LUDLUM MEASUREMENTS, INC.

Ludlum Model
4530-4200 & 4530-7000
4530-6300 & 4530-10500
4530-8400 & 4530-14000

Installation Manual

February 2024

Statement of Warranty

Ludlum Measurements, Inc. warrants the portal monitor covered in this manual to be free of defects due to workmanship, material, and design for a period of 24 months from the date of delivery. The calibration of a product is warranted to be within its specified accuracy limits at the time of shipment. **Accessories such as computers, Universal Power Supplies (UPSs), cameras, network equipment, etc., are warranted by the individual manufacturer, and are not covered by Ludlum Measurements.**

This warranty excludes the replacement of instruments, detectors, or parts that are broken due to excessive physical abuse, acts of nature such as lightening, or used for purposes other than intended. Warranty claims requiring an onsite technician will cover labor and parts only. All related travel expenses such as airline fees, meals and incidentals, and lodging are to be paid for by the customer and are not covered by the warranty.

There are no warranties, express or implied, including without limitation any warranty of merchantability or fitness, which extend beyond the description of the face thereof. If the product does not perform as warranted herein, the purchaser's sole remedy shall be repair, recalibration, or replacement, at the discretion of Ludlum Measurements. In no event will Ludlum Measurements be liable for damages, lost revenue, lost wages, or any other incidental or consequential damages, arising from the purchase, use, or inability to use product.

Return of Good to Manufacturer

If equipment needs to be returned to Ludlum Measurements, Inc. for repair or calibration, please send to the address below. All shipments should include documentation containing return shipping address, customer name, telephone number, description of service requested, and all other necessary information. Your cooperation will expedite the return of your equipment.

Ludlum Measurements, Inc.
ATTN: Radiation Security Division
404 W. 4th St.
Sweetwater, TX 79556

Contact Information

Phone: 1-800-622-0828 (US, CA)
Fax: 325-235-4672

Free Gate Monitor Support

Monday – Friday 8:00 AM – 5:00 PM CT
1-800-622-0828 (US, CA)
24 Hours
1-800-717-9506

Table of Contents

Section 1 – Packaging

Remove the cardboard and shrink wrap from the pallet (if used) and safely lift each item on the pallet. Items on the pallet may be secured using metal or plastic strapping. Use caution, as the strapping may be under tension and can cause injury when cut.

If packed in a crate, remove lid and at least one long side and one short side. Remove all small items and store in a safe, dry place. Safely lift each item one at a time from the crate.

If the items received will not be installed right away, ensure that the pallets or crates are stored in a dry space as they may contain sensitive electronics that are susceptible to damage until properly installed.

An envelope containing important information such as calibration certificates, packing slips, pre-shipment checklist, etc., will be located either in, or attached to the surface of, the shipment. Remove the envelope and store in a safe place.

Using the provided pre-shipment checklist, ensure all marked items are accounted for. In the event of a missing item, contact your sales representative immediately to report it and remediate the issues.

Model 4530-4200 & 4530-7000

Without Stands

The system is shipped in one large wooden crate with two detector assemblies containing all accessories, hardware, and options inside the crate.

The total shipping weight is approximately 680 kg (1500 lb).

With Stands

The system is shipped on two large wooden pallets. Each pallet will contain one stand and one detector assembly with some accessories already attached. Other accessories, hardware, and options may also be located loosely inside the stands. At times, a separate smaller crate will be used to ship accessories ordered with the system.

The total shipping weight is approximately 1905 kg (4200 lb) (includes stand).

Model 4530-6300 & 4530-10500

Without Stands

The system is shipped in one large wooden crate with three detector assemblies containing all accessories, hardware, and options inside the crate.

The total shipping weight is approximately 907.2 kg (2000 lb).

With Stands

The system is shipped on two large wooden pallets with larger pallet containing the overhead frame assembly. Each pallet will contain one stand and one detector assembly with some accessories already attached. Other accessories, hardware, and options may also be located loosely inside the stands. At times, a separate smaller crate will be used to ship accessories ordered with the system.

The total shipping weight is approximately 3719 kg (8200 lb).

Model 4530-8400 & 4530-14000

Without Stands

The system is shipped in two large wooden crates with two detector assemblies in each containing all accessories, hardware, and options inside the crate.

The total shipping weight is approximately 1360 kg (3000 lb).

With Stands (Horizontal Configuration)

The system is shipped on two large wooden pallets. Each pallet will contain one stand and two detector assemblies with some accessories already attached. Other accessories, hardware, and options may also be located loosely inside the stands. At times, a separate smaller crate will be used to ship accessories ordered with the system.

The total shipping weight is approximately 3810 kg (8400 lb).

With Stands (Vertical Configuration)

The system is shipped on four large wooden pallets. Each pallet will contain one stand and one detector assembly with some accessories already attached. Other accessories, hardware, and options may also be located loosely inside the stands. At times, a separate smaller crate will be used to ship accessories ordered with the system.

The total shipping weight is approximately 3810 kg (8400 lb).

Section 2 - Installation

This section is intended to outline the standard installation of a system and does not cover detailed specifics on the termination of cables, which is normally performed by Ludlum Measurements, Inc. (LMI) field service technicians.

The following drawings are provided to facilitate the process in preparing your site for installation.

Block Diagrams

517x638, 517x638A, 517x646, 517x646A, 517x646B, 517x646C

Model 4530-4200 & 4530-7000:

517x550, 517x550A, 517x550B, 517x550C, 517x550D

Model 4530-6300 & 4530-10500:

517x641, 517x641A, 517x641B, 517x641C

Model 4530-8400 & 4530-14000 (Horizontal):

517x655, 517x655A, 517x655B, 517x655C

Model 4530-8400 & 4530-14000 (Vertical):

517x562, 517x562A, 517x562B, 517x562C

System Buffer Zone

For best operation, locate the stands in an area where a 3 m (10 ft) buffer zone can be maintained around the detectors. Typically, the stands are mounted about 3 m (10 ft) before the weigh scale and never between the start and end of the scale. It is important that vehicles stay out of this buffer zone except when they are moving slowly between the detectors. Placing a stop sign at the entrance to this buffer zone is highly recommended. See Drawings listed below for an aerial view showing the buffer zone.

Model 4530-4200 & 4530-7000: 517x550B

Model 4530-6300 & 4530-10500: 517x641B

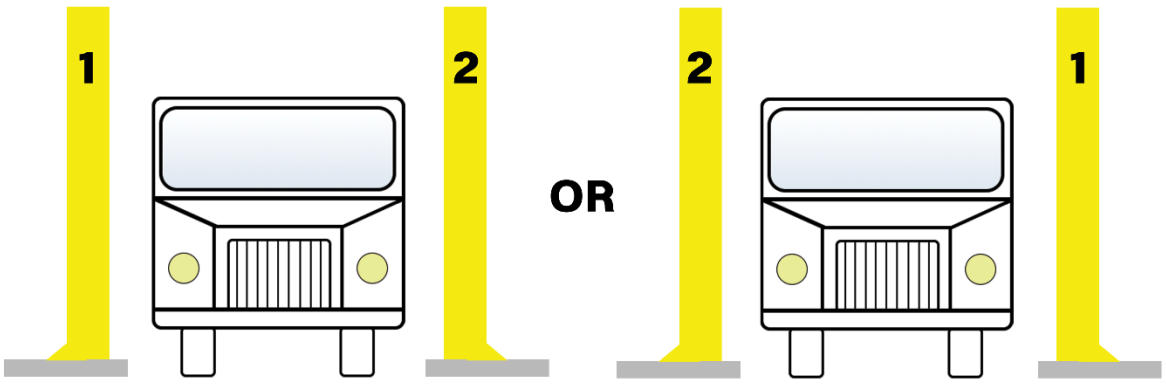
Model 4530-8400 & 4530-14000 (Horizontal): 517x655B

Model 4530-8400 & 4530-14000 (Vertical): 517x550B

Failure to correctly locate the system or failure to enforce the buffer zone may result in more frequent false alarms. These false alarms are caused by the system having an incorrect measurement of the true background radiation level before the system is triggered into check mode.

Location of Detector 1

Detector 1 should go on the side with the two conduits coming out of the pad. See figure below for layout example. Systems with three or more detectors will follow the same rule. To facilitate ease of installation, it is recommended that detector 1 be on the side nearest to the location of the monitoring office where the control box will be located.



*For representational purposes only. Not drawn to scale.

Anchoring the Stands

Anchor Bolts and Pattern

For anchor bolt specifications, see Drawing 511 x 836. Due to the close tolerances of the anchor bolt holes, the anchor bolts must be placed according to the dimensions specified on the Anchor Bolt Template drawings.

Model 4530-4200 & 4530-7000: 517x678, 511x461

Model 4530-6300 & 4530-10500: 511x449

Model 4530-8400 & 4530-14000 (Horizontal): 384x882

Model 4530-8400 & 4530-14000 (Vertical): 511x461

The anchor bolts should protrude from the concrete from 10 to 12.7 cm (4 to 5 in.).

Note:

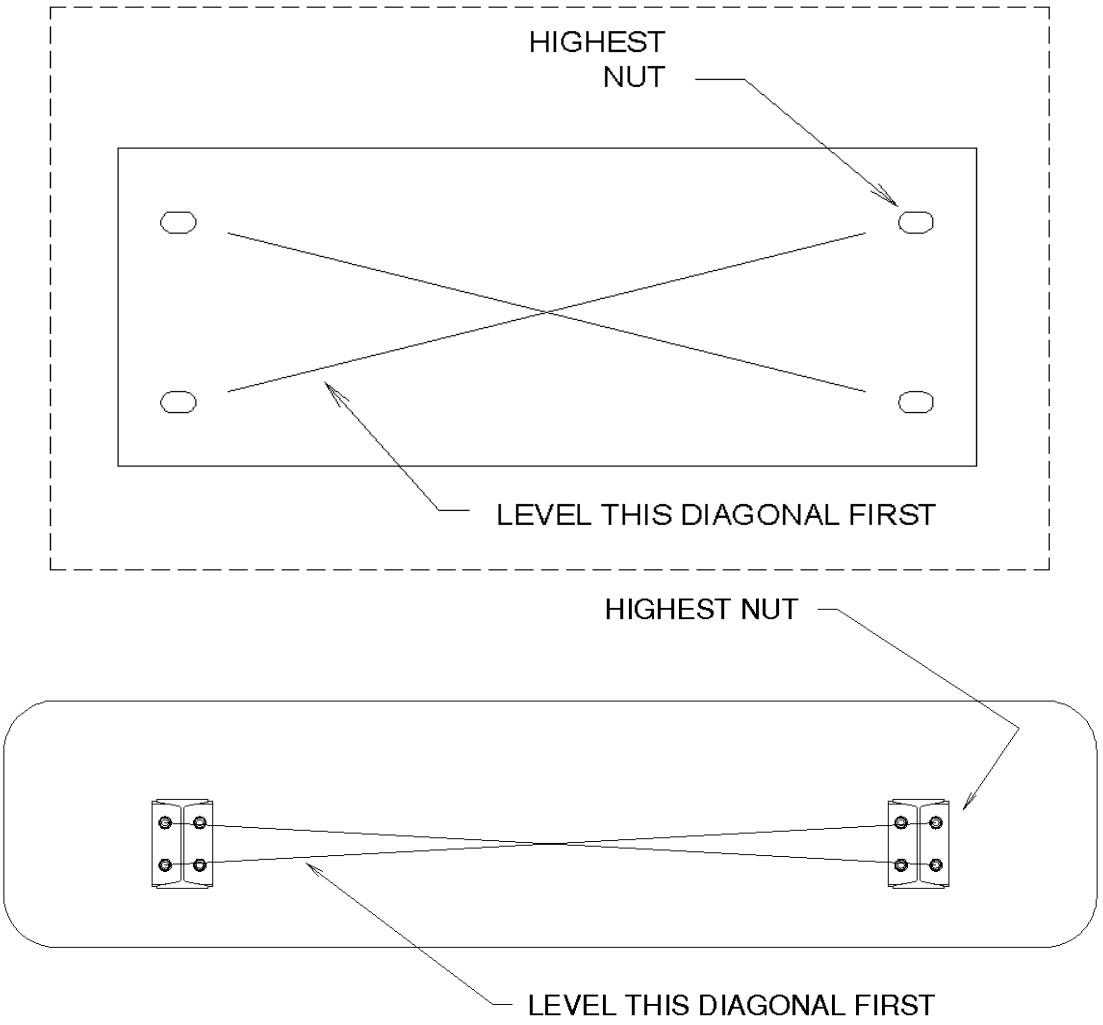
LMI recommends the use of an anchor bolt template to ensure the anchor bolts are placed in the exact locations for your system. These are available to purchase, including anchor bolt hardware kits, to facilitate installation.

If a template is used, the notch on the template should be placed toward the center of the lane. The anchor bolt holes are a tight tolerance fit for the ¾-inch anchor bolt; therefore, care must be taken when the anchor bolts are placed in the concrete. Double-nut the anchor bolt to the template before the concrete cures to ensure proper anchor-bolt alignment.

Leveling the Stands

Once the concrete has cured and all the bolts are straight, the mounting points will need to be leveled. Shims may be used, but the proper method of using leveling nuts is highly recommended as described below.

Run a set of leveling nuts on the bolts as low as allowable (one nut per bolt). If the templates were purchased, place the flat template through the bolts onto the leveling nuts. Start leveling from the highest nut, using a 0.61 m (2 ft) (or larger) level in the pattern as demonstrated in the below figures. The stands should be level and plumb within 0.17 cm (1/16 of an inch) over a 0.61 m (2 ft) distance.



Lifting the Stands

Note:

LMI recommends the detector assemblies be placed and secured into the stands prior to lifting the stand into place. If stands were purchased with your system, the detector assemblies will come pre-assembled with the stands. This can be done by placing the stand on ground level and using lifting straps to lower the detector assembly into the stand and securing using the provided hardware.

All stands purchased with your system should include removable lifting eyebolts and hardware.

Use a lifting harness rated for at least 2268 kg (5000 lb).

During lifting, the unit will lean towards the back. This will allow you to engage two bolts first, and then the rest will align as the stand is lowered.

Before removing the lift harness, ensure the stands are securely fastened to prevent injury or damage.

Before removing the lift harness (and lifting lugs), the four stand mounting nuts will need to be in place.

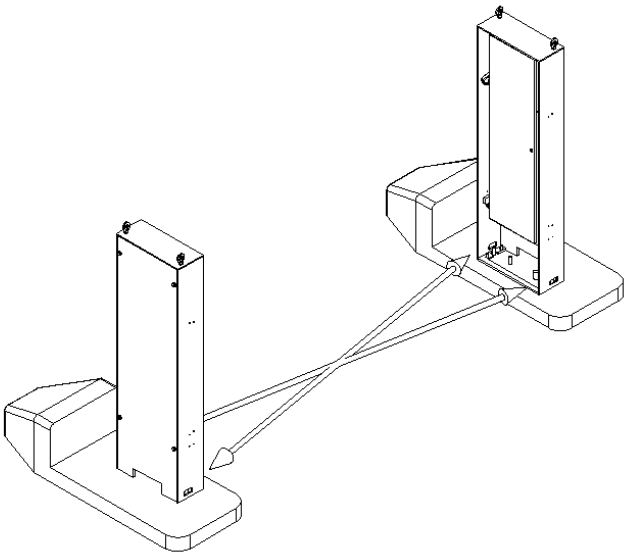
Systems with double-stacked detectors ensure the lower stand is securely fastened before placing the upper stand.

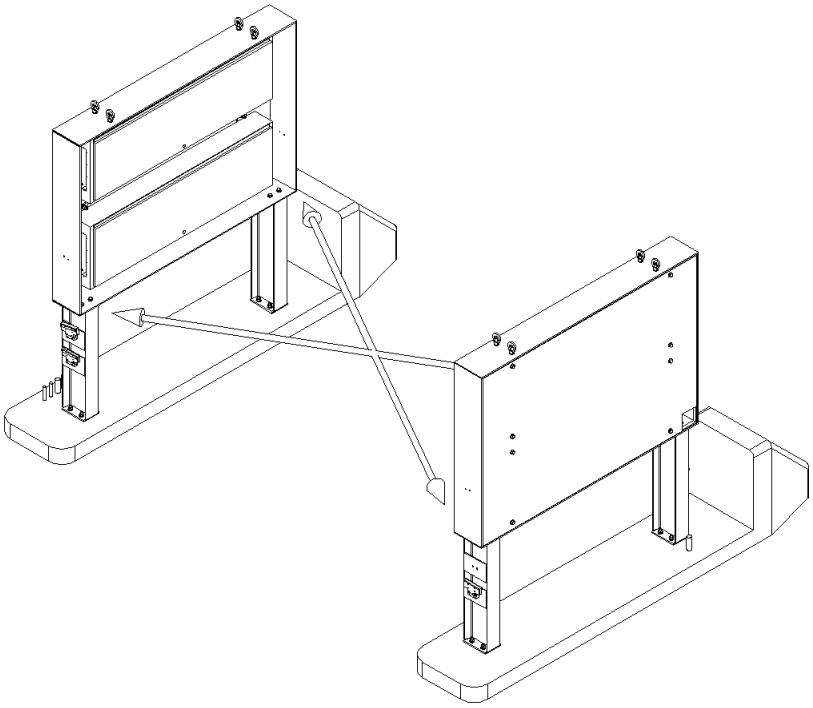
Some systems use legs as risers to mount the stands at the required height. Ensure the legs are securely fastened before lifting and placing the stand into place.

Squaring the Stands

After the lower stands have been lifted and secured into place, it is crucial that they are square with each other. Failure to do so will result in sensor alignment issues that cannot be resolved with the included sensor mounting brackets.

The opposing front outside corners of the stands should be within 1.27 cm (1/2 of an inch) of each other on the diagonal reading. Be sure to take the readings at the base of each set of stands. See the two figures below for an example.





Mounting the Control Box

The control box is required to be mounted indoors since it is not weathertight. It is typically mounted inside the scale house or in close proximity to the scale operator. Four each #8 screws should be used to mount the unit to the wall securely. A paper template has been provided to facilitate the installation. See Drawing 517x553 for mounting hole locations.

The Supervisor Computer is embedded in the control box. It allows the printing of alarms, adjusting of set points, monitoring of multiple systems at one time, and recording data seen from the systems for further analysis.

Caution:

Caution must be used when closing the electronics enclosures. Excessive force could damage the electronic components.

Mounting the Remote

Four holes have been provided to ensure proper mounting of the remote to the wall. Sound judgment must be used to provide a secure platform for the depression of the reset button. Refer to Drawing 517x637 (Model 4530 Remote Assembly).

The remote box comes ready to be mounted immediately above the control box with an offset conduit nipple used to connect them. Refer to Drawing 517x637A. Additional Cat5e cable can be used to put the remote in any location desired. Refer to Drawing 517x637B. Locations of the remote box will be determined by the Location Supervisor (or equivalent) at each location.

If mounting the remote separate from the control box, use the same Cat5e cable provided with the system and route cabling from the control box to wherever the remote display is being mounted. Conduit is not required, but could be requested by the Location Supervisor.

Cables outside of conduit will be secured every 0.30 m (1 ft) to prevent entanglement and possible damage to the cable. The cable will be run into the remote box leaving a 0.61 cm (2 ft) tail past the inside of the box.

Wiring and Conduit

AC Power Requirements

LMI recommends a dedicated 15 Amp circuit. LMI also recommends an uninterrupted power supply (UPS) surge suppressor between the dedicated breaker and the control box.

This protects the system from improper shutdowns and allows for continued operation during power outages.

AC power should be delivered to the control box in accordance with code requirements, which supersede these instructions. Such requirements, for example, may include a disconnect device in clear sight of the control box.

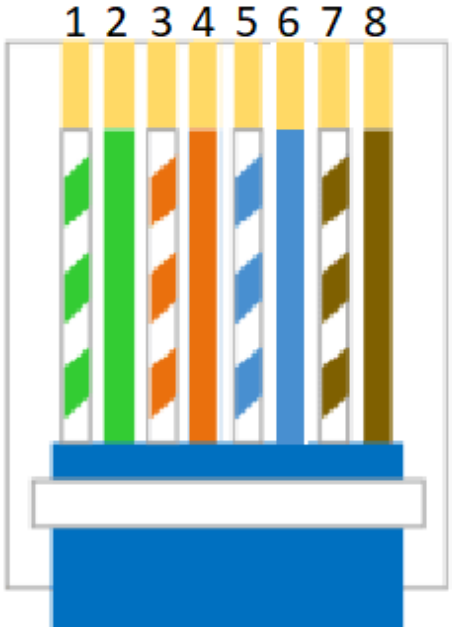
Over Pull for Termination

All cables must be pulled, leaving a 0.61 m (24 in.) tail past the end of the conduit or cord grip. Labeling must be used on both ends of the cable to clearly identify each cable. This can be done using any method, such as color coding, letters, numbers, etc.

Control Box, Detector, and Remote Wiring

Both ends of the Cat5e cable will be terminated using the pin layout below. Although the Model 4530 uses Cat5e cable for its connections, it is not standard LAN; and therefore, you should terminate using standard T-568A or T-568B wiring scheme.

Pin 1 - Green/White
Pin 2 – Green
Pin 3 - Orange/White
Pin 4 – Orange
Pin 5 - Blue/White
Pin 6 – Blue
Pin 7 - Brown/White
Pin 8 - Brown



Conduit Requirements

The bottom of each detector enclosure and the control box is pre-drilled for conduit connections required for a standard installation.

Refer to the following drawings for conduit requirements at the concrete pad.

