

4 Workstation Units for Mail Processing

41 General

Chapter 4 provides space requirement drawings of workstation unit (WSU) layouts for visual reference. These WSUs are provided for mail processing operations, including mail preparation; distribution of letter and flat mail; distribution of irregular parcels and pieces (IPPs); processing special category mail; distribution of parcel post; bulk sorting and materials handling operations; computer forwarding system (CFS) operations; and office and clerical operations. Section 33 instructs the analyst to use these WSUs in the assembly of the work space requirements for a mail processing facility. All WSUs are designed with current postal equipment. WSUs may have to be adjusted for future obsolete equipment. Exhibit 41 lists equipment that is referenced by Postal Service identification number (PSIN) within certain WSUs.

42 Mail Preparation

Exhibit 42a lists the WSUs, and square feet (sq ft) required, currently used for mail preparation. Exhibits 42b through 42ah illustrate these WSUs for visual reference in planning facility space requirements.

Exhibit 41
Equipment Referenced in WSUs

| PSIN (Item Number) | Description |
|--------------------------|--|
| 3B | Dumping and Facing Table |
| 8B | Canceling Machine Table |
| 11 | Dumping and Stamping Case and Table |
| 30 | Pouch Rack |
| 31A | Pouch Rack (No Bottom) |
| 31B | Pouch Rack |
| 32 | Parcel Post Sack Rack |
| 53 | Adjustable Platform Stool |
| 61A,B | Sack Racks |
| 77 | Swinging Letter Case Wing |
| 78 | Swinging Letter Case Wing (Closed Back) |
| 79 | Letter Case and Table |
| 80 | Letter Case and Table (Closed Back) |
| 109B | Flat Case and Table |
| 124C | Carrier Case and Table |
| 136B | Flat Case |
| 144C | Carrier Case and Table Wing |
| 0857 | Automatic Indicating Scale |
| 1033 | Small Canvas Hamper |
| 1046 | Large Canvas Hamper |
| 1070 | Nutting Truck |
| 1075 | Utility Cart (U-Cart) |
| 1226C | Tray Cart |
| 1226F | Tray Cart (Delivery Barcode Sorter (DBCS)) |
| 1922A | Model 89 Conveyor 17' |
| 1922B | Model 89 Conveyor 25' |
| 1938 | Gravity Roller Conveyor |
| 3601 | Canceling Machine, Medium Volume |
| 3602 | Canceling Machine, Large Volume |
| 3909 | General-Purpose Mail Container |
| 3910 | Bulk Mail Container (BMC), Over-the-Road (OTR) Container |
| 3919 | Wood Pallet, 40" x 48" |
| 3919A | Particle Board Pallet, 40" x 48" |
| 3919B | Plastic Pallet, 40" x 48" |
| 3921 | Eastern Region Mail Container |

Exhibit 42a

WSUs Used for Mail Preparation

| WSU Number | PostalCAD Drawing Name | Square Feet Required | Item Numbers and/or Description |
|------------|------------------------|----------------------|--|
| 420001 | 420001.DWG | 87 | 36-Separation Canceling Workstation Without Cancel Machine |
| 420001a | 420001A.DWG | 101 | 36-Separation Canceling Workstation With Cancel Machine |
| 420002 | 420002.DWG | 142 | 49-Separation Canceling Workstation With Cancel Machine |
| 420002a | 420002A.DWG | 231 | 77-Separation Canceling Workstation With Cancel Machine |
| 420003 | 420003.DWG | 68 | Canceling Workstation With #3B Table Without Cancel Machine |
| 420003b | 420003b.DWG | 110 | Canceling Workstation With #3B Table With Cancel Machine |
| 420006 | 420006.DWG | 527 | 1/2 Mark Canceler With Culling and Facing Conveyor (10-Ft Work Area) |
| 420006a | 420006A.DWG | 680 | 1/2 Mark Canceler With Culling and Facing Conveyor (18-Ft Work Area) |
| 420007 | 420007.DWG | 918 | 1/2 Mark Canceler With Tandem Culling and Facing Conveyor (28-Ft Work Area) |
| 420008 | 420008.DWG | 2,023 | Micro Mark II Facer Canceler System With Culling Belt and Meter Mail Setup |
| 420008a | 420008A.DWG | 1,184 | Micro Mark II Facer Canceler System With Culling Belt |
| 420008b | 420008b.DWG | 821 | Micro Mark II Facer Canceler Systems for Advanced Facer-Canceler System (AFCS) Thicks |
| 420009 | 420009.DWG | 4,516 | Two Micro Mark II Facer Canceler Systems With Tandem Culling Belt and Tandem Meter Mail Setup |
| 420009a | 420009A.DWG | 3,745 | Two Micro Mark II Facer Canceler Systems With Tandem Culling Belt |
| 420010a | 420010A.DWG | 2,294 | Advanced Facer Canceler System With Culling Belt |
| 420010b | 420010B.DWG | 7,300 | Two AFCSSs With Standard Cull/Feed System |
| 420010c | 420010C.DWG | 8,262 | Three AFCSSs With Standard Cull/Feed System |
| 420010d | 420010D.DWG | 9,126 | Four AFCSSs With Standard Cull/Feed System |
| 420010e | 420010E.DWG | 10,876 | Five AFCSSs With Standard Cull/Feed System |
| 420010f | 420010F.DWG | 11,740 | Six AFCSSs With Standard Cull/Feed System |
| 420010g | 420010G.DWG | 11,836 | Seven AFCSSs With Standard Cull/Feed System |
| 420010h | 420010H.DWG | 12,700 | Eight AFCSSs With Standard Cull/Feed System |
| 420011 | 420011.DWG | 700 | Tandem Meter Mail Setup |
| 420012 | 420012.DWG | 648 | Five-Position Meter Mail Setup |
| 420012a | 420012A.DWG | 495 | Three-Position Meter Mail Setup |
| 420013 | 420013.DWG | 260 | Storage and Cutting |
| 420014 | 420014.DWG | 970 | Pouch Opening With 63 Separations |
| 420014a | 420014A.DWG | 444 | Pouch Opening With 48 Separations |
| 420015 | 420015.DWG | 1,000 | Sack Opening, Paper, and Small Parcels and Rolls (SPRs) — Primary Cutting and Setup (58 Separations) |
| 420016a | 420016A.DWG | 950 | SPR and Thicks Canceling (17-Ft Belt) |
| 420016b | 420016B.DWG | 1,175 | SPR and Thicks Canceling (25-Ft Belt) |
| 420017a | 420017A.DWG | 950 | Model 15 Flats Canceler/Stacker (17-Ft Belt) |
| 420017b | 420017B.DWG | 1,175 | Model 15 Flats Canceler/Stacker (25-Ft Belt) |

Exhibit 42b

420001, 36-Separation Canceling Workstation Without Cancel Machine

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 87 Sq Ft

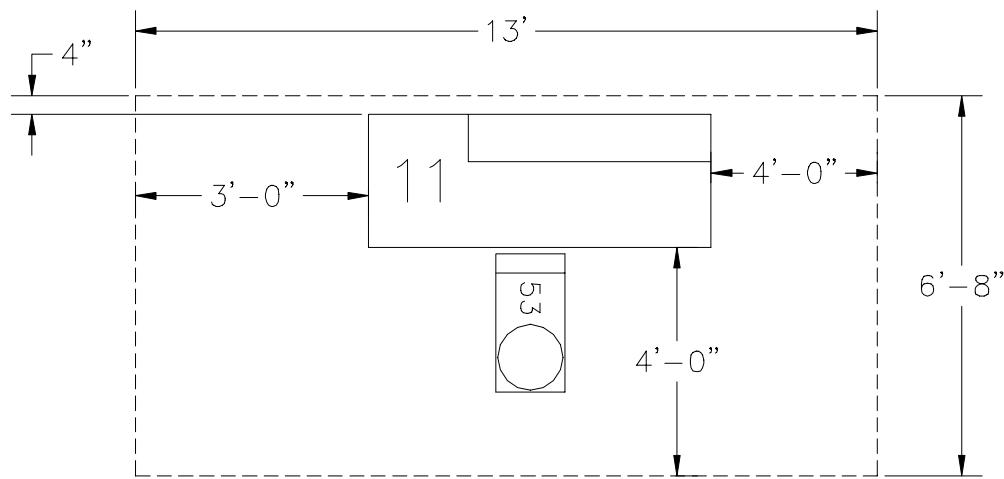


Exhibit 42c

420001a, 36-Separation Canceling Workstation With Cancel Machine

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 101 Sq Ft

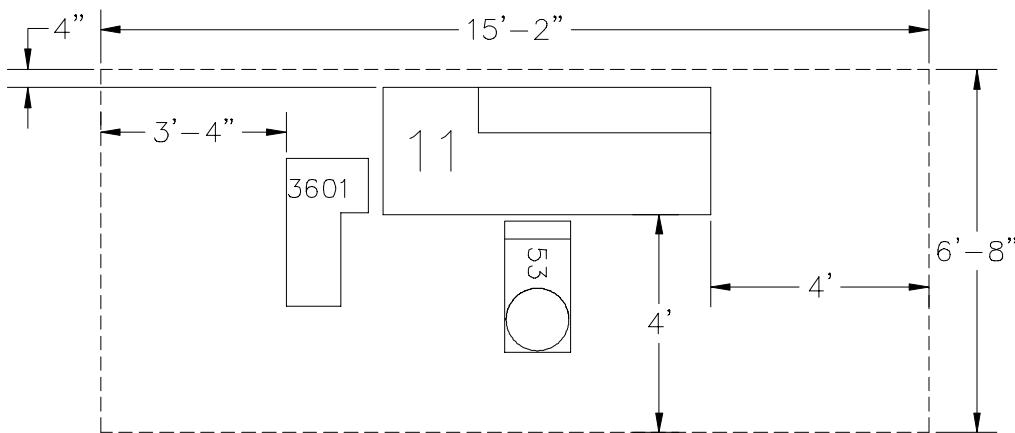


Exhibit 42d

420002, 49-Separation Canceling Workstation With Cancel Machine

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 142 Sq Ft

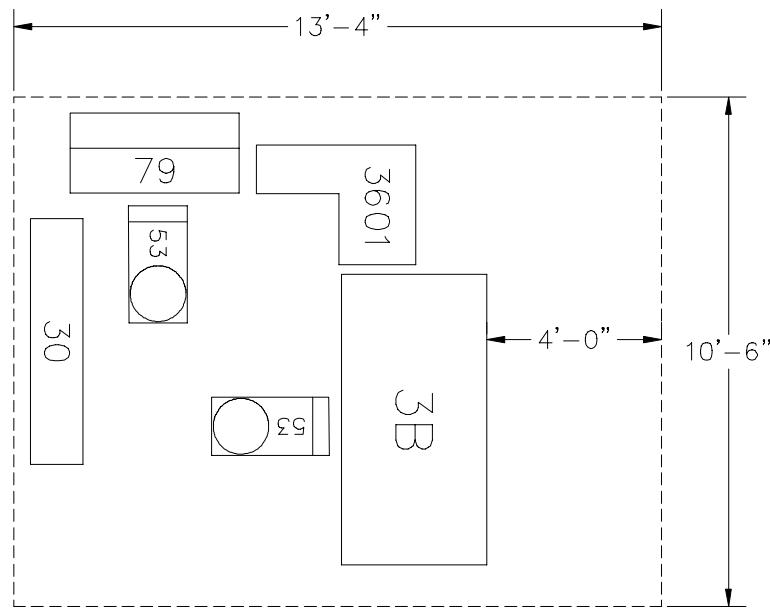


Exhibit 42e

420002a, 77-Separation Canceling Workstation With Cancel Machine

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 231 Sq Ft

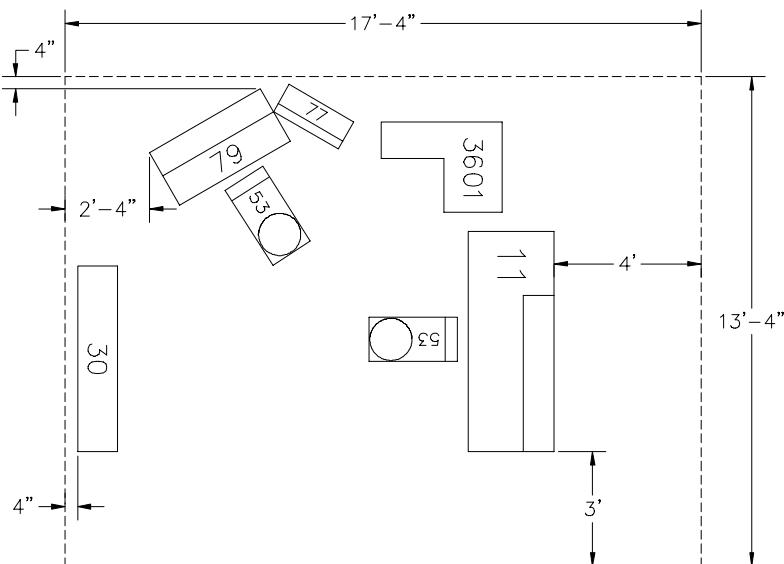


Exhibit 42f

420003, Canceling Workstation With #3B Table Without Cancel Machine

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 68 Sq Ft

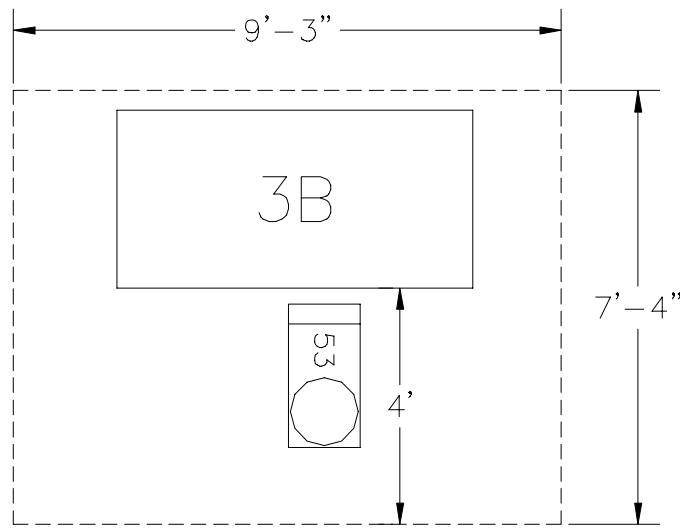


Exhibit 42g

420003b, Canceling Workstation With #3B Table With Cancel Machine

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 110 Sq Ft

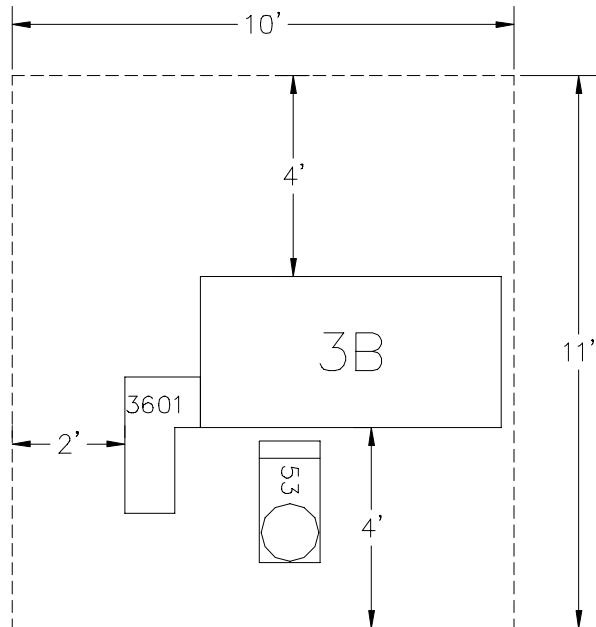


Exhibit 42h

420006, 1/2 Mark Canceler With Culling and Facing Conveyor (10-Ft Work Area)

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 527 Sq Ft

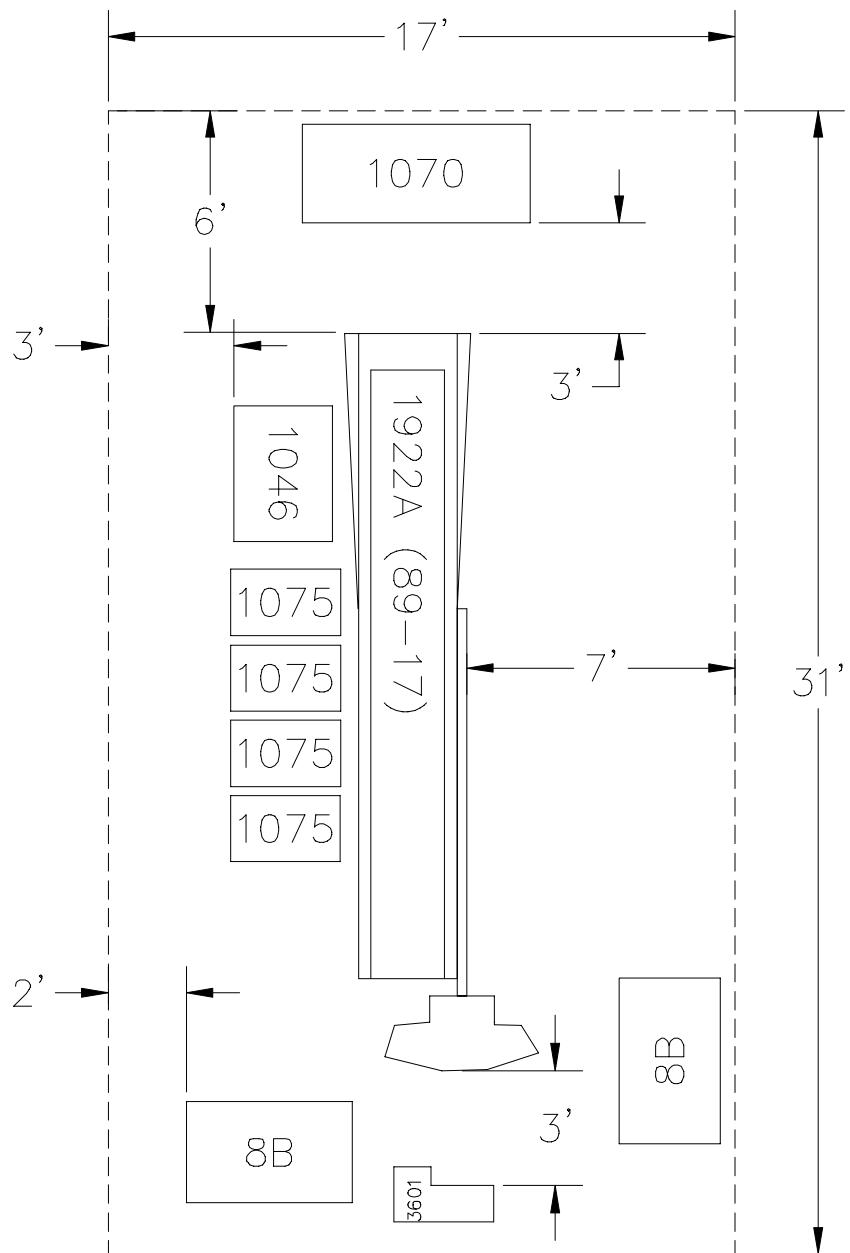


Exhibit 42i

420006a, 1/2 Mark Canceler With Culling and Facing Conveyor (18-Ft Work Area)

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 680 Sq Ft

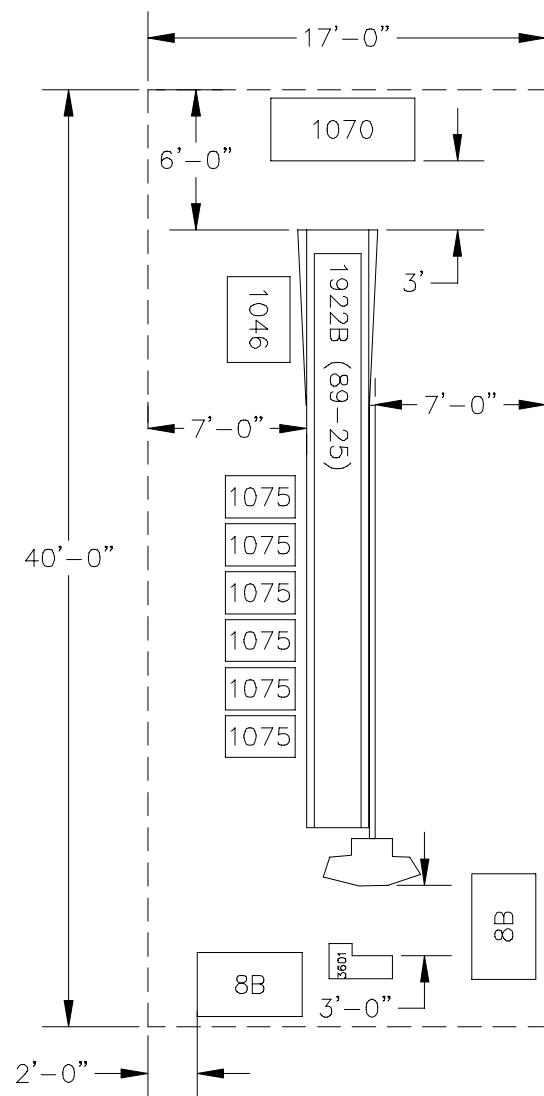


Exhibit 42j

420007, 1/2 Mark Canceler With Tandem Culling and Facing Conveyor (28-Ft Work Area)

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 918 Sq Ft

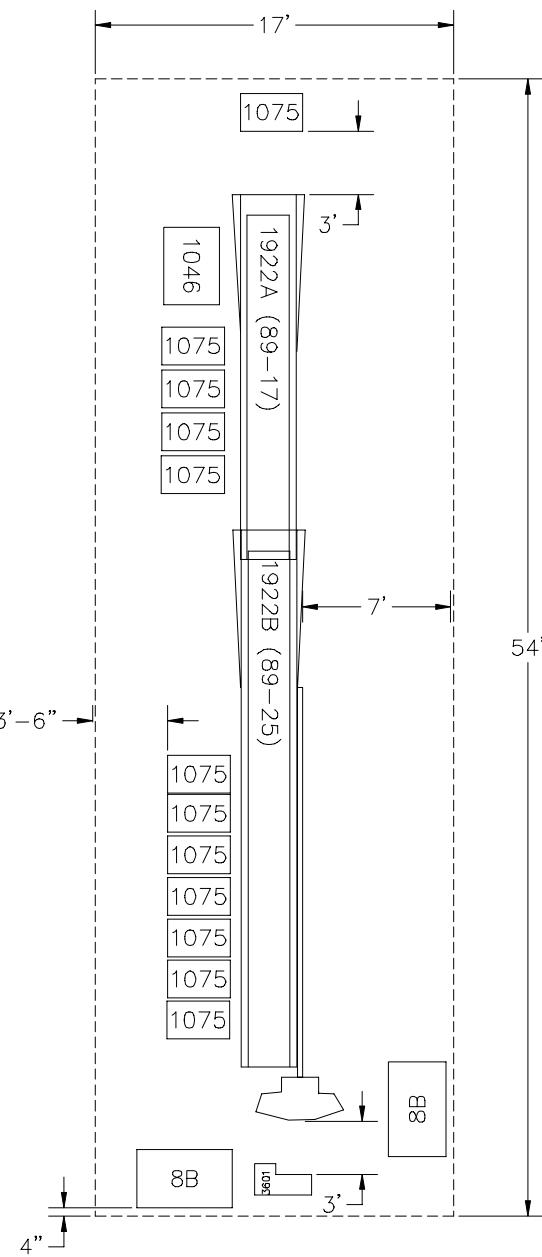


Exhibit 42k

420008, Micro Mark II Facer Canceler System With Culling Belt and Meter Mail Setup

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 2,023 Sq Ft

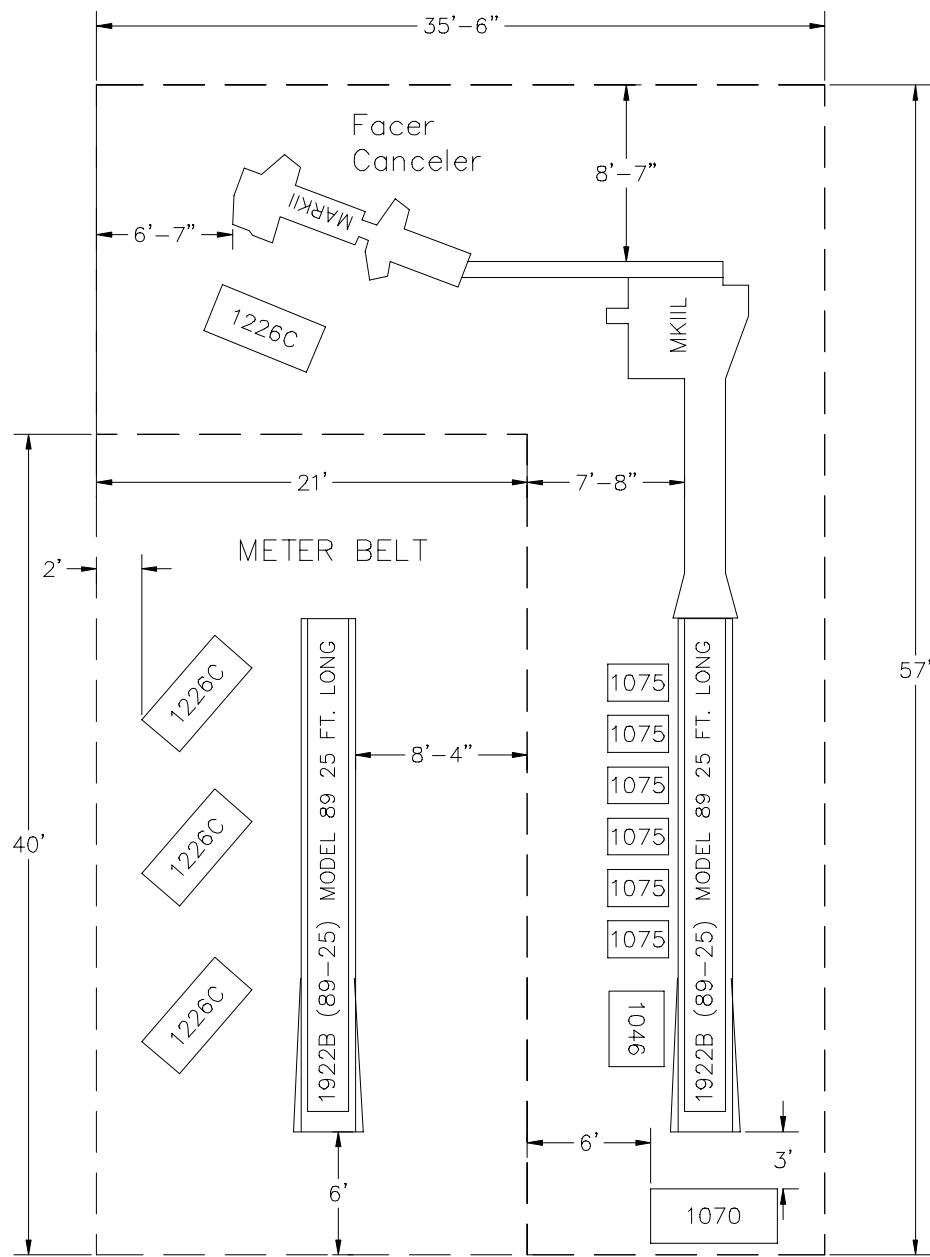


Exhibit 42I

420008a, Micro Mark II Facer Canceler System With Culling Belt

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 1,184 Sq Ft

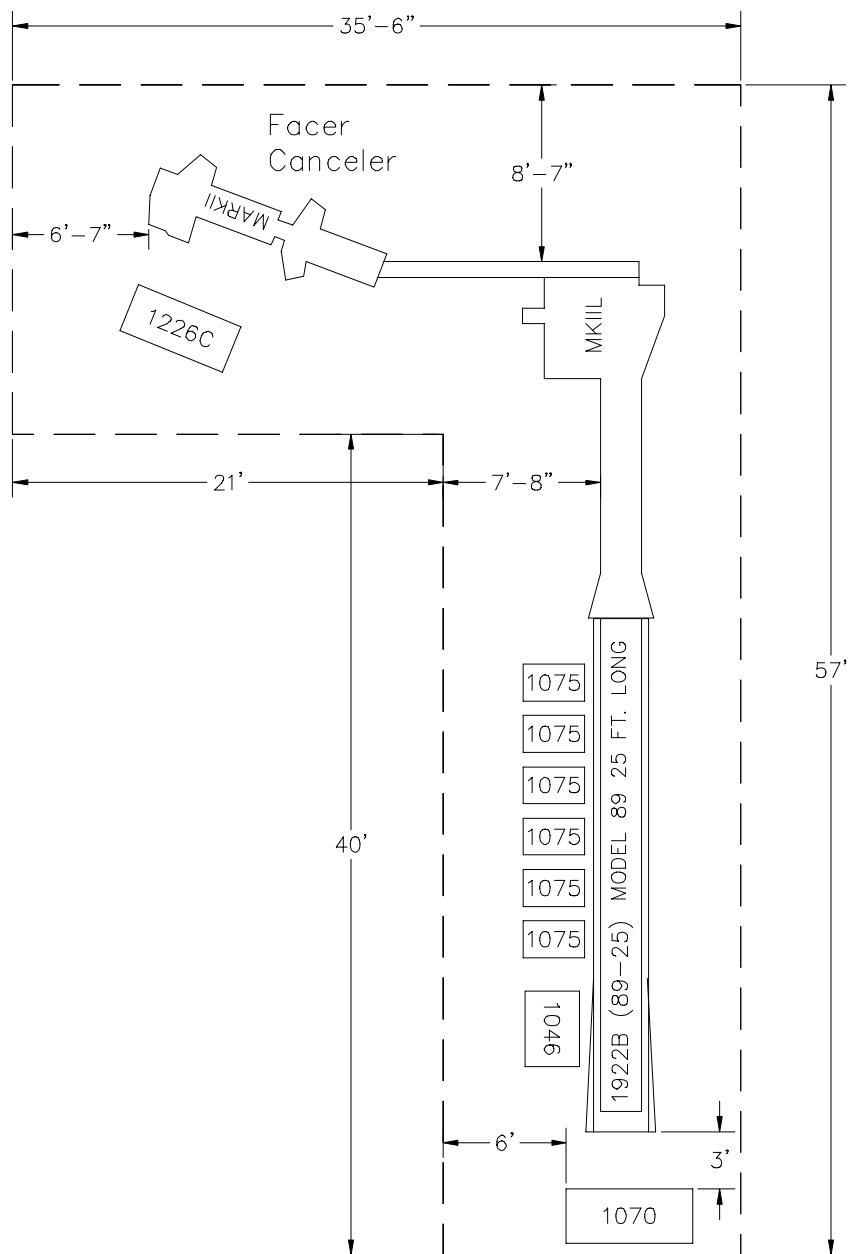


Exhibit 42m

420008b, Micro Mark II Facer Canceler Systems for AFCS Thicks

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 821 Sq Ft

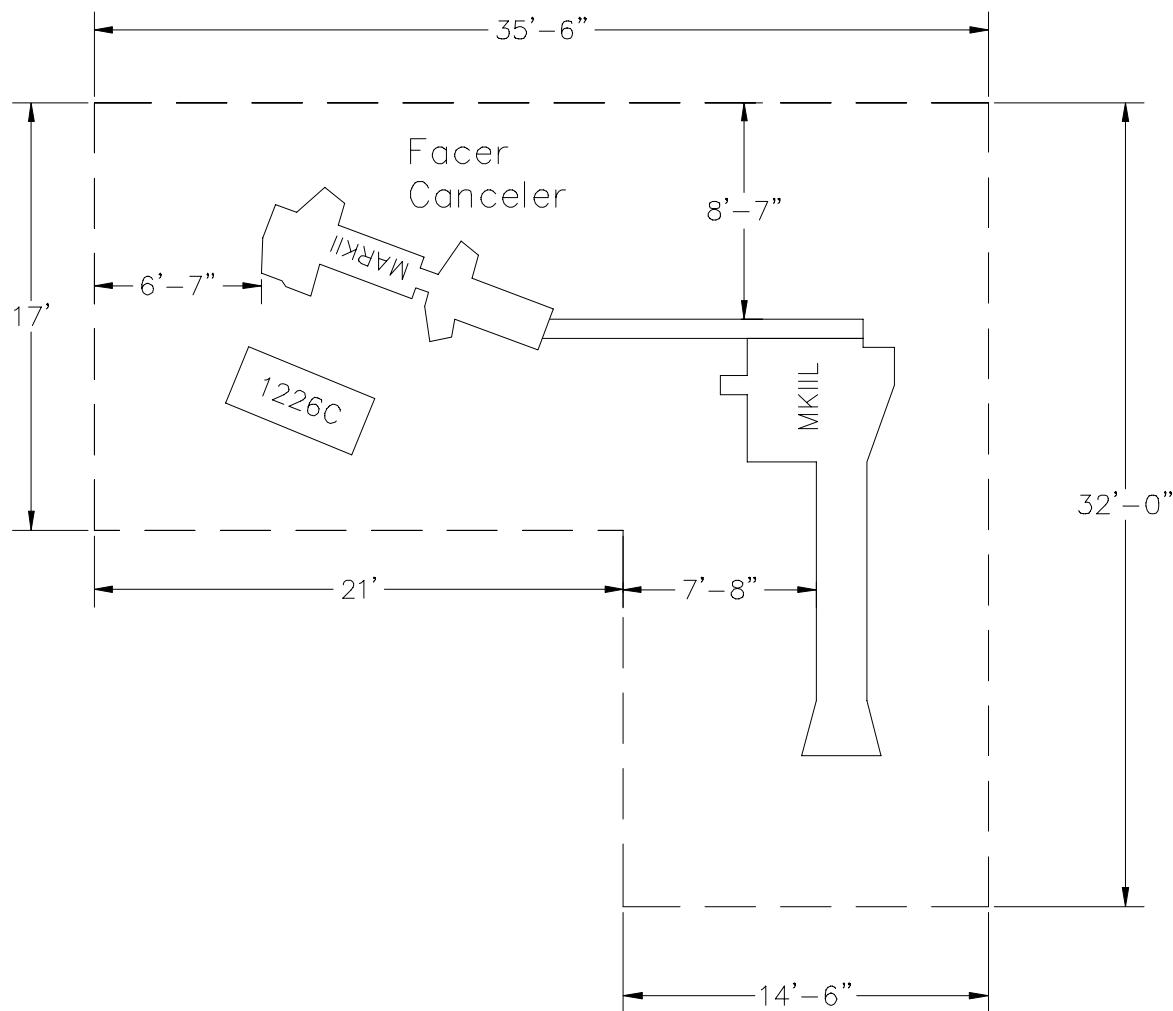


Exhibit 42n

420009, Two Micro Mark II Facer Canceler Systems With Tandem Culling Belt and Tandem Meter Mail Setup

