



## **REDD Team**

### **Assembly Instructions Cover Sheet**

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**Thank you for purchasing this quality aluminum product from REDD Team! We are confident that you will find it to be an excellent access solution for years to come.**

Our goal is 100% customer satisfaction so please check the contents of your shipment prior to beginning installation. If any parts appear to be damaged, missing or incorrect, contact a Customer Service Representative immediately at 1-800-648-3696 so we can work with you to quickly solve the problem.

The attached assembly instructions have been prepared for a typical ramp and landing system measuring 4 feet in width across the ramp deck and 30 feet in length up to the landing. The landing depicted in the instructions is 5 foot 4 inches square. When properly installed at a 1:12 slope, this ramp will allow access to a threshold 30 inches above ground. Please note that the configuration of the ramp system you purchased may differ from that shown on these instructions (different size landing, different width ramp, walkway sections, etc.). However, the same steps are used for connecting components illustrated in these instructions. Should you experience any difficulties installing the ramp or have any questions regarding the installation instructions, please do not hesitate to contact a Customer Service Representative at 1-800-648-3696, M-F between the hours of 8 AM and 5 PM, Central. You may also visit our web site at [www.reddteam.com](http://www.reddteam.com) for PDF copies of these instructions.

**The following is a list of tools that are recommended for installation:**

- 6" C-Clamp (suggest Vise-Grip Locking C-Clamp w/Swivel Pad)
- Phillips driver (included)
- Curved Jaw Vice-Grip
- Rubber mallet
- Level
- Allen wrench (included)
- Hex driver (included)
- Cordless Drill
- Work gloves

## **REDD Team – Assembly Instructions: 42/34/23 VP Ramp System**

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Aluminum Ramp System With 42" VP Guardrail, 34" Grabrail & 23" Childrail

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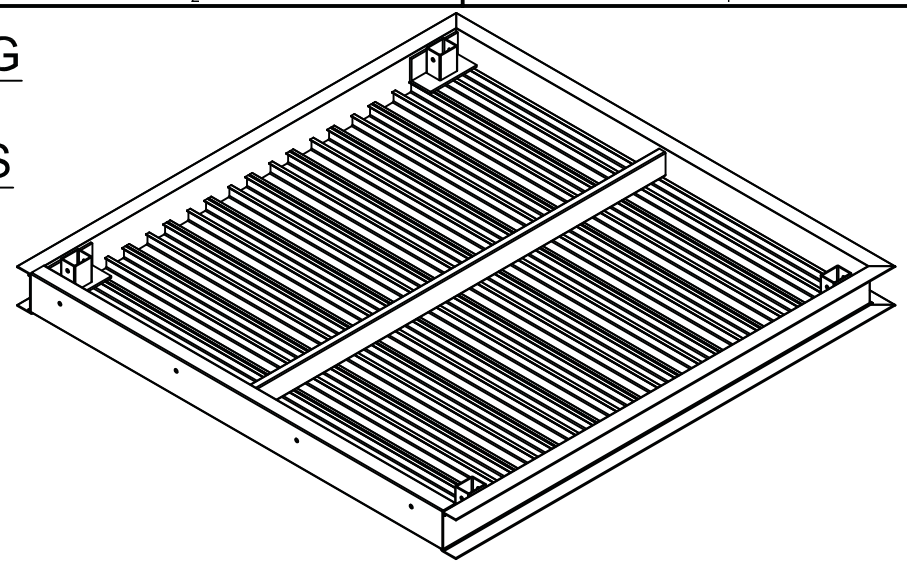
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4 3 2 1

5'-4" SQUARE LANDING  
AND  
LOOSE COMPONENTS

**LANDING LEG CONE**

RTM PART #: PLEG AS44M C22  
QTY USED: 4

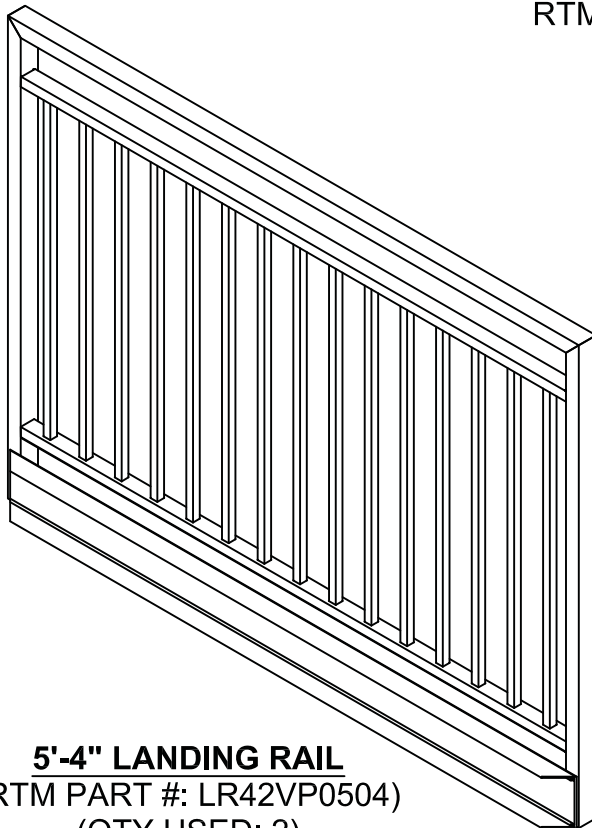
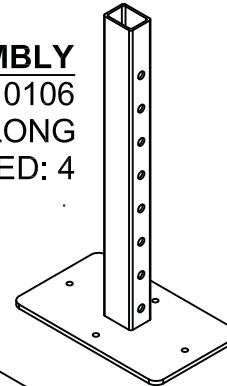


**5'-4" x 5'-4" LANDING**

LANDING SHOWN UPSIDE DOWN  
RTM PART #: L0504-0504T  
QTY USED: 1

**LEG ASSEMBLY**

RTM PART #: PLEG AS43M 0106  
1'-6" LONG  
QTY USED: 4

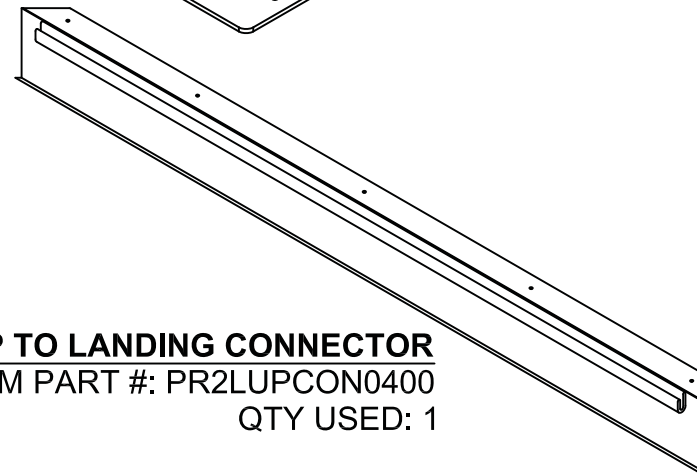


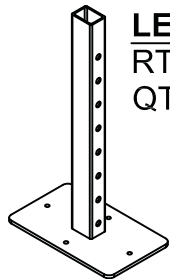
**5'-4" LANDING RAIL**

(RTM PART #: LR42VP0504)  
(QTY USED: 2)

