

August 21, 2014

# VIA UPS & EMAIL

Mr. Joseph Szabo, FRA Administrator Federal Railroad Administration U.S. Department of Transportation Attn: FRA Legal Department 1200 New Jersey Avenue, S.E. Washington, D.C. 20590

Re: Request for Buy America Waiver for Crossovers/Turnouts/Switches MTA LIRR North East Corridor Congestion Relief Project

# Dear Administrator Szabo:

The Long Island Rail Road Company ("LIRR"), a public benefit corporation of the State of New York and subsidiary of the Metropolitan Transportation Authority ("MTA") hereby requests a non-availability waiver of the Buy America requirements set forth at 49 U.S.C. §24405(a) from the Federal Railroad Administration ("FRA") to support material procurements for the LIRR North East Corridor ("NEC") Congestion Relief Project at Harold Interlocking (the "Harold Interlocking Project").

FRA obligated High-Speed Intercity Passenger Rail Program funding in August, 2011 to the New York State Department of Transportation on behalf of the MTA to undertake a comprehensive passenger rail congestion relief project at Harold Interlocking on the NEC mainline. The Harold Interlocking Project will provide Amtrak a conflict-free, grade-separated route through Harold Interlocking for Amtrak's north-south bound service.

The NEC Harold Interlocking Project is being completed in conjunction with the MTA's East Side Access ("ESA") Project. The ESA Project is funded under a Federal Transit Administration ("FTA") Full Funding Grant Agreement. The ESA Project will extend LIRR commuter rail service from Queens to the east side of Midtown Manhattan and will construct a new LIRR Terminal at Grand Central Terminal. The ESA Project will also provide new tracks and a variety of modifications to the existing track alignments in the Harold Interlocking. I.

# I. Request for Buy America Waiver

LIRR is requesting a Buy America non-availability waiver from the FRA for four specific components of switches for crossover/turnouts - Schwihag roller assemblies and

plates (3 items) and ZU1-60 steel switch point rail sections – that require installation along railroad right-of-way in connection with the Harold Interlocking Project. This request is made following extensive market research, which found no domestic companies that manufacture these signal components. LIRR will also be presenting a waiver request to the FTA for Schwihag roller assemblies and plates, ZU1-60 steel switch point rail sections and moveable point frog required for the ESA Project because the crossover/turnouts are being installed in conjunction with the Harold Interlocking Project. In order to ensure that the procurement of the aforementioned switches proceed without delay to support timely completion of both the FTA ESA Project and the FRA NEC Harold Interlocking Project, LIRR wishes to simultaneously make one Buy America waiver request to the FTA and one waiver request to FRA. The FRA does not require a waiver for the moveable point frog because they consider the vee point a subcomponent. The failure of LIRR to obtain the Buy America waivers has the potential to impact those projects as follows:

- <u>FTA ESA Project</u>: projected overall cost may be increased by \$10 million due to a delay in the Year 2015 scheduled outage needed to complete the work for the project, which will further delay overall project completion by one year; and
- FRA NEC Harold Interlocking Project: projected overall risk to \$42 million in FRA funding due to the expiration of FRA grant funds in June, 2017 and delay of Year 2016 outage needed to complete the work for the project.

LIRR believes making four separate requests for the same components would be inefficient and would significantly impact the project schedule given the lengthiness of the waiver approval process. In addition, since LIRR must request a waiver from the FTA, this would substantially complicate the process by increasing the number of waivers from two to eight. This is the first time MTA has had to make a request to two Federal modal agencies and believes making one request to the FRA and one request to the FTA is the most efficient process.

