

Approved:

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Warehouse Operations
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Department of Transportation

SIGN SHOP FABRICATION AND DISTRIBUTION OPERATING INSTRUCTIONS

AUTHORITY:

Sections 20.23(3)(a) and 334.048(3), Florida Statutes (F.S.)

STATEMENT OF POLICY:

It is the policy of the Florida Department of Transportation (Department) to establish uniform guidelines and operating procedures for the Department's Lake City Sign Shop/Facility.

PURPOSE:

This procedure establishes minimum operating standards and procedures to be used by Sign Shop personnel. Operating standards and procedures are needed to ensure consistent and effective facilities management techniques are used within the Department's sign shop operations. Areas of primary concern include inventory control, security, adequate stocking levels, effective storage and handling of inventory, and prevention of obsolete and overstocked inventory. Most of the information necessary for proper daily facility operations and use of the Materials and Supplies Inventory (MSI) computer system is contained within the Department's ***Warehouse & Distribution Operations Handbook***.

SCOPE:

This procedure primarily applies to Roadway Maintenance Engineers and Sign Shop Supervisor.

DEFINITIONS:

Actively Stocked Commodities: Commodities routinely maintained at the Sign Shop. These are typically items used to manufacture items ordered and stocked by the warehouses. They are then issued to the Maintenance crews.

Commodities: All supplies, materials, goods, merchandise, etc. processed through the Materials and Supply Inventory System (MSI).

Consumables: Are supplies that are used on projects to perform a task or manufacture a product with the use of a commodity. Supplies/Consumables are not tracked through the Materials and Supply Inventory System (MSI). Examples of Supplies: silk screen, aluminum blanks, etc.

Desk Audit: A biennial (every other year) review of inventory and paperwork conducted through the inventory counts, random paperwork and responses to the questionnaire to validate the overall administration of facility operations. The review is not a location audit and carries a score of 1 – 5. The findings are reported to management in a timely manner.

Fabrication Shop: A Fabrication Shop is a designation for a unique facility that maintains commodities and supplies for manufacturing commodities; such as signs for the use by the Districts and other Governmental Agencies.

Facility: in this procedure, facility refers to the Lake City Sign Shop.

Facility Demand: A demonstrated need for commodities on a basis as confirmed by the Roadway Maintenance Engineer or their designee.

Key List: A list of all personnel that have key access to the facility. They are either assigned a key or they have access to a rotating key or key box containing a key for the Sign Shop.

Minimum Quantity Level: The level at which the warehouse inventory should never fall below as established by the Local Maintenance Engineer.

Materials and Supply Inventory System (MSI): The Department's electronic warehouse inventory system. MSI operates on the Department's mainframe computer.

Quality Assurance Review: Is a comprehensive review of physical inventory and validates the overall administration of facility operations. It is conducted annually with findings reported to management in a timely manner. Additional reviews may be conducted as necessary and when requested by management to insure compliance with established policy and procedures.

Roadway Maintenance Engineer: Department Engineer with purchasing authority for the facility.

Standard Specifications: A detailed written description of commodities in warehouse inventory describing materials, dimensions, and workmanship for something to be built, installed, or manufactured.

Warehouse & Distribution Operations Handbook: A document that provides detailed information on the operation and use of the MSI System.

1. SIGN SHOP OPERATIONS

- 1.1** The primary mission of Sign Shop Facility is to support the Department's work force by providing legible and high-quality signage in a timely and cost-effective means. To meet this mission, the following goals and objectives are established.
- 1.2** Provide regularly used signs to the Department's work force upon request by:
- (A) Staying up to date on the Manual Uniform Traffic Control Devices (MUTCD), Traffic Engineer Manual (T.E.M.), the Approved Products List and the Standard Index.
 - (B) Maintaining an inventory of commodities that will allow for the manufacturing and filling of finalized orders in full, with a 95% of the requested quantity of requested signs.
 - (B) Maintaining an inventory so that no more than 5% of actively stocked commodities for manufacturing purposes are at zero levels at any time.
 - (D) Staying up to date on the latest equipment and techniques.
- 1.3** Save an average of 15% of total costs for commodities acquired through the facility by complying with the following objectives:
- (A) Acquiring materials in sufficient quantities to obtain cost breaks.
 - (B) Establishing and maintaining Department term contracts for regularly used items that are not on state (Department of Management Services - DMS) contracts.
 - (C) Establishing statewide standard specifications that will provide the most cost-effective procurement of materials and supplies, where expenditures exceed \$35,000 annually.
- 1.4** Manufacture and stock signs needed by users that are not readily available by complying with the following objectives:
- (A) Determine what commodities are needed by users.
 - (B) Manufacture and maintain commodities for warehouses to get all regular and specialty signs used by Maintenance crews and Asset Maintenance Contractors.

