ADDENDUM NO. 5

To

CONSTRUCTION DOCUMENT BID SET FOR THE

CHECKED BAGGAGE SCREENING

at

Destin-Fort Walton Beach Airport
Okaloosa County

To: To All Plan Holders

Bid Number: AP 37-15

Date Issued: April 23, 2015

From: **Michael Baker Jr., Inc., a Michael Baker International Company**
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This Addendum forms a part of the Contract/Bidding Documents and modifies the original Contract/Bidding Documents dated February 19, 2015, as described below. Acknowledgment of receipt of this Addendum in the space provided on Page GCF-29 of the Bid Proposal & Forms is required. **Failure to do so may subject a Bidder to disqualification.**

This Addendum makes clarifications to the Bid Documents.

GENERAL

1. This **Addendum** consists of 7 (seven) pages, and the attachments referenced in the narrative below.

2. Additions to the narrative specification text are bolded **("xxxxxxxx"),** and deletions are struck through ~~("xxxxxx").~~

3. The revisions to the Bid Documents are as follows:

REVISED BID DOCUMENTS

A. SPECIFICATIONS:

1. The specification sections listed below have been revised and are attached as separate documents to the Addendum; the revisions are as follows:

2. Updated Table of Contents, pages TOC-i-iv, Addendum No. 5, dated April 23, 2015. TOC updated to reflect Addendum No. 5 revisions and additions.

3. Section P-620 Runway and Taxiway Painting, 10 pages total, Addendum No. 5, dated April 23, 2015. New Section Added

B. BIDDER QUESTIONS & CLARIFICATIONS REQUESTED:

The following Questions & Clarifications listed below (in italic font) have been received to date and the response (bold font) is listed below each question:

1. *Would it be acceptable to use Yale Hardware for the doors on the project*

   Answer: Yale Hardware may be used; however the door levers and lock cores must be "Best Access Systems", as per the updated Hardware Specification issued as part of Addendum number 4, in order to match the building standard.

2. *We have the following questions regarding Impact Protection and Conveyor Supports for the temporary conveyor:*

   a. *Though typically by BHS contractor we noticed both Architectural drawings (A1.02) and Baggage drawings (B-503 & B-800) show impact protection around the temporary makeup carousel, can you please advise which trade is responsible to furnish and install the impact protection?*

      Answer: The impact protection bollards may be provided by either the BHSC or the General Contractor; the division of the work responsibilities is the Respondent's.

   b. *Elevation Drawings A2.01 & B-400 show impact protection along portions of TEMP-01 & TEMP-02 belt conveyor but the relevant plan view drawings do not show this impact protection. Is this impact protection part of the project? If yes, which trade is responsible to furnish & install?*

      Answer: The impact protection guard rails shown in the elevation view on A2.01 at the conveyors running north and south (from the lobby vestibule to the temporary flat plate) are not required. The

impact protection is only required at the tug lanes to protect the temporary canopy, BHS equipment, and the flat plate conveyors as shown in the plan view. Note that FDOT rated Jersey barriers may be used at the north and south sides of the temporary canopy in lieu of a rail bollard/impact barrier, however rail bollards will be required adjacent to the flat plate conveyor, immediately east of the flat plate conveyor and around the center bay support columns for the temporary metal roof canopy. See attached SK-ADD-5-1, dated April 21, 2015 for location of Jersey Barrier option.

c. *It appears, from the pre-bid walk-through, that the majority of the temporary impact protection and conveyor supports will be installed on existing asphalt. From previous experience, due to the softness of asphalt, weight of the conveyor may cause it to sink into the asphalt and typical wedge or epoxy anchors do not sufficiently hold the load. The drawings indicate the typical 8" x 8" base plate but do not indicate where or if asphalt should be removed and replaced with concrete – OR - Are we supposed to anchor the impact protection and conveyor supports to the asphalt with 8" x 8" base plates and 4-1/2" galvanized epoxy bolts?*

Answer: **Refer to Addendum number 4 for extent of concrete pad required for the installation of the bollard rail/impact barrier attachment. The concrete slab may be left in place after the project is completed, however all anchors for the bollard rail system shall be removed and any holes shall be filled with high strength epoxy grout. Pipe bollards shall be removed as well. Contractor still has the option of securing the conveyor system to 8-12 inches of asphalt currently in place. It shall be the responsibility of the Contractor to increase the base plate size and anchoring, especially if ground supported system is chosen in lieu of hanging supports from the temporary canopy. An asphalt anchoring system with 2500lb. uplift capacity is included as an option for base plate securing.**

3. *The following manufacture will be approved for the fire security shutter specified for this project.*

Answer: **Airport Equipment Specialists, Inc.**
Date: Rev No.: Drwn By: CCF Page of
904.533.5000 - Fax: 904.647.8164 - AESI-Global.com

4. *Addendum 04 Question and Answers #10 and #19. I have contacted and gotten responses back form 3 aluminum canopy subcontractors that will not bid the aluminum canopy if the baggage conveyor is supported from the canopy. I have also discussed this issue with the 3 of the baggage*

conveyor contractors, and they informed me that the baggage conveyor could be supported from the ground and not hung from the canopy. For Lord & Son Construction to bid the project, we will need to be able to provide a ground supported temporary baggage conveyor with a clear span for the baggage tug to go under it where needed, which looks like only one location. If this is acceptable Lord & Son Construction will proceed with quoting this project.

Answer: An engineered ground supported steel frame will be acceptable to support the conveyors spanning the tug lane, if the aluminum canopy structure cannot be designed to support the conveyors, however the Contractor will need to maintain the clear height under the conveyors and the support structure to provide the required baggage-tug clearance, if an under mounted support frame is utilized.

5. *Would you please process our request for substitution of equipment? Attached is the completed substitution request form requesting approval of our Model 812 Flat Plate Make-up. Also attached is the Comparison/Compliance information, Product Data Sheet and Drawing.*

   Answer: The Logan Flat Plate device is an acceptable alternate therefore approved for use.

6. *Is the contractor allowed to temporarily tie in to the existing building to support the temporary roof canopy?*

   Answer: No; the two structures should be isolated and separate. A waterproof flexible roof membrane expansion joint is needed between the metal roof and the existing building, or a gutter, to direct the water away from the through wall opening.

7. *Is the contractor allowed to install new footings to support the temporary roof canopy?*

   Answer: The preference is not to install new permanent footings although this will be acceptable provided the site is restored to its current condition upon completion. Temporary above grade footings that can be removed or anchoring into the existing substrate are the preferred methods of securement. Ultimately the structure will need to resist the wind load requirements per FBC.

8. *In order to design the temp roof canopy to support the loads from the baggage handling equipment, provide the design loads, static and dynamic,*

that the contractor will need to support for the section over the baggage carousel.

Answer: This information should be obtained from the baggage conveyor contractor or supplier; each manufacture may vary. There is an option for the conveyors to be supported below the conveyor, in lieu of overhead; however the tug drive clearances shall be maintained.

9. *Will any temporary or final striping be required over the course of the project? If so, provide location and quantity and/or detail.*

   Answer: No temporary striping will be required. To match what is currently in place upon completion, include 75 lf of permanent double yellow reflective (each line 6") markings outlined in 6" of black paint (187 s.f. total). Specification included.

10. *There is a reference to gypsum board in the architectural plans, however, the new interior finish is epoxy on CMU. Where is the gypsum board required?*

    Answer: Gypsum Wall Board will be required for repairs to the existing walls as part of the plumbing work, and other work that may be required for the new BHS system and elements of the project.

11. *What is the required width of the canopy roof surface between column lines 5.5 and 12?*

    Answer: The metal roof canopy shall be a 10'-6" wide.

12. *What is the material and the thickness of the existing surface where the temporary canopy will be placed between column lines 5.5 and 12?*

    Answer: The existing material below the temporary conveyors is part asphalt and part concrete slab on grade. The Asphalt is approximately 8-12 inches thick and the side walk/concrete is 4 inches thick.

13. *DCI respectfully request to be added to the list of Acceptable BHS contractors per the Contract specification Section 347716 Page- 61 of 159 PART 2 – PRODUCT INFORMATION, 2.1. ACCEPTABLE MANUFACTURERS AND CONTRACTORS A. Baggage Handling System Contractors.*

Answer: **Approved.**

14. *Can you please confirm that the existing ticket counter conveys that are to remain and be refurbished including TC1-01 through TC1-08 and TC2-01 through TC2-08 have VFD rated motors currently or should the BHS Contractor replace all motors?*

Answer: **Replace all ticket counter motors with VFD rated, motors.**

C. DRAWING REVISIONS:

The drawings listed below have been revised and are attached as separate documents to this addendum; the drawing revisions are as follows:

D. CORRECTIONS:

1. **Addendum 4 Correction**: "Doors 101A, 101D, 102D, and 102A shall not be required to be provided with electric locks, key pads, or proximity readers. These doors will be key locked from both sides of the door, and electrified door hardware is not required. The Key function for these doors shall be Best Access Systems "Storeroom F91", with keyed access and locking capability on both sides of the door. These are maintenance access doors and not egress doors."

   The card readers/key pads shown on B501 adjacent to the ticket office entries are for activation of the BHS ticket counter conveyors. They do not control the access to the ticket office doors. These card readers/key pads shall match the building standard card readers/key pads and be tied into the building security system.

E. ATTACHMENTS:

1. Table of Contents pages i-iv, Addendum No. 5 – dated 4/23/2015.
2. Specification Section P-602 Runway and Taxiway Painting, 10 pages total, Addendum No. 5 – dated 4/23/2015.
3. Substitution Request for Logan Teleflex – M812 Crescent Make-up Unit.
4. Logan Teleflex Specification Compliance Comments Checklist.
5. Logan Teleflex M812 Crescent Slat Conveyor Detail.
6. Logan Teleflex M812 Product Information.
7. BoltHold SP18 Asphalt Anchor Datasheet.

END OF ADDENDUM NO. 5

**BID DOCUMENTS AND TECHNICAL SPECIFICATIONS FOR
CHECKED BAGGAGE SCREENING
AT
DESTIN-FORT WALTON BEACH AIRPORT**

TABLE OF CONTENTS

ITEM P-620 RUNWAY AND TAXIWAY PAINTING

DESCRIPTION

620-1.1 This item shall consist of the painting of numbers, markings, and stripes on the surface of runways, taxiways, and aprons, in accordance with these specifications and at the locations shown on the plans, or as directed by the Engineer.

MATERIALS

620-2.1 MATERIALS ACCEPTANCE. The Contractor shall furnish manufacturer's certified test reports for materials shipped to the project. The certified test reports shall include a statement that the materials meet the specification requirements. The reports can be used for material acceptance or the Engineer may perform verification testing. The reports shall not be interpreted as a basis for payment. The Contractor shall notify the Engineer upon arrival of a shipment of materials to the site.

620-2.2 PAINT. Paint shall be **Waterborne** in accordance with the requirements of paragraph 620-2.2**a**. Paint shall be furnished in **Yellow - 33538 or 33655, and Black - 37038** in accordance with Federal Standard No. 595.

a. WATERBORNE. Paint shall meet the requirements of Federal Specification TT-P-1952E, **Type III**.

~~**b. EPOXY.** Paint shall be a two component, minimum 99 percent solids type system conforming to the following:~~

~~**(1) Pigments.** Component A. Percent by weight.~~

~~**(a) White:**~~
~~Titanium Dioxide, ASTM D 476, type II shall be 18 percent minimum (16.5 percent minimum at 100 percent purity).~~
~~**(b) Yellow and Colors:**~~
~~Titanium Dioxide, ASTM D 476, type II shall be 14 to 17 percent.~~
~~Organic yellow, other colors, and tinting as required to meet color standard.~~
~~Epoxy resin shall be 75 to 79 percent.~~

~~**(2) Epoxy Content.** Component A. The weight per epoxy equivalent, when tested in accordance with ASTM D 1652 shall be the manufacturer's target plus or minus 50.~~

~~**(3) Amine Number.** Component B. When tested in accordance with ASTM D 2074 shall be the manufacturer's target plus or minus 50.~~

~~**(4) Prohibited Materials.** The manufacturer shall certify that the product does not contain mercury, lead, hexavalent chromium, halogenated solvents, nor any carcinogen as defined in 29 CFR 1910.1200 in amounts exceeding permissible limits as specified in relevant Federal Regulations.~~

~~**(5) Daylight Directional Reflectance.**~~

~~**(a) White:** The daylight directional reflectance of the white paint shall not be less than 75 percent (relative to magnesium oxide), when tested in accordance with Federal Test Method Standard No. 141D/GEN, Method 6121.~~

~~**(b) Yellow:** The daylight directional reflectance of the yellow paint shall not be less than 38 percent (relative to magnesium oxide), when tested in accordance with Federal Test Method Standard No. 141D/GEN. The x and y values shall be consistent with the Federal Hegman yellow color standard chart for traffic yellow standard 33538, or shall be consistent with the tolerance listed below:~~

~~x .462 x .470 x .479 x .501~~
~~y .438 y .455 y .428 y .452~~

~~**(6) Accelerated Weathering.**~~

~~**(a) Sample Preparation.** Apply the paint at a wet film thickness of 0.013 inch (0.33 mm) to four 3 by 6 inch (8 by 15 cm) aluminum panels prepared as described in Federal Test Method Standard No. 141D/GEN, Method 2013. Air dry the sample 48 hours under standard conditions.~~

~~**(b) Testing Conditions.** Test in accordance with ASTM G 15453 using both Ultra Violet (UV-B) Light and condensate exposure, 72 hours total, alternating 4 hour UV exposure at 60 degree C, and 4 hours condensate exposure at 40 degrees C.~~

~~**(c) Evaluation.** Remove the samples and condition for 24 hours under standard conditions. Determine the directional reflectance and color match using the procedures in paragraph 620-2.2b(5) above. Evaluate for conformance with the color requirements.~~

~~**(7) Volatile Organic Content.** Determine the volatile organic content in accordance with 40 CFR Part 60 Appendix A, Method 24.~~

~~**(8) Dry Opacity.** Use Procedure B, Method B of Method 4121 of Federal Test Method Standard No. 141D/GEN. The wet film thickness shall be 0.015 inch (0.12 mm). The minimum opacity for white and colors shall be 0.92.~~

~~**(9) Abrasion Resistance.** Subject the panels prepared in paragraph 620-2.2b(6) to the abrasion test in accordance with ASTM D 968, Method A, except that the inside diameter of the metal guide tube shall be from 0.747 to 0.750 inch (18.97 to 19.05 mm). Five liters of unused sand shall be used for each test panel. The test shall be run on two test panels. [Note: five liters of sand weighs 17.5 lb. (7.94 kg).] Both baked and weathered paint films shall require not less than 150 liters of sand for the removal of the paint films.~~
~~**(10) Hardness, Shore.** Hardness shall be at least 80 when tested in accordance with ASTM D 2240.~~

~~**c. METHACRYLATE.** Paint shall be a two component, minimum 99 percent solids-type system conforming to the following:~~

~~**(1) Pigments.** Component A. Percent by weight.~~

(a) White:

Titanium Dioxide, ASTM D 476, type II shall be 6 percent minimum.
Methacrylate resin shall be 18 percent minimum.