In addition, while the FTA's policy is to entertain a waiver request following receipt of bids, the FRA's policy allows a waiver request following extensive vendor outreach irrespective of whether bids have been received. LIRR is requesting all waivers now based on the extensive market research (discussed below) that it has completed, which demonstrates that these components are not domestically available. The request is also supported by the recent bid LIRR received in response to its procurement of the switches wherein the bidder has certified that it cannot meet the Buy America requirements for the components. Under Section 24405 of Title 49 of the United States Code, the Administrator may waive the general Buy America requirements if the Administrator finds the materials that are the subject of the Buy America waiver request are not produced in the United States. In order to ensure the timely completion of these two projects, it is necessary that the procurement of the aforementioned switches proceed without delay.

# II. <u>LIRR Material Needs for the Harold Interlocking Project</u>

In the next twenty months, LIRR must procure the Schwihag roller assemblies and plates and ZU1-60 steel switch point rail sections for Harold Interlocking Project to meet the installation dates set forth below. As set forth above, LIRR is submitting a separate Buy America waiver request to the FTA for the ESA Project for the Schwihag roller assemblies and plates, ZU1-60 steel switch point rail sections and moveable point frogs. The Harold Interlocking and ESA Projects are being constructed together. As a result, LIRR is seeking Buy America waivers from both the FRA and the FTA concurrently since failure to receive a non-availability waiver for either project will delay both projects.

The following table lists the number of crossovers/turnouts required and the dates when (i) LIRR must advertise its needs and (ii) the material must be installed to meet the project schedules. The material requires eight to ten months to manufacture. It is essential that LIRR award contracts to ensure timely delivery to meet the installation schedule.

ESA Stage	No. Crossovers / Turnouts	Actual / Estimated Advertise Date	Required Installation Date to Meet ESA Deadline
VHL03 LIRR Stage 3	5	February 2014	February 2015 – November 2015 March 2016
	2	September 2014	\$-000 A Property Comments of the Comment of the Com
VHA03 Amtrak Stage 3	4	October 2014	March 2016 – June 2018
VHL04 LIRR Stage 4	6	April 2015	September 2016 - August 2018
VHA04 Amtrak Stage 4	5	December 2015	May 2017 – August 2017

The estimated cost for the required material is as follows:

ESA Stage	Actual/Estimated Cost of All Crossovers/Turnouts	Cost of Non-Compliant Material*	
VHL03 LIRR Stage 3	\$ (5) \$ (2)		
VHA03 Amtrak Stage 3	\$	S	
VHL04 LIRR Stage 4	\$	\$	
VHA04 Amtrak Stage 4	S	\$	

<sup>\*</sup>The Cost of Non-Compliant Material including the Schwihag roller assemblies and plates and ZU1-60 steel switch point rail sections represent approximately 11.9% of the total cost of each crossover/turnout.

Descriptions of the components are annexed hereto as Attachment 001. Also enclosed, for your reference, is a compact disk with the complete technical specifications for each component.

# III. Market Research and Non-Availability

In February 2014, LIRR issued a competitive solicitation seeking vendors to provide five (5) switches for VHL03 LIRR Stage 3. In response to that solicitation, LIRR received only one response from VAE Nortrak North America Inc. ("Nortrak"), which certified as non-compliant with Buy America. Based upon LIRR's prior experience in procuring the same or similar crossover/turnouts, Nortrak is one of only two vendors that are technically capable of manufacturing the crossover/turnouts with the required roller plate assemblies and ZU1-60 steel switch point rail sections. The other company is Progress Rail Services Corp. ("Progress Rail"), which did not submit a bid for the VHL03 LIRR Stage 3 of ESA. Both Nortrak and Progress Rail manufacture crossovers/turnouts domestically which include the above referenced non-compliant material. The roller assembles and plates are manufactured in Switzerland and the ZU1-60 steel switch point rail sections are manufactured in Austria.

In October 2013, LIRR became aware that Amtrak had previously conducted market research related to the same component parts, which are the subject of this Buy America request, to identify potential domestic manufacturers. That market research was conducted at the request of the FRA and included outreach to manufacturers that had been previously identified by the U.S. Department of Commerce National Institute of Standards and Technology ("NIST") in a December, 2012 report (the "NIST Report").