2. THE ROLE AND PURPOSE OF THE SIGN SHOP

- (A) Serve as the coordinator of sign orders from State Warehouses, Asset Maintenance Contractors and other State Agencies by systematic production schedules.
- (B) Serve as the coordinator for distribution of signs to the correct District Warehouse.
- (C) Manufacture signs in a cost effective and timely manner in accordance with the Manual on Uniform Traffic Control Devices (MUTCD), Traffic Engineer Manual (T.E.M.), and Standard Index.
- (D) Work with Traffic Operations to guarantee uniformity of signs and that the standards are met.
- (E) Provide customer service to Statewide Warehouses, all FDOT Offices, Asset Management Contractors and other Governmental Agencies.

3. FACILITY STOCKING CRITERIA

Items may be added to the sign shop stock upon approval of the Roadway Maintenance Engineer or their designee based on local demand and one of the following:

- Cost effective to stock
- Hard to get items
- Long delivery times
- Items are determined to be critical to the Department's operations

Items with no demand and not meeting the criteria above should be deleted from the sign shop stock as approved by the Roadway Maintenance Engineer or their designee.

4. FACILITY REORDER POINTS

4.1 Reorder points on actively stocked commodities should be established based upon maintaining adequate inventory to cover the following periods before the stock level is depleted:

- Advertised and Bid Commodities - 60 days

- Existing Term Contracts Commodities - 30 days
- Informal Bid/Quoted Commodities - 30 days

4.2 These guidelines may not provide adequate time due to bid protests or other events that may postpone receipt of commodities. Planning for such delays could result in an unnecessarily large inventory in the sign shop. Instead, commodities that have a delay in stock may be purchased locally, where possible. The purchasing of commodities (normally provided by the contract) should be limited to the quantities needed until the commodity can be stocked through normal practices.

5. SIGN SHOP REORDER QUANTITIES

The recommended minimum reorder quantities are as follows:

- Advertised and Bid Commodities - 90 days usage
- Term Contracts Commodities - 45 days usage
- Informal Bid/Quoted Commodities - 30 days usage

6. INVENTORY CONTROL

6.1 The facility, shall have available upon request a current key list containing the names of all parties who have access to the shop commodities. This key list shall include all on-call personnel with access to a rotating facility key or other individuals with access to a key box that contains an Sign Shop key.

6.2 The facility, on a monthly basis, shall randomly select a minimum of 200 commodity items and perform an inventory validation between MSI and actual shelf counts. Inventory adjustments will be made in accordance with the ***Warehouse & Distribution Operations Handbook*** instructions. If the monthly inventory check error rate exceeds 3%, subsequent monthly inventory counts should increase the number of line items counted until the error rate falls below 3%.

6.3 Stock Replenishment from the Sign Shop is handled thru either:

- (A) Regular Signs are requested through the Stock Replenishment process in the MSI System by the Warehouse Personnel and Asset Maintenance Contractors.
- (B) Special Signs are requested on a Manufacturing Operations Form (Sign Fabrication 175-020-09) by the Warehouse Personnel and Asset Maintenance Contractors.

- 6.4** Authorization to request sign orders from the sign shop shall be based on either:
- (A) Authorization to process a stock replenishment ticket requires access to the MSI system. This access is granted to Warehouse Personnel for the Warehouse side of MSI to handle the orders for the warehouse signs. This access is granted to Asset Maintenance Contractors for the AM side of MSI to handle the orders for the contractor signs.
 - (B) Authorization to submit special orders on the form for warehouse orders are those already authorized in the MSI system to place orders. Special orders made by District personnel, must have District Maintenance Engineer / Operations Engineer or their designee approval to submit. These orders should go through each warehouse. Special orders made by the Asset Maintenance Contractor should be approved by the Project Manager for the contract they are order signs for.