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 4,516 Sq Ft

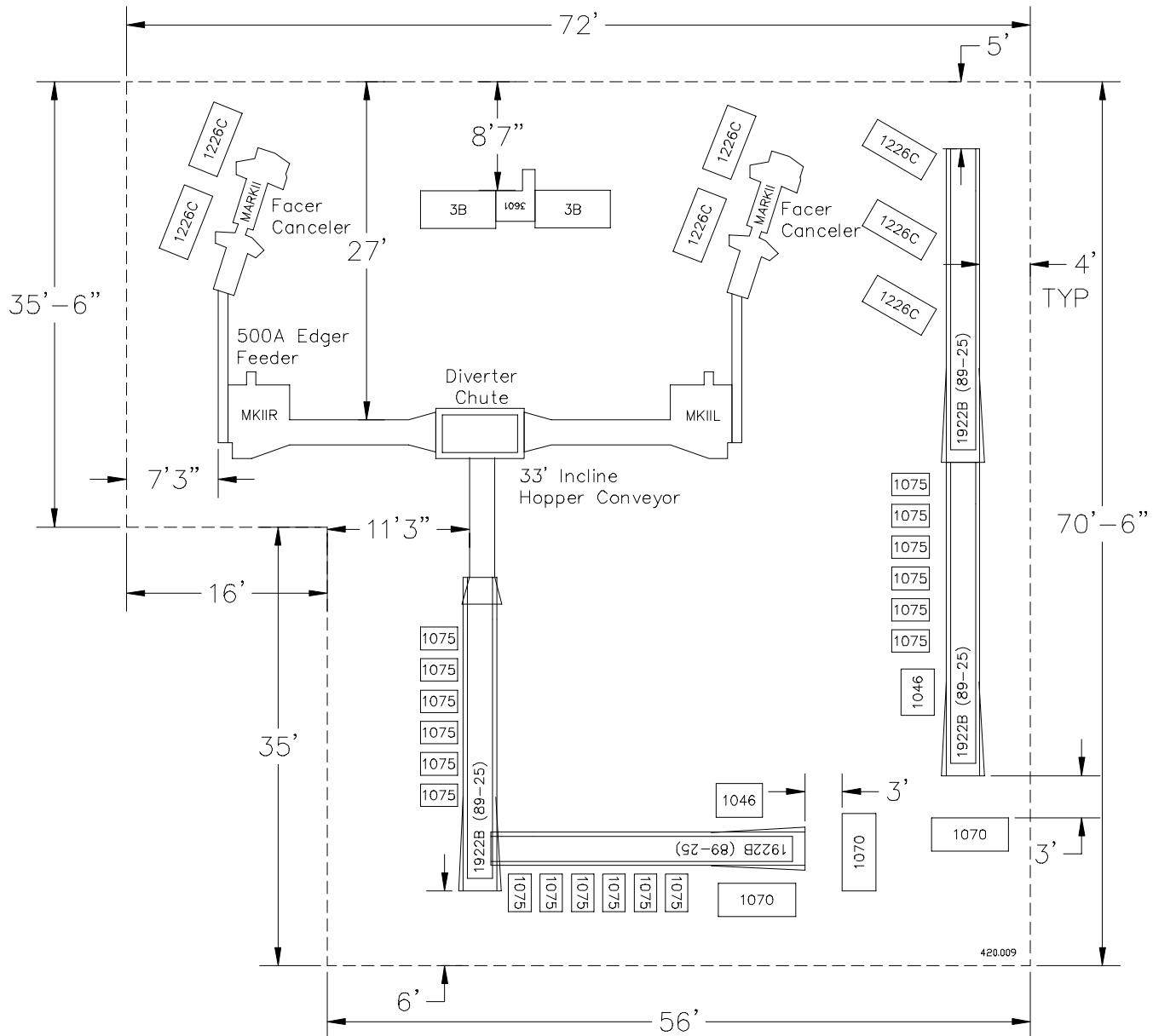


Exhibit 42o

420009a, Two Micro Mark II Facer Canceler Systems With Tandem Culling Belt

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 3,745 Sq Ft

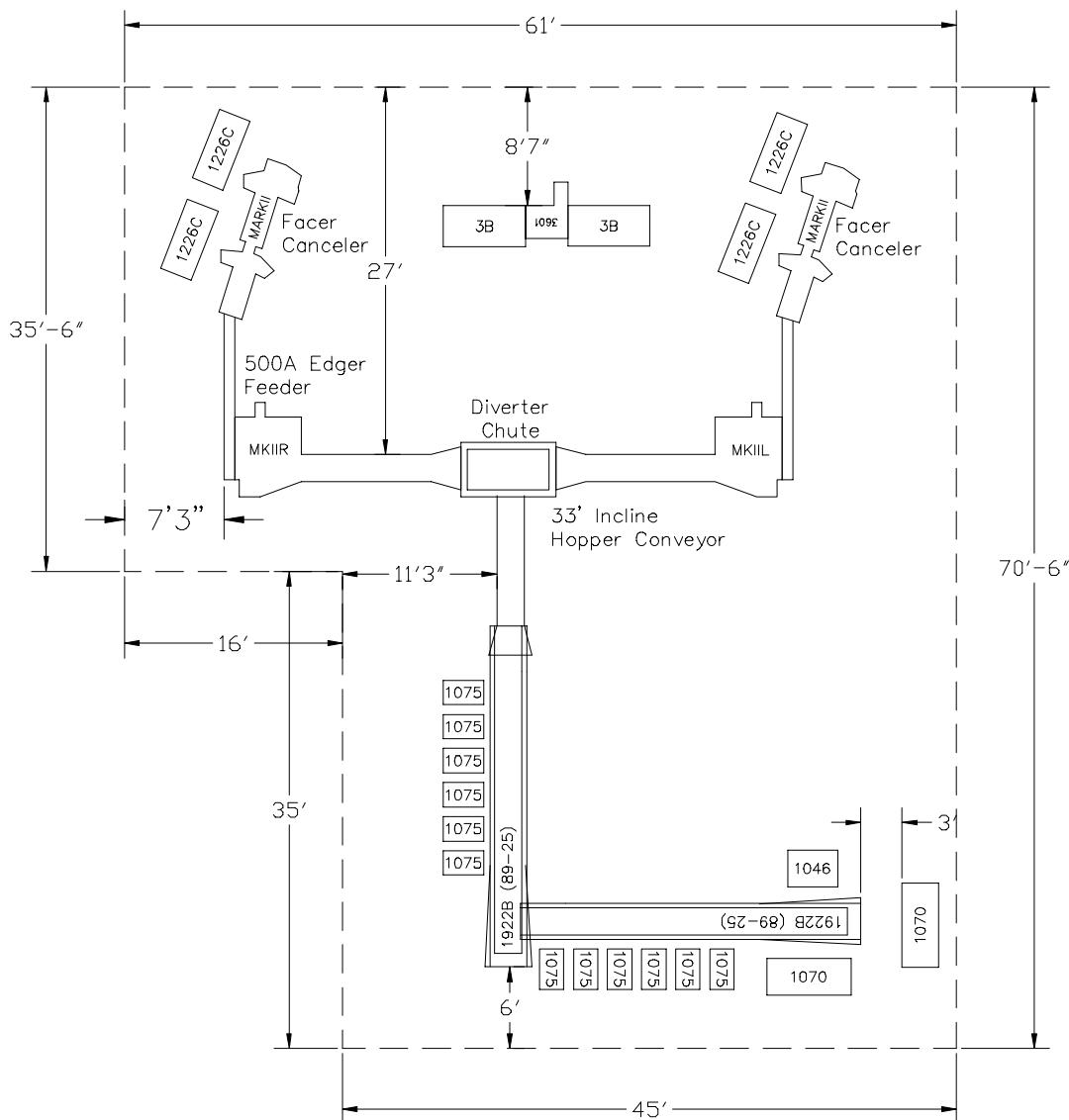


Exhibit 42p

420010a, Advanced Facer Canceler System With Culling Belt

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 2,294 Sq Ft

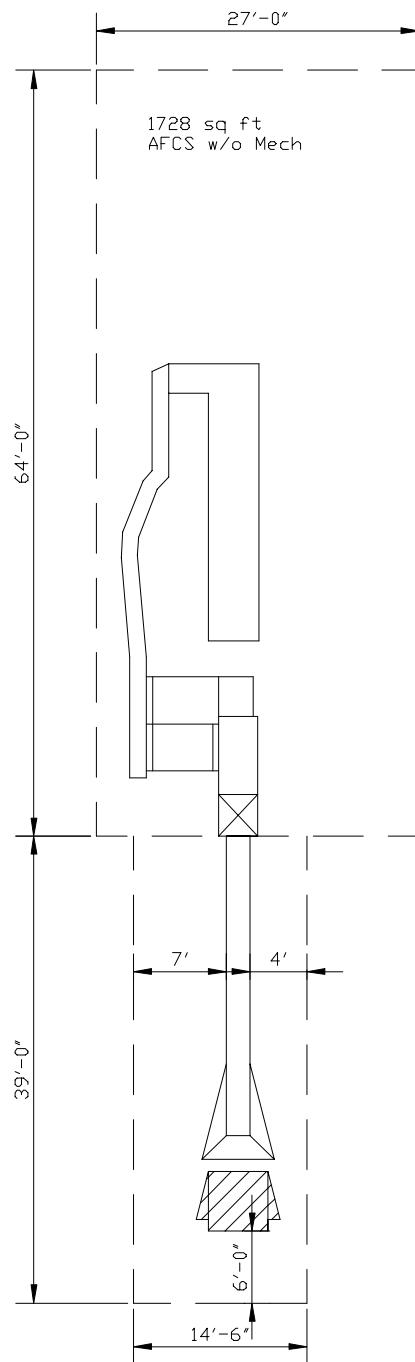


Exhibit 42q

420010b, Two AFCSs With Standard Cull/Feed System

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 7,300 Sq Ft

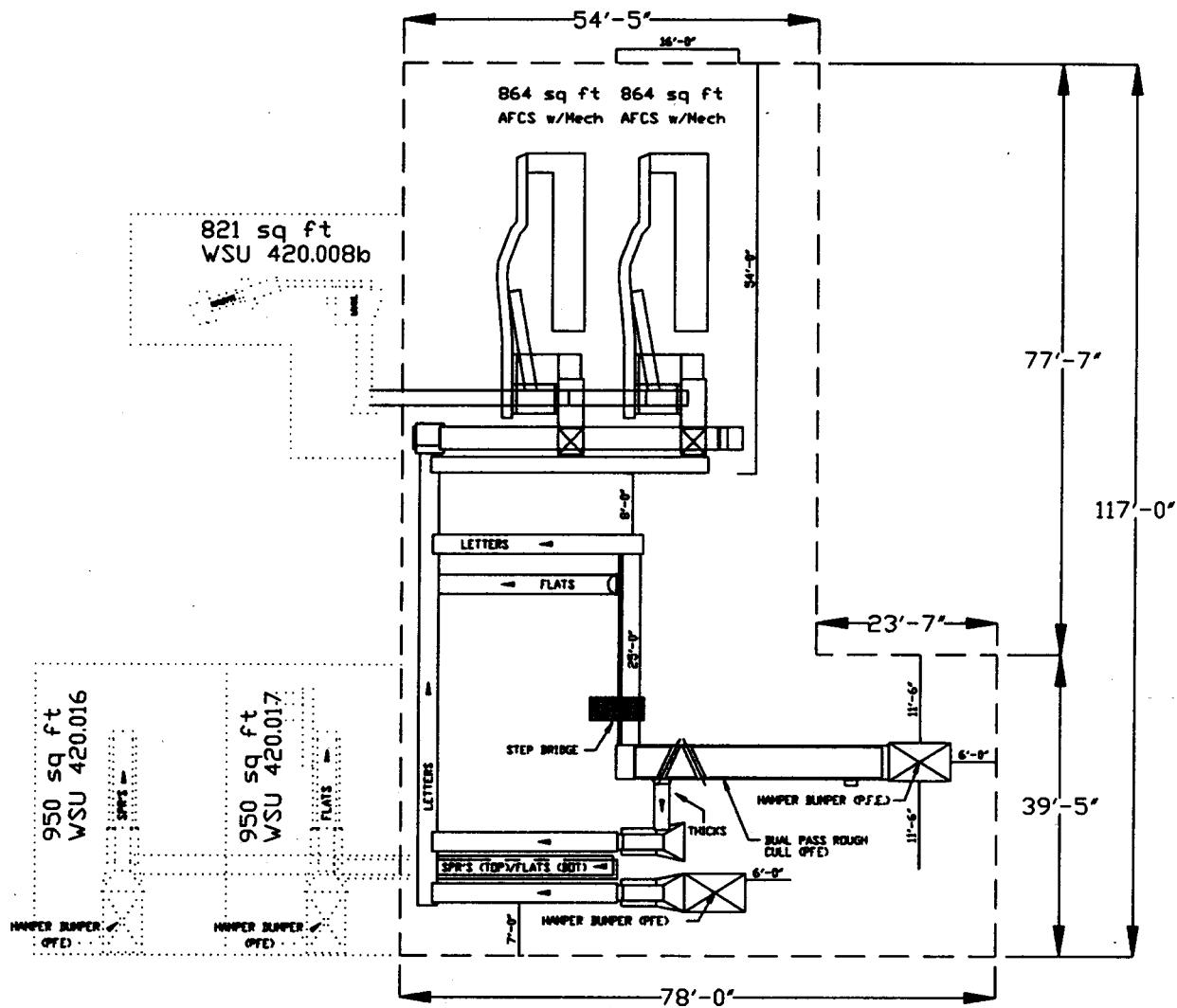


Exhibit 42r

420010c, Three AFCSSs With Standard Cull/Feed System

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 8,262 Sq Ft

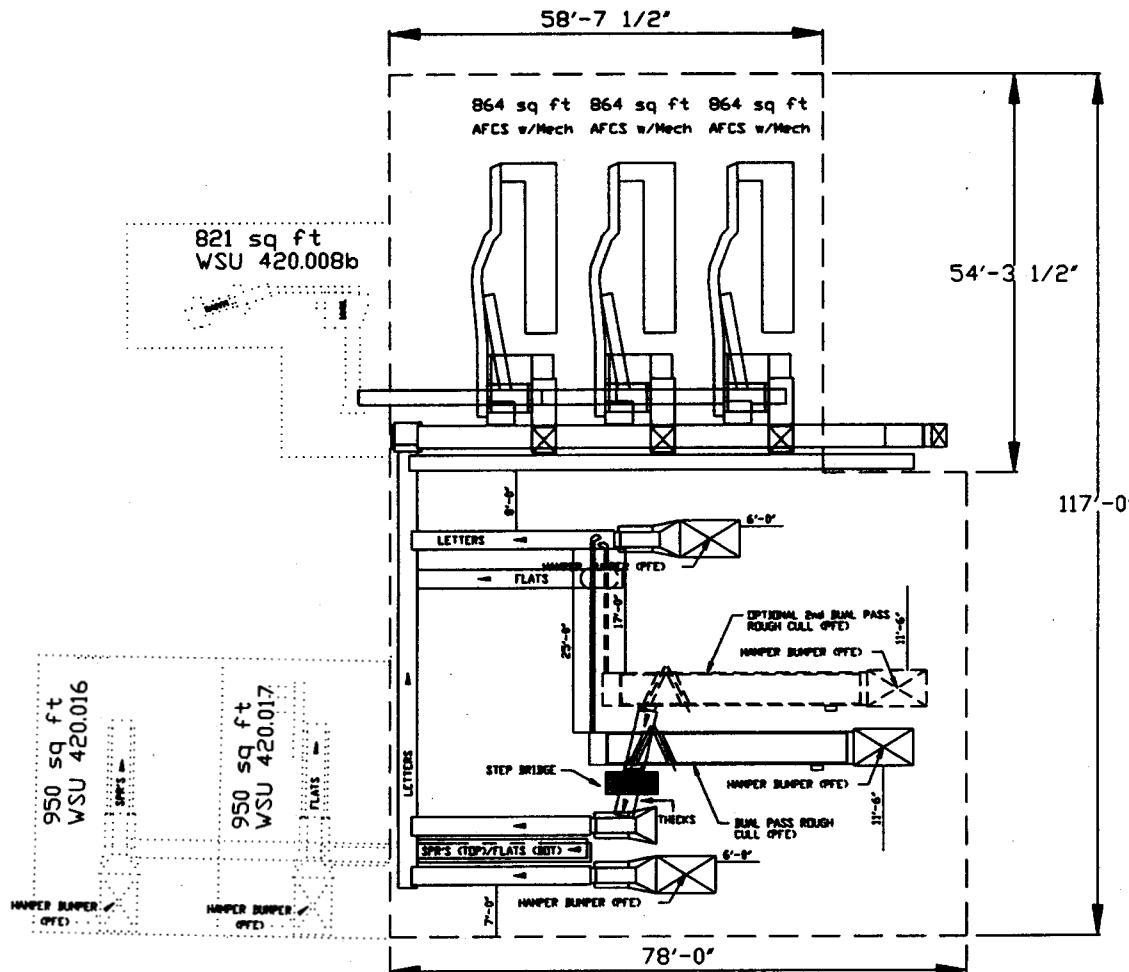


Exhibit 42s

420010d, Four AFCSs With Standard Cull/Feed System

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 9,126 Sq Ft

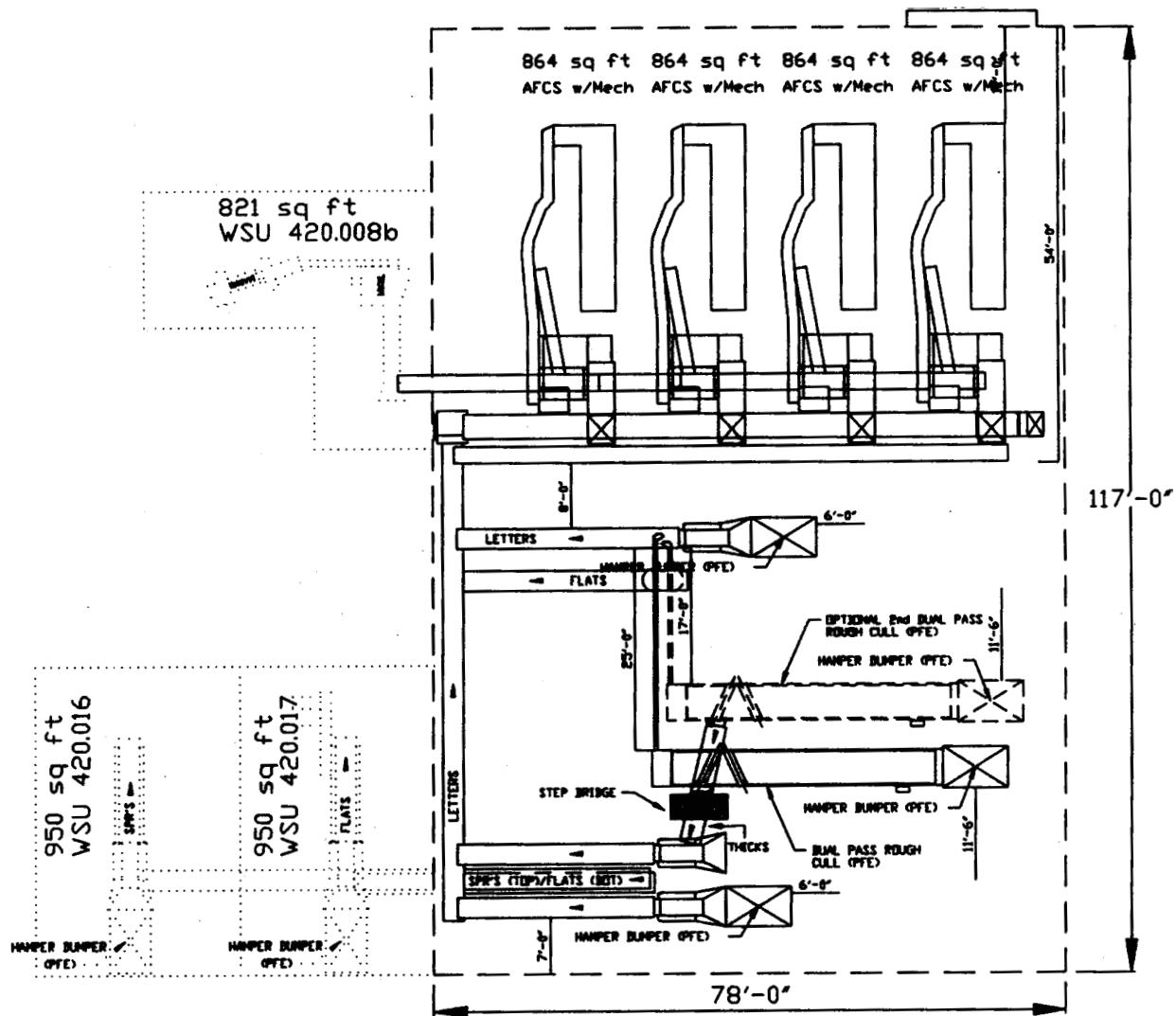


Exhibit 42t

420010e, Five AFCSs With Standard Cull/Feed System

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 10,876 Sq Ft

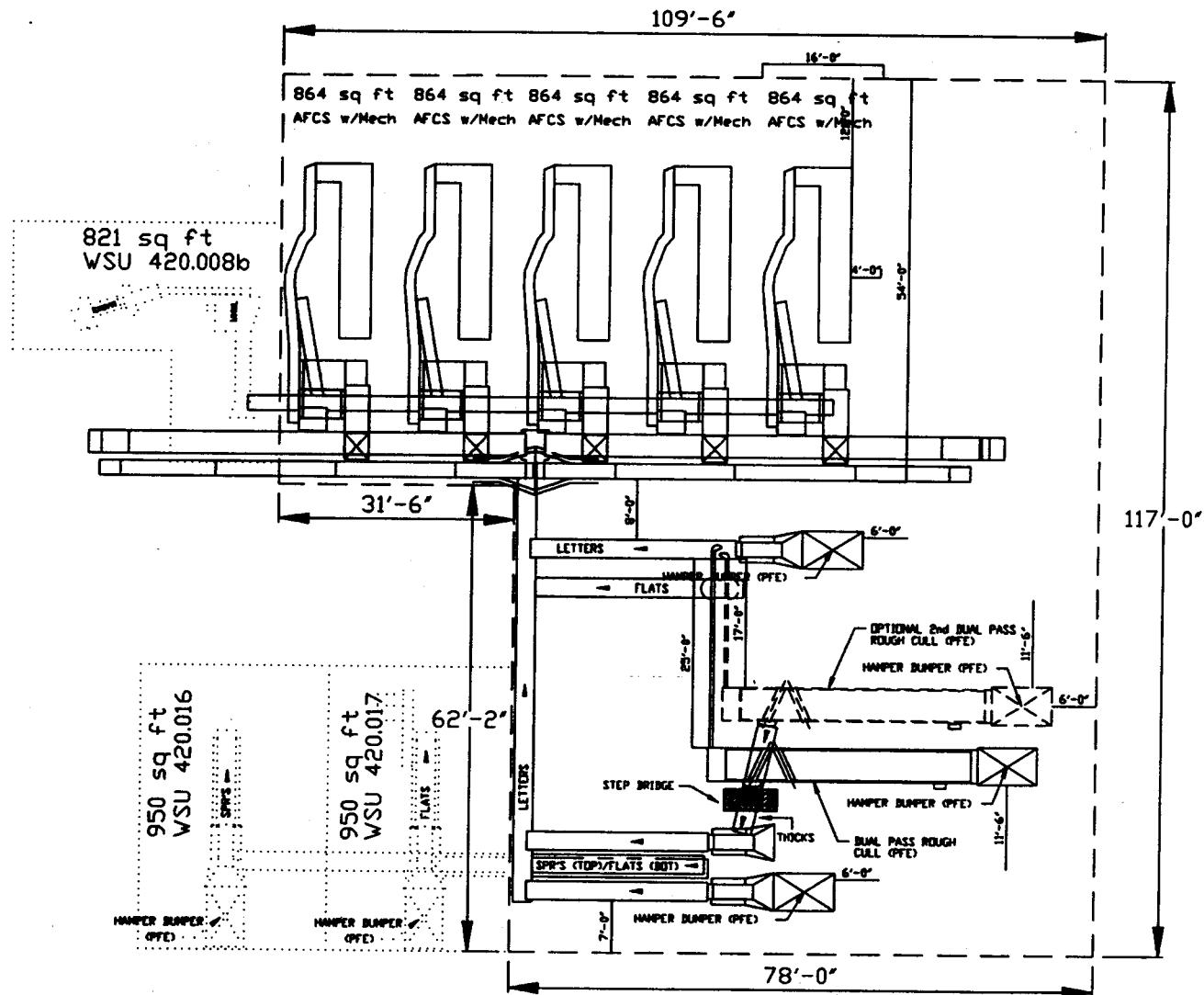


Exhibit 42u

420010f, Six AFCSs With Standard Cull/Feed System

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 11,740 Sq Ft

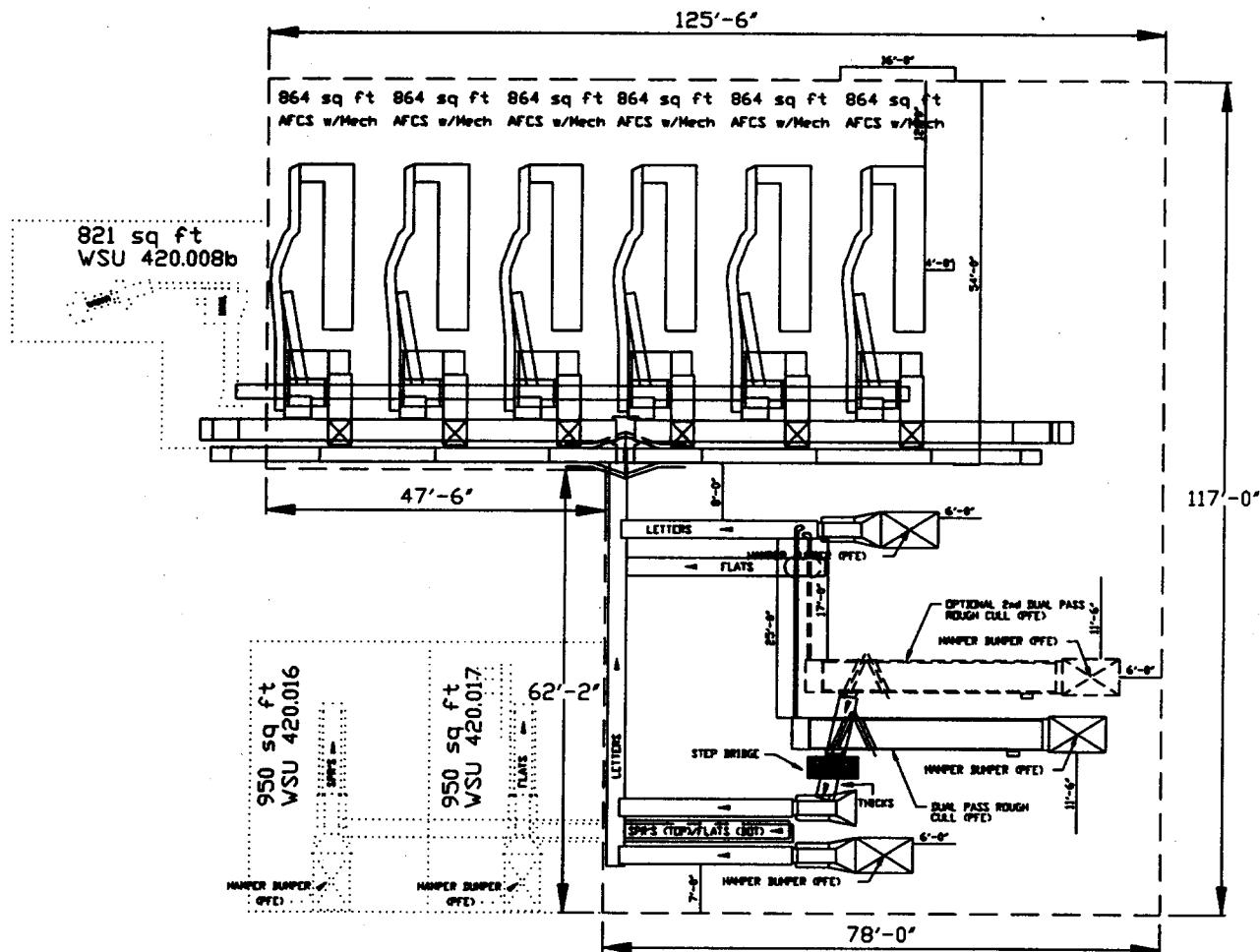


Exhibit 42v

420010g, Seven AFCSs With Standard Cull/Feed System

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 11,836 Sq Ft

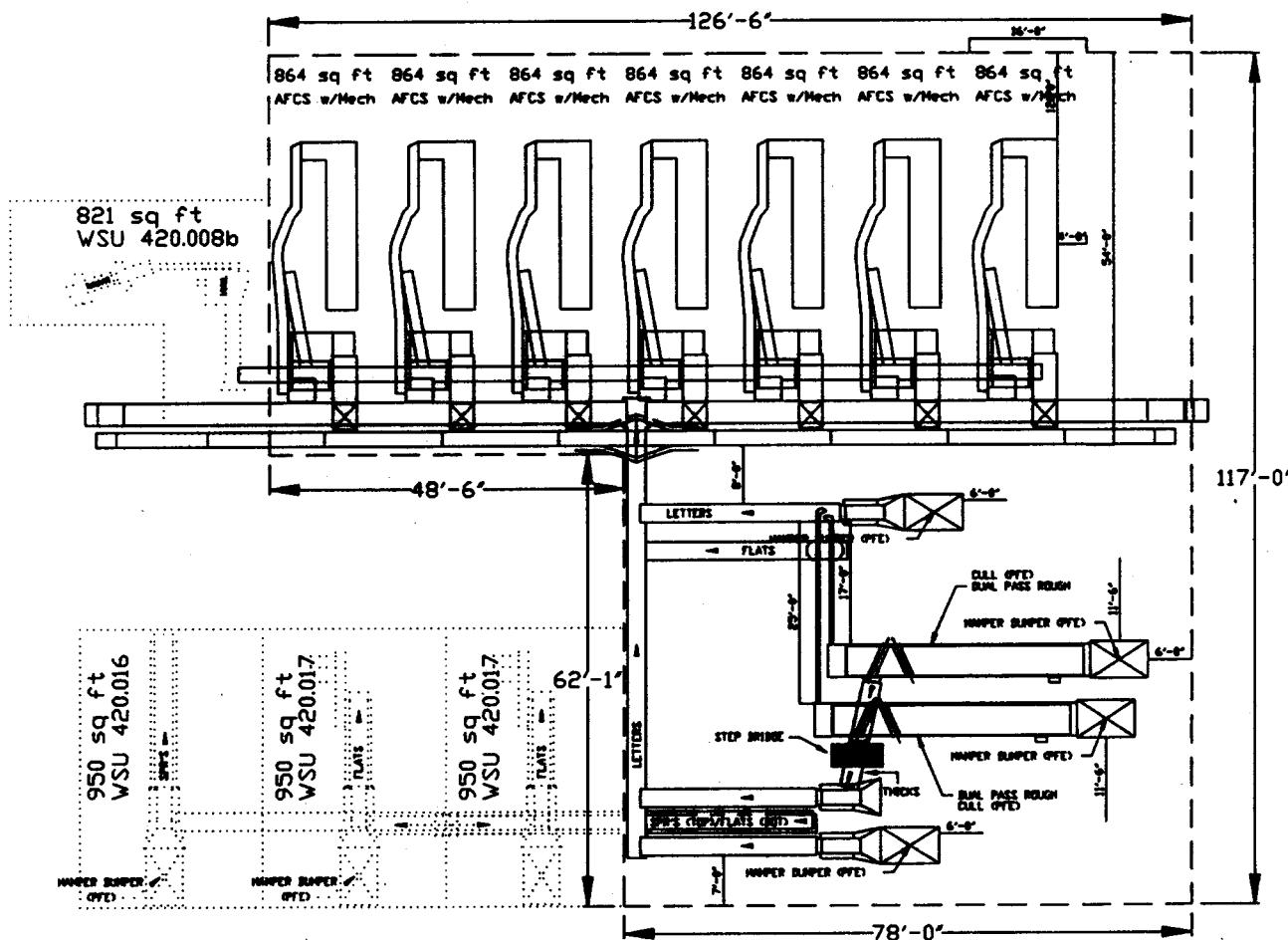


Exhibit 42w

420010h, Eight AFCSs With Standard Cull/Feed System

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 12,700 Sq Ft

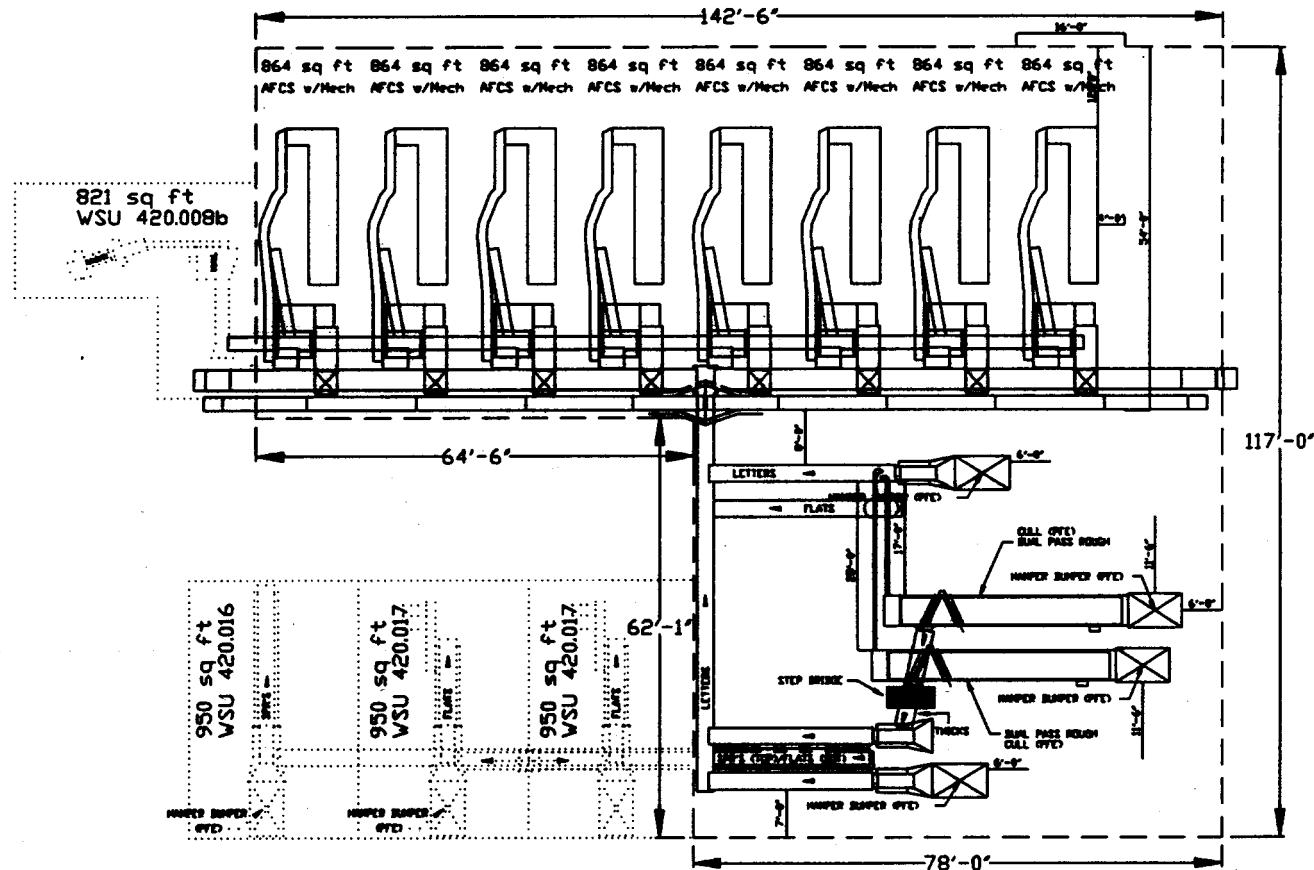


Exhibit 42x

420011, Tandem Meter Mail Setup

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 700 Sq Ft

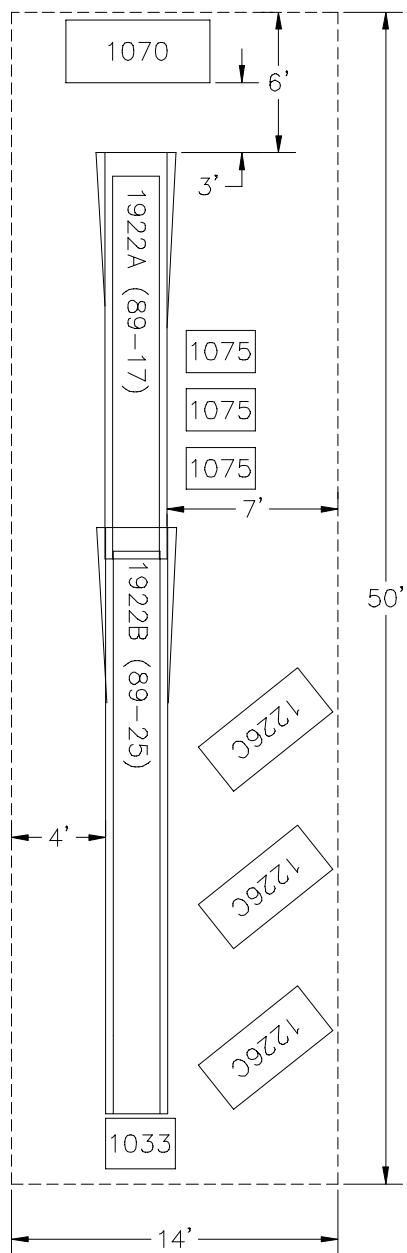


Exhibit 42y

420012, Five-Position Meter Mail Setup

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 648 Sq Ft

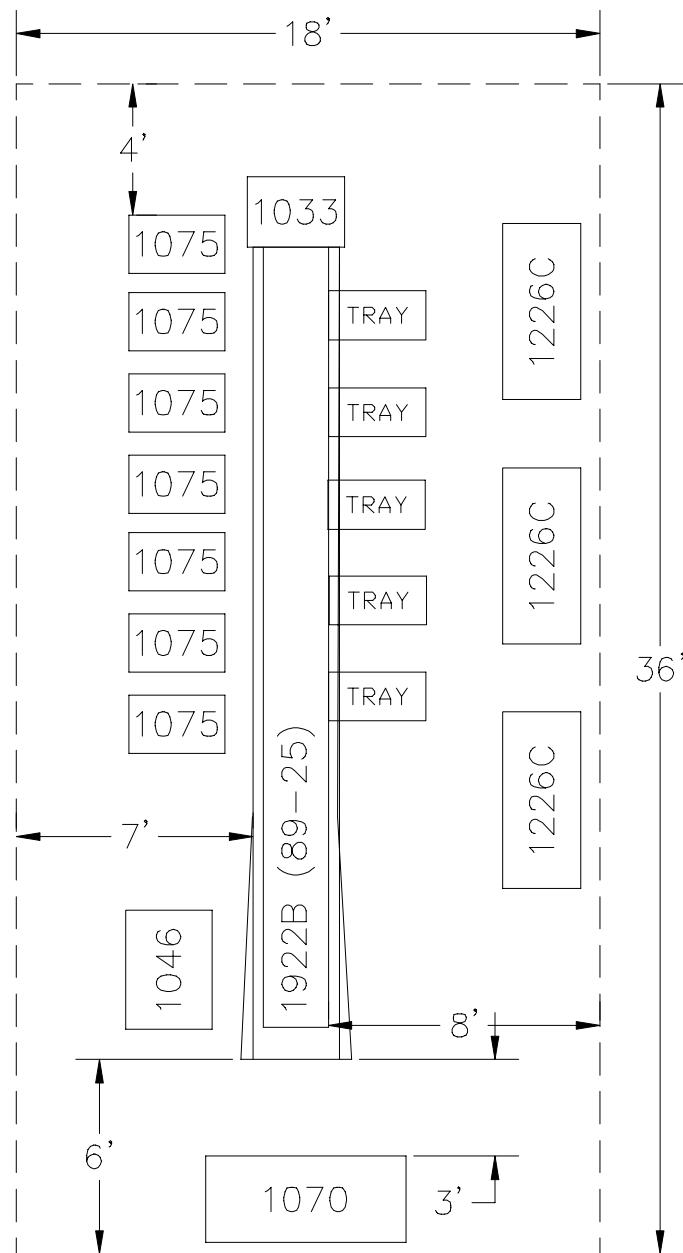


Exhibit 42z

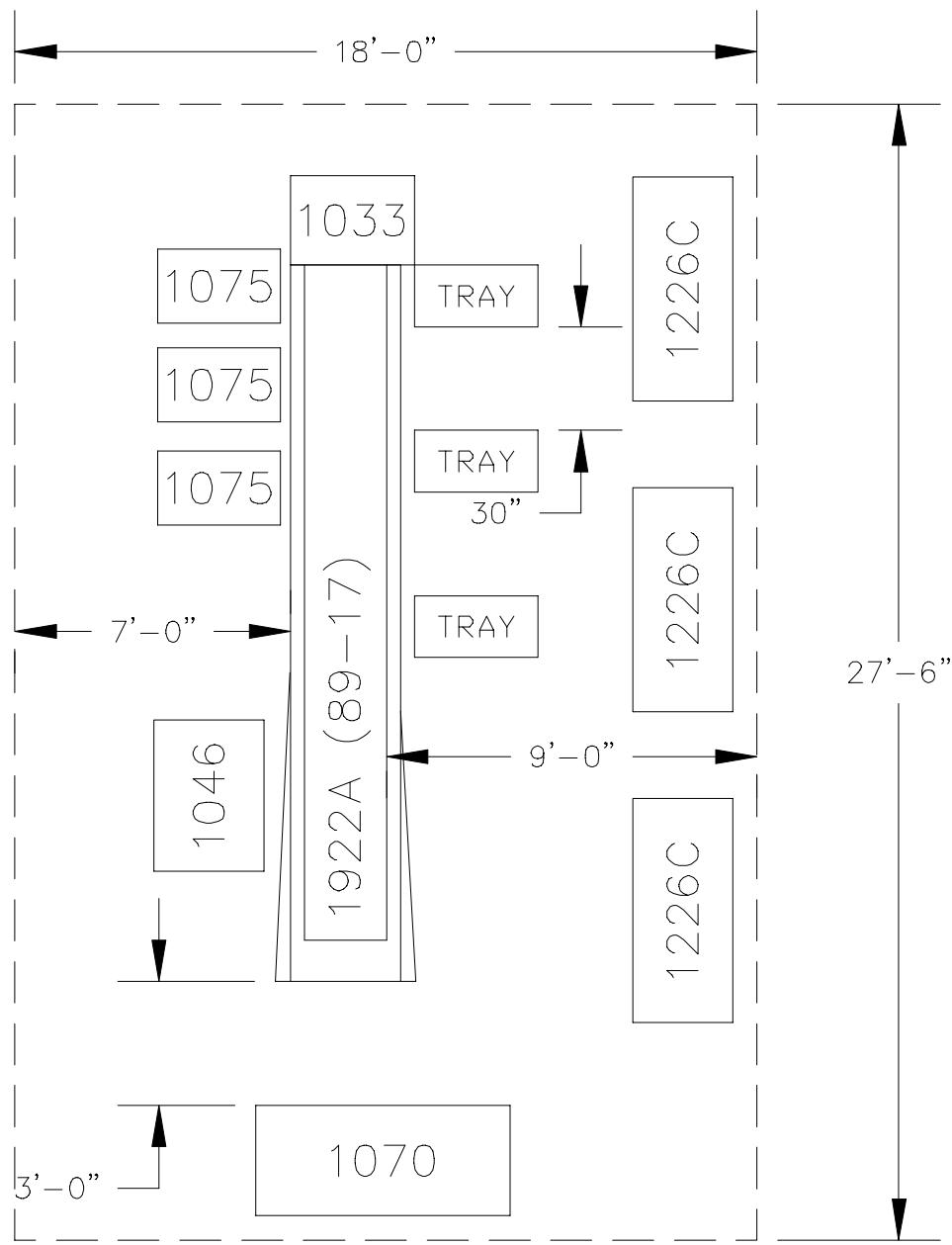
420012a, Three-Position Meter Mail Setup

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 495 Sq Ft



Note: Model 89 conversion is 17'-0" long with 3 separations.

Exhibit 42aa
420013, Storage and Cutting

Date: Sept. 1997

Mail Preparation

Scale: No Scale

Area: 260 Sq Ft

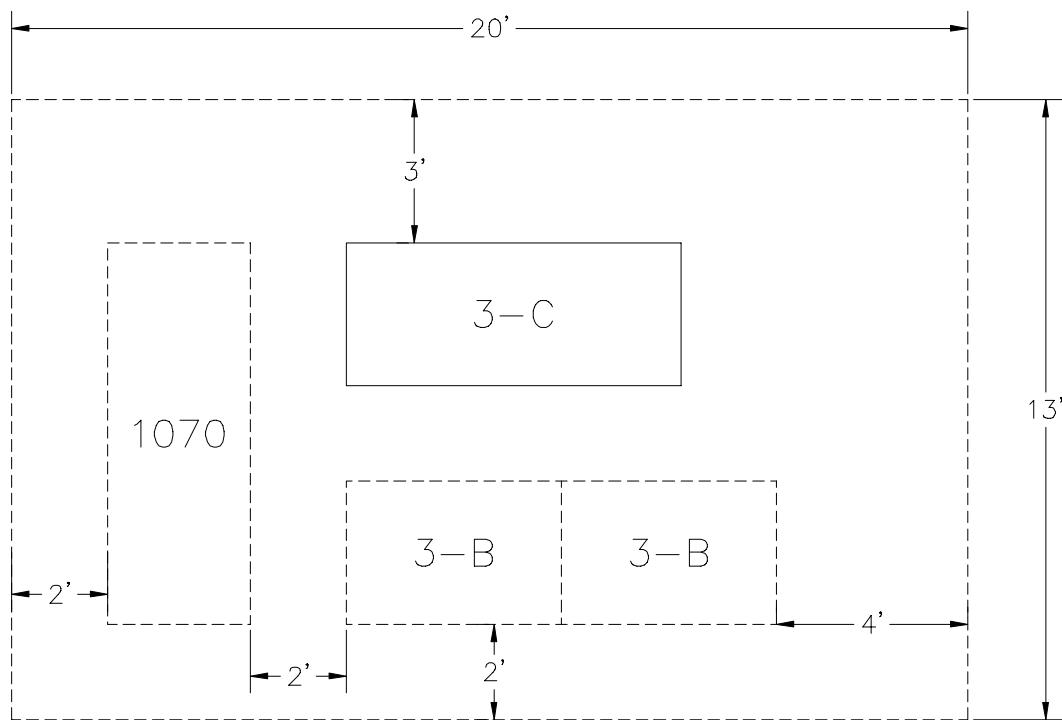


Exhibit 42ab

420014, Pouch Opening With 63 Separations

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 970 Sq Ft

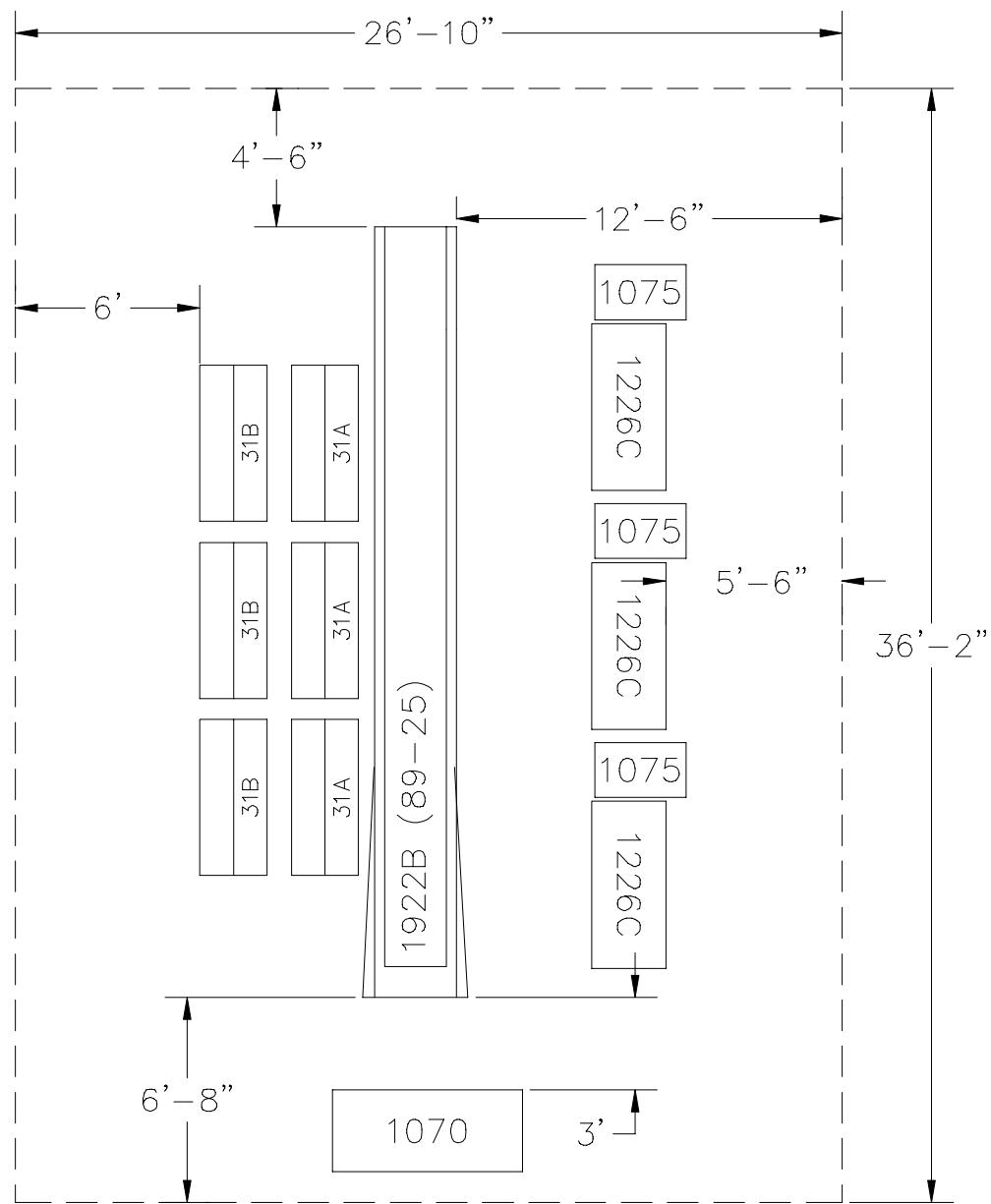


Exhibit 42ac

420014a, Pouch Opening With 48 Separations

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 444 Sq Ft

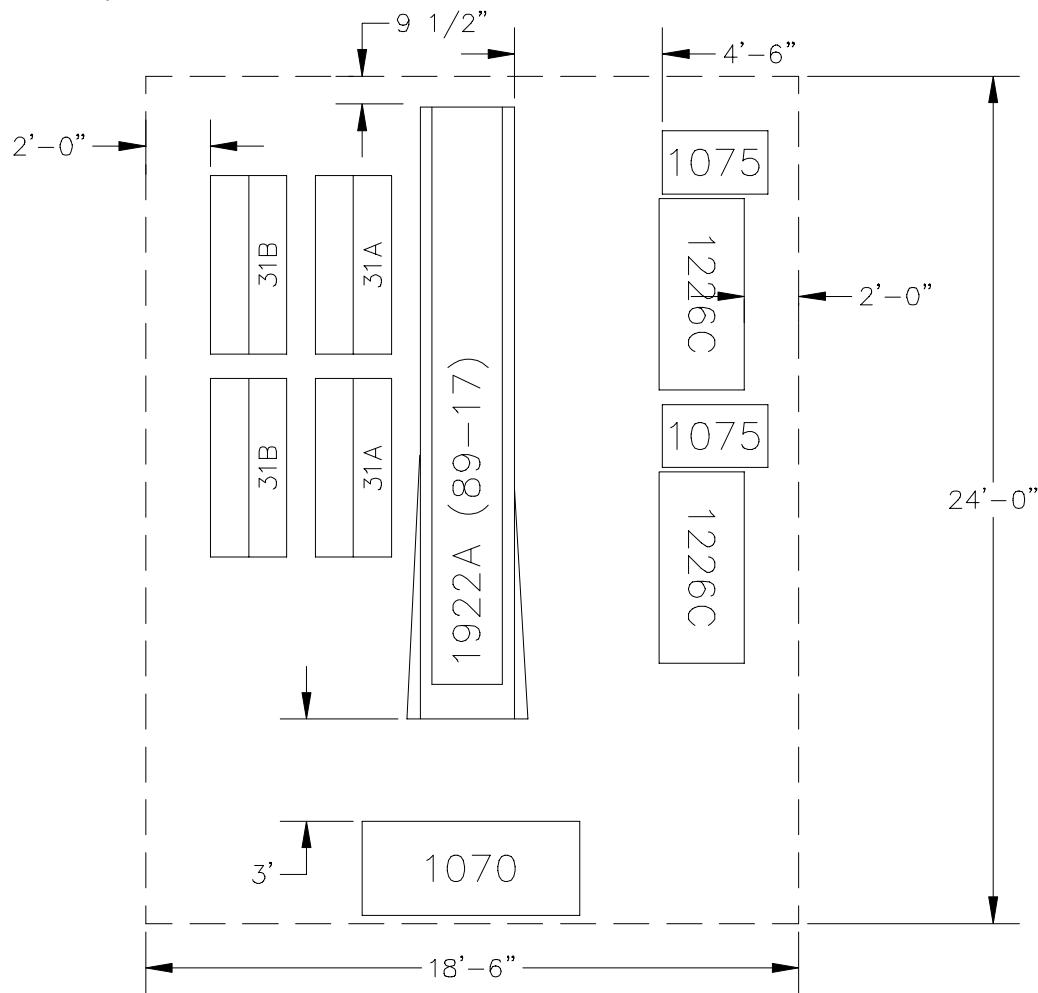


Exhibit 42ad

420015, Sack Opening, Paper, and SPRs — Primary Cutting and Setup (58 Separations)

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 1,000 Sq Ft

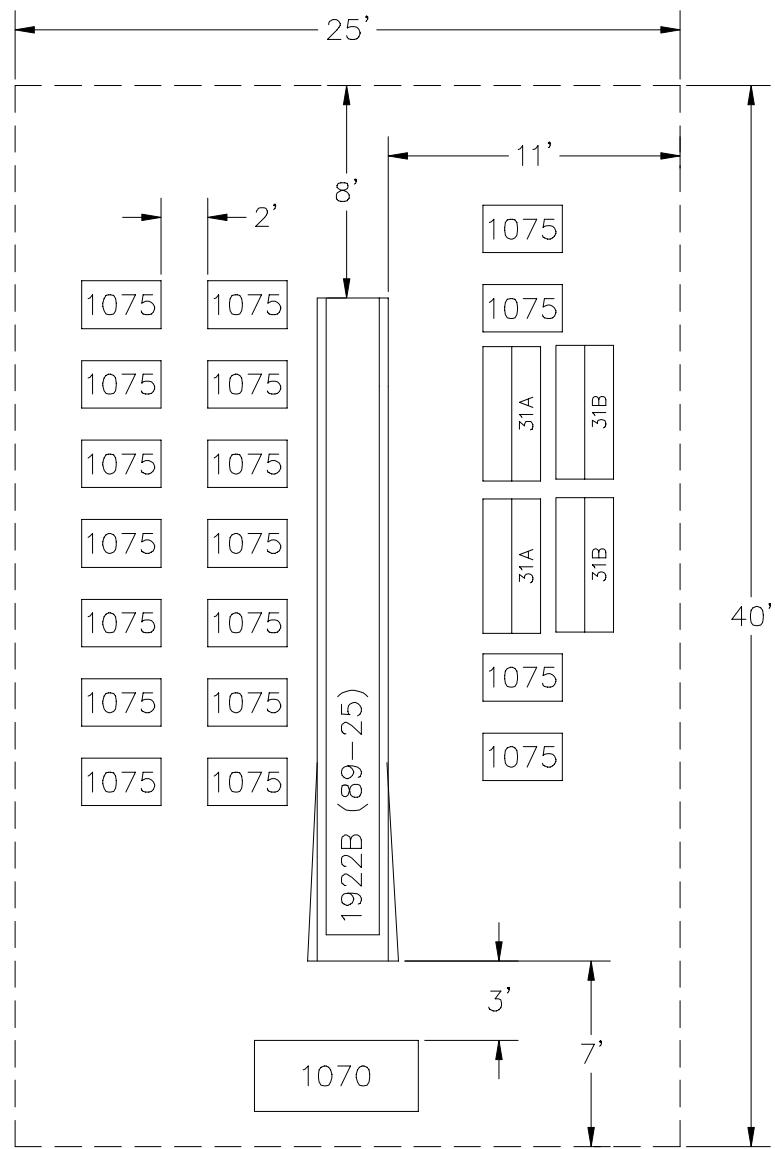


Exhibit 42ae

420016a, SPR and Thicks Canceling (17-Ft Belt)

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 950 Sq Ft

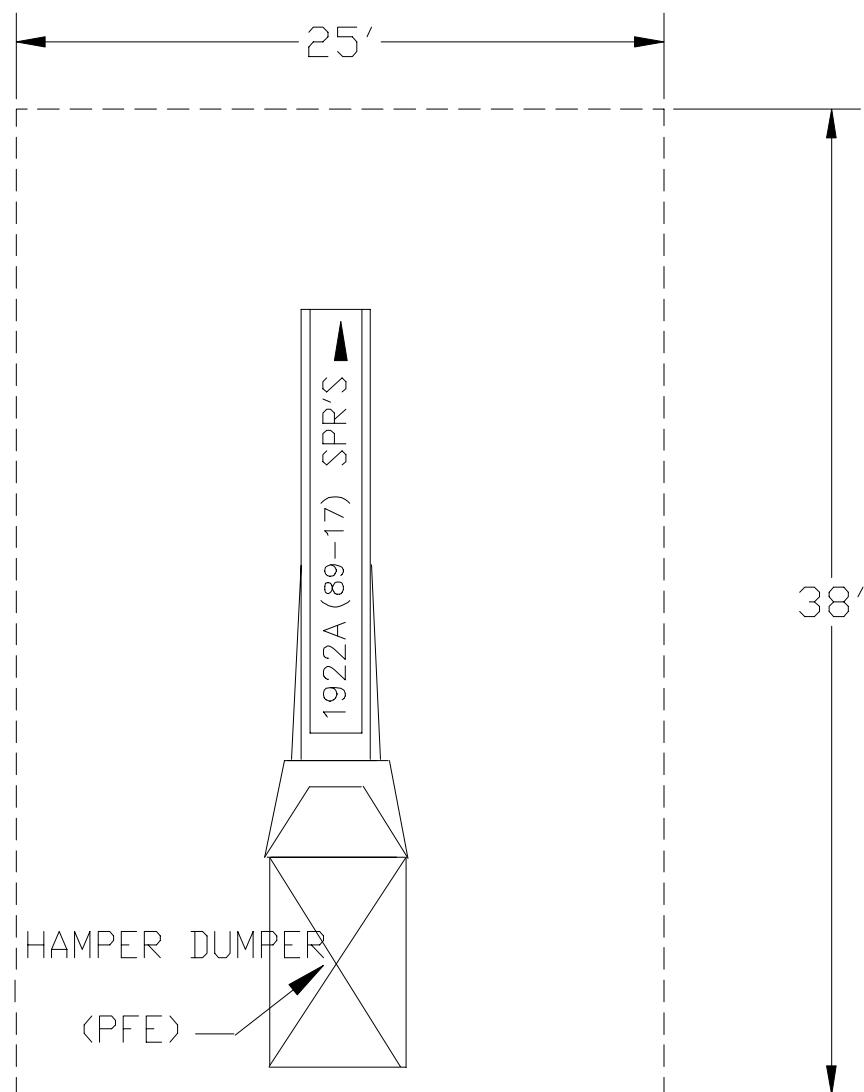


Exhibit 42af

420016b, SPR and Thicks Canceling (25-Ft Belt)

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 1,175 Sq Ft

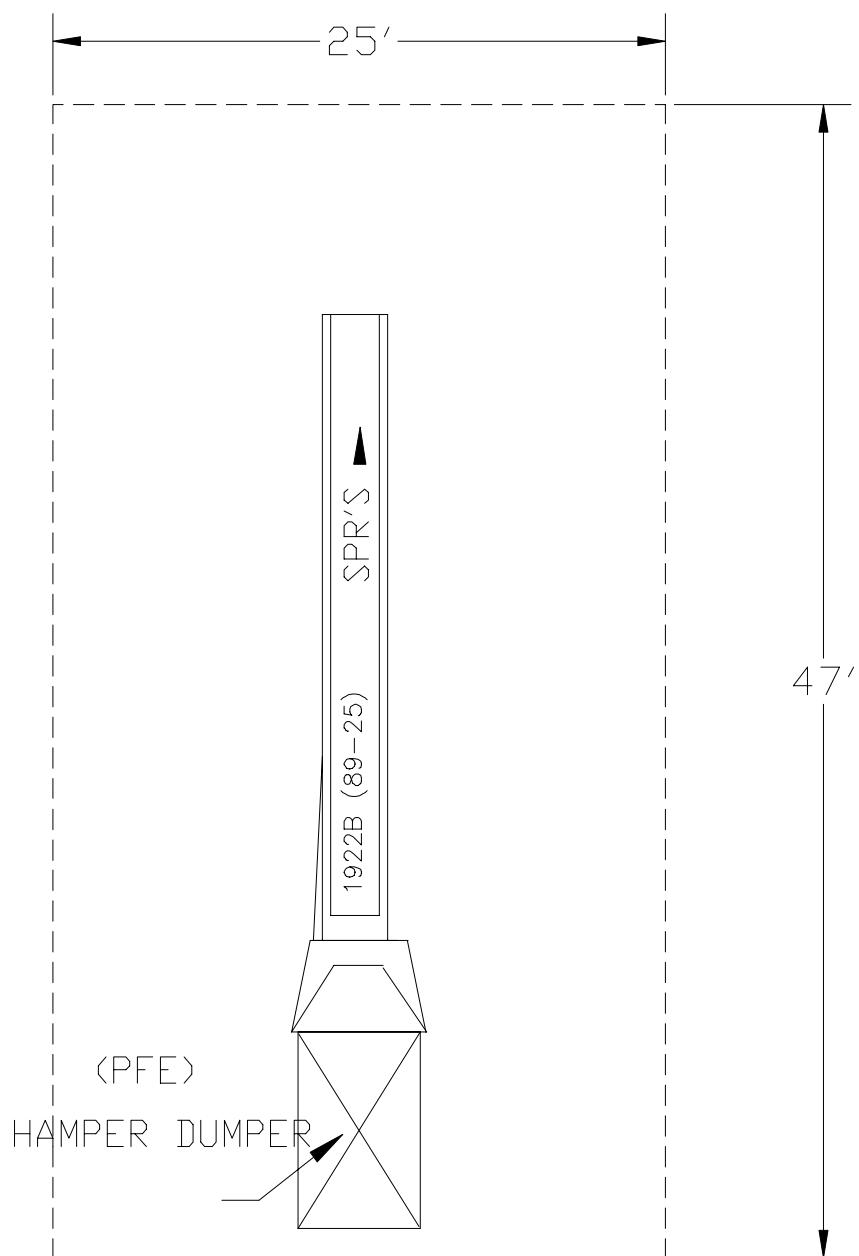


Exhibit 42ag

420017a, Model 15 Flats Canceled/Stacker (17-Ft Belt)

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 950 Sq Ft

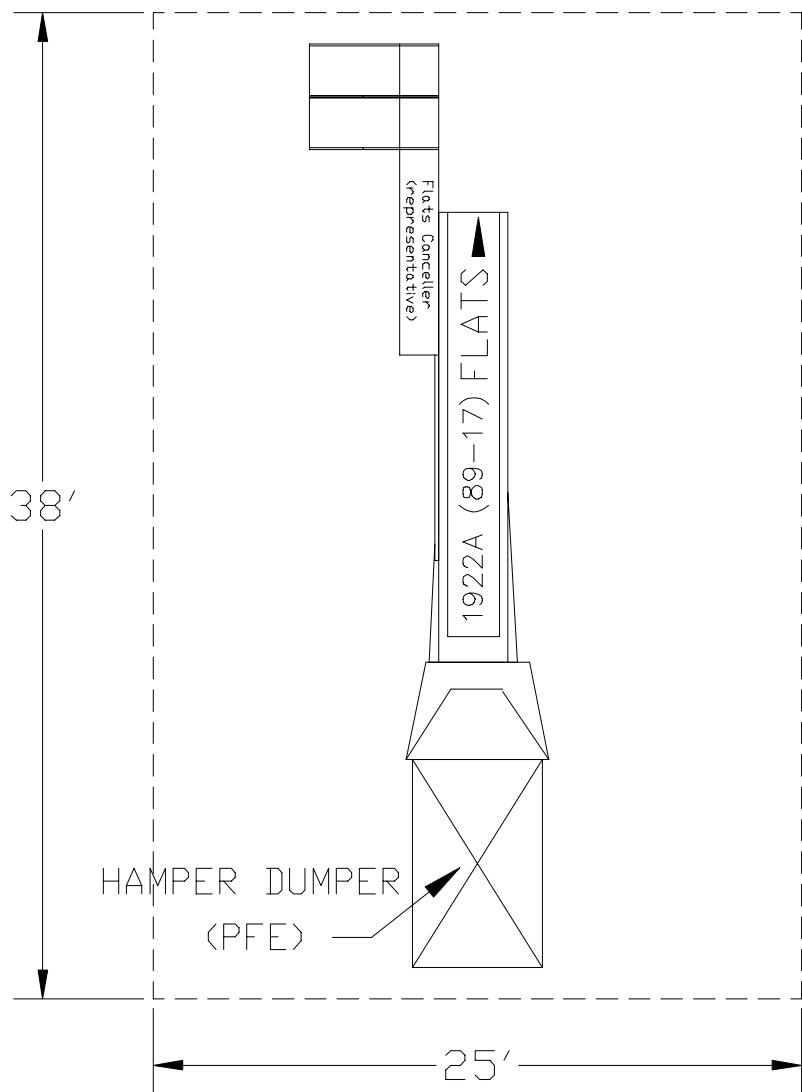


Exhibit 42ah

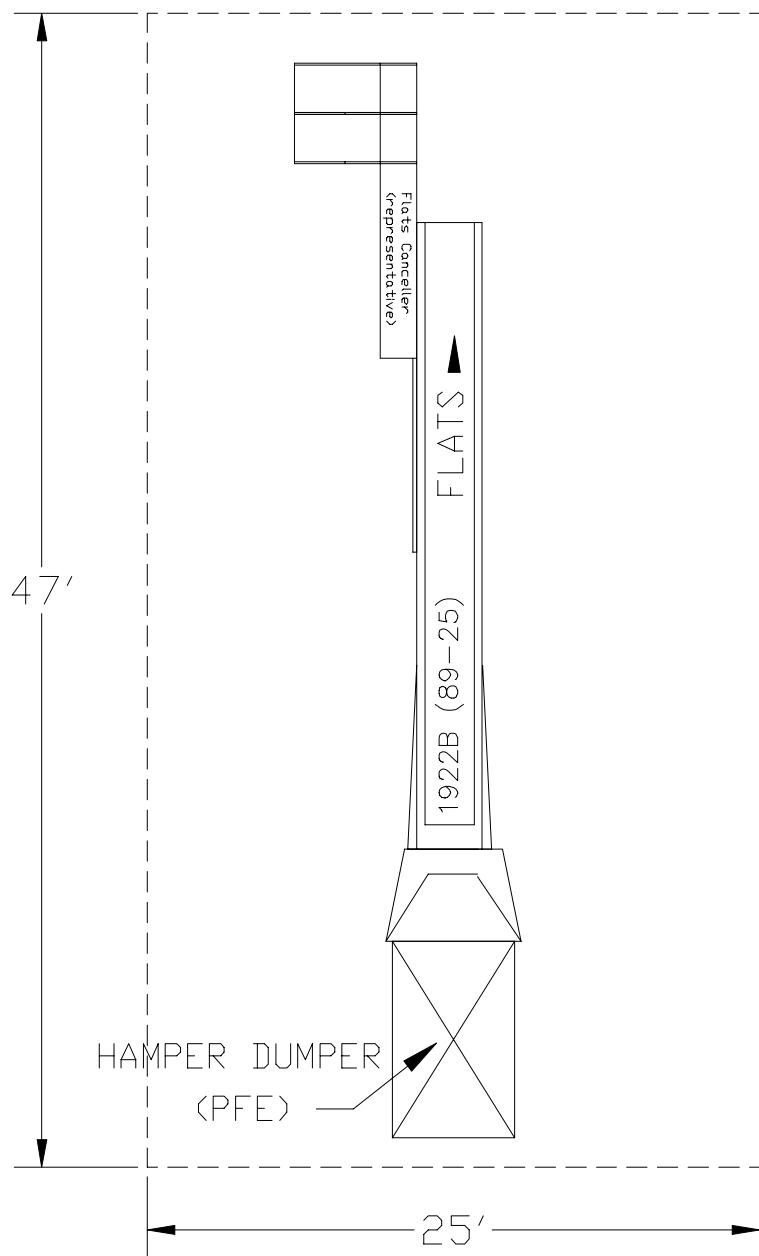
420017b, Model 15 Flats Canceler/Stacker (25-Ft Belt)

Date: Dec. 1994

Mail Preparation

Scale: No Scale

Area: 1,175 Sq Ft



43 Distribution of Letter and Flat Mail

431 Letter Mail

The footprint shown in the WSUs of the 431 series provides for movement of mail and personnel within the work center, exclusive of dedicated aisles, and an allowance for column interference and unusable space. Exhibit 431a lists the WSUs currently used for distributing letter mail. Exhibits 431b through 431m illustrate these WSUs for visual reference in planning facility space requirements.

