United States Department of the Interior

NATIONAL PARK SERVICE
Golden Gate National Recreation Area
Building 201, Fort Mason
San Francisco, CA 94123-0022

# PROJECT SPECIFICATIONS

## Replacement of Roofs and Vents for Fort Cronkhite

## PMIS – 342866, 351633, 351653, 351645, 351661, 350625

April 6, 2026

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**SECTION 01 11 00 - SUMMARY OF WORK**

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Work covered by the Contract Documents.
2. Work under other contracts.
3. Government Furnished Materials.
4. Contractor use of the site
5. Contractor access and use of site
6. Occupancy requirements for buildings.
7. Work Restrictions.
8. Field Verification

1.2 BACKGROUND

A. Historic Status: The buildings are contributing structures in the Fort Barry and Fort Cronkhite National Register Historic District. During the work, Contractor shall exercise great care to protect the buildings and surrounding area from damage. Contractor to repair to the satisfaction of the COR/PM any damage caused by contractors own forces or forces under the contractors direction at no expense to the NPS.

B. Roof structure: The existing roofing is assumed to be more than 20 years old. The roof framing should be evaluated prior to undertaking the work of this contract. Care should be exercised during work to avoid overloading the existing roof rafters and sheathing.

C. The contractor shall contact underground Service Alert (USA) (1 800 642 2444) seven (7) calendar days prior to the start of any ground disturbing phase (including pre-approved mobilization of heavy equipment) and shall be responsible for maintaining a valid USA location tag through the duration of construction.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

A. Project Location:

1. Fort Cronkhite buildings, 1042, 1044, 1045, 1046, 1057, 1061, 1062, 1063, 1065, 1068, 1069, 1077 and 1070 located in Sausalito, CA 94965.
2. Fort Barry 937 and 941 located on Rosenstock Rd, Sausalito, CA 94965.

B. Contractor shall provide all labor, materials, tools and other equipment, services and supervision required to complete the work described below. The scope of this project includes only all the items listed below and will be bid according to the contact line items in section 01 27 00. No other buildings nearby or within Golden Gate Recreation area are included in this project scope. No surrounding parking lots or auxiliary structures are included in this project scope.

C. The Work consists of the following:

1. Replacement of roof shingles, underlayment, flashing, drip edges, and pipe collars for Buildings 1062, 1068, 1069, and 1070.

2. Replacement of roof vents for Buildings 1045, 1046, 1057, 1061, 1062, 1063, 1065, 1068, 1069, and 1070 with the option to include Buildings 1042, 1044, and 1077.
3. Installation of surface tension gutter guards for Buildings 937 and 941 Fort Barry.

D. A Construction Schedule laying out project start and completion dates along with scope tasksshall be submitted per the Spec Section 01 32 16 "Construction Schedule."

E. Project will be constructed under a single Contract.

F. **The Contractor is responsible for verifying quantities, measurements, and existing site conditions**. All interested parties are strongly encouraged to do a site visit to familiarize themselves with local conditions that may affect the cost of contract performance. Interested parties may coordinate the site visit through the CO.

1.4 PERIOD OF PERFORMANCE

A. The period of performance shall be 120 days after Notice to Proceed (NTP).

B. Contractor shall submit written certification that the project is substantially complete, and final inspection is requested. The Contracting Officer's Representative will complete an inspection within seven (7) business days of receipt of request.

C. When the COR determines that the work is substantially complete, they will prepare a list of deficiencies to be corrected before final acceptance, and a Letter of Substantial Completion will be issued by the CO.

D. Contractor shall coordinate manufacturer warranty inspection. Warranty documents shall be provided to the COR within 30 days of project completion.

1.5 WORK UNDER OTHER CONTRACTS

A. General: The National Park Service and/or facilities-based partners of the National Park Service may,during the course of this Contract, have other construction work in progress within the park and near this project site. The Contractor shall work with the Contracting Officer and others as necessary to minimize impacts and coordinate activities of the work.

1.6 GOVERNMENT-FURNISHED MATERIALS:

A. There will be no government furnished materials provided for this project.

1.7 CONTRACTOR USE OF SITE

A. The Contractor's use of the premises is restricted to the designated work area. Materials and equipment must be stored inside the work area.

B. Staging Area: Contractor shall work with NPS to identify an appropriate staging area.

C. Protection of Historic Features: Fort Cronkhite contains many project locations which are highly sensitive sites and contain historical resources. The Contractor shall closely follow the plans shown and alert the Contracting Officer immediately of any major deviations. A short start-up meeting with the Contracting Officer will be required prior to beginning work. Confine all operations to work limits of the project. Prevent damage to historic features that lie within the work limits, including but not limited to historic buildings and features, archeological resources including features both above and below grade, cultural landscapes and features including

plantings, walkways, etc. Protect historic features from damage due to the work of this contract. Application of spray paint orany permanent markings to site features is prohibited. (Only chalk-based paint or crayon should be used).

D. Preservation of Natural Features:

1. Prevent damage to natural surroundings. Restore damaged areas as directed and approved by the Contracting Officer, at no additional expense to the Government.
2. Take measures to prevent equipment from compacting soils adjacent to or within the construction zone that will not be displaced by a constructed facility such as the parking lot.
3. All geological and fossil materials within the park are protected. Avoid disturbing soils or rock within or outside the project are, except as specified in the contract documents or as directed by the Contracting Officer.

E. Driveways and Entrances: Keep driveways and entrances serving premises clear and available to Government, Government's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.

1. Schedule deliveries to minimize use of driveways and entrances.
2. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

F. Construction Camp: Establishment of a camp within the park will not be permitted.

G. Hauling Restrictions: Comply with all legal load restrictions in the hauling of materials. Load restrictions on park roads are identical to the state load restrictions with such additional regulations asmay be imposed by the Park Superintendent. Information regarding rules and regulations for vehicular traffic on park roads may be obtained from the Office of the Park Superintendent. A special permit will not relieve Contractor of liability for damage which may result from moving of equipment.

H. Contractor shall provide OSHA and other required postings regard safety at the site.

## 1.8 OCCUPANCY REQUIRMENTS FOR BUILIDINGS

A. Existing Buildings

1. Partial Government Occupancy: Government may occupy the premises during entire construction period. Cooperate with Government during construction operations to minimize conflicts and facilitate Government usage. Perform the Work so as not to interfere with Government's operations. Maintain existing exits, unless otherwise indicated.
2. Maintain existing building in a weather tight condition throughout construction period. Repair damage caused by construction operations. Protect buildings during construction period.

## 1.9 CONDUCT OF OPERATIONS

A. Contractor personnel shall comply with all Federal and State law and regulations, including the Golden Gate National Recreation Area Superintendent's Compendium. Any exception must be specifically justified and approved in writing by the Contracting Officer.

1. The Superintendent's Compendium can be found at this internet address: https://www.nps.gov/goga/learn/management/lawsandpolicies.htm

B. No signs or advertisements (except those specified herein) shall be displayed on the construction site or within the park unless approved by the Contracting Officer.

1.10 WORK RESTRICTIONS

A. On Site Work Hours: The 40-hour work week shall be generally performed during normal businessworking hours of 7 a.m. to 5:30p.m., Monday through Friday.

1. Work will be permitted in the evenings or on Saturdays by prior authorization of the NPSContracting Officer. Submit requests 48 hours in advance of the work to the Contracting Officer for approval.
2. No onsite work shall be performed during federal holiday periods unless otherwise directedby the Contracting Officer.
3. Smoking: Smoking is not permitted. Designated smoking areas shall be approved by the ContractingOfficer.

1.11 DEFINITIONS

A. The Contracting Officer (CO) is the only government official authorized to make changes to the contract. The Contracting Officer's Representative (COR) is the CO's onsite representative to address all matters concerning the contract and ensure work is being completed according to the Statement of Work (SOW).

B. Owner/Government: The sites and buildings where the work will be performed are owned by the US Government - National Park Service (NPS). The term Government is used throughout the SOW to denote the Owner. The following Government personnel will administer the contract.

C. Contracting Officer's Representative (COR): The CO may appoint a COR to assist in administering the contract and provide technical assistance. The COR and their roles and responsibilities will be made known to the Contractor at the time of the Preconstruction Conference or before.

D. Contractor: The person or entity holding the contract is responsible for completing the work of the contractor. Contractor shall appoint a single point of contact for the duration of the work.

1.12 FIELD VERIFICATION

A. See Section 01 73 40 Execution.

PART 2 - PRODUCTS (Not used)
PART 3 - EXECUTION (Not used)

END OF SECTION 01 11 00

**SECTION 01 26 01 CONTRACT MODIFICATION PROCEDURES**

PART 1 - GENERAL

1.1 SUMMARY

A. The work of this section consists of administrative and procedural requirements for contract modifications.

1.2 DEFINITIONS AND ALLOWANCES

A. Home Office Overhead: Those costs incurred in support of all of a contractor's projects and not attributable to a specific job. The cost for home office overhead is only allowed as a percentage of all direct work excluding profit. The following items represent allowable home office overhead costs, identified in Part 31 of the Federal Acquisition Regulation (FAR):

1. Rent
2. Utilities
3. Furnishings
4. Office equipment
5. Executive and management staff not exclusively assigned to the project.
6. Support, accounting, and administrative staff
7. Preparation of cost proposals, estimating, and schedule analyses connected with Modifications.
8. Estimating and preconstruction services
9. Mortgage costs
10. Real estate and corporate taxes
11. Automobile maintenance and travel costs for home office personnel
12. Home office insurances i.e. structure, automotive, umbrella, flood, etc.
13. Depreciation of equipment and other assets
14. Home office supplies (paper, staples, etc.)
15. Legal services
16. Accounting and data processing
17. Professional fees/registration

B. General Conditions (Field Office Overhead): Management and administrative costs incurred on site for the designated project. Costs associated with the preparation of modifications will not be allowed. The costs for these items are to be included only in the general conditions of the modification estimate. Only in the case of a contract time extension are additional general conditions included in modifications. The following items, if applicable, are considered allowable costs for calculating General Conditions:

1. Project Manager, Assistant Project Manager

2. Superintendent, Assistant Superintendent
3. Quality Control, Safety Officer, Environmental Manager, etc.
4. Engineers
5. Travel, lodging, and per diem (as established by Federal Travel Regulations)
6. Scheduling
7. Field Office Trailers and associated temporary utilities
8. Field office supplies

    a. Mailing and couriers
    b. Reproduction costs
    c. Storage
    d. Phones
    e. Computers
    f. Copiers

9. Personal vehicles i.e. Superintendent Pickup trucks

C. General Requirements: These are costs directly associated with the project and are necessary to perform the actual work of the modification. These costs shall be shown as direct costs in the estimate. The following items, if applicable, are considered allowable costs for calculating General Requirements:

1. Hoisting
2. Material handling
3. Temporary fencing
4. Port-a-lets
5. Trash removal, dumpsters
6. Barricades
7. Small tools
8. Safety supplies
9. Scaffolding
10. Daily cleaning
11. Traffic control
12. Temporary signage
13. Temporary heating and power

D. Personnel Costs: Costs included in the modification must only be for General Conditions staff and workers actually present and working on the project site. Modification costs for salaried workers are only allowed within the structure of a 40-hour week and no overtime or holiday pay will be allowed.

1. Worker Hourly Rates are costs directly associated with the individual worker and consist of the following:
    a. Base Rate: This is the hourly rate paid directly to the worker.

b. Labor Burden: Employer payments of all applicable burdens, this includes insurance and taxes that the business must pay on behalf of the worker to government entities and educational forums, such as:

1) Social Security
2) Medicare
3) Workers Compensation– Policy and company calculation to be made available.
4) FUTA– Cap Rate and percentage to be proportionally allocated over one year.
5) SUTA– Cap Rate and percentage to be proportionally allocated over one year.
6) Union agreement costs – Other costs required under an enforceable collective bargaining agreement.

c. Fringe Benefits: Various non-wage compensations provided to employees such as:

1) Health Care Insurance Premiums
2) Cell Phone
3) Clothing
4) 401K and Pensions
5) Vehicle allowances
6) Gas allowance
7) Life insurance premiums
8) Disability insurance
9) Other Fringe Benefits required under an enforceable collective bargaining agreement

E. Bonuses or Deferred Compensation: No Bonus or Deferred Compensation will be allowed within any components of pricing including Home Office Overhead, General Conditions, General Requirements, Hourly Worker Rates, or the direct costs of work.

F. General Liability Insurance: An insurance policy that protects the contractor from claims resulting from bodily injury or property damage to a third party. Include this as a separate line item within all modification proposals and provide a current insurance quote upon request.

G. Performance and Payment Bonds: A performance bond is a surety bond issued by an insurance company or bank to guarantee satisfactory completion of a project. The Payment Bond guarantees that the contractor will pay the labor and material costs they have incurred. Banks and Insurance companies charge a premium for each individual project based on a sliding scale which relates to the size of the project. Include this as a separate line item in modification proposals and provide current company bonding rates upon request.

H. Builder's Risk Insurance: This covers the contractor's loss due to fire, high winds, or other natural forces. This is not reimbursed by the National Park Service (NPS) and shall not be included in modification proposals.