6.5 Cost distribution charges to a Financial Project number shall be made in accordance with the ***Warehouse & Distribution Operations Handbook*** and ***Routine Maintenance Cost Collection, Topic No. 350-020-002.***

6.6 MSI records for issues shall be updated by close of business at the end of each week. All materials for production week shall be tracked on a Materials List until processed in MSI (e.g., Aluminum sheeting, aluminum blanks, reflective sheeting, etc.). MSI records shall be updated by close of business next business day for Receipt from Vendor Tickets, etc. This next day deadline is due to items that are out of the facility's control; such as, late delivery, dispute on delivery, inadequate time to review inventory by close of business same day, etc.

Errors found in MSI records shall be corrected the next working day.

6.7 A filing system shall be kept by type of file (Issue Ticket, Receipt from Vendor, Electronic Procurement, etc.) in chronological order. In this filing system should be all Adjustments, Issue Tickets, Receipt from Vendors, Electronic Procurement, etc. (this is not all inclusive).

Required justifications; such as: Non-use of PRIDE or RESPECT, Reason for Single Source, Non-use of Agency Contracts, Project requirement & Cancellations, End of Year requirements, etc. should be included and retained in the file.

7. WAREHOUSE & DISTRIBUTION OPERATIONS HANDBOOK

- 7.1** The *Warehouse & Distribution Operations Handbook* provides direction for record keeping, use of the MSI system, and proper inventory practices. It allows Sign Shop management to acquire a greater level of detail for individual management needs.
- 7.2** Updates to the *Warehouse & Distribution Operations Handbook* are issued by the Central Office Warehousing Operations Office. Significant changes will be covered through numbered memorandums. Updates will also be dispersed electronically through email.
- 7.3** Additional copies of the *Warehouse & Distribution Operations Handbook* may be obtained by contacting Central Office Warehouse Operations, 605 Suwannee Street, MS 52, Tallahassee, Florida 32399-0450, telephone (850) 410-5757. The *Handbook* is also available on the Office of Maintenance Sharepoint site.

8. QUALITY ASSURANCE REVIEW

All warehouses will have an annual review conducted each fiscal year. Program areas reviewed include Inventory Controls, Security of Facilities and Inventory, Inventory Stocking Levels, Storage and Handling of Materials, Prevention of Obsolete and Overstocked Commodities, No Activity Commodities and Materials and Supply Inventory Records.

- (A) Location Quality Assurance Review: This is a biennial (every other year) Location Audit that is offset by a Desk Audit; unless there are extenuating circumstances that may require back to back Location Audits (e.g., District Maintenance Audits, unsatisfactory scores, District request, etc.).
- (B) Desk Audit Review: This is a biennial (every other year) Desk Audit that is offset by a location audit; unless there are extenuating circumstances that may require back to back Desk Audits (e.g., weather, travel issues, scheduling issues, etc.).

9. RECORD RETENTION

All warehouse documents shall be retained on-site for a minimum of two (2) fiscal years. Duplicate files and other records or electronic files should be retained until obsolete, superseded or when the administrative value is lost. Retention schedules and procedures for Purchase Orders, Purchasing Cards, and other records must be followed and may require the records to be stored for longer periods.

10. TRAINING

Training for MSI systems and daily warehouse operations shall be provided by the Central Office Warehouse Operations through a variety of methods (email, one-on-one, teleconference, Webinars, Go-to-Meetings, etc.). Training methods will be dependent on individuals needing training, level of training needed and budget availability.

Periodically a course may be offered at the district level when substantial changes to warehousing operations have occurred. This training is identified as **Course No. CU-07-0001, Materials Supply Inventory**. The course will be announced when available.

11. FORMS

The following forms are available in the Departments Forms Library or may be obtained by contacting Central Office Warehouse Operations:

- 175-020-02, Commodity Evaluation
- 175-020-04, Inventory Item Deficiency Report