(b) Yellow and Colors:

Titanium Dioxide, ASTM D 476, type II shall be 6 percent minimum.
Organic yellow, other colors, and tinting as required to meet color standard.
Methacrylate resin shall be 18 percent minimum.

(2) Prohibited Materials. The manufacturer shall certify that the product does not contain mercury, lead, hexavalent chromium, halogenated solvents, nor any carcinogen as defined in 29 CFR 1910.1200 in amounts exceeding permissible limits as specified in relevant Federal Regulations.

(3) Daylight Directional Reflectance:

(a) White: The daylight directional reflectance of the white paint shall not be less than 75 percent (relative to magnesium oxide), when tested in accordance with Federal Test Method Standard No. 141D/GEN, Method 6121.

(b) Yellow: The daylight directional reflectance of the yellow paint shall not be less than 45 percent (relative to magnesium oxide), when tested in accordance with Federal Test Method Standard No. 141D/GEN. The x and y values shall be consistent with the Federal Hegman yellow color standard chart for traffic yellow standard 33538, or shall be consistent with the tolerance listed below:

x .462 x .470 x .479 x .501
y .438 y .455 y .428 y .452

(4) Accelerated Weathering.

(a) Sample Preparation. Apply the paint at a wet film thickness of 0.013 inch (0.33 mm) to four 3 by 6 inch (8 by 15 cm) aluminum panels prepared as described in Method 2013 of Federal Test Method Standard No. 141D/GEN. Air dry the sample 48 hours under standard conditions.

(b) Testing Conditions. Test in accordance with ASTM G 53 154 using both Ultra Violet (UV-B) Light and condensate exposure, 72 hours total, alternating 4 hour UV exposure at 60 degree C, and 4 hours condensate exposure at 40 degrees C.

(c) Evaluation. Remove the samples and condition for 24 hours under standard conditions. Determine the directional reflectance and color match using the procedures in paragraph 620-2.2c(3) above. Evaluate for conformance with the color requirements.

(5) Volatile Organic Content. Determine the volatile organic content in accordance with 40 CFR Part 60 Appendix A, Method 24.

(6) Dry Opacity. Use Procedure B, Method B of Method 4121 of Federal Test Method Standard No. 141D/GEN. The wet film thickness shall be 0.015 inch (0.12 mm). The minimum opacity for white and colors shall be 0.92.

(7) Abrasion Resistance. Subject the panels prepared in paragraph 620-2.2c(4) to the abrasion test in accordance with ASTM D 968, Method A, except that the inside diameter of the metal guide tube shall be from 0.747 to 0.750 inch (18.97 to 19.05 mm). Five liters of unused sand shall be used for each test panel. The test shall be run on two test panels. [Note: 5 liters of sand weighs 17.5 lb. (7.94 kg).] Both baked and weathered paint films shall require not less than 150 liters of sand for the removal of the paint films.

(8) Hardness, Shore. Hardness shall be at least 80 when tested in accordance with ASTM D 2240.

d. SOLVENT-BASE. Paint shall meet the requirements of Federal Specification **[A-A-2886A Type I or Type II]**.

e. PREFORMED THERMOPLASTIC AIRPORT PAVEMENT MARKINGS. Markings must be composed of ester modified resins in conjunction with aggregates, pigments, and binders that have been factory produced as a finished product. The material must be impervious to degradation by aviation fuels, motor fuels, and lubricants.

(1) The markings must be able to be applied in temperatures down to 35ºF without any special storage, preheating, or treatment of the material before application.

(2) Graded Glass Beads.

(a) The material must contain a minimum of thirty percent (30%) intermixed graded glass beads by weight. The intermixed beads shall conform to **[Federal Specification. TT-B-1325D, Type I, gradation A] [Federal Specification. TT-B-1325D, Type IV]**.

(b) The material must have factory applied coated surface beads in addition to the intermixed beads at a rate of 1 lb. (± 10%) per 10 sq. ft. These factory applied coated surface beads shall have a minimum of 90% true spheres, minimum refractive index of 1.50, and meet the following gradation.

Size Gradation		Retained, %	Passing, %
US Mesh	µm		
12	1700	0 - 2%	98 - 100%
14	1400	0 - 3.5%	96.5 - 100%
16	1180	2 - 25%	75 - 98%
18	1000	28 - 63%	37 - 72%
20	850	63 - 72%	28 - 37%
30	600	67 - 77%	23 - 33%
50	300	89 - 95%	5 - 11%
80	200	97 - 100%	0 - 3%

(3) Heating Indicators. The top surface of the material (same side as the factory applied surface beads) shall have regularly spaced indents. These indents shall act as a visual cue during application that the material has reached a molten state so satisfactory adhesion and

proper bead embedment has been achieved and a post-application visual cue that the installation procedures have been followed.

(4) Pigments. Percent by weight.

(a) White:
Titanium Dioxide, ASTM D 476, type II shall be 10 percent minimum.

(b) Yellow and Colors:
Titanium Dioxide, ASTM D 476, type II shall be 1 percent minimum.
Organic yellow, other colors, and tinting as required to meet color standard.

(5) Prohibited Materials. The manufacturer shall certify that the product does not contain mercury, lead, hexavalent chromium, halogenated solvents, nor any carcinogen as defined in 29 CFR 1910.1200 in amounts exceeding permissible limits as specified in relevant Federal Regulations.

(6) Daylight Directional Reflectance.

(a) White: The daylight directional reflectance of the white paint shall not be less than 75 percent (relative to magnesium oxide), when tested in accordance with Federal Test Method Standard No. 141D/GEN, Method 6121.

(b) Yellow: The daylight directional reflectance of the yellow paint shall not be less than 45 percent (relative to magnesium oxide), when tested in accordance with Federal Test Method Standard No. 141D/GEN. The x and y values shall be consistent with the Federal Hegman yellow color standard chart for traffic yellow standard 33538, or shall be consistent with the tolerance listed below:

x .462	x .470	x .479	x .501
y .438	y .455	y .428	y .452

(7) Skid Resistance. The surface, with properly applied and embedded surface beads, must provide a minimum resistance value of 45 BPN when tested according to ASTM E303.

(8) Thickness. The material must be supplied at a nominal thickness of 65 mils (1.7 mm).

(9) Environmental Resistance. The material must be resistant to deterioration due to exposure to sunlight, water, salt, or adverse weather conditions and impervious to aviation fuels, gasoline, and oil.

(10) Retroreflectivity. The material, when applied in accordance with manufacturer's guidelines, must demonstrate a uniform level of nighttime retroreflection when tested in accordance to ASTM E1710.

(11) Packaging. A protective film around the box must be applied in order to protect the material from rain or premature aging.

(12) Manufacturing Control and ISO Certification. The manufacturer must be ISO 9001:2000 certified and provide proof of current certification. The scope of the certification shall

~~include manufacture of reflective markings.~~

~~**a.** The markings must be a resilient thermoplastic product with uniformly distributed glass beads throughout the entire cross-sectional area. The markings must be resistant to the detrimental effects of aviation fuels, motor fuels and lubricants, hydraulic fluids, de-icers, anti-icers, protective coatings, etc. Lines, legends, and symbols must be capable of being affixed to bituminous and/or Portland cement concrete pavements by the use of a large radiant heater. Colors shall be available as required.~~

~~**b.** The markings must be capable of conforming to pavement contours, breaks, and faults through the action of airport traffic at normal pavement temperatures. The markings must be capable of fully conforming to grooved pavements, including pavement grooving per FAA AC 150/5320-12, current version. The markings shall have resealing characteristics, such that it is capable of fusing with itself and previously applied thermoplastics when heated with a heat source per manufacturer's recommendation.~~

~~**c.** Multicolored markings must consist of interconnected individual pieces of preformed thermoplastic pavement marking material, which through a variety of colors and patterns, make up the desired design. The individual pieces in each large marking segment (typically more than 20 ft. long) must be factory assembled with a compatible material and interconnected so that in the field it is not necessary to assemble the individual pieces within a marking segment. Obtaining multicolored effect by overlaying materials of different colors is not acceptable due to resulting inconsistent marking thickness and inconsistent application temperature in the marking/substrate interface.~~
~~**e.** The marking material must set up rapidly, permitting the access route to be re-opened to traffic a maximum of 15 minutes after application.~~

~~**f.** The marking material shall have an integral color throughout the thickness of the marking material.~~

620-2.3 REFLECTIVE MEDIA. Glass beads shall meet the requirements for Federal Specification. TT-B-1325D, Type III. Glass beads shall be treated with all compatible coupling agents recommended by the manufacturers of the paint and reflective media to ensure adhesion and embedment.

Paint Color	Glass Beads, Type I, Gradation A	Glass Beads, Type III	Glass Beads, Type IV
~~**White**~~	~~Not used~~	~~See Table 1.~~	~~Not used~~
Yellow	Not used	See Table 1.	Not used
~~**Red**~~	~~See Table 1 and Note.~~	~~Not used.~~	~~See Table 1 and Note.~~
~~**Pink**~~	~~See Table 1 and Note.~~	~~Not used.~~	~~See Table 1 and Note.~~
Black	Not used.	Not used.	Not used

CONSTRUCTION METHODS

620-3.1 WEATHER LIMITATIONS. The painting shall be performed only when the surface is dry and when the surface temperature is at least 45°F (7°C) and rising and the pavement surface temperature is at least 5°F (2.7°C) above the dew point. Markings shall not be applied when the pavement temperature is greater than 120°F (49°C). **Do not paint when wind displaces paint spray or glass beads.**

620-3.2 EQUIPMENT. Equipment shall include the apparatus necessary to properly clean the existing surface, a mechanical marking machine, a bead dispensing machine, and such auxiliary hand-painting equipment as may be necessary to satisfactorily complete the job.

The mechanical marker shall be an atomizing spray-type or airless-type marking machine suitable for application of traffic paint. It shall produce an even and uniform film thickness at the required coverage and shall apply markings of uniform cross-sections and clear-cut edges without running or spattering and without over spray.

620-3.3 PREPARATION OF SURFACE. Immediately before application of the paint, the surface shall be dry and free from dirt, grease, oil, laitance, or other foreign material that would reduce the bond between the paint and the pavement. The area to be painted shall be cleaned by sweeping and blowing or by other methods as required to remove all dirt, laitance, and loose materials without damage to the pavement surface. Use of any chemicals or impact abrasives during surface preparation shall be approved in advance by the Engineer. **Paint shall not be applied to Portland cement concrete pavement until the areas to be painted are clean of curing material and paint manufacturer cure times are met.**

620-3.4 LAYOUT OF MARKINGS. The proposed markings shall be laid out in advance of the paint application. ~~The locations of markings to receive glass beads shall be shown on the plans~~.
Glass beads shall be installed in all:

- Yellow edge striping

620-3.5 APPLICATION. Paint shall be applied at the locations and to the dimensions and spacing shown on the plans. Paint shall not be applied until the layout and condition of the surface has been approved by the Engineer. The edges of the markings shall not vary from a straight line more than 1/2 inch (12 mm) in 50 feet (15 m) and marking dimensions and spacings shall be within the following tolerances:

Dimension and Spacing	Tolerance
36 inches (910 mm) or less	±1/2 inch (12 mm)
greater than 36 inches to 6 feet (910 mm to 1.85 m)	± 1 inch (25 mm)
greater than 6 feet to 60 feet (1.85 m to 18.3 m)	± 2 inches (51 mm)
greater than 60 feet (18.3 m)	± 3 inches (76 mm)

The paint shall be mixed in accordance with the manufacturer's instructions and applied to the pavement with a marking machine at the rate(s) shown in Table 1. The addition of thinner will not be permitted. ~~A period of **[ ]** shall elapse between placement of a bituminous surface course or seal coat and application of the paint~~. The Contractor shall provide shop drawings to the Engineer with minimum cure times prior to paint application.