**RAMP TO LANDING CONNECTOR**

RTM PART #: PR2LUPCON0400  
QTY USED: 1

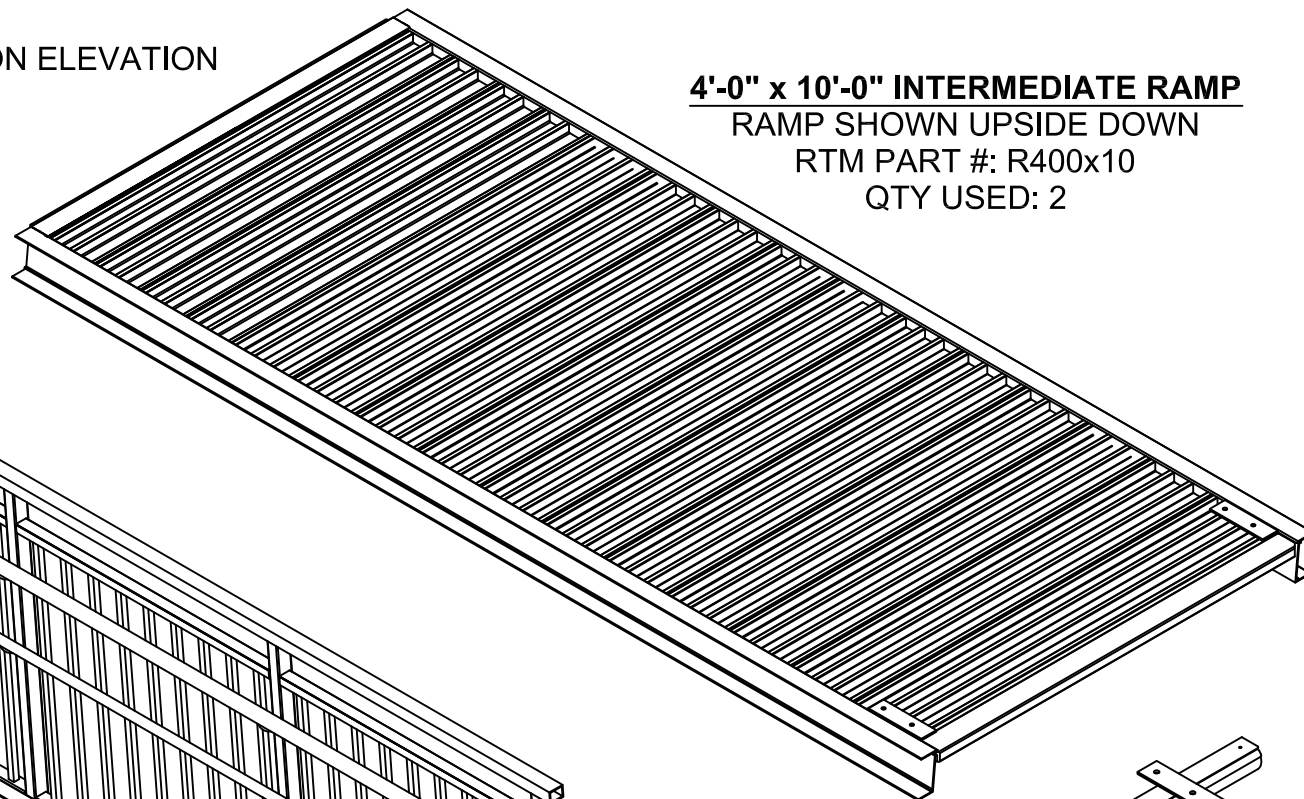




### **LEG ASSEMBLY**

RTM PART#: VARIES BASED ON ELEVATION

QTY USED: 2 PER INT. RAMP

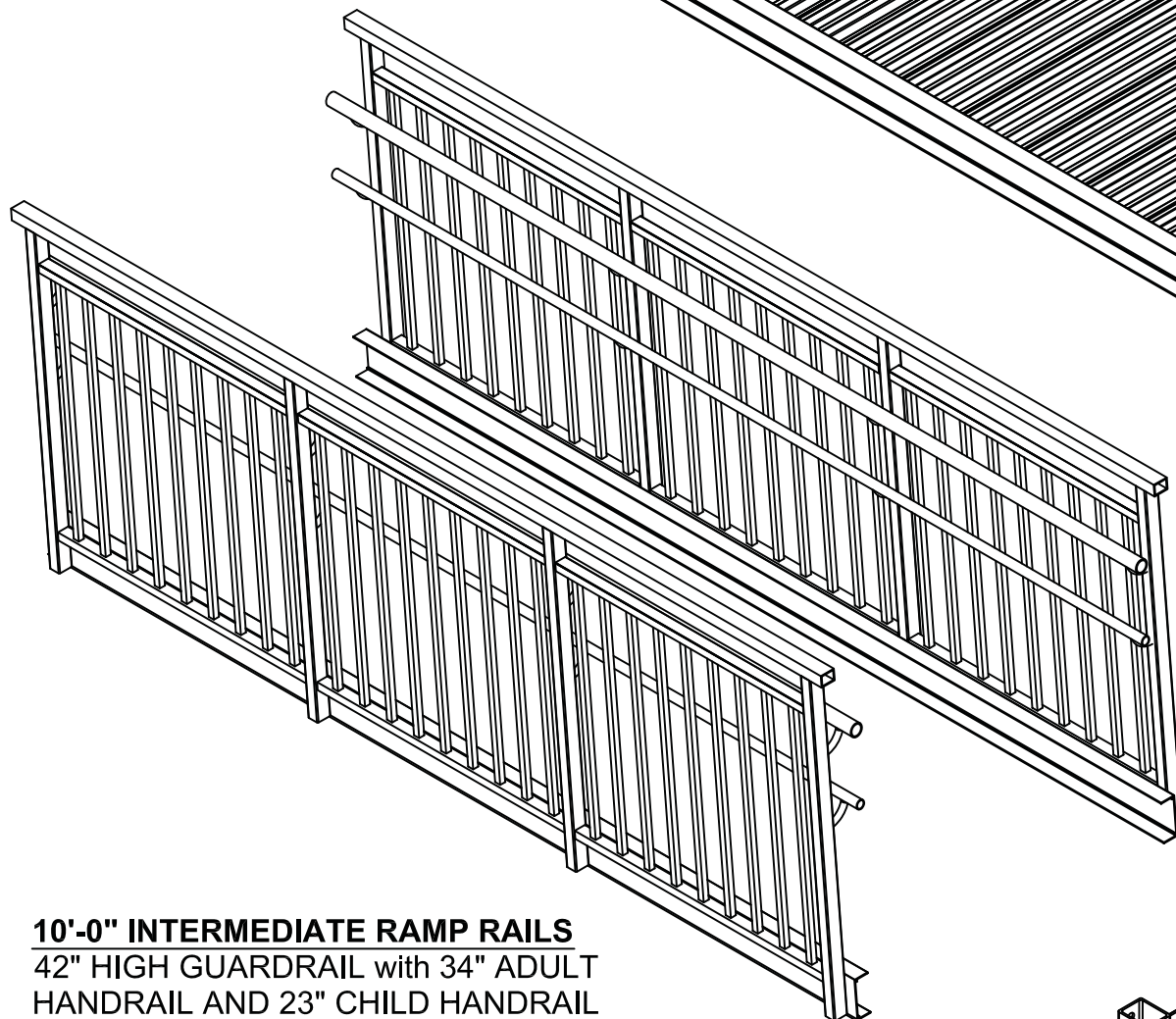


### **4'-0" x 10'-0" INTERMEDIATE RAMP**

RAMP SHOWN UPSIDE DOWN

RTM PART #: R400x10

QTY USED: 2

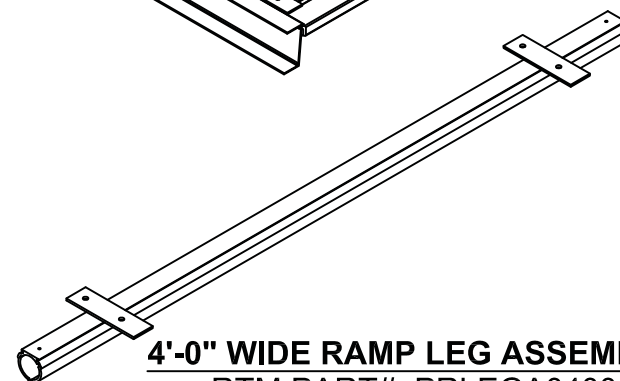


### **10'-0" INTERMEDIATE RAMP RAILS**

42" HIGH GUARDRAIL with 34" ADULT  
HANDRAIL AND 23" CHILD HANDRAIL

RTM PART#: RR423423VP10-04

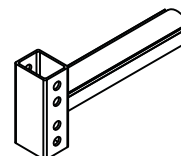
QTY USED: 1 SET PER INT. RAMP



### **4'-0" WIDE RAMP LEG ASSEMBLY**

RTM PART#: PRLEGA0400

QTY USED: 1 PER INT. RAMP

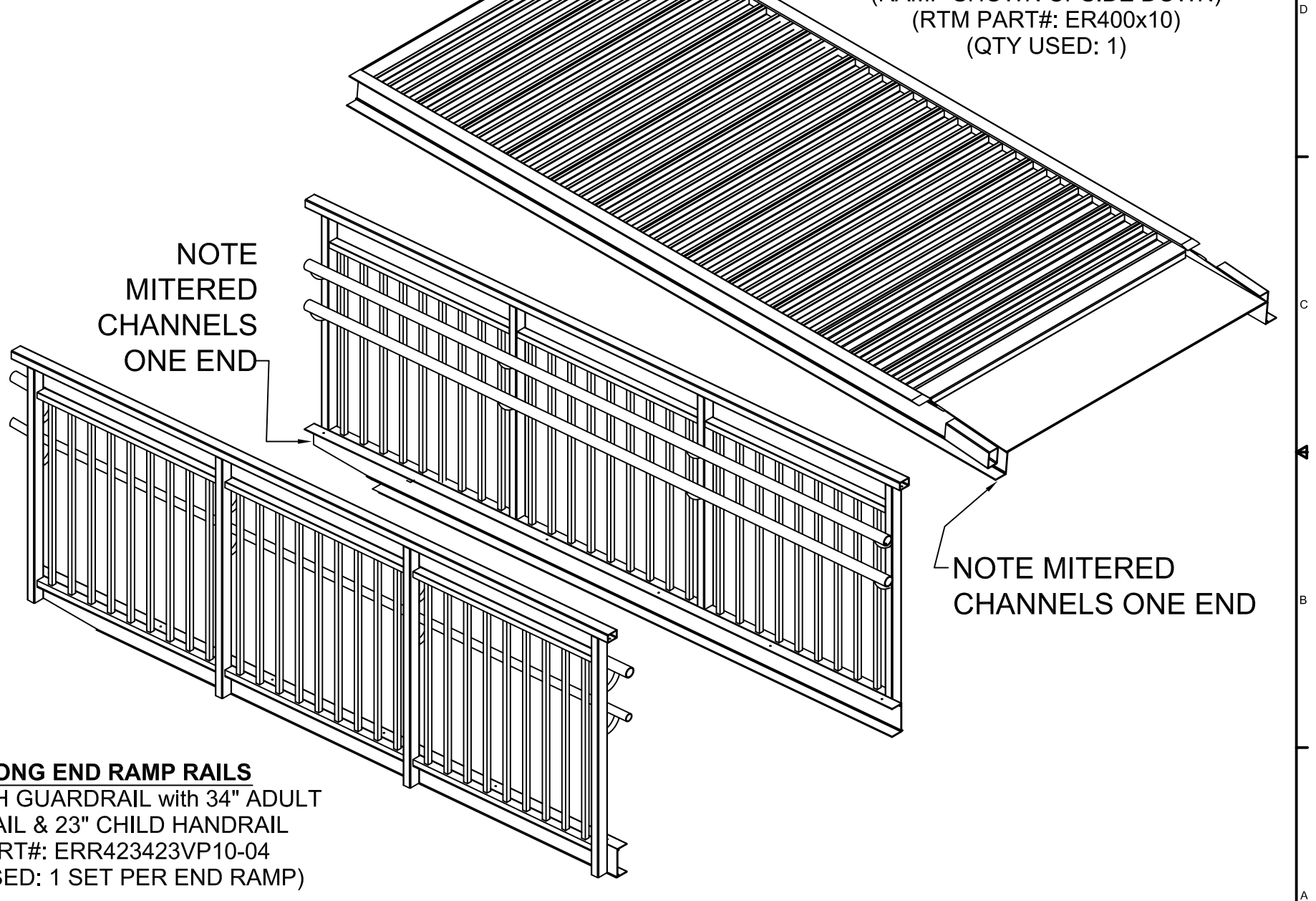


### **RAMP LEG "SWIVEL CONE" ASSY**

RTM PART#: PSWIVELCONE

QTY USED: 2 PER INT. RAMP

4 3 2 1



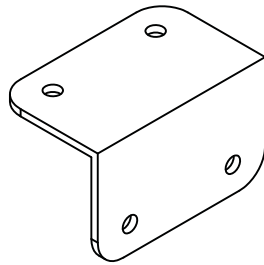
**4'-0" x 10'-0" END RAMP**  
(RAMP SHOWN UPSIDE DOWN)  
(RTM PART#: ER400x10)  
(QTY USED: 1)

NOTE  
MITERED  
CHANNELS  
ONE END

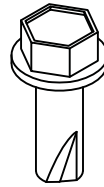
NOTE MITERED  
CHANNELS ONE END

**10'-0" LONG END RAMP RAILS**  
42" HIGH GUARDRAIL with 34" ADULT  
HANDRAIL & 23" CHILD HANDRAIL  
RTM PART#: ERR423423VP10-04  
(QTY USED: 1 SET PER END RAMP)

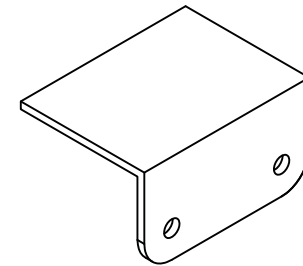
4 3 2 1



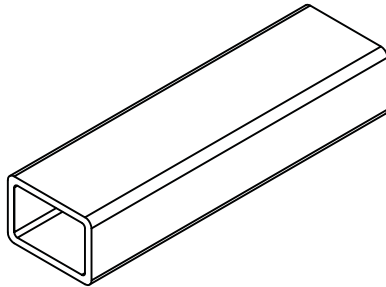
**LANDING RAIL CORNER CLIP**  
2" x 2" x 1/8" THK x 3 1/4" LONG ANGLE  
(RTM PART#: PLR2LRP)  
(QTY USED: 3)



**HEX HEAD TEK SCREW (SELF DRILLING)**  
#14 x 3/4" LONG  
(RTM PART#: VHMTK1000)  
(BAGGED QTY: 120)



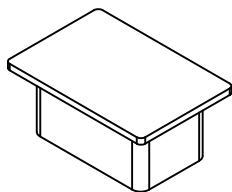
**UPPER RAMP END CAP**  
2 1/2" x 1 5/8" x 1/8" THK x 3" LONG ANGLE  
(RTM PART#: 307)  
(QTY USED: 2)



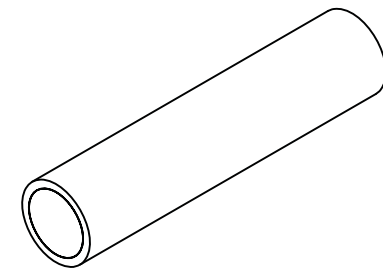
**TOP CAP SPLICE BAR (42VP)**  
1 5/8" x 1 1/8" x 5 3/4" LONG TUBE  
(RTM PART#: 261)  
(QTY USED: 4)



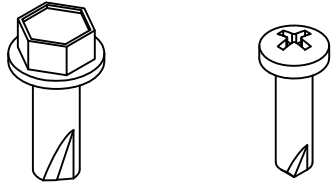
**PAN HEAD TEK SCREW (SELF DRILLING)**  
#10 x 3/4" LONG  
(RTM PART#: VHMTK1100)  
(BAGGED QTY: 26)



**PLASTIC END CAP**  
USED TO CAP 1 15/16" x 1 7/16" x 1/8" TUBE  
(RTM PART#: VBCAP1000)  
(QTY USED: 1)



**23" and 34" GRABRAIL SPLICE BAR**  
1" SCH 40 PIPE (1.315" OD x 0.133" WALL)  
(RTM PART#: 262)  
(QTY USED: 8)



**RAMP TO LANDING CONNECTION HARDWARE**  
(RTM PART#: R2LHDWE) (QTY INCLUDED: 1 BAG)

*FOLLOWING ITEMS INCLUDED IN BAG:*

**HEX HEAD TEK SCREW** (SELF-DRILLING)

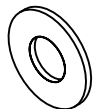
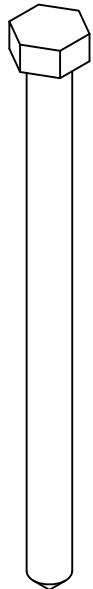
#14 x 3/4" LONG

(QUANTITY: 5)

**PAN HEAD TEK SCREW** (SELF-DRILLING)

#10 x 3/4" LONG

(QUANTITY: 5)



**LANDING TO BUILDING CONNECTION HARDWARE**  
(RTM PART#: L2BHDWE) (QTY INCLUDED: 1 BAG)

*FOLLOWING ITEMS INCLUDED IN BAG:*

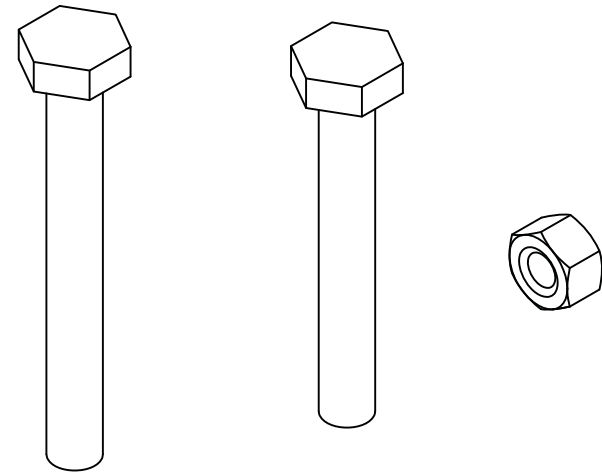
**LAG BOLT** (STAINLESS STEEL)

5/16" DIAMETER x 4 1/2" LONG

(QUANTITY: 4)

**5/16" FLAT WASHER** (STAINLESS STEEL)

(QUANTITY: 4)



**NEW STYLE LANDING LEG HARDWARE**  
(RTM PART#: NSLHDWE) (QTY INCLUDED: 1 BAG)

*FOLLOWING ITEMS INCLUDED IN BAG:*

**HEX HEAD CAP SCREW** (STAINLESS STEEL)

3/8" DIAMETER x 2 3/4" LONG

(QUANTITY: 4)

**HEX HEAD CAP SCREW** (STAINLESS STEEL)

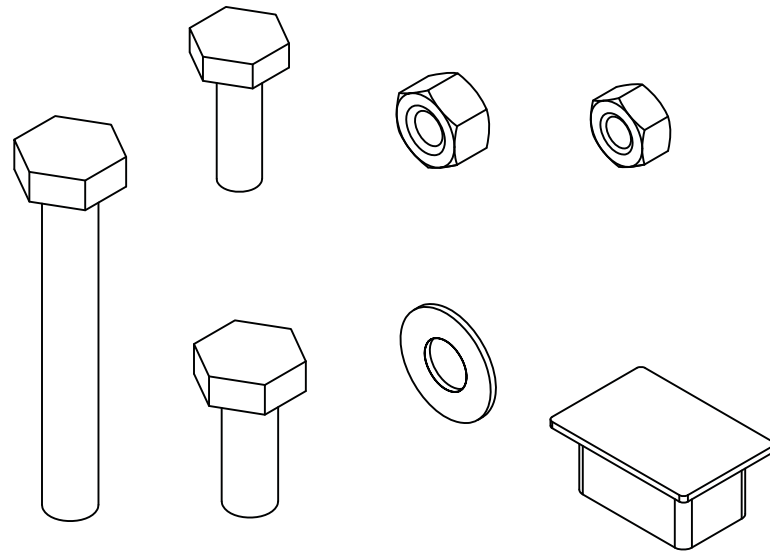
3/8" DIAMETER x 3 1/4" LONG

(QUANTITY: 4)

**3/8" HEX NUT** (STAINLESS STEEL)

(QUANTITY: 8)





### **RAMP LEG ASSEMBLY HARDWARE**

(RTM PART#: RLABAG)

(QTY INCLUDED: 1 BAG PER INT. RAMP SEGMENT)

#### **FOLLOWING ITEMS INCLUDED IN BAG:**

##### **PLASTIC END CAP**

(QUANTITY: 2)

##### **HEX HEAD CAP SCREW (STAINLESS STEEL)**

3/8" DIAMETER x 1" LONG

(QUANTITY: 2)

##### **HEX HEAD CAP SCREW (STAINLESS STEEL)**

5/16" DIAMETER x 1" LONG

(QUANTITY: 4)

##### **HEX HEAD CAP SCREW (STAINLESS STEEL)**

3/8" DIAMETER x 2 3/4" LONG

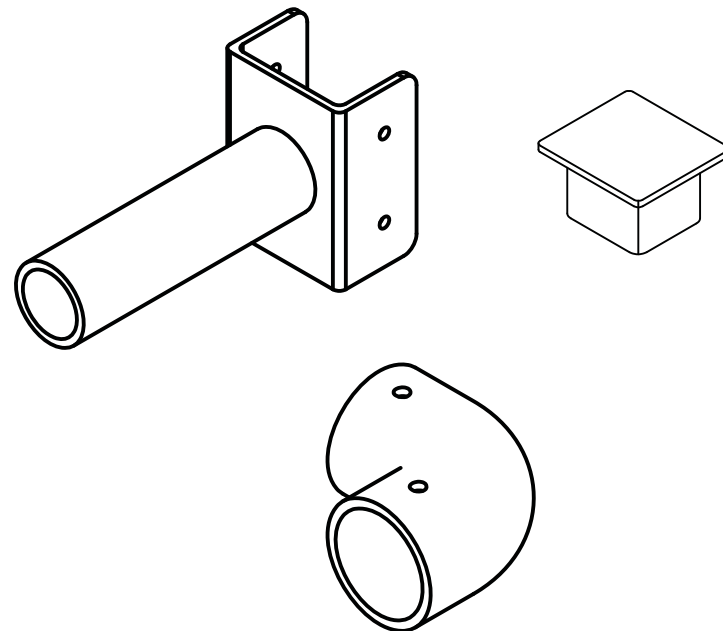
(QUANTITY: 2)

