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**DESIGN/BUILD OF THE MAINTENACE STORAGE FACILITY**  
**PRE-ENGINEERED STEEL BUILDING PROJECT**  
**PROGRAM**

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## SECTION I – SPECIFIC SCOPE REQUIREMENTS

### A. Introduction

This Program provides detailed requirements for the design and construction of the Maintenance Storage Facility (“Project”).

The Program includes the following documents that are incorporated herein:

1. Specifications: Project Specifications include detailed requirements for various components of the project. The Specifications include general and administrative requirements, provide product and installation information and, in some cases, establish the extent of work. The Specifications are bound separately from the Program. Note the following adjustments:
  - a. Whenever the Specifications refer to the “architect” or “engineer” the term shall mean the “College.”
  - b. Whenever the Specification refer to the “drawings”, “documents” or state “as indicated;” the terms shall mean the Program including Conceptual Design, Steel Building Specifications and Supplemental Sketches.
2. Supplemental Sketches (SK): Supplemental Sketches are provided in Appendix B of the Program.
3. Conceptual Design: Refer to Section II of the Program. Conceptual Design drawings are provided in Appendix B of the Program.
4. Utility Survey: Drawings indicating the general location of exiting utilities are provided in Appendix B of the program. Data on indicated are not intended as representations or warranties of accuracy. It is expressly understood that the Owner will not be responsible for interpretations or conclusions drawn there by Contractor.

### B. General Scope

The Project is located east of the campus of St. Mary’s College on Mattapanay Rd. as shown in the Vicinity Map.

The new storage facility project includes a pre-engineered steel building, site improvements and infrastructure. The project includes a mezzanine and conditioned spaces as described herein and shown in the Conceptual Design. The project will total approximately 8,840 gross square feet.

Site improvements include, but may not be limited to, driveway improvements, site lighting, landscaping, and stormwater management. Utility infrastructure improvements include, but may not be limited to, connection to existing electrical power service.

### **C. Specific Building Scope Requirements**

1. The project includes one building with two bays. Each bay will typically include a mezzanine and a conditioned space. Table I establishes GSF for the bays, mezzanine and conditioned spaces. See sketch SK-2 for the general layout of the bays.

### **D. Site Development**

1. Utility Infrastructure: The project shall provide connections to electric utility services required for the operation of the facility. The contractor will design and install all utility modifications required to support this project.

Provide utilities to connect the project to existing utility systems as described below:

- a. Electrical: Provide secondary electrical service from existing pole transformer located behind Historic St. Mary's City Commission Maintenance Facility. Connect to secondary side of transformer and run power to new location. Coordinate with SMECO for connections and upgrades of transformer as necessary. Electrical conductors will be direct buried.

All primary electrical distribution work will meet SMECO standards. See SMECO specifications in Appendix C.

- b. Storm Water: Provide new storm water management facilities as required by Maryland Department of the Environment.
2. Exterior Lighting: Exterior lighting will consist of floodlight fixtures mounted underneath the building eaves on the front side of the building. Based on the Conceptual Design, the Program includes two floodlight fixtures, one at each end of the building.
3. Landscape: The scope of work for landscaping is not yet determined. For purposes of developing price proposal, the Program includes an Allowance of \$4,000.00 for landscaping. This Allowance includes providing and planting of all trees and shrubs and soil preparation for the aforementioned.

4. Driveway Entrance: Provide driveway entrance modifications as noted in drawing SK-5. Pave driveway entrance up to existing gated entrance.

**E. Construction Phasing**

1. Phasing Schedule: The project will be constructed in a single phase, which is to begin on 8/24/10 and be completed by 11/24/10.

May 3, 2010	Notice to Proceed for Design
August 16, 2010	Complete Design of Civil and Foundation
August 23, 2010	Notice to Proceed for Construction of Civil and Foundation
September 20, 2006	Complete Design
September 27, 2010	Notice to Proceed for Construction
December 17, 2010	Substantial Completion of Construction

2. Miscellaneous Requirements:

- a. Outages for electrical service connections:

- 24 hour prior notice, in writing, to college project manager

**TABLE I**

Space *	# Rooms	GSF/Bay
<b>Bay 1</b>		
Conditioned Space	1	500
Unconditioned Space	1	3100
Mezzanine	1	820
Total Space		4420
<b>Bay 2</b>		
Conditioned space	1	1500
Unconditioned space	1	2100
Mezzanine	1	820
Total Space		4420

