



## REQUEST FOR QUOTATION

<p><b>Vendor No.</b></p>   <p><b>Contact person/Telephone</b>                  Dennis Kopik/212-435-3931</p>	<p><b>Collective# / RFQ Number / Bid Due Date</b>                  0000015973 / 60000 / 07/16/2008</p> <p>Bids must be received no later than 11:00 AM on the above Bid Due Date.</p> <p><b>Deliver Goods/Services To:</b>                  Journal Square Transp. Center                  Port Authority, One Path Plaza                  Jersey City NJ 07306</p>
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Quantity	Description	Unit Price	Total
	<p>All deliveries are to be made between the hours of 8:00 AM and 2:30 PM. PATH stock number to be marked on all packages.</p> <p>ONE TRACK TAMPER AS PER ATTACHED SPECIFICATION</p> <p>****QUOTE ONLY FULLY DELIVERED PRICES****</p> <p>A price preference of 10 % is available for NY/NJ Minority and Women Business Enterprises (M/WBE) or 5% for NY/NJ Small Business Enterprises (SBE) certified by the Port Authority (PA) by the day before bid opening for awards not exceeding \$1,000,000. My firm was certified as a _____ on _____.</p> <p>LEAD TIME _____</p>		
	<p><b>PLEASE QUOTE FULLY DELIVERED PRICES</b></p>	<p><b>PAYMENT TERMS</b></p>	<p><b>Total Delivered Price</b></p>

**This Quotation is subject to the terms and conditions set forth on the back page hereof. Bidder is advised to read these before signing.**

We have read the instructions and, if favored with an order, we agree to furnish the items enumerated herein at the prices and under the conditions indicated.

Signed \_\_\_\_\_  
 Firm Name \_\_\_\_\_  
 Telephone number \_\_\_\_\_ Date \_\_\_\_\_  
 Fax Number \_\_\_\_\_  
 Federal Taxpayer ID \_\_\_\_\_

Bidder  
 Must  
 Sign  
 in  
 Two  
 Places

**NOTICE TO BIDDERS:** Unless the following term of assurance that the above offer is irrevocable is signed, the offer submitted herein shall not be deemed to be complete.

The foregoing offer shall be irrevocable for 90 days after the date on which The PORT AUTHORITY TRANS-HUDSON CORPORATION opens this proposal.

Signed \_\_\_\_\_ Date \_\_\_\_\_  
 Firm Name \_\_\_\_\_



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Vendor No. _____	RFQ Number / Bid Due Date 60000: _____ / 07/16/2008
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Quantity	Description	Unit Price		Total
1 EA	This is a Formal Bid Invitation Mail Sealed Bids to:  The Port Authority of NY & NJ Attn: Bid Custodian Procurement Department One Madison Avenue, 7th Floor New York, N.Y. 10010  by the date and time listed above, where it will be publicly opened and read.  Bids are only accepted Monday through Friday, excluding Port Authority holidays, between the hours of 8 A.M. & 5 P.M., via regular mail, express delivery service or hand delivery.  If you do not use or have an envelope provided, you must clearly mark the outside envelope/package with 'BID ENCLOSED' and show the company name, address, as well as Bid number and Due date as stated on this bid document.  A valid photo id is required to gain access into the building, to attend the bid opening or hand deliver a bid.  Tie Tamper			
	<b>PLEASE QUOTE FULLY DELIVERED PRICES</b>	<b>Total Delivered Price</b>		

**PAYMENT  
TERMS**

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 Signed \_\_\_\_\_ Date \_\_\_\_\_  
 Firm Name \_\_\_\_\_

## TERMS AND CONDITIONS

1. The Port Authority (PA) reserves the right to request information relating to seller's responsibility, experience and capability to perform the work.
2. Unless otherwise provided, complete shipment of all items must be in one delivery FOB delivery point. Payment will not be made on partial deliveries unless authorized in advance by the party to be charged and the discount, if any, will be taken on the total order.
3. PA payment terms are net 30 days. Cash discounts for prompt payment of invoices may be taken but will not be considered in determining award, except in the case of tie bids.
4. Separate unit and total FOB delivered prices must be shown.
5. Sales to the PA and to PATH are currently exempt from New York and New Jersey State and local taxes and generally from federal taxation. The seller certifies that there are no federal, state, municipal or any other taxes included in the prices shown hereon.
6. The PA shall have the absolute right to reject any or all proposals or to accept any proposal in whole or part and to waive defects in proposals.
7. Unless the phrase "no substitute" is indicated, bidder may offer alternate manufacturer / brands, which shall be subject to Port Authority approval. Please indicate details of product being offered with bid.
8. Acceptance of seller's offer will be only by Purchase Order Form signed by the PA. No change shall be made in the agreement except in writing.
9. If the seller fails to perform in accordance with the terms of this purchase order, the PA may obtain the goods or services from another contractor and charge the seller the difference in price, if any, a reletting cost of \$100, plus any other damages to the PA.
10. Upon request, sellers are encouraged to extend the terms and conditions of any terms agreement with the PA to other government and quasi-government entities by separate agreement.
11. By signing this quotation or bid, the seller certifies to all statements on Form PA 3764 regarding non-collusive bidding; compliance with the PA Code of Ethics; and the existence of investigations, indictments, convictions, suspensions, terminations, debarments and other stated occurrences to assist the PA in determining whether there are integrity issues which would prevent award of the contract to the seller. The PA has adopted a policy set forth in full on PA 3764, that it will honor a determination by an agency of the State of New York or New Jersey that a bidder is not eligible to bid on or be awarded public contracts because the bidder has been determined to have engaged in illegal or dishonest conduct or to have violated prevailing wage legislation. The Terms and Conditions of PA 3764 apply to this order. A copy can be obtained by calling (212) 435-3902 or at <http://www.panynj.gov/pdf/PA3764.pdf>.
12. The vendor may subcontract the services or use a supplier for the furnishing of materials required hereunder to such persons or entities as the Manager, Purchasing Services may from time to time expressly approve in writing. All further subcontracting shall also be subject to such approval.
13. The successful bidder (vendor) shall not issue nor permit to be issued any press release, advertisement, or literature of any kind, which refers to the Port Authority or that goods will be, are being or have been provided to it and/or that services will be, are being or have been performed for it in connection with this Agreement, unless the vendor first obtains the written approval of the Port Authority. Such approval may be withheld if for any reason the Port Authority believes that the publication of such information would be harmful to the public interest or is in any way undesirable.

