**Part 3 Statement of Work / Project Program**

**Table of Contents**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Indicate "Not Used" for requirements not included in this Project Program \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: If an item of work specific to your project is not included in this Small Project Template, consider cutting and pasting paragraphs from the Standard template.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

CHAPTERS

1. PROJECT DESCRIPTION

2. PROJECT OBJECTIVES..........................................

3. SITE ANALYSIS.............................................

4. BUILDING REQUIREMENTS..........................................

5. ROOM REQUIREMENTS................................................ Not Used

6. ENGINEERING SYSTEMS REQUIREMENTS

 A10 Foundations
 A20 Basement Construction
 B10 Superstructure
 B20 Exterior Closure
 B30 Roofing
 C10 Interior Construction
 C20 Stairs
 C30 Interior Finishes
 D10 Conveying Systems
 D20 Plumbing
 D30 HVAC
 D40 Fire Protection Systems
 D50 Electrical Power and Lighting
 E10 Equipment
 E20 Furnishings
 F10 Special Construction
 F20 Selective Building Demolition
 G10 Site Preparations
 G20 Site Improvements
 G30 Site Mechanical Utilities
 G40 Site Electrical Utilities

**1.0 PROJECT DESCRIPTION**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTES: Provide a clear concise description of the project. Include Category Code if applicable.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTES: The Small Project Template is typically applied to single-discipline (i.e. Mechanical repair projects with minor electrical work, or roof replacement projects) projects with a negotiated scope. For each project, determine whether the Small Project Template will be appropriate for the intended scope. More complex projects (i.e. Any project with more than two architectural/engineering disciplines) will require an edited version of the Standard Design-Build Template. All projects including work on fire protection or fire alarm systems must use the Standard Template. All Third Party Certified sustainable projects must use the Standard Template.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
For certain renovation projects, there are "triggers" that may make it inappropriate to use the Small Project Template:

Refer to UFC 4-010-01 for requirements to implement Antiterrorism standards when renovation costs exceed 50% of the building value.

Refer to UFC 3-301-01, *Structural Engineering*, for requirements for seismic rehabilitation when renovation costs exceed 30% of the building value.

Part 3 is intended to be edited as needed to describe the project and its requirements. Part 4 is not intended to be edited.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**2.0 PROJECT OBJECTIVES**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTES: Include items that are of primary importance to the activity/user.

Provide a description of the appropriate level of architectural refinement including building type, character, style, historic, and economic considerations. Describe in general, if special scale, finishes, and materials are required for architectural significance.

Address requirement for integrated sustainable design strategies and features to minimize the energy consumption of the facilities; conserve resources; minimize adverse effects to the environment; and improve occupant productivity, health, and comfort.

The constructed facility must meet the intent of Guiding Principles. Refer to UFC 1-200-02, High Performance and Sustainable Building Requirements for requirements.

If applicable, describe any special design challenges. Identify the most difficult site and project specific issues in the design solution for this project.

If required, describe any need for flexibility for change of use or any adaptability for future expansion
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**[ 2.1 APPLICABLE CODES AND STANDARDS**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Use this bracketed option to include additional codes and standards that are not appropriate to list in Part 4 because they are not applicable to all projects.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

In addition to the codes and standards listed in Part 4, the design and construction must be in accordance with the latest revision/edition of the following referenced codes and standards. The term "Latest Revision/Edition" is defined as the version as of the project award date.

[1. Regional Standard:\_\_\_\_\_.]

[2. State Standard\_\_\_\_\_.]]

**2.2 SUSTAINABLE DESIGN**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: All NAVFAC projects are subject to sustainable design criteria. RFP preparer must edit and incorporate UFGS Section 01 33 29Sustainability Requirements and Reporting and associated requirements into this project.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Design and construct project per sustainability requirements identified in Section 01 33 29, *Sustainability Requirements and Reporting*. Additional specific sustainability requirements are found in this document.

**2.3 STORMWATER MANAGMENT - LOW IMPACT DEVELOPMENT (LID)**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: UFC 3-210-10, *Low Impact Development*, complies with DoD Policy on Implementing Section 438 of the Energy Independence and Security Act (EISA) dated 19 January 2010. The project footprint consists of all horizontal hard surfaces and disturbed areas associated with the project development, including both building area and pavements (such as roads, parking, and sidewalks.) These requirements do not apply to internal renovations, maintenance, or resurfacing of existing pavements.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Provide a design that incorporates low impact development strategies complying with UFC 3-210-10, *Low Impact Development*. For Navy and Marine Corps projects, comply with Navy LID Policy (commonly referred to as the Penn Memo). The Navy LID policy sets a goal of no net increase in stormwater and sediment or nutrient loading from major renovation projects and construction projects. Major renovation projects are defined as having a storm water component and exceeding $5 million and major construction projects are defined as exceeding $750,000.

If the project footprint exceeds 5000 SF (464.5 SM) and does not maintain the predevelopment hydrology to the maximum extent technically feasible (METF), these constraints must be documented on the NAVFAC LID Data Card (NLDC) and approved by the Government's civil reviewer. The NLDC can be found at: <http://www.wbdg.org/pdfs/NAVFAC_LID_Data_Card_v2.0.pdf> . If LID is not implemented to the METF as defined in UFC 3-210-10, *Low Impact Development,*a waiver must be obtained from the Regional Engineer. Coordinate waiver review and approval with civil Technical Discipline Coordinator (TDC). LID Waiver Form can be found at: <http://www.wbdg.org/docs/NAVFAC_LID_Waiver_Form_v3.doc> .

These policies are in addition to State or Local storm water management program permit requirements. The DOR must balance all applicable requirements, Federal, State, Local and the above stated policies, and acquire required regulatory permits when managing stormwater generated.

**2.4 CYBERSECURITY**

All control systems (including systems separate from an energy management control system) must be designed, acquired, and executed in accordance with DoD Instruction 8500.01, DoD Instruction 8510.01, and as required by individual Facilities Engineering Command (FEC) or installation implementation policy.

Incorporate ICS Security Controls located in NIST 800-82, Appendix G, Table G-1.

**3.0 SITE ANALYSIS**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTES: Describe existing site conditions:
 Natural Constraints (such as topography, vegetation, drainage, subsurface and groundwater conditions, natural resources).
 Manmade Site Conditions (such as roads, utilities, existing buildings, hazardous materials, contaminated soil, archeological and historical resources).

Drawings, field investigation reports for hazardous materials and substances, and other supplementary information can be included in Part 6 of the RFP.

Describe site development requirements such as:
 Building footprint
 Vehicular & Pedestrian Access and Circulation
 Parking
 Landscaping
 Utilities
 Signage
 Site Drainage & Storm Water Runoff
 Dewatering
 Site / Building Demolition
 Site Clearing
 Permits
 Sustainable Development
 ATFP
 Minimizing potential adverse impacts on operations of the facility or adjacent facilities
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

 [\_\_\_\_\_]

**3.1 EXISTING SITE CONDITIONS**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTES: This template is applicable to designs involving relatively small structures/additions, site preparation or improvements (such as pavement design/repairs, utility improvements, stormwater management ponds) that require limited subsurface investigation or evaluation. This limited investigation typically includes test pits, hand auger borings, corings, proof rolling and laboratory analysis of surface soils. Evaluation is typically the analysis of any Government provided data and any additional data required to support the design. Projects that warrant subsurface investigation/evaluation and an in-depth written report include – a) where deep (pier or pile) foundations are anticipated; b) where the load capacity capability of the soil is in doubt; c) where loadings or vibrations from new or adjacent structures/equipment may result in unacceptable settlement of new or existing work; d) in areas of known or suspected expansive soils (prevalent in south and southwest United States) or soils prone to liquefaction; e) in areas where rock/karst-like formations are expected to be encountered; f) where site conditions require site preparation involving significant amounts of excavation/fill, result in relatively steep slopes, or require significant amounts of dewatering. Exception to this is when, in the opinion of a professional engineer, the Government has satisfactory data from the project vicinity that demonstrates that additional investigation is not necessary.

If more than a limited soil investigation/evaluation is required to support the design and construction, the RFP must state such and the Standard Design-Build Template sections A10, G10 and G20 must be edited for use.

If a soil investigation/evaluation and written report are not required to support the design and construction, the RFP must include applicable design assumptions and data from the project vicinity that demonstrates that additional investigation is not necessary.

Coordinate the verbiage in "Existing Site Conditions" with Chapter 6 Engineering System Requirements, "Section A10 – Foundations".
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

The site is [located on][bounded by][\_\_\_\_\_]. It is [open][wooded] and contains [an existing building][\_\_\_\_\_]. Existing utilities include water lines, sanitary gravity sewer main, [sanitary pump station], [sanitary force main], storm sewer, [steam], [overhead][underground] electric and underground telephone.

Geotechnical Data: [Subsurface and groundwater conditions are described in Part 6 of the RFP.]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: If it is anticipated that no additional subsurface investigation is required, use the following:
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[The Government provided geotechnical data is considered to represent subsurface conditions existing on the project site. No additional investigation is required. ]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: If it is anticipated that a limited amount of additional subsurface investigation is required, use the following:
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Any Government provided geotechnical data is included for the Contractor’s information only, and while it is considered to represent subsurface conditions existing on the project site anticipated at this time, it is not guaranteed to fully represent all subsurface conditions. The Contractor will be responsible for providing the services of a geotechnical engineer to conduct any subsurface exploration, investigation, testing, and analysis that the Designer of Record deems necessary for the design and construction of the proposed facility and site improvements. The geotechnical engineer must be registered as a Professional Engineer (Geotechnical Engineer where required by law) and experienced with soil conditions in the region where the project site is located. The geotechnical engineer must prepare a report addressing any elements of the work requiring his services. The report must be submitted to the Contracting Officer accompanied by a letter from the Designer of Record certifying that the Geotechnical Engineer has reviewed the construction documents and that the design reflects the recommendations of the geotechnical report.]

**3.2 SITE DEVELOPMENT**

**Vehicular Access and Circulation**

This project will require an entrance road from [\_\_\_\_\_].

**4.0 BUILDING REQUIREMENTS**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTES:
4.1 Space Tabulation**
Such as summary listing of required spaces.

**4.2 Space Relationships**
Such as bubble diagrams, adjacency matrices, or block diagrams to explain functional relationships. Include narrative that explains adjacencies and organizational concepts.

Identify if project or certain portions will require DoD/ABAAS compliance.

**4.3 Exterior Character**
Describe or illustrate the desired requirements for exterior appearance, such as Installation Appearance Plan (IAP) or Base Exterior Architecture Plan (BEAP).
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

**5.0 ROOM REQUIREMENTS**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: If the project complexity requires additional definition which cannot be adequately defined by the Chapter 6 ESR Sections, utilize Part 3 of the Standard Design-Build Template in conjunction with a single-source negotiated or a standard contract vehicle.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Not used.

**6.0 ENGINEERING SYSTEMS REQUIREMENTS (ESR)**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Use the following ESR items to develop the project requirements.

If sufficient information is not in this document, use the applicable information from the PTS, ESR, and UFC posted on the Standard NAVFAC Design-Build Master (NDBM) Template located on the Whole Building Design Guide web site (**[**www.wbdg.org/ndbm/**](http://www.wbdg.org/ndbm/) **) to develop the project requirements.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

A10 Foundations
 A20 Basement Construction
 B10 Superstructure
 B20 Exterior Closure
 B30 Roofing
 C10 Interior Construction
 C20 Stairs
 C30 Interior Finishes
 D10 Conveying Systems
 D20 Plumbing
 D30 HVAC
 D40 Fire Protection Systems
 D50 Electrical Power and Lighting
 E10 Equipment
 E20 Furnishings
 F10 Special Construction
 F20 Selective Building Demo
 G10 Site Preparations
 G20 Site Improvements
 G30 Site Civil/Mechanical Utilities
 G40 Site Electrical Utilities

**A10 FOUNDATION**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: If a soil investigation/evaluation and written report are not required to support the design and construction, the RFP must include the applicable design assumptions. Design assumptions provided must include the frost depth, the gross allowable soil bearing pressure, any limitations on footing size, and a description of the subsurface conditions (soil and groundwater depth) expected to be encountered. A soil boring or test pit log is preferred to be shown.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Maximum gross allowable soil bearing pressure: \_\_\_\_\_[kPA] [ksf].]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Determine the frost penetration depth from UFC 3-301-01, *Structural Engineering*.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Frost penetration: Frost penetration depth: \_\_\_\_\_[mm] [in.].

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Retain bracketed item below if more than a limited soil investigation/evaluation is required to support the design and construction.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

 [Refer to Standard Design-Build Template section A10, included in Part 5 of this RFP.]

**A20 BASEMENT CONSTRUCTION**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Basement construction is not usually required for small projects. If required, retain the following.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Provide basement construction in accordance with UFC 3-301-01, *Structural Engineering*. Basement walls include exterior walls below the ground floor level of the building, including walls that are below grade, elevator pits and other pits. Provide basement walls constructed of [cast-in-place concrete] [precast concrete] [or] [masonry]. Provide waterproofing [and insulation] of basement walls.]

**B10 SUPERSTRUCTURE**

The structural system must be designed using the following parameters:

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Determine the occupancy category from IBC Table 1604.5. For special occupancies that are unique to the military (Occupancy Category V), refer to UFC 3-301-01, *Structural Engineering*. The occupancy category will establish the Importance Factors for wind, snow, and earthquake loads.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**Risk Category**: [I] [II] [III] [IV] [V].

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: For live loads refer to UFC 3-301-01, *Structural Engineering*. For special loading conditions not specified in UFC 3-301-01, *Structural Engineering*refer to Standard Design-Build Template ESR A10 for a template for specifying loads. For live loads, refer to UFC 3-301-01, *Structural Engineering*. For these projects, refer to Standard Design-Build Template ESR A10 for a template for specifying loads. Loads must be specified wherever the loading information is most appropriate - usually in Section A10-Foundations or B10-Superstructure.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**Live loads**: In accordance with UFC 3-301-01, *Structural Engineering*.

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Determine the design wind speed, ground snow load, and seismic parameters from UFC 3-301-01, *Structural Engineering*. Determine the wind exposure category from IBC Paragraph 1609.4. Determine the snow exposure category from ASCE 7-10 Table 7-2.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**Wind loads**: Design wind speed: \_\_\_\_\_[kph] [mph]; Exposure category [A] [B] [C] [D].

**Snow loads**: Ground snow load: \_\_\_\_\_[kPa] [psf]; Roof exposure: [Fully exposed] [Partially enclosed] [Sheltered].

**Earthquake loads**: Mapped seismic acceleration parameters: SS:\_\_\_\_\_; S1:\_\_\_\_\_.

**B20 EXTERIOR ENCLOSURE**

 **B2010 EXTERIOR WALLS**

[The primary exterior material of the building[s] will be [brick masonry] [[split-faced] [glazed] concrete masonry] [prefinished [insulated] metal panels] [metal [sheet] [prefabricated] panel with [exposed][concealed] fasteners.] [stucco] [exterior insulation and finish system (EIFS)] [cast-in-place concrete] [precast concrete] [wood siding] [vinyl siding] [manufactured faced panels system] [concrete masonry unit][to match existing adjacent structures][on the base].

[Match existing concrete and masonry wall fenestration detailing from [adjacent structures][Building \_\_\_\_\_].

[Brick masonry details must be consistent with the existing adjacent building[s].]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Consider the following paragraph for residential construction as a way of increasing the visual appearance at a reasonable cost.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Provide a minimum of [50 %] of the front elevation of housing with brick masonry.]

[EIFS may be used as the exterior wall finish material only as a repair or when required to match adjacent structures. Approval to include EIFS in a RFP must be obtained by the appropriate FAC/FEC].