TABLE 1. APPLICATION RATES FOR PAINT AND GLASS BEADS

Paint Type	Paint Square feet per gallon, ft^2/gal. (Square meters per liter, m^2/l)	Glass Beads, Type I, Gradation A Pounds per gallon of paint—lb./gal. (Kilograms per liter of paint—kg/l)	Glass Beads, Type III Pounds per gallon of paint—lb./gal. (Kilograms per liter of paint—kg/l	Glass Beads, Type IV Pounds per gallon of paint—lb./gal. (Kilograms per liter of paint—kg/)l
Waterborne	**115 ft^2/gal. maximum (2.8 m^2/l)**	**~~7 lb./gal. minimum (0.85 kg/l)~~**	**10 lb./gal. minimum (1.2 kg/l)**	*****

Note: The glass bead application rate for Red and Pink paint shall be reduced by 2 lb./gal. (0.24 kg/l) for Type I and Type IV beads. Type III beads shall not be applied to Red or Pink paint.

Glass beads shall be distributed upon the marked areas at the locations shown on the plans to receive glass beads immediately after application of the paint. A dispenser shall be furnished that is properly designed for attachment to the marking machine and suitable for dispensing glass beads. Glass beads shall be applied at the rate(s) shown in Table 1. Glass beads shall not be applied to black paint. Glass beads shall adhere to the cured paint or all marking operations shall cease until corrections are made.

All emptied containers shall be returned to the paint storage area for checking by the Engineer. The containers shall not be removed from the airport or destroyed until authorized by the Engineer.

620-3.6 APPLICATION--PREFORMED AIRPORT PAVEMENT MARKINGS.

a. Asphalt and Portland cement To ensure minimum single-pass application time and optimum bond in the marking/substrate interface, the materials must be applied using a variable speed self-propelled mobile heater with an effective heating width of no less than 16 feet (4.88 m) and a free span between supporting wheels of no less than 18 feet (5.49 m). The heater must emit thermal radiation to the marking material in such a manner that the difference in temperature of 2 inch (5.08 cm) wide linear segments in the direction of heater travel must be within 5 percent of the overall average temperature of the heated thermoplastic material as it exits the heater. The material must be able to be applied at ambient and pavement temperatures down to 35ºF (2°C) without any preheating of the pavement to a specific temperature. The material must be able to be applied without the use of a thermometer. The pavement shall be clean, dry, and free of debris. A non-VOC sealer with a maximum applied viscosity of 250 centi-Poise (ASTM D 2393) must be applied to the pavement shortly before the markings are applied. The supplier must enclose application instructions with each box/package.

620-3.7 PROTECTION AND CLEANUP. After application of the markings, all markings shall be protected from damage until dry. All surfaces shall be protected from excess moisture and/or rain and from disfiguration by spatter, splashes, spillage, or drippings. The Contractor shall remove from the work area all debris, waste, loose or unadhered reflective media, and by-

products generated by the surface preparation and application operations to the satisfaction of the Engineer. The Contractor shall dispose of these wastes in strict compliance with all applicable state, local, and Federal environmental statutes and regulations.

METHOD OF MEASUREMENT

620-4.1 The quantity of runway and taxiway markings to be paid for shall be **the number of square feet of painting** performed in accordance with the specifications and accepted by the Engineer.

Pavement Markings, paint, and Reflective Media will not be measured.

BASIS OF PAYMENT

620-5.1 ~~Payment shall be made at the respective contract **price per square foot** for runway and taxiway painting**.** This price shall be full compensation for furnishing all materials and for all labor, equipment, tools, and incidentals necessary to complete the item~~. No payment will be made for Taxiway/ apron pavement markings. The cost of this work shall be considered incidental to the overall project.

TESTING REQUIREMENTS

ASTM C 136	Sieve Analysis of Fine and Coarse Aggregates
ASTM C 146	Chemical Analysis of Glass Sand
ASTM C 371	Wire-Cloth Sieve Analysis of Nonplastic Ceramic Powders
ASTM D 92	Test Method for Flash and Fire Points by Cleveland Open Cup
ASTM D 711	No-Pick-Up Time of Traffic Paint
ASTM D 968	Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive
ASTM D 1213-54(1975)	Test Method for Crushing Resistance of Glass Spheres
ASTM D 1652	Test Method for Epoxy Content of Epoxy Resins
ASTM D 2074	Test Method for Total Primary, Secondary, and Tertiary Amine Values of Fatty Amines by Alternative Indicator Method
ASTM D 2240	Test Method for Rubber Products-Durometer Hardness
ASTM G 15453	Operating Light and Water-Exposure Apparatus (Fluorescent Light Apparatus UV-Condensation Type) for Exposure of Nonmetallic Materials.
Federal Test Method	Paint, Varnish, Lacquer and Related Materials; Methods of

Standard No. 141D/GEN	Inspection, Sampling and Testing

MATERIAL REQUIREMENTS

ASTM D 476	Specifications for Dry Pigmentary Titanium Dioxide Pigments Products
Code of Federal Regulations	40 CFR Part 60, Appendix A – Definition of Traverse Point Number and Location
Code of Federal Regulations	29 CFR Part 1910.1200 – Hazard Communications
FED SPEC TT-B-1325D	Beads (Glass Spheres) Retroreflective
AASHTO M 247	Glass Beads Used in Traffic Paints
FED SPEC TT-P-1952E	Paint, Traffic and Airfield Marking, Waterborne
Commercial Item Description (CID) A-A-2886B	Paint, Traffic, Solvent Based
FED STD 595	Colors used in Government Procurement

END OF ITEM P-620

SUBSTITUTION REQUEST FORM

Substitution Request Number: 001 **Date:** 04 / 22 / 2015

General Contractor: (BHS) Logan Teleflex, Inc.

Project Name: Checked Baggage Screening

Project Location: Okaloosa, Florida

Architect's Project No.: AP 37-15

Specification Section: Division 34

Paragraph Number: P61, 4.b

Original Product Specified:

Proposed Product Substitution: Logan Teleflex, Inc. M812 crescent make-up unit

General reason for not giving priority to Specified Items:

Logan manufactures this unit & it has been used in numerous projects implemented with CAGE and other airports in the US for over 10 years. Logan competitive cost & schedule control with our own manufacturing.

Answer the following questions:	***Circle One***	
• Are extensive revisions to contract documents required?	Yes	[No]
• Proposed changes are in keeping with general intent of Contract Documents?	[Yes]	No
• Substitution affects other materials or systems? (If yes, attach complete data)	Yes	[No]
• Substitution requires dimensional revision or redesign of structure or MEP work? (If yes, attach complete data)	Yes	[No]
• Comparison of two products is attached to demonstrate equality of products? (Original specified item versus proposed substitution)	[Yes]	No
• The following data is furnished herewith for evaluation of the substitution:		
☐ Catalog Data Sheets [X] Drawings ☐ Reports		
☐ Samples ☐ Test Data [X] Other Product Brochure & Specification Compliance Comments		
• Are there any schedule impacts if the original product specified is used? (If yes, please indicate the number of calendar days: ____)	Yes	[No]
• Scheduled delivery date of original product: ___/___/___.		
• Scheduled delivery date of proposed substitution: ___/___/___. Days saved ___)		
• Is the original product acceptable to local building officials? [N/A] (If no, please fill in data below)	Yes	No
Contact at Building Department: ____		
Phone: ( ) - Ext. ____ Fax: ( ) - -		
• Are there any savings that will accrue to the Owner for use of the proposed substitution? (If yes, please indicate amount: $____)	Yes	[No]
• Are there any life cycle costs savings that will accrue to the Owner for use of the proposed substitution? (If yes, please indicate amount: $____)	Yes	[No]
• Are there any additional costs that will be incurred by the Owner? (If yes, identify cost impact: $____)	Yes	[No]
• Are there any additional costs that will be incurred by other trade contractors? (If yes, identify total cost impact: $____)	Yes	[No]
• Is the specified product or material compatible with other products or materials scheduled or specified to be installed?	[Yes]	No
• Is the proposed substitution compatible with other materials scheduled or specified to be installed?	[Yes]	No

- Can the specified product or material be installed and coordinated with the installation of other products or materials specified to be installed? [Yes] No
- What is the warranty period for the originally specified product? Labor 1 (Yrs) Material 1 (Yrs)
- What is the warranty period for the proposed substitution? Labor 1 (Yrs) Years 1 (Yrs)

By signature below the Contractor and/or Subcontractor proposing the material or product substitution hereby certify that the above noted information is true and accurate. The Contractor and/or subcontractor further certify that each of them waiver their rights to additional payment or time, that may subsequently become necessary because of failure of the substitution to perform adequately. **THE CONTRACTOR AND SUB-CONTRACTOR HEREBY FURTHER CERTIFY THAT THIS SUBMISSION HAS BEEN FULLY CHECKED AND COORDINATED WITH THE CONTRACT DOCUMENTS.**

(Subcontractor's Signature) 4/22/15 (Date)

Gary Downs, Vice President of Sales

(Printed Subcontractors Name)

(Contractor's Signature) / / (Date)

(Printed Contractor's Name)

ARCHITECT'S ACTION AND/OR REVIEW COMMENTS:

The proposed Substitution Request has been reviewed for compliance with the Design Intent of the Contract Documents by the Architect, in accordance with the General and Supplementary Conditions of the Contract; However, this review shall not relieve the Contractor or the sub-contractor of their duties and responsibilities under the terms of the Contract, and/or the coordination and product incorporation provisions certified by the Contractor and sub-contractor above. The proposed Substitution shall **not** be incorporated into the project unless the marked accepted and Architect's acceptance is acknowledged by the Owner. The Architect's Review Comments and Response are as follows:

- ☐ Rejected; not accepted
- ☐ Revise and resubmit
- ☐ Accepted
- ☐ Accepted as noted below
- ☐ Additional Review Comments Attached
- ☐ _____

(Architect's Signature) / / (Date)

(Printed Architect's Name)

ACKNOWLEDGEMENT OF SUBSTITUTION REQUEST BY OWNER:

(Signature) / / (Date)

(Printed Owner's Name)

END OF FORM

Substitution Request Number: _____ Date: / /

Project Name: _____

Architect's Project No.: _____

Proposed Product Substitution: _____

ARCHITECT'S ADDITIONAL REVIEW COMMENTS:

END OF ADDITIONAL REVIEW COMMENTS

COMPLY O. Flat Plate Claim and Sort Devices

COMPLY 1. Flat plate devices shall be heavy-duty crescent plate recirculating conveyors of approved design, as reviewed and approved by the Owner, based on actual operating, maintenance and reliability data. Flat plate devices shall be capable of being automatically fed by an in-feed conveyor system or manually loaded.

COMPLY 2. Design Requirements – the operating rate for flat plate devices shall be 90 feet per minute (fpm). Minimum overall width shall be 35 inches with a minimum width of 29 inches for the conveying surface.

COMPLY a. The device shall be installed parallel to the floor, up to two degrees from horizontal. If this maximum requirement must be exceeded per slope of the building floor, the Owner shall be advised and consulted before the device is manufactured, delivered and installed.

EXCEED b. The flat plate device shall operate with a maximum structural load of 200 pounds per linear foot. Normal conveying load shall be 50 pounds per linear foot. (265)

(85)

COMPLY c. The frame shall consist of standard modular assemblies bolted together to form a support structure and guide for the flight assemblies. The track shall be of rolled or formed structural steel.

COMPLY d. The flights shall be crescent-shaped-steel conveying platforms at least 1/4 inch thick supported by heavy-duty wheels or rollers.

COMPLY 1) Crescent plates in public areas shall have a molded urethane coating on the conveying surface.

COMPLY 2) Crescent plates in non-public areas may be painted on the conveying surface.

COMPLY 3) Flight assemblies shall include self-aligning, interconnecting chain links and guide rollers.

COMPLY 4) Gaps between adjacent crescent plate pallets shall not exceed 1/8 inch.

COMPLY 5) Gaps between top of crescent plate pallet and underside of perimeter/finger guards shall not exceed 1/8 inch.

COMPLY 6) Elevation differences between adjacent crescent plate pallets shall not exceed 1/16 inch.

COMPLY e. Outer radius transition sideguards shall be installed on both sides of each wall penetration. The upper edge of each sideguard shall be rolled to prevent accidental injury to personnel. Sideguards in the public view areas shall be SS.

COMPLY f. The vertical and horizontal alignment of the adjacent butt joints of the finger/perimeter guards of the device shall not be misaligned, nor shall there be any gap between the adjacent guards.

COMPLY g. Side rails shall be formed channel of 10 gauge steel. This channel shall also serve as a support for the baggage and finger guard angle.

COMPLY h. A claim device shall be mounted so that the conveying surface of the device is 12 inches above the floor. The device shall be equipped with adjustable legs.

COMPLY i. A make-up device shall be mounted so that the conveying surface of the device is between 29 inches to 33 inches above the make-up area floor. The device shall be equipped with adjustable legs.

