



## Description of Intended Sole Source Purchase

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This description of commodities or contractual services intended for purchase from a sole source is posted in accordance with section 287.057(3)(c), Florida Statutes and will remain posted for a period of at least seven (7) business days.

**Commodity or Service Required:** Positive Train Control System

**Description:**

The South Florida Rail Corridor (“SFRC”) is a 72-mile rail corridor between mainline M.P. SX964.9 and SX1037 that is owned by the Florida Department of Transportation (“FDOT”) and dispatched and maintained by contractors, under contract to South Florida Regional Transportation Authority (“SFRTA”). Current rail traffic includes Tri-Rail commuter rail service (operated by SFRTA), CSXT freight service, and Amtrak intercity passenger service. CSXT owns and operates the tracks on either end of the SFRC (north of Dyer Interlocking and south/west of Oleander Junction). CSXT also maintains perpetual exclusive freight easement rights on the SFRC, through a separate agreement between FDOT and CSXT.

SFRTA is responsible for procuring and implementing a Positive Train Control (“PTC”) System no later than December 31, 2018 (the “Deadline”) pursuant to the Rail Safety Improvement Act (“RSIA”) of 2008 § 104, Pub. L. 110-432, 122 Stat. 4854 (Oct. 16, 2008) (codified at 9 U.S.C. § 20157) and 49 U.S.C. §20157(a)(2)(A)(i)(1). The purpose of this Sole Source Justification is to outline the process and conclusions reached by SFRTA regarding procurement and implementation of the Work, as defined below.

**Intended Sole Source:**

Xorail, Inc. d/b/a Wabtec Integration Solutions

**Estimated Dollar Amount:**

\$38,848,342.00

**Justification for Sole Source Acquisition:**

**The following summarizes the decision factors that validate the sole sourcing of the Work to Xorail, Inc. (“Xorail”):**

**Interoperability:** Four (4) Class I Railroads (BNSF, UP, NS and CSXT) established the Interoperable Train Control (“ITC”) Committee to develop a comprehensive interoperable technical plan to meet the requirements of RSIA, and the executing statutory rule adopted by the Federal Railroad Administration (FRA), 49 CFR Subpart I (the “PTC Rule”). The ITC Committee developed PTC Interface Control Documents to provide interface standards to allow each of the railroads to seamlessly operate on one another’s property while meeting the statutory requirements of the PTC Rule.

All Class I railroads chose the Wabtec Railway Electronics (“WRE”) Interoperable Electronic Train Management System® (“WRE I-ETMS”) for implementation of their respective PTC programs, primarily based on WRE’s PTC industry experience and the PTC product WRE had already developed in conjunction with BNSF.

UP, NS, and CSXT filed a joint PTC Development Plan based on the WRE I-ETMS, for which FRA granted a Type-Approval (docket number: FRA-TA-2011-02) in 2011 (the “Type-Approved WRE I-ETMS”). In order to provide technical and interoperability compliance with the RSIA, SFRTA will implement a PTC System based on the Type-Approved WRE I-ETMS, as described in SFRTA’s PTC Implementation Plan (PTCIP), filed with the FRA.

To comply with the RSIA requirements, SFRTA, as the host railroad, must ensure that the PTC System for the SFRC is interoperable with the Tri-Rail commuter rail service, the CSXT freight service, and Amtrak’s intercity passenger service, as well as provide

interoperability with other PTC systems for uninterrupted train movements over property boundaries with CSXT on each end of the SFRC by the Deadline.

Additionally, SFRTA cannot implement any improvements, including PTC, on the SFRC that may negatively impact CSXT's ability to provide freight service under the Interstate Commerce Act, thus making it more imperative the PTC System be in place by the Deadline so that freight operations are not interrupted.

**Current Knowledge of Existing SFRC Signal System and Dispatch System:** Xorail, formerly known as Southwest Signal Engineering Company, is the Engineer of Record for the railroad signal system on the SFRC. Additionally, Xorail has been the sole signal designer and contractor for both CSXT and SFRTA on the SFRC since the State purchased the SFRC in 1988. Xorail's exclusive knowledge and experience on the SFRC signal system will be crucial for timely mobilization and project execution under the accelerated schedule in order to meet the Deadline. Any other contractor would require Xorail's support to integrate the various segments comprising integration of the PTC System with the existing SFRC signal system.