Model 4530-4200 & 4530-7000: 517x550C

Model 4530-6300 & 4530-10500: 617x641C

Model 4530-8400 & 4530-14000 (Horizontal): 517x655C

Model 4530-8400 & 4530-14000 (Vertical): 517x550C

Note:

All conduit coming out of the concrete up to the enclosures must be flexible Liquid-Tight Metallic.

Cable Block Diagrams

To facilitate installation, the following drawings are provided to illustrate the required cables and their routing. These drawings also show conduit and cable requirements for other standard options available.

Model 4530 1 to 3 Detector Systems: 517x638

Model 4530 4 to 6 Detector Systems: 517x638A

Detector and Options Diagrams

The detectors, strobe and horn, and remote require terminations to boards in the system. Refer to the following drawing to facilitate the connection of detectors and options.

One Detector System: 517x646

Two or Three Detector System: 517x646A

Four, Five, or Six Detector System: 517x646B

Options: 517x646C

Section 3 – Checklist and Photos for Technician

The following checklist and photo requirements will be required to be submitted prior to having a field service technician scheduled for the on-site commissioning of the system.

Installation Checklist

Yes, No, N/A	Requirement Details
	Foundation for detectors is placed where the detectors have a 10 ft (3 m) “buffer zone” in all directions.
	Detectors are installed in approved stands, anchored in concrete, and placed in their proper configuration.
	Stands are diagonally square with one another within ½ inch (13 mm).
	IR sensors are securely mounted using the provided hardware to the stands, at the proper height and on the correct detector. Receivers will be wired and connected to detector 1, whereas the transmitters will be wired to detector 2 or 3 depending on the configuration purchased. See installation drawings for height requirements.
	Control box is mounted to the wall in its desired location with proper hardware. An AC power outlet is located within 6 feet of the control box assembly, and the power supply must be secured to the wall with the provided bracket.
	The remote annunciator (if purchased) is mounted in its desired location. If not mounted directly above the control box, Cat5e cable with 61 cm (24 in.) of overpull on each end has been pulled.
	Cat5e cable is installed in conduit between each detector and control box. See wiring block diagram for conduit sizes and quantities. 61 cm (24 in.) of overpull is present on both ends of the cable, and the ends of the cables have been labeled for identifying which ends correspond to each other.
	If the system is going to be networked, Cat5e cable must be installed from the control box to a networked switch or router. If the wi-fi adapter was purchased, the network SSID and Password must be readily available and static IP addresses assigned for the unit to work correctly.
	Optional computer equipment such as a Printer, Uninterrupted Power Supplies (UPS), Wireless Keyboard, must be installed or located near the control box.
	If purchased, the strobe and horn must be installed at the desired location with approved 2 conductor-18 AWG cable ran to the control box. Twenty-four inches of overpull must be present at the junction box and control box.
	Any additional external equipment such as traffic lights, cameras, etc., must be installed according to their specifications. Note: Cameras will require the system to be networked.
	For all systems with overhead detectors, or detectors that may not be reached with a 6 ft scissor ladder, will require a man lift and certified operator on site. For all other systems, a ladder up to 6 ft will be required for the technician’s use to properly inspect and commission the systems.
	Photos provided as described in the following photo requirement list.

Photo Requirements

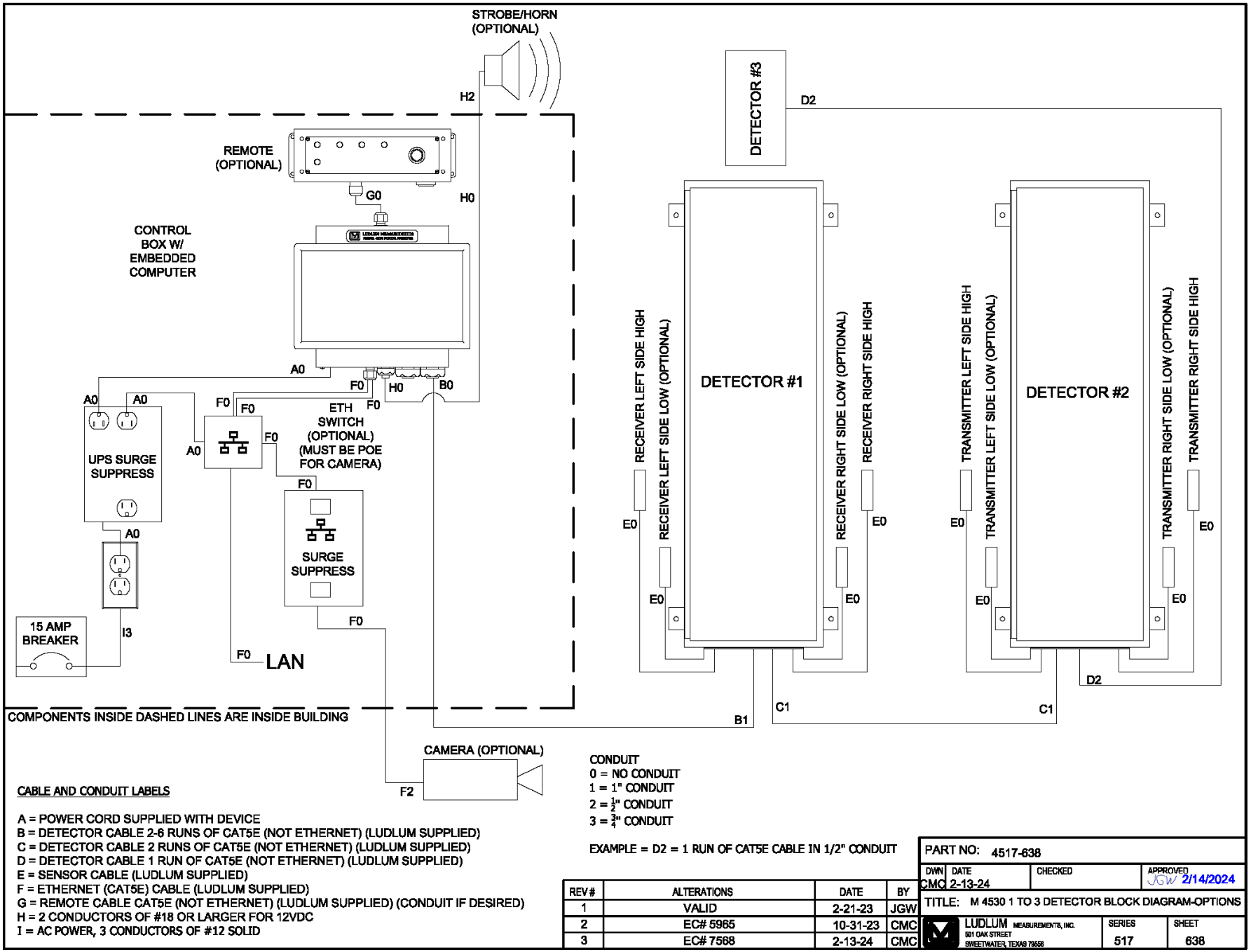
No. of Photos	Requirement Details
4 ea.	System in relation to the scale for perspective and to ensure the 10 ft (3 m) buffer zone is adequate and enforced.
2 ea.	Face of each detector, with door closed, showing the placement of all infrared sensors. This will be detector 1 and detector 2 or 3, depending on your configuration.
2 ea.	Optional strobe and horn mounted in its desired location with the conduit whip connected to a junction box. One photo up close and one photo from a distance.
Any	Any other external accessories that will be used with the system, such as traffic lights, cameras, etc.
1-6 ea.	Face of each detector with the door opened, showing the Cat5e cables pulled through with 61 cm (24 in.) of overpull and labels. Detector 1 and detector 2 or 3 will also need to include the sensor cables shown pulled into the box with the extra cable neatly bundled. Quantity of photos and cables will depend on your system configuration.
2-4 ea.	Control box mounted on the wall in relation to the office/area space. Two different angles would be best. Also show power supply mounted on the wall, below or next to, the control box.
2-10 ea.	Cat5e cable from each detector pulled into the inside of the control box unit, in conduit, with 64 cm (24 in.) of overpull. Each cable must show labeling that will match the labeling on the detector end. If the system will be networked, show Cat5E cable from switch or router pulled into control box with 64 cm (24 in.) of overpull. Any other accessories such as strobe and horn, printer, secondary monitor, wi-fi adaptor, etc., connections pulled into the control box or connected. If conduit is not used, cord grips must be installed and shown.
1-2 ea.	If purchased, show the remote annunciator mounted either above the unit, or in its designated location. For units not mounted on top, show the Cat5e cable pulled into the control box from the remote with 64 cm (24 in.) of overpull on each end and labeled.
Any	Photos of any additional equipment or peripherals installed and expected to be used in conjunction with the control box's hardware or software of the system (gate arms, traffic lights, etc.).
Any	Show anything else that may be of help for the technician to provide an efficient commissioning and start-up service, such as barriers, obstacles, rapid elevation changes near or around the system, etc.

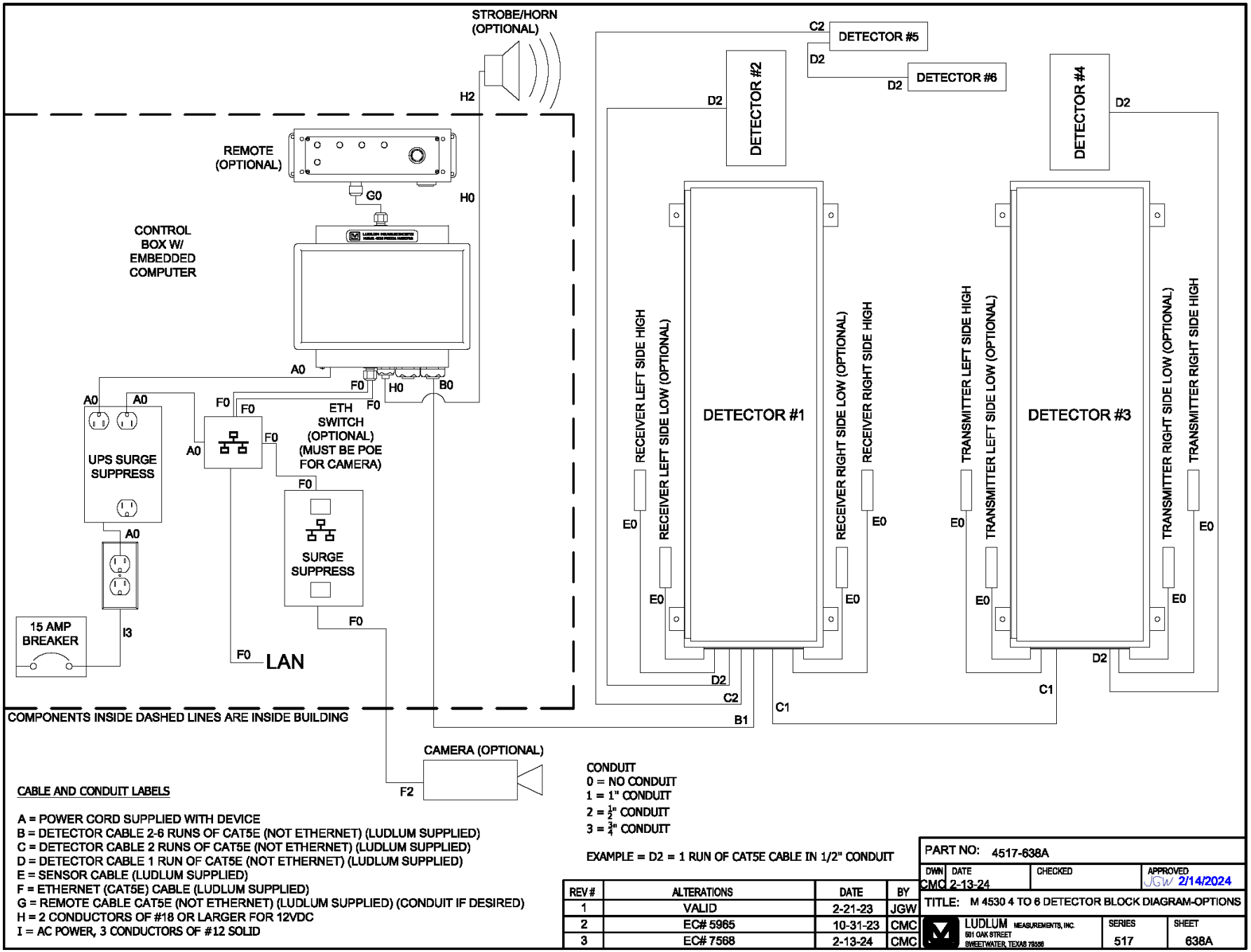
Submit via email to rsdtech@ludlums.com. Files must be compressed into a single zip file totaling less than 20 MB.

Please note that delays due to poor validation of these requirements may incur additional charges at the time of service. For questions, comments, or concerns, send us an email or give us a call.

Section 4 - Drawings & Diagrams

Drawing Title	Drawing Number
Model 4530 1 to 3 Detector Block Diagram-Options	517x638
Model 4530 4 to 6 Detector Block Diagram-Options	517x638A
Model 4530 Series Detector Diagram 1 Det	517x646
Model 4530 Series Detector Diagram 2-3 Det	517x646A
Model 4530 Series Detector Diagram 4-6 Det	517x646B
Model 4530 Series Detector Diagram Options	517x646C
Model 4530-4200/7000 ISO View	517x550
Model 4530-4200/7000 Det Elevation	517x550A
Model 4530-4200/7000 Aerial View	517x550B
Model 4530-4200/7000 Concrete Plan	517x550C
Model 4530-4200/7000 Stand	517x550D
Model 4530-6300/10500 Typ. Install	517x641
Model 4530-6300/10500 Det Elevation	517x641A
Model 4530-6300/10500 Aerial View	517x641B
Model 4530-6300/10500 Concrete Plan	517x641C
Model 4530-8400/14000 Horizontal ISO View	517x655
Model 4530-8400/14000 Horizontal Det Elevation	517x655A
Model 4530-8400/14000 Horizontal Aerial View	517x655B
Model 4530-8400/14000 Horizontal Concrete Plan	517x655C
Model 4530-8400/14000 Vertical ISO View	517x562
Model 4530-8400/14000 Vertical Det Elevation	517x562A
Model 4530-8400/14000 Vertical Lower Stand	517x562B
Model 4530-8400/14000 Vertical Upper Stand	517x562C
Model 4525 Anchor Bolt & Concrete	511x836
Model 4530 Conduit Template Guide	517x678
Anchor Bolt Template (applies to 4530-4200, -7000, -8400, -14000)	511x461
Anchor Bolt Template (applies to 4530-6300 and 4530-105000)	511x449
Anchor Bolt Template	384x882
Model 4530 Control Box Assembly	517x553
Model 4530 Remote Assembly	517x637
Model 4530 Remote Top Mount	517x637A
Model 4530 Remote Wall Mount	517x637B


STROBE/HORN
(OPTIONAL)
H2
REMOTE
(OPTIONAL)
G0
H0
CONTROL
BOX W/
EMBEDDED
COMPUTER
A0
F0
H0
B0
ETH
SWITCH
(OPTIONAL)
(MUST BE POE
FOR CAMERA)
UPS SURGE
SUPPRESS
SURGE
SUPPRESS
15 AMP
BREAKER
I3
LAN
CAMERA (OPTIONAL)
F2
COMPONENTS INSIDE DASHED LINES ARE INSIDE BUILDING
DETECTOR #3
D2
DETECTOR #1
DETECTOR #2
RECEIVER LEFT SIDE HIGH
RECEIVER LEFT SIDE LOW (OPTIONAL)
RECEIVER RIGHT SIDE LOW (OPTIONAL)
RECEIVER RIGHT SIDE HIGH
TRANSMITTER LEFT SIDE HIGH
TRANSMITTER LEFT SIDE LOW (OPTIONAL)
TRANSMITTER RIGHT SIDE LOW (OPTIONAL)
TRANSMITTER RIGHT SIDE HIGH
E0
B1
C1
CONDUIT
0 = NO CONDUIT
1 = 1" CONDUIT
2 = 1/2" CONDUIT
3 = 3/4" CONDUIT
EXAMPLE = D2 = 1 RUN OF CAT5E CABLE IN 1/2" CONDUIT
CABLE AND CONDUIT LABELS
A = POWER CORD SUPPLIED WITH DEVICE
B = DETECTOR CABLE 2-6 RUNS OF CAT5E (NOT ETHERNET) (LUDLUM SUPPLIED)
C = DETECTOR CABLE 2 RUNS OF CAT5E (NOT ETHERNET) (LUDLUM SUPPLIED)
D = DETECTOR CABLE 1 RUN OF CAT5E (NOT ETHERNET) (LUDLUM SUPPLIED)
E = SENSOR CABLE (LUDLUM SUPPLIED)
F = ETHERNET (CAT5E) CABLE (LUDLUM SUPPLIED)
G = REMOTE CABLE CAT5E (NOT ETHERNET) (LUDLUM SUPPLIED) (CONDUIT IF DESIRED)
H = 2 CONDUCTORS OF #18 OR LARGER FOR 12VDC
I = AC POWER, 3 CONDUCTORS OF #12 SOLID
REV# | ALTERATIONS | DATE | BY
1 | VALID | 2-21-23 | JGW
2 | EC# 5965 | 10-31-23 | CMC
3 | EC# 7568 | 2-13-24 | CMC
PART NO: 4517-638
DWN CMC DATE 2-13-24 CHECKED APPROVED JGW 2/14/2024
TITLE: M 4530 1 TO 3 DETECTOR BLOCK DIAGRAM-OPTIONS
LUDLUM MEASUREMENTS, INC.
501 OAK STREET
SWEETWATER, TEXAS 79556
SERIES 517
SHEET 638



CABLE AND CONDUIT LABELS

A = POWER CORD SUPPLIED WITH DEVICE
B = DETECTOR CABLE 2-6 RUNS OF CAT5E (NOT ETHERNET) (LUDLUM SUPPLIED)
C = DETECTOR CABLE 2 RUNS OF CAT5E (NOT ETHERNET) (LUDLUM SUPPLIED)
D = DETECTOR CABLE 1 RUN OF CAT5E (NOT ETHERNET) (LUDLUM SUPPLIED)
E = SENSOR CABLE (LUDLUM SUPPLIED)
F = ETHERNET (CAT5E) CABLE (LUDLUM SUPPLIED)
G = REMOTE CABLE CAT5E (NOT ETHERNET) (LUDLUM SUPPLIED) (CONDUIT IF DESIRED)
H = 2 CONDUCTORS OF #18 OR LARGER FOR 12VDC
I = AC POWER, 3 CONDUCTORS OF #12 SOLID

CONDUIT
0 = NO CONDUIT
1 = 1" CONDUIT
2 = ½" CONDUIT
3 = ¾" CONDUIT

EXAMPLE = D2 = 1 RUN OF CAT5E CABLE IN 1/2" CONDUIT

REV #	ALTERATIONS	DATE	BY
1	VALID	2-21-23	JGW
2	EC# 5965	10-31-23	CMC
3	EC# 7568	2-13-24	CMC

PART NO: 4517-638A

DWN	DATE	CHECKED	APPROVED
CMC	2-13-24		JGW 2/14/2024

TITLE: M 4530 4 TO 6 DETECTOR BLOCK DIAGRAM-OPTIONS

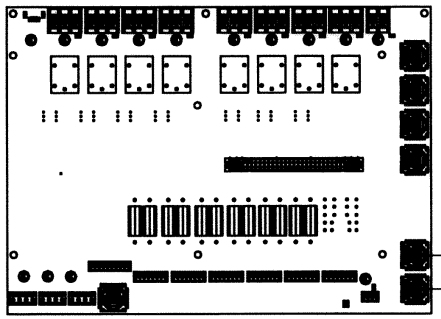
LUDLUM MEASUREMENTS, INC.
501 OAK STREET
SWEETWATER, TEXAS 79556

SERIES	SHEET
517	638A

REV #	ALTERATIONS	DATE	BY
1	VALID	01/12/23	ABM

ONE DETECTOR SYSTEM

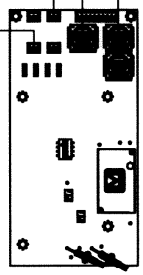
P/N: 5558-528



(OPTIONAL) REFLECTIVE SENSOR

(OPTIONAL) REFLECTIVE SENSOR

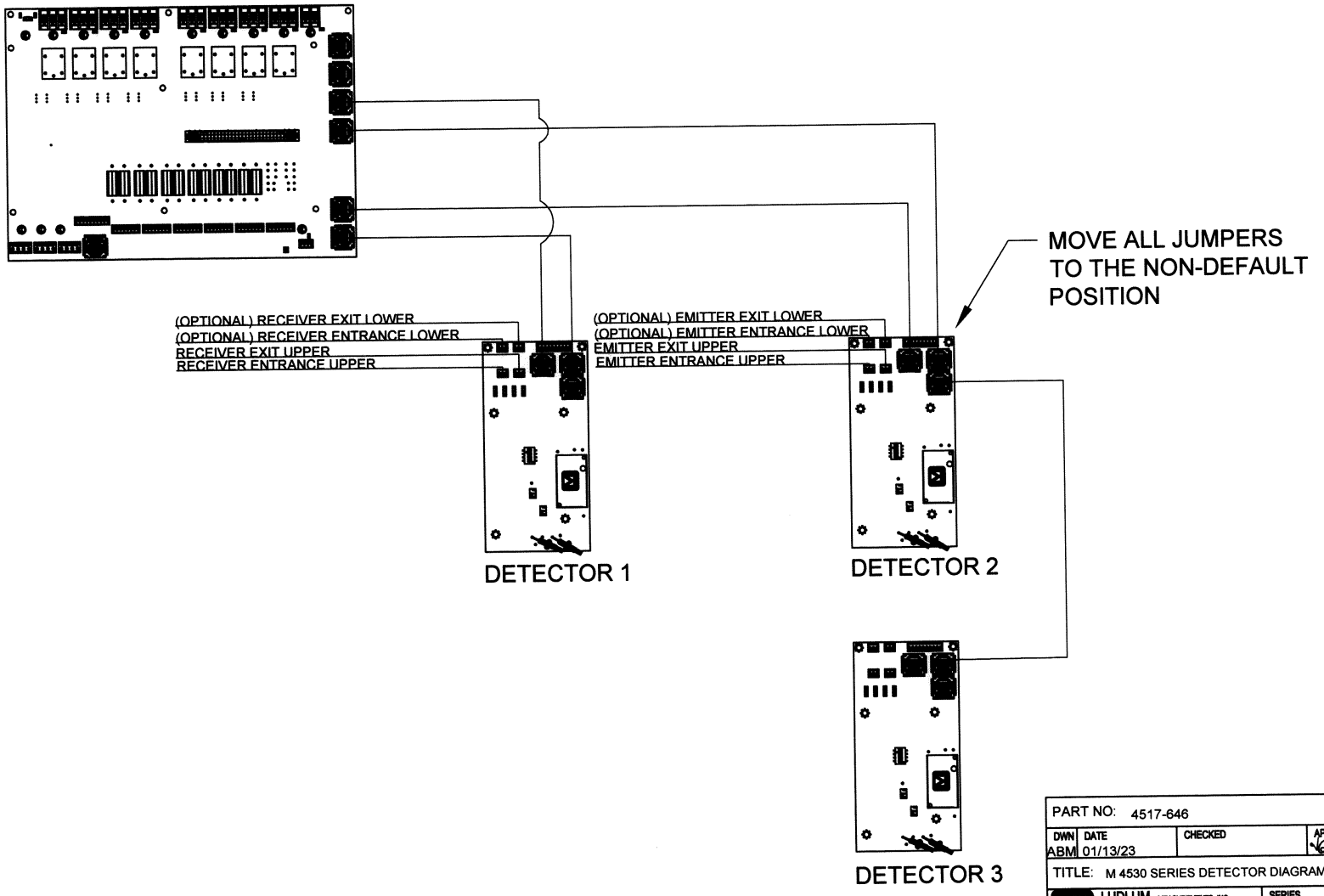
DETECTOR 1
(5558-575)



