

Martin Enterprises

"Your Underground Enclosure Experts"





Underwriters Laboratories Listed Products



QuEST Forum/TL9000 ISO 9001:2008 Registered







CALIFORNIA REPUBLIC



Respected Recipients,

Martin Enterprises was established in 1999. Initial product offerings included EMS locators and underground enclosure hardware. It was shortly after our inception that we identified the need for a new standard of product quality and service in the underground utility enclosure industry. Martin Enterprises product line has evolved with this standard to include a complete line of underground utility enclosures.

Martin Enterprises manufactures underground utility enclosures utilizing both fiberglass reinforced polymer and polymer concrete technologies. We employ an extensive quality control criteria insuring that all of the applicable performance standards are adhered to during every step of the manufacturing process. Superior product quality and service are the cornerstones of our Organization as we have embraced the ideologies of and are now an ISO 9001:2008 Registered Firm (Certificate No. C2014-02088), QuEST Forum's TL9000 (TL ID 6775) Registered Firm that provides UL Listed Products (File E351227).

Martin Enterprises feels very strongly in its support of enterprises that embrace the "Buy American" philosophy. All our products are manufactured domestically in our facilities in Nuevo, California and Dallas, Texas which ensures compliance with the "Buy American" requirement as listed by the United States Department of Agriculture Rural Development.

Thank you for considering Martin Enterprises products for your project, as we look forward to showing your team the benefits of a relationship with Martin Enterprises.

Respectfully Submitted,

Stephen J. Kavousy

Quality Control / Technical Manager

Martin Enterprises

"Your Underground Enclosure Experts"

Martin Enterprises

Martin Enterprises

19940 Hansen Avenue Nuevo, CA 92567 Office (951) 928-8713 Fax (951) 928-4623 martinfrp@sbcglobal.net

TL9000 Overview

QuEST's TL9000 Quality Management System

Background:

QuEST's TL9000 Quality Management System was designed specifically for the Information and Communication Technologies (ICT) industry by its various members:

- ANSI/ASQ National Accreditation Board (ANAB)
- Alcatel-Lucent Technologies
- AT&T
- Cisco
- Ericcson
- Motorola
- Telcordia Technologies
- Verizon

TL 9000 is the telecommunication industry's unique extension to ISO 9001:2008 standards, as its purpose is to define quality system requirements specifically for the telecommunications industry.

Defining Quality System Requirements allowed for the establishment of a consistent and continuous set of quality expectations that are monitored continuously, allowing for measurement performance data to be collected on <u>every</u> item manufactured.

- Work Instructions
- Pre/In-process/Post Production
- Incoming Raw Material Analyses

TL900 is requires certified organizations to collect and submit auditable data to the University of Texas, which allows Quest Forum to provide benchmarking data that aids organization as they continually strive to be the best in class:

- Customer Focus & Care
- Product Realization / Manufacturing
- Quality Planning
- Measurements, Analysis, & Improvement

Martin Enterprises has adopted these quality expectations, and established rigorous Quality Management System that monitors every step of the product realization process. Various quality control measurements, work instructions, and forms have been established to ensure that every item produced adheres to quality expectations.



Certificate of Registration

Perry Johnson Registrars, Inc., has audited the Quality Management System of:

Martin Enterprises 19940 Hanson Avenue, Nuevo, CA 92567 United States

(Hereinafter called the Organization) and hereby declares that Organization is in conformance with:

ISO 9001:2008 with TL 9000 Release 5.0 Including TL 9000 QMS Measurements Handbook Release 5.0

This Registration is in respect to the following scope:

Production of Underground Fiberglass and Polymer Concrete Utility Enclosures for the Utility and Telecommunications Industry TL 9000 H (3.1.2.1 Enclosures)

This Registration is granted subject to the system rules governing the Registration referred to above, and the Organization hereby covenants with the Assessment body duty to observe and comply with the said rules.





Perry Johnson Registrars, Inc. (PJR) 755 West Big Beaver Road, Suite 1340 Troy, Michigan 48084 (248) 358-3388

The validity of this certificate is dependent upon ongoing surveillance.

Effective Date: August 24, 2014 Expiration Date:

August 23, 2017

Certificate No .:

C2014-02088

CERTIFICATE OF COMPLIANCE

Certificate Number 20140925-E351227

Report Reference E351227-20140924

Issue Date 2014-SEPTEMBER-25

Issued to: MARTIN ENTERPRISES

Suite 262

7231 Boulder Ave Highland CA 92346

This is to certify that representative samples of BOXES, ENCLOSURES, HANDHOLES AND VAULTS,

UNDERGROUND, UTILITY SPECIFICATION

See Addendum

Have been investigated by UL in accordance with the

Standard(s) indicated on this Certificate.

Standard(s) for Safety: ANSI/SCTE 77 2010, Specification for Underground

Enclosure Integrity

ANSI/UL 746A, Polymeric Materials - Short Term Property

Evaluations

Additional Information: See the UL Online Certifications Directory at

www.ul.com/database for additional information

Only those products bearing the UL Listing Mark should be considered as being covered by UL's Listing and Follow-Up Service.

The UL Listing Mark generally includes the following elements: the symbol UL in a circle: with the word "LISTED"; a control number (may be alphanumeric) assigned by UL; and the product category name (product identifier) as indicated in the appropriate UL Directory.

Look for the UL Listing Mark on the product.

William R. Carney, Director, North American Certification Programs

UL LLC

William R. Carray

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at www.ul.com/contactus



CERTIFICATE OF COMPLIANCE

Certificate Number 20140925-E351227

Report Reference E351227-20140924

Issue Date 2014-SEPTEMBER-25

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

"Vault Series",

1324, followed by PC, followed by /12, /18, or /24.

1730, followed by PC, followed by /12, /18, /22, /24, or /30.

2436, followed by PC, followed by /12, /18, /24, /30, /36, or /48.

3048, followed by PC, followed by /18, /24, /30, /36, or /48.

3060, followed by PC, followed by /30 or /36.

3248, followed by PC, followed by /48.

3660, followed by PC, followed by /18, /24, or /36.

4848, followed by PC, followed by /24, /36, or /48.

William R. Carney, Director, North American Certification Programs

LLLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at www.ul.com/contactus





Warranty

Martin Enterprises warrants for a period of one year from date of shipment of said product.

Martin Enterprises shall accept a written return request, without exception, for products purchase that do not conform to quality standards and specification requirements as forth in the Purchase Order. Martin Enterprises will assume the cost associated with shipping the returned product back to the factory.

Martin Enterprises manufactures Ground Level Utility Enclosures that are designed to meet The Society of Cable Telecommunications Engineers ANSI/SCTE 77 Specification for Underground Enclosure Integrity. Martin Enterprises represents and warrants that all products shall be free of defects in material and workmanship, and be sufficient ad fit the purpose intended by the Buyer.

Martin Enterprises enclosures should <u>NOT</u> be installed in areas that will expose the product to deliberate or heavy vehicular traffic. Martin Enterprises does not take responsibility for product failure caused by improper installation practices that do not adhere to the ANSI/SCTE 77 Specification.

This warranty will not apply to any products which have been modified outside of the Martin Enterprises facility, and/or have been utilized in in a manner that does not adhere to the abovementioned specification



General Utility Enclosure Installation Guideline

Location

Pedestrian / Greenbelt /Light duty enclosure assembly- SCTE 77 TIER 5 construction.

Vertical Load: Design Load 5,000 lbs. Lateral: Design Load 600 lbs. / sq. ft.

Test Load 7,500 lbs. Test Load 900 lbs. /sq. ft.

Sidewalk / Medium Duty enclosure assembly-SCTE 77 TIER 8 construction.

Vertical Load: Design Load 8,000 lbs. **Lateral:** Design Load 600 lbs. / sq. ft.

Test Load 12,000 lbs. Test Load 900 lbs. /sq. ft.

<u>Driveway / Heavy Duty enclosure assembly-SCTE 77 Tier 15 construction.</u>

Vertical Load: Design Load 15,000 lbs. **Lateral:** Design Load 800 lbs. /sq. ft.

Test Load 22,500 lbs. Test Load 1,200 lbs. /sq. ft.

Driveway Heavy Duty enclosure assembly-SCTE 77 Tier 22 construction.

Vertical Load: Design Load 22,500 lbs. Lateral: Design Load 800 lbs. /sq. ft.

Test Load 33,750 lbs. Test Load 1,200 lbs. /sq. ft.

Site Selection

The selection of the utility enclosure should be determined by the live load that the unit will see during the life of the enclosure. The exposure of pedestrian traffic and vehicle traffic should be considered when selecting the enclosure. The cover of the installed enclosure will bear most of the live load. The load on the cover under live loads will be transferred into the ring and down the side wall of the enclosure.

Installation

The excavation site should be ten percent larger than the utility enclosure size. The migration of ground water should be considered when selecting the enclosure design. The base of the site should include at least four inches of crushed rock.

The enclosure should be placed in the excavation site with the top ring of the enclosure at grade level. If a backhoe is used during installation, the cover should be installed in the enclosure and the lift pins used for lifting the unit into place. For larger enclosures, lifting wire or lifting bolts are provided in the unit. Backfill material around the enclosure should be free of any foreign material. The dirt should also be free of large rocks or pavement material. Vibration tamping is recommended around the backfill site. Internal sidewall supports are recommended during the backfill process.