PORT AUTHORITY TRANS-HUDSON CORPORATION

PATH

JERSEY CITY, NEW JERSEY

NEW TRACK TAMPER PURCHASE

SPECIFICATIONS

APRIL 7, 2008

PORT AUTHORITY TRANS-HUDSON CORPORATION  
(PATH)  
JERSEY CITY, NEW JERSEY

SPECIFICATION FOR NEW  
SWITCH TRACK TIE TAMPER

**1. GENERAL:**

These specifications set forth the technical requirements for a Switch Tamper (hereafter identified as "the Tamper"). The Tamper is to be multi-functional, non-synchronous, hydraulic squeeze system. Each tamping tool is to be hydraulically adjusted to allow switch tamping. The Tamper is to be modified for work on the PATH System, at grade and tunnel third rail track system.

**2. ACCEPTANCE OR REJECTION OF BIDS**

The acceptance of a bid will be by a written noticed signed by an authorized representative on behalf of the Authority. No other act of the Port Authority, its Commissioners, officers, agents or employees shall constitute acceptance of a bid. The Authority reserves the unqualified right, in its sole and absolute discretion, to reject any and all bids or to accept any bid, which in its judgment will best serve the public interest and to waive defects in any bid. No rights accrue to any Bidder unless and until its bid is accepted.

**3. BIDDER'S QUESTIONS**

Any questions by prospective Bidders concerning the Work to be performed or the terms and conditions of the Contract may be addressed to the Buyer listed on the Cover Sheet of this document. The Buyer is only authorized to direct the attention of prospective Bidder to portions of the Contract. No employee of the Port Authority is authorized to interpret any portion of the Contract or to give information in addition to that contained in the Contract. When Contract interpretation or additional information as to the Contract requirements is deemed necessary by the Port Authority, it shall be communicated to all Bidders by written addenda issued under the name of the Manager, Purchasing Services Division of the Port authority. Addenda shall be considered part of the Contract.

**4. SPECIFIC BIDDER'S PREREQUISITES**

- a. The Bidder shall have had at least 5 year(s) of continuous experience immediately prior to the date of submission of its bid in the management and operation of DESIGN AND MANUFACTURING OF SWITCH TIE TAMPERS and actually engaged in providing said or such services to commercial or industrial accounts under contract. The Bidder may fulfill this prerequisite if the Bidder can demonstrate to the satisfaction of the Port Authority that the persons or entities

- owning and controlling the Bidder have had a cumulative total of at least 5 year(s) of experience immediately prior to the date of the submission of its bid in the management and operation of a commercial or industrial business actually engaged in providing these services to commercial or industrial accounts under contract during that time, or have owned and controlled other entities which have actually engaged in providing the above described services during that time period.
- b. During the time period as stated in (a) above, the Bidder, or persons or entities owning and controlling the Bidder, shall have satisfactorily performed or be performing under at least one contract(s) requiring similar services of similar scope to those required under this Contract.
  - c. The Bidder shall provide a statement indicating evidence of this experience as part of the Bidder's bid submission. The information provided shall include a listing of projects completed, a brief description of the project, date completed, client, client name and phone number.
  - d. THE BIDDER SHALL also submit with its bid a signed affidavit, by a duly authorized officer of the firm, acknowledging the guarantees as stated in part 5, specifications.

## 5. PAYMENT

Subject to the provisions of this Contract, the PATH agrees to pay to the Contractor and the Contractor agrees to accept from the PATH in full and complete consideration for the performance of all its obligations under this Contract and as sole compensation for the Work performed by the Contractor hereunder, a compensation calculated in accordance with the prices inserted by the Contractor in the TIE TAMPER PRICE SHEET, forming a part of this Contract, exclusive of compensation under the clause hereof entitled "Extra Work". The manner of submission of all bills for payment to the Contractor by the PATH for Services rendered under this Contract shall be subject to the approval of the Engineer in all respects, including, but not limited to, format, breakdown of items presented and verifying records. All computations made by the Contractor and all billing and billing procedures shall be done in conformance with the following procedures: Payment shall be made in accordance with the prices for the applicable Work as they appear on the Tie Tamper Purchase PRICE SHEET, All Work must be completed within the time frames specified or as designated by the Engineer. The invoice must show the Contractor's Federal Tax Identification Number. Payment will be made within thirty (30) days of PATH's verification of the invoice. No certificate, payment, acceptance of any Work or any other act or omission of any representative of the PATH shall operate to release the Contractor from any obligation under or upon this Contract, or to estop PATH from showing at any time that such certificate, payment, acceptance, act or omission was incorrect or to preclude the PATH from recovering any monies paid in excess of those lawfully due and any damage sustained by PATH.