1.3 MODIFICATION PROPOSAL PRICING REQUIREMENTS

A. General:

1. Your proposal must be received in the format and within the time frame specified in the Request for Proposal letter. Costs or delays resulting from failure of contractor to submit within the time frame specified will not be compensable.
2. The proposal must be detailed with itemized lists of equipment, materials, labor, production rates, overhead, profit, and bond markup for each item. Labor costs must be itemized by craft and hourly rate, including Fringe Benefits and Labor Burden. If the costs of Fringe Benefits and Labor Burden are not itemized, it is assumed that thatthey are included in the hourly rate shown, or contractor is not requesting reimbursement. Contractor may utilize the government provided Contractor Estimate Form, or their own form, provided that it contains the same information and level of detail as the Gov't provided form. The government form is available at:

   http://www.nps.gov/dscw/upload/ContractorEstimateForm_1-24-13.xls
3. Requests for extensions of contract time as a result of this change must be justified with a Time Impact Analysis (TIA). TIA and associated costs must be received with the proposal by the date shown within the Request for Proposal letter. Contractor's failure to submit within the specified time frame will be construed as the Contractor waiving the right for additional time and no time extension will be allowed.
4. All supporting documentation used to justify the proposed modification will be made available to the Contracting Officer upon request.
5. Contractor must review and approve all subcontractor/supplier pricing in detail for proper format, scope, production rates, and pricing prior to submission to the NPS. All delay costs associated with not reviewing and approving subcontractor/supplier pricing will be borne by the Contractor.
6. All pricing and production rates within the estimate must be based on fair and reasonable pricing and cannot include built-in contingency.

B. Labor:
1. Contractor shall estimate the cost of labor by itemizing each craft involved, indicating worker hourly rate (base rate + labor burden + fringe benefits) for each and itemizing the hours required for each craft that will be directly engaged in modification work. Any work proposed that will require overtime work or premium pay shall be itemized separately. All rates shall be in accordance with the Davis-Bacon Act as incorporated herein. Labor Burden may include payroll taxes, Social Security, unemployment insurances, workers compensation insurance, FICA, FUTA, and other direct costs resulting from Federal, State or local laws.
2. Itemize labor costs for equipment operators separate from equipment costs.
3. The labor cost for foremen shall only be costs for related work required for the modification.

C. Materials:
1. The estimated cost for materials shall include quotes from multiple sources. Material prices must include all applicable fees and credits, including but not limited to, sales tax, freight and delivery charges, and tax rebates.
2. No markup shall be applied to any material provided by the NPS.

D. Equipment:

1. Equipment used for the project must be appropriately sized for the work being performed.
2. Do not include costs for "miscellaneous tools and equipment", in your proposal for a replacement value of $500 or less. Costs shown in excess of $500 must be broken out separately.
3. Regardless of ownership, the rates to be used in determining equipment rental costs shall be the lowest cost from one of the following sources:

   a. U.S. Army Corps of Engineers, Ownership and Operating Expense Schedule (use latest edition and applicable region)
   b. Construction Blue Book
   c. Local equipment rental rates, documented by actual invoice charges, or itemized vendor quotes.
4. The estimated rental rates shall include the cost of all fuel, oil, lubrication, supplies, small tools, necessary attachments, ground engaging components, tires & tracks,routine repairs, and maintenance (cost of major overhaul is not included), depreciation,storage, insurance, and all incidentals. Mobilization, if applicable, may be included for equipment solely used on the modification work but must be listed separately.
5. Estimate the full rate for equipment only for the duration that the equipment will be utilized to accomplish the work of the modification.
6. Standby unit rates used are to be in accordance with paragraph 1.3, D, 2, above. If the US Army Corp of Engineers is utilized, then their standby rates prevail. If Bluebook or local equipment pricing is accepted, then ½ of the equipment costs minus any operating costs will be accepted.
7. If equipment is in standby mode due solely to a documented NPS delay, the established standby rate shall apply from the first day of the delay.
8. Equipment that is not used and on the jobsite for up to five consecutive days may be classified at standby rates, provided that the equipment is or has been used solely to perform work on the modification and will be necessary to complete additional modification work. Equipment that is still on the jobsite but not in use after five consecutive days will not be considered in the modification pricing.
9. Requests for compensation for equipment stand by time must be justified,documented and itemized separately.
10. The estimated timeframe (daily, weekly, monthly) for use of the equipment must reflect the lowest cost to the Government.

E. Establishment and Application of Overhead and Profit Percentages:

1. Home Office Overhead and Profit (OH&P) shall be applied to direct costs only. Profit shall not be applied to overhead amounts; and overhead shall not be applied to profit. Home office overhead shall contain only allowable, allocable, and reasonable costs per the contract documents and FAR Part 31. Profit percentages are based on risk factors found in FAR Part 31which have been applied to the specific type of work included in this project. The following percentages establish the maximum allowable markups (OH&P) for contractor self-performed work:

   Overhead…..... 10%
   Profit… .....10%

2. Total aggregate limit of markup (OH&P) for contractor and subcontractors on modification work shall not exceed 25%. The NPS will not be responsible for allocation of percentages between contractor and subcontractors at any tier.
3. If contractors form a partnership, then the partnership may only receive home office overhead and profit in the same amount as an individual contractor (refer to par 1.3.E.1 above). It is the responsibility of the partners to decide on the division of revenue.
4. Combined Increases and Decreases: On proposals involving both increases and decreases in the Contract Price, the overhead and profit mark-ups are required on the net increases and deducted on net decreases.
5. At no time can profit be calculated on Overhead or itself, it must be calculated on direct costs of work only.

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION (Not used)

END OF SECTION 01 26 01

**SECTION 01 27 00 – DEFINITION OF CONTRACT LINE ITEMS**

1.1 SUMMARY

A. The intent of this section is to explain, in general, what is and what is not included in a contract line item, and the limits or cut-off points where one item ends and another begins.

B. If no contract line item exists for a portion of the work, include the costs in a related item.

PART 2 - PRODUCTS (Not Used)
PART 3 – EXECUTION

3.1 LIST OF CONTRACT LINE ITEMS

A. Contract Line Item No. 1. **Replacement of Roof at Building 1062**
   1. This item consists of pre-construction submittals, closeout submittals, and final cleaning.
   2. This item consists of removal of old roofing system, and replacement of roof felt, shingles, flashing and pipe collars.

B. Contract Line Item No 2. **Replacement of Roof at Building 1068**
   1. This item consists of pre-construction submittals, closeout submittals, and final cleaning.
   2. This item consists of removal of old roofing system, and replacement of roof felt, shingles, flashing and pipe collars.

C. Contract Line Item No 3. **Replacement of Roof at Building 1069**
   1. This item consists of pre-construction submittals, closeout submittals, and final cleaning.
   2. This item consists of removal of old roofing system, and replacement of roof felt, shingles, flashing and pipe collars.

D. Contract Line Item No 4. **Replacement of Roof at Building 1070**
   1. This item consists of pre-construction submittals, closeout submittals, and final cleaning.
   2. This item consists of removal of old roofing system, and replacement of roof felt, shingles, flashing and pipe collars.

E. Contract Line Item No 5. **Replacement of Large Vents on Buildings 1045, 1046, 1057, 1061, 1062, 1063, 1065, 1068, 1069, and 1070.**
   1. This item consists of pre-construction submittals, closeout submittals, and final cleaning.
   2. This item consists of removal and replacement of approximately 27 large copper roof vents of varying style. **Contractor to verify size and quantity of all vents.**

F. Contract Option No 6. **Replacement of Large Vents on Building 1077.**
   1. This item consists of pre-construction submittals, closeout submittals, and final cleaning.
   2. This item consists of removal and replacement of approximately 6 large copper roof vents of varying style. **Contractor to verify size and quantity of all vents.**

G. Contract Option No 7. **Replacement of Large Vents on Building 1042**
   1. This item consists of pre-construction submittals, closeout submittals, and final cleaning.
   2. This item consists of removal and replacement of approximately 3 large copper roof vents. **Contractor to verify size and quantity of all vents.**

H. Contract Option No 8. **Replacement of Large Vents on Building 1044**

1. This item consists of pre-construction submittals, closeout submittals, and final cleaning.
2. This item consists of removal and replacement of approximately 4 large copper roof vents of varying style. **Contractor to verify size and quantity of all vents.**

I. Contract Option No 9. **Replacement of Gutter Guards on Fort Barry Buildings 937 and 941**

1. This item consists of pre-construction submittals, closeout submittals, and final cleaning.
2. This item consists of installation of approximately 383 Linear Feet on building 937 and 262 Linear Feet on building 941 of new surface tension gutter guards. **Contractor to verify size and quantity of all gutter guards.**

END OF SECTION 01 27 00

**SECTION 01 31 00 - PROJECT MANAGEMENT AND COORDINATION**

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:

1. Construction Coordination.
2. Submittals
3. Coordination Drawings.
4. Project meetings.

B. Related Requirements:

1. Section 01 32 16 "Construction Schedule" for preparing and submitting Contractor's construction schedule.

1.2 SUBMITTALS

A. Division 01 documents: The following items shall be submitted a minimum of one week prior to the Preconstruction Conference. Contracting Officer will notify Contractor of tentative date for the Pre-Construction Conference.

1. Letter designating Project Superintendent.
2. Construction Schedule.
3. A comprehensive breakdown of the Schedule of Values.
4. Accident Prevention Plan/Site-Specific Safety Plan.
5. A list of Subcontractors for this project.
6. Written statements from subcontractors certifying compliance with applicable labor standard clauses (SF 1413).
7. Satisfactory evidence of liability insurance coverage and workman's compensation for the Contactor and all subcontractors.
8. Waste Management Plan.

B. All items listed must be provided to the Contracting Officer before the Pre-Construction Conference is held. If all of these documents have not been received one week prior to the scheduled Pre-Construction Conference date, the conference will be cancelled, Notice to Proceed will not be issued, and the Contracting Officer will consider other contractual remedies. Work shall not commence until written Notice to Proceed has been issued.

1.3 PROJECT MEETINGS

A. Preconstruction Conference: Before start of construction, Contracting Officer will arrange an on-site meeting with Contractor.

B. Attending shall be the following:

1. CO and/or COR

2. Contractor's Project Manager
3. Contractor's Superintendent
4. Major subcontractors
5. NPS Project Manager
6. NPS Safety Representative
7. Others as appropriate

C. The meeting agenda will include the following as a minimum:

1. Roles & Responsibilities/ Lines of Authority.
2. Park rules and regulations.
3. Jobsite Safety
4. Workplan & Schedule
5. Resolution of comments on required Division 01 documents.
6. Coordination of Subcontractors.
7. Traffic Control & Safety
8. Labor law application.
9. Modifications.
10. Payments to Contractor.
11. Payroll reports.
12. Contract time.
13. Liquidated damages.
14. Contractor Performance Evaluation.
15. Display of Hotline posters.
16. Notice to proceed.
17. Correspondence procedures.
18. Acceptance/rejection of work.
19. Progress meetings.
20. Submittal procedures.
21. NPS Final Accessibility Inspection.
22. Environmental requirements.
23. Saturday, Sunday, holiday and night work.
24. Reference materials.

D. Progress Meetings: The Contracting Officer will schedule progress meetings at agreed upon regular intervals.

1. Attendees: In addition to Government Representatives, each Contractor, Subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with the Project and authorized toconclude matters relating to the Work.
2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. The meeting agenda will include the following:

    a. Approval of minutes of previous meetings.
    b. Safety items/ 'toolbox' safety meeting topic.
    c. Submittal status.
    d. Review of off-site fabrication and delivery schedules.
    e. Requests for information (RFI) and other issues.
    f. Modifications.
    g. Work in progress and projected.
        1) Status of required inspections (Special Inspections, Accessibility, etc.)
    h. Inspections of work in progress and projected (Special inspections,
    i. Construction Schedule update (provide updated CPM).
    j. Status of Project Record Drawings and O&M manuals.
    k. Other business relating to work.
    l. Permit requirements.

3. Contractor shall:

    a. Prepare agenda for Progress meetings in format approved by the Contracting Officer.

    b. Distribute written notice of each Progress meeting 4 business days in advance of meeting date, except for meetings scheduled at established intervals.

E. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity that requires coordination with other construction.
1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise CO of scheduled meeting dates.
2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:

    a. Contract Documents.
    b. Options.
    c. Related Change Orders.
    d. Purchases.
    e. Deliveries.
    f. Submittals.
    g. Possible conflicts.
    h. Time schedules.

3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.
5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION (Not used)

END OF SECTION 01 31 00

**SECTION 01 32 16 – CONSTRUCTION SCHEDULE**

PART 1 - GENERAL

1.1 SUMMARY

A. This Section consists of Construction Schedule requirements including but not limited to thefollowing:

1. Schedule of Values
2. Construction Schedule Requirements.
3. Construction Schedule Updates.
4. Time Impact Analysis.

B. Purpose: The purpose of the Construction Schedule is to ensure adequate planning, coordination, scheduling, and reporting during execution of the work by the Contractor. The Construction Schedule will assist the Contractor and Contracting Officer in monitoring the progress of the work, evaluating proposed changes, and processing the Contractor's monthly progress payment.

1.2 SUBMITTALS

A. Electronic Copies: All schedules and reports submitted as noted in paragraphs B through D below, shall be submitted to NPS in the native electronic file format.

B. Schedule of Values:

1. After contract award and before the Pre-Construction conference submit a schedule of dollar values based on the Contract Price Schedule. Include bond costs, mobilization, general condition costs, overhead, and profit, and each major category of work.
2. The total cost of all items shall equal the contract sum. The Schedule of Values will form the basis for progress payments as provided for in the General Conditions.

C. Construction Baseline Schedule: After contract award and before the Pre-Construction conference, submit baseline schedule.