[Back-up wall system for veneer construction will be [concrete masonry] [or] [metal framing] [or] [wood framing.]Provide Exterior Wall Construction System (back-up systems for wall veneer) including [cast-in-place concrete] [pre-cast concrete] [unit masonry] [metal framed] [wood framed] [sheathed] wall systems [with insulation] when integral with [shop fabricated wall systems] [expansion control] as described below:

[Exterior bearing walls consisting of metal studs as the primary floor or roof supporting structural element are not permitted.] [Provide load-bearing metal framing including top and bottom tracks, bracing, fastenings, and other accessories necessary for complete installation. Framing members shall have the structural properties indicated. Where physical structural properties are not indicated, they must be provided as necessary to withstand all imposed loads. Design framing in accordance with AISI SG-673. Installation must be in accordance with DOR-approved shop drawings and manufacturer’s installation instructions.]

[Provide parapets for exterior wall construction, where required for low-slope roofs].

**Vapor Retarder, Air Barrier and Insulation**
Provide continuous insulation, vapor retarder and air barrier to exceed requirements of UFC 3-101-01 Architecture and ASHRAE 90.1 per the project's energy savings requirements.

[Confirm building envelope thermal performance with infrared thermography testing described in RFP Part 4.]

[Confirm air barrier compliance with air barrier performance testing described in RFP Part 4.]

**Exterior Louvers & Screens**
Provide exterior louvers and screens, where required, that match the finish of the [existing] windows and are detailed to integrate with the architecture of the building, as appropriate to the design of the building.

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Use the following where the building will be subject to hurricane force winds, or where extra storm protection would be desirable.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Provide storm shutters for all exterior windows [and doors]. Provide [manually] [electrically] operated roll shutters.]

**Balcony Walls & Handrails**
[Balcony walls must match the exterior walls of the building.] Provide complete [concrete] [masonry] [metal] or [wood] balcony walls and [non-corrosive metal] [wood] [glass] railing systems including anchors and attachment sleeves and fasteners. [Railing must be ornamental to harmonize with the existing railing of the existing building.]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Use a cement board soffit for low cost residential construction, when budget is the sole criteria.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**Exterior Soffits**
[Provide [metal] [vinyl] [cement board] exterior soffit system.]

**Exterior Coatings**
Provide field applied exterior coatings for all items that are not prefinished, and to prefinished items when required to provide a color other than a standard prefinished color. All paint must be in accordance with the Master Painter Institute (MPI) standards for the exterior architectural surface being finished.

**Joint Sealants**
Provide exterior application of joint sealants to seal joints and prepare for finish material installation.

**Sun Control Devices (Exterior)**
[Provide [fixed] [horizontal] [vertical] [operable] [demountable] type. Sun control devices must be detailed to integrate with the architectural wall system.]

**Screen Wall**
[Provide screen walls where required to screen mechanical units, electrical substations, loading docks, and trash receptacles. Screen walls must be compatible with the building architecture. Rooftop mechanical screens must be designed to minimize roofing penetrations.]

 **B2020 EXTERIOR WINDOWS**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Typically, aluminum windows shall be used on military facilities. Plastic and vinyl or aluminum-clad wood windows do not meet antiterrorism standards. Even if a building is not being brought up to antiterrorism standards completely, a window replacement project shall include antiterrorism compliant windows.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[As much as practical, windows must be provided in each area of the building that is regularly occupied, to enhance the working environment, without compromising visual acuity and comfort.] [Natural daylighting is [not] preferred, except at the entry and \_\_\_\_\_.] [Exterior windows are not permitted.] Exterior windows must be [prefinished aluminum] [plastic] [vinyl or aluminum-clad wood] [primed and painted wood]. New window installations and planned window replacement projects must meet antiterrorism requirements. Provide windows meeting thermal performance required by RFP Part 4.

**Windows**
Windows must be [aluminum] [ plastic, or wood] [operable] [fixed]. [Operable windows must be provided with an integral insect screen.]

[Provide a mockup of one combination window unit for the project [to be used for a field mockup test of compliance with AAMA 502 Method A and Method B]]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: UFC 4-024-10, Security Engineering to Resist Forced Entry, is in preparation to replace Mil Hdbk 1013/A.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**Storefronts**
Storefronts must be [aluminum] [steel] [wood].

**Exterior Glazing**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Typical colors for exterior glazing are gray, bronze, green or blue.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Use Section B202004 of the Standard Design-Build Performance Technical Specifications to specify spandrel glass, spandrel glass with adhered backing, plastic glazing, bullet-resisting glass, bullet resisting plastic sheet, acrylic glazing, polycarbonate glazing, and operable tray pass-through windows.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Glazing color must [match existing adjacent buildings] [be \_\_\_\_\_\_]. Where bullet resistant glazing is required the materials must be listed by UL ABPMED as bullet resisting, with a power rating of [Medium--Small Arms] [High--Small Arms] [Super--Small Arms] [High--Rifle] in accordance with UL 752.]

Glazing must be [clear glass] [heat absorbing glass][wireglass][insulating glass units][laminated glass][tempered glass][bullet resisting glass][patterned glass][spandrel glass][spandrel glass with adhered backing][plastic glazing][bullet resistant plastic sheet][acrylic sheet glazing][polycarbonate sheet glazing][and][or][fragment retention film for glazing in existing projects where the windows are not to be replaced].

 **B2030 EXTERIOR DOORS**

Provide solid door assemblies other than at the main entrance. Exterior doors and frames must be non-corroding [prefinished] [galvanized steel] [prefinished aluminum] [prefinished stainless steel] [prefinished bronze]. [Glazing must match the window glazing.] Provide doors meeting thermal performance required by RFP Part 4.

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Performance Level is determined by frequency of use: By ASTM A250.8 (SDI-100) Performance Level C is 250,000 cycles; Level B is 500,000 cycles, Level A is 1,000,000 cycles.

Model 1 is full flush, model 2 is seamless, model 3 is stile and rail.

Door levels for various locations must be determined in accordance with the following list and sound judgment.

Closet doors (without locks) Level 1
Individual offices, storage rooms, classrooms, patients' rooms, bathrooms, and bedrooms (except BEQ bedrooms) Level 2
BEQ sleeping room entrance doors and interior egress doors Level 3
Exterior Main entrance and circulation doors and other locations Level 4
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Doors must be [Standard Duty Doors - Level 1, physical performance Level C, Model [1] [2] for [type of door]] [Heavy Duty Doors - Level 2, physical performance Level B, Model [1] [2] for [type of door]]] [Extra Heavy Duty Doors Level 3, physical performance Level A, Model [1] [2] [3] for [type of door]]] [Maximum Duty Doors -–, Level 4, physical performance Level A, Model [1] [2] for [type of door]].]

Door hardware finish must be [chrome-plated brass or bronze, or stainless steel] [brass or bronze].[ Existing locks were manufactured by [\_\_\_\_\_] and [do not] have interchangeable cores.]

**Solid Doors**
Provide solid steel door assemblies other than at main entrance including [painted] [prefinished] heavy-duty, non-corroding, [insulated] doors with [frames] and hardware. Wood doors must have hardwood veneers, must be [rotary cut][book matched[]random match only for veneer on painted doors]. Edge bands must be wood. Openings in exterior flush doors must be flashed with [aluminum] [bronze] [copper] flashings at the bottom of the openings. Also provide [louvers] [and] [accessories] and wall opening elements such as [lintels] [sills] and [flashings].

**Glazed Doors**
Glazed Doors - Provide Exterior Glazed Doors and Entrances System including [factory-finish] [painted] [wood framed] [all glass] [aluminum framed] [steel framed] [stainless steel framed] [bronze framed] door assemblies with [insulated], [tinted] [glazing], frames, and hardware [compatible with other buildings on the base] and wall opening elements such as lintels, sills, through-wall flashings, and joint sealers.

**Overhead and Roll-up Doors**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: NAGDM 102 designates doors as follows:

1. Residential. Intended for use in residential garage, normally operated less than 1,500 cycles per year.

2. Commercial. Intended for vehicular use at entrances of commercial buildings such as loading docks and service stations, normally operated less than 5,000 cycles per year.

3. Industrial. Intended for vehicular use at entrances of parking garages, factories, and manufacturing plants, normally operated in excess of 5,000 cycles per year.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Overhead [and] [roll-up] doors must be NAGDM 102 [Residential] [Commercial] [Industrial] designation.

Doors for [automobile entrances] [\_\_\_\_\_] must be [sectional overhead type] [or] [rolling service type]. Doors must have [manual] [automatic] operation. Doors must be operated [by lifting handles] [by hand chain with gear or sprocket reduction] [by hand crank with gear or sprocket reduction] [by three-button electric power conforming to NEMA MG 1, NEMA ICS 1, NEMA ICS 2, and NEMA ICS 6. with auxiliary hand chain operation.

**Gates**
Any special gate type used in the exterior wall or exterior skin of the building.

**Exterior Door Hardware**
[Provide the services of a certified door hardware consultant to prepare the door hardware schedule.]

[Provide hardware keying compatible with the existing base-wide [\_\_\_\_\_] keying system.] [Replacement interchangeable cores must be compatible with the Best Lock system.]]

[For [\_\_\_\_\_] [module entries for BEQ], provide lithium battery powered, [magnetic stripe] [\_\_\_\_\_] keycard locksets.]

**B30 ROOFING**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Specify roofing and insulation system meeting project's durability, energy conservation and appearance goals.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Provide a complete new insulated roof system design and construction services for the entire facility roof system, and including all necessary ancillary and incidental work necessary for a complete, new, watertight roof system installation.]

 **B3010 ROOF COVERINGS**

[Remove the existing asphalt shingles and building felt. Provide new felt and ice and water shield.] [Reroof the building with architectural grade, minimum [240 #] [\_\_\_\_\_#] asphalt/fiberglass shingles.]

[Remove all the existing roofing and flashing down to the deck. Properly dispose of the demolished materials in a landfill [not] on the military installation.

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: 1) The RFP writer must identify the type of roof deck. If the condition or extent of damage to the existing deck cannot be determined; the RFP writer must make an assumption of the amount of deck replacement. Then a plus or minus (+/-) unit cost for replacement must be included in the Roofing contractor's bid amount.

2) Where there is an existing lightweight insulating concrete deck, the RFP preparer will examine areas where the roof has been leaking or there were suspected leaks in the past. Preparer will determine if there is adequate pullout resistance in those areas, and put a price line item in for removal and repair of damaged deck.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[The existing roof deck is [wood][metal][lightweight insulating concrete][cementitious wood fiber][\_\_\_\_\_].] [It is suspected that there is damaged existing roof deck].

[Mechanical fastening of the new roof system into a concrete deck is prohibited.]

[The existing roof deck is lightweight insulating concrete. [The Navy will direct the contractor to areas where there is suspected possible water damage to the existing deck.] [The contractor must investigate the soundness of the deck by performing pullout tests for mechanical fasteners. If the tested area does not require a 40# pull, roof deck will have to be replaced.]

[Assume the project will require the replacement of approximately [10%] [\_\_\_\_\_%] of the existing [wood] [metal] [lightweight concrete] roof deck.] [Include in your roofing price the line item for the repair/replacement [of \_\_\_\_\_%] of damaged roof deck.] [The quantity of deck replacement will be determined during the scope negotiations.]

[For [new] [reroofing] Low Slope Roofing (less than 3 in 12) construction the roof system must be [[three-ply asphalt built-up roof with aggregate surface or granular surface modified bitumen cap sheet] [Modified Bitumen 3-ply roof with granule surface (Mod bit base sheet, Mod bit inner ply sheet, Mineral granular cap sheet)] [Architectural][Structural] standing seam metal roof].

[The existing low-slope (less than 3 in 12 pitch) roofing systems to be repaired or extended is [modified bitumen system] [EPDM system] [Structural Standing Seam Metal Roof].]

[High slope roofing (3 in 12 pitch or greater) to be replaced may be [Architectural Standing Seam Metal Roofing] [Asphalt shingles where it is necessary to match an existing roof].]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: EPDM single ply roof systems may be used only to match existing construction.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[In new construction decks for single ply and multiple ply roofing systems must slope a minimum of 1/2 inch per foot. Slope for roof decks must be accomplished by sloping the structure.]

[Re-roof systems over existing construction may slope a minimum of 1/4 inch per foot when slope must be accomplished with a tapered insulation system.]

[Provide all new insulation, roof membrane, membrane flashing, sheet metal flashing materials, and accessories and incidental work necessary for a complete, new, watertight modified bitumen roof system installation.]

[Insulation system above roof deck must be minimum R-20 where over environmentally interiors, but no less than that required by ASHRAE 90.1, Chapter 5 for project climate zone]

[Provide new two-ply granule-surfaced modified bitumen roof membrane system or three-ply asphalt built-up roof with granule surface modified bitumen cap sheet, complying with requirements of Standard Design-Build Template PTS B30 and referenced criteria and standards therein. All membrane flashing must be two-ply modified bitumen flashing. When applied over nailable deck systems (i.e., metal or wood) roof system must include mechanically fastened modified bitumen base sheet in addition to two-ply modified bitumen membrane.]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: The coating on the Energy Star acrylic coated reflective top sheet must be recoated every 6 to 9 years.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Coat the Modified Bitumen cap sheet with Energy Star reflective acrylic roof coating].

Exposed sheet metal items must be of the same material. Consider the following as exposed sheet metal: gutters, including hangers; downspouts; gravel stops and fascias; cap, valley, steeped, base, and eave flashings and related accessories.

[Gravel stops and fascias on low slope built-up, modified bitumen, and single-ply roofs less than 2:12 in slope shall conform to the requirements of ANSI/SPRI ES-1. This requirement does not apply to gutters.]

 **B3020 PERFORMANCE REQUIREMENTS**

The installed roof system must be watertight; free of defects in materials and workmanship; free of damage, including blisters, delaminations, cuts, scratches, abrasions, and patchwork; provide for positive drainage of the roof surface area; and suitable for the climatic and service conditions of the installation.

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Select first bracketed option below, unless project is matching an existing roof for which criteria cannot be met. Note that reflectance/emittance-compliant options are available for most roofing selections including dark colors. If a cool roof is not selected in climate zones 1-3, meet one of the exception requirements listed in ASHRAE 90.1 Chapter 5 or provide thermal insulation above the deck with an R value of 33 or greater.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Provide roof system with solar reflectance, thermal emittance and total thermal performance as prescribed by ASHRAE 90.1, Chapter 5 for project climate zone and as required by other project sustainability goals.]

[The project is an addition to an existing building, and the roof system of the addition must match the roof of the existing building, which is \_\_\_\_\_\_.][ Provide thermal insulation above the deck with an R value of 33 or greater]

 **B3030 WIND UPLIFT AND FIRE RESISTANCE REQUIREMENTS**

The roof system must be designed and attached to resist wind uplift pressures calculated in accordance with ASCE 7. Uplift resistance must be validated by applicable Factory Mutual (FM) uplift testing, or calculations based on standard engineering practice and applicable recommendations of FM.

Sheet metal perimeter and flashing components must be designed, attached, and installed to provide for wind resistance equivalent to or greater than that required for the roof membrane system, and in accordance with FM, NRCA, or other applicable industry standard recommendations. Gravel stops and fascia on low slope built-up, modified bitumen, and single-ply roofs less than 2:12 in slope must conform to the requirements of ANSI/SPRI ES-1.

The roof system must provide Class A or Class B fire resistance, as tested by standard ASTM, FM, or UL procedures.

 **B3040 ROOF WARRANTY**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Review warranty information in Standard Project Template. Adjust warranty for material. Example: asphalt shingle material warranty is 30 years.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Provide a manufacturer no-dollar-limit 20-year watertightness warranty for the total roof system, including flashings, in accordance with referenced requirements of Standard Design-Build Template PTS B30.

Manufacturer's warranty must provide for full removal and replacement of failed, defective, and damaged roof system materials or installation workmanship in the event of water intrusion into or through the roof system, and repair of defects such as blistering, delamination, open seams, cracking, splitting, and excessive weathering. Warranty for corrective action must not be limited in dollar value.

Provide minimum two-year contractor warranty against defects in installation workmanship in accordance with referenced requirements of Standard Design-Build Template PTS B30. Contractor warranty must provide for full removal and replacement of failed or defective workmanship and damaged materials, including sheet metal flashings.