"Final Payment", as the term is used throughout this Contract, shall mean the final payment made for Work performed under this contract. The Contractor's acceptance

of Final Payment shall act as a full and complete release to the PATH of all claims of and of all liability to the Contractor for all things done or furnished in connection with the Contract and for every act and neglect of the PATH and others relating to or arising out of the Contract, including claims arising out of breach of contract and claims based on claims of third persons. No payment, however, final or otherwise shall operate to release the Contractor from any obligations in connection with this Contract.

## 6. INSURANCE

The Contractor shall take out, maintain, and pay the premiums on Commercial General Liability Insurance, including but not limited to premises-operations, products-completed operations, independent contractors coverage, with contractual liability, including coverage within 50 feet of railroad property, covering the obligations assumed by the Contractor under this Contract and, if vehicles are to be used to carry out the performance of this Contract, then the Contractor shall also take out, maintain, and pay the premiums on Automobile Liability Insurance covering owned, non-owned, and hired autos in the following minimum limits:

**Commercial General Liability Insurance - \$2 million combined single limit per occurrence for bodily injury and property damage liability.**

**Automobile Liability Insurance - \$2 million combined single limit per accident for bodily injury and property damage liability.**

In addition, the liability policy (ies) shall name PATH as additional insured, including but not limited to premise-operations, products-completed operations on the Commercial General Liability Policy. Moreover, the Commercial General Liability Policy shall not contain any provisions for exclusions from liability other than provisions for exclusion from liability forming part of the most up to date ISO form or its equivalent unendorsed Commercial General Liability Policy. The liability policy (ies) and certificate of insurance shall contain cross-liability language providing severability of interests so that coverage will respond as if separate policies were in force for each insured. These insurance requirements shall be in effect for the duration of the contract to include any warrantee/guarantee period.

The certificate of insurance and liability policy (ies) must contain the following endorsement for the above liability coverages:

***“The insurer(s) shall not, without obtaining the express advance written permission from the General Counsel of the Port Authority, raise any defense involving in any way the jurisdiction of the Tribunal over the person of PATH, the immunity of PATH, its Commissioners, Directors, officers, agents or employees, the governmental nature of PATH, or the provisions of any statues respecting suits against PATH.”***

The Contractor shall also take out, maintain, and pay premiums on Workers' Compensation Insurance in accordance with the requirements of law in the state(s) where work will take place, including Employers' Liability and Coverage B – Federal Employer's Liability Act, in limits of not less than \$1 million per each accident.

Each policy above shall contain a provision that the policy may not be canceled, terminated, or modified without thirty (30) days' prior written notice to PATH, Att: Facility Contract Administrator, at the location where the work will take place and to the General Manager, Risk Management.

PATH may at any time during the term of this agreement change or modify the limits and coverages of insurance. Should the modification or change result in an additional premium, The General Manager, Risk Management, for the Port Authority may consider such cost as an out-of-pocket expense.

Within five (5) days after the award of this agreement or contract and prior to the start of work, the Contractor must submit an original certificate of insurance, to PATH, Facility Contract Administrator, at the location where the work will take place. This certificate of insurance MUST show evidence of the above insurance policy (ies), stating the agreement/contract number prior to the start of work. The General Manager, Risk Management, must approve the certificate(s) of insurance before any work can begin. Upon request by PATH, the Contractor shall furnish to the General Manager, Risk Management, a certified copy of each policy, including the premiums.

If at any time the above liability insurance should be canceled, terminated, or modified so that the insurance is not in effect as above required, then, if the Manager shall so direct, the Contractor shall suspend performance of the contract at the premises. If the contract is so suspended, no extension of time shall be due on account thereof. If the contract is not suspended (whether or not because of omission of the Manager to order suspension), then PATH may, at its option, obtain insurance affording coverage equal to the above required, the cost of such insurance to be payable by the Contractor to PATH.

Renewal certificates of insurance or policies shall be delivered to the Facility Contractor Administrator, PATH at least fifteen (15) days prior to the expiration date of each expiring policy. The General Manager, Risk Management, must approve the renewal certificate(s) of insurance before work can resume on the facility. If at any time any of the certificates or policies shall become unsatisfactory to the Port Authority, the Contractor shall promptly obtain a new and satisfactory certificate and policy.

The requirements for insurance procured by the Contractor shall not in any way be construed as a limitation on the nature or extent of the contractual obligations assumed by the Contractor under this contract. The insurance requirements are not a

representation by PATH as to the adequacy of the insurance to protect the Contractor against the obligations imposed on them by law or by this or any other Contract.  
[CITS#3260N]

## **7. EXTRA WORK**

The Contractor is required to provide separate materials, supplies, equipment and personnel for Extra Work when such is deemed necessary by the Engineer. "Extra Work" as used herein shall be defined as work which differs from that expressly or impliedly required by the Specifications in their present form. Total Extra Work performed by the Contractor shall not exceed six percent (6%) of the Total Contract Price of this Contract for the entire Term of this Contract including extensions thereof, or six percent (6%) of the Total Contract Price of each Section if this Contract is awarded by separate Sections.

The Contractor shall submit all reports, records and receipts as are requested by the Engineer so as to enable him/her to ascertain the time expended in the performance of the Extra Work, the quantity of labor and materials used therein and the cost of said labor and materials to the Contractor.

