

HED

Copyright © 2019

Project Manual

Wayne State University I2C – MRI Installation – Lab 5 Fit-Out

461 Burroughs St.
Detroit, Michigan 48202



Project No.: 2017-03497-000
CLIENT'S PROJECT NUMBER: 212-313128

Issued for Addendum 2: September 05, 2019

PROJECT NO.: 2017-03497-000



PRINTED ON RECYCLED PAPER

TITLE PAGE
000101-1

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 000110 - TABLE OF CONTENTS

LATEST REVISION	SECTION NUMBER	SECTION TITLE	PAGE NUMBER
------------------------	-----------------------	----------------------	--------------------

VOLUME 1**INTRODUCTORY INFORMATION**

Add 1	000101	Title Page	1 only
Add 1	000110	Table of Contents	
Add 1	000115	List of Drawings	

BIDDING AND CONTRACTING REQUIREMENTS

Balance of “Bidding and Contracting Requirements” documents will be provided by the Construction Manager.

**CONTRACTING REQUIREMENTS
CONSTRUCTION PRODUCTS AND ACTIVITIES****DIVISION 1 - GENERAL REQUIREMENTS**

012200	Unit Prices
013300	Submittal Procedures
013300-A	Submittal Procedures, Architect's Action Stamp Sample, Appendix A
013300-B	Submittal Procedures, Contractor's Submittal Label Information Sample, Appendix B
013300-C	Submittal Procedures, Submittal Transmittal, Appendix C
014010	Testing And Inspection Services - Building
017300	Execution

DIVISION 2 – EXISTING CONDITIONS

024119	Selective Demolition
--------	----------------------

DIVISION 3 – CONCRETE

Structural on the Drawings

DIVISION 4 – MASONRY (NOT USED)

WAYNE STATE UNIVERSITY
I2C – MRI INSTALLATION – LAB 5 FIT-OUT

PROJECT NO.: 2017-03497-000

TABLE OF CONTENTS
000110 - 1

DIVISION 5 – METALS

Structural is on the Drawings

DIVISION 6 - WOOD AND PLASTICS

061000 Rough Carpentry
061610 Plywood Sheathing
064023 Interior Architectural Woodwork

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

072100 Thermal Insulation
078413 Penetration Firestopping
078443 Joint Firestopping
079200 Joint Sealants
079219 Acoustical Joint Sealants

DIVISION 8 - DOORS AND WINDOWS

081113 Hollow Metal Doors and Frames
081416 Flush Wood Doors
083323 Overhead Coiling Doors
084123 Fire Rated Aluminum Framed Storefronts And Heat Barrier Entrances
087100 Door Hardware
088000 Glazing
088813 Fire-Rated Glass

DIVISION 9 - FINISHES

092216 Non-Structural Metal Framing
092900 Gypsum Board
095113 Acoustical Panel Ceilings
096513 Resilient Base and Accessories
096519 Resilient Tile Flooring
~~097350 Fiberglass Reinforced Panels (FRP)~~
099100 Painting

DIVISION 10 – SPECIALTIES – (NOT USED)

Add 2 102600 Impact-Resistant Wall Protection

PROJECT NO.: 2017-03497-000

WAYNE STATE UNIVERSITY
I2C – MRI INSTALLATION – LAB 5 FIT-OUT

TABLE OF CONTENTS

000110 - 2

DIVISION 11 – EQUIPMENT - (NOT USED)

DIVISION 12 – FURNISHINGS – (NOT USED)

DIVISION 13 - SPECIAL CONSTRUCTION

134950 Radio Frequency, Magnetic And Acoustical Shielding For MRI
Imaging Systems

DIVISION 14 - CONVEYING SYSTEMS – (NOT USED)

DIVISION 21 – FIRE SUPPRESSION

Mechanical on the Drawings

DIVISION 22 – PLUMBING

Mechanical on the Drawings

DIVISION 23 – HEATING, VENTILATING AND AIR CONDITIONING

Mechanical on the Drawings

DIVISION 26 – ELECTRICAL

Electrical on the Drawings

DIVISION 27 – COMMUNICATIONS

Electrical on the Drawings

DIVISION 28 – ELECTRONIC SAFETY AND SECURITY

Electrical on the Drawings

DIVISION 29 – 30 - (NOT USED)