Martin Enterprises assumes that proper engineering considerations have been made prior to selecting a utility enclosure. Martin Enterprises does not take responsibility for the installation practices, site selection or selection of the enclosure load rating

General Installation Application Map ANSI/SCTE-77 2013 Specification

APPLICATION

LOADING REQUIREMENTS

			•	1
Light Duty Pedestrian Traffic Only	Vertical	Test Load	13.3kN	3,000 pounds
TIER 5 Sidewalk applications with a safety factor for occasional non-deliberate vehicular traffic.	Vertical Lateral	Design Load Test Load Design Load Test Load	22.2kN 33.3kN 28.7kPa 43.1kPa	5,000 pounds 7,500 pounds 600 pounds/sq.ft. 900 pounds/sq.ft. (1800/2700 lbs/ lateral load plate)
TIER 8 Sidewalk applications with a safety factor for non-deliberate vehicular traffic.	Vertical Lateral	Design Load Test Load Design Load Test Load	35.6kN 53.4kN 28.7kPa 43.1kPa	8,000 pounds 12,000 pounds 600 pounds/sq.ft. 900 pounds/sq.ft. (1800/2700 lbs/ lateral load plate)
TIER 15 Driveway, parking lot, and off- roadway applications subject to occasional non-deliberate heavy vehicular traffic	Vertical Lateral	Design Load Test Load Design Load Test Load	66.7kN 100.1kN 34.3kPa 57.5kPa	15,000 pounds 22,500 pounds 800 pounds/sq.ft. 1,200 pounds/sq.ft (2400/3600 lbs/ lateral load plate)
Driveway, parking lot and off- roadway applications subject to occasional non-deliberate heavy vehicular traffic	Vertical Lateral	Design Load Test Load Design Load Test Load	100.1kN 150.1kN 38.3kPa 57.5kPa	22,500 pounds 33,750 pounds - 800 pounds/sq.ft. 1,200 pounds/sq.ft (2400/3600 lbs/ lateral load plate) -
AASHTO H-20	Certified precast concrete, cast iron, or AASHTO-			

Deliberate vehicular traffic application.

recognized materials.

Martin Enterprises does not manufacture enclosures that . adhere to the AASHTO H-20 application. Martin Enterprises . enclosures should NOT be utilized for this application.

Martin Enterprises manufactures Ground Level Utility Enclosures that are designed to meet SCTE-ANSI 77 Tier 5, 8, 15 and 22 specifications. Martin Enterprises Ground Level Utility Enclosures should NOT be installed in areas that will expose the product to deliberate or heavy vehicular traffic. Martin Enterprises does not take responsibility for product failure caused by Improper installation practices that do not meet industry standards. Certified precast concrete, cast iron or other AASHTO H10-44 or AASHTO H20-44 recognized materials should be used in deliberate or heavy vehicular traffic locations.

Martin Enterprises "Your Underground Enclosure Experts"

> **UL Listed Products File# E351227** ISO 9001:2008 Registered Firm QuEST Forum / TL9000 Registered



Tier, 22







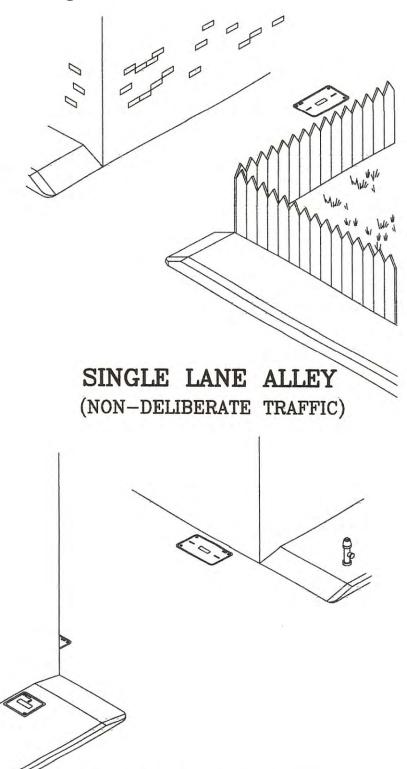
Tier 22

Tier 8

AASHTO H-20

Tier 15

Image courtesy of The Soceity of Cable Telecommunications Engineers ANSI/SCTE 77

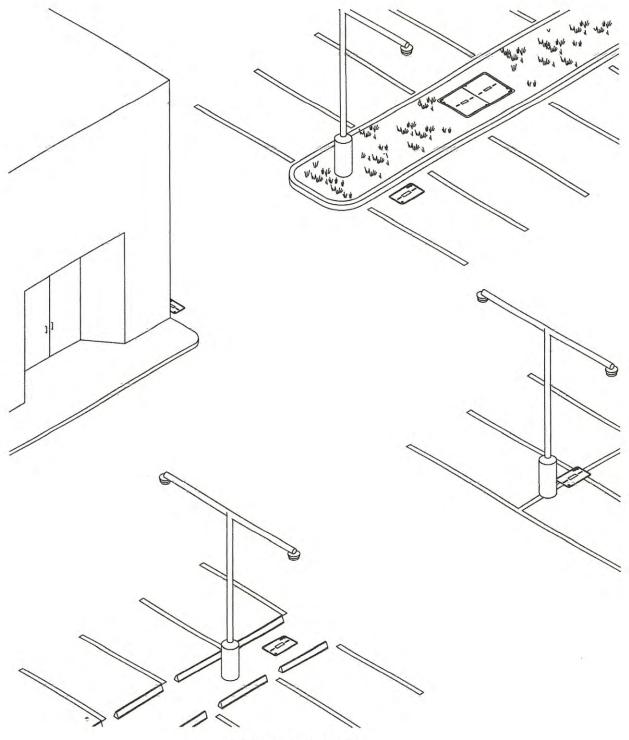


DUAL LANE ALLEY

(NON-DELIBERATE TRAFFIC)

In a single lane alleyway, the enclosure should be placed in the center of the alleyway. This placement should minimize the possibility of the enclosure being run over. In a dual lane alleyway, the enclosure should be placed as close to the building as possible. Most of the time, two vehicles will not be in the alleyway at same time, so the chances of the enclosure getting run over will be minimal. Knowledge of the location and expected traffic patterns should be used to determine if traffic would be deliberate or non-deliberate as defined above.

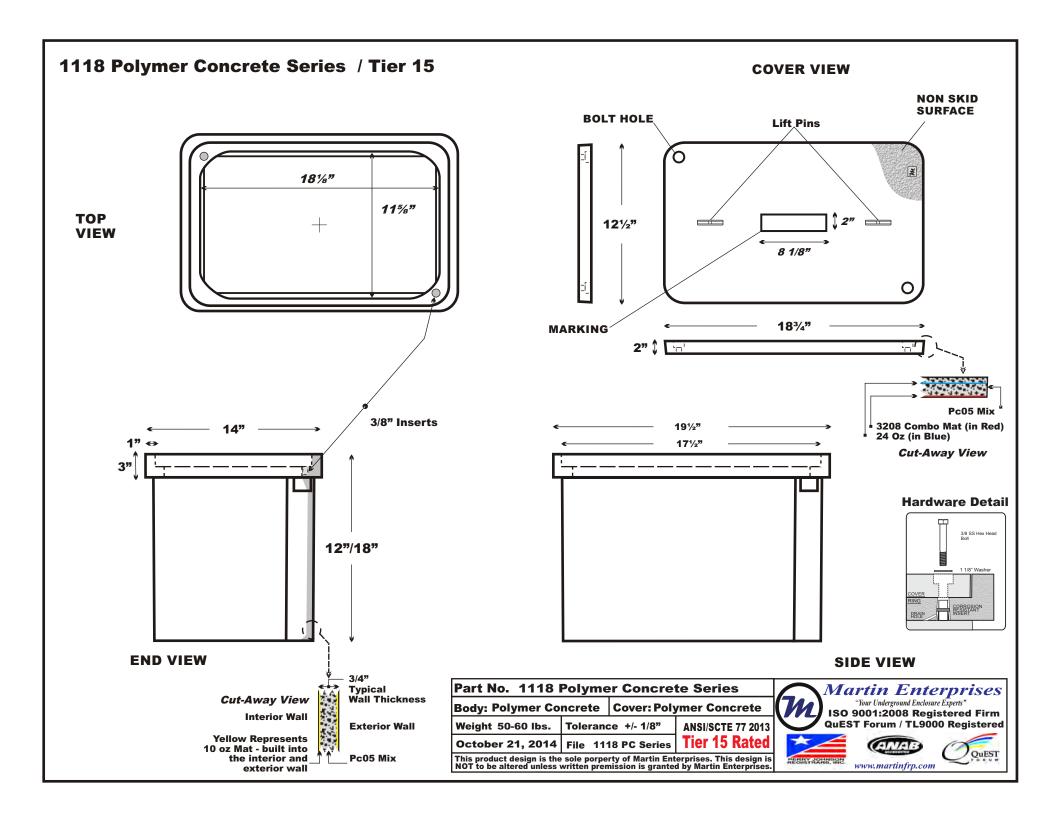
Image courtesy of The Soceity of Cable Telecommunications Engineers ANSI/SCTE 77