##### **5/16" HEX NUT (QUANTITY: 4)**

##### **3/8" HEX NUT (QUANTITY: 2)**

##### **3/8" FLAT WASHER (STAINLESS STEEL)**

(QUANTITY: 2)



### **NEW STYLE 90 DEGREE 42/34/23 HARDWARE BAG**

(RTM PART#: P90BAG42/34/23)

(QTY INCLUDED: 1 BAG)

#### **FOLLOWING ITEMS INCLUDED IN BAG:**

##### **SQUARE PLASTIC CAP**

QUANTITY: 1

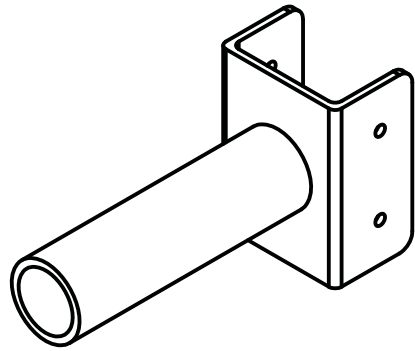
##### **42-34 HOOP ADAPTOR**

QTY USED: 2

##### **MECHANICAL ELBOW (W/SET SCREWS)**

QTY USED: 2

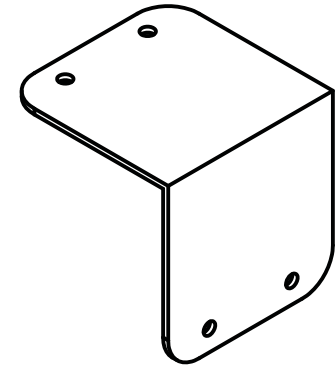




**42-34 HOOP CONNECTOR POST ASSY**

RTM PART#: PHOOPCON42

QTY USED: 3

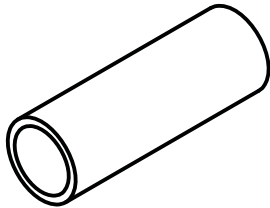


**REMOVABLE HOOP ANGLE BRACKET**

3 1/2" x 3 1/2" x 1/8" THK x 4" LONG ANGLE

RTM PART#: PNRHANGL

QTY USED: 2

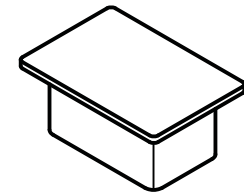


**JOG HOOP SPLICE BAR (34-38VP)**

1" SCH 40 PIPE (1.315" OD x 0.133" WALL)

RTM PART#:

QTY USED: 2

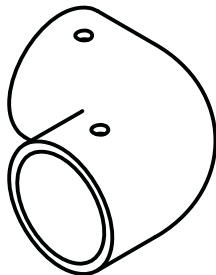


**DEAD END RAIL CAP**

SQUARE BLACK CAP

RTM PART#: VBCAP1000

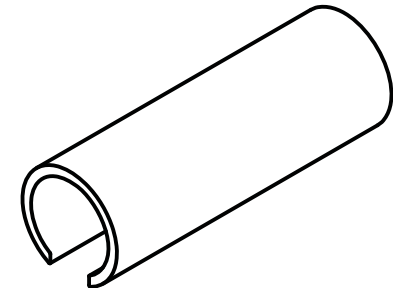
QTY USED: 1



**MECHANICAL ELBOW (WITH SET SCREWS)**

RTM PART#: VHME1050

QTY USED: 4



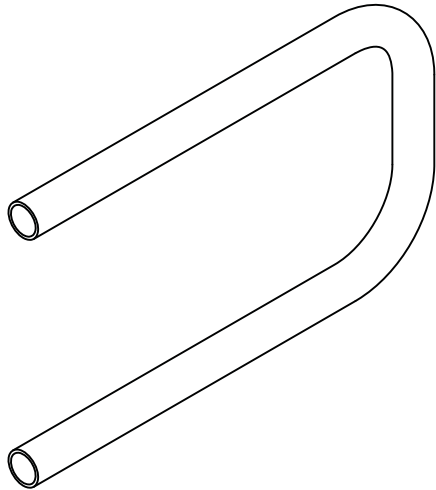
**STRAIGHT HOOP ATTACHMENT SPLICE BAR**

FRICTION-FIT

RTM PART#: 262A

QTY USED: 6

## 42-34 REMOVABLE HOOP COMPONENTS



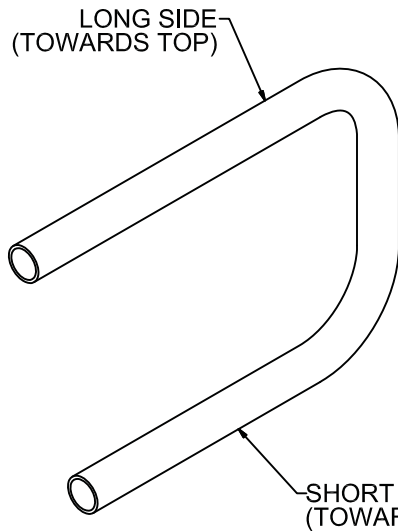
### 42 STRAIGHT HOOP

(USED FOR: UPPER, LOWER & END RAMP HOOPS)

1 1/4 SCH 40 PIPE

RTM PART#: 42HOOP

QTY USED: 3



### 42 'JOG' HOOP

(USED FOR: UPPER JOG HOOP)

1 1/4 SCH 40 PIPE

RTM PART#: 42JHOOP

QTY USED: 1



### 6" DEAD-END RAIL

(1 5/8" SQ POST)

RTM PART#: PL6DERAIL-URS

QTY USED: 1

# LANDING LEG ASSEMBLY

## THRESHOLD

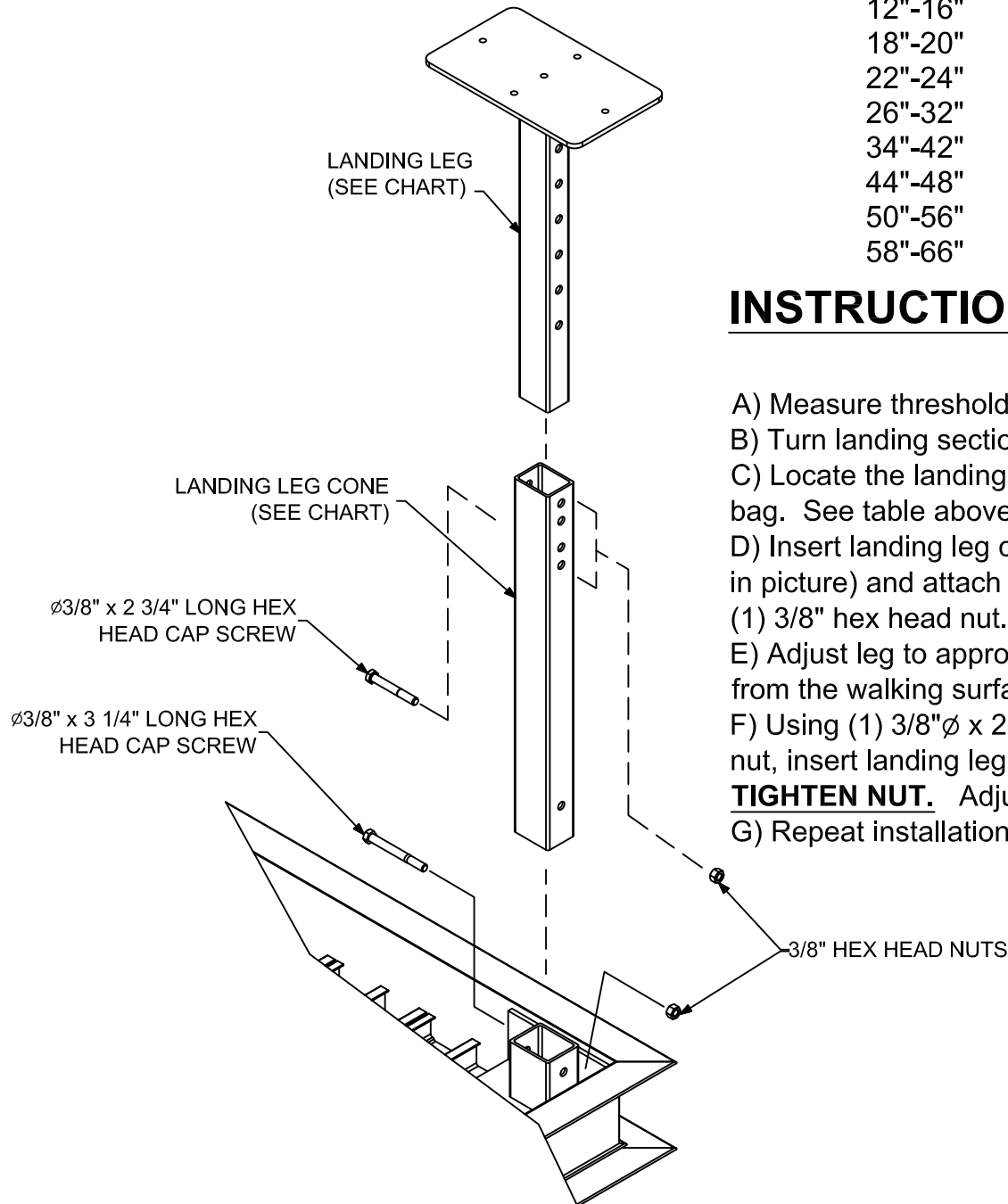
## CONE / LEG SIZE USED

0-12"	C08 / 1'-0" LEG
12"-16"	C12 / 0'-10" LEG
18"-20"	C16 / 1'-0" LEG
22"-24"	C18 / 1'-2" LEG
26"-32"	C22 / 1'-6" LEG
34"-42"	C30 / 2'-0" LEG
44"-48"	C30 / 2'-6" LEG
50"-56"	C42 / 2'-6" LEG
58"-66"	C48 / 2'-6" LEG

NOTE: GUIDE ONLY.  
REQUIREMENTS  
MAY DICTATE OTHER  
COMBINATIONS

## INSTRUCTIONS:

- Measure threshold height at doorway where landing will be located.
- Turn landing section upside down.
- Locate the landing leg cones, landing legs and landing leg hardware bag. See table above and page 1 and 5 for description of parts.
- Insert landing leg cone into receiver on underside of landing (as shown in picture) and attach using (1)  $\frac{3}{8}$ " $\varnothing$  x  $3\frac{1}{4}$ " long hex head cap screw and (1)  $\frac{3}{8}$ " hex head nut. **TIGHTEN BOLT AND NUT SECURELY.**
- Adjust leg to appropriate threshold height determined above, measuring from the walking surface to the bottom side of the landing leg pad.
- Using (1)  $\frac{3}{8}$ " $\varnothing$  x  $2\frac{3}{4}$ " long hex head cap screw and (1)  $\frac{3}{8}$ " hex head nut, insert landing leg into landing leg cone (as shown in picture). **FINGER TIGHTEN NUT.** Adjustments to grade may be required later.
- Repeat installation of leg cones and legs for remaining landing legs.



# LANDING TO BUILDING ATTACHMENT

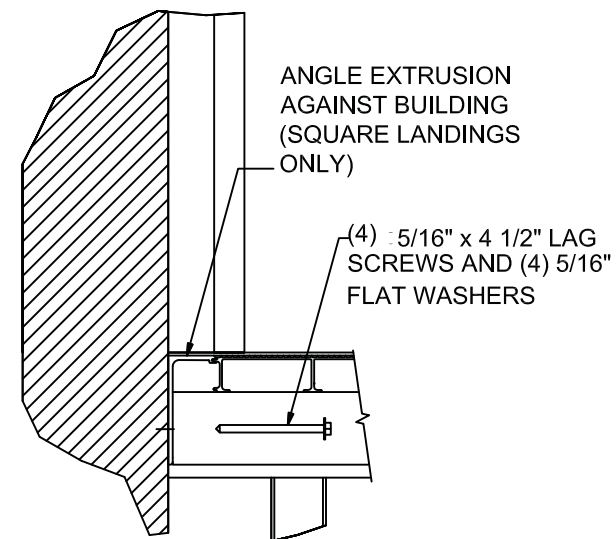
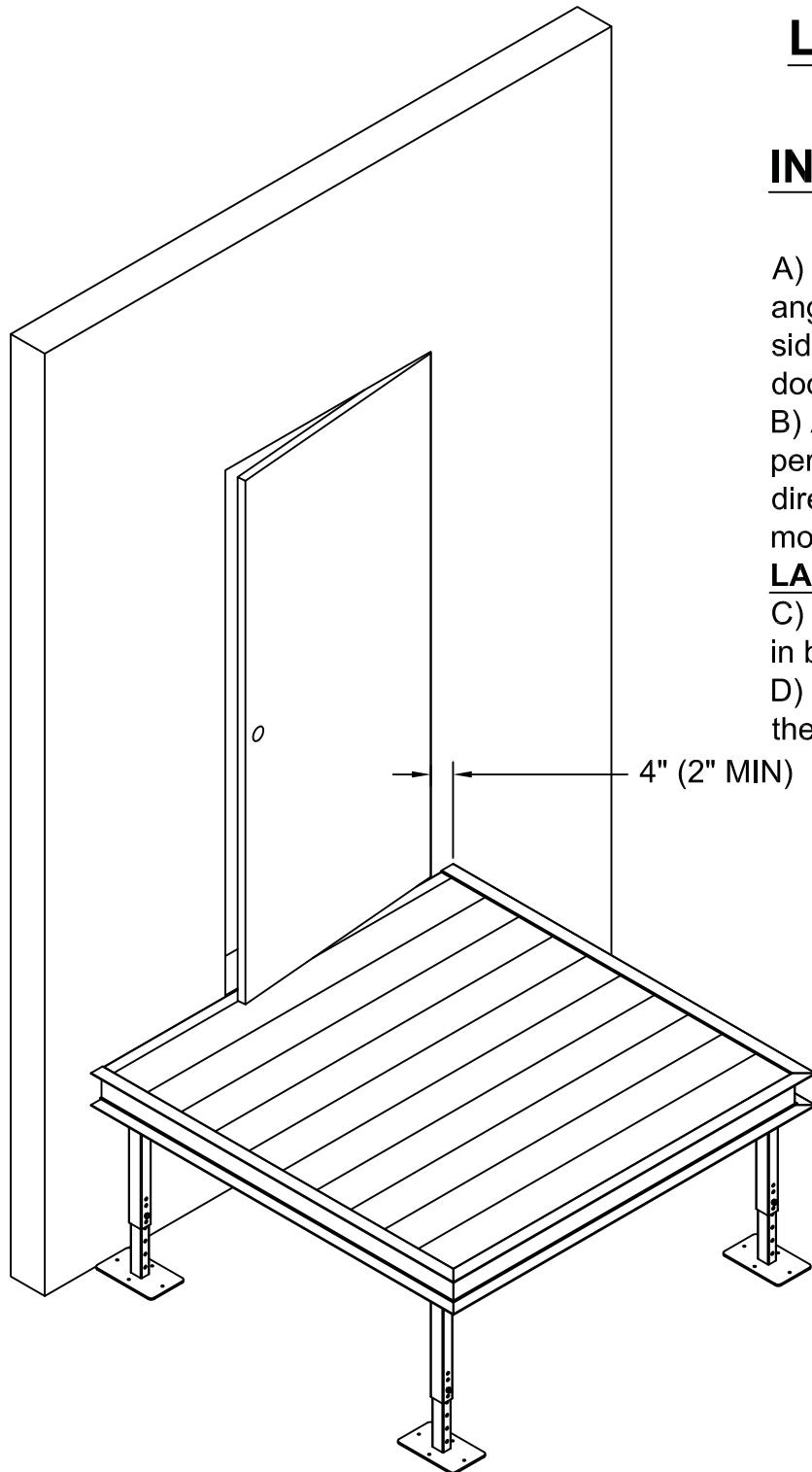
## INSTRUCTIONS:

A) Flip landing section over so that waking surface is facing up. Place angle side of landing towards building. A 2" to 4" space is needed on hinge side of door to allow for proper opening/closing of the door. Note: your door may open in opposite direction of that shown on drawing.

