IN THE SUPREME COURT OF FLORIDA

Case No.

THAD ALTMAN and
ARTHENIA L. JOYNER,

Petitioners,

v.

HON. RICHARD SCOTT, GOVERNOR,

Respondent.

_____/

EMERGENCY VERIFIED PETITION FOR WRIT OF QUO WARRANTO, OR IN THE ALTERNATIVE, FOR WRIT OF MANDAMUS, OR OTHER EQUITABLE RELIEF

This petition for a writ of quo warranto, or in the alternative, for a writ of mandamus, or other equitable relief, is brought under Article V, Section 3(b)(8) of the Constitution of the State of Florida, Florida Rules of Appellate Procedure 9.030(a)(3) and 9.100, and other relevant authorities to enforce a specific provision of the Constitution of the State of Florida, consistent with the American Recovery and Reinvestment Act of 2009 ("ARRA"), Pub. L. 111-5, 123 Stat. 115 (2009), and Ch. 2009-271 (herein referred to as the "Florida Rail Act").

1. Parties. The Petitioners, Thad Altman and Arthenia Joyner, are Florida citizens, Florida taxpayers, and Senators for the State of Florida for Districts 24 and 18, respectively. The Respondent, the Honorable Richard Scott, is the Governor of the State of Florida.

2. Jurisdiction. This Court has original jurisdiction pursuant to Article V, Section 3(b)(8), Constitution of the State of Florida, and Florida Rule of Civil Procedure 9.030(a)(3).

3. Facts on which Petitioners Rely.

This petition is an emergency petition because Raymond H. LaHood, the United States Secretary of Transportation, has granted the State of Florida until Friday, March 4, 2011, by which to accept the $2.4 billion dollars appropriated for the construction of the high speed rail project from Tampa to Orlando that are the subject of this petition. The American Recovery and Reinvestment Act of 2009 ("ARRA"), Pub. L. 111-5, 123 Stat. 115 (2009), was enacted by Congress in 2009 "[t]o preserve and create jobs and promote economic recovery; assist those most impacted by the recession; [t]o provide investments needed to increase economic efficiency by spurring technological advances in science and health; [t]o invest in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits; and [t]o establish state and local government budgets in order to minimize and avoid reductions in essential services and

counterproductive state and local tax increases." ARRA § 3(a)(1)-(5); *see also Edwards v. State*, 678 S.E.2d 412, 415 (S.C. 2009). In the ARRA, as is typical in federal funding legislation, Congress specifies how the federal funds are to be allocated and spent by the respective states.

Section 1607(a) of the ARRA requires that the Governor, within forty-five (45) days of the enactment of the ARRA, certify that: (1) the State will request and use funds provided by the ARRA; and (2) the funds will be used to create jobs and promote economic development. ARRA § 1607.

On or about March 17, 2009, former Governor Charles Crist made the requisite § 1607(a) certification to President Obama. A copy of the certification is attached hereto and incorporated by reference as Exhibit "A."[1] Two (2) days later, on March 19, 2009, former Governor Crist made a second certification to Secretary Raymond L. LaHood, in which he certified that Florida would maintain its effort with regard to state funding for "covered programs" under the ARRA. The high speed rail project was included among such covered programs. A copy of the

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[1] All of the documents referred to in this Petition are public documents and may be viewed online at various Websites of the United States Department of Transportation, Florida High Speed Rail, and the Florida Department of Transportation. Unfortunately, some of the Florida High Speed Rail Web site documents have very recently been removed by the High Speed Rail Enterprise. Petitioners request that this Court take judicial notice of any such documents as are necessary or proper to resolve this matter. See, Section 90.202 – 90.203, Fla. Stat.

March 19, 2009, certification is attached hereto and incorporated by reference as Exhibit "B." In September 2009, former Governor Crist and the cabinet unanimously approved a resolution in support of Florida seeking $2.6 billion for the Tampa-Orlando high speed rail corridor.

Further, the Florida Legislature in Special Session in December 2009 enacted §§ 341.8201-341.842, *Florida Statutes*, to implement this High Speed Rail Project in Florida. Section 341.822, *Florida Statutes*, in particular, creates the Florida Rail Enterprise as a single budget entity and sets forth the specific method for implementing high speed rail, stating that:

> (1) The enterprise **shall** locate, plan, design, **finance,** construct, maintain, own, operate, administer, and manage the high-speed rail system in the state.
>
> (2)(a) In addition to the powers granted to the department, the enterprise has full authority to exercise all powers granted to it under this chapter. Powers shall include, but are not limited to, the ability to plan, construct, maintain, repair, and operate a high-speed rail system, to acquire corridors, and to coordinate the development and operation of publicly funded passenger rail systems in the state.
>
> (b) It is the express intention of ss. 341.8201-341.842 that the enterprise be authorized to plan, develop, own, purchase, lease, or otherwise acquire, demolish, construct, improve, relocate, equip, repair, maintain, operate, and manage the high-speed rail system; to expend funds to publicize, advertise, and promote the advantages of using the high-speed rail system and its facilities; and to cooperate, coordinate, partner, and contract with other entities, public and private, to accomplish these purposes.

(3) The enterprise shall have the authority to employ procurement methods available to the department under chapters 255, 287, 334, and 337, or otherwise in accordance with law. The enterprise may also solicit proposals and, with legislative approval as evidenced by approval of the project in the department's work program, enter into agreements with private entities, or consortia thereof, for the building, operation, ownership, or financing of the high-speed rail system.

(4) The executive director of the enterprise shall appoint staff, who shall be exempt from part II of chapter 110.

(5) The powers conferred upon the enterprise under ss. 341.8201-341.842 shall be in addition and supplemental to the existing powers of the department, and these powers shall not be construed as repealing any provision of any other law, general or local, but shall supersede such other laws that are inconsistent with the exercise of the powers provided under ss. 341.8201-341.842 and provide a complete method for the exercise of such powers granted.

(6) Any proposed rail enterprise project or improvement shall be developed in accordance with the Florida Transportation Plan and the work program under s. 339.135.

(Emphasis added.)

Section 341.303(6)(a), *Florida Statutes*, specifically requires that the Florida Rail Enterprise shall be a single budget entity and shall develop a budget in accordance with Chapter 216. § 341.303(6)(a), Fla. Stat. Further, "[t]he enterprise's budget shall be submitted to the Legislature along with the department's budget." As such, the Enterprise's funding is controlled by the Legislature, not the Governor.

Importantly, the Florida Rail Act specifically creates a dedicated funding source of $60 million per year to the Florida Rail Enterprise beginning in 2014 from documentary stamp tax revenues allocated to the State Transportation Trust Fund. Section 201.15(1)(c), Fla. Stat. The Governor's actions in aborting high speed rail in Florida has effectively, by executive conduct, repealed this appropriation of funds from this designated source.

On January 28, 2010, the U.S. Department of Transportation awarded $1.25 billion to the State of Florida for high speed rail. A copy of the letter of award is attached to and incorporated by reference to this Petition as Exhibit "C." The Legislature acted on Governor Crist's prior certifications and the Florida Rail Act, and, through the 2010 General Appropriation Act, the Legislature appropriated $130.8 million of the ARRA funds in the 2010 Budget. *See* 2010 General Appropriations Act, 2010 Fla. Laws Ch. 2010-152, § 1963. As discussed below, by the Governor's conduct in rejecting high speed rail in Florida on February 16, 2011, he has (almost 9 months after the appropriation) sought to belatedly veto this specific appropriation.

On May 7, 2010, the U.S. Department of Transportation, Federal Railway Administration, issued a Record of Decision that effectively gave the State of Florida the "green light" to proceed with the design, engineering, right of way acquisition, and construction of the high speed rail project. Specifically, the

Federal Railway Administration found that the requirements of the National Environmental Policy Act, 40 CFR Part 1505.2, had been satisfied for the Florida High Speed Rail Project from Tampa to Orlando. The Record of Decision and Appendices B and C are attached hereto and incorporated by reference as Exhibit "D."

On May 19, 2010, the Federal Railroad Administration and the Florida Rail Enterprise entered into Grant/Cooperative Agreement by which the U.S. Department of Transportation agreed to distribute $66.6 million of the $130.8 million appropriated by the Florida Legislature in the spring of 2010. A copy of the Grant/Cooperative Agreement is attached to and incorporated by reference into this Petition as Exhibit "E."

On June 28, 2010, the U.S. Department of Transportation (USDOT) awarded the State of Florida an additional $342 million. As a result of these two awards ($1.25 billion and $342 million), in October 2010, the Florida Rail Enterprise fully negotiated and completed a Grant Amendment with the USDOT that provides that the USDOT would fund an additional $1,525,660,128 for a total at that point of $1.592 billion. A copy of the Grant Amendment is attached to and incorporated by reference as Exhibit "F." In late 2010, the USDOT further awarded an additional $800 million to the Florida Rail Enterprise, resulting in a

total award of $2.4 billion as part of the Legislature's Florida Rail Act and its appropriation in the spring of 2010.

Importantly, both the applications for and award of these monies occurred and were completed under a prior Legislature and a prior Governor. The legislation implementing high speed rail and the appropriations of the state and federal monies were fully accomplished prior to the election or inauguration of the Respondent. Copies of cover letters for the State's applications are attached as Composite Exhibit "G," which is attached hereto and incorporated by reference.

The Respondent was elected in November 2010 and inaugurated in January 2011. Once elected, Governor Scott has refused to permit the Grant Amendment to be executed by the Florida Rail Enterprise, even though the terms of these documents have been fully negotiated and were submitted to the Florida Rail Enterprise by the USDOT for signature.

In a letter dated February 16, 2011, Respondent took the unilateral action of attempting to reject the funds that had been appropriated by the Legislature and to be funded by the U.S. Department of Transportation (USDOT), even though the Legislature had passed the Florida Rail Act specifically directing the Florida Rail Enterprise to finance and construct a high speed rail system and had appropriated $130.8 million to implement the awards from the USDOT; the Florida Rail Enterprise had fulfilled its obligation to obtain financing of the high speed rail

system by obtaining from the U.S. Department of Transportation three awards totaling $2.54 billion to build such system; the Florida Rail Enterprise had entered into a $66.6 million Grant Agreement with the USDOT to begin the system; in order to implement the award and the Legislature's appropriations the Florida Rail Enterprise had negotiated and was waiting to sign the Amendment to the Grant in the amount of $1.5 billion; and various Statements of Work had been negotiated and completed regarding such Grant, as amended. A copy of such letter is attached hereto and incorporated by reference as Exhibit "H."

Instead of completing the ministerial act of accepting the funds for the high speed rail project as he was required to do, Respondent instead requested that the monies be used for other Florida infrastructure projects.[2] Such a claim of authority and the attempt to (1) reject the monies appropriated by the Florida Legislature; (2) reject financing specifically mandated by the Florida Rail Act; and (3) refuse to comply with the express directions of the High Speed Rail Act, all exceed Respondent's constitutional authority.

Specifically, based upon such legislation and appropriation, which were not vetoed by Florida's prior governor, Respondent is without authority to now, many

[2] It is clear that Respondent is not philosophically opposed to taking the ARRA monies. He wants the $2. 4 billion for Florida. He just refuses to apply it to high speed rail. Under federal law, the monies simply cannot be used for other projects.

months later, to effectively veto such legislation and reduce such completed appropriations retroactively.

4. Nature of Relief Sought. Petitioners seek a writ of quo warranto, mandamus, or such other equitable relief as the Court finds proper, including a temporary and permanent injunction, requiring that the Respondent accept the ARRA funds and apply the funds to the Florida High Speed Rail Project as appropriated by the Legislature of the State of Florida.

5. Argument.

I. THIS COURT HAS THE ORIGINAL JURISDICTION, AUTHORITY, AND DUTY TO ACT UPON THIS PETITION FOR A WRIT OF QUO WARRANTO OR, IN THE ALTERNATIVE, A WRIT OF MANDAMUS OR OTHER EQUITABLE RELIEF.

Article V, Section 3(b)(8) of the Constitution of the State of Florida authorizes this Court to issue writs of quo warranto, mandamus, and other equitable relief. Art. V, § 3(b)(8), Fla. Const. This Court has original jurisdiction to issue such writs, including the authority to issue writs of quo warranto and mandamus to "state officers and state agencies." Art. V, § 3(b)(8), Fla. Const.; Fla. R. App. P. 9.030(a)(3). As the Governor is a state officer, he is subject to this Court's jurisdiction under Article V, Section 3(b)(8). *See, e.g., Fla. House of Reps. v. Crist*, 999 So. 2d 601, 607 (Fla. 2008).

"Quo warranto is the proper method to test the 'exercise of some right or privilege, the peculiar powers of which are derived from the State.'" *Martinez v.*

Martinez, 545 So. 2d 1338, 1339 (Fla. 1989) (quoting *Winter v. Mack*, 194 So. 225, 228 (Fla. 1940)). Further, this Court has stated that quo warranto is "the proper vehicle to challenge the 'power and authority' of a constitutional officer, such as the Governor." *Crist v. Fla. Ass'n. of Crim. Def. Lawyers, Inc.*, 978 So. 2d 134, 139 n. 3 (Fla. 2008) (citing *Austin v. State ex re. Christian*, 310 So. 2d 289, 290 (Fla. 1975)). In the alternative, mandamus "is a common law remedy used to enforce an 'established legal right by compelling a person in an official capacity to perform an indisputable ministerial duty required by law.'" *Smith v. State*, 696 So.2d 814, 815 (Fla. 2d DCA 1997) (citing *Puckett v. Gentry*, 577 So.2d 965, 967 (Fla. 5th DCA 1991)). Petitioners are entitled to mandamus to compel the Respondent to comply the appropriations and the requirements of the Florida Rail Act – specifically the Act's express prohibition of the Governor from interfering with the operations of the Florida Rail Enterprise; and is also entitled to a writ of quo warranto stating that Respondent does not have the authority to take the action that he has taken.

II. THE GOVERNOR HAS NO AUTHORITY TO (A) REJECT THE SPECIFIC APPROPRIATIONS BY THE FLORIDA LEGISLATURE, OR (B) REJECT THE EXPRESS DIRECTIVES OF THE HIGH SPEED RAIL ACT.

A. The Governor May Not Reject The Specific Appropriations By The Florida Legislature.

The principal functions of Florida's government are divided into three coordinate branches, none of which is superior to the others. Specifically, Article II, section 3 of the Florida Constitution states that the "powers of the state government shall be divided into legislative, executive and judicial branches" and that "[n]o person belonging to one branch shall exercise any powers appertaining to either of the other branches unless expressly provided herein." Art II, § 3, Fla. Const. "Separation of powers is a potent doctrine that is central to our constitutional form of state government." *Kalway v. Singletary*, 708 So. 2d 267, 269 (Fla. 1998).[3]

In Florida's tripartite system of government, the Legislature has the duty and authority to appropriate money as necessary for the operation of the agencies of government and has the right to specify the conditions under which the appropriated monies shall be spent. Art. III, § 19, Fla. Const.; *see also Chiles*, 589 So. 2d at 265 (recognizing that the power to appropriate funds falls within the

[3] The natural tension created by the separation of powers doctrine embodied in Article II, Section 3 of Florida's Constitution was intended to prevent overreaching by any one branch, and saves the people from autocracy. *See Chiles v. Children A, B, C, D, E, & F*, 589 So. 2d 260, 263 (Fla. 1991) ("The fundamental concern of keeping the individual branches separate is that the fusion of the powers of any two branches into the same department would ultimately result in the destruction of liberty."); *In re. Advisory Opinion to the Governor*, 276 So. 2d 25, 30 (Fla. 1973) ("The preservation of the inherent powers of the three branches of government, free of encroachment or infringement by one upon the other, is essential to the effective operation of our constitutional system of government."

province of the Legislature). This necessarily includes the duty to appropriate and authorize the use of all federal funds available to the State.[4]

Simply put, money can be drawn from the treasury only pursuant to appropriations made by law. Art. IV, §1(c), Fla. Const. ("No money shall be drawn from the treasury except in pursuance of appropriation made by law."). That is to say, "[u]nder the Florida Constitution, exclusive control over public funds rest solely with the legislature." *State v. Fla. Police Benev. Ass'n, Inc.*, 613 So. 2d 415, 418 (Fla. 1992); *see also State ex rel. Kurz v. Lee*, 163 So. 859, 868 (Fla. 1935) (requiring legislative appropriation prevents expenditure of public money "without the consent of the public given by their representatives in formal legislative Acts . . . [and secures to the legislature] the exclusive power of deciding how, when, and for what purpose the public funds shall be applied in carrying on the government.").

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[4] Section 216.212(3), Florida Statutes, states that "Federal money appropriated by Congress or received from court settlements to be used for state purposes, whether by itself or in conjunction with moneys appropriated by the Legislature, **may not be expended unless appropriated by the Legislature.**" § 216.212(3), Fla. Stat. (emphasis added). Further, the statute states that "the Executive Office of the Governor or the Chief Justice of the Supreme Court **may, after consultation with the legislative appropriations committees,** approve the receipt and expenditure of funds from federal sources by state agencies or by the judicial branch." *Id.* (emphasis added).

As this Florida Supreme Court ruled in *Chiles v. Children A, B, C, D, E, and F, et al.*, 589 So. 2d 260 (Fla. 1991), "this Court has long held that the power to appropriate state funds is legislative and is to be exercised only through duly enacted statutes." .... "*Such a provision secures to the Legislative (except where the Constitution controls to the contrary) the exclusive power of deciding how, when, and for what purpose the public funds shall be applied in carrying on the government....* "Furthermore, the power to *reduce* appropriations, like any other lawmaking, is a legislative function." (Emphases in original). As such, the right, authority, and the power **to fund** the aforesaid appropriations, and the decision to reduce such funding, whether by state or federal funds, for the implementation of the Florida Rail Act lie exclusively with the Florida Legislature – not with the Governor. Simply stated, whether such funds derive from the state or from federal funds granted to the state, the appropriation of such funds constitutionally lies exclusively with the Florida Legislature.

In addressing a remarkably similar issue, the Supreme Court of South Carolina recently held that the executive branch was obligated to both apply for and accept the receipt of federal funds under the ARRA. *Edwards v. State*, 678 S.E. 2d 412 (S.C. 2009). In *Edwards*, the Governor of South Carolina made the requisite certification under § 1607(a) on April 3, 2009. *Id.* at 415. The legislative body of South Carolina, on May 13, 2009, then acted on the Governor's

certification and appropriated the ARRA funds in the state budget. *Id.* After certifying that the State of South Carolina would request and use the funds provided by the ARRA and after the state legislature had acted upon this certification and appropriated funds into the budget, the South Carolina Governor then refused to apply formally for the funds. *Id.* at 416.

On a petition for writ of mandamus, the court held that under South Carolina law, the Governor was obligated to apply for and accept the receipt of federal funds specified for South Carolina under the ARRA and that mandamus was warranted to compel the Governor to do so. Specifically, the Court held that "[a] writ of mandamus may issue against a Governor for the performance of a purely ministerial act" and that "[t]he duty to execute the Budget, as properly enacted by the [Legislature], is a ministerial duty of the Governor [i.e.-] [h]e has no discretion concerning the appropriation of funds." *Id.* at 419-20 (citations omitted). The fact that the South Carolina General Assembly is the sole entity with the power to appropriate funds under South Carolina law was critical to the Court's analysis. *Id.* at 417.

Indeed, the constitutional provisions regarding the appropriation of public funds at issue in *Edwards* are similar to the provisions contained in the Florida Constitution. Here, in its appropriation of the funds in the Budget, including any ARRA funds, the Florida Legislature has acted on Governor Crist's § 1607(a)

certification and appropriated the ARRA funds in the 2010 Budget, clearly expressing the people of Florida's desire and intention to receive the federal funding available under the ARRA.

Equally, the Florida Constitution and Florida law grants the Legislature with the sole authority to appropriate funds. It is the constitutional duty of the Legislature to appropriate funds, as well as to reduce appropriations available to the State of Florida. *Chiles*, 589 So. 2d at 265. Now, a newly-elected Governor attempts to reject the federal money that has been previously appropriated by the Legislature in an attempted post-hoc veto of an appropriation, simply because he does not agree with the federal directives on how this money is to be spent. The Governor, by his actions of refusing to accept funds coming to the State of Florida from the federal government, is unconstitutionally exercising legislative authority by effectively reducing the appropriations of the State of Florida, a unilateral power which the Governor has not been granted under the State's Constitution.

In sum, under the Florida Constitution and Florida law, the Legislature is the sole entity with the power to appropriate funds, and this power necessarily includes the appropriation of federal funds. By rejecting receipt of previously appropriated federal funding, the Governor impermissibly treads on the legislature's authority and exceeds the constitutional authority granted to the executive branch. The power to appropriate funds of the State of Florida resides in the legislature under

Article III of the Florida Constitution, and the Governor cannot usurp this power short of a constitutional amendment.

B. The Governor Has No Authority To Refuse To Comply with the Express Directives of the High Speed Rail Act.

The planning and implementation of large transportation projects require long time frames due to the complex procedures involved with the planning, financing, assessing environmental impacts, acquiring property, constructing, and complying with all other regulatory requirements imposed on such projects. Accordingly, Florida has developed a comprehensive scheme of planning and legislation to address the transportation needs of the state. As part of its Growth Management legislation in 1985, a State Comprehensive Plan was enacted to guide the orderly social, economic, and physical growth of the State of Florida. *See* Ch. 187, Fla. Stat.

Section 19 of the Comprehensive Plan stated as a matter of policy that the State was to establish a high-speed rail system linking the Tampa Bay area, Orlando, and Miami. While there have been amendments and changes to the State Comprehensive Plan since 1985, the high speed rail policy has retained its vitality and continues to be an integral part of the transportation element of the State Comprehensive Plan.

In order to focus the planning and construction of transportation projects in the State of Florida, the Legislature in § 339.155, *Florida Statutes*, requires the

Department of Transportation to develop and annually update the Florida Transportation Plan which is to establish and define the state's long range transportation goals and objectives that are to be accomplished over a period of at least 20 years within the context of the State Comprehensive Plan. § 339.155, Fla. Stat. In addition, § 339.135((4)(b)(2), *Florida Statutes*, mandates that the Department of Transportation adopt a 5-year work program for transportation projects in the State of Florida in accordance with Florida Transportation Plan. Each part of the planning and implementation process for a transportation project is to be guided by the State Comprehensive Plan until the project reaches fruition.

The revision of the State Comprehensive Plan is a continuing process, and the Executive Office of the Governor is to review and analyze the plan biennially. § 186.007(8) Fla. Stat. If the Governor determines changes to the State Comprehensive Plan are necessary, the Governor is to submit recommended changes to the Legislature for its approval. § 186.007(8) Fla. Stat.

On December 8, 2009, meeting in special session, the Florida Legislature created the framework for addressing Florida's current and future rail system with the adoption of the High Speed Rail Act. The High Speed Rail Act, §§ 342.8201-341.842, *Florida Statutes*, prescribes an agency designated as the Florida Rail Enterprise, much like the Florida Turnpike Enterprise which operates the Florida

Turnpike. *See generally*, the Florida Turnpike Enterprises Law at Secs. 338.22-338.241, Fla. Stat. 2010.

The Florida Rail Enterprise is organized within the Florida Department of Transportation, but is "headed by an executive director." § 20.23(5)(a), Fla. Stat. (2010). The executive director is responsible for the implementation of the lawfully delegated duties of the Florida Rail Enterprise, including the appointment of staff. § 341.822(4), Fla. Stat. (2010).

The Florida Rail Enterprise has the sole power and authority to plan, finance, construct, and operate high-speed rail system in Florida (the "HSR System"). "The powers conferred upon the [Florida Rail E]nterprise under [the High Speed Rail Act] shall be in addition and supplemental to the existing powers of the [Florida Department of Transportation], and these powers shall not be construed as repealing any provision of any other law, general or local, but shall supersede such other laws that are inconsistent with the exercise of the powers provided under [the High Speed Rail Act] and provide a complete method for the exercise of such powers granted." § 341.822(5), Fla. Stat. (2010).

The Florida Legislature intended that, once appropriations were made and authorized by the Legislature, the Florida Rail Enterprise shall have the full authority to comply with its legislative mandate, free from outside interference. The Florida Rail Enterprise is granted full controlover the financing and operation

of the HSR System. For example, the Florida Rail Act provides that all "[f]ares, rates, rents, fees, and charges established, revised, charged, and collected by the [Florida Rail E]nterprise pursuant to this section shall not be subject to supervision or regulation by any other department, commission, board, body, bureau, or agency of this state other than the [Florida Rail E]nterprise." § 341.836(2), Fla. Stat. (2010). Further, § 20.23, Fla. Stat., directs the Secretary of Transportation to delegate responsibility for developing and operating high speed rail to the executive director of the enterprise, who serves at the pleasure of the Secretary. § 20.23(4)(f)(1), Fla. Stat. The Florida Rail Enterprise is exempt from the Department of Transportation's policies, procedures, and standards. § 20.23(4)(f)(2), Fla. Stat.

Additionally, and importantly, the Legislature crafted the legislation so that the Florida Rail Enterprise function without interference from other executive branch officials. "Except as otherwise expressly provided [by the Florida Act], none of the powers granted to the [Florida Rail E]nterprise under [the Florida Rail Act] are subject to the supervision or require the approval or consent of any municipality or political subdivision or any commission, board, body, bureau, or **official**." § 341.839, Fla. Stat. (2010). (Emphasis added). The Governor is an official within the meaning of the Act, and is not permitted to interfere with the implementation of high speed rail.

The delegation of the power and independence to the Florida Rail Enterprise was an intentional element of the Legislature's policy because the evaluation and selection criteria for the award of ARRA funds to the Florida Rail Enterprise included a requirement that the Florida Rail Enterprise "affirmatively demonstrate that it has or will have the legal...capacity to carry out [high-speed rail.]" *See* High-Speed Intercity Passenger Rail "Notice of Funding Availability," Fed. Reg. Vol. 74, No. 119 at 29921 (June 23, 2009).

Had the Legislature intended for the Governor to exercise significant control of the HSR System, it would have simply delegated authority over the system to the Secretary of the Florida Department of Transportation, the Governor, or the Executive Office of the Governor. Instead, except for the power to hire and fire the Department's secretary and the secretary's authority to fire the Florida Rail Authority's executive director, the Legislature specifically removed such authority and power from the Governor. In any event, in the present case, the financing has been accomplished and cannot now be unilaterally rejected by the Governor.

The High Speed Rail Act **requires** the Florida Rail Enterprise to finance and construct the high speed rail system for the state. There is no discretion. As such, the authority to, **and the requirement to**, implement and execute upon the financing of high speed rail is **imposed upon** the Florida Rail Enterprise. Both explicitly and implicitly, the Legislature has set forth a specific methodology for

implementing high speed rail. The Florida Rail Enterprise's executive director has no discretion to reject such financing as determined by the Legislature.

The State Comprehensive Plan is a direction setting document and its policies are implemented only to the extent that financial resources are provided pursuant to legislative appropriation or grants or appropriations of any other public or private entities. § 187.104, Fla. Stat. The appropriations and the funds which are the subject of this Petition represent the appropriations to implement the high speed rail elements in the State Comprehensive Plan and the High Speed Rail Act.

The Governor has no authority to refuse to implement the directives of the state law, especially funding that has already been applied for and awarded to the State of Florida when state law mandates the High Speed Rail Enterprise "... shall locate, plan design, finance, construct, maintain, own, operate, administer, and manage the high-speed rail system in Florida." § 341.822(1) Fla. Stat.

The construction of large transportation projects may span the administration of many governors. The State of Florida has adopted by law a state policy to build this transportation project. The legislature has appropriated the funds for this project. The Governor has unilaterally decided the State of Florida will not move forward with this transportation project.

If every newly elected governor decided to stop the major infrastructure project which were underway when he was elected, after the State of Florida has

adopted by state law a policy to build the major infrastructure project; the Legislature has appropriated the funds for the project and directed the construction of the project, Florida will not be able to plan, finance, and construct the major infrastructure projects it requires for its people and its future.

III. CONCLUSION

The Petitioners respectfully submit that the foregoing authority provide a clear duty for the Respondent to accept the ARRA funds and apply the funds appropriated by Congress and the Florida Legislature for the Florida High Speed Rail Project. As such, Petitioners respectfully request that this Court grant this Petition and order the Respondent to expeditiously accept the funds and apply such funds appropriated by Congress and the Florida Legislature for the Florida High Speed Rail Project.

Further, if it deems it necessary or appropriate, Petitioners respectfully request that this Court enter a preliminary injunction while the Court fully considers these matters. In that regard, there is a probability of success on the merits, there is no adequate remedy at law, an injunction will benefit the people and public policy in Florida, and irreparable injury to Petitioners and the entire state of Florida will occur if a preliminary, and ultimately a permanent, injunction are not issued in this case.

Respectfully submitted,

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Attorneys for Thad Altman
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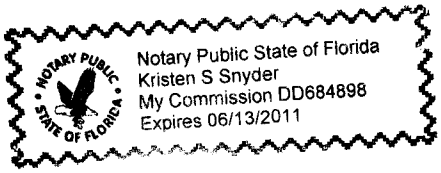
CERTIFICATE OF COMPLIANCE

The undersigned hereby certifies that this Petition complies with Rule 9.100(l), *Florida Rules of Appellate Procedure.*

CLIFTON A. McCLELLAND, JR.
Florida Bar No. 119792

STATE OF FLORIDA
COUNTY OF BREVARD

Before me, the undersigned authority, personally appeared THAD ALTMAN who was sworn and says the facts in the foregoing Petition are true and correct to the best of his information and belief.



Thad Altman
THAD ALTMAN

Sworn to and subscribed before me this 28th Day of February, 2011, by THAD ALTMAN who is personally known to me.

Kristen S. Snyder
Kristen S Snyder
Notary Republic

EXHIBIT

"A"

CHARLIE CRIST
GOVERNOR

March 17, 2009

The Honorable Barack Obama
President of the United States
The White House
1600 Pennsylvania Avenue, NW
Washington, D.C. 20500

Dear Mr. President:

The people of Florida have historically contributed significantly more in federal tax payments than the amount of federal funds that return to our State. Now, at a time when many families are facing extraordinary difficulties due to the decline in the economy, it is critical that we ensure that Floridians are able to access the federal resources made available by the American Recovery and Reinvestment Act of 2009.

Therefore, pursuant to section 1607 of the Act, I certify that the State of Florida will request and use funds provided by this Act and the funds will be used to create jobs and promote economic growth.

In implementing the provisions of the Act, it is my intent to continue to consult closely with the Florida Legislature and ensure compliance with applicable provisions of State law. It is further my intent to ensure that the highest standards of fiscal integrity, transparency and accountability are met in the administration of these funds.

I trust this certification fulfills the requirements of section 1607 of the American Recovery and Reinvestment Act of 2009. Please let me know if you need additional information.

Sincerely,

Charlie Crist

cc: Mr. Peter Orszag, Director
Office of Management and Budget
(via electronic certification)

Florida Congressional Delegation

THE CAPITOL
TALLAHASSEE, FLORIDA 32399 • (850) 488-2272 • FAX (850) 922-4292

EXHIBIT

"B"

CHARLIE CRIST
GOVERNOR

March 19, 2009

Secretary Raymond H. LaHood
United States Department of Transportation
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

Dear Secretary LaHood:

Pursuant to Title XII, section 1201 of the American Recovery and Reinvestment Act of 2009 (ARRA), I certify that the State of Florida will maintain its effort with regard to State funding for the types of projects in Department of Transportation (DOT) "covered programs" funded under ARRA.

In addition, I have attached a list of Department of Transportation "covered programs" which identifies the amount of funds the State plans to expend from State sources from February 17, 2009 to September 30, 2010, funded under ARRA.[1] I understand that if the State is unable to maintain the level of funding identified in this list on the types of projects under the DOT "covered programs" funded under ARRA, the State will thereafter be prohibited from receiving additional limitations on obligations for Federal-aid highway and highway safety construction programs that occur after August 1 for fiscal year 2011.

Please let me know if additional information is needed.

Sincerely,

Charlie Crist

Attachment

[1] These funds are derived from dedicated funding sources by Florida law. These sources are subject to fluctuations resulting from economic conditions; however, the sources remain dedicated to transportation projects. The funding mechanisms will remain unchanged.

THE CAPITOL
TALLAHASSEE, FLORIDA 32399 • (850) 488-2272 • FAX (850) 922-4292

Attachment

LIST OF DOT "COVERED PROGRAMS" UNDER ARRA AND THE FLORIDA SPECIFIC STATE FUNDING AMOUNTS FOR THE TYPES OF PROJECTS UNDER THE DOT "COVERED PROGRAMS

"Supplemental Discretionary Grants for a National Surface Transportation System"-Office of the Secretary of Transportation- To the extent that the state provides funding in this federal category, it is included in the "Highway Infrastructure Investment" category.

"Supplemental Funding for Facilities and Equipment"- Federal Aviation Administration-To the extent that the state provides funding in this federal category, it is included in the "Grants-in-Aid for Airports" category.

"Grants-in-Aid for Airports"- Federal Aviation Administration- $209.7 million.

"Highway Infrastructure Investment"- Federal Highway Administration- $2.328 billion

"Capital Assistance for High Speed Rail Corridors and Intercity Passenger Rail Service"-Federal Railroad Administration- To the extent that the state provides funding in this federal category, it is included in the "Transit Capital Assistance" category.

"Capital Grants to the National Railroad Passenger Corporation"- Federal Railroad Administration –Not applicable.

"Transit Capital Assistance"- Federal Transit Administration- $406.5 million

"Fixed Guideway Infrastructure Investment"- Federal Transit Administration- To the extent that the state provides funding in this federal category, it is included in the "Transit Capital Assistance" category.

"Capital Investment Grants"- Federal Transit Administration- To the extent that the state provides funding in this federal category, it is included in the "Transit Capital Assistance" category.

"Supplemental Grants for Assistance to Small Shipyards"- Maritime Administration- Not applicable.

EXHIBIT

"C"

U.S. Department
of Transportation

**Federal Railroad
Administration**

Administrator

1200 New Jersey Avenue, SE
Washington, DC 20590

January 28, 2010

The Honorable Stephanie C. Kopelousos
Secretary, Florida Department of Transportation
605 Suwannee Street
Tallahassee, FL 32399-0450

RE: High-Speed Intercity Passenger Rail Program Selection Decisions

Dear Secretary Kopelousos,

On behalf of President Obama, Vice President Biden, and Secretary of Transportation LaHood, I thank you for your interest in the historic High-Speed Intercity Passenger Rail (HSIPR) Program. We look forward to building upon the relationships established during last summer's outreach and pre-application process to make passenger rail a safe and competitive transportation option in Florida and throughout the United States. Through our initial outreach workshops in May and June of 2009 and subsequent conference calls, meetings and other feedback, you have played a central role in helping to shape this truly collaborative program.

HSIPR is a new and ambitious endeavor—for the Department of Transportation, for the Federal Railroad Administration (FRA), for the states, and for the country—and we have a great deal of work ahead of us. These awards are just the beginning of a new level of federal engagement in building a safe, world-class passenger rail infrastructure in the United States.

Our initial investment decisions are focused in three key areas: 1) building new high-speed rail corridors that will fundamentally change passenger transportation in the markets they serve; 2) upgrading existing intercity passenger rail services; and 3) laying the groundwork for future high-speed rail services through smaller projects and planning efforts.

The HSIPR Program has generated enormous interest and excitement across the country. FRA received 259 grant applications from 37 states and the District of Columbia requesting nearly $57 billion in funding—far exceeding the initial $8 billion available. In order to reach the funding decisions detailed below, FRA employed a thorough, merit-based application review process based upon requirements contained in the American Recovery and Reinvestment Act of 2009 (ARRA) and Passenger Rail Investment and Improvement Act of 2008 (PRIIA).

Applications were first screened to determine whether the applicant and the proposed project were eligible and complied with prerequisites outlined in the Interim HSIPR Program Guidance (Interim Guidance), which were based upon criteria stated in ARRA, PRIIA, and consistent with strategic transportation goals. Eligible applications were then assessed by expert panels at the Department of Transportation in conjunction with the evaluation criteria contained in the Interim Guidance. Following the review, Secretary LaHood made final selections to ensure broad program goals were addressed holistically as reflected in the selection criteria contained in the Interim Guidance and in line with the Department's strategic transportation goals.

Below is a listing of the final selection decisions for the four grant application(s) submitted by the State of Florida.

APPLICATIONS SELECTED

MAJOR CORRIDOR PROGRAM

The following application(s) has been selected contingent upon achieving milestone targets. Given the scope and complexity of this project(s), FRA will be working with you to draft an agreement that will describe project milestones and the process for moving from contingent funding to award. The Grant Solutions number(s) and project name(s) of the application(s) are:

- HSR2010000237; Tampa/Orlando/Miami HSR Express; Track 2

APPLICATIONS NOT SELECTED

FUNDING LIMITATIONS / EVALUATION

The following application(s) was eligible and ready for consideration, but was not selected during this round due to the intense competition for funding and the results of our merit review process. FRA is available to work with you to further refine

and develop this project(s) for potential funding in the future. The Grant Solutions number(s), project name(s) and track(s) of the application(s) are:

- HSR2009000036; Central Florida Rail Passenger Corridor; Track 1a

PROJECT NOT YET READY

The following application(s) did not meet one or more project prerequisites outlined in the Interim Guidance. While the activities of the proposed project appeared to be eligible under the HSIPR Program, the application materials did not demonstrate that the project was sufficiently developed to receive funding for the proposed activities, and in some cases, did not include all materials necessary to adequately evaluate the project. An FRA representative can provide you with further details. The Grant Solutions number(s), project name(s) and track(s) of the application(s) are:

- HSR2010000219; Florida East Coast Amtrak Service; Track 2
- HSR2010000155; High-Speed Rail Orlando To Miami- Preliminary Design & Engineering; Track 1b

An FRA representative will contact your staff shortly to schedule a conference call to discuss your application(s) and next steps. Additionally, FRA intends to hold regular calls with all applicants to ensure that we continue to build upon the collaborative relationship developed in 2009. If you have any questions, please visit FRA's High-Speed Rail website, as grantee information will be continuously updated: http://www.fra.dot.gov.

These selections are just the first step towards achieving the President's vision for High-Speed Intercity Passenger Rail. In December 2009, Congress appropriated an additional $2.5 billion for the HSIPR Program. FRA will be in contact with you shortly concerning this and other subsequent opportunities for further developing Florida's High-Speed Intercity Passenger Rail Program.

Again, thank you for your interest in the HSIPR Program. We are excited to embark on this partnership with you as we work together to build a sustainable high-speed rail program in your state and throughout the nation.

Sincerely,

Joseph C. Szabo
Administrator

EXHIBIT

"D, Part 1"

U.S. Department of Transportation
Federal Railroad Administration

Record of Decision/Section 4(f) Determination

FLORIDA HIGH SPEED RAIL

Tampa to Orlando

Hillsborough, Polk, Osceola and Orange Counties, Florida

Financial Project ID No.: 411253 1 94 03
Federal Aid Project No.: N/A

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APPENDICES

1. SUMMARY

This document records the decision of the Federal Railroad Administration (FRA) regarding the Florida High Speed Rail Project from Tampa to Orlando proposed by the Florida Department of Transportation (FDOT). In making this decision, the agency considered the information, analysis and public comments contained in the 2005 Final Environmental Impact Statement (FEIS) and the more recent 2009 FEIS Reevaluation (2009) to determine the alignment location and station sites for further project development into design and construction. Additional coordination between FDOT, FRA and the Federal Highway Administration (FHWA) will be carried out in the design phase with respect to emergency and maintenance access, safety and security in accordance with FRA standards through the development of a Safety Plan.

This Record of Decision (ROD) has been drafted in accordance with the regulations implementing the National Environmental Policy Act (NEPA) (40 CFR Part 1505.2) and FRA's Procedures for Considering Environmental Impacts (64 Fed Reg 28545 (May 26, 1999)). Specifically, this ROD:

- Provides a background of the NEPA process for the Final Environmental Impact Statement (FEIS) and the 2009 FEIS Reevaluation
- States and reaffirms the Purpose and Need
- Presents the alternatives considered in the 2005 FEIS
- Presents the alternatives considered and dismissed in the 2005 FEIS
- Identifies the selection of the preferred alternative for the 2005 FEIS
- Identifies the environmentally preferable alternative
- Presents the Affected Environment summarizing the findings of the 2009 FEIS Reevaluation
- Presents means to avoid and minimize environmental harm
- Presents the FRA Decision, determinations and findings
- Provides a summary of the public involvement and agency coordination for the 2005 FEIS and the 2009 FEIS Reevaluation

2. INTRODUCTION

The FDOT is proposing to develop a high speed rail passenger system in the Tampa-Orlando-Miami corridor, with future extensions to other major urban areas in the state. This Tampa-Orlando-Miami corridor is a federally designated high speed rail corridor. The first phase of Florida High Speed Rail is the Tampa to Orlando project and is the subject of this ROD.

The Florida High Speed Rail (FHSR) project from Tampa to Orlando would be developed on new track, with the majority of the system located within the existing right-of-way (ROW) of Interstate 4 (I-4) and the Beachline Expressway (S.R. 528), formerly the Bee Line Expressway, a distance of 88 miles. As shown on **Figure 1**, five (5) stations are proposed and would be located in Tampa, Polk County (Lakeland), Walt Disney World, Orange County Convention Center and Orlando International Airport (OIA). The 2005 FEIS and 2009 FEIS Reevaluation includes analyses for a proposed station at the western terminus of SR 570 (Polk Parkway) and a potential station at Kathleen Road in Lakeland. Only one station site will be identified for continued development and design in coordination with Polk County and the local cities.

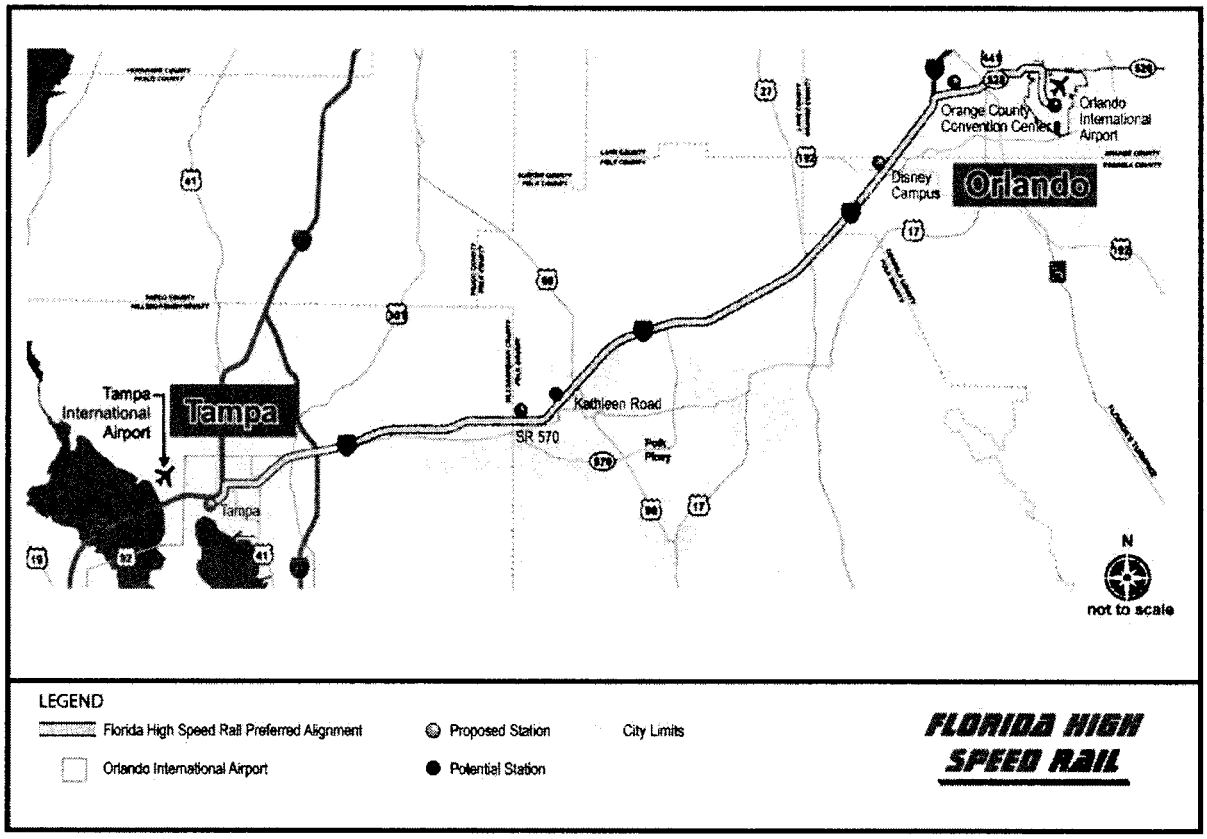


Figure 1 Project Location Map

FDOT proposes the high speed passenger rail system would operate 16 intercity round trips per day with additional frequent shuttle service from OIA to the tourist destinations in the Orlando area. The maximum travel time will be 64 minutes with stops between Tampa and Orlando. The maximum operating speed will be 168 mph.

The initial environmental document was completed under the direction of the Florida High Speed Rail Authority (FHSRA), which was under a state constitutional mandated directive to expedite the implementation of the system. In order to complete the project in a timely manner, FHSRA selected a Design, Build, Operate, Maintain, and Finance (DBOM&F) process for implementing the project. Proposals were solicited and two were selected for evaluation in the FEIS published in 2005. The 2009 FEIS Reevaluation builds on the use of a DBOM&F process for advancing the project.

On October 2, 2009, FDOT submitted an application to the FRA under the High Speed Intercity Passenger Rail Program (HSIPR) for $2.624B to fund the development of the Tampa-Orlando high speed rail corridor project. On January 28, 2010, FRA announced that FDOT had been selected for an award of up to $1.25B for the Tampa-Orlando corridor. The funds will be used to complete any additional corridor level analysis respective to station sites, complete final design, and initiate construction of the FHSR project from Tampa to Orlando.

3. BACKGROUND

Following its creation in 2001, the FHSRA, with guidance from the FRA as the lead federal agency, took a number of steps to implement high speed rail within the state of Florida. The FHSRA began the planning, environmental studies, and engineering needed to prepare a Draft Environmental Impact Statement (DEIS) for the Tampa to Orlando corridor in 2002, focused on independent utility and logical termini. FRA approved the DEIS in August 2003, and signed and circulated the FEIS in 2005. However, due to the project being suspended, the FRA never issued a Record of Decision (ROD) for the project.

The major NEPA milestones are summarized in **Table 1**.

Table 1: Summary of Major NEPA Milestones

Milestone	Date
Notice of Intent	March 2002
Advance Notification and Scoping	April 2002
Draft EIS Signed and Circulated	August 2003
Draft EIS Notice of Availability	September 5, 2003
Public Hearings	October 7-9, 2003
FEIS Signed and Circulated	July 2005
FEIS Notice of Availability	August 5, 2005
Source: Florida High Speed Rail Tampa to Orlando FEIS Reevaluation, October, 2009	

Independent documentation in support of the findings of the 2005 FEIS includes:

- The *Tampa Interstate Study Environmental Impact Statement,* November 1996 - which includes ultimate improvements to I-4/I-275 that accommodate the high speed rail alignment
- The *Intermodal Station at Orlando International Airport Environmental Assessment,* September 2005 – planned an intermodal station at both the OIA North Terminal and the future OIA South Terminal, and updated the HSR and light rail alignments through OIA property
- The *Greater Orlando Aviation Authority Master Plan,* August 2004 – most current master plan incorporating multimodal station at the North Terminal, future South Terminal, and HSR rail alignments
- The *Tampa Bay Intermodal Center,* October 2005 – multimodal station site study consistent with the location of the Tampa HSR station area that provided for the FHSR alignment
- The *Canadian Court Intermodal Transportation Center Study,* April 2007 - multimodal station site consistent with the proposed Orange County Convention Center station that accommodates the FHSR alignment

3.1. FEIS REEVALUATION

In October 2008, a federal program to advance high speed rail corridor development was authorized under Section 501 of the Passenger Rail Investment and Improvement Act of 2008 (PRIIA). The *America Recovery & Reinvestment Act of 2009* (ARRA) then made $8 billion available for High Speed Rail (HSR). In April 2009, President Barack Obama's Administration unveiled its HSR Vision, initially highlighting federally-designated high speed rail corridors, including Tampa-Orlando-Miami in Florida. This began a national competition for federal funding.

Given this new prospect for federal funding, the Florida Department of Transportation (FDOT) began work to determine the extent of changes in potential environmental impacts and commitments since the FEIS was circulated in 2005.

FRA met with FDOT representatives on June 12, 2009 to discuss the project and the status of the NEPA documentation. FRA determined that a reevaluation of the 2005 FEIS was needed to satisfy NEPA requirements (the FEIS Reevaluation). This reevaluation was prepared in conformance with FDOT's Project Development and Environment (PD&E) Manual.

While there have been no major changes to the project location and design since the FEIS was published, several years have elapsed since publication of the FEIS, triggering the need for a reevaluation. According to FRA's Procedures for Considering Environmental Impacts (64 FR 28545 (May 26, 1999)) and FDOT's PD&E Manual, reevaluations are to be conducted under the following circumstances:

- Approval of document and authorization of the next phase is greater than one year
- A major change in the project's location or design has occurred
- If more than three (3) years have lapsed since the date of approval of the final EIS without a decision

In May 2009, FDOT initiated a qualitative review of the project to determine the level of assessment required to complete the NEPA/PD&E process and support the issuance of a ROD. The findings of this assessment were summarized in a technical memorandum, *Basis for FEIS Reevaluation Technical Memorandum* (June 29, 2009), presented and discussed with FRA. This document is located as an appendix to the FEIS Reevaluation Report. The FEIS Reevaluation is in **Appendix A** of this ROD.

The qualitative assessment indicated that minor changes in the project definition are required and small changes in the affected environment have occurred, and that a reevaluation was an appropriate course of action to determine the potential changes in environmental impacts, mitigation and commitments since the FEIS was published in 2005. Accordingly, the reevaluation focused on the following:

- Changes in the preferred technology from the gas turbine-powered technology as identified in the 2005 FEIS to the electric powered technology. Under the FEIS Reevaluation, the electric-powered technology has emerged as the preferred technology, on the same alignment, based on the current initiatives to reduce carbon emissions and dependency on foreign oil

- Design changes needed based on surrounding infrastructure and right-of-way
- Changes in the affected environment that have occurred since the 2005 FEIS
- Changes in potential environmental impacts since the 2005 FEIS
- Changes in the mitigation and commitments compared to the 2005 FEIS
- Changes in permits needed since the 2005 FEIS
- Need for updated coordination with local jurisdictions, stakeholders, and environmental review agencies
- Need for updated public involvement
- Changes in laws, rules, and regulations since 2005

A draft FEIS Reevaluation was completed by FDOT and submitted to FRA on October 1, 2009.

4. PURPOSE AND NEED

The Purpose and Need for the FHSR project was established in the 2005 FEIS and was confirmed by the 2009 Reevaluation. The purpose of FHSR is to enhance intercity passenger mobility in Florida by expanding passenger transportation capacity and providing an alternative to highway and air travel. Increased mobility is viewed as essential for the sustained economic growth of the region, as well as the quality of life of the region's residents and visitors. Presently, passenger mobility in the Tampa-Orlando corridor is provided primarily by highways, particularly I-4. Projected transportation demand and travel growth, as prompted by social demand and economic development and compared to existing and future roadway capacity, show a serious deficit in available capacity. In addition, increasing population, employment, and tourism rates continue to elevate travel demand in the study corridor.

Although capacity improvements to the interstate system along the corridor have either recently been completed or are planned for the near future, they are not adequate to accommodate future travel demand. This need is further emphasized by high traffic volumes, congestion, and accident rates in the study corridor. Further, social and economic demands will continue to call for provision of alternative transportation choices for those individuals who cannot or choose not to drive, as well as those travelers looking for alternatives to congested highways.

4.1. Florida Passenger Rail Legislation of 2009

On December 16, 2009 Governor Charlie Crist signed legislation specifically to support the development of passenger rail systems in the state of Florida. This includes the creation of the Florida Rail Enterprise and other steps including potential funding support for a high speed rail system in the state. The passage of this legislation demonstrates Florida's commitment to work with Federal agencies and private sector partners to advance high speed rail and other passenger rail systems as an integral component of statewide transportation systems.

5. ALTERNATIVES

5.1. ALTERNATIVES CONSIDERED AND DISMISSED IN THE 2005 FEIS

The FHSRA considered several routes between Tampa and Orlando. In order to identify reasonable alternatives that could satisfy the identified project purpose and need, the FHSRA conducted a study to identify, quantify, and compare various HSR route locations. The results of the screening process are documented in the *Florida High Speed Rail Screening Report*, which was completed in October 2002. This evaluation was built on the studies undertaken for high speed rail in the Tampa – Orlando corridor since the mid 1980s. Forty-seven alignments were reduced to 20 as a result of this evaluation. **Figure 2** identifies the various segments that were eliminated from continued study and the retained alignments that were analyzed as the viable alternatives in the 2005 FEIS.

Tampa area: The FHSR study team developed 21 alignments to connect the downtown Tampa station eastward to I-75 with alignments in the I-4 and CSX rail corridors. Ten alignments were eliminated for reasons including engineering constraints, disruption of access to low-income housing and community facilities, disruption of the Ybor City National Historic Landmark District (NHLD), and causing relatively greater environmental impacts than retained alignments.

Hillsborough County: Two alignments were evaluated in rural Hillsborough County: one along the I-4 corridor and the other parallel to the CSX rail line. The CSX rail alignment was eliminated from further consideration due to proximity impacts to a significant number of community facilities in Plant City along the railroad.

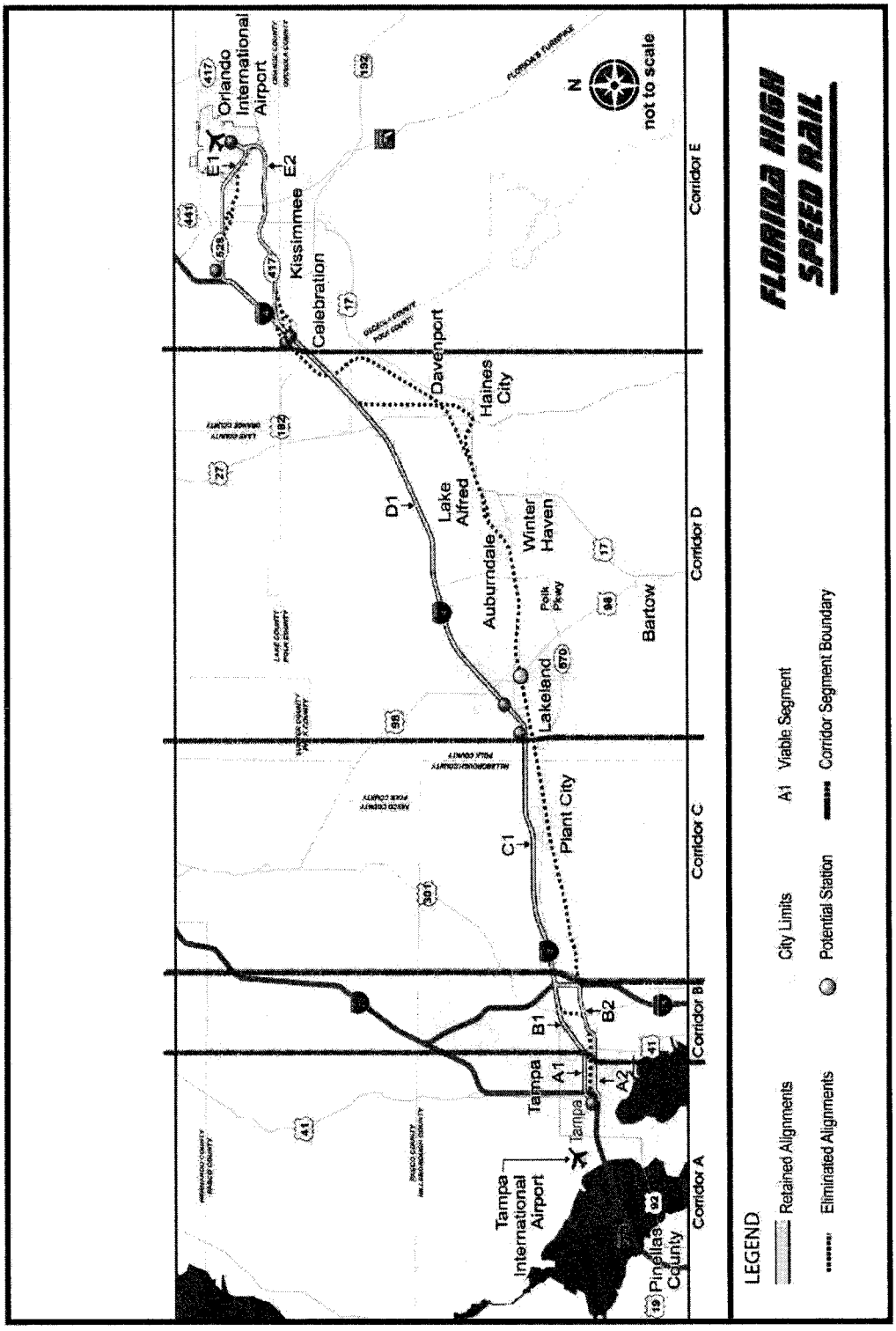
Polk County: Nine alignments were evaluated in Polk County. The alignments included the I-4 and CSX rail corridors, as well as connections between the two corridors. The CSX corridor was eliminated due to proximity impacts to community facilities in Lakeland, Auburndale, Haines City, and Davenport. With the elimination of the CSX alignment, connecting alignments to the I-4 corridor were no longer viable.

Orlando area: Fifteen alignments were evaluated in Osceola and Orange counties in the Orlando area. Seven alignments were eliminated. Some of the alignments connected to eliminated alignments in Polk County and would have disrupted existing commercial development along the alignment. A new terrain connection between I-4 and the Central Florida Greeneway (S.R. 417) had the greatest amount of potential wetland and wildlife habitat impact and limited access to alternative station sites. Other alignments were eliminated due to engineering constraints.

5.2. ALTERNATIVES CONSIDERED IN THE 2005 FEIS

The alternatives selected for evaluation in the EIS include:

- No-Build Alternative, consisting of no FHSR service between Tampa and Orlando.
- Two technology alternatives, the gas-turbine powered locomotive-hauled and the electric-powered locomotive-hauled trains, reflecting the responsive proposals to the FHSRA DBOM&F solicitation. These technologies are further described below.



Source: *Florida High Speed Rail Tampa to Orlando Final Environmental Impact Statement, May 2005.*

Figure 2: Corridors / Stations Considered

- Four alignment alternatives per each technology, or a total of eight design/build alternatives. A detailed summary of each alignment is available in the 2005 FEIS.

Each Alternative carried forward for consideration in the 2005 FEIS is summarized below.

5.2.1. No-Build Alternative

The No-Build Alternative assumes that a FHSR system would not be built between Tampa and Orlando. Passenger service between the two cities would instead consist of various existing bus services between Tampa and Orlando and automobile use on I-4, I-75, the Bee Line Expressway (S.R. 528), and the Central Florida Greeneway (S.R. 417). The No-Build Alternative assumes that certain planned and funded highway improvements would be undertaken between Tampa and Orlando.

The No-Build Alternative does not envision providing an alternative transportation mode between Tampa and Orlando for daily commuters, visitors, and residents of the area, and existing modes would have to satisfy all travel demand. The potential of the FHSR project to improve public transportation and increase the efficient use of the transportation system, both intercity and locally, would not be realized.

5.2.2. Technology Alternatives

The FHSRA determined that two proposals were responsive to its solicitation for DBOM&F proposals. These represented different technologies with different track systems, rail locations, maintenance facilities and station sites.

Fluor Bombardier proposed a gas turbine-powered locomotive-hauled train technology, developed by Bombardier and FRA with the trademark name of "Jet Train". The gas turbine train has passenger equipment similar to Amtrak's Acela Express trains presently operating between Washington, D.C. and Boston, Massachusetts.

The Global Rail Consortium (GRC) proposed using an electric-powered locomotive-hauled train technology, powered from an overhead catenary system similar to that in use on the Acela system and the electric train uses the French designed TGV Atlantique train sets.

Table 2 summarizes the operating features of the two proposed technologies.

Table 2: Summary of Operations by Technology

Feature (FHSRA minimums)	Gas Turbine Train	Electric Train
Speed (120 mph)	*125 mph*	*160 mph*
Round trips per day (12)	*14*	*16*
Shuttle trips between Orlando International Airport and Disney (not required)	*8*	*17*
Trip time (1 hour, 10 minutes)	*65–70 minutes*	*54-55 minutes*
Seating capacity (250)	*292*	*250*

Source: Florida High Speed Rail Tampa to Orlando Final Environmental Impact Statement, May, 2005.

5.2.3. Alignment Alternatives

The alignment alternatives used varying combinations of the I-275 and CSX corridors in downtown Tampa, the I-4 corridor between Tampa and Orlando, and either the Bee Line

Expressway (S.R. 528) or Central Florida Greeneway (S.R. 417) corridor in Orlando. Design/Build Alternatives 1 through 4 consist of gas turbine technology, while Design/Build Alternatives 5 through 8 consists of the electric train technology.

The eight alternatives use varying combinations of the same alignment. The alignments associated with each alternative are illustrated in **Figure 3** and briefly summarized as follows:

Tampa area: I-275/I-4 corridor – This is a new, grade-separated alignment that runs south of and parallel to I-275 and I-4 to approximately 14th/15th Streets where the alignment crosses into the I-4 median.

Tampa area: CSX "S" line/CSX "A" line/I-75 – This is a new, grade-separated alignment that leaves the downtown station southeasterly through a commercial area to connect into the former CSX "S" line. The alignment runs eastward to connect to the existing CSX "A" line, running along the north side of the rail line to I-75. At I-75, the alignment runs in the interstate median northward to connect into the I-4 median.

Between I-75 to the Osceola/Orange County line: I-4 – This alignment between the Tampa and Orlando urban areas would use the I-4 median for the entire length.

Orlando area: Bee Line Expressway (S.R. 528)/Taft-Vineland Road – This grade-separated alignment would leave the I-4 median and follow along the north side of the Bee Line Expressway (S.R. 528), then along the median of Taft-Vineland Road, crossing new ROW to connect into a station at Orlando International Airport.

Orlando area: S.R. 536/Central Florida Greeneway (S.R. 417) – This grade-separated alignment leaves the I-4 median to run along the south side of S.R. 536, connecting to either the north side or the median of the Central Florida Greeneway (S.R. 417). From the Central Florida Greeneway (S.R. 417), the alignment would run along the east side of the South Access Road to a station at Orlando International Airport.