 **B3050 ROOF SPECIFICATION AND DETAILING**

All work, materials, installation and details must be in accordance with Standard Design-Build Template PTS B30 and comply with all applicable Unified Facilities Guide Specification (UFGS) materials and installation requirements. UFGS's are referenced in PTS B30 and are available at www.wbdg.org/ffc/dod/unified-facilities-guide-specifications-ufgs . Provide for complete rough carpentry, roof insulation, roof covering, sheet metal flashing, and other components necessary to complete the installation.

Utilize the applicable UFGS for development of the roof membrane specification. Edit for application to the specific project and compliance with the RFP. Provide complete rough carpentry, roof insulation, and sheet metal flashing specification sections coordinated and compatible with the membrane specification.

All details must be in accordance with recommendations and guidelines of the National Roofing Contractors Association (NRCA) Roofing and Waterproofing Manual and Construction Details and as required by the RFP.

The roof system must comply with the applicable requirements of the International Building Code. Refer to UFC 3-110-03, *Roofing*, and UFC 3-101-01, *Architecture*for additional technical requirements for the roof system to be installed.

 **B3060 ROOF DESIGNER REQUIREMENTS**

Provide materials specification, installation requirements, and system detailing to include all flashings, penetrations, closures, corners, intersections, terminations, transitions, interfaces, joint, and lap conditions to provide for a watertight installation.

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: If the roofing project is significant (Significant Roof – A single or group of buildings greater than 1,400m2 (15,000 sf)), or where extenuating circumstances of the roof project such as building use, content, safety, and visibility, require a roofing consultant, the Contractor must utilize the services of a Registered Roof Consultant (RRC) certified by the Roof Consultant Institute, or a Registered Professional architect or Engineer who specializes in roofing, to approve the roof design. The roof consultant must be engaged in roofing design and roofing construction as his primary endeavor. The roof consultant must verify in writing that the design for the project is in accordance with the current edition of NRCA Roofing and Waterproofing Manual, UFC's, and RFP, and standard industry practices and building codes.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[The Contractor must utilize the services of a Registered Roof Consultant (RRC) certified by the Roof Consultants Institute, or a Registered Professional Architect or Professional Engineer either of which is knowledgeable and experienced in roof investigation, inspection, and design and specializes in roof design and roof consulting services. The consultant must be thoroughly familiar with the field conditions and prepare the design or provide design review and approval prior to design acceptance by the Contracting Officer. The consultant must validate in writing familiarity with field conditions and that the design for the project is complete, in accordance with the RFP, and provides for a complete and effective roof system solution and design.]

 **B3070 QUALITY CONTROL PROGRAM**

Contractor must establish a quality control program to assure adherence to the RFP design and construction requirements and to report on the installation quality.

**C10 INTERIOR CONSTRUCTION**

 **C1010 PARTITIONS**

**Fixed Partitions**
Provide fixed interior partitions, except where demountable or retractable partitions are specifically required. Sound-rated partition assemblies must have a minimum Sound Transmission Coefficient (STC) of [36] [42] [\_\_] in accordance with ASTM E 90 or ASTM E 413 for frequency data.

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Consider one of the following sentences, or create your own, to describe the interior partitions of the facility. The paragraph provides options for concrete masonry, concrete, metal studs or wood stud partitions. Concrete masonry and concrete are appropriate for a barracks, industrial facility, or where durability is required. Wood studs are appropriate for housing or new construction under 5000 square feet.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Interior fixed partitions must be [concrete masonry.] [cast-in-place concrete[(concrete mixture must provide an average compressive strength of [20,680 kPa (3000 PSI)] [\_\_\_\_\_] and meet or exceed ACI 301/301M.]] [metal studs with gypsum board on each side.] [metal studs with impact rated gypsum board on each side] [wood studs with gypsum board each side.],[and] [or] [Glass masonry units to transmit [75] [\_\_] percent light.]

**Demountable Partitions**
[Demountable partitions are required in the following spaces: [\_\_\_\_\_]. Demountable partitions include [sound rated,] full height (floor to ceiling) solid partitions [and] [wire mesh partitions]. Sound-rated partition assemblies must have a minimum Sound Transmission Coefficient (STC) of [36] [42] [\_\_] [Extend wire mesh partitions meant for security purposes to the structural ceiling, or provide a wire mesh ceiling.] [Provide structural support for demountable partitions]. Majority of the components and hardware must be provided by a single manufacturer and on the manufacturer's current GSA pricelist. Product must be included on the NAVFAC Selection Tool for Movable Walls.

**Retractable Partitions**
[Retractable partitions are required in the following spaces: [\_\_\_\_\_]. Provide retractable partitions to include [operable panel partitions] [and] [accordion folding partitions]. Sound-rated partition assemblies must have a minimum Sound Transmission Coefficient (STC) of [36] [42] [\_\_]. Provide structural support for retractable partitions].

**Interior Windows**
Provide interior windows of [aluminum] [wood] [plastic] [hollow metal] [bullet resisting metal], [fixed][or][operable].

**Glazed Partitions & Storefronts**
[Provide glazed storefront system.]

**Interior Glazing**
Interior glazing must be clear glass, [wire glass,] [patterned glass,] [laminated glass,] [bullet resisting glass,] [tempered glass,] [plastic glazing.]

 **C1020 INTERIOR DOORS**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Consider one of the following sentences, or create your own, to describe the interior doors of the facility. Stile and rail wood doors are appropriate for residential applications or where required to match existing doors.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Provide wood interior doors except where metal doors are required for durability or to meet fire ratings. [Interior doors not required to be metal must [be [flush] [Stile and rail] wood][match the appearance of the existing doors].] [Veneer for flush doors must be [*insert species*] in [*veneer match*].]. [Closet doors must be [hinged] [sliding] [bi-folding].

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Wood door frames are only acceptable in residential construction.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[All interior door frames must be [hollow metal] [wood].]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Wood veneers must be hard- or softwood veneers cut for the best presentation for natural finishing of doors. Only use random match with opaque painted doors.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Wood Door Factory Finish: High quality - Conversion varnish alkyd urea; highest quality - catalyzed polyurethane, or acrylated UV curable epoxy. Field finish must be as shown in Standard Design-Build Template PTS C30.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Doors must have [Factory Finish of AWI Quality Standards Section 1500, specification for [Conversion varnish alkyd urea] [catalyzed polyurethane] [or] [acrylated UV curable epoxy] [field finish]

[Provide vision glazing in doors where it is required by this RFP, or it is deemed advantageous to be able to see through the door, either for safety of pedestrian traffic, or other functional reason.]

**Interior Door Hardware**
Provide the services of a Certified Door Hardware Consultant to prepare the door hardware schedule.

[Provide special door hardware, such as [combination locks] [card key system] at [\_\_\_\_\_]

[Provide hardware keying compatible with the existing base-wide [\_\_\_\_\_] keying system.] [Replacement interchangeable cores must be compatible with the Best Lock system.]]

 **C1030 SPECIALTIES**

**Compartments, Cubicles, & Toilet Partitions**
[Provide toilet partitions in all toilet rooms with more than one water closet or urinal.] Toilet partitions and screens must be [painted metal] [stainless steel] [high density polyethylene/solid plastic] [plastic laminate] [metal laminate].

**Toilet and Bath Accessories**
Contractor to confirm toilet and bath accessories conform to facility/client requirements and janitorial contracts.

[Provide toilet and bath accessories including [toilet paper holder][soap dispenser][ ][trash receptacle/paper towel dispenser: convertible automatic universal, roll paper towel dispenser and 12-gallon waste receptacle module.][sanitary napkin disposal unit][ electric hand dryer: wall mount touch less, high speed, energy efficient electric hand dryer. ABS plastic shell in silver finish. 120V/60Hz power supply. Dry time 10-12 seconds.] ]

**Marker Boards and Tack Boards**
[Provide marker boards and tack boards.]

**Signage**
All interior doors must have an identifying device per UFC 3-120-10, *Sign Standards*.

**Lockers**
Provide lockers [with special bases of [\_\_\_\_]. Lockers must be [wire,] [metal construction and enamel finish,] [high density polyethylene/solid plastic,] [or] [plastic laminate].

**Shelving**
[Provide [steel utility] [plastic laminate clad] shelving.]

**Fire Extinguisher Cabinets and Fire Extinguishers**
[Provide fire extinguisher cabinets and fire extinguishers where required by UFC 3-600-01, *Fire Protection Engineering for Facilities*, and the building / fire codes. Coordinate size and Class of fire extinguishers with local Fire Department.]

**Counters**
Provide [solid plastic] [plastic laminate] [wood,] [stone,] or [stainless steel,] counter tops and back splashes.

**Cabinets**
Provide cabinetry and millwork items with associated accessories and hardware. Cabinetry must be AWI [premium][custom] grade and have concealed hinges with adjustable standards for shelves. All exposed surfaces will be [covered with high pressure plastic laminate clad,] or [hardwood veneer with exposed edges of solid hardwood].

**Casework**
Provide all built-in premanufactured metal cabinetry for specialized functions such as laboratories, libraries, medical and dental facilities.][Casework must comply with Mil Std 1691.

**Closets**
Provide [premanufactured millwork closets] [prefabricated coat closets]

**Firestopping Penetrations**
[Provide all sleeves, caulking, and flashing for firestopping penetrations.]

**Entrance Floor Grilles and Mats**
Provide [recessed pan] [surface] floor mats at [main] [all] building entrances.

**Ornamental Metal Work**
[Provide ornamental [metalwork]

**Other Interior Specialties**
Motorized projection screen must be [wall or ceiling][above ceiling] mounting. [Pull-down projection screens must be provided in lieu of motorized projection screens as approved by the Activity.]

**C30 INTERIOR FINISHES**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Require the contractor to hold a certificate concerning SSPC QP 1 only when industrial coatings are required on large structural members for facilities such as hangars or other large open buildings with exposed structural steel. Name in the project program the surfaces requiring industrial coatings. Painting qualifications for projects such as BEQ's, training facilities, and general administration buildings do not require QP 1 certification.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**SSPC QP 1 CERTIFICATION**
[The Project requires industrial coatings on [\_\_\_\_\_] surfaces. All contractors and subcontractors that perform surface preparation or coating application must be certified by the Society for Protective Coatings (formerly Steel Structures Painting Council - SSPC) to the requirements of SSPC QP 1 prior to contract award, and must remain certified while accomplishing any surface preparation or coating application.]

 **C3010 WALL FINISHES**

[Conceptual Wall Finish Schedule

|  |  |
| --- | --- |
| SPACE | MINIMUM FINISH REQUIREMENT |
| Private Office | [paint][wallcovering][wood] |
| Open Office | [paint][wallcovering][wood] |
| Conference Room | [paint][wallcovering][wood][decorative panel accent] |
| Reception | [paint][wallcovering][wood][decorative panel accent] |
| Kitchen/ Break Room | [paint][wallcovering] |
| Restrooms | [paint][ceramic tile to height of \_\_feet] |
| Lobby/ Entrance | [paint][wallcovering][wood][decorative panel accent]  |
| Executive Office | [paint][wallcovering][wood][decorative panel accent]  |
| Corridors | [paint][wallcovering] |

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Consider one of the following sentences, or create your own, to describe the wall finishes of the facility. The first sentence is applicable to a barracks, or industrial facility, where extreme durability is required.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Unless noted otherwise, all interior gypsum board wall partitions and interior concrete masonry partitions must be painted [and] [provide ceramic tile wainscot in all toilet rooms to a height of \_\_\_\_\_ feet.]

[All interior wall finishes must be as indicated in the Room Finish Schedule.]

 **C3020 FLOOR FINISHES**

Provide floor finish materials to meet the following requirements;

|  |  |
| --- | --- |
| a. Carpet RequirementsCARPET CHARACTERISTIC | MINIMUM CARPET REQUIREMENTS |
| Fiber Surface Color | 100% branded nylon type [6] [6.6] Multi-colored and Patterned |
| Surface Texture | [Loop][Cut/Loop][ Tip-shear][Textured Loop] |
| TARR Rating | Severe 3.5 |
| Dye Method | [Solution Dyed][Yarn Dyed][Piece Dyed] |
| Backing | [Industry Standard][Attached Cushion][Moisture Resistant][Anti-Microbial] |
| Sustainability | NSF 140 2007e Gold |

b. Concrete Floor RequirementsFinish concrete surface smooth enough to meet the minimum requirements of this RFP or the floor finish manufacturer's smoothness requirements, whichever is the most restrictive. Exposed concrete floors that are not required to have an applied floor finish, must receive a minimum of 3 coats of the manufacturer's approved sealer. [Colored concrete floor must be [colored pigment integral to the concrete mix] [applied as a topical dye] [a concrete topping with integral color pigment] [or] [a dry shake pigment application].]

c. Raised Floor RequirementsRaised Flooring must be interchangeable 24"x24" square module panels capable of support design loads. Finish to be [carpet tile- off module][carpet tile- on module][carpet tile- factory attached][static dissipative flooring][concrete]. [Raised flooring locations]. Raised flooring must accommodate [data][electrical][mechanical] systems. Majority of Raised Flooring components to be available on GSA Schedule.

d. Resilient Floor FinishesProvide resilient floor finishes as identified in the Project Program, Room Requirements or as directed below. Include manufacturer's full line of color, texture and pattern selections, including multi-colored materials.1) Resilient Sheet Flooring[Provide resilient linoleum sheet flooring in [areas as indicated] [corridors, child care areas, break rooms, classrooms, storage areas] for floors with high durability, low to moderate maintenance, antistatic and antimicrobial requirements. This product is made from readily renewable, natural raw materials including linseed oil, flour and resin binders double calendared onto natural jute backing. Pattern and color must extend throughout thickness of material. Seal linoleum using manufacturer's recommended sealer for commercial application. A manufacturer's 5-year warranty is required.][Provide resilient rubber sheet flooring in [areas as indicated] [corridors and other high traffic areas] for floors and high durability, low maintenance and high slip-resistance requirements. The rubber sheet flooring must be commercial quality, dimensionally stable, firm, and where and slip resistant, with integral color. Rubber sheet flooring must require no-wax maintenance.][Provide homogeneous vinyl sheet flooring in [areas as indicated] [lab areas, break rooms, kitchens, and other similar areas] requiring flooring with high durability, low maintenance and high stain-resistance. By all sheet flooring shall be commercial quality with minimum wear layer thickness of 0.066 inch (1.6 mm). It must be non-layered, non-backed and included a protective urethane finish for ease of maintenance. Seems must be recess scribed and heat welded. All sheet flooring must require no-wax maintenance.]2) Resilient Tile Flooring[Provide resilient vinyl composition tile (VCT) flooring and [areas as indicated] [corridors, offices, classrooms, break rooms and other similar areas] requiring flooring with moderate durability high maintenance and low cost VCT must be commercial grade, with pattern through thickness of tile VCT with biobased materials or recycled content must be used where practical.][Provide resilient solid vinyl tile, in [areas as indicated] [corridors and other high traffic areas] for floors with high durability, low maintenance, high slip-resistance requirements. Solid vinyl tile must be planks or square tiles with protective urethane finish for ease of maintenance.[30 mil -15 year][40 mil 20-year] warranty is required.[Provide resilient rubber tile in [areas as indicated] [corridors, elevators, ramps, and high traffic areas] for floors with high durability, low maintenance, high slip-resistance requirements. Rubber tile shall be 100% synthetic rubber with through color and slip resistant formulation and surface texture. Include all manufacturer's standard surface textures and patterns. The product must require no-wax maintenance.][Provide resilient athletic rubber tile in [areas as indicated] [weight rooms, fitness equipment rooms] for floors with high resilience. Athletic rubber tile shall be 100% synthetic heavy rubber or recycled crumb rubber tile, 3/8 inch thick minimum. The product must require no-wax maintenance. A manufacturer's 2-year warranty is required.][Provide resilient static dissipative VCT (SDT) flooring in [areas as indicated] [computer areas or areas with sensitive electronics] for floors with high durability, low maintenance, high slip-resistance requirements to control static in the room. SDT must be of commercial grade with through pattern and an antistatic additive, and must be installed according to manufacturer's instructions.][Provide resilient linoleum tile flooring in [areas as indicated] [corridors, child care areas, break rooms, classrooms, storage areas] for floors with high durability, low to moderate maintenance, anti-static and antimicrobial requirements. This product is made from readily renewable, natural raw materials including linseed oil, flour and resin binders double calendared onto natural jute backing. Pattern and color must extend throughout thickness of material. Seal linoleum using manufacturer's recommended sealer for commercial application. A manufacturer's 5-year warranty is required.]

e. Tile Floor FinishesProvide epoxy grout for all tile finishes[[Glazed][Unglazed] Ceramic Tile ][Porcelain Tile][Quarry Tile]

f. BaseWall base must be [top set] or [cove] [rubber] or [vinyl], [flat] or [decorative] throughout.