The provisions of this Contract relating generally to Work and its performance shall apply without exception to any Extra Work required and to the performance thereof. Moreover, the provisions of the Specifications relating generally to the Work and its performance shall also apply to any Extra Work required and to the performance thereof, except to the extent that a written order in connection with any particular item of Extra Work may expressly provide otherwise.

If the Contractor deems work to be Extra Work, the Contractor shall give written notice to the Superintendent/Manager within twenty-four (24) hours of performing the work that he so considers as Extra Work, and failure of the Contractor to provide said notice shall be a waiver of any claim to an increase in compensation for such work and a conclusive and binding determination that it is not Extra Work.

All Extra Work shall be billed to PATH on a separate invoice.

## **8. STANDARDS**

The Tamper shall comply with the American Railroad of Engineering and Maintenance Association (AREMA), Federal Railroad Association (FRA). Compliance with these specification does not relieve the Vendor from complying with all applicable Federal, State, City and other legal requirements and/or standards (e.g. ASTM, SAE, ANSI, MSHA, etc.) for the manufacture, sale or use of such vehicle(s) at the time of delivery. In the event of conflict or variation between regulations and the specification, the most restrictive requirement will apply. For all standards and specifications identified (i.e. ASTM, SAE, ASTM, etc.) are to be the most current revision or issue.

## 9. SYSTEM CHARACTERISTICS

The machine shall be constructed to operate in accordance with the following PATH system characteristics:

Track gage: -4 -8 1/2"

Third rail assembly: 2'-2" from gage of adjacent running rail (edge of cover board is 22" from gage -varies from 10" to 20" over top of rail)

Minimum track curvature: -90 foot radius

Governing width -at tunnel station platforms (3'-6" over top of rail) 8'-8".

Maximum height: -9' -10"

Minimum depth of ballast -2" in tunnel locations.

## 10. TRACK TAMPER MACHINE

### A. General

Track Tamping Machine, self-propelled, similar to Plasser American Tandem and Yard Tamper Model PTT-SW or approved equal, modified for work on the PATH Corporation, at grade and tunnel third rail track system as follows:

- a) 2 - 4 tool tamping units
- c) No lining feature required
- d) No automatic surfacing feature required
- e) No turntable required

The Tamper shall be capable of traveling up a 5% grade while maintaining a minimum speed of 10 MPH (no buggy attached) under wet or dry conditions without the use of sanders. The Tamper shall be capable of traveling over the entire PATH system and maintaining a minimum speed of 15MPH when traveling on grades of 3 1/2%(no buggy attached). Equipment must be capable of negotiating all of PATH tracks, tunnels, and structures and stay within the dynamic envelope of the PA-4 car body (see drawing list) and must conform to all PATH restrictions regarding height, width and weight. Specifications and drawings are provided in other sections of this specification.

### B. Tamping Units

Two hydraulic operated, fully traversable, 4 -tool vibratory squeeze tamping unit. Each tamping tool to be individually hydraulically adjustable, with upper and lower limit switches and set in stored position 6" over top of rail. Must allow tamping through entire switch area.

### C. Vehicle:

The Tamper shall be the Vendor's latest type in production at the time of delivery. Production parts and components shall not be obsolete, nor near the

end of their planned production life. All parts and components shall be readily available for a minimum of fifteen (15) years from date of delivery. **The Tamper must have enough tractive effort and braking effort for itself and to pull and/or push 2 track buggies each weighing 10 tons up a 5% grade while maintaining 3 mph.**

To be equipped as follows:

- a) Engine -To be of adequate horsepower, with an hour meter to show hours of accumulated operation. **Must meet the exhaust standards of the latest EPA Regulations at the time of delivery for work in a tunnel.** Vendor must supply certifications that engine complies to the Engineer.
- b) Frame -rigid, welded frame of rolled steel  
-toe hooks (Pintle), to be provided front and rear for pulling work carts.  
-provided with a rail clamping device mounted behind the front wheels to prevent the Tamper from lifting, clamps to engage under the field side of the rail head.
- c) Under carriage -two rigid solid forged steel axles with roller bearings and forged steel wheels, with rail sweep pads at each wheel.
- d) Suspension -four coil springs and shock absorbers at each wheel.
- e) Power Transmission -hydraulic drive motor and chain drive coupled with a three-speed transmission.
- f) Brakes -four wheel failsafe air actuated clamp shoe brakes. In emergency situation, a system must be provided for releasing each brake in not more than 2 minutes. A mechanically applied parking brake system shall be furnished. The parking brake shall be capable of holding the Tamper on a 5% grade. The brake line connection for the track buggies shall terminate with hydraulic quick connection couplings, keyed and labeled on the service and emergency and attached to their respective air lines on both the front and rear of the Tamper. All brake lines shall be protected from chafing, binding, or other damage by being enclosed in metal conduit, channel, or tubing.
- g) Driver's Seat -adjustable and spring loaded.
- h) Cab -fully enclosed, heated and air conditioned, sound insulated, safety glass windshield with single speed electric wipers, fire extinguisher. There shall be a second seat for a PATH pilot. The cabin shall contain a metal locker for storage of drawings and similar materials. The minimum dimensions shall be 12" high, 20" wide and 15" deep.

