean or re-clean entire work to normal level for "first class" maintenance/cleaning of building projects of a similar nature.
2. Remove non-permanent protection and labels, polish glass, clean exposed finishes, touch-up minor finish damage, clean or replace filters of mechanical systems, remove debris and broom-clean non-occupied spaces, sanitize plumbing facilities, clean light fixtures and replace burned-out/dimmed lamps, sweep and wash paved areas, police yards and grounds, and perform similar cleanup operations needed to produce a "clean" condition as judged by Architect.

B. Final Inspection Procedure:

1. Upon receipt of Contractor's written notice that the Work has been completed, including punch-list items resulting from earlier inspection(s), and excepting incomplete items delayed because of acceptable circumstances, Architect will inspect work.
2. Upon completion of inspection, Architect will either recommend final acceptance and final payment, or advise contractor of work not completed or obligations not fulfilled as required for final acceptance.
3. Should the Work fail to pass the Final Inspection, the inspection will be repeated upon receipt of Contractor's written notice that work has been completed.

C. Repeat Inspections will be required when the Work fails to pass the requested Substantial Completion Inspection and/or the requested Final Inspection. Repeat inspections will be performed at the Contractor's expense. The Contractor shall be billed for the Architect's time for the site visit(s), inspection(s), and related administrative work based on the Architect's current hourly rate schedule, or as indicated in the Supplementary Conditions. An amount equal to the amount due the Architect shall be deducted from the Contractor's final Application for Payment and remitted to the Architect by the Owner.

D. Final Application for Payment:

1. Contractor shall submit the Application for Payment together with documents specified in General and Supplementary Conditions.
2. Contractor shall submit the following form with final Application for Payment and indicate items transmitted by checking the applicable boxes:

END OF SECTION

SECTION 02 4116

SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Selective demolition of existing building features as indicated on the Drawings.
 - 2. Remove and dispose of demolished materials and equipment.
 - 3. Salvage items for re-installation as indicated.
 - 4. Disconnection and re-connection of utilities.
 - 5. Removal of materials from site.
 - 6. Coordinate demolition with the new construction work.
- B. Related Sections:
 - 1. Division 01: Administrative, procedural, and temporary work requirements.

1.2 SUBMITTALS and NOTIFICATIONS

- A. Submittals for Review:
 - 1. Demolition procedures and operational sequence.
- B. Contractor use of Occupied Buildings: (Buildings will be OCCUPIED during the renovation work)
 - 1. Schedule: Submit schedule indicating proposed methods and sequence of operations for demolition work to Architect for review prior to commencement of work. Include coordination for shut-off, capping, and continuation of utility services as required, together with details for dust and noise control protection.
 - 2. Sequencing of Work: The Contractor shall coordinate demolition with replacement work. The dwelling units shall not be without Kitchen cabinet and services overnight.

1.3 QUALITY ASSURANCE

- A. Comply with applicable codes, ordinances, rules, and regulations, including those for demolition, transportation, and disposal of debris.
- B. Arrange for, obtain permits and certificates for, and pay fees required for:
 - 1. Transportation and disposal of debris.
 - 2. Demolition.
 - 3. Utility disconnect for Work and re-connection after completion.

PART 2 - PRODUCTS

Not used

PART 3 - EXECUTION

3.1 FIELD CONDITIONS

- A. Adjacent Buildings are occupied; Contractor shall limit disturbance of adjacent Tenants. If Utilities of adjacent buildings are to be disrupted, Contractor shall notify Housing Authority and Architect a minimum of 24 hours in advance.
- B. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- C. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.

3.2 EXAMINATION

A. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

B. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict.

Promptly submit a written report to Architect.

C. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.

1. Comply with requirements for existing services/systems interruptions specified in Section 011000 "Summary."

3.3 PREPARATION

A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

3.4 SELECTIVE DEMOLITION - GENERAL

A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:

1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
3. Dispose of demolished items and materials promptly. Comply with requirements in Section 017419 "Construction Waste Management and Disposal."

B. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

C. CLEANING: Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

3.5 ITEMS to be SALVAGED

A. The Contractor shall coordinate with Housing Authority for items to be salvaged. For this project, the kitchen plumbing fixtures will be salvaged for re-installation.

END OF SECTION

SECTION 06 4100

WOOD CABINETS - SHOP FINISHED

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes HUD Severe Use:
 - 1. Kitchen wall and base cabinets.
 - 2. New Cabinets in Community rooms only.
 - 3. Community room kitchen cabinets shall be ADA compliant.
 - 4. Paint finish from manufacturers standard colors.
- B. Metal grease splash.

1.2 REFERENCES:

- A. Reference Standards: Comply with following:
 - 1. Cabinets:
 - a. HUD Minimum Property Standards for Housing, 1984 Edition (with changes).
 - b. ANSI/KCMA A161.1 - Recommended Performance and Construction Standards for Kitchen and Vanity Cabinets, 1990.
 - c. Plywood:
 - (1) ANSI/HPMA HP - Hardwood and Decorative Plywood, 1983.
 - (2) US Product Standard PS 1-83 - Softwood Plywood, Construction and Industrial.
 - d. Pressure Treated Lumber: AWWA Standard C2 - Lumber, Timbers, Bridge Ties and Mine Ties - Preservative Treatment by Pressure Processes, 1992.
 - 2. Cabinet Hardware: ANSI/BHMA A156.9 Cabinet Hardware, 1988.
 - 3. Joint Sealant:
 - a. Federal Specification (FS) TT-S-001543A - Sealing Compound: Silicone Rubber Base (For Calking, Sealing, and Glazing in Buildings and other Structures).
 - b. ASTM C920 - Elastomeric Joint Sealants.
 - 4. Certification:
 - a. ANSI Z34.1 - Certification, Third-Party Certification Program, 1987.