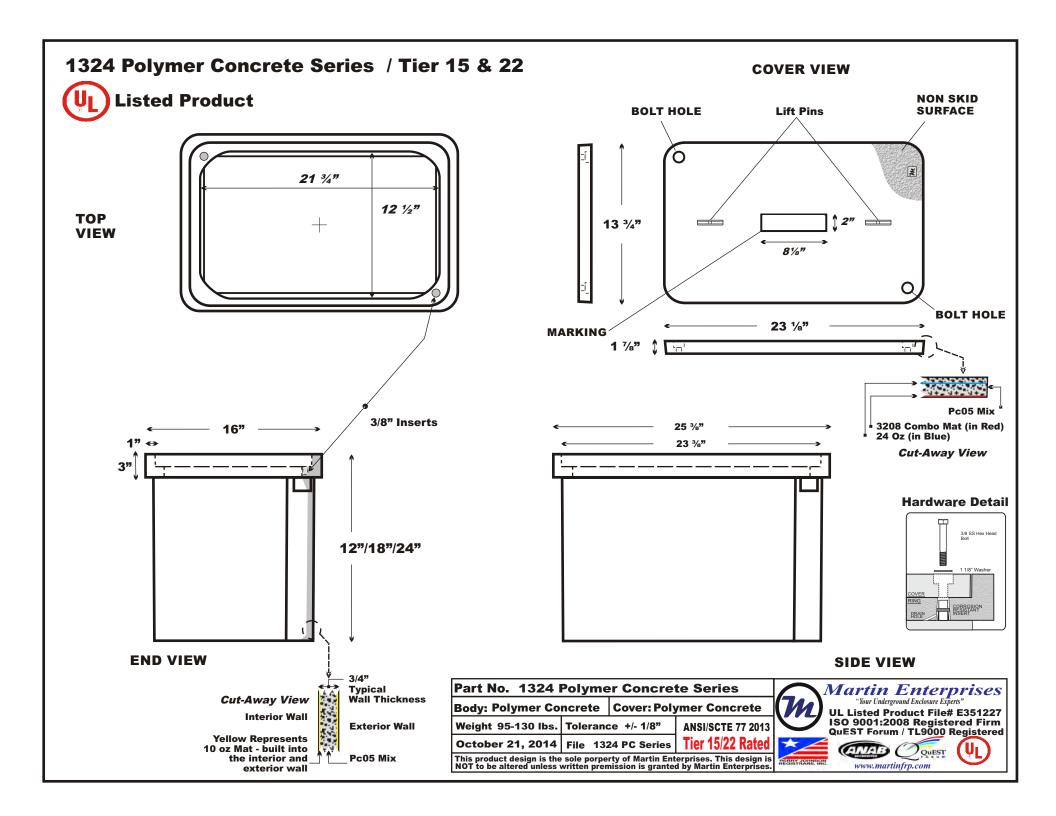
PARKING LOTS (NON-DELIBERATE TRAFFIC)

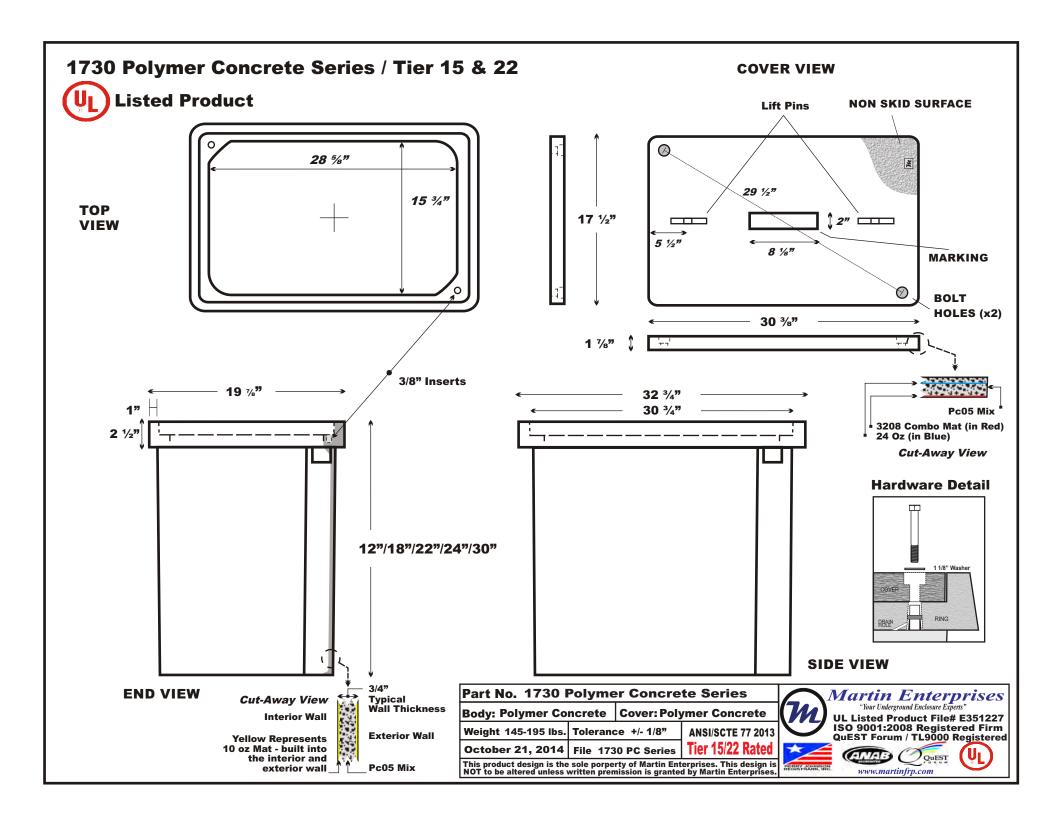
Enclosure applications:

- in the front center of a parking space with the enclosure placed so that the tires of the vehicle will straddle the enclosure.
- in the grassy area where the parking lot ends.
- placed along side and close to the lighting pole
- placed between the parking curbs where the possibility of running over the enclosure is remote. This enclosure could be placed anywhere between the parking curbs.
- along side the building but not in front of a door or pick up area where vehicular traffic would be expected.

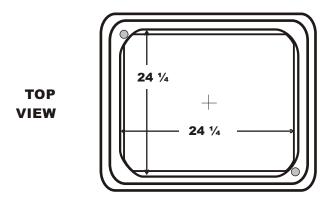


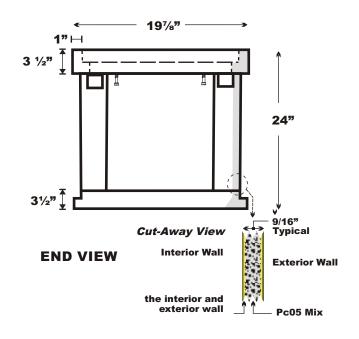
1212/12 Polymer Concrete / Tier 15 **COVER VIEW BOLT HOLE NON SKID SURFACE** 2" 113/4" **TOP** 123/4" m -LIFT PIN **VIEW** 14 1/2" **MARKING** 1 3/4" 14 1/2" - 12 ¾" 141/2" —— ■ 3208 Combo Mat (in Red) - 141/2"-----24 Oz (in Blue) 13" — 3/4" |--**Cut-Away View Hardware Detail** 12" 111/4" **SIDE VIEW END VIEW** 3/4" Part No. 1212/12 Polymer Concrete **Typical** Martin Enterprises **Cut-Away View** Wall Thickness "Your Underground Enclosure Experts" ISO 9001:2008 Registered Firm **Body: Polymer Concrete | Cover: Polymer Concrete Interior Wall** QuEST Forum / TL9000 Registered Weight 551bs. **Exterior Wall** Tolerance +/- 1/8" **ANSI/SCTE 77 2013 Yellow Represents** October 21, 2014 | File 1212/12 PC z Mat - built into the interior and 10 oz Mat - built into Pc05 Mix This product design is the sole porperty of Martin Enterprises. This design is NOT to be altered unless written premission is granted by Martin Enterprises. www.martinfrp.com exterior wall