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* NOTE: Indicating the Interior Finishes in the RFP Part 5, "Room Requirements" is the best way to consolidate all room specific requirements in one location. If "Room Requirements" are used, delete the concept floor and wall finish schedules below. If the facility is simple or small and using "Room Requirements" is too complex for the project, provide detailed descriptions for all finishes and minimum design requirements in this ESR section C30 below. If the Conceptual wall and floor schedules are used, delete the bracketed option for "Room Requirements" below.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[All interior wall finishes are indicated in the "Room Requirements" portion of this RFP]

[Conceptual Floor Finish Schedule

|  |  |
| --- | --- |
| SPACE | MINIMUM FINISH REQUIREMENT |
| Private Office | [carpet tile] |
| Open Office | carpet tile |
| Conference Room | [[carpet tile] |
| Reception | [porcelain tile] [solid vinyl] [linoleum] [cast-in-place concrete][epoxy][carpet tile] |
| Kitchen/ Break Room | [solid vinyl] [linoleum] [rubber tile] [sheet vinyl] [cast-in-place concrete] [epoxy] [VCT] [rubber] |
| Restrooms | [porcelain tile] [solid vinyl] [linoleum] [colored concrete] [epoxy] |
| Lobby/ Entrance | [porcelain tile] [solid vinyl] [linoleum] [terrazzo] [cast-in-place concrete] [epoxy] [carpet tile] [terrazzo] |
| Executive Office and Adjoining Suite | [carpet tile] [carpet broadloom] |
| Corridors | [solid vinyl] [linoleum] [VCT] [rubber tile][cast-in-place concrete] [epoxy] [carpet tile] |
| Training Room | carpet tile |

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Consider the following sentence, or create your own, to describe the interior floor finishes of the facility.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Floor finishes and wall base must be as indicated in the Room Finish Schedule.]

 **C3030 CEILING FINISHES**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Consider one of the following sentences, or create your own, to describe the interior ceiling finishes of the facility.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Primary ceiling finish must be 24 inch by 24 inch by 5/8 inch minimum thickness suspended acoustical panel ceiling system, except provide a suspended gypsum board ceiling in entrance lobby, restrooms [and showers]. [Acoustical ceiling panels must have a tegular edge.]

[Ceiling finish material must be painted gypsum board.]

[Exposed structural systems must be painted according to Section C3040 INTERIOR COATINGS AND SPECIAL FINISHES.]

[Ceiling finishes must be as indicated in the Room Finish Schedule.]

 **C3040 INTERIOR COATINGS AND SPECIAL FINISHES**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Consider one of the following sentences, or create your own, to describe the interior coatings for the facility.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Paint new and previously painted interior surfaces including walls, doors, trim, ceilings as well as all interior exposed metal items, to include interior grilles, registers, diffusers, access panels, and panel boxes.

[All finish coatings must be as indicated in the Room Finish Schedule.]

**D10 CONVEYING SYSTEMS**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Conveying Systems include elevators and lifts, escalators and moving walks, and weight handling equipment. These systems require complex engineering and safety approvals. If conveying systems are included in the project, editor must include sections from the Standard Design-Build Template ESR and PTS Sections D10.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**D20 PLUMBING**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTES: Edit or delete the following paragraphs to suit the project, or create your own, to describe any unique plumbing requirements for the project. Refer to UFC 3-420-01, *Plumbing Systems*, for guidance on specific topics.

Some equipment and systems are beyond the scope of the Small Project Template. Refer to the Standard Design-Build Template (ESR and PTS) for additional guidance for the following types of equipment and systems:

 Â· Domestic water booster systems.

NOTE: Use of this Small Project Template does not enforce the quality control measures that are built into the PTS and ESR of the Standard Design-Build Template. Review and copy any applicable portions of the PTS and ESR into this document.

Examples of projects in this category include:

 Â· Installation of a new water service for an existing facility.
 Â· Replacement of all plumbing fixtures for a facility remodel.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

 **D2010 PLUMBING FIXTURES**

Provide quantity and type of plumbing fixtures required for the occupancy, use, and functions described for this facility and in accordance with the plumbing code. Provide handicapped fixtures in accordance with the referenced criteria.

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Coordinate with the Architect for the types of plumbing fixtures to be required in each area. Expand description to include areas served by different fixture types where required.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**Water Closets**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Flush valve toilets are normally provided in public restrooms. Tank toilets are normally provided in BEQs, BOQs, and other private restrooms. Wall-mounted toilets are preferred for ease of cleaning the restroom floor; floor-mounted toilets are more abuse-resistant.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Provide [wall] [floor] mounted flush valve type water closets [with electronic control] in all public restroom spaces.]

[Provide floor mounted flush tank type water closets in private restroom spaces.]

**Urinals**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Care must be exercised in selecting non-water use urinals. In order to maintain sanitary conditions, the urinal trap inserts must be replaced two to four times a year. The urinal's immiscible barrier liquid needs to be replenished according to the urinal's use, or approximately once a month, so the urinal maintains its' seal. If cleaned with excessive water, the trap seal liquid will be washed down the drain allowing sewer gasses to enter the space. The designer must insure that responsible installation representatives are aware of these maintenance requirements and approve the use of non-water use type urinals.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Provide flush valve type urinals [with electronic control] in all public restroom spaces.]

Provide non water use type urinals in all public restroom spaces.

**Lavatories**
[Provide countertop lavatories [with metering faucet] [with electronic control] in each restroom space.]

[Provide wall mounted lavatories made of [cast iron] [vitreous china], with [straight] [shelf] back [with metering faucet] [with electronic control] in [\_\_\_\_\_] space.]

**Sinks**
[Provide countertop [kitchen] sink with [one] [two] compartments in the [kitchen] [\_\_\_\_\_] space. [Provide garbage disposal.]

[Provide [service] [laundry] sink in the [\_\_\_\_\_] space.] [Provide [terrazzo] [vitreous china] mop sink in the [\_\_\_\_\_] space.]

**Showers**
[Provide shower[s] the in [\_\_\_\_\_] space.]

**Water Coolers**
Provide electric water cooler(s).

 **D2020 DOMESTIC WATER DISTRIBUTION**

Provide [Double check valve] [Reduced pressure principle] type backflow preventer at the service entrance [inside] [outside] the mechanical room.

Provide reduced pressure principle type backflow preventer at all make-up water lines inside the mechanical room.

[Provide water meter [and tie water meter into BAS].]

[Provide high efficiency [condensing type] water heater with a minimum efficiency of [97%] [ \_\_\_\_\_ %].

[Provide [electric] [[natural gas] [propane] [oil] fired] water heater for heating of domestic water.]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: The plumbing code requires a hot water source within 100 feet of a sink or fixture. Use instantaneous water heaters where a recirculating or heat trace system is not desired or feasible.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Provide instantaneous electric water heater for the [\_\_\_\_\_] space.]

Provide [in-line] [base mounted] circulator for domestic hot water distribution system.

[Provide emergency eyewash station in the [\_\_\_\_\_] space.

**Insulation & Identification**
Provide insulation on domestic water hot [and cold] supply and recirculation piping.

**Specialties**
[Provide washing machine connector box for clothes washers]. [Provide ice maker connector box for refrigerators.] [Provide valve box for buried valves.]

**Other Domestic Water Supply**
Provide piping supports in accordance with the IPC. Provide inspections, disinfection, and testing in accordance with the IPC.

 **D2030 SANITARY WASTE**

**Floor Drains**
Provide in mechanical rooms, restrooms, and to receive condensate from air handling equipment. [Provide floor sinks in kitchens.]

**Sanitary & Vent Equipment**
Provide sump pump in the [\_\_\_\_\_].

 **D2040 RAIN WATER DRAINAGE**

**Pipe & Fittings**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Typically, concealed interior roof drain systems are prohibited. Coordinate with the Architectural group.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Coordinate with the Civil engineer for type of piping they will use beyond the 5-foot building line. It would be wise to match the pipe to tie into.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Provide Cast iron [hub and spigot] [hubless] pipe and fittings. [Provide PVC piping, fittings, and solvent cement.] [Provide ABS piping, fittings, and solvent cement.]

**Roof Drains**
 Provide roof drains that are compatible with the roofing system.

**Insulation & Identification**
 Provide the same as domestic water piping.

 **D2090 OTHER PLUMBING SYSTEMS**

**Special Piping Systems**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Natural gas piping is included in Section D30 also. If both sections D20 and D30 are in the project, delete the following paragraph and use Section D30.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Obtain natural gas pressures from the local gas company. Contractor is responsible for providing the complete natural gas system to the facility, including any applications and permits.]

**D30 HVAC**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTES: Edit or delete the following paragraphs to suit the project, or create your own, to describe any unique mechanical requirements for the project. Refer to UFC 3-401-01, *Mechanical Engineering*for guidance on specific topics.

Where control system requires communication between controllers, software functions such as trending or energy calculations, or a workstation, the following completed Unified Facilities Guide Specifications will be required:

 Â· Direct Digital Controls.

Some equipment and systems are beyond the scope of the Small Project Template. Refer to the Standard Design-Build Template (ESR and PTS) for additional guidance for the following types of equipment and systems:

 Â· Water cooled chillers
 Â· Variable frequency drives (VFD).
 Â· Variable air volume systems (VAV)
 Â· Computer room unit
 Â· Multizone unit
 Â· Steam systems
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTES: Use of this Small Project Template does not enforce the quality control measures that are built into the PTS and ESR of the Standard Design-Build Template. Review and copy any applicable portions of the PTS and ESR into this document.

Examples of projects in this category include:

 Â· Replacement of all mechanical equipment for a facility remodel.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**HVAC System Requirements**
Provide air conditioning and heating for spaces as indicated and for the following Design conditions:

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: The following is required when providing new spaces and equipment. It would not be required for direct equipment replacement.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Outside Conditions

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Summer | [ ] | Degrees C dry bulb | Winter | [ ] | Degrees C |
|   | [ ] | Degrees F dry bulb |   | [ ] | Degrees F |
|   | [ ] | Degrees C wet bulb |   |   |   |
|   | [ ] | Degrees F wet bulb |   |   |   |

Inside Conditions

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Summer | 26 | Degrees C dry bulb | Winter | 20 | Degrees C |
|   | 78 | Degrees F dry bulb |   | 68 | Degrees F |
|   | 50 | %RH |   |   |   |

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Include the following when there are areas that are not air conditioned or heated for personnel to work in.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Heating & Ventilating Inside Conditions

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Summer | [ ] | Degrees C dry bulb | Winter | [ ] | Degrees C |
|   | [ ] | Degrees F dry bulb |   | [ ] | Degrees F |
|   | [ ] | [Air changes per hour] |   |   |   |

]

Provide Ventilation rates and systems per the latest edition of ASHRAE Standard 62.1, *Ventilation for Acceptable Indoor Air Quality*.

[Provide ventilation for [ ].]

[The HVAC system must provide each zone with the choice of heating or cooling year round unless otherwise indicated.] [Each zone must have its own limited range of control, as allowed by the control system central workstation.]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Where necessary, detail zoning requirements. Coordinate with the project architect for functional requirements of the facility spaces. Clearly indicate which zones are to be heated and ventilated only vs. heated and cooled. Also indicate which spaces can be grouped into zones.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Zone the HVAC system as follows:

 [ ] must be a separate zone.
 [ ] must be a separate zone, heated and ventilated only.
 [ ] must be a separate zone, ventilated only.]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Where equipment is located within approximately a mile from a salty body of water or wherever deemed necessary, include the following option.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Provide protective coatings on casings and coils which come in contact with outside air.]

For unoccupied mode, provide the following night setback temperatures:

For winter, 10 degrees F (6 degrees C) lower than indoor heating design conditions, but no lower than 55 degrees F (12.8 degrees C).

For summer, 5 degrees F (3 degrees C) higher than indoor cooling design conditions, but no higher than 85 degrees F (29.4 degrees C).

 **D3010 ENERGY SUPPLY**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Edit the following to indicate the required use of a particular energy source (other than electricity) such as fuel oil or natural gas. For central plant chilled water, steam, or hot water distribution, use Section G30.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**[Heating Supply**
 Provide a [complete] oil system to provide [above] [below] ground storage and delivery to the oil fired equipment.]

[Obtain natural gas pressures from the local gas company. Contractor is responsible for providing the complete natural gas system to the facility, including any applications and permits.]

[Provide a [natural gas] [propane] supply system to the heating equipment.]

 **D3020 HEAT GENERATING SYSTEMS**

**Boilers**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Check with the Base PWD to see if there has been a previous study or a maintenance preference for boiler type.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Provide a [cast iron sectional], [flexible watertube], [steel [firetube] [firebox]], [packaged gas fired condensing], [or] [finned tube (watertube)] [hot water] boiler[s]. Provide [insulated] [pre-manufactured, multi-wall] boiler stack.

[Provide high efficiency boiler[s]]. [Provide high efficiency [condensing type] heating boiler[s] with a minimum efficiency of [97%]][\_\_\_\_\_ %] and systems designed to allow for maximum efficiency.]

The heating load for this facility must be served by [1] [2] boiler[s] providing [100] [60] % of the load.

[Boiler(s) located outside are acceptable.]

[Provide shot type feeder for manual chemical feed for closed loop system.]

[Provide tempered make-up water with automatic chemical treatment for open loop system.]

[Provide variable flow pumping system.]

**Furnaces**
Provide [gas] [oil]-fired furnace[s] [with cooling coil].

**Fuel-fired Unit Heaters**
Provide [gas-fired unit heaters] [[condensing] [non-condensing], [direct] [indirect] infrared heaters].

**Equipment Thermal Insulation**
Provide Insulation for hot and chilled water pumps and equipment. Provide vapor barrier for chilled water applications.

 **D3030 COOLING GENERATING SYSTEMS**

**Chilled Water Systems**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: The following paragraphs must be used to identify the type of chilled water system. Delete the following paragraph if not expanding an existing system.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Provide [connection to and extension of the existing central] chilled water system for service to the building HVAC equipment. [The existing chilled water system provides chilled water at [7] [\_] degrees C ([45] [\_\_] degrees F). [Chilled water reset is not allowed.] The existing system utilizes [two-way] [three-way] control valves.]

Provide [reciprocating] [rotary screw] [scroll] air-cooled chiller[s] using a primary/secondary pumping system.

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: 40 degrees F is typically standard, 20 degrees F, 0 degrees F, or –20 degrees F (special) are optional. Consult FEC/FEAD mechanical department for guidance.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Chiller(s) must operate in temperatures down to [ ] degrees F.

[Provide heat recovery for [reheat] [domestic hot water].

**Direct Expansion Systems**
Provide [[air-cooled, split system] [water source] heat pumps] [air cooled condensing units and associated air handling unit] with ducted air distribution. [Provide coil coatings.] [Provide with supplemental electric heater.] [Provide with desuperheater and tank for domestic hot water.]

Provide factory assembled [galvanized steel with stainless steel basin] [stainless steel] [fiberglass] [cooling tower(s) with automatic chemical treatment system(s)] [closed circuit cooler(s)] to server the water-cooled chillers. [Provide with basin heater(s).] [The load may be served by a single cooling tower.]

[Provide a dedicated air-cooled direct expansion (DX) ductless split system [cooling only] [heat pump] unit for the NMCI/Telecom space.]