B) Adjust landing leg elevations as needed. Model Codes allow a 1:48 (2 percent) slope. It is recommended that this slope be achieved in the direction away from the building to help prevent any accumulation of moisture. **ONCE LANDING IS LEVEL, SECURELY TIGHTEN NUTS ON LANDING LEGS.**

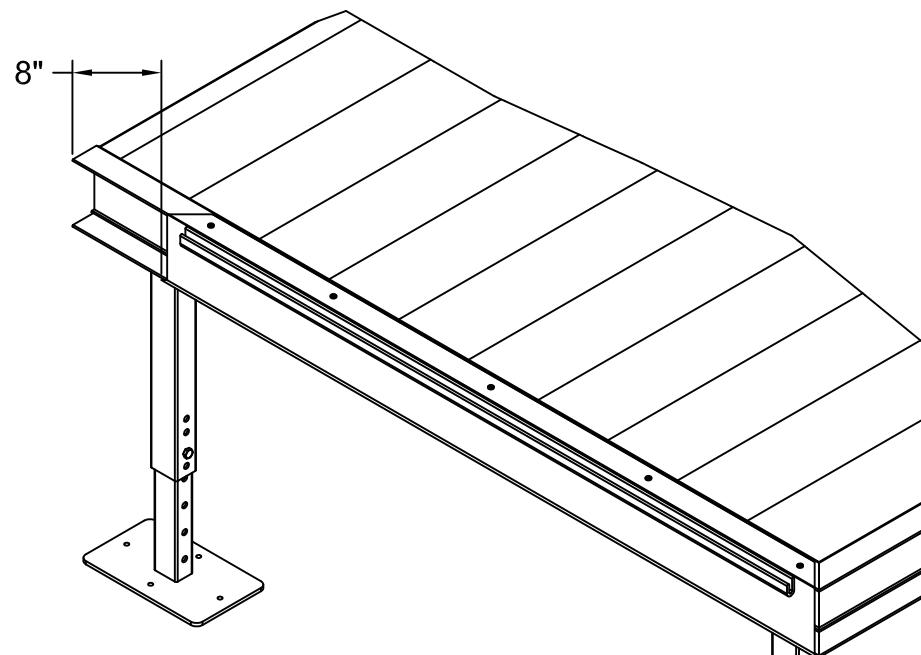
C) Locate the landing to building hardware bag. (For descriptions of parts in bag refer to page 5).

D) Using (4) 5/16" x 4 1/2" long lag screws and (4) 5/16" flat washers, lag the landing into building (as shown in section view below).



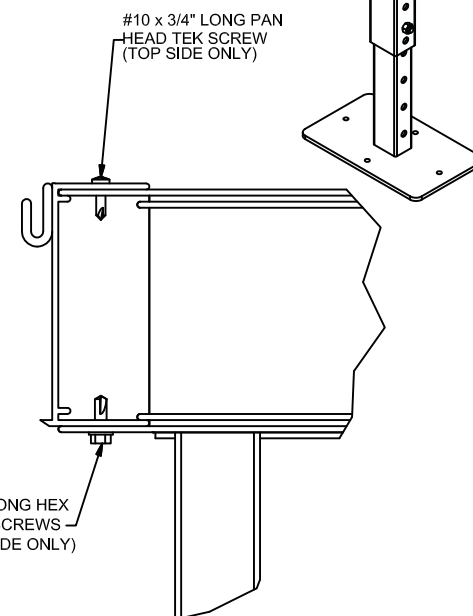
SECTION VIEW OF LANDING

## RAMP TO LANDING CONNECTOR ASSEMBLY



## INSTRUCTIONS:

- A) Locate ramp to landing connector (see page 1 for description). Position one end flush with outermost edge of landing (opposite the building). Make sure there is an 8" space on open side to allow 6" dead end rail installation.
- B) Using a rubber mallet, secure the ramp to landing connector to landing channel, making sure the hinge is facing upwards (as shown in section view).
- \*\*NOTE\*\*** Be sure not to contact hinge with hammer as it may damage hinge.
- C) Locate ramp to landing hardware bag. (For description of parts included in bag, refer to page 5).
- D) Secure top side of ramp to landing connector to landing using (5) #10 x 3/4" pan head Tek screws. Drill through pilot holes provided in connector channel.
- E) Secure bottom side of ramp to landing connector to landing using (5) #14 x 3/4" hex head Tek screws. Space same distance apart as the pan head screws used on top side.

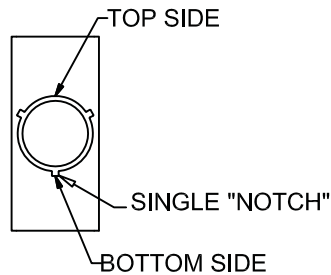


#10 x 3/4" LONG PAN  
HEAD TEK SCREW  
(TOP SIDE ONLY)

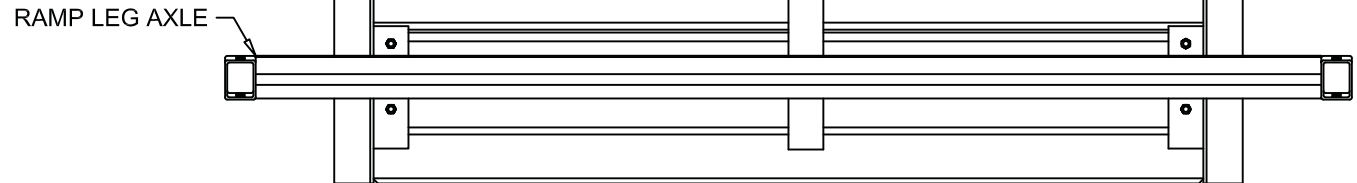
#14 X 3/4" LONG HEX  
HEAD TEK SCREWS  
(BOTTOM SIDE ONLY)

SECTION VIEW OF LANDING

# RAMP LEG ASSEMBLY TO RAMP



SIDE VIEW OF SWIVEL CONE



BOTTOM VIEW OF RAMP

## INSTRUCTIONS:

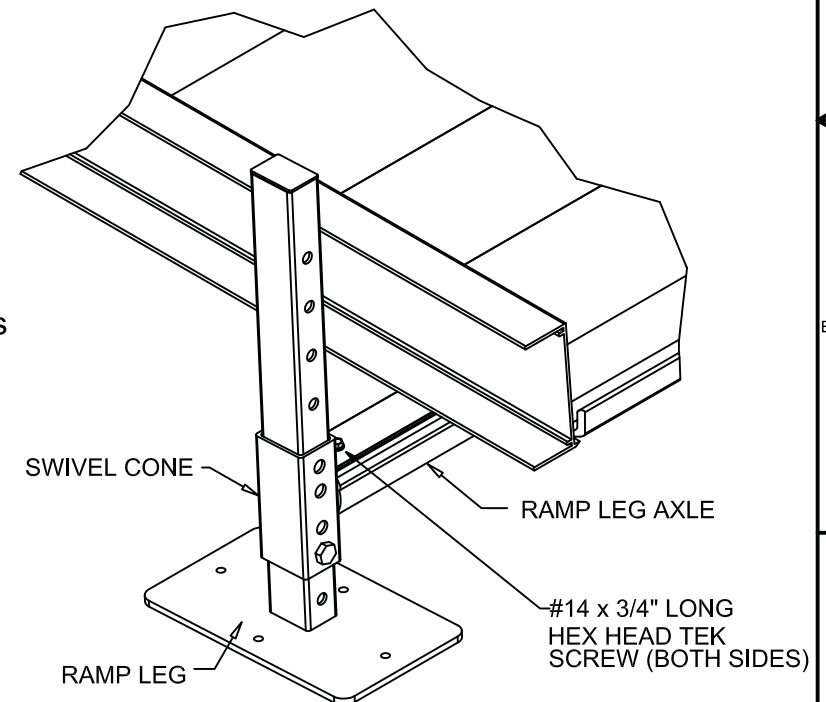
- A) Locate intermediate ramp section and turn upside down.
- B) Locate ramp leg axle and ramp leg assembly hardware bag (for descriptions of parts included in bag, refer to page 6).
- C) Using (4) 5/16" x 1" hex head cap screw and (1) 5/16" hex head nut; attach ramp leg axle to underside of intermediate ramp (as shown in picture).

**TIGHTEN BOLT AND NUT SECURELY AT THIS TIME.**

- D) Insert ramp legs into swivel cones. Position of leg in cone is not critical at this time as adjustment of leg height to be made after ramp is turned over. Temporarily secure leg to cone using (1) 3/8" x 2 3/4" long S.S. hex head cap screw and (1) 3/8" hex head nut.

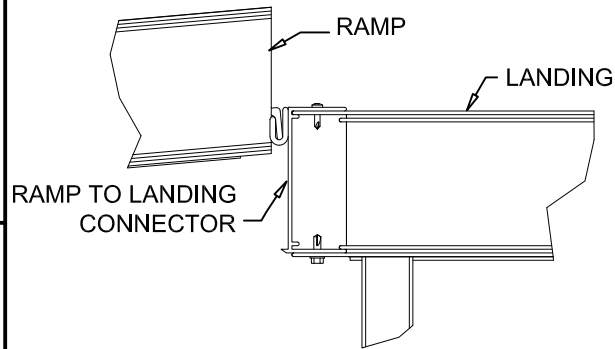
***Note:*** The single notch on the swivel cone must be on the bottom (facing the ground / leg pad).

- E) Insert swivel cone into ramp leg axle. Do not secure at this time.

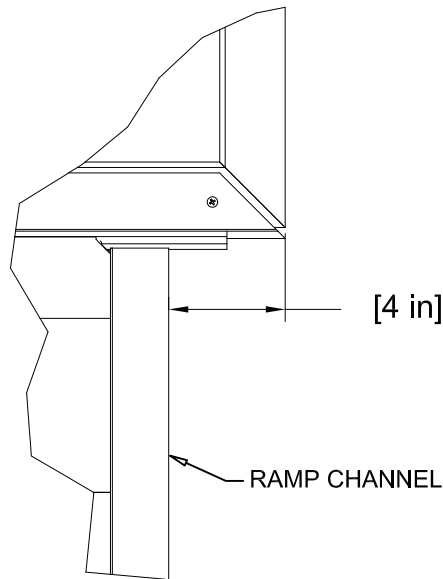
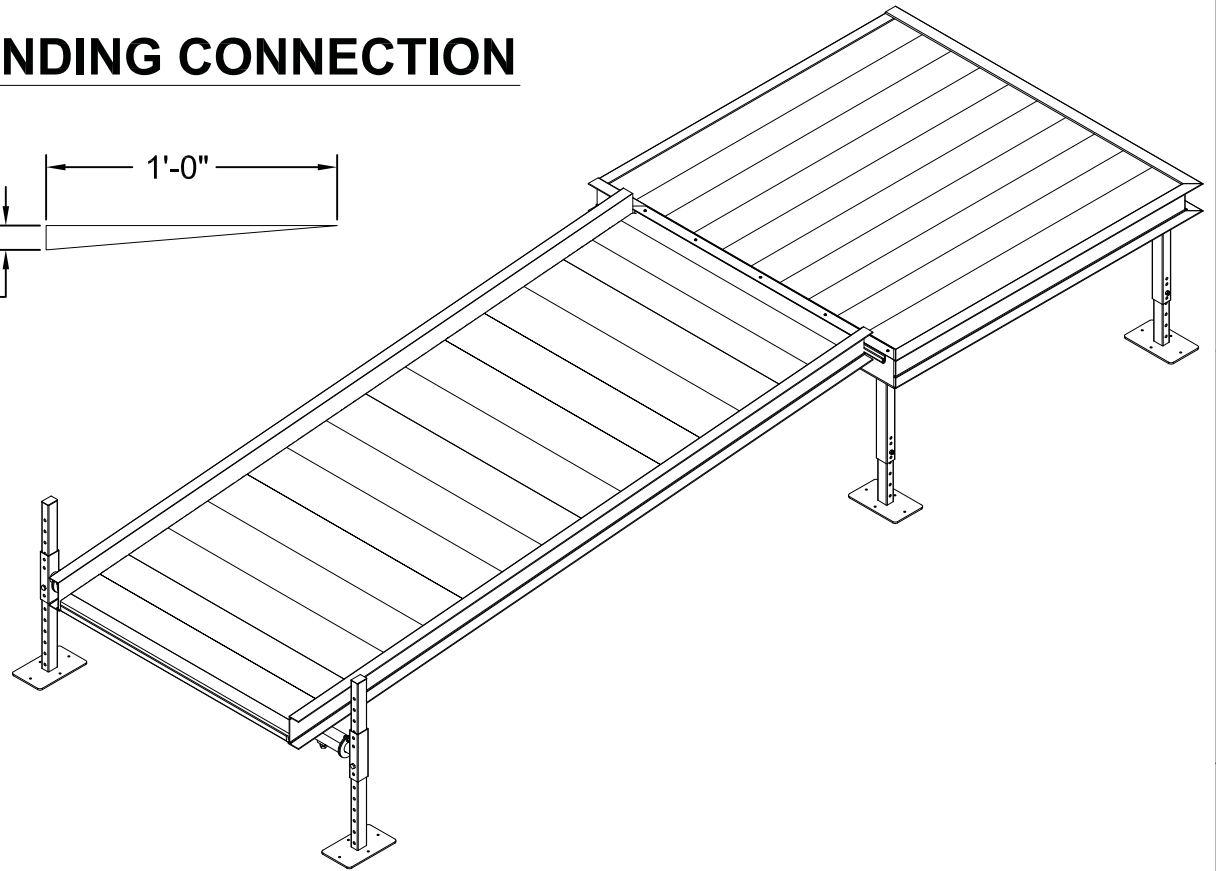
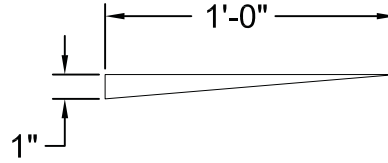


ISOMETRIC VIEW OF  
RAMP LEG ASSEMBLY

# INTERMEDIATE RAMP TO LANDING CONNECTION



**SIDE VIEW OF RAMP TO LANDING**



**TOP VIEW OF RAMP TO LANDING**

## INSTRUCTIONS:

- A) Flip intermediate ramp section over and place ramp “down hinge” into ramp to landing connector located on landing. Position ramp so there is a 4” space from the edge of the outside edge of the landing to the side of the ramp channel (as shown in top view).
- B) Reposition leg bolts as necessary to adjust legs on both sides of ramp so that ramp slopes 1" for every 12" of length (1:12 slope). Finger tighten nuts.
- D) Secure each swivel cone to ramp leg axle using (1) #14x3/4" Hex Head Screws thru pilot hole pre-drilled on flat surface of ramp leg axle (see isometric view on previous page).
- E) Insert plastic caps into open end of each leg.