D. Construction Schedule Updates: On or before the 7th day preceding the progress payment request date, submit estimates of the percent completion of each schedule activity and necessarysupporting data.

1. Provide an updated 3 week look ahead for each meeting.

1.3 QUALITY ASSURANCE

A. The Contractor shall meet with the Contracting Officer on the day of the preconstructionconference to go over the following:

1. Verify availability of qualified personnel needed to develop and update schedule.
2. Review and finalize list of construction activities to be included in schedule.
3. Review baseline schedule comments, resolve issues and progress on incorporating them
4. Review procedures for updating schedule.

B. Contractor's Schedule Representative: Before or at the preconstruction conference, designate

anauthorized representative to be responsible for the preparation and maintenance of the Construction Schedule. The Scheduler shall have prepared and maintained at least 5 previous schedules of similar size and complexity similar to this Contract, demonstrating proficiency in the use of scheduling software. The authorized representative will be responsible for preparing the Baseline Schedule, all required updates, revisions, Time Impact Analysis and preparation of reports.

1.4 SCHEDULE OF VALUES

A. Breakdown each lump-sum item into component work activities used in the schedule, for which progress payments may be requested. The total costs for the component work activities shall equal the contract price for that lump-sum item.

B. The Contracting Officer may request data to verify accuracy of dollar values.

C. Include mobilization, general condition costs, overhead and profit in the total dollar value of unit price items and in the component work activities for each lump- sum item. Do not include mobilization, general condition costs, overhead or profit as a separate item.

D. An acceptable Schedule of Values shall be agreed upon by the Contractor and Contracting Officer before the first progress payment is processed.

PART 2 - EXECUTION

2.1 CONSTRUCTION SCHEDULE UPDATES

A. Monthly Schedule Updates:

1. General: Update the Construction Schedule on a monthly basis to reflect actual construction progress and activities throughout the entire contract period and until projectsubstantial completion. The status date of each schedule update shall be the 7th day preceding the progress payment request date.
2. Procedure: The Contractor shall meet with the Contracting Officer each month at a Construction Schedule update meeting to review actual progress made through the status date of the Construction Schedule update, including dates activities were started and/or completed and the percentage of work completed on each activity started and/or completed.
3. If the schedule update shows a late finish date after the contract completion date, at a minimum, include the following in the narrative with your submission:
   a. Any known delays.
   b. Actions that will be taken to get back on schedule.
   c. Pending modifications.
   d. Impediments or constraints affecting progress.
4. Progress Payments: The monthly updating of the currently accepted Construction Schedule shall be an integral part of the process upon which progress payments will be made under this contract. If the Contractor fails to provide schedule updates or revisions,then a portion of the monthly payment may be retained until such corrections have been made.

PART 3 - EXECUTION (Not used)

END OF SECTION 01 32 16

**SECTION 01 33 23 - SUBMITTAL PROCEDURES**

PART 1 – GENERAL

1.1 SUMMARY

A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals. This section refers solely to electronic submittals and submittal procedures.

1.2 GENERAL SUBMITTAL PROCEDURES

A. General: Prepare and submit submittals required by individual specification Sections. Types of submittals are indicated in individual specific sections.

1. Contracting Officer reserves the right to require submittals in addition to those called for in individual sections.

B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Review them for legibility, accuracy, completeness, and compliance with Contract Documents.

1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and relatedactivities that require sequential activity.

2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will notbe delayed because of need to review submittals concurrently for coordination.

a. Contracting Officer reserves the right to withhold action on a submittal requiring coordination withother submittals until related submittals are received.

C. Submittal List: Submittals are described in each section of this specification. The intent is to provide an overall summary of submittal requirements and not a comprehensive list. The requirements of the individual specification Sections, terms and conditions of the Contract still apply regardless of what is shown on the submittal list.

D. Processing Time: Allow enough time for submittal review, including time for re-submittals, as follows. Time for review shall commence when an e-mail notification is received by the Contracting Officer (or designee) indicatingthe submittal has been emailed to the NPS CO and COR and is ready for review. When the Contracting Officer has completed their review, an e-mail notification will be sent to the Contractor indicating the submittal has beenprocessed. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including re-submittals.

1. Action Submittals

a. Initial Review: Allow 30 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required.

b. Re-submittal Review: Allow 30 days for review of each re-submittal.

2. Informational submittals

a. Review: Allow 10 days for review of each submittal.

E. Approved Equals:

1. For each item proposed as an “approved equal,” submit supporting data, including:

a. Drawings and samples as appropriate.
b. Comparison of the characteristics of the proposed item with that specified.
c. Changes required in other elements of the work because of the substitution.
d. Name, address, and telephone number of vendor.
e. Manufacturer's literature regarding installation, operation, and maintenance, including schematics for electrical and hydraulic systems, lubrication requirements, and parts lists. Describe availability of maintenance service, and state source of replacement materials.

2. A request for approval constitutes a representation that Contractor:

a. Has investigated the proposed item and determined that it is equal or superior in all aspects to that specified.
b. Will provide the same warranties for the proposed item as for the item specified.
c. Has determined that the proposed item is compatible with interfacing items.
d. Will coordinate the installation of an approved item and make all changes required in other elements of the work because of the substitution.
e. Waives all claims for additional expenses that may be incurred as a result of the substitution.

F. Electronic Submittals**:** Identify and incorporate information in each electronic submittal file as follows:

1. All submittals shall be transmitted using email to the CO and COR.

G. Identification: Submittal number or other unique identifier, including revision identifier.

1. Submittal number shall use a sequential number (e.g., .001). Re-submittals shall include an alphabetic suffix after another decimal point (e.g., 001.A).

H. Re-submittals: Make re-submittals using the same process used with the initial submittal.

1. Note date and content of previous submittal.

2. Note date and content of revision and clearly indicate the extent of revision.

3. Re-submit submittals until they are marked "Approved" or "Approved with notations".

I. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, and others as necessary for performance of construction activities.

J. Use for Construction: Use only final submittals with mark indicating "Approved" or "Approved with notations". Ensure all notations have been incorporated and, at a minimum, keep one copy of the final approved submittal onsite for use during construction.

## PART 2 - PRODUCTS

### 2.1 ACTION SUBMITTALS

A. General: Prepare and submit Action Submittals required by individual specification Sections.

1. Contracting Officer reserves the right to require submittals in addition to those called for in individualsections.

B. Product Data: Collect information into a single submittal for each element of construction and type of product orequipment.

1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.

2. Mark each submittal to show which products and options are applicable.

3. Include the following information, as applicable:

a. Manufacturer's product specifications.
b. Manufacturer's installation instructions: When Contract Documents require compliance withmanufacturer's printed instructions, provide one complete set of instructions to Contracting Officerand keep another complete set of instructions at the project site until substantial completion.
c. Manufacturer's catalog cuts: Submit only pertinent pages; mark each page of standard printed datato identify specific products proposed for use.
d. Wiring diagrams showing factory-installed wiring.
e. Printed performance curves.
f. Operational range diagrams.
g. Compliance with specified referenced standards.
h. Testing by recognized testing agency.

4. Submit product data in PDF file format before or concurrent with samples.

C. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as deliveredand installed.

1. Transmit Samples that contain multiple, related components such as accessories together in one submittalpackage.

2. Complete and email COR and CO for processing and documentation of action on submitted samples.

3. Identification: Attach label on unexposed side of Samples that includes the following:

a. Generic description of Sample.
b. Product name and name of manufacturer.
c. Sample source.
d. Submittal Number and title of appropriate specification Section.

4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisonsthroughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.

5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.

a. Number of Samples: Submit two full set(s) of available choices where color, pattern, texture, orsimilar characteristics are required to be selected from manufacturer's product line. Contracting Officer will return submittal with options selected.

6. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material orproduct proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and in16ction.

a. Number of Samples: Submit two sets of Samples. Contracting Officer will retain two Sample sets.

D. Construction Materials: The Contractor is encouraged to submit for approval products made out of recycled or environmentally responsible material consistent with Section 016700 Product Requirements. Every effort will be made by the National Park Service to approve these materials.

2.2 INFORMATIONAL SUBMITTALS

A. General: Prepare and submit Informational Submittals required by individual specification Sections.

1. Send informational submittals as PDF electronic files directly to the NPS CO and COR.

2. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsiblefor preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.

3. Informational submittals that do not comply with the requirements specified in the Contract Documents will be rejected and one copy will be returned.

B. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with the requirements in the Contract Documents.

C. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with the requirements in the Contract Documents.

D. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with the requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

A. Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions.

3.2 CONTRACTING OFFICER'S ACTION

A. General: Submittals will be disapproved without technical review if identification information is missing, not filled in, or if placed on the back of the submittal; an incorrect format of submittals is provided; the transmittal form is incorrectly filled out; submittals are not coordinated; or submittals do not show evidence of Contractor's approval.

1. Any work done or orders for materials or services placed before approval shall be at the Contractor's ownrisk.

B. Action Submittals: Contracting Officer will review each submittal, generate comments on corrections or modifications required, and indicate the appropriate action on the CM-16 Transmittal Form. The submittal will bemarked in one of three ways as defined below:

1. APPROVED: Acceptable with no corrections.

2. APPROVED WITH NOTATIONS: Minor corrections or clarifications required. All comments are clear and no further review is required. The Contractor shall address all review comments when proceeding with the work.

3. DISAPPROVED - RESUBMIT: Rejected as not in accordance with the contract or as requiring major corrections or clarifications. The Contracting Officer will identify the reasons for disapproval. The Contractor shall revise and resubmit with changes clearly identified.

C. Informational Submittals: Contracting Officer will review each submittal and will either accept or reject it.

D. Partial submittals are not acceptable, will be considered non-responsive, and will be returned without review.

END OF SECTION 01 33 23

**SECTION 01 35 23 - SAFETY REQUIREMENTS**

PART 1 - GENERAL

1.1 SUMMARY

A. This section includes establishing an effective accident prevention program and providing a safe environment for all personnel and visitors. Refer to the GOGA Safety Plan review checklist (attached) for reference.

B. Site Specific Safety Plan:

1. A Site-Specific Safety Plan shall be prepared covering on-site work to be performed by the contractor and all subcontractors.
2. The prime contractor shall be responsible for development, implementation, and oversight of the site-specific plan. The site-specific safety plan shall establish in detail, the protocols necessary for recognition, evaluation, and control of hazards associated with each task performed. The plan shall address site specific safety requirements and procedures based upon site specific conditions. The level of detail provided in the site-specific safety plan shall be tailored to the type of work, complexity of operations to be performed, and hazards anticipated. The site-specific safety plan shall address, in as much detail as possible, anticipated tasks, their related hazards, and anticipated control measures.

1.2 SUBMITTALS

A. Site Specific Safety Plan (SSSP): After contract award and before the Pre-Construction conference, submit for review a Site-Specific Safety Plan. The Contracting Officer (CO) will review the proposed Plan. If the plan requires any revisions or corrections, the Contractor shall resubmit the Plan within 10 days. No field work will be allowed until Plan is accepted.

B. Submit a report of safety meetings and of inspections.

C. Upon request, submit proof of employees' qualifications to perform assigned duties in a safe manner.

1.3 QUALITY ASSURANCE

A. Comply with contract clauses entitled "Accident Prevention" and "Permits and Responsibilities". In case of conflicts between Federal, State, and local safety and health requirements, the most stringent shall apply. Equipment or tools not meeting OSHA requirements will not be allowed on the project sites. Failure to comply with the requirements of this section and related sections may result in suspension of work.

B. Qualifications of Employees:

1. All employees must be physically qualified and able to perform their assigned duties in a safe manner.
2. Do not allow employees to perform work whose ability or alertness is impaired because of prescription or illegal drug use, fatigue, illness, intoxication, or other conditions that may expose themselves or others to injury.
3. Operators of vehicles, hoisting equipment, and hazardous plant equipment shall be able to understand signs, signals, and operating instructions, and be fully capable of operating such equipment. Provide operating instructions for all equipment. Newly hired operators shall

be individually tested by an experienced operator or supervisor to determine if they are capable of safely operating equipment. Retain copies of all operators' licenses and/or certifications onsite.

1.4 ACCIDENT REPORTING

A. Reportable Accidents: (per OSHA 29CFR 1904) A project reportable accident is defined as death, occupational disease, traumatic injury to employees or the public, fires, and property damage by accident in excess of $100. Notify Park Dispatch at 911 or 415-561-5656 to report the accident and request emergency assistance. In addition, Contractor will notify the Contracting Officer immediately in the event of a reportable accident. Within 7 days of a reportable accident, fill out and forward to Contracting Officer an Accident/Property Damage Report (Form CM-22). Form may be obtained from the Contracting Officer.

PART 2 - PRODUCTS

2.1 SITE SPECIFIC SAFETY PLAN (SSSP)

A. The Plan shall be written to comply with OSHA and project requirements (a generic plan is not acceptable) including but not limited to the following:

1. Name of responsible supervisor to carry out the program.
2. Weekly and monthly safety meetings.
3. First aid procedures.
4. Outline of each phase of the work, the hazards associated with each major phase, and the methods proposed to provide for property protection and safety of the public, National Park Service personnel, and Contractor's employees. Identify the work included under each phase.
5. Training, both initial and continuing.
6. Map to nearest medical facility.
7. JHAs

2.2 FIRST AID FACILITIES

A. Provide adequate facilities for the number of employees and the hazards associated with the types of ongoing construction work at the site.