In the last several months, prior to this request for a Buy America waiver, LIRR conducted extensive outreach and market research - utilizing both Amtrak's findings from its market research and the NIST Report - to ascertain whether any domestic manufacturer could produce Buy America compliant components. In conducting that research, LIRR contacted seven potential manufacturers: Unitrac Railroad Materials, Inc., Arcelor Mittal, J. Manufacturing Inc., Steel Dynamics, Inc., Metal Tech, Compucision, LLC and IAT International Inc. LIRR also provided basic technical information regarding the ESA material requirements to those vendors. Of the seven potential manufacturers, three failed to respond to repeated request for information. Four manufacturers did respond to LIRR's outreach efforts. Of the manufacturers that responded, none were identified as a potential domestic source for the ESA Project because either the manufacturer stated that it does not currently manufacture the components or that it does not appear economically feasible for them to manufacture the components in the quantities needed for the ESA Project. In one instance, although the manufacturer - Compucision, LLC - expressed some interest, the company has never manufactured the components before, has little knowledge of the technical requirements and, based upon prior information available to LIRR, would require detailed drawings and a long lead time for forging and casting in order to manufacture the components. As a result, it has been determined that the manufacturer would be unable to meet the current procurement schedule for ESA, which is critical to timely completion of the project.

Therefore, despite significant market outreach effort over several months, to date, LIRR has been unable to identify a domestic source for the Schwihag roller assemblies and plates and ZU1-60 steel switch point rail sections of the crossover/turnouts.

# IV. Conclusion and Recommendations

Based upon the foregoing and in accordance with 49 U.S.C. §24405(a), LIRR has made a good faith effort to identify domestic switch manufactures but has concluded that there is currently no domestic source for the Schwihag roller assemblies and plates and ZU1-60 steel switch point rail sections. Accordingly, LIRR respectfully requests that the FRA issue a Buy America non-availability waiver for the Schwihag roller assemblies and plates and ZU1-60 steel switch point rail sections for each procurement of material requirements as identified herein. This waiver is absolutely essential to keeping the Harold Interlocking and ESA projects on schedule and within budget.

Should you have any questions or require any additional information, please do not hesitate to contact me at (718) 558-4708.

Respectfully submitted,

Carl Capriano

Carl Cipriano

Long Island Rail Road

Manager-Procurement East Side Access

cc: Farhan F. Haddad, NYSDOT

Rebecca Reyes-Alicea, FRA

Michael Culotta, FTA

Kimberly Luckey-Witsell, LIRR

Evan Eisland, MTACC

# ATTACHMENT 001 COMPONENT DESCRIPTIONS

Item: #1

#### **TECHNICAL**

# Item Designation / Description:

Schwihag double roller assembly and plate, part of the 32.75 turnout

# Transportation System Application:

The Schwihag double roller assembly and plate is used in the 32.75 turnout to hold both the ZU1-60 switch point and the stock rail, as well as provide a base for the roller assembly which assist the movement of the ZU1-60 switch point. The Schwihag plate is unique in that it provides a positive gage side hold down for the stock rail through the use of a Schwihag clip.



## Item Class and Size:

Mechanical - 23 3/4 inches long, 9 1/4 inches wide, 3 19/32 inches high

#### **Item Materials:**

Cast iron plate, forged steel clip, steel roller cartridge, bronze and plastic rollers

#### **Likely Manufacturing Processes:**

The plate is cast in iron. The clip is forged steel. The cartridge of the roller assembly is machined out of steel, and the rollers are assembled out of steel, bronze and plastic.

#### Summary of Technical Specifications and Performance Requirements:

The Schwihag plate, clip and roller are a proprietary design. The cast plate, clip and double roller assembly are shipped from Switzerland to Nortrak in the US. There are 58 Schwihag plates, some of which contain roller assemblies, which are assembled on the concrete ties on the 32.75 turnout. The stock rail is placed into position, and the clip is applied to hold down the gage side of the stock rail, allowing the ZU1-60 switch point to operate over the raised portion of the plate. Because the Schwihag plates are necessary, Schwihag rollers are used because of their bolt-in capability.