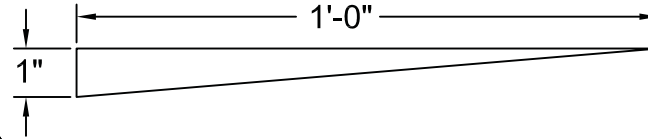


## LOWER RAMP TO UPPER RAMP CONNECTION

UPPER RAMP  
"UP HINGE"

LOWER RAMP  
"DOWN HINGE"

**SIDE VIEW OF  
RAMP TO RAMP**



1'-6"  
RAMP  
LEGS

2'-6" RAMP LEGS

NOTE: Leg lengths shown are typical for a 30' ramp. Other lengths may be necessary due to variations in grade.

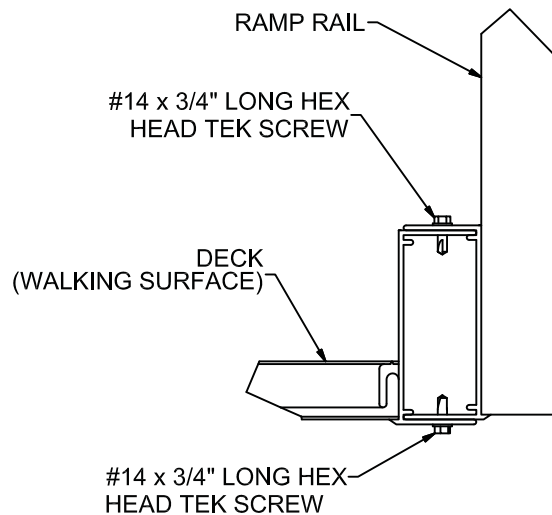
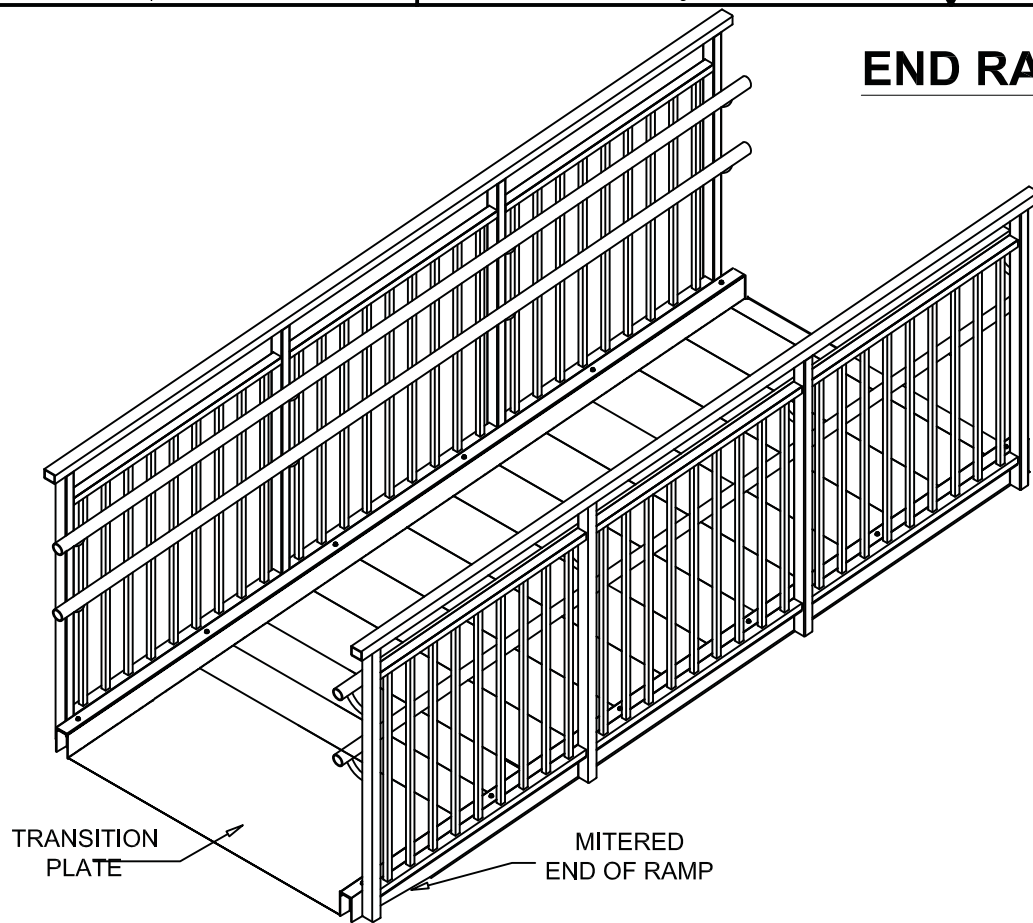
### **INSTRUCTIONS:**

A) Flip intermediate ramp section over and place ramp "down hinge" into upper ramp "up hinge".

B) Adjust legs on the ramp so that lower ramp slopes 1" for every 1'-0" of length.

**FINGER TIGHTEN THE BOLTS AT THIS TIME.**

## END RAMP RAILS TO END RAMP ASSEMBLY

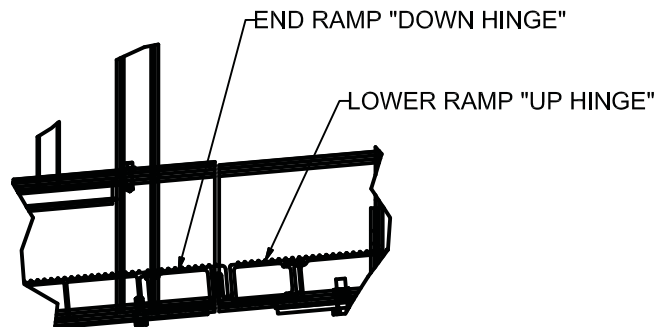


### INSTRUCTIONS:

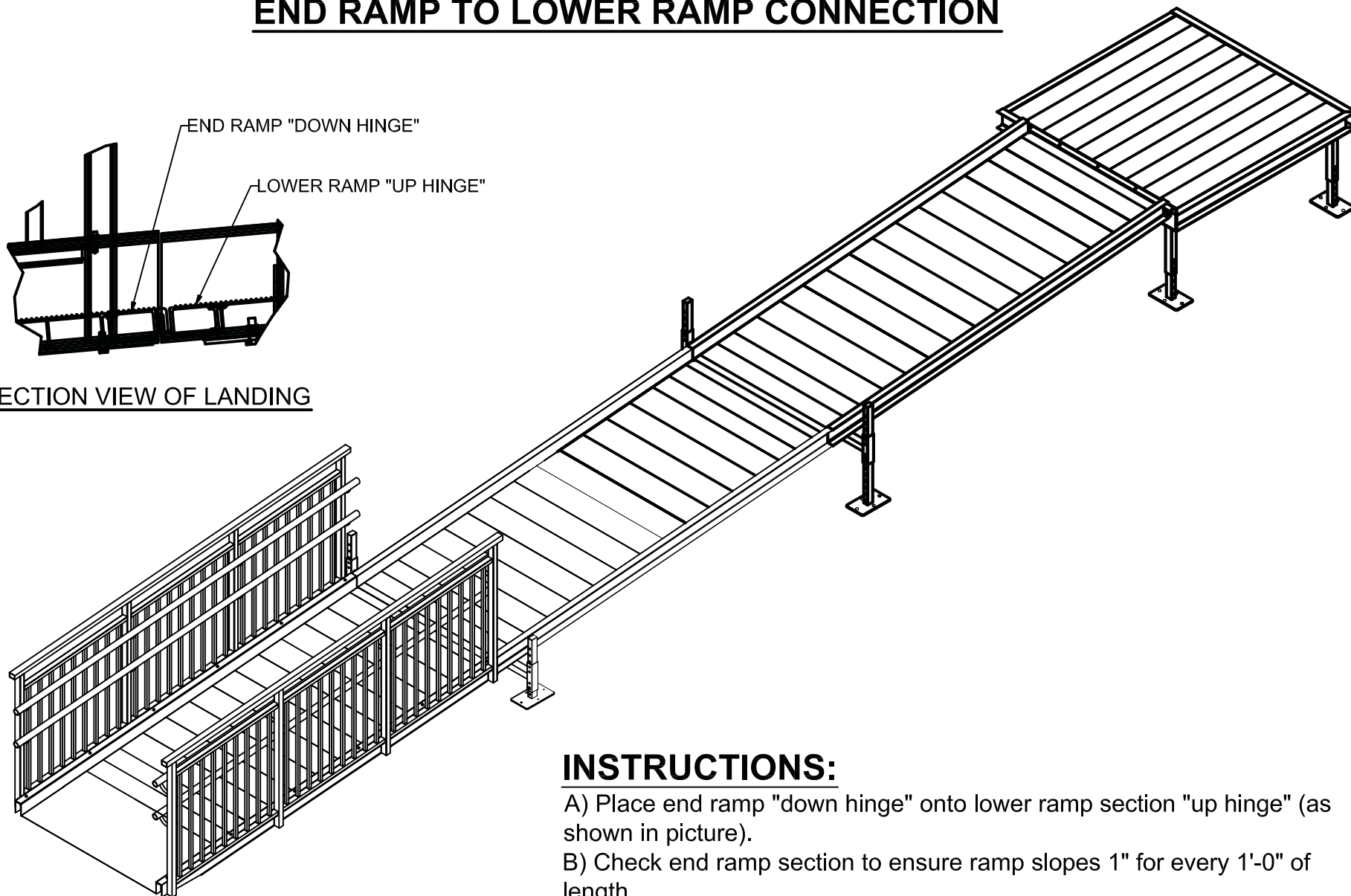
- Locate end ramp section and 42/34/23 right side and left side end ramp rails.
- Using a rubber mallet, secure rails to end ramp. The rail channel nests over the top of the ramp channel. Also note the lower end of each rail has a mitered channel and should be towards the transition plate (ground) end of ramp. Make sure upper end of rail channel is flush with top of end ramp to allow for rails to line up properly.
- Secure top and bottom side of the rails to ramp using #14 x 3/4" hex head Tek screws (found in bag of 120) by drilling through pilot holes provided on rail and ramp channels.

### SECTION VIEW OF RAMP RAIL ASS'Y

## END RAMP TO LOWER RAMP CONNECTION



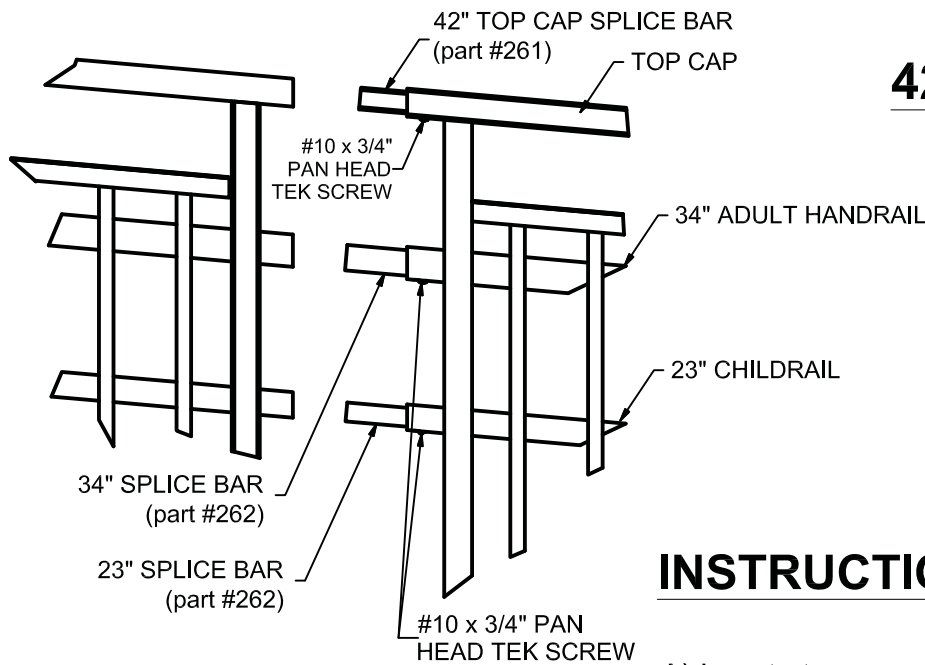
SECTION VIEW OF LANDING



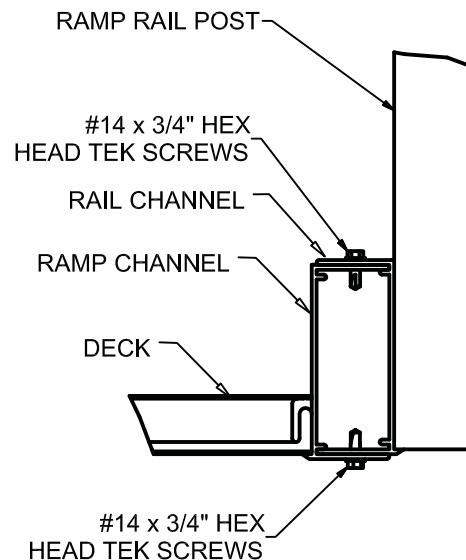
### INSTRUCTIONS:

- A) Place end ramp "down hinge" onto lower ramp section "up hinge" (as shown in picture).
- B) Check end ramp section to ensure ramp slopes 1" for every 1'-0" of length.  
Uneven gaps between uris channels indicate ramp leg height adjustment is required.  
\*\*If ramp **DOES MAINTAIN** correct slope, you may securely tighten all bolts located on the ramp leg assemblies at this time.
- C) Once slope is correct, securely tighten all bolts located on ramp leg assemblies.