1.3 SYSTEM DESCRIPTION

- A. Performance Requirements:
 - 1. Comply with tests procedures and required performances of ANSI/KCMA A161.1.
 - a. Tests: Performed on standard 760 mm (30 inch) wall and base cabinets.
 - 2. Drawers and Drawer Hardware for HUD Severe Use: Apply 330 N (75 pound) point load to exterior edge of drawer extended 150 mm (6 inches) from its closed position for period of 15 minutes.
 - a. Successful Test: No failure in any part of drawer assembly or operating system and drawer remain operable with no mechanical interference with any part of cabinet assembly.

1.4 SUBMITTALS

- A. Product Data: Submit product data for cabinets to Architect.
- B. Sustainable Design Submittals:
 - 1. Materials Reuse.
 - 2. Recycled Content.
 - 3. Regional Materials.
 - 4. Rapidly Renewable Materials.
 - 5. Low-Emitting Materials.
 - 6. Certified Wood.

- C. Shop Drawings: Submit Shop Drawings for cabinets to Architect.
- D. Samples: Submit samples of wood veneers with paint finishes to Architect for selection
- E. Quality Assurance/Control Submittals: Submit following to Architect:
 - 1. Certificates: Manufacturer's written certification that cabinets and countertops meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

- A. Certifications:
 - 1. Cabinets: Continuously tested, certified and display label or seal of Kitchen Cabinet Manufacturer's Association (KCMA) or Southern California Association of Cabinet Manufacturers Association in accordance with ANSI Z34.1.
 - a. HUD Severe Use Cabinets: Bear KCMA Certification Seal and additional label indicating conformance to HUD Severe Use specifications.
- B. Regulatory Requirements: Comply with following:
 - 1. Accessibility:
 - a. Architectural Barriers Act of 1968 as amended (42 USC 4152-4157) and HUD implementing regulations (24 CFR Part 40).
 - (1) Uniform Federal Accessibility Standards (UFAS).
 - b. Section 504 of the Rehabilitation Act of 1973 as amended (29 USC 794) and HUD implementing regulations 24 CFR Part 8.
 - c. Fair Housing Accessibility Guidelines (24 CFR Chapter 1).
 - d. Americans with Disabilities Act of 1990 (ADA) (28 CFR Part 35).
- C. Forest Stewardship Council (FSC) STD-40-004 - Chain of Custody Standard.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Packing, Shipping, Handling, and Unloading:
 - 1. Do not deliver cabinets until building or storage area is enclosed and sufficiently dry to prevent damage from excessive changes in moisture content.
 - 2. Protect casework and equipment from damage during delivery, storage, installation and subsequent building operations.

1.7 PROJECT CONDITIONS

- A. Field Measurements: Field measure spaces to receive cabinets before beginning fabrication.
 - 1. Cabinets: Conform to building lines and neatly fitted around openings, pipes, and other obstructions

PART 2 - PRODUCTS

2.1 HUD SEVERE USE CABINETS

- A. Wall and Base Cabinets: Comply with requirements under Cabinets - General above.
 - 1. Construct to produce sturdy and rigid construction.
 - 2. Wall and Base Cabinets and Countertops: Constructed of solid lumber and/or exterior grade plywood with wood veneer core.
 - a. Particleboard, flakeboard, fiberboard, or hardboard not allowed.
 - 3. Base Cabinets:
 - a. Parts Touching Floor: Pressure treated solid lumber.
 - b. Provide integral toe space of minimum 75 mm (3 inches) by 75 mm (3 inches).
 - c. Toe Kicks: 19.1 mm (3/4 inch) net thickness, pressure-treated solid lumber.
- B. Face Frames: 19.1 mm (3/4 inches) net thick kiln dried solid hardwood, free of knots and selected for light uniform color suitable for paint finish.