#### **BUSINESS**

#### Estimate of Potential Business Volume (# Items + Cost Targets):

4 turnouts at an estimated cost of \$525,000 each

#### Delivery Requirements:

The turnout is a long lead item, and the plates are needed approximately one year prior to completed manufacture of the 32.75 turnout.

## **Applicable Certification Requirements:**

ISO, AAR, AREMA and FRA requirements may be applicable. The finish assembled 32.75 turnout is inspected by a third party inspection agency for Amtrak to certify that the turnout is according to specifications and plans.

#### Other Notes:

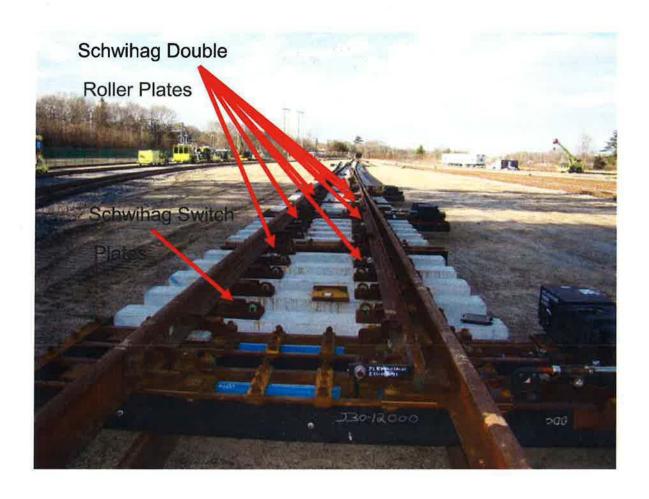
Photo 1 Schwihag double roller plates as delivered from Switzerland. Note, clip is not shown in photo.

Photo 2 58 Schwihag plates installed on 32.75 turnout with double roller locations indicated

Photo 3 Schwihag plate, double roller assembly and clip, showing stock rail and ZU1-60 switch point



Photo 1



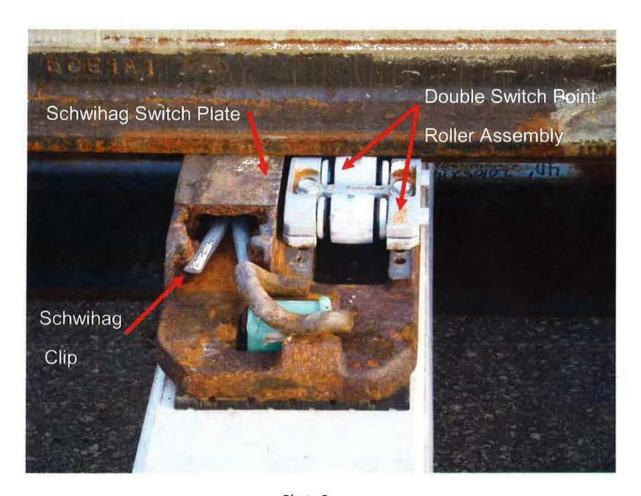


Photo 3

#### Item #2

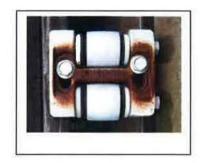
#### **TECHNICAL**

#### Item Designation / Description:

Schwihag Switch Roller Assembly, part of the 32.75 turnout

# Transportation System Application:

The Schwihag roller assembly assists the movement of the ZU1-60 switch point in the 32.75 turnout. There are single, double and triple roller assemblies which are used in certain locations on Schwihag plates or on domestically produced hollow steel ties. Single and triple roller assemblies are not used on the 32.75 turnout.