COMPLY j. Inner perimeter sideguards shall be provided for the entire inner perimeter of the sort device to prevent baggage from dropping into the eye of the sort device. For baggage claim application, inner perimeter sideguards shall be required for the entire perimeter in the non-public-view loading area.

COMPLY k. Toe space shall be provided at the base of the device. Black vinyl cove molding shall be installed at the back of the toe space and shall be flush with the finished floor.

COMPLY l. The design of the sort/claim flat plate device shall incorporate a means of expansion to offset wear in the main link bushings/connecting link pins, etc., and shall include, as a minimum,

COMPLY 1) Overlapping design of the cam follower guide track so that the cam follower surface is always in contact with some portion of the guide track at the expansion joint.

COMPLY 2) Heavy-duty jacking bolt arrangement to assist in expanding the device when needed.

COMPLY m. Special attention shall be given to the design, manufacture, and installation of the inner and outer perimeter finger guards as well as the vertical front face skirting at the expansion point.

COMPLY 1) The design, manufacture, and installation of the special expansion joint perimeter finger guards shall ensure that they do not create a snag point.

COMPLY 2) To further reduce the potential of snagging baggage at these expansion joints, the special finger guards shall be factory welded and ground smooth on the upstream end of each special guard.

COMPLY 3. Drive Assemblies – Drive assembly circuitry shall open the device control circuitry whenever the motor disconnect switch is turned off. When the disconnect switch is turned back on, it shall reactivate the device start controls, thus allowing the drive motor start-up to be controlled by the soft start controller.

COMPLY a. The drive and idler shaft sprocket hubs shall have double (2) set screws to prevent any lateral movement of the sprockets on the respective shafts.

COMPLY b. Two drives shall be installed on devices exceeding 200 feet of center line length or as indicated on the contract drawings.

COMPLY c. Drive design and motor applications for those devices using more than one drive motor shall provide for the potential of variations in actual motor speeds so that all drive motors are equally loaded. Motors for dual (2) drive applications shall be of high slip design.

COMPLY d. Drive motor and drive assembly component sizing for devices having more than one drive shall allow the device to run with one drive, in the event of the second drive fails. Drive assemblies shall be designed in a manner that allows the drive chain/belt to be disengaged from the carrier flight assemblies. Loading for such conditions shall be 70 percent.

COMPLY e. Devices shall be driven by motors that conform to IEEE and NEMA standards.

COMPLY f. Motors shall be sized for Class II speed requirements under continuous operations.

COMPLY g. Motors shall be of the constant speed (1750 rpm), TEFC, high efficiency, low-energy type, ball bearing type, with Class "H" insulation for outdoor equipment and Class "F" for indoor equipment.

COMPLY h. Drives with soft start controllers shall use high-slip motors.

COMPLY i. The design service factor for motor and speed reducer equipment shall be 1.50; however, actual motor nameplate service factor shall be a minimum of 1.15.

COMPLY j. Each drive assembly shall be provided with a soft start controller or VFD.

COMPLY k. Motors controlled by VFDs shall be VFD rated.

COMPLY l. Mounted bearings shall meet the following minimum requirements:

COMPLY 1) Bearings shall have a minimum L-10 life of 70,000 hours.

COMPLY 2) Mounted bearings shall be equipped with concentric or squeeze locking type collar arrangement to secure the bearing to the shaft.

COMPLY m. The drive mechanism shall engage a minimum of two plate assemblies at all times on chain driven devices.

COMPLY n. A 110 VAC duplex outlet shall be provided under the deck at each drive section of the device. Both shall be connected electrically to the building's power supply so that they still will operate with the device's control panel turned off.

COMPLY 4. Decking – For installation as public-view claim devices, the device shall be provided with a 3/4 inch fire-resistant tongue-and-groove plywood deck supported by a framework designed for a live load of 75 pounds per square foot.

COMPLY a. The framework may be constructed of structural steel or fire-resistant lumber. The framework may not be constructed of sheet metal-type drywall studs.

COMPLY b. All plywood joints shall be supported by the decking-related framework.

COMPLY c. The decking shall be 6 inches above the conveying surface of the device. Hinged access door(s) shall be provided at the of the drive section(s) and shall be of sufficient size to permit removal of drive assembly components.

COMPLY d. The decking will be carpeted by others.

COMPLY 5. Public Areas – Claim devices shall be trimmed with type 304 stainless steel (SS) in a #4 brush finish where portions of the device are in the public-view-area. SS trim shall conform to that established under the Specification.

COMPLY a. All SS trim shall be 12 gauge for device decking and shall consist of a formed angle trim element 6 inches from the top of the claim device to the top of the deck with a one inch cap covering the carpet.

COMPLY b. The formed angle trim acts as a vertical skirting for the elevation difference between the crescent plates and the raised decking.

COMPLY c. SS trim elements shall be properly aligned both vertically and horizontally. Butt Joints of adjacent trim elements shall provide a smooth snag-free surface. Voids between adjacent element joints are not acceptable. Sharp edges on any of the trim elements shall not be accepted. All radii of trim elements shall match.

COMPLY d. Non-Public Areas – Portions of claim devices not in the public-view-areas, and make-up devices used for outbound baggage sorting, shall be painted as defined in the Specification.

P. CBRA Conveyors and Equipment

1. Workstations shall be placed 30" above the finished floor. The workstations and viewing screens shall be height-adjustable.

2. No Bag Lifting Policy – The CBRA shall include lift-assist equipment as defined in the PGDS, Chapter 9.

N/A 3. All efforts shall be made to create an ergonomic environment in the CBRA.

Q. Fire Doors, Security Doors and Draft Curtains

1. Following are the requirements for doors and draft curtains that are required as part of the BHS. Special requirements may be delineated in the Contract Drawings.

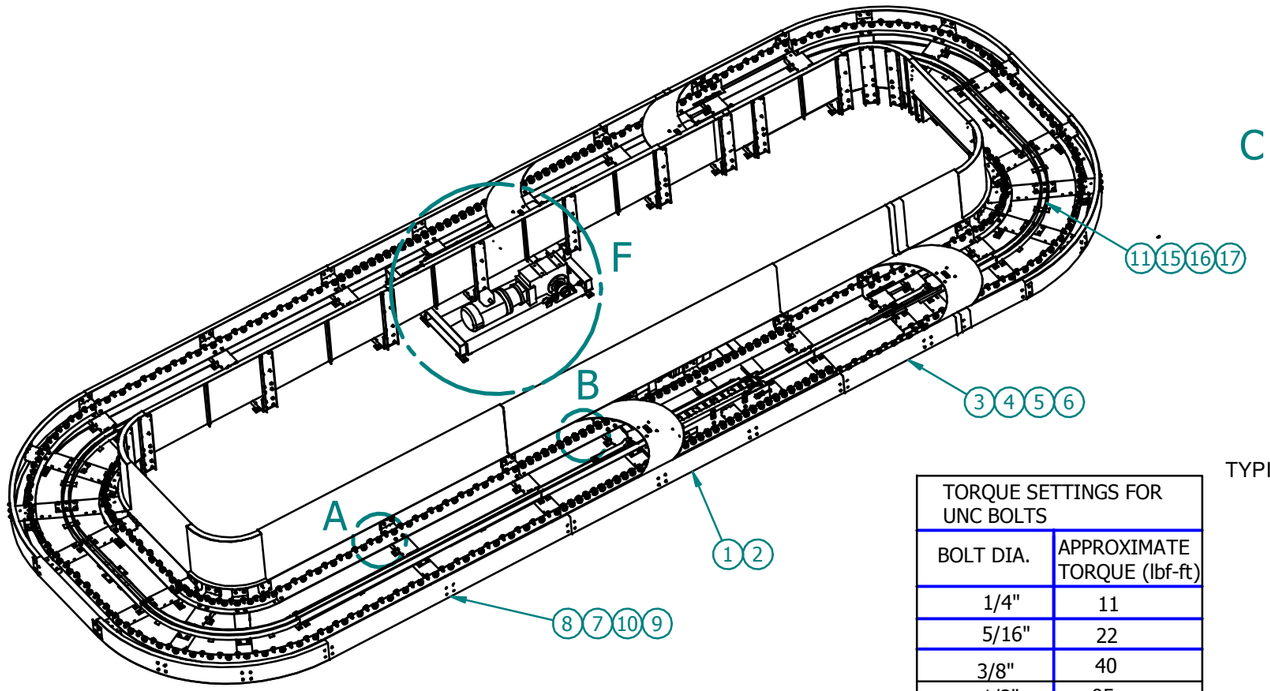
2. Draft Curtains (Strip Doors) – The BHSC shall supply and install appropriately sized black flexible draft curtain strip doors as manufactured by NECOR Co. (Model 80), 1/16 inch thick black polyvinylchloride strip, eight inches wide, beaded edge, with 75 percent strip overlay.

a. Approximate sizes and locations of the strip doors are shown on the Contract Drawings.

b. Actual sizing of the doors is the responsibility of the BHSC

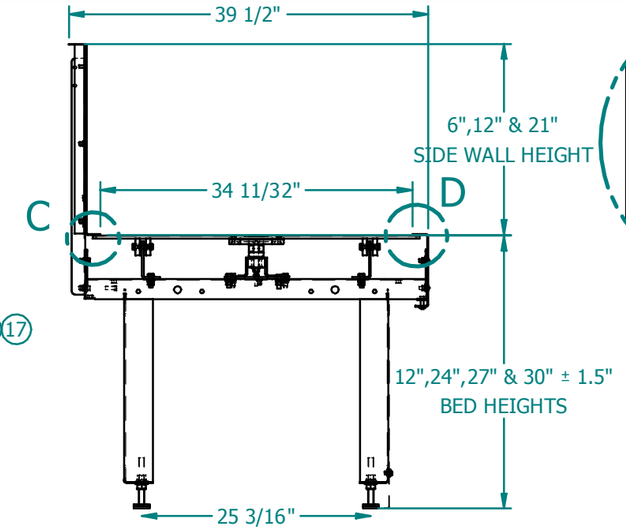
IF IN DOUBT - ASK

DO NOT SCALE

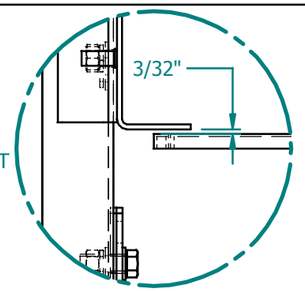


TYPICAL MAKE UP CRESCENT SLAT CONVEYOR SHOWING A 21" SIDE WALL WITH A 12" BED HEIGHT.

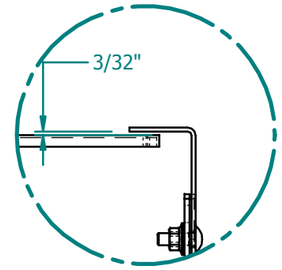
TORQUE SETTINGS FOR UNC BOLTS	
BOLT DIA.	APPROXIMATE TORQUE (lbf-ft)
1/4"	11
5/16"	22
3/8"	40
1/2"	95
5/8"	195



TYPICAL CRESCENT SLAT CONVEYOR CROSS SECTION

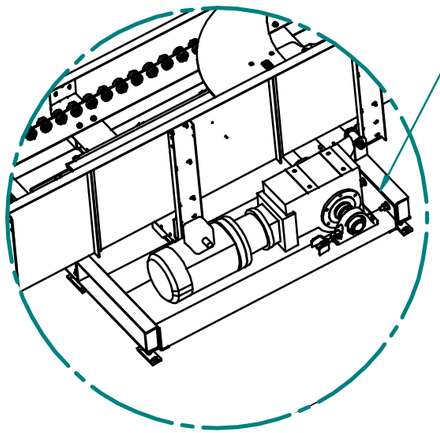


DETAIL C

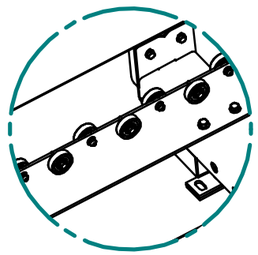


DETAIL D

DRIVE SUB FRAME ASSEMBLY BD-S011-001-004 FOR 12", 24", 27" AND 30" BED HEIGHTS.

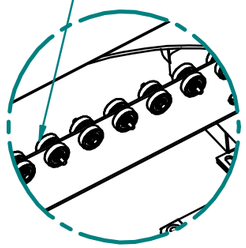


DETAIL F



DETAIL A
NORMAL PITCH

WHEEL PART # 972434



DETAIL B
LOADING AREA PITCH

NOTES:
SLAT LINK DRIVE CHAIN IS BASED ON 14 INCHES CENTER TO CENTER.
90 DEGREE CURVE ASSEMBLIES HAVE A CIRCUMFERENCE IS 57.39" BASED ON A 36.5" CENTER LINE. MINIMUM MID BED LENGHT IS 28".