1. Frames: Mortised and tenoned, dovetailed or doweled, glued and stapled under pressure and filled and sanded.
 2. Vertical End Members (Stiles): Minimum 38 mm (1-1/2 inch) net width.
 3. Vertical Center Members between Doors and Drawers (Mulls): Minimum 50 mm (2 inches) net width.
 4. Horizontal Members (Rails): 44 mm (1-3/4 inches) net width.
 5. Stiles and Top and Bottom Rails: Dadoed to receive ends, bottoms and tops.
- C. Doors and Door Hardware:
1. Doors: 19.1 mm (3/4 inch) thick 7-ply A-D grade exterior hardwood plywood with no more than one veneer joint on face.
 2. Edges: Reversed shaped to form continuous finger grip around sides.
 3. Edges: Filled and sanded smooth prior to finish.
 4. Edges: May be treated with hot foil transfer.
 5. Edges: May be covered with 9.5 mm (3/8 inch) by 19.1 mm (3/4 inch) reverse shaped hardwood bands.
 6. Acceptable Hardwoods: Beech, birch, maple or oak suitable for paint finish.
 7. Hinges: Manufacturer's standard heavy duty with self closing feature, face mount or semi-concealed type.
- D. Drawers and Drawer Hardware:
1. Fronts Construction and Finish: Same as doors.
 2. Sides and Backs: Minimum 17.4 mm (11/16 inch) net thickness Grade C solid lumber with sides dovetailed or mortised and tenoned into fronts.
 3. Backs: Dadoed into sides.
 4. Bottoms: Minimum 6.4 mm (1/4 inch) softwood or hardwood exterior plywood let into front, sides and back.
 5. Drawer Parts: Glued and nailed or stapled together.
 6. Mount drawers on metal side rails with 34 kg (75 pound) loading capacity.
 7. Cabinet Members or Guides: Attached at rear to 19.1 mm (3/4 inch) solid lumber hanging rail or 12.7 mm (2 inch) solid lumber or plywood block which is attached to 19.1 mm (3/4 inch) solid lumber hanging rail by use of metal rear mount brackets or by continuous wraparound method .
- E. Installation Cleats: Minimum 19.1 mm (3/4 inch) by 89 mm (3-1/2 inches) net thickness S4S, Grade C, kiln dried solid lumber, dadoes to receive bottoms and tops.
1. Provide two horizontal members running full length of cabinet at top and bottom.
 2. Base Cabinets with Drawers: Side mount drawer slide bracket(s) rigidly attached to 12.7 mm (2 inch) thick plywood or wood block which is rigidly attached to top cleat. See "Drawers" paragraph above for alternate mounting.
- F. End Panels:
1. Exposed End Panels: Minimum 2-2 Grade, 12.7 mm (2 inch) thick 5-ply exterior hardwood plywood, selected for light uniform color.
 2. Ends Not Exposed: May be 12.7 mm (2 inch) exterior softwood plywood, Grade A-D, with Grade A side to inside of cabinet.
 3. Ends: Dadoed minimum of 6 mm (1/4 inch) deep to receive shelves, bottoms and tops.
 4. Ends: Let into dado in face frame.
 5. Base Cabinet End Panels: Stop 89 mm (3-1/2 inches) above floor and supported by 19.1 mm (3/4 inch) by 89 mm (3-1/2 inch) pressure treated solid lumber member.
- G. Shelves and Wall Cabinet Bottoms: 12.7 mm (2 inch) thick Grade 2-2 exterior hardwood plywood or Grade A-D exterior softwood plywood with wood banded front edge or 19.1 mm (3/4 inch) net thickness solid lumber.
1. Shelves: Let into dadoes of end panels and braced behind mulls.
 2. Bottoms: Let into (rabbet or dado, manufacturer's choice) ends, cleats and front frames.
 3. Shelves and Bottoms: Glued and stapled.

4. Optional Adjustable Shelves 19.1 mm (3/4 inch) thick Grade 2-2 exterior hardwood plywood of Grade A-D exterior softwood plywood with wood banded front edge or 19.1 mm (3/4 inch) net thickness solid lumber.
 - a. Shelves: Support as necessary to comply with shelf deflection provisions of ANSI/KCMA A161.1.
 - b. Shelves: When loaded at 73.3 kg/sq m (15 PSF) for seven days shall not deflect more than 1.6 mm (1/16 inch) per 305 mm (linear foot) between supports.
 - c. Maximum Deflection: 6.4 mm (1/4 inch) between supports.

H. Backs: Provide on cabinets (optional on sink bases depending on job conditions).

1. Backs: Minimum 6.4 mm (1/4 inch) thick Grade 2-2 exterior hardwood plywood or A-D grade exterior softwood plywood.
2. Backs: Securely glued and stapled to ends, 89 mm (3-1/2 inch) cleats and shelves of cabinet.
3. Backs: May be let into dado of ends and cleats or may be applied flush with ends and cleats.

I. Base Bottoms: 12.7 mm (2 inch) thick Grade 2-2 exterior hardwood plywood or A-C Grade exterior softwood plywood.

1. Bottoms: Let into (rabbet or dado, manufacturer's choice) end panels, front rails and installation cleats.
2. Bottom: Supported by 19.1 mm (3/4 inch) net thickness pressure treated solid lumber braces 610 mm (24 inches) O.C. running front to rear of cabinet and resting on finished floor.

2.2 HUD SEVERE USE MANUFACTURER

A. Certified Manufacturers of HUD Severe Use Cabinets:

1. Mid-America Cabinets, P.O. Box 219, Gentry AR, 72734, Phone: (479) 736-2671, FAX: (479) 736-8086
2. Tru-Wood Cabinets, Inc., P.O. Box 640, Ashland AL, 36251, Phone: (256) 354-3378, FAX: (256) 354-7440
3. Republic Industries; Marshall, TX 75671
4. S&W Cabinets, Inc.; Chaffee, MO.

2.3 ~~METAL GREASE SPLASH MATERIAL~~

- ~~A. Stainless Steel: AISI Type 304, nonmagnetic sheets, free of buckles, waves, and surface imperfections, No. 4 polished finish on exposed surfaces, 24 gage, sanded edges.~~
- ~~1. Pre finished metal to match range, 24 gage, with finished edges, free of buckles shall be permitted in lieu of stainless steel material.~~

2.4 COUNTERTOPS AND SPLASH, Solid Surface material

- a. See Specification Section 06 6116.
- b. Coordinate countertops with cabinets.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Site Verification of Conditions:

1. Existing Conditions: Examine spaces to verify that they are ready to receive cabinets and countertops.
2. Verify grounds, blocking and supports for proper location and support of cabinets before beginning installation. Verify location of mechanical and electrical rough-ins to assure proper match with installed equipment.
3. Survey each kitchen and bath to verify dimensions for cabinets and countertops.