DIVISION 31 – EARTHWORK - (NOT USED)

WAYNE STATE UNIVERSITY
I2C – MRI INSTALLATION – LAB 5 FIT-OUT

PROJECT NO.: 2017-03497-000

TABLE OF CONTENTS
000110 - 3

DIVISION 32 - EXTERIOR IMPROVEMENTS - (NOT USED)

DIVISION 33- 49 - (NOT USED)

REFERENCE MATERIALS (BLUE PAPER)

The following items are issued for Contractor's use and do not form a part of the Contract Documents:

Preliminary Site Survey Report provided by Time Medical Systems,
Project Number P0896068, Dated July 30, 2019 14 Pages

IMEDCO Site Survey
Part A ~~11~~9 Pages
Part B 10 Pages

Time Medical Systems PICA Combined Owner Furnished Owner Installed
For Reference Only 10 Pages

Time Medical Systems PICA Handling and Position Owner Furnished
Owner Installed For Reference Only 29 Pages

Time Medical Systems PICA Installation Owner Furnished Owner
Installed For Reference Only 75 Pages

Time Medical Systems Magnet Handling and Storage For Reference Only
4 Pages

END OF TABLE OF CONTENTS

PROJECT NO.: 2017-03497-000

WAYNE STATE UNIVERSITY
I2C – MRI INSTALLATION – LAB 5 FIT-OUT

TABLE OF CONTENTS
000110 - 4

SECTION 000115 - LIST OF DRAWINGS

1.1 CONTRACT DRAWINGS

A. The following Drawings, marked and dated as noted below, form a part of the Contract Documents:

1. Marked: Issued for: ~~Bid~~Addendum 12
2. Dated: ~~August 12, 2019~~September 05~~August 12, 2019~~
3. List: Refer to Drawing G-001, "Drawing List" for complete list of drawings.

END OF SECTION
DWH

THIS PAGE INTENTIONALLY LEFT BLANK

PROJECT NO.: 2017-03497-000

WAYNE STATE UNIVERSITY
I2C – MRI INSTALLATION – LAB 5 FIT-OUT

LIST OF DRAWINGS
000115- 2

SECTION 102600- IMPACT-RESISTANT WALL PROTECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Wall guards.
- 2. Impact-resistant wall coverings.

- B. Related Sections:

- 1. Division 9 Section 092216 "Non-Structural Metal Framing" for wall backing.
- 2. Division 9 Section 092900 "Gypsum Board" gypsum wall board.

1.3 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Provide handrails capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:

- 1. Uniform load of 50 lbf/ft. (0.73 kN/m) applied in any direction.
- 2. Concentrated load of 200 lbf (0.89 kN) applied in any direction.
- 3. Uniform and concentrated loads need not be assumed to act concurrently.

1.4 ACTION SUBMITTALS

- A. Product Data: Include construction details, material descriptions, impact strength, fire-test-response characteristics, dimensions of individual components and profiles, and finishes for each impact-resistant wall protection unit.

- B. Shop Drawings: For each impact-resistant wall protection unit showing locations and extent. Include sections, details, and attachments to other work.

- 1. For installed products indicated to comply with design loads, include structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

Addendum 2

- C. Samples for Verification: For each type of exposed finish required, prepared on Samples of size indicated below. Include Samples of accent strips to verify color selected.
 - 1. Wall and Corner Guards: 12 inches (300 mm) long. Include examples of joinery, corners, end caps, top caps, and field splices.
 - 2. Impact-Resistant Wall Covering: 6 by 6 inches (150 by 150 mm) square.

1.5 INFORMATION SUBMITTALS

- A. Material Certificates: For each impact-resistant plastic material, from manufacturer.
- B. Material Test Reports: For each impact-resistant plastic material.
- C. Warranty: Sample of special warranty.