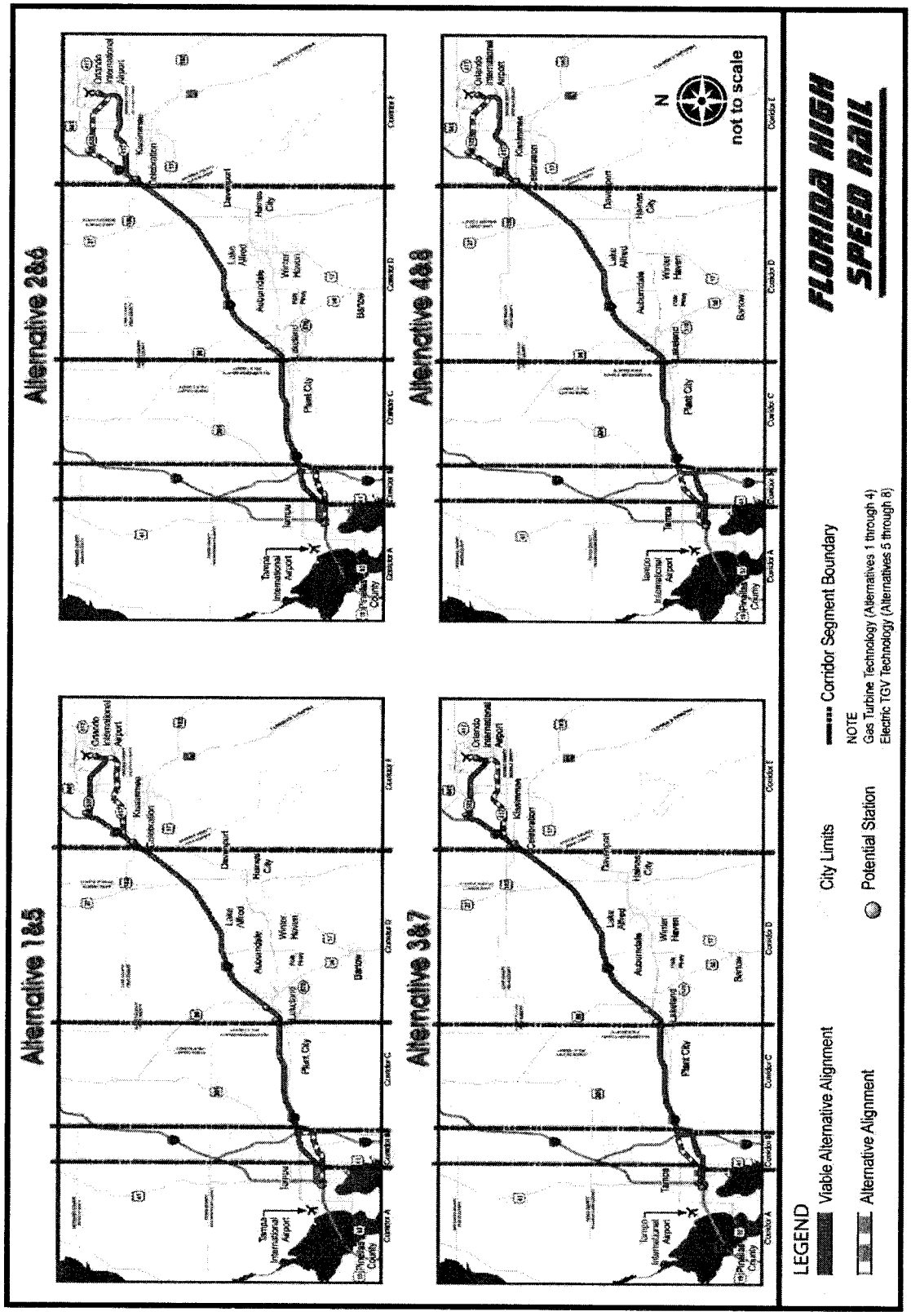
Station locations evaluated in the study included:

- Tampa Central Business District (CBD), south of Interstate 275 (I-275)
- I-4/Polk Parkway, west entry
- I-4/Kathleen Road (S.R. 539) in the City of Lakeland
- I-4 near Walt Disney World
- I-4 near Orange County Convention Center (OCCC)/Multi-Modal Station
- Orlando International Airport

An operation and maintenance (O&M) facility is proposed at one of two locations near the Orlando International Airport.

5.2.4. Summary of Alternatives Identified

The FEIS thus evaluated a total of eight design/build alternatives consisting of four different alignment options with two different technologies, as offered by the two proposers. **Figure 3** displays the eight design/build alternatives and the station locations considered. **Table 3** provides a summary of the design/build alternatives by alignment and technology.



Source: Florida High Speed Rail Tampa to Orlando Final Environmental Impact Statement, May 2005

Figure 3: Design Build Alternatives

Table 3: Summary of Design/Build Alternatives by Alignment and Technology

	Alternative							
	1	2	3	4	5	6	7	8
TECHNOLOGY								
Gas turbine	X	X	X	X				
Electric train					X	X	X	X
ALIGNMENT								
I-275/I-4 in Tampa	X	X			X	X		
CSX Line/I-75 in Tampa			X	X			X	X
I-4 between Tampa & Orlando	X	X	X	X	X	X	X	X
SR 528/Taft-Vineland Road in Orlando	X		X		X		X	
S.R. 536/SR 417 in Orlando		X		X		X		X

Source: Florida High Speed Rail Tampa to Orlando Final Environmental Impact Statement May 2005.

The evaluation matrix in **Table 4** summarizes the quantifiable impacts of the proposed FHSR Design/Build Alternatives 1 through 8. The matrix provides an assessment of potential impacts for each alternative, providing the opportunity to effectively evaluate the consequences of each alternative.

Design/Build Alternatives 1 through 4 represent the four alignment combinations with the gas turbine technology. Design/Build Alternatives 5 through 8 represent the four alignment combinations with the electric train technology. The potential impacts for the FEIS Preferred Alternative, Design/Build Alternative 1, are highlighted in **Table 4**.

Physical impacts, such as wetland, wildlife, and floodplain impacts are technology neutral. The differences in impacts are due to alignment location, station sites, and O&M facility sites. In general, there are slightly more natural impacts associated with the Central Florida Greeneway (S.R. 417) alignment due to crossing relatively undisturbed land. Noise, vibration, air quality, and energy impacts are more associated with the technology. In some cases though, the technology and alignment combinations will have varying effect such as with noise and vibration.

Table 4: Design/Build Alternatives Evaluation Matrix (2005 FEIS Preferred Alternative Highlighted)

	Alternatives							
	1	2	3	4	5	6	7	8
NATURAL ENVIRONMENT IMPACTS (AC.)								
Total Wetland Impacts (AC.)	40	31.3	39.2	30.5	25.6	24.4	30.5	23.6
High Quality Wetlands (AC.)	11	2	11	2	11	2	11	2
Protected Species Sites	9	15	10	16	9	15	10	16
FLOODPLAIN AND FLOODWAYY (AC.)								
Base Floodplain Encroachment	56.88	54.54	61.04	58.70	56.88	54.54	61.04	58.70
Base Floodway Encroachment	9.45	6.47	9.45	6.47	9.45	6.47	9.45	6.47
CONTAMINATION SITES (RANKED H)								
Potential Petroleum Sites	2	0	7	5	2	0	7	5
Potential Hazardous Materials Sites	5	5	12	12	5	5	12	12
SECTION 4(f) IMPACTS								
Recreation Facilities	1	1	0	0	1	1	0	0
Historic/Archaeological Sites	0	0	2	2	0	0	2	2
COMMUNITY SERVICES								
Schools	8	12	5	9	8	12	5	9
Community Facilities	10	9	6	5	10	9	6	5
Parks & Recreation	5	7	5	6	5	7	5	6
Cemeteries	4	6	6	6	4	6	6	6
Churches	15	16	12	13	15	16	12	13
NOISE IMPACTS (MODERATE & SEVERE)								
Category 1 (Buildings and/or parks)	0	0	0	0	0	0	0	0
Category 2 (Residences, hospitals, and hotels)	15	5	16	6	53	105	38	90
Category 3 (Institutional – schools, libraries, churches, active park)	0	0	0	0	1	2	0	1
VIBRATION IMPACTS								
Category 1 (Buildings and/or parks)	1	0	1	0	1	0	1	0
Category 2 (Residences, hospitals, and hotels)	44	20	40	16	13	5	9	1
Category 3 (Institutional – schools, libraries, churches, active park)	0	0	0	0	0	0	0	0
AIR QUALITY EMISSIONS (Net Change In Tons/Year)								
CO	-101.7	-64.7	-100.9	-63.8	-152.0	-114.3	-151.8	-114.1
NOX	+189.0	+188.2	+191.4	+190.6	+23.3	+24.1	+23.7	+24.5
VOC	+8.9	+10.6	+9.2	+10.9	-8.1	-6.1	-8.1	-6.1
ENERGY CONSUMPTION (Change from 2010 No-Build)								
Millions BTU	498,855	507,770	505,658	514,574	239,820	243,623	243,314	247,124
SECTION 106 IMPACTS								
Historic Sites	5	5	7	7	5	5	7	7
Archaeological Sites	0	0	0	0	0	0	0	0
RELOCATIONS								
Residential	3	3	0	0	3	3	0	0
Business	3	8	15	23	3	8	15	23
COST								
ROW (Non-public)	$118M	$149M	$150M	$181M	$101M	$128M	$134M	$161M
Infrastructure	$1,900M	$2,033M	$1,881M	$2,015M	$2,177M	$2,306M	$2,154M	$2,284M
Mitigation	$30M	$30M	$30M	$30M	$30M	$30M	$30M	$30M
TOTAL COST	**$2.048B**	**$2.212B**	**$2.061B**	**$2.226B**	**$2.308B**	**$2.464B**	**$2.318B**	**$2.476B**

Source: Florida High Speed Rail Tampa to Orlando Final Environmental Impact Statement, May, 2005.

5.3. 2005 FEIS PREFERRED ALTERNATIVE

The 2005 FHSR FEIS resulting from the Project Development and Environment (PD&E) Study investigated the eight design/build alternatives, evaluating not only the technological differences, but also engineering, environmental impacts, costs, and other factors impacting the selection of the alignment. Development of alignments provided an analysis of socio-economic, natural, and physical environmental impacts within the proposed corridors. The potential impacts of the design/build alternatives and the No-Build Alternative are documented in Section 4 of the FEIS.

The FHSRA considered the alternatives in Tampa and Orlando in identifying a Preferred Alternative. All alternative alignments are located along I-4 through Polk and Osceola counties. Two separate alignments were considered in Tampa (Hillsborough County): the CSX and I-4 alignments. Similarly, two alternatives were considered in Orlando (Orange County): the Florida Turnpike's Bee Line Expressway (S.R. 528) and the Central Florida Greeneway (S.R. 417) alignments.

The FHSRA unanimously passed a motion identifying the I-4 alignment in Hillsborough County as the preferred alignment. Additionally, the FHSRA ranked the Fluor Bombardier Team (gas turbine technology) as the preferred proposer.

On October 27, 2003, the FHSRA originally identified the Central Florida Greeneway (S.R. 417) alignment as the preferred alignment in Orange County. The vote was subject to the following two condition Memorandums of Agreement (MOA):

- Subject to an acceptable agreement between the FHSRA and Walt Disney Company related to donation of ROW and commitments to support ridership for the project.
- Subject to an acceptable agreement between the FHSRA and OOCEA related to use of the Central Florida Greeneway (S.R. 417) ROW.

On November 10, 2004, the FHSRA revised the recommendation of the Preferred Alternative because the two conditional MOAs had not been executed. With this action, the FHSRA recommended Alternative 1 (gas turbine technology), which is the combination of the I-4 alignment in Hillsborough County and the Bee Line (now the Beachline) Expressway (S.R. 528) alignment in Orange County, as the Preferred Alternative. While the FEIS environmental analysis provided for either technology to be selected as the preferred technology to be used on the corridor, the FEIS identified Alternative 1 as the Preferred Alternative. The FEIS identified the No Build Alternative as the environmentally preferable alternative because it would result in less direct and indirect impact to the environment. However, the FEIS also noted that the No Build Alternative would fail to meet the Project purpose and need.

5.4. 2009 FEIS REEVALUATION PREFERRED ALTERATIVE

In the 2005 FEIS gas turbine-powered technology was selected as the Preferred Alternative. FDOT now prefers the electric-powered technology on the same alignment, based on the current initiatives to reduce carbon emissions and dependency on foreign oil. The 2009 FEIS Reevaluation addresses environmental impacts resulting from the change in the preferred technology, any changes to existing conditions and the minor changes to the 2005 Preferred Alternative alignment to further reduce the potential for environmental impacts.

The FHSR Preferred Alternative resulting from both the 2005 FEIS and 2009 Reevaluation would begin at the downtown Tampa station to be located between Tampa Street and Marion Street, I-275, and Fortune Street. The FHSR alignment would follow I-275 along the south and east right-of-way (ROW). The alignment would cross into the I-4 median in the area of 15th Street. The majority of the FHSR alignment would be within the ultimate ROW identified in the *Tampa Interstate Study* (TIS) for future interstate improvements; however some additional ROW would be required and has been coordinated with the City of Tampa.

The alignment would continue east within the I-4 median through Hillsborough and Polk counties. One station would be located in Polk County, where two locations were under consideration.

Entering Osceola County, the high speed rail alignment remains within the I-4 median. The proposed Walt Disney World Station would be located north of U.S. 192. The station platform would be located in the median and station facility would be located west of I-4 between U.S. 192 and the Osceola Parkway.

The alignment would continue into Orange County in the I-4 median until the I-4/Beachline Expressway (S.R. 528) interchange, where it would elevate and leave the I-4 median and run along the north side of S.R. 528 within existing ROW. The Orange County Convention Center multi-modal center site is located in the northeast quadrant of the International Drive/S.R. 528 Interchange. The Orange County Convention Center station would be located within the ROW of the interchange area.

The alignment would continue on the north side of S.R. 528 until east of the John Young Parkway (S.R. 423) Interchange where it would leave S.R. 528 and run on new alignment east to Taft-Vineland Road. The alignment would continue along Taft-Vineland Road and enter the City of Orlando property near Tradeport Drive. It would then follow the Orlando Utilities Commission rail line as a new alignment turning north crossing the Orlando International Airport (OIA) South Access Road and traversing through the limits of OIA from south to north, east of the proposed South Terminal.

The 2009 FEIS Reevaluation has determined that overall the preferred alternative alignment documented in the 2005 FEIS remains substantially unchanged; however, the preferred technology has changed. Investigation of current conditions and planned projects has resulted in some minor adjustments to the horizontal and vertical alignment. Supporting engineering plans and profiles are provided in FEIS Reevaluation. Areas where changes have occurred are:

- Station Areas: Tampa – Downtown, Walt Disney World/Celebration; Orange County Convention Center; Orlando International Airport – additional right of way and some relocation required for various stations (see Station discussion)

- I-4/I-275 Interchange Ramp D adjacent to Perry Harvey Senior Park – improvement to I-275 widened the existing roadway for ramp auxiliary lanes

- I-4/I-275 Proposed Flyover Ramp widening adjacent to Ybor City National Historic Landmark District – FDOT identified that the existing single lane flyover ramp needs to be widened to two lanes

- Transition to I-4 Median and Crosstown Connector – minimize structure length based on the construction of the ultimate I-4 improvements
- Columbus Avenue Relocation – improvements to I-4 realigned Columbus Avenue
- Emergency Median Crossovers – FDOT has established emergency evacuation crossovers through the I-4 corridor that will need to be relocated
- Tradeport Drive Area – minimize impacts to continued commercial development
- Orlando International Airport – continue HSR alignment to the north terminal consistent with OIA Master Plan.

The above changes to the conceptual engineering plans for the Preferred Alternative as described in the 2005 FEIS are included in the FEIS Reevaluation.

5.4.1. 2009 Reevaluation Preferred Alternative Station / Maintenance Facility Areas

The 2005 FEIS initially evaluated 20-acre study areas for each of the proposed station locations. As each site was identified, the station area was finalized to take into account property lines and existing features. The following modifications to the FEIS station study areas were assessed and included in the conceptual plan revisions as part of the FEIS Reevaluation.

- **Tampa – Downtown Station** - The Tampa station area was expanded to include the 3.2-acre former jail site which was purchased by FDOT for use as an intermodal center. The building is currently being demolished.
- **Walt Disney World Station** - The Disney station area was shifted to the west to include a 5.6-acre area of open land in order to maintain a total 20-acre station area. The shift was necessary as a result of the construction of the Osceola Parkway Interchange and ramps within the 20-acre area identified in the 2005 FEIS.
- **Polk County (Lakeland) Station** – The 2005 FEIS and the 2009 FEIS Reevaluation includes two sites for environmental analysis, west of the Polk Parkway and at Kathleen Road – only one is to be selected for continued development. Included in the 2009 FEIS Reevaluation is a request by the City of Lakeland, Polk County and the University of South Florida Polytechnic for continued coordination into the design phase to verify the optimal location of a Polk County Station site to best serve Lakeland and the surrounding communities. FDOT is committed to continued coordination with the county, cities and local stakeholders in the continued project development phases. Should a station site other than the sites located at west SR 570 (Polk Parkway) or Kathleen Road be advanced, additional environmental analysis will be required.
- **Orange County Convention Center Station** – The Orange County Convention Center station area was expanded to the east to the existing parcel property line, an additional 2.0-acre area to provide maximum flexibility and proximity for the HSR station.
- **Orlando International Airport (OIA)** – In conformance with the OIA Master Plan, two station locations are considered under the Preferred Alternative: the future South Terminal Intermodal Center and the North Terminal Intermodal Center. The North and

South Terminal Intermodal Centers are included in the Airport Master Plan as approved through the Federal Aviation Administration (FAA). The North and South Terminal Intermodal Centers received FTA NEPA clearance under the *OIA Intermodal Station Environmental Assessment*, September 2005.

- **Maintenance Facility** – The Preferred Alternative identified a preference for two alternative sites for the FHSR maintenance facility site: one site located directly south of OIA (Site 3) and a site southeast of OIA, north of Boggy Creek Road (Site 2). These two sites were included in the 2005 FEIS for the gas turbine train. The 2005 FEIS also included two sites for the electric powered train: Site 3 and a site located southeast of OIA and south of Boggy Creek Road (Site 1). With continued commercial development south of Boggy Creek Road and the increase of relocations, Site 1 is removed from consideration, with Sites 2 and 3 remaining as alternative sites as analyzed in the 2005 FEIS and included in the 2009 FEIS Reevaluation.

5.4.2. Preferred Alternative Ridership

The ridership estimates for the 2005 FEIS Preferred Alternative were updated for 2009 based on the two independent, investment-grade models developed in 2002 and documented in the 2005 FEIS. The ridership estimates were based on the alignments for the Project and were not sensitive to the technologies. The models were updated to reflect the changes in the transportation network, growth and local land uses that have occurred since the 2005 FEIS was completed. Captive ridership/riders currently taking shuttle services provided by Disney and I-Drive destinations were separated from choice ridership (trips that would be diverted from other modes, such as private or rented autos, and public transit).

The results of the updated ridership and revenue forecasts are shown in **Table 5**. Annual ridership is not anticipated to change significantly from the previous 2002 forecasts. Annual revenue for the system is expected to increase.

Table 5: Changes in 2010 Tampa-Orlando Ridership and Revenue for the Preferred Alternative

Market	2010 Annual Ridership (millions)			2010 Annual Revenue ($ millions)		
	2002 Study/2005 FEIS	2009 Reevaluation	Change	2002 Study/2005 FEIS	2009 Reevaluation	Change
CHOICE MARKET	1.9 to 2.3	1.9 to 2.4	+0.0 to +0.1	32.9 to 35.4	40.5 to 46.4	+7.6 to +11.0
CAPTIVE						
OIA to International Drive	0.5	0.6	+0.1	6.3	8.0	+1.7
OIA to Disney	2.1	1.9	-0.2	26.3	27.2	+0.9
Subtotal: Captive	0.5*	0.6*	+0.1*	6.3*	8.0*	+2.6*
Total:	2.4 to 2.8	2.5 to 3.0	+0.1 to +0.2	39.3 to 41.8	48.5 to 54.5	+10.2 to +13.6

**The 2002 Study (included in the 2005 FEIS) assumed that captive ridership associated with the OIA-Disney market would not be included, as Disney's participation in the preferred alignment was still under negotiation.*

6. AFFECTED ENVIRONMENT

The changes to the 2005 Preferred Alternative were primarily to accommodate the current as-built conditions within the improved interstate corridor and changes to minimize potential impacts to continued development within the corridor. These changes, as stated in Chapter 2 of the FEIS Reevaluation and illustrated in the revised plans included in Appendix B of the FEIS Reevaluation and discussed in the 2009 FEIS Revaluation Preferred Alternative (Section 6.4) section of this document, are minimal within the 88-mile alternative and concentrated within the immediate Tampa CBD and in the Tradeport Drive industrial park area in Orange County.

The changes in existing conditions identified in Chapter 3 of the FEIS Reevaluation resulting in changes to the potential environmental impacts are summarized below:

- Relocations: reduction of one business impact in Tampa CBD and 3 additional business impacts in Tradeport Drive industrial area.

- Section 106: reduction of one historic structure with relocation by FDOT complete.

- Recreation and Park/Section 4(f): Changes to the City of Tampa's Perry Harvey Sr. Park boundaries since the 2005 FEIS and changes to the alternative reduce overall area of use.

- Air Quality, Noise, Vibration, Visual/Aesthetic, and Energy Consumption: changes based on technology preference from gas turbine-powered to electric-powered locomotive-hauled train.

- Contamination: additional sites resulting in the same number of sites with high risk ranking and an additional one site each for medium and low risk ranking.

- Wildlife and Habitat: one additional species (Everglades snail kite) afforded protection since 2005.

The above changes to the environmental impacts do not change the mitigation and commitments identified in the 2005 FEIS with the exception of regulatory changes in the permitting of wetlands, water quality, and wildlife and habitat.

Table 6 identifies comparative analysis factors between the 2005 FEIS Preferred Alternative (gas turbine powered technology, Alternative 1) and the electric powered technology on the same alignment (Alternative 5) with the updated potential impacts assessed in the FEIS Reevaluation for the Revised Preferred Alternative (RPA).

Table 6: Change in Potential Environmental Impacts

Resource	2005 FEIS Impacts Gas Turbine FEIS Preferred Alternative (Alternative 1)	2005 FEIS Impacts Electric Technology (Alternative 5)	Change in Impacts?	Revised Preferred Alternative (RPA) Impacts Electric Technology
COMMUNITY IMPACTS				
Community Cohesion	Minimal impacts to adjacent neighborhoods along I-4 in Tampa and to the south of the Tradeport Industrial Park	Same as 2005 FEIS Preferred Alternative	No	Same as 2005 FEIS Preferred Alternative
Community and Land Use Impacts	Consistent with local land use plans Minimal impacts to existing land uses	Same as 2005 FEIS Preferred Alternative	No	Same as 2005 FEIS Preferred Alternative
Economic Impacts	Benefits in excess of costs	Same as 2005 FEIS Preferred Alternative	No	Same as 2005 FEIS Preferred Alternative
Safety and Public Health	No adverse impacts	Same as 2005 FEIS Preferred Alternative	No	Same as 2005 FEIS Preferred Alternative
Relocation and Right-of-Way Impacts	3 residential relocations 3 business relocations See Section 4(f) below.	Same as 2005 FEIS Preferred Alternative	Yes	3 residential relocations 5 business relocations
Environmental Justice	No disproportionate impacts	Same as 2005 FEIS Preferred Alternative	No	Same as 2005 FEIS Preferred Alternative
Section 106 - Archeological and Historical Resources	Conditional Adverse Effect North Franklin Street Historic District (visual) St. Paul AME Church Parsonage (visual) Oaklawn Cemetery (visual construction vibration) Ybor City NHLD (direct taking of two contributing buildings; visual, construction vibration) German American Club – Visual impacts, construction vibration	Same as 2005 FEIS Preferred Alternative	Yes*	Same impacts as listed for FEIS Preferred Alternative, less direct impact of one contributing building in Ybor City NHLD do to relocation per TIS project*
Recreation and Parkland	Use of 0.184 acres, Perry Harvey Sr. Park	Use of 0.184 acres, Perry Harvey Sr. Park	Yes	Use of 0.05 acres, Perry Harvey Sr. Park

Table 6: Change in Potential Environmental Impacts

Resource	2005 FEIS Impacts Gas Turbine FEIS Preferred Alternative (Alternative 1)	2005 FEIS Impacts Electric Technology (Alternative 5)	Change in Impacts?	Revised Preferred Alternative (RPA) Impacts Electric Technology
Section 4(f) Impacts	Use of 0.184 acres, Perry Harvey Sr. Park	Use of 0.184 acres, Perry Harvey Sr. Park	Yes	Use of 0.05 acres, Perry Harvey Sr. Park
Secondary and Cumulative Impacts	No adverse impacts	Same as 2005 FEIS Preferred Alternative	No	Same as 2005 FEIS Preferred Alternative
NATURAL AND PHYSICAL IMPACTS				
Visual/Aesthetic	No adverse impacts	Same as 2005 FEIS Preferred Alternative	No	Same as 2005 FEIS Preferred Alternative
Air Quality	Emissions (tons/year):	Emissions (tons/year):	Yes	Same as 2005 FEIS Alternative 5
	CO : -101.7 tons/year	CO: -152.0		
	NO_x: +189.0	NO_x: +23.3		
	VOC: +8.9	VOC: -8.1		
Noise[1]	Cat. 1: 0	Cat. 1: 0	Yes	Cat. 1: 0
	Cat. 2: 15 (7 moderate, 8 severe)	Cat. 2: 52 (24 moderate, 28 severe)		Cat. 2: 30 (13 moderate, 17 severe)
	Cat. 3: 0	Cat. 3: 1 (Perry Harvey Sr. Park)		Cat. 3: 1
Vibration[1]	Cat 1: 1	Cat 1: 1	Yes	Cat. 1: 1
	Cat. 2: 44	Cat. 2: 13		Cat. 2: 8
	Cat. 3: 0	Cat. 3: 0		Cat. 3: 0
Wetlands	40 acres (total impacts) 11 high quality wetlands impacted	25.6 acres (total impacts) 11 high quality wetlands impacted	Yes	35.8 acres (total impacts) 11 high quality wetlands impacted.
Aquatic Preserves	No impacts	No impacts	No	No impacts
Water Quality	No adverse impacts	No adverse impacts	No	No adverse impacts
Outstanding Florida Waters	No impacts	No impacts	No	No impacts
Contamination	Risk Ranking	Risk Ranking	Yes	Risk Ranking
	High : 7	High : 7		High : 7
	Medium: 0	Medium: 0		Medium: 1
	Low: 0	Low: 0		Low: 1

Table 6: Change in Potential Environmental Impacts

Resource	2005 FEIS Impacts Gas Turbine FEIS Preferred Alternative (Alternative 1)	2005 FEIS Impacts Electric Technology (Alternative 5)	Change in Impacts?	Revised Preferred Alternative (RPA) Impacts Electric Technology
Wild and Scenic Rivers	No impacts	No impacts	No	No impacts
Floodplain and Floodway Impact	Base Floodplain Encroachment: 56.88 acres Base Floodway Encroachment: 9.45 acres	Base Floodplain Encroachment: 56.88 acres Base Floodway Encroachment: 9.45 acres	No	Base Floodplain Encroachment: 56.88 acres Base Floodway Encroachment: 9.45 acres
Coastal Zone Consistency	No impacts	No impacts	No	No impacts
Coastal Barrier Resources	No impacts	No impacts	No	No impacts
Wildlife and Habitat, including Protected Species	9 Protected Species No adverse impacts	9 Protected Species No adverse impacts	Yes	10 Protected Species No adverse effects
Farmlands	No impacts	No impacts	No	No impacts
Energy Consumption	498,855 Million BTU	239,820 Million BTU	Yes	Same as 2005 FEIS Alternative 5
Utilities	No adverse impacts	No adverse impacts	No	No adverse impacts
TRANSPORTATION				
Freight Rail Operations Impacts	No impacts	No impacts	No	No impacts
Highway Operations Impacts	Net reduction in VMT: 21,080,963 miles No adverse impacts	Net reduction in VMT: 21,080,963 miles No adverse impacts	No	Net reduction in VMT: 21,080,963 miles No adverse impacts
Station Access and Traffic Impacts	No adverse impacts	No adverse impacts	No	No adverse impacts
Airport Operations	No impacts	No impacts	No	No impacts
CONSTRUCTION IMPACTS				
Construction impacts	No adverse impacts	No adverse impacts	No	No adverse impacts

Source: Parsons, PBS&J, HMMH September 2009

[1]Notes: **Category 1** receptors are buildings and/or parks; **Category 2** receptors are residences, hospitals, hotels; **Category 3** receptors are schools, libraries, churches, and active parks.

6.1. Relocation and Right of Way

The 2005 FEIS indicated that the Preferred Alternative and the Revised Preferred Alternative (RPA) (Alternative 5 in the 2005 FEIS) would both require three (3) residential relocations located in two (2) structures near I-4 and 12th Avenue in the Ybor City area and three business relocations including the City of Tampa Recreation Department, the former Hillsborough County Sheriff's Office and Jail Complex, and a bail bondsman office.

Since publication of the 2005 FEIS, redevelopment of the former Hillsborough County Sheriff's Office and Jail Complex site has begun and the buildings are no longer present. Therefore, these relocations are no longer needed.

Further, since 2005 additional development has occurred in the Tradeport Industrial Park. The alignment was optimized to reduce additional right-of-way needs in this area to the extent practicable. However, three (3) additional business relocations would be needed for the project, as follows:

- At the northwest corner of Tradeport Drive and Ringhaver Drive, a large commercial distribution building (10260 Tradeport Drive) was constructed and does not appear on the project aerials. As of September 2, 2009, the building is vacant. The FHSR alignment clips the northeast corner of this building and the operation of the rear loading bays.

- Two commercial structures located in the Atlas Commercial Park (11128 and 11112 Boggy Creek Road) are also impacted. As of September 2, 2009, these building are vacant.

The ROW and relocation program will be carried out in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970.

6.2. Section 106 Consultation and Memorandum of Agreement

The FDOT coordinated the historic resources impact analysis with the Florida State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation (Council).

The coordination with the SHPO and Council during analysis of the 2005 FEIS Preferred Alternative resulted in a "conditional no adverse effect" on the following five historic resources:

- North Franklin Street Historic District – Visual impacts
- St. Paul AME Church Parsonage – Visual impacts
- Oaklawn Cemetery – Visual impacts, construction vibration
- Ybor City NHLD - Direct taking of two contributing buildings: 8HI4174/916 E. 12th Avenue, and the rear building at 8HI4178/1006 E. 12th Avenue; Visual, Construction Vibration
- German American Club – Visual impacts, construction vibration

The 2009 FEIS Reevaluation Revised Preferred Alternative verified that there are no changes to the impacts identified in the 2005 FEIS. The commitments stated in the 2005 FEIS remain valid.

Since publication of the 2005 FEIS, FDOT began the right-of-way acquisition process for the *Tampa Interstate Study* (TIS). As a result many of the historic structures along 12th Avenue in the Ybor City NHLD have been relocated, including the property at 1006 E. 12th Avenue (8HI4178) which was listed as a direct taking in the 2005 FEIS.

It is important to note that these impacts to historic resources were evaluated as part of a *Cultural Resource Assessment Survey* (July 2003) prepared to identify and evaluate cultural resources (historic structures and archaeological sites) within the project's Area of Potential Effect (APE). Further, a *Section 106 Consultation Case Report* (December 2003) was then prepared to evaluate potential effects for the Preferred Alternative and extensive coordination occurred with SHPO. As a result of this coordination, it was determined that the Preferred Alternative, based on a set of stipulated conditions, would have a "conditional no adverse effect" on the resources listed above.

Even though the impacts within the Ybor City NHLD included a direct taking of contributing historic resources, the SHPO determined that there would be no adverse effect because these buildings were previously identified as being acquired by the *Tampa Interstate Study Final Environmental Impact Statement and Section 4(f) Evaluation* (1996) and are located within the TIS Ultimate ROW. A Memorandum of Agreement (MOA) was prepared at that time to mitigate adverse effects to the Ybor City NHLD.

During the consultations with the SHPO, it was determined that the FHSR project would follow the requirements of this MOA. The mitigation and commitments are consistent with this MOA.

6.3. Section 4(f) Determination

Section 4(f) of the US Department of Transportation (DOT) Act of 1966 stipulates that DOT agencies cannot approve the use of land from publicly owned parks, recreation areas, wildlife refuges, or public and private historical sites unless there is no feasible and prudent alternative to such use and the project includes all possible planning to minimize the harm to the property resulting from use.

The Section 4(f) evaluation for the potential HSR alignments and stations documented in Section 5 of the FEIS and Section 4.4 of the FEIS Reevaluation indicates that one Section 4(f) resource, Perry Harvey Sr. Park, will be used by the project. The supporting information in the 2005 FEIS and the 2009 FEIS Reevaluation, summarized below, demonstrates that there are unique problems or unusual factors involved with any alternative that would avoid this Section 4(f) property. Potential avoidance alternatives fail to meet the project purpose and need, fail to meet the objectives of those responsible for the resource used, or result in impacts of extraordinary magnitude to the environment or the community.

Based on the documentation presented in the FEIS and updated in the FEIS Reevaluation, the FRA has determined that:

- The Project is a feasible and prudent alternative with the least harm to Section 4(f) resources;
- There is no feasible or prudent alternative to the use of the above Section 4(f) resources; and

- The Project includes all possible planning to minimize harm to the resources resulting from such use. These measures are identified in the Project mitigation and commitments attached as Appendix B.

During the reevaluation process, the preferred alignment shifted slightly in the vicinity of the Ybor City NHLD and Perry Harvey Sr. Park, both of which are Section 4(f) resources. Right-of-way requirements were minimized in the vicinity of these resources.

In the case of the Ybor City NHLD, the right-of-way required by the FHSR project is still within the TIS Ultimate ROW which was cleared as a part of the *Tampa Interstate Study Final Environmental Impact Statement and Section 4(f) Evaluation* (1996). Further, a Memorandum of Agreement (MOA) was negotiated with the SHPO for that project to mitigate the adverse effects to the Ybor City NHLD from taking the right-of-way. Therefore there are no changes to the Section 4(f) evaluation for the Ybor City NHLD.

In the case of Perry Harvey Sr. Park, as stated in the original Section 4(f) Evaluation in the 2005 FEIS, the FHSR project will comply with the specific commitments and stipulations identified in the existing Tampa Interstate Study (TIS) FEIS for the Ultimate ROW requirements. The commitment is based on the assumption that the FHSR will be constructed prior to the construction of the Ultimate TIS.

Since the approval of the 2005 FHSR FEIS, the interim reconstruction of I-275/I-4 interchange has occurred. In addition, FDOT has proposed a safety improvement requiring an additional lane be constructed to the outside of the ramp running from SB I-275 to EB I-4. As a result of the safety improvement, the FHSR ROW has been minimized to a ROW width of 44 feet and relocated slightly to the south and west. The FHSR ROW remains within the TIS Ultimate ROW footprint. It is anticipated that FHSR will run 18 to 24 feet above the park on an elevated track as it enters the Tampa Central Business District (CBD) station. Initial calculations indicate the potential impact to the park will be reduced from the amount of land to be acquired from 0.184 acres (2005 FEIS) to .05 acres (FEIS Reevaluation).

During the 2005 FEIS it was determined that there would be a potential for moderate noise level increases (proximity effects). An evaluation of vibration, access, aesthetics, and ecological encroachment indicates that the project will not substantially impair or diminish the use of the park, and a determination was made that there will be no constructive use. These conclusions have not changed. Coordination with the City of Tampa includes memorandum in the FEIS Reevaluation identifying the City's continued support of the project with commitment of FDOT to meet the specific commitments and stipulations identified in the TIS FEIS.

6.4. Air Quality

The US Environmental Protection Agency (EPA) regulation implementing the Clean Air Act (40 CFR Parts 51 and 93) establishes criteria for demonstrating that a federally assisted project is in conformity with the State Implementation Plan or maintenance plans developed for Hillsborough, Polk, Osceola and Orange Counties. This Project is identified in the Long Range Transportation Plans for the three Metropolitan Planning Organizations that represent the various local governments through the Project area. The General Conformity Rule (40 C.F.R. Part 93, Subpart B) is applicable to areas that have been designated as non-attainment or maintenance with respect to the National Ambient Air Quality Standards (NAAQS). Polk, Osceola and

Orange Counties were designated as in attainment of the NAAQS in the 2005 FEIS. The FEIS Revaluation identified that Hillsborough County was re-designated in attainment of the NAAQS in 2005 following completion of the 2005 FEIS. Thus, all counties in the Project are in attainment and determination of conformity with the State Implementation Plan or plan to maintain the NAAQS is not required.

The Revised Preferred Alternative would result in a net decrease in regional emissions of carbon monoxide (CO) and volatile organic compounds (VOC) and a small increase in regional emissions of nitrogen oxides (NOX). The net increase in emissions of NOX is a result of the emission rate of this pollutant from power plants that produce electricity through the combustion of fossil fuels. The emissions analysis is based on use of coal as the source for power generation; a worst case scenario.

6.5. Noise

The noise impact assessment was updated along the entire corridor to account for land use and alignment changes since the 2005 FEIS was published. In summary, there are substantially fewer predicted noise impacts than projected in the FEIS.

The 2005 FEIS predicted that the Preferred Alternative would have impacts at a total of 15 residential buildings (eight with severe impact and seven with moderate impact), one hotel (moderate impact) and one park (Perry Harvey Sr.). The FEIS also documented the impacts of Alternative 5 (the comparable alternative given the change in the preferred technology), which was predicted to have noise impacts at a total of 52 residential buildings (24 with severe impact and 28 with moderate impact), one hotel (moderate impact), and one park (Perry Harvey). The factors attributing less impact by the gas turbine-hauled train include track proximity and height as well as train speed.

The updated analysis of the Revised Preferred Alternative predicts fewer impacts when compared to the electric-hauled train (Alternative 5) in the 2005 FEIS, including 30 residential buildings (13 with moderate impacts and 17 with severe impacts); one hotel (moderate impact) and one park (Perry Harvey). Importantly, none of the newly identified sensitive receptors along the corridor were predicted to have impacts.

The lower number of predicted impacts is a result of alignment shifts away from sensitive receptors near Station 6010 (in the vicinity of the I-4/I-275 interchange in Tampa) and between Stations 7670 and 7700 in the Taft area near Orlando.

6.6. Vibration

The vibration impact assessment was updated along the entire corridor to account for land use and alignment changes since the 2005 FEIS was published. In summary, the Revised Preferred Alternative vibration impacts are expected at three residences, five hotels, and one commercial building that houses vibration sensitive equipment. In comparison, the 2005 FEIS Preferred Alternative was predicted to have 33 residences, 11 hotels, and the same commercial building and Alternative 5 was predicted to have impacts at one residence, 13 hotels and the commercial building.

The large reduction in the total number of vibration impacts is due to changes in existing conditions and the difference between the vibration characteristics of the electric and the gas turbine trains. Not only are some of the residences and hotels previously affected no longer present but new receptors were also identified, particularly in the middle section of the alignment. None of the new receptors were predicted to have vibration impacts.

Gas turbine trains have higher vibration levels at lower frequencies than electric trains. This is likely due to the difference in weight between the two vehicles; the gas turbine train consist weighs almost twice as much as the electric train consist. Furthermore, when the ground exhibits more efficient vibration propagation characteristics at low frequencies, there is a greater difference in vibration impact between the two technologies.

6.7. Wetlands

The Preferred Alternative (Alternative 1) documented in the 2005 FEIS would result in a total of 40 acres of wetland impacts to 11 high quality wetlands, while Alternative 5 was predicted to result in 25.6 acres of impacts to 11 high quality wetlands. Even though these alternatives share the same alignment and station locations, they each assumed a different maintenance facility.

The Revised Preferred Alternative would result in 35.8 acres of impacts to 11 high quality wetlands. This accounts for changes in existing conditions with the revised location for the maintenance facility for Alternative 5 since the FEIS was published and the design changes documented in Chapter 2 of the FEIS Reevaluation. The Revised Preferred Alternative with the same maintenance facility location, as identified with the 2005 FEIS Preferred Alternative 1, reduces impacts by 4.2 acres.

The 2005 FEIS indicates that either FDEP (Florida Department of Environmental Protection) or the Water Management Districts (WMD) may be the reviewing agency for the Environmental Resource Permit. Because this project crosses multiple WMD districts, the FDEP will likely take the lead on permitting so that a comprehensive review of the entire corridor can occur. However, this decision will be made during the final design and permitting phase.

The 2005 FEIS also states that "Any project which results in the disturbance of five or more acres of land would require a National Pollutant Discharge Elimination System (NPDES) permit from FDEP, pursuant to 40 C.F.R Parts 122 and 124." The regulations governing the NPDES have been modified since 2005 such that any project that results in the disturbance of one or more acre of land will require a NPDES permit. Also, because a General Permit exists for this type of work, a permit application for a NPDES will not be required. Instead, a Notice of Intent to utilize the General Permit is required to be submitted by the construction contractor 48 hours prior to construction commencement.

6.8. Contamination

The 2005 FEIS Preferred Alternative identified five potentially hazardous material contaminated sites and two potentially petroleum contaminated sites within the alignment. There are no potentially contaminated sites associated with the preferred station locations and maintenance yard.

Based on the design modifications of the Revised Preferred Alternative, a review of the potential for additional hazardous materials sites that could potentially be encountered during construction was assessed. Five additional sites were identified. Given the contamination concern at these sites and their location relative to the FHSR project, three of these sites were found to pose no risk to the project, one was found to pose a low risk and one was found to pose a medium risk.

The sites identified will be investigated further prior to any construction. Investigative work will include visual inspection, monitoring of ongoing cleanups, and possible subsurface investigations. At known contamination sites, estimated areas of contamination will be marked on design drawings. Prior to construction, any necessary cleanup plans will be developed. Actual cleanup will take place during construction, if feasible. Special provisions for handling unexpected contamination discovered during construction will be included in the construction plans package.

6.9. Floodplains

The Preferred Alternative from 2005 and the Revised Preferred Alternative would potentially impact approximately 56.88 ac. of floodplain and approximately 9.45 ac. of floodway. Subsequent to final design, during which impacts would be avoided or minimized, floodplain and floodway impacts would again be calculated and the amount of mitigation would be determined. Coordination with the water management districts will identify areas appropriate for mitigation of the volumetric impacts of the preferred alternative that will not increase or significantly change the flood elevations and/or limits.

6.10. Wildlife and Habitat, Protected Species

The expansion of the Tampa, Disney and Orange County Convention Center station areas do not result in additional protected species concern. The Tampa Jail Site is urban and developed and provides no protected species habitat. The area of expansion of the Disney Station Area does not result in a new habitat type or protected species concerns. The new additional area for the OCCC site is minimal and does not provide different habitat than what has already been considered.

Since the 2005 FEIS, the bald eagle was delisted (with the exception of the desert bald eagle in Arizona) and is no longer protected under the Endangered Species Act as of June 28, 2007. However, the bald eagle is still provided protection by two other federal laws, the Migratory Bird Treaty Act of 1918 and the Bald and Golden Eagle Protection Act, as amended. The state of Florida also delisted the bald eagle.

An additional species, the Everglades snail kite (*Rostrhamus sociabilis*) has been afforded additional protection since the 2005 FEIS. A consultation area for the snail kite is now in place over Polk County and much of Osceola County. Although it is unlikely that this species will be affected by the project as habitat in the area is suboptimal, consultation with and concurrence from the U.S. Fish and Wildlife Service (USFWS) will be required because the corridor is within the snail kite's designated consultation area.

The Revised Preferred Alternative will have no effect on the following federally protected species with potential habitat in the project vicinity: American alligator, Florida scrub-jay, Florida panther, and Florida manatee. It is also anticipated to have no effect on the following

state-only protected species: Florida pine snake, Florida burrowing owl, Southeastern American kestrel, Florida black bear, and protected plant species. The Revised Preferred Alternative may affect, but is not likely to adversely affect the following federally protected species: Eastern indigo snake, sand skink, Everglade's snail kite, and wood stork. The project may affect but is not likely to adversely affect the following state-only protected species: gopher tortoise, Florida mouse, gopher frog, Florida sandhill crane, Sherman's fox squirrel, and state protected wading bird species. As part of mitigation commitments, FDOT will continue to coordinate with the U.S. Fish and Wildlife Service (USFWS), the Water Management Districts (WMDs), and Florida Fish and Wildlife Conservation Commission (FFWCC) to develop design and construction methods to avoid and minimize impacts to these species.

6.11. Energy

The switch to the electric train technology results in an overall lower net energy consumption since the consumption is considerably lower than the gas turbine train technology. The 2005 FEIS shows the net energy consumption dropping from 498,855 million BTU (2005 FEIS Preferred Alternative) to 239,820 million BTU (2005 Alternative 5, Revised Preferred Alternative).

These predictions factor in the reduction of gasoline consumption by diverting automobile ridership, the power required to propel the train, operate and maintain the new system and thermal losses for electric power generation. As a part of the reevaluation effort, the ridership projections were updated and show a slight increase in riders. This increase would lower VMT only slightly resulting in a negligible decrease in the energy demands of the Revised Preferred Alternative. The slight shifts in alignment and station locations also would not affect the energy consumption predictions listed above.

The total change is a very small fraction (less than 1/20th of one percent) of Florida's total energy consumption for surface transportation (all non-military vehicle operation on highways, railroads, and fixed-guideway public transportation), which is estimated to reach one quadrillion BTUs (i.e., 1,000,000,000 MBTU) by 2010.

6.12. Means to Avoid and Minimize Environmental Harm

FRA and FDOT are committed to working with our partners and stakeholders in the development of this project, and will continue to coordinate the required mitigation and commitments for the FHSR project as a means to avoid and minimize environmental harm. **Appendix B** documents the commitments and mitigation from the 2005 FEIS and any changes or updates needed based on changes in potential impacts or regulations based on the FEIS Reevaluation.

6.13 Environmentally Preferable Alternative

The environmentally preferable alternative resulting from the FEIS Reevaluation remains the same as the environmentally preferable alignment identified in the 2005 FEIS (the No Build Alternative). The No Build Alternative still has less direct and indirect impact to the environment than the build alternatives. However, as noted in the FEIS, the No Build Alternative does not

meet the project purpose and need. It fails to enhance intercity passenger mobility in Florida by expanding passenger transportation capacity or by providing an alternative to highway and air travel. Congestion on Interstate 4 can be expected to continue to grow under the No Build Alternative.

The Revised Preferred Alternative assessed in the FEIS Reevaluation, as described above, has been developed in a manner so as to minimize environmental impacts. It would use existing transportation corridors to minimize environmental impacts and provides environmental and transportation benefits in the form of increased efficiency in energy use for transportation, decreased energy consumption, increased mobility, safety, reliability, travel times and accessibility, and reduced vehicle miles travelled for intercity trips.

The changes in existing conditions identified in Chapter 3 of the attached 2009 FEIS Reevaluation (Appendix A) of this document resulted in changes to the environmental impacts as summarized in the following:

- Relocations: reduction of one business impact in Tampa CBD and 3 additional business impacts in Tradeport Drive industrial area.

- Section 106: reduction of one historic structure with relocation by FDOT complete.

- Recreation and Park/Section 4(f): Changes to the City of Tampa's Perry Harvey Sr. Park boundaries since the 2005 FEIS and changes to the alternative reduce overall area of use.

- Air Quality, Noise, Vibration, Visual/Aesthetic, and Energy Consumption: changes based on technology preference from gas turbine-powered to electric-powered locomotive-hauled train.

- Contamination: additional sites resulting in the same number of sites with high risk ranking and an additional one site each for medium and low risk ranking.

- Wildlife and Habitat: one additional species (Everglade's snail kite) afforded protection since 2005.

The above changes to the environmental impacts do not change the mitigation and commitments identified in the 2005 FEIS and included as Appendix B in this document with the exception of regulatory changes in the permitting of wetlands, water quality, and wildlife and habitat.

7. DECISION

7.1. Basis for Decision

FDOT, in coordination with FRA, proposes to implement HSR service in the initial segment of the Florida High Speed Rail Corridor between Tampa and Orlando. The purpose of FHSR is to enhance intercity passenger mobility in Florida by expanding passenger transportation capacity and providing an alternative to highway and air travel. Increased mobility is viewed as essential for the sustained economic growth of the region, as well as the quality of life of the region's residents and visitors. Presently, passenger mobility in the Tampa-Orlando corridor is provided primarily by highways, particularly I-4. Projected transportation demand and travel growth, as prompted by social demand and economic development and compared to existing and future roadway capacity, show a serious deficit in available capacity. In addition, increasing population, employment, and tourism rates continue to elevate travel demand in the study corridor. Implementation of the FHSR project will help address these needs. In addition, the Passenger Rail Investment and Improvement Act of 2008 established high-speed rail corridor development as an important component of the Nation's transportation policy. Implementation of the FHSR Project is consistent with the Department of Transportation and FRA's vision of the important role high-speed intercity passenger rail can play in certain travel markets (see *Vision for High-Speed Rail in America*, April 2009 http://www.fra.dot.gov/downloads/rrdev/hsrstrategicplan.pdf) In the 2005 FEIS, gas turbine-powered technology was identified as the Preferred Alternative. Since then, the electric-powered technology has emerged as the preferred technology, on the same alignment, based on the current initiatives to reduce carbon emissions and dependency on foreign oil. The 2005 FEIS and the 2009 Reevaluation have shown that environmental impacts have been minimized with the selection of the alignment along existing transportation corridors.

The FRA, in accordance with NEPA and the NEPA implementing regulations (40 CFR Parts 1500-1508; 64 FR 28545 and 23 CFR Part 771), finds that the requirements of NEPA have been satisfied for FHSR Rail Tampa – Orlando project.

The environmental record for FHSR Tampa-Orlando Corridor includes the Draft EIS (August 2003), the Final EIS (July 2005), the Reevaluation to the FEIS (October 2009), and the comments from the circulation of the 2005 Final EIS. These documents represent the detailed analysis and findings required by NEPA on:

- The environmental impacts of the proposed project
- Alternatives to the proposed project
- Irreversible and irretrievable impacts on the environment which may be involved in the proposed project should it be implemented.

On the basis of the evaluation of social, economic, and environmental impacts contained in the DEIS, FEIS, FEIS Reevaluation and the written and oral comments offered by the public and by other agencies, the FRA determines that:

- Adequate opportunity was afforded for the presentation of views by all parties with a significant economic, social, or environmental interest, and fair consideration was given

to the preservation and enhancement of the environment and to the interest of the communities in which the proposed project is located and

- All reasonable steps were taken to minimize adverse environmental effects of the proposed project, and where adverse environmental effects remain, they have been fully reported in the DEIS, FEIS and FEIS Reevaluation.

The extensive opportunities provided for public and other stakeholder involvement in Project planning and decision-making are described in Chapter 6 of the 2005 FEIS and summarized in **Appendix C** of this ROD. The reasonable steps to minimize adverse environmental effects are described in Chapter 4 of the 2005 FEIS, Chapter 4 of the FEIS Reevaluation and are summarized in Appendix B of this ROD.

This ROD also documents compliance with other applicable federal environmental laws, rules and regulations as follows:

7.2. Section 106 of the National Historic Preservation Act

Section 106 of the NHPA of 1966 requires that any federal agency having direct or indirect jurisdiction over a proposed federal or federally assisted undertaking take into account the effect of the undertaking on any district, site, building, structure, or other object that is listed or eligible for listing on the National Register of Historic Places. Under this provision, the NEPA lead agency, the State Historic Preservation Officer (SHPO), affected Native American tribes, and other "consulting" parties participate in a consultation process regarding the potential effects of the undertaking on historic resources. Coordination with the Florida SHPO includes:

- Concurrence with Cultural Resource Assessment Survey (CRAS) Methodology and Area of Potential Effect (APE), March, 2003
- SHPO Concurrence with Corridor Study CRAS Findings, April 15, 2003
- SHPO Concurrence for PD&E CRAS Findings, September 15, 2003
- SHPO Concurrence on Section 106 Findings, January 5, 2004

Through this coordination it was determined that the Revised Preferred Alternative, based on a set of stipulated conditions, would have a "conditional no adverse effect" on historic resources.

7.3. Floodplains and Floodways Finding

DOT Order 5620.2 implements Executive Order 11988, *Floodplain Management and Protection*. These orders state that FRA may not approve an alternative involving a significant encroachment unless FRA can make a finding that the proposed encroachment is the only practicable alternative. The major purposes of Executive Order 11988 are to avoid Federal support for floodplain development; to prevent uneconomic, hazardous, or incompatible use of floodplains; to restore and preserve the natural and beneficial floodplain values; and to be consistent with the standards and criteria of the National Floodplain Insurance Program.

FRA concludes that the Project will not result in any substantial adverse impact on natural and beneficial values of the floodplains, will not result in a substantial change in flood risks or

damage, and will not have a substantial potential for interruption or termination of emergency service and evacuation routes.

7.4. Wetlands Finding

Presidential Executive Order 11990, "Protection of wetlands," directs federal agencies to avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative. The following sets forth the basis for this finding for the Project.

The Revised Preferred Alternative (Alternative 5) would result in 35.8 acres of potential wetland impacts resulting from the electric powered technology, of which 11 are considered high quality wetlands. Wetland impacts, which would result from the construction of FHSR, are proposed to be mitigated pursuant to S. 373.4138 F.S. to satisfy all mitigation requirements of Part IV, Chapter 373, F.S. and 33 U.S.C.1344. Impacts to wetlands by the Project cannot be practicably avoided or minimized beyond present efforts and identified mitigation measures are included in Appendix B.

Based upon the above considerations, FRA determines that, under the requirements of Executive Order 11990, there are no practicable alternatives to the proposed construction in wetlands, and that the proposed action includes all practicable measures to minimize harm to these resources.

7.5. Endangered Species Finding

There are 24 federal and/or state protected species that have the potential or are known to occur within the FHSR study area. Six of those species are reptiles and amphibians, eleven are birds, five are mammals, and the remaining two are plants. Because the design/build alternatives use existing transportation corridors that pass through potential habitat, any of the alternatives may affect some potential sites, but it is not likely to adversely affect any of the species. Furthermore, the FDOT has committed to providing wildlife crossings in Polk County along I-4 during construction of the ultimate interstate improvements, including the FHSR project.

The Revised Preferred Alternative will have "no effect" on the following species: American alligator, Everglades snail kite, Florida pine snake, Florida scrub jay, Florida burrowing owl, Southeastern American kestrel, Florida panther, manatee, Florida black bear, and protected plant species. The Revised Preferred Alternative "may affect, is not likely to adversely affect" the following species: Eastern indigo snake, gopher tortoise, Florida mouse, gopher frog, sand skink, Florida sandhill crane, bald eagle, wood stork, state protected wading bird species, and Sherman's fox squirrel. As part of mitigation commitments, FDOT will continue to coordinate with USFWS, the WMDs, and FFWCC to develop design and construction methods to avoid and minimize impacts to these species."

FRA has determined that no formal consultation in accordance with Section 7 of the Endangered Species Act is required based upon the findings summarized above.

7.6. Environmental Justice Finding

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, requires that each Federal Agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

The Project is within an existing transportation corridor and would not bisect any minority or low-income neighborhoods nor require the displacement of any residences in those neighborhoods. The anticipated human and environmental effects of the Project would not be disproportionately borne by the minority or low-income populations within the study area.Based upon these findings, FRA determines that the Project is in accordance with requirements of Executive Order 12898.

7.7. Section 4(f) Determination

Section 4(f) of the US Department of Transportation (DOT) Act of 1966 stipulates that DOT agencies cannot approve the use of land from publicly owned parks, recreation areas, wildlife refuges, or public and private historical sites unless there is no feasible and prudent alternative to such use and the project includes all possible planning to minimize the harm to the property resulting from use.

The Section 4(f) evaluation for the potential HSR alignments and stations documented in Section 5 of the FEIS and Section 4.4 of the FEIS Reevaluation indicates that one Section 4(f) resource, Perry Harvey Sr. Park, will be used by the project. The supporting information in the FEIS Reevaluation, summarized below, demonstrates that there are unique problems or unusual factors involved with any alternative that would avoid this Section 4(f) property. Potential avoidance alternatives fail to meet the project purpose and need, fail to meet the objectives of those responsible for the resource used, or result in impacts of extraordinary magnitude to the environment or the community.

Based on the documentation presented in the FEIS and updated in the FEIS Reevaluation, the FRA has determined that:

- The Project is a feasible and prudent alternative with the least harm to Section 4(f) resources;
- There is no feasible or prudent alternative to the use of the above Section 4(f) resources; and
- The Project includes all possible planning to minimize harm to the resources resulting from such use. These measures are identified included in Attachment A.

During preparation of the 2005 FEIS it was determined that there would be a potential for moderate noise level increases (proximity effects). An evaluation of vibration, access, aesthetics, and ecological encroachment indicates that the Project will not substantially impair or diminish the use of the park, and a determination was made that there will be no constructive use. These conclusions have not changed. Coordination with the City of Tampa includes a memorandum in the FEIS Reevaluation identifying the continued commitment of FDOT to meet the specific commitments and stipulations identified in the TIS FEIS.

8. CONCLUSION

The FRA has reached a decision based on the information and analysis contained in the 2005 FEIS and the 2009 FEIS Reevaluation. FRA selects the FEIS Reevaluation Revised Preferred Alternative, also described in this document as 2005 FEIS Alternative 5, with electric powered technology, because this alternative: 1) best satisfies the Purpose and Need, 2) minimizes impacts to the natural and human environment through the use of existing transportation corridors and other adopted mitigation measures, 3) has been selected based on processes in compliance with NEPA and other applicable requirements, and 4) may be advanced.