<b>Total GSF: 8,840</b>
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**F. Permitting Requirements:**

1. Design:

MDE – Soil & Erosion Control & Storm Water Management

Critical Areas Commission – Storm Water Management

State Fire Marshall

SMECO (local power utility provider) – Primary electrical equipment/systems

2. Construction:

MDE- Soil & Erosion

State Fire Marshall

Primary and Secondary Electrical Inspection (MDIA or similar)

## **SECTION II – DESIGN CRITERIA**

The purpose of this Section of the Program is to highlight design guidelines and criteria that apply to the Project. These criteria are in addition to Specifications and other project requirements defined elsewhere in the Program. If there is a conflict between these criteria and other requirements, the most stringent shall apply.

### **A. BUILDING CODES AND OCCUPANCY CLASSIFICATION**

The following information documents certain code assumptions that were used in the development of the Conceptual Design. The information is not intended as representations or warranties but is provided for information purposes only. It is expressly understood that the Contractor will be solely responsible to design the project in accordance with all applicable codes. See also Specification Section 01420.

1. Jurisdiction: State of Maryland
2. Occupancy Classification: Unoccupied
3. Building Code: Maryland State Model Performance Code  
(COMAR 05.02.01)

### **B. STORMWATER MANAGEMENT**

Design of stormwater management facilities shall be accomplished in a manner that blends the storm water management facility (BMP) into the natural landscape to the greatest extent practical. No fencing will be required around wet facilities. Storm water management facilities will be designed in a manner such that fencing around wet facilities will not be required.

The project shall include a complete storm water drainage system that effectively and positively directs water away from structures, walks and equipment. No standing water shall be allowed on pavements, walks, lawns or other surfaces except as required in BMP's. Open swales should not have steep banks and shall be limited to no more than 2 feet deep (cross-section).

Stormwater management facilities should meet minimum requirements as stipulated by MDE.

### **C. EROSION CONTROL**

Use "super-silt" fencing as defined by MDE regulations in any location where silt fencing is to be utilized to control sediment. Also, the Contractor shall take all precautions as reasonable to ensure that erosion control devices remain in good condition at all times during construction.

**D. FOREST STAND DELINEATION**

The Contractor shall comply with forest stand delineation requirements per DNR/MDE regulations.

**E. EXTERIOR WALLS**

1. Exterior Walls: Metal sheathing over metal girts with vinyl backed roll insulation (see specifications).
2. Opaque Panels: Top 2' to 3' of exterior wall panels are to be opaque to allow for natural lighting.

**F. MASONRY DETAILS**

1. Demising Walls: CMU demising wall (8" thick) will be provided between bays dividing building into two equal half's. CMU demising wall must meet code for fire ratings.

**G. ROOFING PANEL DETAILS**

1. Standing Seam: Roofing will be standing seam, factory caulked, hidden clip, mechanically crimped, painted metal with insulation (see specifications).
2. Gutters/Downspouts: Utilize 20 oz., 6", aluminum gutters and 20 oz., 6" diameter, round, aluminum downspouts at all 4 roof corners. Downspouts will terminate at grade with a concrete splash block.

**H. WALL PANEL DETAILS**

1. Wall Panel: Profile to be a 1 ½ inch high rib at 12 inches o. c (see specifications)

**I. DOORS AND HARDWARE**

1. Personnel Doors: Flush, painted metal, 3'x7'. Hardware will utilize the College "Best" locking system.
2. Roll-up doors: Painted metal, manually operated, chain hoist, 10' wide x 14' high with interior mounted sliding dead bolt.

**J. INTERIOR FRAMING**

1. Walls: 3 5/8" Metal studs with 5/8" fire code drywall both sides at conditioned spaces.

2. Ceilings: 8” Metal studs with 5/8” fire code drywall at conditioned side and 3/4” tongue and groove plywood at mezzanine floor side. Load bearing as necessary for mezzanine.

## **K. FINISHES**

1. Painted Drywall: Painted ceilings at conditioned spaces will be flat white. Painted drywall walls will be eggshell.
2. Stairs: Prefabricated, painted metal.
3. Hand/Guard Rails: 2” round, painted metal as required by building code for mezzanine and stairs.