1.6 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For each impact-resistant wall protection unit to include in maintenance manuals.
 - 1. Include recommended methods and frequency of maintenance for maintaining optimum condition of plastic covers under anticipated traffic and use conditions. Include precautions against using cleaning materials and methods that may be detrimental to plastic finishes and performance.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: An employer of workers trained and approved by manufacturer.
- B. Source Limitations: Obtain impact-resistant wall protection units from single source from single manufacturer.
- C. Product Options: Drawings indicate size, profiles, and dimensional requirements of impact-resistant wall protection units and are based on the specific system indicated. Refer to Division 1 Section "Quality Requirements."
 - 1. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.
- D. Surface-Burning Characteristics: Provide impact-resistant, plastic wall protection units with surface-burning characteristics as determined by testing identical products per ASTM E 84, NFPA 255, or UL 723 by UL or another qualified testing agency.

- E. Regulatory Requirements: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Store impact-resistant wall protection units in original undamaged packages and containers inside well-ventilated area protected from weather, moisture, soiling, extreme temperatures, and humidity.
 - 1. Maintain room temperature within storage area at not less than 70 deg F (21 deg C) during the period plastic materials are stored.
 - 2. Keep plastic sheet material out of direct sunlight.
 - 3. Store plastic wall protection components for a minimum of 72 hours, or until plastic material attains a minimum room temperature of 70 deg F (21 deg C).
 - a. Store corner-guard covers in a vertical position.
 - b. Store wall-guard and handrail covers in a horizontal position.

1.9 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install impact-resistant wall protection units until building is enclosed and weatherproof, wet work is complete and dry, and HVAC system is operating and maintaining temperature at 70 deg F (21 deg C) for not less than 72 hours before beginning installation and for the remainder of the construction period.

1.10 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of impact-resistant wall protection units that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Structural failures.
 - b. Deterioration of plastic and other materials beyond normal use.
 - 2. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. PBT/PVC-Free Thermoplastic: Textured, chemical- and stain-resistant, high-impact-resistant thermoplastic with integral color throughout; extruded and sheet material, thickness as indicated.
 - 1. Impact Resistance: Minimum **25.4 ft-lbf/in. (1356 J/m)** of notch when tested according to ASTM D 256, Test Method A.
 - 2. Chemical and Stain Resistance: Tested according to ASTM D 543.
 - 3. Self-extinguishing when tested according to ASTM D 635.
 - 4. Flame-Spread Index: 25 or less.
 - 5. Smoke-Developed Index: 450 or less.
- B. Aluminum Extrusions: Alloy and temper recommended by manufacturer for type of use and finish indicated, but with not less than strength and durability properties specified in **ASTM B 221 (ASTM B 221M)** for Alloy 6063-T5.
- C. Stainless-Steel Sheet: ASTM A 240/A 240M.
- D. Fasteners: Aluminum, nonmagnetic stainless-steel, or other noncorrosive metal screws, bolts, and other fasteners compatible with items being fastened. Use security-type fasteners where exposed to view.
- E. Adhesive: As recommended by impact-resistant plastic wall protection manufacturer and with a VOC content of 70 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

2.2 WALL GUARDS

- A. Crash Rail CR-1: Heavy-duty assembly consisting of continuous snap-on plastic cover installed over concealed retainer system; designed to withstand impacts.
 - 1. **Basis-of-Design Product:** Subject to compliance with requirements, provide Construction Specialties, Inc. SCR-40N.
 - 2. Cover: PBT/PVC-free, extruded material high-impact Acrovyn 4000 with Shadowgrain texture, minimum **0.078-inch (2.0-mm)** wall thickness; as follows:
 - a. Profile: Flat.
 - 1) Dimensions: Nominal **4 inches high (101.6 mm high)** surface mounted.
 - 2) Surface: Uniform.
 - b. Color and Texture: As indicated on the “Finish Key” in the “Reference Materials” in the Project Manual.