Exhibit 431a

WSUs Used for Distribution of Letter Mail

| WSU Number | PostalCAD Drawing Name | Square Feet Required | Description |
|------------|------------------------|----------------------|---|
| 431001 | 431001.DWG | 65 | Letter Distribution Workstation — Open Back (77 Separations) |
| 431001a | 431001A.DWG | 36 | Letter Distribution Workstation — Closed Back (77 Separations) |
| 431006 | 431006.DWG | 240 | Letter Mail Labeling Machine — 200 (LMLM-200) |
| 431006a | 431006A.DWG | 364 | Letter Mail Labeling Machine — 400 (LMLM-400) |
| 431007 | 431007.DWG | 2,250 | Twelve-Position Multiposition Letter Sorting Machine (MPLSM) |
| 431007a | 431007A.DWG | 468 | Single-Position Letter Sorting Machine (SPLSM) |
| 431009 | 431009.DWG | 1,676 | Mail Processing Barcode Sorter (MPBCS) With 96 Stackers |
| 431010a | 431010A.DWG | 1,425 | 44-Stacker Multiline Optical Character Reader (MLOCR) — Base Unit |
| 431010b | 431010B.DWG | 1,712 | 60-Stacker Multiline Optical Character Reader (MLOCR) — Base Unit |
| 431011 | 431011.DWG | 351 | National Directory Support System (NDSS), MICROVAX 3400, Image Processing Subsystem (IPSS), or ALPHA Site |
| 431012 | 431012.DWG | 1,080 | Sleeving, Weighing, and Strapping Area: Nonmechanized System |
| 431013 | 431013.DWG | 870 | Sleeving, Weighing, and Strapping Area: Mechanized System |

Exhibit 431b

431001, Letter Distribution Workstation — Open Back (77 Separations)

Date: Dec. 1994

Distribution Letter Mail

Scale: No Scale

Area: 65 Sq Ft

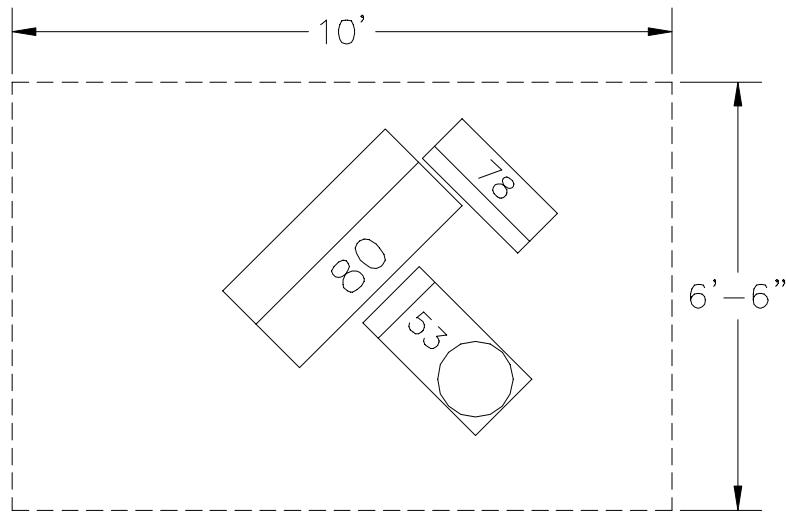


Exhibit 431c

431001a, Letter Distribution Workstation — Closed Back (77 Separations)

Date: Dec. 1994

Distribution Letter Mail

Scale: No Scale

Area: 36 Sq Ft

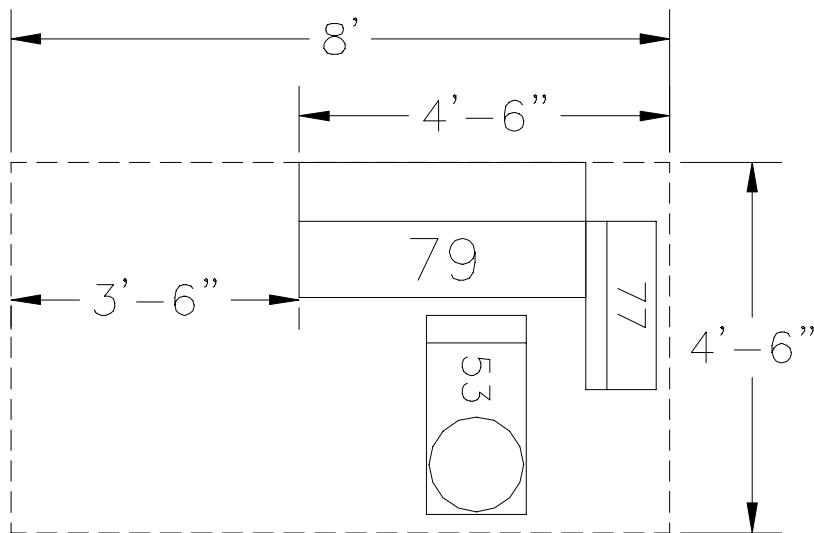


Exhibit 431d

431006, Letter Mail Labeling Machine — 200 (LMLM-200)

Date: Dec. 1994

Distribution Letter Mail

Scale: No Scale

Area: 240 Sq Ft

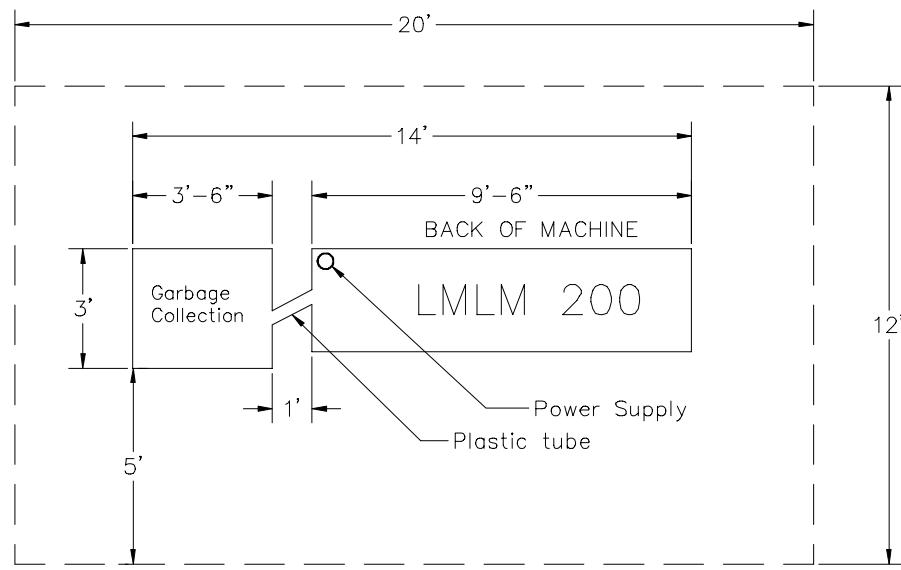


Exhibit 431e

431006a, Letter Mail Labeling Machine — 400 (LMLM-400)

Date: Dec. 1994

Distribution Letter Mail

Scale: No Scale

Area: 364 Sq Ft

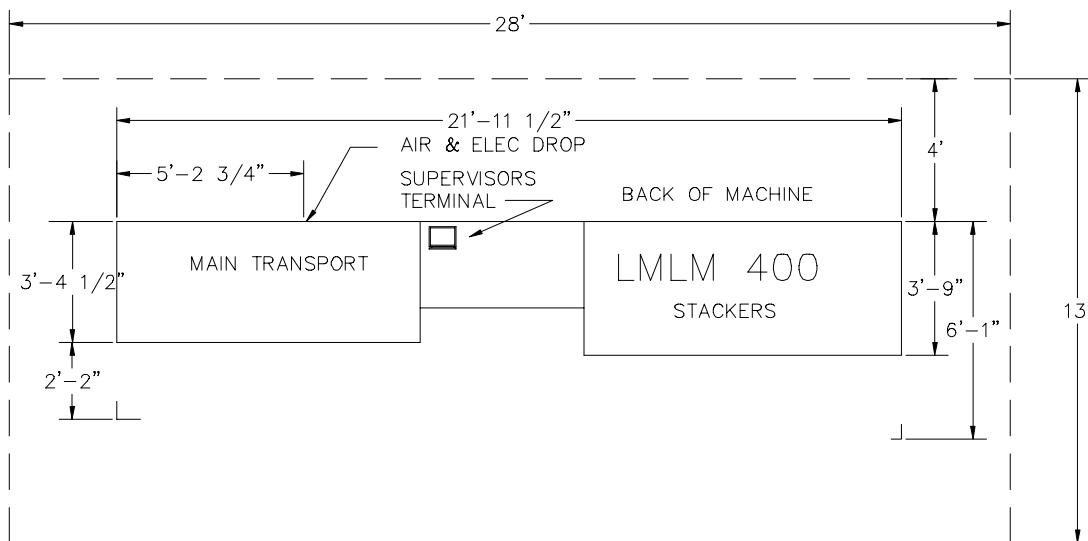


Exhibit 431f

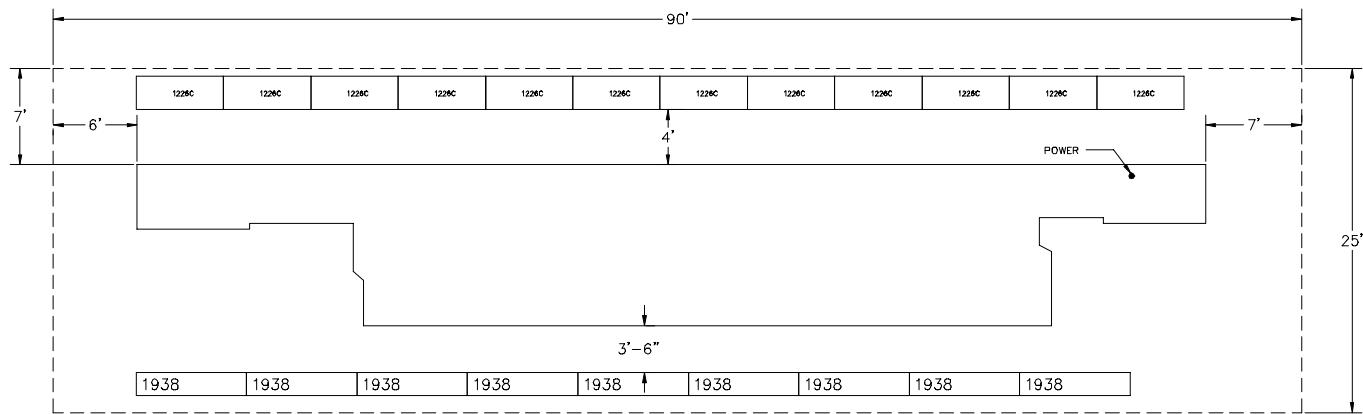
431007, Twelve-Position Multiposition Letter Sorting Machine (MPLSM)

Date: Dec. 1994

Distribution Letter Mail

Scale: No Scale

Area: 2,250 Sq Ft



Specifications:

- Machine height: 9'-6".
- Overhead clearance required: 12'-6" minimum (14'-0" preferred).

Exception: Conveyors or lookout galleries crossing at 90 degrees over the machine may be 12'-0".

Exhibit 431g

431007a, Single-Position Letter Sorting Machine (SPLSM)

Date: Dec. 1994

Distribution Letter Mail

Scale: No Scale

Area: 468 Sq Ft

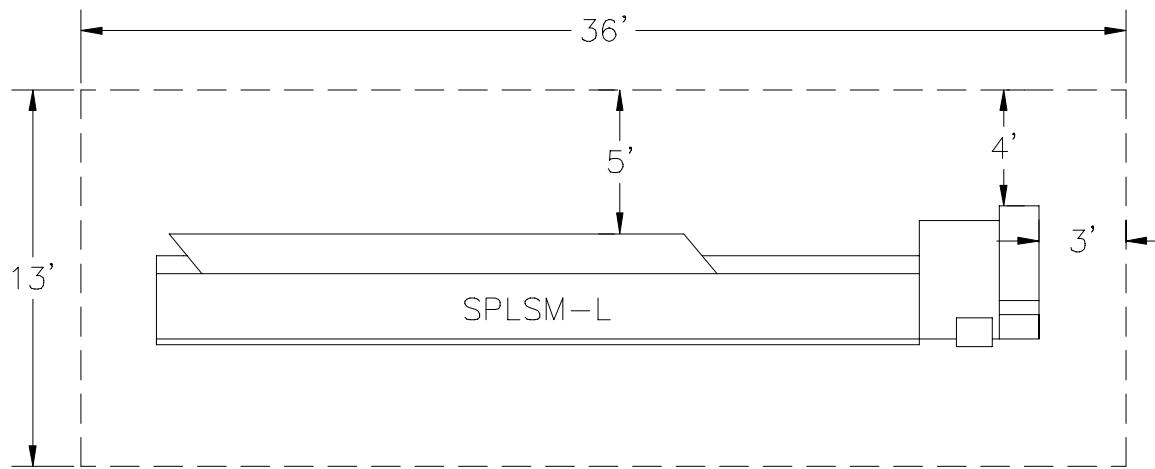


Exhibit 431h

431009, Mail Processing Barcode Sorter (MPBCS) With 96 Stackers

Date: Dec. 1994

Distribution Letter Mail

Scale: No Scale

Area: 1,676 Sq Ft

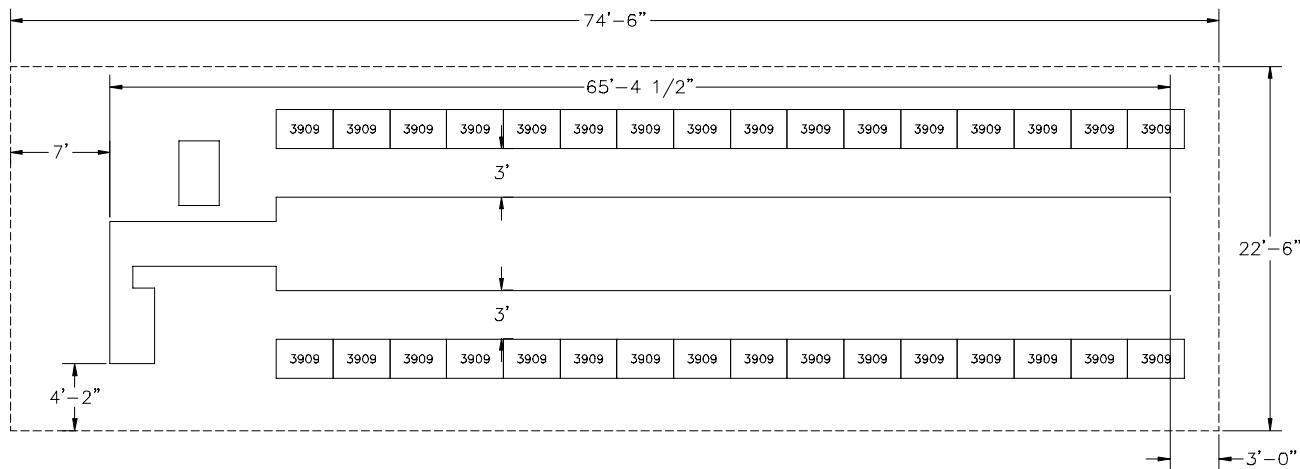


Exhibit 431i

431010a, 44-Stacker Multiline Optical Character Reader (MLOCR) — Base Unit

Date: Dec. 1994
 Distribution Letter Mail
 Scale: No Scale
 Area: 1,425 Sq Ft

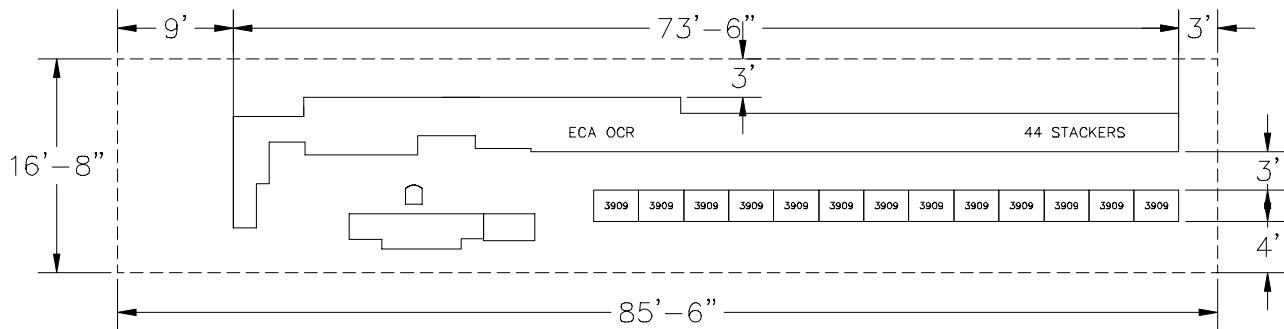


Exhibit 431j

431010b, 60-Stacker Multiline Optical Character Reader (MLOCR) — Base Unit

Date: Dec. 1994
 Distribution Letter Mail
 Scale: No Scale
 Area: 1,712 Sq Ft

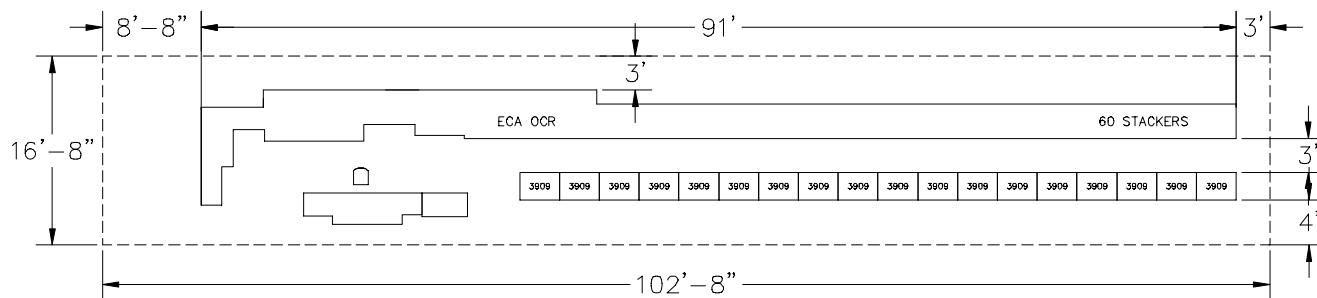


Exhibit 431k

431011, NDSS, MICROVAX 3400, IPSS, or ALPHA Site

Date: Dec. 1994

Distribution Letter Mail

Scale: No Scale

Area: 351 Sq Ft

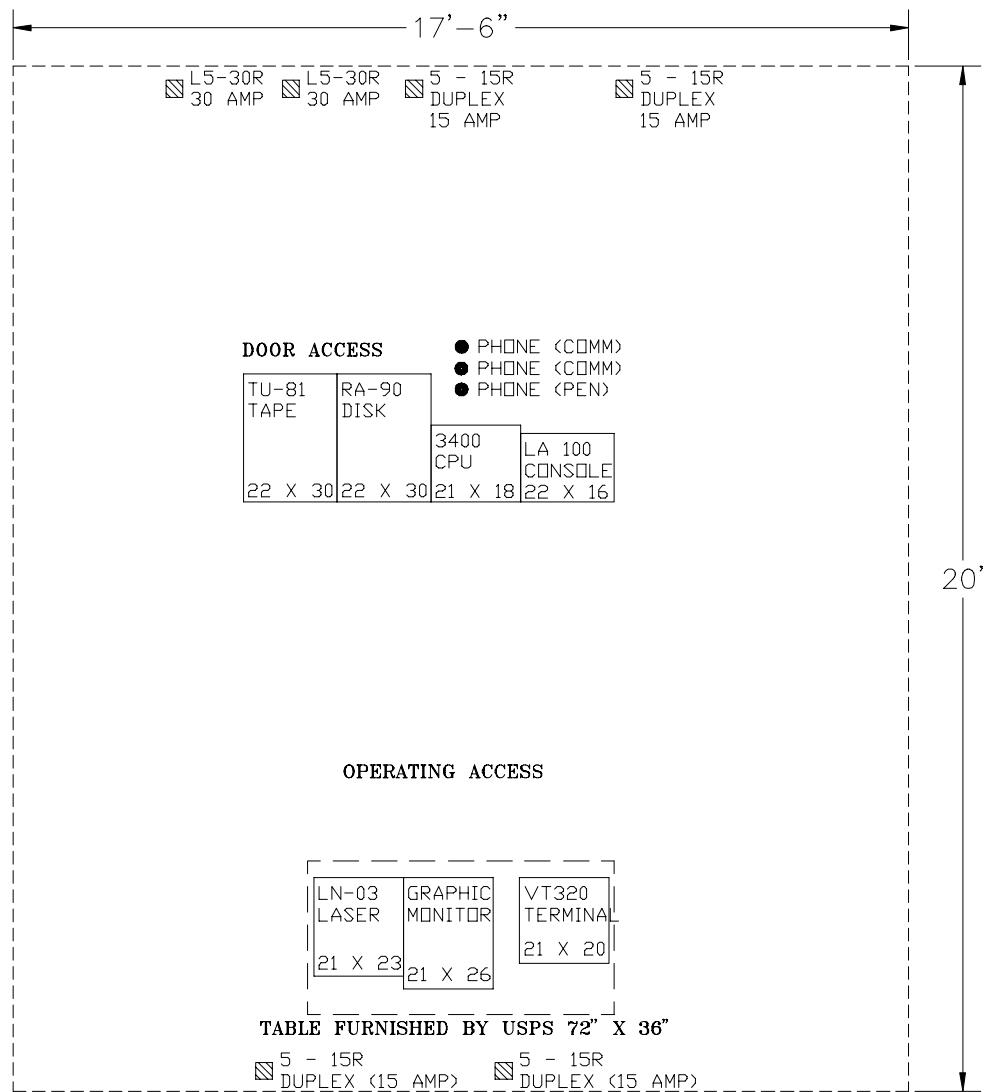


Exhibit 4311

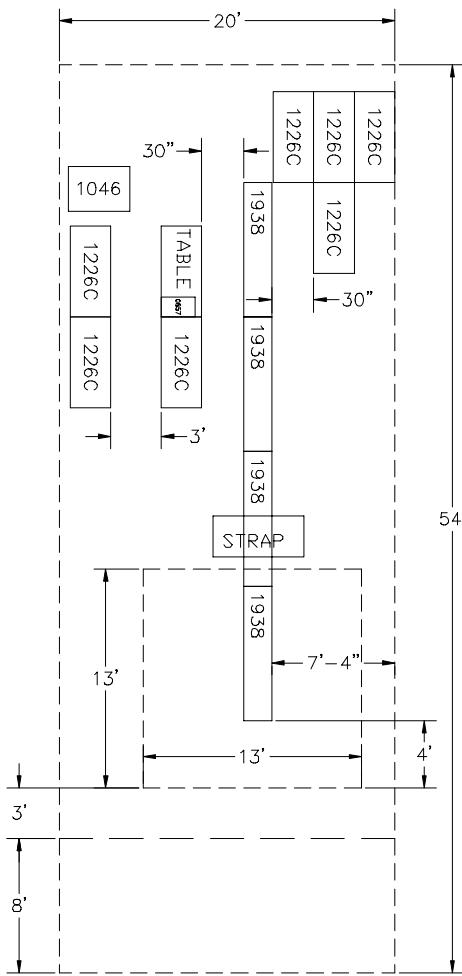
431012, Sleeving, Weighing, and Strapping Area: Nonmechanized System

Date: Dec. 1994

Distribution Letter Mail

Scale: No Scale

Area: 1,080 Sq Ft

**Notes:**

- a. 20'-0" conveyor ahead of strapping operation for surge capacity (facilities with insufficient floor space may use a shorter conveyor).
- b. Distribution to dispatch container.
- c. Dispatch equipment staging area.

Exhibit 431m

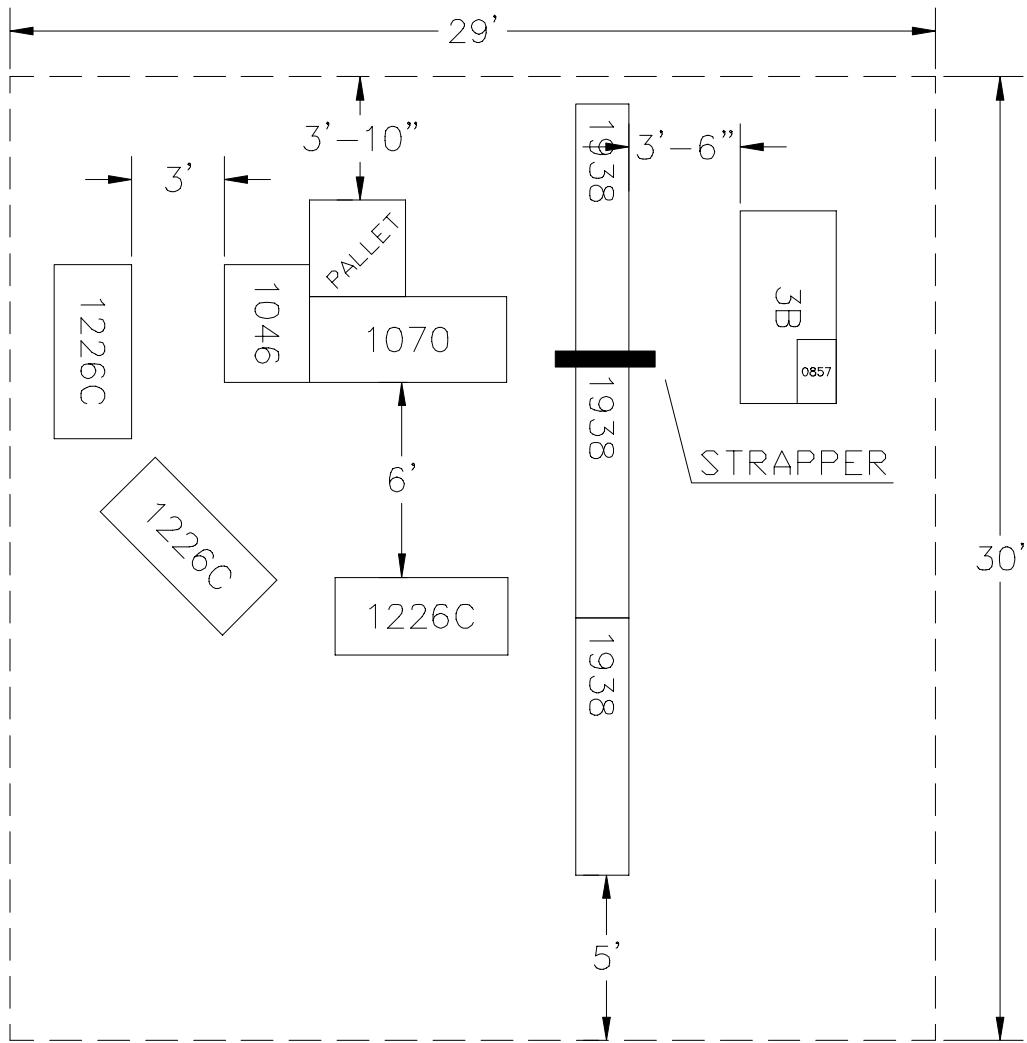
431013, Sleeving, Weighing, and Strapping Area — Mechanized System

Date: Dec. 1994

Distribution Letter Mail

Scale: No Scale

Area: 870 Sq Ft



Note: An additional sleeving and weighing operation, duplicating items, may be added here if volumes warrant.

432 Delivery Barcode Sorters**432.1 Electro-Com Automation Double-Sided DBCSs**

The footprint for each of these DBCSs makes the following assumptions:

- a. Staging and dispatch of mail manually into general-purpose mail containers (GPMCs)
- b. No staging space allocated for GPMCs.

- c. Minimal maintenance access (3 ft from any panel that opens outward).
- d. Safety taken into account with minimal space design.
- e. No obstructions within workspace (including columns).
- f. Staging of empty 1226F Tray Carts at the head of the DBCS.

Exhibit 432.1a lists the WSUs currently used for the electro-com automation (ECA) double-sided DBCSs and the associated number of 1226F Tray Carts required. Exhibit 432.1b lists the space requirements for each of these WSUs. Exhibits 432.1c through 432.1k illustrate these WSUs for visual reference in planning facility space requirements.

Exhibit 432.1a

WSUs and Tray Carts Needed for ECA Double-Sided DBCSs

| WSU Number | PostalCAD Drawing Name | Equipment Name | 1226F Tray Carts Required FRONT | 1226F Tray Carts Required BACK | 1226F Tray Carts Required TOTAL |
|------------|------------------------|----------------|---------------------------------|--------------------------------|---------------------------------|
| 432001a | 432001A.DWG | ECA 102D | 4 | 8 | 12 |
| 432001b | 432001B.DWG | ECA 126D | 6 | 10 | 16 |
| 432001c | 432001C.DWG | ECA 150D | 8 | 12 | 20 |
| 432001d | 432001D.DWG | ECA 174D | 8 | 12 | 20 |
| 432001e | 432001E.DWG | ECA 198D | 10 | 14 | 24 |
| 432001f | 432001F.DWG | ECA 222D | 12 | 16 | 28 |
| 432001g | 432001G.DWG | ECA 246D | 12 | 16 | 28 |
| 432001h | 432001H.DWG | ECA 270D | 14 | 18 | 32 |
| 432001i | 432001I.DWG | ECA 294D | 16 | 20 | 36 |

Exhibit 432.1b

WSU Space Requirements for ECA Double-Sided DBCSs

| WSU Number | PostalCAD Drawing Name | Equipment Name | Minimum Space Required BEHIND DBCS | Minimum Space Required at the END of DBCS | Min. Length | Min. Width | Square Feet Required |
|------------|------------------------|----------------|------------------------------------|---|-------------|------------|----------------------|
| 432001a | 432001A.DWG | ECA 102D | 9 ft | 7 ft | 45 ft | 25 ft | 1,125 |
| 432001b | 432001B.DWG | ECA 126D | 9 ft | 7 ft | 52 ft | 25 ft | 1,300 |
| 432001c | 432001C.DWG | ECA 150D | 9 ft | 7 ft | 58 ft | 25 ft | 1,450 |
| 432001d | 432001D.DWG | ECA 174D | 9 ft | 7 ft | 63 ft | 25 ft | 1,575 |
| 432001e | 432001E.DWG | ECA 198D | 9 ft | 7 ft | 69 ft | 25 ft | 1,725 |
| 432001f | 432001F.DWG | ECA 222D | 9 ft | 7 ft | 76 ft | 25 ft | 1,900 |
| 432001g | 432001G.DWG | ECA 246D | 9 ft | 7 ft | 81 ft | 25 ft | 2,025 |
| 432001h | 432001H.DWG | ECA 270D | 9 ft | 7 ft | 87 ft | 25 ft | 2,175 |
| 432001i | 432001I.DWG | ECA 294D | 9 ft | 7 ft | 84 ft | 25 ft | 2,350 |

Exhibit 432.1c

432001a, ECA 102 Double-Sided DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 1,125 Sq Ft

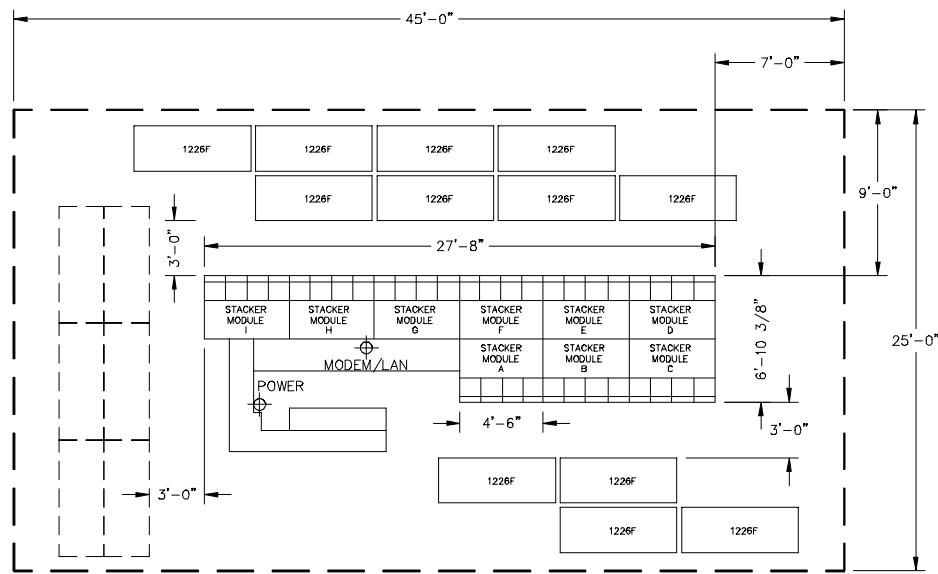


Exhibit 432.1d

432001b, ECA 126 Double-Sided DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 1,300 Sq Ft

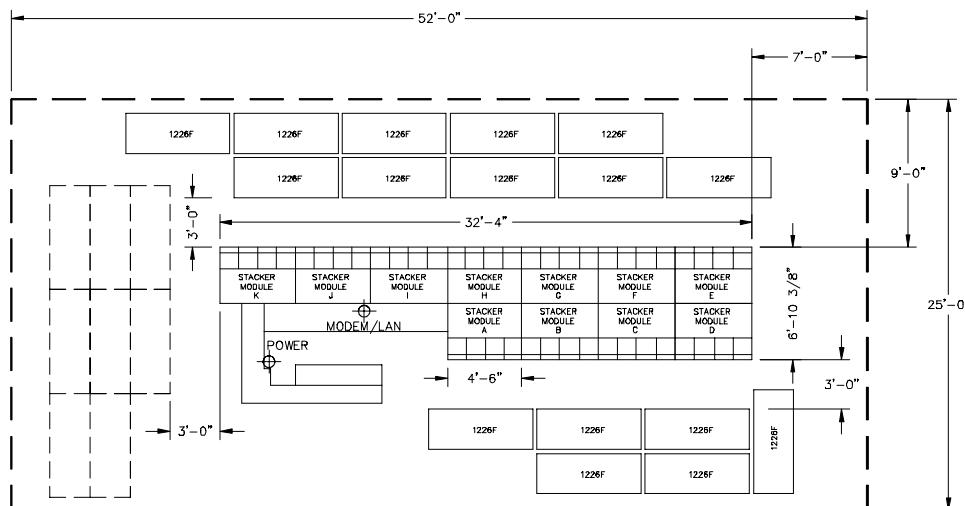


Exhibit 432.1e

432001c, ECA 150 Double-Sided DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 1,450 Sq Ft

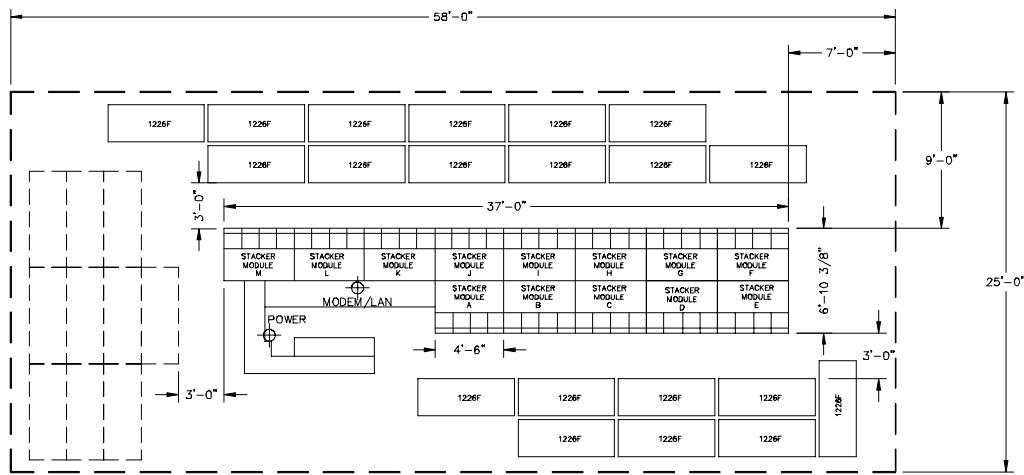


Exhibit 432.1f

432001d, ECA 174 Double-Sided DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 1,575 Sq Ft

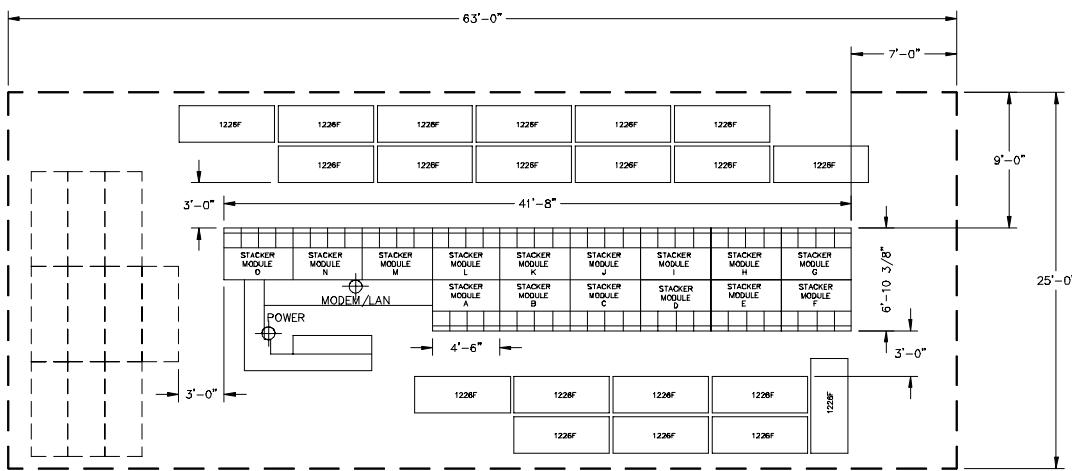


Exhibit 432.1g
432001e, ECA 198 Double-Sided DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 1,725 Sq Ft

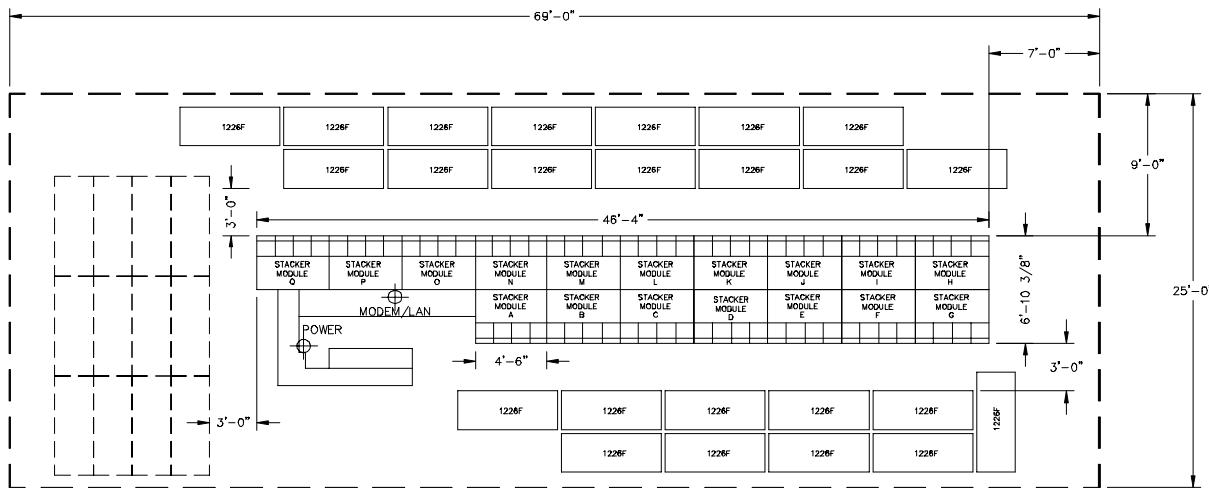


Exhibit 432.1h
432001f, ECA 222 Double-Sided DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 1,900 Sq Ft

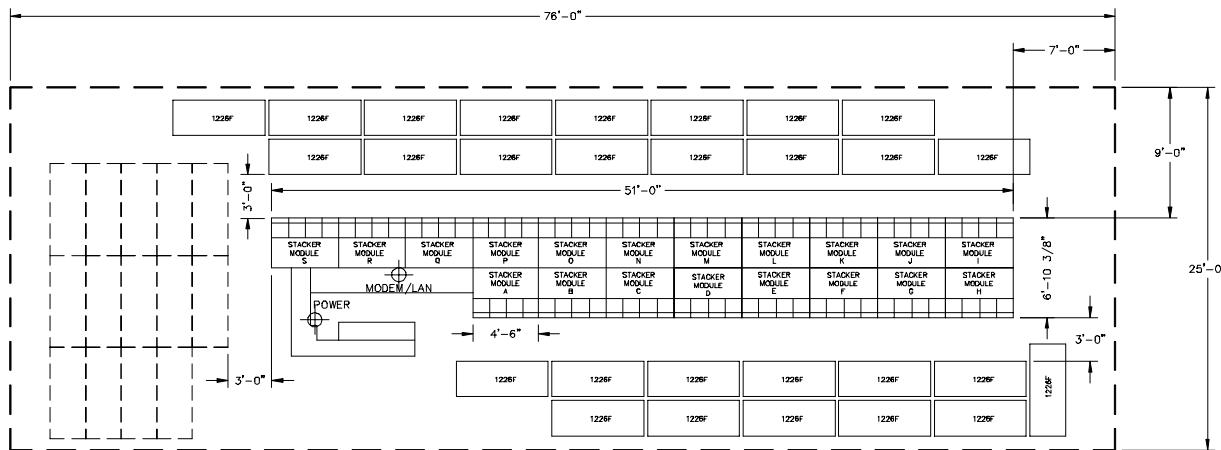


Exhibit 432.1i

432001g, ECA 246 Double-Side DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 2,025 Sq Ft

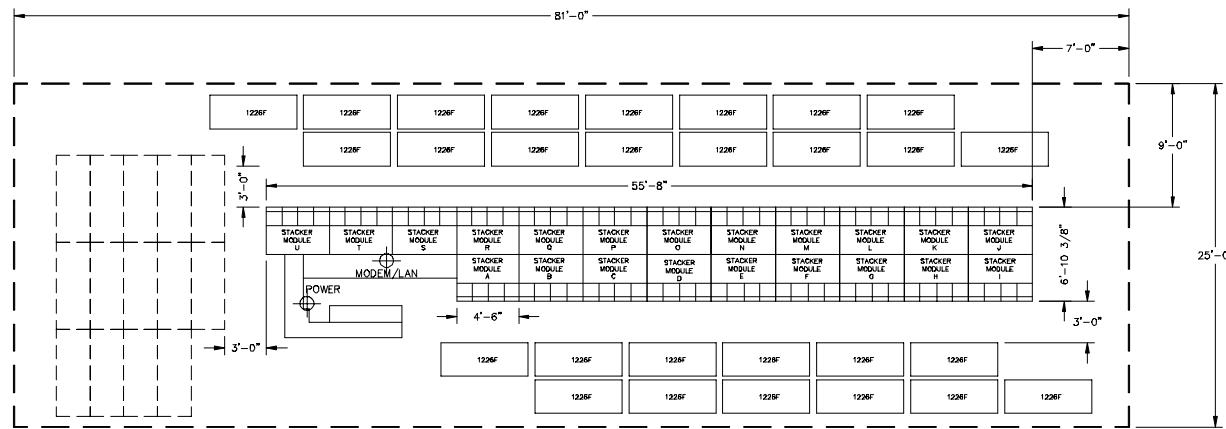


Exhibit 432.1j

432001h, ECA 270 Double-Sided DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 2,175 Sq Ft

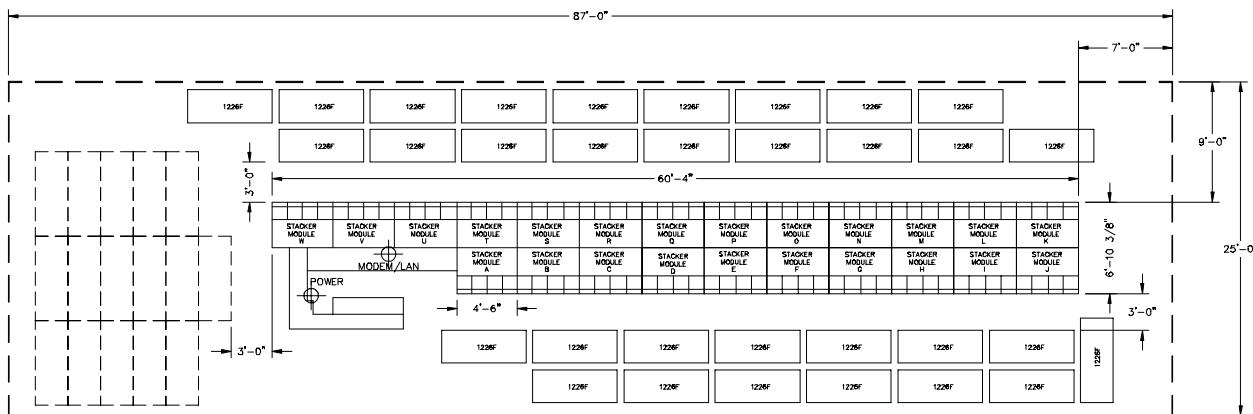


Exhibit 432.1k

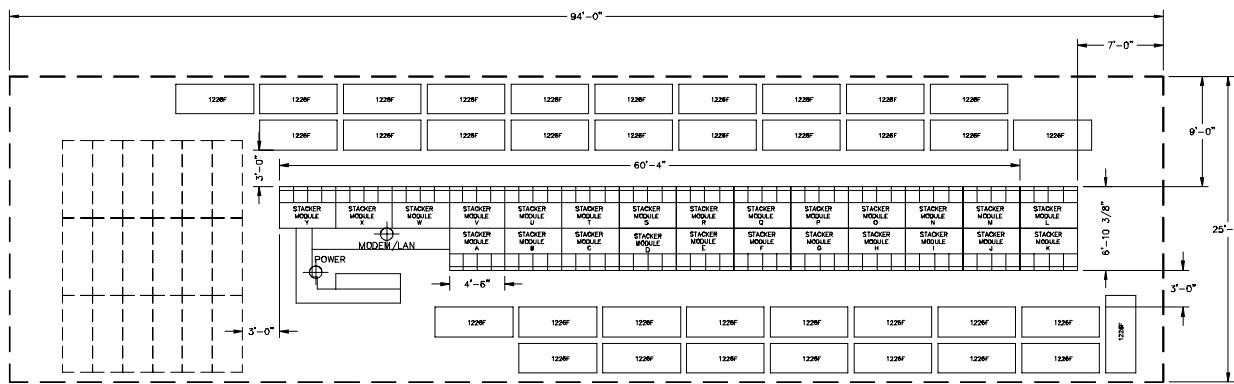
432001i, ECA 294 Double-Sided DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 2,350 Sq Ft

**432.2 ECA Phase II Single-Sided DBCSs**

The footprint for each of these DBCSs makes the following assumptions:

- a. Staging and dispatch of mail manually (GPMCs).
- b. No staging space allocated for GPMCs.
- c. Minimal maintenance access (3 ft from any panel that opens outward).
- d. Safety taken into account with minimal space design.
- e. No obstructions within workspace (including columns).
- f. Staging of empty 1226F Tray Carts behind the DBCS.