[Provide a [air] [water] cooled variable refrigerant flow (VRF) heating, cooling, ventilating and air conditioning system to serve the requirements of the facility. The system must be designed to provide the facility with simultaneous heating and cooling with heat recovery. The system must consist of VRF heat pump units, branch circuit controllers, VRF fan coil units, and associated controls. Each fan coil must be controlled by a zone thermostat.]

 **D3040 DISTRIBUTION SYSTEMS**

**Air Distribution, Heating & Cooling**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Ductwork location must also be addressed in this paragraph if requirements are critical (e.g., must be concealed, can be exposed)
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Provide insulated, galvanized steel ductwork. Provide double wall, preinsulated ductwork in public areas when exposed.

Provide [steel] [aluminum] grilles, registers, and diffusers. [Provide filter grilles for return air.] [Provide linear slot diffusers including boot.]

**Water Distribution Systems**
Provide complete, operable hot and chilled water system to serve the HVAC equipment throughout the facility.

**Exhaust Systems**
Provide ducted exhaust ventilation systems and exhaust fans to serve all ventilated zones of the facility. Provide [in-line] [rooftop] [ceiling] centrifugal exhaust fan[s].

**Air Handling Units**
Provide [central station] [split system], [constant volume] air handlers. Provide with [35] [50] [85] [95]% filters.

**Other Distribution Systems**
Provide [in-line] [base mounted] circulating pumps [with variable frequency drives].

Provide air control and shot type feeder for manual chemical feed for the [hot] [chilled] water piping system.

 **D3050 TERMINAL & PACKAGE UNITS**

**Unit Ventilators**
 [Provide [air cooled] [heat pump] [chilled and hot water] unit ventilators to serve the heating requirements of [ ] area of the facility.]

**Unit Heaters**
 [Provide [hot water] [gas-fired] [infrared] [cabinet] unit heaters.]

**Fan Coil Units**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
 NOTE: For units concealed above ceiling choose horizontal.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Provide [horizontal] [vertical] type fan coils and controls.]

**[Fin Tube Radiators] [Convectors]**
 [Provide [fin tube radiators] [convectors].]

**Electric Heating**
 [Provide electric [unit heaters] [baseboard] [wall] [infrared] heaters.]

**Package units**
 [Provide split-system, air-to-air heat pumps to serve each conditioned zone of the facility.

[Provide split-system air conditioning units with gas heat to serve each conditioned zone of the facility.]]

[Provide packaged rooftop [air conditioning] [heat pump] units to condition the facility.]

[Provide closed loop, water source heat pumps to serve each conditioned zone of the facility.]

[Provide 100% Outside Air Makeup Air Conditioning Units to precondition outside air prior to distributing to [central station air handling] [fan-coil units][terminal units].]

[Provide packaged through wall [air conditioner] [heat pump] units in the [ ].]

[Provide room [air conditioner] [heat pump] units in the [ ].]

 **D3060 CONTROLS AND INSTRUMENTATION**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Where the FEC/FEAD, Station, or Command has an Approved Justification and Authorization (J & A) document allowing the use of a single Direct Digital Controls provider; and where all previous J & A bid experiences have indicated that bid pricing remains reasonable and competitive; then use the second bracketed sentence. In other cases, use the first bracketed sentence. For small DX systems, delete this section in its entirety and include a short write-up describing the desired control scenario.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**HVAC Controls**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Additions to existing building DDC systems may provide an adequate reason to support a J & A for extending a single manufacturer's system; however, it is possible that another manufacturer's product could be more cost effectively retrofitted to the entire building rather than extend the existing system with repair parts for an otherwise obsolete system. Where the Contracting Officer has an Approved Justification and Authorization (J & A) document [B1]: select the second bracketed option and indicate the required make/model and DDC system manufacturer.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[[Provide a complete Direct Digital Control (DDC) system [to comply with UFGS 23 09 00, *Instrumentation and Control for HVAC*, UFGS 23 09 23.02, *BACnet Direct Digital Control for HVAC and Other Building Control Systems*, and UFGS 23 09 13, *Instrumentation and Control Devices for HVAC*][to comply with \_\_\_\_\_] for the facility.][Provide a partial direct digital control (DDC) system which will communicate with the existing DDC system. The existing DDC system was manufactured by [\_\_\_\_\_].] [The DDC system must be (make/model).]]

 **D3070 SYSTEMS TESTING AND BALANCING**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Where the project is mission essential, or has life safety issues, or due to local construction conditions, provide additional wording as necessary. For complex projects, the Standard D-B Template must be used.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Provide complete Testing and Balancing (TAB) of all air and water distribution systems and HVAC equipment.]

**D40 FIRE PROTECTION SYSTEMS**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTES: Edit or delete the following paragraphs to suit the project, or create your own, to describe any unique fire protection requirements for the project. Refer to cognizant NAVFAC FPE for guidance on specific topics.

 Some systems are beyond the scope of the Small Project Template. Refer to the Standard Design-Build Template (ESR and PTS) for additional guidance for the following types of equipment and systems:

 Â· Foam or gaseous agent fire suppression systems.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

 **D4010 FIRE ALARM AND DETECTION SYSTEMS**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: This section need only be provided when 24V fire alarm systems are being installed. Smoke and carbon monoxide detectors supplied from 120V electrical systems must be provided under section D50.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Provide a [combined mass notification/]fire alarm [and detection] system.

[Provide speakers for combined mass notification/fire alarm systems.]

[Monitor and supervise carbon monoxide detectors.]

[Provide a remote annunciator with alarm acknowledge, alarm silence, and reset functions. The remote annunciator must be located as directed by the Contracting Officer in conjunction with the cognizant NAVFAC Fire Protection Engineer.]

Provide Class [A] [B] Notification Appliance Circuits, Class [A, Style 6] [B] Signaling Line Circuits. Any Class B Initiation Device Circuits must be less than 10 feet in length.

Fire alarm signals must be sent to the fire alarm receiving station via the [radio transmitter] [DACT] [Gamewell Loop].

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Prior to selecting the verbiage for the following section contact the NAVFAC Fire Protection Engineer for information on the capabilities of the base fire reporting system. Many bases utilize antiquated reporting systems which are incapable of transmitting or receiving signals other than a fire alarm.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[All fire alarms, supervisory alarms and trouble conditions indicated at the fire alarm control panel must be transmitted to the fire alarm receiving station. Transmitter zones must be as follows:

a. Sprinkler Water Flow

b. Smoke Detector

c. Manual Pull Station

d. Supervisory (i.e., valve tamper switch, fire pump loss of power, fire pump phase reversal)

e. Duct Smoke Detector

f. Fire Pump Running

g. Sleeping Room Smoke Detector]

 **D4020 FIRE SUPPRESSION WATER SUPPLY AND EQUIPMENT**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Coordinate with the Civil Engineer for the location of the water supply piping beyond the 5-foot building line.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Base hydraulic calculations on a static pressure of [ ] kPa (gauge) ([\_\_\_\_\_]psig) with [\_\_\_\_\_] L/m ([ ] gpm) available at a residual pressure of [\_\_\_\_\_] kPa (gauge) ([ ] psig) at [the junction with the water distribution piping system].

[Provide [a diesel] [an electric] fire pump. The minimum size must be [31.5 L/s, 500 gpm].

 **D4040 SPRINKLERS**

[Provide [preaction,] [dry] [and] [wet] [pipe] automatic sprinkler protection for complete coverage throughout.]

[The incoming sprinkler service must be provided with a [double check backflow preventer] [reduced pressure principle backflow preventer].]

[Loading docks may be protected with dry-type sidewall sprinklers supplied by the wet-pipe sprinkler system.]

 **D4090 OTHER FIRE PROTECTION SYSTEMS**

Provide portable fire extinguishers and cabinets as required.

[Provide residential range top extinguishing systems].

[Provide a wet chemical hood and duct fire suppression system for kitchen equipment.]

**D50 ELECTRICAL**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTES: Do not use the following option for the UFC unless it is a single-discipline, more extensive electrical project, or has telecommunications and NMCI requirements that must require the use of UFC 3\_501\_01 so that the UFC design criteria and its related electrical criteria is enforceable.

However, use of this Small Project Template would still not be enforcing the quality control measures that are built into the PTS and ESR of the Standard Design-Build Template. Review and copy any applicable portions of the PTS and ESR into this document.

Examples of projects in this category include:

 Â· Installation of a new service entrance for an existing facility.
 Â· Replacement of all electrical wiring and panelboards for a facility remodel.
 Â· Computer room addition.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[The electrical design must comply with the design criteria specified in UFC 3-501-01, *Electrical Engineering*, and its referenced documents.]

 **D5010 ELECTRICAL SERVICE & DISTRIBUTION**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTES: Edit or delete the following paragraphs to suit the project, or create your own, to describe any unique electrical and telecommunications requirements for the project. Include guidance from UFC 3-501-01, *Electrical Engineering*on specific topics.

Some equipment and systems are beyond the scope of the Small Project Template. Refer to the Standard Design-Build Template (ESR and PTS) for additional guidance for the following types of equipment and systems:

 Â· 400-Hz power distribution systems, including motor generator sets and frequency converters.
 Â· Variable frequency drives (VFD).
 Â· Engine generators
 Â· Automatic transfer switches.
 Â· Uninterruptible power supply (UPS) systems.
 Â· Lightning protection.
 Â· Electronic Security Systems (ESS), Protected Distribution Systems (PDS), and Sensitive Compartmented Information Facilities (SCIF).

If this is a small, stand-alone replacement project, then the UFGSs for the above equipment will be invoked by Part 4. Add specific requirements to Part 3 to describe equipment.

Note that completed specification, UFGS 26 23 00, *Switchboards and Switchgear*, will be required for any of the following:

 Â· Switchboards.
 Â· Switchgear.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Describe lighting requirements for the project. If a substantial amount of lighting is required, refer to UFC 3-530-01, *Design: Interior and Exterior Lighting and Controls* for guidance.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[ ]

Provide an insulated equipment grounding conductor in all raceways for systems operating at greater than 50 volts.

 **D5020 LIGHTING & BRANCH WIRING**

[Provide a complete lighting system consisting of exit and emergency lighting and area lighting consisting of [fluorescent] [incandescent] [high intensity discharge] [light emitting diode (LED)] lighting including switches and automatic controls including [occupancy sensors][automatic lighting shutoff systems] [dimming systems].]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Identify project specific special outlets required. Include ampere and voltage requirements as appropriate.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Provide lighting and general purpose receptacles throughout all spaces as required.

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
Add additional project specific dedicated circuit requirements such as printers, fax machines, copiers and other dedicated circuits required including locations and connections.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Provide dedicated power connections to all ancillary office equipment such as printers, faxes, plotters, and shredders.

 **D5030 COMMUNICATIONS & SECURITY**

**Telecommunications Systems**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTES: Insert specific requirements for telecommunications outlets. Limit use of this document to homeruns for existing telecommunications closets/rooms. Refer to the Standard Design-Build Template for additional guidance if:

 Â· Telecommunications work will be extensive
 Â· Furnishings, Fixtures, and Equipment (FF&E) (referred to as Systems Furniture in UFC 3\_500\_10N) will be used.
 Â· The NMCI contractor will be involved with modifications to NMCI equipment.

This will require the RFP writer to include UFC 3-501-01, *Electrical Engineering*as a base requirement, which will also then invoke UFC 3-580-01, *Telecommunications Building Cabling Systems Planning and Design*, and UFC 3-580-10, *Navy and Marine Corps Intranet (NMCI) Standard Construction Practices*.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[ ]

[Coordinate with local activity authorities and building users for specific requirements as may be directed by the Contracting Officer.]

**Public Address and Intercommunications Systems**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: The Public Address System and the Intercommunications system may generally be combined into one and utilize the telephone system and desktop phones for all communications. Coordinate and verify with user if this is a suitable system for mission accomplishment.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Provide a Public Address system with speakers in all [common spaces] [exterior speakers for outside activity spaces] [ ].

[Interface the Public Address System with the Mass Notification System.]

[Provide an Intercommunication System to allow two-way communications between [ ].

**Television Systems**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Determine television system requirements for the project and list below.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[ ].

**Security Systems**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Determine security system requirements for the project and list below.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[ ].

 **D5090 OTHER ELECTRICAL SERVICES**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: If a new service entrance is installed or if TVSS is a requirement for the project, such as installing a new panelboard for a computer system, then incorporate the TVSS criteria from UFC 3-501-01, *Electrical Engineering*, paragraph titled "Transient Voltage Surge Suppression (TVSS)", as a requirement for this project. TVSS is typically not required for replace in kind equipment or small remodel projects.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Provide transient Surge Protective Devices (SPDs) at the following locations: [ ].]

**E10 EQUIPMENT**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Edit the following paragraphs to suit the project, or create your own, to describe the EQUIPMENT for the project. Equipment that is typically included in a construction contract includes security and vault equipment such as vault doors and day gates, loading dock equipment such as dock levelers, and food service equipment. It is appropriate here to utilize the specifications from the Unified Facilities Guide Specifications to indicate specifics for much of this equipment. Coordinate this section carefully with other portions of the RFP.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

 **E1010 COMMERCIAL EQUIPMENT**

[The contractor must obtain the services of equipment specialists to specify [audiovisual] [shop] [fitness equipment] [or] [\_\_\_\_\_(other specialty equipment)]. Equipment specialists must not have any affiliation with the product specified.]

[All specialty equipment will be installed by qualified installers regularly engaged in installing the specialty equipment.]

The design and documentation of the FF&E equipment will be funded as part of the construction contract. The purchase and installation of the FF&E equipment will be funded separately as part of Collateral Equipment. The estimated amount of FF&E equipment is included in the total FF&E costs in the E20 Part 3 section of the RFP. The general contractor must be responsible for coordinating equipment design requirements with the end user, providing equipment specifications, and procurement and installation of equipment using Best Value practices. The equipment indicated as FF&E must be incorporated into the FF&E submittals and follows the submittal schedule indicated in the E20 Section Part 3 of the RFP. The FF&E equipment must be purchased and installed as part of the contractor's HAR as indicated in the E20 Part 4.

The construction contractor is responsible for the installation of equipment requiring a hard connection (plumbing, hardwire, venting, etc.) to the building.

Equipment not specifically designated as FF&E must be designed, funded, and purchased as part of the construction contract.

**Security and Vault Equipment**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Consider the following paragraph for facilities that will include a vault or secure room.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[The [Vault] [Weapons Storage Area (WSA)] or [Armory] [\_\_other title\_\_] space must be designed in accordance with criteria in MIL-HDBK-1013/1A to provide at least 10 [\_\_\_\_\_] minutes of delay time against [low] and [medium] [\_\_\_\_\_] threat severity levels of forced entry.]

[Vault door must be provided with a day gate.]]

 **E1020 INSTITUTIONAL EQUIPMENT**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Consider the following paragraph for facilities that will include laboratory equipment. Provide as detailed a list as can be obtained from the using activity.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**Laboratory Equipment**
 [Provide the following laboratory equipment:\_\_\_\_\_]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Consider the following paragraph when the facility will include a loading dock.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

 **E1030 VEHICULAR EQUIPMENT**

[Provide warehouse equipment.] [Loading docks must be provided with [dock bumpers], [truck-trailer restraining devices], [and] [dock levelers].

[Minimum performance characteristics for the dock leveler must be based on the following:

a. Service Period:
 (1) Number of shift operations of [one] [two] [three].
 (2) Maximum number of trucks per shift opening of [\_\_\_\_\_].
 (3) Maximum number of days per week of [\_\_\_\_\_].

b. Fork Lift Loads:
 (1) Design levelers to accommodate [three] [four] wheel fork trucks.
 (2) Design levelers to handle [\_\_\_\_\_] gross dynamic load.
 (3) Base load leveler design on number of cycles per loading/unloading operation per truck and of [\_\_\_\_\_].]

 **E1040 GOVERNMENT FURNISHED EQUIPMENT**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Choose second bracketed option and edit appropriately when Government Furnished Contractor Installed equipment is part of RFP. Include building number and approximate distance from site in bracketed spaces. When equipment is furnished by the Government, include Shop Drawings and Product Data sheets with information defining equipment and requirements in Part 5 of the RFP documents. Choose first option for all other projects.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[There is no Government Furnished equipment in this project.]