PART NO: 4517-646			
DWN: ROH	DATE: 01/23/23	CHECKED:	APPROVED: JGW 1-23-23
TITLE: M 4530 SERIES DETECTOR DIAGRAM			
LUDLUM MEASUREMENTS, INC. 501 OAK STREET SWEETWATER, TEXAS 79556		SERIES: 517	SHEET: 646

REV #	ALTERATIONS	DATE	BY
1	VALID	01/12/23	ABM

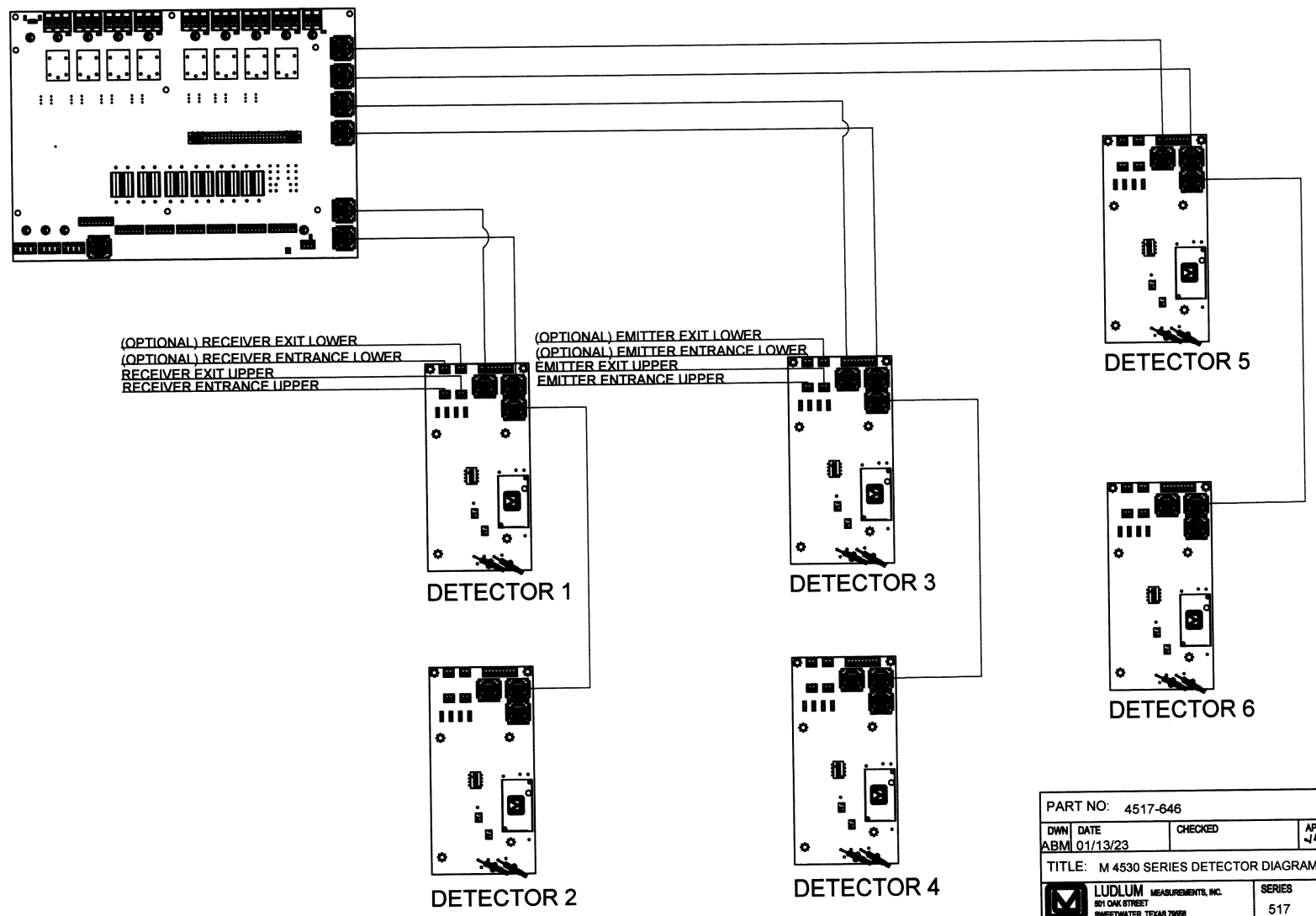
TWO OR THREE DETECTOR SYSTEM



PART NO: 4517-646			
DWN: ABM	DATE: 01/13/23	CHECKED:	APPROVED: KW 1-13-23
TITLE: M 4530 SERIES DETECTOR DIAGRAM			
LUDLUM MEASUREMENTS, INC. 501 OAK STREET SWEETWATER, TEXAS 79556		SERIES: 517	SHEET: 646A

REV #	ALTERATIONS	DATE	BY
1	VALID	01/12/23	ABM

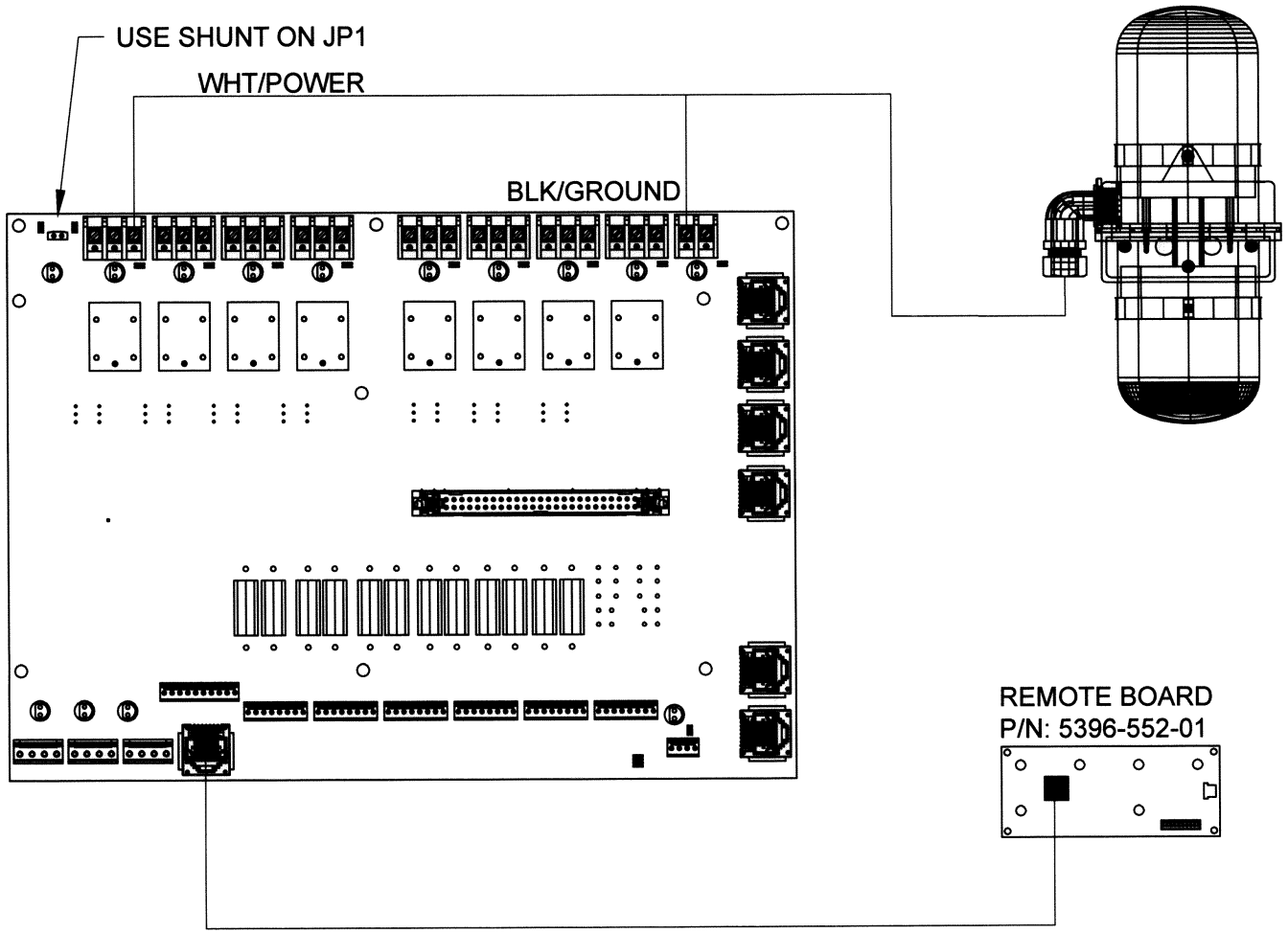
FOUR, FIVE, OR SIX DETECTOR SYSTEM



PART NO: 4517-646			
DWN ABM	DATE 01/13/23	CHECKED	APPROVED 1-13-23
TITLE: M 4530 SERIES DETECTOR DIAGRAM			
LUDLUM MEASUREMENTS, INC. 501 OAK STREET SWEETWATER, TEXAS 79556		SERIES 517	SHEET 646B

REV #	ALTERATIONS	DATE	BY
1	VALID	01/12/23	ABM

OPTIONS



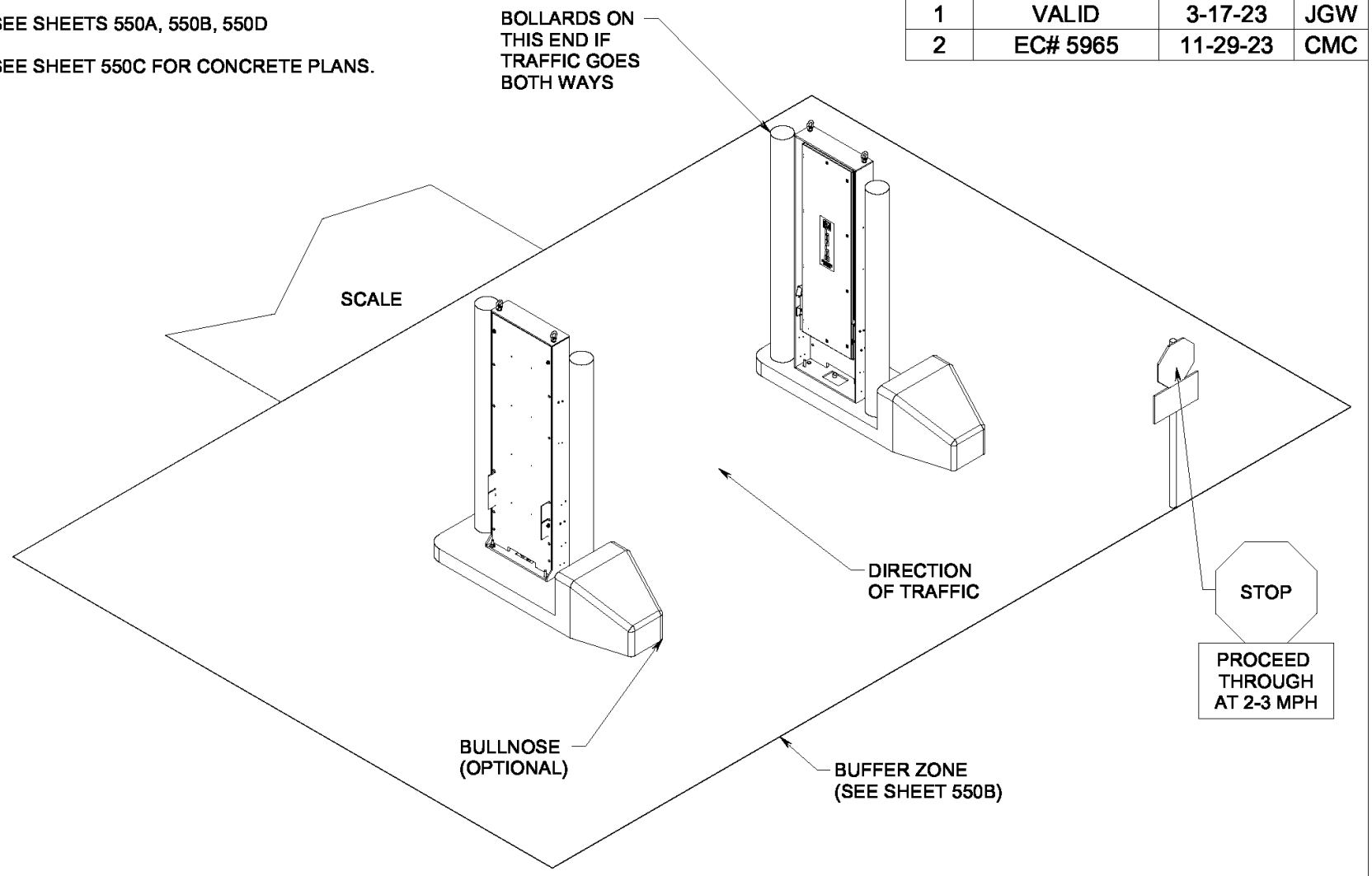
PART NO: 4517-646			
DWN: ABM	DATE: 06/26/23	CHECKED:	APPROVED: JBW 6-26-23
TITLE: M 4530 SERIES DETECTOR DIAGRAM			
LUDLUM MEASUREMENTS, INC. 501 OAK STREET SWEETWATER, TEXAS 79556		SERIES: 517	SHEET: 646C

ALL DIMENSIONS ARE SUBJECT TO CHANGE DEPENDING ON SITE REQUIREMENTS

SEE SHEETS 550A, 550B, 550D

SEE SHEET 550C FOR CONCRETE PLANS.

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	3-17-23	JGW
2	EC# 5965	11-29-23	CMC



DWN	DATE	DESIGN AUTHORITY	APP	DATE
CMC	11-29-23	JGWITT	JGW	12/21/2023

DWG NUM: 4517-550 | SCALE: -

TITLE: M 4530-4200/7000 ISO VIEW

LUDLUM MEASUREMENTS, INC.
501 OAK STREET
SWEETWATER, TEXAS 79556

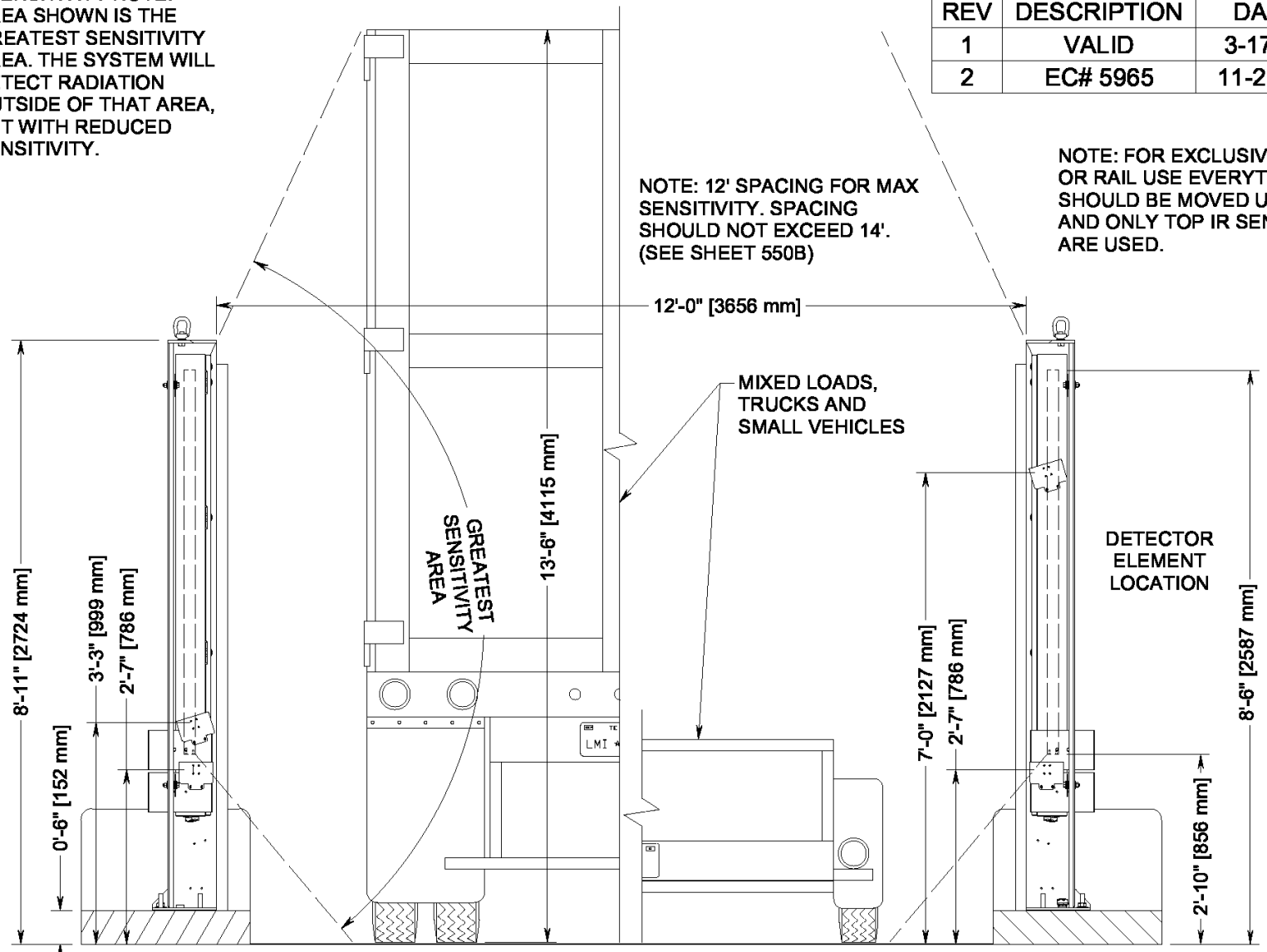
SERIES	SHEET
517	550

* SENSITIVITY NOTE:
AREA SHOWN IS THE GREATEST SENSITIVITY AREA. THE SYSTEM WILL DETECT RADIATION OUTSIDE OF THAT AREA, BUT WITH REDUCED SENSITIVITY.

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	3-17-23	JGW
2	EC# 5965	11-29-23	CMC

NOTE: 12' SPACING FOR MAX SENSITIVITY. SPACING SHOULD NOT EXCEED 14'. (SEE SHEET 550B)

NOTE: FOR EXCLUSIVE TRUCK OR RAIL USE EVERYTHING SHOULD BE MOVED UP BY 18" AND ONLY TOP IR SENSORS ARE USED.



ALL DIMENSIONS ARE SUBJECT TO CHANGE DEPENDING ON SITE REQUIREMENTS

SEE SHEETS 550, 550B, 550D. SEE SHEET 550C FOR CONCRETE PLANS.