Joseph C. Szabo
Administrator
Federal Railroad Administration

Date: 5/7/10

Attachments:

Appendix A - Final Environmental Impact Statement Reevaluation
Appendix B - Mitigation and Commitments
Appendix C - Public Involvement/Comment Summary

EXHIBIT

"D, Part 2"

APPENDIX B
Mitigation and Commitments

Resource	Mitigation and Commitments	Change in impacts from 2005 FEIS?	Additional Mitigation Required?
COMMUNITY IMPACTS			
Community Cohesion	None required	No	No
Community and Land Use Impacts	• See mitigation for acquisitions from Perry Harvey Sr. Park in the Recreation and Parkland resource category below.	No	No
Economic Impacts	None required	No	No
Safety and Public Health	• Submittal and approval of specific plans addressing emergency and maintenance access to the guideway, construction access, and construction staging. • Development and implementation of a System Safety Plan that would also address security plans in accord with FRA standards. • Fencing, intrusion detection system, barriers, and other protective measures as required by the Safety Plan.	No	No
Relocation and Right-of-Way Impacts	• Carry out ROW and relocation program in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policy Act of 1970.	Yes	No
Environmental Justice	None required	No	No
Section 106 - Archeological and Historical Resources	• Provide the FHSR design plans (for the Tampa CBD and Ybor City areas) to the SHPO for review and comment at 30 percent, 60 percent, and 90 percent design stages. • Coordinate the design of the Tampa Station with the SHPO to ensure that historic integrity is maintained at the nearby North Franklin Street Historic District and the St. Paul AME Church Parsonage. • Implement vibration monitoring during construction adjacent to the Oaklawn Cemetery, German American Club and within the Ybor City NHLD to ensure vibration levels do not exceed the damage criteria described in FRA's guidance manual, High Speed Ground Transportation Noise and Vibration Impact Assessment, Chapter 10. If vibration levels approaching the damage criteria are found to occur, immediate coordination with the SHPO would be conducted and construction means and methods will be reviewed to determine how the potential for damage can be minimized.	Yes	No

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Resource	Mitigation and Commitments	Change in impacts from 2005 FEIS?	Additional Mitigation Required?
Section 106 - Archeological and Historical Resources (continued)	• The stipulations of the Tampa Interstate Study Memorandum of Agreement would be fulfilled for any impacts to contributing historic structures within the Ybor City NHLD and the Tampa Interstate Study Ultimate ROW. • Aesthetic treatment for the FHSR would be compatible with the existing Urban Design Guidelines set up for the Tampa Interstate Study FEIS/ROD within the Tampa CBD and Ybor City areas. At minimum, the color of the concrete should be compatible with the Tampa Interstate Study concrete color. The SHPO, City of Tampa, and local community groups, will be included in the development of the FHSR aesthetics. • The FHSR project shall be coordinated with the Barrio Latino Commission during the project's later design phases, as required by the Tampa Code of Ordinances, Chapter 27 Zoning.	Yes	No
Recreation and Parkland	• To compensate for the right-of-way requirements at Perry Harvey Sr. Park, the FHSR project will comply with the specific commitments and stipulations identified in the existing Tampa Interstate Study MOA for the Ultimate right-of-way and improvements. • Through coordination and correspondence, the City of Tampa indicated that compensation for impacts to the park can be accomplished through the eminent domain process. As stated previously, the TIS Ultimate ROW includes provisions for multi-modal transportation that applies to the FHSR project.	Yes	No
Section 4(f) Impacts	• See mitigation requirements listed under the Section 106 - Archeological and Historical Resources and Recreation and Parkland sections above.	Yes	No
Secondary and Cumulative Impacts	None required	No	No
NATURAL AND PHYSICAL IMPACTS			
Visual/Aesthetic	• The Preferred Alternative would result in potential visual/aesthetic issues within the Tampa CBD. Where the FHSR leaves the I-4 median within Ybor City, coordination will occur with the City of Tampa to ensure design compatibility in height and design with the proposed Ybor City Gateway design at I-4 and 21st Street.	No	No

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Resource	Mitigation and Commitments	Change in impacts from 2005 FEIS?	Additional Mitigation Required?
Air Quality	None required	Yes	No
Noise/Vibration	• The feasibility of noise mitigation would need further evaluation. As the design is finalized, noise mitigation will be considered in more detail to determine if it is warranted based on a cost/benefit analysis. • Noise impacts that exceed the FRA's criteria for severe impacts will be mitigated. Mitigation will be coordinated with local communities during the final design phases of the project. • Vibration impacts that exceed FRA criteria are considered to be significant and warrant mitigation, if feasible. Vibration mitigation will be addressed in more detail during final design.	Yes	No
Wetlands	• A formal wetland jurisdictional survey will be produced during the permitting effort. Review and approval of this survey will be conducted by appropriate local, state and federal agencies. Plans will comply with any local requirements including the water management districts and the Hillsborough County Environmental Protection Commission guidelines. • A continuing process of avoiding and minimizing impacts will be performed during final design. Unavoidable wetland impacts shall be mitigated pursuant to S. 373.4138 F.S. to satisfy all wetland mitigation requirements of Part IV Chapter 373. and 33 U.S.C. 1344. Mitigation requirements will be negotiated between FDOT and the FDEP to assure adequate compensation for the loss of wetlands from the project is provided.	Yes	Potentially, to account for regulatory changes.
Aquatic Preserves	None required	No	No
Water Quality	• The Preferred Alternative falls within the jurisdictions of the SWFWMD, the SFWMD, and the SJRWMD. The water quality criteria associated with each agency would apply to the portion of the project within the respective district limits. The FHSR will meet these criteria, which are located in rules 62-302.500 and 62-302.530 of the F.A.C.	No	Potentially, to account for regulatory changes.
Outstanding Florida Waters	None required	No	No

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Resource	Mitigation and Commitments	Change in impacts from 2005 FEIS?	Additional Mitigation Required?
Contamination	• Potential contamination sites identified in the 2005 FEIS and this reevaluation will be investigated further prior to construction. Investigative work will include visual inspection, monitoring of ongoing cleanups, and possible subsurface investigations. • At known contamination sites, estimated areas of contamination will be marked on design drawings. Prior to construction, plans to address the contamination during construction will be developed. • Construction plans will also includes special provisions for handling unexpected contamination discovered during construction will be included in the construction plans package. • FDOT will comply with all applicable local, state, and federal standards and regulations regarding building demolitions and renovations, asbestos, and open burning requirements, including the Hillsborough County Environmental Protection Commission guidelines.	Yes	No
Wild and Scenic Rivers	None required	No	No
Floodplain and Floodway Impact	• Coordination with the water management districts will identify areas appropriate for mitigation of the volumetric impacts of the preferred alignment that will not increase or significantly change the flood elevations and/or limits.	No	No
Coastal Zone Consistency	None required	No	No
Coastal Barrier Resources	None required	No	No
Wildlife and Habitat, including Protected Species	Commitments and mitigation are listed below by species: • FDOT will continue coordination with USFWS, water management districts, and FFWCC to develop design and construction methods to avoid and minimize impacts to protected species **Eastern Indigo Snake** • To assure protection of the Eastern indigo snake during construction, FHSRA will incorporate the "Construction Precautions for the Eastern Indigo Snake" guidelines into the final project design and require that the construction contractor abide strictly to the guidelines throughout construction. The guidelines include the following:	No	Yes, to account for regulatory changes

APPENDIX B
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Resource	Mitigation and Commitments	Change in impacts from 2005 FEIS?	Additional Mitigation Required?
Wildlife and Habitat, including Protected Species (continued)	• FHSRA shall provide Eastern indigo snake educational information, as contained in the applicable FDOT Districts One, Five, or Seven approved educational plans, to construction employees prior to the initiation of any clearing, construction, or gopher tortoise relocation activities. The applicable FDOT Districts One, Five, or Seven educational exhibits shall be posted at sites immediately accessible to all employees. • All construction activities shall cease in the immediate vicinity of any live Eastern indigo snake found within the project area. Work may resume after the snake, or snakes, are allowed to leave the area on its own. • Location of live sightings shall be reported to the USFWS Vero Beach field office at (561) 562-3909. • If a dead Eastern indigo snake is found on the project site, the snake shall be frozen as soon as possible and FHSRA shall notify the Vero Beach field office immediately for further instruction. **Gopher Tortoise** • The FHSRA will conduct comprehensive surveys for gopher tortoises and their burrows during the final design phase of the project within the construction limits (including roadway footprint, construction staging areas and stormwater management ponds) and prior to construction. If burrows are identified during these surveys, FHSRA will contact the FWC to coordinate mitigation for any impacts to this species and acquire the necessary relocation permits in accordance with the Gopher Tortoise Permitting Guidelines (April 2009). Although the relocation permit is issued for the gopher tortoise, the permitting process provides protection for the Florida mouse and gopher frog. **Sand Skink** • Based on the identification of sand skink habitat within the project area, the FHSRA will conduct surveys during the design/build phase and prior to permitting. The surveys will be conducted, in potentially suitable habitat, between March 1st and May 15th in accordance with the USFWS' draft protocol. Further coordination with the USFWS will take place prior to the initiation of the surveys to coordinate any potential impacts during the design/build phase of the FHSR project.	No	Yes, to account for regulatory changes

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Resource	Mitigation and Commitments	Change in impacts from 2005 FEIS?	Additional Mitigation Required?
Wildlife and Habitat, including Protected Species (continued)	**Sand Hill Crane** • Prior to construction, resurveys for sandhill cranes in areas that may support nesting habitat will be conducted. If any crane nests are located, FHSRA will contact FFWCC immediately. Construction activities in the vicinity of the nest would cease until appropriate protective measures are determined. **Bald Eagle** • One bald eagle's nest, PO-50 in Polk County, is located less than 300 ft. from the I-4 southern ROW limit. Because this nest was active through the 2007 nesting season, the nest tree is still provided protection by the USFWS. Therefore, the FHSRA will contact the USFWS to discuss if the nest site is considered viable. If the nest is viable, then standard construction precautions will be implemented to assure the nest and any nesting activity would be protected from construction. Also, prior to construction, the Preferred Alternative will be re-evaluated to determine if any new nests have been established in proximity to the construction corridor. Coordination with Florida Fish and Wildlife Conservation Commission will also be conducted. **Wood Stork** • Based on USFWS guidelines, impacts to certain wetland systems within a 15-mi. radius, (or 18.6-mi radius in Polk and Osceola counties) of a wood stork colony may directly affect colony productivity because they are considered to be in their Core Foraging Area (CFA). FRA and FDOT commit to the following: • The Wood Stork Foraging Habitat Assessment Procedure will be used to evaluate wetlands likely to be impacted that are also located within the CFA of a wood stork colony. • No net loss of wetlands within the project area. • Replacement of drainage ditches, swales, and retention ponds will be at a 1:1 or greater ratio, resulting in no net loss of CFA. • Minimizing indirect impacts (e.g., changes in hydrological regimes) to adjacent wetlands by adherence to wetland permitting requirements of the water management districts and the USACE. • Where reasonable, wood stork habitat alterations will be mitigated within the foraging range of known habitat rookeries in the project area.	No	Yes, to account for regulatory changes

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Mitigation and Commitments

Resource	Mitigation and Commitments	Change in impacts from 2005 FEIS?	Additional Mitigation Required?
Wildlife and Habitat, including Protected Species (continued)	**Sherman's Fox Squirrel** • In an effort to minimize or eliminate any adverse affects to the Sherman's fox squirrel, the FHSRA will survey areas supporting suitable habitat outside of existing transportation ROW for nests just prior to construction in those areas. If an active nest is located during these surveys, the FHSRA will contact the FFWCC for guidance on assuring no adverse effect. **Everglade's Snail Kite** • Consultation with the USFWS to confirm no effect to the Everglade's Snail Kite given the consultation area established since publication of the FEIS in 2005. A commitment by FDOT to provide a future wildlife crossing during construction of the ultimate interstate improvements in Polk County is contained in the Design Change Reevaluation of I-4 from Memorial Boulevard in Polk County to the Osceola County line. The FHSR is considered to be a viable portion of the ultimate I-4 corridor and will include wildlife crossings in its final design.	No	Yes, to account for regulatory changes
Farmlands	None required	No	No
Energy Consumption	None required	Yes	No
Utilities	• Coordination with affected utilities during final design to ensure provision of adequate depth beneath or vertical clearance over project elements.	No	No
TRANSPORTATION			
Freight Rail Operations Impacts	None required	No	No
Highway Operations Impacts	• The design/build contractor will be required to meet FDOT's Design and Specifications for maintenance of traffic plans during construction. • Coordination with Districts One, Five, and Seven is required to identify and coordinate any concurrent construction along the I-4 corridor. • The design/build consultant will coordinate meetings for the development of the maintenance of traffic plans and the outcome of these meetings will be an acceptable plan to both FDOT and FHWA prior to approved use of the interstate right-of-way for the FHSR.	No	No

APPENDIX B
Mitigation and Commitments

Resource	Mitigation and Commitments	Change in impacts from 2005 FEIS?	Additional Mitigation Required?
Station Access and Traffic Impacts	• Roadway improvements in the immediate area of any station will be coordinated with local agencies and jurisdictions during final design. • Aesthetic considerations for each station will also be coordinated with various agencies and local jurisdictions during final design.	No	No
Airport Operations	• The FHSRA is committed to working with the Greater Orlando Aviation Authority (GOAA) and the FAA in the development of the project, and will continue to coordinate all aspects of the project with these agencies, especially in relation to the design of project's alignment, ancillary facilities and stations in the vicinity of the Orlando International Airport.	No	No
CONSTRUCTION IMPACTS			
Construction Impacts	• Impacts to residents and travelers in the immediate vicinity of the project may result due to the construction of the Preferred Alternative; however, they would be of short duration in any given location since the construction would proceed in a scheduled sequence.	No	No
Construction Impacts (continued)	• All construction will be conducted in accordance with the FDOT's Standard Specifications for Road and Bridge Construction and Best Management Practices (BMPs).		

Source: Parsons, PBS&J September 2009

EXHIBIT

"D, Part 3"

APPENDIX C

Public Involvement/Comment Summary

A comprehensive Public Involvement Program was carried out for this study. The program began early in the study and continued throughout the process. The following summarizes this program and detailed information is contained within Section 6 of the 2005 FEIS.

The Notice of Intent was published in the Federal Register on March 27, 2002 and an Advance Notification package was distributed to federal, state, and local agencies and to appropriate United States and State senators and representatives on April 3, 2002. Written comments were received from several of the agencies and have been addressed during the coordination and development of the FEIS.

Throughout the project, FHSRA organized meetings to provide interested parties with project updates. FHSRA held two agency coordination meetings: April 30, 2002 and July 30, 2003. FHSRA also held meetings with the local MPO and committees, elected officials, small groups, and non-governmental organizations. In addition, the FHSRA established a Cultural Resource Committee (CRC) to assist in the evaluation of significant cultural resources, potential effects, and methods for mitigation.

Two series of Public Information Workshops were held in each of the four counties located within the proposed FHSR corridors. The first series of public workshops was held in May 2002 to provide the attendees with an opportunity to review the proposed conceptual corridors, engineering design concepts, and the proposed high speed rail technologies, and to submit their comments. The second series of public meetings was held in January 2003 to provide the attendees with an opportunity to review the retained alignments, eliminated alignments, proposed high speed rail technologies, and construction schedules, and to submit their comments.

A series of Public Hearings was held in October 2003 in three of the four counties at locations along the FHSR corridor. The purpose of this series of Public Hearings was to solicit public comment on the Draft EIS, the proposed FHSR alternatives, the proposed technologies, construction schedules, and other issues related to the development of a high speed rail system.

- Approximately 75 individuals participated in the Hillsborough County public hearing. Ten total comments were received that evening.
- Approximately 112 individuals participated in the Polk County public hearing. Twenty total comments were received that evening.
- Approximately 260 individuals participated in the Orange/Osceola public hearing. Fifty-nine total comments were received that evening.

Comments received through the public hearings are summarized in Chapter 6 of the 2005 FEIS. The public hearings were also documented in detail in the Public Hearing Comments Summary Report prepared under separate cover as a part of the 2005 FEIS.

A newsletter was mailed to all property owners, interested citizens, and local and state officials that summarized the first series of Public Information Workshops, provided a summary of project activities, announced the second series of Public Information Workshops, and listed upcoming events and key project dates.

A web page was developed to provide updated information on FHSR. The following information was displayed on-line: Florida High Speed Rail Screening Report, project schedule, workshop announcements, schedule of elected official and small group meetings, schedule of MPO and committee meetings, workshop results, and handout materials from the meetings. The website also provided a list of frequently asked questions, displayed meeting minutes of all public meetings, and offered viewers the opportunity to submit questions and comments to the project team.

Comments from the following agencies and organizations were addressed in the FEIS:

- Environmental Protection Agency
- Federal Highway Administration
- US Army Corp of Engineers
- Federal Aviation Administration
- Florida Department of Transportation
- Florida Department of Environmental Protection
- South Florida Water Management District
- Southwest Florida Water Management District
- City of Auburndale/Town of Polk City
- City of Lakeland, Community Development Department
- Pinellas County MPO
- Tampa Bay Regional Planning Council
- Environmental Protection Commission of Hillsborough County
- School Board of Orange County
- Polk Group of Sierra Club, Florida Chapter
- League of Environmental Organizations
- Sierra Club, Florida Chapter
- East Polk Committee of 100

The Final Environmental Impact Statement for Florida High Speed Rail from Tampa to Orlando was released in July, 2005. No comments on the FEIS were received.

A comprehensive agency and public outreach program was carried out for the FHSR FEIS Reevaluation. By meeting with interested citizens and agencies during the reevaluation phase, FDOT ensured public participation and input on the changes to the preferred alternative and the resulting potential environmental impacts. Members of the public received direct communication in the form of mailings and the project website.

The public awareness program was developed to insure federal, state, and local officials, property and business owners, interested groups and organizations, and county residents receive the latest information concerning project changes and the status of the reevaluation activities.

A total of 11 meetings were held with local governments, as shown on **Table C-1**, to obtain information about changes to transportation facilities and land use plans that have occurred since the 2005 FEIS.

Table C-1: Local Government Coordination Meetings

Organization(s)	Date	Location
Various Transportation / Transit Agencies	June 29, 2009	FDOT District Seven; Tampa, Florida
Various Planning and Transportation Agencies	June 30, 2009	FDOT District Five Urban Office; Orlando, Florida
Orange County	July 20, 2009	Orange County Offices; Orlando, Florida
City of Lakeland, Polk County, Polk County TPO	July 20, 2009	City of Lakeland Offices; Lakeland, Florida
City of Tampa	July 21, 2009	FDOT District Seven; Tampa, Florida
Greater Orlando Airport Authority	July 21, 2009	GOAA Annex Building; Orlando, Florida
City of Orlando	August 12, 2009	City of Orlando; Orlando, Florida
Tampa Bay Area Regional Authority and Hillsborough Area Regional Transit Authority	August 13, 2009	FDOT District Seven; Tampa, Florida
City of Plant City and Hillsborough County	August 13, 2009	FDOT District Seven; Tampa, Florida
University of South Florida Polytechnic	August 13, 2009	FDOT District One; Bartow, Florida
International Drive/ETC	August 14, 2009	Embassy Suites; Orlando, Florida

Source: PBS&J, Sept. 2009

In addition an environmental agency coordination meeting was held on September 11, 2009. Invitees included the Environmental Technical Advisory Teams from Districts One, Five, and Seven. Three Public Information Meetings were held along the project corridor in September 2009. This series of meetings provided the public with an opportunity to review the information on the FHSR reevaluation process and results. The meeting included a video presentation and aerial exhibits and displays for the purpose of enhancing public understanding of the changes expected to the proposed project. All oral and written comments received were documented as part of the project records. A summary of these meetings are included in Public Involvement, Section 7 and Appendix C of the FEIS Reevaluation.

- Approximately 77 individuals participated in the Tampa Public Information Meeting. Ten written comments were submitted at the meeting, including two from elected officials: St. Petersburg City Councilman Wengay "Newt" Newton, and Florida Representative Betty Reed (District 59). One comment and one request for information were received via email.
- Approximately 160 individuals attended the Lakeland Public Information Meeting. Forty-eight written comments were submitted at the meeting, and one was received by mail. One request for project information was received by email.
- Approximately 65 individuals attended the Orlando Public Information Meeting. A total of six (6) written comments were submitted at the meeting.

The Florida High Speed Rail Corridor including Tampa to Orlando and continuing to Miami has received substantial support from federal and state elected officials, counties and cities throughout the corridor, local and regional planning organizations, business development organizations and partnerships, transit agencies and major businesses. **Table C-2** identifies resolutions and letters of support throughout Florida for the continued advancement and construction of high speed rail in the state.

Table C-2: Resolutions and Letters of Support

Sender	#	Date	Type
State of Florida Governor Charlie Crist and Cabinet		September 15, 2009	Resolution
Florida State Senator Mike Fasano, 11th District		August 13, 2009	Letter
Florida Legislator- Arthenia Joyner State Senator, 18th District; Paula Dockery State Senator, 15th District;; Mike Bennett State Senator, 21st District; Evelyn Lynn State Senator, 7TH District; Dennis Jones State Senator, 13th District; Steve Oelrich State Senator, 14th District; Faye Culp State Representative, 57th District; Janet Long State Representative, 51st District; Jim Frishe State Representative, 54th District; Peter Nehr State Representative, 48th District; Bill Galvano State Representative, 68th District; Ken Roberson State Representative, 71st District; Joe Gibbons State Representative, 105th District; Richard Steinberg State Representative, 106th District; Bill Heller State Representative, 52nd District; Michael Scionti State Representative, 58th District; Mike Horner State Representative, 79th District		August 18, 2009	Letter
Florida State Senator Nan Rich, 34th District		August 17, 2009	Letter
Congress of the United States, Suzanne M. Kosmas		September 8, 2009	Letter
Congress of the United States, Kathy Castor		October 1, 2009	Letter
Congress of the United States, Adam H. Putnam		September 30, 2009	Letter
Florida House of Representative Ronald A. Brise		September 11, 2009	Letter
Florida State Representative Seth McKeel, 63rd District		August 14, 2009	Letter
Florida House of Representative Tom Anderson, 45th District		August 31, 2009	Letter
Miami-Dade County Chairman Dennis Moss		August 21, 2009	Letter
Walt Disney World Co.		September 28, 2009	Letter
Universal Studio		October 2, 2009	Letter
Greater Miami Chamber of Commerce		July 1, 2009	Resolution
City of Orlando		August 13, 2009	Resolution
MetroPlan Orlando	09-18 09-19 09-20	August 12, 2009	Resolution
University of South Florida		September 2, 2009	Letter
Lakeland Area Chamber of Commerce		August 26, 2009	Resolution
Citrus Connection –Lakeland Area Mass Transit	09-02	September 21, 2009	Letter
Greater Orlando Aviation Authority		August 19, 2009	Resolution
Tampa Bay Regional Planning Council	2009-04	September 14, 2009	Resolution
Richard Crotty, Orange County Mayor		July 1, 2009	Letter
Orange County Board of County Commissioners	2009-M-34 2009-M-36	August 11, 2009	Resolution
Osceola County Board of County Commissioners	09-066R 09-067R	August 17, 2009	Resolution

Table C-2: Resolutions and Letters of Support

Sender	#	Date	Type
Polk County Board of County Commissioners		August 18, 2009	Resolution
Seminole County Board of County Commissioners		August 17, 2009	Letter
Polk County Board of County Commissioners	2009-182	August 18, 2009	Resolution
Volusia County Metropolitan Planning Organization	2009-21	August 25, 2009	Resolution
Volusia County Council	2009-140	October 1, 2009	Resolution
City Council of the City of Tampa	2009-942	September 24, 2009	Resolution
City of Plant City	127-2009 128-2009	August 10, 2009	Resolution
City of Lakeland	4778/09-0444	September 8, 2009	Resolution
City of St. Cloud		September 9, 2009	Letter
City of Maitland, Douglas Kinson, Mayor		August 11, 2009	Letter
Florida Transportation Commission		September 3, 2009	Resolution
Jacksonville Regional Chamber of Commerce		September 30, 2009	Resolution
South Florida Regional Business Alliance		July 9, 2009	Resolution
Miami Dade Expressway Authority	09-05	July 28, 2009	Resolution
Greater Miami Convention & Visitors Bureau		September 29, 2009	Resolution
Tampa Bay Partnership		August 21, 2009	Letter
Central Florida Partnership		August 24, 2009	Letter
Florida Metropolitan Planning Organization Advisory Council		August 5, 2009	Letter
Audubon of Florida		August 24, 2009	Letter
Florida Institute of Consulting Engineers		August 20, 2009	Letter
Connect Us		August 24, 2009	Letter
Connect Us		October 1, 2009	Letter
Central Florida Development Council		August 19, 2009	Resolution
Florida Building & Construction Trades Council		August 24, 2009	Letter
Amalgamated Transit Union		November 15, 2008	Resolution
Hillsborough Metropolitan Planning Organization		August 4, 2009	Letter
Hillsborough County City-County Planning Commission		September 28, 2009	Letter
Polk County Transit Authority	09-02	August 26, 2009	Resolution
Polk Transportation Planning Organization	2009-04	August 13, 2009	Resolution
Polk County Tourist Development Council		October 1, 2009	Resolution
Manatee Chamber of Commerce		August 25, 2009	Resolution
Tampa Downtown Partnership		May 21, 2009	Resolution
Efficient Transportation for the Community of Central Florida (ETC)		September 14, 2009	Letter
Floridians for Better Transportation		October 2, 2009	Letter
Winter Haven Area Transit Policy Board	2009-01	September 9, 2009	Resolution
Florida Transportation Builders Association, Inc		September 28, 2009	Letter

Table C-2: Resolutions and Letters of Support

Sender	#	Date	Type
Ross Vecchio Attorneys at Law, Dennis Ross		September 15, 2009	Letter
Ming Court		September 29, 2009	Letter
Home Builders Association of Metro Orlando		August 26, 2009	Resolution
Polk County Board of County Commissioners		July 22, 2009	Letter
Central FL MPO Alliance	2009-03	October 16, 2009	Resolution
Greater Miami Chamber of Commerce		September 29, 2009	Letter
Town of Melbourne Village	2008-09	September 23, 2009	Resolution
City of Margate	11-548	October 7, 2009	Resolution
East Polk Committee		September 4, 2009	Resolution
City Commission of the City of Hollywood	R-2009-354	November 18, 2009	Resolution

EXHIBIT

"E"

U.S. Department of Transportation
Federal Railroad Administration

Grant/Cooperative Agreement

1. RECIPIENT NAME AND ADDRESS Florida Department of Transportation 605 Suwannee St Tallahassee, FL 32399-6544	2. AGREEMENT NUMBER: FR-HSR-0002-10-01-00 — 3. AMENDMENT NO. 0 4. PROJECT PERFORMANCE PERIOD: FROM 05/15/2010 TO 08/16/2011 5. FEDERAL FUNDING PERIOD: FROM 05/15/2010 TO 08/16/2011
1A. IRS/VENDOR NO. 56-6001874 1B. DUNS NO. 80-939-7102	6. ACTION New
7. CFDA#: 20.319	9. TOTAL OF PREVIOUS AGREEMENT AND ALL AMENDMENTS 0
8. PROJECT TITLE Florida High-Speed Rail – Phase I, Tampa-Orlando	10. AMOUNT OF THIS AGREEMENT OR AMENDMENT 66,660,000 11. TOTAL AGREEMENT AMOUNT 66,660,000

12. INCORPORATED ATTACHMENTS

THIS AGREEMENT INCLUDES THE FOLLOWING ATTACHMENTS, INCORPORATED HEREIN AND MADE A PART HEREOF:

Special Provisions, Attachment 1:
Passenger Rail Investment and Improvement Act of 2008, Attachment 1A
American Recovery and Reinvestment Act of 2009, Attachment 1B
General Provisions, Attachment 2
Statement of Work, Attachment 3
Quarterly Progress Report for FRA, Attachment 4
ACH Vendor/Miscellaneous Payment Enrollment Form, Attachment 5

13. STATUTORY AUTHORITY FOR GRANT/ COOPERATIVE AGREEMENT

American Recovery and Reinvestment Act of 2009, Public Law 111-5 (February 17, 2009)

14 REMARKS

GRANTEE ACCEPTANCE		AGENCY APPROVAL	
15. NAME AND TITLE OF AUTHORIZED GRANTEE OFFICIAL<br~~Interim CEO~~ Kevin Thibault Interim Executive Director, FLORIDA RAIL ENTERPRISE		17. NAME AND TITLE OF AUTHORIZED FRA OFFICIAL	
16. SIGNATURE OF AUTHORIZED GRANTEE OFFICIAL Electronically Signed	16A. DATE ~~03/14/2010~~ Stephanie	18. SIGNATURE OF AUTHORIZED FRA OFFICIAL	18A. DATE 5/19/10

AGENCY USE ONLY

19. OBJECT CLASS CODE: 41010

20. ORGANIZATION CODE: 9013000000

21. ACCOUNTING CLASSIFICATION CODES

DOCUMENT NUMBER	FUND	BY	BPAC	AMOUNT
FR-HSR-0002-09-01-00	2791207180	2010	91010029Y0	66,660,000

Special Provisions, Attachment 1

1. **Identification of Awarding Agency and Grantee:**

   The Grantee and the Administrator of the FRA, acting by delegation from the Secretary of Transportation, have entered into this Cooperative Agreement ("Agreement") to conduct and fund this project, as more specifically set forth in the Statement of Work, Attachment 3, attached hereto and made a part hereof ("the Project").

2. **Scope:**

   The Grantee shall furnish all personnel, facilities, equipment, and other materials and services (except as otherwise specified herein) necessary to perform the approved Project, as set forth in the Statement of Work (Attachment 3), and in accordance with the representations, certifications and assurances set forth in the Grantee's application(s), and any amendments thereto ("Application"), incorporated herein by reference and made a part hereof.

3. **Awarding Agency Participation:**

   The FRA will provide, on an "as available" basis, one professional staff person, to be designated as the Grant Manager, to review work or work products in progress, and arrange for the review of the Project results upon completion. If this award is made as a cooperative agreement, FRA will have substantial programmatic involvement. Substantial involvement means that, after award, technical, administrative, or programmatic staff will assist, guide, coordinate, or otherwise participate in Project activities.

4. **Term:**

   Unless sooner terminated in accordance with its terms, this Agreement shall be valid for the period described in Section 4 of the Grant/Cooperative Agreement. This time frame includes the period for both completion of the Project, and completion and submission of a final report on Project results, as described in Section 11 and/or other deliverables as agreed to between the parties.

5. **Project, Cost-Sharing Responsibility, and Funding:**

   a. The total estimated cost of the Project is $66,660,000.00.

   b. FRA funding assistance is limited to 100% of the estimated cost for completing the Project. Consequently, of the amount specified in subparagraph (a) of this section, FRA funding assistance under this Agreement is not to exceed $66,660,000.00.

   c. When requesting payment, the Grantee must identify: (1) the total amount of costs; and (2) the balance of federal assistance dollars requested for payment.

   d. Funding responsibility for the Project under this Agreement is recapped as follows:

FRA Funding Assistance	+	Grantee Cash Contribution	+	Grantee In-Kind Contribution	=	Total Project Funding
$66,660,000.00	+	$0	+	$0	=	$66,660,000.00

e. In accordance with Attachment 2, Sections 7c.(5) and d.(1) herein, FRA hereby authorizes the incurrence of pre-agreement costs by the Grantee on or after February 17, 2009, in anticipation of Agreement award, but such costs are allowable only to the extent that they are otherwise allowable under the terms of this Agreement.

6. **Program Income:**

a. The Grantee is encouraged to earn income to defray Project costs. Unless prohibited by 49 C.F.R. Part 18.25 or 49 C.F.R. Part 19.24, as applicable, or otherwise agreed to in writing to by FRA and the Grantee, any program income derived from the Project shall be committed under this Agreement to further eligible objectives of the Project.

b. Program income shall be proportionally deducted from Project outlays, which shall include both the Federal and non-Federal shares of Project costs, as applicable.

7. **Payment Method:**

Payment of FRA funding through FRA's Office of Financial Services, shall be made on a reimbursable basis whereby the Grantee will be reimbursed, after the submission of proper invoices, for actual expenses incurred.

The Grantee will use the following method for transfer of reimbursed funds: Automated Clearing House (ACH) Electronic Vendor Payment (See Attachment 5). Grantee submits SF 3881, SF1194, and SF 270.

Unless directed otherwise, requests for payment shall be made to:

DOT/FRA
Franchise Commercial Payments Branch,
AMZ-150 P.O. Box 268943
Oklahoma City, OK 73126

8. **Reports, Presentations and Other Deliverables:**

Whether for technical examination, administrative review, or publication, all submittals shall be of a professional quality and suitable for their intended purpose. Due dates for submittals shall be based on the specified intervals or days from the effective date of this Agreement.

9. **Progress Reports:**

Progress reports following the form of Attachment 4 shall be submitted quarterly. These reports shall relate the state of completion of items in the Statement of Work to expenditures of the relevant budget elements.

Four quarterly progress reports are also required for periods: January 1- March 31, April 1-June 30, July 1-September 30, and October 1-December 31. The Grantee shall furnish one (1) copy of a quarterly progress report to the Grant Manager on or before the thirtieth (30th) calendar day of the month following the end of the quarter being reported. Each quarterly report shall set forth concise statements concerning activities relevant to the Project, and shall include, but not be limited to, the following:

a) An account of significant progress (findings, events, trends, etc.) made during the

reporting period.

b) A description of any technical and/or cost problem(s) encountered or anticipated that will affect completion of the grant within the time and fiscal constraints as set forth in the Agreement, together with recommended solutions or corrective action plans (with dates) to such problems, or identification of specific action that is required by the FRA, or a statement that no problems were encountered.

c) An outline of work and activities planned for the next reporting period.

10. **Quarterly Federal Financial Report:**

The Grantee shall furnish one (1) copy of a quarterly financial status report to the Grant Manager, and one (1) copy to the Administrative Officer, on or before the thirtieth (30th) calendar day of the month following the end of the quarter being reported. The Grantee shall use SF-425, Federal Financial Report, in accordance with the instructions accompanying the form, to report all transactions, including Federal cash, Federal expenditures and unobligated balance, recipient share, and program income.

11. **Interim and/or Final Report(s):**

If required, interim reports will be due at intervals specified in the Statement of Work. Within 90 days of the Project completion date or termination by FRA, the Grantee shall furnish one (1) hard copy and one (1) reproducible master original to the Grant Manager, and one (1) hard copy to the FRA Administrative Officer of a Summary Project Report. A final version of this report, detailing the results and benefits of the Grantee's improvement efforts, shall be furnished by the expiration date of this Agreement.

12. **Administrative Responsibility:**

Gina Christodoulou, Office of Financial Management, is designated as FRA's Administrative Officer for this Project. All FRA administrative duties under this Agreement are to be performed by the Administrative Officer, unless otherwise specified.

13. **Grant Manager:**

a. John Winkle, Office of Railroad Development, is designated as FRA's Grant Manager. The Grant Manager will oversee the technical administration of this Agreement and act as technical liaison with the Grantee. The Grant Manager is not authorized to change the Statement of Work or specifications as stated in this Agreement, to make any commitments or otherwise obligate the FRA, or authorize any changes which affect this Agreement's monetary amount, the delivery schedule, period of performance or other terms or conditions.

b. The FRA official authorized to sign this Agreement is the only individual who can legally commit or obligate FRA for the expenditure of public funds. The technical administration of this Agreement shall not be construed to authorize the revision of the terms and condtions of this Agreement.

14. **Delivery/Mailing Addresses**:

Unless directed otherwise, all deliverables and copies of reports required to be delivered to the Grant Manager under this Agreement shall be delivered F.O.B. destination, under transmittal letter, to:

Federal Railroad Administration
Office of Railroad Development
1200 New Jersey Avenue, SE (Mail Stop 20)
Washington, DC 20590
ATTN: John Winkle

Unless directed otherwise, all deliverables and copies of reports required to be delivered to the Administrative Officer under this Agreement shall be delivered F.O.B. destination, under transmittal letter, to:

Federal Railroad Administration
Office of Financial Management
1200 New Jersey Avenue, SE
(Mail Stop 45)
Washington, DC 20590
ATTN: Gina Christodoulou

15. **Governing Regulations:**

The Grantee acknowledges that its performance shall be governed by and in compliance with the following Administrative and Cost Principles:

For State, Local and/or Tribal Governmental Entities:

- 49 C.F.R. Part 18, "Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments"
- OMB Circular A-87, "Cost Principles for State and Local Governments," as amended.

For non-profit and for-profit:

- 49 C.F.R. Part 19, "Uniform Administrative Requirements for Grants and Cooperative Agreements With Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations" (applies to non-profit and for-profit organizations)
- OMB Circular A- 21, "Cost Principles for Educational Institutions" (applies to educational institutions)
- OMB Circular A-122, "Cost Principles for Nonprofit Organizations" (applies to private non-profit organizations)
- Federal Acquisition Regulation, 48 C.F.R. Chapter I, Subpart 31.2, "Contracts with Commercial Organizations" (applies to for-profit organizations).

These identified circulars and regulations are hereby incorporated into this Agreement by reference as if fully set out herein.

Passenger Rail Investment and Improvement Act of 2008 Clauses, Attachment 1A

1. The Grantee shall comply with the following clauses which are an integral part of the Agreement to which these clauses are attached and made a part thereof.

Section 1. Buy America.

The Grantee shall comply with the Buy America provisions set forth in 49 U.S.C. 24405(a), with respect to the use of steel, iron, and manufactured goods produced in the United States, subject to the

conditions therein set forth.

Section 2. Labor Provisions.

The Grantee recognizes that 49 U.S.C. 24405(b) provides that persons conducting rail operations over rail infrastructure constructed or improved in whole or in part with funds provided through this Agreement shall be considered a "rail carrier," as defined by 49 U.S.C. 10102(5), for the purposes of Title 49, United States Code, and any other statute that adopts that definition or in which that definition applies, including the Railroad Retirement Act of 1974 (45 U.S.C 231 et seq.), the Railway Labor Act (43 U.S.C.151 et seq.), and the Railroad Unemployment Insurance Act (45 U.S.C. 351 et seq.). The Grantee shall reflect these requirements in its agreements (if any) with the entities operating rail services over such rail infrastructure.

Section 3. Labor Protective Arrangements.

For a project that uses rights-of-way owned by a railroad, the Grantee shall comply with the protective arrangements established under Section 504 of the Railroad Revitalization and Regulatory Reform Act of 1976 (4R Act), 45 U.S.C. 836, with respect to employees affected by actions taken in connection with the project financed in whole or in part under this Agreement (See 49 U.S.C. 24405(c).) The Grantee agrees to comply with the protective arrangements established by the Department of Labor under 45 U.S.C. 836, and to ensure that the railroad contractors it uses for the project agree to those terms. The following definitions apply for purposes of applying those protective arrangements:

'Project' means a project funded under this Agreement.

'Protected employee' means an employee of a railroad who had an employment relationship with such railroad on the date on which the Grantee first applied for financial assistance applicable to the project involved and who is affected by actions taken pursuant to this Agreement; provided, however, that an employee who was benefited solely as a result of a project shall not be a protected employee under these provisions.

'Railroad' means a rail carrier or a common carrier by railroad or express as defined in 49 U.S.C. 10102, and includes the National Railroad Passenger Corporation and the Alaska Railroad as well as a person that conducts rail operations over rail infrastructure constructed or improved with funding provided in whole or in part in a grant made pursuant to this Agreement.

Section 4. Railroad Agreements.

The Grantee represents that it has entered into and will abide by a written agreement (approved by FRA) with any railroad owning property on which a project is to be undertaken, in accordance with 49 U.S.C. 24405(c) (1), providing for compensation for use, assurances regarding the adequacy of infrastructure capacity, keeping railroad collective bargaining agreements in full force and effect, and compliance with liability requirements. Such approved railroad agreements shall also specify terms and conditions regarding the following issues: responsibility for Project design and implementation; Project property ownership, maintenance responsibilities, and disposition responsibilities; and the railroad's commitment to helping to achieve, to the extent it is capable, the anticipated Project benefits. The Grantee shall not enter into or agree to any substantive changes in the approved written agreement with the railroad owning property on which the Project is undertaken without FRA's prior written consent.

Section 5. Maintenance Responsibility and Refunds.

Except as otherwise provided herein, the Grantee shall ensure the maintenance of Project property to the level of utility (including applicable FRA track safety standards) which existed when the Project improvements were placed in service (as set forth in the Statement of Work (Attachment 3)) for a period of twenty (20) years from the date such Project property was placed in service. In the event the Grantee fails to maintain Project property as required by this section for a period of time in excess of six (6) months, the Grantee will refund to FRA a pro-rata share of the Federal contribution, based upon the percentage of the twenty (20) year period remaining at the time of such original default.

In addition, in the event that all intercity passenger rail service making use of the Project property is discontinued during the twenty (20) year period, the Grantee shall continue to ensure the maintenance of the Project property, as set forth above, for a period of one (1) year from the date of the discontinuance to allow for the possible reintroduction of intercity passenger rail service.

Section 6. Project Use for Intercity Passenger Rail Service and Refunds.

The Grantee acknowledges that the purpose of the Project is to benefit intercity passenger rail service. In the event that all intercity passenger rail service making use of the Project property is discontinued (for any reason) at any time during a period of twenty (20) years from the date such Project property was placed in service, as set forth above, and if such intercity passenger rail service is not reintroduced during a one (1) year period following the date of such discontinuance, the Grantee shall refund to FRA, no later than eighteen (18) months following the date of such discontinuance, a pro-rata share of the Federal contribution, based upon the percentage of the twenty (20) year period remaining at the time of such discontinuance.

Section 7. Davis-Bacon Act Provisions.

For projects using or proposing to use rights-of-way owned by a railroad, the Grantee shall comply with the provisions of 49 U.S.C. 24405(c) (2), with respect to the payment of prevailing wages consistent with the provisions of 49 U.S.C. 24312. For these purposes, wages in collective bargaining agreements negotiated under the Railway Labor Act are deemed to comply with Davis-Bacon Act requirements. For projects not using or proposing to use rights-of-way owned by a railroad, the Grantee will comply with the provisions of 40 U.S.C. 3141 et seq.

Section 8. Replacement of Existing Intercity Passenger Rail Service.

The Grantee shall comply with the provisions of 49 U.S.C. 24405(d), with respect to the provision of any intercity rail passenger service that was provided by Amtrak, including collective bargaining agreements, replacement services, and arbitration.

Section 9. Project Management Plan.

The Grantee shall prepare and carry out a project management plan approved by the FRA. At a minimum, the Project Management Plan must include the items addressed in 49 U.S.C. 24403(a).

American Recovery and Reinvestment Act of 2009 Clauses, Attachment 1B

1. The Grantee will comply with the following clauses, which are an integral part of the Agreement to which these clauses are attached and made a part thereof.

Section 1. Grantee Certifications.

The Recovery Act requires three certifications, as follows:

a. Maintenance of Effort Certification (Recovery Act Section 1201). A Maintenance of Effort Certification was required from each State within thirty days of enactment of the Recovery Act (February 17, 2009) pursuant to section 1201 of the Recovery Act. With respect to the Recovery Act funds provided through this Agreement, the Grantee may rely on an existing certification submitted by the State to the Secretary of Transportation, so long as the Grantee certifies to the Administrator (c/o the Grant Manager identified in Attachment 2, section 14) as to the existence and continued validity of the existing certification. If a new certification is required, it should be submitted to the Secretary of Transportation, c/o Joel Szabat, Deputy Assistant Secretary of Transportation for Policy, at TigerTeam.Leads@dot.gov. Certifications may be submitted via e-mail as electronic, scanned copies, with original signed versions to be submitted via U.S. mail.

b. Responsible Investments Certification (Recovery Act Section 1511) . With respect to and prior to the receipt of the funds made available through this Agreement, the Governor or the head of the State Department of Transportation shall certify to the Secretary of Transportation that the infrastructure investments to be funded herein have received the full review and vetting required by law and that the Governor or head of the State Department of Transportation accepts responsibility that the infrastructure investments are an appropriate use of taxpayer dollars. The certification shall include a description of the investments, the estimated total cost, and the amount of Recovery Act funds to be used, and shall be submitted to the Secretary of Transportation, c/o Joel Szabat, Deputy Assistant Secretary of Transportation for Policy, at TigerTeam.Leads@dot.gov. Certifications may be submitted via e-mail as electronic, scanned copies, with original signed versions to be submitted via U.S. mail. As required by the Recovery Act, Certifications under Section 1511 shall be immediately posted on an appropriate State website and linked to the website established by the Recovery Accountability and Transparency Board. No funds will be reimbursed until such posting is made.

c. Appropriate Use of Funds Certification (Recovery Act Section 1607). An Appropriate Use of Funds Certification was required from each State within 45 days of enactment of the Recovery Act (February 17, 2009) pursuant to section 1607 of the Recovery Act. With respect to the Recovery Act funds provided through this Agreement, the Grantee may rely on an existing certification submitted by the State to the Secretary of Transportation, so long as the Grantee certifies to the Administrator (c/o the Grant Manager identified in Attachment 2, Section 14) of the existence and continued validity of the existing certification. If a new certification is required, it should be submitted to the Secretary of Transportation, c/o Joel Szabat, Deputy Assistant Secretary of Transportation for Policy, at TigerTeam.Leads@dot.gov. Certifications may be submitted via e-mail as electronic, scanned copies, with original signed versions to be submitted via U.S. mail.

d. Department of Transportation Guidance. The Department has issued guidance on compliance with the certification requirements of the Recovery Act, which is found at http://www.dot.gov/recovery/certguidance.htm. The Grantee should refer to this guidance in evaluating the continued validity of any existing certifications and in preparing any new certifications required under this section 1.

Section 2. Whistleblower Protections.

An employee of the Grantee may not be discharged, demoted, or otherwise discriminated against as a reprisal for disclosing, including a disclosure made in the ordinary course of an employee's duties, to the Recovery Accountability and Transparency Board, an inspector general, the Comptroller General, a member of Congress, a State or Federal regulatory or law enforcement agency, a person with supervisory authority over the employee (or such other person working for the employer who has the authority to investigate, discover, or terminate misconduct), a court or grand jury, the head of a

Federal agency, or their representatives, information that the employee reasonably believes is evidence of – (1) gross mismanagement of an agency contract or grant relating to Recovery Act funds; (2) a gross waste of Recovery Act funds; (3) a substantial and specific danger to public health or safety related to the implementation or use of Recovery Act funds; (4) an abuse of authority related to the implementation or use of Recovery Act funds; or (5) a violation of law, rule, or regulation related to an agency contract (including the competition for or negotiation of a contract) or grant, awarded or issued relating to Recovery Act funds.

Section 3. False Claims Act.

The Grantee and any sub-grantee awarded funds made available under the Recovery Act and through this Agreement shall promptly refer to the Department of Transportation Inspector General any credible evidence that a principal, employee, agency, contractor, sub-grantee, subcontractor, or other person has submitted a false claim under the False Claims Act or has committed a criminal or civil violation of laws pertaining to fraud, conflict of interest, bribery, gratuity, or similar misconduct involving Recovery Act funds.

Section 4. Prohibited Activities.

None of the funds provided through this Agreement may be used for any casino or other gaming establishment, aquarium, zoo, golf course or swimming pool.

Section 5. Recovery Act Funding Announcement.

The Grantee shall post a sign at all fixed project locations at the most publicly accessible location and a plaque in all purchased or rehabilitated rail cars announcing that the project or equipment was funded by the U.S. Department of Transportation, Federal Railroad Administration, with funds provided through the American Recovery and Reinvestment Act. The configuration of the signs or plaques will be consistent with guidance issued by the Office of Management and Budget and/or the Department of Transportation and approved by the FRA.

Section 6. Reporting Requirements.

a. Periodic Reports. The Grantee shall submit periodic reports to the FRA Administrator, as required by section 1201(c) of the Recovery Act, and as described in this section, not later than February 17, 2011, and February 17, 2012. The periodic reports shall include information describing: (1) the amount of Federal funds appropriated, allocated, obligated, and outlayed under this Agreement; (2) the number of projects that have been put out to bid under this Agreement and the amount of Federal funds associated with such projects; (3) the number of projects for which contracts have been awarded under this Agreement and the amount of Federal funds associated with such contracts; (4) the number of projects for which work has begun under such contracts and the amount of Federal funds associated with such contracts; (5) the number of projects for which work has been completed under such contracts and the amount of Federal funds associated with such contracts; (6) the number of direct, on-project jobs created or sustained by the Federal funds provided for projects under this Agreement and, to the extent possible, the estimated indirect jobs created or sustained in the associated supplying industries, including the number of jobs created and the total increase in employment since February 17, 2009; and (7) information tracking the actual aggregate expenditures by the Grantee from Grantee sources (both internal and external) for projects eligible for funding under this Agreement during the period beginning on February 17, 2009 through September 30, 2010, as compared to the level of such expenditures that were planned to occur during such period as of February 17, 2009. The Department of Transportation or the FRA may issue additional guidance on the preparation and submission of periodic reports.

b. Jobs Accountability Reports.

i. As required by Section 1512(c) of the Recovery Act, and consistent with Office of Management and Budget (OMB) Guidance, dated June 22, 2009 and found at (http://www.whitehouse.gov/omb/assets/memoranda_fy2009/m09-21.pdf), the Grantee shall submit a jobs accountability report to http://www.FederalReporting.gov not later than ten days after the end of each quarter. The report shall contain: (1) the total amount of Recovery Act funds received pursuant to this Agreement; (2) the amount of Recovery Act funds received that were expended or obligated to projects or activities; and (3) a detailed list of all projects or activities for which Recovery Act funds were expended or obligated, including—(A) the name of the project or activity; (B) a description of the project or activity; (C) an evaluation of the completion status of the project or activity; (D) an estimate of the number of jobs created and the number of jobs retained by the project or activity; and (E) detailed information on any subcontracts or subgrants awarded by the Grantee to include the data elements required to comply with the Federal Funding Accountability and Transparency Act of 2006 (Public Law 109-282), allowing aggregate reporting on awards below $25,000 or to individuals, as prescribed by the Director of the Office of Management and Budget.

ii. Information from these reports will be made available to the public. The reporting responsibility should be passed down from the Grantee to the sub-grantee/sub-recipient or vendor, in order to ensure that the necessary information is provided to the Grantee, which is ultimately responsible for reporting the required elements. The Office of Management and Budget may issue additional guidance on the preparation and submission of jobs accountability reports. The Grantee must also register with the Central Contractor Registration database (http://www.ccr.gov) or complete other registration requirements as determined by the Director of the Office of Management and Budget. A DUNS Number (http://www.dnb.com) is one of the requirements for registration in the Central Contractor Registration.

General Provisions, Attachment 2

1. **Definitions. As used in this Agreement:**

a. **Agreement** means any Grant Agreement or Cooperative Agreement, including all attachments.

b. **Application** means the signed and dated proposal by or on behalf of the Grantee, as may be amended, for Federal financial assistance for the Project, together with all explanatory, supporting, and supplementary documents heretofore filed with and accepted or approved by FRA.

c. **Approved Project Budget** means the most recently dated written statement, approved in writing by FRA, of the estimated total cost of the Project, the items to be deducted from such total in order to calculate the estimated net Project cost, the maximum amount of Federal assistance for which the Grantee is currently eligible, the specific items (including contingencies specified) for which the total may be spent, and the estimated cost of each of such items. The term "Approved Project Budget" also includes "Financial Plan" as used in 49 C.F.R. Part 19.

d. **Awarding Agency** means (1) with respect to a grant, the Federal agency, and (2) with respect to a subgrant, the party that awarded the subgrant. In the case of a Federal Agency, the term "Awarding Agency" also includes "Federal Awarding Agency" as used in 49 C.F.R. Part 19.

e. **Federal Railroad Administration** is an operating administration of the U.S. Department of Transportation.

f. **Federal Government** means the United States of America and any executive department or

agency thereof.

g. Grantee means any entity that receives Federal grant assistance directly from FRA for the accomplishment of the Project.

h. Project means the task or set of tasks set forth in the approved Application which the Grantee carries out pursuant to this Agreement, as set forth in the Statement of Work (Attachment 3).

i. Subgrantee means any entity that receives FRA assistance from an FRA Grantee, rather than from FRA directly. The term "subgrantee" does not include "third party contractor."

j. U.S. DOT means the U.S. Department of Transportation, including its operating administrations.

2. **Accomplishment of the Project:**

a. General Requirements:

The Grantee agrees to carry out the Project in a sound, economical, and efficient manner, and in accordance with the provisions of this Agreement, grant guidance, the Application, the Approved Project Budget, the Statement of Work, Project schedules, and all applicable laws, regulations, and published policies. This includes, but is not limited to the following, as applicable:

1) U.S. DOT regulations, "Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments" (common grant management rule), 49 C.F.R. Part 18, applies to Projects with governmental bodies.

2) U.S. DOT regulations, "Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Nonprofit Organizations," 49 C.F.R. Part 19, applies to Projects with institutions of higher education and private nonprofit organizations. 49 C.F.R. Part 19 also applies to grants and cooperative agreements with private for-profit organizations.

b. Application of Federal, State, and Local Laws and Regulations.

1) Federal Laws and Regulations. The Grantee understands that Federal laws, regulations, policies, and related administrative practices to this Agreement on the date the Agreement was executed may be modified from time to time. The Grantee agrees that the most recent of such Federal requirements will govern the administration of this Agreement at any particular time, except if there is sufficient evidence in this Agreement of a contrary intent. Likewise, new Federal laws, regulations, policies and administrative practices may be established after the date the Agreement has been executed and may apply to this Agreement. To achieve compliance with changing Federal requirements, the Grantee agrees to include in all sub-assistance agreements and third party contracts financed with FRA assistance, specific notice that Federal requirements may change and the changed requirements will apply to the Project as required. All limits or standards set forth in this Agreement to be observed in the performance of the Project are minimum requirements.

2) State or Territorial Law and Local Law. Except to the extent that a Federal statute or regulation preempts State or territorial law, nothing in this Agreement shall require the Grantee to observe or enforce compliance with any provision thereof, perform any other act, or do any other thing in contravention of any applicable State or territorial law; however, if any of the provisions of this Agreement violate any applicable State or territorial law, or if compliance with the provisions of this Agreement would require the Grantee to violate any applicable State or territorial law, the Grantee

agrees to notify the FRA immediately in writing in order that FRA and the Grantee may make appropriate arrangements to proceed with the Project as soon as possible.

c. Funds of the Grantee. Unless approved otherwise by FRA, the Grantee agrees to complete all actions necessary to provide the matching contributory funds or cost share of the Project costs, if applicable, at or before the time that such funds are needed to meet Project expenses.

d. Changed Conditions of Performance (Including Litigation). The Grantee agrees to notify FRA immediately of any change in local law, conditions, or any other event that may affect its ability to perform the Project in accordance with the terms of this Agreement. In addition, the Grantee agrees to notify FRA immediately of any decision pertaining to the Grantee's conduct of litigation that may affect FRA's interests in the Project or FRA's administration or enforcement of applicable Federal laws or regulations. Before the Grantee may name FRA as a party to litigation for any reason, the Grantee agrees first to inform FRA; this proviso applies to any type of litigation whatsoever, in any forum.

e. No FRA Obligations to Third Parties. Absent FRA's express written consent, and notwithstanding any concurrence by FRA in or approval of the award of any contract of the Grantee (third party contract) or subcontract of the Grantee (third party subcontract) or the solicitation thereof, FRA shall not be subject to any obligations or liabilities to third party contractors or third party subcontractors or any other person not a party to this Agreement in connection with the performance of the Project.

3. **Ethics:**

The Grantee agrees to maintain a written code or standards of conduct that shall govern the performance of its officers, employees, board members, or agents engaged in the award and administration of contracts supported by Federal funds. The code or standards shall provide that the Grantee's officers, employees, board members, or agents may neither solicit nor accept gratuities, favors or anything of monetary value from present or potential contractors or subgrantees. The Grantee may set minimum rules where the financial interest is not substantial or the gift is an unsolicited item of nominal intrinsic value. As permitted by State or local law or regulations, such code or standards shall provide for penalties, sanctions, or other disciplinary actions for violations by the Grantee's officers, employees, board members, or agents, or by contractors or subgrantees or their agents.

1) Personal Conflict of Interest. The Grantee's code or standards must provide that no employee, officer, board member, or agent of the Grantee may participate in the selection, award, or administration of a contract supported by Federal funds if a real or apparent conflict of interest would be involved. Such a conflict would arise when any of the parties set forth below has a financial or other interest in the firm selected for award:

a) The employee, officer, board member, or agent;
b) Any member of his or her immediate family;
c) His or her partner; or
d) An organization that employs, or is about to employ, any of the above.

2) Organizational Conflicts of Interest. The Grantee's code or standards of conduct must include procedures for identifying and preventing real and apparent organizational conflicts of interests. An organizational conflict of interest exists when the nature of the work to be performed under a proposed third party contract, may, without some restrictions on future activities, result in an unfair competitive advantage to the contractor or impair the contractor's objectivity in performing the contract work.

4. **Approved Project Budget:**

The Grantee agrees to carry out the Project in accordance with the Approved Project Budget, written approval of which the Grantee shall secure prior to being reimbursed under this Agreement. If the Approved Project Budget is included in this Agreement as Attachment 3, execution of the Agreement shall constitute such written approval. The Grantee agrees to obtain the prior written approval of FRA's Associate Administrator for Railroad Development or the Associate Administrator for Railroad Safety, as applicable, for any revisions to the Approved Project Budget that equal or exceed 10 percent any line item or pertain to a line item involving contingency or miscellaneous costs. For revisions to the Approved Project Budget that are less than 10 percent of any line item, and do not involve contingency or miscellaneous costs, the Grantee agrees to notify FRA of the revisions to the Approved Project Budget. Any revisions to the Approved Project Budget must not affect total project costs or the respective cost-sharing responsibilities set forth in Attachment 1, Section 5.

5. **Accounting Records:**

a. **Project Accounts.** The Grantee agrees to establish and maintain for the Project either a separate set of accounts or accounts within the framework of an established accounting system, in a manner consistent with 49 C.F.R. § 18.20, or 49 C.F.R. § 19.21, as amended, whichever is applicable.

b. **Funds Received or Made Available for the Project.** Consistent with the provisions of 49 C.F.R. § 18.21, or 49 C.F.R. § 19.21, as amended, whichever is applicable, the Grantee agrees to record in the Project Account, and deposit in a financial institution all Project payments received by it from FRA pursuant to this Agreement and all other funds provided for, accruing to, or otherwise received on account of the Project (Project Funds). The Grantee is encouraged to use financial institutions owned at least 50 percent by minority group members.

c. **Documentation of Project Costs and Program Income.** All costs charged to the Project, including any approved services contributed by the Grantee or others, shall be supported by properly executed payrolls, time records, invoices, contracts, or vouchers describing in detail the nature and propriety of the charges. The Grantee also agrees to maintain accurate records of all Program Income derived from Project implementation.

d. **Checks, Orders, and Vouchers.** The Grantee agrees that all checks, payrolls, invoices, contracts, vouchers, orders, or other accounting documents pertaining in whole or in part to the Project shall be clearly identified, readily accessible, and, to the extent feasible, kept separate from documents not pertaining to the Project.

6. **Record Retention:**

a. **Submission of Proceedings, Contracts and Other Documents.** During the course of the Project and for three years thereafter, the Grantee agrees to retain intact and to provide any data, documents, reports, records, contracts, and supporting materials relating to the Project as FRA may require. Reporting and record-keeping requirements are set forth in-

1) 49 C.F.R. Part 18 for governmental Grantees; and
2) 49 C.F.R. Part 19 for private non-profit and for-profit Grantees.

Project closeout does not alter these requirements.

b. **Audit and Inspection.**

1) General Audit Requirements. A Grantee that is:

a) a State, local government or Indian tribal government agrees to comply with the audit requirements of 49 C.F.R. § 18.26 and OMB Circular A-133, and any revision or supplement thereto.

b) an institution of higher education or nonprofit organization agrees to comply with the audit requirements of 49 C.F.R. § 19.26 and OMB Circular A-133, and any revision or supplement thereto.

c) a private for-profit organization agrees to comply with the audit requirements of OMB Circular A-133.

The Grantee agrees to obtain any other audits required by FRA. Project closeout will not alter the Grantee's audit responsibilities. Audit costs for Project administration and management are allowable under this Project to the extent authorized by OMB Circular A-87, Revised; OMB Circular A-21, Revised; or OMB Circular A-122, Revised.

2) Inspection by Federal Officials. The Grantee agrees to permit the Secretary and the Comptroller General of the United States, or their authorized representatives, to inspect all Project work, materials, payrolls, and other data, and to audit the books, records, and accounts of the Grantee and its contractors pertaining to the Project. The Grantee agrees to require each third party contractor whose contract award is not based on competitive bidding procedures as defined by the Secretary to permit the Secretary of Transportation and the Comptroller General of the United States, or their duly authorized representatives, to inspect all work, materials, payrolls, and other data and records involving that contract, and to audit the books, records, and accounts involving that contract as it affects the Project.

7. **Payments:**

a. Request by the Grantee for Payment. The Grantee's request for payment of the Federal share of allowable costs shall be made to FRA at the address shown in Section 7 of Attachment 1, Special Provisions, and will be acted upon by FRA as set forth in this section. Each payment made to the Grantee must comply with Department of the Treasury regulations, "Rules and Procedures for Funds Transfers," 31C.F.R. Part 205. To receive a Federal assistance payment, the Grantee must:

1) Have demonstrated or certified that it has made a binding commitment of non-Federal funds, if applicable, adequate when combined with Federal payments, to cover all costs to be incurred under the Project to date. A Grantee required by Federal statute or this Agreement to provide contributory matching funds or a cost share agrees:

a) to refrain from requesting or obtaining Federal funds in excess of the amount justified by the contributory matching funds or cost share that has been provided; and

b) to refrain from taking any action that would cause the proportion of Federal funds made available to the Project at any time to exceed the percentage authorized under this Agreement. The requirement for contributory matching funds or cost share may be temporarily waived only to the extent expressly provided in writing by FRA.

2) Have submitted to FRA all financial and progress reports required to date under this Agreement; and

3) Have identified the source(s) of financial assistance provided under this Project, if applicable, from which the payment is to be derived.

b. Payment by FRA.

1) Reimbursement Payment by FRA. FRA uses the reimbursement method, whereby the Grantee agrees to:

a. Complete and submit Standard Form 3881, "Payment Information Form - ACH Payment Vendor Payment System," to FRA; and

b. Complete and submit Standard Form 270, "Request for Advance or Reimbursement," to FRA.

2) Upon receipt of a payment request and adequate accompanying information (invoices in accordance with applicable cost principles), FRA will authorize payment by direct deposit, or if requested by the Grantee, by issuance of a treasury check (allow 30 day processing time for issuance of check), provided the Grantee: (i) is complying with its obligations under this Agreement, (ii) has satisfied FRA that it needs the requested Federal funds during the requisition period, and (iii) is making adequate and timely progress toward Project completion. If all these circumstances are present, FRA may reimburse allowable costs incurred by the Grantee up to the maximum amount of FRA's share of the total Project funding.

3) Other Payment Information.

a. The Grantee agrees to adhere to and impose on its subgrantees all applicable foregoing "Payment by FRA" requirements of this Agreement.

b. If the Grantee fails to adhere to the foregoing "Payment by FRA" requirements of this Agreement, FRA may revoke the portion of the Grantee's funds that has not been expended.

c. Allowable Costs. The Grantee's expenditures will be reimbursed only if they meet all requirements set forth below:

1) Conform with the Project description, the Statement of Work, and the Approved Project Budget and all other terms of this Agreement;

2) Be necessary in order to accomplish the Project;

3) Be reasonable for the goods or services purchased;

4) Be actual net costs to the Grantee (i.e., the price paid minus any refunds, rebates, or other items of value received by the Grantee that have the effect of reducing the cost actually incurred);

5) Be incurred (and be for work performed) after the effective date of this Agreement, unless specific authorization from FRA to the contrary is received in writing;

6) Unless permitted otherwise by Federal status or regulation, conform with Federal guidelines or regulations and Federal cost principles as set forth below:

a. For Grantees that are governmental organizations, the standards of OMB Circular A-87, Revised, "Cost Principles for State and Local Governments" apply;

b. For Grantees that are institutions of higher education, the standards of OMB Circular A-21, Revised, "Cost Principles for Educational Institutions" apply;

c. For Grantees that are private nonprofit organizations, the standards of OMB Circular A-122, Revised, "Cost Principles for Nonprofit Organizations" apply; and

d. For Grantees that are for-profit organizations, the standards of the Federal Acquisition Regulation, 48 C.F.R. Chapter I, Subpart 31.2, "Contracts with Commercial Organizations" apply.

7) Be satisfactorily documented; and

8) Be treated uniformly and consistently under accounting principles and procedures approved and prescribed by FRA for the Grantee, and those approved or prescribed by the Grantee for its subgrantees and contractors.

d. Disallowed Costs. In determining the amount of Federal assistance FRA will provide, FRA will exclude:

1) Any Project costs incurred by the Grantee before the obligation date of this Agreement, or amendment or modification thereof, whichever is later, unless specifically allowed by this Agreement, otherwise permitted by Federal law or regulation, or unless an authorized representative of FRA states in writing to the contrary;

2) Any costs incurred by the Grantee that are not included in the latest Approved Project Budget; and

3) Any costs attributable to goods or services received under a contract or other arrangement that is required to be, but has not been, concurred in or approved in writing by FRA.

The Grantee agrees that reimbursement of any cost under the "Payment by FRA," part of this Agreement does not constitute a final FRA decision about the allowability of that cost and does not constitute a waiver of any violation by the Grantee of the terms of this Agreement. The Grantee understands that FRA will not make a final determination about the allowability of any cost until an audit of the Project has been completed. If FRA determines that the Grantee is not entitled to receive any part of the Federal funds requested, FRA will notify the Grantee stating the reasons therefore. Project closeout will not alter the Grantee's obligation to return any funds due to FRA as a result of later refunds, corrections, or other transactions. Nor will Project closeout alter FRA's right to disallow costs and recover funds on the basis of a later audit or other review. Unless prohibited by law, FRA may offset any Federal assistance funds to be made available under this Project as needed to satisfy any outstanding monetary claims that the Federal Government may have against the Grantee. Exceptions pertaining to disallowed costs will be assessed based on their applicability, as set forth in the applicable Federal cost principals or other written Federal guidance.

e. Bond Interest and Other Financing Costs. To the extent permitted in writing by FRA, bond interest and other financing costs are allowable.

f. Requirement to Remit Interest. The Grantee agrees that:

1) Any interest earned by the Grantee on FRA funds must be remitted to FRA, except as provided by 31 U.S.C. § 6503, or the Indian Self-Determination Act, 25 U.S.C. § 450 et seq., and any regulations thereunder that may be issued by the U.S. Secretary of the Treasury.

2) Irrespective of whether the Grantee has deposited funds in an interest-bearing account, the Grantee agrees to pay to FRA interest on any FRA funds that the Grantee has drawn down and failed to spend for eligible Project activities. Unless waived by FRA, interest will be calculated at rates imposed by the U.S. Secretary of the Treasury beginning on the fourth day after the funds were deposited in the Grantee's bank or other financial depository. This requirement does not apply to any Grantee that is a state, state instrumentality, or Indian Tribal Government, except as permitted by regulations that may be issued by the U.S. Secretary of the Treasury.

3) Upon notice by FRA to the Grantee of specific amounts due, the Grantee agrees to promptly remit to FRA any excess payment of amounts or disallowed costs, including any interest due thereon.

g. De-obligation of Funds. FRA reserves the right to de-obligate unspent FRA funds prior to Project closeout.

8. **Property, Equipment and Supplies:**

Unless otherwise approved by FRA, the following conditions apply to property, equipment, and supplies financed under this Agreement:

a. **Use of Property.** The Grantee agrees that Project property, equipment, and supplies shall be used for the provision of the Project activity for the duration of its useful life, as determined by FRA. Should the Grantee unreasonably delay or fail to use Project property, equipment, or supplies during its useful life, the Grantee agrees that FRA may require the Grantee to return the entire amount of FRA assistance expended on that property, equipment, or supplies. The Grantee further agrees to notify FRA immediately when any Project property or equipment is withdrawn from use in the Project activity or when such property or equipment is used in a manner substantially different from the representations made by the Grantee in its Application or the text of the Project description.

b. **General Federal Requirements.**

1) a Grantee that is a governmental entity agrees to comply with the property management standards of 49 C.F.R. §§ 18.31, 18.32, and 18.33, including any amendments thereto, and other applicable guidelines or regulations that are issued.

2) a Grantee that is not a governmental entity agrees to comply with the property standards of 49 C.F.R. §§ 19.30 through 19.37 inclusive, including any amendments thereto, and other applicable guidelines or regulations that are issued. Exceptions to the requirements of 49 C.F.R. §§ 18.31, 18.32, and 18.33, and 49 C.F.R. §§ 19.30 through 19.37 inclusive, must be specifically approved by FRA.

c. **Maintenance.** The Grantee agrees to maintain the Project property and equipment in good operating order, and in accordance with any guidelines, directives, or regulations that FRA may issue.

d. **Records.** The Grantee agrees to keep satisfactory records with regard to the use of the property, equipment, and supplies, and submit to FRA, upon request, such information as may be required to assure compliance with this section of this Agreement.

e. **Transfer of Project Property.** The Grantee agrees that FRA may:

1) require the Grantee to transfer title to any property, equipment, or supplies financed with FRA assistance made available by this Agreement, as permitted by 49 C.F.R. § 18.32(g) or 49 C.F.R. §§ 19.30 through 19.37 inclusive, whichever may be applicable.

2) direct the disposition of property or equipment financed with FRA assistance made available under this Agreement, as set forth by 49 C.F.R. §§ 18.31 and 18.32 or 49 C.F.R. §§ 19.30 through 19.37 inclusive, whichever may be applicable.

f. **Withdrawn Property.** If any Project property, equipment, or supplies are not used for the Project for the duration of its useful life, as determined by FRA, whether by planned withdrawal, misuse or casualty loss, the Grantee agrees to notify FRA immediately. Disposition of withdrawn property, equipment, or supplies shall be in accordance with 49 C.F.R. §§ 18.31 and 18.32 for a Grantee that is a governmental entity, or 49 C.F.R. §§ 19.30 through 19.37 inclusive, for a Grantee that is an institution of higher education or a private organization.

g. **Encumbrance of Project Property.** Unless expressly authorized in writing by FRA, the Grantee agrees to refrain from:

1) Executing any transfer of title, lease, lien, pledge, mortgage, encumbrance, contract, grant anticipation note, alienation, or other obligation that in any way would affect FRA interest in any Project property or equipment; or

2) Obligating itself in any manner to any third party with respect to Project property or equipment.