[Rough-in and provide connections for Government-furnished equipment such that equipment will operate as intended, including providing miscellaneous items such as plugs, receptacles, wire, cable, conduit, flexible conduit and outlet boxes or fittings. [Contractor must pick up equipment at [ ] and transfer to site for storage until ready for installation.] [Equipment must remain in control of the Government until such time as the Contractor is ready to install. Contractor must provide thirty (30) days advance notice of expected installation date and pick up equipment at [ ] and transfer to site for installation.] Testing requirements of Government Furnished equipment must be the responsibility of the Contractor and must follow the same guidelines as though the Contractor had provided the equipment. The following items will be furnished by the Government and must be installed and tested by the Contractor: [ ], [ ], [ ]]

 **E1090 OTHER EQUIPMENT**

**AUDIOVISUAL EQUIPMENT**

[Audiovisual equipment will be part of FF&E

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* NOTE: For Navy projects choose the first bracketed option below and delete the second option. For Marine Corps Projects choose the second bracketed option below and delete the first option.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Under the construction contract, the general contractor shall be responsible for coordinating design requirements with the end user/Command IT personnel, providing equipment specifications, and procurement and installation of the Audiovisual (AV) equipment, using Best Value practices. As required, the contractor shall obtain services of an audiovisual equipment specialist to design and specify the audiovisual equipment.

AV Equipment including electronics potentially connected to data/IT, shall be coordinated with design and construction but planned for and funded by the user or Budget Submitting Office sponsoring the user (per OPNAVINST 11010.20H draft Appendix D). AV equipment shall include, but is not limited to: intercom/sound systems, smart boards, flat screens, projectors, video teleconferencing, interactive wall systems and CCTVs. The AV equipment package will be part of the FF&E however; the specific AV line item may be funded by others.]

**Food Service Equipment**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Provide the following information as part of the Project Program if the Contractor's Designer of Record (DOR) is to design the kitchen:
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Utilize the following information for planning the kitchen:

a. The kitchen will serve [\_\_\_\_\_] patrons.

b. Hours of service must be from [\_\_\_\_\_] to [\_\_\_\_\_].

c. Type and style of meal service must be [Cafeteria line] [scatter serve] [sit down with waiter service] [other.].

d. Menu will be [\_\_\_\_\_]

e. Type of cooking must be [cook to order] [pre-prepared/cooked food (pre-made and wrapped sandwiches)] [other].

f. Availability of food: the number of deliveries per week is [\_\_\_\_\_].

g. Amount/type of storage required: dry [\_\_\_\_\_cu meters (cu feet)], refrigerated [\_\_\_\_\_cu meters (cu feet)], frozen [\_\_\_\_\_cu meters (cu feet)].

h. Local requirements of trash/garbage disposal areas follows, [dumpster] [local storage room] for cardboard [\_\_\_\_\_cu meters (cu feet)], trash dumpster [\_\_\_\_\_cu meters (cu feet)], with pickup every [\_\_\_\_\_] days.]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Choose the first paragraph when specific food service equipment list will not be provided. Choose the second paragraph when a detailed list of food service equipment is available.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Provide food service equipment as required for a commercial kitchen to serve [\_\_\_\_\_] persons with a menu to include [full breakfast, lunch and dinner] [lunch only] [\_\_\_\_\_].

[The following food service equipment will be part of the FF&E:\_\_\_\_\_]

**OTHER EQUIPMENT**

[Shop Equipment will be part of FF&E: Includes equipment such as riveters, punches, portable generators and battery chargers, presses, bead blasters, band saws, air hoses, dies, grinders, forges, jugs, lathes, sewing machines, etc.]

[Misc Equipment will be part of FF&E: Pool Skimmers, life jackets, hose reels, extractors, sauna/whirlpools, washers, dryers, portable structures, portable bleachers, and shelving/racks.]

[Fitness Equipment will be part of FF&E: Includes exercise machines, free weights, etc.]

Fire extinguishers are part of FF&E. Fire extinguisher cabinets are part of construction.

**E20 FURNISHINGS**

**INTERIOR DESIGN REQUIREMENTS**

Furnishings includes fixed furnishings as part of the Structural Interior Design (SID) and the design and documentation of the movable furnishings, the Furniture, Fixtures, and Equipment (FF&E) Package.

The design and documentation of both will be funded as part of the construction contract. The purchase and installation of the FF&E Package will be funded separately as part of Collateral Equipment.

The movable furniture and furnishings (FF&E) for this facility may include, but are not limited to movable furniture systems, freestanding furniture, area/accent rugs, artwork, appliances, , accessories, shop equipment, specialty equipment (specified by the Activity) and other miscellaneous items to support facility functions.

FF&E is estimated in the following amount: [$XXXXXX]. This estimate includes the contractor's Handling and Administration Rate (HAR).

Fixed furnishings (items that are fixed to the structure), such as specialty equipment, drying cages, weapon racks, lockers, security cameras, motorized projection screens, blinds/shades are part of the construction contract.

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: For Navy projects, choose the first bracketed option and delete the second option below. For Marine Corps projects, choose the second bracketed option and delete the first option below.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

The Audio Visual (AV) Equipment will be funded as part of the FF&E Package. The A/V Equipment Package will be identified as a separate line item, and may be priced separately from the FF&E. Refer to Part 3 Section E10 of this RFP.

**GENERAL SYSTEMS REQUIREMENTS**

Design and provide fixed and movable furnishings for all areas as developed during Activity programming and as directed by Users during the CDW. Design a complete FF&E package and prepare supporting plans and procurement data. FF&E items identified in this RFP are to be used as a guideline to assist in establishing the minimum facility requirements and do not relieve the Contractor's Interior Designer from developing a complete design package that incorporates ALL of the Activities FF&E requirements. Design per specific UFC (i.e. Youth center, BEQ, etc.) and in conjunction with UFC 03-120-10, Interior Design.

The contractor must have an Interior Designer with a minimum of one of the following credentials: National Council for Interior Design Qualification (NCIDQ) certification or state and/or jurisdiction Interior Design Certification, Registration, or License. This Interior Designer must prepare both the SID and the FF&E Package and participate in all design charrettes and review meetings to develop the building design and floor plan. When Audio Visual (A/V), shop, or specialty equipment is required in the project, the contractor must obtain services of equipment specialists to specify the A/V, shop, or specialty equipment. The Contractor's Interior Designer and any Specialists must not have any affiliation with the products specified. The NAVFAC Interior Designer reserves the right to approve/disapprove the qualifications of the Contractor's Interior Designer.

All fixed and movable furnishings selections must be closely coordinated with Parts 3 and 4 Sections C10, Interior Construction, and C30 Interior Finishes and E10 Equipment of this RFP. The FF&E package must be fully integrated with the building systems and finishes.

The Contractor's Interior Designer must be responsible for designing and providing specifications for procurement of all FF&E, to include delivery and installation, for the facilities built under this contract as directed by the NAVFAC Interior Designer. FF&E specifications must be based on NAVSUP Blanket Purchase Agreements (BPA's), GSA schedules, and other Federal contracts and complying with priorities found in FAR Part 8.404. [A list of current BPA contract holders is located in Part 6 of this RFP.] [A list of current BPA contract holders will be provided at the FF&E Requirements Meeting]

The FF&E package must be fully integrated into the design and construction schedule for the building. All submittal due dates for the SID and FF&E must be reflected in the contractor's construction schedule. Changes to the SID or FF&E schedule must be submitted to the government Interior Designer for approval. The Final FF&E Package must be submitted within 60 calendar days following the receipt of review comments on the preliminary FF&E submittal. However, the Final FF&E Package due date must not be later than (9) months prior to construction completion. This (9) month period must be accounted for in the contractor's schedule.

**Interior Design Submittal and Meeting Requirements:**

**Structural Interior Design (SID) Submittal**

The SID submittal process must begin following the award of the RFP. The SID submittal must include Interior Design programming documents, FF&E Floor Plans, and exterior & interior finish/color and material sample boards. Refer to this RFP Part 2. Minutes of all meetings must be submitted to the NAVFAC Interior Designer within 7 days.

Provide the following SID meetings and submittals:

a. Concept Design Workshop (CDW) (10%-15%) or Initial Design Meeting: The Contractor's Interior Designer must meet with the Activity [and Base Property for Marine Corps projects] to develop the Interior Design SID programming documents, which will include a preliminary Furniture and Equipment Plan and the FF&E Summary List. The Contractor's Interior Designer must provide in-depth room by room interviews to confirm Activity requirements for the new facility(s). These interviews must occur at the Activity's current location, if possible, to include building walk-thru(s).

b. Design Development (35%-50%) Submittal: The Contractor's Interior Designer must provide a conceptual Finish Schedule, proposing finish materials to be used in all spaces. The Furniture and Equipment Plan and FF&E Summary List must be further developed and included in this submittal.

1. SID "Over the Shoulder" Review: Prior to the Prefinal (100%) Submittal, the Contractor's Interior Designer must meet with the NAVFAC Interior Designer for an "over-the-shoulder" review meeting to present a minimum of (3) options for the interior building finishes/colors/materials. Finishes must display manufacturer's label/specifications and be presented in a "loose" format for preliminary approval prior to the presentation with the Activity. The over-the-shoulder review meeting is to be held at NAVFAC [\_\_\_].

2. SID Review: Prior to the Prefinal Submittal, the Contractor's Interior Designer must present a minimum of (3) NAVFAC-approved interior building finishes/color/material options, to the Activity for approval. Each of these finish options must be presented and documented loose format. The presentation must be held at the Activity.

e. Prefinal (100%) Submittal: The submittal must include an updated Furniture and Equipment Plan, Finish Schedule, Floor Finish Plan, and Finish Legend for review and approval.

[Prefinal SID Color Boards: One (1) set of 16x20 inch color boards including finishes and materials specified for presentation to the Activity indicating overall design intent.]

f. Final Submittal: The Contractor's Interior Designer must incorporate the final approved Furniture and Equipment Plan, Finish Schedule, Floor Finish Plan and Finish Legend into the Contractor's final drawing set. These drawings and all approved finishes must be submitted in 8-1/2" x 11" binder format, using heavy duty plastic sheet protectors. [*Navy:* Three electronic (3) sets of the Final SID Submittal must be distributed to the NAVFAC Project Manager, FEAD, and the Activityeach, and one (1) original set to the Project Manager and forwarded to the government Interior Designer. ][ *Marine Corps:*Four electronic (4) sets of the Final SID Submittal must be distributed to the NAVFAC Project Manager, ROICC, Public Works, and the Activity each, and one (1) original set to the Project Manager and forwarded to the government Interior Designer.]

**SID CONSTRUCTION SUBMITTALS**

Substitutions to the SID finishes are not permitted once they have been approved by NAVFAC during the design phase. In the event that revisions may be required due to unforeseen conditions such as discontinued product, such revisions must be submitted via the FEAD/ROICC for approval by the NAVFAC Interior Designer before substitutions can be made.

**[INTERIOR PHOTOGRAPHY SUBMITTAL**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Coordinate with Interior Designer and Project Manager to determine whether to include the following optional bracketed paragraph.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Upon completion of the FF&E installation, the Contractor must provide professional photography of the completed interior and exterior. The photographer must be in the business of specializing in architectural and interior photography. "Before" and "After" photos are required for all renovation projects. The photographs must be taken prior to occupancy and staged with accessories and any additional lighting as required for quality images. The contractor's interior designer must be present to assist in staging. The government will retain all rights for printing, publishing and distributing any and all of the images. All photographed images must be submitted on a CD as JPEG files with a resolution of no less than 300 dpi. The contractor must provide a minimum of six (6) printed 8x10 matte photographs, with one of the photos being an exterior shot. Images must be approved by NAVFAC Interior Design prior to printing. The Contractor must obtain permission from NAVFAC to print, publish, promote, use, or distribute any project photos outside the contract requirements.]

**FIXTURES, FURNISHINGS AND EQUIPMENT (FF&E)**

The FF&E process must begin approximately with the 50% design submittal. The submittals must include fixtures, furnishings, and equipment specifications in accordance with the Activity requirements to produce an optimally functional facility. FF&E includes all items that are not fixed to the structure, but are fully integrated with the building systems and finishes. Refer to RFP Part 2. Minutes of all meetings must be submitted to the NAVFAC Interior Designer within 7 days.

Develop design as described and in accordance with the Activity requirements. Include in the design all loose furnishings required to produce an optimum functional facility, consistent with quality commercial design. This project also includes the preparation of specific detailed information for each selected item. Each submittal must demonstrate interaction thoroughly with the Activity requirements and complete coordination with the facility design and the SID

[*Navy:* Three electronic (3) sets of each submittal must be distributed to the NAVFAC Project Manager, FEAD, and the Activity each, and one (1) original set to the Project Manager and forwarded to the government Interior Designer. ][ *Marine Corps:*Five electronic (5) sets of each submittal must be distributed to the NAVFAC Project Manager, ROICC, Public Works, Base Property, and the Activity each, and one (1) original set to the Project Manager and forwarded to the government Interior Designer.]

*Note: Ownership of the original copy can be edited per project.*

For all projects, including fast track projects, the contractor must be responsible for sufficiently scheduling all SID/FF&E submittals early enough to obtain the required government approvals, and meet all ordering and installation lead times to complete the project by the contract completion date. The Final FF&E Package must be submitted no later than nine (9) months prior to the construction contract completion date.

These are minimum requirements and the Contractor must be prepared to provide any/all additional meetings and submittals that may be necessary to support the Interior Design effort/FF&E coordination.

Provide the following FF&E meetings and submittals:

a. FF&E Requirements Meeting: This meeting must occur upon completion of Design Development (or approximately 50%), at NAVFAC Southwest prior to the development of the FF&E package. The NAVFAC Interior Designer will provide the Contractor's Interior Designer a sample format of the FF&E submittal, review the Best Value Determination (BVD) process, and discuss Blanket Purchase Agreement (BPAs), GSA or other mandatory sources to consider. [The FF&E Summary List and a preliminary Cost Estimate must be submitted within 21 days to the NAVFAC Interior Designer to review with Base Property for Marine Corps Projects].

b. FF&E "Over the Shoulder" Review: Prior to the FF&E Concept Presentation the Contractor's Interior Designer must meet with the NAVFAC Interior Designer for an "over-the-shoulder" review to present preliminary FF&E options. These can be presented in a "loose" format for preliminary approval prior to the Activity presentation. The "over-the-shoulder" review meeting is to be held at NAVFAC[\_\_\_\_].

c. FF&E Concept Presentation: The Contractor's Interior Designer must present the NAVFAC approved preliminary FF&E package to the Activity for approval. This presentation must include loose format samples and catalog cuts. Sample boards are not required.

d. Best Value Analysis (BVA), "Over the Shoulder Review": Prior to issuing the BVA, the Contractor's Interior Designer must meet with the NAVFAC Interior Designer for an "over-the-shoulder" review of the solicitation package. BVA Solicitation to include the following:

1. Copy of the BVD Analysis cover letter.

2. Performance Specifications

3. Project Specific Typicals

4. Furniture Plans with Legends (PDF format)

5. Pricing Spreadsheet and Questionnaire

j. BVD Submittal - The Contractor's Interior Designer must submit one (1) copy of the BVD package to the NAVFAC Interior Designer [as part of both the Preliminary and Final FF&E Submittals, as a separate tab]. This submittal must include the following on a CD.

1. Copy of all information sent to bidders and documentation that all required sources were contacted.

2. BVD Pricing Spreadsheet and Questionnaire

3. Solicitation Forms submitted by each bidder (cut sheets/highlighted pricing sheets/technical specifications, pricing, dealer and manufacturer qualification for each product showing that products meets all requirements)

4. Responses from UNICOR

o. Preliminary FF&E Submittal: The Preliminary FF&E submittal is due at Pre-Final. It must be presented to the Activity and NAVFAC Interior Designer. The Preliminary FF&E original copy must incorporate the following submitted in a 3-ring binder with all the information in sheet protectors:

1. Cover Title Page (project name, project #, submittal date, submittal title)

2. FF&E list (Cost Summary)

3. Furniture placement plans coded to the FF&E list and furnishings [specifications] [procurement sheets]

4. [Specifications] [Procurement sheets] for furniture, furnishings, etc.