# 42/34/23 SPLICE BAR INSTALLATION



**SIDE VIEW OF RAMP RAILS  
(SPLICE BAR INSTALLATION)**



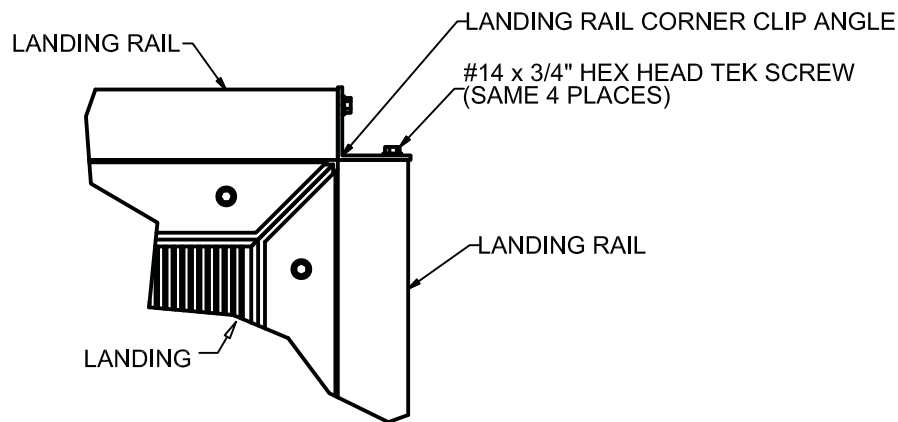
**END VIEW OF RAMP RAIL**

## INSTRUCTIONS:

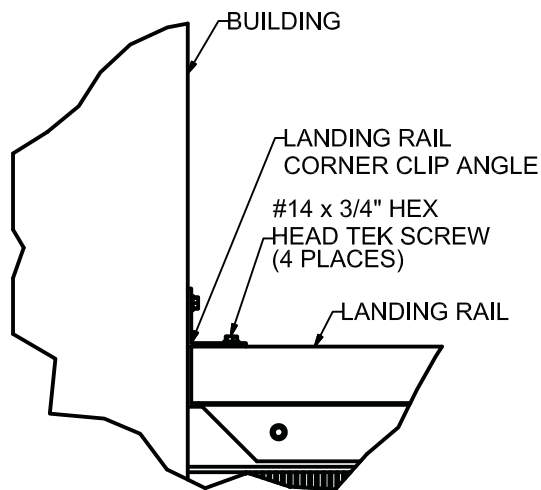
- A) Locate top cap splice bar (part# 261), 34" & 23" grab rails splice bars (part#262) and (6) #10 x  $\frac{3}{4}$ " pan head Tek screws (from bag of 26). See Page 4 for description of parts.
- B) Position top cap splice bar (part# 261) approximately halfway into end ramp top cap. Secure splice bar to top cap using (1) #10 x  $\frac{3}{4}$ " pan heads Tek screw through pilot hole on underside of top cap.
- C) Position 34" grab rail splice bar (part# 262) approximately halfway into grab rail; secure to handrail using (1) #10 x  $\frac{3}{4}$ " pan head Tek screw through pilot hole on underside of grab rail.
- D) Repeat step "C" for childrail.
- E) Locate intermediate ramp rail and slide railing top cap and handrails over splice bars making sure rail channel is on top of ramp channel (as shown in end view). You may have to tap splice bars to align them with openings in rail. It will also be necessary to adjust the rail channel along the length of the ramp channel by tapping the railing with a rubber mallet. When railing tubes come into contact with each other, use the rubber mallet to secure rail channel to ramp channel. If aligned properly, there *should be no gap between rails*.
- F) Attach splice bar to intermediate ramp rail using #10 x  $\frac{3}{4}$ " pan head Tek screw through underside of 42" top cap and both of the handrails.
- G) Secure top and bottom side of the rails to ramp using #14 x  $\frac{3}{4}$ " hex head Tek screws (found in bag of 120) by driving screws through pilot holes provided on rail and ramp channels.

**REPEAT ABOVE STEPS FOR ALL OTHER RAILS**

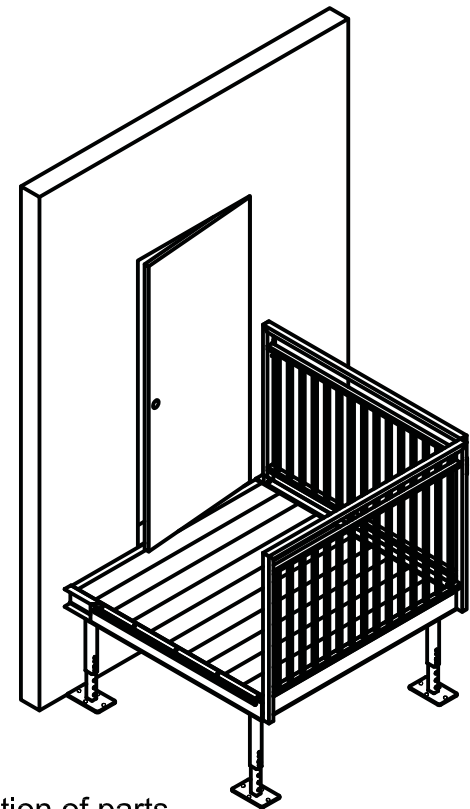
# LANDING RAIL INSTALLATION



TOP VIEW OF RAIL  
TO RAIL CONNECTION



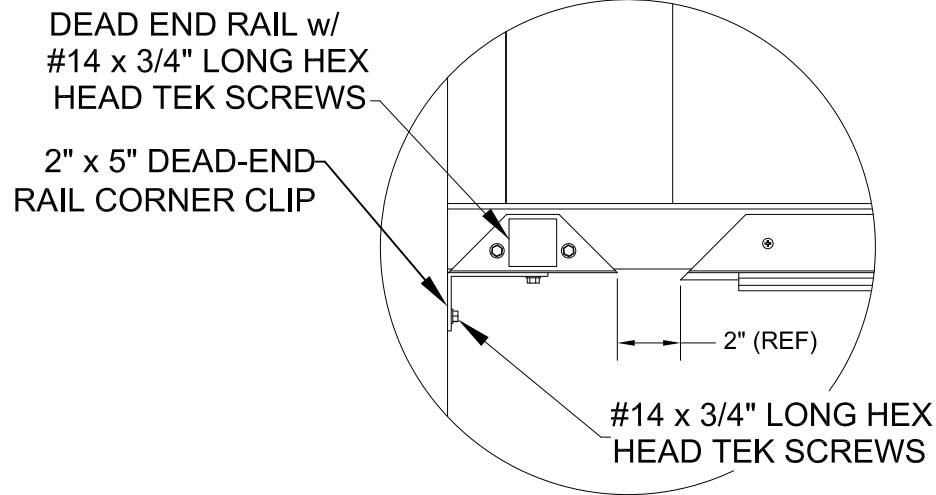
TOP VIEW OF RAIL  
TO BUILDING CONNECTION



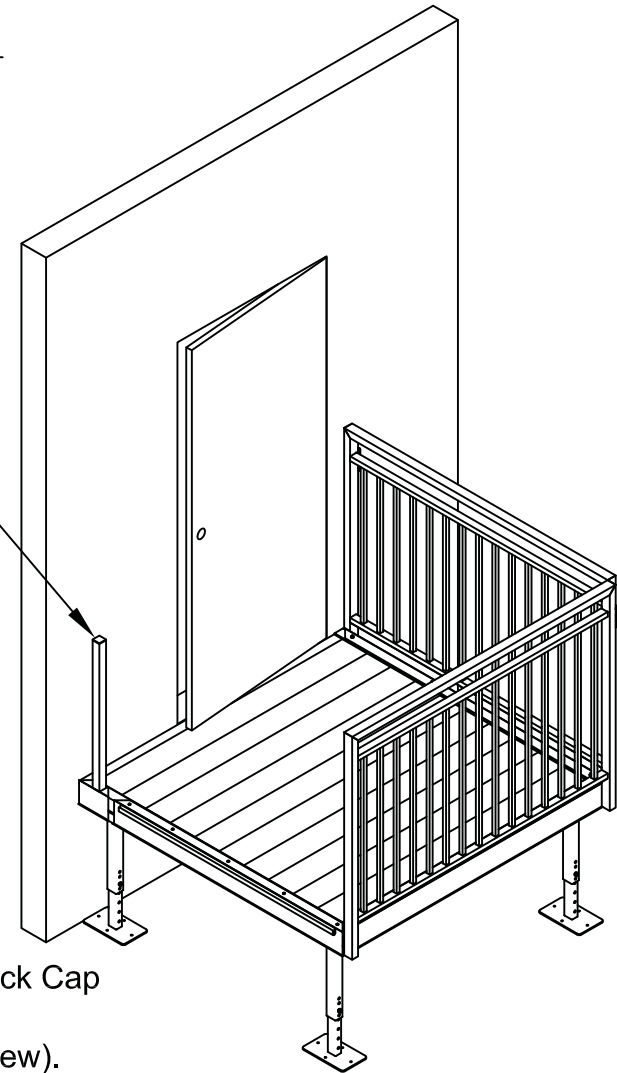
## INSTRUCTIONS:

- A) Locate the 5'-4" landing rails. See Page 1 for description of parts.
- B) Position one side of rail flush with outermost edge of landing (as shown in top view). Using a rubber mallet, secure rail to landing with rail channel over landing channel. Make sure that rail is fully seated.
- C) Attach rail to landing using #14 x 3/4" hex head Tek screws (found in bag of 120) by driving screws through pilot holes on top of rail channel and on underside of landing channel.
- D) Align second 5'-4" rail to edge of landing opposite building or as required to accommodate your configuration (as shown in top view).
- REPEAT STEPS "B" AND "C" TO SECURE THE SECOND RAIL TO THE LANDING.**
- E) Secure landing rails together in corner using (1) landing rail corner clip and (4) #14 x 3/4" Tek head screws (see detail). Space landing rail corner clip approximately 6" from top of rail.
- F) It is recommended that the other landing rail be secured to building using (1) landing rail corner clip and (4) #14 x 3/4" Tek head screws (see detail). Space landing rail corner clip approximately 6" from top of rail. If building material is not suitable for attaching this angle it may be omitted.

# DEAD END RAIL INSTALLATION



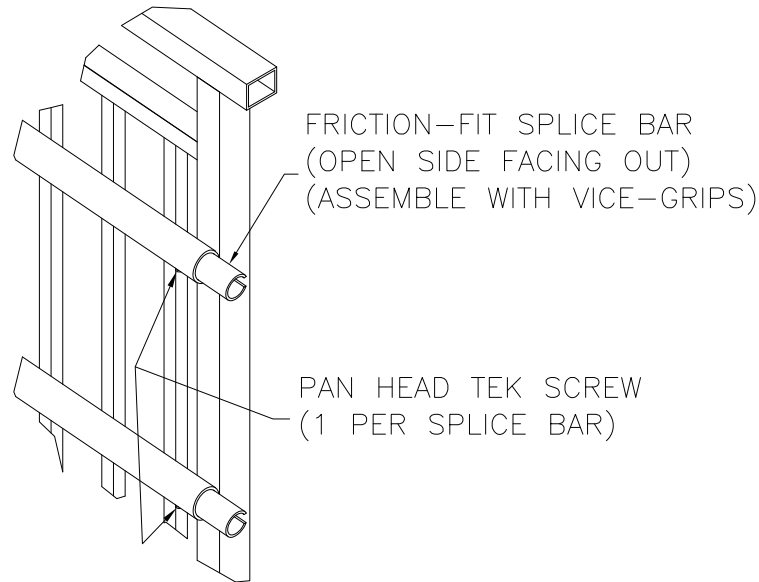
SQUARE  
BLACK CAP



## INSTRUCTIONS:

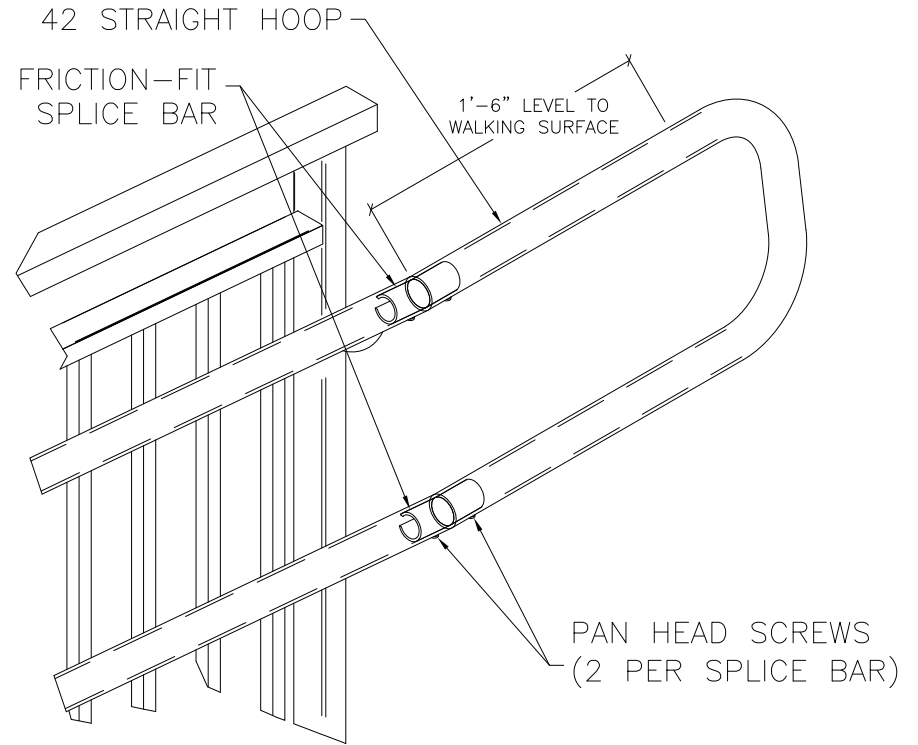
- A) Locate the 6" dead end rail, (8) #14 x 3/4" Hex head Tek screws, (1) square Black Cap and (1) 2" x 5" Dead-end rail corner clip.
- B) Position one side of rail flush with outermost edge of landing (as shown in top view). There should be a 2" gap between dead end rail channel and the ramp to landing channel. Using a rubber mallet, secure rail to channel. Make sure rail is fully seated. Secure black cap into top of dead-end rail.
- C) Attach rail to landing using #14 x 3/4" Hex head Tek screws (found in the bag of 120); drilling through pilot holes found on top of rail channel.
- D) Secure bottom side of rail to landing channel using (2) #14 x 3/4" Hex head Tek screws (found in bag of 120). Space approximately same distance apart as Tek head screws used on top side.
- E) Secure dead end rail to building using (1) Dead-end rail corner clip and (4) #14 x 3/4" Hex head Tek screws (see detail). Space angle approximately 6" from top of rail.