- i) Batteries - two -12 volt units in series.
- j) Travel Speed -minimum speed of 20 miles per hour in either direction and as specified elsewhere in this specifications.
- k) Exhaust System – As stated in the Engine requirements, must meet the exhaust standards of the latest EPA Regulations at the time of delivery for work in a tunnel. The vendor must supply certification from an independent testing agency for emissions and noise prior to delivery. Approximately six (6) months after delivery, the vendor will again have an independent testing agency test the vehicle in the PATH tunnels under normal working conditions. If the vehicle does not comply, the vendor will make any adjustments required to bring the vehicle into compliance at no additional charge to PATH. The vendor will supply design specifications for expected emission of carbon monoxide, nitrogen ioxide, sulfur dioxide, organic gases and particulates. The exhaust discharge can be no closer than 18” to any tunnel appurtenances, or have the exhaust pointed at any ceiling or wall.
- l) No excessive vibration, wobble, or eccentric action shall occur at any speed for which the machine is intended. Suspension shall provide for damage-free operation under maximum foreseeable operating stress. The entire machine shall withstand a free drop of 6” to a non-resilient surface without impairing normal travel or operating functions. Derail guards shall be incorporated near each wheel to cover inborn and outboard rail areas, so that in the event of derailment, the machine will not leave the rail. The machine shall push or toe easily when not working.
- m) Frame must be sufficiently flexible, or at least one (1) axle must be free to float, so that any wheel can drop below the plane established by the other three wheels. The amount of drop in inches shall be equal to, or greater than the wheel base of the machine in feet divided by eight.
- n) The Tamper shall not be insulated. The tamper shall not be converted from an insulated design by bonding around insulated parts. The Tamper must give a positive indication of track occupancy at all times.

## 9. ACCESSORIES

The machine s all also be equipped with the following accessories:

- a) Emergency Electric Hydraulic Pump-3 gals/minute capacity, 24 volt motor driven -for charging hydraulic system.
- b) Amber Rotating Beacon -.to be mounted on top of cab. --

- c) Cold Weather Starting Aid
- d) Horns - electric powered. trumpet type. (ii) automatic warning with cut-out for backing-up.
- e) Lights/ Tamping Lights -sufficient illumination for night or tunnel tamping operation -to illuminate entire tamping area (ii) Running Lights -white and red aspects and rear mounted on top of cab for normal and reverse running. All lights to be provided with protective guards.

## 10. INSTRUCTION

The vendor shall furnish three manuals prescribing the recommended maintenance procedures for the upkeep of the machine.

## 11. DELIVERY

The time for delivery of the machine to PATH, shall be no greater than 400 days upon receipt of the order from the vendor. The machine, fully operational, shall be delivered to the PATH 120 Academy Street in Jersey City, New Jersey, upon seven (7) days prior notice to the PATH Track Supervisor at, Tel. (201) 216-7027.

**The machine shall be fully operational at time of delivery, the Vendor shall be responsible for any and all costs associated with the delivery and unloading of the vehicle onto the PATH tracks.**

Testing to be completed after delivery:

- o Tow Capacity Verification
- o Braking Capability Verification
- o Hydraulic & System Performance Check
- o System Clearance Checks (within the PATH System)
- o Power Test
- o Vehicle Lighting Test
- o Heating and air conditioner Test
- o Noise Level Measurements
- o Tamping in PATH tunnel
- o Clearance of the machine in tunnel, station, third rail

## 12. WARRANTY

The vendor shall provide a warranty for replacement of any defective parts up to a maximum period of six (6) months.

### **13. INSTRUCTION BOOKS**

- a. One complete part books, instruction books and O&M Manuals, as found in Section 16, shall accompany the machine in a waterproof, resealable container permanently affixed to the body of the machine. Four (4) additional sets of books shall be forwarded as follows:

PORT AUTHORITY TRANS-HUDSON CORPORATION  
ONE PATH PLAZA, 8TH FLOOR  
JERSEY CITY, NJ 07306  
ATTN.: EDWARD C. PERARA

- b. Books shall contain complete and easily read diagrams of all systems on the machine and shall employ American Standard symbols and notations. Complete technical data package including drawings, part numbers, and sources for all spare parts shall be provided.
- c. The Tamper shall incorporate, in operator's cab, where possible, a metal etched pictorial placard designating lubrication points, indicating types of lubricant, location on machine, and frequency of checking or changing lubricants. These placards must be designated by part number. Parts book must also contain the comprehensive lubrication chart for the appropriate type machines.

### **14. REPAIR PARTS AND SERVICE**

- a. Manufacturer shall provide a comprehensive list of spare components inclusive of current prices. A separate list of parts necessary for routine maintenance and recommended on hand quantities shall also be submitted. As a minimum, the Contractor shall supply the following spare parts, 2 complete sets of filters (air, fuel, hydraulic, etc.), and 8 tamping tools.
- b. A list of local distributors of the major component parts is also to be supplied

### **15. START UP AND TRAINING**

- a. The Contractor shall provide the service of one (1) trainer for a period of one (1) week to provide start-up assistance and training, at 120 Academy Street, Jersey City, NJ, in the operation of the Tamper on start-up of machine and use of the machine.
- b. The Contractor shall provide a maintenance training course for five (5) PATH equipment maintainers. This course shall be given at PATH, 120 Academy Street, Jersey City, NJ and shall be of a duration not less

than five (5) consecutive calendar days for forty (40) hours of instruction and shall not be concurrent with the start up assistance and training.