Exhibit 432.2a lists the WSUs currently used for the ECA Phase II single-sided DBCSs and the associated number of 1226F Tray Carts required for each. Exhibit 432.2b lists the space requirements for each of these WSUs. Exhibits 432.2c through 432.2k illustrate these WSUs for visual reference in planning facility space requirements.

Exhibit 432.2a

WSUs and Tray Carts Needed for ECA Phase II Single-Sided DBCSs

| WSU Number | PostalCAD Drawing Name | Equipment Name | 1226F Tray Carts Required FRONT | Stored Empty 1226F Tray Carts BACK | 1226F Tray Carts Required TOTAL |
|------------|------------------------|----------------|---------------------------------|------------------------------------|---------------------------------|
| 432002a | 432002A.DWG | ECA 111 | 10 | 5 | 15 |
| 432002b | 432002B.DWG | ECA 126 | 12 | 6 | 18 |
| 432002c | 432002C.DWG | ECA 142 | 12 | 6 | 18 |
| 432002d | 432002D.DWG | ECA 158 | 14 | 7 | 21 |
| 432002e | 432002E.DWG | ECA 174 | 16 | 8 | 24 |
| 432002f | 432002F.DWG | ECA 190 | 16 | 8 | 24 |
| 432002g | 432002G.DWG | ECA 206 | 18 | 9 | 27 |
| 432002h | 432002H.DWG | ECA 222 | 20 | 10 | 30 |
| 432002i | 432002I.DWG | ECA 238 | 20 | 10 | 30 |

Exhibit 432.2b

WSU Space Requirements for ECA Phase II Single-Sided DBCSs

| WSU Number | PostalCAD Drawing Name | Equipment Name | Minimum Space Required BEHIND DBCS | Minimum Space Required at the END of DBCS | Min. Length | Min. Width | Square Feet Required |
|------------|------------------------|----------------|------------------------------------|---|-------------|------------|----------------------|
| 432002a | 432002A.DWG | ECA 111 | 4.5 ft | 10 ft | 60 ft | 18 ft | 1,080 |
| 432002b | 432002B.DWG | ECA 126 | 4.5 ft | 10 ft | 65 ft | 18 ft | 1,170 |
| 432002c | 432002C.DWG | ECA 142 | 4.5 ft | 10 ft | 69 ft | 18 ft | 1,242 |
| 432002d | 432002D.DWG | ECA 158 | 4.5 ft | 10 ft | 74 ft | 18 ft | 1,332 |
| 432002e | 432002E.DWG | ECA 174 | 4.5 ft | 10 ft | 78 ft | 18 ft | 1,404 |
| 432002f | 432002F.DWG | ECA 190 | 4.5 ft | 10 ft | 83 ft | 18 ft | 1,494 |
| 432002g | 432002G.DWG | ECA 206 | 4.5 ft | 10 ft | 87 ft | 18 ft | 1,566 |
| 432002h | 432002H.DWG | ECA 222 | 4.5 ft | 10 ft | 92 ft | 18 ft | 1,656 |
| 432002i | 432002I.DWG | ECA 238 | 4.5 ft | 10 ft | 96 ft | 18 ft | 1,728 |

Exhibit 432.2c

432002a, ECA 111 Phase II Single-Sided DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 1,080 Sq Ft

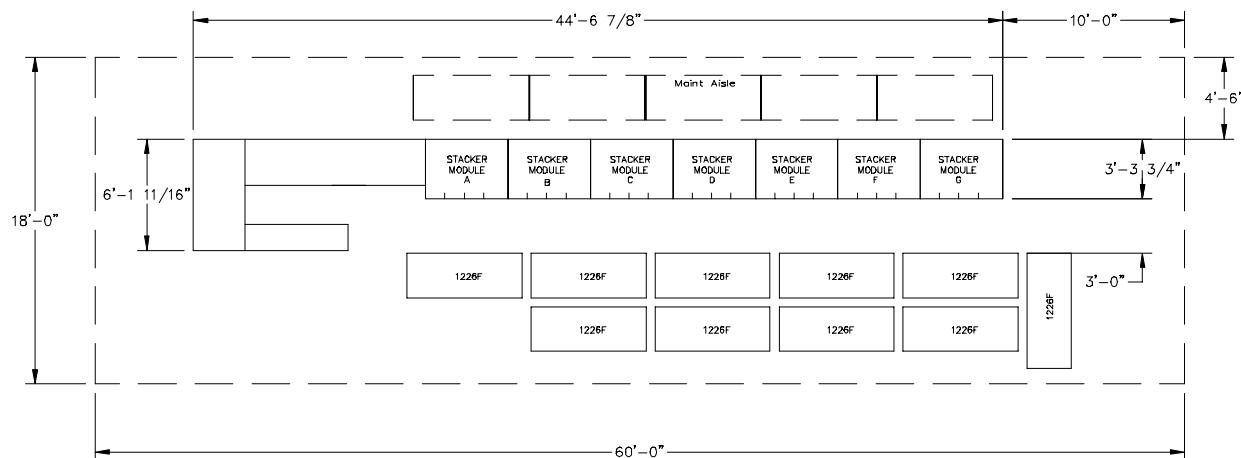


Exhibit 432.2d

432002b, ECA 126 Phase II Single-Sided DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 1,170 Sq Ft

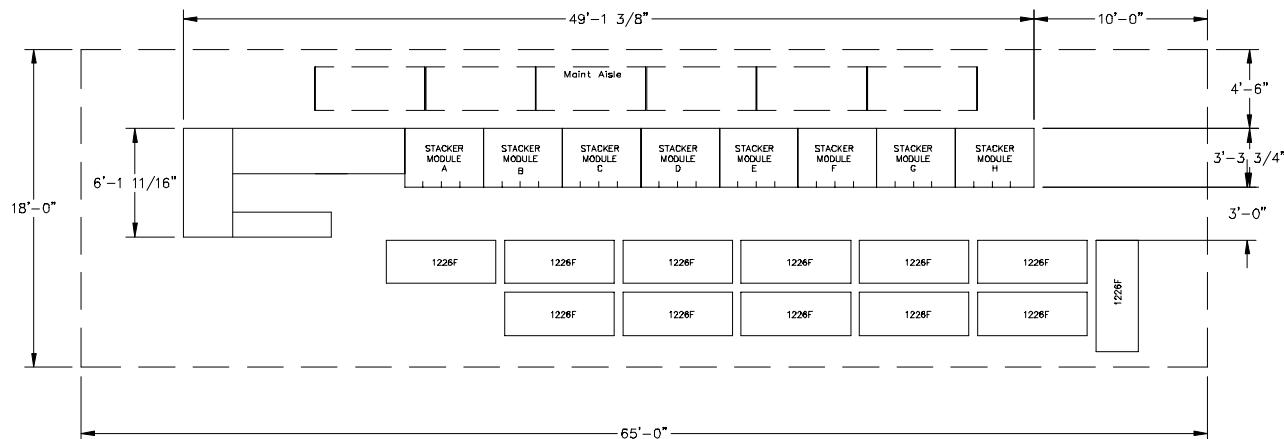


Exhibit 432.2e

432002c, ECA 142 Phase II Single-Sided DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 1,242 Sq Ft

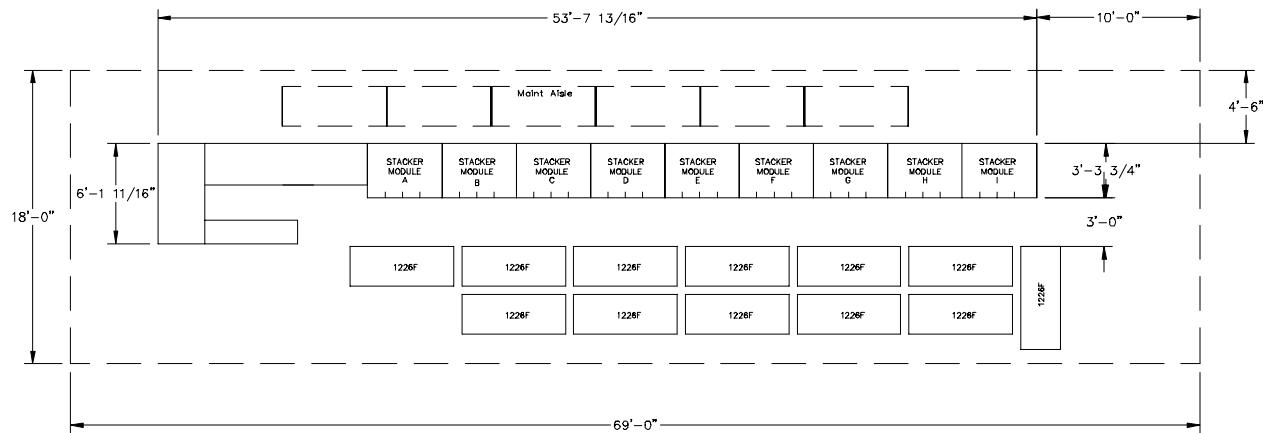


Exhibit 432.2f

432002d, ECA 158 Phase II Single-Sided DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 1,332 Sq Ft

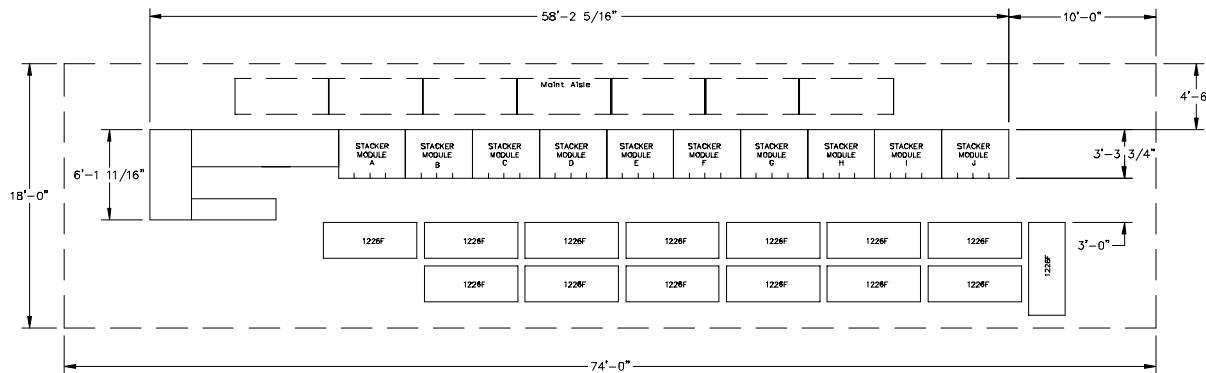


Exhibit 432.2g

432002e, ECA 174 Phase II Single-Sided DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 1,404 Sq Ft

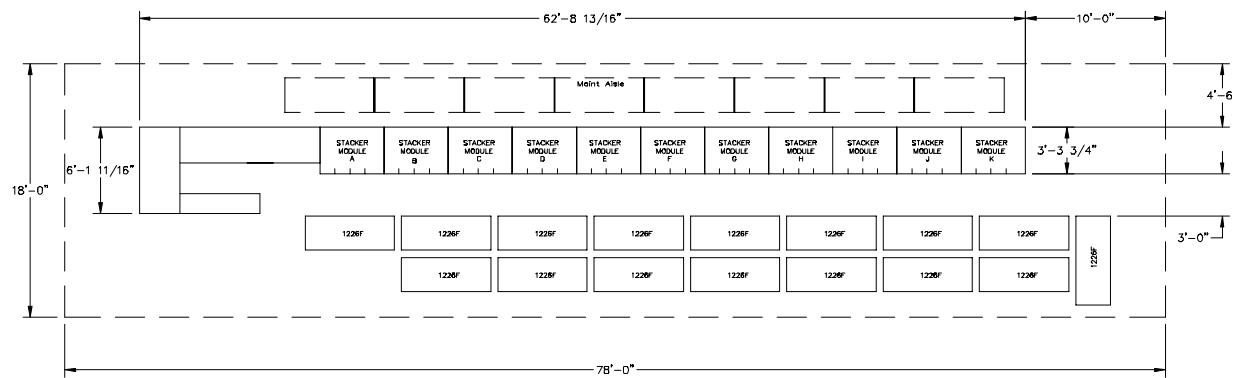


Exhibit 432.2h

432002f, ECA 190 Phase II Single-Sided DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 1,494 Sq Ft

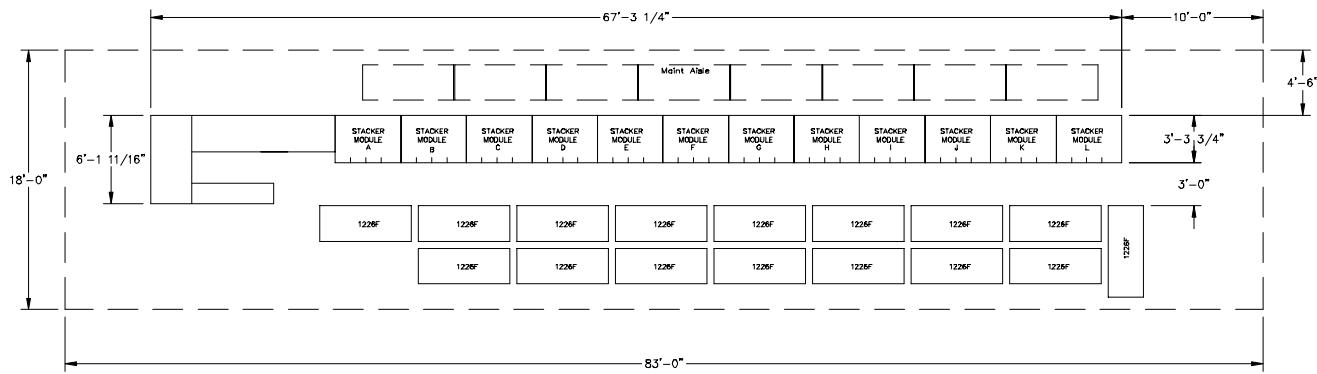


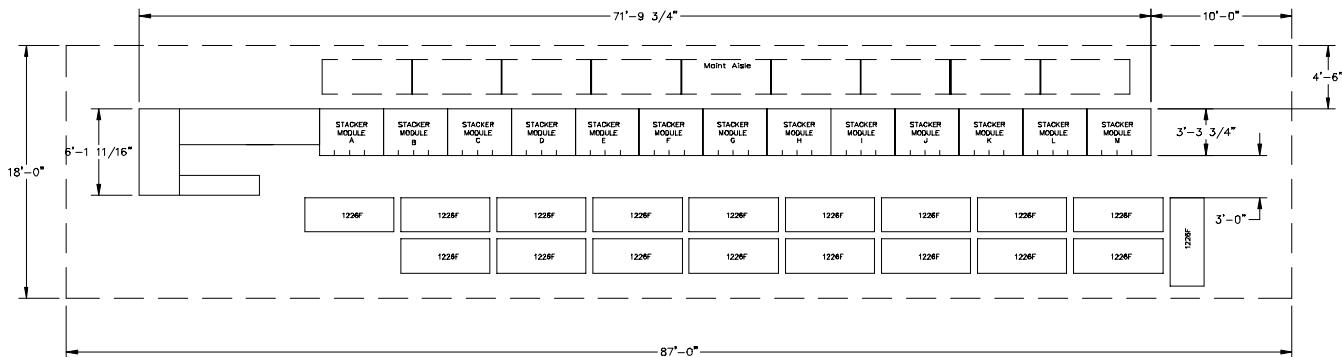
Exhibit 432.2i
432002g, ECA 206 Phase II Single-Sided DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 1,566 Sq Ft



**Exhibit 432.2j
432002h, ECA 222 Phase II Single-Sided DBCS**

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 1,656 Sq Ft

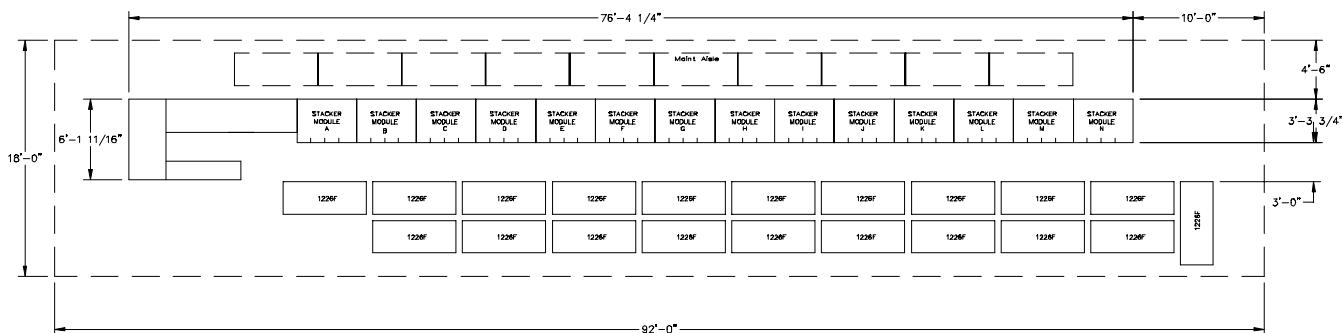


Exhibit 432.2k

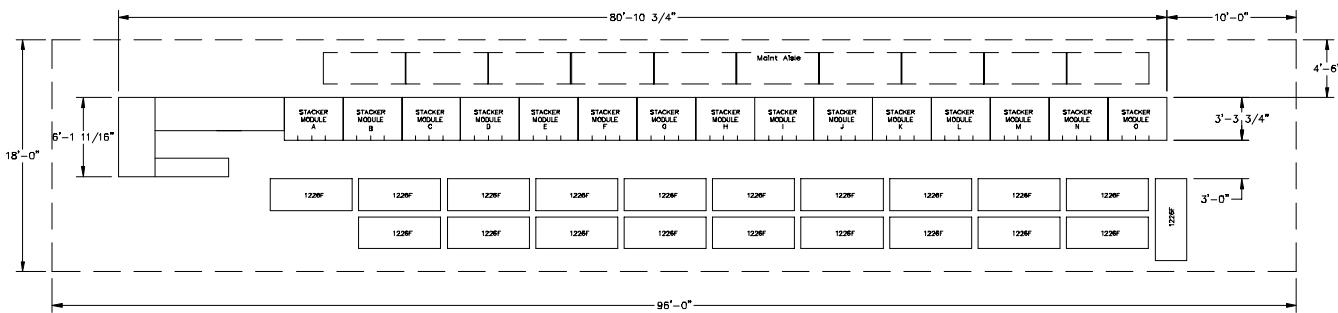
432002i, ECA 238 Phase II Single-Sided DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 1,728 Sq Ft

**432.3 Martin Marietta Single-Sided DBCSs**

The footprint for each of these DBCSs makes the following assumptions:

- a. Staging and dispatch of mail manually (GPMCs).
- b. No staging space allocated for GPMCs.
- c. Minimal maintenance access (3 ft from any panel that opens outward).
- d. Safety taken into account with minimal space design.
- e. No obstructions within workspace (including columns).
- f. Staging of empty 1226F Tray Carts behind the DBCS.

Exhibit 432.3a lists the WSUs currently used for the Martin Marietta single-sided DBCSs and the associated number of 1226F Tray Carts required for each. Exhibit 432.3b lists the space requirements for each of these WSUs. Exhibits 432.3c through 432.3k illustrate these WSUs for visual reference in planning facility space requirements.

Exhibit 432.3a

WSUs and Tray Carts Needed for Martin Marietta Single-Sided DBCSs

| WSU Number | PostalCAD Drawing Name | Equipment Name | 1226F Tray Carts Required FRONT | Stored Empty 1226F Tray Carts BACK | 1226F Tray Carts Required TOTAL |
|------------|------------------------|----------------|---------------------------------|------------------------------------|---------------------------------|
| 432003a | 432003A.DWG | MM 100 | 10 | 5 | 15 |
| 432003b | 432003B.DWG | MM 120 | 10 | 5 | 15 |
| 432003c | 432003C.DWG | MM 140 | 12 | 6 | 18 |
| 432003d | 432003D.DWG | MM 160 | 14 | 7 | 21 |
| 432003e | 432003E.DWG | MM 180 | 16 | 8 | 24 |
| 432003f | 432003F.DWG | MM 200 | 18 | 9 | 27 |
| 432003g | 432003G.DWG | MM 220 | 20 | 10 | 30 |
| 432003h | 432003H.DWG | MM 240 | 20 | 10 | 30 |
| 432003i | 432003I.DWG | MM 260 | 22 | 11 | 33 |

Exhibit 432.3b

WSU Space Requirements for Martin Marietta Single-Sided DBCSs

| WSU Number | PostalCAD Drawing Name | Equipment Name | Minimum Space Required BEHIND DBCS | Minimum Space Required at the END of DBCS | Min. Length | Min. Width | Square Feet Required |
|------------|------------------------|----------------|------------------------------------|---|-------------|------------|----------------------|
| 432003a | 432003A.DWG | MM 100 | 4.5 ft | 10 ft | 47 ft | 18 ft | 847 |
| 432003b | 432003B.DWG | MM 120 | 4.5 ft | 10 ft | 53 ft | 18 ft | 954 |
| 432003c | 432003C.DWG | MM 140 | 4.5 ft | 10 ft | 58 ft | 18 ft | 1,044 |
| 432003d | 432003D.DWG | MM 160 | 4.5 ft | 10 ft | 63 ft | 18 ft | 1,134 |
| 432003e | 432003E.DWG | MM 180 | 4.5 ft | 10 ft | 69 ft | 18 ft | 1,242 |
| 432003f | 432003F.DWG | MM 200 | 4.5 ft | 10 ft | 74 ft | 18 ft | 1,332 |
| 432003g | 432003G.DWG | MM 220 | 4.5 ft | 10 ft | 79 ft | 18 ft | 1,422 |
| 432003h | 432003H.DWG | MM 240 | 4.5 ft | 10 ft | 84 ft | 18 ft | 1,512 |
| 432003i | 432003I.DWG | MM 260 | 4.5 ft | 10 ft | 90 ft | 18 ft | 1,620 |

Exhibit 432.3c

432003a, Martin Marietta 100 Single-Sided DBCS

Date: Dec. 1994
 Distribution Delivery Barcode Sorter
 Scale: No Scale
 Area: 846 Sq Ft

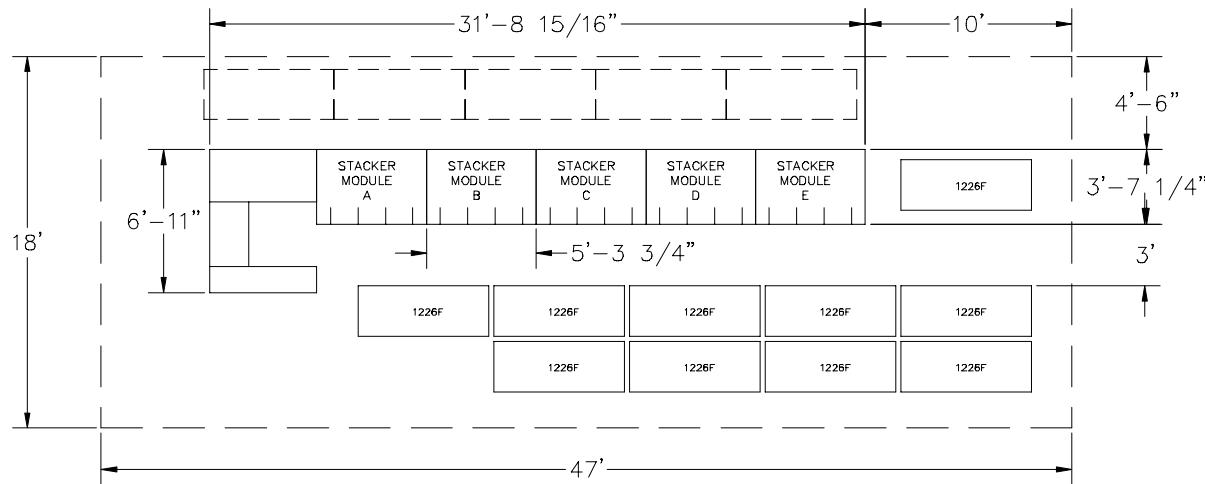


Exhibit 432.3d

432003b, Martin Marietta 120 Single-Sided DBCS

Date: Dec. 1994
 Distribution Delivery Barcode Sorter
 Scale: No Scale
 Area: 954 Sq Ft

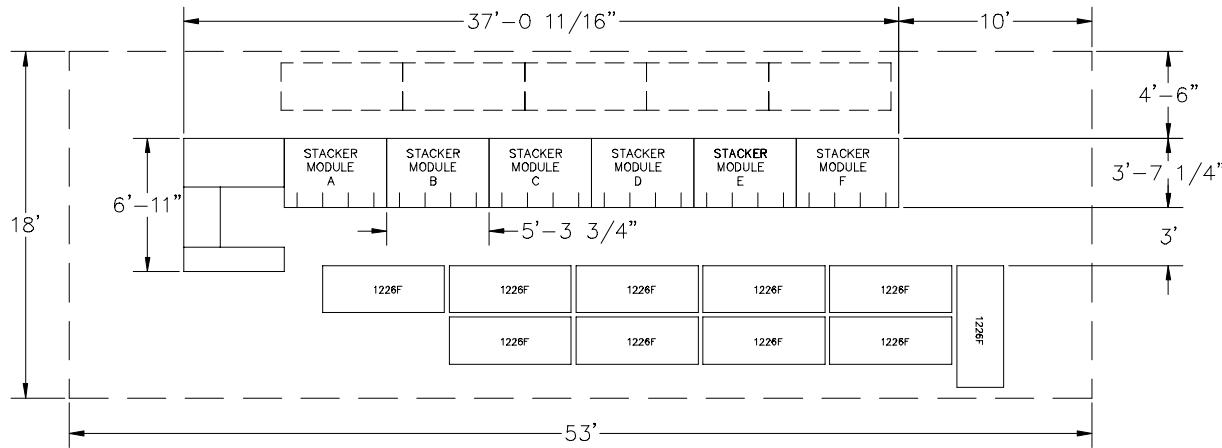


Exhibit 432.3e

432003c, Martin Marietta 140 Single-Sided DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 1,044 Sq Ft

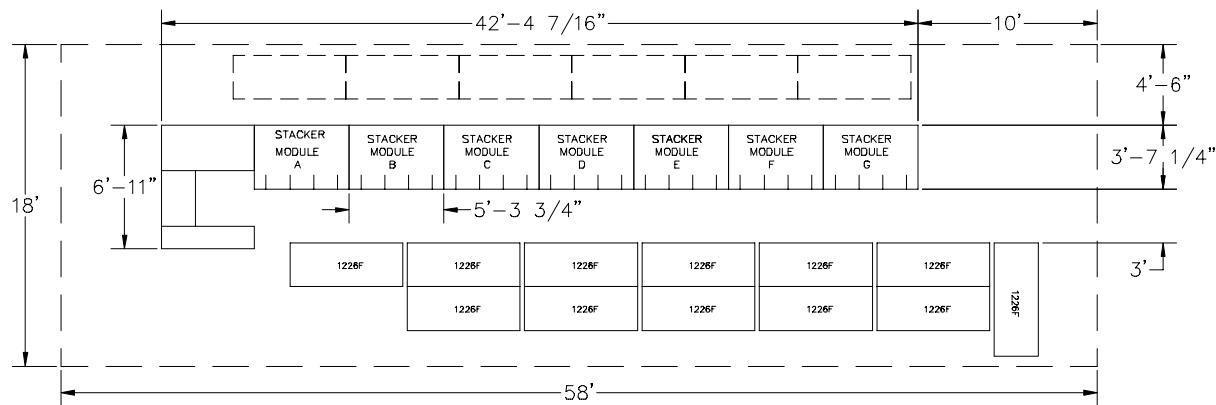


Exhibit 432.3f

432003d, Martin Marietta 160 Single-Sided DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 1,134 Sq Ft

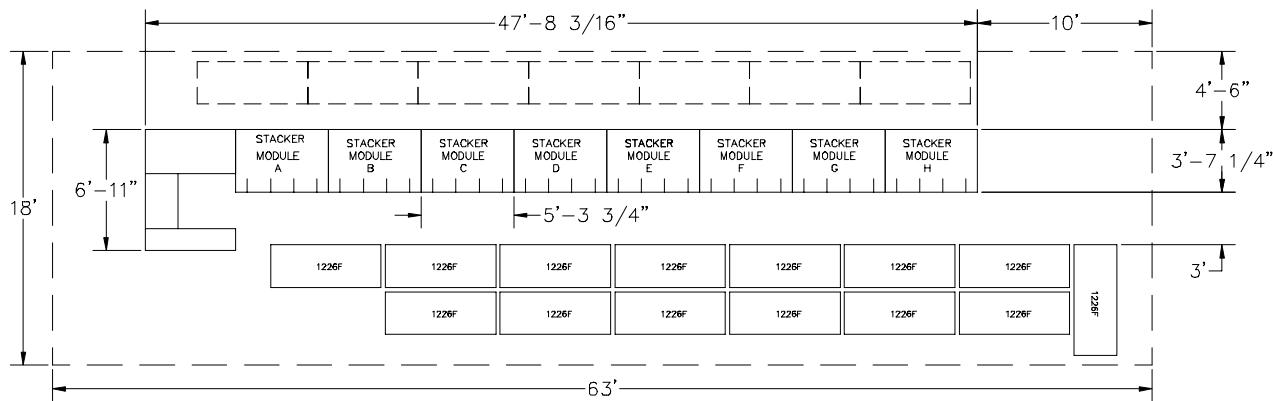


Exhibit 432.3g

432003e, Martin Marietta 180 Single-Sided DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 1,242 Sq Ft

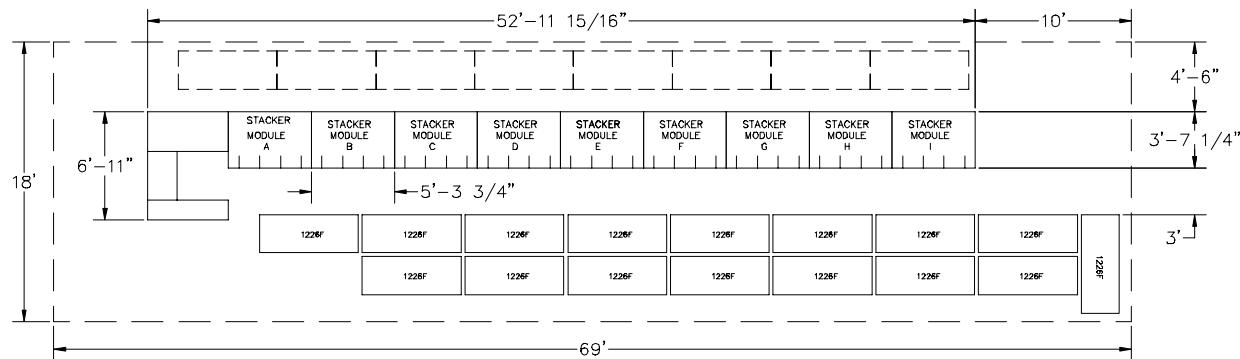


Exhibit 432.3h

432003f, Martin Marietta 200 Single-Sided DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 1,332 Sq Ft

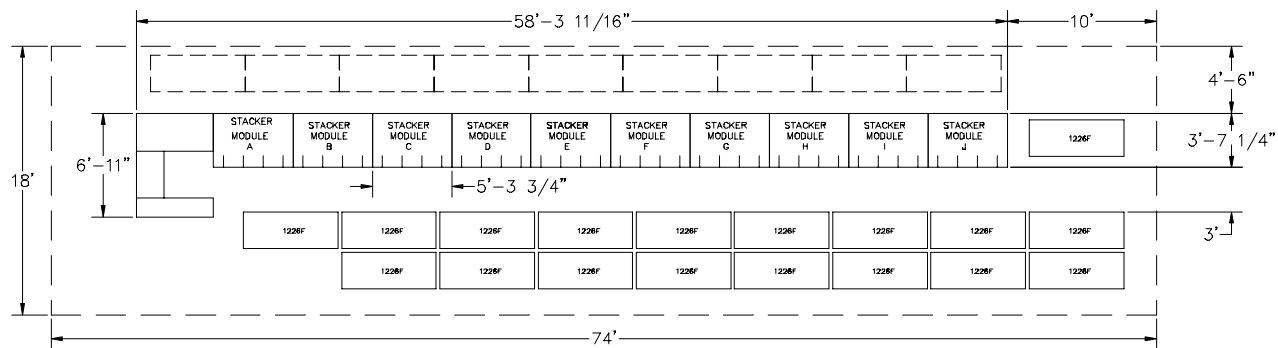


Exhibit 432.3i

432003g, Martin Marietta 220 Single-Sided DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 1,422 Sq Ft

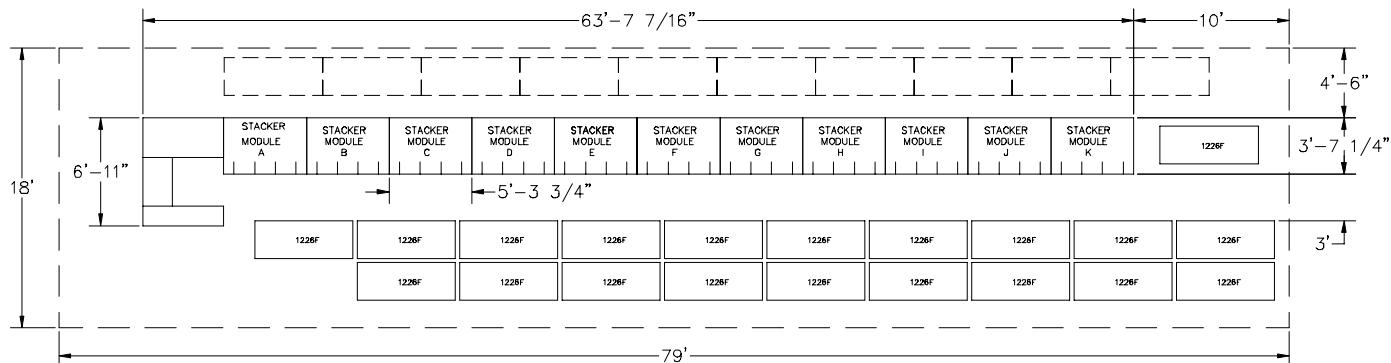


Exhibit 432.3j

432003h, Martin Marietta 240 Single-Sided DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 1,512 Sq Ft

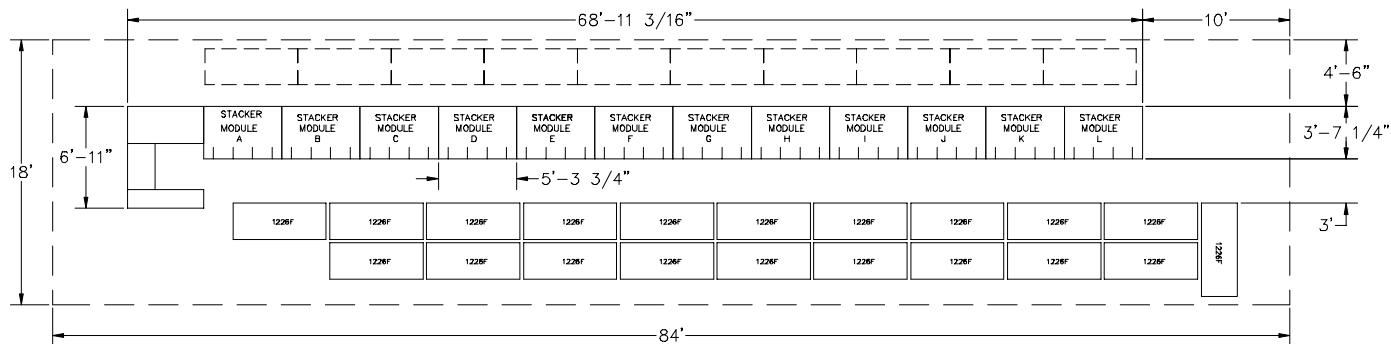


Exhibit 432.3k

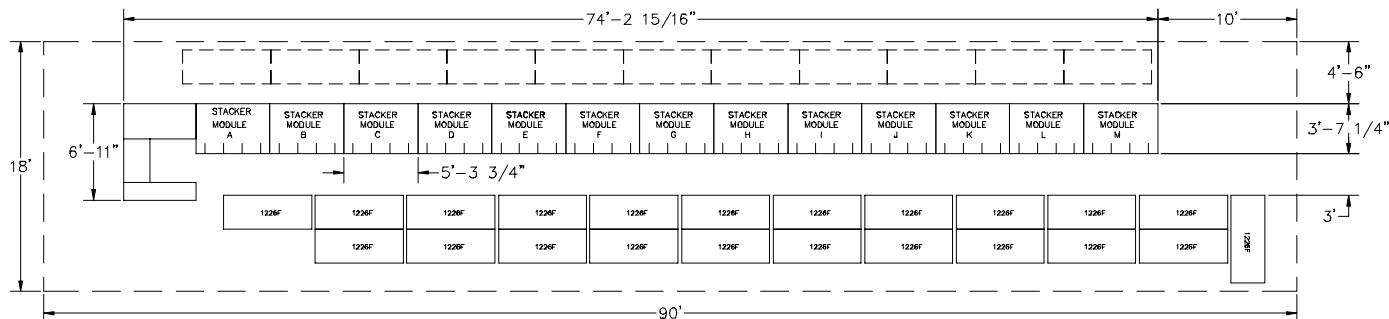
432003i, Martin Marietta 260 Single-Sided DBCS

Date: Dec. 1994

Distribution Delivery Barcode Sorter

Scale: No Scale

Area: 1,620 Sq Ft

**432.4 ECA Phase IV Single-Sided DBCS/Optical Character Reader**

The footprint for each of these DBCSs makes the following assumptions:

- Staging and dispatch of mail manually (GPMCs).
- No staging space allocated for GPMCs.
- Minimal maintenance access (3 ft from any panel that opens outward).
- Safety taken into account with minimal space design.
- No obstructions within workspace (including columns).
- Staging of empty 1226F Tray Carts behind the DBCS/optical character reader (OCR).

Exhibit 432.4a lists the WSUs currently used for the ECA Phase IV single-sided DBCS/OCRs and the associated number of 1226F Tray Carts required for each. Exhibit 432.4b lists the space requirements for each of these WSUs. Exhibits 432.4c through 432.4f illustrate these WSUs for visual reference in planning facility space requirements.

Exhibit 432.4a

WSUs and Tray Carts Needed for ECA Phase IV Single-Sided DBCS/OCRs

| WSU Number | PostalCAD Drawing Name | Equipment Name | 1226F Tray Carts Required FRONT | Stored Empty 1226F Tray Carts BACK | 1226F Tray Carts Required TOTAL |
|------------|------------------------|----------------|---------------------------------|------------------------------------|---------------------------------|
| 432012e | 432012E.DWG | OCR 174 | 16 | 8 | 24 |
| 432012f | 432012F.DWG | OCR 190 | 18 | 9 | 27 |
| 432012g | 432012G.DWG | OCR 206 | 20 | 10 | 30 |
| 432012i | 432012I.DWG | OCR 238 | 22 | 11 | 33 |

Exhibit 432.4b

WSU Space Requirements for ECA Phase IV Single-Sided DBCS/OCRs

| WSU Number | PostalCAD Drawing Name | Equipment Name | Minimum Space Required BEHIND DBCS | Minimum Space Required at the END of DBCS | Min. Length | Min. Width | Square Feet Required |
|------------|------------------------|----------------|------------------------------------|---|-------------|------------|----------------------|
| 432012e | 432012E.DWG | OCR 174 | 4.5 ft | 10 ft | 83 ft | 18 ft | 1,494 |
| 432012f | 432012F.DWG | OCR 190 | 4.5 ft | 10 ft | 88 ft | 18 ft | 1,584 |
| 432012g | 432012G.DWG | OCR 206 | 4.5 ft | 10 ft | 92 ft | 18 ft | 1,656 |
| 432012i | 432012I.DWG | OCR 238 | 4.5 ft | 10 ft | 101 ft | 18 ft | 1,818 |

Exhibit 432.4c

432012e, ECA Phase IV 174 Single-Sided DBCS/OCR

Date: May 1997

Distribution Delivery Barcode Sorter — OCR

Scale: No Scale

Area: 1,494 Sq Ft

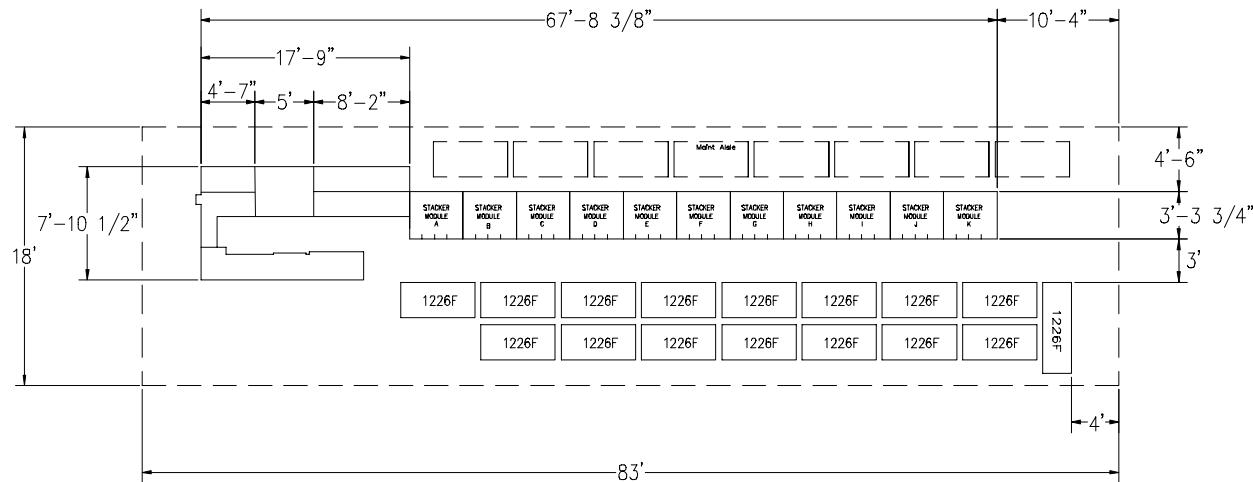


Exhibit 432.4d

432012f, ECA Phase IV 190 Single-Sided DBCS/OCR

Date: May 1997

Distribution Delivery Barcode Sorter — OCR

Scale: No Scale

Area: 1,584 Sq Ft

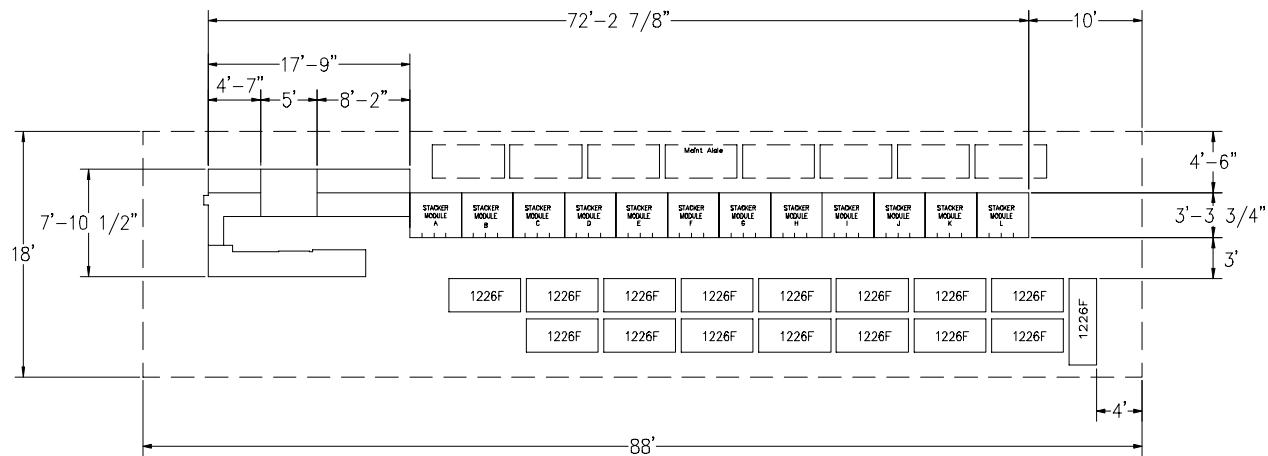


Exhibit 432.4e

432012g, ECA Phase IV 206 Single-Sided DBCS/OCR

Date: May 1997

Distribution Delivery Barcode Sorter — OCR

Scale: No Scale

Area: 1,656 Sq Ft

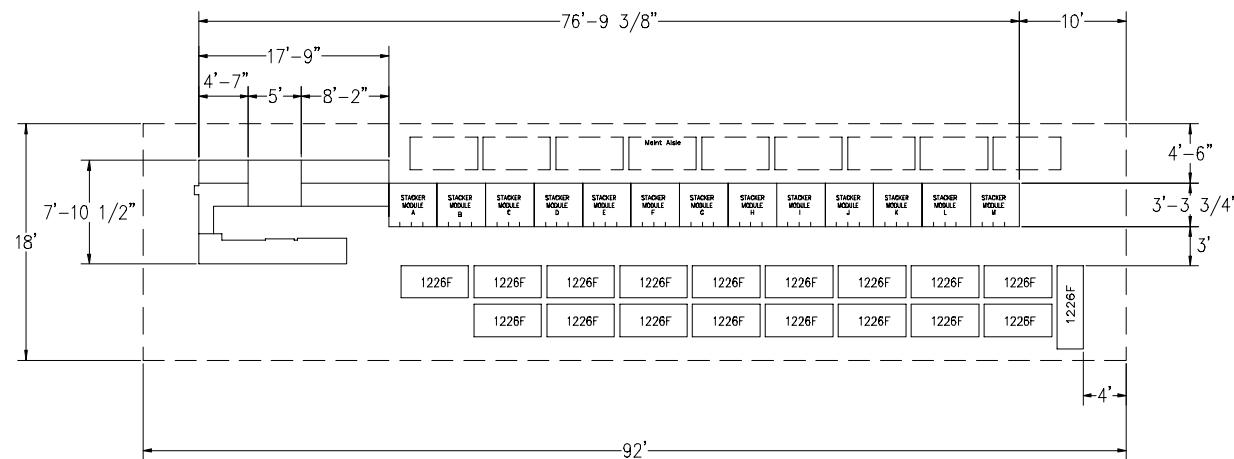


Exhibit 432.4f

432012i, ECA Phase IV 238 Single-Sided DBCS/OCR

Date: Jan. 1998

Distribution Delivery Barcode Sorter — OCR

Scale: No Scale

Area: 1,818 Sq Ft

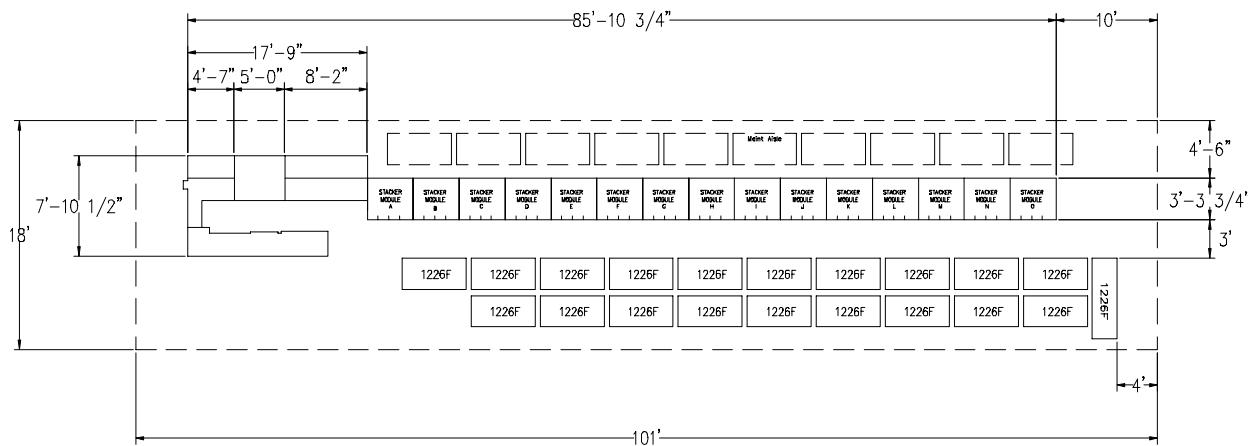
**433 Pouching and Sacking**

Exhibit 433a lists the WSUs currently used for pouching and sacking.