ITEM	PART NO.	DESCRIPTION	Sheet #'s
18	BD-K072	CRESCENT SLAT AND LINK ASSEMBLY	4,5,6
17	BD-A098	OUTER CURVE ASSEMBLY (KICK STRIP)	6
16	BD-A097	OUTER CURVE ASSEMBLY (FRONT SHROUD)	6
15	BD-A096	OUTER CURVE ASSEMBLY (SIDE WALL AND SUPPORT BRACKET)	6
14	BD-A095	INNER CURVE ASSEMBLY (KICK STRIP)	6
13	BD-A094	INNER CURVE ASSEMLBY (FRONT SHROUD)	6
12	BD-A080	INNER CURVE ASSY (SIDE WALL & SUPPORT BRACKET)	6
11	BD-A079	CURVE BED FRAME ASSEMBLY	6
10	BD-A083	MID BED ASSEMBLY (KICK STRIP)	5
9	BD-A082	MID BED ASSEMBLY (SIDE WALL & SUPPORT BRKTS)	5
8	BD-A081	MID BED ASSY (STRAIGHT FRONT SHROUD)	5
7	BD-A077	MID BED FRAME ASSEMBLY	5
6	BD-A107	TAKE UP MID BED ASSEMBLY (KICK STRIP)	5
5	BD-A106	TAKE UP MID BED ASSEMBLY (SIDE WALL AND SUPPORT BRKTS)	5
4	BD-A105	TAKE UP MID BED ASSEMBLY STRAIGHT FRONT SHROUD)	5
3	BD-A104	TAKE UP MID BED FRAME ASSEMBLY	5
2	BD-S011	DRIVE SUB FRAME ASSY FOR 24",27" AND 30" BD HEIGHT ONLY	4
1	BD-A100	DRIVE BED FRAME ASSEMBLY	4
		RECLAIM ASSEMBLY	3
		MAKE UP ASSEMBLY	1 & 2

PRODUCED ON SOLID EDGE

REV	DESCRIPTION	BY	DATE	APPROVED
A	NEW ISSUE	JCK	07/06/10	___

GENERAL TOLERANCE TO BE FOLLOWED UNLESS STATED OTHERWISE ON DRAWING.

DIMENSIONAL TOLERANCE:
FRACTION ± 1/16"
DECIMAL ± 0.005"
ANGULAR ±0.5 degree

ALL DIMENSIONS ARE IN FEET AND INCHES EXCEPT WHERE OTHERWISE STATED.

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www.loganteleflex.com

SCALE: NTS

PROJECTION
FIRST ANGLE ☐
THIRD ANGLE ☒

DATE	DRAWN	SIZE	CONTRACT NUMBER
07/14/10	JCK	11 x 17	

LOGAN teleflex
LOUISVILLE, KY. USA

TITLE **PRODUCT DRAWING**
CRESCENT SLAT CONVEYOR

CUSTOMER STANDARDS

USED ON M812

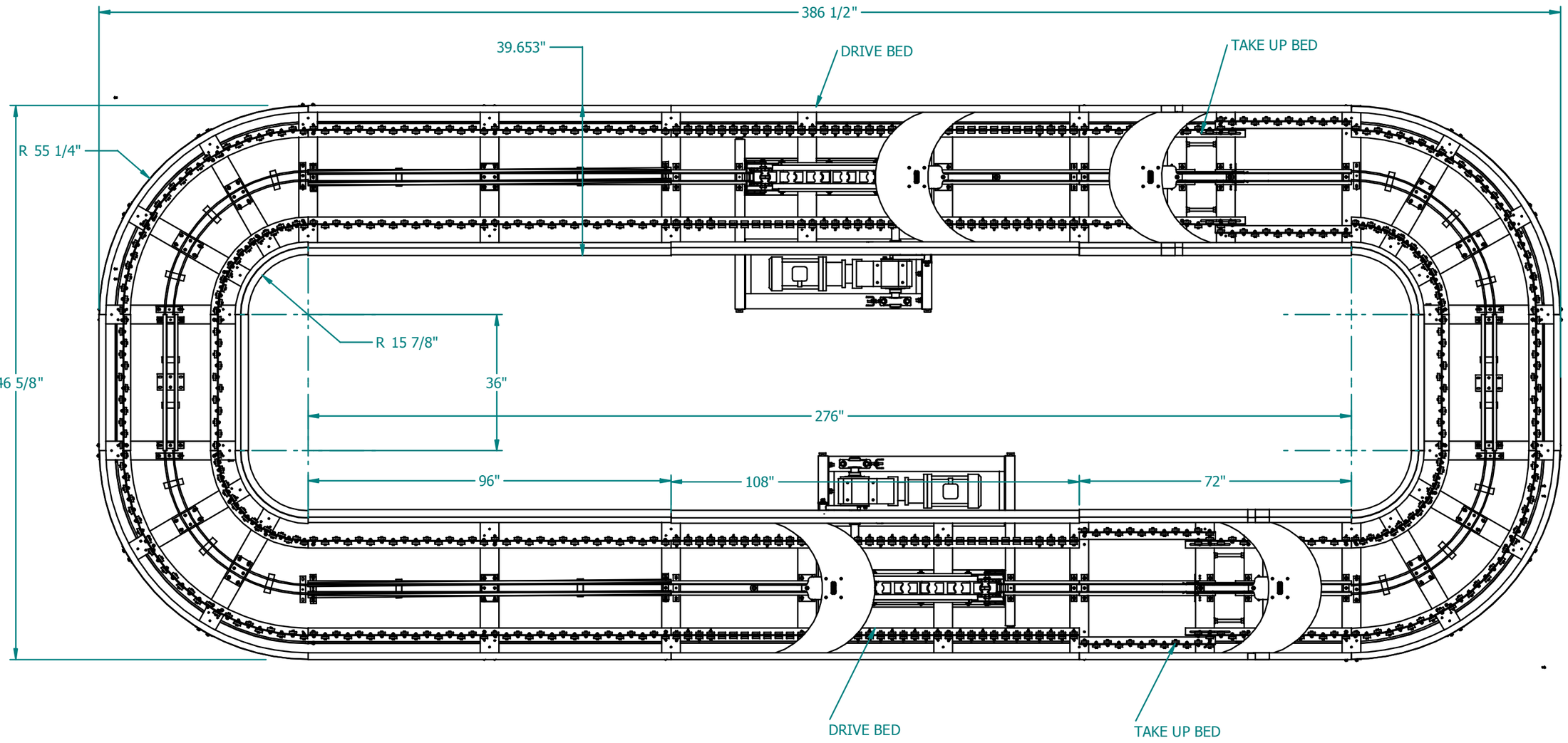
DRAWING NUMBER P812

SHEET	OF	REV
1	7	A

IF IN DOUBT - ASK

DO NOT SCALE

AIR SIDE



TYPICAL MAKE UP UNIT

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REV	DESCRIPTION	BY	DATE	APPROVED
A	NEW ISSUE	JCK	07/06/10	___

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DECIMAL ± 0.005"
ANGULAR ±0.5 degree

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SCALE: NTS

PROJECTION
FIRST ANGLE ☐
THIRD ANGLE ☒

DATE	DRAWN	SIZE	CONTRACT NUMBER
07/14/10	JCK	11 x 17	

LOGAN teleflex
LOUISVILLE, KY. USA

TITLE **PRODUCT DRAWING**
CRESCENT SLAT CONVEYOR

CUSTOMER STANDARDS

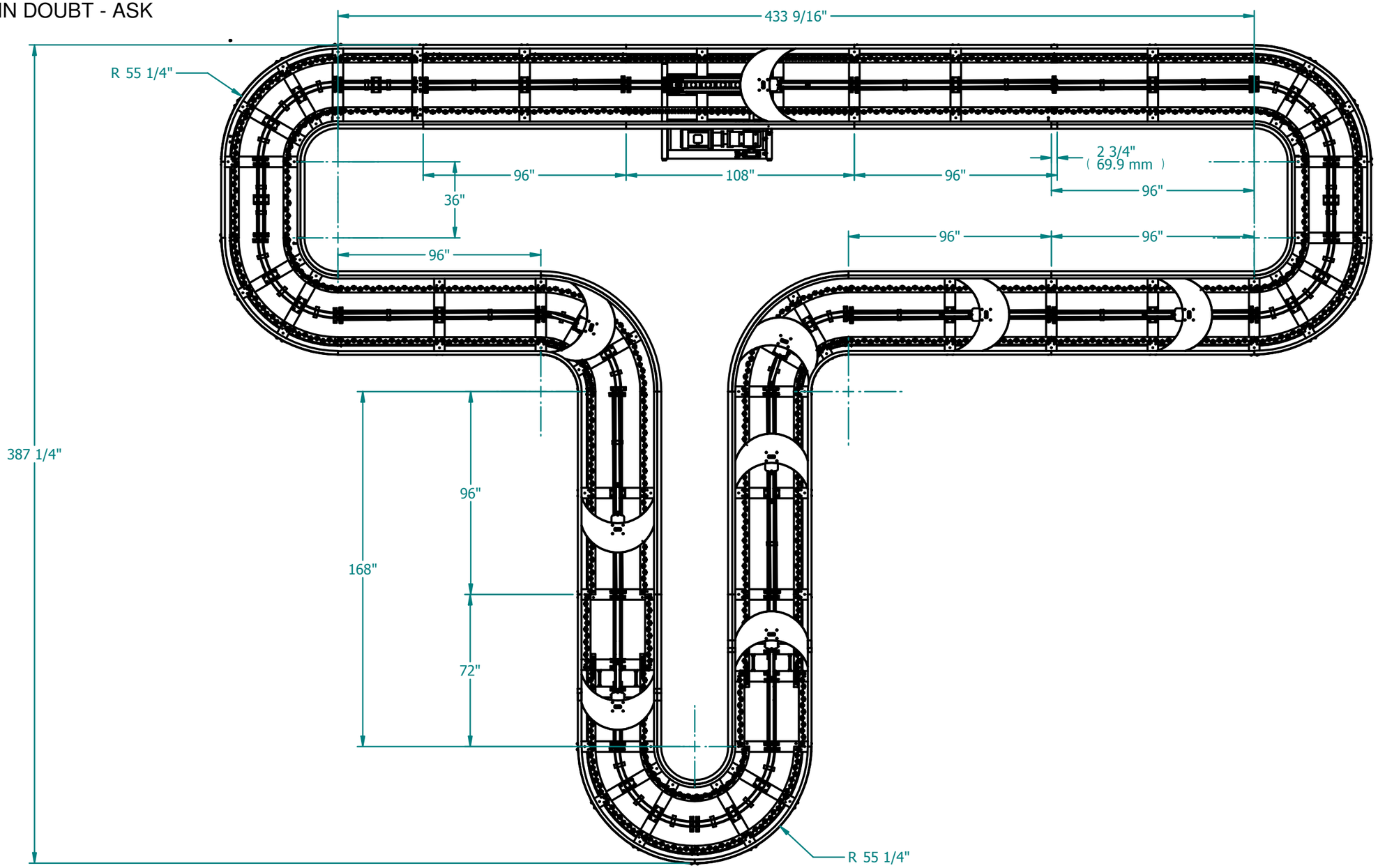
USED ON M812

DRAWING NUMBER P812

SHEET	OF	REV
2	7	A

IF IN DOUBT - ASK

DO NOT SCALE



TYPICAL RECLAIM CRESCENT SLAT CONVEYOR

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REV	DESCRIPTION	BY	DATE	APPROVED
A	NEW ISSUE	JCK	07/26/10	___

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DIMENSIONAL TOLERANCE:
FRACTION ± 1/16"
DECIMAL ± 0.005"
ANGULAR ±0.5 degree

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DATE	DRAWN	SIZE	CONTRACT NUMBER
07/26/10	JCK	11 x 17	