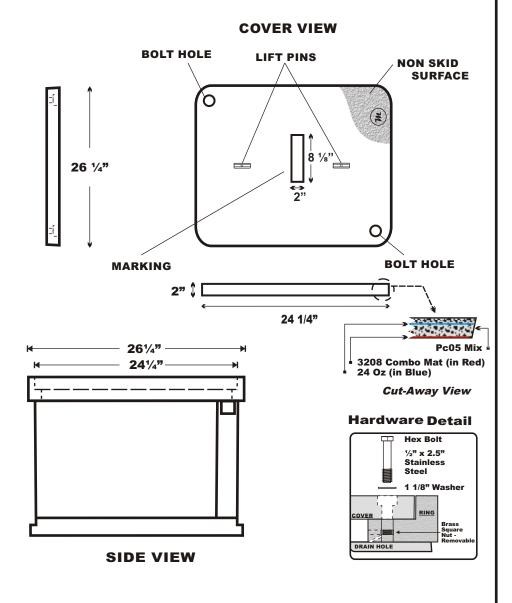


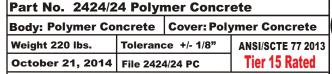


2424/24 Polymer Concrete / Tier 15



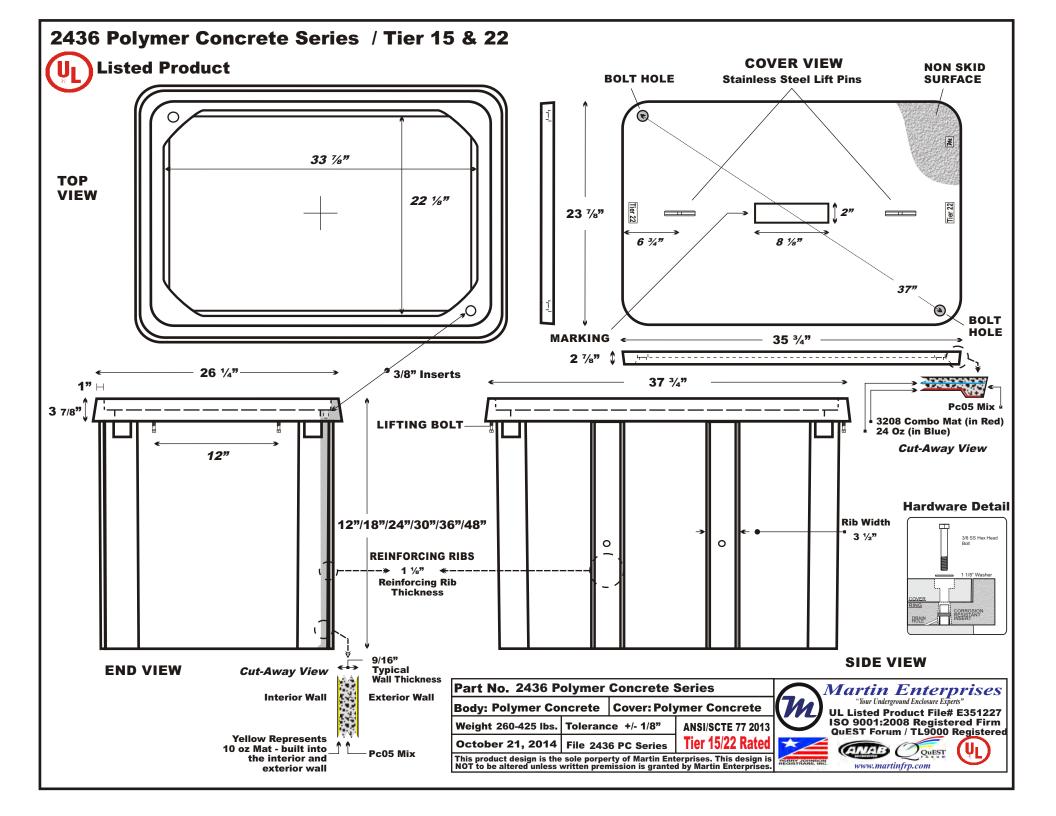


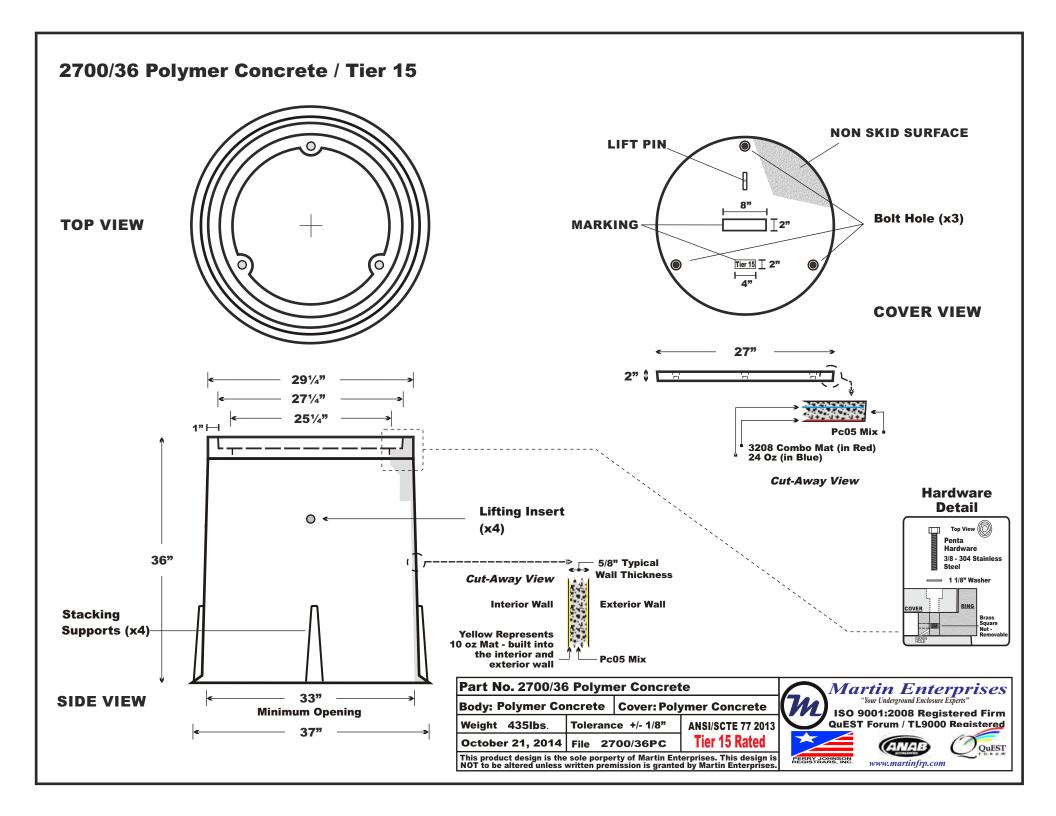


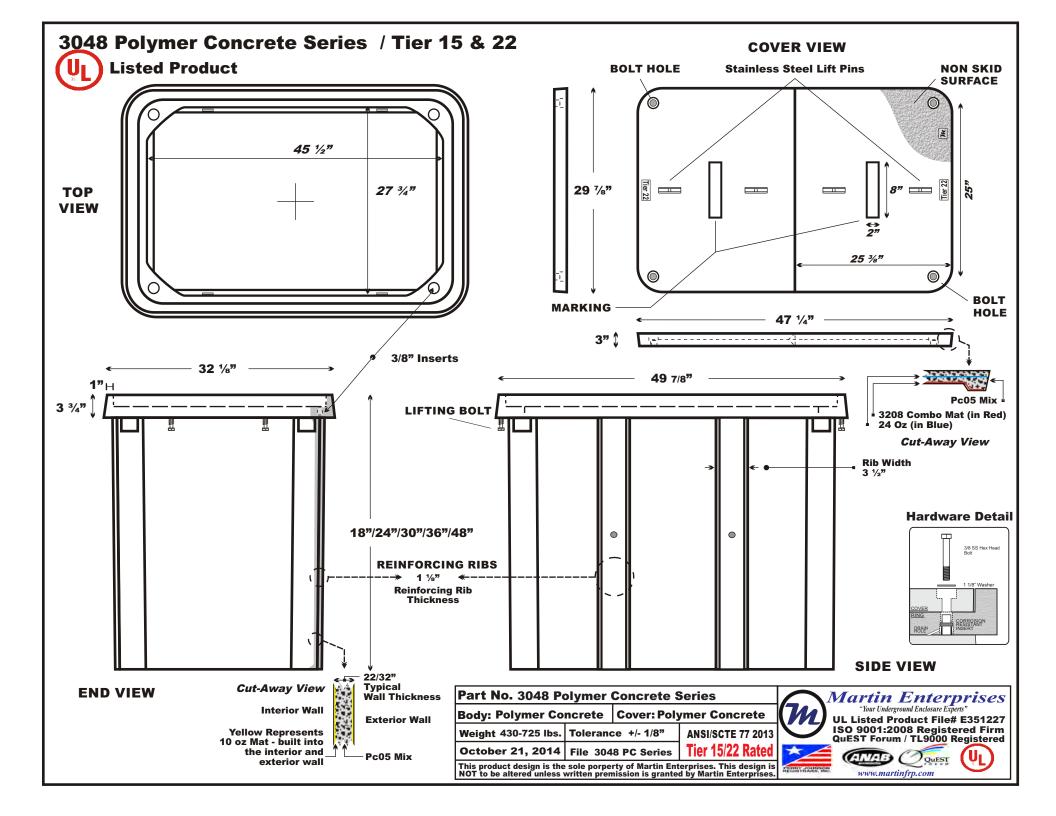


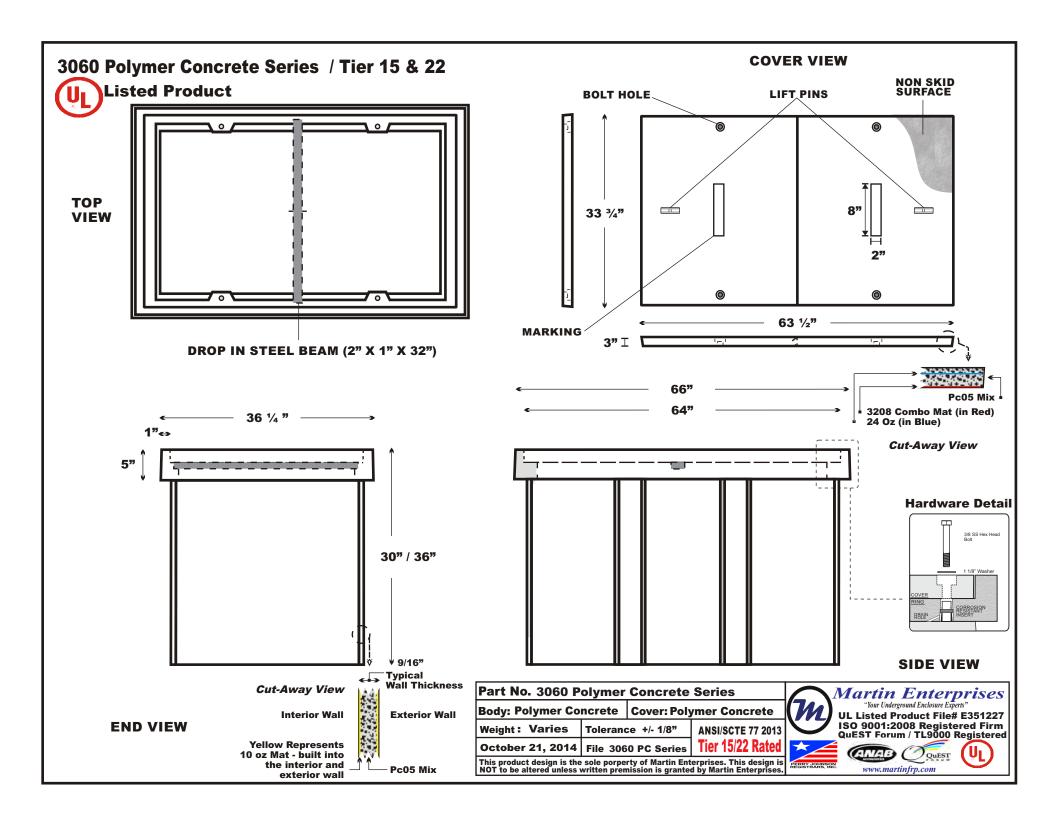
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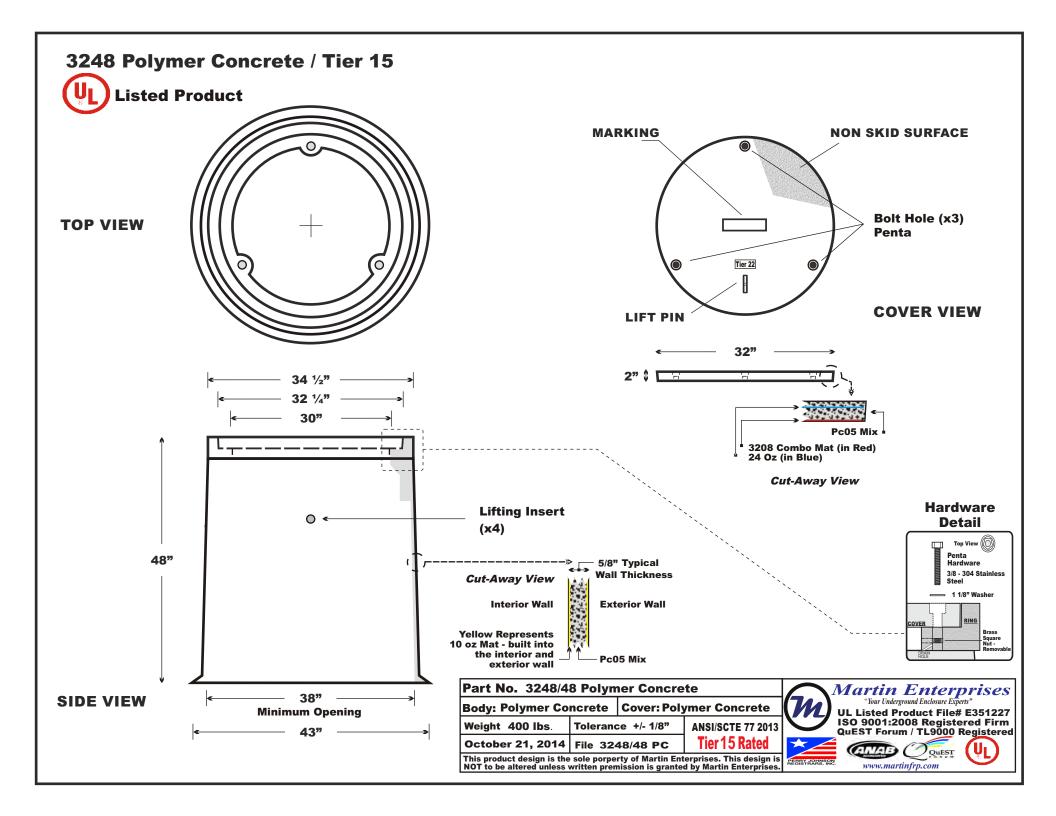