DWN	DATE	DESIGN AUTHORITY	APP	DATE
CMC	11-29-23	JGWITT	JGW	12/21/2023

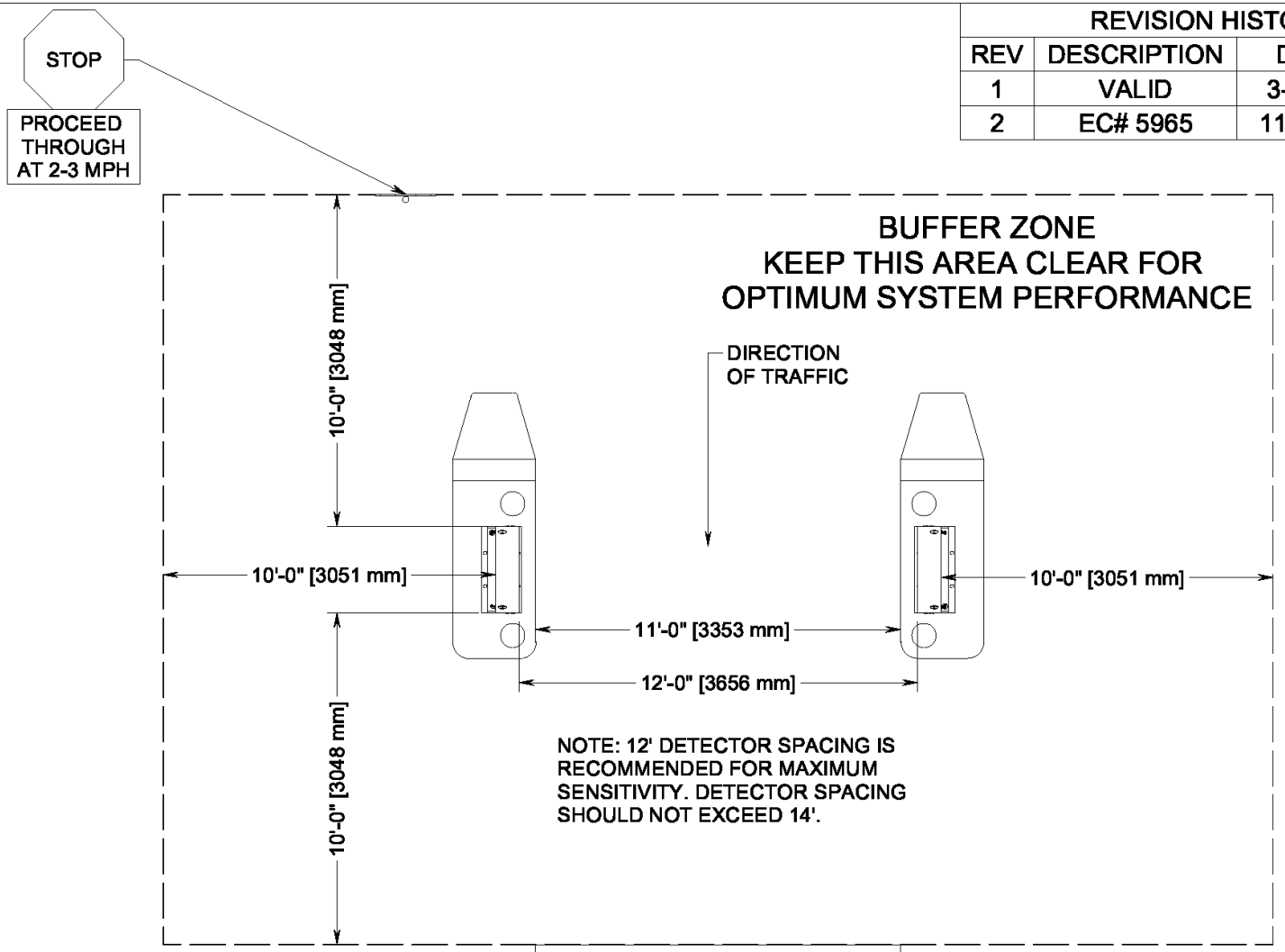
DWG NUM:4517-550 SCALE:-

TITLE:M 4530-4200/7000 DET ELEVATION

LUDLUM MEASUREMENTS, INC. 601 OAK STREET SWEETWATER, TEXAS 79556

SERIES 517 SHEET 550A

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	3-17-23	JGW
2	EC# 5965	11-29-23	CMC



ALL DIMENSIONS ARE SUBJECT TO CHANGE DEPENDING ON SITE REQUIREMENTS

SEE SHEETS 550, 550A, 550D

SEE SHEET 550C FOR CONCRETE PLANS.

THIS DRAWING ALSO APPLICABLE TO M 4530-8400/14000 VERTICAL.

SCALE

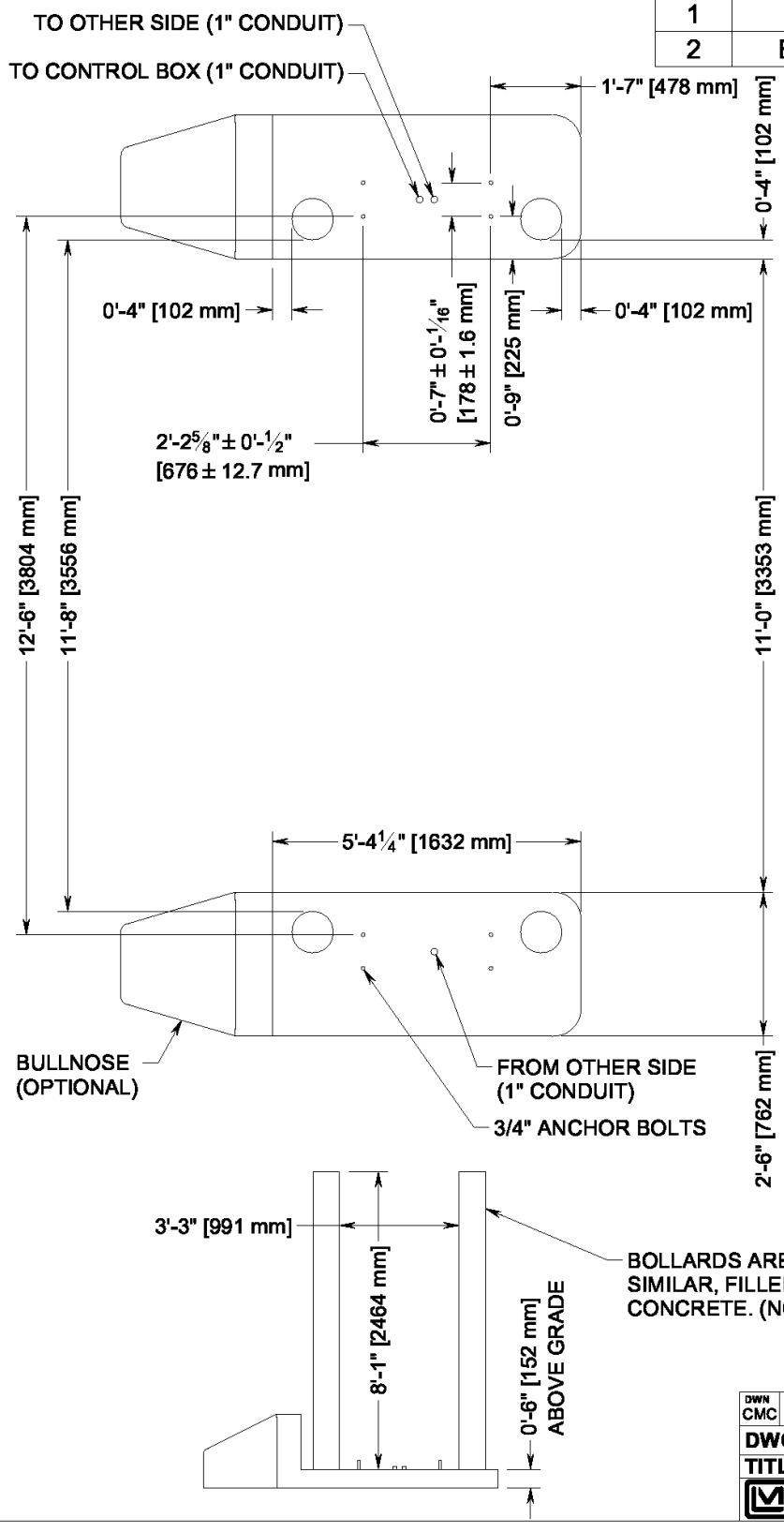
DWN	DATE	DESIGN AUTHORITY	APP	DATE
CMC	11-29-23	JGWITT	JGW	12/21/2023

DWG NUM: 4517-550 | SCALE: -

TITLE: M 4530-4200/7000 AERIAL VIEW

LUDLUM MEASUREMENTS, INC. 501 OAK STREET SWEETWATER, TEXAS 79556 | SERIES 517 | SHEET 550B

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	3-17-23	JGW
2	EC# 5965	11-29-23	CMC



THIS DRAWING ALSO APPLICABLE TO M 4530-8400/14000 VERTICAL.

CONDUIT LAYOUT CAN BE SWAPPED. PAD WITH TWO CONDUITS GOES TO SCALE HOUSE SIDE

SEE SHEETS 550, 550A, 550B, 550D

SEE SHEET 511X836(A) FOR CONCRETE AND ANCHOR BOLT DETAILS. TEMPLATE AVAILABLE, P/N 7511-461-01.

ALL DIMENSIONS ARE SUBJECT TO CHANGE DEPENDING ON SITE REQUIREMENTS.

NOTE: FOR EXCLUSIVE TRUCK OR RAIL USE, EVERYTHING SHOULD BE MOVED UP BY 18" AND ONLY TOP IR SENSORS USED.

DWN	DATE	DESIGN AUTHORITY	APP	DATE
CMC	11-29-23	JGWITT	JGW	12/21/2023

DWG NUM: 4517-550 SCALE: -

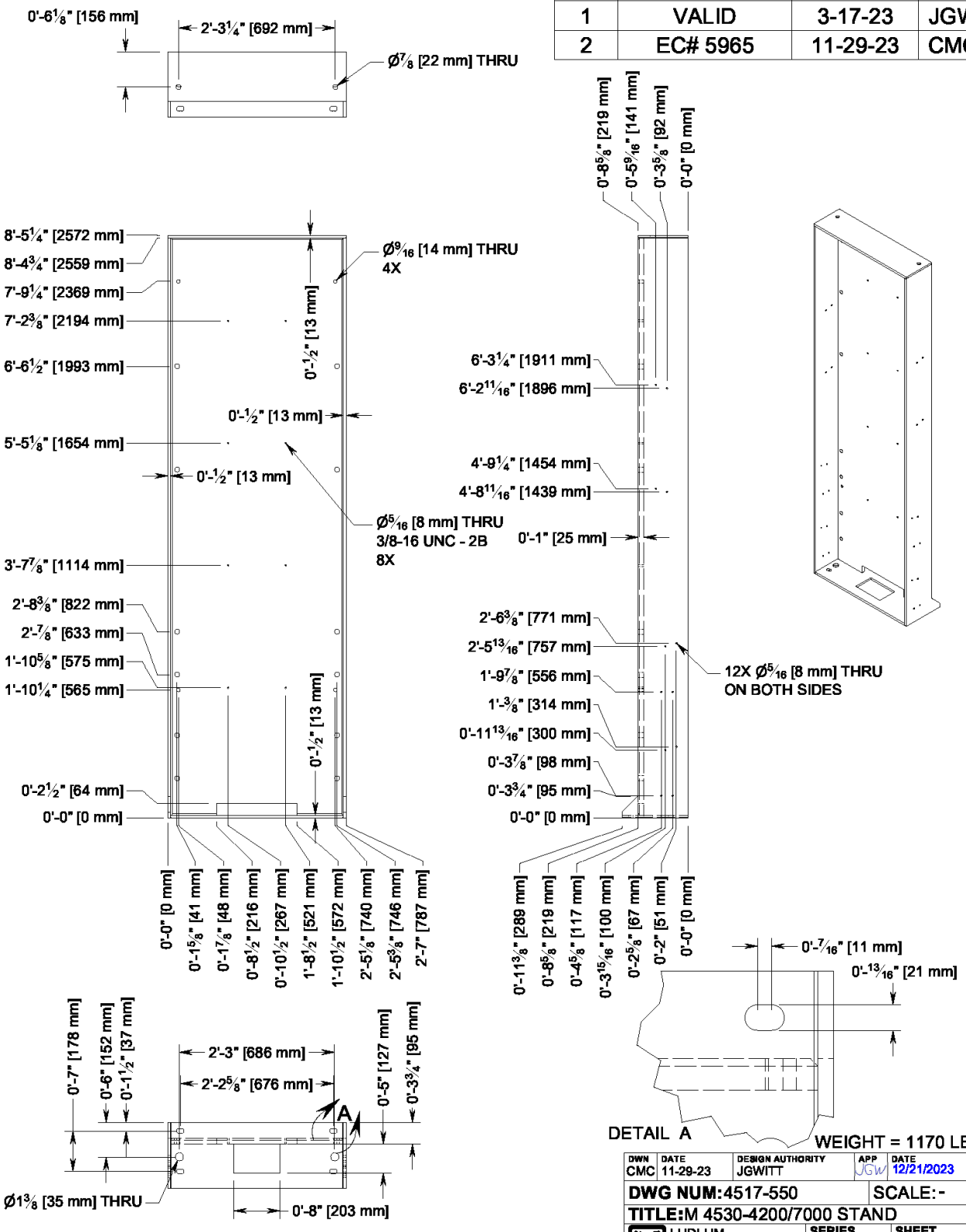
TITLE: M 4530-4200/7000 CONCRETE PLAN

LUDLUM MEASUREMENTS, INC. 501 OAK STREET SWEETWATER, TEXAS 79556

SERIES 517

SHEET 550C

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	3-17-23	JGW
2	EC# 5965	11-29-23	CMC



WEIGHT = 1170 LBS

DWN	DATE	DESIGN AUTHORITY	APP	DATE
CMC	11-29-23	JGWITT	JGW	12/21/2023

DWG NUM: 4517-550 | SCALE: -

TITLE: M 4530-4200/7000 STAND

LUDLUM MEASUREMENTS, INC.
601 OAK STREET
SWEETWATER, TEXAS 79556

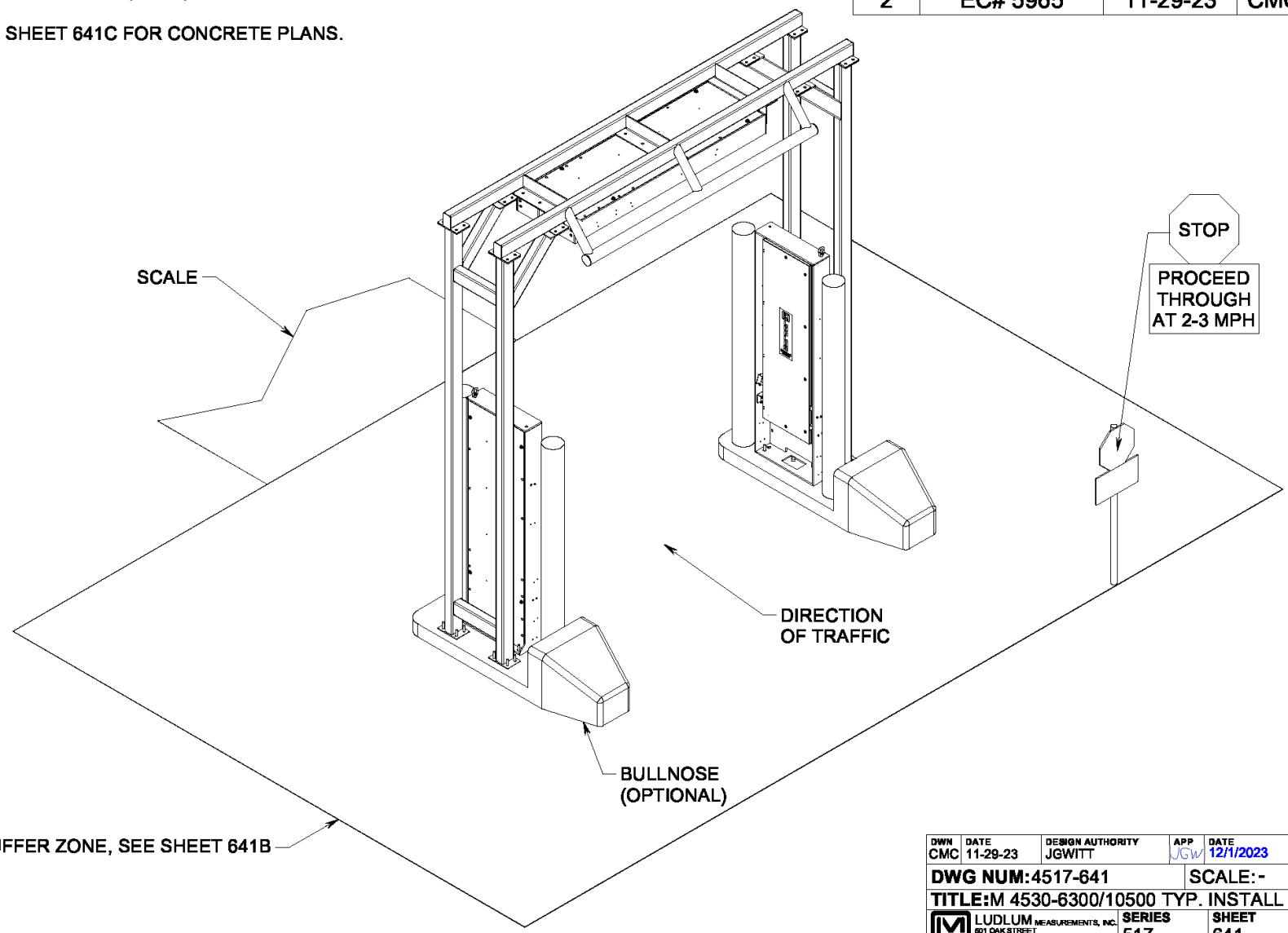
SERIES	SHEET
517	550D

ALL DIMENSIONS ARE SUBJECT TO CHANGE DEPENDING ON SIDE REQUIREMENTS.

SEE SHEETS 641A, 641B, 550D

SEE SHEET 641C FOR CONCRETE PLANS.

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	3-20-23	JGW
2	EC# 5965	11-29-23	CMC



DWN	DATE	DESIGN AUTHORITY	APP	DATE
CMC	11-29-23	JGWITT	JGW	12/1/2023

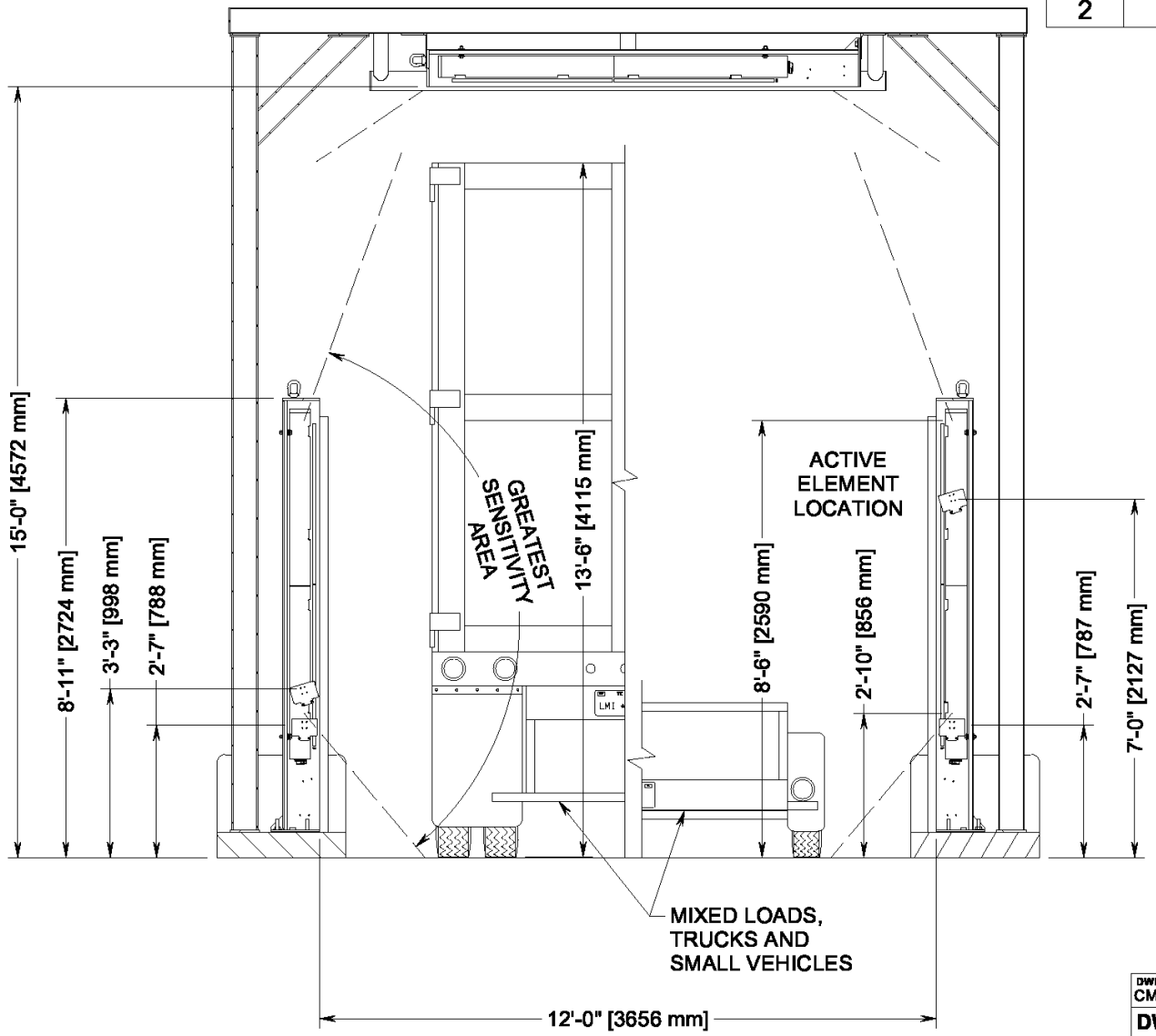
DWG NUM: 4517-641 | SCALE: -

TITLE: M 4530-6300/10500 TYP. INSTALL

LUDLUM MEASUREMENTS, INC.
501 OAK STREET
SWEETWATER, TEXAS 79556

SERIES	SHEET
517	641

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	3-20-23	JGW
2	EC# 5965	11-29-23	CMC



NOTE: FOR EXCLUSIVE TRUCK OR RAIL USE, EVERYTHING SHOULD BE MOVED UP BY 18" AND ONLY TOP IR SENSORS ARE USED.