2.3 PERSONNEL PROTECTIVE EQUIPMENT

A. Meet requirements of applicable ANSI standards. Selection shall conform to OSHA 29CFR 1926.95 Subpart E.

PART 3 – EXECUTION

3.1 EMERGENCY INSTRUCTIONS

A. Post telephone numbers and reporting instructions for ambulance, physician, hospital, fire department, and police in conspicuous locations at the work site.

3.2 FIRE AND LIFE SAFETY

A. Comply with the requirements of the International Fire Code.

B. Store hazardous materials in accordance with manufacturer's and OSHA recommendations.

Maintain readilyavailable, on site, SDS for each chemical.

1. Immediately report all spills of hazardous materials to the park.
2. Maintain a spill emergency response kit.
3. Train employees how to respond to a spill and use the emergency response kit.

3.3 PROTECTIVE EQUIPMENT

A. Inspect personal protective equipment daily and maintain in a serviceable condition. Clean, sanitize, and repairpersonal items, as appropriate, before issuing them to another individual.

B. Inspect and maintain other protective equipment and devices before use and on a periodic basis to ensure safeoperation. Retain inspection documentation onsite.

3.4 SAFETY MEETINGS

A. As a minimum, conduct weekly 15-minute "toolbox" safety meetings. These meetings shall be conducted by aforeman or supervisor and attended by all construction personnel at the worksite. Topics need to coincide with work scheduled for the following week. Document and submit meeting minutes to the Contracting Officer within one day after the meeting.

B. Conduct monthly safety meetings for all levels of supervision. Meetings shall be attended by all contractors and subcontractors performing work on the site. Notify the Contracting Officer of meeting dates and times. These meetings shall be used to review the effectiveness of the Contractor's safety effort, to resolve current health and safety problems, to provide a forum for planning safe construction activities, and for updating the Site-Specific Safety Plan. The Contracting Officer will attend the meeting and enter the results of the meetings into the daily log. These meetings can be incorporated into weekly site meetings with the approvalof the CO.

3.5 HARD HATS AND PROTECTIVE EQUIPMENT AREAS

A. A hard hat area will be designated by the Contracting Officer. The hard hat area shall be posted by the Contractor in a manner satisfactory to the Contracting Officer.

B. If wearing a hardhat is required, it is the Contractor's responsibility to require all those working on or visiting the site to wear hard hats and other necessary protective equipment at all times during the visit.

3.6 EGRESS

A. Provide and maintain adequate egress at all times in accordance with the International Fire Code. No corridor, aisle, stairway, door, or exit shall be obstructed or used in a manner that interferes with egress.

END OF SECTION 01 35 23

**SECTION 01 40 00 QUALITY REQUIREMENTS**

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes administrative and procedural requirements for quality assurance and quality control.

1.2 DEFINITIONS

A. Quality Assurance Services: Activities, actions, and procedures performed before and during execution of the work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.

B. Quality Control Services: Tests, inspections, procedures, and related actions during and after execution of the work to evaluate that actual products incorporated into the work and completed construction comply with requirements.

C. Field Quality Control Testing: Tests and inspections that are performed on-site for installation of the work and for completed work.

D. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.

1.3 CONFLICTING REQUIREMENTS

A. Reference Standards: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Contracting Officer for a decision before proceeding.

B. Minimum Quality Levels: The quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Contracting Officer for a decision before proceeding.

1.4 SUBMITTALS

A. Contractor's Quality Control Daily Reports: Submit showing all inspections and tests on the first workday following the date covered by the report. Quality Control Supervisor shall utilize the forms attached at the end of this Section.

1.5 ON-SITE CONTROL

A. Notification:

1. Notify the Contracting Officer at least 48 hours in advance of the preparatory phase meeting.
2. Notify the Contracting Officer at least 24 hours in advance of the initial and follow-up phases.

B. Preparatory Phase: Perform before beginning each feature of work.

1. Review control submittal requirements with personnel directly responsible for quality assurance and quantity control of the work. As a minimum, the Contractor's Quality Control Supervisor and the foreman responsible for the feature of work shall be in attendance.
2. Review all applicable specifications sections and drawings related to the feature of work.
3. Ensure that copies of all referenced standards related to sampling, testing, and execution for the feature of work are available on site.
4. Ensure that provisions have been made for field control testing.
5. Examine the work area to ensure that all preliminary work has been completed.
6. Verify all field dimensions and advise the Contracting Officer of discrepancies with contract documents.
7. Ensure that necessary equipment and materials are at the project site and that they comply with approved shop drawings and submittals.
8. Document all preparatory phase activities and discussions on the Contractor's Quality Control Daily Report.

C. Initial Phase:

1. As soon as work begins, inspect and test a representative portion of a particular feature of work for quality of workmanship.
2. Review control testing procedures to ensure compliance with contract requirements.
3. Document all initial phase activities and discussions on the Contractor's Quality Control Daily Report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.

## 1.6 DOCUMENTATION

A. Maintain Quality Control Daily Reports, Daily Test Report Information Sheets, and Accessibility Inspection Reports (attached) of quality control activities and tests.

B. Quality Control Daily Reports may not be substituted for other written reports required under clauses of the contract, such as Disputes, Differing Site Conditions, or Changes.

## 1.7 ENFORCEMENT

A. The Contractor shall stop work on any item or feature pending satisfactory correction of any deficiency noted by the quality control staff or the Contracting Officer.

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION (Not used)

END OF SECTION 01 40 00

# CONTRACTOR'S QUALITY CONTROL DAILY REPORT

REPORT NO. SHEET 1 OF

| PROJECT | | | | CONTRACT NO. | DATE |
|---|---|---|---|---|---|
| PARK | | | | CONTRACTOR'S REPRESENTATIVE ON THE JOB | |
| WEATHER (Rain, Snow, Cloudy, Windy, etc.) | RAINFALL Inches | TEMPERATURE MAX. | MIN. | GROUND CONDITIONS (Dry, Damp, Wet, Frozen, etc.) | |

1. PRIME CONTRACTOR

| NO. EMPLOYEES BY JOB CATEGORIES | Hours | HEAVY EQUIPMENT ON JOB | NO. UNITS | HRS. WORKING | | |
|---|---|---|---|---|---|---|
| | | | | YES | NO | Comments |
| | | | | | | |
| | | | | | | |
| | | | | | | |

WORK PERFORMED BY PRIME CONTRACTOR:

| MATERIALS DELIVERED | OFFICIAL VISITORS TO SITE |
|---|---|
| | |

2A. SUBCONTRACTOR,_____: (If more than one subcontractor use copies of following page.)

| NO. EMPLOYEES BY JOB CATEGORIES | Hours | HEAVY EQUIPMENT ON JOB | NO. UNITS | HRS. WORKING | | |
|---|---|---|---|---|---|---|
| | | | | YES | NO | Comments |
| | | | | | | |
| | | | | | | |

WORK PERFORMED BY SUBCONTRACTOR:

3. SPECIFIC INSPECTIONS: (Inspections performed, results, and corrective actions)

4. TESTING: ☐ 1 Check if any testing was performed today. (Complete and attach Test Report Information Sheets.)
Type and Location of Testing: _____

5. VERBAL INSTRUCTION RECEIVED FROM GOVERNMENT ON CONSTRUCTION DEFICIENCIES OR RE-TESTING REQUIRED:

6. REMARKS:

7. CERTIFICATION:

I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

_____
Contractor's Quality Control Representative

| SUBCONTRACTOR WORK CONTINUED: | CONTRACT NO. | REPORT NO. _____<br>SHEET OF |
|---|---|---|

2 SUBCONTRACTOR,

| NO. EMPLOYEES BY JOB CATEGORIES | Hours | HEAVY EQUIPMENT ON JOB | NO. UNITS | HRS. WORKING | | |
|---|---|---|---|---|---|---|
| | | | | YES | NO | Comments |
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WORK PERFORMED BY SUBCONTRACTOR:

2 SUBCONTRACTOR,

| NO. EMPLOYEES BY JOB CATEGORIES | Hours | HEAVY EQUIPMENT ON JOB | NO. UNITS | HRS. WORKING | | |
|---|---|---|---|---|---|---|
| | | | | YES | NO | Comments |
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WORK PERFORMED BY SUBCONTRACTOR:

2 SUBCONTRACTOR,

| NO. EMPLOYEES BY JOB CATEGORIES | Hours | HEAVY EQUIPMENT ON JOB | NO. UNITS | HRS. WORKING | | |
|---|---|---|---|---|---|---|
| | | | | YES | NO | Comments |
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WORK PERFORMED BY SUBCONTRACTOR:

2 SUBCONTRACTOR,

| NO. EMPLOYEES BY JOB CATEGORIES | Hours | HEAVY EQUIPMENT ON JOB | NO. UNITS | HRS. WORKING | | |
|---|---|---|---|---|---|---|
| | | | | YES | NO | COMMENTS |
| | | | | | | |
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WORK PERFORMED BY SUBCONTRACTOR:

**SECTION 01 45 00 - ENVIRONMENTAL PROTECTION**

PART 1 - GENERAL

1.1 SUMMARY

A. This section describes requirements related to certain federal, state and regional governmental agencies who have jurisdiction over portions of the Work or who have issued permits prior to the performance of the Work which is in the jurisdiction of such governmental agency. The specific referencing of such permits shall not limit or restrict the obligation of the Contractor to comply with the conditions of all permits affecting the Work, as set forth in the General Conditions.

B. Work activities shall beconducted in a manner to avoid impacts outside of work zones and to reduce impacts within a work zone unless required to accomplish the restoration design.

C. The work is conducted on land owned and managed by the National Park Service, which protects natural and archeological resources.

1.2 REFERENCES TO REGULATORY REQUIREMENTS

A. Codes, laws, ordinances, rules and regulations referred to shall have full force and effect as though printed in full in these specifications. Codes, laws, ordinances, rules and regulations are not furnished to the Contractor, since the Contractor is assumed to be familiar with their requirements. The listing herein of applicable codes, laws, and regulations for hazardous waste abatement work is supplied to the Contractor as a courtesy and shall not limit the Contractor's responsibility for complying with all applicable laws, regulations or ordinances having application to the Work. Where conflict among the requirements exists, the most stringent requirements shall be used.

B. Precedence:

1. Where specified requirements differ from the requirements of applicable codes, ordinances and standards, the more stringent requirements shall take precedence.

2. Where the Plans or Specifications require or describe products or execution of better quality, higher standard or greater size than required by applicable codes, ordinances and standards, the Plans and Specifications shall take precedence so long as such increase is legal.

3. Where no requirements are identified in the Plans or Specifications, comply with all requirements of applicable codes, ordinances and standards of governing authorities having jurisdiction.

1.3 LAWS, ORDINANCES, RULES AND REGULATIONS

A. Federal Laws which apply to the Contract Documents include, but are not limited to, the following:

1. Federal Clean Water Act Section 404

2. Federal Rivers and Harbors Act Sections 9-10

3. Coastal Act of 1976 (Public Resources Code Sections 30000-30900)

4. Federal Endangered Species Act, Section 7 5.

5. Architectural Barriers Act

B. During prosecution of Work to be done under the Contract Documents, comply with applicable

laws, ordinances, rules and regulations, including, but not limit to Federal, State of California, and Regional and Local Agencies.

C. Other Applicable Laws, Ordinance and Regulations:

1. Work shall be accomplished in conformance with all rules and regulations of public utilities and utility districts.

2. Where such laws, ordinances rules and regulations require more care or greater time to accomplish Work, or require better quality, higher standards or greater size of products, Work shall be accomplished in conformance to such requirements with no change to the Contract Time and Contract Sum, except where changes in laws, ordinances, rules and regulations occur subsequent to the execution date of the Agreement.

1.4 CONFLICTS

A. Conflicts between referenced regulatory requirements: Comply with the one establishing the more stringent requirement.

B. Between referenced regulatory requirements and the Contact Documents: Comply with the one establishing the more stringent requirement and in accordance with the General Conditions.

1.5 ENVIRONMENTAL ASSESSMENT OF CONTRACT DEVIATIONS

A. Any deviations, requested by the Contractor, from the drawings, plans and specifications which may have an environmental impact will be subject to approval by the Contracting Officer and may require an extended review, processing, and approval time. The Contracting Officer reserves the right to disapprove alternate methods, even if they are more cost effective, if the Contracting Officer determines that the proposed alternate method will have an adverse environmental impact.

1.6 NOTIFICATION

A. The Contracting Officer will notify the Contractor in writing of any observed noncompliance with Federal, State or local environmental laws or regulations, permits, and other elements of the Contractor's Environmental Protection plan. The Contractor shall, after receipt of such notice, inform the Contracting Officer of the proposed corrective action and take such action when approved by the Contracting Officer. The Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions shall be granted or equitable adjustments allowed to the Contractor for any such suspensions. This is in addition to any other actions the Contracting Officer may take under the contract, or in accordance with the Federal Acquisition Regulation or Federal Law.

PART 2 - EXECUTION

2.1 WATER RESOURCES

A. The Contractor shall monitor construction activities to prevent pollution of surface and ground waters. Toxic or hazardous chemicals shall not be applied to soil or vegetation unless otherwise indicated.