3.2 PREPARATION

- A. Protection: Protect adjacent elements from damage and disfigurement in accordance with manufacturers recommendations.
 - 1. Repair or replace damaged elements in accordance with these documents.

3.3 INSTALLATION

- A. General: Deliver, uncrate, place in proper location and assemble cabinets and countertops in accordance with manufacturer's recommendations and approved Shop Drawings.
- B. Cabinets: Set cabinets accurately in place, level, and plumb.
 - 1. Maintain distance between bottom of wall cabinets and top of countertop between 380 and 455 mm (15 and 18 inches).
 - 2. Scribe and secure to floor and walls.
 - 3. Provide connecting and attaching devices, closures, and trim members as required for complete installation.
 - 4. Install items complete and adjust moving parts to operate smoothly.
 - 5. Wall Cabinets: Secure directly to wall studs.
 - 6. Scribe and closely fit casework to adjacent work.
 - 7. ~~Vanity Cabinet: Seal joint between cabinets and walls with joint sealant.~~
- C. Countertops: Secure to casework and walls with concealed fasteners.
 - 1. See Solid Surface specifications.
 - 2. Seal joints between countertops and walls with joint sealant.
- D. Sinks, Lavatories, and Trim: Provided and installed under Division 15 - Plumbing.
- E. Metal Grease Splash: Install on wall full width of range from top of range to bottom of range hood and on wood/cabinet surfaces directly adjacent side of range from top of range to bottom of range hood. Secure to wall with appropriate rounded head fasteners at perimeter.

3.4 ADJUSTING AND CLEANING

- A. Adjusting: Adjust and lubricate moving parts to operate smoothly.
- B. Cleaning: Clean of all construction marks, paints, etc. to leave suitable for tenant use.

END OF SECTION 06 4100

SECTION 06 4600

WOOD TRIM

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. [Interior] wood trim.
 - 2. ~~Shop finishing.~~
- B. Related Sections:
 - 1. Division 01: Administrative, procedural, and temporary work requirements.

1.2 REFERENCES

- A. American Wood Protection Association (AWPA):
 - 1. C2 - Lumber, Timber, Bridge Ties, and Mine Ties, Pressure Treatment.
 - 2. C9 - Plywood, Pressure Treatment.
 - 3. C20 - Structural Lumber, Fire-Retardant Pressure Treatment.
 - 4. C27 - Plywood, Fire-Retardant Pressure Treatment.
- B. Architectural Woodwork Institute (AWI) - Architectural Woodwork Quality Standards.
- C. ASTM International (ASTM) E84 - Standard Test Method for Surface Burning Characteristics of Materials.
- D. Forest Stewardship Council (FSC) STD-40-004 - Chain of Custody Standard.

1.3 SUBMITTALS

- A. Submittals for Review:
 - 1. Shop Drawings:
 - a. Include dimensioned plans, sections, elevations, and details, including interface with adjacent work.
 - b. Designate wood species and finishes.
 - 2. Samples: [6] [] inch long samples of each profile.

1.4 QUALITY ASSURANCE

- A. Fabricator Qualifications:
 - 1. Minimum [5] [] years [documented] experience in work of this Section.
 - 2. Certified under AWI Quality Certification Program.
- B. Mockups:
 - 1. Size: [[8] [] feet long.] [____.]
 - 2. Show: [Each trim profile.] [____.]
 - 3. Locate [where directed.] [____.]
 - 4. Approved mockup may [not] remain as part of the Work.
- C. ~~Fire Retardant Treated Products: Bear label of recognized independent testing laboratory indicating flame spread rating of [25] [] or less, tested to ASTM E84.~~

1.5 DELIVERY, STORAGE AND HANDLING

- A. Do not deliver materials until proper protection can be provided, and until needed for installation.

1.6 PROJECT CONDITIONS

- A. Environmental Requirements: HVAC system complete and operational for minimum [7] [] days prior to installation of interior trim.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
1. Mason's Mill and Lumber Co. (www.masonsmillandlumber.com)
 2. [].
- B. Substitutions: [Under provisions of Division 01.]

2.2 MATERIALS

- A. Interior Trim for painted finish: Medium density fiberboard, 100 percent recycled content, manufactured using low-emitting, urea formaldehyde-free binders.
- ~~B. Exterior Trim:~~
- ~~1. Species: Pine.~~
 - ~~2. Grade: One.~~
 - ~~3. Finish: [Smooth.]~~
 - ~~4. Average moisture content: [9] to [12] percent.~~
 - ~~5. Finger joints permitted.~~

2.3 ACCESSORIES

- A. Fasteners: Type and size as required by conditions of use; plain steel for interior use; hot dip galvanized steel for exterior use.
- B. Adhesives:
1. Waterproof, [water based] [solvent release] type, compatible with trim materials.
 2. Maximum volatile organic compound (VOC) content: [30] [] grams per liter.