The Grantee agrees to refrain from taking any action or acting in a manner that would adversely affect FRA's interest or impair the Grantee's continuing control over the use of Project property or equipment.

9. **Relocation and Land Acquisition:**

The Grantee agrees to comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, 42 U.S.C. §§ 4601 et seq.; and U.S. DOT regulations, "Uniform Relocation and Real Property Acquisition for Federal and Federally Assisted Programs," 49 C.F.R. Part 24.

10. **Flood Hazards:**

The Grantee agrees to comply with the flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973, 42 U.S.C. § 4012a(a), with respect to any construction or acquisition Project.

11. **Procurement:**

a. Federal Standards. The Grantee agrees to comply with the Procurement Standards requirements set forth at 49 C.F.R. § 18.36 or 49 C.F.R. §§ 19.40 through 19.48 inclusive, whichever may be applicable, and with applicable supplementary U.S. DOT or FRA directives or regulations. If determined necessary for proper Project administration, FRA reserves the right to review the Grantee's technical specifications and requirements.

b. Buy American. See the Buy America clause in Attachment 1A.

c. Cargo Preference -- Use of United States-Flag Vessels. Pursuant to U.S. DOT, Maritime Administration regulations, "Cargo Preference -- U.S.-Flag Vessels," 46 C.F.R. Part 381, the Grantee shall insert the following clauses in contracts let by the Grantee in which equipment, materials or commodities may be transported by ocean vessel in carrying out the Project:

As required by 46 C.F.R. Part 381, The contractor agrees -

1) To utilize privately owned United States-flag commercial vessels to ship at least 50% of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, materials, or commodities pursuant to this contract to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

2) To furnish within 20 days following the date of loading for shipments originating within the United States, or within 30 working days following the date of loading for shipment originating outside the United States, a legible coy of a rated, "on-board" commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (1) above to the recipient (through the prime contractor in the case of subcontractor bills-of lading) and to the Division of Cargo Preference and Domestic Trade, Maritime Administration, 1200 New Jersey Avenue, SE, Washington, D.C. 20590, marked with appropriate identification of the Project.

3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract

d. Notification Requirement. With respect to any procurement for goods and services (including construction services) having an aggregate value of $500,000 or more, the Grantee agrees to:

1) specify in any announcement of the awarding of the contract for such goods or services the amount of Federal funds that will be used to finance the acquisition; and

2) express the said amount as a percentage of the total costs of the planned acquisition.

e. Debarment and Suspension; and Drug-Free Work Place. The Grantee agrees to obtain certifications on debarment and suspension from its third party contractors and subgrantees and otherwise comply with U.S. DOT regulations, "Nonprocurement Suspension and Debarment," 2 C.F.R. Part 1200, and "Government wide Requirements for Drug-Free Workplace (Grants)," 49 C.F.R. Part 32.

f. Notification of Third Party Contract Disputes or Breaches. The Grantee agrees to notify FRA of any current or prospective major dispute, breach, or litigation pertaining to any third party contract. If the Grantee seeks to name FRA as a party to litigation for any reason, the Grantee agrees first to inform FRA before doing so. This proviso applies to any type of litigation whatsoever, in any forum.

g. Participation by Small Business Concerns Owned and Controlled by Socially and Economically Disadvantaged Individuals. FRA encourages the Grantee to utilize small business concerns owned and controlled by socially and economically disadvantaged individuals (as that term is defined for other DOT agencies in 49 C.F.R. Part 26) in carrying out the Project.

12. **Metric System:**

The Grantee agrees to use the metric system of measurement in its Project activities to the extent practicable, in conformance with applicable regulations, guidelines, and policies that U.S. DOT or FRA may issue. The Metric Conversion Act of 1975, as amended by the Omnibus Trade and Competitiveness Act of 1988 (15 U.S.C. 205), designates the metric system of measurement as the preferred system of weights and measures for United States trade and commerce, and it requires that each agency use the metric system of measurement in its procurements, grants, and other business-related activities, except to the extent that such use is impracticable or likely to cause significant inefficiencies or loss of markets to U.S. firms.

13. **Patent Rights:**

1. If any invention, improvement, or discovery of the Grantee or any of its third party contractors is conceived or first actually reduced to practice in the course of or under this Project, and that invention, improvement, or discovery is patentable under the laws of the United States of America or any foreign country, the Grantee agrees to notify FRA immediately and provide a detailed report. The rights and responsibilities of the Grantee, third party contractors and FRA with respect to such invention, improvement, or discovery will be determined in accordance with applicable Federal laws, regulations, policies, and any waiver thereof.
2. If the Grantee secures a patent with respect to any invention, improvement, or discovery of the Grantee or any of its third party contractors conceived or first actually reduced to practice in the course of or under this Project, the Grantee agrees to grant to FRA a royalty-free, non-exclusive, and irrevocable license to use and to authorize others to use the patented device or process for Federal Government purposes.
3. The Grantee agrees to include the requirements of the "Patent Rights" section of this Agreement in its third party contracts for planning, research, development, or demonstration under the Project.

14. **Rights in Data and Copyrights:**

a. The term "subject data" used in this section means recorded information, whether or not copyrighted, that is developed, delivered, or specified to be delivered under this Agreement. The term includes graphic or pictorial delineations in media such as drawings or photographs; text in specifications or related performance or design-type documents; machine forms such as punched cards, magnetic tape, or computer memory printouts; and information retained in computer memory. Examples include, but are not limited to: computer software, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identifications, and related information. The term does not include financial reports, cost analyses, and similar information incidental to Project administration.

b. The following restrictions apply to all subject data first produced in the performance of this Agreement:

1) Except for its own internal use, the Grantee may not publish or reproduce such data in whole or in part, or in any manner or form, nor may the Grantee authorize others to do so, without the written consent of FRA, until such time as FRA may have either released or approved the release of such data to the public; this restriction on publication, however, does not apply to grant agreements with academic institutions.

2) As authorized by 49 C.F.R. § 18.34, or 49 C.F.R. § 19.36, as applicable, FRA reserves a royalty-free, non-exclusive and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, for Federal Government purposes:

a) Any work developed under a grant, cooperative agreement, sub-grant, sub- agreement, or third party contract, irrespective of whether or not a copyright has been obtained; and

b) Any rights of copyright to which a Grantee, subgrantee, or a third party contractor purchases ownership with Federal assistance.

c. When FRA provides assistance to a Grantee for a Project involving planning, research, or development, it is generally FRA's intent to increase the body of knowledge, rather than to limit the

benefits of the Project to those parties that have participated therein. Therefore, unless FRA determines otherwise, the Grantee understands and agrees that, in addition to the rights set forth in preceding portions of this section of this Agreement, FRA may make available to any FRA Grantee, subgrantee, third party contractor, or third party subcontractor, either FRA's license in the copyright to the "subject data" derived under this Agreement or a copy of the "subject data" first produced under this Agreement. In the event that such a Project which is the subject of this Agreement is not completed, for any reason whatsoever, all data developed under that Project shall become subject data as defined herein and shall be delivered as FRA may direct.

d. Unless prohibited by State law, the Grantee agrees to indemnify, save and hold harmless FRA, its officers, agents, and employees acting within the scope of their official duties against any liability, including costs and expenses, resulting from any willful or intentional violation by the Grantee of proprietary rights, copyrights, or right of privacy, arising out of the publication, translation, reproduction, delivery, use, or disposition of any data furnished under this Agreement. The Grantee shall not be required to indemnify FRA for any such liability arising out of the wrongful acts of employees or agents of FRA.

e. Nothing contained in this section on rights in data, shall imply a license to FRA under any patent or be construed as affecting the scope of any license or other right otherwise granted to FRA under any patent.

f. The requirements of this section of this Agreement do not apply to material furnished to the Grantee by FRA and incorporated in the work carried out under this Agreement, provided that such incorporated material is identified by the Grantee at the time of delivery of such work.

g. Unless FRA determines otherwise, the Grantee agrees to include the requirements of this section of this Agreement in its third party contracts for planning, research, development, or demonstration under the Project.

15. **Acknowledgment of Support and Disclaimer:**

a. An acknowledgment of FRA support and a disclaimer must appear in any grantee publication, whether copyrighted or not, based on or developed under the Agreement, in the following terms:

> "This material is based upon work supported by the Federal Railroad Administration under a grant/cooperative agreement, dated ." (Fill-in appropriate identification of grant/cooperative agreement)

b. All grantee publications must also contain the following:

> "Any opinions, findings, and conclusions or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the Federal Railroad Administration and/or U.S. DOT."

c. The Grantee agrees to cause to be erected at the site of any construction, and maintain during construction, signs satisfactory to FRA identifying the Project and indicating that FRA is participating in the development of the Project.

16. **Reprints of Publications:**

At such time as any article resulting from work under this Agreement is published in a scientific, technical, or professional journal or publication, two reprints of the publication should be sent to

FRA's Grant Manager, clearly referenced with the appropriate identifying information.

17. **Site Visits:**

FRA, through its authorized representatives, has the right, at all reasonable times, to make site visits to review Project accomplishments and management control systems and to provide such technical assistance as may be required. If any site visit is made by FRA on the premises of the Grantee, subgrantee, contractor, or subcontractor under this Agreement, the Grantee shall provide and shall require its subgrantees or subcontractors to provide, all reasonable facilities and assistance for the safety and convenience of FRA representatives in the performance of their duties. All site visits and evaluations shall be performed in such a manner as will not unduly delay work being conducted by the Grantee, subgrantee, contractor, or subcontractor.

18. **Safety Oversight:**

To the extent applicable, the Grantee agrees to comply with any Federal regulations, laws, or policy and other guidance that FRA or U.S. DOT may issue pertaining to safety oversight in general, and in the performance of this Agreement, in particular.

19. **Civil Rights:**

The Grantee agrees to comply with all civil rights laws and regulations, in accordance with applicable Federal directives, except to the extent that the FRA determines otherwise in writing. These include, but are not limited to, the following: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) (as implemented by 49 C.F.R. Part 21), which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§ 1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex, (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794), which prohibits discrimination of the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§ 1601-1607), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§ 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§ 290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title V111 of the Civil Rights Act of 1968 (42 U.S.C. §§ 3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing, (i) 49 U.S.C. § 306, which prohibits discrimination on the basis of race, color, national origin, or sex in railroad financial assistance programs; (j) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance was made; and (k) the requirements of any other nondiscrimination statute(s) which may apply to the Grantee.

20. **Americans With Disabilities Act:**

The Grantee agrees to utilize funds provided under this Agreement in a manner consistent with the requirements of the Americans With Disabilities Act of 1990, as amended (42 U.S.C. § 12101 et seq.).

21. **Environmental Protection:**

a. All facilities that will be used to perform work under this Agreement shall not be so used unless the facilities are designed and equipped to limit water and air pollution in accordance with all applicable local, state and Federal standards.

b. The Grantee will conduct work under this Agreement, and will require that work that is conducted as a result of this Agreement be in compliance with the following provisions, as modified from time to time, all of which are incorporated herein by reference: section 114 of the Clean Air Act, 42 U.S.C. 7414, and section 308 of the Federal Water Pollution Control Act, 33 U.S.C. 1318, and all regulations issued thereunder. The Grantee certifies that no facilities that will be used to perform work under this Agreement are listed on the List of Violating Facilities maintained by the Environmental Protection Agency ("EPA"). The Grantee will notify the Administrator as soon as it or any contractor or subcontractor receives any communication from the EPA indicating that any facility which will be used to perform work pursuant to this Agreement is under consideration to be listed on the EPA's List of Violating Facilities; provided, however, that the Grantee's duty of notification hereunder shall extend only to those communications of which it is aware, or should reasonably have been aware. The Grantee will include or cause to be included in each contract or subcontract entered into, which contract or subcontract exceeds Fifty Thousand Dollars ($50,000.00) in connection with work performed pursuant to this Agreement, the criteria and requirements of this section and an affirmative covenant requiring such contractor or subcontractor to immediately inform the Grantee upon the receipt of a communication from the EPA concerning the matters set forth herein.

c. The Grantee may not expend any of the funds provided in this agreement on construction or other activities that represent an irretrievable commitment of resources to a particular course of action affecting the environment until after all environmental and historic preservation analyses required by the National Environmental Policy Act (42 U.S.C. 4332)(NEPA), the National Historic Preservation Act (16 U.S.C. 470(f))(NHPA), and related laws and regulations have been completed and the FRA has provided the Grantee with a written notice authorizing the Grantee to proceed.

d. The Grantee shall assist the FRA in its compliance with the provisions of NEPA, the Council on Environmental Quality's regulations implementing NEPA (40 C.F.R. Part 1500 et seq.), FRA's "Procedures for Considering Environmental Impacts" (45 Fed. Reg. 40854, June 16, 1980), as revised May 26, 1999, 64 Fed. Reg. 28545), Section 106 of the NHPA, and related environmental and historic preservation statutes and regulations. As a condition of receiving financial assistance under this agreement, the Grantee may be required to conduct certain environmental analyses and to prepare and submit to the FRA draft documents required under NEPA, NHPA, and related statutes and regulations (including draft environmental assessments and proposed draft and final environmental impact statements).

e. No publicly-owned land from a park, recreational area, or wildlife or waterfowl refuge of national, state, or local significance as determined by the Federal, State, or local officials having jurisdiction thereof, or any land from an historic site of national, state or local significance as so determined by such officials shall be used by the Grantee without the prior written concurrence of FRA. The Grantee shall assist the FRA in complying with the requirements of 49 U.S.C. §303(c).

f. The Grantee agrees to facilitate compliance with the policies of Executive Order No. 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," 42 U.S.C. '4321 note, except to the extent that the FRA determines otherwise in writing.

22. **Project Completion, Audit, Settlement, and Closeout:**

a. **Project Completion.** Within 90 days of the Project completion date or termination by FRA, the Grantee agrees to submit a final Federal Financial Report (Standard Form 425), a certification or summary of Project expenses, and third party audit reports, as applicable.

b. **Audits.** Each governmental Grantee agrees to undertake the audits required by 49 C.F.R. § 18.26 and OMB Circular A-128 or any revision or supplement thereto. Each non-governmental Grantee agrees to undertake the audits required by 49 C.F.R. § 19.26 and OMB Circular A-133 or any revision

or supplement thereto.

c. **Remittance of Excess Payments.** If FRA has made payments to the Grantee in excess of the total amount of FRA funding due, the Grantee agrees to promptly remit that excess and interest as may be required by the "Payment by FRA" section of this Attachment.

d. **Project Closeout.** Project closeout occurs when all required Project work and all administrative procedures described in 49 C.F.R. Part 18, or 49 C.F.R. Part 19, as applicable, have been completed, and when FRA notifies the Grantee and forwards the final Federal assistance payment, or when FRA acknowledges the Grantee's remittance of the proper refund. Project closeout shall not invalidate any continuing obligations imposed on the Grantee by this Agreement or by the FRA's final notification or acknowledgment.

23. **Right of FRA to Terminate:**

a. Upon written notice, the Grantee agrees that FRA may suspend or terminate all or part of the financial assistance provided herein if the Grantee has violated the terms of this Agreement, or if FRA determines that the purposes of the statute under which the Project is authorized would not be adequately served by continuation of Federal financial assistance for the Project. Any failure to make reasonable progress on the Project or other violation of this Agreement that significantly endangers substantial performance of the Project shall provide sufficient grounds for FRA to terminate this Agreement.

b. In general, termination of any financial assistance under this Agreement will not invalidate obligations properly incurred by the Grantee and concurred in by FRA before the termination date, to the extent those obligations cannot be canceled. However, if FRA determines that the Grantee has willfully misused Federal assistance funds by failing to make adequate progress, failing to make reasonable use of the Project property, facilities, or equipment, or failing to adhere to the terms of this Agreement, FRA reserves the right to require the Grantee to refund the entire amount of FRA funds provided under this Agreement or any lesser amount as may be determined by FRA.

c. Expiration of any Project time period established for this Project does not, by itself, constitute an expiration or termination of this Agreement.

24. **Entire Agreement:**

This Agreement constitutes the entire agreement between the parties. All prior discussions and understandings concerning such scope and subject matter are superseded by this Agreement.

25. **Grant Amendments:**

Modifications to this Agreement may be made only in writing, signed by the each party's authorized representative, and specifically referred to as a modification to this Agreement.

26. **Flow Down Provisions:**

The Grantee shall include provisions to carry out the purposes of this Agreement in all contracts or grant agreements with persons who perform any part of the work under this Agreement. There shall be provisions for a further flow down of such requirements to each sub-tier contractor or grantee as required.

27. **Successors and Assignees:**

This Agreement may not be assigned without the express prior written consent of the other party.

28. **Execution:**

This Agreement may be executed in several counterparts, each of which shall be deemed an original.

29. **Severability:**

If any provision of this Agreement is held invalid, all remaining provisions of this Agreement shall continue in full force and effect to the extent not inconsistent with such holding.

AWARD ATTACHMENTS

Florida Department of Transportation FR-HSR-0002-10-01-00

1. Statement of Work, Attachment 3
2. Quarterly Progress Report for FRA, Attachment 4
3. ACH Vendor/Miscellaneous Payment Enrollment Form (SF 3881), Attachment 5

ATTACHMENT 3

STATEMENT OF WORK

FLORIDA HIGH-SPEED RAIL–PHASE I
TAMPA-ORLANDO

BACKGROUND

Planning for high-speed rail (HSR) service in Florida has been occurring for decades. The Tampa-Orlando HSR Project will provide a dedicated corridor for the specific purpose of providing exclusive HSR service with no grade crossings or shared use. There will be extensive opportunities for connectivity with other modes including planned commuter and other rail services in both Tampa and Orlando. The Tampa-Orlando HSR Project will become the first implementation of HSR service in the nation. The Tampa-Orlando HSR Project will provide an attractive transportation alternative where there is no such connection via rail today. This service will allow more than 30 million passengers arriving at Orlando International Airport (OIA) each year the ability to travel via HSR from the station at the airport to stations at the Orange County Convention Center (OCCC) multimodal center; Walt Disney World (WDW has donated a station site valued at $25 million); Lakeland/Polk County; and end in the downtown area of the City of Tampa at the multimodal center, which is within walking distance to businesses, residences, and other downtown facilities. Travel from downtown Tampa to OIA (84 miles (mi)) will be achieved in less than one hour, at speeds in excess of 168 mph, and an average nonstop speed of over 100 mph. The unique attributes of the Tampa-Orlando corridor, with a very large tourist component, mean that as transportation demand grows in this corridor, the ability to add highway capacity will be exhausted or will be limited, but additional capacity can be added through the HSR system. The Tampa-Orlando HSR Project benefits from the prior completion of the Final Environmental Impact Statement (FEIS) signed by the Federal Railroad Administrator in 2005, and the 2009 FEIS Reevaluation. The Record of Decision was issued in 2010. The development of the FEIS and 2009 Reevaluation included extensive public and agency outreach all along the Tampa-Orlando corridor.

The support for the Tampa-Orlando HSR Project has been strong from grass roots to business to labor and with strong bipartisan support. The strongest indication of support came from the Florida Legislature in late 2009 with the passage of the Florida Rail Act, and the creation of the Florida Rail Enterprise (FRE) that will advance the Tampa-Orlando HSR Project as Phase I of the Florida HSR Program.

This is the initial statement of work that describes the activities to be undertaken by the Florida Department of Transportation (FDOT) for the implementation phase of the Tampa-Orlando HSR Project. This statement of work has three main goals: (1) advance preliminary engineering on the Tampa-Orlando corridor to both verify the project cost as well as provide detailed information to prospective bidders and reduce the need for contingencies, (2) prepare procurement documents for a design-build contract for the Early Works Safety Project and a turnkey Public Private Partnership (PPP) for the Design-Build-Operate-Maintain and Finance (DBOMF) contract for the Tampa-Orlando HSR Project, and (3) set up the project management

infrastructure and communications programs needed to properly implement the Tampa-Orlando HSR Project and keep the public and key stakeholders involved and informed.

It is anticipated that the statement of work that follows this one will be for the purpose of advancing the PPP procurement process through its completion, initiation and supervision of the Early Works Safety Project, continuation of the right-of-way acquisition, securing of Memorandums of Understanding with station stakeholders, and continued project management and communications outreach. Following that, the turnkey PPP will advance the implementation of the HSR system itself and procure the rolling stock. The current target for start of revenue service is 2015.

GENERAL OBJECTIVE

This Project consists of the first set of preliminary activities and the achievement of five tasks for implementation of the Tampa-Orlando HSR Project. This Project will provide FDOT and the Federal Railroad Administration (FRA) with revised Tampa-Orlando HSR Project development documents to provide a more accurately defined approach from which to advance the Tampa-Orlando HSR Project into a PPP for a DBOMF contract through the achievement of the key milestones listed below:

Milestone 1: Draft Revised Project Planning Documentation
This milestone will provide FDOT and FRA with an interim assessment of the Project plan based on completion and submittal of "Draft Revised" versions of the Project documents provided to FRA with FDOT's HSIPR application, including:

a. Draft Revised Project Management Plan (PMP).
b. Draft Revised Service Development Plan (SDP).
c. Draft Revised Cost Estimate.

Upon FRA review and approval of these items, FRA will provide FDOT with an assessment of the overall Project plan. FRA will then issue additional guidance for FDOT to incorporate into Project activities concurrently underway for achievement of Milestones 2, 3, and 4.

Milestone 2: Preparation of Project Procurement Documents
This milestone includes the preparation and submittal of procurement documents from which to issue public notice for Project contract activities in Milestone 3, including:

a. Draft Request for Proposals (RFP) and Progress Submission for the Early Works Safety Project.
b. Draft Request for Qualification (RFQ) for the PPP/DBOMF for the Tampa-Orlando HSR Project.

Upon FRA review and approval of the above Project documents, FRA will provide an assessment and issue guidance for FDOT to advance design for the RFP for the Early Works Safety Project to 80% in Milestone 3, and to proceed with advertisement of the RFQ for the PPP/DBOMF.

Milestone 3: Public Procurement for Project Contract Activities
This milestone represents FDOT's issuance of a public advertisement for Project activities, including:

a. Completion and submittal of 80% Preliminary Engineering design documents to FRA for review and approval, and subsequently issue an RFP for the Early Works Safety Project.
b. Issuance of RFQ for the PPP/DBOMF for the Tampa-Orlando HSR Project.

Milestone 3a will provide FDOT and FRA with a public response from the HSR industry of qualifications for potential suppliers of the PPP/DBOMF for the Tampa-Orlando HSR Project. Milestone 3b will provide FDOT and FRA with a bid and proposal(s) for the Early Works Safety Project. These responses will serve as the basis for FRA review and approval of the activities in Milestone 4.

Milestone 4: Completion of Preparation of Project Planning Documents
This milestone will provide FDOT and FRA with "Final Revised" versions of the Project documents prepared for Milestone 1, including the completion and submittal of:

a. Final Revised PMP.
b. Final Revised SDP.
c. Final Revised Cost Estimate.
d. 30% Preliminary Engineering design for the PPP/DBOMF for the Tampa-Orlando HSR Project
e. RFP document for the PPP/DBOMF for the Tampa-Orlando HSR Project.

Upon FRA review and approval of the above Final Revised documents, FRA will provide FDOT with final guidance for endorsement of FDOT's overall plan for the Tampa-Orlando HSR Project. Upon FRA endorsement, FDOT will prepare a statement of work for follow-on activities under a separate or amended Agreement to:

a. Initiate contract and construction activities for the Early Works Safety Project based upon the responses to Milestone 3b; and
b. Issue the RFP for the PPP/DBOMF for the Tampa-Orlando HSR Project based upon responses to Milestone 3a.

Pursuant to this Agreement, FDOT will complete the work described in the following five tasks in order to achieve the above listed milestones:

Task 1: Project Development
FDOT will undertake project management activities necessary to support the advancement of the Tampa-Orlando HSR Project as Phase I of Florida's HSR Program, including the development of project controls, a Revised PMP, a Revised SDP (with ridership and operations analysis), a public outreach and communication plan, and stakeholder coordination. The activities in task 1 will provide FDOT and FRA with a refined overall business plan for the Project.

Task 2: Preparation of Draft Documents for the PPP/DBOMF Contract
FDOT will prepare the RFQ and RFP documents that will be used for the procurement of the PPP that will perform the DBOMF components of the Tampa-Orlando HSR Project. The Project performance documents include the development of Design Criteria and Specifications. The

activities in task 2 will provide FDOT and FRA with procurement documents from which FDOT could advertise an RFP for the PPP/DBOMF for the Tampa-Orlando HSR Project upon completion of the activities in this statement of work and under a separate or amended Agreement.

Task 3: Preliminary Engineering and Revised Cost Estimate
FDOT will advance preliminary engineering in all major discipline areas in order to produce a more refined cost estimate than that used to prepare FDOT's High-Speed Intercity Passenger Rail ("HSIPR") program application (less than 10% design). Task 3 includes an initial production of a Draft Revised Cost Estimate (based on Progress Prints of 30% design), followed by 30% Preliminary Engineering design documents, including a Final Revised Cost Estimate.

Task 4: Survey and Right-of-Way Acquisition
FDOT will perform an aerial mapping and ground control survey program that will provide critical horizontal and vertical controls along the alignment for both the preliminary engineering and right-of-way acquisition of the remaining parcels not already in the public domain.

Task 5: Prepare Procurement Documents for the Early Works Safety Project
FDOT will develop design-build contract documents for an Early Works Safety Project that will generally consist of creating a work zone for a large portion of the 70 mi of the Interstate-4 (I-4) median through which the HSR will run, primarily through the installation of permanent safety barriers on the shoulders. A 30% progress submission will be followed by an 80% complete set of Preliminary Engineering design documents and a Design Manual for the Early Works Safety Project. The activities in task 5 will provide FDOT and FRA with contract and Preliminary Engineering design documents for FDOT to advertise an RFP for the Early Works Safety Project, and subsequently issue a contract for the design-build of the project upon completion of the activities in this statement of work.

This initial set of activities, tasks 1–5, is estimated to encompass a period of approximately 8 months and has a budget of approximately $66.66 million, broken down as follows:

Task 1: Project Development	$ 2.40 million
Task 2: Preparation of Procurement for the PPP/DBOMF Contract	$ 2.10
Task 3: Preliminary Engineering and Revised Cost Estimate	$ 9.30
Geotechnical Explorations	$ 7.00
Task 4: Survey and Right-of-Way Acquisition	$36.00
Task 5: Prepare Procurement Documents for the Early Works Safety Project	$ 3.80
Project Subtotal	$60.60
Statement of Work Project Contingency: 10%	$ 6.06
Project Total	$66.66 million

ATTACHMENT 3

DESCRIPTION OF WORK

This statement of work addresses the specific activities to be undertaken by FDOT to achieve the five initial Project tasks identified previously and described in this statement of work. The outline for this document is as follows:

Task 1: Project Development

- Task 1.1 Project Controls (Revised PMP)
- Task 1.2 Revised SDP (Revised Ridership and Operations Analysis)
- Task 1.3 Public Outreach and Communications
- Task 1.4 Stakeholder Meetings and Coordination

Task 2: Preparation of Draft Documents for the PPP/DBOMF Contract

- Task 2.1 Development of Draft RFQ/RFP document
- Task 2.2 Design Criteria and Specifications
- Task 2.3 Develop Safety Criteria and Specifications for the Tampa-Orlando HSR Project – FRA Regulatory Approval

Task 3: Preliminary Engineering and Revised Cost Estimate

a. Mainline Infrastructure
- Task 3.1(a) Geotechnical
- Task 3.2(a) Rail/Highway Geometry, Track and Catenary Foundation Layout
- Task 3.3(a) Bridges and Structures
- Task 3.4(a) Drainage and Permitting

b. Stations
- Task 3.5(b) Station Architecture Programming and Conceptual Design
- Task 3.6(b) Station Development
- Task 3.7(b) Station Architecture Schematic Design
- Task 3.8(b) Station Civil Site Plans
- Task 3.9(b) Station Area Roadway Plans
- Task 3.10(b) Station Area Traffic Analysis

c. Maintenance Facility
- Task 3.11(c) Schematic Design
- Task 3.12(c) 30% Preliminary Engineering

Task 4: Survey and Right-of-Way Acquisition

- Task 4.1 Survey
- Task 4.2 Right-of-Way Acquisition

Task 5: Prepare Procurement Documents for the Early Works Safety Project

- Task 5.1 Design Manual for the Early Works Safety Project
- Task 5.2: 30%-80% Preliminary Engineering for the Early Works Safety Project
- Task 5.3: Preparation of Procurement Documents for the Early Works Safety Project

The scope of work to complete each of these tasks is explained below:

Task 1: Project Development
As this Tampa-Orlando HSR Project is the first implementation of HSR in the State of Florida, FDOT will be creating the institutional and organizational infrastructure for long-term successful management of a HSR system. This is currently underway as FDOT has created a team of internal resources and outside consultants to assist with the Florida HSR Program development, including a legal advisor (Freshfields), financial advisor (KPMG) and program manager (HNTB/Wilbur Smith Associates). For this initial statement of work, the following components will be developed to advance the Tampa-Orlando HSR Project. The activities in task 1 will provide FDOT and FRA with a refined overall business plan for the Project.

Task 1.1: Project Controls
FDOT will develop project controls in the categories listed below to assist with overall management of the Tampa-Orlando HSR Project as Phase I of the Florida HSR Program.

Task 1.1.1: Documents Control
FDOT will institute and execute processes and procedures to manage development, distribution, and long-term archive of the various document artifacts of the Tampa-Orlando HSR Project. The processes and procedures shall be structured to permit ready access to the artifacts throughout the life of the project.

Task 1.1.2: Management and Administration Systems
FDOT will develop systems for management of Tampa-Orlando HSR Project contracts, budget, and invoicing. These systems will conform to FDOT and Federal reporting requirements, and will be accessible and usable on a restricted basis. The system developed will address all steps of the Tampa-Orlando HSR Project as Phase I of the Florida HSR Program through the start of revenue service and will address system expansion. This will also include preparation, updating and management of the overall Tampa-Orlando HSR Project budget and project budgets for the 30% Preliminary Engineering design, Early Works Safety Project, Tampa-Orlando HSR Project DBOMF procurement, and right-of-way acquisition.

Task 1.1.3: Scheduling
FDOT will develop and maintain up to three schedules as required in association with the Tampa-Orlando HSR Project: a schedule depicting high level activities and anticipated dates (similar to the one included in the PMP), a working level schedule for the Tampa-Orlando HSR Project, and a detailed schedule for the approved work program for the Tampa-Orlando HSR Project.

This will also include development, regular updates, and management of the overall Tampa-Orlando HSR Project and project schedules (including 30% Preliminary Engineering, Early Works Safety Project, Phase I Tampa–Orlando HSR Project DBOMF procurement, and right-of-way acquisition.

FDOT will submit quarterly schedule updates to FRA of all ongoing project activities in Primavera P6.

Task 1.1.4: Project Management Plan
A PMP has been prepared for this statement of work and is included as a separate document with this Agreement. The PMP will be developed further as part of this task such that a fully developed plan that addresses all the components of the Tampa-Orlando HSR Project will be provided to FRA as a Draft Revised PMP as part of Milestone 1, followed by a Final Revised PMP as part of Milestone 4.

Task 1.1.5: Quality Control Program
Also included in the Track 2 Application was an approach for addressing quality control and assurance for the Tampa-Orlando HSR Project. This document will also be fully developed and address all aspects of the Tampa-Orlando HSR Project including internal controls for documents produced by FDOT, and then for procurement and implementation phases of the Tampa-Orlando HSR Project. The Quality Control Program will include a draft approach to the Compliance Management Program for system testing.

Task 1.1.6: Risk Management Program
As part of the preparation of the Revised SDP in task 1.2, FDOT shall include a Draft Risk Management Program as part of the Quality Control Program. This section will include the identification of and proposed alternative allocations to project risks. The revenue risks will be specifically addressed—what they will consist of, how they will be met, by whom, and by when.

Task 1.1.7: Safety and Security Program
A Draft Safety and Security Program and the safety management approach will be provided and address how FDOT will ensure a positive safety performance in the project's lifecycle. This draft program and approach will include an organizational and management approach and how FDOT intends to ensure a secure environment in the project's lifecycle.

Task 1.2: Revised Service Development Plan
FDOT shall prepare a report on the Business Case/Plan (Revised SDP) for the project, given a range of assumed costs and revenues/ridership. The Revised SDP should include an evaluation of the Phase I Tampa-Orlando HSR Project, and incorporate supplemental data as related to the Phase II Orlando-Miami HSR Project. This supplemental data will not be created as part of this Project, but rather incorporate a reference to available documentation. Such a report should separate the civil and construction costs from the operating and maintenance costs over the next 30 years. The shortfalls in capital and operating revenues need to be identified, and alternative scenarios for meeting the shortfalls need to be developed. A pricing analysis should be included based on current economic conditions and a market assessment of competitive alternatives. A Draft Revised SDP (noninvestment grade ridership and revenue forecasts) will be submitted for review and approval as part of Milestone 1, followed by the Final Revised SDP (ridership and revenue forecasts taken to investment grade) as part of Milestone 4.

Task 1.2.1: Ridership and Operations Analysis
The primary intent of task 3 is to produce more refined cost estimates that will reduce the risk of bidding for the capital infrastructure components. The refined cost estimate and advanced engineering will result in substantially more reliable bids and reduced vendor risk. In order to provide consistency of information, it is necessary to update components of the ridership

analyses that have been done in this corridor, because much of it is based on 2002 data. Selected updates on ridership work will provide more reliable information to proposers for the DBOMF for the Tampa-Orlando HSR Project, as well as provide key information to stakeholders that can assist in decision making.

Similar to the approach used in the original 2002 ridership studies, as well as the updates performed in 2009, two independent sets of ridership updates will be completed based on an agreed list of assumptions.

Task 1.2.2: Stations
Refine zone scheme, demographics, and networks in preparation for HSR station location analysis and public transport access planning (metropolitan planning organization (MPO) models as source). Do this for all stations and potential station locations.

Task 1.2.3: Connectivity
Identify potential transit access services: fixed-route bus, fixed guide-way, limousine, on-demand minibus, point-to-point shuttle, and subscription service. Specific information requests will be gathered for potential light rail and commuter rail in Tampa and for connections to SunRail in Orlando at OIA.

Task 1.2.4: Captive Market Update
Canvas potential HSR partners (airlines, theme parks, special events organizers, sports franchises, convention centers, downtown associations, hotel organizations, recreation center (beach/I-Drive), cultural and entertainment organizations, and other special interest groups) to determine their willingness and capacity to partner with HSR (include HSR as part of a total recreational experience package), the extent of their potential market, and potential partnering arrangements.

Task 1.2.5: Stated Preference Surveys
Obtain current reactions to HSR as a potential travel mode and likelihood of induced travel in response to HSR. Potential survey locations/media include: airports (OIA/Tampa International Airport), downtown office buildings, residential malls, interactive computer, telephone solicitation, and return mail.

Task 1.2.6: Industry/Stakeholder Outreach
Inquire of prospective proposers on DBOMF for the Tampa-Orlando HSR Project to ask for their input on what other information might be useful to them in preparing their bids. Request similar information from key stakeholders such as Hillsborough Area Regional Transit (HART), SunRail, Polk, I-Drive constituents, and WDW.

Task 1.2.7: Operations Analysis
Perform an operations analysis and simulation based on the refined geometry, which is being developed, and any new relevant information from ridership studies. This operations analysis will be included in an updated service plan for inclusion in the RFP.

Task 1.2.8: Risk Assessment

FDOT shall prepare a Draft Risk Management Program, including the identification of and proposed alternative allocations of project risks. The revenue risks will be specifically addressed—what they consist of, and how they will be met, by whom, and by when.

Task 1.3: Public Outreach and Communications

The public awareness plan will be developed, reviewed, and approved by FDOT as a first step. This plan will outline the critical elements of the Florida HSR Public Awareness Program. These elements include:

- Public Outreach
- Tampa-Orlando HSR Project Web Site (as part of Florida HSR Program Web site)
- Collateral Materials
  - Tampa-Orlando HSR Project Fact Sheet
  - Tampa-Orlando HSR Project Electronic Newsletter
  - Power Point Presentations
  - Visual simulations
- Key Messages and Speaking Points for Presentations
- Media Relations/News Releases
- Toll-free Information Line
- Crisis Communications Plan

Public Outreach – The public outreach function will communicate project information to the general public as well as key constituents. Public outreach will be facilitated through a combination of mechanisms including internet, social networking (if permissible), formal press advisories, and public speaking. Appropriate collateral materials and multimedia productions will be developed to support this outreach. The project should establish connections with and make use of existing communication networks within state, regional and local economic and social constituencies. The goal should be to have business groups, labor organizations, and economic development, and civic organizations view the Tampa-Orlando HSR Project as a major asset for the region and to provide information about it through their own communication vehicles. An additional element of public outreach will include outreach to and communication with key elected and appointed Federal, State, and local officials so they are kept abreast of project progress and provided with the collateral materials and information to relay to their respective constituencies.

Program Web Site – The Tampa-Orlando HSR Project Web site as a component of the Florida HSR Program Web Site (www.floridahighspeedrail.org) is a critical information portal for all Tampa-Orlando HSR Project stakeholders. During the execution of this statement of work, the Web site will be maintained and updated as new information is available for release to the public. The email received through the Web site will be collected and stored per Florida public record requirements, and any email that requires a response will be addressed.

The Web site also will be evaluated during the execution of this statement of work to determine the need for a new format or to address additional information format needs of the project stakeholders. The use of flash graphics and video also will be evaluated.

Collateral Materials – As indicated in the public awareness plan, Tampa-Orlando HSR Project collateral materials will be developed. These materials may include a Tampa-Orlando HSR Project fact sheet, an electronic newsletter, PowerPoint presentations, etc.. Materials, such as the fact sheet and newsletter, will be posted on the Web site for stakeholders to view and download as needed.

A visual simulation of the Florida HSR system will also be created because much public confusion exists about the HSR system. This will be combined with footage from operating HSR systems from around the world to provide the public with a strong visual image of what is being planned for implementation.

Toll-Free Information Line – The toll-free information line is an additional venue for stakeholders to have their questions answered or to receive the latest Tampa-Orlando HSR Project updates. This communication tool will be evaluated for implementation on the Tampa-Orlando HSR Project during this time period. After the appropriate approval, the toll-free line also will be activated.

Task 1.4: Stakeholder Meetings and Coordination
A key component of advancing the Tampa-Orlando HSR Project is the continual information exchange with key stakeholders both within the Tampa-Orlando corridor, statewide, and at a national and potentially international level. This will occur at different levels. Examples of which are listed as follows:

Task 1.4.1: Stakeholder Meetings and Coordination (Political Constituencies)
Entities such as the Florida Rail Commission and other elected and appointed bodies and individuals will be appraised of Tampa-Orlando HSR Project progress regularly.

Task 1.4.2: Stakeholder Meetings and Coordination (Station Owners and Stakeholders)
Each station location has several key stakeholders with different levels of involvement in advancing the station development. Agreements will be crafted as needed for joint station development.

Task 1.4.3: Stakeholder Meetings and Coordination (Public Agencies)
Permit agencies, local governments, State and Federal agencies will also be brought into the process as required to advance the Tampa-Orlando HSR Project in accordance with all existing regulations.

Task 1.4.4: Stakeholder Meetings and Coordination (HSR Industry and Other Interested Parties)
There are many entities interested in the Tampa-Orlando HSR Project and it is important that FDOT provide access and information to them, as well as allow for continuous education and input for the benefit of the Tampa-Orlando HSR Project.

Task 2: Preparation of Draft Documents for the PPP/DBOMF Contract
Florida intends to allow open competition to proven steel-wheel/steel-rail, electrified technologies from around the world that can operate in a safe environment as determined by FDOT and FRA. To achieve all the intended objectives, including start of revenue service in 2015, FDOT proposes the following approach. FDOT will begin development of the procurement documents to be used to select a private entity for the PPP contract for the DBOMF for the Tampa-Orlando HSR Project, including a Draft RFQ, Draft RFP, and Design Criteria and Specifications. FDOT has extensive experience preparing documents for major PPPs, such as the I-595 and the Port of Miami Tunnel projects, both of which exceeded $1 billion and achieved financial close in 2009. The activities in task 2 will provide FDOT and FRA with contract documents from which to advertise an RFP for the PPP/DBOMF for the Tampa-Orlando HSR Project upon completion of the activities in this statement of work.

Task 2.1: Development of Draft RFQ/RFP document for the PPP/DBOMF
FDOT will prepare Draft RFQ and RFP documents for the PPP/DBOMF for input by others, including industry reviews. The RFQ process will allow FDOT to narrow down the field of interested parties to a shortlist consisting of those that have the best-evaluated technical capability, resources, financial stability, and capacity to perform the contract. The RFP will be provided only to those making the shortlist. RFP documents take considerable effort and attention to be properly crafted, and with the plan to open the Tampa-Orlando HSR Project to revenue service in 2015, FDOT will be advancing the development of these documents in parallel with the Preliminary Engineering (task 3) and the Early Works Safety Project (task 5) documents.

Task 2.2: Design Criteria and Specifications for the PPP/DBOMF
FDOT will prepare Design Criteria and Specifications for the PPP/DBOMF to include with the RFP for the Tampa-Orlando HSR Project. The Design Criteria and Specifications will include a consolidation of the criteria and specifications developed in this statement of work, as well as, system safety considerations, construction, and other criteria and specifications appropriate for highway and railroad construction. The design criteria and specifications will address the more stringent tolerances for vertical and horizontal deformations that are required for an HSR system. Development of the design criteria will include research of the current international HSR design criteria, design specifications, material utilization and construction specifications. Design Criteria and Specifications will be developed in close coordination with FRA's Office of Railroad Safety. Other criteria and specifications will also be considered as appropriate.

The RFP for the PPP/DBOMF for the Tampa-Orlando HSR Project will include the Design Criteria and Specifications as a guideline document to proposers. The proposers will have the responsibility to submit the requirements that will be necessary to support a DBOMF contract for the Tampa-Orlando HSR Project that will comply with the Design Criteria and Specifications.

Task 2.2.1: Performance Criteria and Specifications
A series of performance criteria and specifications meeting the requirements of Tier V of FRA's High-Speed Passenger Rail Safety Strategy will be prepared for inclusion in the Design Criteria and Specifications for the fundamental components of the HSR system, as follows:

Task 2.2.2: Performance Criteria and Specifications (Track)
Track performance criteria and specifications shall meet FRA requirements in 49 CFR Part 213 as amended by ongoing FRA rulemaking and any further revision necessary will be applied.

Task 2.2.3: Performance Criteria and Specifications (Signal and Communications)
Preliminary signaling and communications criteria and specifications will be prepared that are consistent with the most recent FRA regulations (49 CFR Part 236, Subpart I – Positive Train Control Systems) to provide a safe environment for train operation. The system shall incorporate functions of command and control subsystems, such as positive train control, and train integrity and health monitoring modes.

The command and control communications system shall be developed in coordination with the FRA Office of Railroad Safety to define acceptable criteria and specifications for transmissions, communications between the HSR assets and the Central Traffic Control system (CTC), monitoring and control of trackside systems, monitoring and control of the traction power systems, and communication requirements at interface points.

Task 2.2.4: Performance Criteria and Specifications (Electrification)
Performance criteria and specifications will be developed in coordination with FRA's Office of Railroad Safety.

Note: Traction Power System shall conform to the National Electrical Safety Code (NESC) and the American Rail Way Engineering and Maintenance-of-Way Association (AREMA) Manual for Railway Engineering chapter 33, "Electrical Energy Utilization."

Task 2.2.5: Performance Criteria and Specifications (Rolling Stock)
Rolling stock requirements will largely be addressed in the Design Criteria and Specifications in accordance with the FRA regulatory approval process as described. The most basic performance requirements will be the ability to safely provide passenger rail service at speeds up to or exceeding 186 mph for continued operation on the Phase II Orlando-Miami HSR Project, operation in an exclusive corridor with no shared use, and meet FRA safety requirements.

Rolling stock performance criteria and specifications shall include provisions for passenger accessibility between the platform and equipment, and onboard trains in accordance with the Americans with Disabilities Act of 1990 and the U.S. Department of Transportation's regulations on Transportation Services for Individuals with Disabilities and Accessibility criteria and specifications for Transportation Vehicles at 49 CFR Parts 37 and 38.

As applicable, rolling stock performance criteria and specifications shall also be consistent with section 305 of the Passenger Rail Investment and Improvement Act addressing the development of a next generation corridor train equipment pool, in coordination with FRA.

Task 2.2.6: Performance Criteria and Specifications (Other Criteria and Specifications)
Performance criteria and specifications will be developed for Tampa-Orlando HSR Project elements such as station platforms, access, safety and security, signage and wayfinding, aesthetics, system maintenance, and others.

Considering that the Tampa-Orlando HSR Project is the initial phase of the Florida HSR Program, which will ultimately extend the HSR system from Orlando to Miami, the performance criteria and specifications should, where possible, be established for the track and equipment operating in the Tampa-Orlando corridor to be interoperable with the Phase II Orlando-Miami HSR Project. Where possible, FRA and FDOT will develop the criteria and specifications for the Florida HSR Program in a manner such that commonality with other similar HSR projects in the country can be achieved. Areas of common approach can include gage, operating electric traction, and crashworthiness criteria and specifications.

Task 2.3: Develop Safety Criteria and Specifications for the Tampa-Orlando HSR Project – FRA Regulatory Approval
Concurrent with the preparation of Design Criteria and Specifications in task 2.2, and the preparation of a Design Manual for the Early Works Safety Project in task 5, FDOT will work with FRA Office of Railroad Safety to obtain regulatory approval for the Phase I Tampa-Orlando HSR Project. Such regulatory approval and oversight may be carried out by a Rule of Particular Applicability (RPA) or other regulatory means as the case may dictate.

Approach: Florida previously advanced an RPA for the Florida Overland Express (FOX) project in the mid-1990s using the French TGV train system. This culminated in a Notice of Proposed Rulemaking (NPRM) by FRA in December 1997. The FOX project was then canceled.

The FOX NPRM has been overtaken by changes in HSR technology and changes in FRA regulations and policy and should only serve as a reference document to help the Grantee understand a regulatory approach that FRA may adopt for the current Tampa-Orlando HSR Project as Phase I of the Florida HSR Program.

The scope of work for this task will begin with development of the draft Design Criteria and Specifications for the Florida HSR system. Frequent coordination with FRA is anticipated in the development of this work.

As a follow-on task under the DBOMF contract, FDOT will coordinate with the selected awardee to take the FRA regulatory process to completion. The winning PPP contractor will be responsible for meeting all FRA regulations and requirements.

Task 3: Preliminary Engineering and Revised Cost Estimate

The Track 2 Application for Tampa-Orlando was based on engineering that was approximately 5–8% complete. FDOT will now advance this to an approximately 30% design level to provide a more refined project cost. The specific tasks that will be performed as part of task 3 are divided into three categories: (a) Mainline Infrastructure, (b) Stations, and (c) Maintenance Facility.

Under task 3 FDOT will advance the initial "higher level" preliminary engineering activities sufficiently to provide "Progress Prints," from which a 30% Engineering Cost Estimate will be prepared (about 7 months); followed by completion of Preliminary Engineering (30% Design) documents for most discipline areas from which a Final Revised 30% Cost Estimate will be prepared. The Preliminary Engineering design documents prepared as part of this task will be included in tasks 3 and 5 to prepare for the Early Works Safety Project and a draft RFP for the PPP. The 30% Preliminary Engineering design documents and Final Revised 30% Cost Estimate will be completed in time for inclusion in the RFP as noted above, scheduled for Spring 2011.

- Draft Revised Cost Estimate prepared based on Progress Prints
- Final Revised 30% Engineering Cost Estimate prepared based on 30% Preliminary Engineering
- Preliminary Engineering Progress Prints prepared for all activities
- Final Revised 30% Preliminary Engineering design documents prepared for all activities

The activities in task 3 will advance preliminary engineering and conceptual designs to allow each discipline to quantify and price project components to a higher degree of accuracy and lowering contingency amounts. Estimates will first be based on 30% progress prints for a Draft Cost Estimate and then advanced to completion along with the 30% final Preliminary Engineering design documents.

Task 3, Category (a): Mainline Infrastructure

Beginning with an elevated structure in the Tampa Station and ending at the OIA Station, FDOT will advance work on the mainline in the different discipline areas described below.

The 30% Preliminary Engineering design documents will be developed based on existing and new information that will be collected. Detailed survey and mapping will be performed and used to determine the HSR alignment and cross sections. Extensive geotechnical, groundwater, and contamination investigations will be performed as input in setting the alignment and elevation of the rail line. Existing facilities, right-of-way constraints, the findings of the FEIS and 2009 Reevaluation, and the environmental mitigation conditions reflected in those documents and in the FRA Record of Decision will also be considered as the 30% preliminary engineering effort is completed.

Task 3.1(a): Geotechnical (Field and Technical Investigation)

The geotechnical work in task 3.1(a) will consist of field and technical work that will support the following components of the preliminary engineering in task 3.

Task 3.1.1(a): Establish vertical track profile

For HSR, a vertical clearance of approximately 5 feet (ft) is required between the top of rail and the estimated seasonal high groundwater level. To establish the seasonal high groundwater level profile for the rail alignment, auger borings will be performed along the approximately 68 mi of ground-supported track alignment. This information will be essential for determining the track vertical profile, which will in turn govern the civil design of the entire system. For this reason, establishing the design groundwater profile is the first priority of the geotechnical investigation.

Task 3.1.2(a): Delineate unsuitable soils along the alignment

The borings performed during this phase will be used to establish the approximate horizontal and vertical limits of the unsuitable soils so that the cost of their removal and replacement with suitable material can be estimated. Based on the results of the preliminary geotechnical investigation performed for the Project Development and Environmental (PD&E) Study, there are locations along the alignment where unsuitable soils, e.g., peat and muck, are present. In addition, there is at least one location where an ancient sinkhole is present in the I-4 median that is filled with organic material (muck) to a depth of 108 ft. It is likely that this feature will be bridged with a structure to accommodate HSR. During this phase of the geotechnical investigation this feature will be further explored with borings/soundings and the possible presence of similar features along the alignment will be further evaluated.

For the bridges, existing soil boring information for the Interstate-275 (I-275), I-4, and SR 528 bridges will be obtained to avoid duplicating available boring data. Where existing borings are not available, Standard Penetration Test (SPT) borings will be conducted on approximate intervals of 200 ft along the bridge alignments. In areas of shallow rock, rock core samples will be obtained to evaluate rock quality and strength. Laboratory tests will be conducted on representative soil and rock samples obtained from the borings. The field and laboratory test data will be used to evaluate bridge foundation alternatives, including foundation size and depth, for use in estimating foundation construction costs.

As a result of the very limited tolerance for lateral deformation of HSR bridge foundations, specialty field testing methods will be used. These methods may include pressuremeter and/or dilatometer testing to obtain lateral soil strength and compressibility parameters. Experience has shown that lateral soil parameters obtained by these specialty test methods are much less conservative than values estimated from SPT blow counts, and can potentially reduce bridge foundation costs by a significant amount.

Soil borings/soundings, along with laboratory soil testing, will also be conducted in accordance with FDOT standards for Mechanically Stabilized Earth (MSE) walls, box culverts, passenger stations, the operations and maintenance facility, and the power substations.

Task 3.1.3(a): Obtain the Conceptual Stormwater Management Permit

It is practice in FDOT design-build projects that the design-criteria and specifications package includes a Conceptual Permit that the local Water Management Districts (permitting agencies) have agreed to in advance. The intent is that if the selected DBOMF firm follows the conditions in the Conceptual Permit, they are in essence preapproved for that permit. If the selected team

employs a change in approach, they would need to apply for a modification to that Conceptual Permit.

The technical work described in the next task is the work done to justify the drainage approach, which will be submitted to get a Conceptual Permit.

To facilitate Conceptual Stormwater Design, it will be necessary to identify soil types, evaluate soil permeability, and characterize groundwater conditions for the proposed facilities. To accomplish this, auger borings and field permeability tests will be performed in linear features such as swales and ditches at intervals of 1,000 ft. In stormwater ponds, two borings and one field permeability test will be conducted per acre of pond. The soil and groundwater data will be used to analyze recovery of stormwater retention volumes through infiltration and verify that recovery occurs within the timeframe required by the water management district regulations.

Task 3.1.4(a): Refine the construction cost estimate

To refine construction cost estimates, geotechnical information will also be needed for the following additional project elements:

- Bridges
- MSE walls
- Box culverts
- Passenger Stations
- Operations and Maintenance Facility
- Power Substations

Task 3.1.5(a): Geotechnical data collection for inclusion in the RFP documents

A Summary Geotechnical Report will be developed for inclusion in the RFP documents identifying key information that has been collected for proposer use. It is anticipated that the winning proposer may obtain supplementary/confirmatory geotechnical information as well.

Following is a description of the geotechnical data collection program that will be performed through this statement of work. Additional data collection may be required prior to the issuance of the RFP based upon the advancement of the preliminary engineering work.

Project Elements	
Track on Embankment	68 mi [At grade 46 mi] [Elevated 22 mi]
Track on Bridges	18 mi
Total Track	86 mi
Stations	5
[Downtown Tampa]	
[Lakeland]	
[Disney Celebration]	
[OCCC]	
[OIA]	
O&M Facility at OIA	1
Power Substations	3
Right-of-Way Acquisition	

Early Works Safety Project

Design Elements:

- Safety barrier wall in I-4 at-grade median and elevated wide median locations
- Drainage pipe beneath I-4 inside shoulder in narrow median locations

Median Width	Track Level	Length (Miles)	Wall Length (Miles [x2])	Wall Length (ft)	No. of Wall Borings[6]	Pipe Length (ft)	No. of Pipe Borings
Narrow	Grade	35.2	70.4	371,712	930[1]	371,712	0[4]
Narrow	Elevated	16.8	33.6	177,408	444[2]	177,408	0[5]
Wide	Grade	11.2	22.4	118,272	120[3]	0	0
Wide	Elevated	4.9	9.8	51,744	52[3]	0	0
	Total	68.1	102.6	541,728	1546[7]	549,120	0

Notes:

1. Assumes 1 boring for every 400 ft of wall on both sides (staggered).
2. Assumes 1 boring for every 400 ft of wall on both sides (staggered).
3. Assumes 1 boring for every 1,000 ft of wall on both sides.
4. Assumes safety barrier wall and track borings will be used for pipe.
5. Assumes track borings will be used for pipe.
6. Both SPT borings and Cone Penetration Test (CPT) soundings can be used.
7. Borings and sounding depths will be 25 ft.

Conceptual Design/RFP Data Collection

Rail Design Elements

Design Element	Units Description	Boring Frequency	No. of Borings	Average Boring Depth (ft)
Track – Stormwater High Water Level	46 mi at grade, 22 mi elevated	1 auger boring per 200 ft	1800	10
Track – Deep Muck	Deep muck deposits in median	SPT borings/CPT soundings	25	120
Stormwater	71 mi inside I-4, 15 mile outside I-4	1 auger boring and perm per 1000 ft	831	15
Bridges	31 bridges, total length of 18 mi (use 131 existing SPT borings)	1 SPT boring per 100 ft	810	120
Bridges – Specialty Testing	Pressuremeter/Dilatometer testing for lateral load analyses	50 locations, testing to 50 ft	50	50

Box Culverts	22 box culverts 6 ft or higher	2 SPT borings per box culvert, 6 ft or higher	44	50
MSE Walls	22 mi of MSE wall x 2 = 44 mi	1 SPT boring per 200 ft, use Phase I Safety Barrier Wall borings (444 borings) for narrow elevated section (33.6 mi)	142	50
Catenary Poles	Spaced 100 ft on both sides of track, 7200 total	Use track and wall borings	None	---
Signs	48 foundations	1 SPT boring per foundation	48	60
Power Substations	3 substations at 1 acre each	4 SPT borings per site	12	25
Right-of-Way Acquisition	307 potential contamination sites, 67 potential Level 2 Site Assessments within 300 ft, 27 Level 2 Assessments within 100 ft. Only 27 site assessments included in first phase of work.	4 auger borings, 1 well per site	108	15

Passenger Stations and O&M Facility Design Elements

Station	Station Description	Units	Boring Program
Downtown Tampa	Platform Bridge Length (ft)	675-700	6-9 SPT borings to 100 ft
	Pedestrian Bridge Length (ft)	0	
	Structure Area (sf)	0	
	Parking Area (ac)	1.7	8 SPT borings to 50 ft (garage)
	Pond Area (ac) [exfiltration]	3.6	10 auger borings to 20 ft, 10 perms
	Total Site Area (ac)	7	
Lakeland	Platform Length (ft)	600	6-8 SPT borings to 50 ft
	Pedestrian Bridge Length (ft)	250	3 SPT borings to 120 ft
	Structure Area (sf)	0	
	Parking/Paver Area (ac)	4.0	35 auger borings to 5 ft
	Pond Area (ac)	3.3	8 auger borings to 20 ft, 4 perms
	Total Site Area (ac)	20	
Disney Celebration	Platform Length (ft)	600	4-6 SPT borings to 50 ft
	Pedestrian Bridge Length (ft)	400	4 SPT borings to 120 ft
	Structure Area (sf)	35,000	3 SPT borings to 50 ft

	Parking/Paver Area (ac)	5.2	23 auger borings to 5 ft
	Pond Area (ac)	3.5	12 auger borings to 20 ft, 6 perms
	Total Site Area (ac)	20	
OCCC	Platform Bridge Length (ft)	600	8-12 SPT borings to 120 ft
	Pedestrian Bridge Length (ft)	550	3 SPT borings to 120 ft
	Structure Area (sf)	0	
	Parking Area (ac)	5.0	20 auger borings to 5 ft
	Pond Area (ac)	2.8	8 auger borings to 20 ft, 6 perms
	Total Site Area (ac)	22	
Orlando Int'l Airport	Platform Length (ft)	675-700	6-9 SPT borings to 50 ft
	Pedestrian Bridge Length (ft)	400	3 SPT borings to 120 ft
	Structure Area (sf)	0	
	Parking/Paver/Road Area	0.5	10 auger borings to 5 ft
	Pond Area (ac)	1.5	4 auger borings to 20 ft, 2 perms
	Total Site Area (ac)	6	
O&M Facility	Rail Storage and Workshop (sf)	162,500	12 SPT to 25 ft, 1 SPT to 75 ft (crane)
	Administration Building (sf)	24,000	3 SPT borings to 25 ft
	Storage Building (sf)	25,000	3 SPT borings to 25 ft
	Fuel Storage Tank (diameter)	70	1 SPT to 100 ft, 2 SPT to 75 ft
	Parking/Track/Road Area (ac)	20	50 auger borings to 5 ft
	Pond Area (ac)	10	20 auger borings to 20 ft, 10 perms
	Total Site Area (ac)	45	

Project Management/Design Criteria and Specifications/RFP Preparation (Also see task 2.2)

Project Element	Description
Project Management	Overall management of project management geotechnical investigation, contamination assessment and preparation of the geotechnical portion of RFP.
Develop Design Criteria and Specifications	Develop U.S. HSR geotechnical design criteria, design specifications, construction specifications and materials testing requirements guided by International HSR standards
RFP Preparation	Preparation of the geotechnical, contamination and construction materials testing portions of the DBOMF RFP

Task 3.1.6(a): Contamination Assessment for Right-of-Way Acquisition Support

Contamination screening and site contamination assessments will be undertaken to support acquisition of new right-of-way and to evaluate potential construction-related contamination impacts. The contamination services will be comprised of the following elements:

- Contamination Screening Evaluation Report (CSER) Update - Level 1
- Contamination Impact Assessments – Level 2

Task 3.1.6.1(a): Contamination Screening Evaluation Report ("CSER") Update – Level 1

A CSER was prepared for the Tampa-Orlando HSR Project in 2002/2003. In accordance with Chapter 22 of the FDOT PD&E Study Guidelines, the CSER will need to be updated because of the time that has elapsed since the original evaluation. The update is necessary to reevaluate and rank all previously identified potential contamination sites of concern based on updated information and to evaluate potential contamination sites that may not have existed at the time of the original evaluation. CSER activities include review of regulatory databases, historical aerial photographs, city directories, and site reconnaissance. The updated CSER will present the information obtained, identify potential contamination sites, and rank the sites as "No," "Low," "Medium," or "High" with regard to their potential risk of contamination impacts to the project. The updated report will also include recommendations for additional site assessments on medium and high-risk sites.

Task 3.1.6.2(a): Contamination Impact Assessments – Level 2

A Level 2 Contamination Impact Assessment will be performed to evaluate the presence of soil and/or groundwater contamination on medium and high risk potential contamination sites identified in proximity to the selected alignment. All work will be performed in accordance with current Florida Department of Environmental Protection (FDEP) and Federal Occupational Safety and Health Administration (OSHA) and U.S. EPA standards. The following work items will be included:

- Perform a minimum of four soil borings per potential contamination site.
- Conduct soil gas analysis using an Organic Vapor Analyzer (OVA).
- Obtain a minimum of one soil sample from each potential contamination site for laboratory analysis based on the suspected site contaminants.
- Install a minimum of one monitoring well per potential contamination site for groundwater sampling and laboratory analysis based on the suspected site contaminants.

A Level 2 Contamination Impact Assessment Report will be prepared to detail soil and/or groundwater contamination on each site. The report will present evaluation data in text, tabular, and graphic format with recommendations on soil and groundwater handling and disposal during construction activities.

Task 3.2(a): Rail/Highway Geometry Track and Catenary Foundation Layout (30% Preliminary Engineering)

The HSR alignment will be mathematized both horizontally and vertically, building upon the layout of the alignment developed for the FEIS and 2009 Reevaluation. HSR geometric design criteria and specifications will be applied within the constraints and controls of the surrounding environment. All horizontal project clearance requirements will be applied for structures, construction, safety, and other separation requirements. Similarly, constraints on final vertical alignment will be applied, including special trackwork locations, minimum clearances at crossings of highways and railroads, structural bridge deck allowances, criteria and specifications limitations on maximum and minimum profile grades, and vertical curve criteria and specifications. Once horizontal and vertical alignment criteria and specifications and constraints are analyzed, FDOT will compute the alignment and tie its control points into the State coordinate system and the project control baselines and benchmarks.

Task 3.2.1(a): 30% Preliminary Engineering (Plan Sheets)
The preliminary engineering design plan sheets will be developed for the conditions along the Tampa-Orlando corridor as described below.

Typical sections – including the following conditions:

- I-275 elevated, on structure
- I-4 elevated, on structure
- I-4 constrained median, at-grade
- I-4 wide median, at-grade
- I-4 constrained median, elevated on fill
- I-4 wide median, elevated fill
- I-4 pier, in the median
- SR 528 elevated, on structure
- Taft-Vineland Road (four typical sections)

Project Layout Sheets – Develop project layout sheets for the Tampa-Orlando corridor showing the coverage of each plan sheet.

Survey Control Sheets – These sheets will document all the control points throughout the Tampa-Orlando corridor. These sheets will be provided by the surveyor.

Plan Sheets – Summarize the preliminary alignment design work of this subtask in a set of plans showing the centerline between the two main tracks. Base the plan sheets on the final design base mapping at the selected final design scale, screened to accent proposed features. Show each passenger station platform and its major features. Show also traction power substation sites, indicate proposed modifications to existing conditions in the Tampa-Orlando corridor, such as street relocations and other revisions, retaining walls, grade separation structures, and crossings, and drainage systems. Show the mathematized horizontal geometry, control point stations, bearings, horizontal curve and spiral data. Prepare these drawings in standard MicroStation CADD format, at a scale of 1 inch (in) = 100 ft.

