3 Part Specification for: **Bike-Shell™ 300 Series**
BICYCLE LOCKERS
12 93 00 Site Furnishings
12 93 14 Bicycle Lockers

*These specifications were current at the time of publication, but are subject to change at any time without notice. Please confirm the accuracy of these specifications with the manufacturer and/or distributor prior to installation.

PART 1 – GENERAL

1.1 SYSTEM DESCRIPTION:

A. **Aesthetic Requirements**: Lockers shall be aesthetically pleasing in appearance with stippled textured finish, raised crowned roof and relieved pattern in "X" design on end walls. Outside corners shall smooth having minimum 0.5" radius. Custom design and color changes shall be accommodated as to be specified.

B. **Performance Requirements**:
1. Superior corrosion and weathering resistance, high impact strengths, rigidity and dimensional stability.
2. ABS or HDPE materials shall not be permitted for FRP exterior materials.
3. Lockers shall be molded in one piece as a free standing unit not requiring assembly.
4. Lockers shall not have floors or common walls between units.
5. Lockers shall not have internal or external frame.
6. Molded Fiberglass Laminated Components shall have;
    a. Flexural Strength 32,200psi
    b. Tensile Strength 18,000psi
    c. Glass Content 35% to 37%
7. Component materials shall be field repairable to "like new" specifications.
8. Finish shall be integral surface of components laminated in molding process
9. Locking and latching systems shall be installed by manufacturer.
10. Aluminum alloy materials shall not be permitted for mechanical and structural assemblies in contact with anchoring surface.

C. **Definitions**:
1. "Unit" shall be used to indicate the number of enclosures or boxes, two door units hold two bikes in separate lockers, one door units hold one bike in one locker. Units can be grouped to form linear row.

1.2 **QUALITY ASSURANCE**

A. Installer Qualifications: An experienced installer who has completed installation of bicycle lockers similar in material, design, and extent to that indicated for this project and whose work has resulted in construction with a record of successful in-service performance.
B. Manufacturer Qualifications: A manufacturer with primary experience in fiberglass composite lamination, machining and mechanical assembly of bicycle lockers as required for this project and with a record of successful in-service performance.
C. Source Limitations: Obtain each color, finish, and type of bicycle locker from manufacturer with resources to provide components of consistent quality in appearance and physical properties.
D. Product Options: Drawings indicate size, shape and dimensional requirements of bicycle lockers and are based on the specific system indicated.

1.3 **REFERENCES**

A. Molded Fiberglass Composite Components
    1. ASTM D790 Flexural Properties of Unreinforced and Reinforced Plastics. Flexural Strength of laminated fiberglass composites.
    2. ASTM D638 Tensile Strength of Unreinforced and Reinforced Plastics. Tensile Strength of laminated fiberglass composites.
B. Latch Controlling Cams:
    1. ASTM A366 Standard Specification for Steel Sheet, Carbon, Cold-Rolled, Commercial Grade
C. Locking Bar Mechanism:
    1. ASTM B221 Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles and Tubes

1.4 **SUBMITTALS**

A. Product Data: Include physical characteristics such as shape, dimensions, bicycle parking capacity and finish.
B. Shop Drawings: Show assembly and installation details.
C. Samples for Verification: Showing the lamination of the fiberglass composite components with integral color of the finish. Prepare 2 inch by 3.5-inch (50.8 mm by 87.5mm) samples (or larger) from the same material to be used to mold the product.
D. Maintenance Data: Include standard maintenance manual for this product.

1.5 **DELIVERY, STORAGE, AND HANDLING**

A. Inspect bicycle lockers and components on delivery for carrier damage. Store bicycle lockers in original undamaged packaging in an area sheltered from weather until ready for installation. Inspect bicycle lockers and components prior to installation.

1.6 **WARRANTY**

A. Bicycle lockers are to carry a one year manufacturer's limited warranty against defects in materials and workmanship. The one year warranty period begins the date the product is shipped from the manufacturer.

PART 2 – PRODUCTS

2.1 **ACCEPTABLE MANUFACTURERS**

A. Provide Bike-Shell™ bicycle lockers manufactured by American Bicycle Security Co., PO Box 7359, Ventura, CA 93006-7359, 800-245-3723, fax 805-933-1865, e-mail: turtle@ameribike.com

2.2 **MATERIALS**

A. **Molded components** shall be molded of fiberglass reinforced plastic composite having a lamination schedule with E-glass and polyester resin.
    1. HDPE and ABS materials shall not meet specification.

B. Finish

1. Stipple texture Gelcoat with UV inhibitors laminated to components in molding process, mark and abrasion resistant coating, Solvent-wipe to clean up spray paints.
2. Color as selected by architect from manufacturer's standard colors or specify custom color to be matched.
3. Construction of molded panels with finish applied after molding process shall not qualify.

C. Hardware

1. Heavy gauge piano hinge continuous top to bottom of door. Hinge shall be installed on door with door hung in door frame by manufacturer.
2. All assembly fasteners shall be internal and zinc plated or better
3. Vertical locker shall have molded wheel stop in floor to support bicycle in position.