#### Item Class and Size:

Mechanical – double, 4 7/32 inches long, 5 7/16 inches wide, 1 7/8 inches high

# **Item Materials:**

The cartridge of the roller assembly is machined out of steel, and the rollers are assembled out of steel, bronze and plastic.

#### **Likely Manufacturing Processes:**

The switch roller assembly cartridge is machined from steel. The rollers are machined from steel, with pressed bronze and plastic bushings.

# Summary of Technical Specifications and Performance Requirements:

The Schwihag roller assembly is a proprietary design. The roller assemblies are shipped from Switzerland to Nortrak in the US. Schwihag rollers are used because Schwihag plates are necessary due to their positive gage side holding feature. The Schwihag roller assemblies are made to bolt into the Schwihag plates. Two Schwihag double roller assemblies, one on each side, are installed on the domestic hollow steel ties at the first switch machine location on the 32.75 turnout.

#### **BUSINESS**

#### Estimate of Potential Business Volume (# Items + Cost Targets):

4 turnouts at an estimated cost of \$525,000 each

# **Delivery Requirements:**

The turnout is a long lead item, and the plates are needed approximately one year prior to completed manufacture of the 32.75 turnout.

# Applicable Certification Requirements:

ISO, AAR, AREMA and FRA requirements may be applicable. The finish assembled 32.75 turnout is inspected by a third party inspection agency for Amtrak to certify that the turnout is according to specifications and plans.

#### Other Notes:

- Photo 1 Schwihag double roller assembly as delivered from Switzerland.
- Photo 2 Schwihag double roller assembly installed on domestic hollow steel ties at the first switch machine location.
- Photo 3 Schwihag double roller assembly shown on domestic hollow steel tie on 32.75 turnout

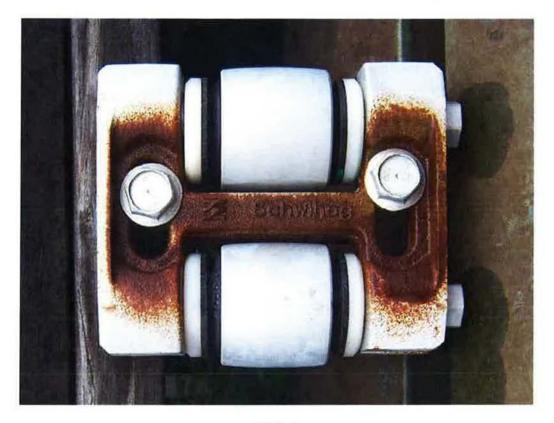


Photo 1

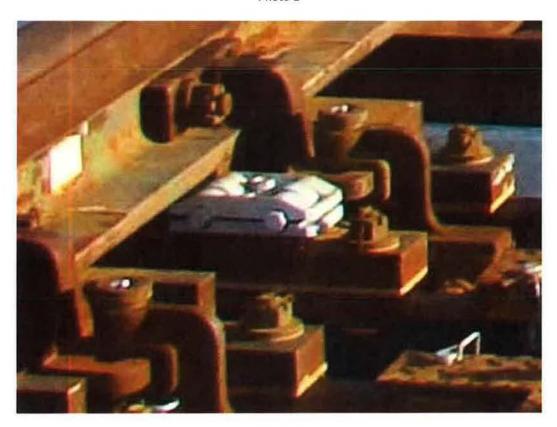


Photo 2



Photo 3

Item: #3

# **TECHNICAL**

#### Item Designation / Description:

Vee Point Moveable Point Frog Forging Machined

#### Transportation System Application:

The machined vee point forging is part of the moveable point frog. The moveable point frog Is part of the turnout that allows the train to cross one of the diverging rails. The moveable point allows a continuous wheel path through the frog area for smoother ride quality at higher speeds.