2.4 FABRICATION

- A. Quality: AWI Section 300, [[Economy] Grade.
- B. Where field fitting is required, provide ample allowance for cutting.
- C. Groove back of trim applied to flat substrate, except do not groove exposed ends.
- D. Preservative Treatment:
1. Treat [wood in contact with [masonry] [or] [cementitious materials] [and] [exterior wood].
 2. Treatment process: Waterborne type, free from arsenic, chromium, and other EPA classified hazardous preservatives.
 3. Treat in accordance with AWPA C2 [using waterborne preservative,] with retention of [0.25] [0.40] percent.
- E. Fire Retardant Treatment: Treat [interior] wood in accordance with AWPA C20.

2.5 FINISHES

- A. Opaque Finish System:
1. Finish system: AWI Section 1500, Economy] Grade, [CAB and Water Acrylic Lacquer.]
 2. Color: [To be selected from manufacturer's full color range].

3. Sheen: [Satin.] [Semigloss.] [

PART 3 - EXECUTION

3.1 PREPARATION

- A. Prior to installation, condition wood to average humidity that will prevail after installation.
- B. Back prime [wood installed against [masonry] [or] [cementitious materials] [exterior wood] prior to installation.

3.2 INSTALLATION

- A. Install in accordance with AWI Section 1700, [Economy] Grade requirements.
- B. Install in longest practical lengths.
- C. Set plumb and level.
- D. [Miter] ends, corners, and intersections.
- E. Scribe to adjacent construction with maximum [1/4] inch gaps.
- F. [Fasten] to supporting construction.

END OF SECTION

SECTION 06 6116

SOLID SURFACING FABRICATIONS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Solid surfacing countertops.
 - 2. Solid surface on wall between upper and lower cabinets.
- B. Related Sections:
 - 1. Division 01: Administrative, procedural, and temporary work requirements.
 - 2. Section 07 9200 - Joint Sealers.

1.2 REFERENCES

- A. ASTM International (ASTM) E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

1.3 SUBMITTALS

- A. Submittals for Review:
 - 1. Shop Drawings: Indicate dimensions, component sizes, fabrication details, attachment provisions and coordination requirements with adjacent work.
 - 2. Product Data: Indicate product description, fabrication information and compliance with specified performance requirements.
 - 3. Samples: [2 x 2] inch samples [showing available colors.]
- B. Closeout Submittals:
 - 1. Maintenance Data: Include recommended cleaning materials and procedures and damage repair.

1.4 QUALITY ASSURANCE

- A. Fabricator Qualifications: Minimum [5] years experience in work of this Section.
- B. Fire Hazard Classification: Class [A] flame spread/smoke developed rating, tested to ASTM E84.
- C. Mockup:
 - 1. Size: [One full size countertop.]
 - 2. Show: Countertop, splash, front edge, wall splash and trim.
 - 3. Locate [where directed.]
 - 4. Approved mockup may remain as part of the Work.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
 - 1. Avonite, Inc. (www.avonite.com)
 - 2. DuPont. (www.corian.com)
 - 3. Formica Corp. (www.formica.com)
 - 4. Wilsonart International, Inc. (www.wilsonart.com)
- B. Substitutions: [Under provisions of Division 01.]

2.2 MATERIALS

- A. Solid Surfacing:
 - 1. Material: Homogenous sheet material composed of acrylic resins, filler materials, and coloring agents.
 - 2. Thickness: 1/2 inch countertop. 1/4 inch wall splash between upper and lower cabinets.
 - 3. Color: [To be selected from manufacturer's Color Group 1 or 2.]
 - 4. Surface finish: [Semigloss.]

2.3 ACCESSORIES

- A. Adhesive:
 - 1. Type recommended by solid surfacing manufacturer.
- B. Joint Sealer: per manufacturer.

2.4 FABRICATION

- A. Fabricate components in shop to sizes and shapes indicated, in accordance with manufacturer's instructions and approved Shop Drawings.
- B. Fabricate [splashes] [and skirts] from solid surfacing in [color selected by Housing Authority.]
- C. Form joints to be inconspicuous in appearance and without voids. Join pieces with adhesive.
- D. Provide holes and cutouts for mounting of [sinks,] [trim,] [and] [accessories].
- E. Finish exposed edges to smooth, uniform radius profile.
- F. Allowable Tolerances:
 - 1. Maximum variation in size: [1/8] inch.
 - 2. Maximum variation in location of openings: [1/8] inch from indicated location.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install in accordance with manufacturer's instructions and approved Shop Drawings.
- B. Set plumb, level, and rigid.
- C. Adhere countertops, splashes, and skirts with beads of adhesive.
- D. Seal perimeter with joint sealer as recommended by manufacturer. Finish smooth and flush.

3.2 ADJUSTING

- A. Sand out minor scratches and abrasions.

3.3 PROTECTION

- A. Protect surfaces from damage with non-staining coverings.

END OF SECTION

SECTION 09 9100

PAINTING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Prime painting of new gypsum board repair work
 - 2. Texturing of gypsum board.
 - 3. Surface preparation and field application of paints.
- B. Related Sections:
 - 1. Division 01: Administrative, procedural, and temporary work requirements.

1.2 REFERENCES

- A. ASTM International (ASTM) D4442 - Standard Test Method for Direct Moisture Content Measurement of Wood and Wood-Base Materials.
- B. Society for Protective Coatings (SSPC) - Painting Manual.