3. Continuous Retainer: Minimum **0.062-inch- (1.57-mm-)** thick, one-piece, extruded aluminum.
4. Bumper: Continuous rubber or vinyl bumper cushion(s).
5. End Caps and Corners: Prefabricated, injection-molded plastic; matching color cover; field adjustable for close alignment with snap-on cover.
6. Accessories: Concealed splices and mounting hardware.
7. Mounting: Surface mounted directly to wall.

2.3 IMPACT-RESISTANT WALL COVERINGS

- A. Impact-Resistant Sheet Wall Covering WP-1: Fabricated from PBT/PVC-free plastic sheet wall-covering material.
 1. **Basis-of-Design Product:** Subject to compliance with requirements, provide Construction Specialties, Inc. Acrovyn 4000.
 2. **Size:** **48 by 96 inches (1219 by 2438 mm)** for sheet or 48 by 120 inches (1219 by 3048 mm) for roll.
 3. **Sheet Thickness:** **0.040 inch (1.0 mm).**
 4. **Color and Texture:** As indicated on the "Finish Key" in the "Reference Materials" in the Project Manual.
 5. **Height:** As indicated on the Drawings.
 6. **Trim and Joint Moldings:** Extruded rigid plastic that matches sheet wall covering color.
 7. **Mounting:** Adhesive.

2.4 FABRICATION

- A. Fabricate impact-resistant wall protection units to comply with requirements indicated for design, dimensions, and member sizes, including thicknesses of components.
- B. Fabricate wall panels to comply with requirements indicated for design, dimensions, detail, finish and sizes. All based upon required field verified dimensions.
- C. Assemble components in factory to greatest extent possible to minimize field assembly. Disassemble only as necessary for shipping and handling.
- D. Fabricate components with tight seams and joints with exposed edges rolled. Provide surfaces free of wrinkles, chips, dents, uneven coloration, and other imperfections. Fabricate members and fittings to produce flush, smooth, and rigid hairline joints.

2.5 METAL FINISHES

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
 1. Remove tool and die marks and stretch lines, or blend into finish.

Addendum 2

2. Grind and polish surfaces to produce uniform finish, free of cross scratches.
 3. Run grain of directional finishes with long dimension of each piece.
 4. When polishing is completed, passivate and rinse surfaces. Remove embedded foreign matter and leave surfaces chemically clean.
- B. Protect finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and wall areas, with Installer present, for compliance with requirements for installation tolerances, fire rating, and other conditions affecting performance of work.
- B. Examine walls to which impact-resistant wall protection will be attached for blocking, grounds, and other solid backing that have been installed in the locations required for secure attachment of support fasteners.
1. For impact-resistant wall protection units attached with adhesive or foam tape, verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Complete finishing operations, including painting, before installing impact-resistant wall protection system components.
- B. Before installation, clean substrate to remove dust, debris, and loose particles.

3.3 INSTALLATION

- A. General: Install impact-resistant wall protection units level, plumb, and true to line without distortions. Do not use materials with chips, cracks, voids, stains, or other defects that might be visible in the finished Work.
1. Install impact-resistant wall protection units in locations and at mounting heights indicated on Drawings.
 2. Provide splices, mounting hardware, anchors, and other accessories required for a complete installation.
 - a. Provide anchoring devices to withstand imposed loads.

PROJECT NO.: 2017-03497-000

WAYNE STATE UNIVERSITY
I2C – MRI INSTALLATION – LAB 5 FIT-OUT

IMPACT-RESISTANT WALL PROTECTION
102600- 6

9/4/2019 1:39:34 PM

- b. Where splices occur in horizontal runs of more than 20 feet (6.1 m), splice aluminum retainers and plastic covers at different locations along the run, but no closer than 12 inches (305 mm).
 - c. Adjust end and top caps as required to ensure tight seams.
- B. Impact-Resistant Wall Covering: Install top and edge moldings, corners, and divider bars as required for a complete installation.

3.4 CLEANING

- A. Immediately after completion of installation, clean plastic covers and accessories using a standard, ammonia-based, household cleaning agent.
 - 1. Manufacturer approved cleaning agent for FRL.
- B. Remove excess adhesive using methods and materials recommended in writing by manufacturer.