ALL DIMENSIONS ARE SUBJECT TO CHANGE DEPENDING ON SITE REQUIREMENTS.

SEE SHEETS 641, 641B, 550D

SEE SHEET 641C FOR CONCRETE PLANS.

NOTE: 12' SPACING FOR MAX SENSITIVITY. SPACING SHOULD NOT EXCEED 14'. (SEE SHEET 641B)

DWN	DATE	DESIGN AUTHORITY	APP	DATE
CMC	11-29-23	JGWITT	JGW	12/1/2023

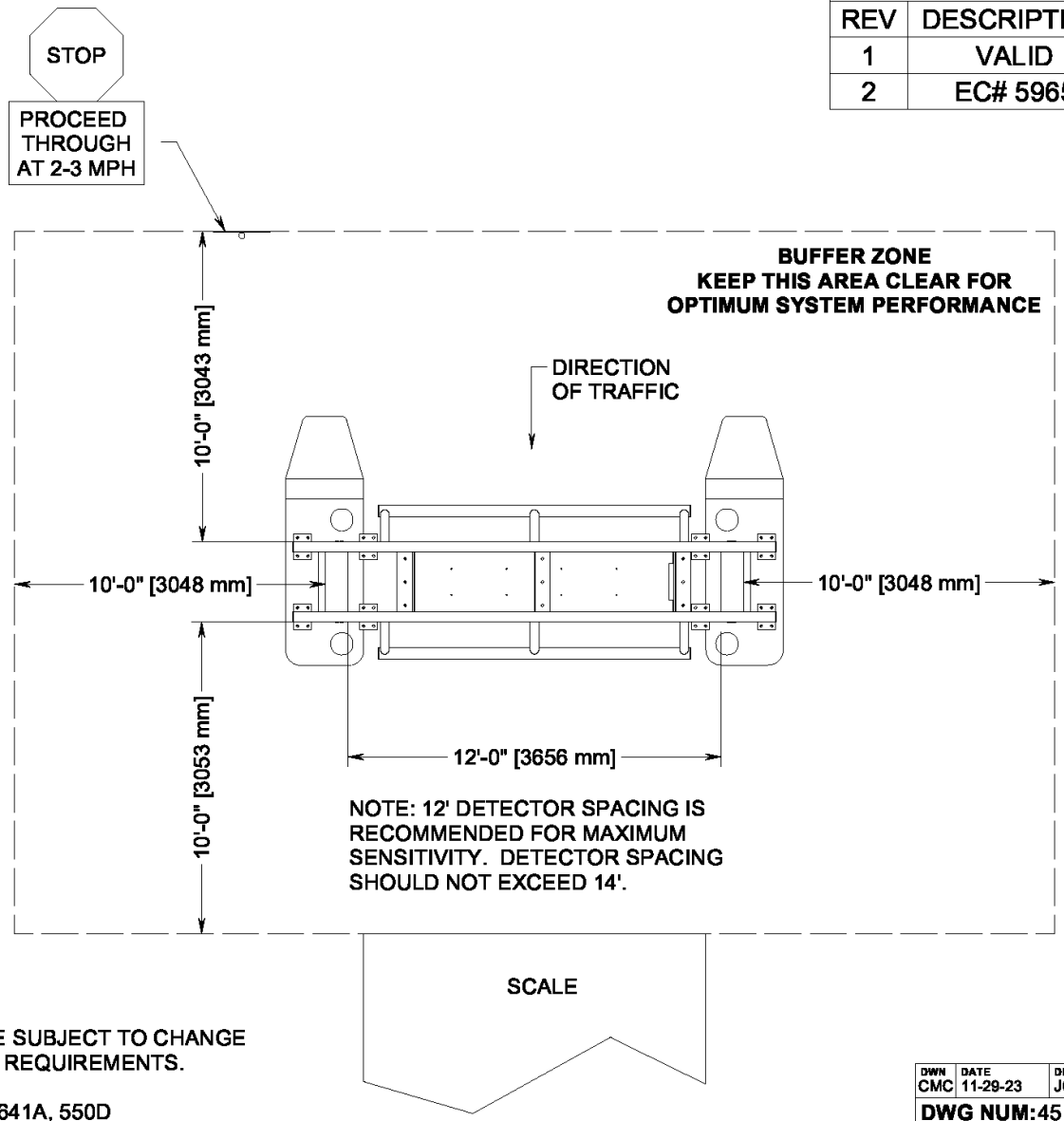
DWG NUM:4517-641 SCALE:-

TITLE:M 4530-6300/10500 DET ELEV

LUDLUM MEASUREMENTS, INC. 501 OAK STREET SWEETWATER, TEXAS 79556

SERIES 517 **SHEET** 641A

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	3-20-23	JGW
2	EC# 5965	11-29-23	CMC



ALL DIMENSIONS ARE SUBJECT TO CHANGE DEPENDING ON SIDE REQUIREMENTS.

SEE DRAWINGS 641, 641A, 550D

SEE SHEET 641C FOR THE CONCRETE PLANS.

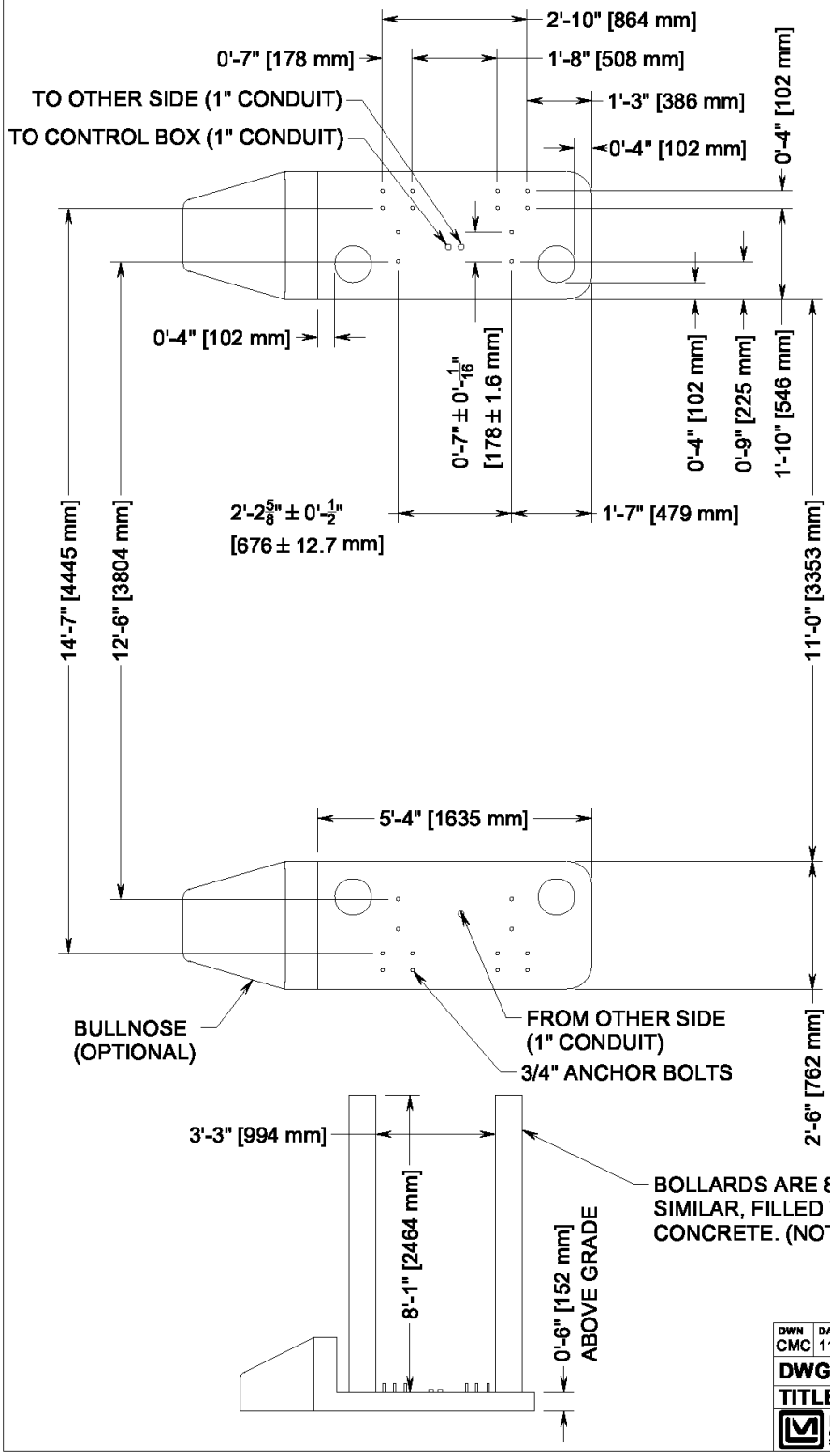
DWN	DATE	DESIGN AUTHORITY	APP	DATE
CMC	11-29-23	JGWITT	JGW	12/1/2023

DWG NUM:4517-641 | SCALE:-

TITLE:M 4530-6300/10500 AERIAL VIEW

LUDLUM MEASUREMENTS, INC. 501 OAK STREET SWEETWATER, TEXAS 79556 | SERIES 517 | SHEET 641B

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	3-20-23	JGW
2	EC# 5965	11-29-23	CMC



CONDUIT LAYOUT CAN BE SWAPPED. PAD WITH TWO CONDUITS GOES TO SCALE HOUSE SIDE

SEE SHEETS 641, 641A, 641B, 550D

SEE SHEET 511X836(A) FOR CONCRETE AND ANCHOR BOLT DETAILS. TEMPLATE AVAILABLE, P/N 7511-449-01.

ALL DIMENSIONS ARE SUBJECT TO CHANGE DEPENDING ON SITE REQUIREMENTS.

NOTE: FOR EXCLUSIVE TRUCK OR RAIL USE, EVERYTHING SHOULD BE MOVED UP BY 18" AND ONLY TOP IR SENSORS USED.

DWN	DATE	DESIGN AUTHORITY	APP	DATE
CMC	11-29-23	JGWITT	JGW	12/1/2023

DWG NUM: 4517-641 SCALE: -

TITLE: M 4530-6300/10500 CONCRETE

LUDLUM MEASUREMENTS, INC. 501 OAK STREET SWEETWATER, TEXAS 79556

SERIES 517

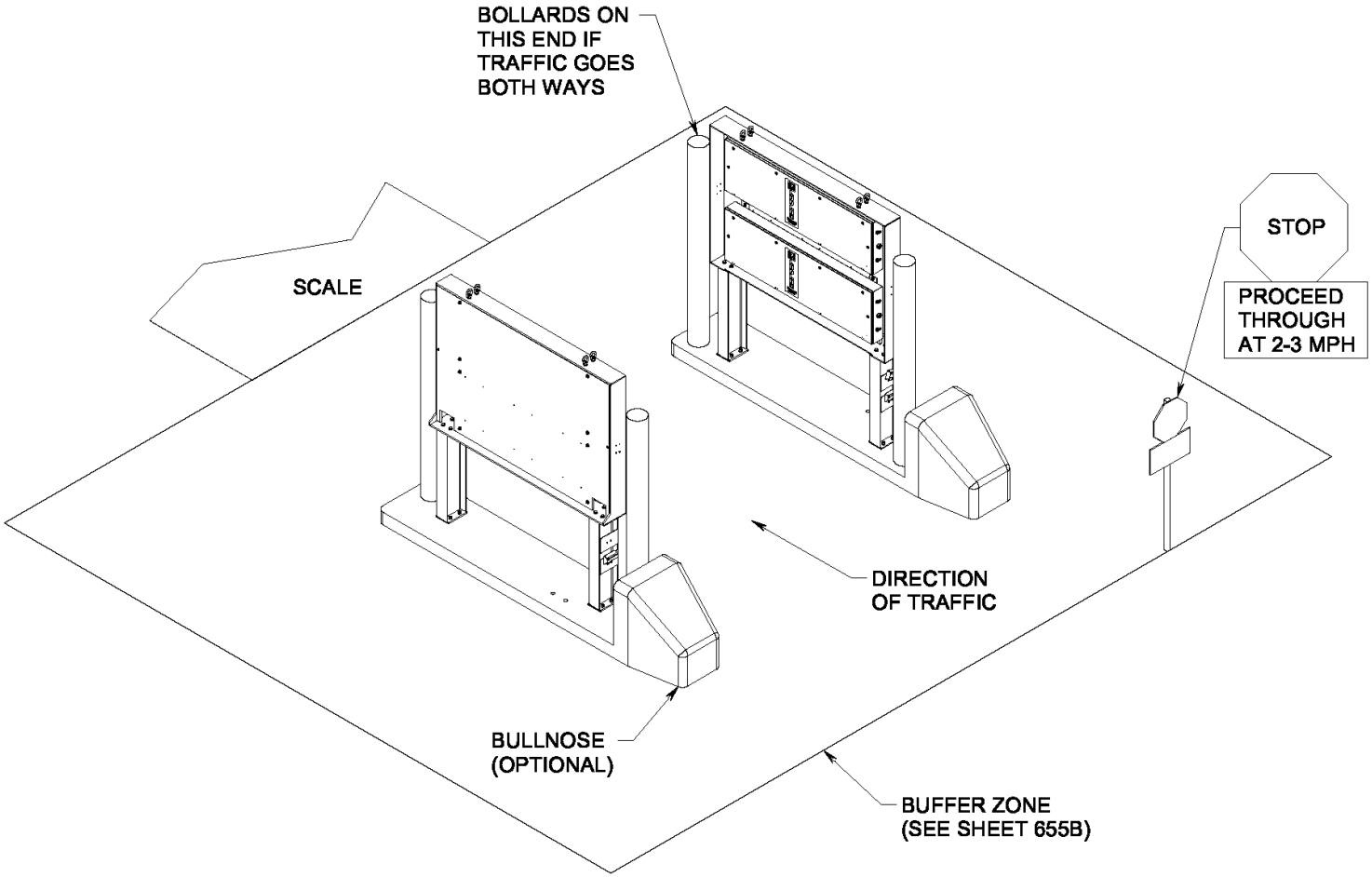
SHEET 641C

ALL DIMENSIONS ARE SUBJECT TO CHANGE
DEPENDING ON SITE REQUIREMENTS

SEE SHEETS 655A, 655B, 695D, 511X376D

SEE SHEET 655C FOR CONCRETE PLANS

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	04-10-23	ROH
2	EC# 5965	11-29-23	CMC



DWN	DATE	DESIGN AUTHORITY	APP	DATE
CMC	11-29-23	JGWITT	JGW	12/1/2023

DWG NUM: 4517-655 | SCALE: -

TITLE: M 4530-8400/14000 HORIZ ISO VIEW

LUDLUM MEASUREMENTS, INC.
501 OAK STREET
SWEETWATER, TEXAS 79556

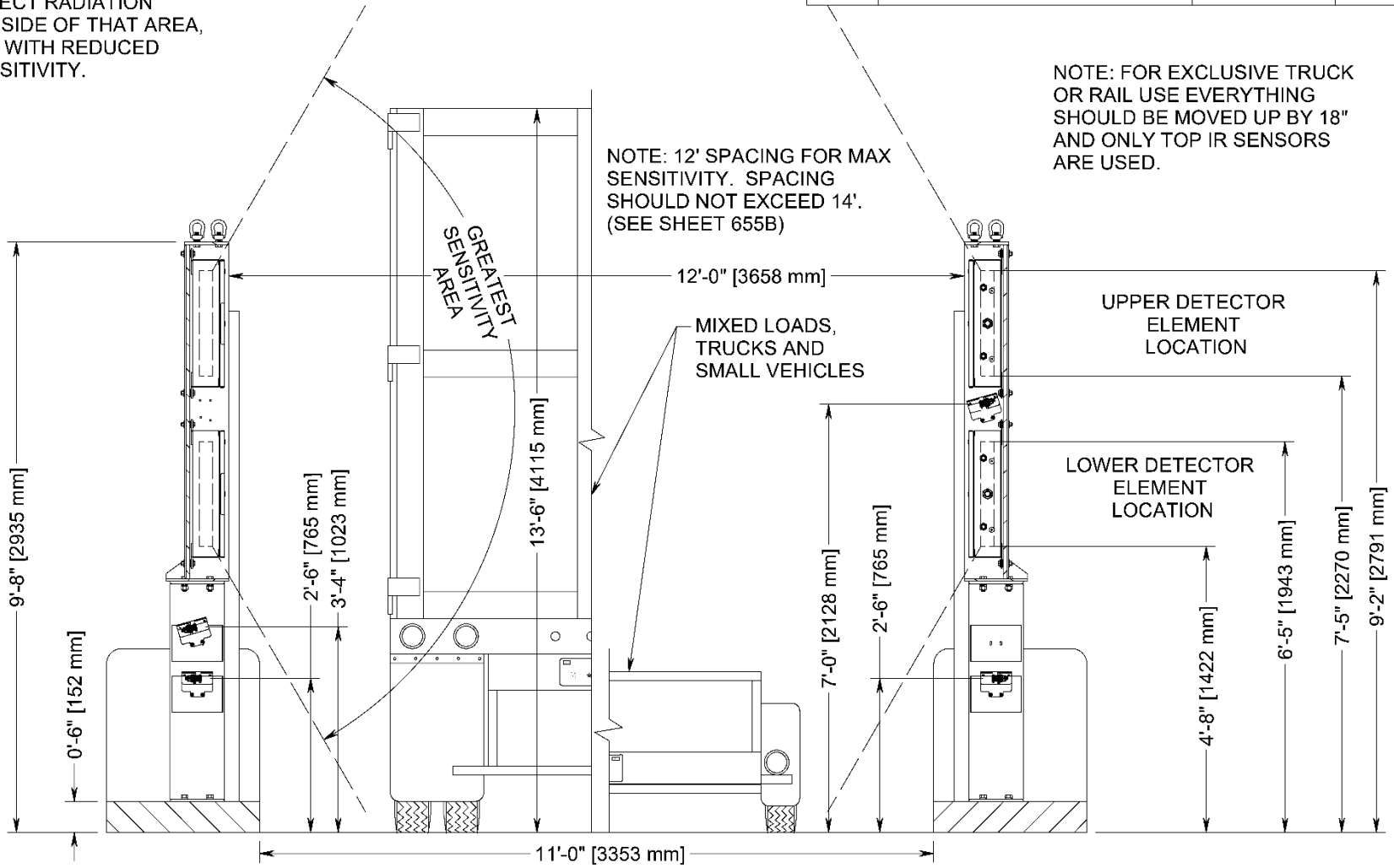
SERIES	SHEET
517	655

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	04-10-23	ROH
2	EC# 5965	11-29-23	CMC

* SENSITIVITY NOTE:
AREA SHOWN IS THE GREATEST SENSITIVITY AREA. THE SYSTEM WILL DETECT RADIATION OUTSIDE OF THAT AREA, BUT WITH REDUCED SENSITIVITY.

NOTE: FOR EXCLUSIVE TRUCK OR RAIL USE EVERYTHING SHOULD BE MOVED UP BY 18" AND ONLY TOP IR SENSORS ARE USED.