1.3 SUBMITTALS

- A. Submittals for Review:
 - 1. Product Data: Manufacturer's data on materials proposed for use. Include:
 - a. Product designation and grade.
 - b. Surface preparation materials and procedures.
 - c. Product analysis and performance characteristics.
 - 2. Samples:
 - a. 3 x 6 inch samples of each coating system on representative substrate. Step back successive coats so that all coats remain exposed. Indicate type of material used for each coat.
 - b. 12 x 12 inch texture samples on gypsum board backing.
 - 3. Paint Schedule: Detailed schedule indicating type and location of surface, coating materials, and number of coats to be applied.

1.4 QUALITY ASSURANCE

- A. Applicator Qualifications: Minimum 2 years experience in work of this Section.
- B. Mockup:
 - 1. Construct mockup panels for interior wall finishes, 4 feet wide x full height.
 - 2. Show: Each color and texture.
 - 3. Locate where directed.
 - 4. Approved mockup may remain as part of the Work.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- B. Paint Materials: Store at ambient temperature from 45 to 90 degrees F in ventilated area, or as required by manufacturer's instructions.

1.6 PROJECT CONDITIONS

- A. Do not apply materials when surface and ambient temperatures or relative humidity are outside ranges required by manufacturer.

- B. Provide lighting level of 80 footcandles measured mid-height at substrate surface.

1.7 MAINTENANCE

- A. Extra Materials: 1 gallon of each color and sheen.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
 - 1. Benjamin Moore and Co. (www.benjaminmoore.com)
 - 2. Devoe Paint Co. (www.devoepaint.com)
 - 3. Fuller O'Brien Paints. (www.fullerpaint.com)
 - 4. I.C.I. Paints. (www.icipaintstores.com)
 - 5. Kelly-Moore Paints. (www.kellymoore.com)
 - 6. PPG Architectural Finishes, Inc. (www.pittsburghpaints.com)
 - 7. Pratt and Lambert Paints. (www.prattandlambert.com)
 - 8. Sherwin Williams. (www.sherwin-williams.com)

- B. Substitutions: Under provisions of Division 01.

2.2 MATERIALS

- A. Paints: As scheduled at end of Section, or approved substitute.

2.3 ACCESSORIES

- A. Accessory Materials: Linseed oil, shellac, turpentine, paint thinners and other materials required to achieve specified finishes; commercial quality.
- B. Patching Materials: Latex filler.
- C. Fastener Head Cover Materials: Latex filler.
- D. Gypsum Board Texture: Vinyl bound unaggregated texture material in powdered form, mixed with water to produce a light texture finish effect.

2.4 MIXES

- A. Uniformly mix to thoroughly disperse pigments.
- B. Do not thin in excess of manufacturer's recommendations.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Test shop applied primer for compatibility with subsequent coatings.
- B. Measure moisture content of surfaces using electronic moisture meter. Do not apply coatings unless moisture content of surfaces are below following maximums:
 - 1. Gypsum board: 12 percent.
 - 2. Masonry and concrete: 2 percent.
 - 3. Wood: 15 percent, measured to ASTM D4442.
 - 4. Concrete floors: 8 percent.

3.2 PREPARATION

- A. General:
 - 1. Protect adjacent and underlying surfaces.
 - 2. Remove [or mask] electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or finishing.
 - 3. Correct defects and clean surfaces capable of affecting work of this section.
 - 4. Seal marks that may bleed through surface finishes with shellac.
- B. Impervious Surfaces: Remove mildew by scrubbing with solution of trisodium phosphate and bleach. Rinse with clean water and allow to dry.
- C. Gypsum Board:
 - 1. Fill minor defects with filler compound. Spot prime defects after repair.
 - 2. Apply light orange peel texture in accordance manufacturer's instructions.

3.3 APPLICATION

- A. Apply primer or first coat immediately after surface preparation is complete to prevent recontamination.
- B. Do not apply finishes to surfaces that are not dry.
- C. Apply coatings to minimum dry film thickness recommended by manufacturer.
- D. Apply each coat of paint slightly darker than preceding coat unless specified otherwise.
- E. Apply coatings to uniform appearance without laps, sags, curtains, holidays, and brush marks.
- F. Allow applied coats to dry before next coat is applied.
- G. Match final coat to approved color samples.
- H. Where clear finishes are specified, tint fillers to match wood. Work fillers into grain before set. Wipe excess from surface.
- I. Do not Paint:
 - 1. Surfaces indicated on Drawings or specified to be unpainted or unfinished.
 - 2. Surfaces with factory applied finish coat or integral finish.
 - 3. Architectural metals, including brass, bronze, stainless steel, and chrome plating.

3.4 ADJUSTING

- A. Touch up or refinish disfigured surfaces.

3.5 CLEANING

- A. Remove paint from adjacent surfaces.

3.6 EXISTING SURFACES REQUIRING PAINTING

- A. Preparation:
 - 1. General: Remove damaged, un-firm and scaling paint, and sand to smooth out all areas and to give bite to new paint. Prime surfaces where paint or varnish has been removed down to bare material with an approved type primer and spot paint up to level of original paint. Prepare patched surfaces where new materials are used as specified under new work.
 - 2. Wood: Treat wood doors and woodwork where finish is in good condition with liquid sandpaper.