END OF SECTION 102600
CL

RBOX – Shielded Enclosure Testing

SHIELDING EFFECTIVENESS TEST REPORT FOR: IMEDCO America LTD LOCATION: Wyane State University Detroit, MI	Document No.	Revision	Issue Date
	20190827A	1	27 August 2019
	Job Number		Page
	N/A		1 Of 9

EMI SITE SURVEY REPORT

Customer:	Imedco
Location:	Wyane State University 461 Burroughs St Detroit, MI 48202
Report Status:	EMI Survey
Test Specification:	OEM Site Planning Guide
Test Report No.:	20190827A
Job Number:	N/A

DOCUMENT HISTORY

Revision	Issue Date	Affected Page(s)	Description of Modifications	Revised By	Approved By
0	27 August 2019		Initial release		
1	28. August 2019	8	Add recorded data	BW	BW

RBOX – Shielded Enclosure Testing			
SHIELDING EFFECTIVENESS TEST REPORT FOR: IMEDCO America LTD LOCATION: Wyane State University Detroit, MI	Document No.	Revision	Issue Date
	20190827A	1	27 August 2019
	Job Number		Page
	N/A		2 Of 9

TEST REPORT NO. 20190827A

From: R-BOX TESTING MOBILE TESTING

Test for: IMEDCO American LTD

Written By

Barkley Wesselius
Barkley Wesselius, NDT Technician

28 August 2019

TEST PERSONNEL – R-Box Testing

Barkley Wesselius	NDT Technician, RBOX Testing
-------------------	------------------------------

CUSTOMER TEST WITNESS

N/A	Imedco
-----	--------

Test Facility	R-BOX Mobile Test Lab
Address	Po Box 58
Address	
City, State Zip Code	Bartonsville, PA 18321
Phone	(570) 350-4914
Fax	(570) 300-1643

This report may be reproduced in full, partial reproduction may only be made with the written consent of the laboratory. The results in this report apply only to the site as indicted in location section. This report may not be used to claim product endorsement by NVLAP or any agency of the U.S. government.

RBOX – Shielded Enclosure Testing			
SHIELDING EFFECTIVENESS TEST REPORT FOR: IMEDCO America LTD LOCATION: Wyane State University Detroit, MI	<i>Document No.</i>	<i>Revision</i>	<i>Issue Date</i>
	20190827A	1	27 August 2019
	<i>Job Number</i>		<i>Page</i>
	N/A		3 Of 9

TABLE OF CONTENTS (This document contains a total of 9 pages.)

Table of Contents

1INTRODUCTION.....4

INTRODUCTION.....4

2TEST DATES.....4

3TEST SPECIFICATION.....4

4PURPOSE OF TEST.....4

5SITE DESCRIPTION4

6TEST LOCATION.....4

7CUSTOMER.....4

8TEST PERSONNEL.....5

9MEASUREMENT PROCEDURE.....5

10TEST RESULTS.....5

11CONCLUSION.....5

12SITE DETAIL.....6

 12.1SITE MAP.....6

 12.2SITE PLAN.....7

13MEASUREMENT DATA.....8

 13.1DC<5Hz =.....8

 13.2AC (16.6 Hz) (RAIL FREQUENCY) =8

 13.3AC (50-60 Hz) (MAINS POWER FREQUENCY) =8

14EMI/RFI TEST EQUIPMENT LIST.....9

 14.1TABLE: MRI TEST EQUIPMENT LIST.....9

RBOX – Shielded Enclosure Testing			
SHIELDING EFFECTIVENESS TEST REPORT FOR: IMEDCO America LTD LOCATION: Wyane State University Detroit, MI	Document No.	Revision	Issue Date
	20190827A	1	27 August 2019
	Job Number		Page
	N/A		4 Of 9

1 INTRODUCTION

This report documents the results of a series of EMI measurements performed at a location intended for magnetic sensitive equipment.

This series of measurements was performed by R-BOX testing mobile test laboratory at
 Wyane State University
 461 Burroughs St
 Detroit, MI 48202

R-Box Testing is a completely independent test and measurement service that performs tests and measurements in accordance with the latest U.S. Government and manufacturers' guidelines requiring impartial testing. R-Box Testing is not affiliated with any systems, equipment, or facilities manufacturers.