#### Item Class and Size:

Mechanical – 16 feet 10 inches long, 7 5/16 inches high, 7 inches wide

#### **Item Materials:**

Forged cast manganese steel made in Germany

#### Likely Manufacturing Processes:

Cast manganese steel is forged into the general shape of the movable point. This forging is shipped to Nortrak in the US, where it is machined into the final shape of the frog point. It is then quenched and tempered to achieve higher hardness. The forging is finish machined and drilled for assembly. The frog point is electric flash butt welded to domestic rail, and then assembled with other parts to produce the moveable point frog

# Summary of Technical Specifications and Performance Requirements:

This long moveable frog point is needed to provide a continuous wheel path, allowing for the faster diverging speed through the turnout.

#### **BUSINESS**

#### Estimate of Potential Business Volume ( # Items + Cost Targets):

4 turnouts at an estimated cost of \$525,000 each

#### **Delivery Requirements:**

This is a long lead item, and is needed approximately one year prior to completed manufacture of the 32.75 turnout.

#### Applicable Certification Requirements:

??? Possible FRA or AREMA requirements. I do not think ISO or AAR requirements are applicable.???

#### Other Notes:

Photo 1 Vee Point Forging as shipped to US

Photo 2 Vee Point drilled and machined to shape

Photo 3 Location of the Vee Point in the turnout

U.S. Department of Transportation-NIST Manufacturing Extension Partnership Supplier Scouting



Photo 1



Photo 2

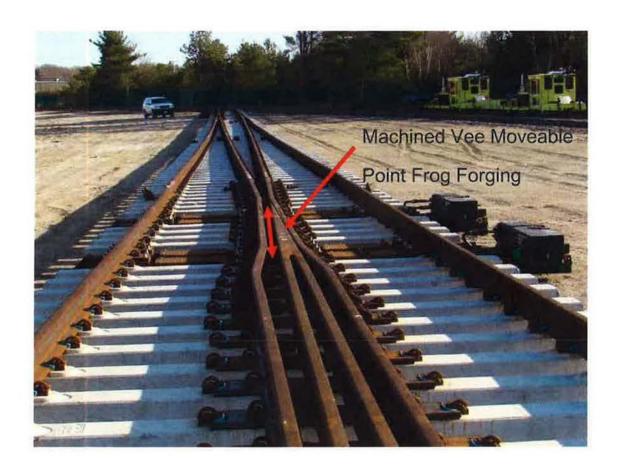


Photo 3

Item: #4

#### **TECHNICAL**

# Item Designation / Description:

Schwihag Plate, part of the 32.75 turnout.

# Transportation System Application:

The Schwihag plate is used in the 32.75 turnout to hold both the ZU1-60 switch point and the stock rail. The Schwihag plate is unique in that it provides a positive gage side hold down for the stock rail through the use of a Schwihag clip.

#### **Item Class and Size:**

Mechanical - 23 3/4 inches long, 7 3/32 inches wide, 3 1/32 inches high

#### **Item Materials:**

Cast steel plate, forged steel clip, made in Switzerland.

#### Likely Manufacturing Processes:

The plate is cast steel. The clip is forged steel.

### Summary of Technical Specifications and Performance Requirements:

The Schwihag plate is a proprietary design. The cast plate and clip are shipped from Switzerland to Nortrak in the US. There are 58 Schwihag plates that are assembled on the concrete ties on the 32.75 turnout. The stock rail is placed into position, and the clip is applied to hold down the gage side of the stock rail, allowing the ZU1-60 switch point to operate over the raised portion of the plate.

#### **BUSINESS**

#### Estimate of Potential Business Volume (# Items + Cost Targets):

4 turnouts at an estimated cost of \$525,000 each

# **Delivery Requirements:**

The turnout is a long lead item, and the plates are needed approximately one year prior to completed manufacture of the 32.75 turnout.

#### Applicable Certification Requirements:

ISO, AAR, AREMA and FRA requirements may be applicable. The finish assembled 32.75 turnout is inspected by a third party inspection agency for Amtrak to certify that the turnout is according to specifications and plans.