- B. Painting: Use compatible paint with existing and new type paint. Paint previously painted wood with oil base paint. At completion all surfaces shall give a like new appearance.

3.7 PAINT SCHEDULE

- A. Strictly adhere to manufacturer's directions for application of their materials unless specifically called for otherwise.

B. ~~Metal:~~

~~1. Exterior Where Indicated:~~

~~2 coats outside oil base paint.~~

~~2. Interior, including items of piping, mechanical equipment, and other items that do not come factory finished:~~

~~2 coats alkyd-resin enamel to match adjoining work.~~

~~a. Exclusion: Interior door hardware (metal), hinges and roller catches, shall NOT be painted.~~

~~3. Exterior Doors and Door Frames:~~

~~2 coats alkyd-resin base low sheen enamel.~~

~~4. Electrical Breaker Panel:~~

~~2 coats metal primer, gray.~~

C. Gypsum Board Walls:

1 coat approved type texture (light) over all areas. Spray application acceptable.

1 coat approved type vinyl or acrylic primer.

2 coats alkyd-resin semi-gloss enamel.

D. Gypsum Board Ceilings:

1 coat approved type texture (light) over all areas. Spray application acceptable.

1 coat approved type vinyl or acrylic primer.

2 coats approved type vinyl or acrylic paint.

E. Gypsum Board Kitchen Ceilings:

1 coat alkyd resin stain sealer containing aluminum and/or magnesium silicate and titanium dioxide.

1 coat approved type vinyl or acrylic primer.

2 coats alkyd-resin semi-gloss enamel.

F. Wood: Back paint woodwork before installation with one (1) coat of alkyd-resin enamel, undercoat. Seal exposed edges of exterior plywood with approved exterior type sealer.

1. Exterior woodwork:

1 coat alkyd-resin enamel, undercoat

2 coats alkyd-resin enamel, semi-gloss.

2. Interior Woodwork - Paint Finish:

1 coat alkyd-resin undercoat

2 coats alkyd-resin enamel, semi-gloss

G. Wood Cabinets: Cabinet fronts and exposed end panels. Spray application acceptable. Contractor's choice to shop or field apply.

2 coats polyurethane, satin.

END OF SECTION

SECTION 11 3100
RESIDENTIAL APPLIANCES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Range hood.
 - 2. Stainless steel backsplash.

1.2 SUBMITTALS

- A. Submittals for Review:
 - 1. Shop Drawings: Show locations of appliances, dimensions, required clearances, rough-in requirements, power requirements, and wiring diagrams.
 - 2. Product Data: Provide product data on appliances showing materials, finishes, characteristics, limitations, and electrical characteristics.
- B. Closeout Submittals:
 - 1. Operation and Maintenance Data.

1.3 QUALITY ASSURANCE

- A. Appliances: All to be Energy Star rated.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Deliver appliances with manufacturer's protective coverings in place; do not remove until just prior to installation.

1.5 WARRANTIES

- A. Furnish manufacturer's 1 year warranty providing coverage against defective workmanship and parts.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
 - 1. GE Appliances.
 - 2. KitchenAid.
 - 3. Maytag Co.
 - 4. Sears Contract Sales.
 - 5. Whirlpool.
- B. Substitutions: Under provisions of Division 01.

2.2 MANUFACTURED UNITS

- A. Appliances: Scheduled at end of Section or approved substitute.

2.3 METAL GREASE SPLASH MATERIAL

- A. Stainless Steel: AISI Type 304, nonmagnetic sheets, free of buckles, waves, and surface imperfections, No. 4 polished finish on exposed surfaces, 24 gage, sanded edges.
1. Pre-finished metal to match range (or as selected by Owner), 24 gage, with finished edges, free of buckles shall be permitted in lieu of stainless steel material. To be installed over the solid surface backsplash material.
 2. Provide new stainless steel backsplash at each Apartment unit (50) and at each Community Room Kitchen (2). Contractor shall field verify size of backsplash.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install appliances in accordance with manufacturer's instructions and approved shop Drawings.
- B. Coordinate range hood size with existing cabinets and range.
- C. Set plumb, level, and aligned.
- D. Connect to domestic water, sanitary waste, ventilation systems as noted on the Drawings.
- E. Connect to power supply.

3.2 ADJUSTING

- A. Adjust appliances for proper operation.

3.3 SCHEDULE

- A. The following are given as "Basis of Design" units as they provide desired quality and performance, including Energy Star qualification. Comparable units from other reputable manufacturers may be submitted for consideration.

APPLIANCE DESCRIPTION	MANUFACTURER	MODEL	FINISH
Range Hood Provide at each Community Room Kitchen (2)	General Electric	AV447FWS, 180-200 CFM, Provide Damper Accessory, JXDA22, as needed. Note 1 hood is vented and 1 hood is non- vented. Provide carbon filter and cord kit. Coordinate size with Range.	Stainless Steel

END OF SECTION 11 3100

SECTION 15 4400

PLUMBING FIXTURES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Requirements for furnishing and installing plumbing fixtures and trim, as shown on the Drawings.

1.02 REFERENCES

- A. FS WW-P-541/Gen for plumbing fixtures.
- B. ANSI A 117.1- specification for Making Buildings and Facilities Accessible to and Useable by the Physically Handicapped.
- C. Americans with Disabilities Act (ADA), 1990.
- D. Codes and regulations of the jurisdictional and local authorities.