2 TEST DATES

27 August 2019

3 TEST SPECIFICATION

OEM Site Planning Guide

4 PURPOSE OF TEST

The purpose of this series of measurements was to measure any sources that would effect the operation of the proposed equipment to be installed.

5 SITE DESCRIPTION

The proposed location is for the installation of Time Medical System MRI. The proposed location is at ground level of a existing single story building. This building is located at 461 Burroughs St, Detroit, MI 48202. The proposed MRI suite is currently an unused lab. The location has a solid floor on grade. EMI measurements were taken at an estimated ISO center.

6 TEST LOCATION

Wyane State University
 461 Burroughs St
 Detroit, MI 48202

7 CUSTOMER

IMEDCO
 1730 E Pleasant St.
 Noblesville, IN 46060

RBOX – Shielded Enclosure Testing			
SHIELDING EFFECTIVENESS TEST REPORT FOR: IMEDCO America LTD LOCATION: Wyane State University Detroit, MI	<i>Document No.</i>	<i>Revision</i>	<i>Issue Date</i>
	20190827A	1	27 August 2019
	<i>Job Number</i>		<i>Page</i>
	N/A		5 Of 9

8 TEST PERSONNEL

Barkley Wesselius, NDT Technician

9 MEASUREMENT PROCEDURE

Overview: To determine the levels of ambient EMI the OEM Site Planning Guide was used to setup, data collection and presentation. Measurements were taken at approximate ISO-center.

- Building steelworks and reinforcements within 6m of the magnet iso-center affects the magnetic field homogeneity within the measuring area of the magnet. Details should be provided to Time Medical Systems of beams and columns in excess of 100kg/m around the shield room and reinforced concrete or steel beams up to 40kg/m² below the magnet. These pieces of information allow Time Medical Systems to ensure that the magnet will reach the required specifications. The need for magnetic compensation and the shielding method is determined according to the quasi-static (DC < 5Hz) and slow changing magnetic field fluctuation (AC 16-20Hz; AC 50-60Hz).

Maximum Acceptable Magnetic Fluctuation Values without Magnetic Compensation Requirements	
DC (<5Hz)	1mG 100nT
AC (16.6Hz)	0.2mG 20nT
AC (50-60Hz)	1mG 100nT

10 TEST RESULTS

Fluctuation minimum meets the requirement without compensation.
The results are indicated in section 13.

11 CONCLUSION

Measurements followed OEM Site Planning Guide and has been accepted by the customer for the evaluation of the site described previous. The planning guide recommended a maximum acceptable magnetic fluctuation values without Magnetic Compensation Requirements

All data collected was below the recommend levels as stated in the OEM Site Planning Guide.

Refer to the measurement data for compliance.

RBOX – Shielded Enclosure Testing

SHIELDING EFFECTIVENESS TEST REPORT
FOR: IMEDCO America LTD
LOCATION: Wyane State University
Detroit, MI