Exhibits 433b through 433l illustrate these WSUs for visual reference in planning facility space requirements.

Exhibit 433a

WSUs Used for Pouching and Sacking

| WSU Number | PostalCAD Drawing Name | Square Feet Required | Arrangement | Item Numbers and Description |
|------------|------------------------|----------------------|-----------------------------------|---|
| 433001 | 433001.DWG | 18 | Single rack | 61A, Loose Pack Rack — 2 Separations |
| 433001a | 433001A.DWG | 32 | Single rack | 61B, Loose Pack Rack — 4 Separations |
| 433002 | 433002.DWG | 23 | Single rack | 30, 2 Pouch Racks — 5 Separations Each |
| 433002a | 433002A.DWG | 46 | Single rack | 31A or 31B, 2 Pouch Racks — 10 Separations Each |
| 433003 | 433003.DWG | 187 | Double depth | 2-31A, 2-31B, 8B, 4 Pouch Racks — 10 Separations Each With Canceling Table |
| 433004a | 433004A.DWG | 412 | U-shape | 3-31A, 3-31B, 8B, 6 Pouch Racks — 10 Separations Each With Canceling Table |
| 433004b | 433004B.DWG | 412 | 2 rows deep | 4-31A, 4-31B, 8B, 8 Pouch Racks — 10 Separations Each With Canceling Table |
| 433004c | 433004C.DWG | 530 | Double depth | 5-31A, 5-31B, 8B, 10 Pouch Racks — 10 Separations Each With Canceling Table |
| 433004d | 433004D.DWG | 530 | Double depth | 6-31A, 6-31B, 8B, 12 Pouch Racks — 10 Separations Each With Canceling Table |
| 433005 | 433005.DWG | 711 | Double depth, with 17-ft conveyor | 5-31A, 5-31B, 3-1070, 1922A Conveyor, 10 Pouch Racks — 10 Separations Each With 17-Ft Conveyor and 3 Nutting Trucks |
| 433006 | 433006.DWG | 878 | Double depth, with 25-ft conveyor | 7-31A, 7-31B, 3-1070, 1922 Conveyor, 14 Pouch Racks — 10 Separations Each With 25-Ft Conveyor and 3 Nutting Trucks |

Exhibit 433b

433001, Loose Pack Rack — 2 Separations

Date: Dec. 1994

Pouching, Sacking

Scale: No Scale

Area: 18 Sq Ft

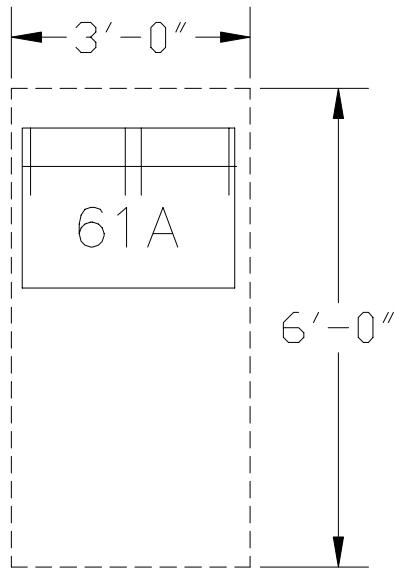


Exhibit 433c

433001a, Loose Pack Rack — 4 Separations

Date: Dec. 1994

Pouching, Sacking

Scale: No Scale

Area: 32 Sq Ft

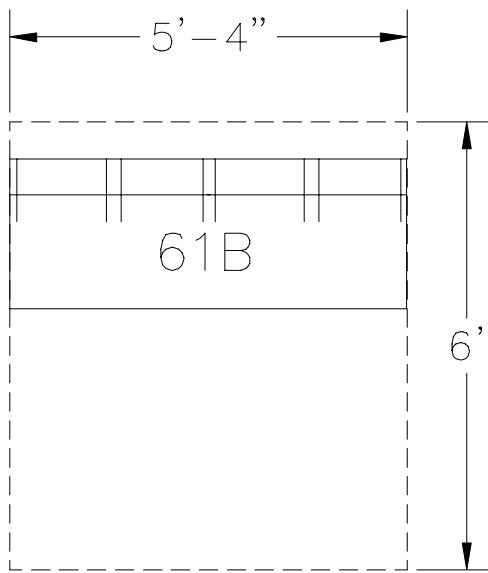


Exhibit 433d

433002, 2 Pouch Racks — 5 Separations Each

Date: Dec. 1994

Pouching, Sacking

Scale: No Scale

Area: 35 Sq Ft

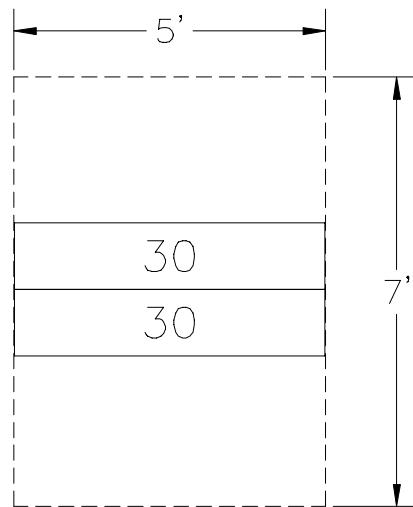


Exhibit 433e

433002a, 2 Pouch Racks — 10 Separations Each

Date: Dec. 1994

Pouching, Sacking

Scale: No Scale

Area: 46 Sq Ft

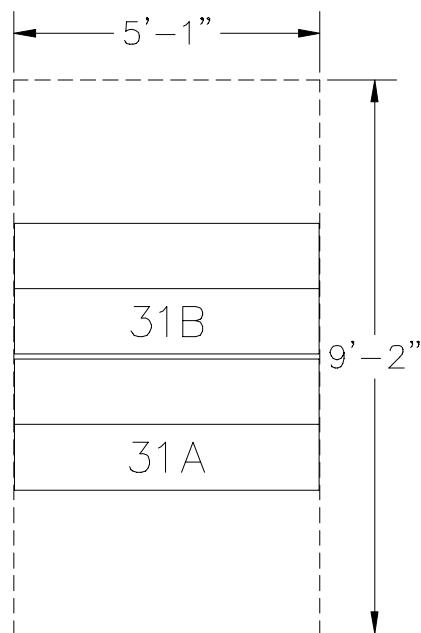


Exhibit 433f

433003, 4 Pouch Racks — 10 Separations Each, With Canceling Table

Date: Dec. 1994
 Pouching, Sacking
 Scale: No Scale
 Area: 187 Sq Ft

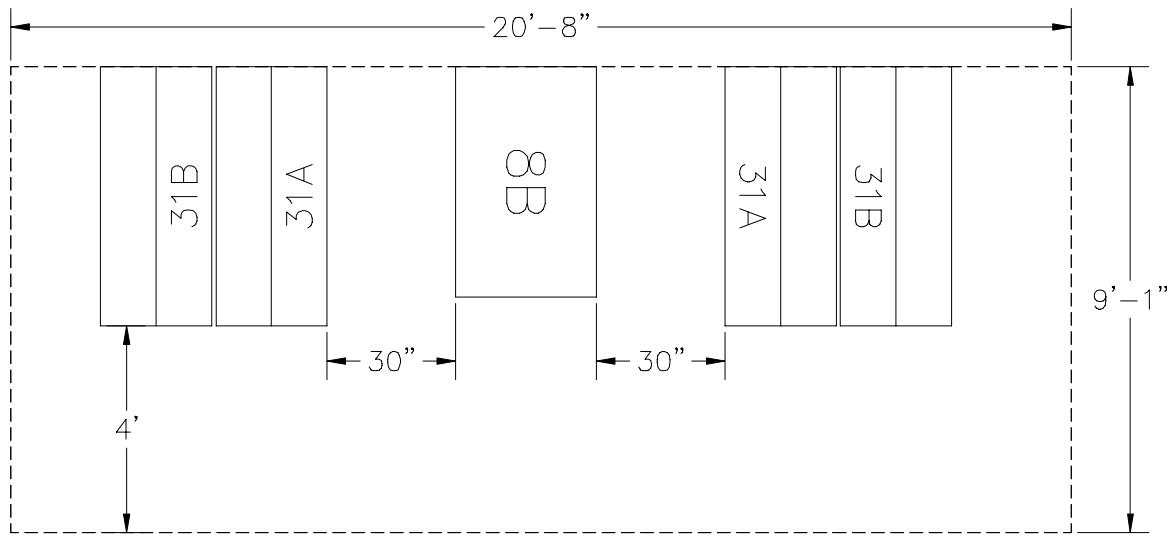


Exhibit 433g

433004a, 6 Pouch Racks — 10 Separations Each, With Canceling Table

Date: Dec. 1994
 Pouching, Sacking
 Scale: No Scale
 Area: 412 Sq Ft

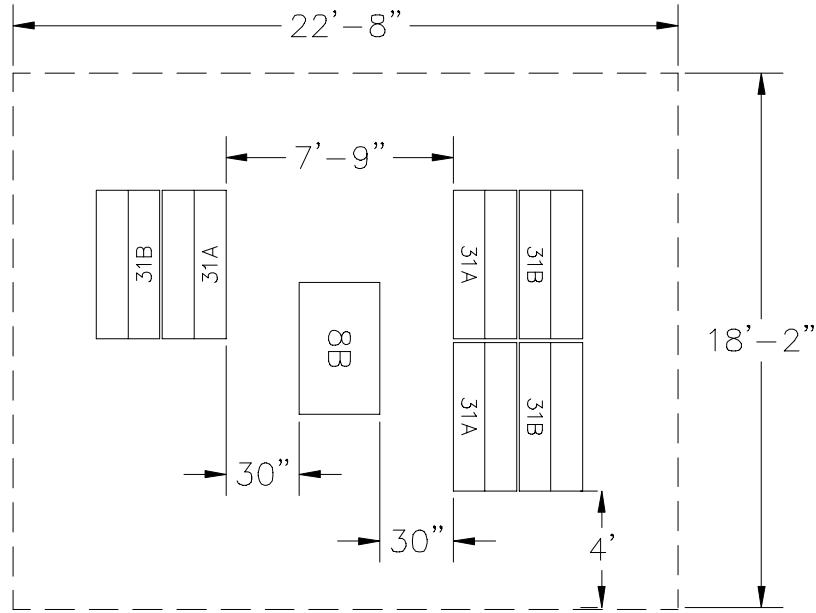


Exhibit 433h

433004b, 8 Pouch Racks — 10 Separations Each, With Canceling Table

Date: Dec. 1994
 Pouching, Sacking
 Scale: No Scale
 Area: 412 Sq Ft

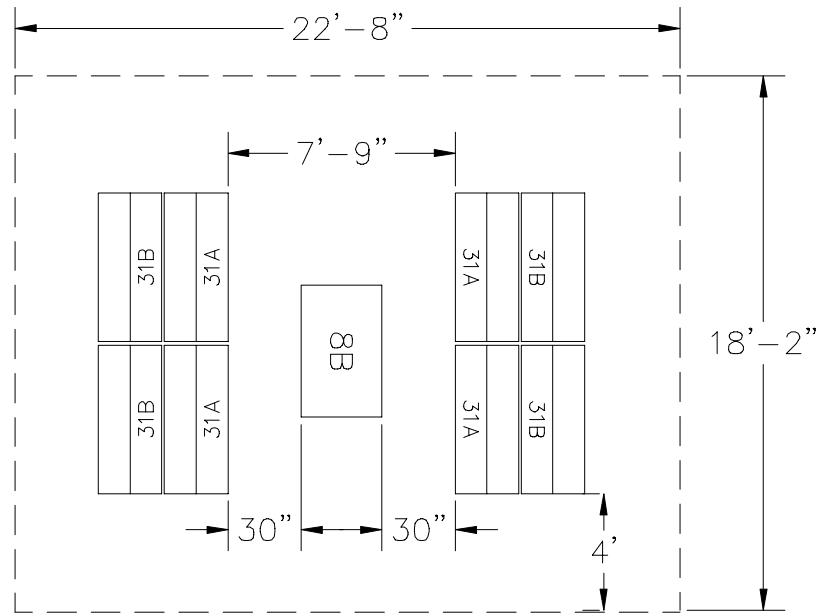


Exhibit 433i

433004c, 10 Pouch Racks — 10 Separations Each, With Canceling Table

Date: Dec. 1994
 Pouching, Sacking
 Scale: No Scale
 Area: 530 Sq Ft

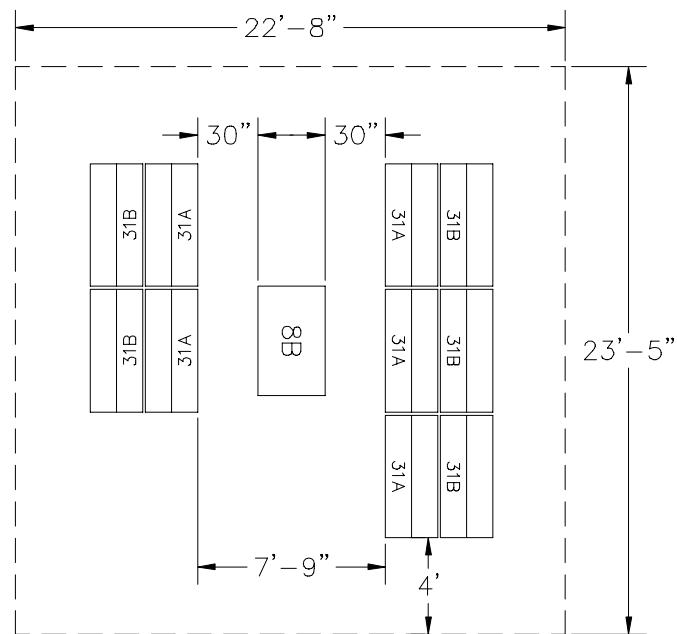


Exhibit 433j

433004d, 12 Pouch Racks — 10 Separations Each, With Canceling Table

Date: Dec. 1994

Pouching, Sacking

Scale: No Scale

Area: 530 Sq Ft

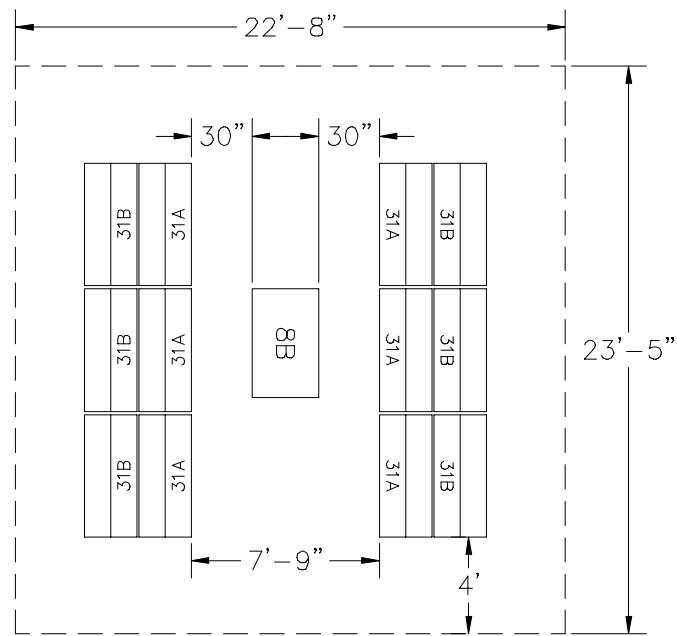


Exhibit 433k

433005, 10 Pouch Racks — 10 Separations Each, With 17-Ft 1922A Conveyor and 3 Nutting Trucks

Date: Dec. 1994

Pouching, Sacking

Scale: No Scale

Area: 711 Sq Ft

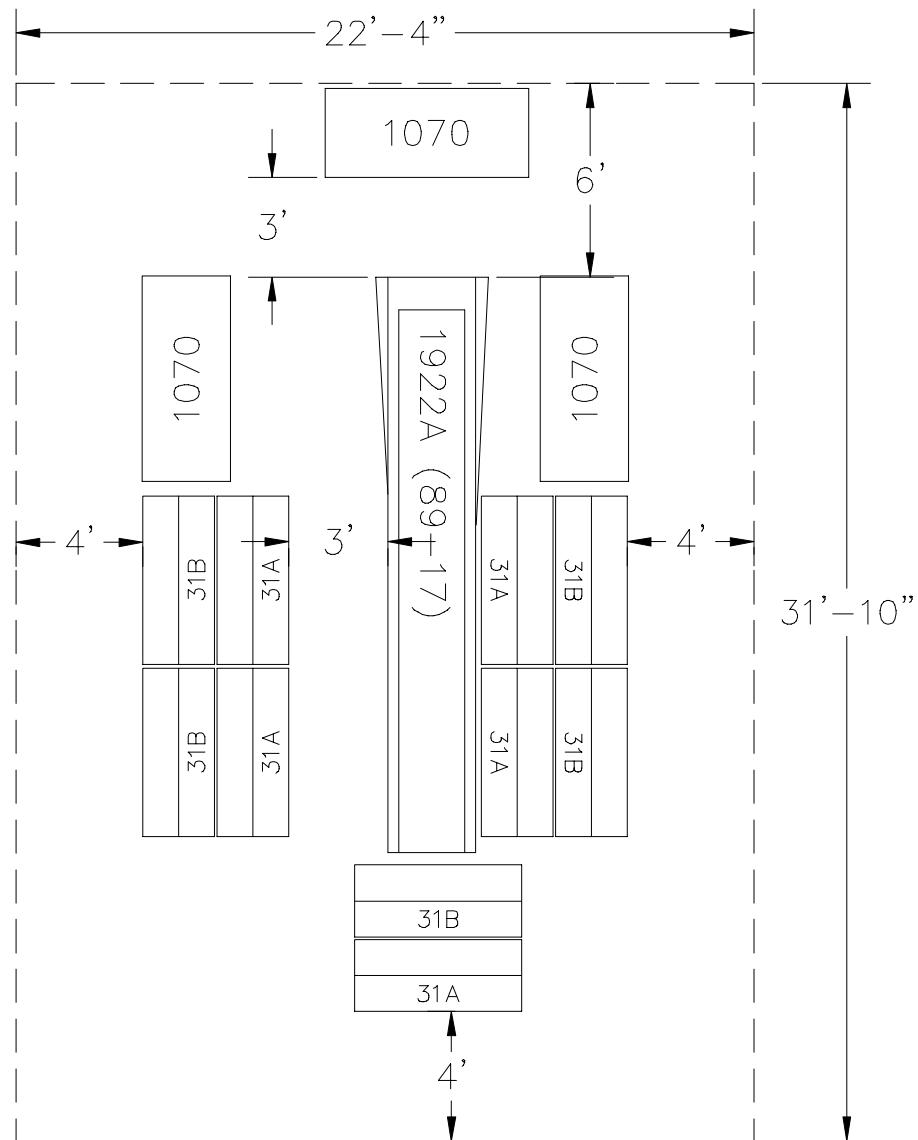


Exhibit 433I

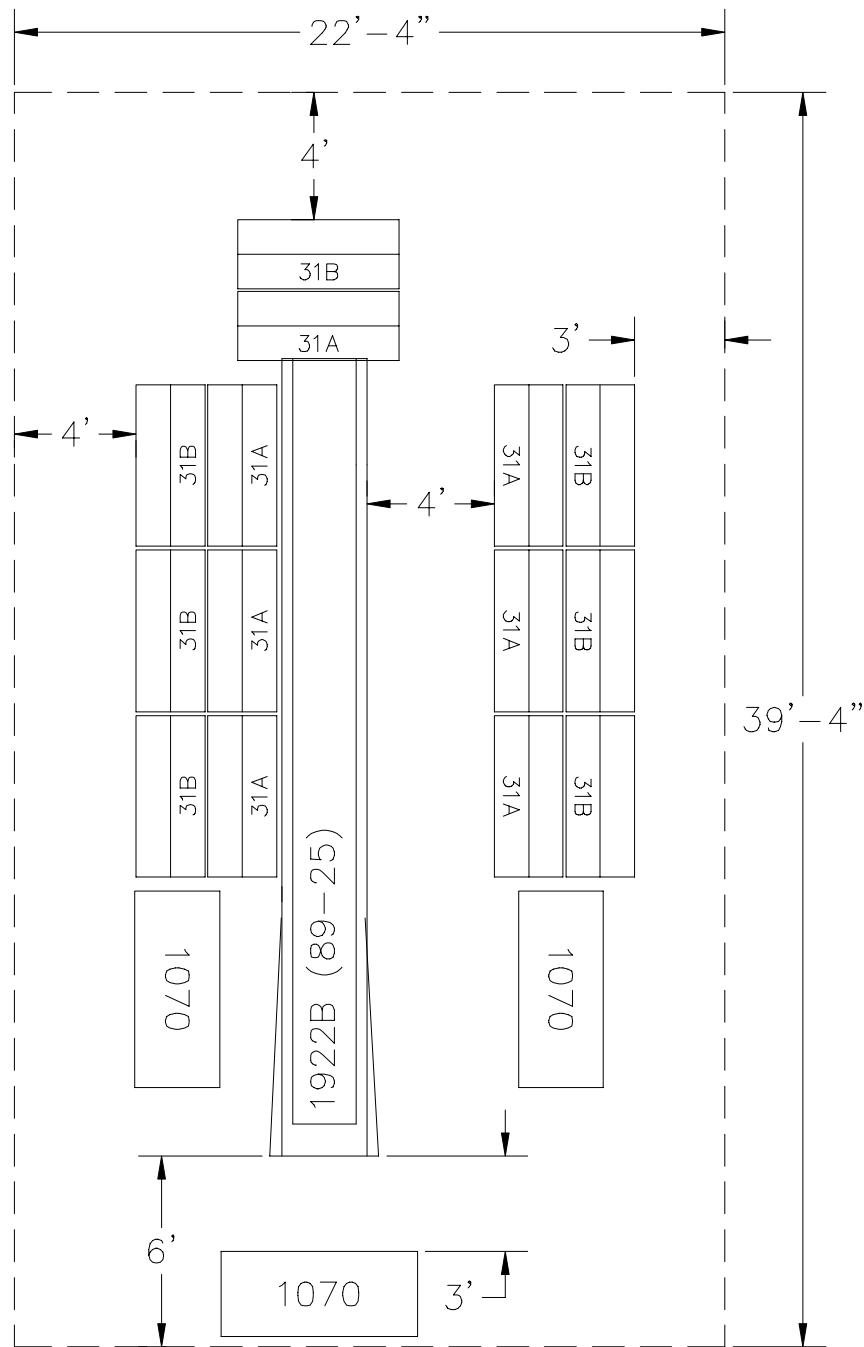
433006, 14 Pouch Racks — 10 Separations Each, With 25-Ft 1922B Conveyor and 3 Nutting Trucks

Date: Dec. 1994

Pouching, Sacking

Scale: No Scale

Area: 878 Sq Ft



434 **Reserved**435 **Flat Mail — Manual Cases and Mechanized Sorting Machines**

The footprints of these WSUs provide for movement of mail and personnel within the work center, exclusive of dedicated aisles, and an allowance for column interference and other unusable space. Exhibit 435a lists the WSUs currently used for flat mail — manual cases and mechanical sorting machines. Exhibits 435b through 435j illustrate these WSUs for visual reference in planning facility space requirements.

Exhibit 435a

WSUs Used for Flat Mail — Manual Cases and Mechanized Sorting Machines

| WSU Number | PostalCAD Drawing Name | Square Feet Required | Separations | Description |
|------------|------------------------|----------------------|-------------|---------------------------------------|
| 435001 | 435001.DWG | 150 | 60 | Flat Workstation — Open Back |
| 435002a | 435002A.DWG | 40 | 24–30 | Flat Workstation — Open Back |
| 435002b | 435002B.DWG | 56 | 36–42 | Flat Workstation — Open Back |
| 435003a | 435003A.DWG | 40 | 18 | Flat Distribution Setup |
| 435003b | 435003B.DWG | 80 | 19–36 | Flat Distribution Setup |
| 435003c | 435003C.DWG | 110 | 37–54 | Flat Distribution Setup |
| 435003d | 435003D.DWG | 130 | 55–72 | Flat Distribution Setup |
| 435008 | 435008.DWG | 2,500 | 100 | Flat Sorting Machine (FSM): 2+2 Model |
| 435009 | 435009.DWG | 3,093 | 100 | Flat Sorting Machine (FSM-1000) |

Exhibit 435b

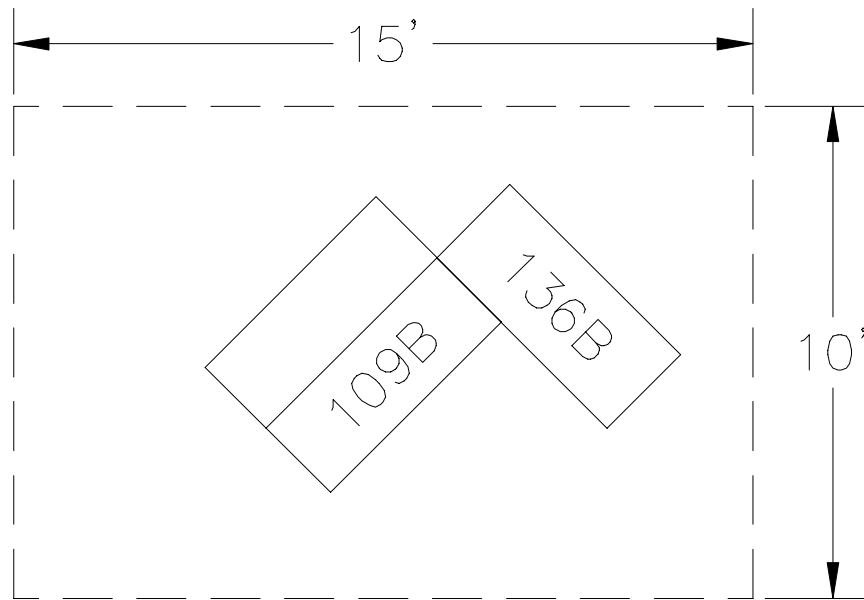
435001, Flat Workstation — Open Back: 60 Separations

Date: Dec. 1994

Distribution Flat Mail

Scale: No Scale

Area: 150 Sq Ft

**Note:** The planning area of 150 sq ft allows for:

- a. A maximum of 21'-4" back-to-back of cases.
- b. A maximum of 12'-5" from the back of case (toward distribution side) to a dedicated aisle, wall, or adjacent work area.
- c. A 3'-6" aisle at the ends of the rows of cases when not at a dedicated aisle.
- d. 3'-0" at the back and end of the cases for sweeping of the mail.

Exhibit 435c

435002a, Flat Workstation — Open Back: 24 to 30 Separations

Date: Dec. 1994

Distribution Flat Mail

Scale: No Scale

Area: 40 Sq Ft

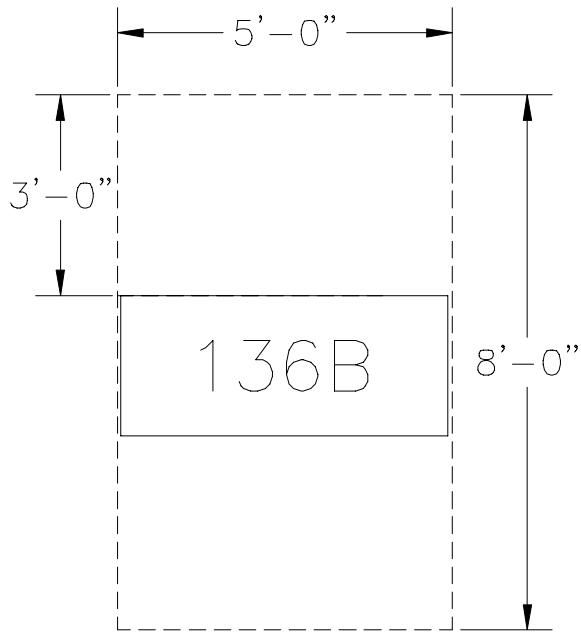


Exhibit 435d

435002b, Flat Workstation — Open Back: 36 to 42 Separations

Date: Dec. 1994

Distribution Flat Mail

Scale: No Scale

Area: 56 Sq Ft

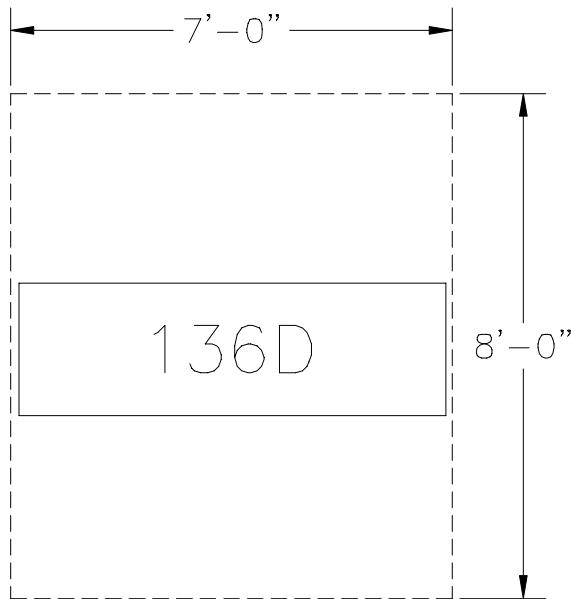


Exhibit 435e

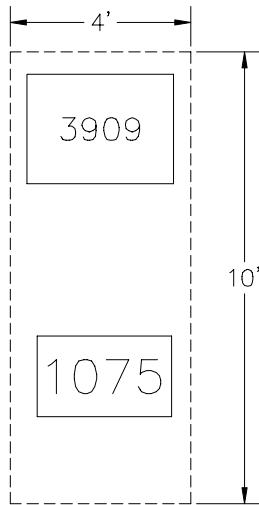
435003a, Flat Distribution Setup: 18 Separations

Date: Dec. 1994

Distribution Flat Mail

Scale: No Scale

Area: 40 Sq Ft



Flats distribution:

- 18 separations per container.
- 8 shelves per container.
- 24 trays per container — shipping capacity.

Exhibit 435f

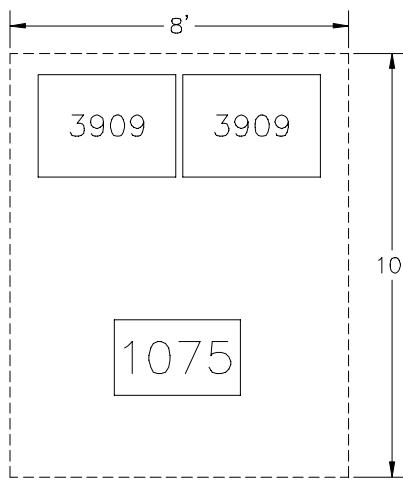
435003b, Flat Distribution Setup: 19 to 36 Separations

Date: Dec. 1994

Distribution Flat Mail

Scale: No Scale

Area: 80 Sq Ft



Flats distribution:

- 18 separations per container.
- 8 shelves per container.
- 24 trays per container — shipping capacity.

Exhibit 435g

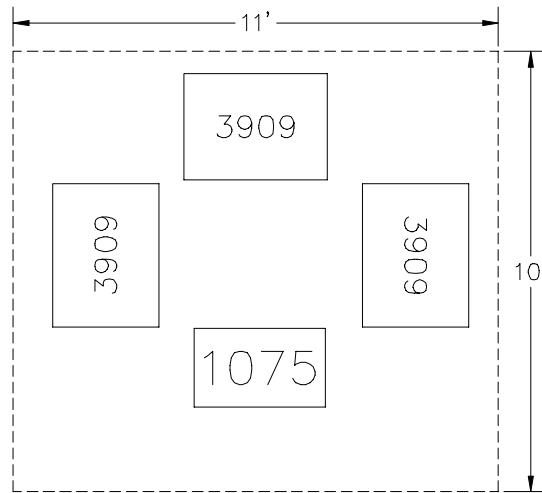
435003c, Flat Distribution Setup: 37 to 54 Separations

Date: Dec. 1994

Distribution Flat Mail

Scale: No Scale

Area: 110 Sq Ft



Flats distribution:

- 18 separations per container.
- 8 shelves per container.
- 24 trays per container — shipping capacity.

Exhibit 435h

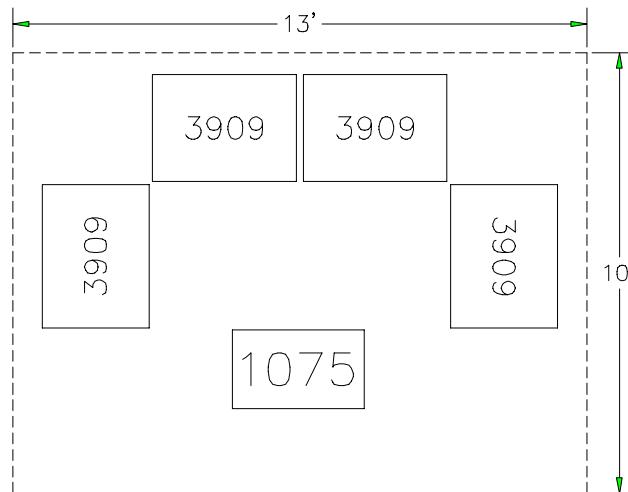
435003d, Flat Distribution Setup: 55 to 72 Separations

Date: Dec. 1994

Distribution Flat Mail

Scale: No Scale

Area: 130 Sq Ft



Flats distribution:

- 18 separations per container.
- 8 shelves per container.
- 24 trays per container — shipping capacity.

Exhibit 435i

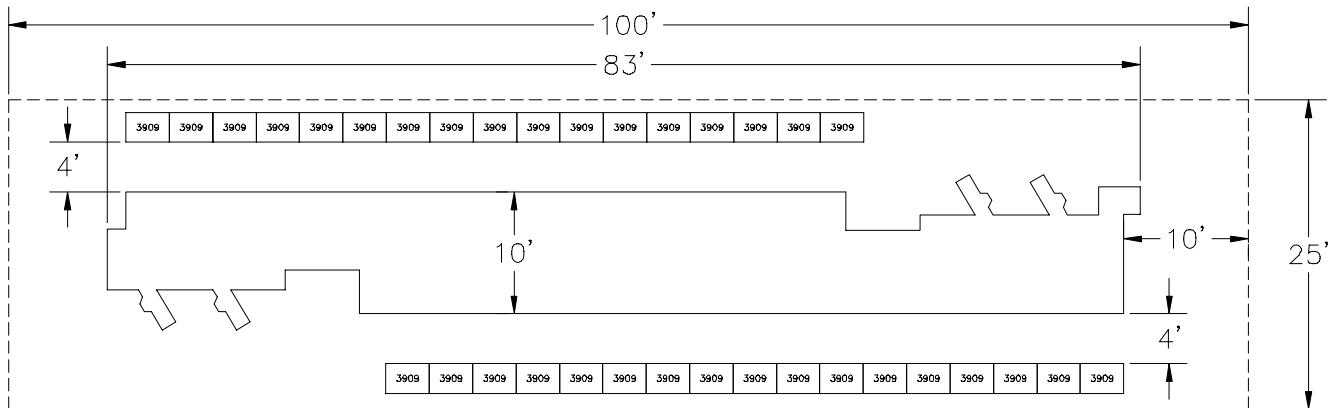
435008, Flat Sorting Machine (FSM): 2+2 Model

Date: Dec. 1994

Distribution Flat Mail

Scale: No Scale

Area: 2,500 Sq Ft



Note: Same space required for Model 775 Flat Sorting Machine.

Exhibit 435j

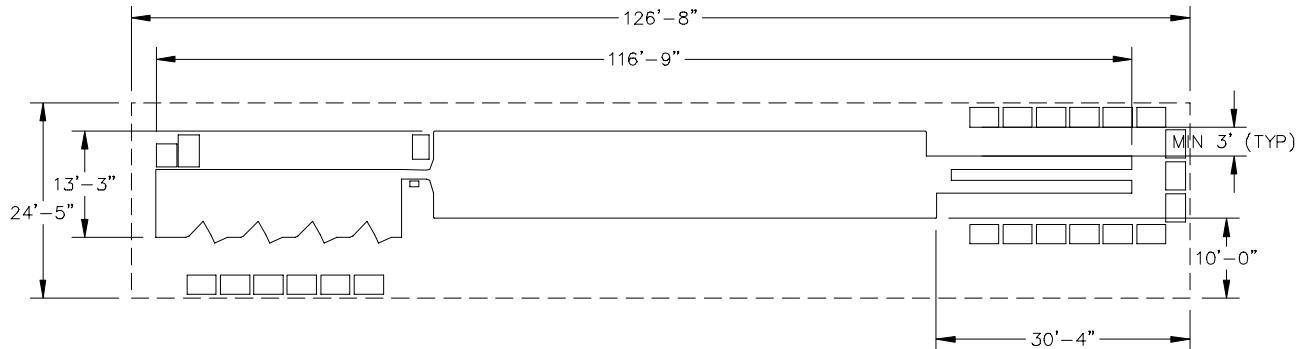
435009, Flat Sorting Machine (FSM-1000)

Date: May 1997

Distribution Flat Mail

Scale: No Scale

Area: 3,093 Sq Ft



44 Distribution of IPPs

Exhibit 44a lists the WSUs currently used for mechanized distribution of IPPs. Manual distribution of all classes of small parcels and rolls, circular letters, flat bundles, and ordinary paper bundles is usually done using standard pouching and sacking equipment. Exhibits 44b through 44p illustrate these WSUs for visual reference in planning facility space requirements.

Exhibit 44a

WSUs Used for Mechanized Distribution of IPPs

| WSU Number | PostalCAD Drawing Name | Square Feet Required | Consoles | Arrangement | Description |
|------------|------------------------|----------------------|----------|---------------|---------------------------------------|
| 440001a | 440001A.DWG | 10,098 | 4 | Straight Line | Small Parcel and Bundle Sorter (SPBS) |
| 440001b | 440001B.DWG | 10,626 | 5 | | |
| 440001c | 440001C.DWG | 11,154 | 6 | | |
| 440002a | 440002A.DWG | 8,316 | 4 | U-Shaped | Small Parcel and Bundle Sorter |
| 440002b | 440002B.DWG | 8,844 | 5 | | |
| 440002c | 440002C.DWG | 9,372 | 6 | | |
| 440003a | 440003A.DWG | 8,316 | 4 | L-Shaped | Small Parcel and Bundle Sorter |
| 440003b | 440003B.DWG | 8,844 | 5 | | |
| 440003c | 440003C.DWG | 9,372 | 6 | | |
| 440011a | 440011A.DWG | 10,098 | 4 | Straight Line | SPBS With Siemens Feed System |
| 440011b | 440011B.DWG | 10,626 | 5 | | |
| 440011c | 440011C.DWG | 11,154 | 6 | | |
| 440021a | 440021A.DWG | 10,098 | 4 | Straight Line | SPBS With Lockheed Martin System* |
| 440021b | 440021B.DWG | 10,626 | 5 | | |
| 440021c | 440021C.DWG | 11,154 | 6 | | |

* A maneuvering area for forklift and pallet jacks is required which uses part of the 20 percent staging area as illustrated in the templates.