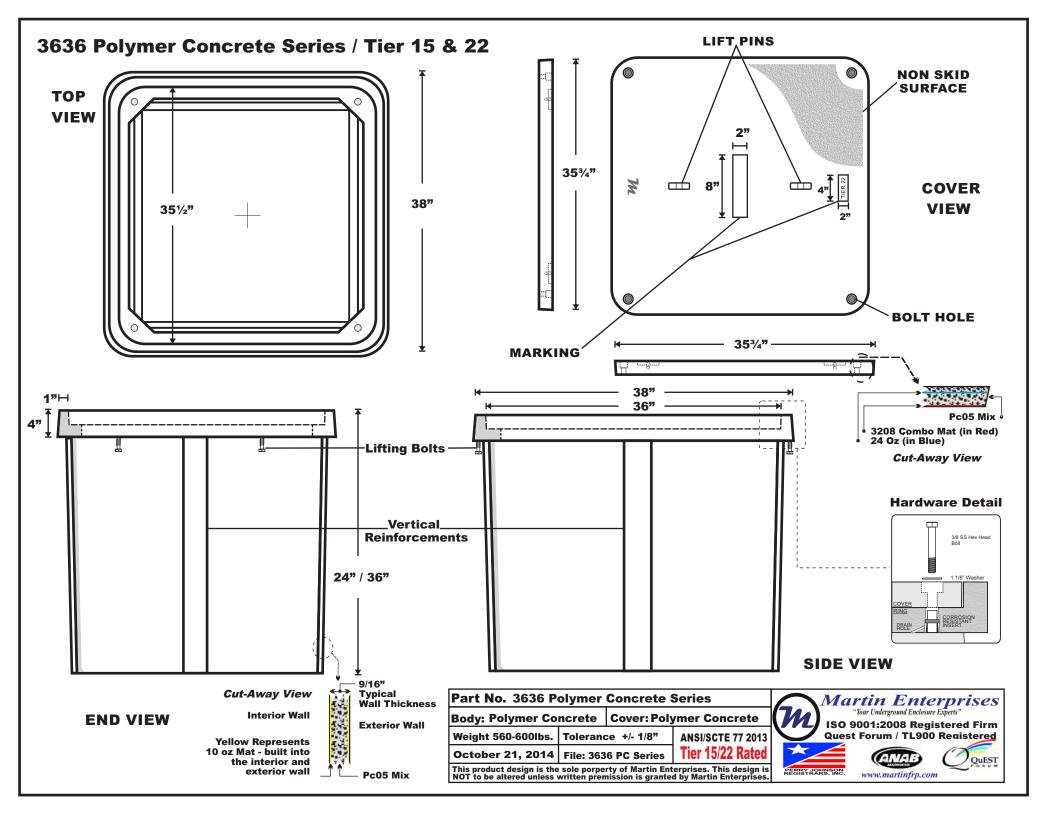


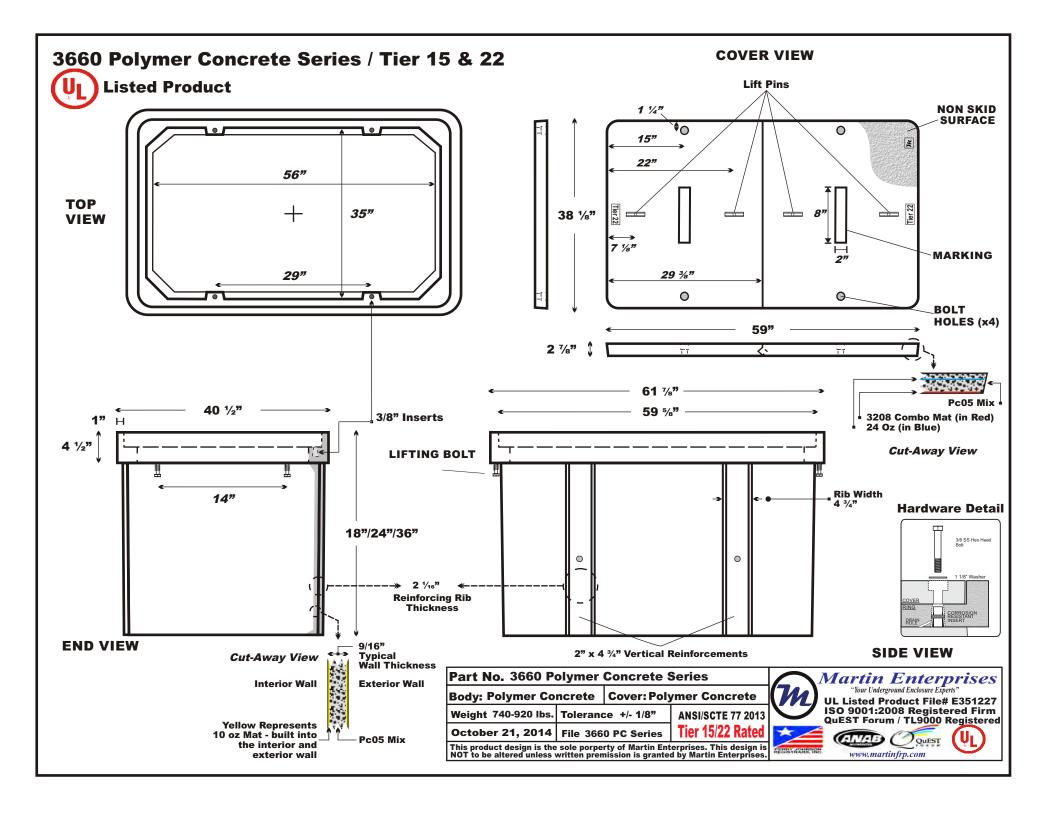


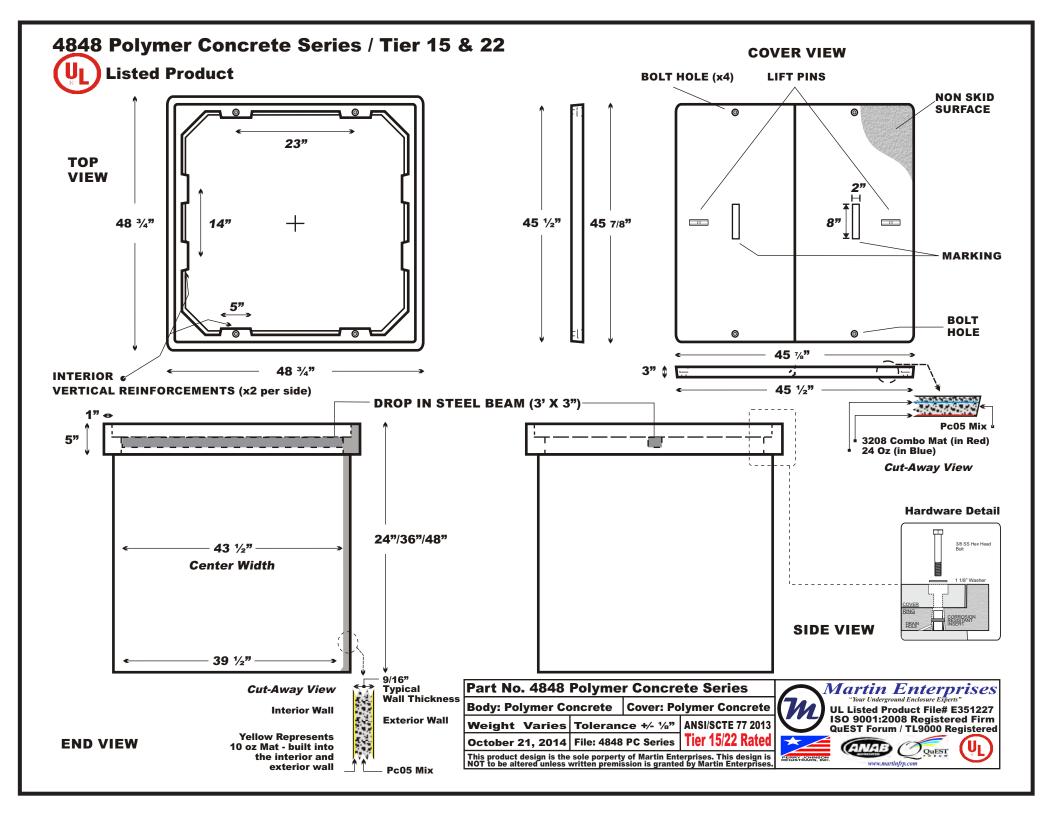


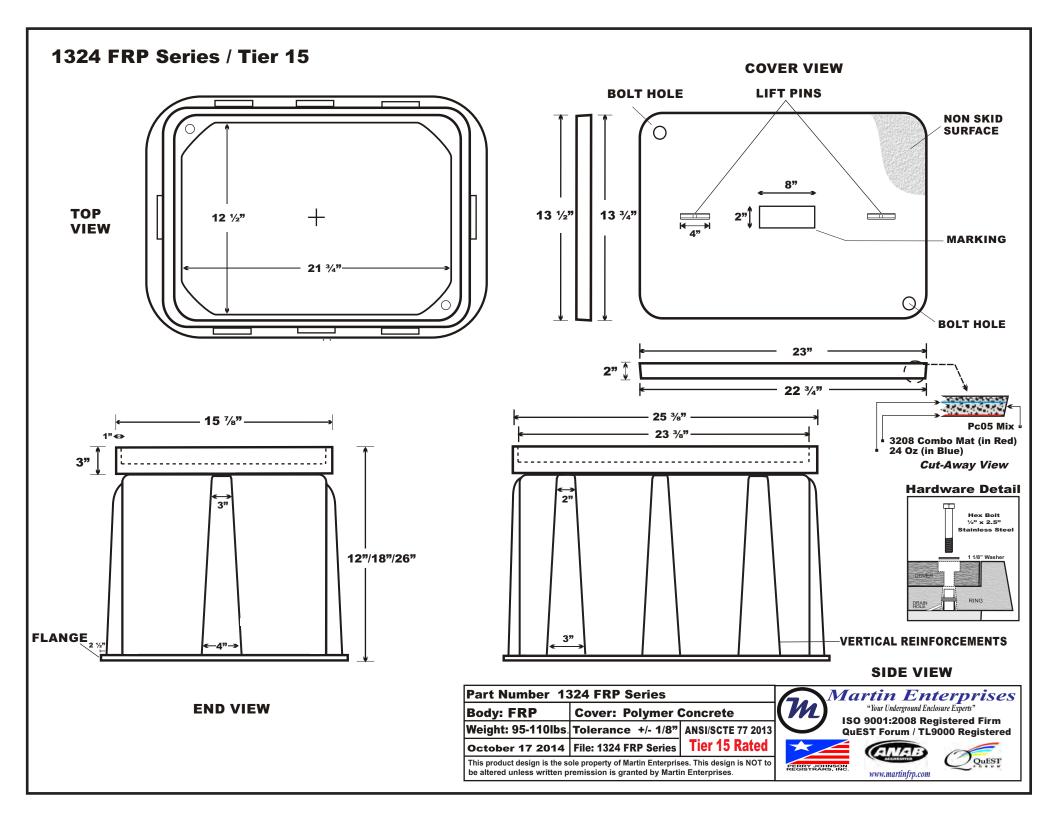


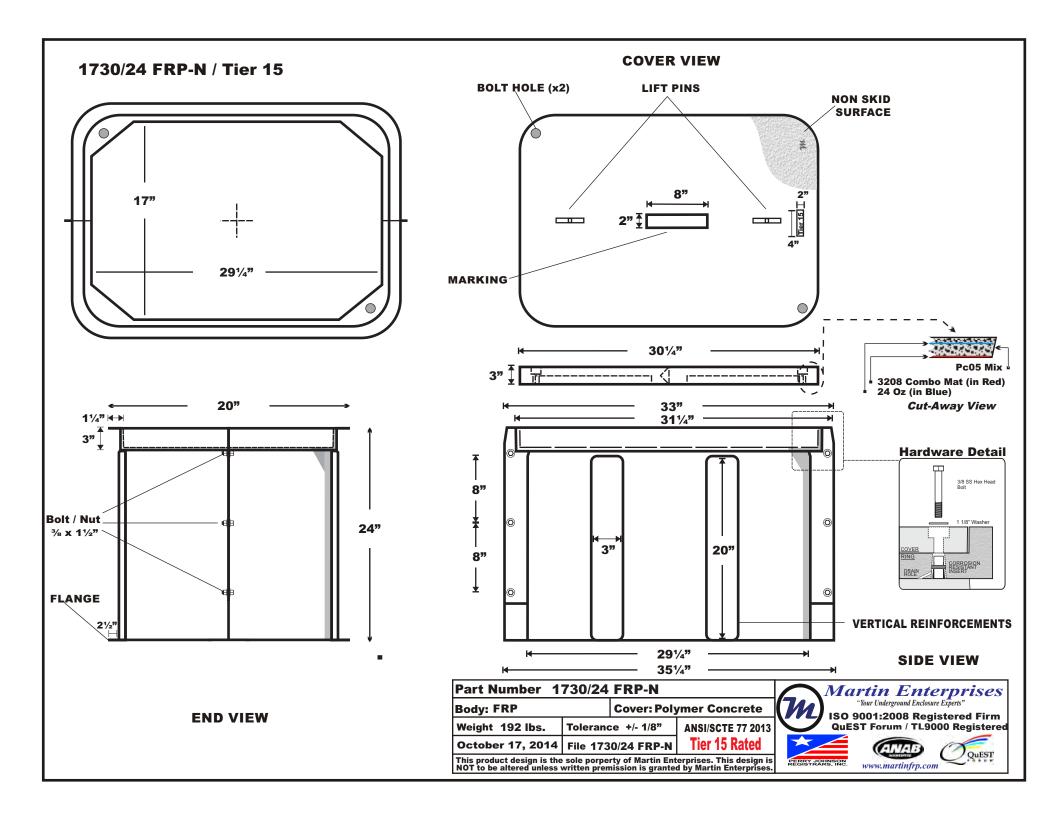


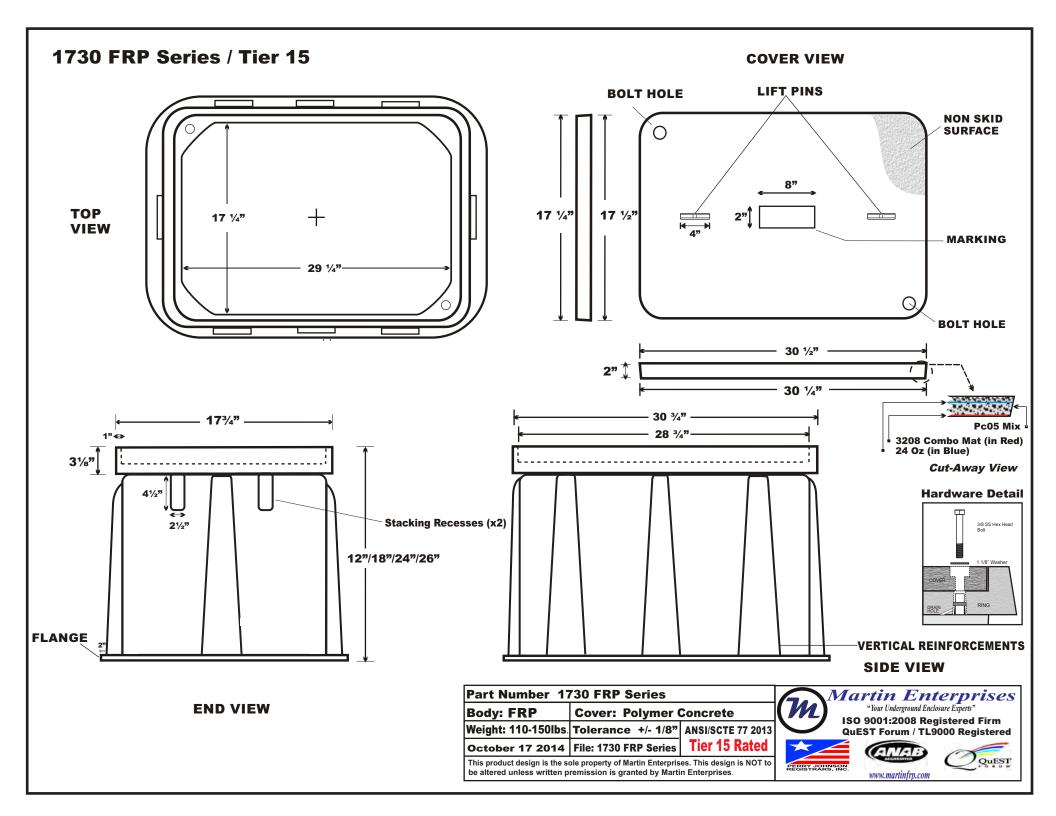


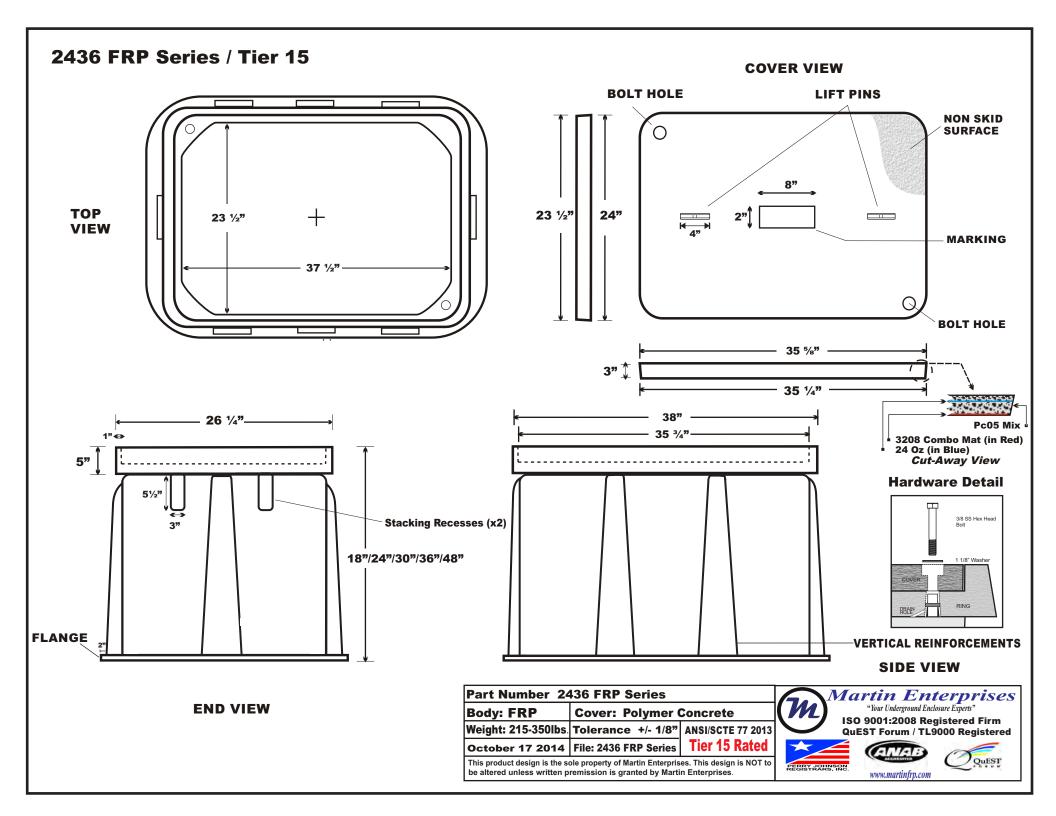


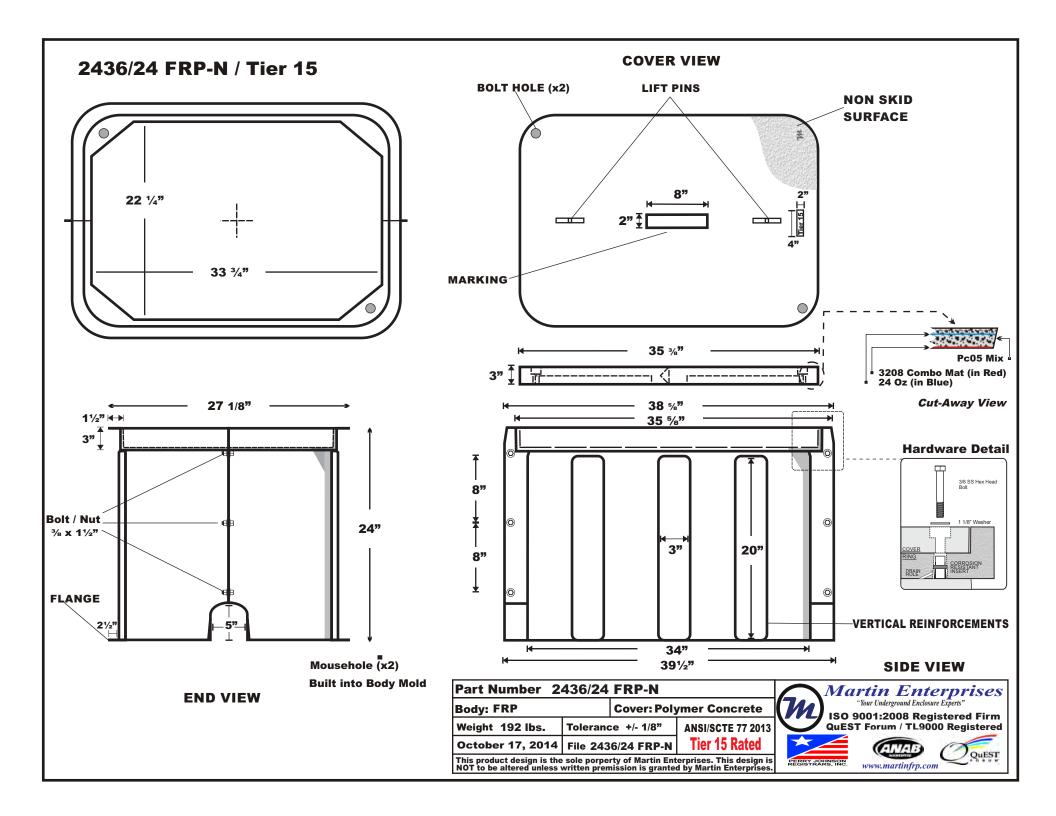