## **L. ENVIRONMENTAL SYSTEMS**

All building systems shall be evaluated for energy conservation and shall be designed according to the latest standards. The building use will require special climate control requirements where specifically noted within the Program.

1. Heating and Cooling: The system must be able to maintain 60° F in all the conditioned spaces of the building when the exterior temperature is 0° F outside and 75° F in all parts of the building when the external dry bulb temperature is 95° F and the external wet bulb temperature is 79°F. The contractor will provide all calculations for sizing and design of the heating system for approval.

The heating and cooling system will use a split-system heat pump unit with electric back up heat. The System will be designed so that all conditioned spaces may be served by a single air handler. The unit will have a minimum SEER of 13.5.

2. Ventilation: Each bay will have a ventilation fan, located at the peak of the gabled end, interlocked with an electronically controlled louver located 2’ above slab on grade. When temperature in unconditioned space reaches 90° F ventilation fan will come on and interlocked louver will open.
3. Design to exceed building energy efficiency performance ASHRAE 90/IESNA 90.1-1999.
4. Utilize base building HVAC and refrigeration systems that use non-ozone damaging liquids.

## **M. ELECTRICAL SYSTEMS**

1. Electrical systems in the building will be designed in accordance with the National Electric Code (most current version). All wiring inside of buildings will be copper with the exception of the main feeders coming from the transformer into the building which will meet SMECO specification standards.
2. Each 'bay' will served by its own electrical distribution panel. The two panels will be located 'back to back' at the demising wall.
3. Penetrations: Any below grade piping and conduit penetration through a wall or slab on grade will be made using link-seal type manufactured seals.
4. Each building is to have lightning protection only as required by building codes.
5. All site electrical shall be encased in conduit.

**N. INTERIOR AND EXTERIOR LIGHTING**

1. Interior lighting will be designed in accordance with the latest U.S. Department of Energy standards for lighting levels. All lighting fixtures and exit signs will bear the U.S. Department of Energy "Energy Star" label.
2. Exterior lighting will consist of eave mounted flood light fixtures at each corner of front side of building.

**O. ELECTRONIC DRAWING FILES**

In addition to printed drawings required at each submission, the Contractor shall provide to the College electronic copies of drawings in .DXF format as follows:

1. 100% Construction Documents –All drawings comprising the final construction set.
2. Post Construction – complete set of Construction Documents corrected to include as-built conditions.

## INDEX OF SUPPLEMENTAL SKETCHES

- A. Documents: The following documents comprise the Conceptual Design and are located in Appendix A.

**SK-1** Site Plan

**SK-2** Design Concept 1<sup>st</sup> Floor Plan

**SK-3** Design Concept Mezzanine and Stairs

**SK-4** Construction Entrance

**SK-5** Driveway Entrance Improvements

**Sk-6** Limits of Disturbance

- B. Application: The Conceptual Design is provided to establish the design intent for the project. The Conceptual Design is based on the Scope of the Project, as defined within this Program and represents a desired “conceptual” solution to the floor plan layout, site plan, and architectural character of the Project. In addition to complying with all specific requirements of the Program, the Contractor shall provide a project design that is consistent with the principles established in the Conceptual Design. The Contractor shall be responsible for developing the design for the project consistent with all codes and to provide a complete and fully coordinated design.

- C. Alternate Designs: The Contractor may propose a design that is different than that provided in the Conceptual Design provided that the alternative design meets the specific requirements of the Program and is consistent with the overall intent, quality and principles of the Conceptual Design.

- D. Limitations: The Conceptual Design does not represent a complete and final Schematic Design. The Conceptual Design was prepared in order to assist the College in the development of the Program and to establish an understanding of the scale, massing and other design principles of the Project. The College does not

warrant that the Conceptual Design has been evaluated against all project requirements, codes and regulations. The College will not be liable for any interpretations or conclusions drawn from the Conceptual Design by the Contractor.

- E. Utility Plan: The Utility Plan shows the proposed primary electrical service routing.
- B. Floor Plans: The Conceptual Design indicates the approximate gross square footage for each bay, door types, and door locations.
- C. Site Limits: The contractor shall limit its activities, parking, and staging to the Site Limits shown on SK-6. No fencing is required unless desired by the contractor.