Exhibit 44b

440001a, Small Parcel and Bundle Sorter: Straight Line (Without Feed System) — 4 Consoles

Date: Dec. 1997

Distribution IPPS

Scale: No Scale

Area: 10,098 Sq Ft

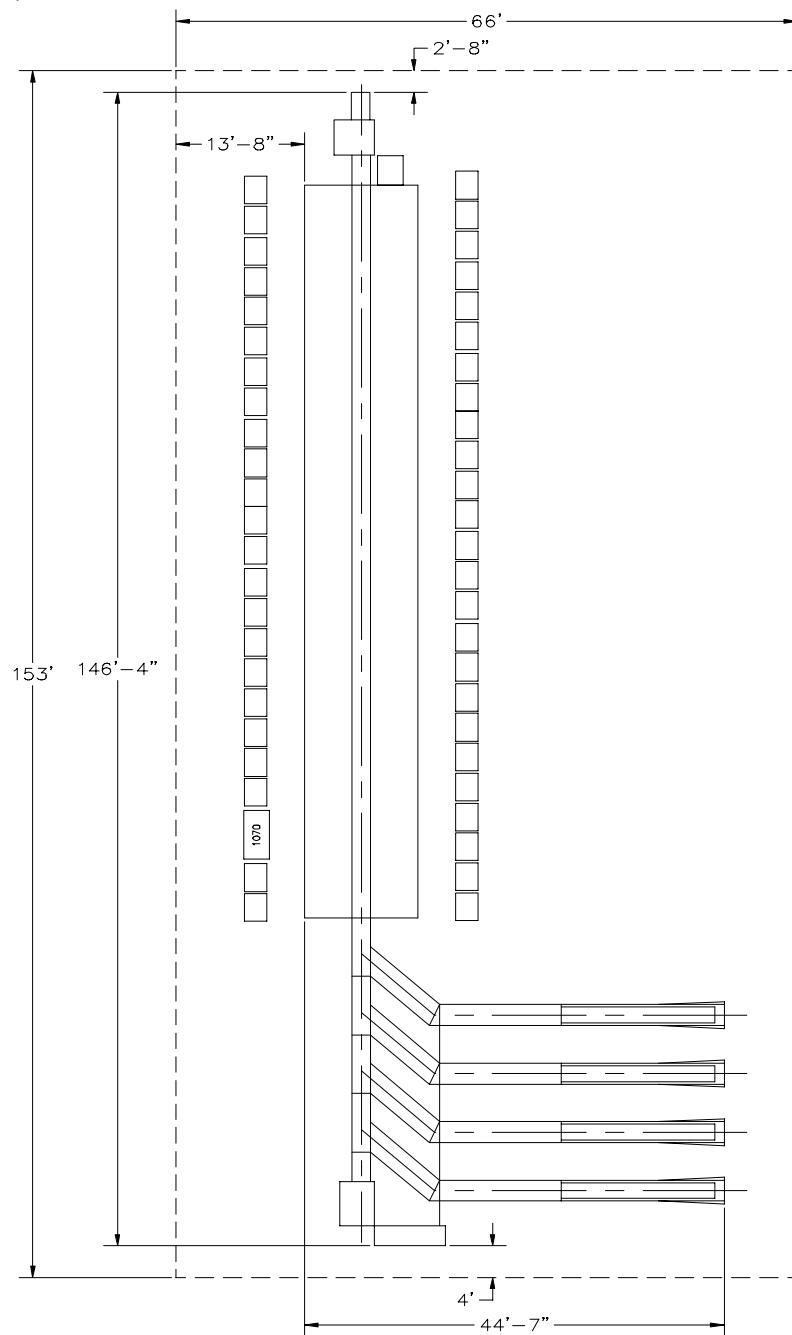


Exhibit 44c

440001b, Small Parcel and Bundle Sorter: Straight Line (Without Feed System) — 5 Consoles

Date: Dec. 1997

Distribution IPPS

Scale: No Scale

Area: 10,626 Sq Ft

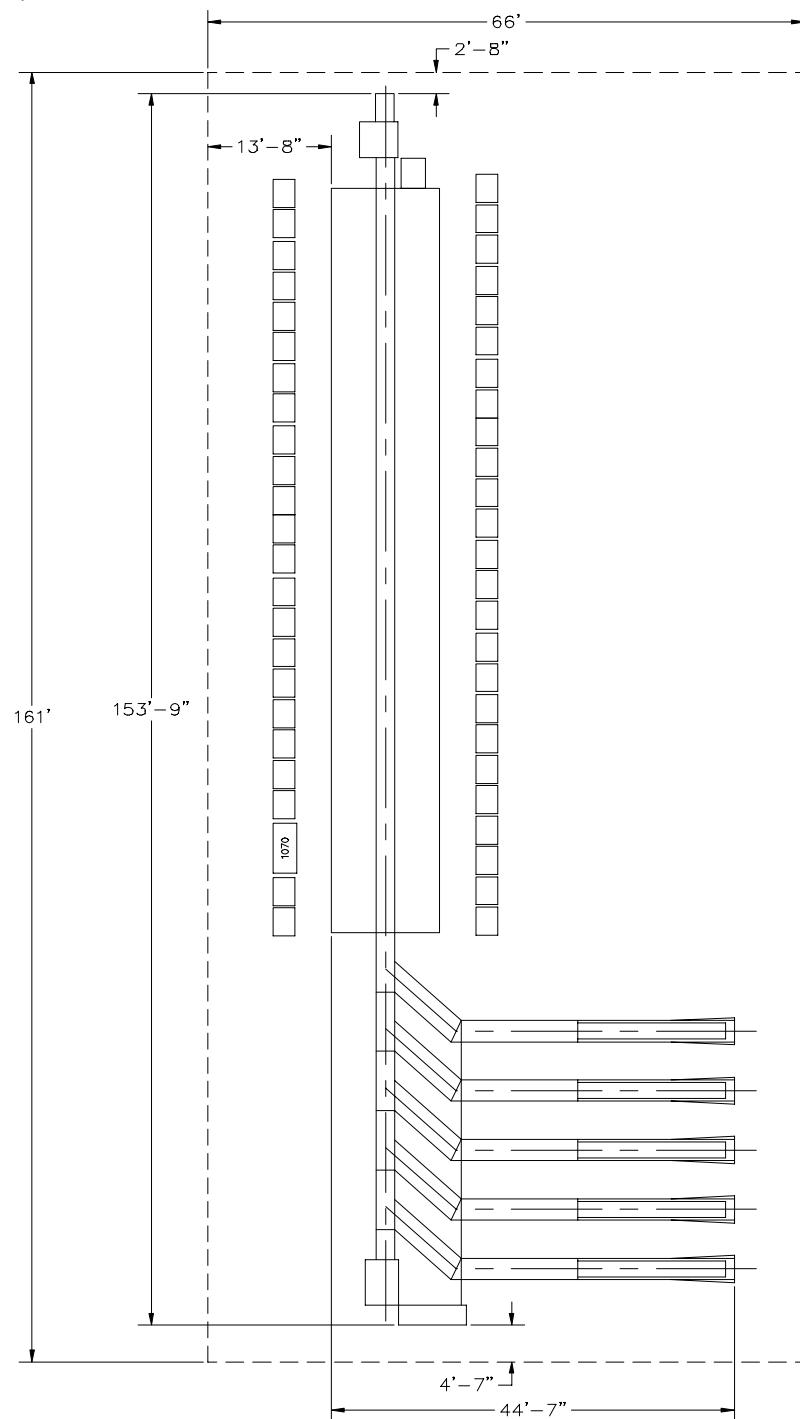


Exhibit 44d

440001c, Small Parcel and Bundle Sorter: Straight Line (Without Feed System) — 6 Consoles

Date: Dec. 1997

Distribution IPPS

Scale: No Scale

Area: 11,154 Sq Ft

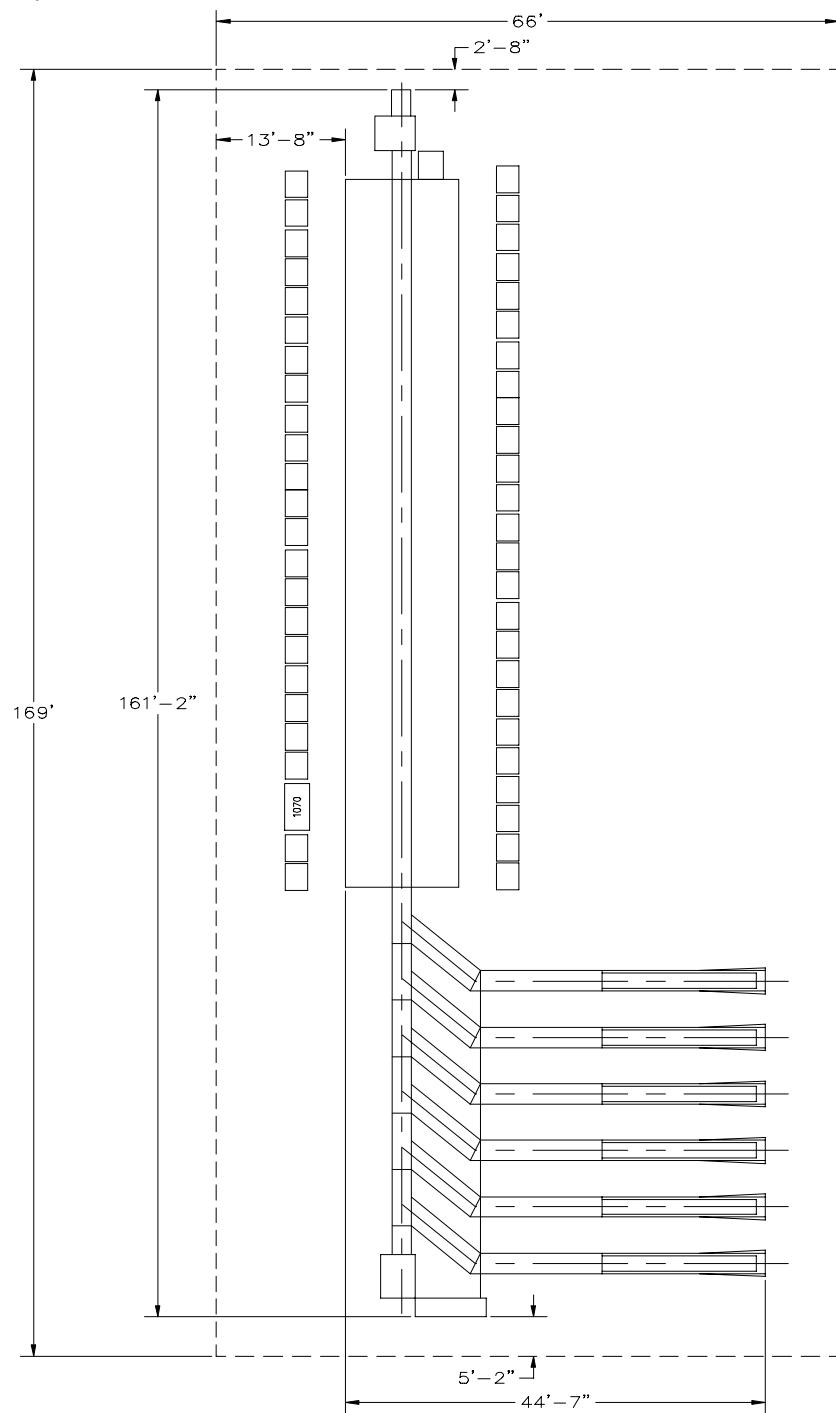


Exhibit 44e

440002a, Small Parcel and Bundle Sorter: U-Shaped — 4 Consoles

Date: Dec. 1994

Distribution IPPS

Scale: No Scale

Area: 8,316 Sq Ft

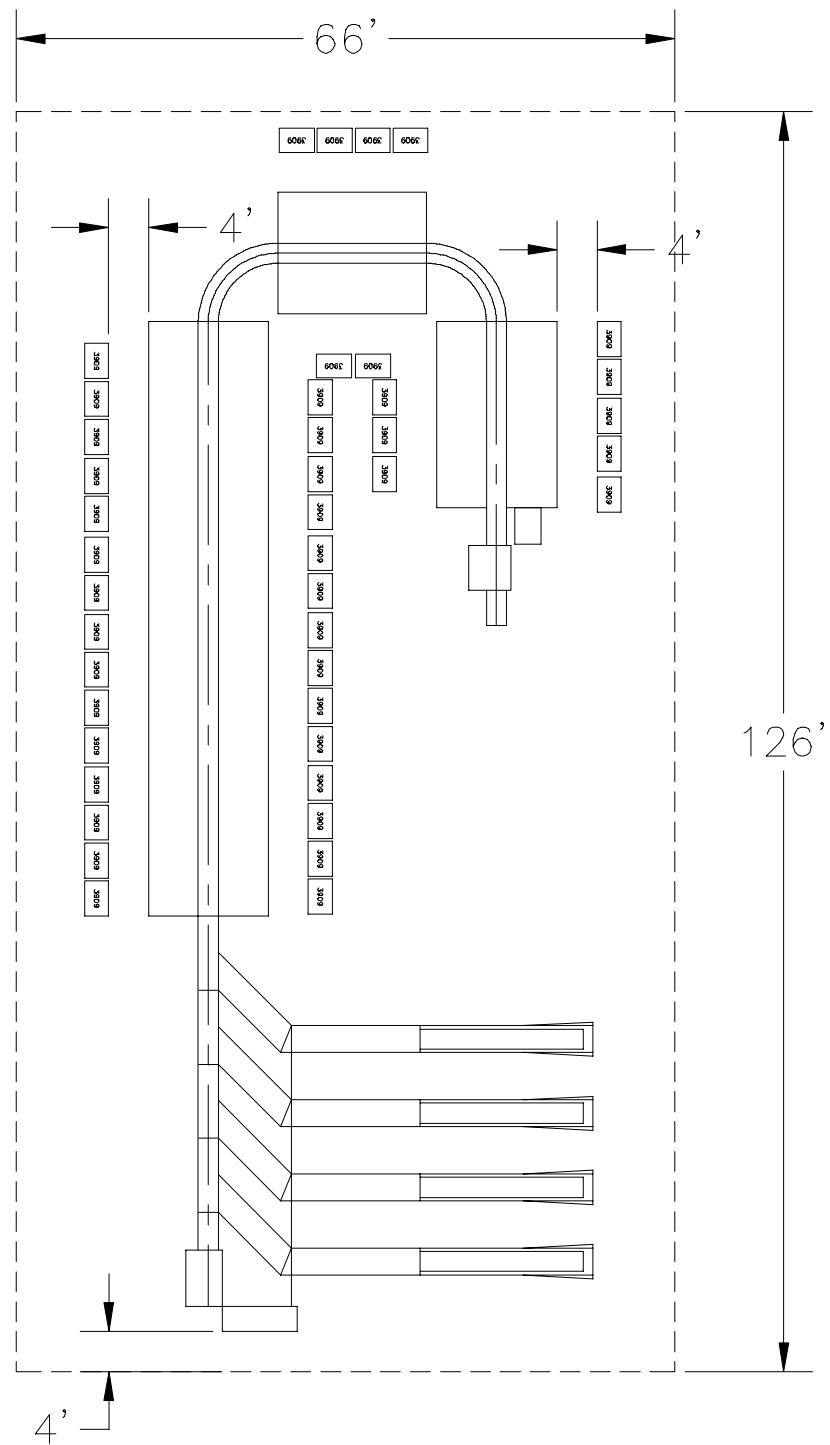


Exhibit 44f

440002b, Small Parcel and Bundle Sorter: U-Shaped — 5 Consoles

Date: Dec. 1994

Distribution IPPS

Scale: No Scale

Area: 8,844 Sq Ft

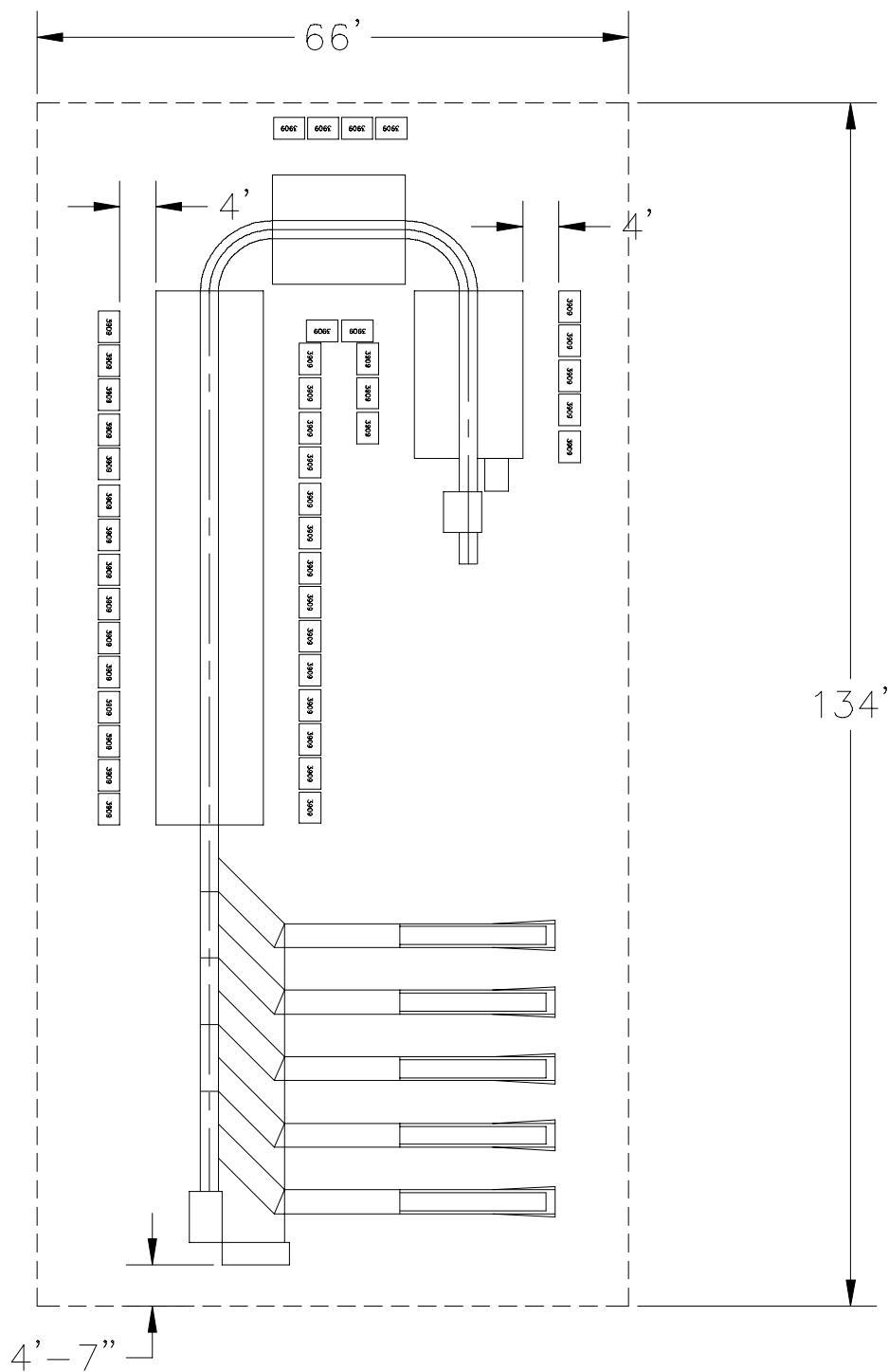


Exhibit 44g

440002c, Small Parcel and Bundle Sorter: U-Shaped — 6 Consoles

Date: Dec. 1994

Distribution IPPS

Scale: No Scale

Area: 9,372 Sq Ft

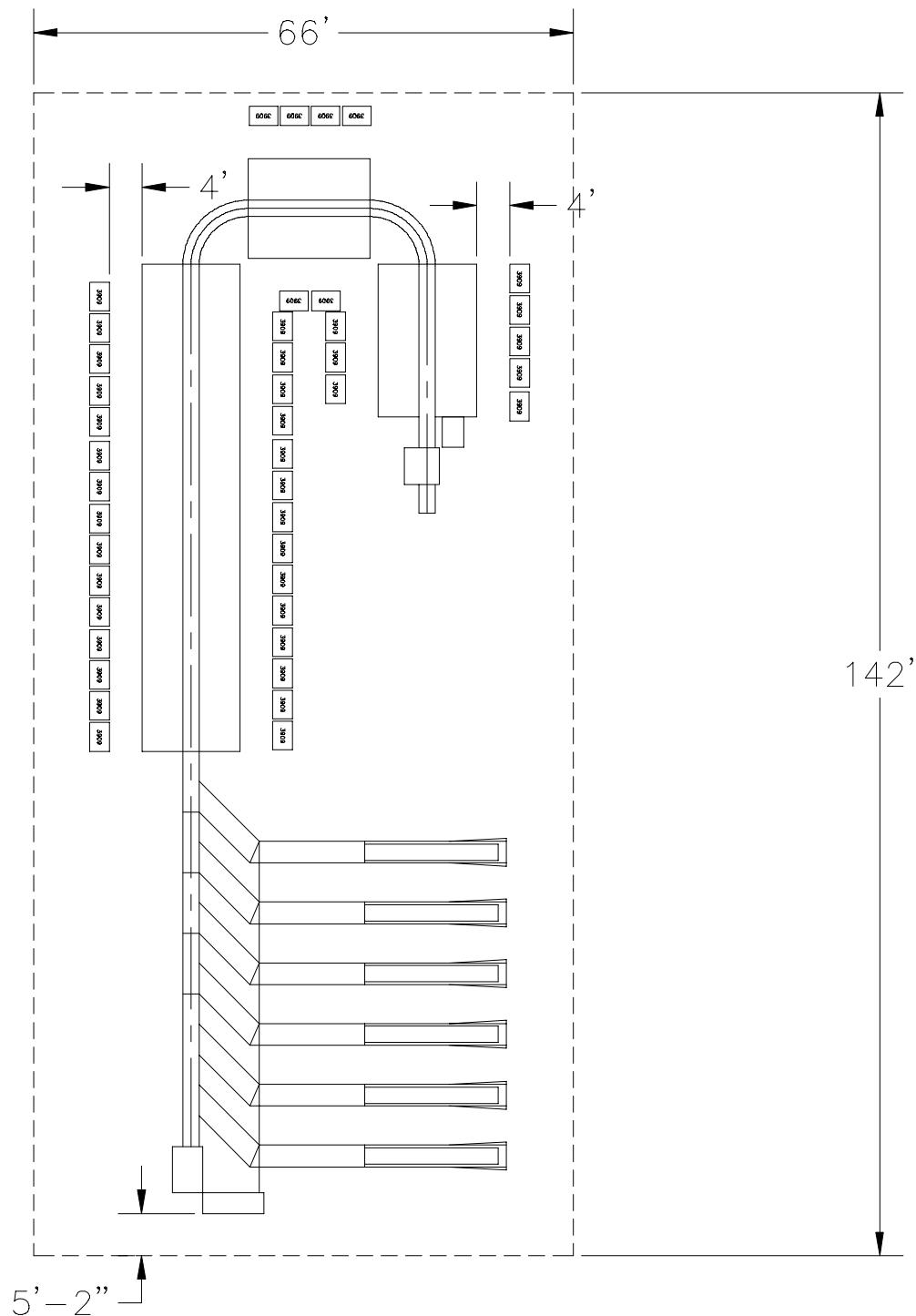


Exhibit 44h

440003a, Small Parcel and Bundle Sorter: L-Shaped — 4 Consoles

Date: Dec. 1994

Distribution IPPS

Scale: No Scale

Area: 8,316 Sq Ft

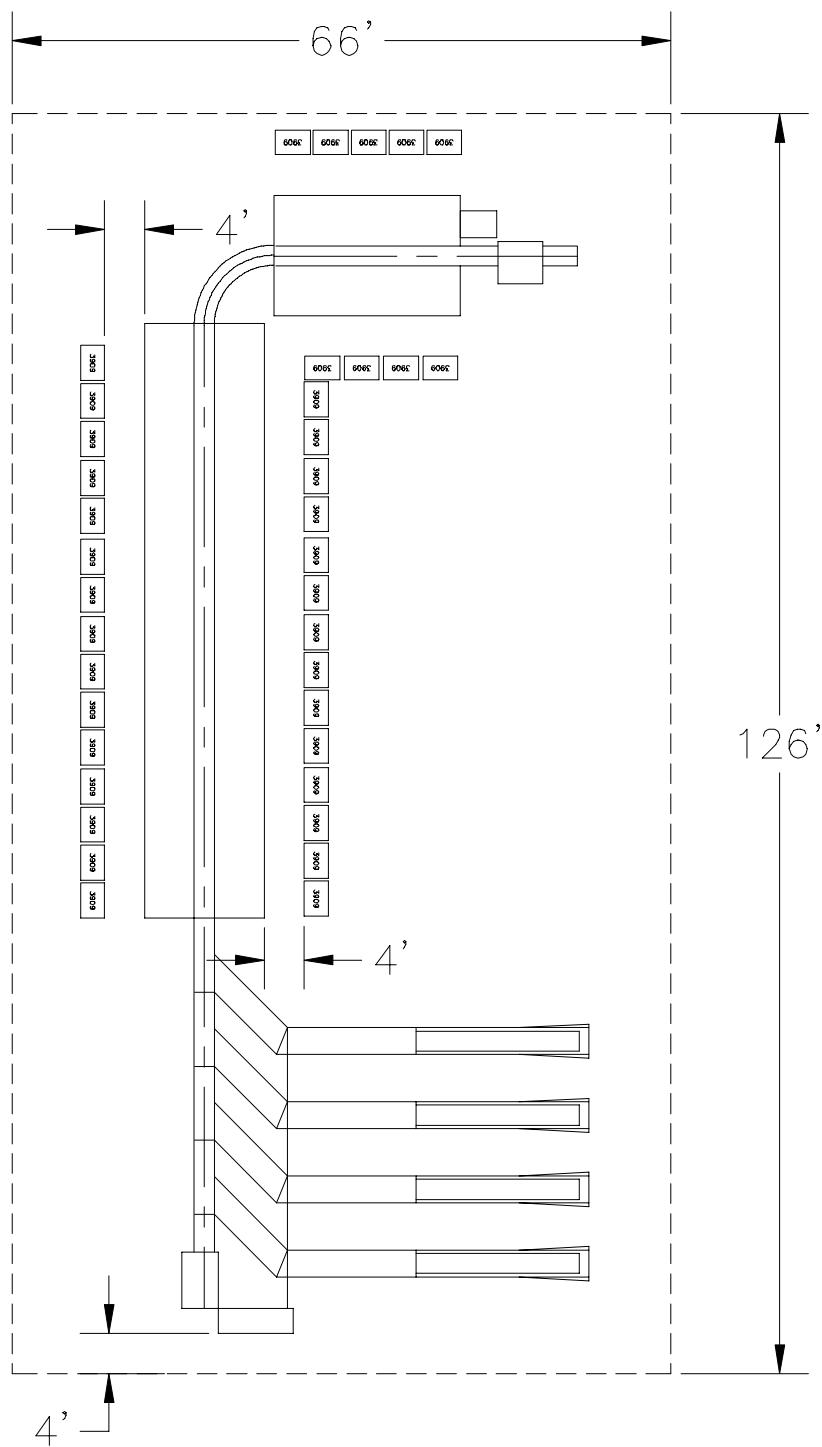


Exhibit 44i

440003b, Small Parcel and Bundle Sorter: L-Shaped — 5 Consoles

Date: Dec. 1994

Distribution IPPS

Scale: No Scale

Area: 8,844 Sq Ft

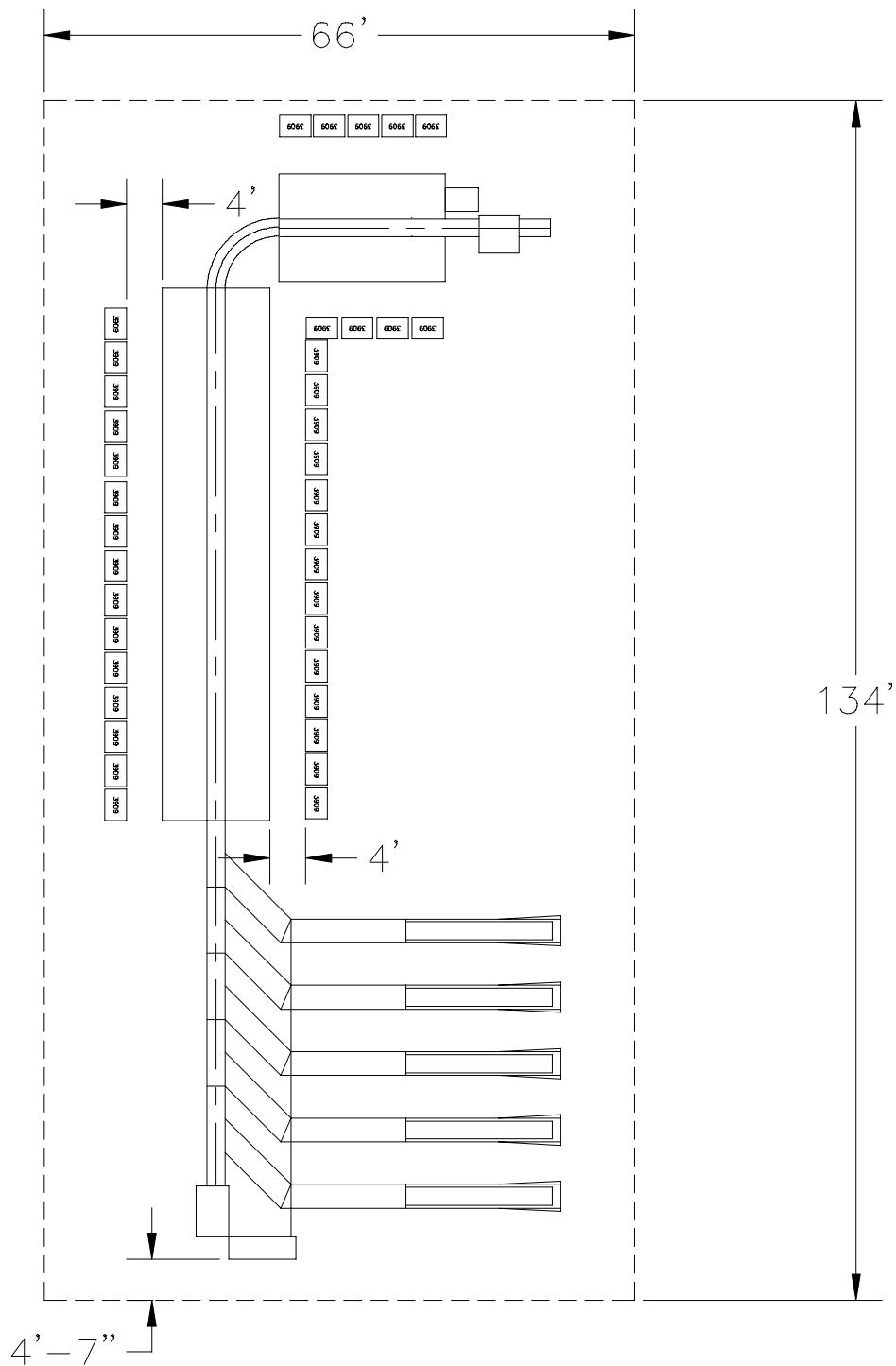


Exhibit 44j

440003c, Small Parcel and Bundle Sorter: L-Shaped — 6 Consoles

Date: Dec. 1994

Distribution IPPS

Scale: No Scale

Area: 9,372 Sq Ft

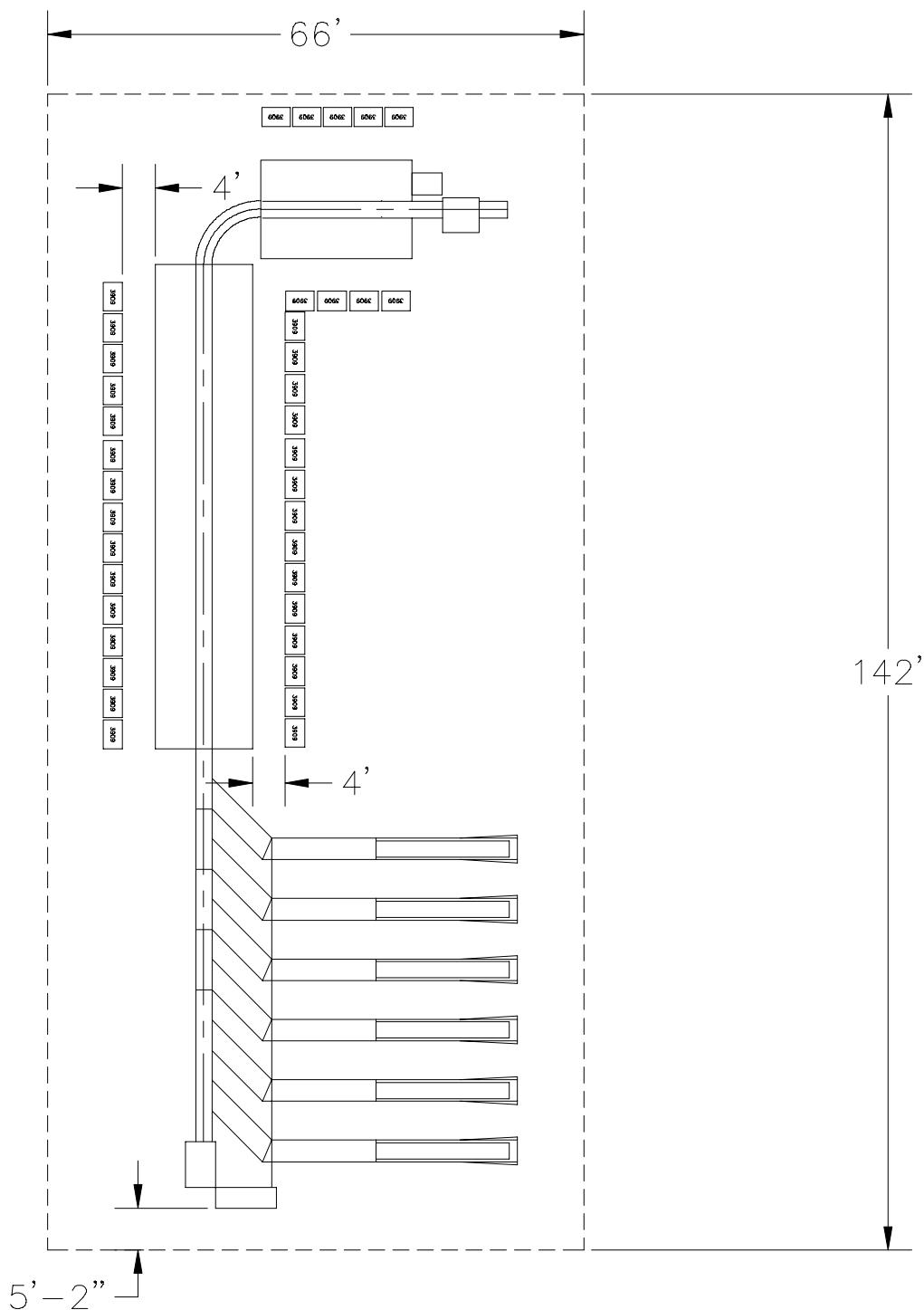


Exhibit 44k

440011a, Small Parcel and Bundle Sorter: Straight Line (With Siemens Feed System) — 4 Consoles

Date: Jan. 1998

Distribution IPPS

Scale: No Scale

Area: 10,098 Sq Ft

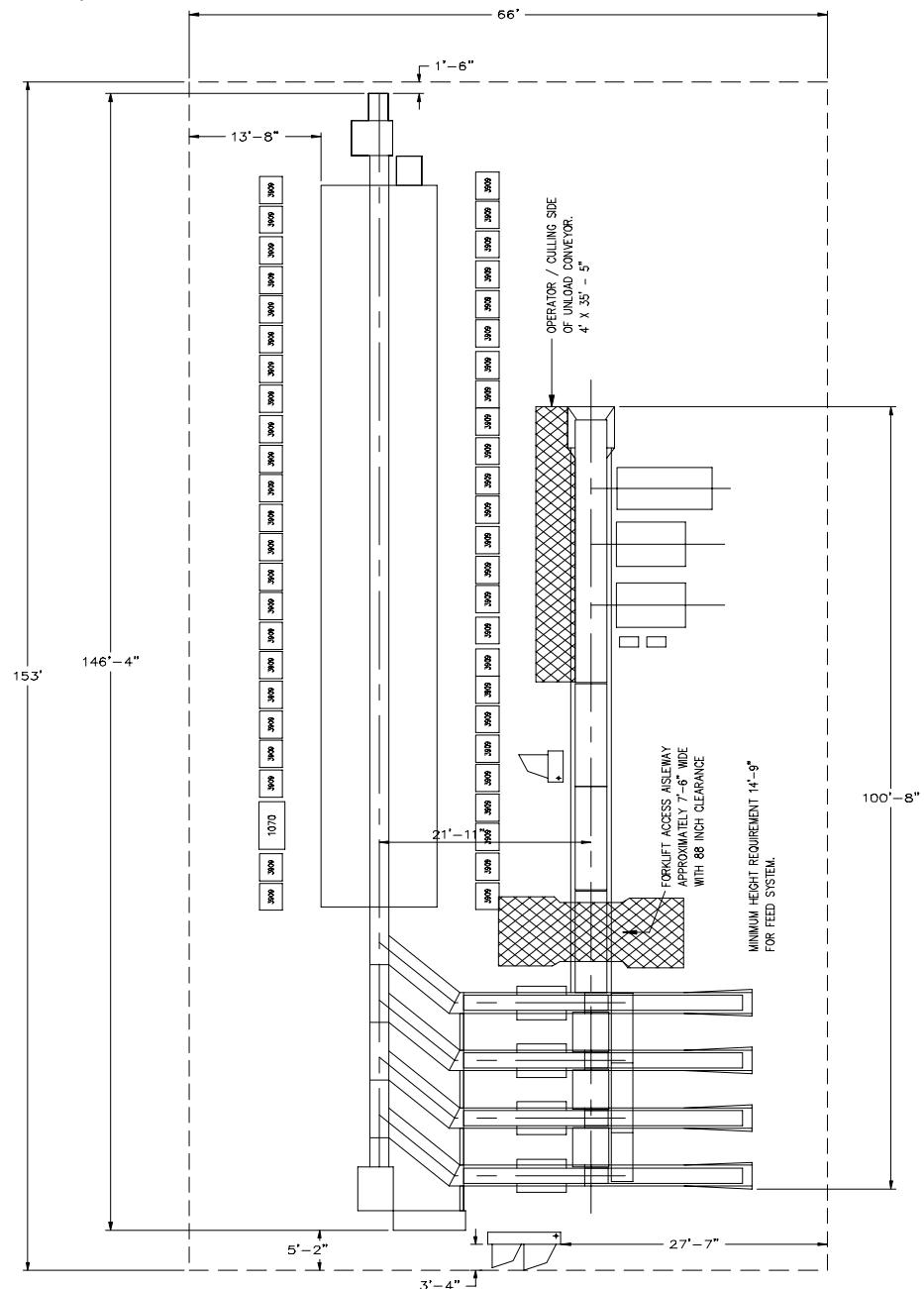


Exhibit 44I

4400011b, Small Parcel and Bundle Sorter: Straight Line (With Siemens Feed System) — 5 Consoles

Date: Jan. 1998

Distribution IPPS

Scale: No Scale

Area: 10,626 Sq Ft

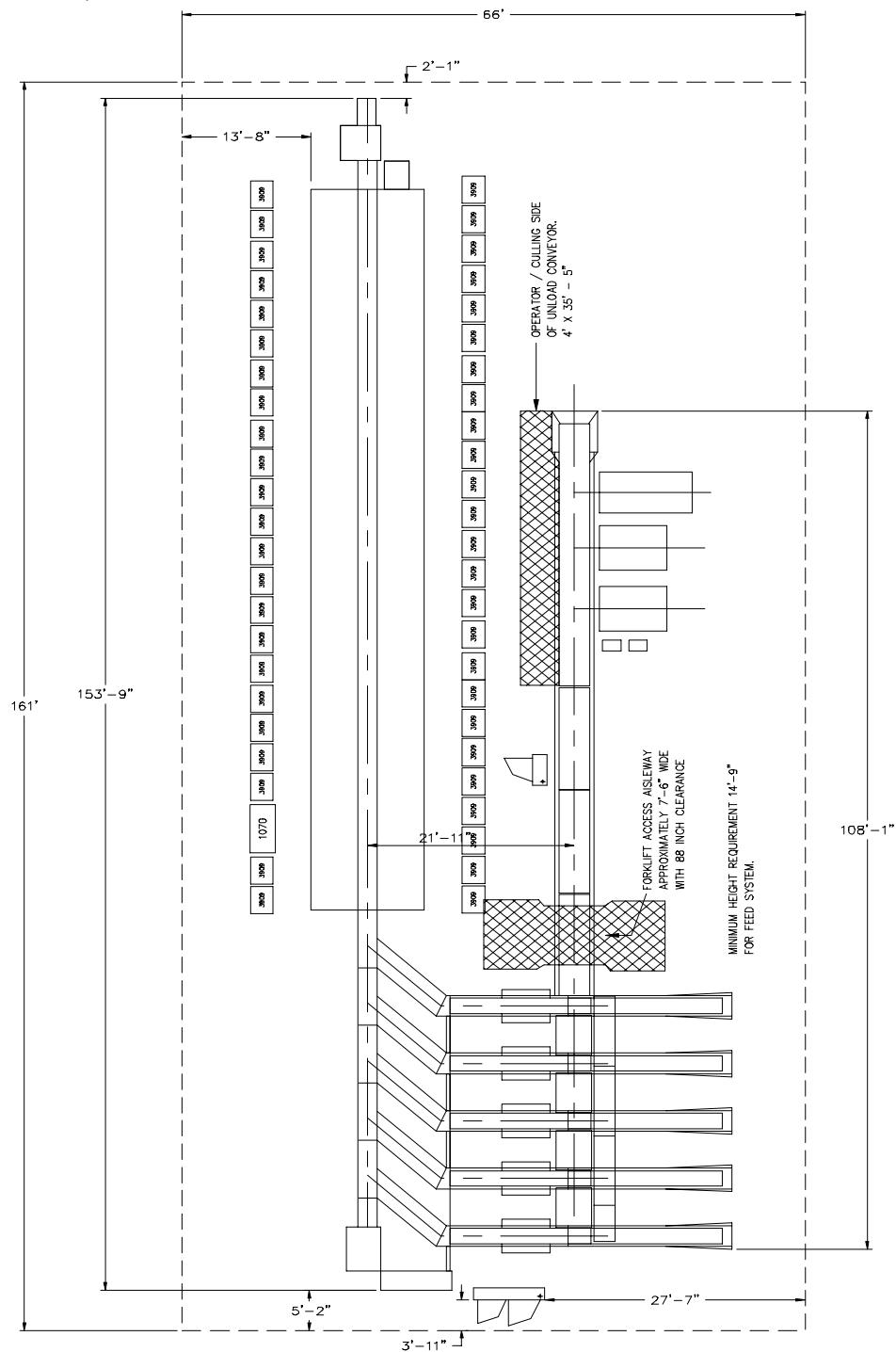


Exhibit 44m

440011c, Small Parcel and Bundle Sorter: Straight Line (With Siemens Feed System) — 6 Consoles

Date: Jan. 1998

Distribution IPPS

Scale: No Scale

Area: 11,154 Sq Ft

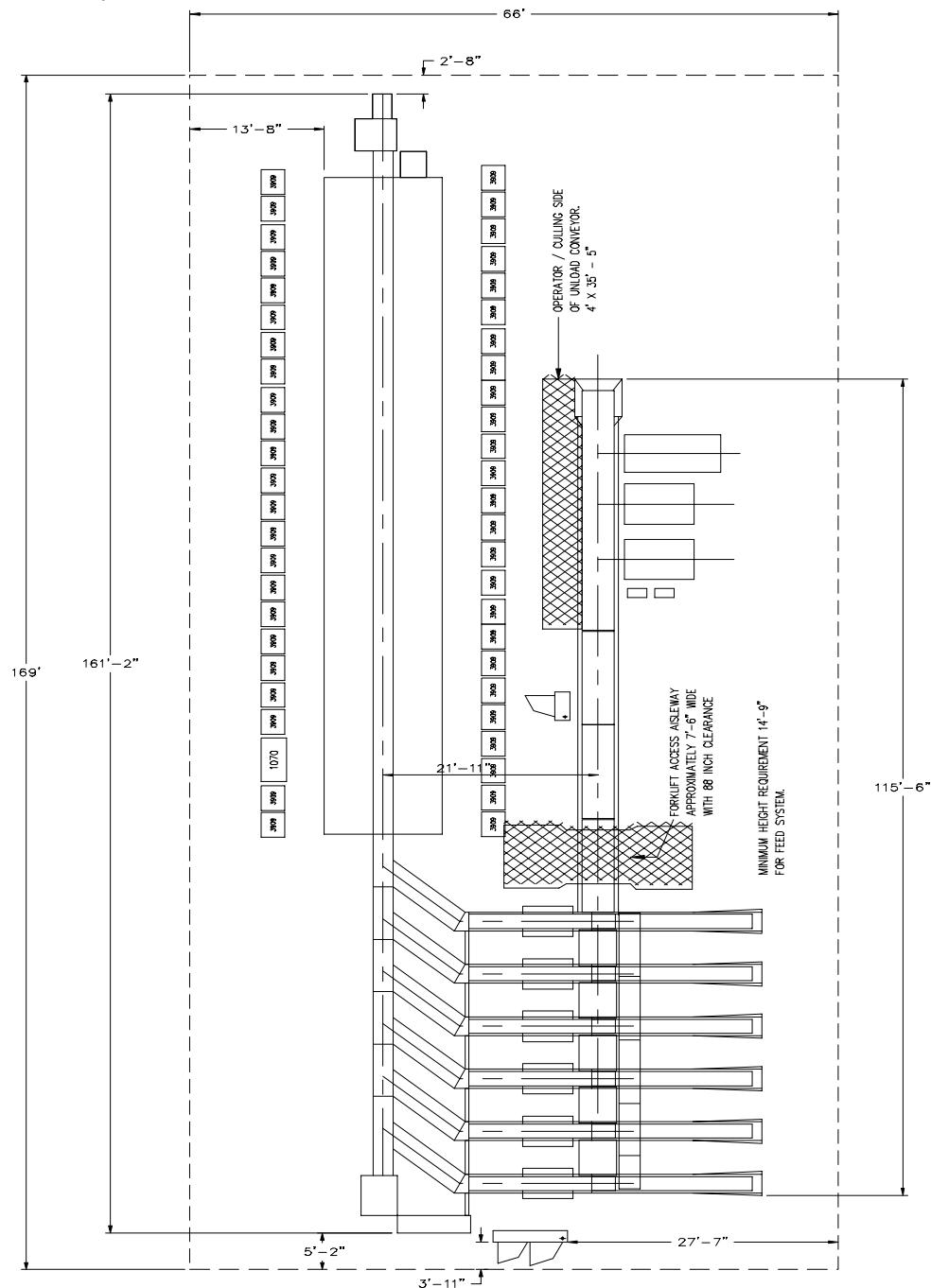


Exhibit 44n

440021a, Small Parcel and Bundle Sorter: Straight Line (With Lockheed Martin Feed System) — 4 Consoles

Date: Jan. 1998

Distribution IPPS

Scale: No Scale

Area: 10,098 Sq Ft

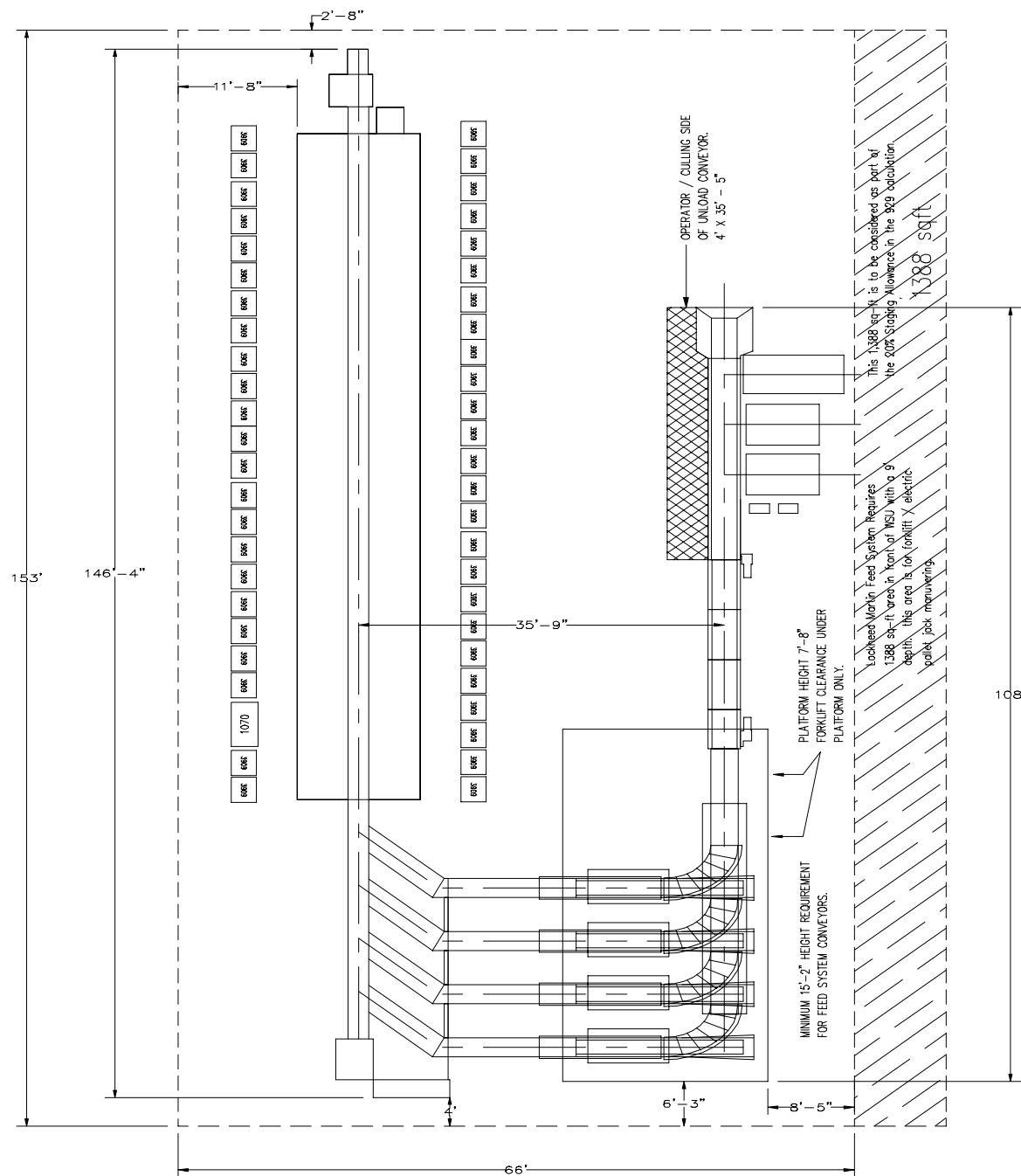


Exhibit 440

440021b, Small Parcel and Bundle Sorter: Straight Line (With Lockheed Martin Feed System) — 5 Consoles

Date: Jan. 1998

Distribution IPPS

Scale: No Scale

Area: 10,626 Sq Ft

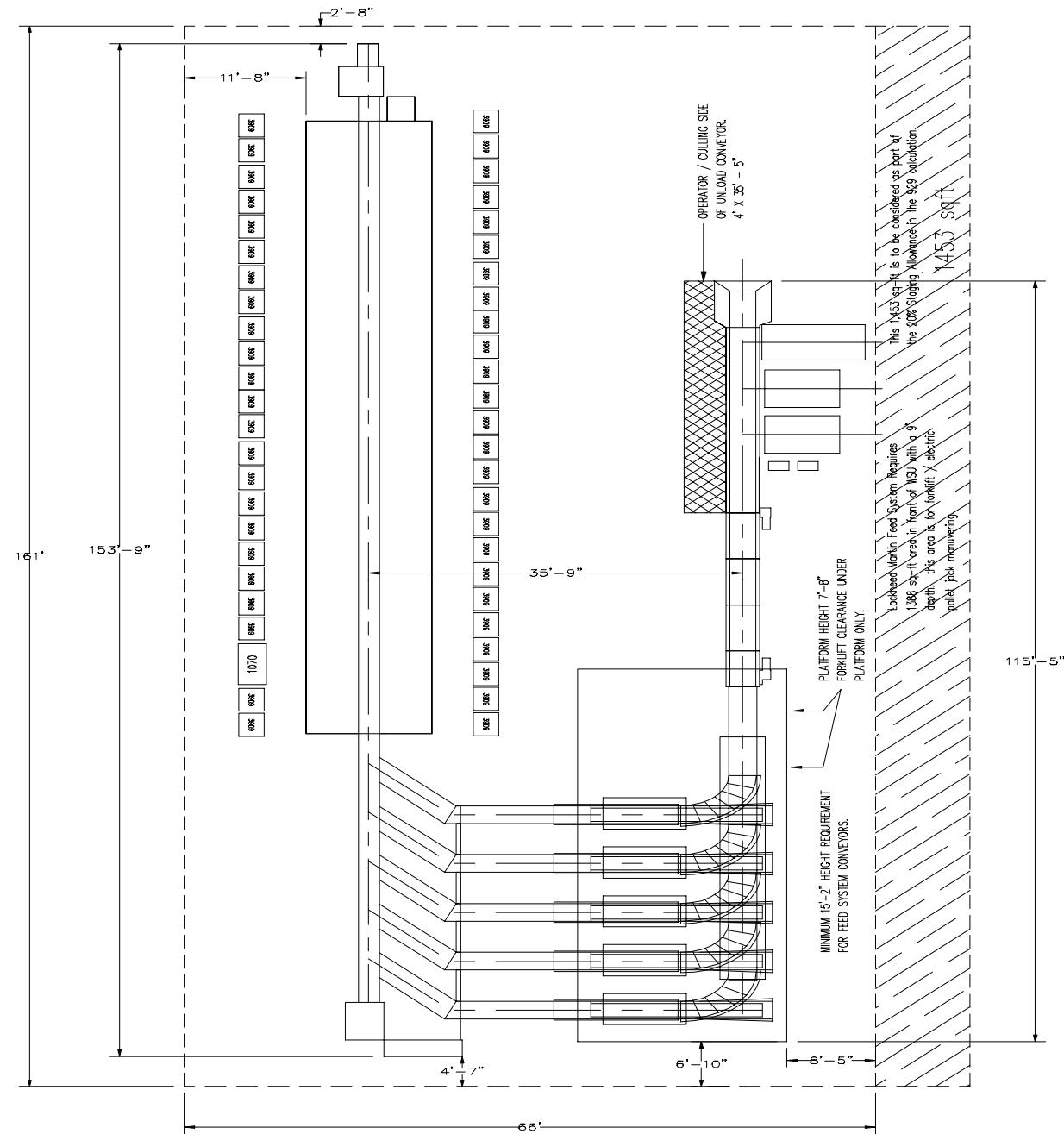


Exhibit 44p

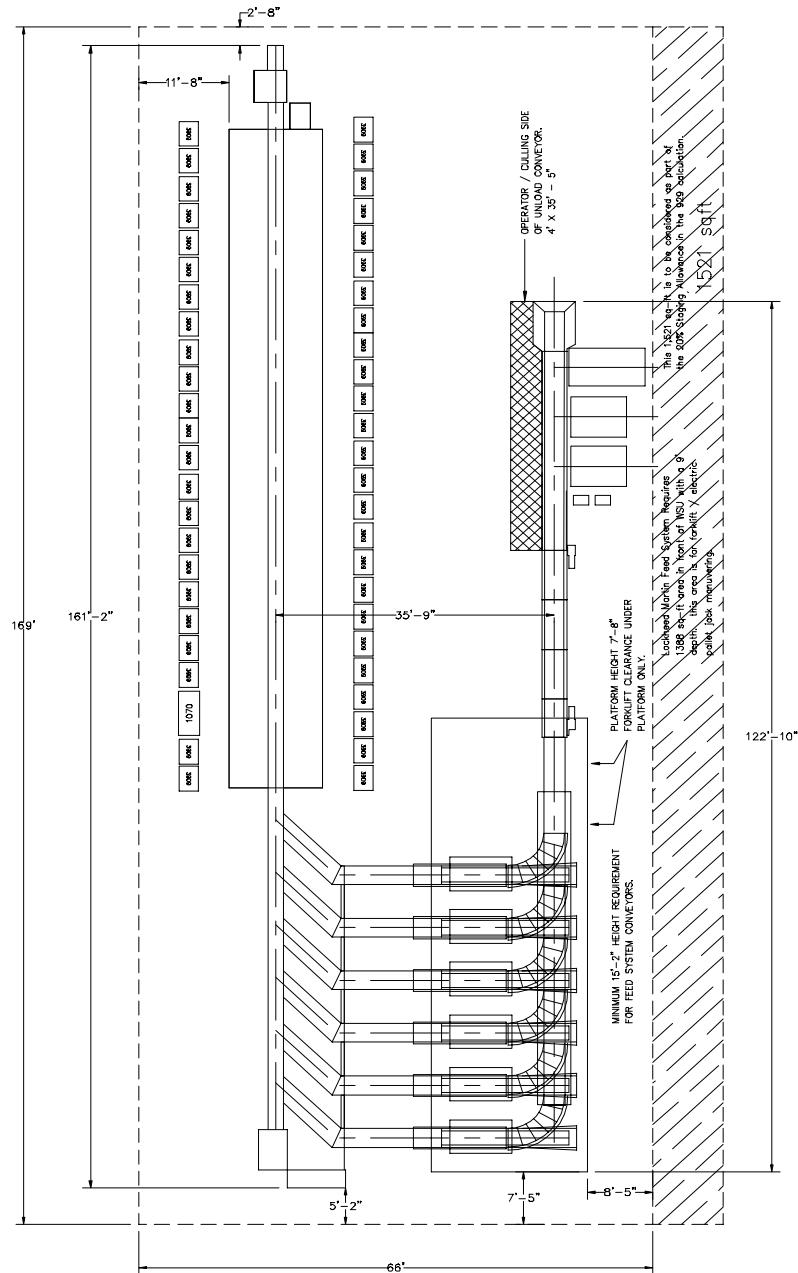
4400021c, Small Parcel and Bundle Sorter: Straight Line (With Lockheed Martin Feed System) — 6 Consoles

Date: Jan. 1998

Distribution IPPS

Scale: No Scale

Area: 11,154 Sq Ft



45 Processing Special Category Mail

Use distribution of parcel post standards (section 46) for special delivery parcels, airmail parcels, and priority and special handling parcels.