2.2 AIR RESOURCES

A. Equipment operation: Activities, or processes performed by the Contractor shall be in accordance with all Federal and State air emission and performance laws and standards

B. Dust/Particulates: Dust particles aerosols, and gaseous by-products from construction activities and processing and preparation of materials (such as from asphaltic batch plants) shall be

controlled at all times, including weekends, holidays and hours when work is not in progress. The Contractor shall maintain excavations, stockpiles, haul roads, permanent and temporary access roads, plant sites, spoil areas, borrow areas, and other work areas within or outside the project boundaries free from particulates which would cause the Federal, State, and local air pollution standards to be exceeded or which would cause a hazard or a nuisance. Sprinkling, chemical treatment of an approved type, baghouse, scrubbers, electrostatic precipitators or other methods will be permitted to control particulates in the work area. Sprinkling, to be efficient, must be repeated to keep the disturbed area damp at all times. The Contractor must have sufficient particulate control shall be performed as the work proceeds and whenever a particulate nuisance or hazard occurs. The Contractor shall implement the following control measures for construction emissions of PM10 per Bay Area Air Quality Management District (BAAQD), during construction:

1. Maintain a well-secured, wind-resistant cover over all stockpiles at all times, including both weekdays and weekends, except during the periods when equipment is actively adding to or extracting material from the stockpile.
2. Water all active construction areas as often as necessary to prevent dust.
3. Cover all trucks hauling soil, sand, and other loose materials
4. Limit traffic speeds on unpaved roads to 10 mph
5. Install sandbags or other erosion control measures to prevent silt runoff to public roadways

C. Odors: Odors from construction activities shall be controlled at all times. The odors shall not cause a health hazard and shall be in compliance with State regulations and/or local ordinances.

2.3 CHEMICAL MATERIALS MANAGEMENT AND WASTE DISPOSAL

A. Waste water

1. Disposal of waste water shall be as specified below

a. Waste water from construction activities, such as onsite material processing, concrete curing, foundation and concrete clean-up, water used in concrete trucks, forms, etc. shall not be allowed to enter water ways or to be discharged prior to being treated to remove pollutants. The Contractor shall dispose of the constructionrelated waste water off-site in accordance with all Federal, State, Regional and Locallaws and regulations.

2.4 PROTECTION OF WILDLIFE RESOURCES AND SPECIES OF SPECIAL CONCERN

A. The Contractor shall at all times perform all work and take such steps required to prevent interference or disturbance to wildlife and species of special concern.

B. Wildlife: The Contractor shall also take measures to comply with the migratory Bird Treaty Act. Migratory birds, eggs, and active nests shall be avoided.

PART 3 - EXECUTION (Not used)

END OF SECTION 01 45 00

**SECTION 01 60 00 MATERIAL AND EQUIPMENT**

PART 1 - GENERAL

1.2 DESCRIPTION

A. The work of this section consists of the general procedures for handling, storing, and protecting material and equipment.

1.3 TRANSPORTATION AND HANDLING

A. Arrange deliveries of materials in accordance with construction schedules; coordinate to avoid conflict with work and conditions at the site. Deliver materials in undamaged condition, in manufacturer's original containers or packaging, with identifying labels intact and legible. Contractor is encouraged to obtain materials in biodegradable or recyclable/reusable packaging which uses the minimum amount of packaging possible.

1.4 STORAGE AND PROTECTION

A. Store materials in accordance with manufacturer's instructions, with seals and labels accessible for inspection.

B. Interior Storage: Maintain temperature and humidity within the ranges required by manufacturer's instructions.

C. Exterior Storage:

1. Store products subject to damage by the elements in weathertight enclosures.

2. Store fabricated products above the ground, on blocking or skids; prevent soiling or staining. Cover products subject to damage or deterioration with impervious sheet coverings; provide adequate ventilation to avoid condensation.

PART 2 - MEASUREMENT AND PAYMENT

2.1 MATERIAL AND EQUIPMENT

A. Payment will be included in the bid item to which this work relates.

PART 3 - EXECUTION (Not used)

END OF SECTION 01 60 00

**SECTION 01 67 00 - PRODUCT REQUIREMENTS**

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes administrative and procedural requirements for selection of products for use in this Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and environmental requirements.

1.2 SUBMITTALS

A. Record Submittals as specified in Closeout Procedures, submit the following:

1. Affirmative Procurement Reporting Form. Submit on form in Appendix A of this Section, or similar form as approved by Contracting Officer.

1.3 QUALITY ASSURANCE

A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.

1.4 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.

B. Delivery and Handling:

1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
5. Contractor is encouraged to obtain materials in biodegradable or recyclable/reusable packaging which uses the minimum amount of packaging possible.

C. Storage:

1. Store products to allow for inspection and measurement of quantity or counting of units.
2. Store materials in a manner that will not endanger Project structure.
3. Store products that are subject to damage by the elements, under cover in a weather tight enclosure above ground, with ventilation adequate to prevent condensation.
4. Store cementitious products and materials on elevated platforms.
5. Comply with product manufacturer's written instructions for temperature, humidity,

ventilation, and weather-protection requirements for storage.

6. Store loose granular materials in a well-drained area on solid surfaces to prevent mixing with foreign matter.

1.5 PACKAGING

A. Where Contractor has the option to provide one of the listed products or equal, preference shall be given to products with minimal packaging and easily recyclable packaging as defined in ASTM D5834.

B. Maximize use of source reduction and recycling procedures outlined in ASTM D5834.

1.6 ENVIRONMENTALLY PREFERABLE PRODUCTS

A. Provide environmentally preferable products to the greatest extent possible.

1. To the greatest extent possible, provide products and materials that have a lesser or reduced effect on the environment considering raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, and/or disposal of the product.
2. Eliminate the use of ozone depleting compounds during and after construction where alternative environmentally preferable products are available, consistent with either the Montreal Protocol and Title VI or the Clean Air Act Amendments of 1990, or equivalent overall air quality benefits that take into account life cycle impacts.

1.7 PRODUCT WARRANTIES

A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

1. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, that are new at time of installation.

1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
3. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.

B. Product Selection Procedures:

1. Product: Where Specifications name a single product and manufacturer, provide the named product that complies with requirements or approved equal.
2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements or approved equal.
3. Products: Where Specifications include a list of names of both products and manufacturers, provide one of the products listed that complies with requirements or approved equal.
4. Manufacturers: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements or approved equal.
5. Product Options: Where Specifications indicate that sizes, profiles, and dimensional requirements on Drawings are based on a specific product or system, provide the specified product, system, or approved equal.
6. Basis-of-Design Product: Where Specifications name a product and include a list of manufacturers, provide the specified product or a comparable product by one of the other named manufacturers, or approved equal. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named.
7. Visual Matching Specification: Where Specifications require matching an established Sample, select a product that complies with requirements and matches Government's sample. Contracting Officers decision will be final on whether a proposed product matches.

    a. If no product available within specified category matches and complies with other specified requirements, comply with provisions in Part 2 "Product Substitutions" Article for proposal of product.

8. Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product that complies with other specified requirements.

    a. Standard Range: Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Contracting Officer will select color, pattern, density, or texture from manufacturer's product line that does not include premium items.
    b. Full Range: Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Contracting Officer will select color, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS

A. Conditions: Contracting Officer will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Contracting Officer will return requests without action, except to record noncompliance with these requirements:

1. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
2. Detailed comparison of significant qualities of proposed product with those named in the

Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.

3. Evidence that proposed product provides specified warranty.
4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
5. Samples, if requested.

PART 3 - EXECUTION (Not used)

END OF SECTION 01 67 00

**SAMPLE AFFIRMATIVE PROCUREMENT REPORTING FORM**
**Recycled Content Materials & Biobased Content Materials**

Project Name:_____Project Number: _____

Contractor Name:_____License Number: _____

Contractor Address: _____

| Type of Product | Meets CPG require-ments (Y/N) | Meets Biobased require-ments (Y/N) | Meets other EPP require-ments (Y/N) | Exempted indicate 1,2,3,4 | Comments |
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**CERTIFICATION**

I hereby certify the information provided herein is accurate and that the requisition/procurement of all materials listed on this form comply with current EPA standards for recycled/recovered materials content. The following exemptions may apply to the non-procurement of recycled/recovered content materials:

1. The product does not meet appropriate performance standards
2. The product is not available within a reasonable time frame
3. The product is not available competitively (from two or more sources)
4. The product is only available at an unreasonable price (compared with a comparable non-recycled content product.)

Signature:_____ Date: _____

END OF
AFFIRMATIVE PROCUREMENT REPORTING FORM
Recycled Content Materials & Biobased Content Materials

**SECTION 01 73 40 - EXECUTION**

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:

1. General installation of products.
2. Quantity Surveys.
3. Progress cleaning.
4. Protection of installed construction.
5. Correction of the Work.

1.2 SUBMITTALS

A. Landfill Receipts: Submit copy of receipts issued by a landfill facility and or recycling facility.

PART 2 - EXECUTION

2.1 EXAMINATION

A. Existing Conditions: The existence and location of site improvements, and other construction indicated as existing are not guaranteed.

1. Before beginning work, investigate and verify the existence and location of mechanical and electricalsystems and other construction affecting the Work.

2. Before construction, verify the location and points of connection of utility services.

B. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location ofunderground utilities and other construction affecting the Work.

C. Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affectingperformance. Record observations.

2.2 PREPARATION

A. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurementsbefore installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

B. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

C. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for

clarificationof the Contract Documents caused by differing field conditions outside the control of the Contractor, submit a request for information to the Contracting Officer in accordance with Division 01 Specification 01 31 00 “Project Management and Coordination”.

2.3 INSTALLATION

A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.

1. Make vertical work plumb and make horizontal work level.
2. Where space is limited, install components to maximize space available for maintenance and ease ofremoval for replacement.
3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
4. Limit disturbance of existing structure to the greatest extent possible.
5. Prior to the start of work, meet on site with the COR to discuss wiring and piping runs.

B. Comply with manufacturer's written instructions and recommendations for installing products in applicationsindicated.

C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.

D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.

E. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.

1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directedby the Contracting Officer.

F. Joints: Make joints of uniform width to match existing. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.

G. Hazardous Materials: Use products, cleaners, and installation materials that are not considered

2.4 PROGRESS CLEANING

A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.

1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
2. Do not hold materials more than 7 days during normal weather or 3 days if the temperature isexpected to rise above 80 deg F.
3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containersappropriately and dispose of legally, according to regulations.

**B. Site: Maintain Project site free of waste materials and debris. Cleanup is required at the**

**end of each workday.**

C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.

1. Remove liquid spills promptly.
2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
3. Contractor shall provide progress cleaning that minimizes sources of food, water, and harborage available to pests.

D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.

E. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.

F. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.

G. Limiting Exposures: Supervise construction operations to assure that no part of the construction completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

H. Final Cleaning: At completion of Work, remove all remaining waste materials, rubbish, tools, equipment, machinery and surplus materials, and clean all exposed surfaces; leave Project clean and ready for occupancy.

1. Provide final cleaning in accordance with ASTM E1971.

2.5 PROTECTION OF INSTALLED CONSTRUCTION

A. Comply with manufacturer's written instructions for temperature and relative humidity.

2.6 CORRECTION OF THE WORK

A. Repair or remove and replace defective construction. Restore damaged substrates and finishes.

1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.

B. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.

PART 3 - EXECUTION (Not used)

END OF SECTION 01 73 40

**SECTION 01 74 19 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL**

PART 1 - GENERAL

1.1 SUMMARY

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

1. Recycling nonhazardous demolition and construction waste.
2. Disposing of nonhazardous demolition and construction waste.

1.2 DEFINITIONS

A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.

B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.

C. Deconstruction: A process to carefully dismantle or remove and salvage usable materials from structures, as an alternative to demolition. It maximizes the recovery of building materials for reuse and recycling and minimizes the amount of waste going to a landfill. Typical deconstruction includes taking the building apart to reuse lumber, windows, doors, and other materials.

D. Solid Waste: Garbage, debris, sludge, or other discharged material (except hazardous waste) including solid, liquid, semisolid, or contained gaseous materials resulting from domestic, industrial, commercial, mining, oragricultural operations.

E. Debris: Non-hazardous solid waste generated during the construction, demolition, or renovation of a structure which exceeds 2.5 inch (60 mm) particle size that is: a manufactured object; plant or animal matter; or natural geologic material (e.g. cobbles and boulders). A mixture of debris and other material such as soil or sludge is also subject to regulation as debris if the mixture is comprised primarily of debris by volume, based on visual inspection.

F. 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.

G. Environmental Pollution and Damage: The presence of chemical, physical, or biological elements or agentswhich adversely affect human health or welfare; unfavorably alter ecological balances; or degrade the utilityof the environment for aesthetic, cultural, or historical purposes.

H. Garbage: Refuse and scraps resulting from preparation, cooking, dispensing, and consumption of food.

I. Hazardous Materials: Any material that is regulated as a hazardous material in accordance with 49 CFR 173,requires a Safety Data Sheet (SDS) in accordance with 29 CFR 1910.1200, or which during end use, treatment, handling, storage, transportation or disposal meets or has components which meet or have the potential to meet the definition of a Hazardous Waste in accordance with 40 CFR 261.

J. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.

K. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.

1.3 PERFORMANCE REQUIREMENTS

A. General: This project shall minimize the creation of construction, deconstruction, and demolition waste to protect natural habitats and resources. Factors that contribute to waste such as over packaging, improper storage, ordering error, poor planning, breakage, mishandling, and contamination shall be minimized. A Waste Management Plan shall be developed to ensure that existing site and building materials are reused, salvaged,or recycled. Waste disposal in landfills shall be minimized.