## 16. MANUALS AND DOCUMENTATION

- a. The Contractor shall provide five (5) sets of Operation and Technical Service Manuals and three (3) complete sets of full size blue prints for all Tamper equipment. The vendor shall also provide this information on CD disks supplying two complete disks. This material shall be sent as set forth in Section 13.
- b. Manuals for 8 1/2" x 11" pages shall be 10" to 11 1/2" wide (depending on ring size) and 11" to 12" high. The binders shall not exceed 3" overall thickness. Punched holes shall be on 3/4" centers. Folding pages will be permitted (11" x 17", "Z" folded) where the information to be conveyed cannot be presented clearly on single pages. Manuals for 8 1/2" x 11" pages may be divided into Book 1, Book 2, etc.
- c. All sections shall be subdivided, to the extent required by the subject matter, into the following topics:
  - a. General Sub-systems Description and Operation
  - b. Block Diagram
  - c. Signal Flow Diagrams
  - d. Functional Schematics
  - e. Functional piping Diagrams
  - f. Point-to-point wiring Diagrams
  - g. Troubleshooting Techniques
  - h. Lubrication and Cleaning, including frequency, Methods and Trade Identifications of Recommended Materials; Component Locating and Description
  - i. Inspection and Maintenance Standards, Including Wear Limits, Settings and Tolerances
  - j. Installation and Removal
  - k. Test and Evaluation Procedures
  - l. Recommended Overhaul
- d. All parts shall be identified and cataloged within each individual system.

PORT AUTHORITY TRANS-HUDSON CORPORATION  
JERSEY CITY, NEW JERSEY

NEW TRACK TAMPER

VENDOR: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TELE. NO.: \_\_\_\_\_

1. TAMPING UNITS =

Max. downthrust pressure: \_\_\_\_\_

Max. depth adjustment: \_\_\_\_\_

Max. squeeze-in pressure (adjustable) : \_\_\_\_\_

2. ENGINE

Manufacturer/Model \_\_\_\_\_

Net brake HP \_\_\_\_\_

Hour meter \_\_\_\_\_

High water/low oil pressure protection -make \_\_\_\_\_

Cold weather starting aid -make \_\_\_\_\_

Exhaust system -make - \_\_\_\_\_

Compliance with Mine Safety and Health Administration Diesel Engine  
Certification requirements