46 Distribution of Parcel Post

Exhibit 46a lists the WSUs currently used for parcel post distribution. Exhibits 46b through 46s illustrate these WSUs for visual reference in planning facility space requirements.

Exhibit 46a

WSUs Used for Parcel Post Distribution

| WSU Number | PostalCAD Drawing Name | Square Feet Required | Separations | Description |
|------------|------------------------|----------------------|-------------|---|
| 460001a | 460001A.DWG | 255 | 5 | Sort to 1033 Hampers |
| 460001b | 460001B.DWG | 470 | 10 | Sort to 1033 Hampers |
| 460004a | 460004A.DWG | 1,122 | 16–40 | Sort to 1033 Hampers From Hampers, Gurneys, and Sacks |
| 460004b | 460004B.DWG | 1,296 | 52 | Sort to 1033 Hampers From Hampers, Gurneys, and Sacks |
| 460004c | 460004C.DWG | 1,494 | 60 | Sort to 1033 Hampers From Hampers, Gurneys, and Sacks |
| 460004d | 460004D.DWG | 1,874 | 74 | Sort to 1033 Hampers From Hampers, Gurneys, and Sacks |
| 460004e | 460004E.DWG | 2,123 | 90 | Sort to 1033 Hampers From Hampers, Gurneys, and Sacks |
| 460009a | 460009A.DWG | 587 | 5–10 | Sort to 1046 Hampers |
| 460009b | 460009B.DWG | 684 | 11–19 | Sort to 1046 Hampers |
| 460011 | 460011.DWG | 1,356 | 20–40 | Sort to 1046 Hampers From Hampers, Gurneys, and Sacks |
| 460019a | 460019A.DWG | 222 | 5–10 | Sort to Sacks |
| 460019b | 460019B.DWG | 440 | 15–20 | Sort to Sacks |
| 460019c | 460019C.DWG | 440 | 25–30 | Sort to Sacks |
| 460019d | 460019D.DWG | 515 | 40–50 | Sort to Sacks |
| 460019e | 460019E.DWG | 684 | 60–70 | Sort to Sacks |
| 460019f | 460019F.DWG | 794 | 90 | Sort to Sacks |
| 460020a | 460020A.DWG | 724 | 30–50 | Sort to Sacks From Hampers, Gurneys, or Sacks |
| 460020b | 460020B.DWG | 932 | 60–90 | Sort to Sacks From Hampers, Gurneys, or Sacks |

Exhibit 46b

460001a, Sort to 1033 Hampers (5 Separations)

Date: Dec. 1994

Distribution Parcel Post

Scale: No Scale

Area: 255 Sq Ft

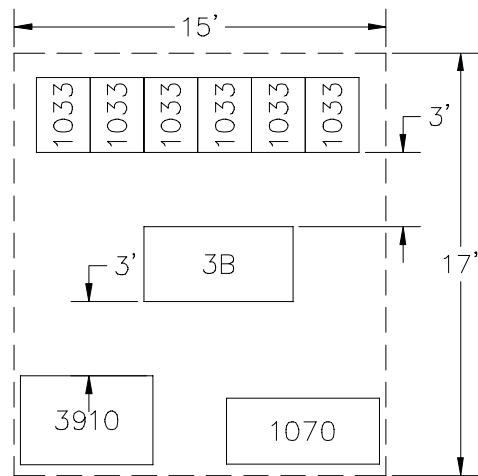


Exhibit 46c

460001b, Sort to 1033 Hampers (10 Separations)

Date: Dec. 1994

Distribution Parcel Post

Scale: No Scale

Area: 470 Sq Ft

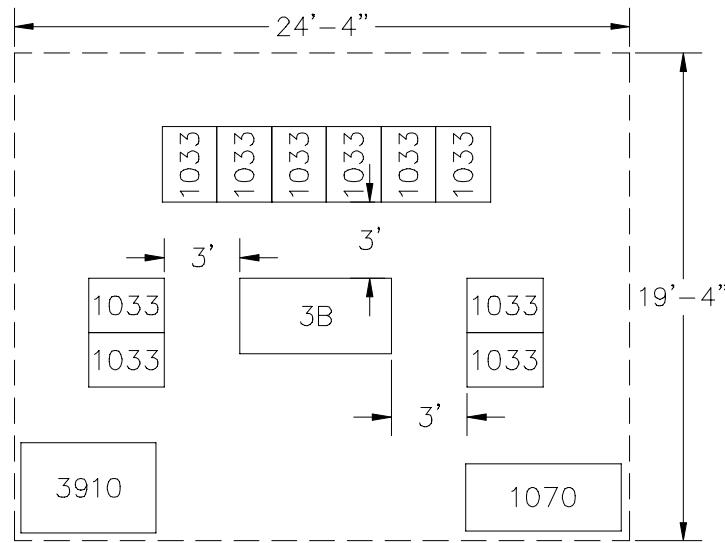


Exhibit 46d

460004a, Sort to 1033 Hampers From Hampers, Gurneys, and Sacks (16–40 Separations)

Date: Dec. 1994

Distribution Parcel Post

Scale: No Scale

Area: 1,122 Sq Ft

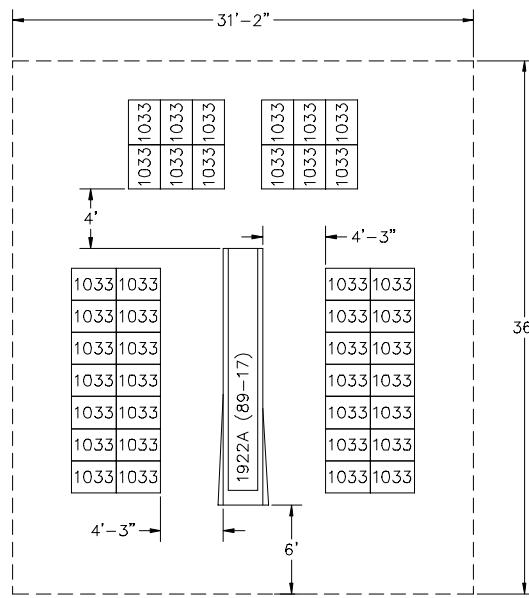


Exhibit 46e

460004b, Sort to 1033 Hampers From Hampers, Gurneys, and Sacks (52 Separations)

Date: Dec. 1994

Distribution Parcel Post

Scale: No Scale

Area: 1,296 Sq Ft

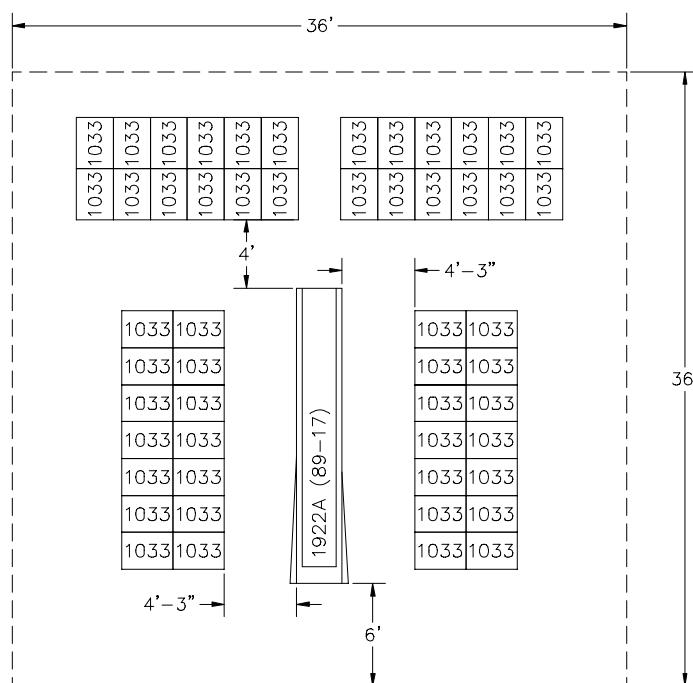


Exhibit 46f

460004c, Sort to 1033 Hampers From Hampers, Gurneys, and Sacks (60 Separations)

Date: Dec. 1994

Distribution Parcel Post

Scale: No Scale

Area: 1,494 Sq Ft

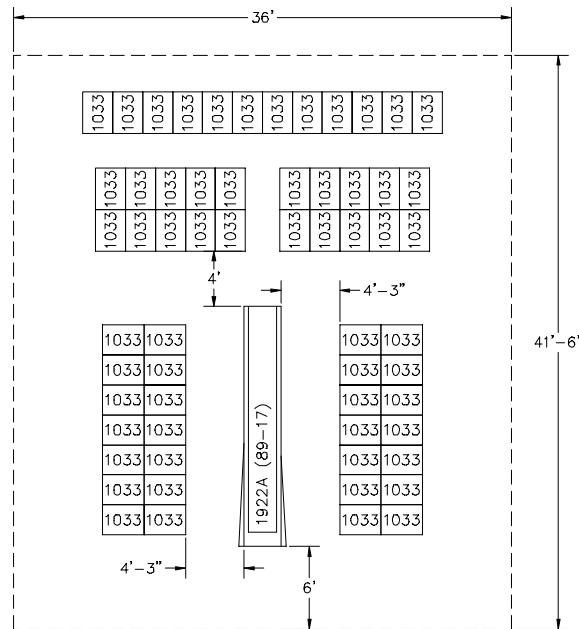


Exhibit 46g

460004d, Sort to 1033 Hampers From Hampers, Gurneys, and Sacks (74 Separations)

Date: Dec. 1994

Distribution Parcel Post

Scale: No Scale

Area: 1,874 Sq Ft

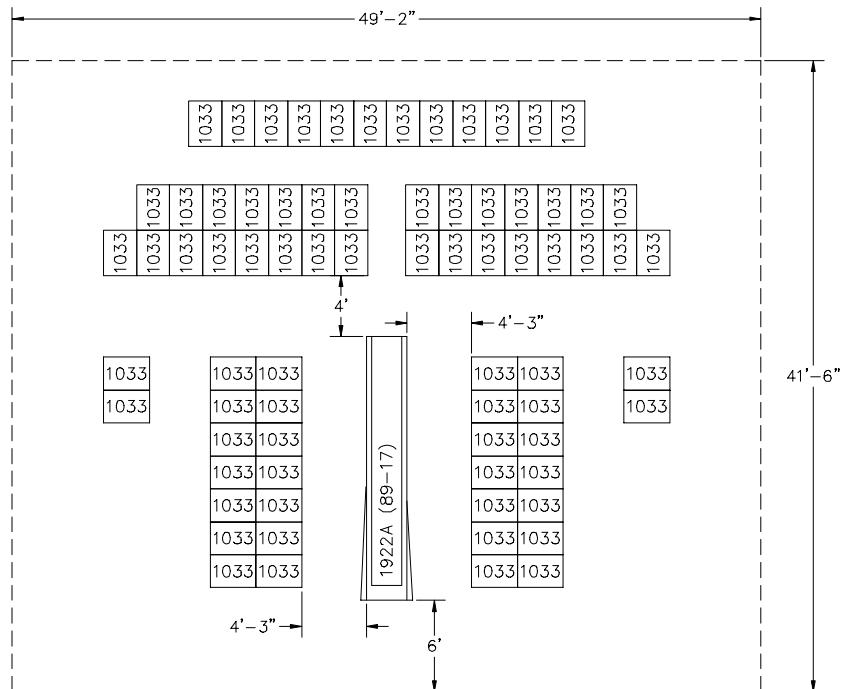


Exhibit 46h

460004e, Sort to 1033 Hampers From Hampers, Gurneys, and Sacks (90 Separations)

Date: Dec. 1994

Distribution Parcel Post

Scale: No Scale

Area: 2,123 Sq Ft

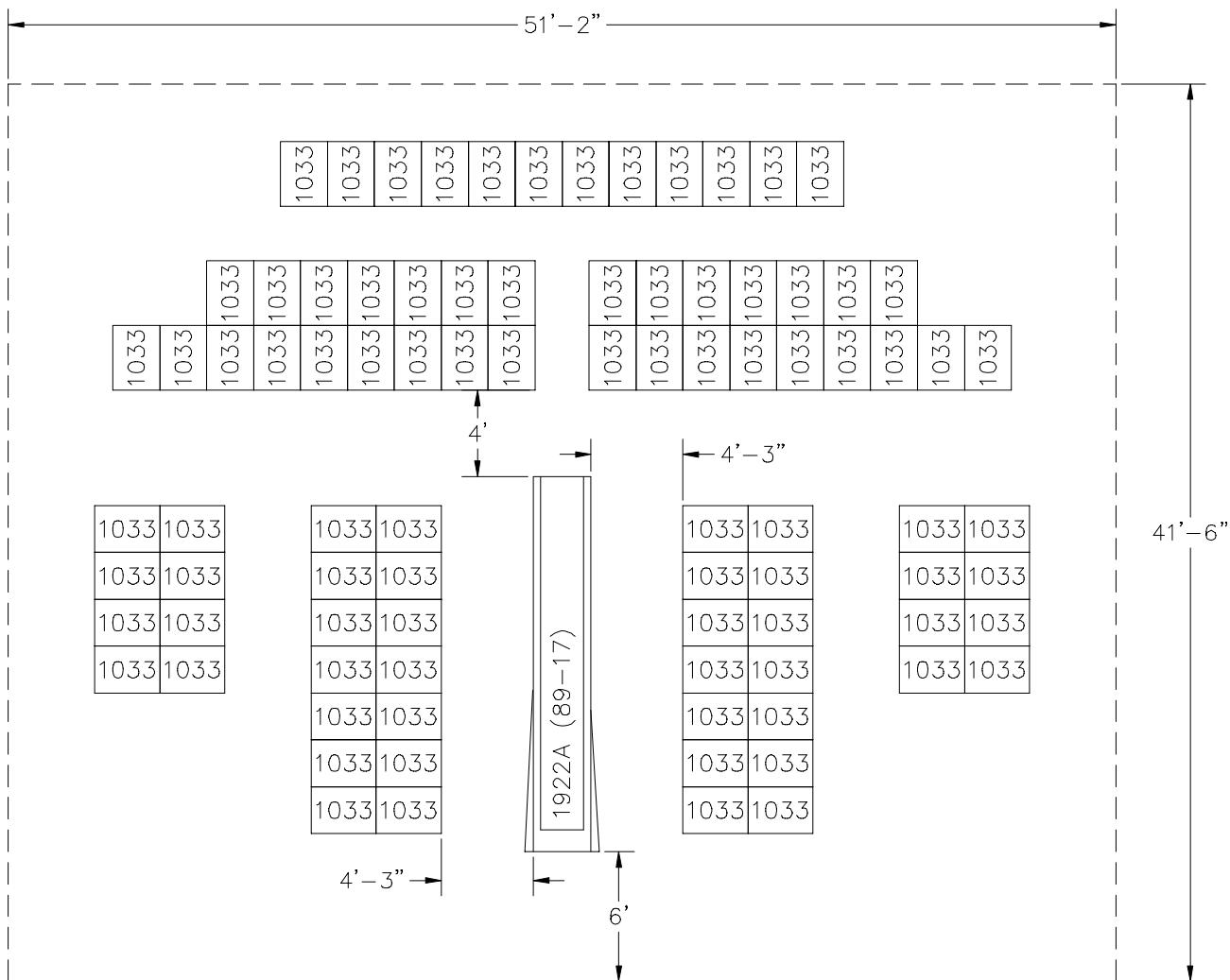


Exhibit 46i
460009a, Sort to 1046 Hampers (5-10 Separations)

Date: Dec. 1994

Distribution Parcel Post

Scale: No Scale

Area: 587 Sq Ft

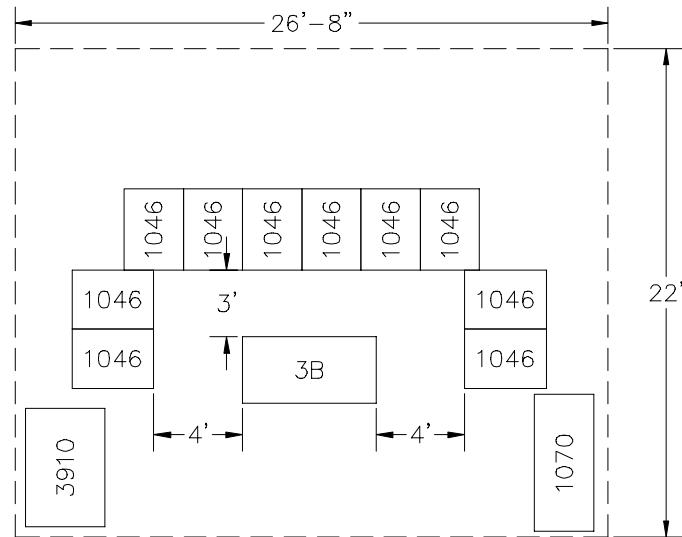


Exhibit 46j
460009b, Sort to 1046 Hampers (11-19 Separations)

Date: Dec. 1994

Distribution Parcel Post

Scale: No Scale

Area: 684 Sq Ft

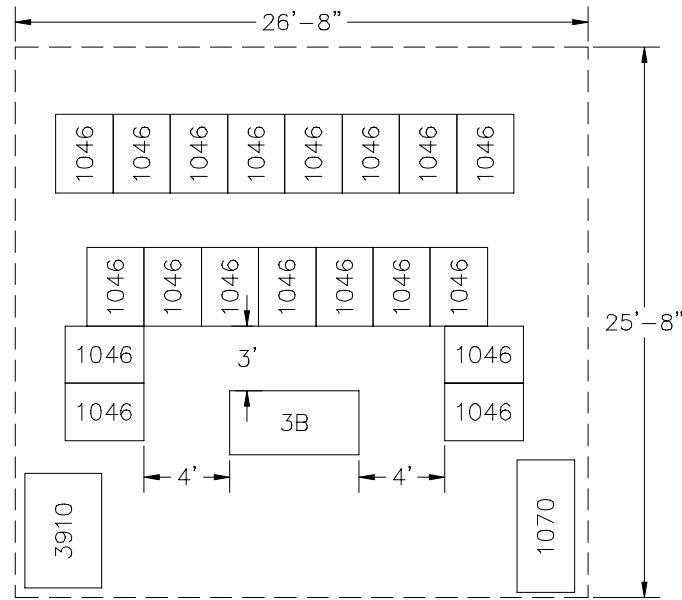


Exhibit 46k

460011, Sort to 1046 Hampers From Hampers, Gurneys, and Sacks (20-40 Separations)

Date: Dec. 1994

Distribution Parcel Post

Scale: No Scale

Area: 1,356 Sq Ft

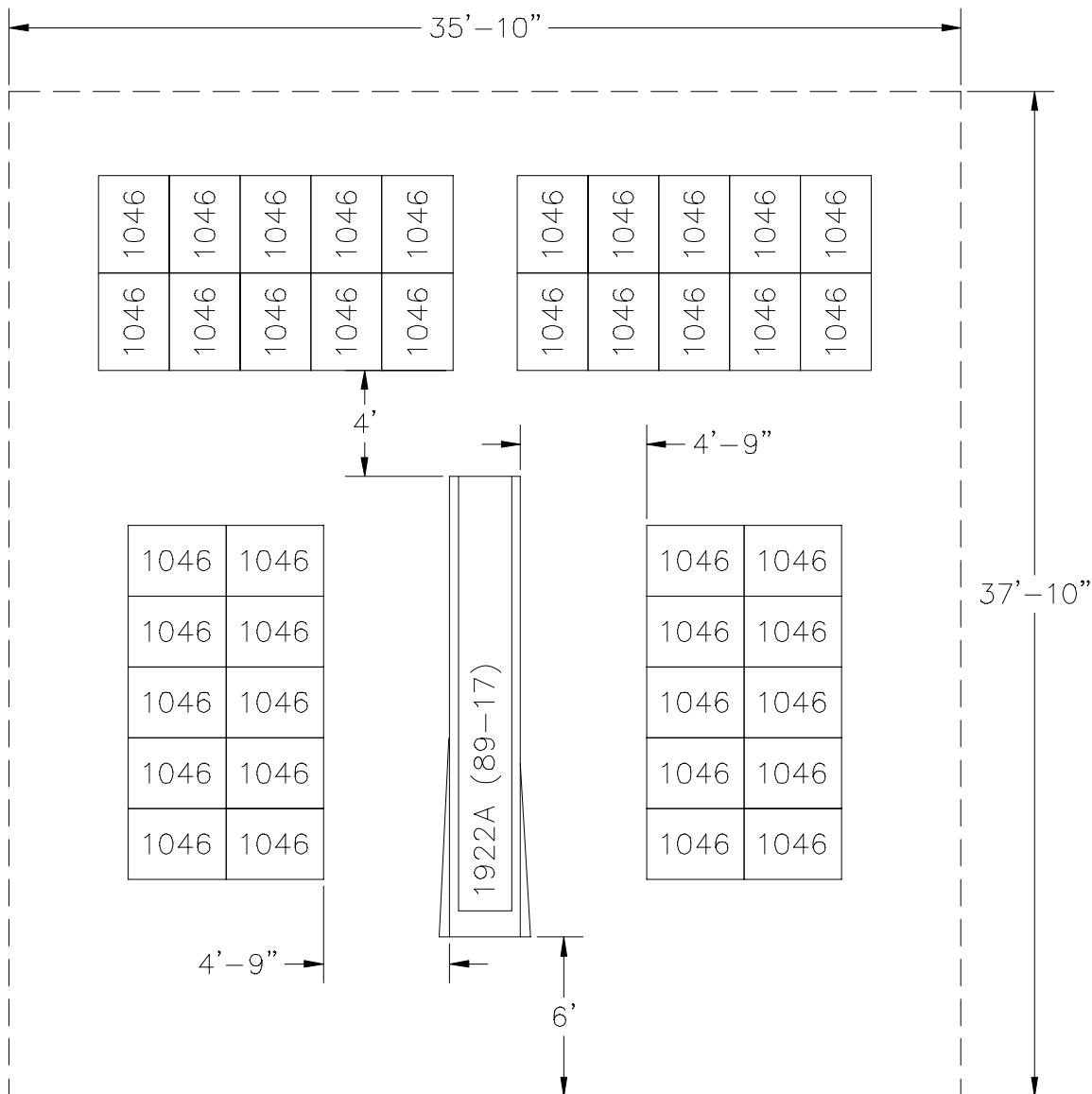


Exhibit 46I
460019a, Sort to Sacks (5–10 Separations)

Date: Dec. 1994

Distribution Parcel Post

Scale: No Scale

Area: 222 Sq Ft

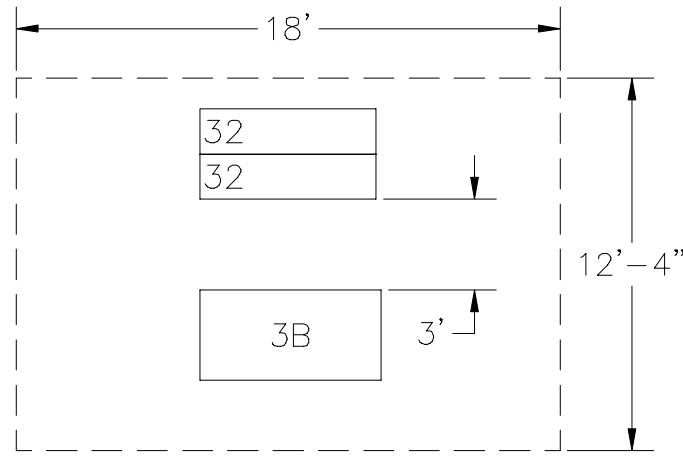


Exhibit 46m
460019b, Sort to Sacks (15–20 Separations)

Date: Dec. 1994

Distribution Parcel Post

Scale: No Scale

Area: 440 Sq Ft

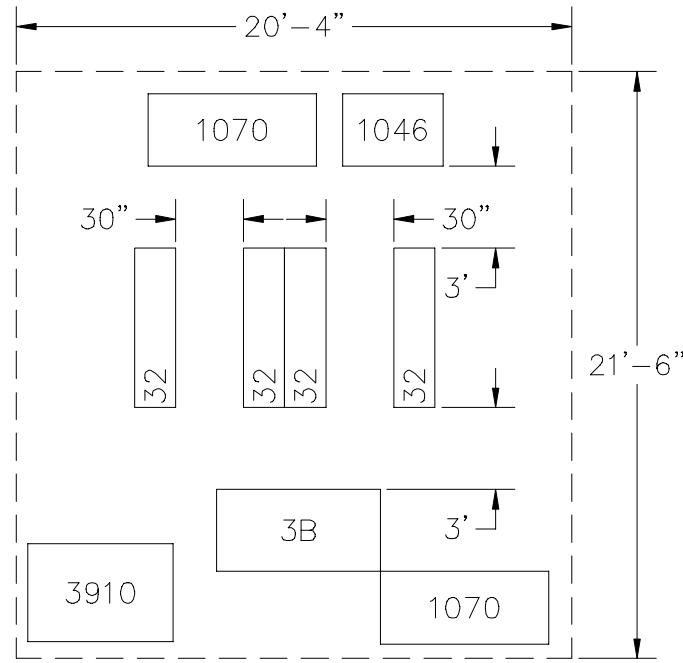


Exhibit 46n

460019c, Sort to Sacks (25–30 Separations)

Date: Dec. 1994

Distribution Parcel Post

Scale: No Scale

Area: 440 Sq Ft

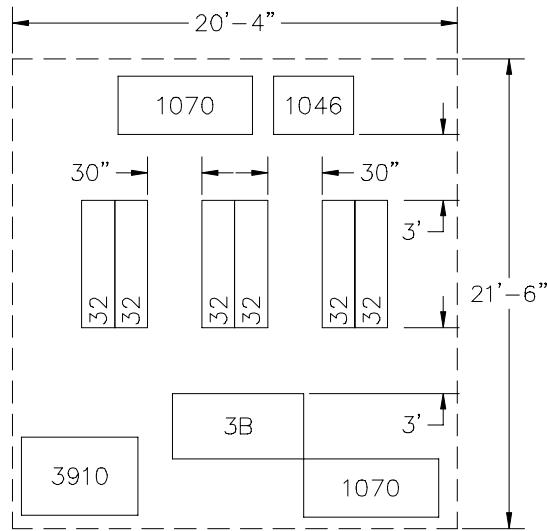


Exhibit 46o

460019d, Sort to Sacks (40–50 Separations)

Date: Dec. 1994

Distribution Parcel Post

Scale: No Scale

Area: 515 Sq Ft

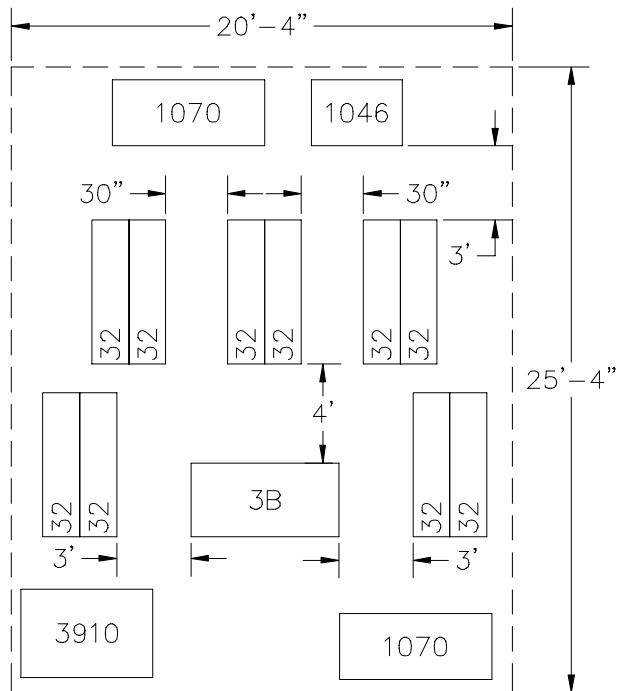


Exhibit 46p
460019e, Sort to Sacks (60-70 Separations)

Date: Dec. 1994

Distribution Parcel Post

Scale: No Scale

Area: 684 Sq Ft

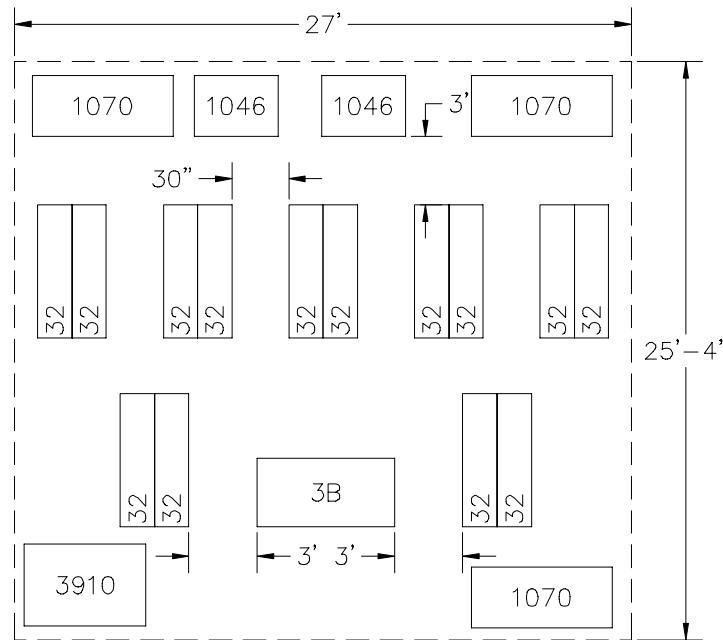


Exhibit 46q
460019f, Sort to Sacks (90 Separations)

Date: Dec. 1994

Distribution Parcel Post

Scale: No Scale

Area: 794 Sq Ft

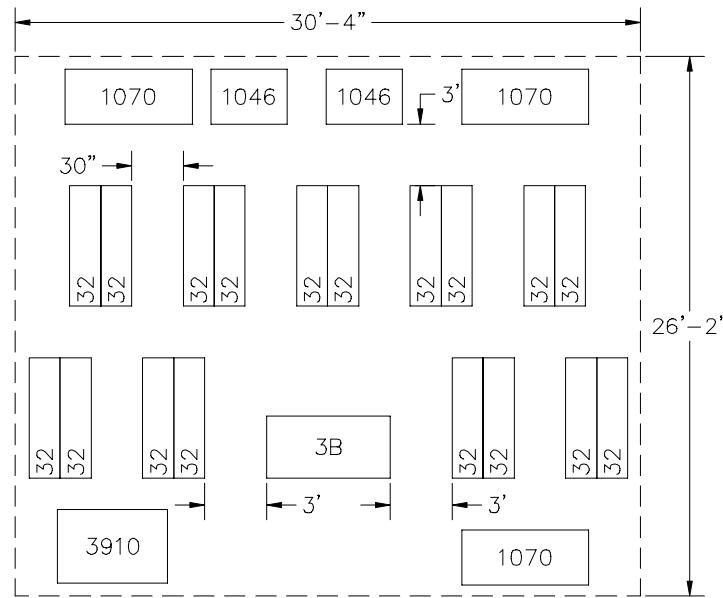


Exhibit 46r

460020a, Sort to Sacks From Hampers, Gurneys, or Sacks (30–50 Separations)

Date: Dec. 1994

Distribution Parcel Post

Scale: No Scale

Area: 724 Sq Ft

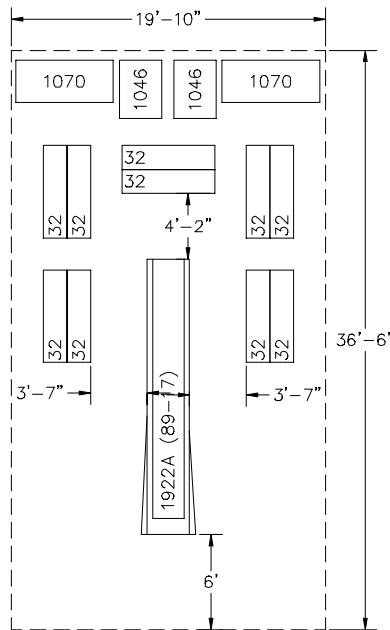


Exhibit 46s

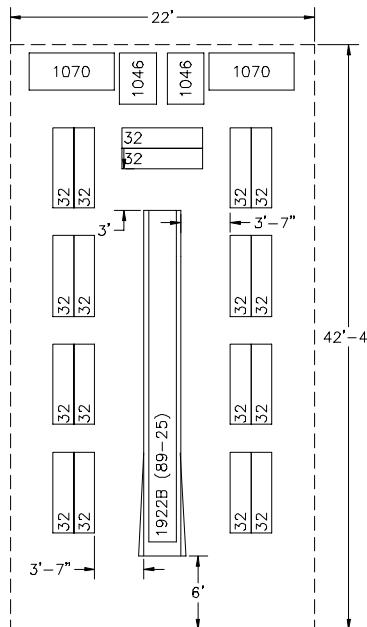
460020b, Sort to Sacks From Hampers, Gurneys, or Sacks (60–90 Separations)

Date: Dec. 1994

Distribution Parcel Post

Scale: No Scale

Area: 932 Sq Ft



47 Bulk Sorting and Material Handling Operations

471 Bulk Sorting

Exhibit 471a lists the WSUs currently used for manual and mechanized bulk sorting. Exhibits 471b, 471c, and 471d illustrate the manual bulk sorting WSUs, and Exhibits 471e through 471h illustrate the different-sized WSUs for universal sorting systems.

Exhibit 471a
WSUs Used for Manual and Mechanized Bulk Sorting

| WSU Number | PostalCAD Drawing Name | Square Feet Required | Description |
|------------|------------------------|----------------------|---|
| 471001 | 471001.DWG | 1610 | Manual Sack Sort — Platform Trucks (15 Separations) |
| 471002 | 471002.DWG | 6400 | Multislide — Sack Racks (10 Separations) |
| 471004 | 471004.DWG | 1645 | Manual Sack Sort — Sawtooth (15 Separations) |
| 471005 | 471005.DWG | 5,000 | Universal Sorting System |
| 471006 | 471006.DWG | 10,000 | Universal Sorting System |
| 471007 | 471007.DWG | 15,000 | Universal Sorting System |
| 471008 | 471008.DWG | 20,000 | Universal Sorting System |

Note: Transfer, dispatch, and holding area:

- a. Item 1070, platform truck, to be parked — 30 sq ft each.
- b. Item 1070, platform truck, for separation of mail — 60 sq ft each.

Exhibit 471b

471001, Manual Sack Sort — Platform Trucks (15 Separations)

Date: Dec. 1994

Distribution Sacks

Scale: No Scale

Area: 1,610 Sq Ft

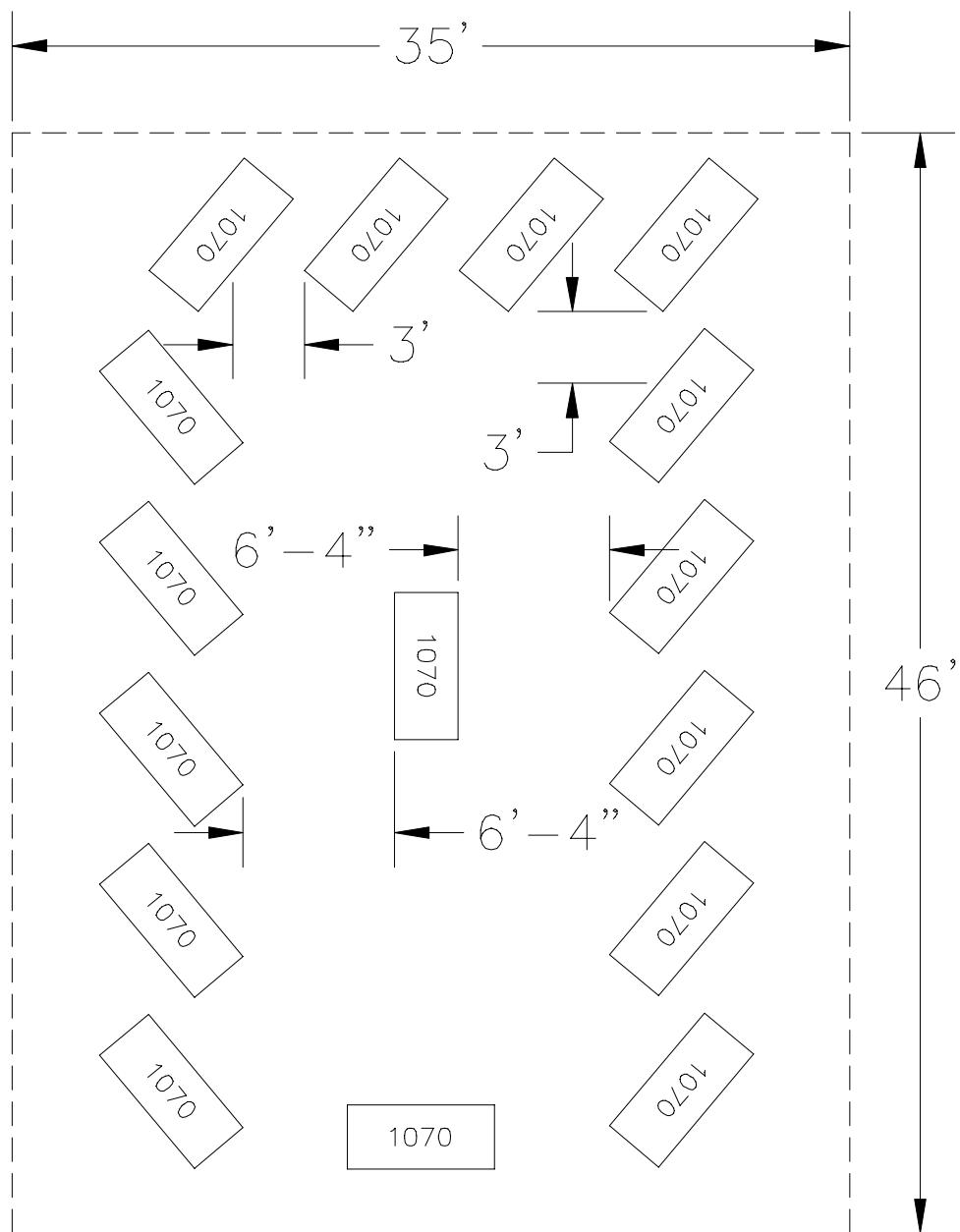


Exhibit 471c

471002, Manual Sort — Multislide (10 Separations)

Date: Oct. 1998

Distribution Bulk

Scale: No Scale

Area: 6,400 Sq Ft

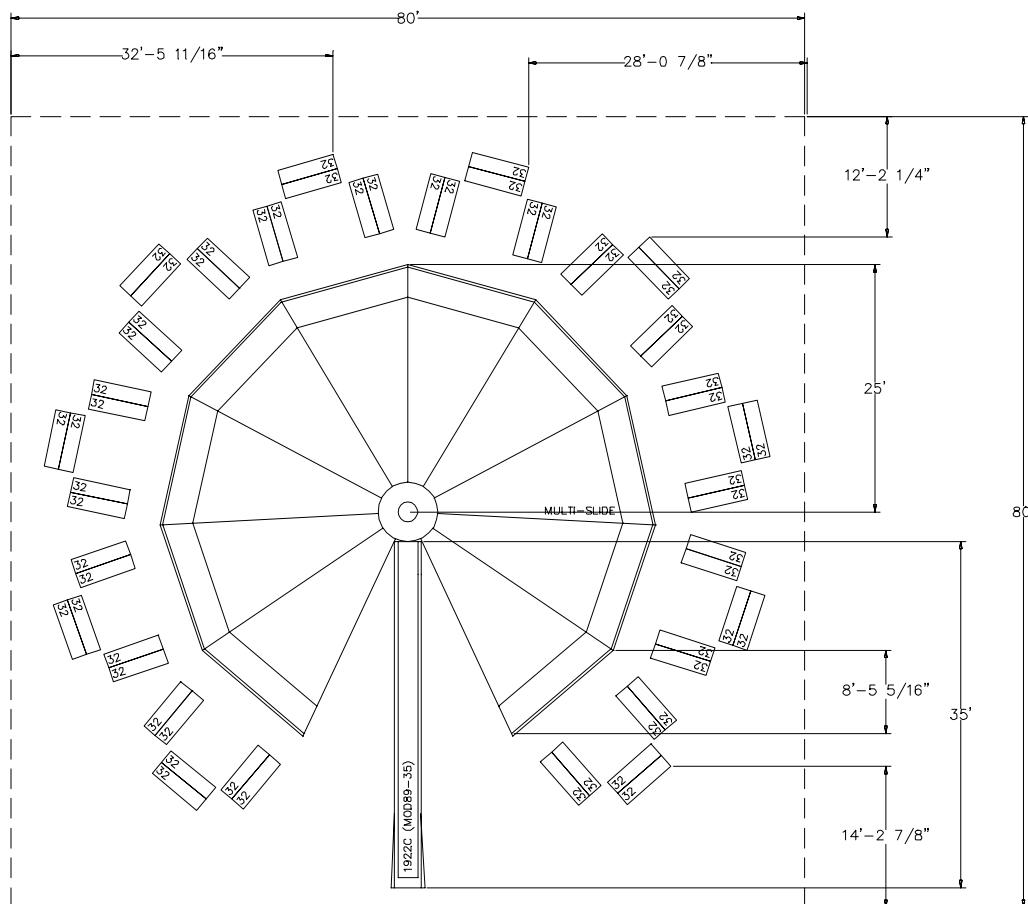


Exhibit 471d

471004, Manual Sack Sort — Sawtooth (15 Separations)

Date: Dec. 1994

Distribution Sacks

Scale: No Scale

Area: 1,645 Sq Ft

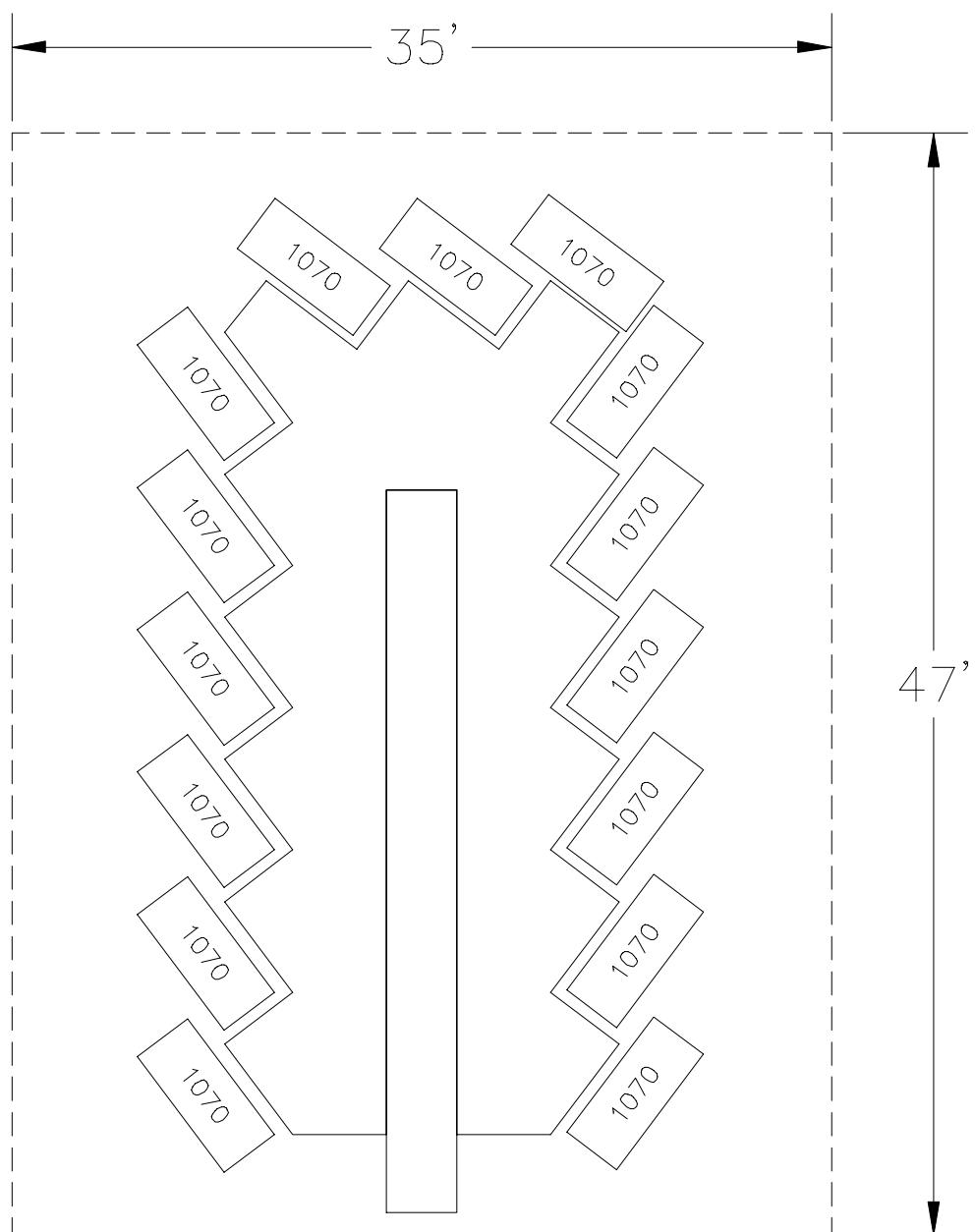


Exhibit 471e

471005, Universal Sorting System: 5,000 Sq Ft

Date: May 1997

Universal Sorting System — Outsides, Sacks, and Trays

Scale: No Scale

Area: 5,000 Sq Ft

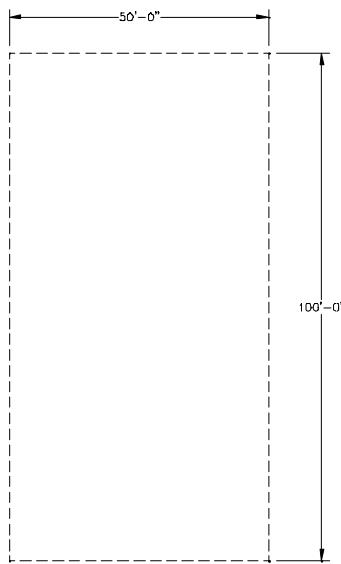


Exhibit 471f

471006, Universal Sorting System: 10,000 Sq Ft

Date: May 1997

Universal Sorting System — Outsides, Sacks, and Trays

Scale: No Scale

Area: 10,000 Sq Ft

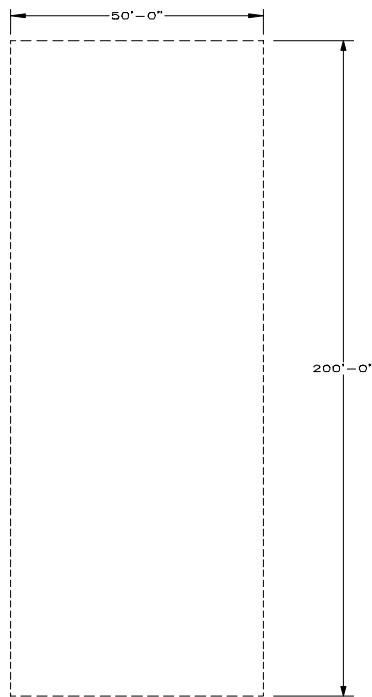


Exhibit 471g

471007, Universal Sorting System: 15,000 Sq Ft

Date: May 1997

Universal Sorting System — Outsides, Sacks, and Trays

Scale: No Scale

Area: 15,000 Sq Ft

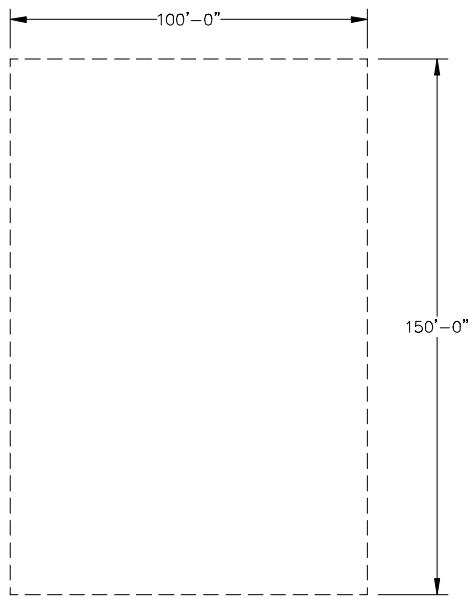


Exhibit 471h

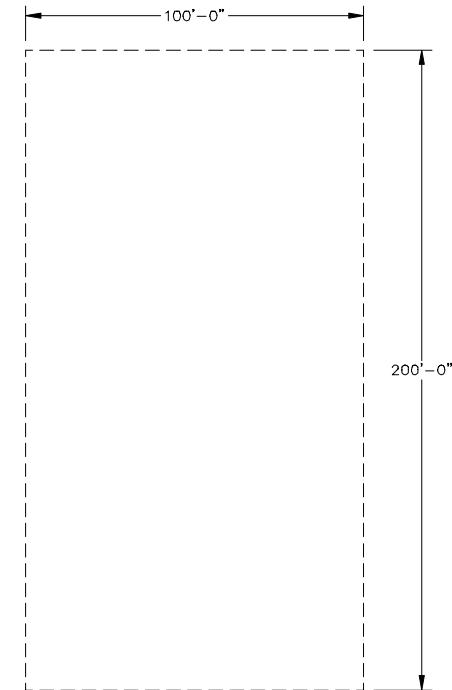
471008, Universal Sorting System: 20,000 Sq Ft

Date: May 1997

Universal Sorting System — Outsides, Sacks, and Trays

Scale: No Scale

Area: 20,000 Sq Ft



472 Robotics, Letters and Flats Sleeving and Banding, and Letters and Flats Scan-Where-You-Band

Exhibit 472a lists the WSUs currently used for robotics, sleeving and banding, and scan-where-you-band. Exhibits 472b and 472c illustrate the WSUs for visual reference in planning facility space requirements for robotics. Exhibits 472d and 472e illustrate the WSUs for sleeving and banding of letters and flats. Exhibits 472f and 472g illustrate the WSUs for letter and flat scan-where-you-band activities.