# 42/34/23 "STRAIGHT HOOP" CONNECTION



**ISOMETRIC VIEW OF  
FRICITION-FIT SPLICE BAR  
ASSEMBLED IN HANDRAIL**

**TO BE USED FOR:  
UPPER STRAIGHT HOOPS,  
LOWER STRAIGHT HOOPS &  
END RAMP HOOPS**



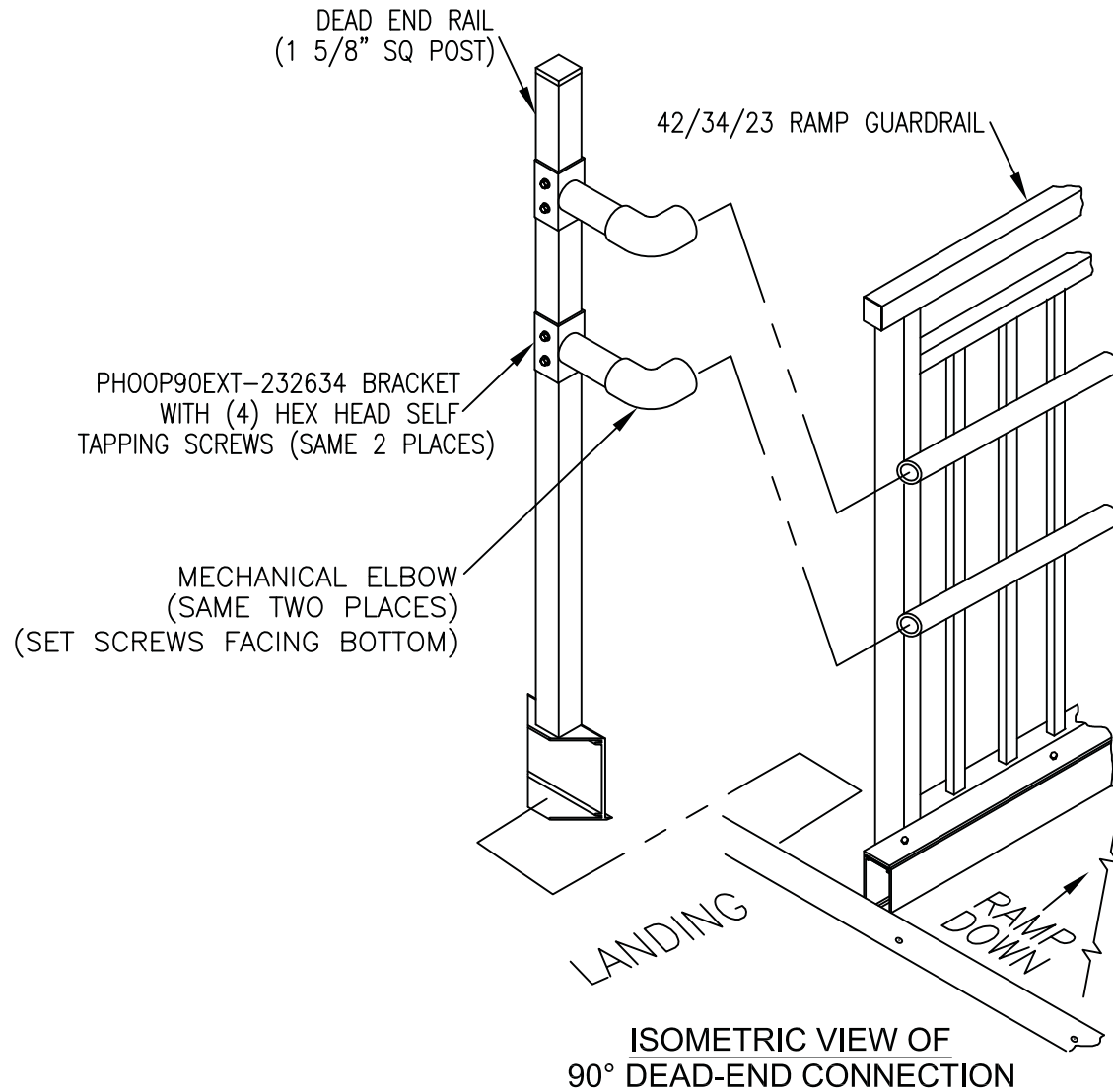
**ISOMETRIC VIEW OF  
42-34-23 HOOP ASSEMBLY**

## INSTRUCTIONS:

- Locate (1) 42 straight hoop, (2) friction-fit splice bars (RTM #262A) and (4) Pan head Tek screws.
- Using Vice Grips compress friction-fit splice bar and slide it HALFWAY into end of ramp 34" grab rail, making sure that the "open end" is facing the side (9 or 3 O'Clock position). Release Vice Grip. Secure using (1) pan head screw on underside of grab rail.
- Repeat for 23" childrail.
- Using Vice Grips, squeeze the friction-fit splice bars and slide the 42 straight hoop over ends of splice bars. Remove Vice Grips. Using a rubber mallet, tap the end of the hoop to fully seat the friction-fit splice bars.
- Level Hoop. (To level hoop with walking surface: apply downward pressure for "upper hoop" or upward pressure for "lower hoop").
- Secure hoop side of friction-fit splice bar with (1) pan head tek screw on underside of each handrail.



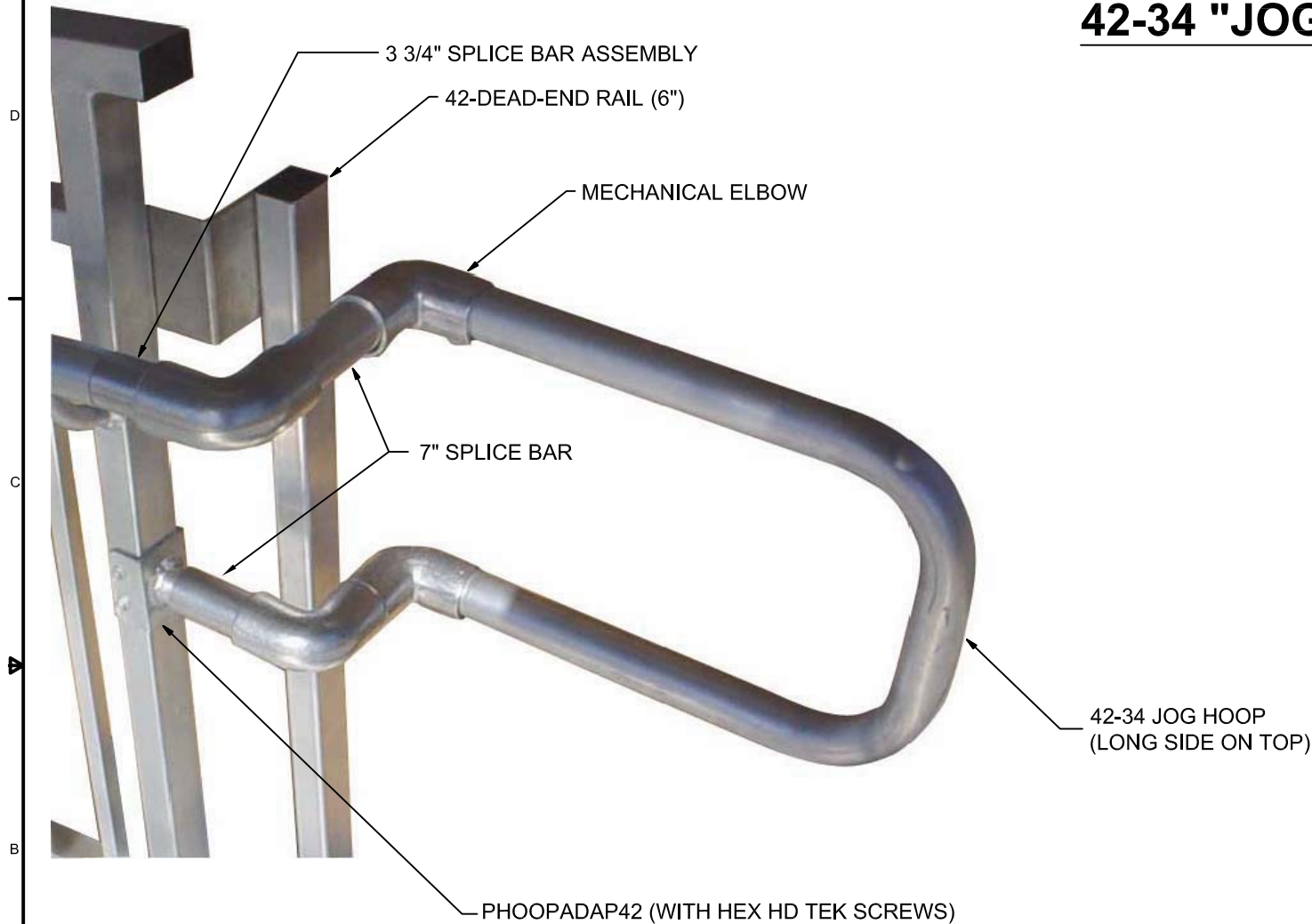
# 42/34/23 HIGH "90 DEGREE DEAD END" CONNECTION



## INSTRUCTIONS:

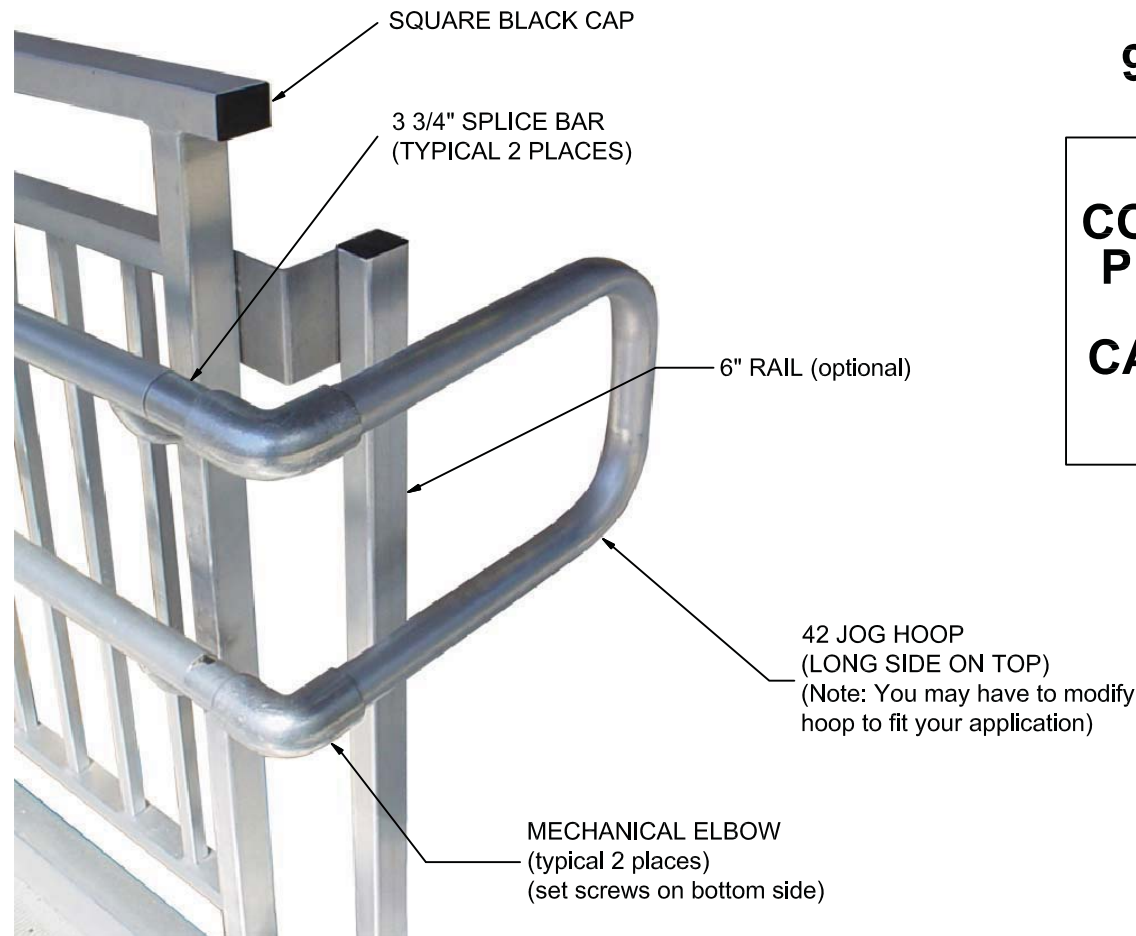
- Locate (2) PHOOP90EXT-232634, (2) Mechanical Elbows and (8) Hex head Tek screws.
  - Place PHOOP90EXT-232634 into Mechanical Elbow. The set screws on the elbow should be facing down. DO NOT FASTEN.
  - Place open end of Mechanical Elbow into the end of the ramp 34" high grab rail. DO NOT FASTEN.
  - Slide Channel of PHOOP90EXT-232634 over dead end rail, making sure that channel is fully seated against dead end post; and fasten each side using Hex Head Tek Screws.
  - Fasten set screws on Mechanical Elbow.
- REPEAT STEPS FOR 23" HIGH GRAB RAIL

## 42-34 "JOG HOOP" ASSEMBLY



### INSTRUCTIONS:

- 1) Locate (1) P42JHoop, (4) Mechanical Elbows, (2) 3 3/4" splice bar assembly, (2) 7" splice bar and (2) Pan head Tek Screws.
- 2) 34" Extension Assembly: Place (1) 3 3/4" splice bar assembly into one side of a Mechanical Elbow. Tighten set screw. Place (1) 7" splice bar into opposite side, attaching another mech elbow as shown in elevation view. Make sure the set screws on elbows are facing down. Attach to 34" ramp rail with pan head tek screw.
- 3) Lower Extension Assy: Attach (2) elbows and (1) 3 3/4" splice bar, forming "S" shape. Attach 7" splice bar into one end, tightening set screw. Slide PhoopAdap42 into 7" splice bar, but **DO NOT SECURE**.
- 4) Slide **LONG END** of 42JHoop into upper assembly, and tighten set screw. Slide other end of hoop into lower elbow assembly, and tighten set screw.
- 5) Slide PHoopAdap42 over ramp rail and secure using (4) Hex Head Tek Screws. Secure to 7" splice bar using (1) Pan Head Tek Screw.