B. Salvage /Recycle Requirements: Develop waste management plan that results in end-of-Project rates for salvage/recycling of 75% percent by weight of total waste generated by the Work. The following waste categories, at a minimum, shall be diverted from a landfill:

1. Clean dimensional wood, palettes
2. Cardboard, paper, packaging, newsprint
3. Metals (from banding, stud trim, piping, rebar, roofing, other trim, steel, iron, galvanized sheet steel,stainless steel, aluminum, copper, zinc, lead, brass, and bronze)
4. Other mixed construction and demolition waste as appropriate

C. The Contractor will ensure that wildlife does not have access to any garbage, debris, or other that contains organic waste products through use of covered, fully wildlife proof dumpsters or other trash receptacles. Open dumpsters are not allowed.

1.4 SUBMITTALS

A. Waste Management Plan: After awarding the contract and prior to the scheduled Pre-Construction Conference, the Contractor shall submit a draft Waste Management Plan to the Contracting Officer for approval. Revise and resubmit Plan as required by the Contracting Officer. Approval of the Contractor's Plan will not relieve the Contractor of responsibility for compliance with applicable environmental regulations

B. Waste Reduction Calculations: Before request for Substantial Completion, submit digital copies of calculated end-of-Project rates for salvage, recycling, and disposal as a percentage of total waste generated by the Work.

C. Records of Donations: Indicate receipt and acceptance of salvageable waste donated to individuals and organizations. Indicate whether organization is tax exempt.

D. Records of Sales: Indicate receipt and acceptance of salvageable waste sold to individuals and organizations. Indicate whether organization is tax exempt.

E. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recyclingand processing facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.

F. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills

and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.

G. Progress payment requirements:

1. With each Application for Payment, submit manifests, weight tickets, receipts, and invoicesspecifically identifying the Project and waste material.

H. Closeout Submittals

1. With Closeout Submittals, submit a summary worksheet of the Solid Waste Disposal and Diversionbased on form in Appendix B of this Section.

1.5 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.

PART 2

2.1 WASTE MANAGEMENT PLAN

A. General: Develop plan consisting of waste identification and waste reduction work plan. Include section in plan for demolition and a separate section in plan for construction waste. Indicate anticipated quantities by weight or volume but use same units of measure throughout waste management plan. Use checklist and template in Appendix A.

B. Waste Identification: Indicate anticipated types and quantities of demolition and construction waste generated by the Work. Include estimated quantities and assumptions for estimates.

C. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled, or disposed of in landfill or incinerator. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.

1. Salvaged Materials for Reuse: For materials that will be salvaged and reused in this Project, describe methods for preparing salvaged materials before incorporation into the Work.

2. Salvaged Materials for Sale: For materials that will be sold to individuals and organizations, include list of their names, addresses, and telephone numbers.

3. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.

4. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and incinerator facility.

5. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location on Project site where materials separation will be located.

D. Cost/Revenue Analysis: Indicate total cost of waste disposal as if there was no waste management plan and net additional cost or net savings resulting from implementing waste management plan. Include the following:

1. Landfill tip fees/ton.
2. If diverted, tip fee savings from landfill diversion.
3. Costs of recycling, salvage, or reuse.
4. Revenue from recycling, salvage, or reuse.
5. Total cost or savings from diversion (Calculate by using tip fee savings and subtracting costs of recycling or adding revenue from recycling).

PART 3 - EXECUTION

3.1 PLAN IMPLEMENTATION

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

B. Materials handling procedures: Materials to be recycled shall be protected from contamination and shall be handled, stored, and transported in a manner that meets the requirements set by the designated facilities for acceptance. Establish a defined area for the operations of each trade, especially woodcutting so that off-cuts will be kept in one area and can be sorted by dimension for future reuse.

3.2 RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL

A. General: Recycle paper and beverage containers used by on-site workers.

B. Recycling Receivers and Processors: Preference should be given to local waste haulers that accept co-mingled construction and demolition debris and can document the quantities diverted. List below is provided for information only; available recycling receivers and processors include, but are not limited to, the following:

1. Bay Area Construction & Demolition Recycling Facilities

**Marin Resource Recovery**
565 Jacoby Street
San Rafael CA
415-485-5646

**Recology** (preferred vendor in San Francisco)
501 Tunnel Ave
San Francisco, CA
1-888-404-4008 (debris box);
415-330-1400 (transfer station)

**Redwood Landfill and Recycling Center**
8950 Redwood Highway
Novato
415-892-2851

**Redwood Empire Disposal**
3400 Standish Avenue
Santa Rosa
1-800-243-0291

**Mill Valley Refuse Service**
112 Front Street
San Rafael
415-457-9760

**Bay Cities Refuse Service** (required vendor in MarinHeadlands)
2525 Garden Tract Road
Richmond
415-332-3646

C. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall accrue to Contractor.

D. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical.

1. Provide appropriately marked containers or bins for controlling recyclable waste until they are removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.
    a. Inspect containers and bins for contamination and remove contaminated materials if found.
2. Store components off the ground and protect from the weather.
3. Remove recyclable waste off Governments property and transport to recycling receiver or processor.

3.3 RECYCLING DEMOLITION WASTE

A. Wood Materials: Sort and stack members according to size, type, and length. Separate lumber, engineered wood products, panel products, and treated wood materials.

B. Metals: Separate metals by type.
    1. Structural Steel: Stack members according to size, type of member, and length.
    2. Remove and dispose of bolts, nuts, washers, and other rough hardware.

C. Asphalt Shingle Roofing: Separate organic and glass-fiber asphalt shingles and felts. Remove and dispose of nails, staples, and accessories.

3.4 RECYCLING CONSTRUCTION WASTE

A. Packaging:
    1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.
    2. Polystyrene Packaging: Separate and bag materials.
    3. Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. Forpallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.
    4. Crates: Break down crates into component wood pieces and comply with requirements for recyclingwood.

B. Wood Materials:
    1. Clean Sawdust: Bag sawdust that does not contain painted or treated wood.

3.5 DISPOSAL OF WASTE

A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materialsfrom Project site and legally dispose of them in a landfill 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. Burning: Do not burn waste materials.

C. Disposal: Transport waste materials off Governments property and legally dispose of them.

END OF SECTION 01 74 19

# Appendix A. GGNRA Waste Management Plan Checklist

- ☐ **Analyze project waste**
  - ☐ Estimate types and quantities of waste the project will generate at different stages

- ☐ **Check to see what can be recycled/reused onsite (wood, soil, rock, concrete, etc.)**

- ☐ **Decide how you will recycle**
  - ☐ Can you arrange the job site to accommodate several containers?
  - ☐ Do you have the equipment to self haul?
  - ☐ How often might you need your containers picked- up?

- ☐ **Research recycling options**
  - ☐ Check out the Construction Recycling Directory
  - ☐ Call recyclers and ask them:
  - ☐ What materials do you accept?
  - ☐ Is co-mingled recycling available?
  - ☐ What are my collection options & costs?
  - ☐ If I self-haul, can I drop off, and if so, what about tipping fees?
  - ☐ Do you provide receipts to track recyclables?
  - ☐ Do you set up and provide training?

- ☐ **Decide what you will recycle at the jobsite**

- ☐ **Determine your costs**
  - ☐ Compare the cost of disposing waste with the cost of recycling

- ☐ **Write out the waste management plan**
  - ☐ Which materials will be salvaged or reused on site
  - ☐ Which materials will be recycled
  - ☐ How materials will get to the recycler
  - ☐ Names of responsible crew member/team
  - ☐ Your projected savings

- ☐ **Set up and monitor**
  - ☐ Clearly designate recycling bins
  - ☐ Post list of what is recyclable and what is not
  - ☐ Keep bins close to where waste is generated but not in traffic pattern
  - ☐ Provide hauler and crew with site plan
  - ☐ Check recycling bins daily for contamination
  - ☐ Keep dumpsters closed to discourage use by wildlife
  - ☐ Check garbage dumpsters daily for misplaced recyclables
  - ☐ Call for pick-up before boxes are full
  - ☐ Require quantity and cost tickets to track results and savings

- ☐ **Make your program work**
  - ☐ Start early: Incorporate a recycling program from the start to guarantee success
  - ☐ Communicate your waste management plans to crews, subs and suppliers as they come on-site
  - ☐ Include recycling requirements in all subcontracts and purchase orders
  - ☐ Post quantities of materials reused and recycled
  - ☐ Track your savings

- Encourage suggestions from supervisors and crew
- Reward employees
- Make use of available resources and directories

**Resources:**
http://www.sfenvironment.org/recyclewhere
http://earth911.com/recycling/

**For additional information contact:**

Laura Castellini, Golden Gate National Recreation Area Sustainability Coordinator
(415) 561-4789 or Laura_Castellini@nps.gov

# Appendix A, cont.: SAMPLE WASTE MANAGEMENT PLAN

**Company:**
**Project:**
**Designated Recycling Coordinator:**

**Waste Management Goals:**

- This project will recycle or salvage for reuse ___% [e.g. 75%] by weight of the waste generated on-site.

**Communication Plan:**

_____

_____

_____

_____

_____

**Expected Project Waste, Disposal, and Handling:**
The following charts identify waste materials expected on this project, their disposal method, and handling procedures.

**Deconstruction/Demolition Phase**

| Material | Quantity | Disposal Method | Handling Procedure |
|---|---|---|---|
| | | | |
| | | | |
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| | | | |

**Construction Phase**

| Material | Quantity | Disposal Method | Handling Procedure |
|---|---|---|---|
| | | | |
| | | | |

**Appendix B: SAMPLE SUMMARY OF SOLID WASTE DISPOSAL AND DIVERSION**

Project Name: _____ Project Number: _____

Contractor Name: _____ License Number: _____

Contractor Address: _____

**Materials Disposed:**

| **Solid Waste Material** | **Date Material Disposed** | **Amount Disposed** (indicate ton or cubic yard) | **Municipal Solid Waste Facility** (name, address, & phone number) | **Comments** (if disposed, state why not diverted) |
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**Materials Diverted:**

| **Recycled Material** | **Date Material Diverted** | **Amount Diverted** (indicate ton or cubic yard) | **Recycling Facility** (name, address, & phone number) | **Comments** |
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| **Hazardous Waste** (not included in diversion rate) | **Date Material Disposed** | **Amount Disposed** (ton or cubic yard) | **Haz Waste Facility** (name, address, & phone number) | **Comments** |
|---|---|---|---|---|
| | | | | |
| | | | | |

Signature: _____ Date: _____

**SECTION 01 77 00 - CLOSEOUT PROCEDURES**

PART 1 – GENERAL

1.1 SUMMARY

A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:

1. Closeout Submittals.
2. Substantial Completion and Final Inspection.
3. Final Acceptance of the Work.
4. Warranties.

1.2 CLOSEOUT SUBMITTALS

A. A list of closeout requirements is below. The intent is to provide an overall summary of requirements and not a comprehensive list. The terms and conditions of the contract still require you to satisfy the requirements of the individual specification sections regardless of what is shown on the list. Submit the following before requesting final inspection:

1. Submit specific warranties, guarantees, workmanship bonds, final certifications, and similar documents.
2. Environmental Record Documents:

   a. SDS Data: As specified in relevant sections.
   b. Final Summary of Solid Waste Disposal and Diversion: As specified in Section 017419 Construction Waste Management.

3. Remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
4. Complete final cleaning requirements, including touchup painting.
5. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

1.3 SUBSTANTIAL COMPLETION AND FINAL INSPECTION

A. When project is substantially complete, request in writing a final inspection. Upon receipt of written request that project is substantially complete, the Contracting Officer will proceed with inspection within 10 days of receipt of request or will advise the Contractor of items that prevent the project from being designated as substantially complete.

B. If, following final inspection, the work is determined to be substantially complete, Contracting Officer will prepare a Punch List to be corrected before final acceptance and issue a Letter of Substantial Completion. Contractor shall complete the work described on the Punch List within 30 calendar days, as weather permits. If the Contractor fails to complete the work within this

time frame, the Contracting Officer may either replace or correct the work with an appropriate reduction in the contract price or charge for re-inspection costs in accordance with the Inspection of Construction clause of the contract.

C. If, following final inspection, the work is not determined to be substantially complete; Contracting Officer will notify Contractor in writing. After completing work, Contractor shall request a new final inspection. All re-inspection costs may be charged against the Contractor in accordance with the Inspection of Construction clause of the contract.

1.4 FINAL ACCEPTANCE OF THE WORK

A. Prior to requesting inspection for verification of completion of all outstanding items.

B. After all deficiencies have been corrected, a Letter of Final Acceptance will be issued.

1.5 WARRANTIES

A. Submittal Time: Submit written warranties on request of Contracting Officer for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.

B. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.

PART 2 - EXECUTION

2.1 FINAL CLEANING

A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.

B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.

1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:

a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
c. Remove tools, construction equipment, machinery, and surplus material from Project site.
d. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces.

e. Remove labels that are not permanent.
f. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.

C. Waste Disposal: Comply with requirements of Division 01 Section 017419, "Construction Waste Management and Disposal."

PART 3 - EXECUTION (Not used)

END OF SECTION 01 77 00

**SECTION 07 01 50.19 – PREPARATION FOR RE-ROOFING**

PART 1 – GENERAL

1.1 SUMMARY

A. Section Includes:

1. Complete roof removal for new roof system installation.
2. Existing roofing membrane preparation for new roofing, diaphragm, and installation.