Exhibit 472a**WSUs Used for Robotics, Sleeving and Banding, and Scan-Where-You-Band**

| WSU Number | PostalCAD Drawing Name | Square Feet Required | Description |
|------------|------------------------|----------------------|-------------------------------|
| 472001 | 472001.DWG | 2,500 | Pedestal Robot (Phase I) |
| 472002 | 472002.DWG | 1,550 | Gantry Robot (Single) |
| 472003 | 472003.DWG | 2,500 | Gantry Robot (Dual) |
| 472004 | 472004.DWG | 336 | Letter Auto-Sleever and Strap |
| 472005 | 472005.DWG | 154 | Flat Sleever and Strap |
| 472006 | 472006.DWG | 818 | Letter Scan-Where-You-Band |
| 472007 | 472007.DWG | 330 | Flat Scan-Where-You-Band |

Exhibit 472b

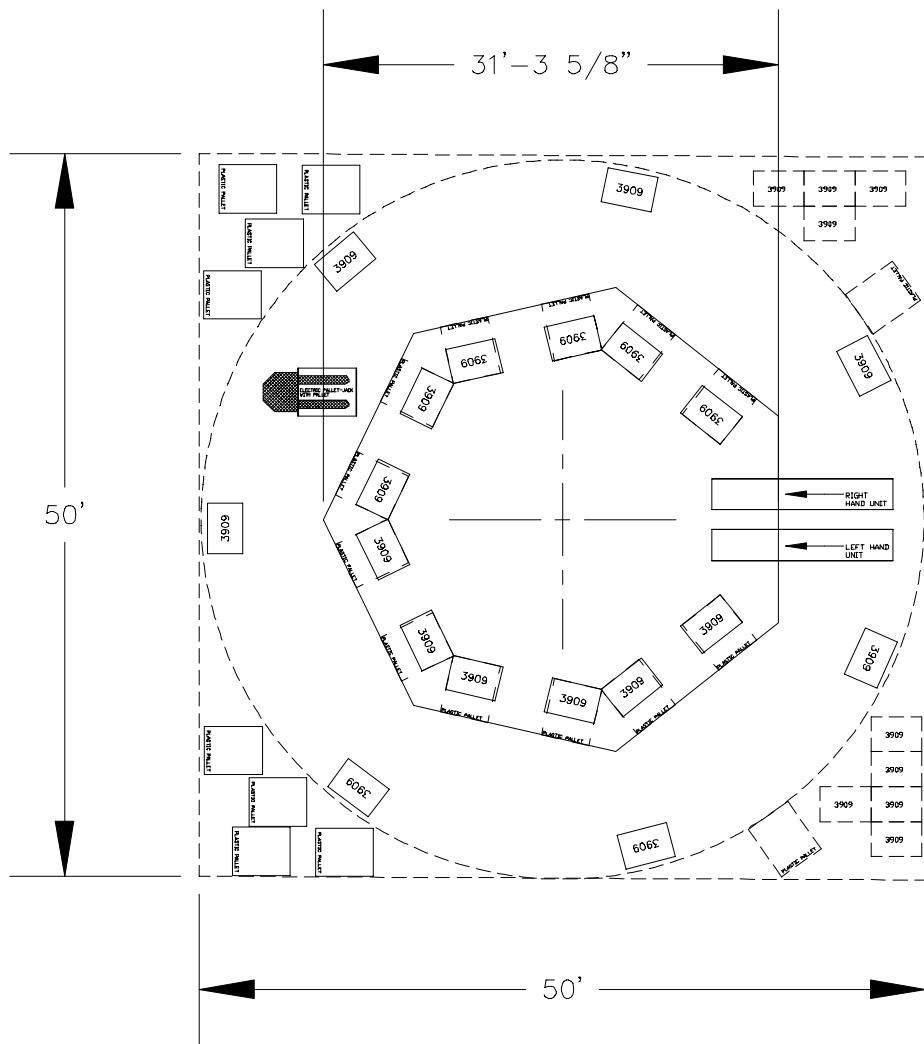
472001, Pedestal Robot (Phase I)

Date: Sept. 1997

Pedestal Robot Trays

Scale: No Scale

Area: 2,500 Sq Ft



Note: The WSU 472001 reflects an initial buy of 100 units. There shouldn't be any additional quantities.

Exhibit 472c

472002, Gantry Robot (Single)

Date: Sept. 1997

Gantry Robot Trays

Scale: No Scale

Area: 1,550 Sq Ft

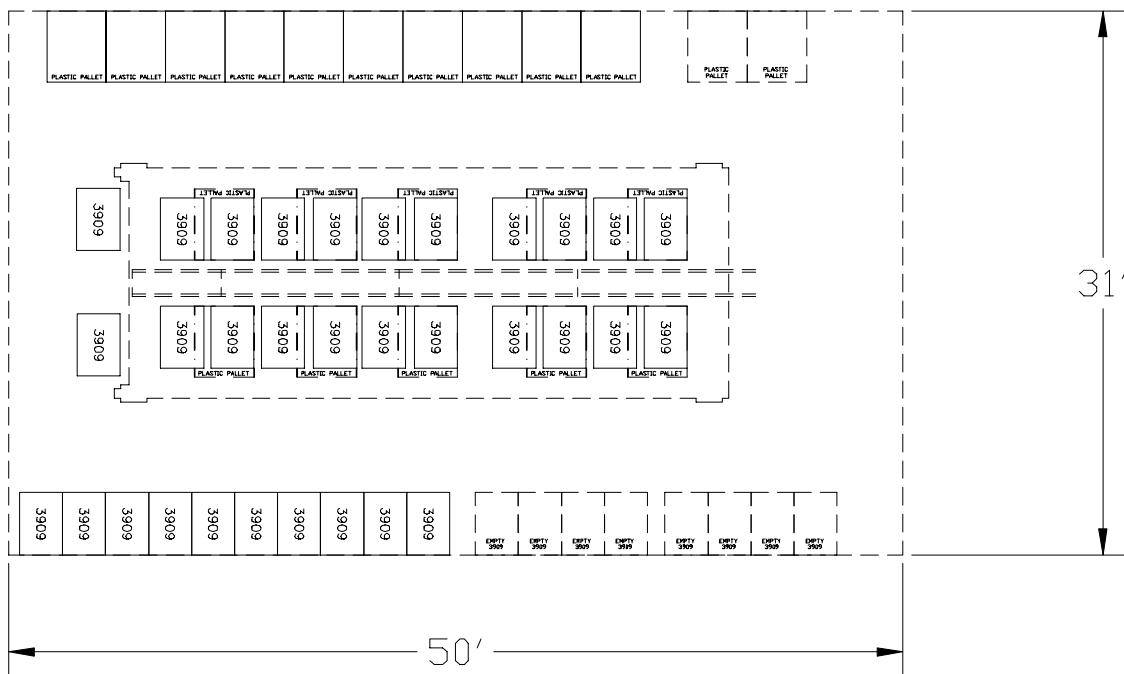


Exhibit 472d

472003, Gantry Robot (Dual)

Date: Sept. 1997

Dual Gantry Robot Trays

Scale: No Scale

Area: 2,500 Sq Ft

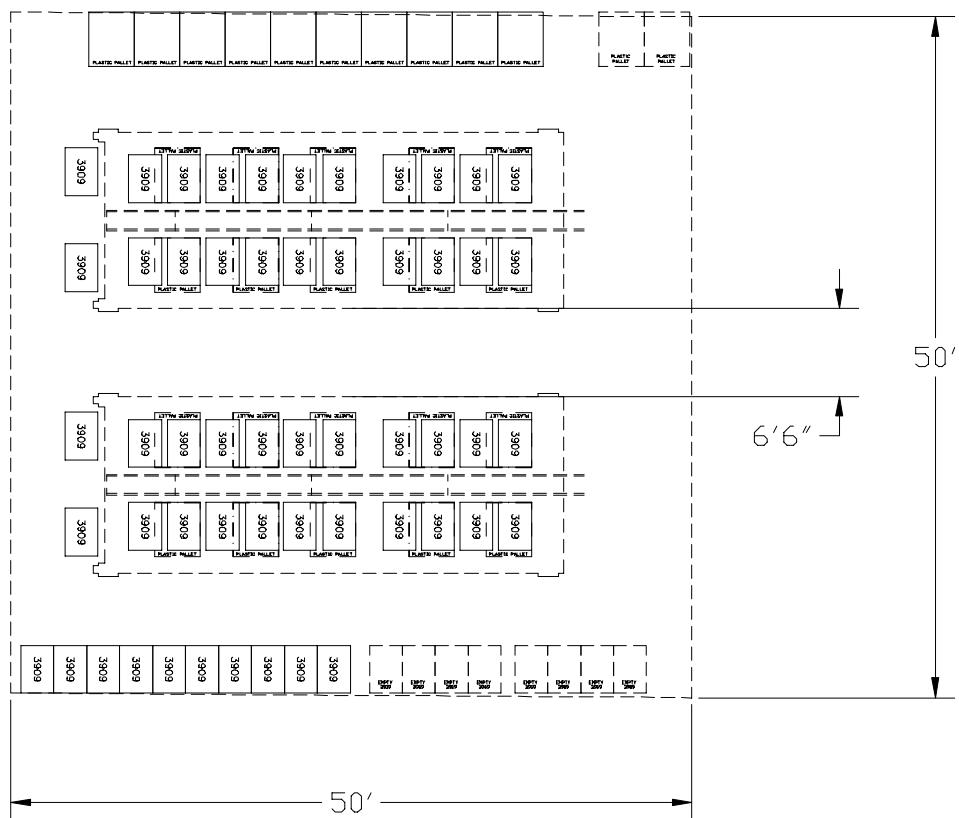


Exhibit 472e

472004, Letter Auto-Sleever and Strap

Date: Sept. 1997

Auto-Sleeve and Strap Letter Trays

Scale: No Scale

Area: 336 Sq Ft

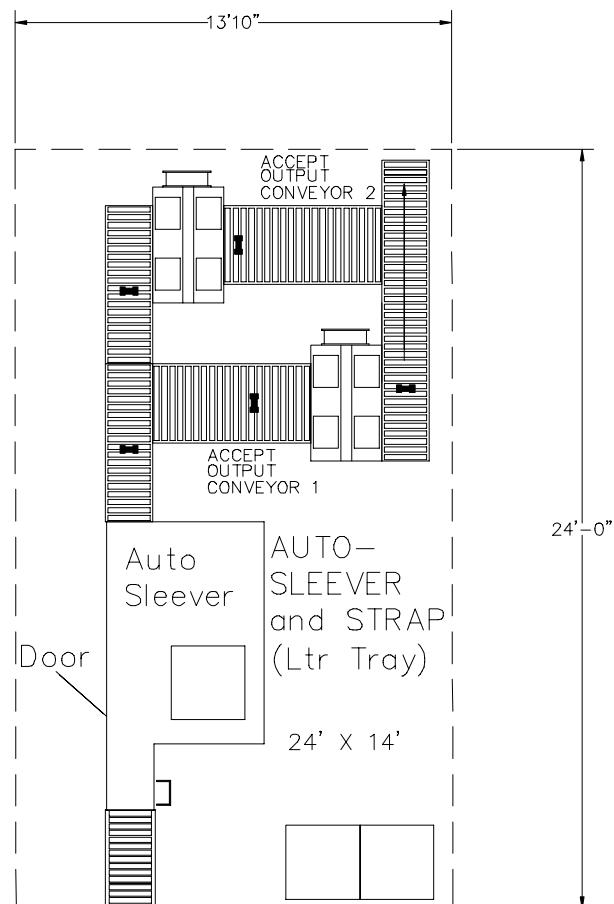


Exhibit 472f

472005, Flat Sleever and Strap

Date: Sept. 1997

Sleeve and Strap Flat Trays

Scale: No Scale

Area: 154 Sq Ft

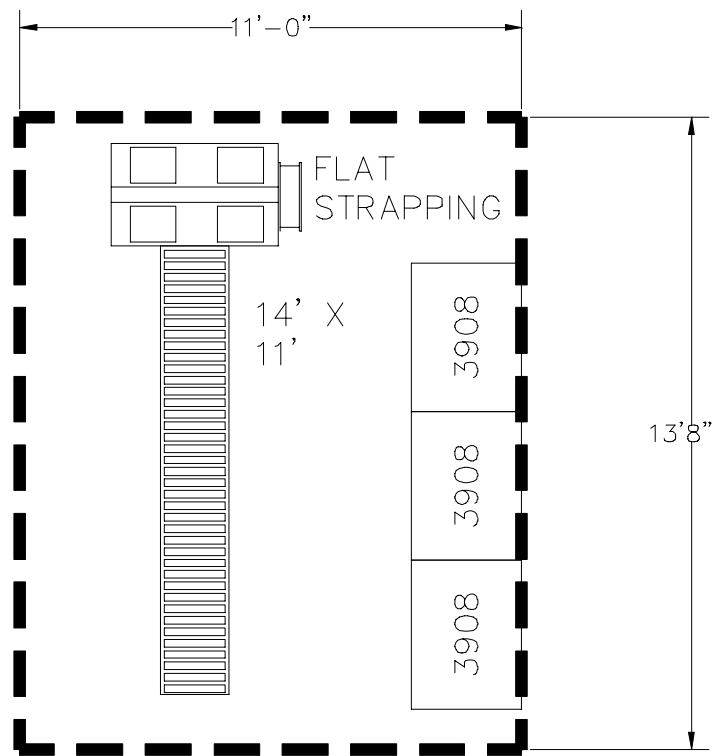


Exhibit 472g

472006, Letter Scan-Where-You-Band

Date: Sept. 1997

Scan-Where-You-Band Letter Trays

Scale: No Scale

Area: 818 Sq Ft

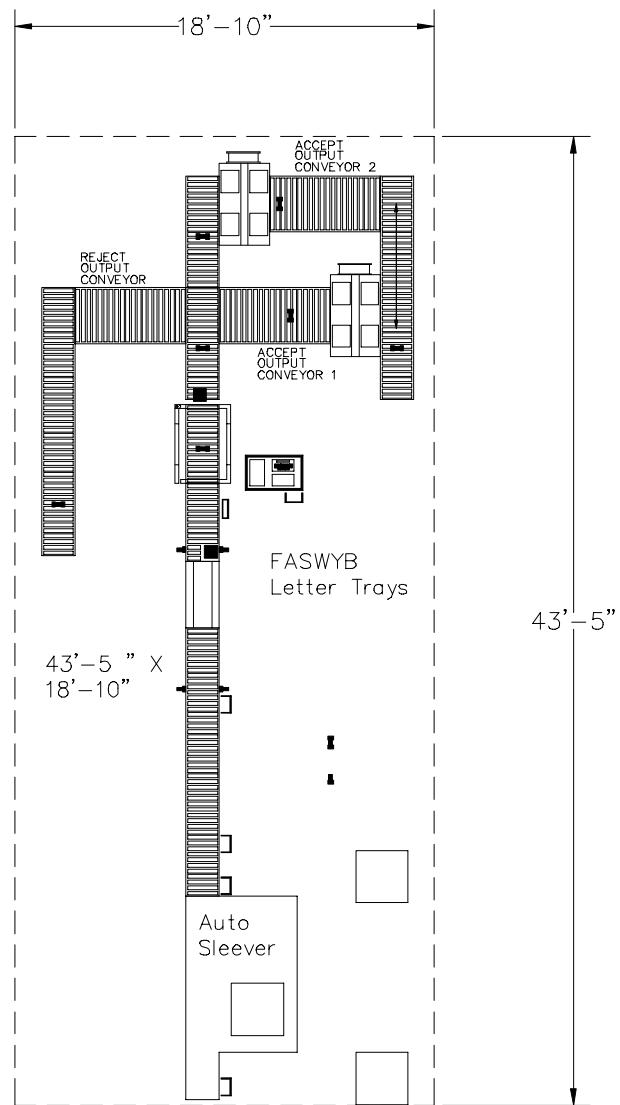


Exhibit 472h

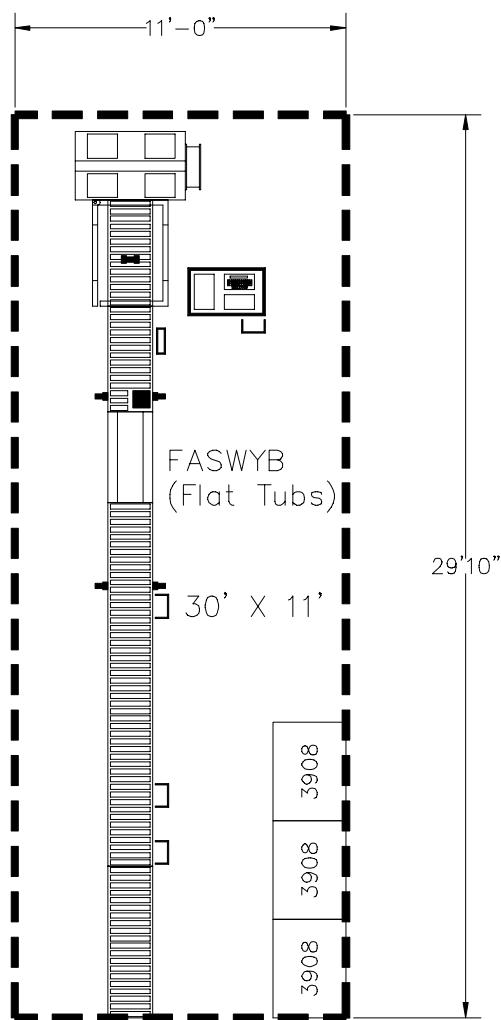
472007, Flat Scan-Where-You-Band

Date: Sept. 1997

Scan-Where-You-Band Flat Trays

Scale: No Scale

Area: 330 Sq Ft



473 Reserved**474 Reserved****475 Platform Material Handling Equipment**

Exhibit 475 lists the material handling equipment used on the platform.

Exhibit 475
Platform Material Handling Equipment

| Item Number | Description |
|-------------|---------------------|
| 1033 | Small Canvas Hamper |
| 1046 | Large Canvas Hamper |
| 1070 | Large Nutting Truck |
| 1074 | Small Nutting Truck |

476 Platform Vestibule

The footprint of the platform vestibule provides for movement of mail and personnel between the platform and the workroom floor. Exhibit 476a lists the WSU for the platform vestibule. Exhibit 476b illustrates the platform vestibule for visual reference in planning facility space requirements. The vestibule is no longer included in the construction of new facilities or in the renovation of existing ones.

Exhibit 476a
WSU Used for Platform Vestibule

| WSU Number | PostalCAD Drawing Name | Square Feet Required | Description |
|------------|------------------------|----------------------|---|
| 476001 | 476001.DWG | 500 | Mailing Platform Vestibule, Entrance and Exit |

Exhibit 476b

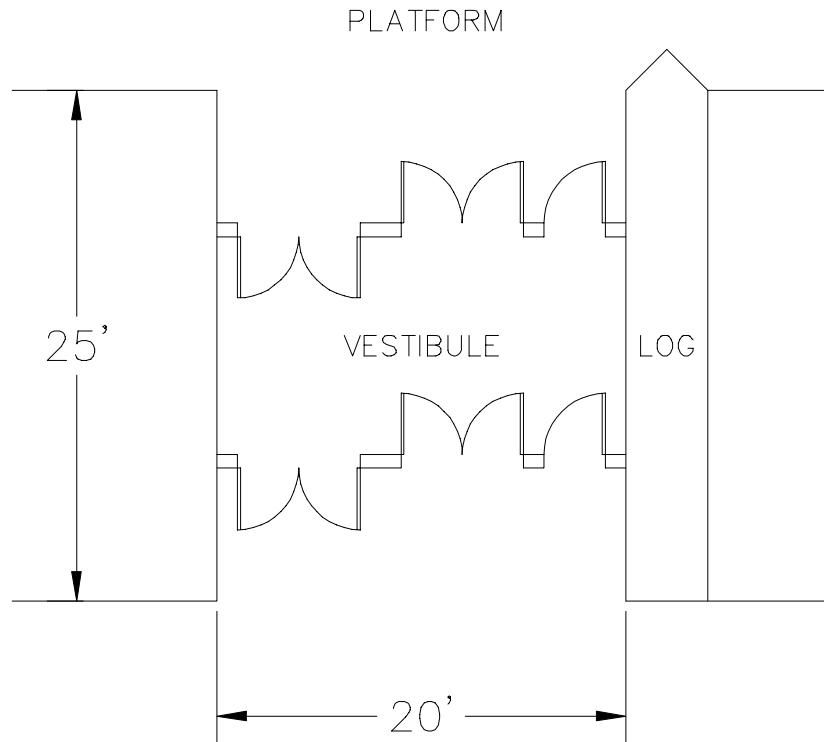
476001, Platform Vestibule Entrance and Exit

Date: Dec. 1994

Platform Vestibule

Scale: No Scale

Area: 500 Sq Ft

477 **Reserved**478 **Reserved**479 **Reserved**

48 CFS Operations

481 **Reserved**

482 CFS Space

The footprints of the CFS units provide for movement of mail and personnel within the work center, exclusive of dedicated aisles, and an allowance for column interference and other unusable space. Exhibit 482a lists the WSUs currently used for CFS units. Exhibits 482b through 482f illustrate these WSUs for visual reference in planning facility space requirements.

Exhibit 482a
WSUs Used for CFS Units

| WSU Number | PostalCAD Drawing Name | Size of CFS Unit | Number of Mechanized Terminals | Number of Nonmechanized Terminals | Dimensions | Square Feet Required |
|------------|------------------------|------------------|--------------------------------|-----------------------------------|------------|----------------------|
| 482001 | 482001.DWG | Small | 2 | 2 | 60' x 50' | 3,000 |
| 482002 | 482002.DWG | Medium | 4 | 4 | 75' x 60' | 4,500 |
| 482003 | 482003.DWG | Medium-Large | 6 | 6 | 100' x 65' | 6,500 |
| 482004 | 482004.DWG | Large | 7 | 7 | 105' x 85' | 8,925 |
| 482005 | 482005.DWG | Jumbo | 9 | 11 | 115' x 87' | 10,000 |

Exhibit 482b
482001, Small CFS Unit

Date: Dec. 1994

CFS

Scale: No Scale

Area: 3,000 Sq Ft

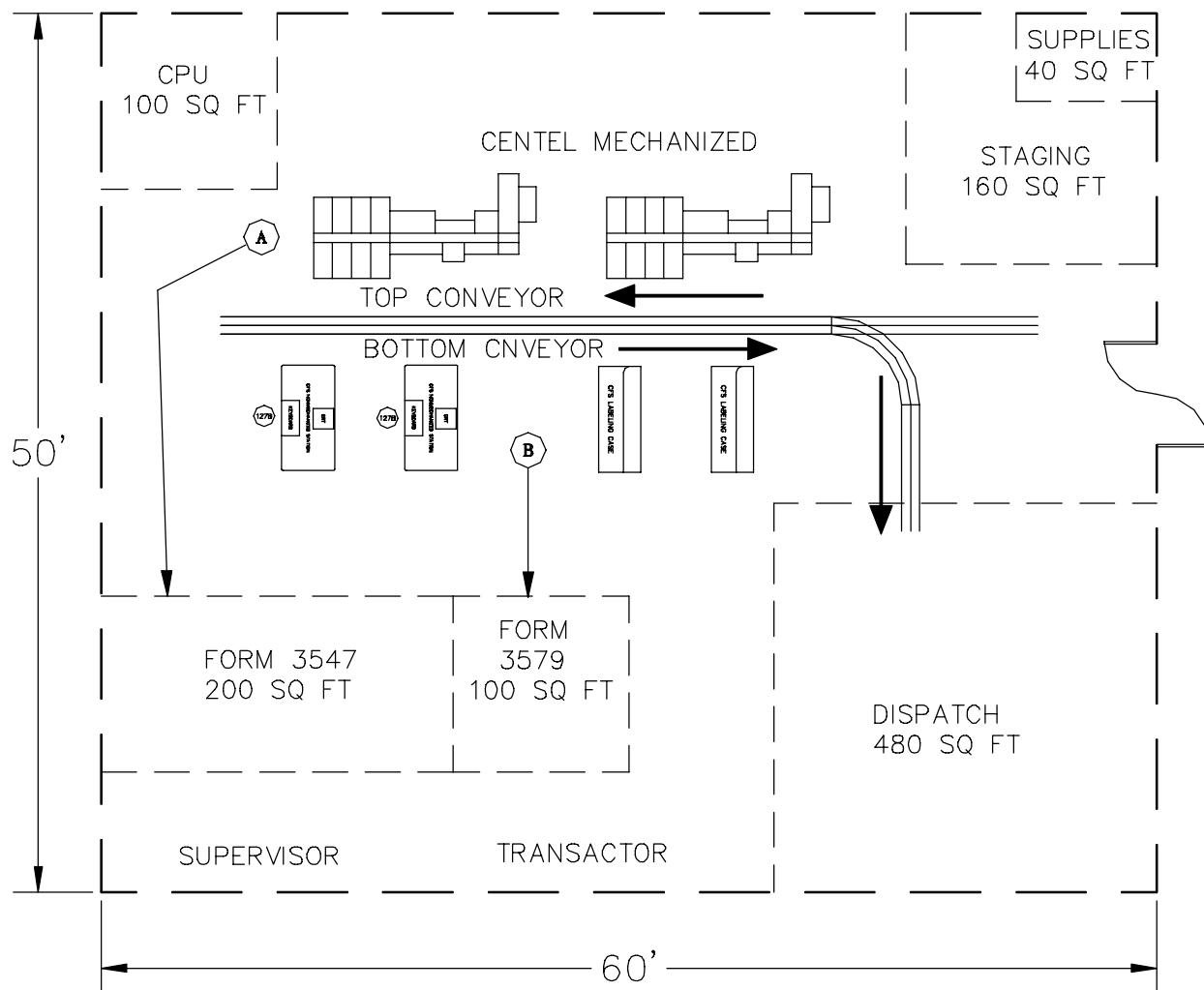


Exhibit 482c
482002, Medium CFS Unit

Date: Dec. 1994
 CFS
 Scale: No Scale
 Area: 4,500 Sq Ft

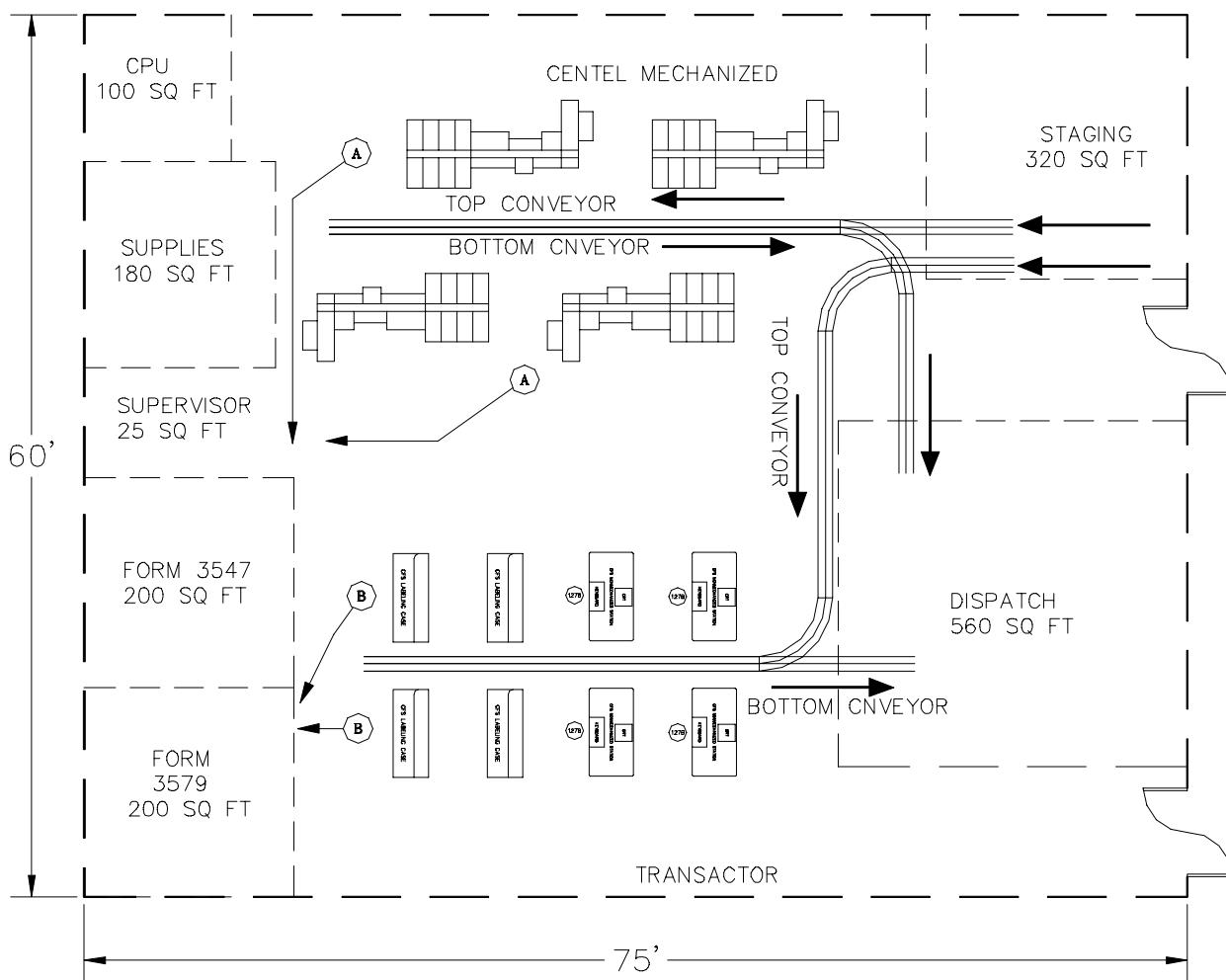


Exhibit 482d
482003, Medium-Large CFS Unit

Date: Dec. 1994
 CFS
 Scale: No Scale
 Area: 6,500 Sq Ft

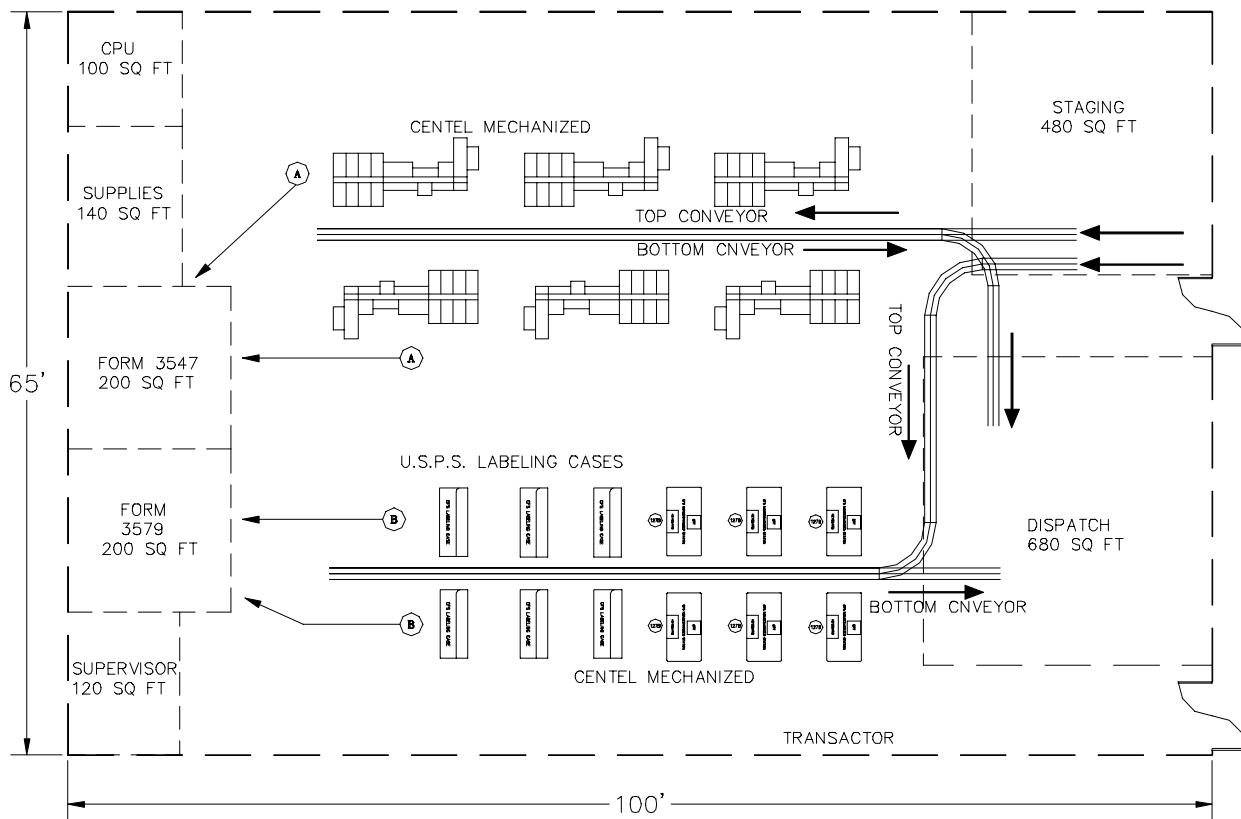


Exhibit 482e
482004, Large CFS Unit

Date: Dec. 1994

CFS

Scale: No Scale

Area: 8,925 Sq Ft

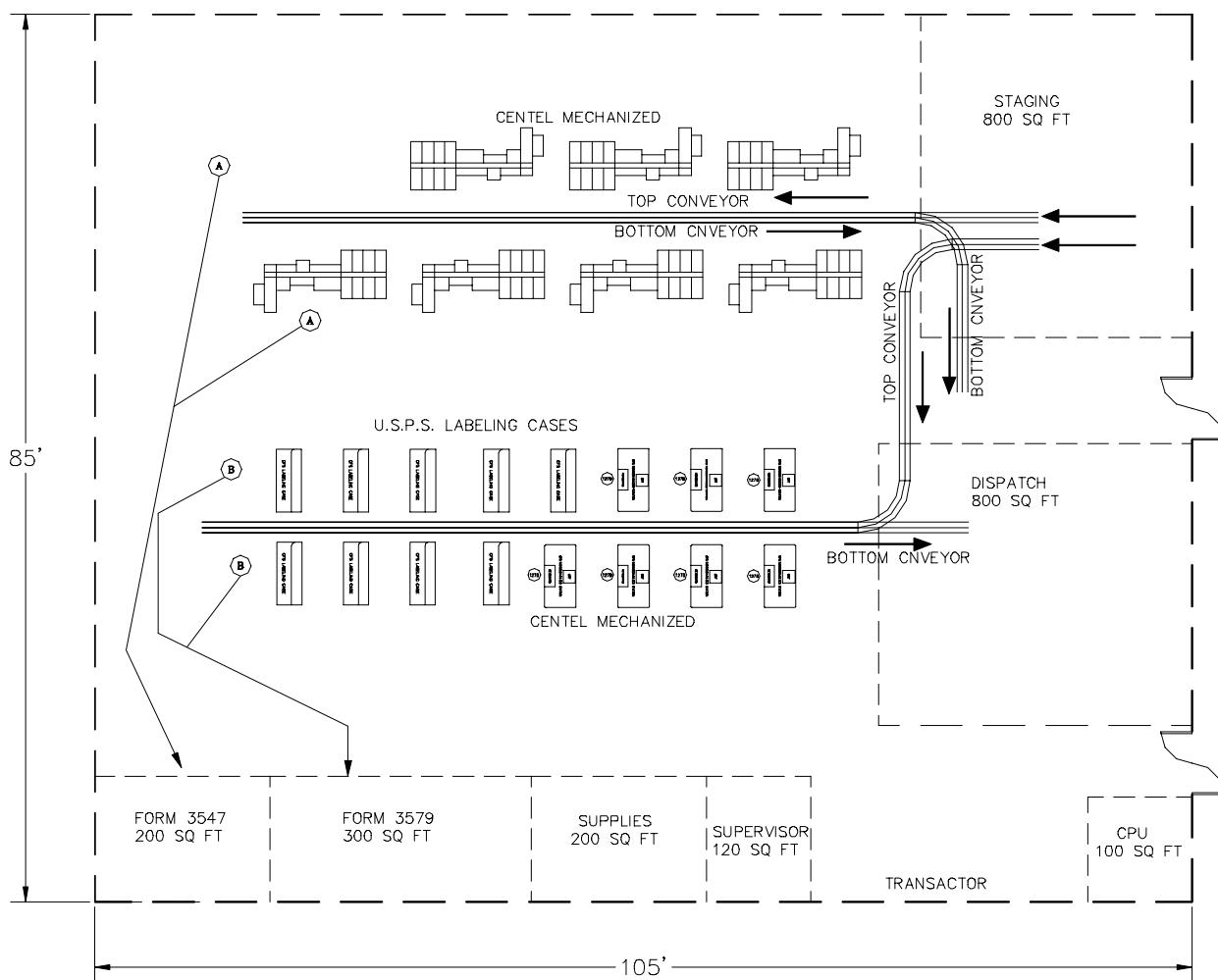
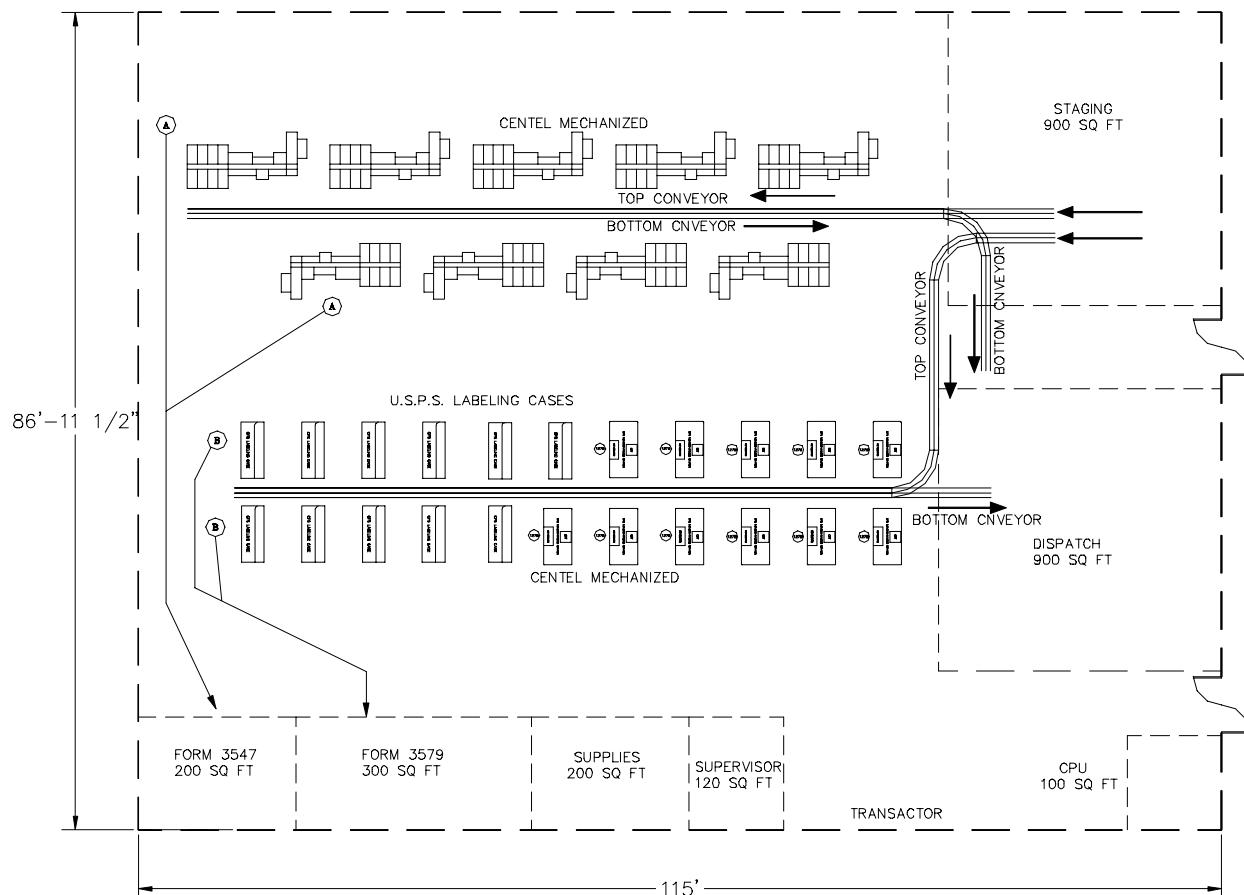


Exhibit 482f
482005, Jumbo CFS Unit

Date: Dec. 1994
 CFS
 Scale: No Scale
 Area: 10,000 Sq Ft



49 Office and Clerical Operations

491 Reserved

492 Reserved

493 Administrative Offices

Exhibit 493a lists the WSUs currently used for developing administrative office space. Exhibits 493b through 493f illustrate these WSUs for visual reference in planning facility space requirements.

Exhibit 493a

WSUs Used for Administrative Office Space Requirements

| WSU Number | PostalCAD Drawing Name | Square Feet Required | Position |
|------------|------------------------|----------------------|--|
| 493001 | 493001.DWG | 270 | Vice President of Area Operations |
| 493002 | 493002.DWG | 220 | District Manager |
| | | 220 | Postal Career Executive Service (PCES) Postmaster |
| | | 220 | PCES Plant Manager |
| | | 220 | PCES Air Mail Center (AMC) Manager |
| 493003 | 493003.DWG | 180 | Executive and Administrative Schedule (EAS) Plant Manager Processing and Distribution Center (P&DC) |
| 493004 | 493004.DWG | 160 | PCES Office Manager |
| | | 160 | EAS Postmaster |
| | | 160 | EAS Plant Manager Processing and Distribution Facility (P&DF) |
| | | 160 | EAS AMC or Air Mail Facility (AMF) Plant Manager |
| | | 160 | EAS Manager (Direct Report to District Manager or P&DC Plant Manager) |
| 493005 | 493005.DWG | 120 | Manager of Customer Services |
| | | 120 | EAS Manager (Direct Report to Plant Manager P&DF) |
| | | 120 | Supervisor (If Private Office Is Required) |

Exhibit 493b

493001, Vice President of Area Operations

Date: Dec. 1994

Private Offices

Scale: No Scale

Area: 270 Sq Ft

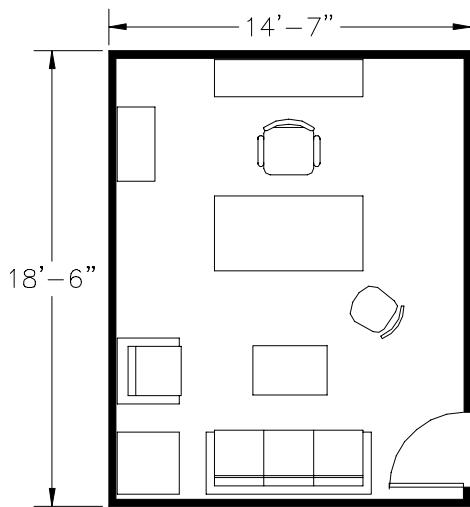


Exhibit 493c

493002, District Manager, PCES Postmaster, PCES Plant Manager, or PCES AMC Manager

Date: Dec. 1994

Private Offices

Scale: No Scale

Area: 220 Sq Ft

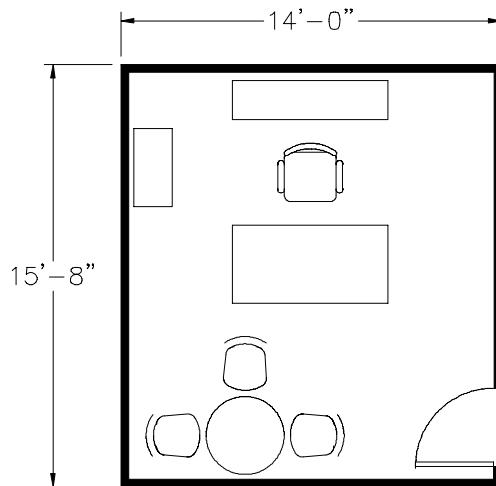


Exhibit 493d

493003, EAS Plant Manager (P&DC)

Date: Dec. 1994

Private Offices

Scale: No Scale

Area: 180 Sq Ft

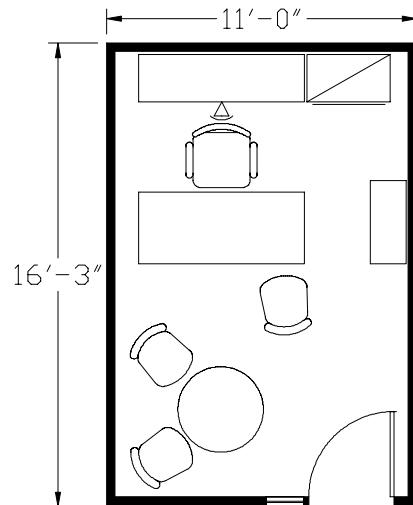


Exhibit 493e

493004, PCES Office Manager, EAS Postmaster, EAS Plant Manager (P&DF), EAS AMC/AMF Plant Manager, or EAS Manager (Direct Report to District Manager or P&DC Plant Manager)

Date: Dec. 1994

Private Offices

Scale: No Scale

Area: 160 Sq Ft

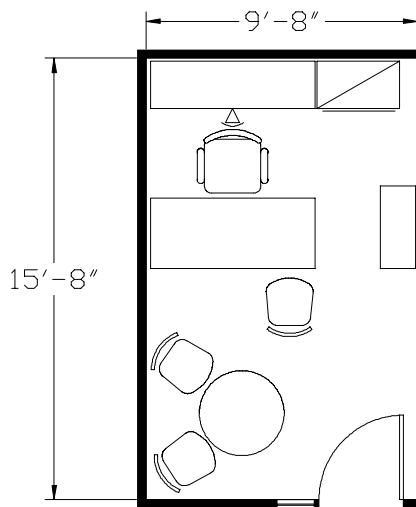


Exhibit 493f

493005, Manager of Customer Services, EAS Manager (Direct Report to Plant Manager P&DF), Supervisor (If Private Office Is Required)

Date: Dec. 1994

Private Offices

Scale: No Scale

Area: 120 Sq Ft