LOGAN teleflex
LOUISVILLE, KY. USA

TITLE **PRODUCT DRAWING CRESCENT SLAT CONVEYOR**

CUSTOMER STANDARDS

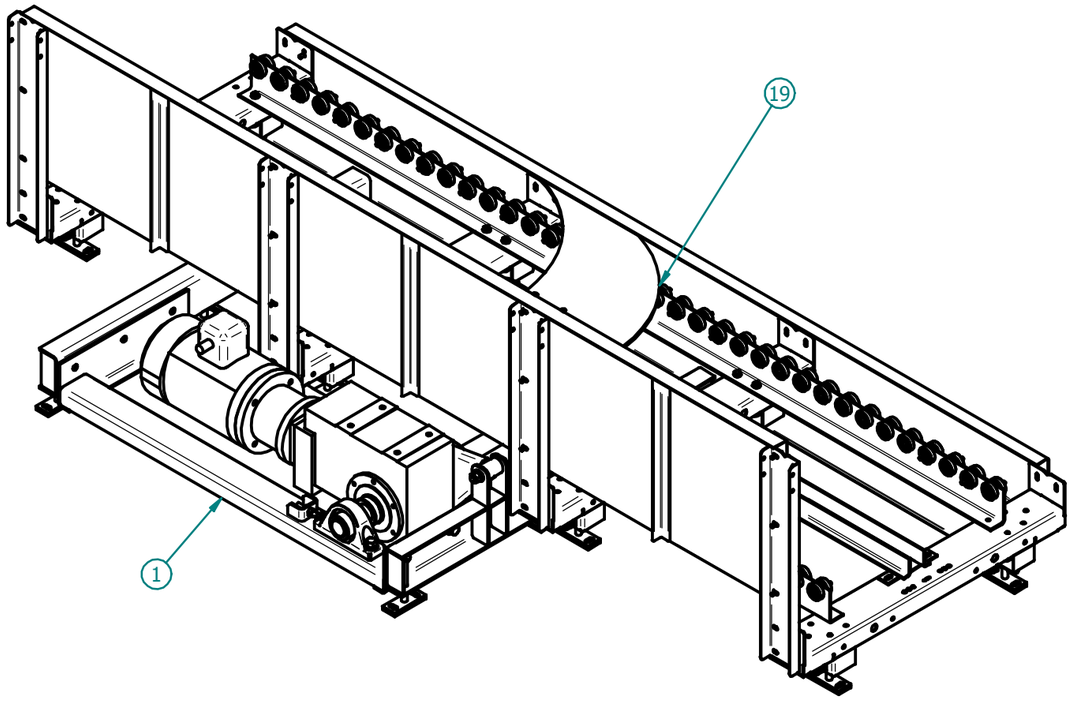
USED ON M812

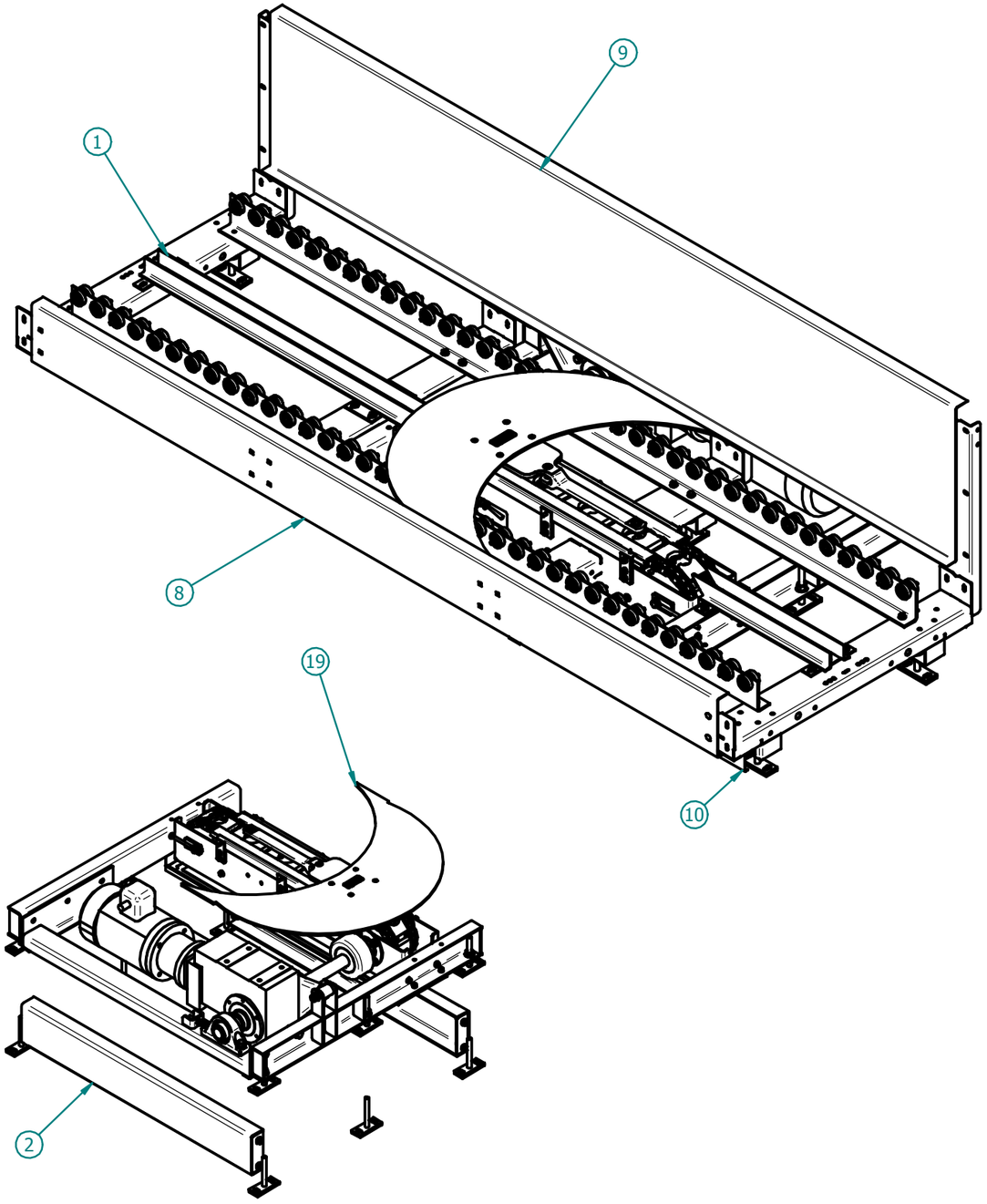
DRAWING NUMBER M812 PRODUCT DWG 3

SHEET	OF	REV
3	7	A

IF IN DOUBT - ASK

DO NOT SCALE





	DRIVE BED ASSEMBLY	
ITEM 1	BD-A100	DRIVE BED FRAME ASSEMBLY
ITEM 2	BD-S011	DRIVE SUB EXTENDED FRAME ASSEMBLY 24",27",30"
ITEM 8	BD-A081	MID BED ASSEMBLY (STRAIGHT FRONT SHROUD)
ITEM 9	BD-A082	MID BED ASSEMBLY (STRAIGHT SIDE WALL & BRKTS)
ITEM 10	BD-A083	MID BED ASSEMBLY (KICK STRIP)
ITEM 19	BD-K072	CRESCENT SLAT AND LINK ASSEMBLY
LENGHT	108" LG.	
SIDE WALL HEIGHTS	6", 12", 21"	
BED HEIGHTS	12", 24", 27", 30"	

REV	DESCRIPTION	BY	DATE	APPROVED
A	NEW ISSUE	JCK	07/27/10	___

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SCALE: NTS

PROJECTION
FIRST ANGLE ☐
THIRD ANGLE ☒

DATE	DRAWN	SIZE	CONTRACT NUMBER
07/27/10	JCK	11 x 17	

LOGAN teleflex
LOUISVILLE, KY. USA

TITLE **PRODUCT DRAWING**
CRESENT SLATE CONVEYOR
DRIVE BED ASSEMBLY

CUSTOMER STANDARDS

USED ON M812

DRAWING NUMBER M812 PRODUCT DWG 4-7

SHEET	OF	REV
4	7	A

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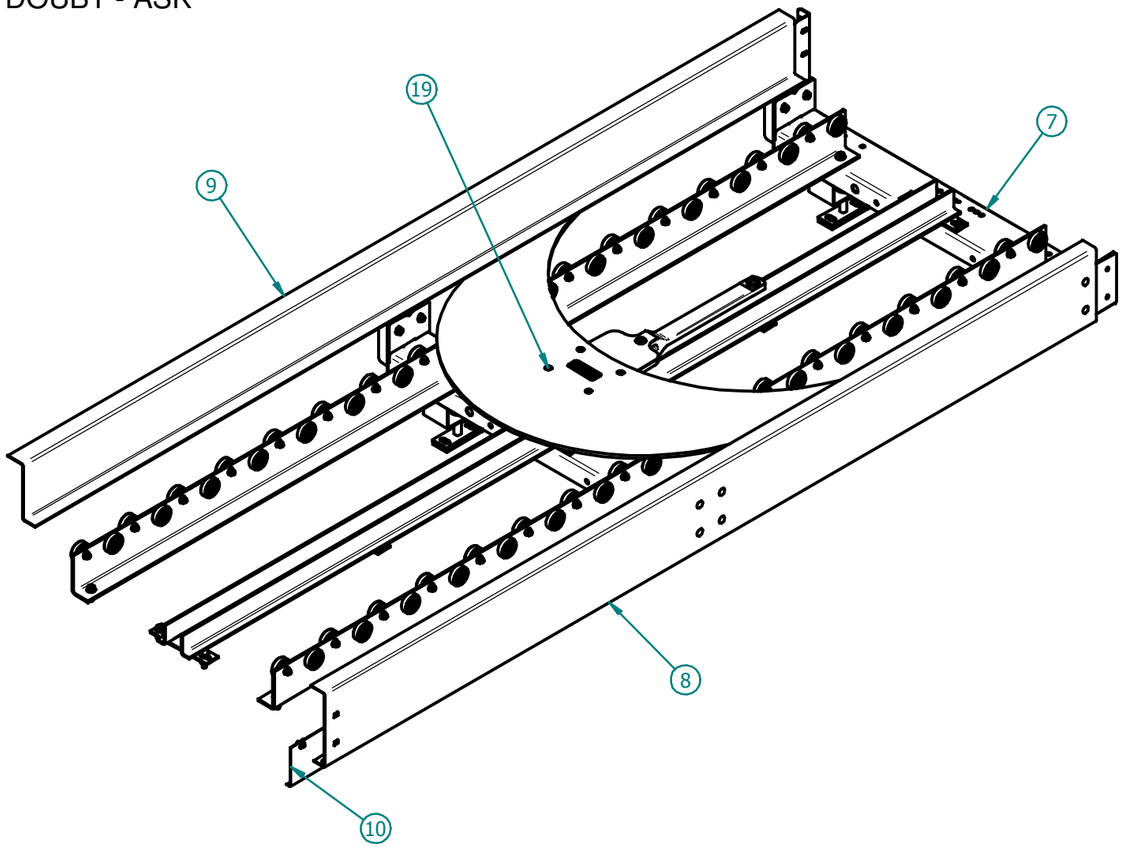
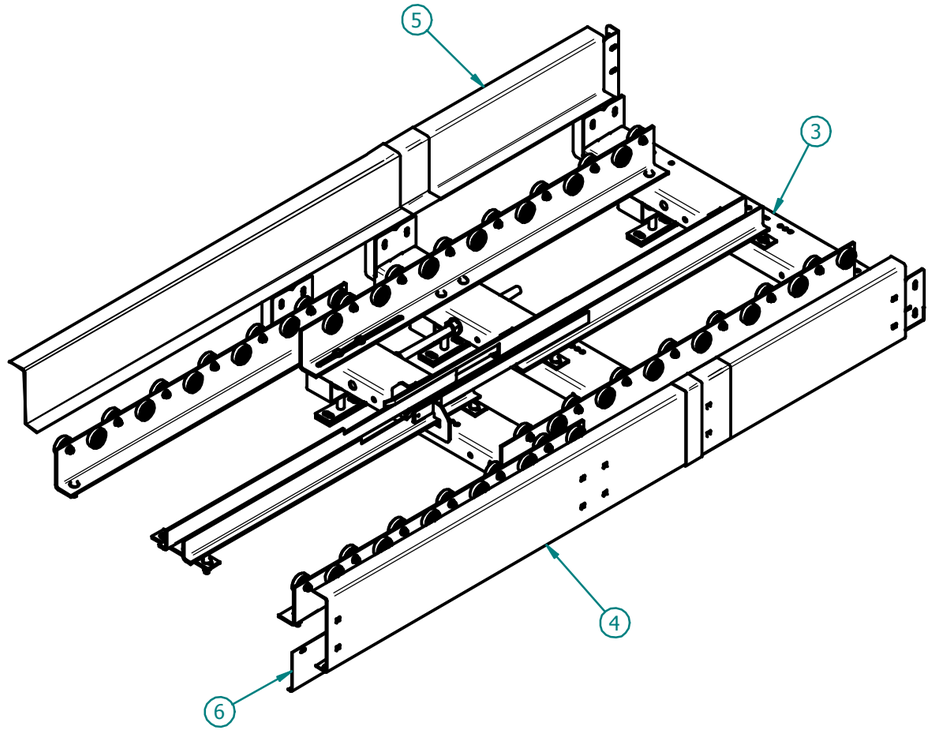
IF IN DOUBT - ASK

DO NOT SCALE





	MID BED ASSEMBLY
ITEM 7	BD-A077 MID BED FRAME ASSEMBLY
ITEM 8	BD-A081 MID BED ASSEMBLY (STRAIGHT FRONT SHROUD)
ITEM 9	BD-A082 MID BED ASSEMBLY (STRAIGHT SIDE WALL & BRKTS)
ITEM 10	BD-A083 MID BED ASSEMBLY (KICK STRIP)
ITEM 19	BD-K072 CRESCENT SLAT AND LINK ASSEMBLY
LENGHT	96" & 108" LG.
SIDE WALL HEIGHTS	6", 12", 21"
BED HEIGHTS	12", 24", 27", 30"

	TAKE UP MID BED ASSEMBLY
ITEM 3	BD-A104 TAKE UP MID BED FRAME ASSEMBLY
ITEM 4	BD-A105 TAKE UP MID BED ASSY (STRAIGHT FRONT SHROUD)
ITEM 5	BD-A106 TAKE UP MID BED ASSY (SIDE WALL & BRKTS)
ITEM 6	BD-A107 TAKE UP MID BED ASSY (KICK STRIP)
ITEM 19	K072 CRESCENT SLATE AND LINK ASSEMBLY
LENGHT	72" +2 3/ 8" -5.0"
SIDE WALL HEIGHTS	6", 12", 21"
BED HEIGHTS	12", 24", 27", 30"

PRODUCED ON SOLID EDGE

REV	DESCRIPTION	BY	DATE	APPROVED
A	NEW ISSUE	JCK	07/27/10	___

GENERAL TOLERANCE TO BE FOLLOWED UNLESS STATED OTHERWISE ON DRAWING.

DIMENSIONAL TOLERANCE:
FRACTION ± 1/16"
DECIMAL ± 0.005"
ANGULAR ±0.5 degree

ALL DIMENSIONS ARE IN FEET AND INCHES EXCEPT WHERE OTHERWISE STATED.