#### Other Notes:

Photo 1 Schwihag plates as delivered from Switzerland. Note, clip is not in the photo.

Photo 2 58 Schwihag plates installed on 32.75 turnout

Photo 3 Schwihag plate and clip, showing stock rail and ZU1-60 switch point



# U.S. Department of Transportation-NIST Manufacturing Extension Partnership Supplier Scouting



Photo 1



Photo 2

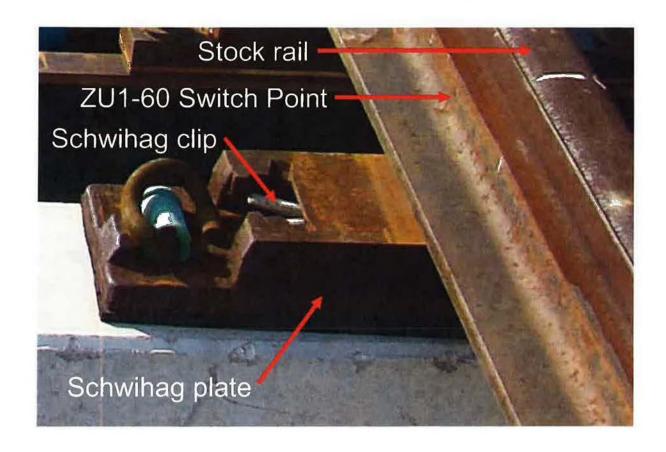


Photo 3

Item: #5

#### **TECHNICAL**

# Item Designation / Description:

Switch Point Rail Machined ZU1-60, both left hand and right hand, part of the 32.75 turnout.

#### Transportation System Application:

The switch point is the moveable piece of specially tapered rail that is used in a turnout to steer or divert a train from one track or the other.

#### Item Class and Size:

Mechanical – 121 feet 4.5 inches long, 5.28 inches high, 5.51 inches wide for both right and left hand

#### **Item Materials:**

Rail steel, rolled in Austria to specific unique rail shape.

#### Likely Manufacturing Processes:

Normal continuous-cast rail steel making process is used, except that the steel is rolled into long length ZU1-60 rails. Also, because of the unique rail shape, special rolls and a special rolling process is used to produce the long, straight asymmetrical shape. The rail is head hardened to achieve a harder steel composition. The long rails are delivered to Nortrak in the US, where the rail is milled and shaped into a switch point. The switch point is drilled for attachment to operating and signal rods. The milled switch point is electric flash butt welded to another piece of the ZU1-60 rail to achieve the long length switch point. It is then electric flash butt welded to a mono-block transition piece, which is milled from a domestic billet of hardened rail steel. This mono-block transition is then electric flash butt welded to a piece of domestic 136 RE head hardened rail that connects to the rest of the turnout.

#### Summary of Technical Specifications and Performance Requirements:

The ZU1-60 rail is needed to make the switch point because of its unique shape. It has a shorter rail cross section which allows the switch point to be moved from the open to closed position over its long length, and allows for positive hold down of the stock rail on the gage side.

#### BUSINESS

# Estimate of Potential Business Volume (# Items + Cost Targets):

4 turnouts at an estimated cost of \$525,000 each

#### **Delivery Requirements:**

This is a long lead item, and is needed approximately one year prior to completed manufacture of the 32.75 turnout.

#### Applicable Certification Requirements:

ISO, AAR, AREMA and FRA requirements may be applicable. The finish assembled 32.75 turnout is inspected by a third party inspection agency for Amtrak to certify that the turnout is according to specifications and plans.

# Other Notes:

Photo 1 ZU1-60 rail as delivered from Austria

Photo 2 ZU1-60 rail milled into switch points

Photo 3 ZU1-60 switch points assembled in a turnout as labeled

Photo 4 ZU1-60 switch points welded to mono-block transition which is welded to 136 RE rail





Photo 1



Photo 2



Photo 3



Photo 4