D. Standard Locks and Locking Hardware

1. PN#010 – Padlock/U-Lock Locking System. Stainless steel padlock/u-lock handle. Padlocks/U-Locks not included.
2. PN#011: Chrome T-Handle Lock with 3 keys per lock and internal locking bar system.
3. Full length pivoting locking bar shall be secured to door with hardened steel cams

secured to the door with 1/2” diameter steel bolts and rides on teflon washers. Movement of locking bar is controlled by hardened steel cams attached to shaft of lock.

E. Interior Diagonal Walls

1. Exterior type OSB panels, come pre-attached, walls shall be minimum 1" above ground level. (For model 302 only)

F. Anchor bolts

a. Expansion type anchor bolts nail-in expansion style 1/4" dia. X 1-1/2" long, four per unit supplied with each locker.

G. Options

1. PN#012 - Master keyed pop-out T-handle locks with 3 user keys per lock and one master key with order.
2. PN#015 - Stainless steel pop out T handle assembly with a removable high security inner cylinder with biaxial lock design manufactured by Abloy Security, Inc., individually keyed with three duplicate keys per cylinder. 1 master key provided. ISO 9001 Certified.
3. PN#200 - Amerilok™ Bluetooth T-Handle Lock. Includes 1 bypass key and 1 override battery pack. Number plates are included on doors.
4. PN#020 - Number plates, each door, sequentially numbered unless specified.
5. PN#030 – Stainless Steel louvered vents on doors to reduce dampness and moisture within the locker.
6. PN#035 - Ventilation “High Flow” System: Solar-powered ventilation 24/7. Highly recommended for areas of high temperature, humidity or dampness. This system will move 24,000cuft air per day* providing the utmost in locker ventilation. System includes louvered stainless steel vents on each end of the unit for air in-flow with a high volume stainless steel **Solar Day/Night** exhaust fan on the top of the locker.
   *Equal to removing all of the air in a Model #302 locker 285 times a day.
7. PN#040 - Gear hooks for riders gear or accessories 2 hooks per locker.
8. Cover for open center area of wedge shaped P & V model lockers
   a. PN#063 quarter circle
   b. PN#062 half circle
   c. PN#061 full circle.
9. Safety-View security Windows, see what is in a locker through the door, available in Acrylic or Powder Coated Black Perforated steel in two sizes.
   a. PN#073 - 12" x 12"
   b. PN#074 - 16" X 36"
10. Safety-View security Walls, see what is in a locker through the walls, available in Powder Coated Black Perforated steel or S.S. steel, 53"L X 40"H panel molded into center area of wall. Contact manufacturer for more details.
11. Floors of fiberglass reinforced plastic composite material molded in prior to shipping. (standard on Model 301V & 301MV)

12. Hardware Upgrade, stainless steel hardware/fasteners. Contact manufacturer for more details.
13. Double Tiered/two story lockers. (Specify quantity for upper and lower units)
14. Logo's & Screened Images - Display signage for end panel to visibly promote the locker system to the public. Contact manufacturer for more details.
15. Custom colors. Contact manufacturer for more details.

2.3 **BICYCLE LOCKERS**

A. The bicycle locker shall be the Bike-Shell™ Model #_____ (insert Bike-Shell model number and description), Quantity of _____ Units, (insert number of units) Molded One Piece fiberglass composite bicycle locker manufactured by American Bicycle Security Co.

1. **Model #302** - Two door, Two bike capacity per Unit. Horizontal bike parking. Dimensions per unit 49"H X 40"W X 74 1/2 "L. Bike shall be separated by an internal diagonal wall creating two separate lockers each 32"W Front and 6"W Back.
2. **Model #301** - One door, One bike capacity per Unit. Horizontal bike parking. Dimensions per unit 49"H X 30"W X 74 1/2" L.
3. **Model #301P** - One door, One bike capacity per Unit in a wedge shape. Horizontal bike parking. Dimensions per unit 49"H X 30"W Front-4"W Back X 72"L.
4. **Model #301V** - One door, One bike capacity per Unit. Vertical bike parking. Dimensions 72"H Front-74"H Back X 30"W Front-5"W Back X 54"L.
5. **Model #301MV** - One door, One bike capacity per Unit. Vertical bike parking. Dimensions 72"H X 30"W X 54" Deep. 10.75 sf of floor space, 63 cu ft of storage space. Optional bike hook.
6. **Model #301W** - One door, 2-3 bike capacity or storage. Dimensions per unit 49"H X 40"W X 74 1/2"
7. **Model #301WL** - One door, long locker recumbent bike or storage. Dimensions per unit 49"H X 40"W X 102"L
8. **Model #301XL** - One door, long locker cargo bike or storage. Dimensions per unit 49"H X 40"W X 120"L. Door opening of 36".

PART 3 – EXECUTION

3.1 **INSTALLATION**

A. Site requirements.
    1. Installation shall be on a concrete pad to local building code requirements.
    2. Five foot minimum clearance from the face of locker with door closed to closest obstruction, allow 3 foot clearance on sides.
    3. Minimum pad size shall be 8" greater than the total length and width of lockers

as grouped with maximum 3 degree slope.

B. Handle and install bicycle lockers in accordance with manufacturer's recommendations and installation instructions.
C. Set bicycle lockers secured to construction, level and true to line, in correct relationship to adjacent materials.