NOTE: 12' SPACING FOR MAX SENSITIVITY. SPACING SHOULD NOT EXCEED 14'. (SEE SHEET 655B)



ALL DIMENSIONS ARE SUBJECT TO CHANGE DEPENDING ON SITE REQUIREMENTS

SEE SHEETS 655, 655B, 695D, 511X376D. SEE SHEET 655C FOR CONCRETE PLANS

DWN	DATE	DESIGN AUTHORITY	APP	DATE
CMC	11-29-23	JGWITT	JGW	12/1/2023

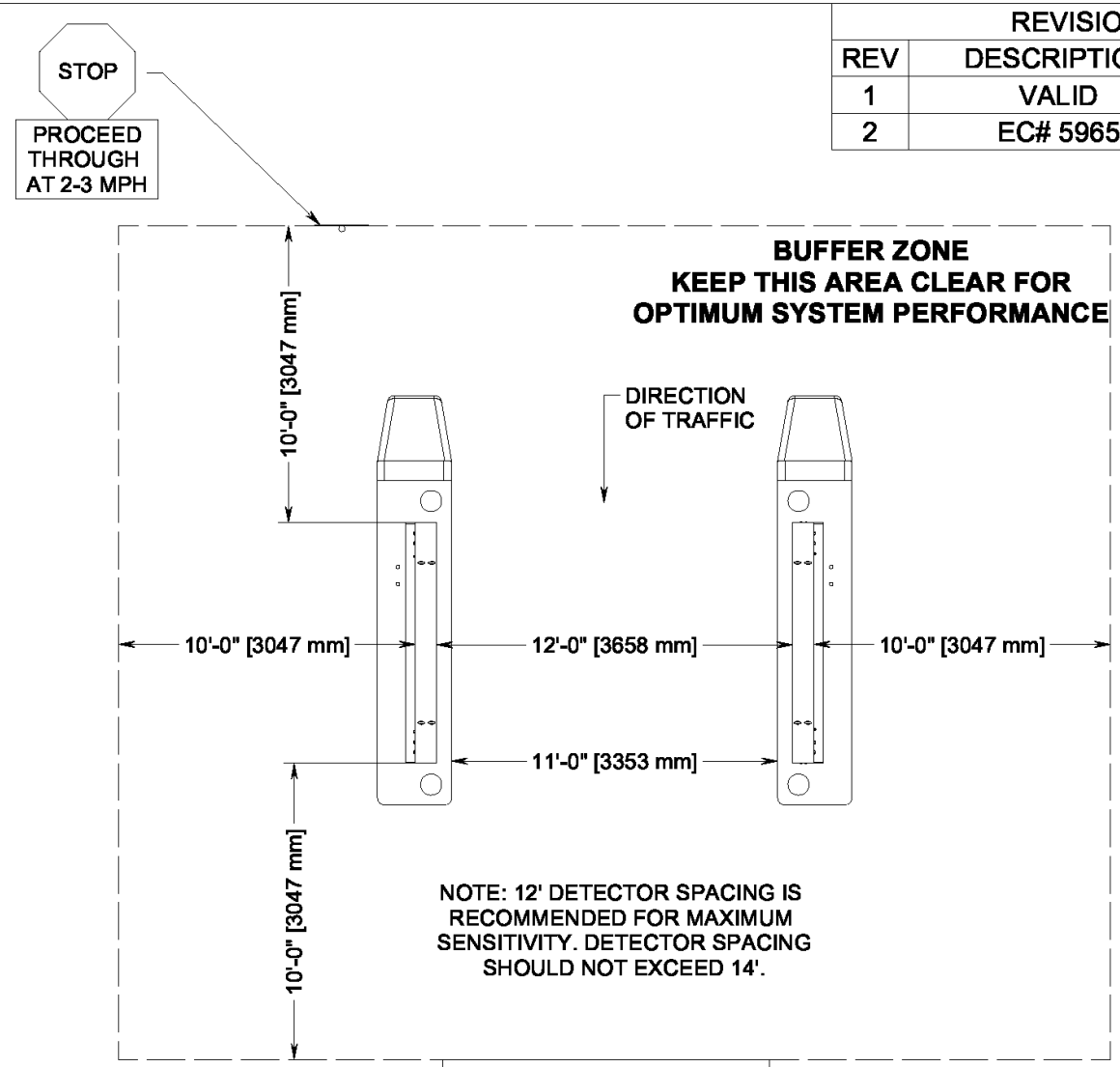
DWG NUM: 4517-655 | SCALE: -

TITLE: M 4530-8400/14000 HORIZ DET ELE

LUDLUM MEASUREMENTS, INC.
501 OAK STREET
SWEETWATER, TEXAS 79556

SERIES	SHEET
517	655A

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	04-10-23	ROH
2	EC# 5965	11-29-23	CMC



ALL DIMENSIONS ARE SUBJECT TO CHANGE DEPENDING ON SITE REQUIREMENTS

SEE SHEETS 655, 655A, 695D, 511X376D

SEE SHEET 655C FOR CONCRETE PLANS

SCALE

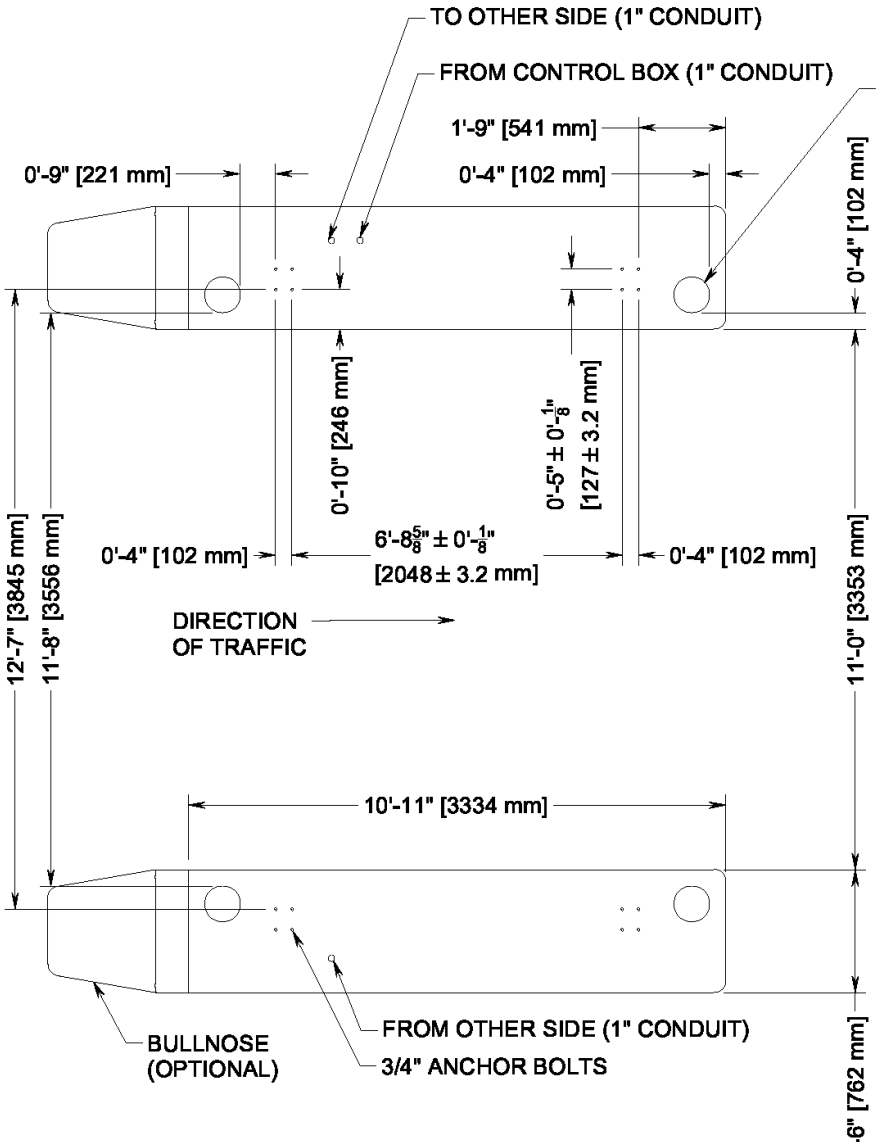
DWN	DATE	DESIGN AUTHORITY	APP	DATE
CMC	11-29-23	JGWITT	JGW	12/1/2023

DWG NUM: 4517-655 | SCALE: -

TITLE: M 4530-8400/14000 HORIZ. AERIAL

LUDLUM MEASUREMENTS, INC. 501 OAK STREET SWEETWATER, TEXAS 79556 | SERIES 517 | SHEET 655B

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	04-10-23	ROH
2	EC# 5965	11-29-23	CMC



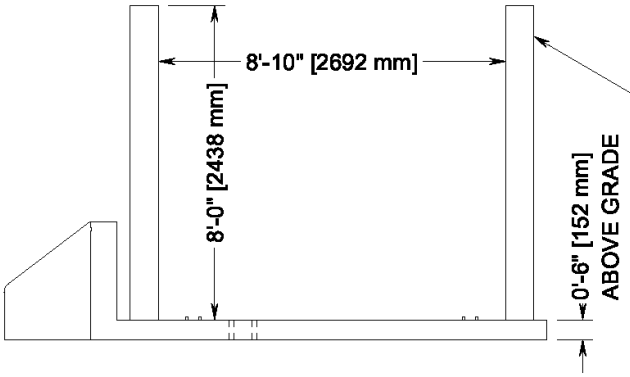
CONDUIT LAYOUT CAN BE SWAPPED. PAD WITH TWO CONDUITS GOES TO SCALE HOUSE SIDE

SEE SHEETS 655, 655A, 655B, 695D, 511X376D

SEE SHEET 511X836(A) FOR CONCRETE AND ANCHOR BOLT DETAILS.TEMPLATE AVAILABLE, P/N 7384-882-01.

ALL DIMENSIONS ARE SUBJECT TO CHANGE DEPENDING ON SITE REQUIREMENTS.

NOTE: FOR EXCLUSIVE TRUCK OR RAIL USE, EVERYTHING SHOULD BE MOVED UP BY 18" AND ONLY TOP IR SENSORS USED.



BOLLARDS ARE 8" PIPE OR SIMILAR, FILLED WITH CONCRETE. (NOT SUPPLIED)

DWN	DATE	DESIGN AUTHORITY	APP	DATE
CMC	11-29-23	JGWITT	JGW	12/1/2023

DWG NUM: 4517-655 | SCALE: -

TITLE: M 4530-8400 HORIZ.CONCR. PLAN

LUDLUM MEASUREMENTS, INC. 601 OAK STREET SWEETWATER, TEXAS 79556

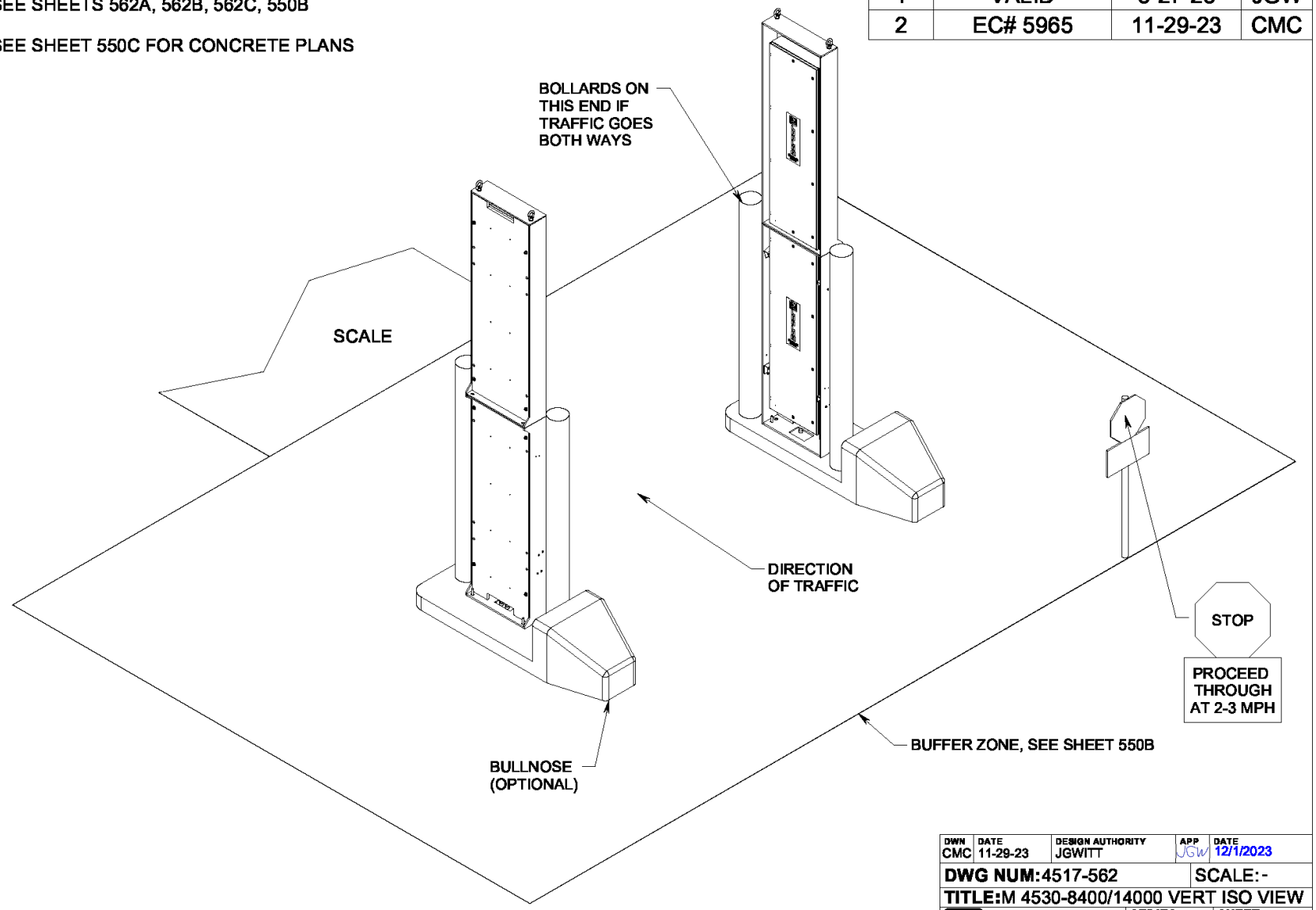
SERIES	SHEET
517	655C

ALL DIMENSIONS ARE SUBJECT TO CHANGE DEPENDING ON SITE REQUIREMENTS

SEE SHEETS 562A, 562B, 562C, 550B

SEE SHEET 550C FOR CONCRETE PLANS

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	3-27-23	JGW
2	EC# 5965	11-29-23	CMC



DWN	DATE	DESIGN AUTHORITY	APP	DATE
CMC	11-29-23	JGWITT	JGW	12/1/2023

DWG NUM: 4517-562 | SCALE:-

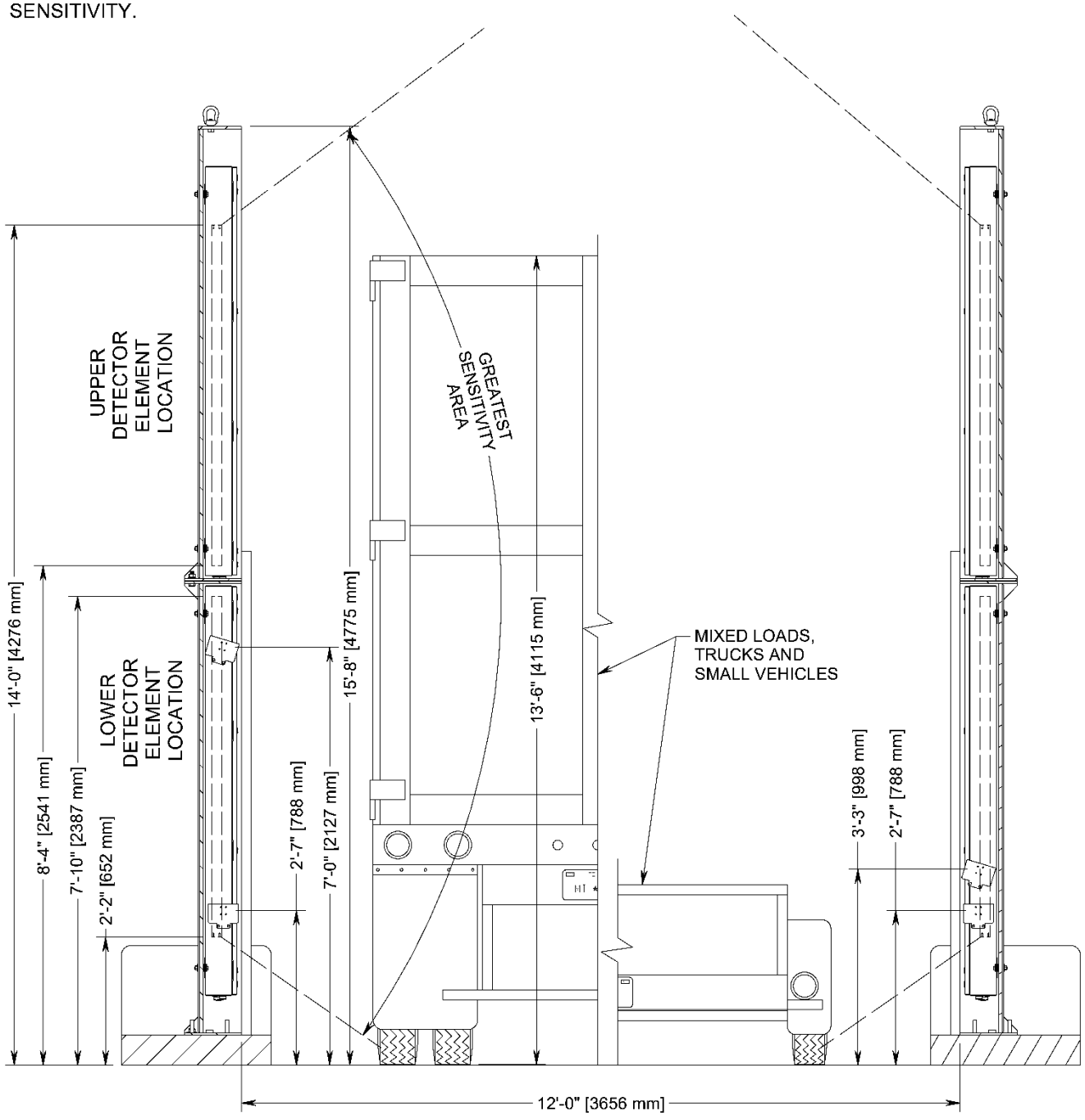
TITLE: M 4530-8400/14000 VERT ISO VIEW

LUDLUM MEASUREMENTS, INC.
501 OAK STREET
SWEETWATER, TEXAS 79556

SERIES	SHEET
517	562

* SENSITIVITY NOTE:
AREA SHOWN IS THE GREATEST SENSITIVITY AREA. THE SYSTEM WILL DETECT RADIATION OUTSIDE OF THAT AREA, BUT WITH REDUCED SENSITIVITY.

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	3-27-23	JGW
2	EC# 5965	11-29-23	CMC



ALL DIMENSIONS ARE SUBJECT TO CHANGE DEPENDING ON SITE REQUIREMENTS

SEE SHEETS 562, 562B, 562C, 550B

SEE 550C FOR CONCRETE PLANS

NOTE: 12' SPACING FOR MAX SENSITIVITY. SPACING SHOULD NOT EXCEED 14'. (SEE SHEET 550B)