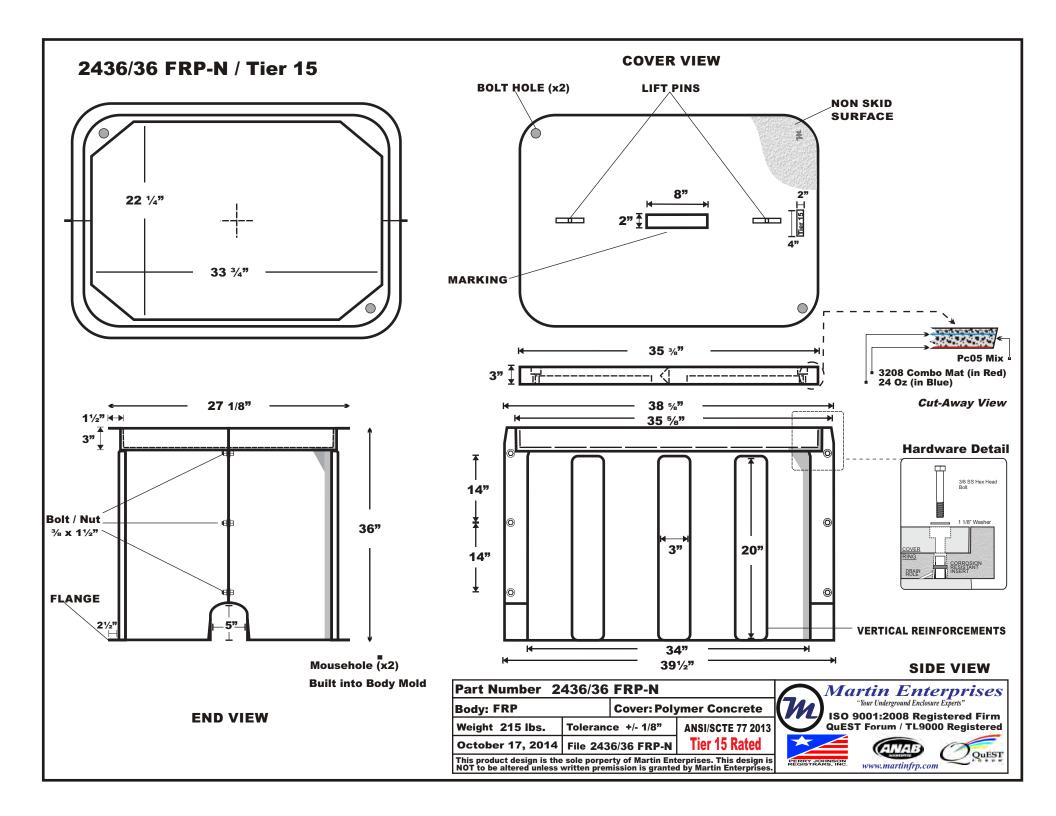


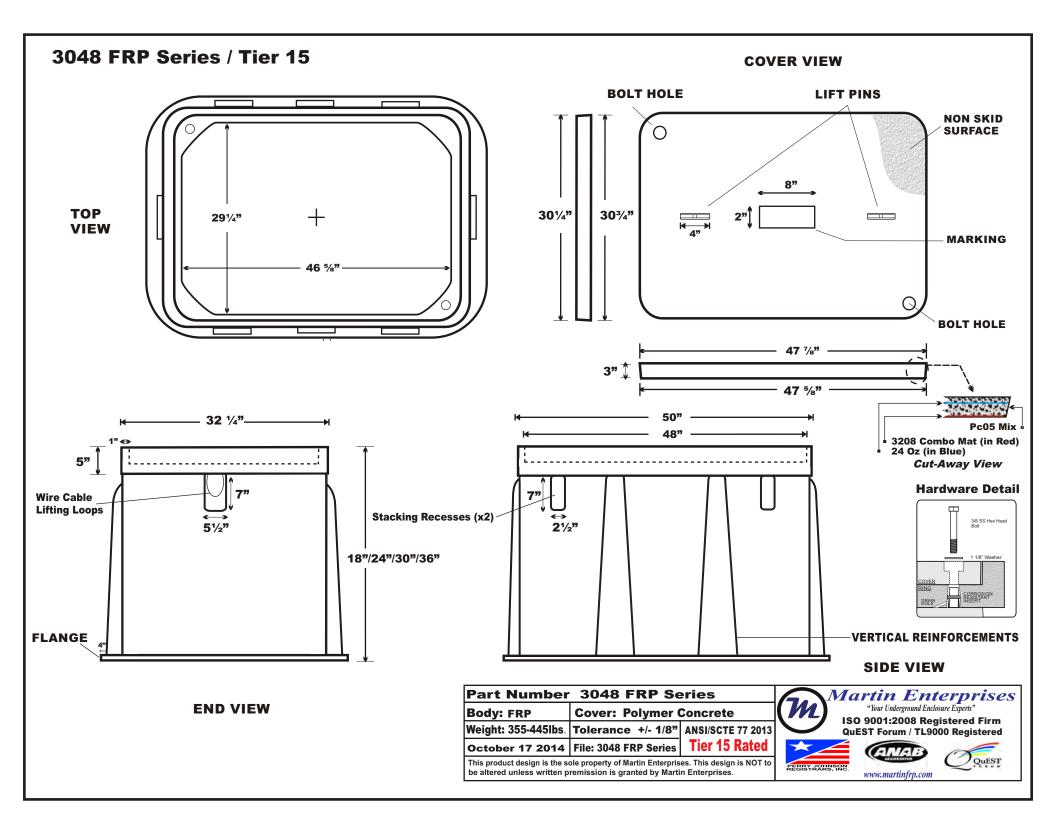


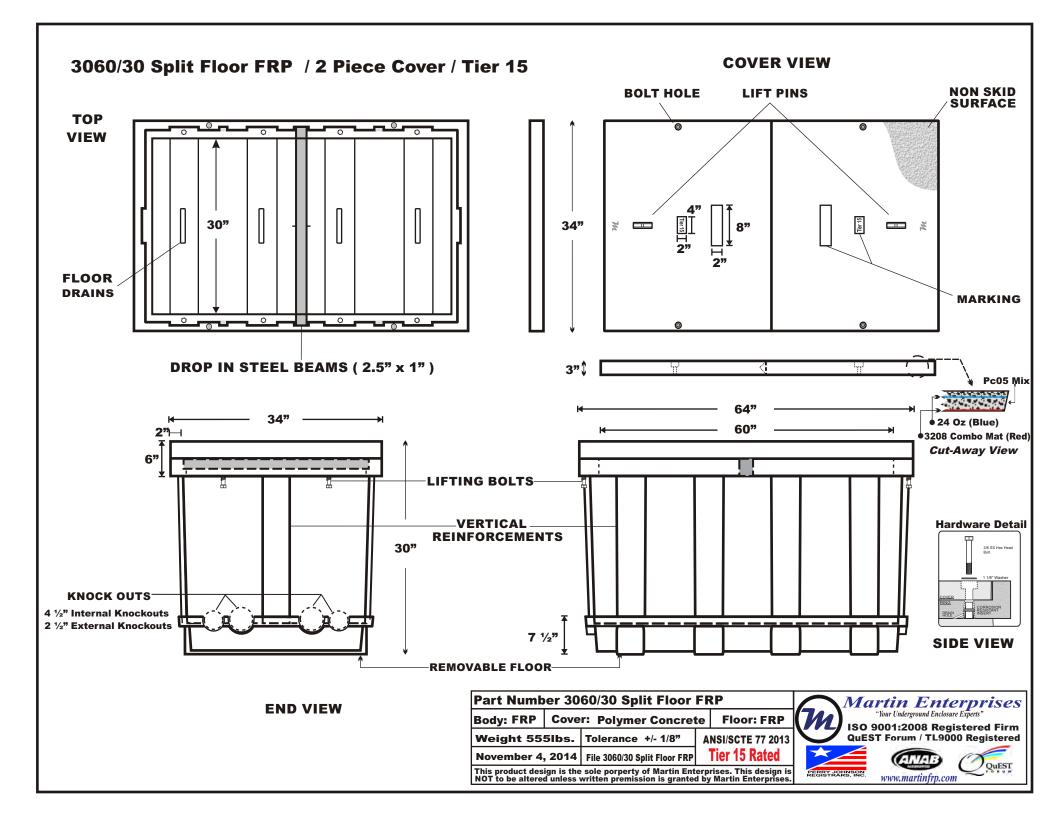


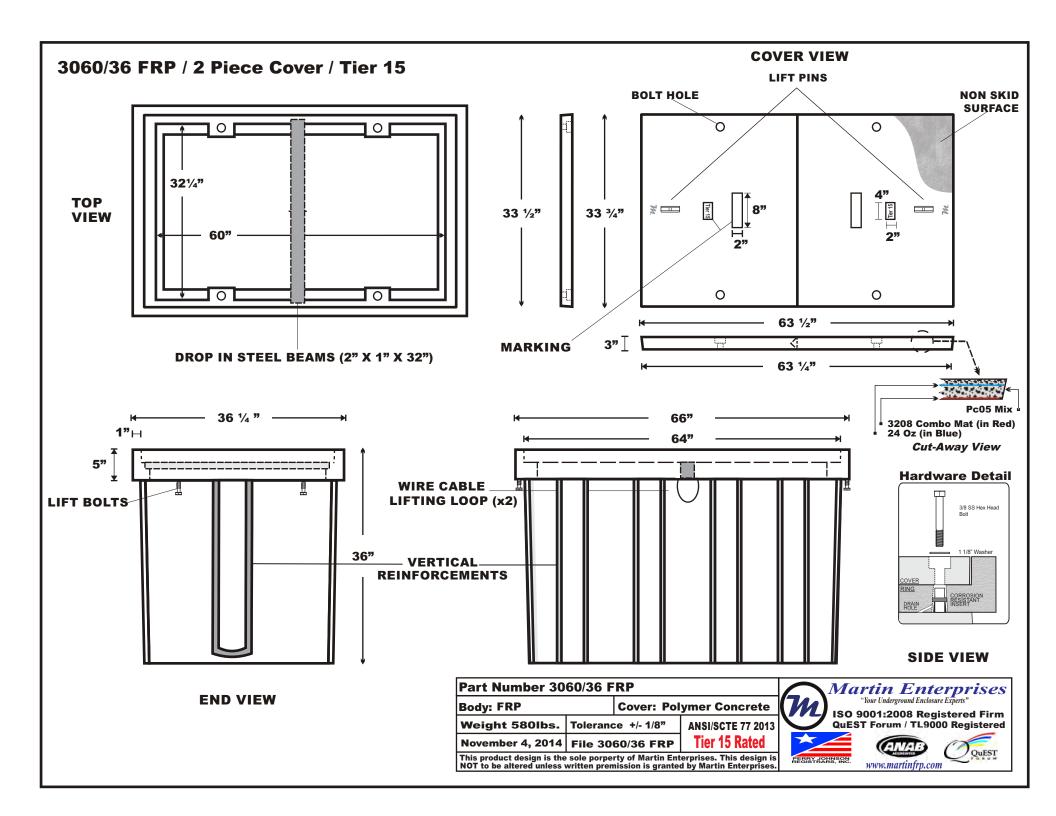












4848 FRP Series / Tier 15 **COVER VIEW** Lift Pins **Non Skid** Surface **TOP VIEW** 45 3/4" 46" 81/8" 48" **Bolt Hole Marking** 46" 48" 3" 45 3/4" Center Steel Beam Support (3" x 3" x 1/4") Н Pc05 Mix 3208 Combo Mat (Red) **Wire Cable** 24 Oz (Blue) **Lifting Loops Cut-Away View** 61/2" **Hardware Detail** Vertical-Reinforcements 3/8 SS Hex Head Bolt 36"/48" **SIDE VIEW** 41/2" Part Number 4848 FRP Series Martin Enterprises "Your Underground Enclosure Experts" **END VIEW** Body: FRP **Cover: Polymer Concrete** ISO 9001:2008 Registered Firm QuEST Forum / TL9000 Registered Weight 670-690 lbs. Tolerance +/- 1/8" **ANSI/SCTE 77 2013 Tier 15 Rated** October 27, 2014 | File 4848 Series FRP This product design is the sole porperty of Martin Enterprises. This design is NOT to be altered unless written premission is granted by Martin Enterprises.