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SCALE: NTS

PROJECTION
FIRST ANGLE ☐
THIRD ANGLE ☒

DATE	DRAWN	SIZE	CONTRACT NUMBER
07/27/10	JCK	11 x 17	

LOGAN teleflex
LOUISVILLE, KY. USA

TITLE **PRODUCT DRAWING**
CRESENT SLATE CONVEYOR
MID BED AND TAKE UP ASSEMBLIES

CUSTOMER STANDARDS

USED ON M812

DRAWING NUMBER M812 PRODUCT DWG 4-7

SHEET	OF	REV
5	7	A

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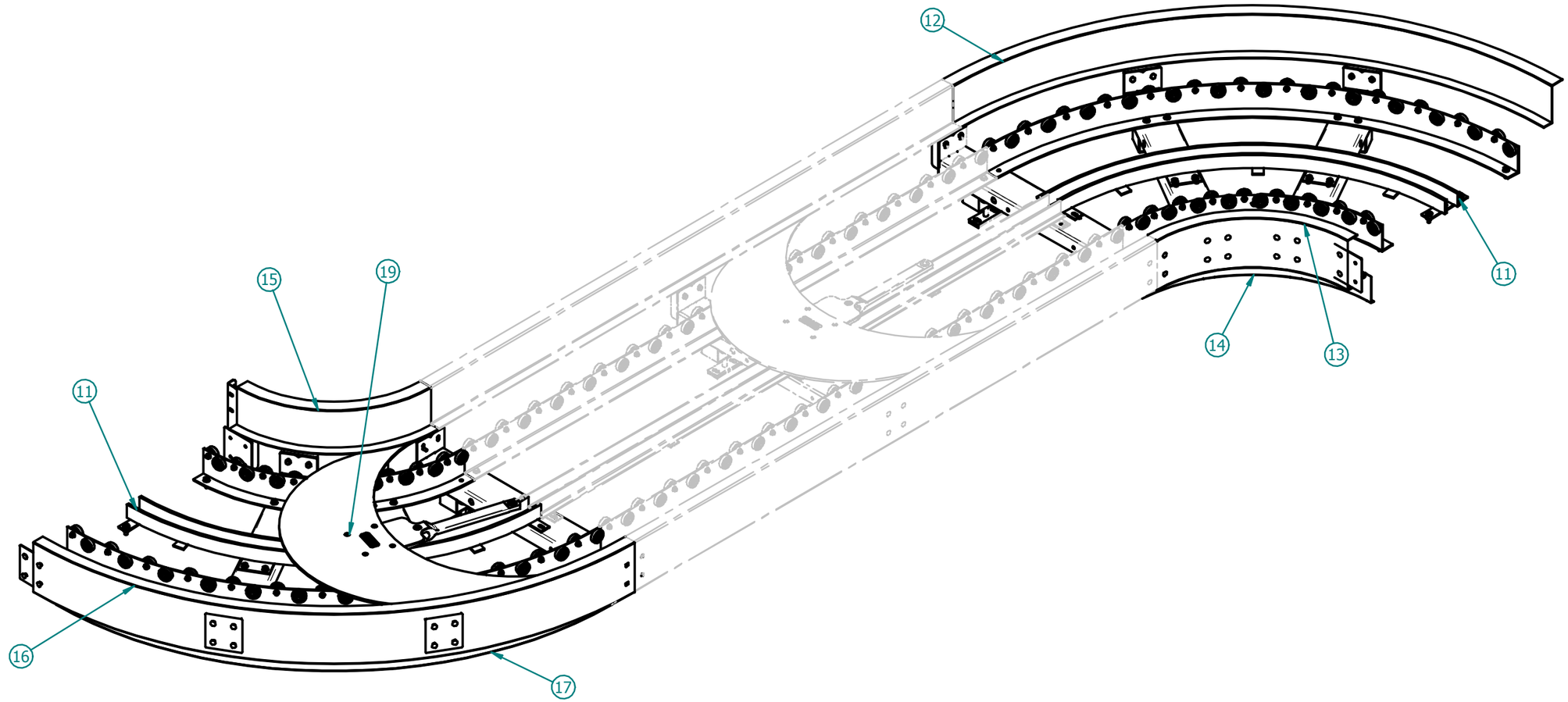

	NORMAL CURVE ASSEMBLY (OUTER)
ITEM 11	BD-A079 CURVE BED FRAME ASSEMBLY
ITEM 15	BD-A096 OUTER CURVE ASSY (SIDE WALL & SUPPORT BRKTS)
ITEM 16	BD-A097 OUTER CURVE ASSEMBLY (FRONT SHROUD)
ITEM 17	BD-A098 OUTER CURVE ASSEMBLY (KICK STRIP)
ITEM 19	K072 CRESCENT SLAT AND LINK ASSEMBLY
LENGTH	90 DREGREES 57.39" BASED ON A 36.5" CENTER LINE.
SIDE WALL HEIGHTS	6", 12", 21"
BED HEIGHTS	12", 24", 27", 30"

	REVERSE CURVE ASSEMBLY (INNER)
ITEM 11	BD-A079 CURVE BED FRAME ASSEMBLY
ITEM 12	BD-A080 INNER CURVE ASSY (SIDE WALL & SUPPORT BRKTS)
ITEM 13	BD-A094 INNER CURVE ASSEMBLY (FRONT SHROUD)
ITEM 14	BD-A095 INNER CURVE ASSEMBLY (KICK STRIP)
ITEM 19	K072 CRESCENT SLAT AND LINK ASSEMBLY
LENGHT	90 D EGREES 57.39" BASED ON 36.5" CENTER LINE.
SIDE WALL HEIGHTS	6", 12", 21"
BED HEIGHTS	12", 24", 27", 30"

PRODUCED ON SOLID EDGE

REV	DESCRIPTION	BY	DATE	APPROVED
A	NEW ISSUE	JCK	07/27/10	___

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THIRD ANGLE ☒

DATE	DRAWN	SIZE	CONTRACT NUMBER
07/27/10	JCK	11 x 17	

LOGAN teleflex
LOUISVILLE, KY. USA

TITLE **PRODUCT DRAWING**
CRESENT SLATE CONVEYOR
NORMAL AND REVERSE CURVE ASSEMBLIES

CUSTOMER STANDARDS

USED ON M812

DRAWING NUMBER M812 PRODUCT DWG 4-7

SHEET	OF	REV
6	7	A

IF IN DOUBT - ASK

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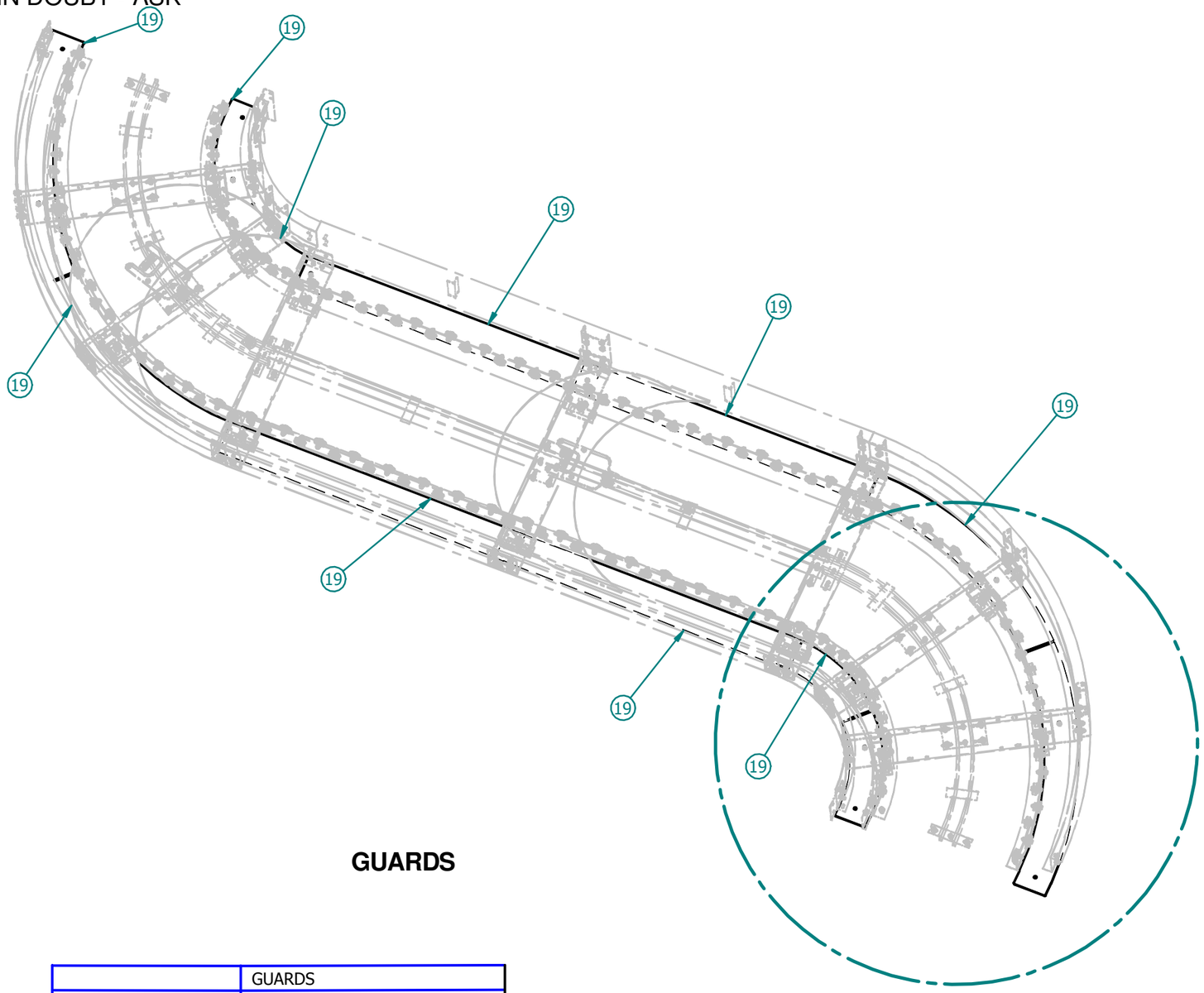

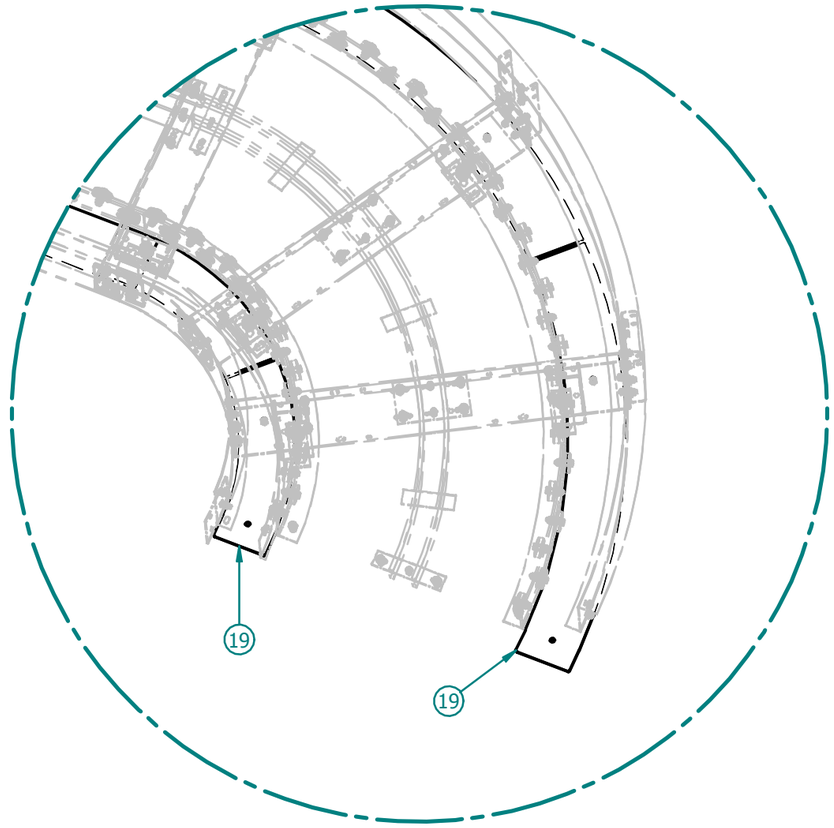

GUARDS

	GUARDS
ITEM 19	BD-D456 GUARDS

PRODUCED ON SOLID EDGE

REV	DESCRIPTION	BY	DATE	APPROVED
A	NEW ISSUE	JCK	07/27/10	___

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THIRD ANGLE ☒

DATE	DRAWN	SIZE	CONTRACT NUMBER
07/27/10	JCK	11 x 17	

LOGAN teleflex
LOUISVILLE, KY. USA

TITLE **PRODUCT DRAWING CRESENT SLATE CONVEYOR GUARDS**

CUSTOMER STANDARDS

USED ON M812

DRAWING NUMBER M812 PRODUCT DWG SHT 5-9

SHEET	OF	REV
7	7	A

Updated August 2009

Model 812
Crescent Plate Carousel

Baggage Handling Solutions

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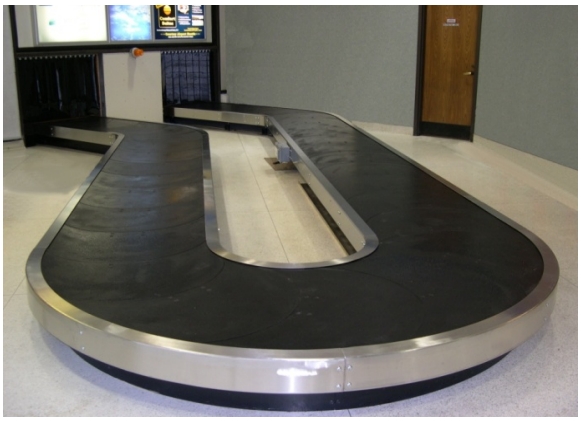
Model 812
Crescent Plate Carousel



Application

The Logan Teleflex Model 812 Crescent Plate Carousel provides an endless surface for presenting baggage to either passengers or baggage handlers. A combination of straight and radius interlocked sections provides flexibility for shapes and configurations, to accommodate various floor layouts and available floor space. The Crescent Plate Carousel can be manually loaded, or fed from an automated load system.