DWN	DATE	DESIGN AUTHORITY	APP	DATE
CMC	11-29-23	JGWITT	JGW	12/1/2023

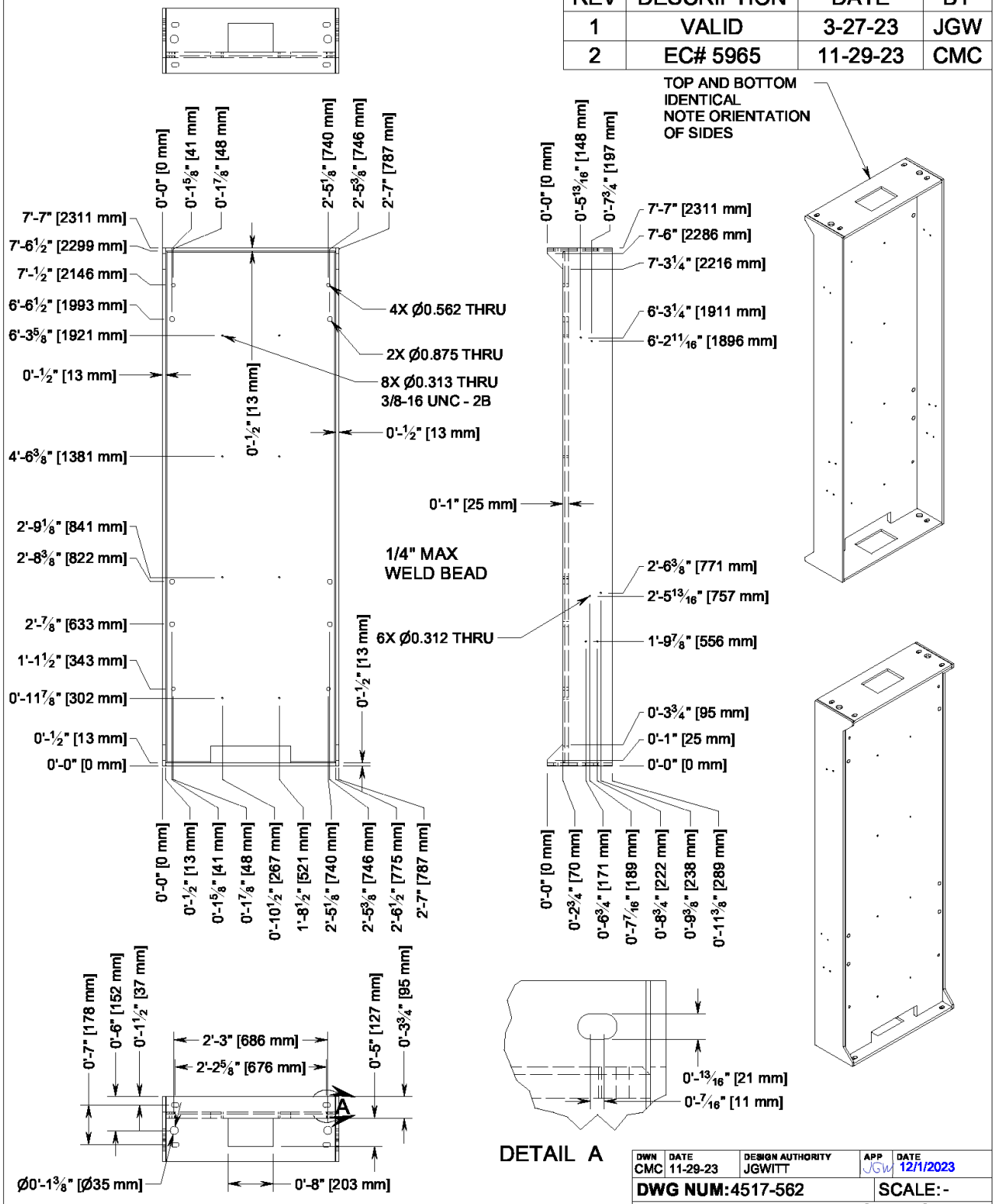
DWG NUM: 4517-562 | SCALE: -

TITLE: M 4530-8400/14000 VERT DET ELEV

LUDLUM MEASUREMENTS, INC.
501 OAK STREET
SWEETWATER, TEXAS 79556

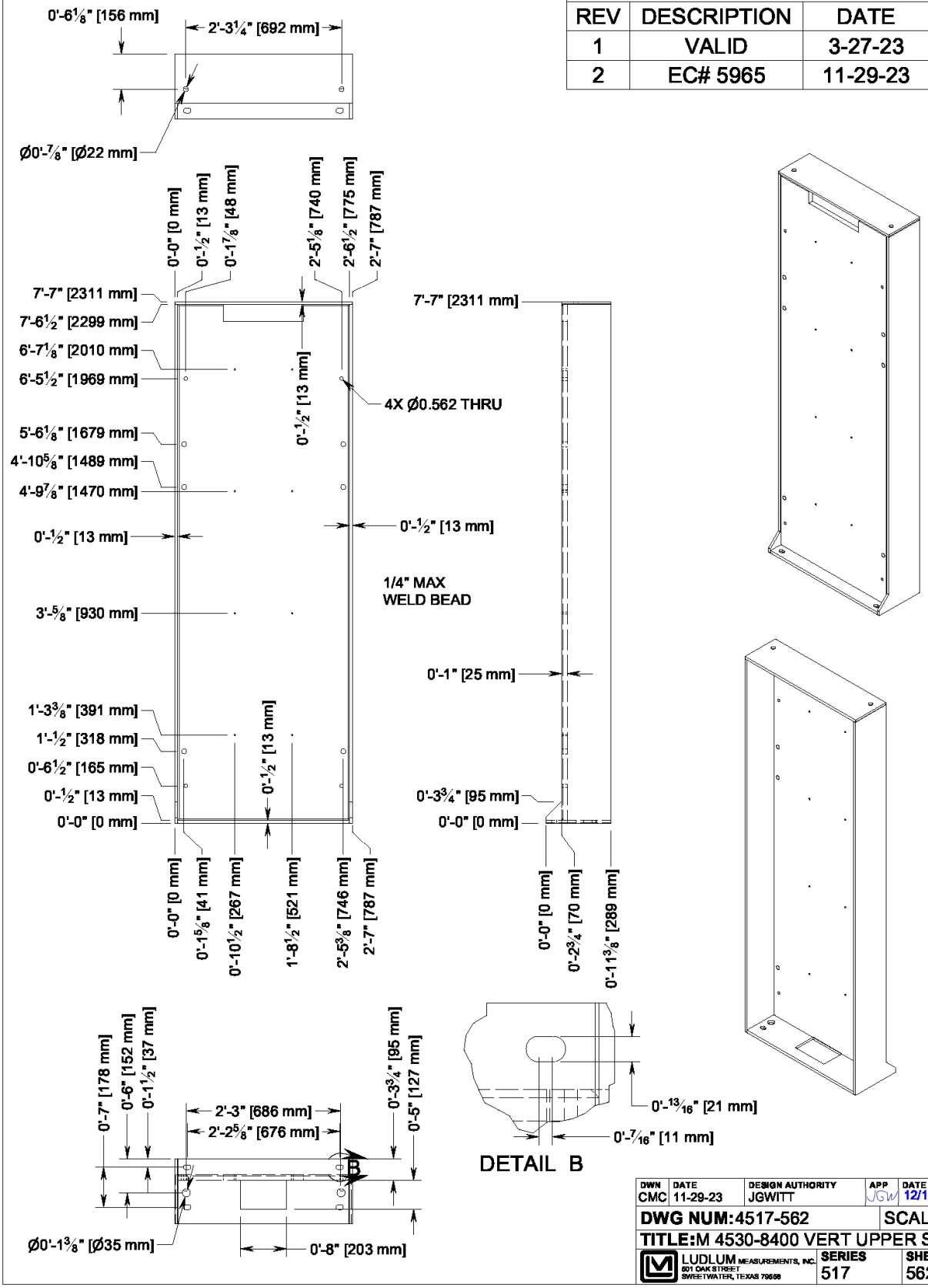
SERIES	SHEET
517	562A

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	3-27-23	JGW
2	EC# 5965	11-29-23	CMC



DWN CMC	DATE 11-29-23	DESIGN AUTHORITY JGWITT	APP JGW	DATE 12/1/2023
DWG NUM:4517-562			SCALE:-	
TITLE:M 4530-8400 VERT LOWER STAND				
LUDLUM MEASUREMENTS, INC. 601 OAK STREET SWEETWATER, TEXAS 79556		SERIES 517	SHEET 562B	

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	3-27-23	JGW
2	EC# 5965	11-29-23	CMC



DWN	DATE	DESIGN AUTHORITY	APP	DATE
CMC	11-29-23	JGWITT	JGW	12/1/2023

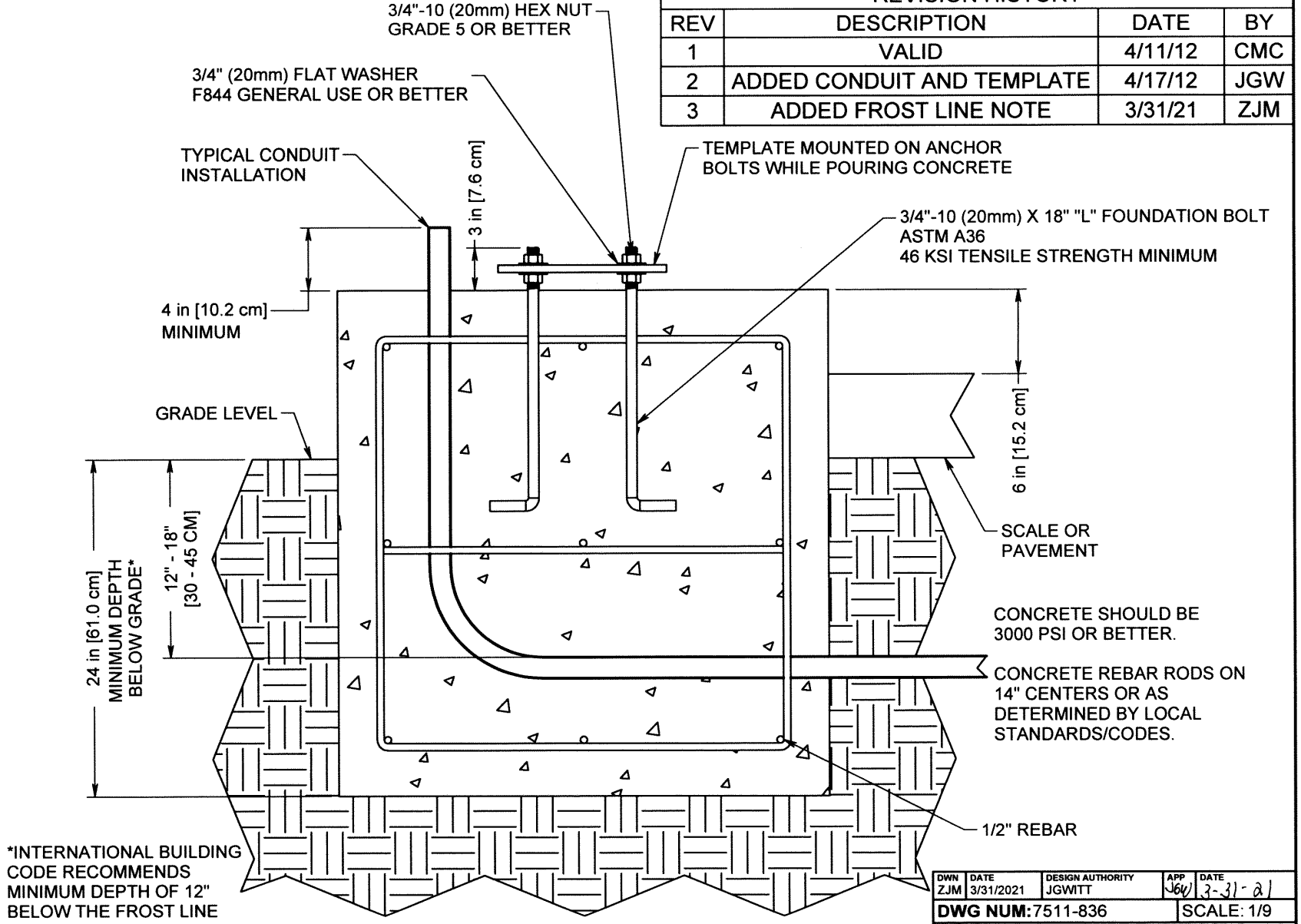
DWG NUM: 4517-562 | SCALE:-

TITLE: M 4530-8400 VERT UPPER STAND

LUDLUM MEASUREMENTS, INC.
601 OAK STREET
SWEETWATER, TEXAS 79556

SERIES	SHEET
517	562C

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	4/11/12	CMC
2	ADDED CONDUIT AND TEMPLATE	4/17/12	JGW
3	ADDED FROST LINE NOTE	3/31/21	ZJM



DWN	DATE	DESIGN AUTHORITY	APP	DATE
ZJM	3/31/2021	JGWITT	JGW	3-31-21

DWG NUM: 7511-836 | SCALE: 1/9

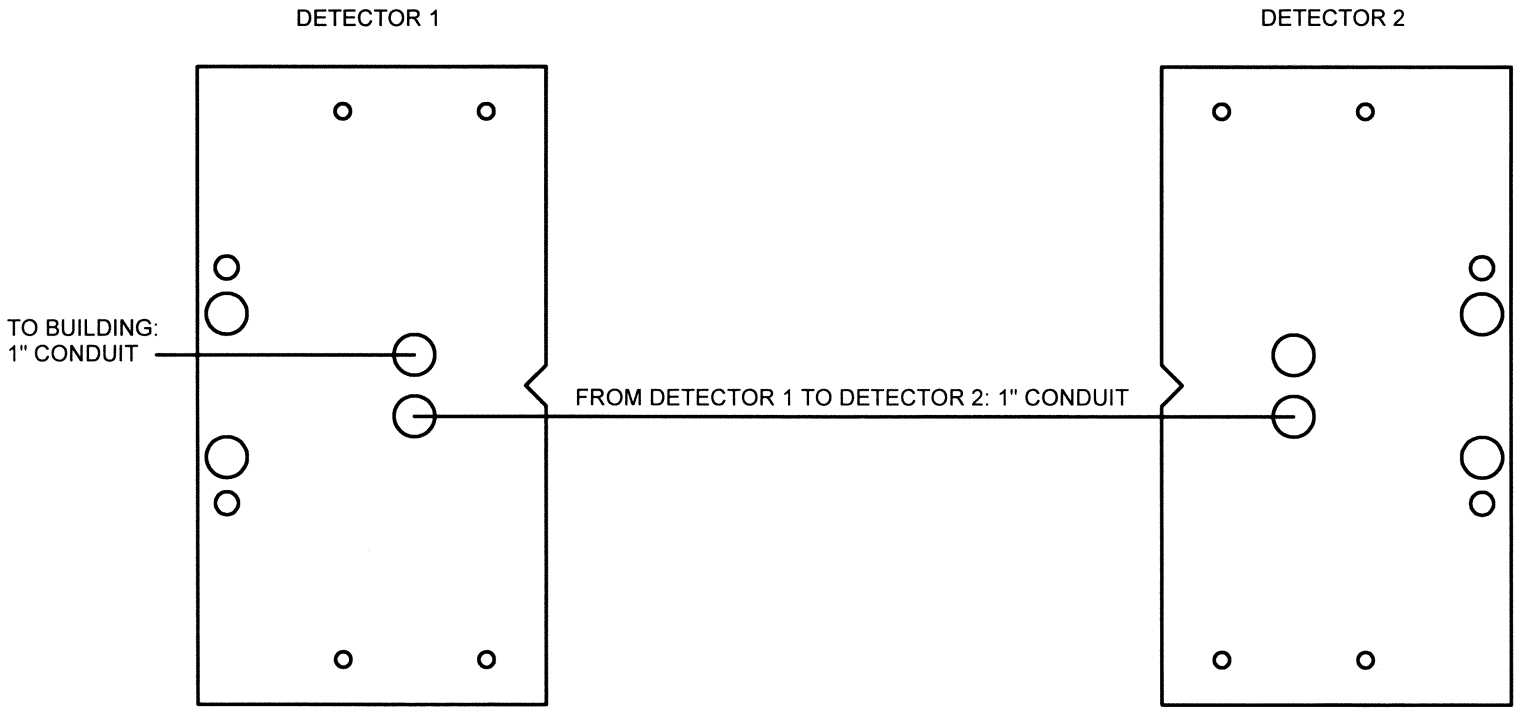
TITLE: M 4525 ANCHOR BOLT&CONCRETE

LUDLUM MEASUREMENTS, INC.
501 OAK STREET
SWEETWATER, TEXAS 79556

SERIES	SHEET
511	836

CONDUIT LAYOUT CAN BE SWAPPED.
PAD WITH TWO CONDUITS GOES TO
SCALE HOUSE SIDE (DETECTOR 1).

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	05-23-23	ROH



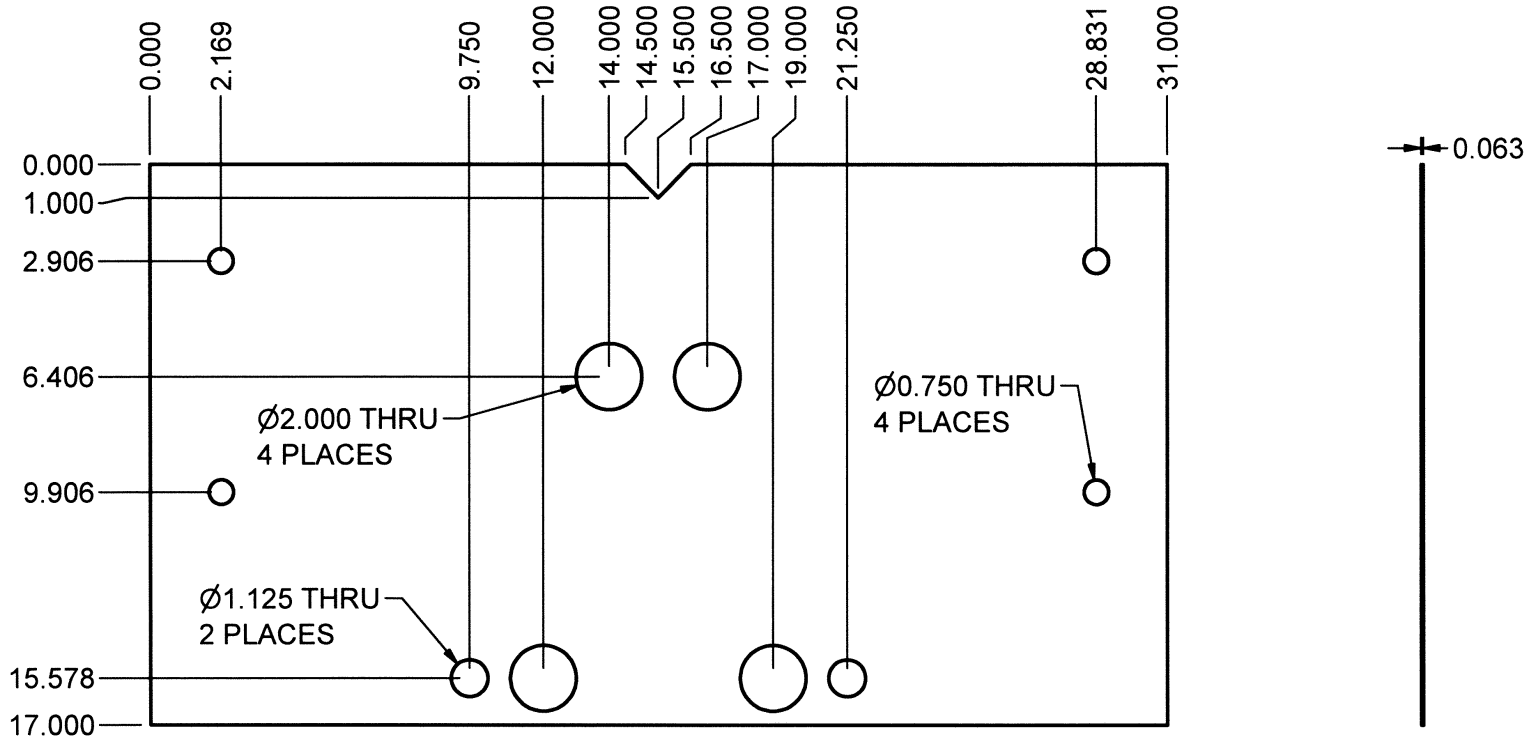
DWN	DATE	DESIGN AUTHORITY	APP	DATE
ROH	05-30-23	JGWITT	JGW	6-5-23

DWG NUM: 7517-678 | SCALE: -

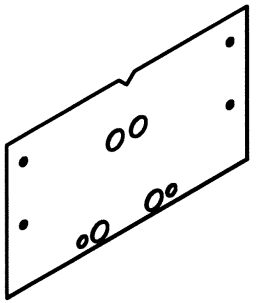
TITLE: M 4530 CONDUIT TEMPLATE GUIDE

LUDLUM MEASUREMENTS, INC.
501 OAK STREET
SWEETWATER, TEXAS 79556

SERIES	SHEET
517	678



DO NOT SAND

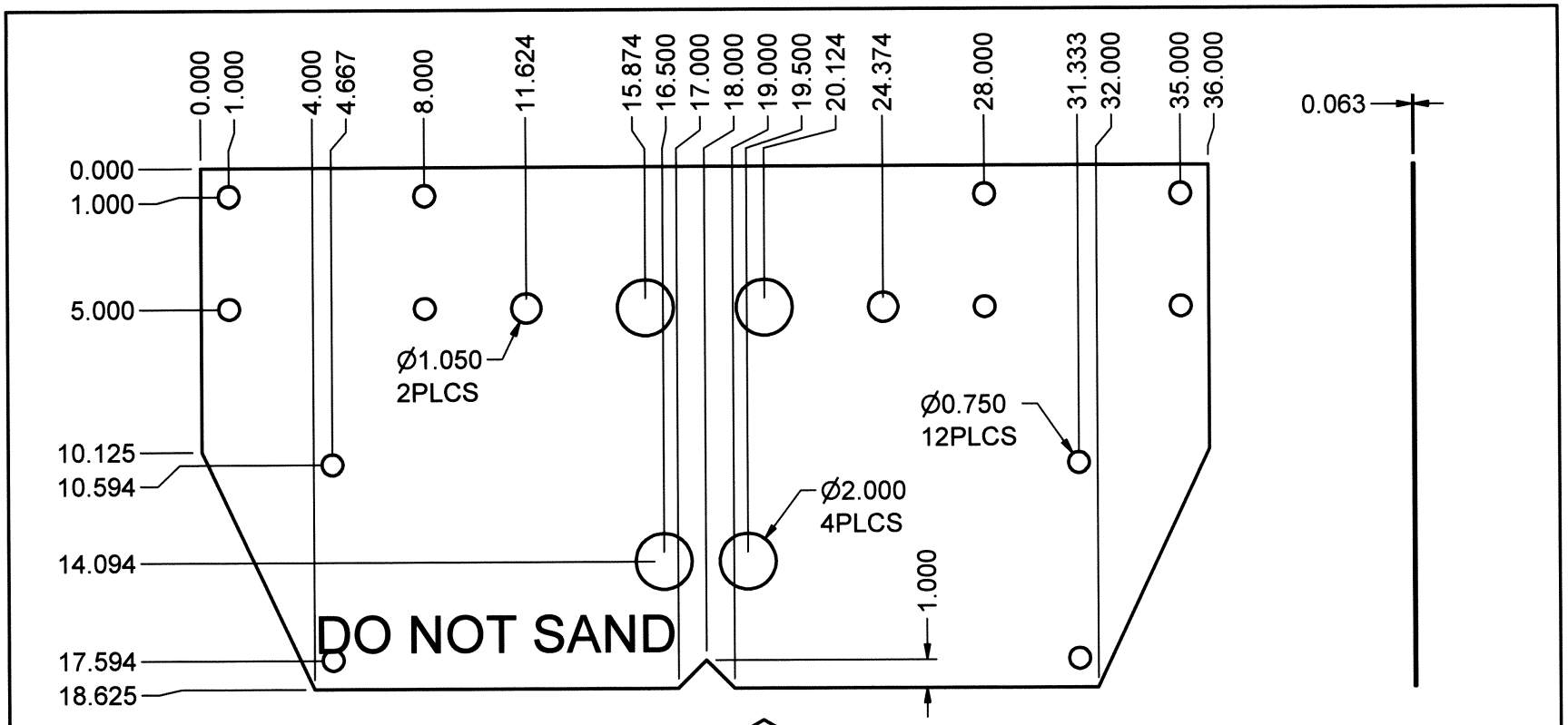


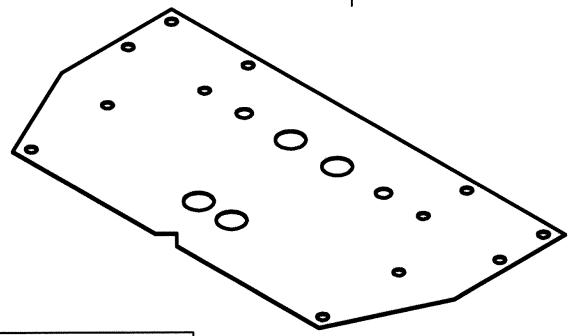
NOTE:
NOTCH IS FRONT OF STAND
FACING TRAFFIC LANE.