**Dispatch System Interface:** The State and SFRTA have made a considerable investment in the Computer Aided Dispatch ("CAD") system, furnished and installed by Ansaldo STS, under separate agreement. The PTC System will also have to be integrated with SFRTA's CAD system, through the Back Office Segment (as defined below). WRE, Xorail's sister company (both are subsidiaries of Westinghouse Air Brake Technologies, Inc. d/b/a Wabtec Corp.), is the I-ETMS product supplier, and has successfully integrated I-ETMS equipment with the Ansaldo STS dispatch system, specifically the CAD system used by CSXT, in Jacksonville, FL.

**Third Party Integration Risk:** The PTC System is comprised of the four segments described below. The work, which is the subject of this Procurement includes, Segments 1-4 and is referred to herein as the "Work."

1. The Locomotive Segment refers to a set of independent on-board hardware, software, and devices that interface with locomotive control equipment (i.e. air brakes, train line, etc.) and includes, among other components, a train management computer (TMC), a computer display unit (CDU), a locomotive identification (ID) module, a GPS receiver, and a brake cut-out switch. The Type-Approved WRE I-ETMS product includes the hardware, software, associated integration, etc. that comprises the Locomotive Segment.
2. The Back Office Segment is comprised of a redundant, hosted back office server (BOS) and associated applications, including the existing CAD system and messaging systems. This segment interfaces with other railroad Back Office Segments (i.e. CSXT, Amtrak), and the other PTC Segments that will be built for SFRTA as part of the PTC System. The hosted BOS was developed by Arinc (now Rockwell Collins) and much of the Intellectual Property used is owned by Wabtec. As mentioned previously, this BOS is also being used by CSXT, which was already integrated with the Ansaldo CAD system.
3. The Wayside Segment consists of those signaling appliances located in the field whose status impacts PTC on-board system operations, along with wayside interface units (WIUs) used to monitor and report their status. Such appliances include interlocking controllers, signal controllers, switch circuit controllers, track circuits, track/route hazard detectors, train defect detectors, or other field devices.
4. The Communications Segment consists of hardware and software components that interface with, and provide connectivity between, the PTC System Segments. The Communications Segment consists of one or more private and commercial communication networks. Its functions allow PTC data traffic to be routed amongst the networks. A private 220 MHz data radio is the primary PTC communication network. The following communications networks may also be part of the Communications Segment: private 802.11 Wi-Fi; commercial ground based and cellular networks; and commercial satellite networks.

The Type-Approved WRE I-ETMS product is based on Interoperable Train Control ("ITC") specifications, which are continuously evolving as new features are added. New product hardware and software releases have also been, and continue to be, released. Major hardware and software components of the Locomotive and Back Office Segments are provided exclusively by WRE.

Integration of each Segment, between Segments, and with CSXT and Amtrak PTC systems is crucial in providing a safe and dependable PTC System on the SFRC. A Third Party Integrator, outside of the Wabtec group of companies, would introduce additional implementation and schedule risks. WRE is the exclusive provider of the I-ETMS components and Xorail (its sister company) is the only contractor capable of providing a turn-key I-ETMS PTC System that includes equipment supply, system design, configuration, installation, testing, and ultimate system integration on the SFRC under the accelerated schedule required to meet the Deadline.

Major PTC System hardware and software components are WRE proprietary products. Xorail, Inc. is a wholly owned subsidiary of Westinghouse Air Brake Technologies, Inc. d/b/a Wabtec Corp., and is a major turnkey contractor for design, installation, interfacing with existing signals, integration, testing, and commissioning of the Type-Approved WRE I-ETMS. In order to deliver a compliant

PTC System, any other prime contractor would require WRE on its team as a major subcontractor and Type-Approved WRE I-ETMS equipment supplier.

**Impact of Indemnification on Schedule:** SFRTA, FDOT, and CSXT have had joint discussions pertaining to resolution of indemnification issues associated with the acquisition of spectrum and MeteorComm radios. MeteorComm radios are the only service proven 220 MHZ radios currently available in the U.S. These issues were also reported by SFRTA to the FRA in SFRTA's PTCIP and Annual Report. SFRTA has expended extensive time and resources in attempting to resolve and/or work around the indemnification issues, including exploring options and negotiating possible solutions regarding these issues. Now, SFRTA has been able to resolve the indemnification issues in a manner that allows this procurement to move forward. SFRTA is now pressed to expeditiously procure a PTC Contractor in order to meet the Deadline.

**Recommended Procurement Approach:** For the reasons stated above, SFRTA intends to utilize the Sole Source procurement method to contract with Xorail as the sole source contractor for the turnkey implementation of the PTC System, including design, product supply, installation, integration, testing, commissioning, certification, training, and placing into service.