Inbound Claim - Located on the public side of the terminal, in the passenger baggage claim area, the unit is generally routed from the secured Airside load area, into the Public Baggage Claim area. In this configuration, the unit is clad in stainless steel when in the public area, and can be supplied with an aesthetically pleasing infill area finished in either carpet or other surface covering. The conveying surface is held at 12" above the floor line to allow an ergonomically pleasing unload surface height.

Outbound Make-Up- As a Make-Up Unit, the Crescent Plate Carousel is located within the secured baggage area and supplied as an integral part of an Outbound bag handling system. The unit can be loaded from a number of Ticket Counter or Curbside feed lines, with baggage manually sorted to a destination flight. The make-Up Unit is usually finished in galvanized steel or painted mild steel for this application.

Features	Specifications
• Overall Unit Width	37 ¾" (Outside to Outside)
• Width of Conveying Surface	34 ¼" Surface
• Crescent Plate Construction	¼" Steel
• Conveying Surface Finish	Polyurethane Elastomer Coating
• Curve Center Line Radius	35 ½" Nominal
• Inside Radius	16 ¾"
• Outside Radius	55 ¼"
• Conveying surface height	12" Nominal (Optional heights for Makeup Design Max. 33")
• Configurations	Flexible
• Direction	Clockwise or counter clockwise
• Load Capacity	85 lbs/ft – Live 265 lbs/ft - Static
• Conveying Speed	90 ft/min nominal
• Pallet Support	Polyurethane Tired wheel with Sealed for life bearings
• Drive Type	Caterpillar Drive Chain (Twin Sprocket)
• Drive Features	Redundant Drive System optional
• Frame Structure Finish	Black steel; shrouded with Stainless Steel in Public Viewing areas
• Frame Construction	Modular Segments

Baggage Handling Solutions

Model 812 Crescent Plate Carousel

Attractive and Pleasing Appearance

- All internal frame structures are covered with No. 304 stainless steel with #4 finish horizontal grain in the public area.
- Infill area is trimmed in brushed Stainless Steel, with a fire-retardant structure supplied for applying any number of customer specified finishes.
- The tread is designed to form a flat conveying surface driven from the underside and requiring no take-up.
- A black painted mild steel kick plate is provided at the base of the machine, set back under the unit from the edge of the frame.

Rigid Modular

- The frame is of steel fabricated construction, having an overall width of 37 ¾" and a minimum elevation to the conveying surface of 12" above the floor-line.
- The conveying surface consists of crescent shaped polyurethane ¼" steel platforms, accurately molded to maintain correct relationship between segments when negotiating turns. By design, the load wheels continuously support the platforms and associated loads.
- The 34 1/4" wide conveying surface is designed for a live load of 85 lb. per linear foot at a speed of 90 fpm.
- The frame structure is supported on 4 ft centers, with each floor support allowing for vertical adjustment, to compensate for slight floor imperfections during installation.
- All structural parts are painted prior to assembly.

Quiet, Smooth Running

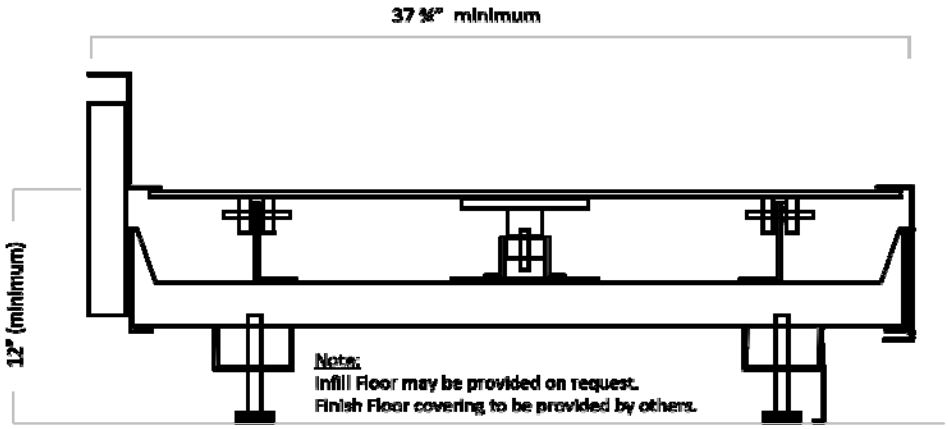
- Engagement of the drive is designed and built to minimize noise, making the Logan Teleflex Flat plate Unit virtually "unnoticeable" when running.
- Soft Start electronic control system smoothly engages the drive, eliminating any start-up wear and engagement noise.

Reliable

- Sealed for life bearings, Heavy-Duty drive system and over-sized supporting wheels assures a trouble free life expectancy far exceeding industry specifications.

Heavy Duty Drive System

- Caterpillar drive unit is floor mounted and consists of an electric gearmotor designed to start under full load, regardless of unit size.
- The motor is shaft mounted directly to the drive head shaft. Drive components are adequately sized to suit the live load and speed of the conveyor and are rated for long life, 24 hours per day operation
- VFD or Soft-Start control system eliminates excessive drive wear due to start-up engagement.
- The proven caterpillar drive principal incorporates an endless chain that meshes with and drives against precison cam followers that are afixed to the underside of carriages. There are at least two cam followers fully engaged with the drive at all times.



Baggage Handling Solutions

Other Products Within The Logan Teleflex Range of Equipment

Model No.	Product Description	Product Type
801	Conveyor	Queue/Transportation
813	Check-In Conveyors	Check-In
806	Fast Acting Belt Plough	Sorting
807	Parallel Pusher	Sorting
810	Inclined Claim Carousel – Stainless Steel	Claim or Make Up
812	Cresent Plate Carousel	Claim or Make Up
814	Vertical Sortation Unit	Sorting
817	Inclined Claim Conveyor – Rubber Slat	Claim or Make Up
818	Horizontal Claim Conveyor – Rubber Slat	Claim or Make Up
700	Tilt Tray Sorter	Sorting

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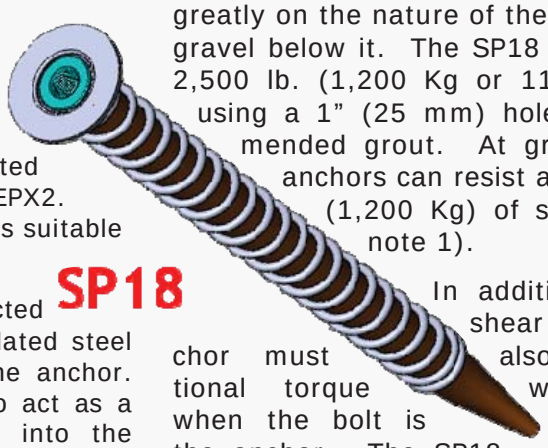
BOLTHOLD SP

SP18 Asphalt Anchor
Datasheet V1.2

Overview The Asphalt Anchor Group of Designated Parking Corp. has developed the ***BoltHold SP*** family of anchors suitable for mounting structures to asphalt surfaces. The SP18 anchors are 12" (30 cm) long and 7/8" (22 mm) in diameter, with a 7/16" -14 female thread. The anchor is cemented in the ground using a special grout EPX2. This is our strongest anchor, and it is suitable for heavier loads.



Description The SP18 is constructed from a thick-walled 18 mm Zinc plated steel tube acting as the backbone of the anchor. The bottom is flared and sealed to act as a wedge when pushing the anchor into the ground. A 3 mm welded steel spiral along the length of the anchor provides for a strong bond with the grout. The top of the anchor incorporates a welded female 7/16" thread and a large washer.

The washer prevents the anchor from dropping below the surface, and guards the thread from the grout spilling into it. The washer prevents *static* pull forces on the anchor when the structure is attached to the anchor. Such forces are likely if the head of the anchor is smaller than the hole in the base of the structure being attached; in the latter case, as the bolt is tightened, the anchor would be pulled up into the base.

About Asphalt: Asphalt is a relatively weak surface, and care must be taken when installing structures to that surface. Asphalt will flow under pressure over time, and will not resist expansion-type anchors that are so successful in concrete.

A significant increase in the anchor's shear force resistance is derived from the gravel surface ***below*** the asphalt. The compacted gravel resists sideways forces (shear). Bonding the anchor to the gravel, in addition to the bond to the asphalt adds shear resistance.

Force Rating The resistance of the installed anchors to extraction depends greatly on the nature of the asphalt and the gravel below it. The SP18 is pull-rated for 2,500 lb. (1,200 Kg or 11KN) if installed using a 1" (25 mm) hole and a recommended grout. At ground level, the anchors can resist at least 2,500 lb. (1,200 Kg) of shear force (see note 1).

In addition to pull and shear forces, the anchor must also resist rotational torque which is applied when the bolt is tightened into the anchor. The SP18 is rated for **280** in-lb of torque. Do not exceed this torque when installing the anchor.

To find out if the anchors are suitable for your application, the safe way is to make a test installation. You will be able to leave the anchors in place after the test without the need to remove them as they are flush with the roadway surface.

Grout Selection The term "grout" is used here in a broad meaning; the actual materials can be concrete, adhesives, epoxies and the like.

In general, the grout must be self-leveling (meaning that it flows easily, to fill in all the crevices and voids). It must cure to a hard material and must be immune to extended exposure to water and temperature fluctuations.

The most cost effective anchoring results are achieved using an expanding concrete mix such as Sakrete Anchor, *Super Por-Rok*, *Kwix-set or ProSpec*. You will need about 7 oz (220 cc) of mixture per anchor. The cost per anchor using such a grout is less than $2. The grout is available from AAG as the EPX2, in self

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WEB: www.asphalt-anchors.com

SP18 Asphalt Anchors

Datasheet page 2

contained packages that cover 2 anchors.

A cartridge-type epoxy is available in the market which works well but is 10 times more expensive.

Installation The installation requires drilling a 1" (25 mm) hole, 12" (30 cm) deep, into the asphalt and the gravel below it. The hole is filled with grout and the anchor is dropped in. If the anchor meets resistance as it is pushed in, use a dead blow hammer (sand hammer) to gently drive the anchor, or place a piece of wood between the hammer and the anchor's head.

The anchor is ready for use in 15 minutes (depending on the grout and ground temperature).

Always consult the latest installation instructions before installing these anchors. A comprehensive installation manual is available on our web site under "Library" or "Documents". The online manual is updated regularly to reflect the availability of grouts, new installation techniques and user feedback.

Packing

The ***BoltHold SP18*** anchors are packaged 6 anchors to a "set" carton. 9 Sets are packaged in a Master carton which holds 54 SP18. The set carton includes (6) 7/16" x 1.25" long grade 5 Zinc plated bolts and (6) 1" diameter washers.

Tariffs

The SP18 are shipped under schedule 60.
HTS code (export) 7316.00.0000

RELATED PRODUCTS

EPX2 grout for use with the anchors. One package of EPX2 will cover 2 anchor installations.

1" Drill Bit Masonry drill bits with SDS+ slotted shaft are available at discount from AAG.

SP12 and SP10 are lighter duty versions.

Anchor Metrics	
Anchor Length	12" (300 mm)
Anchor body diameter	7/8" (22 mm)
Anchor washer diameter	1.35" (43 mm)
Anchor weight	0.8 lb. (0.4 Kg)
Internal Thread	7/16"-14 UNC
Maximum bolt length	2.5" (64 mm)
Finish	Zinc plated
Typical pull resistance	2,500 lb. (1,200 Kg)
Grout volume required	210 cc (7oz)
SP18 per EPX2 package	2
Part Number, SP18-716	**01-6318.716**

Kit Packing Information	
Anchors per *Set*	6
Bolts and washers per set	6
Set Carton dimensions, mm	110 x 346 x 60
Set Carton dimensions, inch	4.3" x 13.6" x 2.4"
Set Carton weight	2.3 Kg 5 lbs
Set Carton Volume	0.003 CBM
Number of anchors per Master	54
Master Carton dimensions, mm	360 x 355 x 212
Master Carton dimensions, inch	14.2 x 14 x 8.3
Master Carton Weight	21 Kg 47 lb.
Master carton Volume	0.027 CBM

Note 1: When installing anchors close together, derate the pull strength of the additional anchors by 6% for every 1 inch less than 12. Thus an arrangement of 4 anchors at 4" apart will resist a total pull force of 6,400 lbs (2,500 + (3 x (52% x 2500)).

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