Profile Sheets – The profile drawings shall show the proposed HSR facilities (top of rail, line structures, station platforms, and crossings), the existing grade line, and major overhead and underground utilities. Show the mathematized vertical geometry, elevations, grades, and vertical curve data. All vertical clearances shall be measured from the top of grade rail. Prepare these drawings in standard MicroStation CADD format, at a scale of 1 in = 100 ft.

Cross Section Sheets – Provide cross sections for the rail alignment at 100 ft intervals. Cross sections will be used to compute earthwork.

Summary of Quantity Sheets – Define the preliminary quantities of the materials and summarize in tables. Some of the quantities that will be summarized include earthwork, guardrail, and safety barrier wall.

Summary of Pay Item Sheets – Develop a comprehensive list of pay items. Some items may not have standard FDOT pay item numbers in which case the item name and description will be listed.

Special Detail Sheets – Special details will be required throughout the limits of the project. It is anticipated that special details will be prepared for the bridge crossings, constrained right-of-way locations, and Taft-Vineland Road near OIA.

Maintenance of Traffic Sheets (MOT) – MOT plans will be required for work being performed adjacent to I-275, the I-4 inside travel lane, crossroads, SR 528 and Taft-Vineland Road near OIA. The plans will include typical sections, phasing notes, plan sheets per phase, cross sections per phase, and detail sheets.

Task 3.2.2(a): 30% Preliminary Engineering (Design Documentation)
Prepare a document which summarizes the design decisions made throughout the life of the project. The design documentation shall be a record that consists of typical sections, horizontal and vertical geometry, horizontal and vertical clearance, and other attributes that affect the design of the facility. It will include design notes, data, and computations.

Task 3.2.3(a): 30% Preliminary Engineering (Utilities Criteria and Specifications)
Define work to be accomplished by utility owner versus work to be accomplished by project contractor. Establish candidate methods to resolve conflict among existing utilities and proposed construction.

Task 3.2.4(a): 30% Preliminary Engineering (Utilities Relocation Plans)
Develop concepts for utility relocation with sufficient detail to base preliminary costs. Develop concepts to service new stations and yard facilities and power substations.

Task 3.2.5(a): 30% Preliminary Engineering (Trackwork)
Identify trackwork related elements required for the system and determine their general configuration, method of procurement, and method of installation. This work will begin with a review of the conceptual drawings from the FEIS and the 2009 Reevaluation, design criteria and specifications, preliminary operating plans, and relevant vehicle parameters. Develop operating conditions on each section of trackwork to include such factors as revenue versus nonrevenue trackage, storage tracks, maintenance restrictions, and track quality indices. Coordinate with the noise and vibration mitigation work to identify specific measures to be applied in the design of the trackwork along each section of the project.

Task 3.2.6(a): 30% Preliminary Engineering (Catenary Foundation Layout)
A preliminary catenary foundation layout will be developed based on the mathematized horizontal and vertical alignment. This will address conditions and constraints along the alignment and provide solutions for achievement of proper powering and electrification based on domestic and international practices for HSR. This layout for catenary foundations will be used to develop the more detailed cost estimate.

Task 3.2.7(a): 30% Preliminary Engineering (Emergency Access)
In coordination with the Federal Highway Administration (FHWA) and the FRA Office of Safety, the project design will include provisions for emergency access to the highway and HSR rights-of-way.

Task 3.3(a): Bridges and Structures (Preliminary Concepts and Design Criteria and Specifications)
The preliminary engineering work in task 3.3(a) is anticipated to include the following tasks:

Task 3.3.1(a): Preliminary Engineering Design Criteria and Specifications (See also task 2.2)
Preliminary engineering design criteria and specifications will be established primarily based on domestic and international norms for HSR and assessed for local application regarding bridge type, span lengths, superstructure depth, typical foundation designs and general loading criteria and specifications for HSR bridges. These in turn will be correlated to typical FDOT criteria and specifications and reviewed for appropriate application. The design parameters for the proposed bridges will be determined for use in the development of the high-speed profiles, conceptual bridge designs, and determination of preliminary construction costs.

Task 3.3.2(a): Bridge Concept Designs
Bridges on this alignment consist of a mixture of local road crossings and long viaducts. The use of a concrete superstructure alternative for the proposed bridges will result in lower construction and maintenance costs and effectively address the static deflection and dynamic vibration limitations required for the satisfactory operation of a HSR system. It is anticipated that the viaduct structures will use a combination of segmental box girders erected by span-by-span method in the 120- to 150-ft span range (either as simple spans or continuous span units) and by balanced cantilever method for longer spans. Concept designs will be developed to sample the effects of different span lengths and arrangements. For bridges over local roads, a concrete superstructure alternative will be developed, consisting of a reinforced concrete deck slab composite with Florida I-beams and Florida U-beams for two selected span lengths. The results of the concept designs will be used to validate the design requirements/parameters included in the Bridge Design Criteria and Specifications and for the development of preliminary bridge costs.

Task 3.3.3(a): Bridge Concept Plans and Report
Plan and elevation, typical section and vertical bridge geometry sheets will be developed for each bridge location. In addition, a Bridge Concept Report will be prepared and include a brief discussion of the justification for the selection of a concrete superstructure for the HSR bridges along with the results of the concept design and bridge construction costs. The report will also include a discussion on the feasible substructure and deep foundation alternatives.

Task 3.3.4(a): Retaining Wall Evaluation Report
Generic and proprietary retaining wall systems will be evaluated for use in the proposed HSR system. A report will be prepared containing a comparison of retaining wall systems evaluated and appropriate measures to safeguard the retaining walls against stray currents and settlements. Structural plans depicting the retaining wall plan and elevations will be prepared for the proposed retaining wall locations listed above. The construction cost for the project retaining

walls will be developed by using FDOT historical project unit prices adjusted by the cost of corrosion protection measures necessary to protect the retaining wall system against stray currents and additional cost to oversize the traditional wall components to carry heavier transit loads.

Task 3.3.5(a): Evaluation of Existing Structures
An evaluation of existing highway bridges, freight rail bridges, and box culverts will be conducted to assess the potential impacts to existing structures from the HSR system. A database will be developed for all existing bridges to verify existing bridge lengths, horizontal and vertical clearances, bridge types, and number of spans. This information will be used to confirm that no conflicts exist between the proposed HSR system and the existing facilities. A database of existing box culverts will also be created for the purpose of determining which culverts will require replacement, strengthening, or no action in preparation for supporting the HSR system.

The existing bridges will also be evaluated to determine if crash walls will be required at existing piers to shield them from impact loads.

Task 3.4(a): Drainage and Permitting (30 % Preliminary Engineering)
The primary goal of this effort is to develop drainage concepts and perform preliminary engineering design to support the development of the refined cost estimate and to secure concept or construction level permits from the FDEP and U.S. Army Corps of Engineers. The stormwater management requirements will also be used to verify accommodation within the available right-of-way. If additional right-of-way is required, pond locations will be identified including size of the additional parcels required to meet the FDEP permitting requirements.

The following tasks are required under the Drainage Design and Permitting Scope:

Task 3.4.1(a): 30% Preliminary Engineering (Plan Sheets)
Drainage Map Sheets – Develop drainage maps based on review of existing conditions, surveys, and field reconnaissance. Drainage maps will document existing and proposed drainage patterns, cross drains and base flood elevations.

Stormwater Management Facilities – The stormwater management facilities required for the trackway will be shown on the plan sheets or on separate sheets as required to sufficiently show the layout for review by the FDEP. The layout will include horizontal and vertical information such that the size of the proposed stormwater facilities can be verified. Pond detail sheets will be provided for all existing and proposed ponds being used for the trackway and stations.

Cross Drains – The extensions and/or replacements of the existing cross drains will be shown on the plan sheets.

Drainage Design Detail Sheets – Special details will be provided for proposed pond outfall control structures, existing pond outfall control structures (to be revised), and special outfall

control structures. Special details will also be provided for other significant drainage elements as required by the FDEP for securing the permit.

Task 3.4.2(a): 30% Preliminary Engineering (Stormwater Management Design Criteria and Specifications)
The FDEP has been delegated the authority to administer the Environmental Resource Permitting (ERP) for the HSR project. The project's stormwater management design criteria and specifications will be developed based on domestic and international practices, and then correlated and coordinated with FDOT and FDEP. The agreed upon criteria and specifications will be included in the project Design Criteria and Specifications and will be the basis for the stormwater management design analysis.

Task 3.4.3(a): 30% Preliminary Engineering (Stormwater Management Design)
The first phase of the stormwater management design process is data collection. As-built construction plans, existing drainage studies and permit documents will be obtained and reviewed for the I-4 corridor and relevant areas outside of the I-4 right-of-way, including the OIA, I-Drive Station, OCCC Station at Canadian Court, and the station site in Tampa. The information gathered from the data collection phase will be documented on the Existing Conditions Drainage Map and within the existing conditions drainage section of the Stormwater Management Design Report.

Design of the stormwater management facilities required to meet the stormwater management design criteria and specifications will be developed. Design calculations will be documented in the Stormwater Management Design Report as required by FDOT and FDEP. The calculations shall demonstrate that the proposed stormwater management facilities meet the requirements of FDOT and FDEP, including consideration of water quality treatment and stormwater runoff attenuation.

The various types of stormwater management facilities to be designed for this project include but are not limited to:

Revisions to Existing Stormwater Ponds – There are existing stormwater management ponds along portions of the alignment which provide water quality treatment and attenuation for the existing facilities. The existing capacity of these ponds will be reviewed to determine whether they can accommodate the additional water quality treatment and attenuation required for the HSR system. The existing flood routings and design calculations will be updated to reflect any changes proposed to these existing stormwater ponds.

Linear Retention Swales – Linear dry retention swales will be considered in areas under the proposed HSR bridges, in areas with relatively wide medians, and within the existing I-4 outside ditches to provide water quality treatment and attenuation of the stormwater runoff generated from the HSR. Design calculations of all proposed dry retention swales using hydrogeological parameters provided by the geotechnical consultant will be provided.

Proposed Stormwater Ponds – In areas with available right-of-way, dry retention and/or wet detention ponds will be provided as necessary to provide water quality treatment and attenuation for the proposed HSR system.

Special Outfall Control Structures – Preliminary engineering design for special outfall control structures on existing cross drains and in other areas as needed to attenuate post development discharge rates to levels at or below the existing condition discharge rates in accordance with FDOT and FDEP requirements. Design level calculations including flood routings as required by FDOT and FDEP will be provided.

Task 3.4.3(a): 30% Preliminary Engineering (Design of Cross Drains)
Construction of the rail envelope will require cross drains in the bifurcated areas (separate cross drains on eastbound and westbound lanes) to be connected in the median. The hydraulic design of proposed and existing cross drains will be performed to determine if they are structurally sound and can be extended.

Task 3.4.5(a): Track Base Clearance Evaluation
In coordination with the geotechnical engineer, the seasonal high groundwater profile and minimum trackway base clearance will be required for establishing the trackway profile. The results of this evaluation will be included in the Track Geometry Documentation Report.

Task 3.4.6(a): Environmental Permitting
Based on examination of the FEIS and the 2009 Reevaluation, undeveloped areas that may be impacted by the project will be identified for potential impacts to threatened and endangered species and wetlands as required by the FDEP and U.S. Army Corps of Engineers. Mitigation alternatives proposed in the FEIS and 2009 Reevaluation for impacts that are identified along the proposed Tampa-Orlando corridor shall be addressed.

An ERP application report will be developed for submission to the FDEP for the purpose of securing a concept or construction level permit for the HSR system. The ERP application shall include the stormwater management design calculations and environmental consideration report. FDOT shall work diligently with the FDEP to resolve any requests for additional information during the application process. Consultation will be initiated with the U.S. Fish and Wildlife Service (USFWS) if federally protected species or their habitat would be impacted by the proposed trackway and stations. If it is determined necessary, upon consultation with USFWS, FDOT then will engage in consultation with additional environmental resource agencies as required. A permit application will also be prepared for the U.S. Army Corps of Engineers as required for impacts to jurisdictional waters.

Task 3, Category (b): Stations
For the stations, a systematic approach will be developed that will consider the following basic elements: train service and operations; local market served and connections to other modes (current and planned); architectural image (system-wide and local); building structure and Mechanical Electrical Plumbing (MEP) systems; passenger circulation and way finding; site layout, parking and local transportation access; utilities, drainage, and permitting; safety and

security. Stations will be programmed to a schematic level and all components and site will be identified to provide a functional HSR station. Architectural renderings/concepts will be provided.

Part of the approach to stations will also be to determine the sharing of scopes and costs with station owners, e.g., OIA and Orange County.

A brief description of each station follows:

Downtown Tampa multimodal station
The proposed downtown station would sit on a 13.5 acre site with an elevated third level platform with three tracks and would be a multimodal terminal station design that will plan to accommodate future light rail at the second level of the facility. Bus, taxi, and kiss-and-ride access will be curbside at level one. This station will be developed with a full range of passenger amenities and air-conditioned second-level lobby, queue, and passenger hold/lounge. Entry points and building massing will be coordinated with existing state owned buildings immediately adjacent to the site. Structured parking may be required.

Lakeland/Polk County station
The proposed Lakeland/Polk County station would sit on a 20-acre site (Kathleen Road or alternate sites will be similar) and be an at-grade through station adjacent to the I-4 corridor that connects via an overhead interior air-conditioned passenger lobby that spans the westbound lanes to the center median where at-grade passenger platforms will serve two tracks. A covered open-air roof element will span the passenger platforms. Bus, taxi, and kiss-and-ride access will be curbside at level one. This station will be developed with a basic level of passenger amenities and air-conditioned ground-level lobby, queue, and passenger hold/lounge. Coordination with rail alignment and site design for the station access will be required.

Walt Disney / Celebration station
The WDW station would sit on Disney-owned property and be an at-grade through station adjacent to the I-4 corridor that connects via an overhead interior air-conditioned passenger lobby that spans the westbound lanes to the center median where at-grade passenger platforms will serve two tracks. A covered open-air roof element will span the passenger platforms. Bus, taxi and kiss-and-ride access will be curbside at level one. This station will be developed with a basic level of passenger amenities and air-conditioned ground-level lobby, queue, and passenger hold/lounge, and will be coordinated with rail alignment and site design for the station access. Expectation is that WDW, who as donor of the site, will lead the design-intent concept direction.

OCCC multimodal station
The proposed OCCC station would sit on an Orange County owned 20-acre parcel (Canadian Court Site) and be a multimodal through station intended to interface with the I-Drive circulator and future light rail. The HSR platform will be located on the third level on the north side of the 528 Beachline corridor and will be connected through an air-conditioned passenger walkway connecting to the adjacent station building. A covered open-air roof element will span the passenger platforms. Bus, taxi, and kiss-and-ride access will be located curbside at level one. This station will be developed with a full complement of passenger amenities and air-

conditioned second-level lobby, queue, and passenger hold/lounge. Coordination with Orange County for other modes will be conducted throughout the process.

OIA multimodal station
The proposed OIA station would sit on the Greater Orlando Aviation Authority's (GOAA) land near the future South Terminal proposed site (a recommendation for the site was made by the GOAA in its March 17, 2010, board meeting, and is being analyzed by FDOT). The platform will likely be on the third level with three tracks in a multimodal terminal station design that will plan to accommodate future commuter rail and light rail as well. Bus, taxi, and kiss-and-ride access will be curbside at level one. This station will be developed with a full range of passenger amenities. The design will be coordinated closely with GOAA, who are likely to lead the design intent concept direction.

Task 3.5(b): Station Architecture – Programming and Conceptual Design
Conceptual design of five different HSR stations will be advanced to prepare cost estimates and provide guidance for the design criteria and specifications package. The stations will contain air-conditioned lobby space and lounges; weather protected and sheltered passenger platforms; vertical circulation systems including elevators, escalators, and powered walkways; elevated sheltered bridge connections; passenger amenities that may range to include food service, business support, and retail facilities; passenger ticketing facilities; public restrooms; rail maintenance support spaces; administrative support spaces and offices; and building support areas. The stations will vary in size and program based on the location and the station location owner(s). In addition to the building design, the Project will also require coordination with the site design team and building engineering consultants as well as the track alignment and pier spacing of the rail system.

Task 3.6(b): Station Development
There is recognition that each station offers different opportunities for ancillary development that may occur as HSR is built. There is also recognition that the HSR system must offer independent utility and stand on its own. As work progresses advancing each station, FDOT will be examining the opportunities and alternative strategies that exist with each location. The specific approach for development at each station will be incorporated into the Draft RFP document.

Task 3.7(b): Station architecture- Schematic Design
Architectural design services through a schematic design submittal will include the following:

- Space needs and development of a station program that quantifies the size and qualitative aspects for each of the spaces within the individual stations. The program will be developed systemwide and will be reduced or augmented depending on the individual station requirements.
- Station precedent studies of similar recently executed state of the art HSR facilities from around the world will be reviewed for comparable conceptual programmatic development, design parameters, station criteria and specifications, and architectural expression.
- Coordination with the site development team and the rail alignment team to fix the footprint for the station in both the vertical and horizontal planes and where occurs at

elevated stations to define the elevated platforms and vertical circulation cores as well as definition of vehicle service requirements within the terminal stations.

- Coordination with building engineers for the requirements of the various building systems including mechanical, electrical, and security and communication systems.
- Schematic development of the stations will define and develop plan adjacencies, fix sizes and define the passenger arrival, flow, and experience. FDOT will articulate architectural development of the vertical building section and elevations, clearances, architectural character, and material palate.
- Architectural renderings will be provided to define the station design, materials and character in three dimensions to support owner reviews, team presentations, and cost estimating.
- An outline specification will be provided that will delineate all materials and finishes associated with the architectural interior and exterior envelope of the station to allow for 30% schematic estimate pricing.
- Provisions for accessibility will be included in the station areas, within the station facilities, and passenger access to trains, in accordance with the Americans with Disabilities Act of 1990.

Schematics will be prepared for the following station components:

Curbside area development - Drawings will depict area development at curbside.

Architectural-

- Single line layout for all floors, penthouses, and roof areas with double line exterior walls at a scale not less than 1:100 (1/8 in = 1 ft). Show all rooms, doors, corridors, basic column grid, assumed column sizes, expansion and seismic joint locations, electrical closets and equipment rooms, signal and telephone closets, mechanical shafts and space, and all vertical circulation, e.g., stairs, conveyors, and elevators, and automatic conveyances.
- Preliminary building sections shall be shown, as needed, to define building configuration, area and volume. All floor to floor heights shall be indicated. Draw typical wall sections showing proposed building systems and materials to support estimating.
- Space Program Accounting Summary shall be submitted, tabulating program net areas, design net areas, and building gross areas for all structures. A note shall be included on the drawing if the building is fully sprinklered.
- Preliminary elevations of all facades showing massing, proposed fenestration, the relationship of the building to adjacent structures and the finish grade. The elevations should show all significant building materials, any proposed roof top mechanical equipment and architectural screens, indicating all vertical dimensions.
- Written descriptions and elevations shall be submitted for each side of all buildings in sufficient detail for the exterior design estimate.
- Provide outline specification indicating all materials anticipated to be used for the building and defining the quality and equipment associated with each building trade to support the cost estimate.

- Finishes: a written narrative shall be submitted of the interior design scheme and proposed finishes that builds on the previous submission. Provide a sample board to illustrate the concept.
- Furnishings: a floor plan shall be submitted indicating furniture placement with specific type of furniture selections.

Heating, Ventilation and Air-Conditioning – Coordination with engineers for station, show location of mechanical equipment rooms and closets on the floor plans. FDOT will indicate any site related enclosures that may be required.

Electrical – Coordinate with engineers for station, show location of electrical equipment rooms and closets on the floor plans.

Security – In collaboration with the Transportation Security Administration (TSA) and local emergency responders, and based on international and domestic standards and practices, a security and emergency response system will be developed in concept as part of the advancement of the station work.

Task 3.8(b): 30% Preliminary Engineering (Station Civil Site Plans)
Preliminary Engineering 30% civil site plans will be prepared, showing the station area improvements and modifications to existing surface and subsurface infrastructure features including track layouts within the station limits. The plans will reflect the impact of the station and station site development (parking lots and intermodal transfer facilities), drainage patterns, underground utilities, and existing surface features such as structures, fences, sidewalks, curbs, gutters, signage, and roadways. The layout for the parking lot and kiss-and-ride facilities will be established as part of this effort.

Task 3.9(b): 30% Preliminary Engineering (Station Area Roadway Plans)
Prepare 30% Preliminary Engineering design documents for each intersection, roadway modification, dedicated turn lane, and access road identified for improvement. The preliminary engineering design documents will consist of plans showing horizontal and vertical alignment, pavement marking, signing, signalization, and MOT during construction of the project. Identify advance signage to the facilities in surrounding area road network. Coordinate preliminary engineering design with local agencies to comply with local agency standards and policies. Provide in these documents the basic information for the preliminary civil works design.

Task 3.10(b): Station Area Traffic Analysis
For each station, perform an analysis of the morning, evening, and midday traffic that will be generated by HSR. Utilize the two ridership studies provided in FDOT's HSIPR application coupled with Institute of Transportation Engineers (ITE) trip generation rates to develop the traffic design. Determine the appropriate road network that will be influenced by the station traffic and utilize existing data for that network, where available, and supplement with new data so that any impacts can be determined and solutions developed. By using the data developed, generate parking requirements and evaluate on-site traffic flow for both vehicular and pedestrian traffic. Coordinate with FDOT District and local government traffic staff.

Task 3, Category (c): Maintenance Facility
The proposed maintenance facility to be built as part of the Phase I Tampa-Orlando HSR Project would sit on GOAA land. This facility was recommended to one of the sites near Boggy Creek Road/Tradeport by GOAA at its March 17, 2010, board meeting. FDOT is in the process of analyzing this site. This maintenance facility will also be used as the north end facility for the Phase II Orlando-Miami HSR Project. It is anticipated a second maintenance facility will also be required in South Florida for the Phase II Orlando-Miami HSR Project, but is not addressed in this scope.

The 30% Preliminary Engineering design documents will include the site layout, parking, drainage, utilities, and roadway access, to a sufficient level of detail to prepare a Final Revised 30% Cost Estimate. Concepts for maintenance features and equipment will be identified to determine an overall layout of the maintenance site, space requirements, and required utility connections and service.

Task 3.11(c) Schematic Design (Track Configuration)
The schematic track layout configuration will be prepared indicating locations and lengths of trackage including sizing of special trackwork, at-grade crossings, structures, and other critical elements. The facility layout will follow the operational concepts developed for the Phases I and II of the Florida HSR Program (Tampa-Orlando and Orlando-Miami, respectively). For this effort, the layout will be dimensioned to a sufficient level of detail to support a Final Revised 30% Cost Estimate.

Task 3.12(c) 30% Preliminary Engineering (Trackwork, Maintenance Facility, Site-Civil)
The 30% Preliminary Engineering design documents will be prepared for special trackwork within the storage yard and maintenance facility. It is assumed that the storage yard clear track capacity will accommodate up to 25 trainsets of seven cars each (including both Phases I and II of the project).

A preliminary inventory of the elements to be included in the Maintenance Facility is as follows:

- O&M Company building (management and administration);
- Operation Control Center (OCC) building for Phase I and to be used by Phase II;
- Main workshop for rolling stock maintenance (including train inspections, repairs, overhaul and refurbishment);
- Infrastructure workshop for non-rolling stock maintenance system-wide;
- Train stabling tracks for daily cleaning and inspection;
- Train crew and car cleaners' facility;
- Train washing plant for automatic washing of trains;
- Wheel re-profiling plant; and
- Electric traction substation for Phase I mainline, maintenance facilities and buildings.
- Test track, OCS training area, Hazardous materials storage area, water supply facility, water treatment plant, waste material pick-up shelter, guard house will be provided at each entry/exit point.

Task 4: Survey and Right-of-Way Acquisition
FDOT will perform an aerial mapping and ground control survey program that will provide critical horizontal and vertical controls along the alignment for both the preliminary engineering and right-of-way acquisition of the remaining parcels not already in the public domain.

Task 4.1: Survey
The specific scope to be covered in this statement of work includes the following:

- Performance of parcel surveys and ties to alignment survey for all parcels to be acquired.
- Preparation of right-of-way maps and all documents for the acquisition of all parcels.
- Coordination with appraisal staff on cost to cure solutions.
- Performance of specific requests for additional survey as required by design staff to supplement the initial control survey and aerial mapping.

Task 4.2: Right-of-Way Acquisition
The specific scope to be covered in this statement of work includes the following:

- Preparation of preliminary right-of-way requirements for initial "cost to acquire" estimates. This includes coordination with appraisal staff on total take parcels, alternate parcels, and potential mitigation of impacts/cost to cure solutions.
- Identification of "total take" parcels for early acquisition to achieve advantage of current depressed pricing, and avoid speculation. FDOT will identify and provide cost estimates for these parcels and prepare acquisition documents, and subsequently proceed with acquisition.

Costs associated with the acquisition of specific parcels (e.g. the actual acquisition) are not eligible pre-award costs.

Anticipated early right-of-way parcels (total takes) to be acquired (per following table):

Existing Land Description	Owner	Proposed Use	County	Cost
Developed	TIITF/Department of Management Services	Station	Hillsborough	$ 17,069,853
Developed	Lippee Stewart J Trustee	Station	Hillsborough	$ 1,295,731
Developed	National Advertising Co.	Station	Hillsborough	$ 732,370
Developed	National Advertising Co.	Station	Hillsborough	$ 619,698
Developed	Skinner Family Limited Partnership	Station	Hillsborough	$ 788,706
Developed	Icon Financial LLC	Station	Hillsborough	$ 1,859,093
Developed	City of Tampa	Station	Hillsborough	$ 563,361
Developed	Gietzen and Associates	Station	Hillsborough	$ 563,361
Developed	Liguori and Carroll LLC	Track	Hillsborough	$ 1,014,051
Developed	Stella Lopez	Track	Hillsborough	$ 676,034
Developed	Jerry Alonzo	Track	Hillsborough	$ 676,034
Developed	Expansion Mansions LLC	Track	Hillsborough	$ 732,370
Developed	Maria Vizcarra	Track	Hillsborough	$ 676,034
Vacant	Michelle Lamont	Track	Hillsborough	$ 676,034
Developed	Taylor Bean and Whitaker Mtg. Group	Track	Hillsborough	$ 225,345
Developed	John Bennett	Track	Hillsborough	$ 56,336
Developed	Parking Garage to compensate for DMS parking	Station	Hillsborough	$ 6,500,000
				$ 34,724,410

Total Estimated Cost for Total Take Right-of-Way Acquisition: $ 35 million

Task 5: Prepare Procurement Documents for the Early Works Safety Project
The objectives of the Early Works Safety Project in the I-4 median will be threefold:

- Create a safe (for I-4 traveling public as well as HSR construction) and separated work zone for future HSR construction by building the majority of the permanent safety barrier system that will be required along the I-4 corridor;
- Create meaningful construction jobs as soon as possible given the economic environment in terms of both unemployment and depressed construction pricing; and
- Provide an opportunity to discover unforeseen conditions in the Tampa-Orlando corridor on this relatively smaller contract in advance of the much larger HSR construction.

The activities in task 5 will provide FDOT and FRA with procurement and Preliminary Engineering design documents for the advertisement of an RFP for the Early Works Safety Project and subsequently issue a contract for the design-build of the project upon completion of the activities in this statement of work.

Task 5.1: Design Manual for Barrier Safety
The requirements associated with advancing an Early Works Project include the development by FDOT of a Design Manual for review by FRA which will include the following components:

- Justification for the Early Works Safety Project (from a safety perspective)
- Safety Hazard Analysis for the Early Works Safety Project
- Design analysis/crash test data for safety barrier types:
  - Highway-style safety barrier for wider median sections
  - Modified sound wall or sheeting safety barrier wall for tighter sections
- Plan for intrusion prevention/shielding
- Maintenance concept
- Overhead structures – concept for shielding from HSR mainline
- Emergency access and egress concept for highway and HSR rights-of-way

This Early Works SafetyProject Design Manual will address specifically and in detail the design requirements for the safety barrier system itself, and will conceptually address other Tampa-Orlando HSR Project elements listed above, as these will ultimately be the responsibility of the PPP leading the DBOMF. These Tampa-Orlando HSR Project element concepts will be part of the criteria and specifications package provided with the RFP.

The scope of this task will be to prepare this Design Manual and coordinate with FRA to obtain regulatory approval.

Task 5.2: 30%–80% Preliminary Engineering for Early Works Safety Project
FDOT will use a low-bid design-build procurement process for the Early Works Safety Project. Concurrent with preliminary engineering work in task 3, FDOT will advance the design documents for the Early Works Safety Project to 30% progress documents for FRA review and approval, then to 80% to accompany the Early Works Safety Design Manual that will be ready to issue with the RFP prepared under task 5.3 to begin procurement. The RFP will be issued as part of this statement of work, but FDOT shall not enter into a contract for the design-build of the Early Works Safety Project until a follow-on statement of work is prepared and approved by FRA.

Documents will be provided for the following:

- Safety barrier systems – plans, geometric controls and safety barrier system details
- Maintenance of traffic during construction
- Removal/relocation of existing facilities in I-4 corridor

Scope of work by discipline follows:

Task 5.2.1: Geotechnical
The geotechnical investigation for support of the Early Works Safety Project (concurrent with preliminary engineering work) is included in the overall geotechnical data collection program in task 3.1.5(a). The boring/sounding and laboratory testing information will be analyzed to develop recommendations for wall foundation design and construction and pipe installation.

Task 5.2.2: Civil/Alignment
Based on survey controls being developed as part of the preliminary engineering, a layout of the proposed safety barrier system with vertical and horizontal controls will be developed. Plans will be produced at appropriate scale for the length of the I-4 section that will be included in this work.

Cross sections will be developed identifying the different conditions along the alignment (4-5 conditions are anticipated) with stationing in which each should be used.

Task 5.2.3: Drainage and Permitting
Drainage analysis will be conducted in parallel with the preliminary engineering work and address the two prevalent conditions for the Early Works Safety Project – areas where the I-4 median is tight, where a tall sheeting/safety barrier condition will be required, and areas where the median is wider and the drainage can be addressed as part of the HSR construction. For the tight sections, drainage solutions may include the installation of a trunk line along I-4. Permitting will be advanced through an early meeting with FDEP to present the scope and objectives of the Early Works Safety Project. Other appropriate agencies such as water management districts will be contacted as necessary.

Task 5.2.4: Structures
Typical details will be developed for each cross section condition as described in the civil scope above. Analysis will be included in the Design Manual.

Plans, contract duration, special provisions, pay items, and a cost estimate will be prepared along with boilerplate bid documents.

Task 5.3: Preparation of Procurement Documents for the Early Works Safety Project
FDOT will prepare procurement documents and an RFP for a design-build contract for the Early Works Safety Project.

PROJECT SCHEDULE

Schedule of Work:
The period of performance for the above work shall be 15 months, beginning May 15, 2010, and ending August 16, 2011.

Performance Objectives and Deliverables
FDOT shall provide FRA for its review and approval with a projected schedule to achieve the deliverables and performance objectives addressed in this statement of work. FDOT shall achieve these performance objectives in order to be eligible for reimbursement, and for the Project to be considered complete.

A Schedule is included with this Agreement for the four key milestone objectives listed below:

Milestone 1: Draft Revised Project Planning Documentation
a. Draft Revised PMP
b. Draft Revised SDP
c. Draft Revised Cost Estimate

Milestone 2: Preparation of Project Procurement Documents
a. Draft RFP and 30% and Preliminary Engineering for the Early Works Safety Project
b. RFQ for the PPP/DBOMF for the Tampa-Orlando HSR Project

Milestone 3: Public Procurement for Project Contract Activities
a. Completion and submittal of 80% Preliminary Engineering design documents for the Early Works Safety Project to FRA for review and approval, and subsequently issue an RFP for the Early Works Safety Project
b. Issuance of RFQ for the PPP/DBOMF for the Tampa-Orlando HSR Project

Milestone 4: Completion of Preparation of Project Planning Documents
a. Final Revised PMP
b. Final Revised SDP
c. Final Revised Cost Estimate
d. 30% Preliminary Engineering for the PPP/DBOMF for the Tampa-Orlando HSR Project
e. RFP document for the PPP/DBOMF for the Tampa-Orlando HSR Project

(Upon completion of Milestone 4, FDOT will be ready to initiate contract and construction activities for the Early Works Safety Project, and issue the RFP for the PPP/DBOMF for the Tampa-Orlando HSR Project in a follow-on statement of work.)

The following deliverables must be accomplished in order to achieve the above listed milestones:

Task 1: Project Development Deliverables (Draft, Milestone 1; Final, Milestone 4)

1.1.1 Documents Control system – access to documents warehouse
1.1.3 Detailed Work Plan and Primavera Schedule
1.1.4 Draft Revised PMP prepared for entire Phase I Tampa-Orlando HSR Project
1.1.4 Final Revised PMP prepared for entire Phase I Tampa-Orlando HSR Project
1.1.5 Quality Control Program (can be included in Revised PMP)
1.1.6 Risk Management Program (can be included in Revised PMP)
1.1.7 Safety and Security Program (can be included in Revised PMP)
1.2 Draft Revised SDP
("Investment Grade" Ridership and Operations Analysis not required in draft)
1.2 Final Revised SDP
(Including preparation of an "Investment Grade" Ridership and Operations Analysis)
1.3 Communications and Outreach Program

Task 2: Preparation of Draft Documents for the PPP/DBOMF Contract Deliverables
(Draft, Milestone 2; Final, Milestone 3)

2.1 Draft RFQ/RFP document
2.2 Design Criteria and Specifications
2.3 Draft Safety Criteria and Specifications for Florida HSR – FRA Regulatory Approval

Task 3: Preliminary Engineering and Revised Cost Estimate Deliverables
(Draft, Milestone 1; Final, Milestone 4)

- Draft Revised Cost Estimate prepared based on Progress Prints
- Final Revised 30% Engineering Cost Estimate prepared based on 30% Preliminary Engineering
- Preliminary Engineering Progress Prints prepared for all activities
- Final Revised 30% Preliminary Engineering design documents prepared for all activities

Task 3: Specific Deliverables

Task 3.1(a): Mainline Infrastructure (Geotechnical)
3.1.3(a) Conceptual Stormwater Management Permit
3.1.4(a) Design and Cost Estimates
3.1.5(a) Summary Geotechnical Report
3.1.6.1(a) Contamination Screening Evaluation Report (CSER) – Level 1 Update
3.1.6.2(a) Contamination Impact Assessment Report – Level 2

Task 3.2(a): Mainline Infrastructure (Rail/Highway Geometry Track and Catenary Foundation Layout)
30% Preliminary Engineering

Task 3.3(a): Mainline Infrastructure (Bridges and Structures)
– Preliminary Engineering design criteria, specifications and concepts
3.3.1(a) Design Criteria and Specifications (see also task 2.2)

3.3.2(a) Bridge Concept Designs
3.3.3(a) Bridge Concept Plans and Report
3.3.4(a) Retaining Wall Report
3.3.5(a) Existing Structure Database

Task 3.4(a): Mainline Infrastructure (Drainage and Permitting)
30% Preliminary Engineering
3.4.3(a) Existing Conditions Drainage Map
3.4.3(a) Stormwater Management Design Report
3.4.5(a) Track Geometry Documentation Report.
3.4.6(a) ERP Application Report
3.4.6(a) Stormwater Management Design Calculations and Environmental Consideration Report

Task 3(b): Stations
3.7(b) Schematic Design of Stations
3.7(b) Architectural Renderings of Stations
3.7(b) Space Program Accounting Summary
3.8(b) Station Area Civil Site Plans
3.9(b) Station Area Roadway Plans
3.10(b) Station Area Traffic Analysis

Task 3(c): Maintenance Facility
3.11(c) Maintenance Facility Schematic Track Layout
3.12(c) Maintenance Facility 30% Preliminary Engineering

Task 4: Survey and Right-of-Way Acquisition Deliverables
4.1 Aerial mapping and ground survey controls for entire Tampa-Orlando corridor
4.1 Survey and right-of-way tasks completed for all activities defined in task 4
4.2 Right-of-Way maps and documents prepared for acquisition of all parcels
4.2 Total take parcels identified for early acquisition, including acquisition itself

Task 5: Prepare Procurement Documents for the Early Works Safety Project Deliverables
(Draft, Milestone 2; Final, Milestone 3)
5.1 Early Works Safety Design Manual
5.2 30% Preliminary Engineering
5.2 80% Preliminary Engineering design
5.3 RFP Contract Documents for Early Works Safety Project

PROJECT ESTIMATE/BUDGET

The total estimated cost of this Project is $66,660,000 for which FRA grant will contribute 100.0000% of the total cost, but no more than $66,660,000.

Task 1: Project Development	$ 2.40 million
Task 2: Preparation of Procurement for the PPP/DBOMF Contract	$ 2.10
Task 3: Preliminary Engineering and Revised Cost Estimate	$ 9.30
Geotechnical Explorations	$ 7.00
Task 4: Survey and Right-of-Way Acquisition	$36.00
Task 5: Prepare Procurement Documents for the Early Works Safety Project	$ 3.80
Project Sub-Total	$60.60
Project Contingency (10%)	$ 6.06
Project Total	$66.66 million

Florida HSR – Phase I Tampa-Orlando (FRA Grant)

FRA (100.0000% of Project cost):	$66,660,000
Grantee Contribution (0.0000% of Project cost):	$ 0
Total Project Cost:	**$66,660,000**

PROJECT COORDINATION

The Tampa-Orlando HSR Project will be administered by the FRE of FDOT. All grant funds for this statement of work will be for exclusive use in the implementation of the Tampa-Orlando HSR Project. A Tampa-Orlando HSR Project organization chart is included in the PMP provided by FDOT with the supporting documents to this Agreement.

PROJECT MANAGEMENT

A separate PMP is included with the supporting documents to this Agreement.

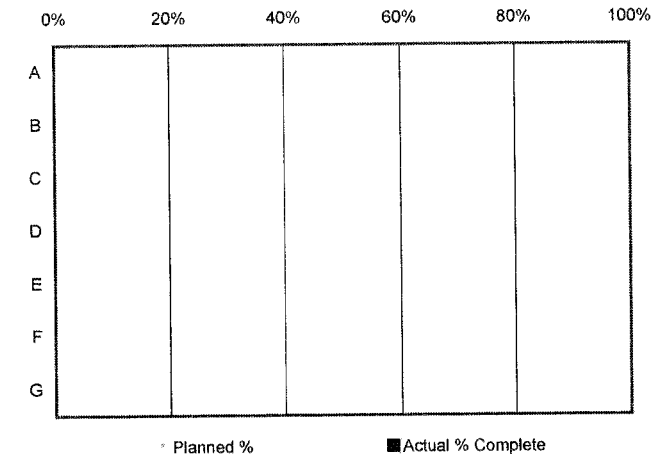
Attachment 4

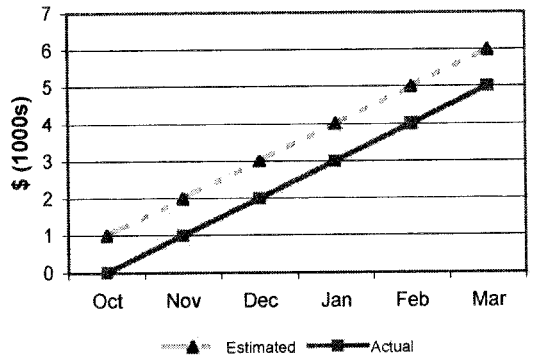
Quarterly Progress Report for FRA

Grant No.	Performance Progress	Financial Progress	
WBS No.	Period Ending:	Funding Level:	$0.00
Description	Start Date:	Expended:	$0.00
Grantee Manager:	End Date:	Remaining:	$0.00
FRA Manager:		% Expended:	0%

Project Description:

Significant Accomplishments This Period:





$1000s	Oct	Nov	Dec	Jan	Feb	Mar
Estimated	1	2	3	4	5	6
Actual	0	1	2	3	4	5
Monthly		1	1	1	1	1

	Milestones and Deliverables:	Start	Planned Completion	Revised Completion	Actual Completion	Planned %	Actual % Complete
A							
B							
C							
D							
E							
F							
G							

Technical/Cost/Schedule Problems:

Work Planned for Next Period:

ACH VENDOR/MISCELLANEOUS PAYMENT ENROLLMENT FORM

OMB No. 1510-0056

ATTACHMENT 5

This form is used for Automated Clearing House (ACH) payments with an addendum record that contains payment-related information processed through the Vendor Express Program. Recipients of these payments should bring this information to the attention of their financial institution when presenting this form for completion.

PRIVACY ACT STATEMENT

The following information is provided to comply with the Privacy Act of 1974 (P.L. 93-579). All information collected on this form is required under the provisions of 31 U.S.C. 3322 and 31 CFR 210. This information will be used by the Treasury Department to transmit payment data, by electronic means to vendor's financial institution. Failure to provide the requested information may delay or prevent the receipt of payments through the Automated Clearing House Payment System.

AGENCY INFORMATION

FEDERAL PROGRAM AGENCY
Department of Transportation - Federal Railroad Administration

AGENCY IDENTIFIER:	AGENCY LOCATION CODE (ALC):	ACH FORMAT:
N/A	69070001	☑ CCD+ ☐ CTX ☐ CTP

ADDRESS:
MMAC. AMZ-150, PO Box 268943, Oklahoma City, OK 73126-8943

CONTACT PERSON NAME:	TELEPHONE NUMBER:
Iris Prat email: iris.prat@faa.gov (405)954-9631	( )

ADDITIONAL INFORMATION:
Fax no. 405-954-9573, Grant #FR-HSR-0002-10-01-00

PAYEE/COMPANY INFORMATION

NAME	SSN NO. OR TAXPAYER ID NO.

ADDRESS

CONTACT PERSON NAME:	TELEPHONE NUMBER:
	( )

FINANCIAL INSTITUTION INFORMATION

NAME:

ADDRESS:

ACH COORDINATOR NAME:	TELEPHONE NUMBER:
	( )

NINE-DIGIT ROUTING TRANSIT NUMBER:
— — — — — — — — —

DEPOSITOR ACCOUNT TITLE:

DEPOSITOR ACCOUNT NUMBER:	LOCKBOX NUMBER:

TYPE OF ACCOUNT:
☐ CHECKING ☐ SAVINGS ☐ LOCKBOX

SIGNATURE AND TITLE OF AUTHORIZED OFFICIAL: (Could be the same as ACH Coordinator)	TELEPHONE NUMBER:
	( )

Instructions for Completing SF 3881 Form

1. Agency Information Section - Federal agency prints or types the name and address of the Federal program agency originating the vendor/miscellaneous payment, agency identifier, agency location code, contact person name and telephone number of the agency. Also, the appropriate box for ACH format is checked.

2. Payee/Company Information Section - Payee prints or types the name of the payee/company and address that will receive ACH vendor/miscellaneous payments, social security or taxpayer ID number, and contact person name and telephone number of the payee/company. Payee also verifies depositor account number, account title, and type of account entered by your financial institution in the Financial Institution Information Section.

3. Financial Institution Information Section - Financial institution prints or types the name and address of the payee/company's financial institution who will receive the ACH payment, ACH coordinator name and telephone number, nine-digit routing transit number, depositor (payee/company) account title and account number. Also, the box for type of account is checked, and the signature, title, and telephone number of the appropriate financial institution official are included.

Burden Estimate Statement

The estimated average burden associated with this collection of information is 15 minutes per respondent or recordkeeper, depending on individual circumstances. Comments concerning the accuracy of this burden estimate and suggestions for reducing this burden should be directed to the Financial Management Service, Facilities Management Division, Property and Supply Branch, Room B-101, 3700 East West Highway, Hyattsville, MD 20782 and the Office of Management and Budget, Paperwork Reduction Project (1510-0056), Washington, DC 20503.

EXHIBIT

"F"

U.S. Department of Transportation

Federal Railroad Administration

Grant/Cooperative Agreement

1. RECIPIENT NAME AND ADDRESS Florida Department of Transportation 605 Suwannee St Tallahassee, FL 32399-6544	2. AGREEMENT NUMBER: FR-HSR-0002-10-01-02 — 3. AMENDMENT NO. 2 4. PROJECT PERFORMANCE PERIOD: FROM 05/15/2010 TO 09/30/2017 5. FEDERAL FUNDING PERIOD: FROM 05/15/2010 TO 09/30/2017
1A. IRS/VENDOR NO. 59-3024028 1B. DUNS NO. 809397102	6. ACTION Supplement/Change for Expansion
7. CFDA#: 20.319	9. TOTAL OF PREVIOUS AGREEMENT AND ALL AMENDMENTS 66,660,000
8. PROJECT TITLE Florida High-Speed Rail – Phase I, Tampa-Orlando	10. AMOUNT OF THIS AGREEMENT OR AMENDMENT 1,525,660,128 11. TOTAL AGREEMENT AMOUNT 1,592,320,128

12. INCORPORATED ATTACHMENTS

THIS AGREEMENT INCLUDES THE FOLLOWING ATTACHMENTS, INCORPORATED HEREIN AND MADE A PART HEREOF:

Attachment 1, Amended Terms and Conditions

13. STATUTORY AUTHORITY FOR GRANT/ COOPERATIVE AGREEMENT

American Recovery and Reinvestment Act of 2009, Public Law 111-5 (February 17, 2009)

14. REMARKS

GRANTEE ACCEPTANCE		AGENCY APPROVAL	
15. NAME AND TITLE OF AUTHORIZED GRANTEE OFFICIAL		17. NAME AND TITLE OF AUTHORIZED FRA OFFICIAL	
16. SIGNATURE OF AUTHORIZED GRANTEE OFFICIAL	16A. DATE	18. SIGNATURE OF AUTHORIZED FRA OFFICIAL	18A. DATE

AGENCY USE ONLY

19. OBJECT CLASS CODE: 41010

20. ORGANIZATION CODE: 9013000000

21. ACCOUNTING CLASSIFICATION CODES

DOCUMENT NUMBER	FUND	BY	BPAC	AMOUNT
FR-HSR-0002-09-01-00	2709120718	2010	91010029Y0	0
FR-HSR-0002-10-01-00	2709120718	2011	91010029Y0	1,525,660,128

AWARD ATTACHMENTS

Florida Department of Transportation FR-HSR-0002-10-01-02

1. Attachment 1, Amended Terms and Conditions

Attachment 1 to Amendment No. 2

The parties, intending to be legally bound, agree to amend their Agreement of May 19, 2010 as follows:

1. Section 1 of Attachment 1 is deleted in its entirety, and the following is substituted therefor:

1. Identification of Awarding Agency and Grantee/Project Definitions:

The Grantee and the Administrator of FRA, acting by delegation from the Secretary of Transportation, have entered into this Cooperative Agreement ("Agreement") to conduct and fund this project, as more specifically set forth in the Statements of Work, Attachments 3, attached hereto and made a part hereof and any supplements thereto (the "Project"). As used in this Agreement, the term "Project" refers both to the overall effort described in Section 8 of the Grant/Cooperative Agreement (Page 1), and the individual work efforts described both in the original Statement of Work (Attachment 3) and any supplements thereto. As used herein, the term "individual work efforts" refers to each portion of the overall Project covered by individual Statements of Work (or supplements thereto) which are covered by specific attachments. Unless otherwise provided, reporting requirements in this Agreement may be aggregated with respect to the individual work efforts. However, progress reporting (Section 9 of Attachment 1), and budgeting and payment processing (Sections 1 and 7 of Attachment 2) may not be aggregated, and must be accounted for on the basis of the individual work efforts involved.

2. Section 2 of Attachment 1 is deleted in its entirety, and the following substituted therefor:

2. Scope:

The Grantee shall furnish all personnel, facilities, and equipment, and other materials and services (except as otherwise specified herein) necessary to perform the Project, as set forth in the Statement of Work (Attachment 3), and any supplements thereto, and in accordance with the representations, certifications, and assurances set forth in the Grantee's application(s), and any amendments thereto ("Application"), incorporated herein by reference and made a part hereof.

3. Section 5 of Attachment 1 is deleted in its entirety, and the following is substituted therefor:

5. Project, Cost-Sharing Responsibility, and Funding:

a. The total estimated cost of the Project is $1,592,320,128 and is to be apportioned as set forth in subsection (e).

b. FRA funding assistance is limited to 100% of the estimated cost of the Project, or $1,592,320,128 whichever is less.

c. Grantee funding assistance shall not be less than 0% of the total cost of the Project. Consequently, of the amount specified in subparagraph (a) of this section, Grantee funding is not to be less than $0.00.

d. When requesting payment, the Grantee must identify: (1) the total amount of costs; (2) Grantee funding assistance applied to the Project; and (3) the balance of federal assistance dollars requested for each payment. Payment requests must include a designation of the individual work effort involved. The Grantee may provide its funding assistance under this subsection from permissible non-Grantee sources.

e. Funding responsibility for the Project under this Agreement is recapped as follows

	FRA Funding Assistance	+	Grantee Cash Contribution	+	Grantee In-Kind Contribution	=	Total Project Funding
$ Original Agreement	$66,660,000	+	$0	+	$0	=	$66,660,000
Amendment No. 1 (administrative change)	$0	+	$0	+	$0	=	$66,660,000
$ Amendment No. 2	$1,525,660,128	+	$0	+	$0	=	$1,525,660,128
$ Total Amount	$1,592,320,128	+	$0	+	$0	=	$1,592,320,128

f. In accordance with Attachment 2, Sections 7(c)(5) and (d)(1) herein, FRA hereby authorizes the incurrence of pre-agreement costs by the Grantee on or after February 17, 2009, in anticipation of Agreement award, but such costs are allowable only to the extent that they are otherwise allowable under the terms of this Agreement."

4. Attachment 1A, the Passenger Rail Investment and Improvement Act of 2008 Clauses, is deleted in its entirety, and the following substituted therefor:

Passenger Rail Investment and Improvement Act of 2008 and Corridor Development Program Clauses, Attachment 1A

Section 1. Railroad Agreements.

The Grantee represents that it has entered into and will abide by, or will enter into and abide by, a written agreement, in form and content satisfactory to FRA, with any railroad owning property on which the Project is to be undertaken, in accordance with 49 U.S.C. 24405(c)(1) and Appendix 3.4.3 of the High Speed Intercity Passenger Rail (HSIPR) Program Interim Guidance published in the Federal Register on June 23, 2009 (74 FR 29900). Such agreement shall provide for compensation for use, assurance regarding the adequacy of infrastructure capacity, a commitment to keeping railroad collective bargaining agreements in full force and effect, and compliance with liability requirements consistent with 49 U.S.C. 28103. The Grantee shall not

enter into or agree to any substantive changes to the FRA approved written agreement with the railroad on which the Project is undertaken without FRA's prior written consent. The Grantee may not obligate or expend any funds (federal, state or private) for final design and/or construction of the Project, or commence any part of the final design and/or construction for the Project, or any component of the Project, without receiving FRA's prior written approval of the executed railroad agreement satisfying the requirements of this section.

Section 2. Service Outcomes Agreements with Infrastructure Owners and Operators.

a. The Grantee represents that it has or will have satisfactory continuing control over the use of Project improvements and the capability and ability to maintain the Project improvements for the useful life of the Project, in accordance with 49 U.S.C. 24402(b)(1) and (c)(1)(B). Satisfactory continuing control may be established by either the direct ownership of Project improvements or through a written agreement(s) in form and content satisfactory to FRA with the owners of infrastructure on which the Project is to be undertaken and the proposed service operator of any rail passenger service that benefits from the Project, which agreement(s) shall authorize construction of, access to, and/or use of Project improvements for a minimum of twenty years from the date the Project improvements are placed in service. Such agreements may be combined, if appropriate.

b. The written agreement(s) shall include the following minimum terms and conditions tailored to the Project: (1) specific identification of Project benefits in terms relevant to the Project being implemented, including, as appropriate, additional frequencies, improved reliability, future availability of developed capacity, and improved schedules, (2) a firm commitment on the part of the infrastructure owner and operator to achieving the Project benefits included in the Grantee's application and reflected in the Statement(s) of Work attached to this Agreement, and (3) reasonable and appropriate enforcement mechanisms that provide for prompt resolution of disputes and the ability of the Grantee to obtain the Project benefits funded through this Agreement in an expeditious and reasonable manner.

c. The Grantee shall not enter into or agree to any substantive changes in the FRA-approved written agreement(s) with the infrastructure owner and service operator without FRA's prior written consent.

d. The Grantee may not obligate or expend any funds (federal, state or private) for final design and/or construction of the Project, or commence any part of final design and/or construction for the Project or any component of the Project, without receiving FRA's prior written approval of a fully executed agreement(s) satisfying the requirements of this section.

e. The agreement required by this section 2 is supplemental to any agreement that may be required by section 1 of Attachment 1A, however, the requirements of sections 1 and 2 may be satisfied in one agreement, where appropriate.

Section 3. Project Management Plan.

The Grantee may not obligate or expend any funds (federal, state or private) for final design and/or construction of the Project, or commence any part of final design and/or construction for the Project or any component of the Project, without receiving FRA's prior written approval of a project management plan that complies with the requirements of 49 U.S.C. §24403(a) and section 2.2 of the High Speed Intercity Passenger Rail (HSIPR) Program interim guidance published in the Federal Register on June 23, 2009 (74 FR 29900). The project management plan should document assumptions and decisions regarding the communication, management processes, execution and overall project control.

Section 4. Financial Plans.

The Grantee may not obligate or expend any funds (federal, state or private) for final design and/or construction of the Project, or commence any part of final design and/or construction for the Project or any component of the Project, without receiving FRA's prior written approval of a financial plan that complies with the requirements of section 2.2 of the High Speed Intercity Passenger Rail (HSIPR) Program interim guidance published in the Federal Register on June 23, 2009 (74 FR 29900) and that demonstrates: (1) that prior to initiation of final design, the Grantee has secured firm commitments of all funding (other than that provided through this Agreement) required to complete construction of the Project, and (2) that prior to initiation of construction, the Grantee has secured commitments for the financing necessary to support the ongoing operation of the Project, including necessary maintenance and recapitalization during the first twenty (20) years of operations. The financial plan shall also provide: (1) finalized projections for the sources and uses of all Project funds, during both the development and construction phases of the Project and for the first twenty (20) years of operations, and (2) a detailed assessment of financial risks facing the Project during both the construction and operations phases (including risks such as capital cost overruns, revenue shortfalls, and operating and maintenance cost overruns), along with proposed actions for mitigating or accommodating such risks (including assessment of additional funding sources available to compensate for potential capital or operating financing shortfalls).

Section 5. Environmental Assessment.

Prior to initiating final design, or commencing construction for the Project or any component of the Project, the Grantee shall submit all necessary environmental documentation, in accordance with Attachment 2, section 21(d) of this Agreement, and receive FRA's written confirmation that relevant Project environmental reviews have been completed for the overall Project or for an individual component of the Project that the Grantee proposes to advance to final design or construction. The Grantee may not obligate or expend any funds (federal, state or private) for final design and/or construction of the Project, or commence any part of final design and/or construction for the Project or any component of the Project, without receiving such written confirmation from FRA.

Section 6. Final Design and Engineering.

Prior to commencing final design activities for the Project or any individual component of the Project, the Grantee shall submit to FRA a complete set of Preliminary Engineering documents,

prepared by or on behalf of the Grantee in accordance with the provisions of section 2.2 and Appendix 2.2 of the High-Speed Intercity Passenger Rail (HSIPR) Program interim guidance published in the Federal Register on June 23, 2009 (74 FR 29900), and in accordance with the Statement(s) of Work incorporated into this Agreement. Except in unusual circumstances and where approved in advance by FRA, the submitted Preliminary Engineering documents shall include evidence of concurrence by infrastructure owners and operators of rail service whose operations would be affected by the Project improvements. The Grantee may not obligate or expend any funds (federal, state or private) for final design and/or final engineering of the Project, or commence any part of final design and/or final engineering for the Project or any component of the Project, without receiving FRA's prior written approval of the Preliminary Engineering documents.

Section 7. Construction.

Prior to commencing construction activities for the Project or any individual component of the Project, the Grantee shall submit to FRA a complete set of Final Design documents, completed by or on behalf of the Grantee in accordance with the provisions of section 2.2 of the High-Speed Intercity Passenger Rail (HSIPR) Program interim guidance published in the Federal Register on June 23, 2009 (74 FR 29900), and in accordance with the Statement(s) of Work incorporated into this Agreement. In unusual circumstances where the Preliminary Engineering documents approved by FRA did not contain evidence of concurrence by infrastructure owners and operators of rail service whose operations would be affected by Project improvement, then the submitted Final Design documents shall include evidence of concurrence by such infrastructure owners and operators. The Grantee may not obligate or expend any funds (federal, state or private) for construction of the Project, as defined in the Statement(s) of Work, or commence any part of construction for the Project or any component of the Project, without receiving FRA's prior written approval of the Final Design documents.

Section 8. Design/Build Program Plan.

Project components being implemented by the Grantee through a Design/Build Implementation Process shall, with FRA's concurrence, comply with this section 8 in lieu of sections 6 and 7. Prior to commencing any design activities that follow preliminary engineering/design, and expressly including the preparation of final construction plans and detailed specifications for the performance of construction work for the Project or any individual component of the Project, the Grantee shall submit to FRA a comprehensive Design/Build Program Plan completed by or on behalf of the Grantee, and as described in the attached Statement of Work to this Agreement. The Design/Build Program Plan shall include, at a minimum, a description identifying: (1) the suitability of the Project as a design/build candidate, (2) the performance metrics to be used to assess successful Project completion, (3) the composition of the design/build Project team, (4) Project scope, (5) the decision factors to be used for the selection from among the design/build proposals, and (6) the methods for contract administration. FRA may issue additional guidance in the future further describing the required contents of Design/Build Program Plans. Except in unusual circumstances and where approved in advance by FRA, the Grantee will be responsible for providing in the Design/Build Program Plan evidence of concurrence by infrastructure owners and operators of rail service whose operations would be affected by the Project

improvements. The Grantee may not obligate or expend any funds (federal, state or private) for implementing the design/build process for the Project (not including preparation of the Plan) or any component of the Project or commence any part of implementing the design/build process (not including the preparation of the Plan) without receiving FRA's prior written approval of the Design/Build Program Plan.

Section 9. Property Acquisition.

The Grantee may not obligate or expend any funds (federal, state or private) for the Project, to acquire any real property for the Project, including right-of-way, unless the property acquisition is specifically authorized in a Statement of Work incorporated as an attachment to this Agreement, or the Grantee has received FRA's prior written permission indicating that FRA has completed all required National Environmental Policy Act (NEPA) and related environmental reviews, and all other predicates to property acquisition have been completed.

Section 10. Detailed Statements of Work For Project Components.

The Grantee may not obligate or expend any funds (federal, state or private) for the final design and/or construction of the Project or commence any activity on or for the Project, that is not specifically authorized in a Statement of Work incorporated as an attachment to this Agreement and/or which has not secured all required FRA approvals. The parties recognize that this Agreement contemplates a phased Project implementation process, whereby individual Project components or phases will be implemented as they are developed by the Grantee and approved by FRA. These phases may be reflected in terms of stages of Project development (e.g., preliminary engineering, final design, or construction) or in terms of individual Project components (e.g., stations, interlocking, or third track construction) of the larger Project. The parties contemplate a series of amendments to this Agreement that will add greater definition to the individual Project components to be undertaken by the Grantee for each phase or component of Project implementation, and will authorize the Grantee to initiate the next phase of Project implementation, as reflected in the agreed-upon amendments or supplements to the Statement of Work. It is the Grantee's responsibility to propose revised or additional statements of work (including a detailed scope, schedule and budget) significantly in advance of proposed implementation, to allow for the Grantee and the FRA to agree on the components of that next phase, and adopt a revised or supplemental Statement of Work through an amendment to this Agreement.

Section 11. Buy America.

The Grantee shall comply with the Buy America provisions set forth in 49 U.S.C. 24405(a) for the Project with respect to the use of steel, iron, and manufactured goods produced in the United States, subject to the conditions therein set forth.

Section 12. Labor Provisions.

49 U.S.C. 24405(b) provides that persons conducting rail operations over rail infrastructure constructed or improved in whole or in part with funds provided through this Agreement shall be

considered a "rail carrier," as defined by 49 U.S.C. 10102(5), for the purposes of Title 49, United States Code, and any other statute that adopts that definition or in which that definition applies, including the Railroad Retirement Act of 1974 (45 U.S.C 231 et seq.), the Railway Labor Act (43 U.S.C.151 et seq.), and the Railroad Unemployment Insurance Act (45 U.S.C. 351 et seq.). The Grantee shall reflect these provisions in its agreements with the entities operating rail services over such rail infrastructure to the extent required by 49 U.S.C. 24405(b) and other laws referenced above.

Section 13. Labor Protective Arrangements.

For a project that uses rights-of-way owned by a railroad, the Grantee shall comply with the protective arrangements established under Section 504 of the Railroad Revitalization and Regulatory Reform Act of 1976 (4R Act), 45 U.S.C. 836, with respect to employees affected by actions taken in connection with the Project financed in whole or in part under this Agreement (See 49 U.S.C. 24405(c).) The Grantee agrees to include the applicable protective arrangements established by the Department of Labor under 45 U.S.C. 836. in its agreements with entities operating rail services over rail infrastructure constructed as part of the Project. The following definitions apply for purposes of applying those protective arrangements:

'Protected employee' means an employee of a railroad who had an employment relationship with such railroad on the date on which the Grantee first applied for financial assistance applicable to the Project involved and who is affected by actions taken pursuant to this Agreement; provided, however, that an employee who was benefitted solely as a result of the Project shall not be a protected employee under these provisions.

'Railroad' means a rail carrier or a common carrier by railroad or express as defined in 49 U.S.C. 10102, and includes the National Railroad Passenger Corporation and the Alaska Railroad as well as a person that conducts rail operations over rail infrastructure constructed or improved with funding provided in whole or in part in a grant made pursuant to this Agreement.

Section 14. Maintenance Responsibility and Refunds.

a. Except as otherwise provided herein, the Grantee shall ensure the maintenance of Project property to the level of utility (including applicable FRA track safety standards) which exists when the Project improvements are placed in service (as set forth in the Statement(s) of Work (incorporated into this Agreement)) for a period of twenty (20) years from the date such Project property was placed in service, consistent with the satisfactory continuing control and maintenance responsibilities of 49 U.S.C. 24402(b)(1) and (c)(1) and as addressed in Section 2 above. In the event, the Project property is not maintained, as required by this section, for a period of time in excess of six (6) months, or such other period as may be mutually determined by the parties, and is not restored within a reasonable time to the level of utility which exists when the Project improvements are placed in service, the Grantee will refund to FRA a pro-rata share of the Federal contribution, based upon the percentage remaining of the twenty (20) year period that commenced when the Project property was placed in service.

b. In the event that all intercity passenger rail service making use of the Project property is discontinued during the twenty (20) year period, the Grantee shall continue to ensure that maintenance of the Project property, as set forth above, for a period of one (1) year from the date of the discontinuance to allow for the possible reintroduction of intercity rail passenger service.

Section 15. Project Use for Intercity Passenger Rail Service and Refunds.

a. The Grantee acknowledges that the purpose of the Project is to benefit intercity passenger rail service. In the event that all intercity passenger rail service making use of the Project improvements is discontinued (for any reason) at any time during a period of twenty (20) years from the date such Project improvements were placed in service, as set forth above, and if such intercity passenger rail service is not reintroduced during a one (1) year period following the date of such discontinuance, the Grantee shall refund to FRA, no later than eighteen (18) months following the date of such discontinuance, a pro-rata share of the Federal contribution, based upon the percentage of the twenty (20) year period remaining at the time of such discontinuance.

b. To the extent necessary and appropriate, sections 14 and 15 shall be implemented in a manner so as to avoid any double counting of any refunds paid or required to be paid to the FRA.