\_\_\_\_\_

3. VEHICLE

Type steel frame \_\_\_\_\_

Overall length \_\_\_\_\_

Overall width \_\_\_\_\_

Overall height \_\_\_\_\_

Weight \_\_\_\_\_

Wheel Base \_\_\_\_\_

Hydraulic tank capacity \_\_\_\_\_

Fuel on tank capacity \_\_\_\_\_

Cab heater, make and model \_\_\_\_\_

Air Conditioner, make and model \_\_\_\_\_

UNDERCARRIAGE

Wheels, make and size \_\_\_\_\_

Axle bearings, type \_\_\_\_\_

Brakes, type \_\_\_\_\_

Air compressor, size \_\_\_\_\_

Air tank, size \_\_\_\_\_

BATTERIES

Type \_\_\_\_\_

Total Voltage – Ampere Hours \_\_\_\_\_

6A. ALTERNATOR

Amperes \_\_\_\_\_

7. Emergency Hydraulic Pump

Make: \_\_\_\_\_

Capacity: \_\_\_\_\_

8. LIGHTS -

Amber beacon: \_\_\_\_\_

Make/Model : \_\_\_\_\_

Tamping Lights

Number: \_\_\_\_\_

Illumination : \_\_\_\_\_

Running Light

Front -red/ white: \_\_\_\_\_

Rear -red/ white : \_\_\_\_\_

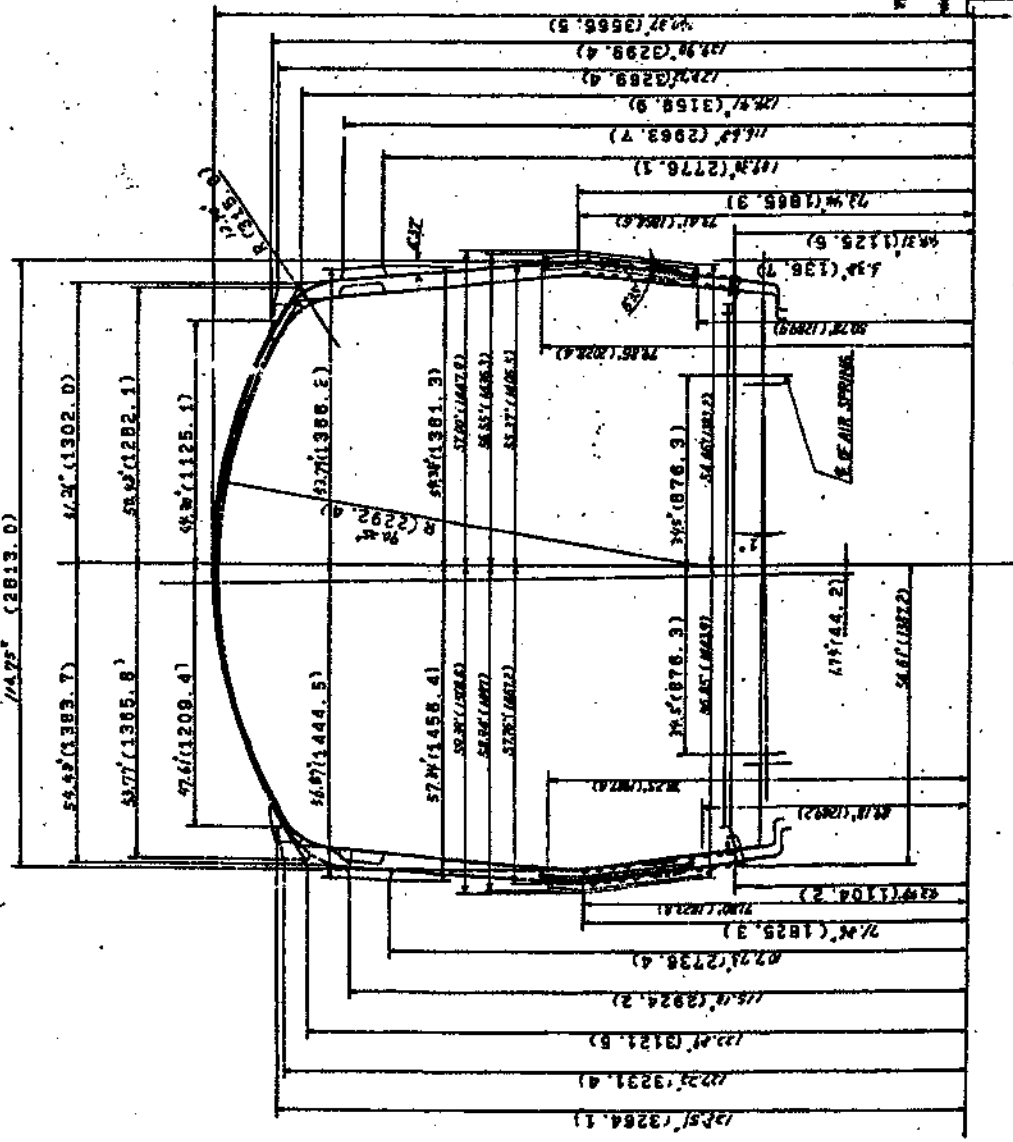
9. PAINT -

Color : \_\_\_\_\_

Mfr. Spec.: \_\_\_\_\_

10. Deviation from Specifications: \_\_\_\_\_

1/4.75" (2813.0)



NOTES:

1. THIS DRAWING IS REQUESTED AS PER PATH SPECIFICATION 2.2, 3.3 AND PA-NT-1235.
  2. KINEMATIC ENVELOPE OF CARBODY IS DOWN UNDER FOLLOWING CONDITIONS.  
PLEASE NOTE THAT FOLLOWING CONDITIONS ARE SAME AS PA-N-3-1108, 1133 (APPROVED BY PA-NT-0516).
  - (a) LATERAL DEFLECTION BETWEEN AXLE AND TRACK FRAME : 0.24" (6.1mm)
  - (b) LATERAL DEFLECTION BETWEEN TRACK FRAME AND CARBODY : 1.5" (38.1mm)
  - (c) ROLLING ANGLE : 1°
3. ALL DIMENSIONS ARE INDICATED BY INCHES AND MILLI-METERS.

