APPENDIX C

FOR

MOBILE STORAGE SYSTEM

AT

GRISSOM ARB, INDIANA

BUILDING 613

CSN VGR601

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1. GENERAL SCOPE

This appendix establishes the minimum performance, design, fabrication, installation, and test requirements for a mobile storage system at Grissom ARB, Building 613. The work shall be completed in accordance with this appendix, the Cover Purchase Description (PD), and Air Force (AF) Drawing VGR601-01. This appendix is intended to cover all equipment, materials, and labor necessary to complete installation of the system.

2. APPLICABLE DOCUMENTS

Applicable documents shall be in accordance with Section 2 of the Cover PD.

3. REQUIREMENTS

3.1. SYSTEM DESCRIPTION

The mobile storage system shall interface with the Bin Shelving specified in Appendix B to store hand-liftable items.

3.2. CHARACTERISTICS

The mobile storage system shall conform to the following requirements.

3.2.1. CONFIGURATION REQUIREMENTS

The mobile storage system shall be located and configured as shown on AF Drawing VGR601-01.

3.2.2. STRUCTURE AND INSTALLATION

- **CARRIAGES**
  - Capable of supporting a minimum load of 1,000 pounds per carriage foot.
  - Not deflect greater than .5 percent of distance between supports.
  - Not exihibt permanent deformation.

- **FRAME**
  - Be of aluminum or steel channel, welded or bolted together to support a fully loaded shelving section.
  - Have cross bracing.

- **BUMPERS**
  - Be mounted on frame to ensure appropriate spacing to minimize carriage contact.

- **STATIONARY PLATFORMS**
  - Be of the same construction and height as the carriages

- Anchored to rails or floor
- Require no drive train

- **SHELVING SECTIONS**
  - Bin shelving inserts shall conform to Appendix B.

- **FACE PANELS**
  - Cover entire height and width of each shelving section.
  - Fastened to end of shelving section as shown on AF Drawing VGR601-01
  - Provide rigid mounting location for drive handle, locks and card holders.

- **ROW IDENTIFICATION**
  - Be installed on face panels at eye level.
  - Be at least five inches wide by three inches high.
  - Provide blank cards for personnel assignment.

- **RAIL**
  - Be installed on load bearing grout which spans entire width and length of rail.
  - Be of steel material.
  - Rail shall have channels cut and be installed so as to be flush with adjacent concrete floor

- **END STOPS**
  - Be installed to prevent carriage run off.
  - Be securely anchored to rail or floor.

- **RAIL SKIRTS**
  - Be installed to cover unfinished edges of floor or rail as necessary.

- **FLOORING**
  - Rails shall be embedded with floor of the system being the existing concrete of the building

- **DRIVE CHAIN**
  - Connect a set of gear reduction sprockets from the crank shaft to the drive shaft.

- **BEARINGS**
  - Permanently lubricated, securely mounted, and properly housed for protection from physical damage.

- **WHEELS**
  - Not lose contact with rails.

- **GUIDANCE SYSTEM**
  - Have mechanical guidance system for guidance over the rails.

- **SAFETY DEVICES**
  - Have anti-movement lock to prevent carriage displacement.
  - Have anti-tip device to prevent tipping during movement
  - Have system lock devices

4. QUALITY ASSURANCE PROVISIONS

4.1. INSPECTION

The system shall be inspected to verify that it meets all the requirements of sections 1, 2, and 3 of this appendix and the Cover PD. These inspections shall be completed as part of the systems checkout test and again as a part of the quality conformance test.

4.2. TESTS

The following tests shall be performed on the system as part of the system checkout test and again as a part of the quality conformance test.

No.	Description	Result
1.	A functional test of 24 hours in three eight hour increments shall be made on the system. It shall be tested randomly over this period. Test each crank by turning it both clockwise and counterclockwise. If the carriage does not move in the desired direction, the system fails the test.	☐ Pass ☐ Fail
2.	Maximum loads shall be placed randomly in the system. After not less than four hours, the test loads shall be removed and the system examined for signs of deformation. If any component of the system exhibits plastic or elastic deformation outside of the approved parameters, the system fails the test.	☐ Pass ☐ Fail
3.	Test each anti-movement lock. If a carriage can be moved with a lock activated, the system fails the test.	☐ Pass ☐ Fail