Section 16. Davis-Bacon Act Provisions.

Payment of prevailing wages on the Project is required by 49 U.S.C. 24405(c)(2) and section 1606 of the American Recovery and Reinvestment Act of 2009. For Project components that uses or would use rights-of-way owned by a railroad, the Grantee shall comply with the provisions of 49 U.S.C. 24405(c) (2), with respect to the payment of prevailing wages consistent with the provisions of 49 U.S.C. 24312. For these purposes, wages in collective bargaining agreements negotiated under the Railway Labor Act are deemed to comply with Davis-Bacon Act requirements. For Project components that do not use or would not use rights-of-way owned by a railroad, the Grantee will comply with the provisions of 40 U.S.C. 3141 et seq.

Section 17. Replacement of Existing Intercity Passenger Rail Service.

49 U.S.C. 24405(d) requires any entity providing intercity passenger railroad transportation on a project funded by this Agreement to comply with certain requirements with respect to its employees and the employees of preexisting intercity rail passenger services. The Grantee shall comply with the applicable provisions of 49 U.S.C. 24405(d) to the extent it is or becomes a provider of intercity passenger railroad transportation. If it is not the operator or provider of the intercity passenger rail services benefitting from the Project funded under this Agreement, then it shall notify its selected operator of the requirements imposed by section 24405(d).

5. Attachment 1B, American Recovery and Reinvestment Act of 2009 Clauses, is deleted in its entirety, and the following is substituted therefor:

American Recovery and Reinvestment Act of 2009 Clauses, Attachment 1B

Section 1. Grantee Certifications.

The American Recovery and Reinvestment Act of 2009 (Recovery Act) requires three certifications, which the Grantee shall address as follows:

a. **Maintenance of Effort Certification (Recovery Act Section 1201).** A Maintenance of Effort Certification was required from each State within thirty days of enactment of the Recovery Act (February 17, 2009) pursuant to section 1201 of the Recovery Act. With respect to the Recovery Act funds provided through this Agreement, the Grantee may rely on an existing certification submitted by the State to the Secretary of Transportation, so long as the Grantee certifies to the Administrator (c/o the Grant Manager identified in Attachment 2, section 13) as to the existence and continued validity of the existing certification. If a new certification is required, it should be submitted to the Secretary of Transportation, c/o Joel Szabat, Deputy Assistant Secretary of Transportation for Policy, at TigerTeam.Leads@dot.gov. Certifications may be submitted via e-mail as electronic, scanned copies, with original signed versions to be submitted via U.S. mail.

b. **Responsible Investments Certification (Recovery Act Section 1511).** With respect to and prior to the receipt of the funds made available through this Agreement, the Governor or the head of the State Department of Transportation shall certify to the Secretary of Transportation that the infrastructure investments to be funded herein have received the full review and vetting required by law and that the Governor or head of the State Department of Transportation accepts responsibility that the infrastructure investments are an appropriate use of taxpayer dollars. The certification shall include a description of the investments, the estimated total cost, and the amount of Recovery Act funds to be used, and shall be submitted to the Secretary of Transportation, c/o Joel Szabat, Deputy Assistant Secretary of Transportation for Policy, at TigerTeam.Leads@dot.gov. Certifications may be submitted via e-mail as electronic, scanned copies, with original signed versions to be submitted via U.S. mail. As required by the Recovery Act, Certifications under Section 1511 shall be immediately posted on an appropriate State website and linked to the website established by the Recovery Accountability and Transparency Board. No funds will be reimbursed until such posting is made.

c. **Appropriate Use of Funds Certification (Recovery Act Section 1607).** An Appropriate Use of Funds Certification was required from each State within 45 days of enactment of the Recovery Act (February 17, 2009) pursuant to section 1607 of the Recovery Act. With respect to the Recovery Act funds provided through this Agreement, the Grantee may rely on an existing certification submitted by the State to the Secretary of Transportation, so long as the Grantee certifies to the Administrator (c/o the Grant Manager identified in Attachment 2, Section 13) of the existence and continued validity of the existing certification. If a new certification is required, it should be submitted to the Secretary of Transportation, c/o Joel Szabat, Deputy Assistant Secretary of Transportation for Policy, at TigerTeam.Leads@dot.gov. Certifications may be submitted via e-mail as electronic, scanned copies, with original signed versions to be submitted via U.S. mail.

d. **Department of Transportation Guidance.** The Department has issued guidance on compliance with the certification requirements of the Recovery Act, which is found at http://www.dot.gov/recovery/certguidance.htm. The Grantee should refer to this guidance in

evaluating the continued validity of any existing certifications and in preparing any new certifications required under this section 1.

Section 2. Whistleblower Protections.

An employee of the Grantee may not be discharged, demoted, or otherwise discriminated against as a reprisal for disclosing, including a disclosure made in the ordinary course of an employee's duties, to the Recovery Accountability and Transparency Board, an inspector general, the Comptroller General, a member of Congress, a State or Federal regulatory or law enforcement agency, a person with supervisory authority over the employee (or such other person working for the employer who has the authority to investigate, discover, or terminate misconduct), a court or grand jury, the head of a Federal agency, or their representatives, information that the employee reasonably believes is evidence of – (1) gross mismanagement of an agency contract or grant relating to Recovery Act funds; (2) a gross waste of Recovery Act funds; (3) a substantial and specific danger to public health or safety related to the implementation or use of Recovery Act funds; (4) an abuse of authority related to the implementation or use of Recovery Act funds; or (5) a violation of law, rule, or regulation related to an agency contract (including the competition for or negotiation of a contract) or grant, awarded or issued relating to Recovery Act funds.

Section 3. False Claims Act.

The Grantee and any sub-grantee awarded funds made available under the Recovery Act and through this Agreement shall promptly refer to the Department of Transportation Inspector General any credible evidence that a principal, employee, agency, contractor, sub-grantee, subcontractor, or other person has submitted a false claim under the False Claims Act or has committed a criminal or civil violation of laws pertaining to fraud, conflict of interest, bribery, gratuity, or similar misconduct involving Recovery Act funds.

Section 4. Prohibited Activities.

None of the funds provided through this Agreement may be used for any casino or other gaming establishment, aquarium, zoo, golf course or swimming pool.

Section 5. Recovery Act Funding Announcement.

The Grantee is strongly encouraged to post a sign at all fixed project locations at the most publicly accessible location and a plaque in all purchased or rehabilitated rail cars announcing that the project or equipment was funded by the U.S. Department of Transportation, Federal Railroad Administration, with funds provided through the American Recovery and Reinvestment Act. The configuration of the signs or plaques will be consistent with guidance issued by the Office of Management and Budget and/or the Department of Transportation and approved by the FRA.

Section 6. Reporting Requirements.

a. **Periodic Reports.** The Grantee shall submit periodic reports to the FRA Administrator, as required by section 1201(c) of the Recovery Act, and as described in this section, not later than February 17, 2011, and February 17, 2012. The periodic reports shall include information describing: (1) the amount of Federal funds appropriated, allocated, obligated, and outlayed under this Agreement; (2) the number of projects that have been put out to bid under this Agreement and the amount of Federal funds associated with such projects; (3) the number of projects for which contracts have been awarded under this Agreement and the amount of Federal funds associated with such contracts; (4) the number of projects for which work has begun under such contracts and the amount of Federal funds associated with such contracts; (5) the number of projects for which work has been completed under such contracts and the amount of Federal funds associated with such contracts; (6) the number of direct, on-project jobs created or sustained by the Federal funds provided for projects under this Agreement and, to the extent possible, the estimated indirect jobs created or sustained in the associated supplying industries, including the number of jobs created and the total increase in employment since February 17, 2009; and (7) information tracking the actual aggregate expenditures by the Grantee from Grantee sources (both internal and external) for projects eligible for funding under this Agreement during the period beginning on February 17, 2009 through September 30, 2010, as compared to the level of such expenditures that were planned to occur during such period as of February 17, 2009. The Department of Transportation or the FRA may issue additional guidance on the preparation and submission of periodic reports.

b. **Jobs Accountability Reports.**

i. As required by Section 1512(c) of the Recovery Act, and consistent with Office of Management and Budget (OMB) Guidance, dated June 22, 2009 and found at (http://www.whitehouse.gov/omb/assets/memoranda_fy2009/m09-21.pdf), the Grantee shall submit a jobs accountability report to http://www.FederalReporting.gov not later than ten days after the end of each quarter. The report shall contain: (1) the total amount of Recovery Act funds received pursuant to this Agreement; (2) the amount of Recovery Act funds received that were expended or obligated to projects or activities; and (3) a detailed list of all projects or activities for which Recovery Act funds were expended or obligated, including—(A) the name of the project or activity; (B) a description of the project or activity; (C) an evaluation of the completion status of the project or activity; (D) an estimate of the number of jobs created and the number of jobs retained by the project or activity; and (E) detailed information on any subcontracts or subgrants awarded by the Grantee to include the data elements required to comply with the Federal Funding Accountability and Transparency Act of 2006 (Public Law 109-282), allowing aggregate reporting on awards below $25,000 or to individuals, as prescribed by the Director of the Office of Management and Budget.

ii. Information from these reports will be made available to the public. The reporting responsibility should be passed down from the Grantee to the sub-grantee/sub-recipient or vendor, in order to ensure that the necessary information is provided to the Grantee, which is ultimately responsible for reporting the required elements. The Office of Management and Budget may issue additional guidance on the preparation and submission of jobs accountability reports. The Grantee must also register with the Central Contractor Registration database (http://www.ccr.gov) or complete other registration requirements as determined by the Director

of the Office of Management and Budget. A DUNS Number (http://www.dnb.com) is one of the requirements for registration in the Central Contractor Registration.

Section 7. Contract Awards.

As required by Section 1554 of the Recovery Act, the Grantee shall to the maximum extent possible award contracts funded under this Agreement as fixed-priced contracts through the use of competitive procedures. In rare circumstances where the Grantee awards a contract that is not fixed-price and not awarded using competitive procedures, the Grantee shall publicly and electronically post a summary of such contract on its website and electronically link such posting to the website created and maintained by the Recovery Accountability and Transparency Board pursuant to section 1526 of the Recovery Act.

6. Subsection 1(c) of Attachment 2 is deleted, and the following substituted therefor:

> **c. Approved Project Budget** means the most recently dated written statement, approved in writing by FRA, of the estimated total cost for each individual work effort of the Project, the items to be deducted from such total in order to calculate the estimated net Project cost for each individual work effort of the Project, the maximum amount of Federal assistance for which the Grantee is currently eligible for each individual work effort, the specific items (including contingencies specified) for which the total may be spent, and the estimated cost of each of such items. The term "Approved Project Budget" includes "Financial Plan" as used in 49 C.F.R. Part 19.

7. Subsection 1(h) of Attachment 2 is deleted, and the following substituted therefor:

> **h. Project** means the task or set of tasks set forth in the approved Application which the Grantee carries out pursuant to this Agreement, including all individual work efforts set forth in the original Statement of Work and any supplements thereto.

8. Section 3 of Attachment 2 is deleted in its entirety, and the following substituted therefor:

> **3. Ethics:**
>
> a. **Standards of Conduct.** The Grantee agrees to maintain a written code or standards of conduct that shall govern the performance of its officers, employees, board members, or agents engaged in the award and administration of contracts supported by Federal funds. The code or standards shall provide that the Grantee's officers, employees, board members, or agents may neither solicit nor accept gratuities, favors or anything of monetary value from present or potential contractors or subgrantees. The Grantee may set minimum rules where the financial interest is not substantial or the gift is an unsolicited item of nominal intrinsic value. As permitted by State or local law or regulations, such code or standards shall provide for penalties, sanctions, or other disciplinary actions for violations by the Grantee's officers, employees, board members, or agents, or by contractors or subgrantees or their agents.

1) Personal Conflict of Interest. The Grantee's code or standards must provide that no employee, officer, board member, or agent of the Grantee may participate in the selection, award, or administration of a contract supported by Federal funds if a real or apparent conflict of interest would be involved. Such a conflict would arise when any of the parties set forth below has a financial or other interest in the firm selected for award:

a) The employee, officer, board member, or agent;
b) Any member of his or her immediate family;
c) His or her partner; or
d) An organization that employs, or is about to employ, any of the above.

2) Organizational Conflicts of Interest. The Grantee's code or standards of conduct must include procedures for identifying and preventing real and apparent organizational conflicts of interests. An organizational conflict of interest exists when the nature of the work to be performed under a proposed third party contract, may, without some restrictions on future activities, result in an unfair competitive advantage to the contractor or impair the contractor's objectivity in performing the contract work.

b. **Existing Provisions.** This section does not require the Grantee to implement a new code or standards of conduct where a State statute, or written code or standards of conduct, already effectively covers all of the elements of a.

9. Subsection 7(f) of Attachment 2 is deleted in its entirety, and the following is substituted therefor:

f. **Requirement to Remit Interest**. The Grantee agrees that:

1) Any interest earned by the Grantee on FRA funds must be remitted to FRA, except as provided 31 U.S.C. § 6503, or the Indian Self-Determination Act, 25 U.S.C. § 450 et seq., and any regulations thereunder that may be issued by the U.S. Secretary of the Treasury.

2) Irrespective of whether the Grantee has deposited funds in an interest-bearing account, the Grantee agrees to pay to FRA interest on any FRA funds that the Grantee has drawn down and failed to spend for eligible Project activities. Unless waived by FRA, interest will be calculated at rates imposed by the U.S. Secretary of the Treasury beginning on the fourth day after the funds were deposited in the Grantee's bank or other financial depository. This requirement does not apply to any Grantee that is a state, state instrumentality, or Indian Tribal Government, except as permitted under applicable state law and by regulations that may be issued by the U.S. Secretary of the Treasury.

3) Upon notice by FRA to the Grantee of specific amounts due, the Grantee agrees to promptly remit to FRA any excess payment of amounts or disallowed costs, including any interest due thereon.

10. Subsection 14(d) of Attachment 2 is amended by deleting the phrase "Unless prohibited by State law" and substituting the phrase "To the extent permitted by State law."

11. Attachment 3, the Original Statement of Work, Florida High-Speed Rail-Phase I, Tampa-Orlando, is deleted in its entirety, and the following is substituted therefor:

ATTACHMENT 3

STATEMENT OF WORK #1
(December 2010)

FLORIDA HIGH-SPEED RAIL—PHASE I
TAMPA–ORLANDO HSR PROJECT

This statement of work (SOW #1) supersedes all tasks and obligations in the initial SOW for the Florida High-Speed Rail—Phase I Tampa–Orlando Project, and removes work elements in tasks with strikethrough text from the SOW.

BACKGROUND

Planning for high-speed rail (HSR) service in Florida has been underway for decades. The Tampa–Orlando HSR Project (the HSR Project) will provide a dedicated corridor for exclusive HSR service with no at-grade highway crossings, civil access, or shared use. There will be extensive opportunities for connectivity with other transportation modes including planned commuter and other rail services in both Tampa and Orlando. This HSR Project in Florida will become the first implementation of HSR service in the nation.

The HSR Project will provide an attractive transportation alternative, on a congested corridor with a very large tourist component, where there is no such connection via rail today. This service will allow more than 30 million passengers arriving at Orlando International Airport (OIA) each year the ability to travel via HSR from the station at the airport to stations at the Orange County Convention Center (OCCC) multimodal center; Walt Disney World (WDW); Lakeland/Polk County; and end at a multimodal center in the downtown area of Tampa, which is within walking distance to businesses, residences, and other downtown facilities. Travel from downtown Tampa to OIA (84 mi) will be achieved in less than one hour, at speeds in excess of 168 mph, with an average nonstop speed of over 100 mph. The HSR system will provide the ability to accommodate future increases in travel demand on this corridor, which would otherwise be limited by the capacity of the highway and road network.

The HSR Project benefits from the prior completion of the Final Environmental Impact Statement (FEIS) signed by the Federal Railroad Administrator in 2005, and the 2009 FEIS

Reevaluation. The Record of Decision was issued in 2010. The development of the FEIS and 2009 Reevaluation included extensive public and agency outreach throughout the HSR Project corridor.

The support for the HSR Project has been strong from grass roots to business and labor, with strong bipartisan support. The strongest indication of support came from the Florida Legislature in late 2009 with the passage of the Florida Rail Act, and the creation of the Florida Rail Enterprise (FRE), within the Florida Department of Transportation (FDOT or the Grantee), that will advance the HSR Project as Phase I of the Florida HSR Program connecting Tampa and Orlando with planned future extension to Miami in Phase II.

This SOW describes the activities to be undertaken by FDOT for the project development and administration (PD&A) phase of the HSR Project. This SOW has three main goals: (1) advance preliminary engineering on the HSR Project corridor to both verify the project cost as well as provide detailed information to prospective bidders and reduce the need for contingencies, (2) prepare procurement documents for design–build contracts and a design–bid–build contract for the Early Works Projects and a turnkey Public Private Partnership (P3) concessionaire for a Design, Build, Operate, Maintain and Finance (DBOM&F) contract for the HSR Project, and (3) set up the project management infrastructure and communications control (or process) needed to properly implement the HSR Project and keep the public and key stakeholders involved and informed.

The follow-on SOW (SOW #2) to this SOW will be for the purpose to advance the procurement process to select a concessionaire for a DBOM&F contract for the HSR Project, initiation and supervision of the Early Works projects, continuation of the right-of-way (ROW) acquisition, securing of Stakeholder Agreements with station and property owners, and continued project management and communications outreach. Following that, additional SOWs will advance the turnkey DBOM&F contract through construction and implementation of the HSR system itself. The current target for start of revenue service is 2015.

GENERAL OBJECTIVE

This SOW consists of PD&A activities through five tasks to prepare for the implementation of the HSR Project. This Project will provide FDOT and the Federal Railroad Administration (FRA) with revised HSR Project development documents that will provide a more accurately defined approach from which to advance the HSR Project into DBOM&F contract through the achievement of the key milestones listed below:

Milestone 1: Draft Revised Project Planning Documentation
This milestone will provide FDOT and FRA with an interim assessment of the HSR Project plan based on completion and submittal of "draft revised" versions of the HSR Project documents provided to FRA with FDOT's HSIPR application, including:

a. Draft revised Project Management Plan (PMP).
b. Draft revised Service Development Plan (SDP).
c. Draft revised cost estimate.

Upon FRA review and approval of these items, FRA will provide FDOT with an assessment of the overall Project plan. FRA will then issue additional guidance for FDOT to incorporate into Project activities concurrently underway for achievement of Milestones 2, 3, and 4.

Milestone 2: Preparation of Project Procurement Documents
This milestone includes the preparation and submittal of procurement documents from which to issue public notice for Project contract activities in Milestone 3, including:

a. Draft Request for Proposals (RFP) and Progress Submission for the initial Early Works Project.
b. Draft Request for Qualification (RFQ) for the DBOM&F contract for the HSR Project.

Upon FRA review and approval of the above Project documents, FRA will provide an assessment and issue guidance for FDOT to advance design for the RFP for the Early Works projects to 50-60% in Milestone 3, and to proceed with advertisement of an RFQ for the DBOM&F contract.

Milestone 3: Public Procurement for Project Contract Activities
This milestone represents FDOT's issuance of a public advertisement for Project activities, including:

a. Completion and submittal of preliminary engineering design documents to FRA for review and approval, and subsequent issuance of an RFP for the initial Early Works Projects.
b. Issuance of an RFQ for the DBOM&F contract for the HSR Project.

Milestone 3a will provide FDOT and FRA with a bid and proposal(s) for the Early Works Projects. Milestone 3b will provide FDOT and FRA with a public response from the HSR industry through Statements of Qualifications (SOQ) from potential consortiums for the DBOM&F contract for the HSR Project. These SOQs and FDOTs evaluation thereof will serve as the basis for FRA review and approval of the activities in Milestone 4.

Milestone 4: Completion of Preparation of Project Planning Documents
This milestone will provide FDOT and FRA with "final revised" versions of the HSR Project documents prepared for Milestone 1, including the completion and submittal of:

a. Final revised PMP.
b. Final revised SDP.
c. Final revised cost estimate.
d. 30% preliminary engineering design for the DBOM&F contract for the HSR Project.
e. RFP document for the DBOM&F contract for the HSR Project.

Upon FRA review and approval of the above final revised documents, FRA will provide FDOT with guidance for the continuation of work relating to the issuance of the RFP for the remaining Early Works Projects in Milestone 5 of this SOW, and follow-on activities in SOW #2.

Milestone 5: Completion of Project Development Activities

a. Completion and submittal of preliminary engineering documents to FRA for review and approval, and subsequently issue an RFP for all remaining Early Works Projects.
b. Issuance of RFP for the remaining Early Works Projects in this SOW.

Upon FRA authorization to issue the RFPs for the remaining Early Works Projects review and approval of the above final revised documents, FRA will provide FDOT with final guidance for the continuation of work in this SOW to issue the RFP for the remaining Early Works Projects in Milestone 5, and proceed with SOW #2 for follow-on activities.

Project Delivery Approach

FDOT will complete the work in the five tasks listed in order to achieve the milestones defined in this SOW. A detailed description of the scope of each Task is provided in the "Description of Work" section of this SOW.

Task 1: Project Development
FDOT will undertake project management activities necessary to support the advancement of the HSR Project as Phase I of Florida's HSR Project, including the development of project controls, a revised PMP, a revised SDP (with ridership and operations analysis), a public outreach and communication plan, and stakeholder coordination. The activities in task 1 will provide FDOT and FRA with a refined overall business plan for the HSR Project.

Task 1 includes the following subtasks and deliverables:
- Task 1.1 Project Controls (revised PMP)
- Task 1.2 Revised SDP (revised ridership and operations analysis)
- Task 1.3 Public Outreach and Communications
- Task 1.4 Stakeholder Meetings and Coordination

Task 2: Preparation of Draft Documents for the DBOM&F contract
FDOT will prepare an RFQ and RFP documents that will be used for the procurement of the concessionaire that will perform the DBOM&F contract components of the HSR Project. The HSR Project performance documents include the development of Design Criteria and Specifications. The activities in task 2 will provide FDOT and FRA with procurement documents from which FDOT could advertise an RFP for the DBOM&F contract for the HSR Project in SOW #2.

Task 2 includes the following subtasks and deliverables:
- Task 2.1 Development of draft RFQ/RFP document
- Task 2.2 Design Criteria and Specifications
- Task 2.3 Develop Safety Criteria and Specifications for the HSR Project – FRA Regulatory Approval

Task 3: Preliminary Engineering and Revised Cost Estimate
FDOT will advance preliminary engineering in all major discipline areas in order to produce a more refined cost estimate than that used to prepare FDOT's High-Speed Intercity Passenger

Rail ("HSIPR") Project application (less than 10% design). Task 3 includes an initial production of a draft revised cost estimate (based on progress prints of 30% design), followed by 30% preliminary engineering documents, including a final revised cost estimate.

Task 3 includes the following subtasks and deliverables in three categories (Mainline Infrastructure, Stations, and Maintenance Facility):

a. Mainline Infrastructure
- Task 3.1(a) Geotechnical
- Task 3.2(a) Rail/Highway Geometry, Track and Catenary Foundation Layout
- Task 3.3(a) Bridges and Structures
- Task 3.4(a) Drainage and Permitting

b. Stations
- Task 3.5(b) Station Architecture programming and conceptual design
- Task 3.6(b) Station Development
- Task 3.7(b) Station Architecture Schematic Design
- Task 3.8(b) Station Civil Site Plans
- Task 3.9(b) Station Area Roadway plans
- Task 3.10(b) Station Area Traffic analysis

c. Maintenance Facility
- Task 3.11(c) Schematic Design
- Task 3.12(c) 30% preliminary engineering

Task 4: Survey and ROW Acquisition Preparation (Project RW1)
FDOT will perform an aerial mapping and ground control survey project that will provide critical horizontal and vertical controls along the alignment for both the preliminary engineering and ROW acquisition of the remaining parcels not already in the public domain.

Task 4 includes the following subtasks and deliverables:
- Task 4.1 Survey
- Task 4.2 ROW Acquisition Preparations

Task 5: Prepare Procurement Documents for the Early Works Projects
FDOT will develop preliminary contract documents for the Early Works Projects that will reconstruct or relocate potential obstacles or constraints along the HSR Project corridor for the construction of the HSR Project under a stand-alone DBOM&F contract. The Early Works Projects will have the following overall objectives: clear the I–4 corridor from existing features such as signage structures and ITS elements; open the corridor for appropriate clearances that are required for train geometry currently and with future anticipated highway modifications; remove unsuitable materials and replace with suitable subbase at the proposed Maintenance facility site; identify in these relatively small contracts any unforeseen conditions that may exist; and create needed jobs soon using contractor labor forces without specialty HSR skill requirements. The goal that FDOT has with the Early Works Projects is that the work will be completed in advance of the HSR construction activities that will be performed by the DBOM&F concessionaire.

An initial progress submission will be followed by a 50-60% complete set of preliminary engineering documents for the Early Works Projects, except the contract for the removal of materials at the proposed maintenance facility, which will be taken to design completion. The activities in task 5 will provide FDOT and FRA with contract and preliminary engineering documents for FDOT to advance the procurement through the issuance of an RFP for the initial Early Works Projects, and for the remaining Early Works Projects upon FRA approval. The design–build contracts for the Early Works Projects will be let and managed through SOW #2.

Task 5 includes the following subtasks and deliverables:

~~Task 5.1 Design Manual for the Early Works projects~~

Task 5.2: 50-60% preliminary engineering for the Early Works projects

Task 5.3: Preparation of Procurement documents for the Early Works Projects

DESCRIPTION OF WORK

The scope of work to complete each of these tasks is described below:

Task 1: Project Development

As this HSR Project is the initial implementation of HSR in the State of Florida, FDOT will be creating the institutional and organizational infrastructure for long-term successful management of a HSR system. This is currently underway as FDOT has created a team of internal resources and outside consultants to assist with the HSR Project development, including a legal advisor (Freshfields), financial advisor (KPMG) and Project manager (HNTB/Wilbur Smith Associates). For this initial SOW, the following components will be developed to advance the HSR Project. The activities in task 1 will provide FDOT and FRA with a refined overall business plan for the HSR Project.

Task 1.1: Project Controls

FDOT will develop project controls in the categories listed below to assist with overall management of the HSR Project as Phase I of the Florida HSR Program.

Task 1.1.1: Documents Control

FDOT will institute and execute processes and procedures to manage development, distribution, and long-term archive of the various document artifacts of the HSR Project. The processes and procedures will be structured to permit ready access to the artifacts throughout the life of the HSR Project.

Task 1.1.2: Management and Administration Systems

FDOT will develop systems for management of HSR Project contracts, budget, and invoicing. These systems will conform to FDOT and Federal reporting requirements, and will be accessible and usable on a restricted basis. The system developed will address all steps of the HSR Project as Phase I of the Florida HSR Program through the start of revenue service and will address system expansion. This will also include preparation, updating and management of the overall HSR Project budget and project budgets for the 30% preliminary engineering design, Early Works Projects, HSR Project DBOM&F contract procurement, and ROW acquisition.

Task 1.1.3: Scheduling

FDOT will develop and maintain multiple schedules as required in association with the HSR Project: a schedule depicting high level activities and anticipated dates (similar to the one included in the PMP), a working level schedule for the HSR Project, and a detailed schedule for the approved work for the HSR Project. This schedule will be maintained for presentation with a minimum of the following three tiers:

1. HSR Project schedule (Master HSR Project schedule)
2. HSR Project SOW schedules (as applicable)
   - SOW #1 Activities
   - SOW #2 Activities (Early Works Projects, ROW, and PD&A)
   - SOW #3 Activities (DBOM&F)
3. Individual SOW schedules (subprojects, tasks, subtasks)

Each schedule Tier will be updated quarterly through the duration of the HSR Project, except for the individual project schedules that will be updated monthly for the initial quarter after NTP, then quarterly thereafter.

Task 1.1.4: Budget

FDOT will continue to develop and maintain a consolidated budget as required in association with the HSR Project, individual projects, subprojects, and tasks. The budget will represent programmed cost estimates and be updated as Project costs become refined during execution. This budget will be maintained for presentation with a minimum of the following three tiers:

1. HSR Project budget (Master HSR Project budget)
2. HSR Project SOW budgets (as applicable)
   - SOW #1 Activities
   - SOW #2 Activities (Early Works Projects, ROW, and PD&A)
   - SOW #3 Activities (DBOM&F)
3. Individual project budgets (subprojects, tasks, subtasks)

Task 1.1.5: Project Management Plan

A PMP has been prepared for the HSR Project and is included in the supporting documents to this SOW. FDOT will further develop the PMP as part of this task such that a fully developed plan that addresses all the components of the HSR Project will be provided to FRA as a draft revised PMP as part of Milestone 1, followed by a final revised PMP as part of Milestone 4.

Task 1.1.6: Quality Control Plan

Also included in the Track 2 Application was an approach for addressing quality control and assurance for the HSR Project. FDOT will also fully develop this document and address all aspects of the HSR Project including internal controls for documents produced by FDOT, and then for procurement and implementation phases of the HSR Project. The Quality Control Plan will include a draft approach to the Compliance Management Plan for system testing.

Task 1.1.7: Risk Management Plan

As part of the preparation of the revised SDP in task 1.2, FDOT will include a draft Risk Management Plan as part of the Quality Control Plan. This section will include the identification of and proposed alternative allocations to project risks. The revenue risks will be specifically addressed—what they will consist of, how they will be met, by whom, and by when.

Task 1.1.8: Safety and Security Plan

FDOT will prepare a draft Safety and Security Plan and the safety management approach to address how FDOT will ensure a positive safety performance through the life of the HSR Project. This draft plan will include an organizational and management approach and how FDOT intends to ensure a secure environment through the life of the HSR Project.

Task 1.2: Revised Service Development Plan

FDOT will prepare a report on the business case/plan (revised SDP) for the HSR Project, given a range of assumed costs and revenues/ridership. The revised SDP will include an evaluation of the HSR Project, and incorporate supplemental data as related to Phase II of the Florida HSR Program from Orlando to Miami. This supplemental data will not be created as part of this Project, but rather incorporate a reference to available documentation from previous or underway activities for Phase II of the Florida HSR Program from Orlando to Miami. Such a report will separate the civil and construction costs from the operating and maintenance costs over the next 30 years. The shortfalls in capital and operating revenues need to be identified, and alternative scenarios for meeting the shortfalls need to be developed. A pricing analysis will be included based on current economic conditions and a market assessment of competitive alternatives. A draft revised SDP (noninvestment grade ridership and revenue forecasts) will be submitted for review and approval as part of Milestone 1, followed by the final revised SDP (ridership and revenue forecasts taken to investment grade) as part of Milestone 4.

Task 1.2.1: Ridership and Operations Analysis

The primary intent of task 3 is to produce more refined cost estimates that will reduce the risk of bidding for the capital infrastructure components. The refined cost estimate and advanced engineering will result in substantially more reliable bids and reduced vendor risk. In order to provide consistency of information, it is necessary to update components of the ridership analyses that have been done in this corridor, because much of it is based on 2002 data. Selected updates on ridership work will provide more reliable information to potential proposers for the DBOM&F contract for the HSR Project, as well as provide key information to stakeholders that can assist in decision making.

Similar to the approach used in the original 2002 ridership studies, as well as the updates performed in 2009, FDOT will complete two independent sets of ridership updates based on an agreed to list of assumptions.

Task 1.2.2: Stations

FDOT will refine zone scheme, demographics, and networks in preparation for HSR station location analysis and public transport access planning (metropolitan planning organization (MPO) models as source) for all stations and potential station locations.

Task 1.2.3: Connectivity

FDOT will identify potential transit access services: fixed-route bus, fixed guideway, limousine, on-demand minibus, point-to-point shuttle, and subscription service. Specific information requests will be gathered for potential light rail and commuter rail in Tampa and for connections to SunRail in Orlando at OIA.

Task 1.2.4: Captive Market Update

FDOT will canvas potential HSR partners (airlines, theme parks, special events organizers, sports franchises, convention centers, downtown associations, hotel organizations, recreation center (beach/I-Drive), cultural and entertainment organizations, and other special interest groups) to determine their willingness and capacity to partner with HSR (include HSR as part of a total recreational experience package), the extent of their potential market, and potential partnering arrangements.

Task 1.2.5: Stated Preference Surveys

FDOT will perform a survey to obtain current reactions to HSR as a potential travel mode and likelihood of induced travel in response to HSR. Potential survey locations/media include: airports (OIA/Tampa International Airport), downtown office buildings, residential malls, interactive computer, telephone solicitation, and return mail.

Task 1.2.6: Industry/Stakeholder Outreach

FDOT will host industry/stakeholder outreach sessions to inquire of prospective proposers on DBOM&F contract for the HSR Project to ask for their input on what other information might be useful to them in preparing their bids. FDOT will also request similar information from key stakeholders such as Hillsborough Area Regional Transit (HART), SunRail, Polk, I-Drive constituents, and WDW.

Task 1.2.7: Operations Analysis

FDOT will perform an operations analysis and simulation based on the refined geometry, which is being developed, and any new relevant information from ridership studies. This operations analysis will be included in an updated service plan for inclusion in the RFP.

Task 1.2.8: Risk Assessment

FDOT will prepare a draft Risk Management Plan, including the identification of and proposed alternative allocations of project risks. The revenue risks will be specifically addressed—what they consist of, and how they will be met, by whom, and by when.

Task 1.3: Public Outreach and Communications

FDOT (through a consultant) will develop a public awareness plan for the HSR Project outlining the critical elements of the Florida HSR Public Awareness program, including:

- Public Outreach
- HSR Project Web Site (as part of Florida HSR Program Web site)
- Collateral Materials
  - HSR Project Fact Sheet
  - HSR Project Electronic Newsletter
  - Power Point Presentations
  - Visual simulations

- Key Messages and Speaking Points for Presentations
- Media Relations/News Releases
- Toll-free Information Line
- Crisis Communications Plan

Public Outreach—The public outreach function will communicate project information to the general public as well as key constituents. Public outreach will be facilitated through a combination of mechanisms including internet, social networking (if permissible), formal press advisories, and presentation at public events. Appropriate collateral materials and multimedia productions will be developed to support this outreach. The HSR Project will establish connections with and make use of existing communication networks within state, regional and local economic and social constituencies. The goal will be to have business groups, labor organizations, and economic development, and civic organizations view the HSR Project as a major asset for the region and to provide information about it through their own communication vehicles. An additional element of public outreach will include outreach to and communication with key elected and appointed Federal, State, and local officials so they are kept abreast of project progress and provided with the collateral materials and information to relay to their respective constituencies.

Project Web Site—The HSR Project Web site as a component of the Florida HSR Program Web Site (www.floridahighspeedrail.org) is a critical information portal for all HSR Project stakeholders. During the execution of this SOW, the Web site will be maintained and updated as new information is available for release to the public. The email received through the Web site will be collected and stored per Florida public record requirements, and any email that requires a response will be addressed.

The Web site also will be evaluated during the execution of this SOW to determine the need for a new format or to address additional information format needs of the project stakeholders. The use of flash graphics and video also will be evaluated.

Collateral Materials—As indicated in the public awareness plan, HSR Project collateral materials will be developed. These materials may include a HSR Project fact sheet, an electronic newsletter, PowerPoint presentations, etc. Materials, such as the fact sheet and newsletter, will be posted on the Web site for stakeholders to view and download as needed.

A visual simulation of the Florida HSR system will also be created because much public confusion exists about the HSR system. This will be combined with footage from operating HSR systems from around the world to provide the public with a strong visual image of what is being planned for implementation.

Toll-Free Information Line—The toll-free information line is an additional venue for stakeholders to have their questions answered or to receive the latest HSR Project updates. This communication tool will be evaluated for implementation on the HSR Project during this time period. After the appropriate approval, the toll-free line also will be activated.

Task 1.4: Stakeholder Meetings and Coordination

FDOT will host meetings with interested stakeholders to coordinate the continual exchange of information with key stakeholders both within the HSR Project corridor, statewide, and at a national and potentially international level. This will occur at different levels. Methods used to facilitate this information exchange include:

Task 1.4.1: Stakeholder Meetings and Coordination (Political Constituencies)
Entities such as the Florida Rail Commission and other elected and appointed bodies and individuals will be appraised of HSR Project progress regularly.

Task 1.4.2: Stakeholder Meetings and Coordination (Station Owners and Stakeholders)
Each station location has several key stakeholders with different levels of involvement in advancing the station development. Agreements will be crafted as needed for joint station development.

Task 1.4.3: Stakeholder Meetings and Coordination (Public Agencies)
Permit agencies, local governments, State and Federal agencies will also be brought into the process as required to advance the HSR Project in accordance with all existing regulations.

Task 1.4.4: Stakeholder Meetings and Coordination
(HSR Industry and Other Interested Parties)
FDOT shall ensure joint access between the HSR Project team and both public and private entities that are interested in the HSR Project, to share information and provide education on the advancement of the HSR Project.

Task 2: Preparation of Draft Documents for the DBOM&F contract
Florida intends to allow open competition to proven steel-wheel/steel-rail, electrified technologies from around the world – provided that the system can operate safely in the HSR Project corridor as determined by FDOT and FRA. To achieve all the intended objectives, including start of revenue service in 2015, FDOT proposes to issue an RFQ and RFP to advertise for proposals, from which FDOT will ultimately select a concessionaire for the DBOM&F contract. FDOT has extensive experience preparing documents for major P3s, such as the I–595 and the Port of Miami Tunnel projects, both of which exceeded $1 billion and achieved financial close in 2009. The activities in Task 2 will provide FDOT and FRA with contract documents from which to issue an RFP for the DBOM&F contract for the HSR Project upon completion of the activities in this SOW.

Task 2.1: Development of draft RFQ/RFP document for the DBOM&F contract
FDOT will prepare draft RFQ and RFP documents for the DBOM&F contract for input by others, including industry reviews. The RFQ process will allow FDOT to narrow down the field of interested parties to a shortlist consisting of those that have the best-evaluated technical capability, resources, financial stability, and capacity to perform the contract. The RFP will be provided only to those making the shortlist. RFP documents take considerable effort and attention to be properly crafted, and with the plan to open the HSR Project to initiate revenue service in 2015, FDOT will be advancing the development of these documents in parallel with the preliminary engineering (task 3) and the Early Works Projects (task 5) documents.

Task 2.2: Design Criteria and Specifications for the DBOM&F Contract
FDOT will prepare Design Criteria and Specifications for the DBOM&F contract to include with the RFP for the HSR Project. The Design Criteria and Specifications will include a consolidation of the criteria and specifications developed in this SOW, as well as, system safety considerations, construction procedures, and other criteria and specifications appropriate for highway and railroad construction. The design criteria and specifications will address the more stringent tolerances for vertical and horizontal deformations that are required for an HSR system. Development of the design criteria will include research of the current international HSR design criteria, design specifications, material utilization and construction specifications. Design Criteria and Specifications will be developed in close coordination with FRA's Office of Railroad Safety. Other criteria and specifications will also be considered as appropriate.

Task 2.2.1: Performance Criteria and Specifications
FDOT will prepare performance criteria and specifications meeting the requirements of Tier V of FRA's High-Speed Passenger Rail Safety Strategy for inclusion in the Design Criteria and Specifications for the fundamental components of the HSR system, as follows:

Task 2.2.2: Performance Criteria and Specifications (Track)
Track performance criteria and specifications will meet FRA requirements in 49 CFR Part 213 as amended by ongoing FRA rulemaking, including the application of any further revisions.
Task 2.2.3: Performance Criteria and Specifications (Signal and Communications)
Preliminary signaling and communications criteria and specifications will be prepared that are consistent with the most recent FRA regulations (49 CFR Part 236, Subpart I – Positive Train Control Systems) to provide a safe environment for train operation. The system will incorporate functions of command and control subsystems, such as positive train control, and train integrity and health monitoring modes.

The command and control communications system will be developed in coordination with the FRA Office of Railroad Safety to define acceptable criteria and specifications for transmissions, communications between the HSR assets and the Central Traffic Control system (CTC), monitoring and control of trackside systems, monitoring and control of the traction power systems, and communication requirements at interface points.

Task 2.2.4: Performance Criteria and Specifications (Electrification)
Performance criteria and specifications will be developed in coordination with FRA's Office of Railroad Safety.

Note: Traction Power System will conform to the National Electrical Safety Code (NESC) and the American Rail Way Engineering and Maintenance-of-Way Association (AREMA) Manual for Railway Engineering chapter 33, "Electrical Energy Utilization."

Task 2.2.5: Performance Criteria and Specifications (Rolling Stock)
Rolling stock requirements will largely be addressed in the Design Criteria and Specifications in accordance with the FRA regulatory approval process as described. The most basic performance requirements will be the ability to safely provide passenger rail service at speeds up to or exceeding 186 mph for continued operation on the Phase II of the Florida HSR Program from

Orlando to Miami, operation in an exclusive corridor with no shared use, and meet FRA safety requirements.

In accordance with the Americans with Disabilities Act of 1990 (ADA), the U.S. Department of Transportation's regulations on Transportation Services for Individuals with Disabilities and Accessibility criteria and specifications for Vehicles at 49 CFR Parts 37 and 38, FDOT will insure that rolling stock performance criteria and specifications include provisions for passenger accessibility between the platform and equipment, and onboard trains.

As applicable, rolling stock performance criteria and specifications will also be consistent with section 305 of the Passenger Rail Investment and Improvement Act – addressing the development of a next generation corridor train equipment pool, in coordination with FRA.

Task 2.2.6: Performance Criteria and Specifications (Other Criteria and Specifications)
Performance criteria and specifications will be developed for HSR Project elements such as station platforms, access, safety and security, signage and wayfinding, aesthetics, system maintenance, and others.

Considering that the HSR Project from Tampa to Orlando is Phase I of the Florida HSR Program, which will ultimately extend in Phase II from Orlando to Miami, the performance criteria and specifications will, where possible, be established for the track and equipment operating in the HSR Project corridor to be interoperable with Phase II of the Florida HSR Program from Orlando to Miami. Where possible, FRA and FDOT will develop the criteria and specifications for the HSR Project in a manner such that commonality with other similar HSR projects in the country can be achieved. Areas of common approach can include gage, operating electric traction, and crashworthiness criteria and specifications.

Task 2.3: Develop Safety Criteria and Specifications for the HSR Project
– FRA Regulatory Approval
Concurrent with the preparation of Design Criteria and Specifications in task 2.2, FDOT will work with FRA's Office of Safety to obtain regulatory approval for the HSR Project. Such regulatory approval and oversight may be carried out by a Rule of Particular Applicability (RPA) or other regulatory means as the case may dictate.

Approach: Florida previously advanced an RPA for the Florida Overland Express (FOX) project in the mid-1990s using the French TGV train system. This culminated in a Notice of Proposed Rulemaking (NPRM) by FRA in December 1997. The FOX project was then canceled.

The FOX NPRM has been overtaken by changes in HSR technology and changes in FRA regulations and policy and will only serve as a reference document to help the Grantee understand a regulatory approach that FRA may adopt for the current HSR Project as Phase I of the Florida HSR Program.

The scope of work for this task will begin with development of the draft Design Criteria and Specifications for the Florida HSR system. Frequent coordination with FRA is anticipated in the development of this work.

Under a separate SOW, and upon award of the DBOM&F contract to a successful concessionnaire, the concessionaire and FDOT will work with the FRA Office of Railroad Safety to take the FRA regulatory process to completion. Through FDOT, the winning concessionaire will be responsible for meeting all FRA regulations and requirements.

Task 3: Preliminary Engineering and Revised Cost Estimate

The Track 2 Application for Tampa-Orlando was based on engineering that was approximately 5–8% complete. FDOT will now advance this to an approximately 30% design level to provide a more refined cost for the HSR Project. The specific tasks that will be performed as part of task 3 are divided into three categories:

Category (a): Mainline Infrastructure
Category (b): Stations
Category (c): Maintenance Facility

Under task 3 FDOT will advance the initial "higher level" preliminary engineering activities sufficiently to provide "progress prints," from which a 30% engineering cost estimate will be prepared (about 7 months); followed by completion of preliminary engineering (30% design) documents for most discipline areas from which a final revised 30% cost estimate will be prepared. The preliminary engineering documents prepared as part of this task will be included in tasks 3 and 5 to prepare for the Early Works Projects and a draft RFP for the DBOM&F contract. The 30% preliminary engineering documents and final revised 30% cost estimate will be completed in time for inclusion in the RFP for the DBOM&F contract as noted above, scheduled for spring 2011.

- Draft revised cost estimate prepared based on progress prints
- Final revised 30% engineering cost estimate prepared based on 30% preliminary engineering
- Preliminary engineering progress prints prepared for all activities
- Final revised 30% preliminary engineering documents prepared for all activities

The activities in task 3 will advance preliminary engineering and conceptual designs to allow each discipline to quantify and price project components to a higher degree of accuracy, thereby lowering contingency amounts. Estimates will initial be based on 30% progress prints for a draft cost estimate and then advanced to completion along with the 30% final preliminary engineering documents.

Task 3, Category (a): Mainline Infrastructure

Beginning with an elevated structure in the Tampa Station and ending at the OIA Station, FDOT will advance work on the mainline in the different discipline areas described below.

FDOT will develop 30% preliminary engineering documents based on existing and new information that will be collected. This design will include detailed survey and mapping to determine the HSR alignment and cross sections. FDOT will perform extensive geotechnical, groundwater, and contamination investigations to facilitate the determination of the alignment

and elevation of the rail line. Existing facilities, ROW constraints, the findings of the FEIS and 2009 Reevaluation, and the environmental mitigation conditions reflected in those documents and in the FRA Record of Decision will also be considered as the 30% preliminary Engineering effort is completed.

Task 3.1(a): Geotechnical (Field and Technical Investigation)
FDOT will perform geotechnical work in task 3.1(a), consisting of field and technical work, to support the following components of the preliminary engineering in Task 3.
Task 3.1.1(a): Establish vertical track profile
For HSR, a vertical clearance of approximately 5 feet (ft) is required between the top of rail and the estimated seasonal high groundwater level. To establish the seasonal high groundwater level profile for the rail alignment, auger borings will be performed along the approximately 68 miles of ground-supported track alignment. This information will be essential for determining the track vertical profile, which will in turn govern the civil design of the entire system. For this reason, establishing the design groundwater profile is the initial priority of the geotechnical investigation.

Task 3.1.2(a): Delineate unsuitable soils along the alignment
The borings performed during this phase will be used to establish the approximate horizontal and vertical limits of the unsuitable soils so that the cost of their removal and replacement with suitable material can be estimated. Based on the results of the preliminary geotechnical investigation performed for the HSR Project Development and Environmental (PD&E) Study, there are locations along the alignment where unsuitable soils, e.g., peat and muck, are present. In addition, there is at least one location where an ancient sinkhole is present in the I–4 median that is filled with organic material (muck) to a depth of 108 ft. It is likely that this feature will be bridged with a structure to accommodate HSR. During this phase of the geotechnical investigation this feature will be further explored with borings/soundings and the possible presence of similar features along the alignment will be further evaluated.

For the bridges, existing soil boring information for the Interstate–275 (I–275), I–4, and SR 528 bridges will be obtained to avoid duplicating available boring data. Where existing borings are not available, Standard Penetration Test (SPT) borings will be conducted on approximate intervals of 200 ft along the bridge alignments. In areas of shallow rock, rock core samples will be obtained to evaluate rock quality and strength. Laboratory tests will be conducted on representative soil and rock samples obtained from the borings. The field and laboratory test data will be used to evaluate bridge foundation alternatives, including foundation size and depth, for use in estimating foundation construction costs.

As a result of the very limited tolerance for lateral deformation of HSR bridge foundations, specialty field testing methods will be used. These methods may include pressure meter and/or dilatometer testing to obtain lateral soil strength and compressibility parameters. Experience has shown that lateral soil parameters obtained by these specialty test methods are much less conservative than values estimated from SPT blow counts, and can potentially reduce bridge foundation costs by a significant amount.

Soil borings/soundings, along with laboratory soil testing, will also be conducted in accordance with FDOT standards for Mechanically Stabilized Earth (MSE) walls, box culverts, passenger stations, the operations and maintenance facility, and the power substations.

Task 3.1.3(a): Obtain the Conceptual Stormwater Management Permit
It is practice in FDOT design–build projects that the design criteria and specifications package includes a conceptual permit that the local Water Management Districts (permitting agencies) have agreed to in advance. The intent is that if the selected concessionaire for the DBOM&F contract follows the conditions in the conceptual permit, it is in essence preapproved for that permit. If the selected concessionaire employs a change in approach, they would need to apply for a modification to that conceptual permit.
The technical work described in the next task is the work done to justify the drainage approach, which will be submitted to get a conceptual permit.

To facilitate conceptual Stormwater design, it will be necessary to identify soil types, evaluate soil permeability, and characterize groundwater conditions for the proposed facilities. To accomplish this, auger borings and field permeability tests will be performed in linear features such as swales and ditches at intervals of 1,000 ft. In stormwater ponds, two borings and one field permeability test will be conducted per acre of pond. The soil and groundwater data will be used to analyze recovery of stormwater retention volumes through infiltration and verify that recovery occurs within the timeframe required by the water management district regulations.

Task 3.1.4(a): Refine the construction cost estimate
To refine construction cost estimates, geotechnical information will also be needed for the following additional HSR Project elements:

- Bridges
- MSE walls
- Box culverts
- Passenger Stations
- Operations and Maintenance Facility
- Power Substations

Task 3.1.5(a): Geotechnical data collection for inclusion in the RFP documents
A Summary Geotechnical Report will be developed for inclusion in the RFP documents identifying key information that has been collected for proposer use. It is anticipated that the selected concessionaire proposer may obtain supplementary/confirmatory geotechnical information as well. The Geotechnical Report will perform

The following list provides a summary of the major components and features of the HSR Project corridor that will require geotechnical data collection in this SOW.

Project Elements	
Track on Embankment	68 miles (46 at-grade, 22 elevated)
Track on Bridges	18 miles
Total Track	86 miles
Stations	5 stations

(Downtown Tampa, Lakeland/Polk, Disney , OCCC, and OIA)
O&M Facility at OIA 1 facility
Power Substations 3 substations
ROW Acquisition

Early Works Projects–median preparation:

Design Elements:

- HSR Project alignment investigation for scenarios at-grade, and elevated on embankment or structures in the median of I-4.
- Site investigation for drainage of the HSR Project in the median of I–4.

Median Width	Track Level	Length (Miles)	Barrier Length (Miles [x2])	Barrier Length (ft)	No. of Barrier Borings[6]	Pipe Length (ft)	No. of Pipe Borings
Narrow	Grade	35.2	70.4	371,712	930[1]	371,712	0[4]
Narrow	Elevated	16.8	33.6	177,408	444[2]	177,408	0[5]
Wide	Grade	11.2	22.4	118,272	120[3]	0	0
Wide	Elevated	4.9	9.8	51,744	52[3]	0	0
	Total	68.1	102.6	541,728	1546[7]	549,120	0

Notes:
1. Assumes 1 boring for every 400 ft of proposed safety barrier on both sides (staggered).
2. Assumes 1 boring for every 400 ft of proposed safety barrier on both sides (staggered).
3. Assumes 1 boring for every 1,000 ft of proposed safety barrier on both sides.
4. Assumes proposed safety barrier and track borings will be used for pipe.
5. Assumes track borings will be used for pipe.
6. Both SPT borings and Cone Penetration Test (CPT) soundings can be used.
7. Borings and sounding depths will be 25 ft.

Conceptual Design/RFP Data Collection

Rail Design Elements

Design Element	Units Description	Boring Frequency	No. of Borings	Average Boring Depth (ft)
Track – Stormwater High Water Level	46 mi at grade, 22 mi elevated	1 auger boring per 200 ft	1800	10
Track – Deep Muck	Deep muck deposits in median	SPT borings/CPT soundings	25	120
Stormwater	71 mi inside I–4, 15 mile outside I–4	1 auger boring and perm per 1000 ft	831	15
Bridges	31 bridges, total length of 18 mi (use 131 existing SPT borings)	1 SPT boring per 100 ft	810	120
Bridges – Specialty Testing	Pressure meter/Dilatometer testing for lateral load analyses	50 locations, testing to 50 ft	50	50

Box Culverts	22 box culverts 6 ft or higher	2 SPT borings per box culvert, 6 ft or higher	44	50
MSE Walls	22 mi of MSE wall x 2 = 44 mi	1 SPT boring per 200 ft, use proposed safety barrier borings (444 borings) for narrow elevated section (33.6 mi)	142	50
Catenary Poles	Spaced 100 ft on both sides of track, 7200 total	Use track and proposed safety barrier borings	None	---
Signs	48 foundations	1 SPT boring per foundation	48	60
Power Substations	3 substations at 1 acre each	4 SPT borings per site	12	25
ROW Acquisition	307 potential contamination sites, 67 potential Level 2 Site Assessments within 300 ft, 27 Level 2 Assessments within 100 ft. Only 27 site assessments included in initial phase of work.	4 auger borings, 1 well per site	108	15

Passenger Stations and O&M Facility Design Elements

Station	Station Description	Units	Boring Project
Downtown Tampa	Platform Bridge Length (ft)	675-700	6-9 SPT borings to 100 ft
	Pedestrian Bridge Length (ft)	0	
	Structure Area (sf)	0	
	Parking Area (ac)	1.7	8 SPT borings to 50 ft (garage)
	Pond Area (ac) [exfiltration]	3.6	10 auger borings to 20 ft, 10 perms
	Total Site Area (ac)	7	
Lakeland/Polk	Platform Length (ft)	600	6-8 SPT borings to 50 ft
	Pedestrian Bridge Length (ft)	250	3 SPT borings to 120 ft
	Structure Area (sf)	0	
	Parking/Paver Area (ac)	4.0	35 auger borings to 5 ft
	Pond Area (ac)	3.3	8 auger borings to 20 ft, 4 perms
	Total Site Area (ac)	20	
Disney	Platform Length (ft)	600	4-6 SPT borings to 50 ft
	Pedestrian Bridge Length (ft)	400	4 SPT borings to 120 ft
	Structure Area (sf)	35,000	3 SPT borings to 50 ft
	Parking/Paver Area (ac)	5.2	23 auger borings to 5 ft
	Pond Area (ac)	3.5	12 auger borings to 20 ft, 6 perms
	Total Site Area (ac)	20	
OCCC	Platform Bridge Length (ft)	600	8-12 SPT borings to 120 ft
	Pedestrian Bridge Length (ft)	550	3 SPT borings to 120 ft
	Structure Area (sf)	0	
	Parking Area (ac)	5.0	20 auger borings to 5 ft
	Pond Area (ac)	2.8	8 auger borings to 20 ft, 6 perms
	Total Site Area (ac)	22	
Orlando Int'l Airport	Platform Length (ft)	675-700	6-9 SPT borings to 50 ft
	Pedestrian Bridge Length (ft)	400	3 SPT borings to 120 ft
	Structure Area (sf)	0	
	Parking/Paver/Road Area	0.5	10 auger borings to 5 ft

	Pond Area (ac)	1.5	4 auger borings to 20 ft, 2 perms
	Total Site Area (ac)	6	
O&M Facility	Rail Storage and Workshop (sf)	162,500	12 SPT to 25 ft, 1 SPT to 75 ft
	Administration Building (sf)	24,000	(crane)
	Storage Building (sf)	25,000	3 SPT borings to 25 ft
	Fuel Storage Tank (diameter)	70	3 SPT borings to 25 ft
	Parking/Track/Road Area (ac)	20	1 SPT to 100 ft, 2 SPT to 75 ft
	Pond Area (ac)	10	50 auger borings to 5 ft
	Total Site Area (ac)	45	20 auger borings to 20 ft, 10 perms

Project Management/Design Criteria and Specifications/RFP Preparation (Also see task 2.2)

Project Element	Description
Project Management	Overall management of project management geotechnical investigation, contamination assessment and preparation of the geotechnical portion of the RFP.
Develop Design Criteria and Specifications	Develop U.S. HSR geotechnical design criteria, design specifications, construction specifications and materials testing requirements guided by International HSR standards
RFP Preparation	Preparation of the geotechnical, contamination and construction materials testing portions of the RFP for the DBOM&F contract

Task 3.1.6(a): Contamination Assessment for ROW Acquisition Support

Contamination screening and site contamination assessments will be undertaken to support acquisition of new ROW and to evaluate potential construction-related contamination impacts. The contamination services will be comprised of the following elements:

- Contamination Screening Evaluation Report (CSER) Update–Level 1
- Contamination Impact Assessments–Level 2

Task 3.1.6.1(a): Contamination Screening Evaluation Report ("CSER") Update –Level 1

A CSER was prepared for the HSR Project in 2002/2003. In accordance with Chapter 22 of the FDOT PD&E Study Guidelines, the CSER will need to be updated because of the time that has elapsed since the original evaluation. The update is necessary to reevaluate and rank all previously identified potential contamination sites of concern based on updated information and to evaluate potential contamination sites that may not have existed at the time of the original evaluation. CSER activities include review of regulatory databases, historical aerial photographs, city directories, and site reconnaissance. The updated CSER will present the information obtained, identify potential contamination sites, and rank the sites as "No," "Low," "Medium," or "High" with regard to their potential risk of contamination impacts to the HSR Project. The updated report will also include recommendations for additional site assessments on medium and high-risk sites.

Task 3.1.6.2(a): Contamination Impact Assessments–Level 2

FDOT will perform a Level 2 Contamination Impact Assessment to evaluate the presence of soil and/or groundwater contamination on potential medium and high-risk contamination sites identified in proximity to the HSR Project alignment. All work will be performed in accordance with current Florida Department of Environmental Protection (FDEP) and Federal Occupational Safety and Health Administration (OSHA) and U.S. EPA standards.

This task will include the following work items:

- Perform a minimum of four soil borings per potential contamination site.
- Conduct soil gas analysis using an Organic Vapor Analyzer (OVA).
- Obtain a minimum of one soil sample from each potential contamination site for laboratory analysis based on the suspected site contaminants.
- Install a minimum of one monitoring well per potential contamination site for groundwater sampling and laboratory analysis based on the suspected site contaminants.

A Level 2 Contamination Impact Assessment Report will be prepared to detail soil and/or groundwater contamination on each site. The report will present evaluation data in text, tabular, and graphic format with recommendations on soil and groundwater handling and disposal during construction activities.

Task 3.2(a): Rail/Highway Geometry Track and Catenary Foundation Layout (30% preliminary engineering)

FDOT will define the HSR alignment through mathematization of both horizontal and vertical geometry, building upon the layout of the alignment developed for the FEIS and 2009 Reevaluation. HSR geometric design criteria and specifications will be applied within the constraints and controls of the surrounding environment. All horizontal project clearance requirements will be applied for structures, construction, safety, and other separation requirements. Similarly, constraints on final vertical alignment will be applied, including special trackwork locations, minimum clearances at crossings of highways and railroads, structural bridge deck allowances, criteria and specifications limitations on maximum and minimum profile grades, and vertical curve criteria and specifications. Once horizontal and vertical alignment criteria and specifications and constraints are analyzed, FDOT will compute the alignment and tie its control points into the State coordinate system and the HSR Project control baselines and benchmarks.

Task 3.2.1(a): 30% Preliminary Engineering (plan sheets)

FDOT will develop preliminary engineering design plan sheets for the conditions along the HSR Project corridor as described below.

Typical sections – including the following conditions:

- I–275 elevated, on structure
- I–4 elevated, on structure
- I–4 constrained median, at-grade
- I–4 wide median, at-grade
- I–4 constrained median, elevated on fill
- I–4 wide median, elevated fill
- I–4 pier, in the median
- SR 528 elevated, on structure
- Taft–Vineland Road (four typical sections)

Project Layout Sheets–Develop project layout sheets for the HSR Project corridor showing the coverage of each plan sheet.

Survey Control Sheets–These sheets will document all the control points throughout the HSR Project corridor. These sheets will be provided by the surveyor.

Plan Sheets–Summarize the preliminary alignment design work of this subtask in a set of plans showing the centerline between the two main tracks. Base the plan sheets on the final design base mapping at the selected final design scale, screened to accent proposed features. Show each passenger station platform and its major features. Show also traction power substation sites, indicate proposed modifications to existing conditions in HSR Project corridor, such as street relocations and other revisions, retaining walls, grade separation structures, and crossings, and drainage systems. Show the mathematized horizontal geometry, control point stations, bearings, horizontal curve and spiral data. Prepare these drawings in standard MicroStation CADD format, at a scale of 1 in = 100 ft.

Profile Sheets–The profile drawings will show the proposed HSR facilities (top of rail, line structures, station platforms, and crossings), the existing grade line, and major overhead and underground utilities Show the mathematized vertical geometry, elevations, grades, and vertical curve data. All vertical clearances will be measured from the top of grade rail. Prepare these drawings in standard MicroStation CADD format, at a scale of 1 in = 100 ft.

Cross Section Sheets–Provide cross sections for the rail alignment at 100 ft intervals. Cross sections will be used to compute earthwork.

Summary of Quantity Sheets–Define the preliminary quantities of the materials and summarize in tables. Some of the quantities that will be summarized include earthwork, guardrail, and safety barrier proposed safety barrier.

Summary of Pay Item Sheets–Develop a comprehensive list of pay items. Some items may not have standard FDOT pay item numbers in which case the item name and description will be listed.

Special Detail Sheets–Special details will be required throughout the limits of the HSR Project. It is anticipated that special details will be prepared for the bridge crossings, constrained ROW locations, and Taft–Vineland Road near OIA.

Maintenance of Traffic Sheets (MOT)–MOT plans will be required for work being performed adjacent to I–275, the I–4 inside travel lane, crossroads, SR 528 and Taft–Vineland Road near OIA. The plans will include typical sections, phasing notes, plan sheets per phase, cross sections per phase, and detail sheets.

Task 3.2.2(a): 30% Preliminary Engineering (Design Documentation)
FDOT will prepare a document which summarizes the design decisions made throughout the life of the HSR Project. The design documentation will be a record that consists of typical sections, horizontal and vertical geometry, horizontal and vertical clearance, and other attributes that affect the design of the facility. It will include design notes, data, and computations.

Task 3.2.3(a): 30% Preliminary Engineering (Utilities Criteria and Specifications)

FDOT will define the work to be accomplished by utility owner versus work to be accomplished by project contractor. This will include the establishment of candidate methods to resolve conflict among existing utilities and proposed construction. This work will require the field verification of certain utilities using subsurface utility explorations to verify potential conflicts which may need resolution.

Task 3.2.4(a): 30% Preliminary Engineering (Utilities Relocation Plans)
FDOT will develop concepts for utility relocation with sufficient detail to base preliminary costs, including concepts to service new stations and yard facilities and power substations.

Task 3.2.5(a): 30% Preliminary Engineering (Trackwork)
FDOT will identify trackwork related elements required for the system and determine their general configuration, method of procurement, and method of installation. This work will begin with a review of the conceptual drawings from the FEIS and the 2009 Reevaluation, design criteria and specifications, preliminary operating plans, and relevant vehicle parameters. Develop operating conditions on each section of trackwork to include such factors as revenue versus nonrevenue trackage, storage tracks, maintenance restrictions, and track quality indices. Coordinate with the noise and vibration mitigation work to identify specific measures to be applied in the design of the trackwork along each section of the HSR Project.