1.02 QUALITY ASSURANCE

- A. Qualifications of Manufacturer: Furnish fixtures which are the product of a manufacturer who has made plumbing fixtures for a period of at least five years.
- B. Identification: Provide fixtures which have the manufacturer's name or readily identified trademark permanently and legibly marked.

1.03 SUBMITTALS

- A. Submit complete catalog information and 5 copies of complete shop drawings for material and equipment to the Architect for approval.

PART 2 PRODUCTS

2.01 MATERIALS

- A. All materials shall be new and of domestic origin. The following manufacturers' model numbers have been used to indicate the type and quality of fixtures required.
- B. Fixtures manufacturer of twice-fired vitreous chinaware of best quality, non-absorbent, and burned so that the whole mass is thoroughly fused and vitrified producing a material white in color, which when fractured will show a homogeneous mass, close-grained and free from pores.
- C. Brass fittings, faucets, traps and **all exposed piping and semi-exposed**, shall be chrome plated over nickel plate with polished plate.
- D. Brass pipe shall be chrome plated over nickel plate and provided with escutcheons and set screw plate to match the pipe fixtures passing into floors, walls or partitions, including back of cabinets.
- E. Insulate all exterior wall water lines where accessible during construction process.

2.02 SCHEDULE OF FIXTURES

- A. The following is a schedule of all Plumbing Fixtures, coordinate with Drawings the number and fixture type.
1. KITCHEN SINK (KS) – Elkay LRAD-3321, 33" x 21-1/4" ADA compliant type 302 stainless steel 20 ga. double compartment sink, coated underside, 4- hole drilling.
 2. Furnish LK-1001 single lever trim, (2) LK-35 drains, LK-53 continuous waste connection, CPB P-Trap, angle stops, flexible risers. Connection sizes: CW = 1/2", HW = 1/2", WD = 1 1/2".
 3. Provide insulated supplies and drain with PVC cover. Provide ADA compliant offset drain, Kohler K-13885. Installation shall be ADA compliant.
 4. Provide new cut-off valves and escutcheons at hot and cold water connections; Furnish 3/8" flexible C.P. riser and stops. Provide all accessories for a complete project. Connection sizes: CW=1/2", HW=1/2", WD=1-1/2".
 5. Acceptable manufacturer, Moen.
 6. Provide all plumbing accessories for a complete functional project.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install insulation at all exposed hot water and drain piping in Kitchen of Community Rooms.
- B. Coordinate plumbing fixture installation with new cabinets.

3.02 PROTECTION

- A. Protect plumbing fixtures from dirt, foreign objects and damage during the construction period. Do not use warped or otherwise imperfect fixtures.
- B. Do not use installed fixtures for any purpose except testing, prior to final acceptance by the owner. Replace damaged fixtures at no additional cost to the Owner.

END OF SECTION

SECTION 16 0100
MINOR ELECTRICAL WORK

PART 1 GENERAL

1.01 SUMMARY

- A. All Work shall comply with the National Electrical Code, current edition; and all local ordinances.
- B. Minor Electrical Work includes the installation of new electrical devices at same locations as existing devices.
- C. Some additional switch runs to be installed at Community Kitchen for range vent hood.

1.02 SUBMITTALS

- A. Submit electrical devices, receptacles and switches for Review. Contractor shall verify existing conditions prior to submitting products.
- B. All electrical equipment shall be connected in accordance with the instructions of the manufacturer.
- C. The work shall be done in strict accordance with local and state ordinances governing this class of work, and with the National Electrical Code.

1.03 QUALITY ASSURANCE

- A. The Dwelling Units are currently occupied; and all electrical systems are operational. If the Contractor determines that the electrical system is not operational, the Architect shall be notified.
- B. When the Work is completed in each Dwelling Unit, the operation of the electrical system shall be verified prior to leaving the Dwelling Unit.
- C. The electrical system of each Dwelling Unit shall be operational at the end of each day.

PART 2 PRODUCTS

2.01 ELECTRICAL DEVICES

- A. Receptacles, if needed: Device shall be Class A per UL 943. Contractor shall verify existing conditions, for device selection. The receptacle color shall closely match those existing in the Dwelling Unit.
- B. GFCI receptacles; equal to 15-Amp GFCI Electrical Outlet, 120 volt, 3 wire grounding configuration, NEMA 515R, with reset button. Match dwelling unit style and color of existing receptacles.
- C. Switches: Light switch shall be single pole switch to match the function of switch being replaced. Provide light switch in new single box.
- D. Cover Plate: Provide one-piece device plate for outlets to suit the device installed. The cover plate color and size shall closely match those existing in the Dwelling Unit.

- E. Junction Boxes: If needed, junction boxes shall be metallic galvanized per NEC Article 370. If retro-fit junction boxes are allowed by Code, those will be considered.

PART 3 EXECUTION

3.01 GENERAL

- A. All electrical Work shall comply with National Electric Code, current edition. Electrical Work shall be verified operational prior to completion of Work in each Dwelling Unit.

3.02 STANDARDS OF MATERIALS AND WORKMANSHIP

- A. All materials shall be new and listed by UNDERWRITERS' LABORATORIES as conforming to its standards for the application used. All work shall be executed in workmanlike manner and shall present a neat mechanical appearance when completed.

END OF SECTION