B. Existing Roofing System: System components include:
1. 1X Decking
2. Roofing Felt
3. Asphalt Shingles
4. Copper flashing
5. Copper Metal Drip Edge and pipe collars
6. Copper Large Roof Vents

1.2 RELATED WORK
A. Section 07 31 13, Asphalt Shingles
B. Section 07 60 00, Flashing and Sheet Metal
C. Section 07 92 00, Joint Sealants

1.3 PREINSTALLATION MEETINGS
A. Conduct preinstallation meeting minimum 30 days before beginning work of this section.
1. Required participants:
a. Contracting Officer's Representative
b. Contractor
c. Installer
d. Other installers responsible for adjacent and intersecting work
2. Meeting Agenda: Distribute agenda to participants minimum 3 days before meeting.
a. Removal and installations schedule.
b. Removal and installation sequence.
c. Preparatory work
d. Protection before, during, and after installation.
e. Removal and installation
f. Temporary roofing including daily terminations.
g. Transitions and connections to other work.
h. Inspecting and testing.
i. Other items affecting successful completion.
3. Document and distribute meeting minutes to participants to record decisions affecting installation.

1.4
A. Submittal Procedures: Section 01 33 23, SUBMITTAL PROCEDURES

B. Submittal Drawings:
1. Show size, configuration, and installation details.

C. Manufacturer's Literature and Data:
1. Description of each product.

D. Photographs: Document existing conditions potentially affected by roofing operations before work begins.

1.5 FIELD CONDITIONS

A. Building Occupancy: Perform work to minimize disruption to normal building operations.

B. Weather Limitations: Proceed with reroofing preparation only during dry weather conditions.

1. **Remove only as much roofing in one day as can be made watertight in same day.**
2. **Ensure complete watertight conditions at the end of each day. Any water intrusion will be remedied as part of this contract at the cost of the contractor.**

C. Hazardous materials are not expected in existing roofing system.

1. Do not disturb suspected hazardous materials. If discovered, notify Contracting Officer's Representative.

1.6 WARRANTY

A. Construction Warranty: FAR clause 52.246-21, "Warranty of Construction."

PART 2 – PRODUCTS – NOT USED

PART 3 – EXECUTION

3.1 PREPARATION

A. Examine and verify substrate suitability for product installation.

B. Protect existing construction and completed work from damage.

C. Protect landscaping from damage.

D. Maintain access to existing walkways and adjacent occupied facilities.

E. Ensure tarps are available for immediate use in case of unexpected rain.

F. Ensure roof drainage remains functional.

1. Prevent water from entering building and existing roofing system.

3.2 COMPLETE ROOFING SYSTEM REMOVAL

A. Remove existing roofing system completely, exposing structural roof deck.

B. Remove existing drip edges, pipe collars, and roof vents and clean substrates to receive new flashings.

3.3 DECK PREPARATION

A. Inspect structural roof deck after roofing system removal.

B. Notify Contracting Officer's Representative of any leaks or damage to roof deck.

3.4 TEMPORARY ROOFING

A. Install temporary roofing to maintain building watertight.

B. Remove temporary roofing before installing new roofing.

3.5 BASE FLASHING REMOVAL

A. Expose base flashings to permit removal.
   1. Two-Piece Counterflashing: Remove cap flashing and store for reuse.
   2. Single Piece Counterflashing: Carefully bend counterflashing.
   3. Metal Copings: Remove decorative cap and store for reuse.

B. Remove existing base flashings.
   1. Clean substrates to receive new flashings.

C. Replace counterflashing damaged during removal.
   1. Counterflashing: See Section 07 60 00 FLASHING AND SHEET METAL.

3.6 DISPOSAL

A. Collect waste materials in containers.

B. Removal waste materials from project site, regularly, to prevent accumulation.

C. Legally recycle waste materials.

END SECTION 07 01 50.19

**SECTION 07 31 13 - ASPHALT SHINGLES**

PART 1 - GENERAL

1.1 DESCRIPTION

A. This section specifies organic felt and fiberglass asphalt shingles.

1.2 RELATED WORK

A. Counterflashing and flashing of roof projections: Section 07 60 00, FLASHING AND SHEET METAL.

B. 07 92 00, Joint Sealants

1.3 SUBMITTALS

A. Submit in accordance with Section 01 33 23, SUBMITTAL PROCEDURES

B. Samples: Shingles, each type, color, and texture.

C. Manufacturer's Literature and Data:
1. Shingles, each type.
2. Installation instructions

1.4 DELIVERY AND STORAGE

A. Deliver materials in manufacturer's unopened bundles or containers with the manufacturer's brand and name clearly marked thereon.

B. Shingle bundle wrapping shall bear the label of Underwriters Laboratories, Inc.

C. Store shingles in accordance with manufacturer's printed instructions. Store roll goods on end in an upright position.

D. Keep materials dry, covered completely and protected from the weather.

1.5 APPLICABLE PUBLICATIONS

A. Publications listed below form a part of this specification to the extent referenced. Publications are referenced in the text by the basic designation only.

B. American Society for Testing and Materials (ASTM):
1. D226/D226M-17 .....Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing
2. D3018/D3018M-22 .....Class A Asphalt Shingles Surfaced with Mineral Granules
3. F1667-11ae1 .....Driven Fasteners: Nails, Spikes, and Staples

C. Underwriter’s Laboratories Inc. (UL):
1. UL790-22 .....Fire Tests of Roof Covering

PART 2 – PRODUCTS

2.1 SHINGLES

A. Type: Asphalt Shingle

B. Grade: 3-Tab, **Supreme by Owens Corning**
   1. Accessories: High performance hip and ridge caps.

C. Class A: (Fire resistive), per UL790. ASTM D3018, Type I and ASTM 3462, square butt for a maximum exposure of 125 mm (5 inches), wind resistant. Minimum weight: 10.3 Kg/sqm (210 lbs/100sft).

D. Color: Shall match existing roof shingle color of **Spanish Red by Owens Corning**. See Submittals for guidance on sample submittals. Color shall be submitted and approved by CO or COR prior to purchase of roofing materials.

E. Warranty: 25 year limited

2.2 ROOFING NAILS

A. ASTM F1667; Type I, Style 20, galvanized steel, deformed shanks, with heads 9.5 mm to 11 mm (3/8-inch to 7/16-inch) diameter.

B. Use nails 32 mm (1-1/4 inches) long for shingles and 19 mm (3/4-inch long) for felt.
   1. Note: use caution at exposed overhangs, do not penetrate through sheathing with fasteners. Pneumatically or otherwise installed Electro Galvanized (AKA EG) nails are prohibited

2.3 ROOFING FELT

A. Roofing felt underlayment: As required for manufacturer's 130 MPH enhanced wind warranty; assumed synthetic felt, conforming to ASTM D226, Type 1

PART 3 EXECUTION

3.1 PREPARATION

A. Roof surfaces shall be sound, reasonably smooth, and free from defects which would interfere with roofing installation.

B. Roof accessories, vent pipes and other projections through the roof must be in place and roof flashing installed or ready for installation before laying shingles.

3.2 LAYING

A. Lay felt under shingles over entire roof.

B. Install synthetic felt underlayment, lapping a minimum of six inches at ends, 50 mm (2 inches) at head and 300 mm (12 inches) over ridge. Extend felt 13 mm (1/2-inch) beyond edges of roof. Nail felt 125 mm (five inches) on centers along laps.

C. At eaves, install strip of 41 Kg (90 pound) mineral surface roll roofing not less than 460 mm (18 inches) wide and starter course of roof shingles with tabs reversed. Both shall overhang lower edge of roof 13 mm (1/2-inch).

D. Lay shingles with maximum exposure of 125 mm (5 inches) and to match existing pattern. Nail shingles do not staple**. Install 6 nails per 3-tab shingle** using 1.25-inch #12 hot dipped galvanized nails with 3/8-inch diameter head. Do not overdrive nails. Use shorter ring shank fasteners at exposed eaves that do not have plywood to avoid fastener breakthrough.

   1. Exposure: approximately 6 inches

2. Offsets: 6-inch running bond pattern. Bond lines **must** be snapped so there is no shingle pattern walking and there is proper offsets with the starter strips.

E. Apply adhesive at boundaries: at rakes, eaves, hips and valleys, secure shingles with hand tabbing of asphalt roof cement.

F. Apply lap cement to bottom corners of each exposed shingle to assure firm set with wind uplift and per manufacturer's specifications for enhanced wind warranty.

G. Temperature during roofing installation" between 40 degrees F and 85 degrees F.

H. During installation days with heavy wind or temperatures below 65 degrees, apply heat gun to integral adhesive on shingle tab to assure firm set.

I. Provide weathertight completed roofing installation.

3.3 METAL DRIP EDGES

A. At rakes and drip edge at eaves, install metal drip edges made of copper specified under Section 07 60 00, FLASHING AND SHEET METAL. Apply the metal drip edge directly over the underlayment along the rakes.

B. Secure metal drip edges with compatible nails spaced not more than 250 mm (10 inches) on center along the inner edges.

3.4 FLASHINGS

A. Provide metal flashings specified under Section 07 60 00, FLASHING AND SHEET METAL at the intersections of roofs, adjoining walls, or projections through the deck such as vents. Give careful attention to the installation of all flashings.

3.5 RIDGE

A. Bend each shingle lengthwise down center to provide equal exposure on each side of ridge. Beginning at one end of ridge, apply shingles with maximum 125 mm (5 inches) exposure.

B. Secure each shingle with one nail on each side, 210 mm (8-1/2 inches) back from exposed end and one inch up from edge.

3.6 ROOF ACCESSORIES

A. Install Large Roof Vents so vents are weather tight and shingles overlap. Weave full shingles as necessary to properly shed water around vents.

B. Lap shingles over the accessories flashing a minimum of 125 mm (5 inches).

END SECTION 07 31 13

**SECTION 07 60 00 - FLASHING AND SHEET METAL**

PART 1 – GENERAL

1.1 DESCRIPTION

A. Formed sheet metal work for wall and roof flashing, copings, roof edge metal, fasciae, drainage specialties, and formed expansion joint covers are specified in this section.

1.2 RELATED WORK

A. Joint Sealants: Section 07 92 00, JOINT SEALANTS.

1.3 SUBMITTALS

A. Submit in accordance with Section 01 33 23, SUBMITTAL PROCEDURES

B. Shop Drawings: For all specified items, including:
   1. Pipe Collar flashings and vents.
   2. Drip Edge.
   3. Large Vents

C. Manufacturer's Literature and Data: For all specified items, including:
   1. Two-piece counterflashing.
   2. Pipe collar flashing and vents.
   3. Drip Edge.

D. Certificates: Indicating compliance with specified finishing requirements, from applicator and contractor.

1.4 PRE-INSTALLATION CONFERENCE

A. Convene a meeting on site, after submittals are received and approved but before any work, to review drawings and specifications, submittals, schedule, manufacturer instructions, site logistics and pertinent matters of coordination, temporary protection, governing regulations, tests and inspections; participants to include RE/COR and all parties whose work is affected or related to the work of this section.

PART 2 – PRODUCTS

2.1 FLASHING AND SHEET METAL MATERIALS

A. Copper Roof Flashing, Drip Edge and Accessories: ASTM B370, **20 oz/sqft thick for drip edge and flashings, 24 oz/sqft for vents;** natural finish, temper as required for forming.

   1. Fasteners and Nails: Copper

   2. Solder: ASTM B32; flux type and alloy composition as required for use with metals to be soldered

   3. Material to match existing copper for all flashing, Vents, drip edge, and pipe collars.

   4. Form sections square, true and accurate to size, free from distortion and other defects detrimental to appearance or performance.

5. Fabricate sheet metal in accordance with SMACNA Architectural Sheet Metal Manual.

6. Form sections in maximum, 10'-0" lengths; make allowance for expansion at joints. Form joints between sections according to SMACNA details.

B. Sealant: As specified in Section 07 92 00, JOINT SEALANTS for exterior locations.

2.2 SHEET METAL THICKNESS

A. Except as otherwise shown or specified use thickness or weight of sheet metal as follows:
   1. Thickness of metal shall match current flashing found on the building.

2.3 FABRICATION, GENERAL

A. Expansion and Contraction Joints:
   1. Fabricate in accordance with the Architectural Sheet Metal Manual recommendations for expansion and contraction of sheet metal work in continuous runs.
   2. Space joints as shown or as specified.
   3. Fabricate slip-type or loose locked joints and fill with sealant unless otherwise specified.
   4. Fabricate joint covers of same thickness material as sheet metal served.

B. Cleats:
   1. Fabricate cleats to secure flashings and sheet metal work over 300 mm (12 inches) wide and where specified.
   2. Provide cleats for maximum spacing of 300 mm (12 inch) centers unless specified otherwise.
   3. Form cleats of same metal and weights or thickness as the sheet metal being installed unless specified otherwise.
   4. Fabricate cleats from 50 mm (2 inch) wide strip. Form end with not less than 19 mm (3/4 inch) wide loose lock to item for anchorage. Form other end of length to receive nails free of item to be anchored and end edge to be folded over and cover nail heads.

C. Edge Strips or Continuous Cleats:
   1. Fabricate continuous edge strips where shown and specified to secure loose edges of the sheet metal work.
   2. Except as otherwise specified, fabricate edge strips of minimum 1.25 mm (0.050 inch) thick aluminum.
   3. Use material compatible with sheet metal to be secured by the edge strip.
   4. Fabricate in 3000 mm (10 feet) maximum lengths with not less than 19 mm (3/4 inch) loose lock into metal secured by edge strip.
   5. Fabricate Strips for fascia anchorage to extend below the supporting wood construction to form a drip and to allow the flashing to be hooked over the lower edge at least 19 mm (3/4-inch).
   6. Fabricate anchor edge maximum width of 75 mm (3 inches) or of sufficient width to provide adequate bearing area to ensure a rigid installation using 1.6 mm (0.0625 inch) thick aluminum.