5. Catalog cuts and finish samples for all specified items

6. Preliminary Best Value Determination sheets

7. [3][5] copies of a CD of the preliminary FF&E binder (pdf and excel version)

 [8. 8x10 color photographs of the color boards]

 [Preliminary FF&E Color Boards: One (1) set of 16x20 inch color boards including FF&E specified for presentation to the Activity indicating overall design intent.]

w. Final FF&E Submittal: The Final FF&E Submittal is due within [60] calendar days following the receipt of review comments on the preliminary FF&E submittal. The Final FF&E original copy must incorporate the following submitted in a 3-ring binder with all the information in sheet protectors:

1. Cover Title Page (project name, project #, submittal date, submittal title)

2. Table of Contents

3. Vendor/Manufacturer Contact List

4. Cost Summary Sheet

5. Procurement Data Sheets for each product indicating final finish and fabric selections

6. Furniture Plans

7. Copy of Final Quote on Letterhead from the vendor determined to be the Best Value

8. Final Best Value Determination sheets (completed and signed by the Contactor's Interior Designer)

9. [3][5] copies of a CD of the final FF&E binder (pdf and excel version)

 [10. 8x10 color photographs of the color boards]

**FF&E CONSTRUCTION SUBMITTALS**

Submit any revisions or deviations caused by discontinued items to the Contracting Officer for approval by the NAVFAC Interior Designer.

**SD-10 Operation and Maintenance Data**

List Operation and Maintenance Manuals for seating, systems furniture and keyboard trays.

 **E2010 FIXED FURNISHINGS**

Fixed furnishings (SID) are funded as part of the construction project and are not funded as part of FF&E Each submittal must demonstrate complete coordination with the facility design and with the package for movable furnishings.

Develop design as described herein and provide storage shelving, equipment racks, and window treatments. Cross reference C10 Interior Construction, and C30 Interior Finishes, for performance requirements. Each submittal must demonstrate complete coordination with the facility design and with the package for movable furnishings.

 **E201002 WINDOW TREATMENTS**

All windows and other glazed openings to the exterior of the building must be provided with [solar shading system] [manually or electrically operated double-roller sunscreen and room darkening shades] and are considered SID and are funded as part of the construction project.

Soft window treatments, such as draperies, are considered FF&E and must be included in the FF&E package, as required.

 **E201003 FIXED SEATING AND TABLES**

As required, but not limited to, provide fixed locker room benches, fixed tables and chairs, auditorium fixed seating, dining booths and site furniture.

[Provide durable, high quality fixed tables [with communications, data, and power routing] [to interface with fixed seating] [to comfortably seat \_\_\_\_\_ persons].

[Provide locker room benches.]

[Provide [dining booths] [ fixed dining tables and chairs] [\_\_\_\_\_].

[Provide site furniture.]

[Provide auditorium seating. Armcaps must be [wood] [molded vinyl]. Seatbacks must be [wood] [molded vinyl]. Interior seat and back must be [wood] [molded plastic] [padded and fully upholstered].]

 **E2020 MOVABLE FURNISHINGS**

The design of the FF&E package is funded as part of the construction contract base bid. The purchase and installation coordination of FF&E is a planned modification to the contract and funded separately as part of Collateral Equipment. The specific process is outlined in PTS E20 in Part 4 of this RFP. If a Collateral Equipment list is provided within this RFP, the costs associated with the purchase and installation of these items are NOT to be included in the base bid. The estimated Collateral Equipment cost is provided for information purposes only. The Contractor only needs to propose the Handling and Administrative Rate (HAR)

Design and provide a FF&E package in accordance with UFC 03-120-10, *Interior Design,* and other portions of this RFP for all areas as developed during Activity programming to provide a fully usable and complete facility. FF&E may also include specialty items specified by the Activity and the Contractor's Interior Designer is responsible for incorporating these into the FF&E package.

The FF&E Package must include shipping, freight, handling, and professional installation, project management, HAR, and any applicable sales tax. A Best Value Determination will be performed on a minimum of three manufacturers for orders exceeding a total procurement of $3000 from an individual manufacturer. Documentation must be provided to the Government with the final FF&E package. Specific Documentation is indicated in Part 4 of the RFP. The BVD Statement must be completed and signed by the contractor's interior designer. [A sample BVD form and instructions is provided in Part 6 of this RFP.] [A sample BVD form and instructions will be provided during the FF&E Procurement Requirements Meeting.]

The Contractor, as a planned modification, will be authorized by the Government Contracting Officer to procure all furniture/furnishings in the approved final FF&E package using predominately negotiated Federal contracts as directed by the Contracting Officer and the NAVFAC Interior Designer. When the modification for turnkey furniture procurement is exercised, the Contractor's proposed Handling and Administrative Rate (HAR) must not exceed 5% of the total cost of the FF&E, shipping, freight, handling, and installation. The HAR includes all of the prime contractor's effort related to the storage, coordination, handling and administration of subcontractors, and all other associated costs and profit for the procurement of FF&E. No other charges, fees, or markups will be authorized. The contractor must establish and submit a fixed percentage figure, for the administration effort of this modification (HAR), with the initial project proposal as part of the contractor's Pricing Schedule.

 **E202002 MODULAR PREFABRICATED FURNITURE**

Provide Workstation systems product or modular freestanding workstations as required. Provide at a minimum, a 48 square foot workstation. The workstation to include: an adjustable height computer solution (crank, pneumatic, or electric height adjustable worksurface, ergonomic keyboard tray, or split height worksurface), a height adjustable monitor arm, a CPU holder, task lighting, overhead storage, and file storage. Ensure cable management within the workstation is provided. Approval in writing must be obtained from the Activity Commanding Officer for any deviation in workstation size reduction or deletion of ergonomic requirements.

 **E202003 FREESTANDING FURNITURE AND FILES**

Provide ergonomic task seating, lounge, reception and guest seating, storage and filing, tables, as required.

 **E202090 OTHER MOVABLE FURNITURE**

Provide misc. seating, artwork/graphics, rugs and accessories, interior landscaping, waste receptacles, recycling containers, fire extinguishers, clocks, literature racks, washers, dryers, microwaves, refrigerators, non-plumbed coffee pots, and other appliances as required.

**F10 SPECIAL CONSTRUCTION**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Edit the following paragraphs to suit the project, or create your own, to describe the SPECIAL CONSTRUCTION for the project. Special construction that is typically included in a construction contract includes pre-engineered metal buildings, cold storage rooms and buildings, sound conditioned rooms, shelters and booths, bullet-resistant protection, radiation protection, grandstands and bleachers, swimming pools, and other special structures typically specified in Division 13 of CSI Masterformat. It is appropriate here to utilize the specifications from the Unified Facilities Guide Specifications to indicate specifics for Special Construction. Coordinate this section carefully with other portions of the RFP. Be sure that the work called for under this category is within the scope of a small project.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

 **F1010 SPECIAL STRUCTURES: PRE-ENGINEERED METAL BUILDINGS**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Consider one of the following paragraphs for facilities that will include a pre-engineered metal building.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Provide a pre-engineered metal building for [\_\_\_\_\_].

[Building must have thermal resistance to comply with the ASHRAE 90.1 standards for its use.]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Determine the open-space requirements and column spacing for the facility. Consider the programmed size, height, and the budget restraints. Determine requirements for cranes or other loads suspended from the structure. Determine the size and types of door and window openings into the building. Based on those considerations, determine the most viable system for framing the building.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[The facility must be a pre-engineered metal building. The metal building must be [\_\_\_\_\_] feet long by [\_\_\_\_\_] feet wide, with an eave height of [\_\_\_\_\_] feet high. The bay spacing must be [\_\_\_\_\_] [to accommodate] [\_\_\_\_\_].]

[The framing system for the steel structure must be in accordance with AISC M016, except that end frames may be of rigid frame or beam and column design.]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Provide information for special live loads, concentrated loads, and extraordinary events (e.g., terrorism threats, accidental blast). Normally, special loads and extraordinary events are not required and the following paragraphs will be deleted.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[In addition, design the structure in accordance with the following loading criteria:

 [Live Loads

 [Live loads for occupancies or uses not provided in UFC 3-301-01, *Structural Engineering*, must be as follows:

 Occupancy: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Live load \_\_\_\_\_\_\_\_\_\_\_\_ Mpa.]

 [Live load for [\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_] occupancy [or use] must be \_\_\_\_\_\_\_\_\_\_ Mpa instead of the live load indicated by UFC 3-301-01, *Structural Engineering*.]]

 [Concentrated Loads - Concentrated loads to be incorporated into the design must be as follows:

 Location: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Concentrated load \_\_\_\_\_\_\_\_\_ Kg.]

 [Extraordinary Events - Design the structure to withstand the effects of the following extraordinary (i.e. low probability event:

 [\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_].]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Delete the following paragraphs if this information will be provided in Section B10, *Superstructure*. Provide wind exposure and Importance Factor information if the contractor cannot be expected to be able to obtain this information from other sources.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Importance Factors - Use Occupancy Category [I] [II] [III] [IV] in Table 1 of UFC 3-301-01, *Structural Engineering*, for determining Importance Factors for seismic, snow, and wind design.

[Wind Exposure - Wind design must be based on Exposure [A] [B] [C] [D].]]

[[Provide framed openings for [number] [overhead] [upward coiling] [other] door[s]. The door openings must integrate with the wind bracing system for the building.]

**F20 SELECTIVE BUILDING DEMOLITION**

Remove [\_\_\_\_\_\_].

 **F2020 HAZARDOUS COMPONENT ABATEMENT**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Hazardous Component Abatement requires complex engineering and environmental & safety approvals. If Hazardous Component Abatement is included in the project, editor must include sections from the Standard Design-Build Template ESR and PTS Sections F20.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**G10 SITE PREPARATION**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Edit or delete the following paragraphs for G10, G20 and G30 to suit the project, or create your own, to describe any unique site and utility requirements for the project. Refer to UFC 3-201-01, *Civil Engineering*, for guidance on specific topics.

Do not use this template for airfield pavements. The Standard Design-Build Template (ESR and PTS) will be required. Note that completed Unified Facilities Guide Specifications will be required.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Certain types of projects are beyond the scope of the Small Project Template. These include:
 Â· Sites with known contaminated soils
 Â· Existing Ranges (including small arms ranges)
 Â· Dredging
 Â· Tanks
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Perform a topographic survey of the project site and include it in the design drawings. Physically verify the location of all existing utilities.

Jurisdictional tidal and non-tidal wetlands have [not] been identified on the project site.

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Retain bracketed item below if more than a limited soil investigation/evaluation is required to support the design and construction.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Refer to Standard Design-Build Template section G10, included in Part 5 of this RFP.]

 **G1010 SITE CLEARING**

Minimize removal and disposal of all trees required for project construction.

Burning will [not] be allowed.

All grubbing and clearing residue, demolished material, rubbish and debris generated by this project must be [disposed of in the station’s sanitary landfill according to its requirements and regulations][hauled off-site and off station by the Contractor].

 **G1020 SITE DEMOLITION & RELOCATIONS**

[Preserve the following building elements:\_\_\_\_\_][aboveground site elements: [pavements to remain,]\_\_\_\_\_][underground site elements: [existing utilities to remain,] \_\_\_\_\_].

Remove or relocate existing utilities within 10 feet (3.0 m) of any new facilities or building additions. Existing utilities include but are not limited to piping, structures and conduit.

[Remove utilities as indicated on the drawing(s) in Part 6. Remove all appurtenances associated with the utility to be removed so there is no presence of the utility at ground surface.]

[Abandon utility systems in a manner that conforms to applicable codes and regulations, removes their presence from the ground surface and clearly indicates that they have been abandoned. When piping is abandoned in place, provide a minimum 24 inch (600 mm) plug length.] [Fill abandoned piping with flowable fill.] Remove existing utility structure to 3 feet (900 mm) below existing or new adjacent grade, whichever is greater. Break up bases to permit drainage. Fill with clean sand.]

[Fill abandoned piping under pavements subject to potential vehicle loadings with flowable fill.]

All conduit to be abandoned must have wiring removed.

 **G1030 SITE EARTHWORK**

Provide grading so the site will drain. Blasting for rock excavation will [not] be permitted.

Provide materials required in excess of those resulting from excavations from off Government property.

All unsuitable material and surplus excavation must become the property of the Contractor and must be disposed of off Government property.

 **G1040 HAZARDOUS WASTE REMEDIATION**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: For projects involving hazardous waste remediation copy applicable paragraphs from Standard Design-Build Template ESR G1040.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**G20 SITE IMPROVEMENTS**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: For a single-discipline or more extensive pavement project include more applicable verification testing from Standard Design-Build Template PTS G20 not covered in Part 4.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Provide accessibility in conformance with applicable requirements of [UFC 1-200-01](http://www.wbdg.org/ccb/browse_doc.php?d=400) , *General Building Requirements*.

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* NOTE: Retain bracketed item below if more than a limited soil investigation/evaluation is required to support the design and construction.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Refer to Standard Design-Build Template section G20, included in Part 5 of this RFP.]

 **G2010 ROADWAYS**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Describe requirements for all vehicles anticipated to use the proposed facilities: e.g., trucks, Humvees, trailers, portable generators.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

The design of pavements must take into consideration the anticipated daily traffic ([\_\_\_\_\_] cars, [\_\_\_\_\_] single unit trucks, [\_\_\_\_\_] H20 loadings) over the life of the project (20 years) as well as the existing soil conditions at the site.

Provide roadways of [bituminous pavement][Portland cement concrete (PCC) pavement][\_\_\_\_\_] [where indicated on the drawings in Part 6]. Permeable pavement must not be used. Aggregate pavement may [not] be used.

[Provide curb and gutter to tie into adjacent facilities.]

Provide resurfacing of existing pavement by [slurry seal,][bituminous surface treatment, ][or][bituminous overlay].

Provide other roadway improvements including [bus stops ][traffic signalization ][pavement markings ][signage ][\_\_\_\_\_] [to match existing]. Provide [guardrails], [wheelstops], [and] [bollards].

 **G2020 PARKING LOTS**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Describe parking requirements for all vehicles anticipated to use the proposed facilities: e.g., trucks, Humvees, trailers, portable generators.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Provide parking for \_\_\_\_\_ private motor vehicles (PMVs) [above and beyond the existing parking area] including the required number of handicap parking spaces. The design of pavements must take into consideration the anticipated daily traffic ([\_\_\_\_\_] cars, [\_\_\_\_\_] single unit trucks, [\_\_\_\_\_] H20 loadings) over the life of the project (20 years) as well as the existing soil conditions at the site.

Provide parking lots of [bituminous pavement][Portland cement concrete (PCC) pavement] [permeable pavement] [\_\_\_\_\_] [where indicated on the drawings in Part 6]. [Provide permeable pavement by [permeable interlocking concrete pavers] [or] [pervious concrete]; porous asphalt must not be used.] Aggregate pavement may [not] be used.

Provide other parking improvements including [\_\_\_\_\_parking entrances for [one] [two] way traffic] [\_\_\_\_\_motorcycle parking stalls ][\_\_\_\_\_bicycle stalls ] [separate service drive for delivery vehicles] [drive-up drop-off access] [markings][signage][landscaping][\_\_\_\_\_][to match existing]. [See ESR G2050 for parking lot landscape requirements.]

Provide handicapped parking in accordance with UFC 1-200-01, *General Building Requirements*.

[Provide curb and gutter to tie into adjacent facilities.]

Provide resurfacing of existing pavement by [slurry seal,][bituminous surface treatment, ][or][bituminous overlay].