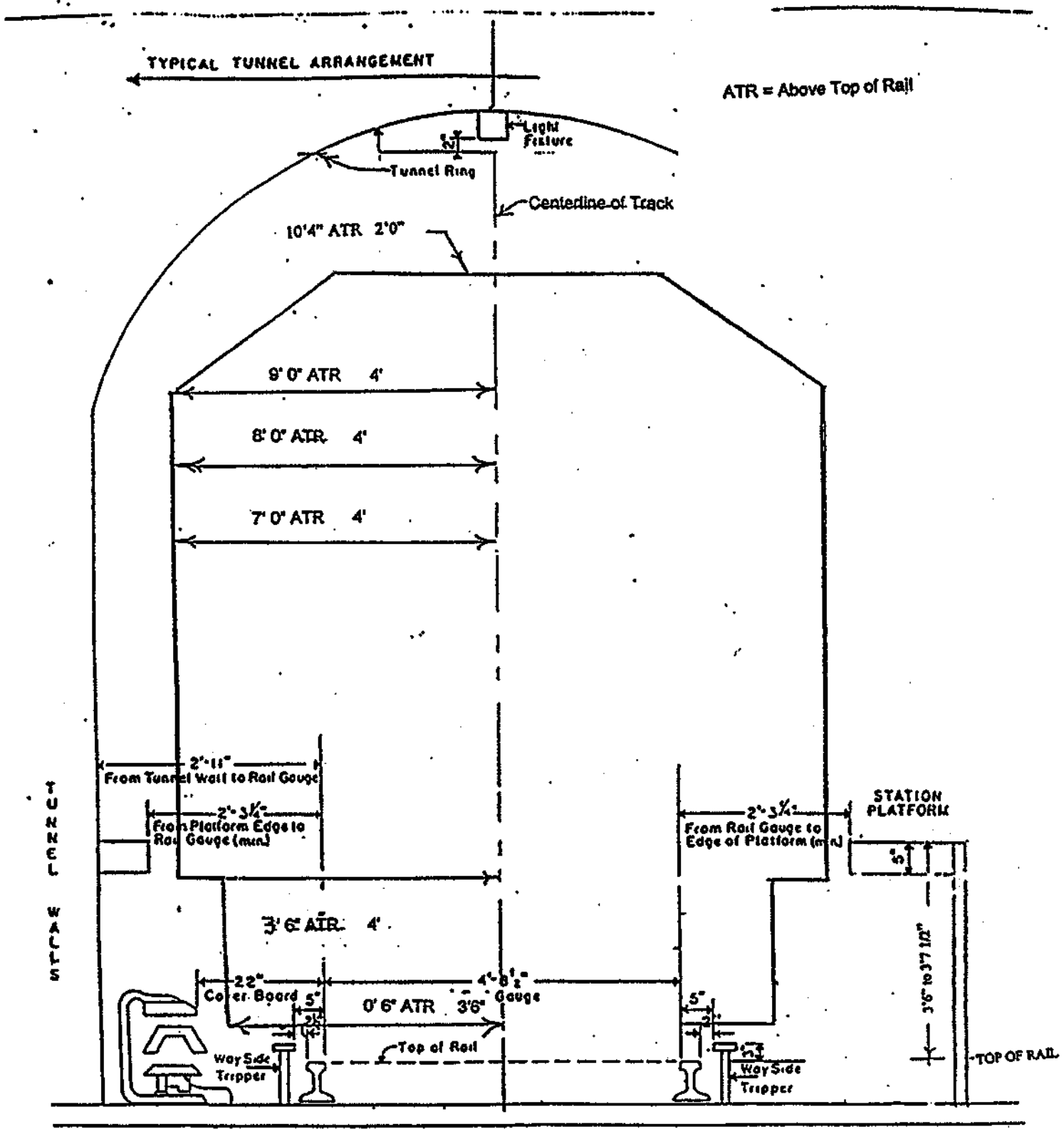
AS BUILT DRAWING  
REVIEWED AND CONFIRMED BY LIX

Reviewed *[Signature]* Date *[Date]*

NO.	REV.	DESCRIPTION	DATE
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CONTRACT PAT 120.007 PA-4 CARS



ATR = Above Top of Rail

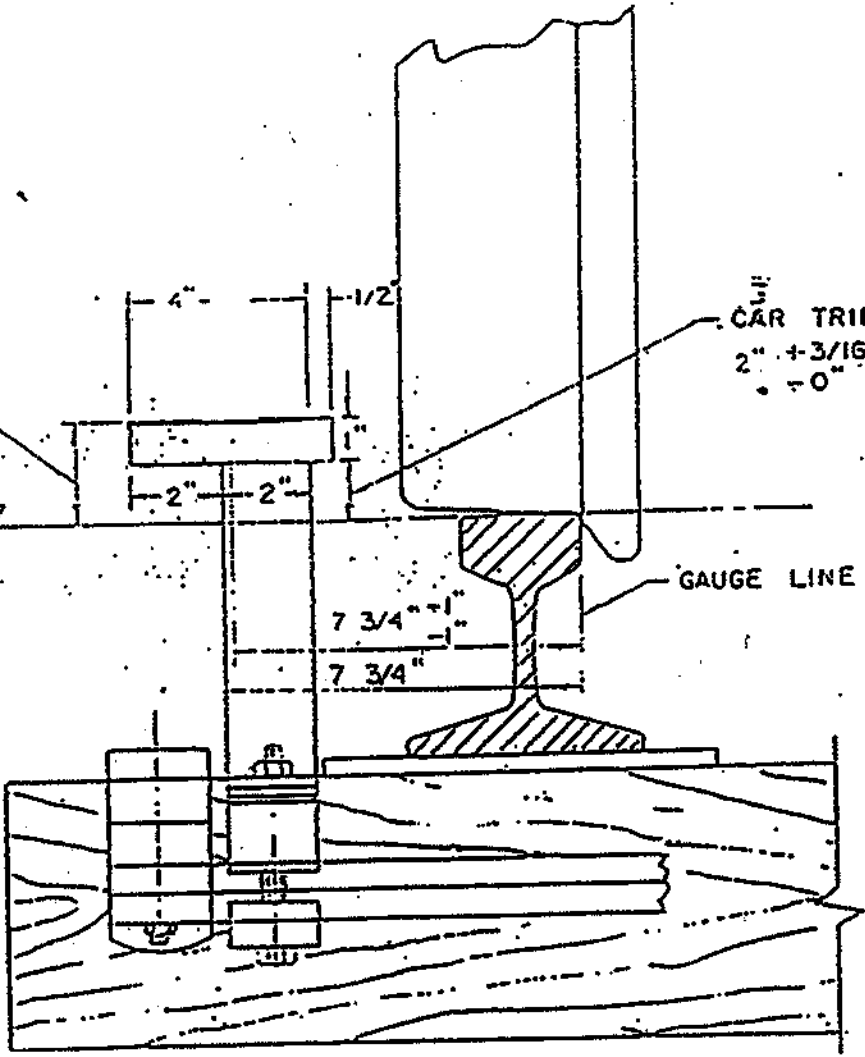
PORT AUTHORITY TRANS-HUDSON CORPORATION  
 Track & Structures Division  
 PATH TRACK FEATURES  
 TUNNEL & OUTSIDE AREAS  
 EQUIPMENT CLEARANCES

  
 Dwg. No.  
 WPS124

Cl. by: S.W.  
 Dr. by: L.A.  
 Scale: 1/8" = 1'-0"  
 Dwg. 5 Feb '82  
 REV 10/2/98

WAYSIDE  
TRIPPER ARM  
3"  $\pm$  1/4"  
-0"

TOP OF RAIL



CAR TRIP COCK  
2"  $\pm$  3/16"  
-0"

GAUGE LINE

7 3/4"  
7 3/4"

REV S  
REV

PORT AUTHORITY TRANS-HUDSON CORP.  
(PATH)  
AUTOMATIC TRAIN STOP TRIPPER ARM  
DATE: 1-20-93 DWG. NO. SK-CL 001 SHEET 1 OF 2

PAT