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	3-28-08	JGW
2	ECF 5688 CHANED PN#	9-21-20	ZJM
3	UPDATED FOR 4530 EC5688	2-22-23	JGW

APPLICABLE TO
FOLLOWING MODELS
4525-7000
4530-4200, 8400, 7000,
14000

DESC: ANCHOR BOLT TEMPLATE			
MODEL NO.: SEE NOTE	PART NO.: 7511-461-01		
MAT'L.: 16 GA HOT DIPPED GALVANIZED			
MAT'L. NO.: 37-9820	SIZE: 527 SI		
SAND CLASS: 6	PAINT CLASS: --	COVERAGE CLASS: --	
FINISH: CLEAN, DON'T SAND	NO. REQ'D: 2		
FINAL ASSY NO.: --	SILK SCREEN: N		
DWN: JGW DATE: 4-19-23	CHK: DATE:	APP: NOW DATE: 4-19-23	
TOLERANCES UNLESS NOTED OTHERWISE MILL, LATHE, SHEETMETAL= ± 0.005 BENDS ON SHEETMETAL PARTS= ± 0.010 ANGLES= ± 0.5° ALL DIMENSIONS IN INCHES UNLESS NOTED OTHERWISE	SCALE: 1/5		
LUDLUM MEASUREMENTS, INC. 501 OAK STREET SWEETWATER, TEXAS 79556	SERIES 511	SHEET 461	





NOTE:
NOTCH IS FRONT OF STAND
FACING TRAFFIC LANE

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	12/6/07	RHS
2	CHANGED NOTCH	4/11/12	MSC
3	ECF 5688 CHANGED PN#	9/21/20	ZJM
4	UPDATED FOR 4530 EC5688	2-22-23	JGW

APPLICABLE TO
FOLLOWING MODELS
4525-10500
4530-6300
4530-10500

DESC: ANCHOR BOLT TEMPLATE
MODEL NO.: SEE NOTE | PART NO.: 7511-449-01
MAT'L.: 16 GA. HOT DIPPED GALVANIZED
SIZE: 671 SI.
MAT'L. NO.: 37-9820
FINISH: CLEAN | NO. REQ'D: 1
FINAL ASSY NO.: | SILK SCREEN: N

DWN	DATE	CHK	DATE	APP	DATE
JGW	2-22-23			MW	2-22-23

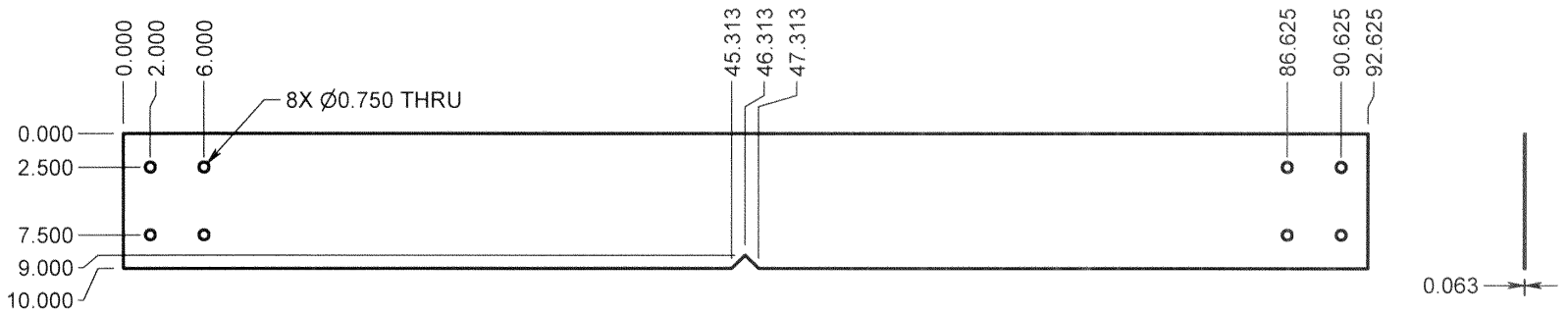
TOLERANCES
UNLESS NOTED OTHERWISE
MILL, LATHE, STRIPPIT= ± 0.005
BENDS ON SHEETMETAL PARTS= ± 0.010
ANGLES= ± 0.5°

SCALE: 3/16

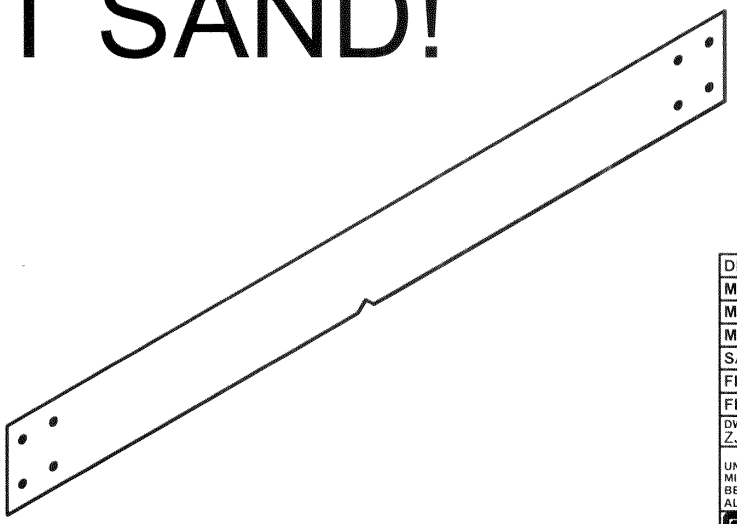
LUDLUM MEASUREMENTS, INC.
501 OAK STREET
SWEETWATER, TEXAS 79556

SERIES 511 | SHEET 449

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	2-7-05	CMC
2	ECF 5688 CHANGED PN#	9-21-20	ZJM



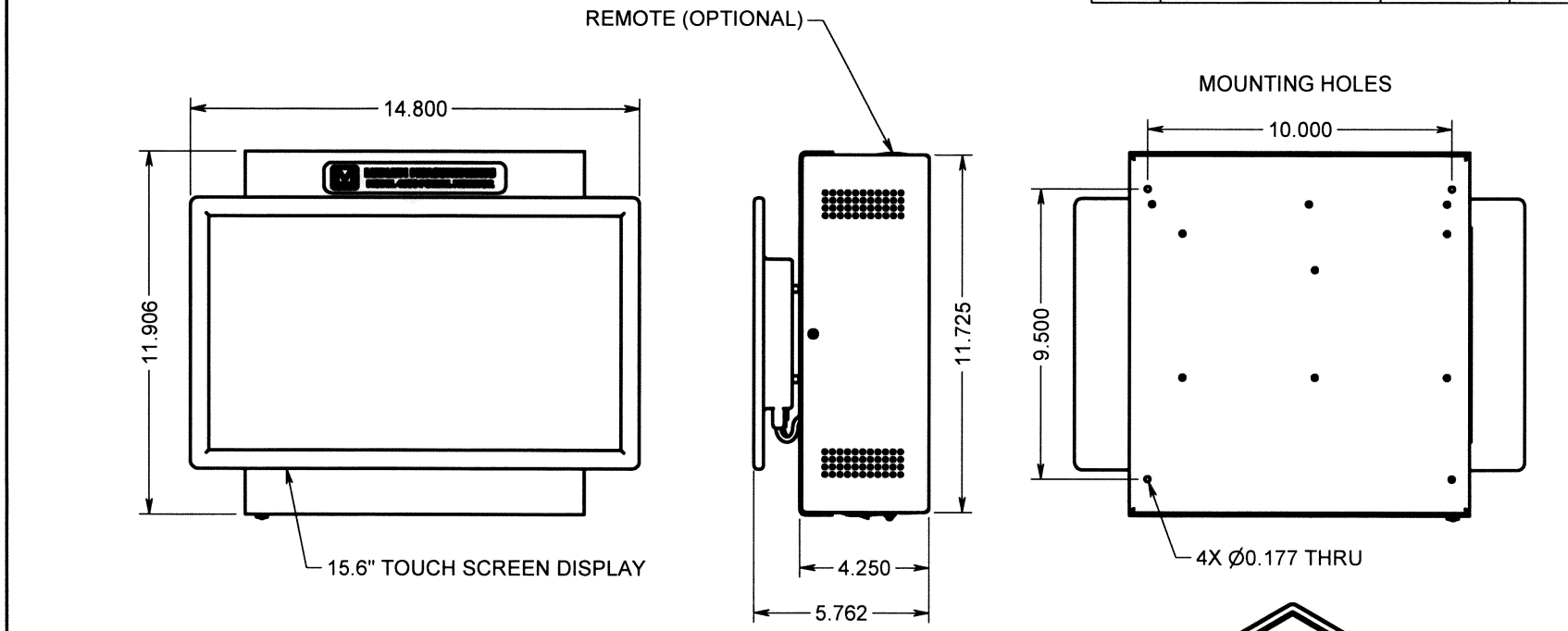
DO NOT SAND!

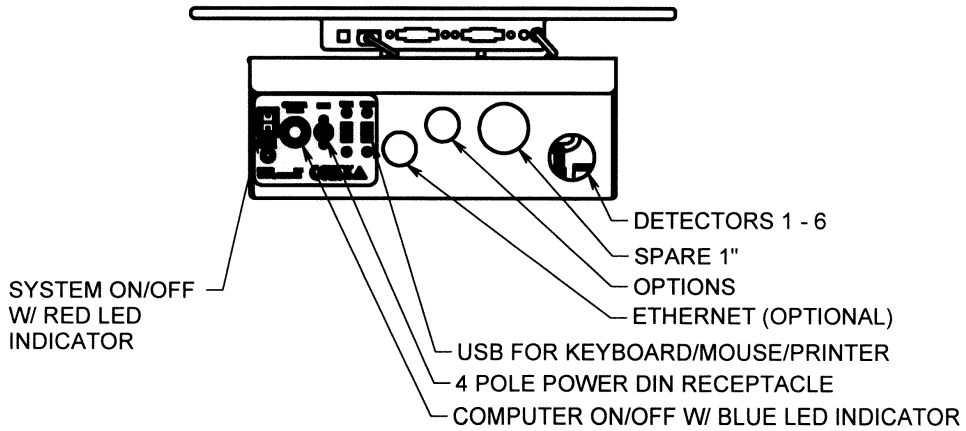


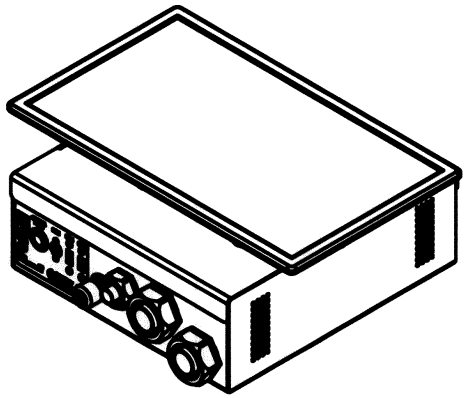
NOTE:
NOTCH IS FRONT
OF STAND FACING
TRAFFIC LANE.

DESC: ANCHOR BOLT TEMPLATE			
MODEL NO.: 4525-14K	PART NO.: 7384-882-01		
MAT'L.: 16 GA HOT DIPPED GALVANIZED			
MAT'L. NO.: 37-9820	SIZE: 927 SI		
SAND CLASS: --	PAINT CLASS: --	COVERAGE CLASS: --	
FINISH: CLEAN, DON'T SAND	SILK SCREEN: N		
FINAL ASSY NO.: --	NO. REQ'D: 1		
DWN: ZJM	DATE: 9/21/2020	DESIGN AUTHORITY: JGWITT	APP: JGW DATE: 9-21-20
TOLERANCES: UNLESS NOTED OTHERWISE MILL, LATHE, SHEETMETAL= ± 0.005 BENDS ON SHEETMETAL PARTS= ± 0.010 ANGLES= ± 1.0° ALL DIMENSIONS IN INCHES UNLESS NOTED OTHERWISE	SCALE: 1/12		
LUDLUM MEASUREMENTS, INC. 501 OAK STREET SWEETWATER, TEXAS 79556	SERIES: 384	SHEET: 882	

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	12/28/22	ABM





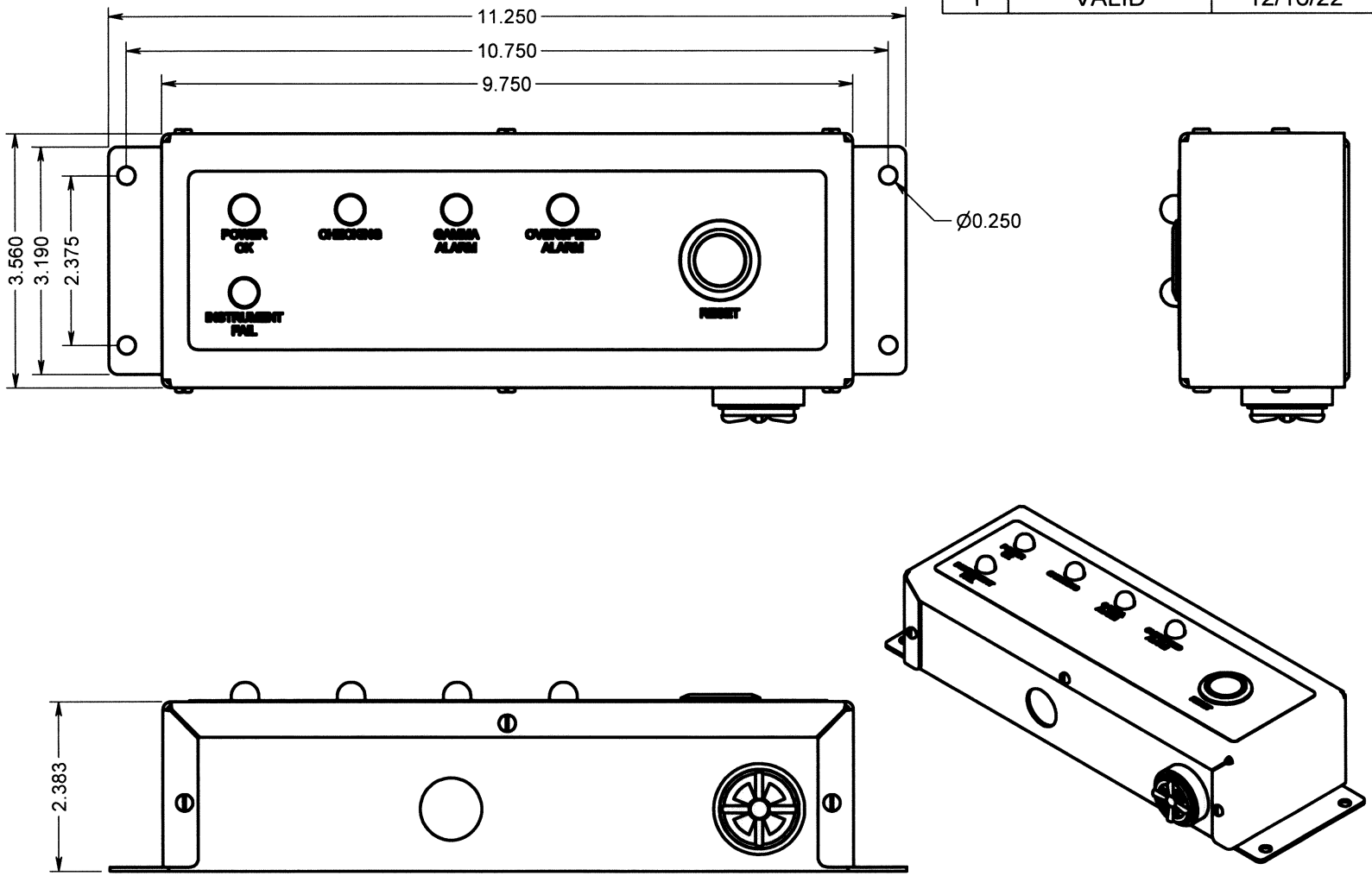


DWN	DATE	DESIGN AUTHORITY	APP	DATE
ROH	05-04-23	JGWITT	JW	5-8-23

DWG NUM: 4517-553	SCALE: 1/4
TITLE: M 4530 CONTROL BOX ASSEMBLY	

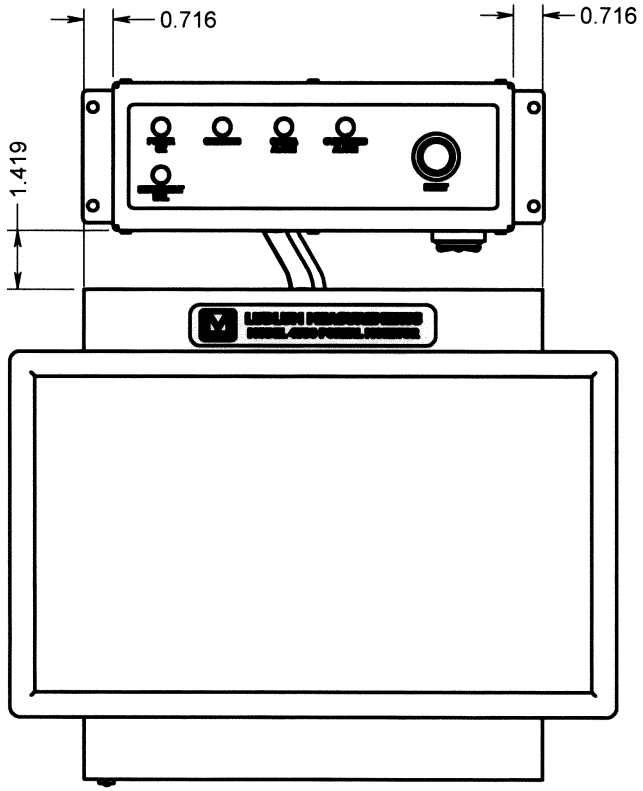
LUDLUM MEASUREMENTS, INC. 501 OAK STREET SWEETWATER, TEXAS 79556	**SERIES** 517	**SHEET** 553

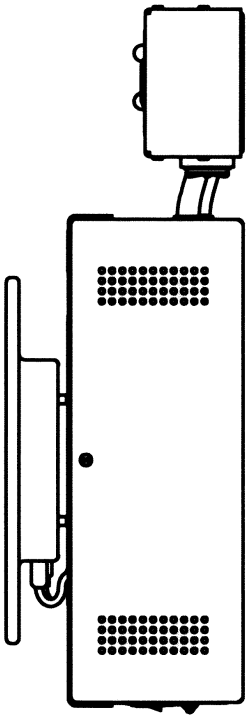
REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	12/16/22	ABM



DWN ROH	DATE 05-01-23	DESIGN AUTHORITY JGWITT	APP JGW	DATE 5-8-23
DWG NUM: 4517-637			SCALE: 1/2	
TITLE: M 4530 REMOTE ASSEMBLY				
LUDLUM MEASUREMENTS, INC. 501 OAK STREET SWEETWATER, TEXAS 79556		SERIES 517	SHEET 637	

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	12/29/22	ABM





DWN	DATE	DESIGN AUTHORITY	APP	DATE
ROH	05-01-23	JGWITT	JGW	5-8-23

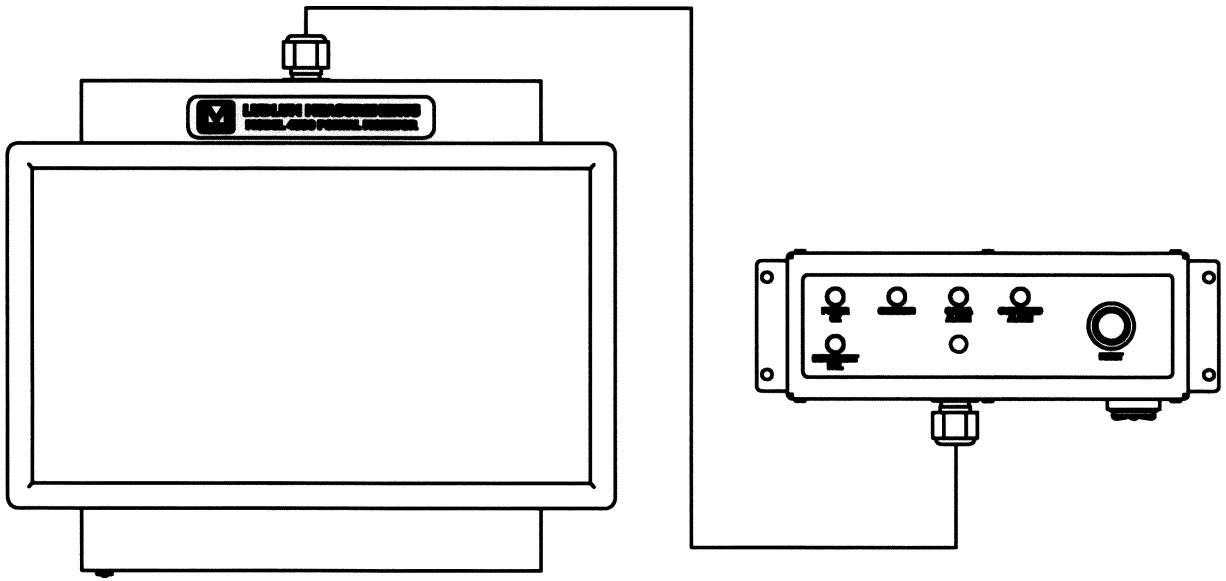
DWG NUM: 4517-637-02 | SCALE: 1/4

TITLE: M 4530 REMOTE TOP MOUNT

LUDLUM MEASUREMENTS, INC.
501 OAK STREET
SWEETWATER, TEXAS 79556

SERIES	SHEET
517	637A

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	VALID	12/29/22	ABM



DWN	DATE	DESIGN AUTHORITY	APP	DATE
ROH	05-01-23	JGWITT	JGW	5-8-23

DWG NUM: 4517-637-10 | SCALE: 1/4

TITLE: M 4530 REMOTE WALL MOUNT

LUDLUM MEASUREMENTS, INC.
501 OAK STREET
SWEETWATER, TEXAS 79556

SERIES	SHEET
517	637B