Task 3.2.6(a): 30% Preliminary Engineering (Catenary Foundation Layout)
FDOT will develop a preliminary catenary foundation layout based on the mathematized horizontal and vertical alignment. This will address conditions and constraints along the alignment and provide solutions for achievement of proper powering and electrification based on domestic and international practices for HSR. This layout for catenary foundations will be used to develop the more detailed cost estimate.

Task 3.2.7(a): 30% Preliminary Engineering (Emergency Access)
In coordination with the Federal Highway Administration (FHWA) and the FRA Office of Railroad Safety, FDOT will prepare the HSR Project design with provisions for emergency access to the highway and HSR ROWs.

Task 3.3(a): Bridges and Structures (Preliminary Concepts and Design Criteria and Specifications)
The preliminary engineering work in task 3.3(a) is anticipated to include the following tasks:

Task 3.3.1(a): Preliminary Engineering Design Criteria and Specifications (See also task 2.2)
FDOT will establish preliminary engineering Design Criteria and Specifications primarily based on domestic and international norms for HSR and assessed for local application regarding bridge type, span lengths, superstructure depth, typical foundation designs and general loading criteria and specifications for HSR bridges. These in turn will be correlated to typical FDOT criteria and specifications and reviewed for appropriate application. The design parameters for the proposed bridges will be determined for use in the development of the high-speed profiles, conceptual bridge designs, and determination of preliminary construction costs.

Task 3.3.2(a): Bridge Concept Designs

FDOT will prepare concept designs for bridges on the alignment, addressing a mixture of local road crossings and long viaducts. The use of a concrete superstructure alternative for the proposed bridges will result in lower construction and maintenance costs and effectively address the static deflection and dynamic vibration limitations required for the satisfactory operation of a HSR system. It is anticipated that the viaduct structures will use a combination of segmental box girders erected by span–by–span method in the 120- to 150-ft span range (either as simple spans or continuous span units) and by balanced cantilever method for longer spans. Concept designs will be developed to sample the effects of different span lengths and arrangements. For bridges over local roads, a concrete superstructure alternative will be developed, consisting of a reinforced concrete deck slab composite with Florida I-beams and Florida U-beams for two selected span lengths. The results of the concept designs will be used to validate the design requirements/parameters included in the Bridge Design Criteria and Specifications and for the development of preliminary bridge costs.

Task 3.3.3(a): Bridge Concept Plans and Report

FDOT will develop plan and elevation, typical section and vertical bridge geometry sheets for each bridge location. In addition, a Bridge Concept Report will be prepared and include a brief discussion of the justification for the selection of a concrete superstructure for the HSR bridges along with the results of the concept design and bridge construction costs. The report will also include a discussion on the feasible substructure and deep foundation alternatives.

Task 3.3.4(a): Retaining Wall Evaluation Report

FDOT will prepare a Retaining Wall Evaluation Report, including the evaluation of generic and proprietary retaining wall systems for use in the proposed HSR system This report will contain a comparison of retaining wall systems evaluated and appropriate measures to safeguard the retaining walls against stray currents and settlements. Structural plans depicting the retaining wall plan and elevations will be prepared for the proposed retaining wall locations listed above. The construction cost for the retaining walls will be developed using FDOT historical project unit prices adjusted by the cost of corrosion protection measures necessary to protect the retaining wall system against stray currents and additional cost to oversize the traditional wall components to carry heavier transit loads.

Task 3.3.5(a): Evaluation of Existing Structures

FDOT will conduct an evaluation of existing highway bridges, freight rail bridges, and box culverts to assess the potential impacts to existing structures from the HSR system. A database will be developed for all existing bridges to verify existing bridge lengths, horizontal and vertical clearances, bridge types, and number of spans. This information will be used to confirm that no conflicts exist between the proposed HSR system and the existing facilities. A database of existing box culverts will also be created for the purpose of determining which culverts will require replacement, strengthening, or no action in preparation for supporting the HSR system.

The existing bridges will also be evaluated to determine if crash walls will be required at existing piers to shield them from impact loads.

Task 3.4(a): Drainage and Permitting (30 % Preliminary Engineering)

FDOT will develop drainage concepts and perform preliminary engineering design to support the development of the refined cost estimate and to secure concept or construction level permits from FDEP and U.S. Army Corps of Engineers. The stormwater management requirements will also be used to verify accommodation within the available ROW. If additional ROW is required, pond locations will be identified including size of the additional parcels required to meet FDEP permitting requirements.

The following tasks are required under the Drainage design and permitting Scope:

Task 3.4.1(a): 30% Preliminary Engineering (plan sheets)
Drainage Map Sheets – Develop drainage maps based on review of existing conditions, surveys, and field reconnaissance. Drainage maps will document existing and proposed drainage patterns, cross drains and base flood elevations.

Stormwater Management Facilities–The stormwater management facilities required for the trackway will be shown on the plan sheets or on separate sheets as required to sufficiently show the layout for review by FDEP. The layout will include horizontal and vertical information such that the size of the proposed stormwater facilities can be verified. Pond detail sheets will be provided for all existing and proposed ponds being used for the trackway and stations.

Cross Drains–The extensions and/or replacements of the existing cross drains will be shown on the plan sheets.

Drainage Design Detail Sheets–Special details will be provided for proposed pond outfall control structures, existing pond outfall control structures (to be revised), and special outfall control structures. Special details will also be provided for other significant drainage elements as required by FDEP for securing the permit.

Task 3.4.2(a): 30% Preliminary Engineering (Stormwater Management Design Criteria and Specifications)
FDOT will prepare documentation to support the FDEP, as the delegated the authority to administer the Environmental Resource Permitting (ERP) for the HSR project. The HSR Project's stormwater management Design Criteria and Specifications will be developed based on domestic and international practices, and then correlated and coordinated with FDOT and FDEP. The agreed upon criteria and specifications will be included in the HSR Project Design Criteria and Specifications and will be the basis for the stormwater management design analysis.

Task 3.4.3(a): 30% Preliminary Engineering (Stormwater Management Design)
The initial phase of the stormwater management design process is data collection. As-built construction plans, existing drainage studies and permit documents will be obtained and reviewed for the I–4 corridor and relevant areas outside of the I–4 ROW, including the OIA, I–Drive Station, OCCC Station at Canadian Court, and the station site in Tampa. The information gathered from the data collection phase will be documented on the Existing Conditions Drainage Map and within the existing conditions drainage section of the Stormwater Management design Report.

Design of the stormwater management facilities required to meet the stormwater management Design Criteria and Specifications will be developed. Design calculations will be documented in the Stormwater Management design Report as required by FDOT and FDEP. The calculations will demonstrate that the proposed stormwater management facilities meet the requirements of FDOT and FDEP, including consideration of water quality treatment and stormwater runoff attenuation.

The various types of stormwater management facilities to be designed for this project include but are not limited to:

Revisions to Existing Stormwater Ponds–There are existing stormwater management ponds along portions of the alignment which provide water quality treatment and attenuation for the existing facilities. The existing capacity of these ponds will be reviewed to determine whether they can accommodate the additional water quality treatment and attenuation required for the HSR system. The existing flood routings and design calculations will be updated to reflect any changes proposed to these existing stormwater ponds.

Linear Retention Swales–Linear dry retention swales will be considered in areas under the proposed HSR bridges, in areas with relatively wide medians, and within the existing I–4 outside ditches to provide water quality treatment and attenuation of the stormwater runoff generated from the HSR. Design calculations of all proposed dry retention swales using hydrogeological parameters provided by the geotechnical consultant will be provided.

Proposed Stormwater Ponds–In areas with available ROW, dry retention and/or wet detention ponds will be provided as necessary to provide water quality treatment and attenuation for the proposed HSR system.

Special Outfall Control Structures–Preliminary engineering design for special outfall control structures on existing cross drains and in other areas as needed to attenuate post development discharge rates to levels at or below the existing condition discharge rates in accordance with FDOT and FDEP requirements. Design level calculations including flood routings as required by FDOT and FDEP will be provided.

Task 3.4.4(a): 30% Preliminary Engineering (Design of Cross Drains)
Construction of the rail envelope will require cross drains in the bifurcated areas (separate cross drains on eastbound and westbound lanes) to be connected in the median. The hydraulic design of proposed and existing cross drains will be performed to determine if they are structurally sound and can be extended.

Task 3.4.5(a): Track Base Clearance Evaluation
In coordination with the geotechnical engineer, the seasonal high groundwater profile and minimum trackway base clearance will be required for establishing the trackway profile. The results of this evaluation will be included in the Track Geometry Documentation Report.

Task 3.4.6(a): Environmental Permitting

Based on examination of the FEIS and the 2009 Reevaluation, undeveloped areas that may be impacted by the HSR Project will be identified for potential impacts to threatened and endangered species and wetlands as required by FDEP and the U.S. Army Corps of Engineers. Mitigation alternatives proposed in the FEIS and 2009 Reevaluation for impacts that are identified along the proposed Tampa–Orlando corridor will be addressed.

FDOT will prepare an ERP application report for submission to FDEP for the purpose of securing a concept or construction level permit for the HSR system. The ERP application will include the stormwater management design calculations and environmental consideration report. FDOT will work diligently with FDEP to resolve any requests for additional information during the application process. Consultation will be initiated with the U.S. Fish and Wildlife Service (USFWS) if Federally protected species or their habitat would be impacted by the proposed trackway and stations. If it is determined necessary, upon consultation with USFWS, FDOT then will engage in consultation with additional environmental resource agencies as required. A permit application will also be prepared for the U.S. Army Corps of Engineers as required for impacts to jurisdictional waters.

Task 3, Category (b): Stations
FDOT will develop a systematic approach for stations, including consideration for the following basic elements: train service and operations; local market served and connections to other modes (current and planned); architectural image (system-wide and local); building structure and Mechanical Electrical Plumbing (MEP) systems; passenger circulation and way finding; site layout, parking and local transportation access; utilities, drainage, and permitting; safety and security. Stations will be programmed to a schematic level and all components and site will be identified to provide a functional HSR station. Architectural renderings/concepts will be provided.

Part of the approach to stations will also be to determine the sharing of scopes and costs with station owners, e.g., OIA and Orange County.

A brief description of each station follows:

Downtown Tampa multimodal station
The proposed downtown station would sit on a 13.5 acre site with an elevated third level platform with three tracks and would be a multimodal terminal station design that will plan to accommodate future light rail at the second level of the facility. Bus, taxi, and kiss-and-ride access will be curbside at level one. This station will be developed with a full range of passenger amenities and air-conditioned second-level lobby, queue, and passenger hold/lounge. Entry points and building massing will be coordinated with existing state owned buildings immediately adjacent to the site. Structured parking may be required.

Lakeland/Polk County station
The proposed Lakeland/Polk County station would sit on a 20-acre site (Kathleen Road or alternate sites will be similar) and be an at-grade through station adjacent to the I–4 corridor that connects via an overhead interior air-conditioned passenger lobby that spans the westbound lanes to the center median where at-grade passenger platforms will serve two tracks. A covered open-

air roof element will span the passenger platforms. Bus, taxi, and kiss-and-ride access will be curbside at level one. This station will be developed with a basic level of passenger amenities and air-conditioned ground-level lobby, queue, and passenger hold/lounge. Coordination with rail alignment and site design for the station access will be required.

Walt Disney/Celebration station

The WDW station would sit on up to a 50-acre site and be an at-grade through station adjacent to the I–4 corridor that connects via an overhead interior air-conditioned passenger lobby that spans the westbound lanes to the center median where at-grade passenger platforms will serve two tracks. A covered open-air roof element will span the passenger platforms. Bus, taxi and kiss-and-ride access will be curbside at level one. This station will be developed with a basic level of passenger amenities and air-conditioned ground-level lobby, queue, and passenger hold/lounge, and will be coordinated with rail alignment and site design for the station access.

OCCC multimodal station

The proposed OCCC station would sit on a 20-acre parcel (Canadian Court Site) and be a multimodal through station intended to interface with the I–Drive circulator and future light rail. The HSR platform will be located on the third level on the north side of the 528 Beachline Expressway corridor and will be connected through an air-conditioned passenger walkway connecting to the adjacent station building. A covered open-air roof element will span the passenger platforms. Bus, taxi, and kiss-and-ride access will be located curbside at level one. This station will be developed with a full complement of passenger amenities and air-conditioned second-level lobby, queue, and passenger hold/lounge. Coordination with Orange County for other modes will be conducted throughout the process.

OIA multimodal station

The proposed OIA station would sit on the Greater Orlando Aviation Authority's (GOAA) land near the future South Terminal proposed site (a recommendation for the site was made by the GOAA in its March 17, 2010, board meeting, and is being analyzed by FDOT). The platform will likely be on the third level with three tracks in a multimodal terminal station design that will plan to accommodate future commuter rail and light rail as well. Bus, taxi, and kiss-and-ride access will be curbside at level one. This station will be developed with a full range of passenger amenities.

Task 3.5(b): Station Architecture–Programming and Conceptual Design

Conceptual design of five different HSR stations will be advanced to prepare cost estimates and provide guidance for the Design Criteria and Specifications package. The stations will contain air-conditioned lobby space and lounges; weather protected and sheltered passenger platforms; vertical circulation systems including elevators, escalators, and powered walkways; elevated sheltered bridge connections; passenger amenities that may range to include food service, business support, and retail facilities; passenger ticketing facilities; public restrooms; rail maintenance support spaces; administrative support spaces and offices; and building support areas. The stations will vary in size and scope based on the location and the station location owner(s). In addition to the building design, the HSR Project will also require coordination with the site design team and building engineering consultants as well as the track alignment and pier spacing of the rail system.

Task 3.6(b): Station Development

As work progresses advancing each station, FDOT will examine the potential for opportunities and alternative strategies that exist with each location. The specific approach for development at each station will be incorporated into the draft RFP document. This will enable FDOT to pursue different opportunities for ancillary development at each station location—independent from the operational component of the HSR system.

Task 3.7(b): Station architecture–Schematic Design

Architectural design services through a schematic design submittal will include the following:

- Space needs and development of a station project that quantifies the size and qualitative aspects for each of the spaces within the individual stations. The HSR Project will be developed systemwide and will be reduced or augmented depending on the individual station requirements.
- Station precedent studies of similar recently executed state of the art HSR facilities from around the world will be reviewed for comparable conceptual programmatic development, design parameters, station criteria and specifications, and architectural expression.
- Coordination with the site development team and the rail alignment team to establish the footprint for the station in both the vertical and horizontal planes. For elevated stations, define the elevated platforms and vertical circulation cores as well as access to the HSR system to perform vehicle service requirements within the terminal stations.
- Coordination with building engineers for the requirements of the various building systems including mechanical, electrical, and security and communication systems.
- Schematic development of the stations will define and develop plan adjacencies, fix sizes and define the passenger arrival, flow, and experience. FDOT will articulate architectural development of the vertical building section and elevations, clearances, architectural character, and material palate.
- Architectural renderings will be provided to define the station design, materials and character in three dimensions to support owner reviews, team presentations, and cost estimating.
- An outline specification will be provided that will delineate all materials and finishes associated with the architectural interior and exterior envelope of the station to allow for 30% schematic estimate pricing.
- Provisions for accessibility will be included in the station areas, within the station facilities, and passenger access to trains, in accordance with the Americans with Disabilities Act of 1990.

Schematics will be prepared for the following station components:

Curbside area development–Drawings will depict area development at curbside.

Architectural–

- Single line layout for all floors, penthouses, and roof areas with double line exterior walls at a scale not less than 1:100 (1/8 in = 1 ft). Show all rooms, doors, corridors, basic

column grid, assumed column sizes, expansion and seismic joint locations, electrical closets and equipment rooms, signal and telephone closets, mechanical shafts and space, and all vertical circulation, e.g., stairs, conveyors, and elevators, and automatic conveyances.

- Preliminary building sections will be shown, as needed, to define building configuration, area and volume. All floor to floor heights will be indicated. Draw typical wall sections showing proposed building systems and materials to support estimating.
- Space Project Accounting Summary will be submitted, tabulating Project net areas, design net areas, and building gross areas for all structures. A note will be included on the drawing if the building is fully sprinklered.
- Preliminary elevations of all facades showing massing, proposed fenestration, the relationship of the building to adjacent structures and the finish grade. The elevations will show all significant building materials, any proposed roof top mechanical equipment and architectural screens, indicating all vertical dimensions.
- Written descriptions and elevations will be submitted for each side of all buildings in sufficient detail for the exterior design estimate.
- Provide outline specification indicating all materials anticipated to be used for the building and defining the quality and equipment associated with each building trade to support the cost estimate.
- Finishes: a written narrative will be submitted of the interior design scheme and proposed finishes that builds on the previous submission. Provide a sample board to illustrate the concept.
- Furnishings: a floor plan will be submitted indicating furniture placement with specific type of furniture selections.

Heating, Ventilation and Air-Conditioning–FDOT will coordinate with station engineers to ensure that floor plans will accurately depict the locations of mechanical equipment rooms and utility closets.

Electrical–FDOT will coordinate with station engineers to ensure that floor plans will accurately depict the locations of electrical equipment rooms and utility closets.

Security–In collaboration with the Transportation Security Administration (TSA) and local emergency responders, and based on international and domestic standards and practices, FDOT will develop a security and emergency response plan for the HSR system and for each station.

Task 3.8(b): 30% Preliminary Engineering (Station Civil Site Plans)
FDOT will prepare 30% preliminary engineering civil site plans, showing the station area improvements and modifications to existing surface and subsurface infrastructure features including track layouts within the station limits. The plans will reflect the impact of the station and station site development (parking lots and intermodal transfer facilities), drainage patterns, underground utilities, and existing surface features such as structures, fences, sidewalks, curbs, gutters, signage, and roadways. The layout for the parking lot and kiss-and-ride facilities will be established as part of this effort.

Task 3.9(b): 30% Preliminary Engineering (Station Area Roadway Plans)

FDOT will prepare pare 30% preliminary engineering documents for each intersection, roadway modification, dedicated turn lane, and access road identified for improvement. The preliminary engineering documents will consist of plans showing horizontal and vertical alignment, pavement marking, signing, signalization, and MOT during construction of the HSR Project. Identify advance signage to the facilities in surrounding area road network. Coordinate preliminary engineering design with local agencies to comply with local agency standards and policies. Provide in these documents the basic information for the preliminary civil works design.

Task 3.10(b): Station Area Traffic Analysis

For each station, FDOT will perform an analysis of the morning, evening, and midday traffic that will be generated by HSR. Utilize the two ridership studies provided in FDOT's HSIPR application coupled with Institute of Transportation Engineers (ITE) trip generation rates to develop the traffic design. Determine the appropriate road network that will be influenced by the station traffic and utilize existing data for that network, where available, and supplement with new data so that any impacts can be determined and solutions developed. By using the data developed, generate parking requirements and evaluate on-site traffic flow for both vehicular and pedestrian traffic. Coordinate with FDOT District and local government traffic staff.

Task 3, Category (c): Maintenance Facility

The proposed maintenance facility to be built as part of the HSR Project will sit on 92-acres. This maintenance facility will also be used as the north end facility for Phase II of the Florida HSR Program from Orlando to Miami. It is anticipated a second maintenance facility will also be required in South Florida for Phase II of the Florida HSR Program from Orlando to Miami, but that project is not included in this scope.

The 30% preliminary engineering documents will include the site layout, parking, drainage, utilities, and roadway access, to a sufficient level of detail to prepare a final revised 30% cost estimate. Concepts for maintenance features and equipment will be identified to determine an overall layout of the maintenance site, space requirements, and required utility connections and service.

Task 3.11(c) Schematic Design (Track Configuration)

FDOT will prepare a schematic track layout configuration indicating locations and lengths of trackage including sizing of special trackwork, at-grade crossings, structures, and other critical elements. The facility layout will follow the operational concepts developed for the Phases I and II of the Florida HSR Program (Tampa–Orlando and Orlando–Miami, respectively). For this effort, the layout will be dimensioned to a sufficient level of detail to support a final revised 30% cost estimate.

Task 3.12(c) 30% Preliminary Engineering (Trackwork, Maintenance Facility, Site-Civil)

FDOT will prepare 30% preliminary engineering documents for special trackwork within the storage yard and maintenance facility. The design for the storage yard will include track capacity to accommodate the trainsets required for the HSR Project with future expansion for up to 25 trainsets of seven cars each for the Phase II HSR Project.

A preliminary inventory of the elements to be included in the maintenance facility is as follows:

- O&M Company building (management and administration);
- Operation Control Center (OCC) building for the HSR Project (future use for Phase II);
- Main workshop for rolling stock maintenance (including train inspections, repairs, overhaul and refurbishment);
- Infrastructure workshop for non-rolling stock maintenance system-wide;
- Train stabling tracks for daily cleaning and inspection;
- Train crew and car cleaners' facility;
- Train washing plant for automatic washing of trains;
- Wheel re-profiling plant; and
- Electric traction substation for Phase I mainline, maintenance facilities and buildings.
- Test track, OCS training area, Hazardous materials storage area, water supply facility, water treatment plant, waste material pick-up shelter, guard house(s) located at each manned entry/exit point.

Task 4: Survey and ROW Acquisition (Project RW1)

FDOT will perform aerial mapping and ground control survey to provide critical horizontal and vertical controls along the HSR Project alignment for both the preliminary engineering and ROW acquisition of the remaining parcels not already in the public domain. This task includes work necessary to support the survey and acquisition of all potential parcels along the HSR Project corridor. The acquisition of the identified parcels is anticipated to be performed in SOW #2 under Project RW2.

Task 4.1: Survey

This task includes the following activities:

- Performance of parcel surveys and ties to alignment survey for all parcels to be acquired.
- Preparation of ROW maps and all documents for the acquisition of all parcels.
- Coordination with appraisal staff on cost to cure solutions.
- Surveys required to determine limits of highway widenings necessary to provide adequate width between the highway and the HSR corridor.
- Performance of specific requests for additional survey as required by design staff to supplement the initial control survey and aerial mapping.

Task 4.2: ROW Estimates

This task includes the preparation of preliminary ROW requirements for initial "cost to acquire" estimates. This includes coordination with appraisal staff on total take parcels, alternate parcels, and potential mitigation of impacts/cost to cure solutions.

Task 5: Prepare Procurement Documents for the Early Works Projects

FDOT will develop design–build contract documents (except as otherwise noted) for Early Works Projects that will reconstruct or relocate potential obstacles or constraints along HSR Project for the construction of the HSR Project under a stand-alone DBOM&F contract.

The Early Works Projects will have the following overall objectives:

- Clear the I–4 corridor from existing features such as signage structures and ITS elements.

- Open the corridor for appropriate clearances that are required for train geometry currently and with future anticipated highway modifications.
- Remove unsuitable materials and replace with good subbase at the proposed maintenance facility site
- Identify any unforeseen conditions that may exist in these relatively small contracts.
- Create needed jobs soon using contractor labor forces without specialty HSR skill requirements.

The activities in task 5 will provide FDOT and FRA with procurement and preliminary engineering documents for the preparation and advertisement of an RFP for each Early Works Project; and upon completion of the activities in this SOW, subsequent issuance of contracts for the Early Works Projects.

~~Task 5.1: Design Manual for Barrier Safety~~

Task 5.2: Preliminary Engineering for Early Works Projects

FDOT will use a Best Value design–build procurement process (except for the maintenance facility contract which will be design–bid–build) for the Early Works Projects. Concurrent with preliminary engineering work in task 3, FDOT will advance the design documents for the Early Works Projects to progress documents for FRA review and approval, then to approximately 50-60% preliminary design documents, and then to issue with the RFP prepared under task 5.3. The RFP will be issued as part of this SOW, but FDOT will not enter into a contract for the design–build or design–bid–build Early Works Projects until authorized by FRA in SOW#2.

Scope of work by discipline follows:

Task 5.2.1: Geotechnical

The geotechnical investigation for support of the Early Works Projects (concurrent with preliminary engineering work) is included in the overall geotechnical data collection project in task 3.1.5(a). The boring/sounding and laboratory testing information will be analyzed to develop recommendations for proposed safety barrier foundation design and construction and pipe installation.

Task 5.2.2: Civil/Alignment

Based on survey controls being developed in Task 3, a layout of the HSR Project corridor with vertical and horizontal controls will be developed. Plans will be produced at appropriate scale for the length of the I–4 section that will be included in this work.

FDOT will prepare cross sections to identify the different conditions along the alignment (4–5 conditions are anticipated) with stationing in which each will be used.

Task 5.2.3: Drainage and Permitting

FDOT will perform a drainage analysis in parallel with the preliminary engineering work to address the two prevalent conditions for the Early Works Projects—areas where the I–4 median is constrained, and areas where the median is wider and the drainage can be addressed as part of the HSR construction. For the tight sections, drainage solutions may include the installation of a

trunk line along I–4. Permitting will be advanced through an early meeting with FDEP to present the scope and objectives of the Early Works Projects. Other appropriate agencies such as water management districts will be contacted as necessary.

Task 5.2.4: Structures
FDOT will prepare typical details for each cross section condition as described in the civil scope above. Plans, contract duration, special provisions, pay items, and a cost estimate will be prepared along with boilerplate bid documents.

Task 5.3: Preparation of Procurement Documents for the Early Works Projects
FDOT will prepare procurement documents and an RFP for a design–build contract for the Early Works Projects, except for the design–bid–build maintenance facility contract which will be let for bidding with full design complete. As a supporting process to this task, FDOT will post a request for Letters of Interest (LOIs) for the design–build Early Works Projects for short-listing proposers to receive the RFP. FDOT will also post a request for LOIs to obtain a Construction Engineering and Inspection (CEI) firm to oversee construction activities of the Early Works contracts.

PROJECT SCHEDULE

Schedule of Work:
The period of performance for the above work will be 22 months, beginning May 15, 2010, and ending March 31, 2012.

PERFORMANCE OBJECTIVES AND DELIVERABLES

FDOT will provide FRA for its review and approval a projected schedule to achieve the deliverables and performance objectives addressed in this SOW. FDOT will achieve these performance objectives in order to be eligible for reimbursement, and for the HSR Project to be considered complete.

A schedule is included with this agreement for the five key milestone objectives listed below:

Milestones

Milestone 1: Draft Revised Project Planning Documentation

d. Draft revised Project Management Plan (PMP).
e. Draft revised Service Development Plan (SDP).
f. Draft revised cost estimate.

Milestone 2: Preparation of Project Procurement Documents

c. Draft Request for Proposals (RFP) and Progress Submission for the initial Early Works Project.
d. Draft Request for Qualification (RFQ) for the DBOM&F contract for the HSR Project.

Milestone 3: Public Procurement for Project Contract Activities

c. Completion and submittal of preliminary engineering design documents to FRA for review and approval, and subsequent issuance of an RFP for the initial Early Works Project.
d. Issuance of an RFQ for the DBOM&F contract for the HSR Project.

Milestone 4: Completion of Preparation of Project Planning Documents

f. Final revised PMP.
g. Final revised SDP.
h. Final revised cost estimate.
i. 30% preliminary engineering design for the DBOM&F contract for the HSR Project.
j. RFP document for the DBOM&F contract for the HSR Project.

(Upon FRA review and approval of the above final revised documents, FRA will provide FDOT with guidance for the continuation of work relating to the issuance of the RFP for the remaining Early Works Projects in Milestone 5 of this SOW, and follow-on activities in SOW #2.)

Milestone 5: Completion of Project Development Activities

c. Completion and submittal of preliminary engineering documents to FRA for review and approval, and subsequently issue an RFP for all remaining Early Works Projects.
d. Issuance of RFP for the remaining Early Works Projects in this SOW.

Deliverables

The following deliverables must be accomplished in order to achieve the above listed milestones:

Task 1: Project Development Deliverables (Draft, Milestone 1; Final, Milestone 4)

1.1.1 Documents Control system – access to documents warehouse
1.1.3 Detailed HSR Project Work Plan and Primavera schedule
1.1.4 Detailed HSR Project budget
1.1.5 Draft revised PMP prepared for the HSR Project
1.1.5 Final revised PMP prepared for the HSR Project
1.1.6 Quality Control Plan (can be included in revised PMP)
1.1.7 Risk Management Plan (can be included in revised PMP)
1.1.8 Safety and Security Plan (can be included in revised PMP)
1.2 Draft revised SDP
("Investment Grade" ridership and operations analysis not required in draft)
1.2 Final revised SDP
(Including preparation of an "Investment Grade" ridership and operations analysis)
1.3 Communications and Outreach Project

Task 2: Preparation of Draft Documents for the DBOM&F contract Deliverables
(Draft, Milestone 2; Final, Milestone 3)

2.1 Draft RFQ/RFP document
2.2 Design Criteria and Specifications
2.3 Draft Safety Criteria and Specifications for Florida HSR – FRA Regulatory Approval

Task 3: Preliminary Engineering and Revised Cost Estimate Deliverables
(Draft, Milestone 1; Final, Milestone 4)

- Draft revised cost estimate prepared based on progress prints
- Final revised 30% engineering cost estimate prepared based on 30% preliminary engineering
- Preliminary engineering progress prints prepared for all activities
- Final revised 30% preliminary engineering documents prepared for all activities

Task 3: Specific Deliverables

Task 3.1(a): Mainline Infrastructure (Geotechnical)

3.1.3(a) Conceptual Stormwater Management Permit
3.1.4(a) Design and cost estimates
3.1.5(a) Summary Geotechnical Report
3.1.6.1(a) Contamination Screening Evaluation Report (CSER) – Level 1 Update
3.1.6.2(a) Contamination Impact Assessment Report – Level 2

Task 3.2(a): Mainline Infrastructure (Rail/Highway Geometry Track and Catenary Foundation Layout) 30% preliminary engineering

Task 3.3(a): Mainline Infrastructure (Bridges and Structures)
–Preliminary Engineering design criteria, specifications and concepts

3.3.1(a)	Design Criteria and Specifications (see also task 2.2)
3.3.2(a)	Bridge Concept Designs
3.3.3(a)	Bridge Concept Plans and Report
3.3.4(a)	Retaining Wall Report
3.3.5(a)	Existing Structure Database

Task 3.4(a): Mainline Infrastructure (Drainage and Permitting)

3.4.3(a)	Existing Conditions Drainage Map
3.4.4(a)	Stormwater Management Design Report
3.4.5(a)	Track Geometry Documentation Report.
3.4.6(a)	ERP Application Report
3.4.6(a)	Stormwater Management Design Calculations and Environmental Consideration Report

Task 3(b): Stations

3.7(b)	Schematic Design of Stations
3.7(b)	Architectural Renderings of Stations
3.7(b)	Space Project Accounting Summary
3.8(b)	Station Area Civil Site plans
3.9(b)	Station Area Roadway plans
3.10(b)	Station Area Traffic analysis

Task 3(c): Maintenance Facility

3.11(c)	Maintenance Facility Schematic Track Layout
3.12(c)	Maintenance Facility 30% preliminary engineering

Task 4: Survey and ROW Acquisition Preparation Deliverables (Project RW1)

4.1	Aerial mapping and ground survey controls for entire Tampa–Orlando corridor
4.1	Survey and ROW tasks completed for all activities defined in task 4
4.2	ROW maps and documents prepared for acquisition of all parcels
4.2	Parcels identified for acquisition in SOW #2

Task 5: Prepare Procurement Documents for the Early Works Projects
Deliverables
(Draft, Milestone 2; Final, Milestone 3)

~~5.1~~	~~Early Works Design Manual~~
5.2	Progress Submission
5.2	50-60%preliminary engineering documents
5.3	RFP Contract documents for Early Works Projects

PROJECT ESTIMATE/BUDGET

The total estimated cost of this Project is $39,978,000 for which FRA grant will contribute 100.0000% of the total cost, but no more than $39,978,000.

Task 1: Project Development	$ 4.86 million
Task 2: Preparation of Procurement for the DBOM&F contract	$ 5.17
Task 3: Preliminary Engineering and revised Cost Estimate	$14.92
Geotechnical Explorations	$ 7.00
Task 4: Survey and ROW Acquisition	$ 2.49
Task 5: Prepare Procurement Documents for the Early Works Projects	$ 5.04
Project Subtotal:	**$39.48**
Project Contingency:	$ .50
Project Total:	**$39.98 million** (note: this table rounded)

Florida HSR–Phase I Tampa–Orlando (FRA Grant)	
FRA (100.0000% of Project cost):	$39,978,000
Grantee Contribution (0.0000% of Project cost):	$ 0
Total Project Cost:	**$39,978,000**

PROJECT COORDINATION
The HSR Project will be administered by the FRE of FDOT. All funds provided in the agreement accompanying this SOW will be for exclusive use in the implementation of the HSR Project. An HSR Project organization chart is included in the PMP provided by FDOT in the supporting documents to this SOW.

PROJECT MANAGEMENT
A draft PMP is included with the supporting documents to this SOW, and will be revised in Task 1 of this SOW.

12. A new Attachment 3A, Statement of Work #2, Florida High-Speed Rail – Phase I, Tampa-Orlando HSR Project, and a new Attachment 3B, Statement of Work #3, Florida High-Speed Rail – Phase I, Tampa-Orlando HSR Project, are added to this Agreement and made a part hereof as a Supplemental Statements of Work as follows:

ATTACHMENT 3A

STATEMENT OF WORK #2
(December 2010)

FLORIDA HIGH-SPEED RAIL–PHASE I
TAMPA–ORLANDO HSR PROJECT

The activities in this SOW are restricted to advancement only upon completion of the prerequisite program development activities in SOW #1, resulting in the advertisement of the

Request for Proposal for a P3 concessionaire for a DBOM&F contract for the HSR Project, and written authorization from FRA to proceed.

BACKGROUND

A detailed background description of the development of the Tampa–Orlando High-Speed Rail Project (the HSR Project) is included in statement of work (SOW) #1 (Attachment 3) accompanying the Agreement between the Federal Railroad Administration (FRA) and the Florida Department of Transportation (FDOT or the Grantee).

The initial SOW (SOW #1) provides for the advancement of project development and administration (PD&A) activities to be undertaken by FDOT to implement the HSR Project. This SOW (SOW #2) provides for the completion of civil construction projects to remediate any obstacles or constraints along the Interstate 4 (I–4) corridor, and complete right-of-way (ROW) acquisition to prepare for the construction of the HSR Project. Additionally, this SOW continues the PD&A activities from SOW #1 to allow FDOT to advance the HSR Project through the selection of a Public Private Partnership (P3) concessionaire to undertake a Design, Build, Operate, Maintain, and Finance (DBOM&F) contract for the HSR Project in SOW #3.

As discussed above, there are two additional SOWs accompanying the Agreement to complete the construction of the HSR Project through a DBOM&F contract, structured as follows:

American Recovery and Reinvestment Act of 2009 (ARRA) Federal Funding:	
Attachment 3: SOW #1 - PD&A:	$ 39.98 million
Attachment 3A: SOW #2 - Early Works, PD&A, and ROW Acquisition:	$ 472.26
Attachment 3B: SOW #3 - DBOM&F Contract:	$1,080.07
Total ARRA Funding:	**$1.592 billion**

FRA has also selected FDOT for an additional award of funds derived from FY 2010 appropriations, and it is FRA's intention to obligate these funds to the Grantee through a separate agreement, subject to the negotiation and execution of such agreement. The FY 2010 funds consist of:

FY 2010 High-Speed Intercity Passenger Rail (HSIPR) Service Development Project:		
SOW #4	DBOM&F Contract Extension: (80% FRA)	$800 million
	State Matching Funds: (20% Match)	$200 (+)
Total FY10 HSIPR Funding:		**$1 billion** (+)

Total Funding Available for the HSR Project: $2.592 billion (+)

Note: (+) FDOT has committed up to $280 million for this HSR Project, of which $200 million is designated as the required match to the FY 2010 HSIPR funding.

GENERAL OBJECTIVE

The main effort in this SOW is the completion of seven Early Works Projects to remediate any obstacles or constraints along the Interstate 4 (I–4) corridor to prepare for the construction of the HSR Project in the DBOM&F contract in follow-on SOWs. The seventh Early Works Project provides for the procurement of a Construction Engineering and Inspection (CEI) services contract for the management and oversight of the six Early Works construction projects. FDOT's goal with the Early Works Projects is for completion in advance of the construction phase of the HSR Project in the DBOM&F contract. The seven Early Works Projects are listed below.

Early Works:

Project EW1: I-4 Median Preparation Project
Project EW2: SR 559 Interchange Project
Project EW3: CR 557 Interchange Project
Project EW4: Florida HSR Maintenance Facility Site Preparation
Project EW5: Westbound I-4 Realignment between SR 417 and Osceola Parkway
Project EW6: Potential Early Works Project(s)
Project EW7: Construction Engineering and Inspection Contract

At the HSR Project level, this SOW includes the continuation of ROW acquisition and PD&A activities from SOW #1. The PD&A activities in this SOW will advance FDOT through the selection of a P3 concessionaire for a DBOM&F contract to complete the HSR Project.

HSR Project Development:

Project RW2: Right-of-Way Acquisition
Project PD&A: HSR Project Development and Administration

Early Works Project Delivery Approach:

FDOT plans to administer five of the six Early Works Projects through the design-build contract method based upon the Request for Proposals (RFP), design and procurement documents prepared and advertised in SOW #1. The design-build approach will enable FDOT to reduce the time required to construct each Early Works Project, and will also reduce the level of design review that is generally required under a traditional design-bid-build approach. For this reason, each of the Early Works Projects will be advanced to 50-60% preliminary engineering through SOW #1 to accommodate for the limited iterative design review and to reduce the risks of unforeseen impacts to the project cost and schedule. For Project EW4, FDOT will advance the engineering through final design (100%) in SOW #1 to complete the project in this SOW through the use of the design-bid-build contract method to proceed directly into construction.

Tasks:

Early Works

To model the design–build process, this SOW will advance the Early Works Projects through the following tasks:

Early Works Projects EW1-EW6
Task 1–Procurement and Contract Award
Task 2–Final Design Documents and Review (see note)
Task 3–Design-Build Construction
Task 4–Project Administration
Note: this task does not apply to Project EW4 due to the use of the design-bid-build contract method.

Early Works Project EW7
Task 1–Procurement and Contract Award;
Task 2–Performance of CEI Services for Project EW1-EW6

ROW Acquisition and PD&A
Because of the more administrative nature of Projects RW2, and PD&A, these projects are planned to advance with the following task structures:

Project RW2:
Task 1–Survey
Task 2–ROW Acquisition

Project PD&A:
Task 1–Project Controls
Task 2–DBOM&F Contract Procurement Activities
Task 3–Development of DBOM&F Contract Progress and Monitoring Program

Milestones:

Fundamentally, the milestones and submilestones represent the completion of significant achievements and the advancement into distinct phases within each project. The six Early Works Projects include separate milestones (milestones 1-6), with submilestones (a-d) that correspond with the completion of the tasks within that project, including:

Milestones 1-6: Early Works Projects EW1-EW6
Submilestone (a): Procurement and Contract Award
Submilestone (b): Design Completion (see note)
Submilestone (c): Construction Completion
Submilestone (d): Final Certification

Note: this submilestone does not apply to Project EW4 due to the use of the design-bid-build contract method.

Because of the more administrative nature of Projects EW7, RW2, and PD&A, these three projects are planned to advance with the following submilestone structures (for Milestones 7-9):

Milestone 7: Complete CEI oversight of Projects EW1-EW6
Submilestone (a): Procurement and Contract Award
Submilestone (b): Completion of construction for Projects EW1-EW6
Submilestone (c): Final Certification of construction of Projects EW1-EW6

Milestone 8: Complete Project RW2 – ROW Acquisition
Submilestone (a): Initiate the legal process to acquire identified parcels
Submilestone (b): Complete ROW Acquisition

Milestone 9: Complete HSR Project PD&A
Submilestone (a): Complete Procurement for the DBOM&F Contract
Submilestone (b): Develop Draft DBOM&F
Contract Monitoring and Inspection Program

The deliverables required for each project to achieve each milestone are defined in the Individual Project Description section and Appendix B of this SOW and are illustrated in the project schedule included in the supporting documents to this SOW.

Special Conditions

Attachment 1A to the Agreement accompanying this SOW includes special conditions restricting the advancement of specific activities in the projects within FDOT's HSR Program subject to the completion of prerequisite deliverables. Each of the special conditions in Attachment 1A applies to all SOWs in FDOT's HSR Project; however, certain special conditions will be released by project or subproject as the Grantee completes prerequisite deliverables through the preceding tasks, authorizing advancement of the restriction in the respective project. The special conditions are included in Attachment 1A to the Agreement, and summarized within the applicable tasks in the Individual Project Descriptions section of this SOW.

FRA recognizes the benefits that implementation of the Early Works Projects and early ROW acquisitions in this SOW can have on HSR Project implementation, and as such is willing to consider authorization of the advancement of these activities as identified and described in this SOW following completion of the prerequisite deliverables in Milestones 1 through 4 in SOW #1. The risks associated with the implementation of the Early Works Projects and ROW acquisition in advance of execution of the DBOM&F contract with a selected concessionaire must be balanced with the possible benefits to the HSR Project schedule and budget. FRA will continue to work closely with FDOT as it carries out the preliminary tasks for the Early Works Projects and ROW acquisition activities in SOW #1 through Milestone 4, leading to a decision point as to whether to proceed with the activities in this SOW. Upon completion of the prerequisite deliverables in Milestones 1 through 4 in SOW #1, resulting in the advertisement of the RFP for the DBOM&F contract, FRA will provide FDOT with an assessment of the HSR Project plan, and issue additional guidance for FDOT to enter into a contract for the Early Works Projects (individually), and to proceed with ROW acquisition activities in this SOW.

INDIVIDUAL PROJECT DESCRIPTIONS

This section provides a detailed description of each of the nine projects in this SOW, including seven Early Works Projects, ROW Acquisition, and PD&A activities. Each project is divided into subtasks or subprojects to correspond with FDOT's management approach for that project.

Project EW1: I–4 Median Preparation

Project EW1: Project Description

This project will prepare the I–4 median for the construction of the HSR Project through the removal of conflicting highway signage and Intelligent Transportation System (ITS) infrastructure. Also included are modifications to the existing Interstate roadway alignment required to accommodate the geometry of the HSR Project. All work will be performed within the existing ROW. Environmental resource permits will be obtained by FDOT from the Florida Department of Environmental Protection (FDEP) through coordination with the Southwest Florida and South Florida Water Management Districts, which encompass the project area. The work effort in Project EW1 includes the following subprojects:

Subproject EW1.1: Minor I–4 Widening
FDOT has been working closely with the Federal Highway Administration and reviewing its own design criteria to determine which existing locations along the I–4 corridor will require additional shoulder width to provide safer highway travel conditions once the HSR Project is implemented. In preparation for this project, FDOT will perform a noise analysis to determine the impacts to the project area. If significant noise impacts are identified, this project includes a provision for the construction of noise walls in Subproject EW1.6. The design-build project will include widening in 12 locations, including the removal and reconstruction of inside and outside shoulders, removal of unsuitable soils, installation of guardrail, milling and overlay of the entire travel way, and new pavement marking. Extensive traffic control will be required and is included in this subproject.

Subproject EW1.2: ITS Infrastructure Relocation and Replacement
FDOT has a robust ITS installation along the I–4 corridor that is used to monitor traffic, control safety and security, and provide timely information to the highway users. The core infrastructure elements of the ITS are located in the median of I–4 and are in conflict with the HSR Project alignment. This subproject consists of the relocation and replacement of ITS infrastructure, including Closed Circuit TV, Dynamic Message Signage, vehicle detection systems, traffic count stations, support structures and electrical power service. This work will be performed while maintaining existing operational functionality.

Subproject EW1.3: Signage Relocation and Replacement
There are a number of existing signage assemblies along the I–4 corridor, including overhead support structures, located in the median of I–4 that are in the HSR Project alignment. This subproject consists of either the relocation of or removal/replacement of the existing signage and/or support structures into an appropriate location to avoid the HSR Project alignment, while continuing to provide adequate signage for the highway users.

Subproject EW1.4: Lighting Relocation and Replacement

There are a number of existing roadway and high mast lights along the I–4 corridor that have support structures which are located in the HSR Project alignment. This subproject consists of either the relocation or removal/replacement of these existing lighting structures into an appropriate location to avoid the HSR Project alignment while continuing to provide adequate illumination for the highway users.

Subproject EW1.5: Drainage Work
I–4 drainage work will include removal and/or reconstruction of existing drainage, lateral ditches and shoulder gutter associated with the geometric changes included in Subproject EW1.1.

Subproject EW1.6: Noise Wall Construction
If required, pending completion of noise analysis at the twelve I–4 widening locations in Subproject EW1.1, the Grantee will prepare designs for and construct noise walls to mitigate excessive noise impact locations in the project area.

A reserve of $225,000 has been included in the cost estimate for this subproject.

Subproject EW1.7: Florida Highway Patrol
It is normal practice for the Florida Highway Patrol (FHP) to assist FDOT as part of the traffic control process during construction of projects along the Interstate. This subproject will address this support work required by FHP, which will be defined in the Project Management Plan (PMP) supplement prepared in Task 4.

Subproject EW1.8: Wetland Mitigation
For projects which affect existing wetland, a process for mitigating the affected wetland was identified in the Final Environmental Impact Statement (FEIS) and reevaluation. There are minor wetland impacts for Project EW1, which will be mitigated as part of this subproject.

As a prerequisite to commencing work in this project in this SOW, FDOT will provide three deliverables through work performed in Task 5 of SOW #1, including: (1) initial progress submission (preliminary engineering design) documents; (2) 50-60% preliminary engineering design documents in SOW #1 for inclusion as part of the RFP for this project; and (3) completion and issuance of an RFP for this project. The 50-60% preliminary engineering documents issued with the RFP will be the basis for the scope, design, schedule, and budget for the design–build of this project in this SOW.

Project EW1: Task List

This project will be completed through four independent tasks, as defined below:

Project EW1: Task 1— Procurement and Contract Award
FDOT will advance a procurement process to select a design–build firm to perform final design and construction of Project EW1 under a single contract. The procurement process will be administered by FDOT through District One. The planned procurement will use FDOT's design–build adjusted score delivery process and will include a shortlist, technical proposal, and scoring of the technical proposal prior to opening of the price bids. The lowest adjusted score

will be selected as the Best Value to the public. This task includes the work associated with supporting the Procurement and Contract Award.

Project EW1: Task 2 – Final Design Documents and Review

The Grantee may proceed with Task 2 upon the completion of prerequisite deliverables in SOW #1, the activities outlined in Task 1 of this Project, and FRA release of the applicable special conditions in Attachment 1A to the Agreement accompanying this SOW. Specifically, the Grantee must complete the following prerequisites prior to proceeding with this task: preliminary engineering, environmental review, a PMP supplement, and a refined scope, schedule, and budget upon selection of a design–build firm for this project in Task 1. This task includes the advancement of final design by FDOT through a design–build firm, as defined below.

Subtask 2.1: Final Design Documents

FDOT (through the design–build firm) will be responsible for the preparation of final design documents for this project. The final design may be prepared collectively or independently for any element or collection of elements in this project or the subprojects. As necessary, FDOT may require the design–build firm to prepare interim design submissions prior to the preparation of final design documents.

Subtask 2.2: Design Review

This task consists of the performance of design reviews and responses to requests for design clarifications until the designs are complete and approved for construction.

Project EW1: Task 3 –Design–Build Construction

The Grantee may proceed with Task 3 upon FRA release of the applicable special conditions in Attachment 1A to the Agreement accompanying this SOW. Specifically, the Grantee must complete the following prerequisites prior to proceeding with this task: final design for this project or subproject and, as necessary, a refined scope, schedule, and budget based on the completion of Task 2. This task includes the advancement of construction of the design–build contract(s) in each of the following subproject areas, as previously described:

Subproject EW1.1: Minor I-4 Widening
Subproject EW1.2: ITS Infrastructure Relocation and Replacement
Subproject EW1.3: Overhead Signage Relocation and Replacement
Subproject EW1.4: Lighting Relocation and Replacement
Subproject EW1.5: Drainage Work
Subproject EW1.6: Noise Walls (if necessary)

Project EW1: Task 4 – Project Administration

Upon selection of a design–build firm, the Grantee will prepare and maintain a PMP supplement, schedule and budget for this project. The schedule and budget will be updated monthly upon issuance of a Notice to Proceed (NTP) for this project for the first quarter and quarterly thereafter. The schedule and budget monitoring of Project EW1 will be included in the overall reporting to FRA as required in the Agreement, and will include incorporation of the Project EW1 schedule into the HSR Project schedule and budget. In addition, this task includes

requirements internal to FDOT for the administration of this project, including the provision of support by FHP and Wetland Mitigation through FDEP.

Subtask 4.1: Project Management Plan
Upon selection of a design–build firm, the Grantee will prepare and maintain a PMP supplement for this project, either as a stand-alone document or as a supplement to the higher level HSR Project – PMP prepared in SOW #1. This document will provide project-specific management requirements to supplement the HSR Project–PMP.

Subtask 4.2: Project Schedule
Upon selection of a design–build firm to perform this project, the Grantee will prepare and maintain an updated project schedule identifying all activities (tasks, Deliverables, Milestones, Permits, etc.) required through the completion and closeout of this project.

Subtask 4.3: Project Budget
Upon selection of a design–build firm to perform this project, the Grantee will prepare and maintain an updated project budget identifying all costs associated with this project.

Subtask 4.4: Project Support
This subtask includes requirements internal to FDOT for the administration of this project, including the provision of support by FHP and Wetland Mitigation through FDEP, as previously described in Subproject EW1.7. and Project EW1.8.

Project EW1: Cost Estimate

The table below summarizes the estimated cost of the project based on the preliminary engineering design, schedule, budget, and RFP prepared in SOW #1. FDOT will prepare a revised schedule and budget in Task 1 of this project prior to advancing with Tasks 2 and 3.

Project EW1: I-4 Median Preparation Project	
Task	**Cost Estimate**
Task 1 – Procurement and Award	**(FDOT Internal)**
Task 2 – Final Design Documents and Reviews	
Subtask 2.1: Final Design Documents by D-B team (7% construction)	$ 4,150,000
Subtask 2.2: Final Design Documents reviews HSR Project Manager (2%)	$ 1,187,000
Task 2 Subtotal	**$ 5,337,000**
Task 3— Design–Build Construction	
Subproject EW1.1: Minor I-4 Widening	$25,654,000
Subproject EW1.2: ITS Infrastructure Relocation and Replacement	$28,191,000
Subproject EW1.3: Overhead Signage Relocation and Replacement	$ 1,845,000
Subproject EW1.4: Lighting Relocation and Replacement	$ 2,312,000
Subproject EW1.5: Drainage Work	$ 1,098,000
Subproject EW1.6: Noise Wall Construction	$ 225,000
Subproject EW1.7: FHP (see note 1)	$ 500,000
Subproject EW1.8: Wetland Mitigation (see note 1)	$ 23,000
Task 3 Subtotal	**$59,848,000**

Task 4— Project Administration (Costs included in Task 3 and PD&A)	**$ 0**
Project Subtotal	$65,185,000
Contingency (10%)	**$ 6,518,500**
Project EW1 Total	**$71,703,500**

Note 1: This subproject will not be included in the design–build contract. The costs for this activity will be reported as part of Task 3 for this project, but administered through Task 4.

-- End of Project EW1 --

Project EW2: SR 559 Interchange

Project EW2: Project Description

The existing I-4 median width is insufficient to accommodate existing travel lanes and the HSR Project alignment within the vicinity of the SR 559 Interchange. FDOT has determined that it is advantageous to the HSR Project to replace the existing overhead bridge at SR 559, with a bridge that provides adequate vertical and horizontal clearance for the HSR Project to operate efficiently and safely. The replacement of this bridge requires interchange modifications and other related work described in the subprojects below. All work will be performed within the existing ROW. Environmental resource permits will be obtained by FDOT from the FDEP through coordination with the Southwest Florida and South Florida Water Management Districts, which encompass the project area. The work effort in Project EW2 includes the following subprojects:

Subproject EW2.1: Interchange Modifications
This project includes the realignment and reconstruction of approximately 1.7 miles of eastbound 4 to the east to align with the ultimate I-4 configuration. These modifications will necessitate the reconstruction of the four existing interchange ramps, signage, pavement markings, and SR 559 itself to approximately 0.25 miles north and 0.65 miles south of the Interstate. Extensive traffic control in this area will be required during construction and is included in this subproject.

Subproject EW2.2: SR 559 Bridge Replacement
This work involves the demolition of the existing SR 559 Bridge and the construction of a new three span AASHTO girder bridge with Mechanically Stabilized Earth (MSE) Wall retained bridge approaches. The total bridge length for the replacement bridge is approximately 333 feet in three spans: span 1 = 96 feet; span 2 = 141 feet; and span 3 = 96 feet. The bridge width is just under 105 feet. This will result in a revised vertical clearance from top of rail of 21.5 feet.

Subproject EW2.3: Drainage Work
I-4 drainage work will include construction of cross drains; modifications to existing concrete box culverts and a new cross drain under I-4; construction of inlets and storm sewer pipe; and the modification of four existing stormwater ponds along with the construction of a new 3.5 acre pond. The drainage construction for SR 559 will comprise of a curb and gutter storm drain system, inlets and storm sewer pipe, and a new 4.0-acre stormwater pond.

Subproject EW2.4: FHP

It is normal practice for FHP to assist FDOT as part of the traffic control process during construction of projects along the Interstate. This subproject will address this support work required by FHP, which will be defined in the PMP supplement prepared in Task 4.

Subproject EW2.5: Wetland and Wildlife Mitigation
For projects which impact existing wetland or wildlife (gopher tortoise relocation), a process for mitigating the impacted wetland or wildlife was identified in the FEIS. There are minor wetland and wildlife impacts for Project EW2 which will be mitigated as part of this subproject.

Subproject EW2.6: Utility Relocation (Compensable Interest)
As part of the Preliminary engineering work being performed by FDOT in SOW #1, utility conflicts are being identified, and will result in relocation where necessary to advance the HSR Project. This subproject consists of the relocation of such utilities.

A reserve of $3,500,000 has been included in the cost estimate for this subproject.

As a prerequisite to commencing work in this project in this SOW, FDOT will provide three deliverables through work performed in Task 5 of SOW #1, including: (1) initial progress submission (preliminary engineering design) documents; (2) 50-60% preliminary engineering design documents in SOW #1 for inclusion as part of the RFP for this project; and (3) completion and issuance of an RFP for this project. The 50- 60% preliminary engineering documents issued with the RFP will be the basis for the scope, design, schedule, and budget for the design–build of this project in this SOW.

Project EW2: Task List

This project will be completed through four independent tasks, as defined below:

Project EW2: Task 1—Procurement and Contract Award
FDOT will advance a procurement process to select a design–build firm to perform final design and construction of Project EW2 under a single contract. The procurement process will be administered by FDOT through District One. The planned procurement will be using FDOT's design–build adjusted score delivery process and will include a shortlist, technical proposal, and scoring of the technical proposal prior to opening price bids. The lowest adjusted score will be selected as the Best Value to the public. This task includes the work associated with supporting the Procurement and Contract Award.

Project EW2: Task 2—Final Design Documents and Review
The Grantee may proceed with Task 2 upon the completion of prerequisite deliverables in SOW #1, the activities outlined in Task 1 of this Project, and FRA release of the applicable special conditions in Attachment 1A to the Agreement accompanying this SOW. Specifically, the Grantee must complete the following prerequisites prior to proceeding with this task: preliminary engineering, environmental review, a PMP supplement, and a refined scope, schedule, and budget upon selection of a design–build firm for this project in Task 1. This task includes the advancement of final design by FDOT (through a design–build firm), as defined below.

Subtask 2.1: Final Design Documents

FDOT (through the design–build firm) will be responsible for the preparation of final design documents for this project. The final design may be prepared collectively or independently for any element or collection of elements in this project or the subprojects. As necessary, FDOT may require the design–build firm to prepare interim design submissions prior to the preparation of final design documents.

Subtask 2.2: Design Review

This task consists of the performance of design reviews and responses to requests for design clarifications until the designs are complete and approved for construction.

Project EW2: Task 3—Design–Build Construction

The Grantee may proceed with Task 3 upon FRA release of the applicable special conditions in Attachment 1A to the Agreement accompanying this SOW. Specifically, the Grantee must complete the following prerequisites prior to proceeding with this task: final design for this project or subproject and, as necessary, a refined scope, schedule, and budget based on the completion of Task 2. This task includes the advancement of construction of the design–build contract(s) in each of the following subproject areas, as previously described:

Subproject EW2.1: Interchange Modifications
Subproject EW2.2: SR 559 Bridge Replacement
Subproject EW2.3: Drainage Work
Subproject EW2.6: Utility Relocation (Compensable Interest)

Project EW2: Task 4—Project Administration

Upon selection of a design–build firm, the Grantee will prepare and maintain a PMP supplement, schedule and budget for this project. The schedule and budget will be updated monthly upon issuance of a NTP for this project for the first quarter and quarterly thereafter. The schedule and budget monitoring of Project EW2 will be included in the overall reporting to FRA as required in the Agreement, and will include incorporation of the Project EW2 schedule into the HSR Project schedule and budget. In addition, this task includes requirements internal to FDOT for the administration of this project, including the provision of support by FHP and Wetland and Wildlife Mitigation through FDEP.

Subtask 4.1: Project Management Plan

Upon selection of a design–build firm, the Grantee will prepare and maintain a PMP supplement for this project, either as a stand-alone document or as a supplement to the higher level HSR Project – PMP prepared in SOW #1. This document will provide project-specific management requirements to supplement to the HSR Project – PMP.

Subtask 4.2: Project Schedule

Upon selection of a design–build firm to perform this project, the Grantee will prepare and maintain an updated project schedule identifying all activities (tasks, deliverables, milestones, permits, etc.) required through the completion and close-out of this project.

Subtask 4.3: Project Budget
Upon selection of a design–build firm to perform this project, the Grantee will prepare and maintain an updated project budget identifying all costs associated with this project.

Subtask 4.4: Project Support
This subtask includes requirements internal to FDOT for the administration of this project, including the provision of support by FHP and Wetland and Wildlife Mitigation through FDEP, as previously described in Subproject EW2.4: and Project EW2.5.

Project EW2: Cost Estimate

The table below summarizes the estimated cost of the project based on the preliminary engineering design, schedule, budget, and RFP prepared in SOW #1. FDOT will prepare a revised schedule and budget in Task 1 of this project prior to advancing with Tasks 2 and 3.

Project EW2: SR 559 Interchange Project	
Task	**Cost Estimate**
Task 1 – Procurement and Award	**(FDOT Internal)**
Task 2 – Final Design Documents and Reviews	
Subtask 2.1: Final Design Documents by D-B team (7% construction)	$ 1,570,000
Subtask 2.2: Final Design Documents reviews HSR Project Manager (2%)	$ 449,000
Task 2 Subtotal	**$ 2,019,000**
Task 3— Design–Build Construction	
Subproject EW2.1: Interchange Modifications	$16,583,000
Subproject EW2.2: SR 559 Bridge Replacement	$ 4,030,000
Subproject EW2.3: Drainage Work	$ 1,813,000
Subproject EW2.4: FHP (see note 1)	$ 150,000
Subproject EW2.5: Wetland and Wildlife Mitigation (see note 1)	$ 76,000
Subproject EW2.6: Compensable Utility Relocation	$ 3,500,000
Task 3 Subtotal	**$26,152,000**
Task 4— Project Administration (Costs included in Task 3 and PD&A)	**$ 0**
Project Subtotal	**$28,171,000**
Contingency (10%)	**$ 2,817,100**
Project EW2 Total	**$30,988,100**

Note 1: This subproject will not be included in the design–build contract. The costs for this activity will be reported as part of Task 3 for this project, but administered through Task 4.

-- End of Project EW2 --

Project EW3: CR 557 Interchange

Project EW3: Project Description

The existing I–4 median width is insufficient to accommodate existing travel lanes and the HSR Project alignment within the vicinity of the CR 557 Interchange. FDOT has determined that it is advantageous to the HSR Project to replace the existing bridge at CR 557 with a bridge that provides adequate vertical and horizontal clearance for the HSR Project to operate efficiently. Replacement of this bridge requires interchange modifications and other related work described in the subprojects below. All work will be performed within the existing ROW. Environmental resource permits will be obtained by FDOT from the FDEP through coordination with the Southwest Florida and South Florida Water Management Districts, which encompass the project area. The work effort in Project EW3 includes the following subprojects:

Subproject EW3.1: Interchange Modifications
This project includes the widening of approximately 3.5 miles of eastbound and westbound I–4 travel lanes to accommodate the HSR Project alignment within the median. This widening includes the removal and reconstruction of inside and outside shoulders, milling and overlay of the entire travel way, and new pavement marking. Extensive traffic control will be required and is included in this subproject.

The mainline modifications can be accommodated utilizing the existing partial clover leaf configuration, however the ramps will require reconstruction to tie into the widened I-4 and the new profile adjusted CR 557. CR 557 will be reconstructed east of the existing alignment and will tie into the existing roadway approximately 0.5 miles north and south of the Interstate. The project also includes signage, pavement markings, and roadway lighting modifications at the rest areas.

Subproject EW3.2: CR 557 Bridge Replacement
This work involves the demolition of the existing CR 557 Bridge and the construction of a new two span AASHTO girder bridge with MSE Wall retained bridge approaches. The total bridge length for the replacement bridge is approximately 320 feet in two equal spans of 160 feet each. The bridge width is approximately 59 feet. This will result in a revised vertical clearance from top of rail of 23 feet.

Subproject EW3.3: Drainage Work
I-4 drainage work will include the construction of cross drains, replacement of existing concrete box culverts and existing cross drains, construction of inlets and storm sewer pipe, and the construction of six ponds: two stormwater ponds, 6.2 acres and 10.3 acres; and, four floodplain compensation sites: 5.3 acre, 3.7 acre, 4.1 acre and 4.2 acre are. The ponds are excavated approximately six feet and the floodplain sites are approximately 1 to 2 feet.

Subproject EW3.4: Florida Highway Patrol
It is normal practice forFHP to assist FDOT as part of the traffic control process during construction of projects along the Interstate. This subproject will address this support work required by FHP, which will be defined in the PMP supplement prepared in Task 4.

Subproject EW3.5: Wetland and Wildlife Mitigation

For projects which impact existing wetland or wildlife (gopher, tortoise relocation), a process for mitigating the impacted wetland or wildlife was identified in the FEIS. There are minor wetland and wildlife impacts for Project EW3 which will be mitigated as part of this subproject.

Subproject EW3.6: Utility Relocation (Compensable Interest)
As part of the Preliminary engineering work being performed by FDOT in SOW #1, utility conflicts are being identified, and will result in relocation where necessary to advance the HSR Project. This subproject consists of the relocation of such utilities.

A reserve of $2,000,000 has been included in the cost estimate for this subproject.

As a prerequisite to commencing work in this project in this SOW, FDOT will provide three deliverables through work performed in Task 5 of SOW #1, including: (1) initial progress submission (preliminary engineering design) documents; (2) 50- 60% preliminary engineering design documents in SOW #1for inclusion as part of the RFP for this project; and (3) completion and issuance of an RFP for this project. The 50-60% preliminary engineering documents issued with the RFP will be the basis for the scope, design, schedule, and budget for the design-build of this project in this SOW.

Project EW3: Task List

This project will be completed through four independent tasks, as defined below:

Project EW3: Task 1 – Procurement and Contract Award
FDOT will advance a procurement process to select a design-build firm to perform final design and construction of Project EW3 under a single contract. The procurement process will be administered by FDOT through District One. The planned procurement will be using FDOT's design-build adjusted score delivery process and will include a shortlist, technical proposal, and scoring of the technical proposal prior to opening price bids. The lowest adjusted score will be selected as the Best Value to the public. This task includes the work associated with supporting the Procurement and Contract Award.