 **[G2030 PEDESTRIAN PAVING**

Provide a network of [Portland cement concrete (PCC)] [PCC with colors embedded in the mix, stamped with special patterns][solid concrete pavers][brick pavers][permeable interlocking concrete pavers] [concrete grid pavers] [pervious concrete] sidewalks, separated from, but connected to vehicular circulation systems, to allow for pedestrian circulation between various new and existing elements of the project. New pedestrian circulation systems must interface with existing pedestrian circulation systems.]

 **G2040 SITE DEVELOPMENT**

Secure the site using a [2.43 meter (8-foot)][\_\_\_\_\_] high [chain link] [ornamental][security] fence. Provide [one][\_\_\_\_\_] [swing][slide][\_\_\_\_\_] gates for pedestrian and vehicle access.

[Provide [zinc-coated steel][ polyvinyl chloride (PVC) coated over zinc-coated steel] fencing components for the fencing system. [PVC coating must be \_\_\_\_\_ in color.] Provide [[top] [and] [bottom] tension wires] [and] [[top] [and] [bottom] rails]; where tieing into an existing fence, match existing fencing system. ]

[Provide an ornamental fence of [wrought iron] [wood] [\_\_\_\_\_]. ]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Use UFC 4-022-03. Consult with Service policies for assets being protected to determine if clear zones are required and what dimensions are required.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[For the security fence, provide [one] [two] single line fence[s] surrounding the restricted area. Provide security clear zones as required. Provide outriggers and [three][ ] strands of barbed wire. ]

All site furnishings must conform to the Base Exterior Architectural Plan (BEAP) or the Installation and Appearance Plan (IAP). Provide [picnic tables][trash receptacles][benches] [barbecues] [recycling receptacles] [hot ash receptacles] [\_\_\_\_\_]. [Provide dumpster pad and enclosure.] [Provide double metal gate with self-closing mechanism.]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: For projects involving security improvements copy applicable paragraphs from Standard Design-Build Template ESR G204004 and coordinate with Base Security on the station’s security needs for the project.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: For projects involving playing fields copy applicable paragraphs from Standard Design-Build Template ESR and PTS G204007.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

 **G2050 LANDSCAPING**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* NOTE: Describe any special landscaping requirements such as screening of adjacent areas or roadways.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Provide complete landscaping consisting of lawn, groundcover, trees, and shrubs, and organic mulches as required to provide a quality, cost-effective, functional and visually appealing landscape program that will enhance the development, while complying with all applicable anti-terrorism, force protection and physical security requirements. The landscape design must reinforce the facility entry and complement existing landscapes in the vicinity. [Provide a 5' wide (1.5 m) (minimum) inorganic rock cobble mulch setback (no vegetation) around the building]. [Provide landscaping resistant to deer.]

Guarantee all landscaping for a period of [one year][\_\_\_\_\_] . Provide a [one year][\_\_\_\_\_] Establishment and Maintenance period. Landscaping Guarantee and Establishment and Maintenance periods must commence on the date that the inspection by the Contracting Officer shows that all landscaping under this contract has been satisfactorily installed.

Provide complete landscaping maintenance, including but not limited to, routine lawn mowing, edging, pruning, pest inspection/treatment, re-mulching of mulch products, watering, weeding, fertilizing, and restaking, throughout the guarantee period.

[Provide mechanical equipment screening wall on three sides of new equipment and dumpster enclosures.] [Provide 4" of topsoil for all lawn areas and fine grade.]

Provide a planting soil mixture composed of 100% topsoil around root balls of shrubs, trees, groundcovers, and perennials that is at a minimum, twice as wide and equally as deep as the plant's root balls. Set tops of plant rootballs 2 inches (51 mm) above adjacent grades.

[Seed][Sprig][Sod] areas indicated to be turfed in Part 6. Restore existing turf areas disturbed by Contractor operations that are to remain as turf areas. Restore by means of [seeding][sprigging][sodding] and provide same guarantee and maintenance as for new landscape areas. [Turfgrass species must match existing.]

 **G205005 PLANTINGS**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* NOTE: Describe any special planting requirements such as specific special areas to be planted, or if a specific number of plants are to be provided.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Preserve existing trees to the greatest extent possible. Select plant material from Master Plant Lists found within the Installation Appearance Plan (IAP). Other plants not found on these lists may be used if approved by the reviewing Government Landscape Architect. Final approval of all new plant materials rests with the reviewing Government Landscape Architect.

[Provide a minimum of [\_\_\_\_\_] trees and [\_\_\_\_\_] shrubs for this project.]

[Provide small trees, shrubs, and/or ground cover plantings at building main entrances to accentuate the entrances.]

[Provide tree plantings throughout the site to frame the new building and lessen the visual impact of parking areas.] [Provide street trees that encompass the entire project site with an average spacing of 40 feet (12.2 m) on center.] [Street trees are required to be all of [one] [\_\_\_\_\_] species.]

[Plant trees in parking lot islands.] [Trees planted in parking lot islands are required to be all of [one] [\_\_\_\_\_] species.] [Plant trees in parking lots at the rate of [1] [ \_\_\_\_\_] tree per 10 parking spaces.] [Screen all proposed parking lots that can be seen from surrounding roadways or recreational areas with an evergreen shrub. Shrub size at installation must be a minimum height of [30 inches (762 mm)] [\_\_\_\_\_] and a minimum width of [24 inches (610 mm)] [\_\_\_\_\_] and planted [3 feet (.9 m)] [\_\_\_\_\_] on center.]

[For palm trees, identify sizes on plans by [brown trunk height (BTH)][clear trunk height (CTH)]. Unless otherwise approved by the reviewing government landscape architect, provide minimum BTH or CTH of [8 ft. (2.4 m)][ \_\_\_\_\_]].

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* NOTE: Where no state stormwater management regulations, laws or design manuals exist, update below and add paragraphs from Standard Template.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

If used for stormwater management, provide bioretention filters, plants, plant quantities, and soil mix in accordance with the State's Best Management Practices (BMP) Design Manual.

**G30 SITE CIVIL/MECHANICAL UTILITIES**

 **G3010 WATER SUPPLY**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: For a single-discipline, more extensive water system project include materials required below by copying applicable information from Standard Design-Build Template PTS G3010. For projects including water supply wells, water storage tanks, booster pump stations and packaged water treatment plants, copy applicable paragraphs from Standard Design-Build Template ESR G3010 and PTS G3010. Include applicable verification testing for system features from PTS G30 , utility provider requirements or state waterworks’ regulations not currently covered in Part 4.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

The new water system is an extension of the existing water system. The existing water system serving the project site is [owned by the federal government][operated and maintained by [\_\_\_\_\_(utility provider)] at [\_\_\_\_\_(utility address)] and [\_\_\_\_\_(utility phone number)]]. Provide the new water system and connections to the existing water system in accordance with [state sewerage regulations,][the utility provider's requirements,] and UFC 3-230-01 *Water Storage, Distribution, and Transmission*; whichever is more stringent.

Notify the utility provider of the additional demand generated by the proposed facility. Provide a copy of all correspondence with the utility provider to the Government's Civil/Mechanical Reviewer.

[Provide connection to the existing water distribution system at the point indicated on the drawings in Part 6.]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: At a minimum include a water meter for each facility in accordance with UFC 1-200-02. Include Also include specific requirements below for installation of sufficient potable and non-potable water meters to identify system losses and individual facility use for all water-intensive facilities (swimming pools, gyms, golf courses, piers, dry docks, vehicle wash stations, industrial facilities, water intensive laboratories, and landscaping systems). Enable meter data to be collected and automatically transferred to a Meter Data Management (MDM) module in CIRCUITS (Centralized and Integrated Reporting for Comprehensive Utilities Information and Tracking System) for utility and energy management within an environment protected from cyber attack.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Design the new water system so that water consumption is measured at a minimum, by one meter for each facility. Ensure the meter is easily accessible, but not obvious.]

[Install sufficient potable and non-potable water meters to identify system losses and individual facilities use. Enable meter data to be collected and automatically transferred to a Meter Data Management (MDM) module in CIRCUITS for utility and energy management within an environment protected from cyber attack.]

 **G3020 SANITARY SEWER**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: For a single-discipline, more extensive sewer system project include materials required below by copying applicable information from Standard Design-Build Template PTS G3020. For projects including large wastewater pump stations, packaged wastewater treatment plants, septic tanks and drain fields copy applicable paragraphs from Standard Design-Build Template ESR G3020 and PTS G3020. Include applicable verification testing from PTS G30, utility provider requirements or state sewerage regulations not covered in Part 4.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

The new sanitary sewer system is an extension of the existing sanitary sewer collection system. The existing sanitary sewer collection system serving the project site is [owned by the federal government] [operated and maintained by [\_\_\_\_\_(utility provider)] at [\_\_\_\_\_(utility address)] and [\_\_\_\_\_(utility phone number)]]. Provide the new sanitary sewer system and connections to the existing sanitary sewer collection system in accordance with [state sewerage regulations,][the utility provider's requirements,] and UFC 3-240-01 *Wastewater Collection*; whichever is more stringent.

Notify the utility provider of the additional wastewater flow generated by the proposed facility. Provide a copy of all correspondence with the utility provider to the Government Civil Reviewer.

Provide connection to the existing sanitary sewer collection system at the point indicated on the drawings in another part of this RFP. In identifying a suitable point of connection, evaluate the capacity of the existing collection system.

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
For projects involving installation of more than 300 linear feet of gravity sewer, provide post-installation TV inspection.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Provide post installation TV inspection of sanitary sewer.]

A wastewater pump station will [not] be required.

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Indicate any preferences of the utility provider for wastewater pump station in this section. Include information on pipe, pump, and wet well materials; linings; valve types; alarms; and other specifics and accessories. Coordinate with typical options indicated in Part 4. See Standard Design-Build Template ESR and PTS G302003 for more options.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

 **G3030 STORM SEWER**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: For a single-discipline, more extensive storm drainage system project include materials required below by copying applicable information from Standard Design-Build Template PTS G3030. For projects including large wastewater pump stations and packaged wastewater treatment plants, copy applicable paragraphs from Standard Design-Build Template ESR G3020 and PTS G3020 below. Include applicable verification testing from PTS G30, utility provider requirements or state stormwater regulations not covered in Part 4.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

The new storm sewer system is an extension of the existing storm sewer system. The existing storm sewer system serving the project site is [owned by the federal government] [operated and maintained by [\_\_\_\_\_ (utility provider)] at [\_\_\_\_\_ (utility address)] and [\_\_\_\_\_ (utility phone number)]]. Provide the new storm sewer system and connections to the existing storm sewer system in accordance with [the utility provider's requirements,] UFC 3-201-01 *Civil Engineering*; UFC 3-210-10 *Low Impact Development* and *FC 1-300-09N Navy and Marine Corps Design Procedures*, state stormwater management laws and regulations, local stormwater management laws and regulations and applicable project sustainability goals; whichever is more stringent.

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: If outfall for existing storm sewer system is located off the Activity, require Contractor to determine that existing outfall has adequate capacity to handle additional flow generated by project. Also require Contractor to obtain approval from system owner and provide a copy of all correspondence to the Government Civil Reviewer.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Provide connection to the existing storm sewer collection system at the point indicated on the drawings in another part of this RFP. Confirm that the existing outfall has adequate capacity to receive the additional stormwater flow generated by the project.

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: For paragraph below consider if corrosive soil conditions are present. See Standard Design-Build Template ESR G3030.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

The following materials for storm sewer or culvert piping will not be allowed: [PVC] [ductile iron] [reinforced concrete pipe] [corrugated steel] [corrugated aluminum] [PE] [PP] [and] [\_\_\_\_\_].

The following LID features may be considered: [bioretention,] [dry wells,] [filter/buffer strips,] [grassed swales,] [bioretention swales,] [wet swales,] [rain barrels,] [cisterns,] [infiltration trenches,] [rain gardens,] [permeable pavement/pavers,] [\_\_\_\_\_,] and [tree box filters]. [The use of [bioretention,] [dry wells,] [filter/buffer strips,] [grassed swales,] [bioretention swales,] [wet swales,] [rain barrels,] [cisterns,] [infiltration trenches,] [rain gardens,] [permeable pavement/pavers,] [\_\_\_\_\_,] and [tree box filters] are **not** allowed for this project.]

[A stormwater management facility will not be required for this project.]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
For projects involving installation of more than 300 linear feet of gravity sewer, provide post-installation TV inspection.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Provide post installation TV inspection of storm sewer.]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: If an oil/water separator is required, copy applicable paragraphs from Standard Design-Build Template ESR G303090.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

An oil/water separator will [not] be required.

**G40 SITE ELECTRICAL UTILITIES**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTES: Edit or delete the following paragraphs to suit the project, or create your own, to describe any unique electrical requirements for the project. Refer to UFC 3-501-01, *Electrical Engineering*, for guidance on specific topics. Site electrical utilities include all exterior electrical work, including the connection to the primary distribution system. This also includes telephone and cable television supplies.

Some equipment and systems are beyond the scope of the Small Project Template. Refer to the Standard Design-Build Template (ESR and PTS) for additional guidance for the following types of equipment and systems. These types of projects will also require a design in accordance with UFC 3-\_501-0\_1, *Electrical Engineering*, with accompanying guide specifications.

 Â· Significant upgrades to the primary distribution system, including conversion of overhead distribution to underground distribution.
 Â· Medium voltage switchgear.
 Â· Significant airfield lighting projects.

The project contractor must complete, in accordance with Part 4, the applicable Unified Facilities Guide Specifications for any of the following:

 Â· SF6 insulated pad mounted switchgear – UFGS 26 13 00, *SF6/High-Firepoint Fluids Insulated Pad-Mounted Switchgear*.
 Â· Three-phase pad-mounted transformers – UFGS 26 12 19.10, *Three-Phase, Liquid-Filled Pad-Mounted Transformers*.
 Â· Single-phase pad-mounted transformers – UFGS 26 12 21, *Single-Phase Pad-Mounted Transformers*.
 Â· Secondary unit substations – UFGS 26 11 16, *Secondary Unit Substations*.
 Â· Primary unit substations – UFGS 26 11 13.00 20, *Primary Unit Substation*.
 Â· Overhead transmission and distribution – UFGS 33 71 01, *Overhead Transmission and Distribution.*
 Â· Excavation for underground distribution – UFGS 31 23 00.00 20, *Excavation and Fill*.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

 **G4010 ELECTRICAL DISTRIBUTION**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTES: For a single-discipline, more extensive electrical project, require the use of UFC 3\_-501-0\_1 in the following bracketed option so that the UFC design criteria is enforceable. However, use of this Small Project Template would not enforce the quality control measures that are built into the PTS and ESR of the Standard Design-Build Template. Review and copy any applicable portions of the PTS and ESR into this document.

Examples of projects in this category includes:

 Â· Underground distribution upgradges.
 Â· Addition of pad-mounted switchgear or other system switching capability.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[The electrical design must comply with the design criteria specified in UFC 3-501-01, *Electrical Engineering*.]

All primary distribution systems must be designed as four wire, multi-grounded systems that are wye connected at the source transformer. A system grounded neutral conductor must be provided throughout the system. Equipment intended to interrupt current at fault levels must have interrupting ratings sufficient for the nominal circuit voltage and the current that is available at the line terminals of the equipment.

[Use stainless steel enclosures and hardware for exterior electrical equipment.]

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Specify switches that have operating handles located on the opposite side of the tank from the cable entrance bushings such that switch operating personnel will not be exposed to the switch cable entrance bushings, terminations and cable. When over current protection is needed, use re-settable circuit breakers with electronic trip circuits. Do not use air-insulated or fused switches.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[Provide SF6 or high fire point liquid, vacuum break, dead-front switches.]

Equipment foundation pads must be 200 mm (8 in) thick; pre-cast concrete pads can be used. Ensure a minimum of 3 m (10 ft) clear workspace in front of pad-mounted equipment for hot stick work. Provide bollards in areas where equipment is subject to vehicular damage.

**Underground Electric Conductors**

[Underground primary electrical distribution must comply with UFC 3-501-01, *Electrical Engineering*.]

 **G4030 SITE COMMUNICATION & SECURITY**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
NOTE: Determine any exterior requirements associated with communication and security. Address these requirements below.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

[ ].