Document No.
20190827A

Revision
1

Issue Date
27 August 2019

Job Number

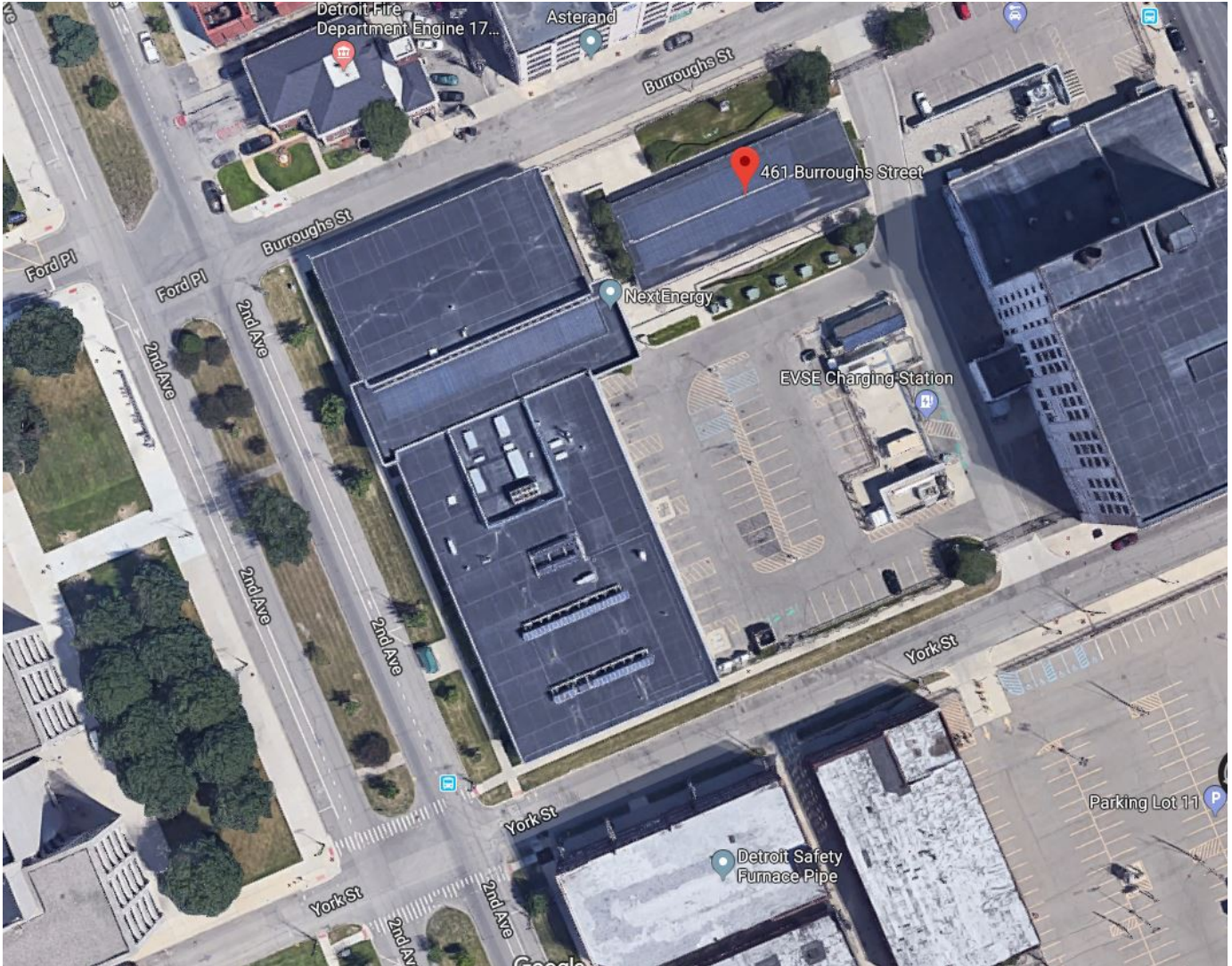
N/A

Page

6 Of 9

12 SITE DETAIL

12.1 Site Map



RBOX – Shielded Enclosure Testing

SHIELDING EFFECTIVENESS TEST REPORT
FOR: IMEDCO America LTD
LOCATION: Wyane State University
Detroit, MI