D. Drips:
   1. Form drips at lower edge of sheet metal counter-flashings (cap flashings), fascias, gravel stops, wall copings, by folding edge back 13 mm (1/2 inch) and bending out 45 degrees from vertical to carry water away from the wall.

E. Edges:

1. Turn up edges of flashings concealed in masonry joints and opposite drain side 6 mm (1/4 inch) to form dam, unless otherwise specified or shown otherwise.
2. Finish exposed edges of flashing with a 6 mm (1/4 inch) hem formed by folding edge of flashing back on itself when not hooked to edge strip or cleat. Use 6 mm (1/4 inch) minimum penetration beyond wall face with drip for through-wall flashing exposed edge.
3. All metal roof edges must meet requirements of IBC, current edition.

F. Metal Options:
1. Where options are permitted for different metals use only one metal throughout.

2.4 FINISHES

A. Use same finish on adjacent metal or components and exposed metal surfaces unless specified or shown otherwise.

B. In accordance with NAAMM Metal Finishes Manual AMP 500, unless otherwise specified.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General:
1. Install flashing and sheet metal items as shown in Sheet Metal and Air Conditioning Contractors National Association, Inc., publication, ARCHITECTURAL SHEET METAL MANUAL, except as otherwise shown or specified.
2. Anchor sheet metal flashing and trim and other components of the work securely in place with provisions for thermal and structural movement. Use fasteners, lead free solder, welding rods, protective coatings, separators, sealants and other miscellaneous items as required, to complete flashing and trim assemblies.
3. Apply Sealant as specified in Section 07 92 00, JOINT SEALANTS.
4. Apply sheet metal and other flashing material to surfaces which are smooth, sound, clean, dry and free from defects that might affect the application.
5. Remove projections which would puncture the materials and fill holes and depressions with material compatible with the substrate. Cover holes or cracks in wood wider than 6 mm (1/4 inch) with sheet metal compatible with the roofing and flashing material used.
6. Confine direct nailing of sheet metal to strips 300 mm (12 inch) or less wide. Nail flashing along one edge only. Space nails not over 100 mm (4 inches) on center unless specified otherwise.
7. Install bolts, rivets, and screws where indicated, specified, or required in accordance with the SMACNA Sheet Metal Manual. Space rivets at 75 mm (3 inch) on centers in two rows in a staggered position. Use neoprene washers under fastener heads when fastener head is exposed.
8. Coordinate with roofing work for the installation of metal base flashings and other metal items having roof flanges for anchorage and watertight installation.
9. Nail continuous cleats on 75 mm (3 inch) on centers in two rows in a staggered position.
10. Nail individual cleats with two nails and bend end tab over nail heads. Lock other end of cleat into hemmed edge.
11. Install flashings in conjunction with other trades so that flashings are inserted in other materials and joined together to provide a watertight installation.
12. Where required to prevent galvanic action between dissimilar metal isolate the contact areas of dissimilar metal with sheet lead, waterproof building paper, or a coat of bituminous paint.

3.2 ROOF TO WALL FLASHING

A. Shall be installed as single copper flashing that extends up the wall.
   1. In lieu of counterflashing, install 1x4 non old growth redwood board with FSC certification and COC submittal as “counter flashing”.
   2. Board shall have slight bevel to shed water away from the roof.
   3. All sides of board shall be painted.

B. After installation, the top corner of the 1x4 shall be sealed to the building wall.

END SECTION 07 60 00

**SECTION 07 71 23 – MANUFACTURED GUTTERS**

PART 1 – GENERAL

1.1 SUMMARY

A. Section covers all surface tension (reverse curve) gutter guards for installation at Fort Barry buildings 937 and 941.

1.2 SUBMITTALS

A. Product Data: Submit manufacturer's detailed technical product data, installation instructions and recommendations, dimensions of individual components, and finishes.

1.3 QUALITY ASSURANCE

A. Follow manufacturer's instructions for installing gutter guard system.

1.4 DELIVERY AND STORAGE

A. All products shall be stored in a clean, dry location prior to installation.

1.5 PROJECT CONDITIONS

A. Coordinate work of this section with CO and COR to schedule access to both dormitory buildings.

B. Set up appropriate fall protection and safety measures for roof access.

C. Inspect existing gutters and downspouts for compatibility with surface tension – style gutter guards.

D. Do not install gutter guards during inclement weather.

PART 2 - PRODUCTS

2.1 TYPE

A. Surface tension style gutter guards.
   1. Color to match existing gutters.
   2. Manufacturer to be proposed by contractor and approved by CO and COR.
   3. Materials of all gutter guards and fasteners to match existing gutter metal and be compatible with the gutter guard system.
   4. Contractor to verify quantity of gutter guards needed for installation.

PART 3 – EXECUTION

3.1 EXAMINATION

A. Remove all existing debris from gutters and downspouts.

B. Inspect gutters for damage or improper slope; report any deficiencies to the COR and perform corrective actions prior to guard installation.

3.2 INSTALLATION

A. Install surface tension (reverse curve) gutter guards along all rooflines of both dormitory buildings.

B. Ensure guards are installed per manufacturer specifications, with proper alignment and slope to maintain water flow and debris deflection.

C. Secure all components to withstand high winds and seasonal debris loads typical of eucalyptus groves.

3.3 FINAL INSPECTION

A. Conduct a final inspection with the COR to confirm proper installation.

B. Remove all construction debris and restore the site to pre-project condition.

C. All work shall comply with applicable NPS facility standards and safety protocols. The contractor shall provide all labor, materials, and equipment necessary to complete the work.

END SECTION 07 71 23

**SECTION 07 92 00 - JOINT SEALANTS**

PART 1 - GENERAL

1.1 DESCRIPTION

A. Section covers all sealant and caulking materials and their application, wherever required for complete installation of building materials or systems.

1.2 QUALITY CONTROL

A. Installer Qualifications: An experienced installer who has specialized in installing joint sealants similar in material, design, and extent to those indicated for this Project and whose work has resulted in joint-sealant installations with a record of successful in-service performance.

B. Source Limitations: Obtain each type of joint sealant through one source from a single manufacturer.

C. Product Testing: Obtain test results from a qualified testing agency based on testing current sealant formulations within a 12-month period.

D. Preconstruction Field-Adhesion Testing: Before installing elastomeric sealants, field test their adhesion to joint substrates in accordance with sealant manufacturer's recommendations:
   1. Locate test joints where indicated or, if not indicated, as directed by Contracting Officer.
   2. Conduct field tests for each application indicated below:
      a. Each type of elastomeric sealant and joint substrate indicated.
      b. Each type of non-elastomeric sealant and joint substrate indicated.
   3. Notify RE/COR seven days in advance of dates and times when test joints will be erected.

E. Meet VOC requirements of pertinent CARB and/or SCAQMD Rule for sealants VOC (4 percent by weight VOC or less in less than 16-ounce package or less than 250 g/L in larger package). All non-porous sealant primers must be below 250g/L and primers for porous substrates less than 775 g/L.

1.3 SUBMITTALS

A. Submit in accordance with Section 01 33 23, SUBMITTAL PROCEDURES

B. Manufacturer's installation instructions for each product used.

C. Cured samples of exposed sealants for each color where required to match adjacent material.

D. Manufacturer's Literature and Data:
   1. Caulking compound.
   2. Primers.
   3. Sealing compound, each type, including compatibility when different sealants are in contact with each other.

E. Preconstruction Laboratory Test Reports: From sealant manufacturer, indicating the following:

   1. Materials forming joint substrates and joint-sealant backings have been tested for compatibility and adhesion with joint sealants.

2. Interpretation of test results and written recommendations for primers and substrate preparation are needed for adhesion.

1.1 PROJECT CONDITIONS

A. Environmental Limitations:

1. Do not proceed with installation of joint sealants under following conditions:

a. When ambient and substrate temperature conditions are outside limits permitted by joint sealant manufacturer or are below 4.4 °C (40 °F).

b. When joint substrates are wet.

B. Joint-Width Conditions: Do not proceed with installation of joint sealants where joint widths are less than those allowed by joint sealant manufacturer for applications indicated.

C. Joint-Substrate Conditions: Do not proceed with installation of joint sealants until contaminants capable of interfering with adhesion are removed from joint substrates.

1.2 DELIVERY, HANDLING, AND STORAGE

A. Deliver materials in manufacturers' original unopened containers, with brand names, date of manufacture, shelf life, and material designation clearly marked thereon.

B. Carefully handle and store to prevent inclusion of foreign materials.

C. Do not subject to sustained temperatures less than 5° C (40° F) or exceeding 32° C (90° F).

1.3 DEFINITIONS

A. Definitions of terms in accordance with ASTM C717 and as specified.

B. Back-up Rod: A type of sealant backing.

C. Bond Breakers: A type of sealant backing.

D. Filler: A sealant backing used behind a back-up rod.

1.4 WARRANTY

A. Warranty exterior sealing against leaks, adhesion, and cohesive failure, and subject to terms of "Warranty of Construction", FAR clause 52.246-21, except that warranty period to be extended to five (5) years.

B. General Warranty: Special warranty specified in this Article will not deprive Government of other rights Government may have under other provisions of Contract Documents and are in addition to, and run concurrent with, other warranties made by Contractor under requirements of Contract Documents.

PART 2 - PRODUCTS

2.1 SEALANTS

A. Contractor to advise specific sealant compound with approval of Contract Officer that applies to the types of materials being joined in this project and the environmental considerations for a coastal, wet environment.

2.2 CAULKING COMPOUND

A. Contractor to advise specific caulking compound with approval of Contract Officer that applies to the types of materials being joined in this project and the environmental considerations for a coastal, wet environment.

2.3 COLOR

A. Match color of adjacent materials.

2.4 JOINT SEALANT BACKING

A. General: Provide sealant backings of material and type that are non-staining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.

B. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self-adhesive tape where applicable.

2.5 PRIMER

A. As recommended by manufacturer of caulking or sealant material.

B. Stain free type.

2.6 CLEANERS-NON POUROUS SURFACES

A. Chemical cleaners acceptable to manufacturer of sealants and sealant backing material, free of oily residues and other substances capable of staining or harming joint substrates and adjacent non-porous surfaces and formulated to promote adhesion of sealant and substrates.

PART 3 – EXECUTION

3.1 INSPECTION

A. Inspect substrate surface for bond breaker contamination and unsound materials at adherent faces of sealant.

B. Coordinate for repair and resolution of unsound substrate materials.

C. Inspect for uniform joint widths and that dimensions are within tolerance established by sealant manufacturer.

3.2 PREPARATIONS

A. Prepare joints in accordance with manufacturer's instructions and as specified only when installers are ready to initiate sealant application as soon as practicable after preparation and before subsequent surface deterioration.

B. Clean surfaces of joint to receive caulking or sealants leaving joint dry to the touch, free from frost, moisture, grease, oil, wax, lacquer paint, or other foreign matter that would tend to destroy or impair adhesion.

1. Clean nonporous surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.

C. Do not cut or damage joint edges.

D. Apply masking tape to face of surfaces adjacent to joints before applying primers, caulking, or sealing compounds.
   1. Do not leave gaps between ends of sealant backings.
   2. Do not stretch, twist, puncture, or tear sealant backings.
   3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.

E. Apply primer to sides of joints wherever required by compound manufacturer's printed instructions.
   1. Apply primer prior to installation of back-up rod or bond breaker tape.
   2. Use brush or other approved means that will reach all parts of joints.

F. Take all necessary steps to prevent three-sided adhesion of sealants.

3.3 BACKING INSTALLATION

A. Install back-up material, to form joints enclosed on three sides as required for specified depth of sealant.

B. Where deep joints occur, install filler to fill space behind the back-up rod and position the rod at proper depth.

C. Cut fillers installed by others to proper depth for installation of back-up rod and sealants.

D. Install back-up rod, without puncturing the material, to a uniform depth, within plus or minus 3 mm (1/8 inch) for sealant depths specified.

E. Where space for back-up rod does not exist, install bond breaker tape strip at bottom (or back) of joint so sealant bonds only to two opposing surfaces.

F. Take all necessary steps to prevent three-sided adhesion of sealants.

3.4 SEALANT DEPTHS AND GEOMETRY

A. At widths up to 6 mm (1/4 inch), sealant depth equal to width.

B. At widths over 6 mm (1/4 inch), sealant depth 1/2 of width up to 13 mm (1/2 inch) maximum depth at center of joint with sealant thickness at center of joint approximately 1/2 of depth at adhesion surface.

3.5 INSTALLATION

A. Comply with manufacturer’s written installation instructions for products and applications indicated.

B. For application of sealants, follow requirements of ASTM C1193 unless specified otherwise.

3.6 CLEANING

A. Fresh compound accidentally smeared on adjoining surfaces: Scrape off immediately and rub clean with a solvent as recommended by the caulking or sealant manufacturer.

B. After filling and finishing joints, remove masking tape.

C. Leave adjacent surfaces in a clean and unstained condition.

3.7 PROTECTION

A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

3.8 LOCATIONS

A. Exterior Building Joints, Horizontal and Vertical:
   1. Metal to Metal: Type S-6, S-7.

B. Metal Reglets and Flashings:
   1. Flashings to Wall: Type S-6.
   2. Metal to Metal: Type S-6.

END SECTION 07 92 00