## 42-34-23 90° HOOP CONNECTION

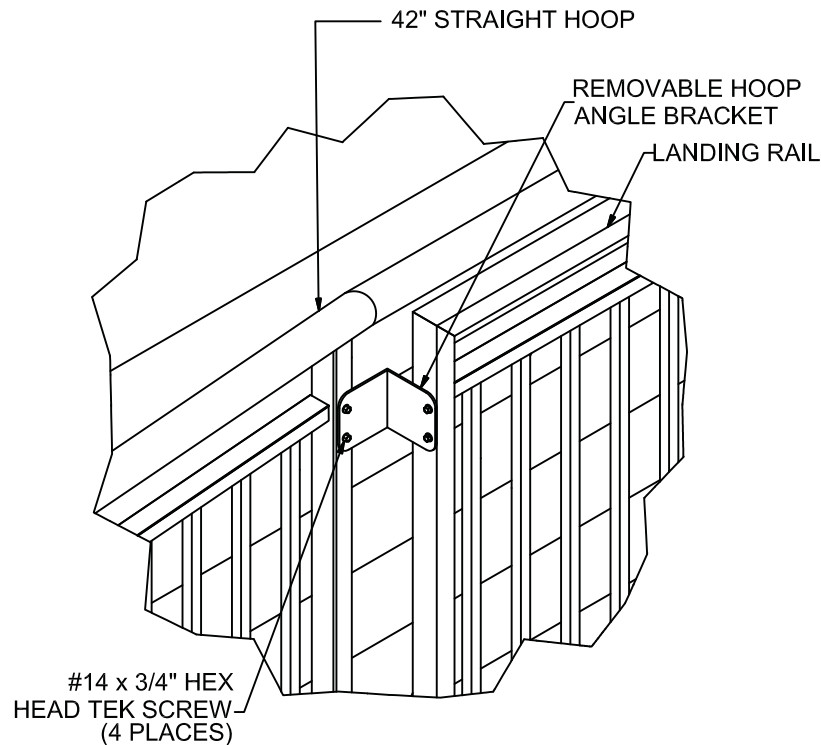
**NOTE: THIS  
CONFIGURATION IS USED IN  
PLACE OF PAGE 21 IF YOU  
HAVE A LANDING THAT  
CANNOT ACCOMMODATE A  
JOG HOOP**

**ELEVATION VIEW OF 90 DEGREE HOOP ASSEMBLY**

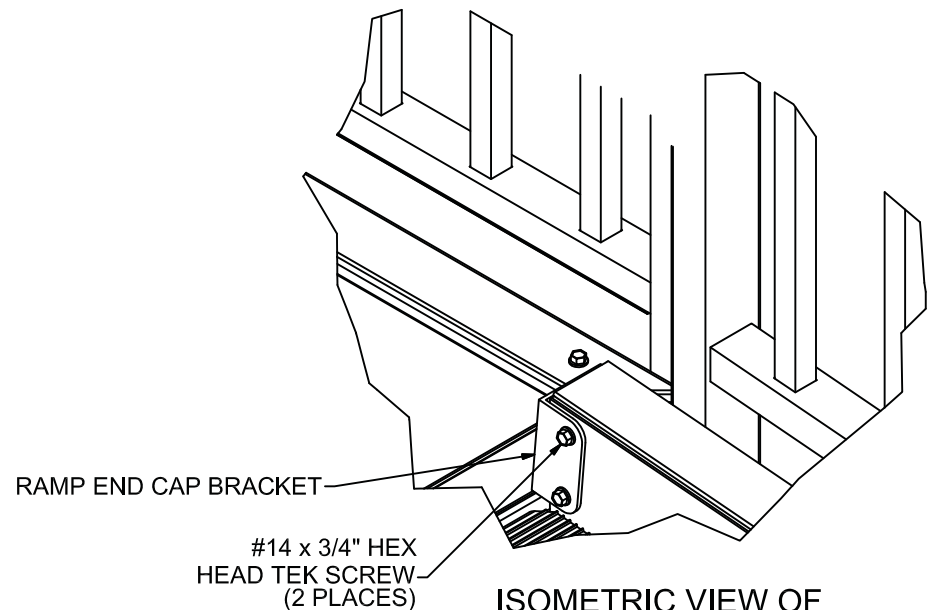
### **INSTRUCTIONS:**

- 1) Locate (1) 42JHoop, (2) Mechanical Elbows, (2) 3 3/4" Jog hoop splice bar, (2) pan head tek screws and (4) Hex Head Tek Screws.
- 2) Attach 3 3/4" splice bar to ramp rail (using pan head tek screw), making sure that set screws on mechanical elbow are on bottom side. REPEAT FOR LOWER RAMP RAIL
- 3) Place Mechanical elbow on to 3 3/4" splice bar, making sure set screws are on bottom side. Tighten set screw.
- 4) Slide 42 jog hoop into Mechanical elbows.
- 5) Securely fasten all set screws.

# REMOVABLE HOOP ANGLE & END CAP INSTALLATION



ISOMETRIC VIEW OF  
REM. HOOP ANGLE BRACKET



ISOMETRIC VIEW OF  
END CAP BRACKET

## INSTRUCTIONS:

Locate the (2) upper ramp end caps and removable hoop angle bracket.

### **STEPS TO ATTACH END CAP BRACKET TO RAMP RAIL:**

- A) Place (1) upper ramp end cap over hole in upper ramp channel (as shown in picture).
- B) secure to ramp channel using (2) #14 x 3/4" hex head Tek screws (found in bag of 120)

**\*\*REPEAT STEPS B & C TO SECURE OTHER BRACKET TO RAMP\*\***

### **STEPS TO ATTACH REM. HOOP ANGLE BRACKET TO RAIL:**

- A) Locate removable hoop angle bracket.
- B) Attach removable hoop angle bracket to hoop side of ramp (as shown in picture). Position bracket 5" down from top of landing rail.
- C) Secure removable hoop angle bracket to landing rail/ramp rail using (4) #14 x 3/4" hex head Tek screws.

# VARIOUS LANDING CONNECTIONS:

## RECTANGULAR LANDINGS TO BUILDING:

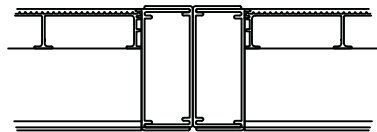
- A) Attach Blank Channel to landing using #10 and #14 x 3/4" Tek screws, 5 top (pan head) and 5 bottom (Hex).
- B) Flip landing section over so that waking surface is facing up. Place side of landing with blocks towards building. A 2" to 4" space is needed on hinge side of door to allow for proper opening/closing of the door.
- C) Make sure landing is level. Adjust leg heights as needed. **ONCE LANDING IS LEVEL, SECURELY TIGHTEN REMAINING BOLTS ON LANDING LEGS.**
- D) Locate the landing to building hardware bag. (For descriptions of parts in bag refer to page 5).
- E) Using (4) Ø5/16" x 4 1/2" long lag screws and (4) 5/16" flat washers, lag the landing into building (see view D).

## LANDING TO LANDING CONNECTION:

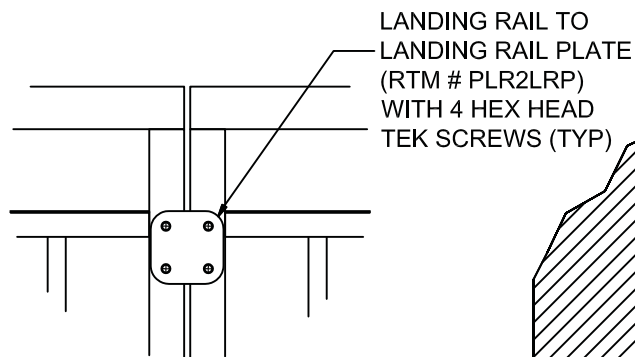
- A) Attach Blank Channel to landing using #14 x 3/4" Hex Head Tek screws, 5 top and 5 bottom side.
- B) Using PL2LCON (angle), fasten to underside of landing (2 per 5'-0" span) with 1/4" long self tapping screws, provided.

## LANDING RAIL CONNECTION:

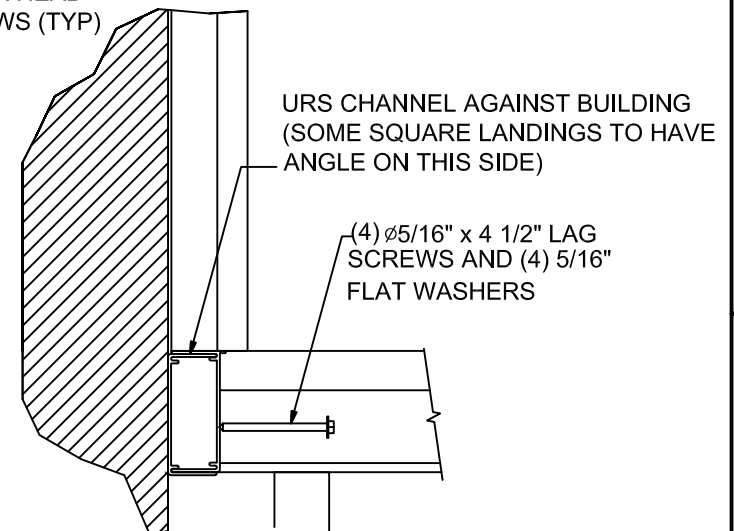
- A) Attach Landing Rails to Landing using same steps as on page #18.
- B) Attach 3" x 3" plate to rails as shown in view B (top of rail) using (4) #14 x 3/4" Tek Screws per plate.



VIEW A: LAND TO LAND  
SECTION VIEW



VIEW B: RAIL CONNECTION  
DETAIL (TOP OF RAIL)



SECTION VIEW OF  
LANDING TO BUILDING

# ANTI-SKID TAPE INSTALLATION:

## NOTE:

ALL SMOOTH SURFACES (THOSE WITHOUT FLUTING SUCH AS THAT FEATURED ON THE DECK) THAT ARE ALONG PATH OF TRAVEL SHALL BE COVERED WITH ANTI-SKID TAPE. THIS IS TO REDUCE THE POSSIBILITY OF SLIPPING IF THE WALKING SURFACE IS WET. THE FOLLOWING ARE SOME AREAS WHERE TAPE SHOULD BE APPLIED. TAPE WILL BE PROVIDED IN HARDWARE BAG INCLUDED WITH THE SYSTEM.

## LANDING TO LANDING CONNECTION:

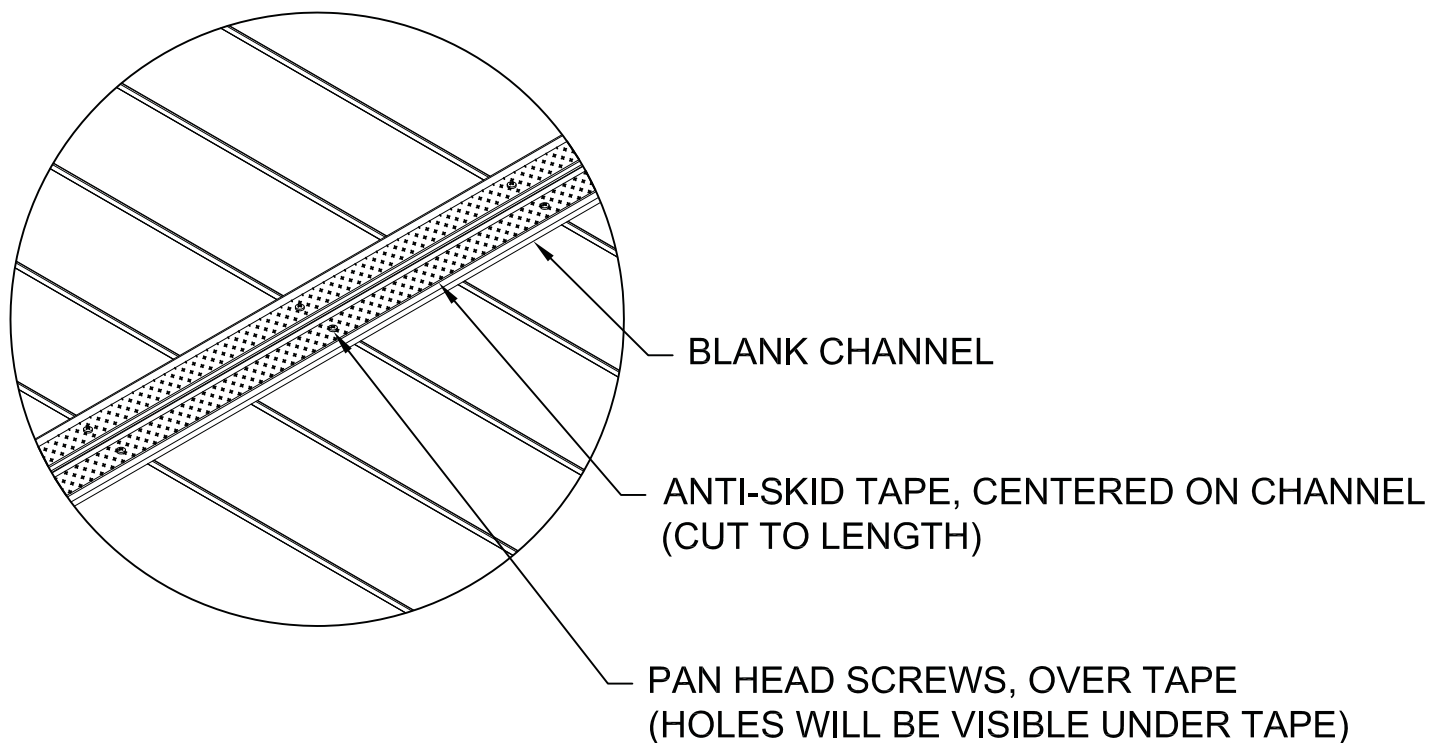
- OVER BLANK CHANNEL PRIOR TO SECURING CHANNEL TO LANDING WITH PAN HEAD SCREWS.

## LANDING TO BUILDING CONNECTION:

- OVER BLANK CHANNEL UNDERNEATH DOOR THRESHOLD, PRIOR TO SECURING CHANNEL TO LANDING WITH PAN HEAD SCREWS.

## RAMP TO LANDING LOWER CONNECTOR:

- OVER LANDING DOWNHINGE CHANNEL PRIOR TO SECURING TO LANDING WITH PAN HEAD SCREWS.



# LAND TO LAND CONNECTOR TUBE INSTALLATION:

- A) LOCATE LAND TO LAND CONNECTOR TUBE. PLACE SIDE OF TUBE WITH MATING FEATURES INTO CENTER OF CHANNEL ALONG ONE OF THE TWO LANDING EDGES BEING CONNECTED TOGETHER. SEAT TUBE INTO CHANNEL WITH RUBBER Mallet.
- B) PLACE NEXT LAND TO LAND CONNECTOR APPROX. 4 INCHES IN FROM OUTSIDE END OF LANDING CHANNEL.
- C) REPEAT STEP "B" FOR REMAINING CONNECTOR.
- D) USING (2) HEX HEAD TEK SCREWS PER CONNECTOR TUBE, FASTEN CONNECTOR TO URS CHANNEL ON LANDING BY DRIVING SELF TAPPIGN TEK SCREW THROUGH LANDING CHANNEL INTO TUBE.
- E) JOIN LANDINGS TOGETHER BY SLIDING CONNECTOR TUBES INTALLED ON ONE LANDING INTO THE OTHER LANDING URS CHANNEL. MAKE SURE THAT EDGES OF LANDINGS ARE SQUARE/FLUSH WITH EACH OTHER.
- F) USING (2) HEX HEAD TEK SCREWS PER CONNECTOR TUBE, FASTEN URS CHANNEL ON LANDING TO TUBES ON JOINING LANDING BY DRIVING SELF TAPPIGN TEK SCREW THROUGH LANDING CHANNEL INTO TUBE. REPEAT FOR THE TWO OTHER TUBE LOCATIONS.
- G) INSTALL ANTI-SKID TAPE ON TOP OF URS CHANNEL (SEE APPROPRIATE PAGE FOR DETAILS).