Document No.
20190827A

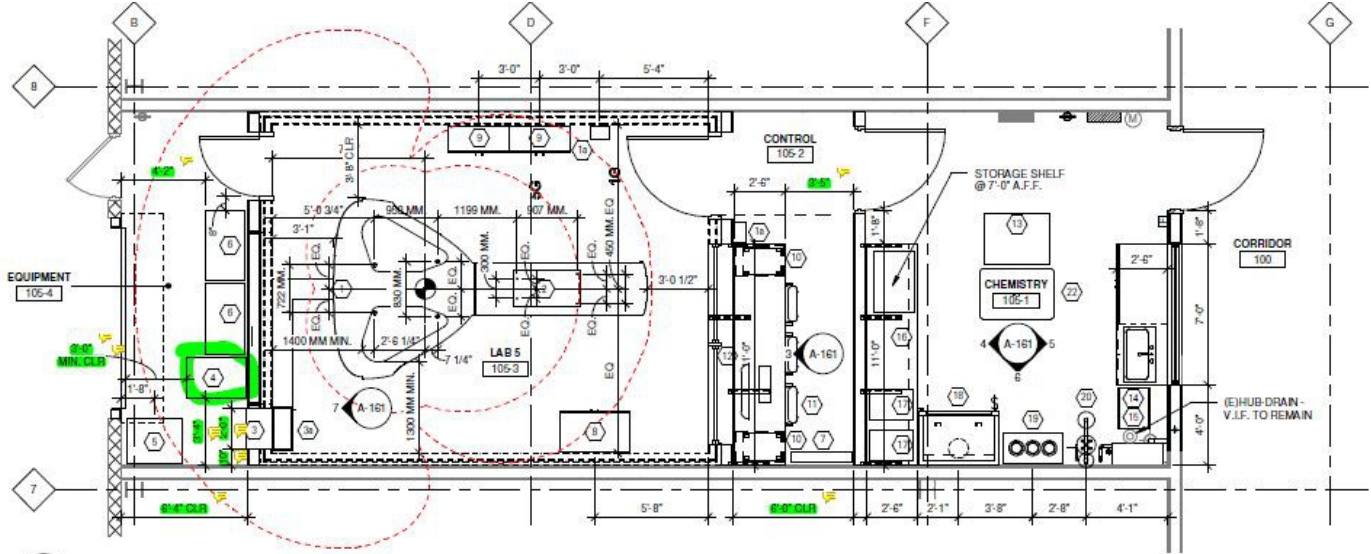
Revision
1

Issue Date
27 August 2019

Job Number
N/A

Page
7 Of 9

12.2 Site Plan



1
0001 **DETAIL EQUIPMENT PLAN - LAB 5**
SCALE: 1/4" = 1'-0"

RBOX – Shielded Enclosure Testing			
SHIELDING EFFECTIVENESS TEST REPORT FOR: IMEDCO America LTD LOCATION: Wyane State University Detroit, MI	Document No.	Revision	Issue Date
	20190827A	1	27 August 2019
	Job Number		Page
	N/A		8 Of 9

13 MEASUREMENT DATA

13.1 DC<5Hz =Max

.98 mG
 X Axis = Min 0 Max 0
 Y Axis = Min -.020 Max .46
 Z Axis = Min -.16 Max .82

Fluctuation minimum meets the 1 mG requirement without compensation.
 (Activity in the loading bay next door may have contribute a higher reading).

13.2 AC (16.6 Hz) (Rail Frequency) = Max

.004 mG
 X Axis = Min 0 Max .001
 Y Axis = Min 0 Max .004
 Z Axis = Min 0 Max 0

Fluctuation minimum meets the 0.2 mG requirement without compensation.

13.3 AC (50-60 Hz) (Mains Power Frequency) = Max

.027 mG
 X Axis = Min 0 Max 0
 Y Axis = Min 0 Max .027
 Z Axis = Min 0 Max .01

Fluctuation minimum meets the 1 mG requirement without compensation.

RBOX – Shielded Enclosure Testing			
SHIELDING EFFECTIVENESS TEST REPORT FOR: IMEDCO America LTD LOCATION: Wyane State University Detroit, MI	Document No.	Revision	Issue Date
	20190827A	1	27 August 2019
	Job Number		Page
	N/A		9 Of 9

14 EMI/RFI TEST EQUIPMENT LIST

14.1 Table: MRI Test Equipment List

Mfgr./Model	Description	Serial
GigHertzSolution ME 3851A	DC-100KGz Electrostress Analyzer	13100001731
AlphaLab-Latnex / MG-DC3	Milligauss Meter	105
Tenmars TM-192D	Triaxial Magnetic Guass Meter 30Hz – 2000Hz	150701483
Lutron / EMF-823	Triaxial Magnetic Field Meter 30Hz – 2000Hz	1100312