Project EW3: Task 2 – Final Design Documents and Review
The Grantee may proceed with Task 2 upon the completion of prerequisite deliverables in SOW #1, the activities outlined in Task 1 of this Project, and FRA release of the applicable special conditions in Attachment 1A to the Agreement accompanying this SOW. Specifically, the Grantee must complete the following prerequisites prior to proceeding with this task: preliminary engineering, environmental review, a PMP supplement, and a refined scope, schedule, and budget upon selection of a design-build firm for this project in Task 1. This task includes the advancement of final design by FDOT (through a design-build firm), as defined below.

Subtask 2.1: Final Design Documents
FDOT (through the design-build firm) will be responsible for the preparation of final design documents for this project. The final design may be prepared collectively or independently for any element or collection of elements in this project or the subprojects. As necessary,

FDOT may require the design-build firm to prepare interim design submissions prior to the preparation of final design documents.

Subtask 2.2: Design Review
This task consists of the performance of design reviews and responses to requests for design clarifications until the designs are complete and approved for construction.

Project EW3: Task 3 – Design-Build Construction
The Grantee may proceed with Task 3 upon FRA release of the applicable special conditions in Attachment 1A to the Agreement accompanying this SOW. Specifically, the Grantee must complete the following prerequisites prior to proceeding with this task: final design for this project or subproject and, as necessary, a refined scope, schedule, and budget based on the completion of Task 2. This task includes the advancement of construction of the design–build contract(s) in each of the following subproject areas, as previously described:

Subproject EW3.1: Interchange Modifications
Subproject EW3.2: CR 557 Bridge Replacement
Subproject EW3.3: Drainage Work
Subproject EW3.6: Utility Relocation (Compensable Interest)

Project EW3: Task 4 – Project Administration
Upon selection of a design–build firm, the Grantee will prepare and maintain a PMP supplement, schedule and budget for this project. The schedule and budget will be updated monthly upon issuance of a NTP for this project for the first quarter and quarterly thereafter. The schedule and budget monitoring of Project EW3 will be included in the overall reporting to FRA as required in the Agreement, and will include incorporation of the Project EW3 schedule into the HSR Project schedule and budget. In addition, this task includes requirements internal to FDOT for the administration of this project, including the provision of support by FHP and Wetland and Wildlife Mitigation through FDEP.

Subtask 4.1: Project Management Plan
Upon selection of a design–build firm, the Grantee will prepare and maintain a PMP supplement for this project, either as a stand-alone document or as a supplement to the higher level HSR Project–PMP prepared in SOW #1. This document will provide project-specific management requirements to supplement to the HSR Project–PMP.

Subtask 4.2: Project Schedule
Upon selection of a design-build firm to perform this project, the Grantee will prepare and maintain an updated project schedule identifying all activities (tasks, deliverables, milestones, permits, etc.) required through the completion and closeout of this project.

Subtask 4.3: Project Budget
Upon selection of a contactor to perform this project, the Grantee will prepare and maintain an updated project budget identifying all costs associated with this project.

Subtask 4.4: Project Support

This sub-task includes requirements internal to FDOT for the administration of this project, including the provision of support by FHP and Wetland and Wildlife Mitigation through FDEP, as previously described in Subprojects EW3.4 and Project EW3.5.

Project EW3: Cost Estimate

The table below summarizes the estimated cost of the project based on the preliminary engineering design, schedule, budget, and RFP prepared in SOW #1. FDOT will prepare a revised schedule and budget in Task 1 of this project prior to advancing with Tasks 2 and 3.

Project EW3: CR 557 Interchange Project	
Task	**Cost Estimate**
Task 1 – Procurement and Award	**(FDOT Internal)**
Task 2 – Final Design Documents and Reviews	
Subtask 2.1: Final Design Documents by D-B team (7% construction)	$ 2,087,831
Subtask 2.2: Final Design Documents reviews HSR Project Manager (2%)	$ 596,523
Task 2 Subtotal	**$ 2,684,354**
Task 3 – Design-Build Construction	
Subproject EW3.1: Interchange Modifications	$25,281,102
Subproject EW3.2: CR 557 Bridge Replacement	$ 2,335,290
Subproject EW3.3: Drainage Work	$ 2,209,771
Subproject EW3.4: FHP (see note 1)	$ 150,000
Subproject EW3.5: Wetland and Wildlife Mitigation (see note 1)	$ 1,500,000
Subproject EW3.6: Compensable Utility Relocation	$ 2,000,000
Task 3 Subtotal	**$33,476,163**
Task 4 – Project Administration (Costs included in Task 3 and PD&A)	**$ 0**
Project Subtotal	**$36,160,517**
Contingency (10%)	**$ 3,616,052**
Project EW3 Total	**$39,776,569**

Note 1: This subproject will not be included in the design-build contract. The costs for this activity will be reported as part of Task 3 for this project, but administered through Task 4.

-- End of Project EW3 --

Project EW4: FLHSR Maintenance Facility Site Preparation

Project EW4: Project Description

The site for the maintenance and service support facility for the HSR Project is on property currently owned by the Airport. This property has been explored during the preliminary engineering phase, and some of the in situ materials discovered are unsuitable for construction and require replacement and backfill. Environmental resource permits will be obtained by FDOT from the FDEP through coordination with the South Florida Water Management District having jurisdiction in the project area. The work effort in Project EW4 includes the following subprojects:

Subproject EW4.1: Maintenance Facility Site Clearance and Backfill
This work consists of clearing, de-mucking, backfilling and surcharging settlement risk areas within the 92-acre site that will be used for the maintenance facility. The area will then be graded, sodded, and ready for development. Maintenance-of-Traffic (MOT)-related costs are included in this subproject.

Subproject EW4.2: Forcemain Relocation
This work consists of the relocation of an existing 24-inch City of Orlando sewer forcemain that currently bisects the maintenance facility site.

Subproject EW4.3: Wetland Mitigation

For projects that affect existing wetland, a process for mitigating the affected wetland was identified in the FEIS. There are minor wetland impacts for Project EW4 which will be mitigated as part of this subproject.

As a prerequisite to commencing work in this project in this SOW, FDOT will provide three deliverables through work performed in Task 5 of SOW #1, including: (1) initial progress submission (preliminary engineering design) documents; (2) 100% final design documents; and (3) issue of Invitation to Bid for a design-bid-build contract in SOW #1 for this project . The 100% final design documents will be the basis for the scope, design, schedule, and budget for the design-bid-build (construction) of this project in this SOW.

Project EW4: Task List

This project will be completed through four independent tasks, as defined below:

Project EW4: Task 1–Procurement and Contract Award
FDOT will advance a procurement process to select a general contractor to perform the construction of Project EW4 under a single contract. The procurement process will be administered by FDOT through District One. The planned procurement will use FDOT's design-bid-build process, soliciting bids from pre-qualified contractors to proceed directly into construction. The lowest bid will be selected. Upon selection of a general contractor, FDOT will prepare a revised schedule and budget for this project, as required in Task 4, prior to advancing with Tasks 2 and 3.

Project EW4: Task 2–Document Reviews
Upon selection of a general contractor to construct this project, FDOT will monitor the project through shop drawing, design revision and document reviews, and provide responses to requests for clarifications during construction, as required.

Project EW4: Task 3–Construction
The Grantee may proceed with Task 3 upon FRA release of the applicable special conditions in Attachment 1A to the Agreement accompanying this SOW. Specifically, the Grantee must complete the following prerequisites prior to proceeding with this task: final design for this project or subproject and, as necessary, a refined scope, schedule, and budget based on the completion of Task 1. This task includes the advancement of a design-bid-build contract(s) for the construction of each of the following subproject areas, as previously described:

Subproject EW4.1: Maintenance Facility Site Clearance and Backfill
Subproject EW4.2: Forcemain Relocation

Project EW4: Task 4–Project Administration
Upon selection of a general contractor, the Grantee will prepare and maintain a PMP supplement, schedule, and budget for this project. The schedule and budget will be updated monthly upon issuance of an NTP for this project for the first quarter and quarterly thereafter. The schedule and budget monitoring of Project EW4 will be included in the overall reporting to FRA as required in the Agreement and will include incorporation of the Project EW4 Schedule into the HSR Project schedule and budget. In addition, this task includes requirements internal to FDOT

for the administration of this project, including the provision of support by FHP and Wetland Mitigation through FDEP.

Subtask 4.1: Project Management Plan
Upon selection of a general contractor, the Grantee will prepare and maintain a PMP supplement for this project, either as a stand-alone document or as a supplement to the higher level HSR Project–PMP prepared in SOW #1. This document will provide project-specific management requirements to supplement the HSR Project–PMP.

Subtask 4.2: Project Schedule
Upon selection of a contactor to perform this project, the Grantee will prepare and maintain an updated project schedule identifying all activities (tasks, deliverables, milestones, permits, etc.) required through the completion and close-out of this project.

Subtask 4.3: Project Budget
Upon selection of a contactor to perform this project, the Grantee will prepare and maintain an updated project budget identifying all costs associated with this project.

Subtask 4.4: Project Support
This sub-task includes requirements internal to FDOT for the administration of this project, including the provision of support for Wetland Mitigation through FDEP, as previously described in Subproject EW4.3.

Project EW4: Cost Estimate

The table below summarizes the estimated cost of the project based on the preliminary engineering design, schedule, budget, and RFP prepared in SOW #1. FDOT will prepare a revised schedule and budget in Task 1 of this project prior to advancing with Tasks 2 and 3.

Project EW4: FLHSR Maintenance Facility Site Preparation Project	
Task	**Cost Estimate**
Task 1– – Procurement and Award	**(FDOT Internal)**
Task 2– – Document and Reviews	**$ 398,000**
Task 3— Design-Build Construction	
Subproject EW4.1: Site clearance and backfill	$18,920,000
Subproject EW4.2: Forcemain Relocation	$ 942,000
Subproject EW4.3: Wetland Mitigation (see note 1)	$ 5,000,000
Task 3 Subtotal	**$24,862,000**
Task 4— Project Administration (Costs included in Task 3 and PD&A)	**$ 0**
Project Subtotal	**$25,260,000**
Contingency (10%)	**$ 2,526,000**
Project EW4 Total	**$27,786,000**

Note 1: The Wetland Mitigation subprojects will not be included in the construction contract. The costs for this activity will be reported as part of Task 3 for this project but administered through Task 4.

-- End of Project EW4 --

Project EW5: Westbound I-4 Realignment between SR 417 and Osceola Parkway

Project EW5: Project Description

The work associated with this project will allow the HSR Project to be built within an envelope that will not require reconstruction or relocation when FDOT expands I–4 into its ultimate alignment in the future. All work associated with this project will be performed within the existing ROW. Environmental resource permits will be obtained by FDOT from the FDEP through coordination with the Southwest Florida and South Florida Water Management Districts, which encompass the project area. The work effort in Project EW5 includes the following subprojects:

Subproject EW5.1: Westbound I-4 Realignment
Work includes the realignment of approximately 1.7 miles of westbound I–4 from SR 417 to Osceola Parkway allowing for the HSR Project to be positioned on the ultimate I–4 centerline, including the associated signage, roadway lighting, and pavement marking. This subproject includes the permanent realignment of approximately 0.5 miles of the ramp and overhead bridge connecting eastbound HWY 192 to I–4 eastbound to facilitate MOT during the reconstruction of the bridge. In addition, three westbound braided ramps will be resurfaced and widened. Extensive traffic control is required and is included in this subproject.

Subproject EW5.2: Ramp Bridge Work
To allow for this I–4 realignment, the existing eastbound US 192 to eastbound I–4 entrance ramp bridge, over I–4, will be reconstructed. This ramp bridge will have two 12-foot wide lanes bordered by 10 foot shoulders on each side. In order to span the HSR Project and I–4, including future managed lanes, the bridge will be a two-span structure with two 200-foot long spans and the pier location at the I–4 centerline.

Subproject EW5.3: Drainage Work
I–4 drainage work will include the construction of cross drains, replacement of existing concrete box culverts and existing cross drains, construction of inlets and storm sewer pipe.

Subproject EW5.4: Florida Highway Patrol
It is normal practice for FHP to assist FDOT as part of the traffic control process during construction of projects along the Interstate. This subproject will address this support work required by FHP, which will be defined in the PMP supplement prepared in Task 4.

Subproject EW5.5: Wetland Mitigation
For projects which affect existing wetland, a process for mitigating the affected wetland was identified in the FEIS. There are minor wetland impacts for Project EW5 which will be mitigated as part of this subproject.

Subproject EW5.6: Utility Relocation (Compensable Interest)
As part of the preliminary engineering work being performed by FDOT in SOW #1, utility conflicts are being identified, and will result in relocation as necessary to advance the HSR Project. This subproject consists of the relocation of such utilities.

A reserve of $3 million has been included in the cost estimate for this sub-project.

As a prerequisite to commencing work in this project in this SOW, FDOT will provide three deliverables through work performed in Task 5 of SOW #1, including: (1) initial progress submission (preliminary engineering design) documents; (2) 50-60% preliminary engineering design documents in SOW #1 for inclusion as part of the RFP for this project ; and (3) completion and issuance of an RFP for this project. The 50-60% preliminary engineering documents issued with the RFP will be the basis for the scope, design, schedule, and budget for the design-build of this project in this SOW.

Project EW5: Task List

This project will be completed through four independent tasks, as defined below:

Project EW5: Task 1–Procurement and Contract Award
FDOT will advance a procurement process to select a design-build firm to perform final design and construction of Project EW5 under a single contract. The procurement process will be administered by FDOT through District One. The planned procurement will be using FDOT's design-build adjusted score delivery process and will include a shortlist, a technical proposal, and a scoring of the technical proposal prior to opening price bids. The lowest adjusted score will be selected as the Best Value to the public. This task includes the work associated with supporting the Procurement and Contract Award.

Project EW5: Task 2–Final Design Documents and Review
The Grantee may proceed with Task 2 upon the completion of prerequisite deliverables in SOW #1, the activities outlined in Task 1 of this Project, and FRA release of the applicable special conditions in Attachment 1A to the Agreement accompanying this SOW. Specifically, the Grantee must complete the following prerequisites prior to proceeding with this task: preliminary engineering, environmental review, a PMP supplement, and a refined scope, schedule, and budget upon selection of a design-build firm for this project in Task 1. This task includes the advancement of final design by FDOT (through a design-build firm), as defined below.

Subtask 2.1: Final Design Documents
FDOT (through the design–build firm) will be responsible for the preparation of final design documents for this project. The final design may be prepared collectively or independently for any element or collection of elements in this project or the subprojects. As necessary, FDOT may require the design–build firm to prepare interim design submissions prior to the preparation of final design documents.

Subtask 2.2: Design Review
This task consists of the performance of design reviews and responses to requests for design clarifications until the designs are complete and approved for construction.

Project EW5: Task 3–Design-Build Construction

The Grantee may proceed with Task 3 upon FRA release of the applicable special conditions in Attachment 1A to the Agreement accompanying this SOW. Specifically, the Grantee must complete the following prerequisites prior to proceeding with this task: final design for this project or subproject and, as necessary, a refined scope, schedule, and budget based on the completion of Task 2. This task includes the advancement of construction of the design–build contract(s) in each of the following subproject areas, as previously described:

Subproject EW5.1: Westbound I–4 Realignment
Subproject EW5.2: Ramp Bridge Work
Subproject EW5.3: Drainage Work
Subproject EW5.6: Utility Relocation (Compensable Interest)

Project EW5: Task 4–Project Administration

Upon selection of a design–build firm, the Grantee will prepare and maintain a PMP supplement, schedule, and budget for this project. The schedule and budget will be updated monthly upon issuance of an NTP for this project for the first quarter and quarterly thereafter. The schedule and budget monitoring of Project EW5 will be included in the overall reporting to FRA as required in the Agreement and will include incorporation of the Project EW5 schedule into the HSR Project schedule and budget. In addition, this task includes requirements internal to FDOT for the administration of this project, including the provision of support by FHP and Wetland Mitigation through FDEP.

Subtask 4.1: Project Management Plan

Upon selection of a design–build firm, the Grantee will prepare and maintain a PMP supplement for this project, either as a stand-alone document or as a supplement to the higher level HSR Project–PMP prepared in SOW #1. This document will provide project-specific management requirements to supplement to the HSR Project–PMP.

Subtask 4.2: Project Schedule

Upon selection of a design–build firm to perform this project, the Grantee will prepare and maintain an updated Project schedule identifying all activities (tasks, deliverables, milestones, permits, etc.) required through the completion and closeout of this project.

Subtask 4.3: Project Budget

Upon selection of a design–build firm to perform this project, the Grantee will prepare and maintain an updated Project budget identifying all costs associated with this project.

Subtask 4.4: Project Support

This subtask includes requirements internal to FDOT for the administration of this project, including the provision of support by FHP and Wetland Mitigation through FDEP, as previously described in Subprojects EW5.4 and Project EW5.5.

Project EW5: Cost Estimate

The table below summarizes the estimated cost of the project based on the preliminary engineering design, schedule, budget, and RFP prepared in SOW #1. FDOT will prepare a revised schedule and budget in Task 1 of this project prior to advancing with Tasks 2 and 3.

Project EW5: Westbound I-4 Realignment between SR 417 and Osceola Parkway	
Task	**Cost Estimate**
Task 1 – Procurement and Award	**(FDOT Internal)**
Task 2 – Final Design Documents and Reviews	
Subtask 2.1: Final Design Documents by D-B team (7% construction)	$ 1,153,000
Subtask 2.2: Final Design Documents reviews HSR Project Manager (2%)	$ 329,000
Task 2 Subtotal	**$ 1,482,000**
Task 3 – Design-Build Construction	
Subproject EW5.1: Westbound I-4 Realignment	$12,282,000
Subproject EW5.2: Ramp Bridge Work	$ 2,781,000
Subproject EW5.3: Drainage Work	$ 1,405,000
Subproject EW5.4: FHP (see note 1)	$ 150,000
Subproject EW5.5: Wetland Mitigation (see note 1)	$ 1,500,000
Subproject EW5.6: Compensable Utility Relocation	$ 3,000,000
Task 3 Subtotal	**$21,118,000**
Task 4 – Project Administration (Costs included in Task 3 and PD&A)	**$ 0**
Project Subtotal	**$22,600,000**
Contingency (10%)	**$ 2,260,000**
Project EW5 Total	**$24,860,000**

Note 1: This subproject will not be included in the design–build contract. The costs for this activity will be reported as part of Task 3 for this project but administered through Task 4.

-- End of Project EW5 --

Project EW6: Potential Early Works Project(s)

Project EW6: Project Description

As the preliminary engineering identified in SOW #1 continues to advance the procurement of the DBOM&F contract, additional candidate(s) for possible Early Works Project(s) may be identified. Currently, the Williams Road Overpass Project is being analyzed as a possible Early Works Project. The preliminary scope anticipated includes I–4 realignment and the replacement of the existing Williams Road overpass.

These potential Projects will be procured similarly to the other previously-identified Early Works Projects. Since the objective of the Early Works Projects is preparing the corridor for construction without impacting the schedule of the DBOM&F contract, and mitigating contingency risks in the DBOM&F contract Project, these potential Project EW6 Project(s) will most likely be design–build contract(s).

Upon identification of the sixth Early Works Project, FDOT will prepare a scope, a schedule, a budget, conceptual plans, and 50-60%preliminary engineering design documents for this project as part of SOW #1, and submit to FRA for approval.

Project EW6: Task List (TBD)

Project EW6 will be completed through tasks similar to those implemented in Projects EW1 through Project EW5. These will be determined as part of SOW #1, following identification of the sixth Early Works Project.

Project EW6: Cost Estimate

A reserve of $6 million is included in the cost estimate in this SOW for potential additional Early Works Projects. Upon identification of the sixth Early Works Project, FDOT will prepare a detailed budget for this project as part of SOW #1.

-- End of Project EW6 --

Project EW7: Construction Engineering and Inspection for Projects EW1-EW6

Project EW7: Project Description

FDOT will advance a procurement process to select a Construction Engineering and Inspection (CEI) firm to perform oversight of construction and public information activities for Projects EW1-EW6 from procurement through completion. A copy of the CEI scope of services as prepared by FDOT is included in the supporting documents to this SOW.

Project EW7: Task List

The work effort in Project EW7 will be completed through the list of tasks described below.

Project EW7: Task 1 – Project Administration and Contract Award (FDOT Internal)
The procurement process for Project EW7 will be administered by FDOT through District One. The planned procurement will be using FDOT's Standard Professional Services procurement process. This task includes the work that will be performed by FDOT that is associated with the support required in procuring a CEI Contract, a CEI Contract award, and a CEI Contract management.

Project EW7: Task 2 – CEI Contract
The CEI will administer, monitor, and inspect each Early Works Project such that it is constructed in reasonable conformity with the plans, specification, and special provisions applicable to the individual contract requirements. The CEI will perform quality assurance monitoring and document audits of the design-build firm or contractor; coordinate the review of shop drawings and Requests for Information; conduct regular progress meetings; review the design-build firm's or contractor's schedule; review the design-building firm's or contractor's Request for Change and process monthly progress estimates; and coordinate lane or ramp closures associated with each Project. The CEI will also observe the design-build firm's or contractor's work to determine the quality of work, identify discrepancies, document and report significant discrepancies to FDOT, and direct the design-build firm or contractor to correct such

discrepancies. The CEI will also provide input into overall HSR Project Reporting using e-Builder software as directed by FDOT.

Subtask 2.1: Public Information Activities

As part of the CEI Contract, the CEI will provide support to each Early Works Project and to include advanced notification of lane or ramp closures to the highway users, local communities, and impacted businesses; provide public outreach to the affected communities and businesses regarding planned activities or phases of construction; and address any public complaints regarding the implementation of the Early Works Projects.

Subtask 2.2: Survey Control

As part of the CEI Contract, the CEI will check and/or establish the survey control baseline(s) along with sufficient baseline control points and bench marks for each Early Works Project. The CEI will also perform any as-built surveying that may be required.

Project EW7: Cost Estimate

The table below summarizes the estimated cost of the project based on the CEI Scope of Services prepared in SOW #1. FDOT will prepare a revised scope, schedule and budget upon award of a contract in Task 1 of this project prior to advancing with Task 2.

Project EW7: Construction Engineering and Inspection for Project EW1-EW6	
Task	**Cost Estimate**
Task 1 – Project Administration and Contract Award	**(FDOT internal)**
Task 2 – CEI Contract	$ 9,868,000
Subtask 2.1: Public Information Activities	$ 150,000
Subtask 2.2: Survey Control	$ 300,000
Task 2 Subtotal	**$10,318,000**
Project Subtotal	**$10,318,000**
Contingency (10%)	$ 1,032,000
Project EW7 Total	**$11,350,000**

-- End of Project EW7 --

Project RW2: ROW Acquisition

Upon completion of the prerequisite deliverables for Milestones 1 through 4 in SOW #1, FRA will provide FDOT with an assessment of the HSR Project plan, and issue additional guidance for FDOT to enter into a contract for the Early Works Projects (individually), and begin ROW acquisition activities in this SOW.

RW2: Project Description

Through the ROW survey and mapping activities undertaken pursuant to SOW #1, FDOT identified approximately 117 parcels that are required for acquisition in order to prepare the corridor for the HSR Project. FDOT owns the majority of the remaining property along the ROW required for the HSR Project. The parcels to be acquired are required to accommodate the track work, stations, the maintenance facility site, electrical sub stations, contractor staging areas, and existing infrastructure, which will require reconstruction due to the HSR Project alignment.

It is anticipated that by the time of the execution of the DBOM&F contract, the majority of the properties required for the HSR Project will have been acquired. Any remaining acquisition will be completed during the DBOM&F contract financial close period.

RW2: Task List

The Grantee may proceed with the activities in this project upon FRA release of the applicable special conditions in Attachment 1A to the Agreement accompanying this SOW. Specifically, the Grantee must complete an environmental review for any property or any element of the HSR Project for which ROW acquisition or relocation is required.

The acquisition of properties in this project will occur in two phases, as defined in the two tasks below. Additional detail is provided in the ROW Acquisition, schedule, budget, mapping, and survey documents prepared in SOW #1.

Task 1: ROW Acquisition – Phase I

Phase I of ROW acquisition includes the properties listed in the following table:

County	Existing Land Description	Proposed Use	Owner
Hillsborough	Developed	Station	TIITF/Department of Management Services
Hillsborough	Developed	Station	Lippee Stewart J. Trustee
Hillsborough	Developed	Station	National Advertising Company
Hillsborough	Developed	Station	National Advertising Company
Hillsborough	Developed	Station	Skinner Family Limited Partnership
Hillsborough	Developed	Station	Icon Financial LLC
Hillsborough	Developed	Station	City of Tampa
Hillsborough	Developed	Station	Geitzen and Associates
Hillsborough	Developed	Track	Liguori and Carroll LLC
Hillsborough	Developed	Track	Stella Lopez

Hillsborough	Developed	Track	Jerry Alonzo
Hillsborough	Developed	Track	Expansion Mansions LLC
Hillsborough	Developed	Track	Maria Vizcarra
Hillsborough	Vacant	Track	Michelle Lamont
Hillsborough	Developed	Track	Taylor Bean and Whitaker Mtg. Group
Hillsborough	Developed	Track	John Bennett
Hillsborough	Developed	Station	Parking Garage to compensate for DMS parking

Task 1: ROW Acquisition – Phase I, Summary

County	Track	Stations	Total	Cost Estimate
Hillsboro and Polk	8	9	17	$ 35,000,000
Total ROW Acquisition "Total Take" Estimate				**$ 35,000,000**

Task 2: ROW Acquisition – Phase II, Summary

Phase II of ROW acquisition includes the properties summarized in the following table:

County	Track	Stations	Total	Cost Estimate
Orange and Osceola	68	6	74	$153,750,000
Hillsboro and Polk	23	3	26	$ 51,750,000
Phase II Subtotal:	**91**	**9**	**100**	**$205,000,000**
Total ROW Acquisition Estimate				**$205,000,000**

RW2: Cost Estimate

The table below summarizes the estimated cost of this project based on the ROW Survey and Mapping tasks performed in SOW #1. Additional detail is provided in the ROW Acquisition, schedule, budget, mapping and survey documents prepared in SOW #1.

Project RW2: ROW Acquisition	
Task	**Cost Estimate**
Task 1 – ROW Acquisition – Phase I	**$ 35,000,000**
Task 2 – ROW Acquisition – Phase II	**$205,000,000**
Project RW2 Total	**$240,000,000**

Note: The cost estimate provided for the ROW acquisition in this project includes professional services required to support the acquisition of the properties, and includes a contingency of 10%.

-- End of RW2 --

Project Development and Administration: PD&A

PD&A: Project Description

As identified in SOW #1, FDOT has organized a team of internal resources and outside consultants to assist with the development and administration of the HSR Project. This project consists of PD&A activities required to support the continued advancement of the Early Works Projects and HSR Project through the procurement of the DBOM&F contract:

PD&A: Task List

The PD&A Project will be completed through the list of tasks described below.

PD&A: Task 1–Project Controls
FDOT has identified e-Builder, a web-based software platform, which will be configured to provide Project Controls for the HSR Project. The following subtasks will be managed through the e-Builder platform:

Subtask 1.1: Document Control
FDOT will institute through e-Builder processes and procedures to manage the development, distribution, and long-term archive of the various document artifacts of the HSR Project. The processes and procedures will be structured to permit ready access to the artifacts throughout the life of the HSR Project. The e-Builder platform will have customizable functionality designed to assign specific roles and responsibilities to users such as FRA, FDOT, Design–Build Firm/Contractor/Concessionaire, HSR Project Management or even third party personnel in order to maximize efficiencies associated with document workflows. For Projects identified in this SOW, the document control system to be developed will offer key functionality in the following areas:

- Centralized Document Repository
- Early Works Portal for Procurement–RFP source; bid questions; addenda issuance
- DBOM&F contract Portal for Procurement–RFQ and RFP source: information exchange with prospective proposers; addenda issuance; evaluation documents; contract documents
- Consolidated Document Comment/Markup Capability
- Project Submittal Processing using Automated Workflows
- ROW Maps and Acquisition Status reporting
- Transparency and Audit Trail Capability

Subtask 1.2: Management and Administration Systems
FDOT will develop processes within e-Builder to manage Project contracts, budget, and invoicing. These processes will conform to FDOT and Federal reporting requirements and will be accessible and usable on a restricted basis. The system will provide the following:

- Contract Financial Status by Project
- HSR Project Budget Summary
- HSR Project Funding Summary

Subtask 1.3: Scheduling

FDOT will continue to develop and maintain multiple schedules as required in association with the HSR Project: a schedule depicting high-level activities and anticipated dates (similar to the one included in the PMP), a working level schedule for the HSR Project, and a detailed schedule for the approved work for the HSR Project. This schedule will be maintained for presentation with a minimum of the following three tiers:

4. HSR Project Schedule (HSR Project Schedule)
5. HSR Project Phase Schedules
   - SOW #1 Activities
   - SOW #2 Activities (Early Works Projects, ROW, and PD&A)
6. Individual Project Schedules (subprojects, tasks, and subtasks)

Each schedule tier will be updated quarterly through the duration of the HSR Project, except for the Individual Project schedules that will be updated monthly for the first quarter after NTP, then quarterly thereafter.

FDOT will submit schedule updates to FRA on all ongoing Early Works and HSR Project activities in Primavera P6 via e-Builder. The e-Builder platform will also provide reporting functionality for key milestone updates as they relate to the progress of the work at an individual Project and overall HSR Project level. The e-Builder platform will also be used to link all the individual Project schedules into an overall HSR Project schedule for monitoring of critical path activities.

Subtask 1.4: Budget

FDOT will continue to develop and maintain a consolidated budget as required in association with the HSR Project, individual Projects, subprojects, and tasks. The budget will represent programmed cost estimates and be updated as Project costs become refined during execution. This budget will be maintained for presentation with a minimum of the following three tiers:

4. HSR Project Budget (HSR Project Budget)
5. HSR Project Phase Budgets
   - SOW #1 Activities
   - SOW #2 Activities (Early Works Projects, ROW, and PD&A)
6. Individual Project Budgets—subcategorized as agreed to between FDOT and FRA

Each budget tier will be updated quarterly through the duration of the HSR Project, except for the Individual Project budgets that will be updated monthly for the first quarter after NTP, then quarterly thereafter.

Additionally, this subtask includes the preparation of cost estimates for all elements of the HSR Project such as program activities, professional services, the DBOM&F contract, engineering estimates, and procurement activities.

Subtask 1.5: Continued development of HSR Project Management Documents

This sub-task will consist of the continued development and updating of HSR Project Management documents initially developed under SOW #1 including the following:

- Project Management Plan
- Quality Control HSR Project
- Risk Management HSR Project
- Service Development Plan (including the HSR Project Financial Plan)

The Grantee will maintain an updated HSR Project budget including all HSR Project Development and Project activities included in this SOW, as well as anticipated P3 DBOM&F contract activities required through the completion and close-out of the HSR Project. This HSR Project budget will be updated quarterly through the duration of the HSR Project.

Subtask 1.6: Public Outreach and Communications
This will consist of the continuation of the Public Outreach and Communications Project developed in SOW #1. FDOT has actively reached out to the following constituencies through different outreach tools and meetings:

- Elected officials
- Project stakeholders
- Construction and engineering industry
- HSR industry
- Small and Disadvantaged Business Enterprises
- General public

The public awareness and outreach plan will be continued and grown as directed by FDOT as activities in the HSR Project advance. This effort will also be coordinated with the Orlando–Miami HSR Project, which is being performed under a separate Agreement.

Subtask 1.7: Stakeholder Agreements
A number of stakeholder Agreements have been identified and initiated under SOW #1. This subtask includes work to continue to develop, advance, and finalize these agreements.

PD&A: Task 2: DBOMF&F Contract Procurement Activities
FDOT will continue the development of the procurement and contract documents to be used to select a P3 concessionaire for a DBOM&F contract for the HSR Project as identified in SOW #1, including preparation of, revision and updates to the Draft RFP, Draft Concession Agreement, and Design Criteria and Specifications. In addition, this subtask includes support of evaluation of the Statements of Qualifications and the Proposals FDOT receives from the DBOM&F contract proposers.

Subtask 2.1: FRA Office of Safety Regulation Development
Concurrent with the preparation of Design Criteria and Specifications identified in SOW #1, FDOT will continue to coordinate with the FRA Office of Safety to obtain regulatory approval for the Phase I HSR Project. Such regulatory approval and oversight may be

carried out by a Rule of Particular Applicability (RPA) or other regulatory means as the case may dictate. This will also include the continued development and advancement of criteria and specifications to support the information required to petition FRA for an RPA during the procurement stage of the DBOM&F contract. Frequent coordination with FRA is anticipated in the development of this process. For the DBOM&F contract, FDOT will support each of the short-listed teams by determining specific requirements for each to achieve FRA regulatory approval, and then begin work with the selected concessionaire to take the FRA regulatory process to completion.

Subtask 2.2: Engineering Support for DBOMF&F Contract Procurement

FDOT will continue with the preliminary engineering activities identified in SOW #1 as required to advance the procurement of the DBOM&F contract. The nature of the P3 procurement process will likely necessitate the issuance of procurement document addenda requiring additional engineering support in addition to that identified in SOW #1 for the following:

2.2.1: Geotechnical (Field and Technical Investigation)

The geotechnical work includes the completion of field and technical work to delineate suitable soils, to support obtaining stormwater permits, and to provide data necessary to support the other discipline components indentified in this section of the SOW #1.

2.2.2: Contamination Assessment

Perform further assessments in response to any required alignment changes.

2.2.3: Survey and Subsurface Utility Investigations

Perform additional surveys and subsurface utility investigations as required to provide required information in the RFP and addenda.

2.2.4: 30% Preliminary Engineering

Revise and reissue preliminary engineering component plan sets or design documentation to support addenda or in response to unforeseen changes for the following elements:

- Roadway
- Utilities Plans, Criteria, and Specifications
- Rail/Highway Geometry
- Trackwork and Catenary Foundation Layout
- Emergency Access and Egress
- Bridges and Structures Plans, Design Criteria, and Specifications
- Stormwater Management Design Criteria and Specifications
- Stormwater Management Design
- Permitting support
- Station concept plans, criteria and specifications
- Maintenance facility plans, criteria, and specifications

Subtask 2.3: Proposal Evaluation Support for DBOMF&F Contract Procurement

This work consists of supporting the evaluation of Statements of Qualifications and of Proposals FDOT receives from prospective proposers to perform the DBOM&F contract. Comparative evaluation tools will be used to perform and document in detail key differences between different elements of the submitted proposals. This work will also include responses to requests for clarification, evaluation of Alternative Technical Concepts, and participation in any meetings with prospective proposers.

PD&A: Task 3–Development of DBOMF&F Contract Progress and Monitoring Program
In addition to the project controls, scheduling and administration tools that will be used to monitor the DBOM&F contract, FDOT will develop a project for training and monitoring activities to ensure the FDOT is prepared to support the start of final design and construction activities to be initiated by the DBOM&F contract concessionaire. This work will include the development of scopes of work for inspection and monitoring activities as well as training of FDOT and other personnel by HSR experts and international advisors.

PD&A: Cost Estimate

The table below summarizes the estimated cost of this project based on the PD&A tasks performed in SOW #1. A detailed schedule and budget for this project are included in the supporting documents to this SOW.

PD&A: PD&A	
Task	**Cost Estimate**
Task 1 – Project Controls	
Subtask 1.1: Document Control	$ 1,000,000
Subtask 1.2: Management and Administration	$ 2,000,000
Subtask 1.3: Scheduling	$ 1,000,000
Subtask 1.4: Budget	$ 500,000
Subtask 1.5: HSR Project Management Documents	$ 500,000
Subtask 1.6: Public Outreach	$ 1,500,000
Subtask 1.7: Stakeholder Agreements	$ 500,000
Task 1 Subtotal	**$ 7,000,000**
Task 2 – DBOMF&F Contract Procurement Activities	
Subtask 2.1: FRA Office of Safety	$ 1,000,000
Subtask 2.2: Engineering Support	$ 5,000,000
Subtask 2.3: DBOMF&F Contract Proposal Evaluation	$ 2,500,000
Task 2 Subtotal	**$ 8,500,000**
Task 3 – Develop DBOMF&F Contract Monitoring Program	**$ 2,500,000**
Project Subtotal	**$18,000,000**
Contingency (10%)	**$ 1,800,000**
Project PD&A Total	**$19,800,000**

-- End of PD&A --

PROJECT SCHEDULE

Schedule of Work:
The period of performance for the above work will be 16 months, beginning December 2010 and ending March 31, 2012.

PERFORMANCE OBJECTIVES AND DELIVERABLES

As defined in the PD&A Project, and individual Early Works Project Administration tasks, FDOT will prepare and maintain updated individual Early Works Project schedules, an Early Works SOW #2 schedule, and an HSR Project schedule. These schedules will include all performance objectives and deliverables defined for the projects in this SOW and for the HSR Project. FDOT will achieve these performance objectives to be eligible for reimbursement and for the project(s) to be considered complete.

A schedule is included in the supporting documents to this SOW for the nine key milestone objectives listed below:

Milestone 1: Complete Project EW1: I–4 Median preparation
a. Procurement and Contract Award
b. Design Completion
c. Construction Completion
d. Final Certification

Milestone 2: Complete Project EW2: SR 559 Interchange Reconstruction
a. Procurement and Contract Award
b. Design Completion
c. Construction Completion
d. Final Certification

Milestone 3: Complete Project EW3: CR 557 Interchange Reconstruction
a. Procurement and Contract Award
b. Design Completion
c. Construction Completion
d. Final Certification

Milestone 4: Complete Project EW4: FLHSR Maintenance Facility Site preparation
a. Procurement and Contract Award
b. Construction Completion
c. Final Certification

Milestone 5: Complete Project EW5: WBI-4 Realignment SR 417 to Osceola Parkway
a. Procurement and Contract Award
b. Design Completion
c. Construction Completion
d. Final Certification

Milestone 6: Complete Project EW6: Potential Early Works Project(s)
To be determined based on project identification

Milestone 7: Complete Project EW6: CEI for Early Works Contracts

a. Procurement and Contract Award
b. Construction Completion of Early Works Project Contracts
c. Final Certification of Early Works Project Contracts

Milestone 8: Complete Project RW2 – ROW Acquisition

a. Initiate the legal process to acquire identified parcels
b. Complete ROW Acquisition

Milestone 9: Complete Project PD&A – PD&A

a. Complete Procurement for the DBOM&F Contract
b. Develop Draft DBOMF&F Contract Monitoring and Inspection Program

PROJECT ESTIMATE/BUDGET

The total estimated cost of the project activities in SOW #2 is $427,264,169 for which FRA will contribute up to $472,264,169, or 100.00% of the total cost, but no more than $472,264,169.

Early Works Preliminary Capital Construction Projects	
Project EW1: I-4 Median Preparation	$ 71,703,500
Project EW2: SR 559 Interchange Reconstruction	$ 30,988,100
Project EW3: CR 557 Interchange Reconstruction	$ 39,776,569
Project EW4: FLHSR Maintenance Facility Site Preparation	$ 27,786,000
Project EW5: I-4 WB Realignment SR 417 to Osceola Parkway	$ 24,860,000
Project EW6: Potential Early Works Project(s)	$ 6,000,000
Project EW7: CEI for Early Works Contracts	$ 11,350,000
Total Capital Costs:	**$212,464,169**
ROW Acquisition	
Project RW2: ROW Acquisition	**$240,000,000**
PD&A	
Project PD&A: Project Development and Administration	**$ 19,800,000**
Total Project Cost:	**$472,264,169**
Florida HSR Phase I: HSR Project (FRA Grant)	
FRA (100.00% of Project cost)	$472,264,169
Grantee Contribution (0.00% of Project cost):	$ 0
Total Project Cost:	**$472,264,169**

PROJECT COORDINATION

The HSR Project will be administered by FDOT's FRE. All funds provided in the Agreement accompanying this SOW will be for exclusive use in the implementation of the HSR Project. An HSR Project organization chart is included in the PMP provided by FDOT with the supporting documents to this Agreement.

PREREQUISITES AND DELIVERABLES

Appendix A: Supporting Documents and Prerequisites
The Grantee will not proceed with Projects EW1 through Project EW7 in this SOW until provided with FRA approval of the prerequisite deliverables being prepared in SOW #1 for the respective Projects in this SOW. A list of prerequisite deliverables is provided in "Appendix A: Supporting Documents and Prerequisites" to this SOW.

Appendix B: Deliverables
A consolidated list of the deliverables required for the projects in this SOW is provided in "Appendix B: Deliverables" to this SOW.

Appendix A: Supporting Documents and Prerequisites

Supporting Documents	Document Title/File Name	Version Date	SOW #1 Task
Project EW1: I-4 Median Preparation Project			
Draft RFP	Prerequisite under development in SOW #1		5.3
Initial Progress Submission	Prerequisite under development in SOW #1		5.2
50-60% Preliminary Engineering	Prerequisite under development in SOW #1		5.2
Schedule	Prerequisite under development in SOW #1		1.1.3
Cost Estimate/Budget	Prerequisite under development in SOW #1		1.1.2
Project EW2: SR 559 Interchange Reconstruction			
Draft RFP	Prerequisite under development in SOW #1		5.3
Initial Progress Submission	Prerequisite under development in SOW #1		5.2
50-60% Preliminary Engineering	Prerequisite under development in SOW #1		5.2
Schedule	Prerequisite under development in SOW #1		1.1.3
Cost Estimate/Budget	Prerequisite under development in SOW #1		1.1.2
Project EW3: CR 557 Interchange Reconstruction			
Draft RFP	Prerequisite under development in SOW #1		5.3
Initial Progress Submission	Prerequisite under development in SOW #1		5.2
50-60% Preliminary Engineering	Prerequisite under development in SOW #1		5.2
Schedule	Prerequisite under development in SOW #1		1.1.3
Cost Estimate/Budget	Prerequisite under development in SOW #1		1.1.2
Project EW4: FLHSR Maintenance Facility Site Preparation			
Draft RFP	Prerequisite under development in SOW #1		5.3
Initial Progress Submission	Prerequisite under development in SOW #1		5.2
100% Preliminary Engineering	Prerequisite under development in SOW #1		5.2
Schedule	Prerequisite under development in SOW #1		1.1.3
Cost Estimate/Budget	Prerequisite under development in SOW #1		1.1.2
Project EW5: WB I-4 Realignment SR 417 to Osceola Parkway			
Draft RFP	Prerequisite under development in SOW #1		5.3
Initial Progress Submission	Prerequisite under development in SOW #1		5.2
50-60% Preliminary Engineering	Prerequisite under development in SOW #1		5.2
Schedule	Prerequisite under development in SOW #1		1.1.3
Cost Estimate/Budget	Prerequisite under development in SOW #1		1.1.2
Project EW7: CEI for Early Works Contracts			
Draft RFP	Prerequisite under development in SOW #1		5.3
CEI Scope of Services	Prerequisite under development in SOW #1		5.3

Schedule	Prerequisite under development in SOW #1		1.1.3
Cost Estimate/Budget	Prerequisite under development in SOW #1		1.1.2
Project RW2: ROW Acquisition			
Map and Survey Documents	Prerequisite under development in SOW #1		4.1
Schedule	Prerequisite under development in SOW #1		4.2
Cost Estimate/Budget	Prerequisite under development in SOW #1		4.2
Project PD&A: Project Development and Administration			
SOW #2 Early Works Schedule	**[Name of HSR Project Schedule Document]**	**[Date]**	4.2
SOW #2 Early Works Budget	**[Name of HSR Project Budget Document]**	**[Date]**	4.2
HSR Project Schedule	**[Name of HSR Project Schedule Document]**	**[Date]**	1.1.3
HSR Project Budget	**[Name of HSR Project Budget Document]**	**[Date]**	1.1.2
Draft HSR PMP	**[Name of HSR PMP Document]**	**[Date]**	1.1.4
HSR Project Organization Chart	**[Included in PMP]**		1.1.4
Draft Quality Control Plan	**[Included in PMP]**		1.1.5
Draft Risk Management Plan	**[Included in PMP]**		1.1.6
Draft Engineering Cost Estimate	Prerequisite under development in SOW #1		3.1.4(a)
Draft SDP with Financial Plan	Prerequisite under development in SOW #1		1.2

Appendix B: Deliverables

DELIVERABLE	PROJECT		
Early Works Project Documents (by Project or Subproject)	**Project EW1-EW5**	**Projec t EW6**	**Projec t EW7**
Project Scope and Administration			
Construction Engineering and Inspection (CEI) Contract Selected	N/A	N/A	Task 1
Individual Project Management Plan Supplement	(Task 1) Task 4.1	TBD	N/A
Notice to Proceed	Task 1	TBD	N/A
Final Project Certification	Task 3	TBD	N/A
Design			
Final Engineering Design-Build Drawings (see note)	Task 2	TBD	N/A
Record Drawings	Task 3	TBD	N/A
Schedule			
Individual Project Schedule (Interim update with project proposals in Project EW Task 1)	(Task 1) Task 4.2	TBD	N/A
Individual Project Schedule (Update monthly upon NTP for first quarter, and quarterly thereafter)	Task 4.2	TBD	N/A
Budget			
Individual Project Budget (Interim update with project proposals in Project EW Task 1)	(Task 1) Task 4.3	TBD	N/A
Individual Project Budget (Update monthly upon NTP for first quarter, and quarterly thereafter)	Task 4.3	TBD	N/A
HSR Project Documents	**PD&A**		
Early Works Program			
Early Works Schedule (Update monthly upon NTP for first quarter, and quarterly thereafter)	Task 1.3		
Early Works Master Budget (Update monthly upon NTP for first quarter, and quarterly thereafter)	Task 1.4		
Corridor Program			
HSR Project Schedule (Update quarterly)	Task 1.3		
HSR Project Budget (Update quarterly)	Task 1.4		
Project Plan			
Revised HSR Project PMP	Task 1.5		
Revised HSR Project SDP and Financial Plan	Task 1.5		
Design			
Preliminary Engineering Drawing Update/Addenda	Task 2.2		
HSR Project Cost Estimate Update	Task 2.2		
Procurement and Technical			
Revised RFP document and addenda for DBOMF&F Contract	Task 2.3		
Revised Design Criteria and Specifications	Task 2.1		
Revised Safety Criteria and Specifications for Florida HSR (RPA Guidelines)	Task 2.1		
Development of DBOMF&F Contract Progress and Monitoring Program	Task 3		
ROW Acquisition Documents	**RW2**		
Right-of-Way			
Revised ROW Acquisition Schedule	SOW #1		
Revised ROW Acquisition Budget	SOW #1		
Completion of acquisition of all parcels, invoice, or title documents	Tasks 1 and 2		

Note: This task does not apply to Project EW4 because of the use of the construction contract method.

ATTACHMENT 3B

STATEMENT OF WORK #3
(December 2010)

FLORIDA HIGH-SPEED RAIL–PHASE I
TAMPA-ORLANDO HSR PROJECT

The activities in this SOW are restricted to advancement only upon completion of the prerequisite activities in SOW #2, resulting in the selection of a P3 concessionaire for a DBOM&F contract for the HSR Project, and written authorization from FRA to proceed. See also Section 10 of Attachment 1A of this Agreement which describes the process for updating or revising this SOW prior to the advancement of any activities under it.

BACKGROUND

A detailed background description of the development of the Tampa-Orlando High-Speed Rail Project (the HSR Project) is included in statements of work (SOWs) #1 and #2 (Attachments 3 and 3A) accompanying the Agreement between the Federal Railroad Administration (FRA) and the Florida Department of Transportation (FDOT or the Grantee).

The initial SOW (SOW #1) provides for the advancement of project development and administration (PD&A) activities to be undertaken by FDOT to implement the HSR Project. The second SOW (SOW #2) provides for the completion of civil construction projects to remediate any obstacles or constraints along the Interstate-4 (I-4) corridor, and complete right-of-way (ROW) acquisition to prepare for the construction of the HSR Project. Additionally, SOW #2 continues the PD&A activities from SOW #1 to allow FDOT to advance the HSR Project through the selection of a Public Private Partnership (P3) concessionaire to undertake a Design, Build, Operate, Maintain, and Finance (DBOM&F) contract for the HSR Project as provided for in this SOW (SOW #3). SOW #3 provides for the partial disbursement of Federal funding for a concessionaire to initiate and implement the DBOM&F contract for the HSR Project.

As discussed above, there are two additional SOWs accompanying the Agreement to complete the construction of the HSR Project through a DBOM&F contract, structured as follows:

American Recovery and Reinvestment Act of 2009 (ARRA) Federal Funding:	
Attachment 3: SOW #1 - PD&A:	$ 39.98 million
Attachment 3A: SOW #2 - Early Works, PD&A, and ROW Acquisition:	$ 472.26
Attachment 3B: SOW #3 - DBOM&F Contract:	$1,080.07
Total ARRA Funding:	**$1.592 billion**

FRA has also selected FDOT for an additional award of funds derived from FY 2010 appropriations, and it is FRA's intention to obligate these funds to the Grantee through a separate agreement, subject to the negotiation and execution of such agreement. The FY 2010 funds consist of:

FY 2010 High-Speed Intercity Passenger Rail (HSIPR) Service Development Project:		
SOW #4	DBOM&F Contract Extension: (80% FRA)	$800 million
	State Matching Funds: (20% Match)	$200 (+)
Total FY10 HSIPR Funding:		**$1 billion** (+)
Total Funding Available for the HSR Project:		**$2.592 billion(+)**

Note: (+) FDOT has committed up to $280 million for this HSR Project, of which $200 million is designated as the required match to the FY 2010 HSIPR funding.

GENERAL OBJECTIVE

This SOW describes the activities to be undertaken by FDOT in for the implementation of a DBOM&F contract for the HSR Project. The overall HSR Project, Program Management Plan, Service Development Plan, and procurement approach are further defined in the HSR Project documents that are under development by FDOT in SOWs #1 and #2. A list of the HSR Project documents is provided in "Appendix A: Supporting Documents and Prerequisite" to this SOW. The DBOM&F contract for the HSR Project will comprise eight Component Projects (including PD&A activities) (the Component Projects), as listed below and further defined in the Project Description section of this SOW.

DBOM&F Contract Component Projects:

HSR1: Civil and Track Infrastructure
HSR2: Traction Power and Overhead Contact System (OCS)
HSR3: Communications and Signaling (C&S)
HSR4: Maintenance Facility and Operations Center
HSR5: Stations
HSR6: Rolling Stock
HSR7: Testing and Commissioning
PD&A: DBOM&F Contract Support and Program Administration

PROJECT DELIVERY APPROACH

Phases:

In addition to the management of the single DBOM&F contract through the identification of Component Projects, the DBOM&F approach to the HSR Project implementation is structured in five phases. This is due to the magnitude and complexity of the Component Project tracks. Phases may proceed concurrently with one another and are not required to occur in sequence

except to the extent the completion or partial completion of one phase is required prior to the initiation of a subsequent phase. The five phases were developed to correspond with the schedule for the advancement of the DBOM&F contract through the start of revenue service. This SOW includes "Part A" of the five phases encompassing the initial development of the HSR Project from the selection of a concessionaire to a certain level of design and construction (identified as Phase I-A through Phase V-A). A follow-on SOW #4 (to be included in a separate FY 2010 cooperative agreement) will reflect "Part B" of each phase to continue the advancement of the DBOM&F contract toward the delivery of an operating HSR system for testing and commissioning (Phase I-B through Phase V-B) for the same scope items as Part A. Future SOWs for the DBOM&F contract will bring the HSR system to completion for commissioning of revenue service.

The five phases of the Component Projects for the DBOM&F contract for the HSR Project are listed below:

Phase I: DBOM&F Contract Support and Program Administration
This phase will continue throughout the life of the HSR Project and includes tasks required for the overall management, administration and oversight monitoring of the HSR Project, including all reporting requirements.

Phase II: Final Design of Capital Projects
The work associated with this phase will consist of the preparation of the final design for each HSR Project component or subcomponent prior to the start of construction.

Phase III: Construction of Capital Projects
The work associated with this phase will consist of the construction and integration of each of the seven Component Projects of the HSR Project prior and through testing and commissioning.

Phase IV: Rolling Stock Design, Fabrication, Assembly, and Delivery
The work associated with this phase will consist of the design, fabrication, final assembly, transportation, and delivery of the rolling stock for the HSR Project prior to the initiation of testing and commissioning.

Phase V: System Testing and Commissioning
The work associated with this phase will consist of the Testing and Commissioning for each of the HSR Project components and the rolling stock prior to the start of revenue service.

Milestones:

FDOT and FRA have established milestones to represent the progression of the DBOM&F delivery for the HSR Project in this SOW, reflecting the phasing approach defined above. Fundamentally, the milestones are intended to correspond with the schedule for the percentage of completion of the Component Projects relevant to that particular milestone, which is measured in terms of dollars budgeted for that component against the total budget of the project (see note). It is anticipated that both the budgets of the individual Component Projects and the total budget

will vary up to the point where the concessionaire commits to a firm fixed price for the capital infrastructure through its submission of a bid proposal to the Grantee. Therefore, the estimated percentage of completion should be considered as generally indicative until such time as the firm fixed price is known and the SOW is amended accordingly. This process will be completed under SOWs #1 and #2 prior the initiation of any activities under this SOW.

The milestones for the Component Projects in the DBOM&F contract for the HSR Project to be accomplished through SOW #3 are listed below:

Milestone 1: Financial Close and Notice to Proceed		**– Complete 100%**
Milestone 2: Final Design	**(Phase II)**	**– Progress to 86%Complete**
Milestone 3: Construction	**(Phase III)**	**– Progress to 51%Complete**
Milestone 4: Delivery of Initial Trainset	**(Phase IV)**	**– Progress to 40%Complete**
Milestone 5: System Testing	**(Phase V)**	**– Progress to 5 %Complete**

Note: The budget figures used both for component elements and total are those included in the FDOT's Track 2 FY 2009 ARRA application for the HSR Project.

Special Conditions

Attachment 1A to the Agreement accompanying this SOW includes special conditions restricting the advancement of specific activities in the projects within FDOT's HSR Program subject to the completion of prerequisite deliverables. Each of the special conditions in Attachment 1A applies to all SOWs in FDOT's HSR Project; however, certain special conditions will be released by project or subproject as the Grantee completes prerequisite deliverables through the preceding tasks, authorizing advancement of the restriction in the respective project.

HSR PROJECT DESCRIPTION

FDOT intends to enter into an agreement with a concessionaire to implement the DBOM&F contract for the HSR Project. The concessionaire will obtain upfront or advance financing for a portion of the HSR Project costs, as will be detailed in the Financial Plan under development in SOW #1, and the Request for Proposals (RFP) issued in SOW #2. The repayments of amounts financed will be done by FDOT from sources that may include State and private sources such as passenger or other system revenues. The concessionaire will operate and maintain the HSR Project during the term of the concession and may do so assuming all revenue risk as compensation thereof.

The HSR Project corridor will begin in Tampa, Hillsborough County, at an elevated station at the proposed Tampa Intermodal Center. The route will proceed elevated along I-275 toward the median of I-4, where it will continue along a combination of at-grade, embankment, and elevated sections for approximately 60 miles. Within Orange County, the route is a combination of at-grade and elevated sections; proceeding elevated along SR528 Beachline Expressway, Taft-Vineland Road, and Tradeport Road, then descending to an at-grade section toward its terminus at a new station at the future south terminal location of Orlando International Airport (OIA). The total route length is approximately 84 miles. The HSR Project between Tampa and Orlando is

Phase I of the two major legs of the Florida HSR Program between Tampa, Orlando, and Miami, Phase II being the Orlando to Miami segment. The scope includes a full turnkey DBOM&F contract for the civil and track infrastructure, traction power/ OCS, communications and signaling (C&S), stations, and rolling stock as well as operation and maintenance of the Phase I HSR Project for the concession term.

The seven DBOM&F contract system Component Projects are summarized below, with a detailed description provided in the "Individual Project Descriptions" section of this SOW.

HSR1: Civil and Track Infrastructure
This Component Project consists of the final design and construction of all infrastructure elements up to the top of rail, including:

- Site preparation, supplementary geotechnical, and utilities relocation
- High tension electric tower relocations
- Rail and highway subbase, drainage, and conduit components
- Rail structure foundations and walls
- Rail structure bridges and viaducts
- Ballast and/or slab track
- Track elements
- Support structure foundations for traction power, signals, and communications elements

HSR2: Traction Power and OCS
This Component Project consists of the final design and construction of the electrification and OCS providing the traction power supply to the HSR system and facilities, including the design, location, and installation of the substations along the corridor needed for power distribution, as well as the support structures and OCS. This Component Project also includes connection of the HSR system to a utility source along the route.

HSR3: Communications and Signaling
This Component Project consists of the final design and construction of the C&S elements of the HSR system, including intrusion detection and security controls. These elements will be controlled from a centralized HSR Control Center (HSR-CC). The C&S components that are housed in the HSR-CC are part of Project HSR3. The HSR-CC building shell is part of Project HSR4 below.

HSR4: Maintenance Facility and HSR Control Center
This Component Project consists of the design and construction of the maintenance facility and the HSR-CC for the HSR System including the following elements:

- Operations and Maintenance (O&M) Company building
- Maintenance-of-way building
- HSR-CC building – expandable (building shell only is delivered in Project HSR4 as described above in Project HSR3)
- Main workshop for rolling stock maintenance

- Infrastructure workshop for non-rolling stock maintenance system-wide
- Train storage tracks for daily cleaning and inspection
- Train crew and car cleaners' facility
- Train washing plant for automatic washing of trains
- Wheel truing plant

HSR5: Stations
This Component Project generally consists of final design and construction of the five stations planned in the HSR Project corridor and related work as follows:

Stations:	Downtown Tampa Lakeland/Polk Walt Disney World (WDW) Orange County Convention Center (OCCC)/International Drive (I-Drive) OIA
Station Facilities:	Site – civil, parking, and circulation Station building architecture Station structural Station heating ventilation and air-conditioning Station security and controls Train platforms

HSR6: Rolling Stock
This Component Project generally consists of the work associated with the design, fabrication, final assembly, transportation, and delivery of the rolling stock for the HSR Project.

HSR7: Testing and Commissioning
This Component Project consists of the work associated with the testing and commissioning for each of the HSR Project components and the rolling stock prior to the start of revenue service. The process includes the preparation and then implementation of testing and commissioning procedures for communication and signals controls, security controls, traction power and electrification, and rolling stock testing prior to revenue service.

PD&A: DBOM&F Contract Support and Program Administration
This Component Project consists of the program management, administration, and oversight monitoring of the DBOM&F contract on behalf of FDOT including the following elements:

- Project controls
  - Schedule
  - Budget
- Public communications and outreach
- Design and submittal reviews
- Construction support services
- Construction inspection services

INDIVIDUAL PROJECT DESCRIPTIONS

This section provides a detailed description of each of the seven system Component Projects to be performed by FDOT through a P3 concessionaire DBOM&F contract for the HSR Project as described in this SOW. Each Component Project is divided into subprojects or subcomponents to correspond with FDOT's approach to manage the particular Component Projects to be delivered in combination with the single HSR Project.

Project HSR1: Civil and Track Infrastructure

This Component Project includes all civil and track infrastructure up to the top of rail for the HSR Project. The total HSR Project length is approximately 84 miles and includes infrastructure elements that generally relate to the vertical and horizontal profile of the rail system in three major categories: at-grade, embankments and retaining walls, and elevated on structure. It is anticipated that the work in this project will be broken into subprojects by geographic segment, as listed below.

Subproject HSR1.1:	Segment 1: Tampa to Hillsborough/Polk County line
Subproject HSR1.2:	Segment 2: Polk County
Subproject HSR1.3:	Segment 3: Polk/Osceola County line to SR528
Subproject HSR1.4:	Segment 4: SR528 to OIA

Work in each segment will include the final design and construction of the civil infrastructure components. Final design documents will be prepared that depict the proposed plan and profiles for the length of the project, along with typical sections. Elements included are the earthwork and subgrade components, drainage elements, ponds, utilities and conduit systems, and the train support system (ballast and/or slab track). The infrastructure elements will also include structures such as barrier walls, retaining walls, foundation elements, OCS foundation structures, pier support structures, bridge structures, and viaduct structures. These plans will include track layout, sidings, crossovers, ties, fasteners, and typical details of each.

The design and construction of all project elements will be performed with detailed knowledge and planning for system integration to ensure that all planned C&S, electrification, and stations will integrate seamlessly with the civil/infrastructure elements.

HSR1: Cost Estimate

The table below provides a summary of the cost estimate structure for this project and subprojects based on FDOT's planning documents submitted with the FY 2009 ARRA application. The estimates in this table are partial budgets based on the percentage completion anticipated in this SOW for the respective phase and will be refined by FDOT in SOW #2.

HSR1: Civil and Track Infrastructure	
Project/Subproject/Phase	**Cost Estimate**
Phase II-A Final Design	
Subproject HSR1.1: Segment 1: Tampa - Hillsborough/Polk County Line	$ 7,043,000
Subproject HSR1.2: Segment 2: Polk County	$ 9,000,000
Subproject HSR1.3: Segment 3: Polk/Osceola County Line to SR528	$ 7,957,000
Subproject HSR1.4: Segment 4: SR528 to OIA	$ 6,000,000

HSR1: Phase II-A Subtotal:	**$ 30,000,000**
Phase III-A Construction	
Subproject HSR1.1: Segment 1: Tampa - Hillsborough/Polk County Line	$121,100,000
Subproject HSR1.2: Segment 2: Polk County	$273,328,000
Subproject HSR1.3: Segment 3: Polk/Osceola County Line to SR528	$181,651,000
Subproject HSR1.4: Segment 4: SR528 to OIA	$ 29,421,000
HSR1: Phase III-A Subtotal:	**$605,500,000**
HSR1: Total:	**$635,500,000**

-- End of HSR1 –

Project HSR2: Traction Power and OCS

This Component Project includes all design, construction, and installation of the components necessary to provide the 25-kv OCS traction power supply to the HSR trains, which are to be designed for reliable train operation at speeds of up to 220 mph. Although designed for this capacity, trains on the HSR Project between Tampa and Orlando are anticipated to operate at a maximum speed that is less than this. The actual power supply requirements will be determined based on the characteristics of the selected concessionaire's operating plan.

The provision of these elements will be packaged as a complete Traction Power and OCS System conforming to the design of such systems that have been installed and tested in similar projects to sustain reliable operation of the specific type of rolling stock to be provided. A systems approach is the key criteria in the provision of these elements of the project. The Traction Power System will conform to the National Electrical Safety Code and the American Rail Way Engineering and Maintenance-of-Way Association Manual for Railway Engineering Chapter 33, "Electrical Energy Utilization," and/or compatible with the Union Internationale des Chemins de Fer design criteria and standards, as necessary.

The scope of this project also includes the integration of these elements with the rolling stock, infrastructure, and the C&S elements of the HSR Project. The control for the electrical power system for the railroad will reside at the HSR-CC planned for location at the maintenance facility in Orlando (Power Dispatch Desk).

Subproject HSR2.1: OCS Support System

This subproject includes the OCS support poles, the outriggers and wire supports for a constant-tension overhead wire to sustain high-speed operation on a two track railroad, with additional tracks at stations, and a limited number of siding tracks (primarily for work train positioning). Additionally, this work will include the design, construction, and installation of the electrical conduits and wire to power the OCS.

Subproject HSR2.2: Electric Substations for Power Supply

This subproject consists of the installation of the electric substations that will be installed along the route for power distribution. Preliminary design and discussions with power distribution companies along the route indicate that a total of four substations will support the initial HSR Project between Tampa and Orlando, with three intermediate substations located along the line, and one located at/near the maintenance facility at OIA. This configuration will provide optimal

distribution of power for operations as well as provide a level of redundancy in the event that as many as two of the substations become inoperable concurrently. The unique Florida climate will require special consideration in the design for wind loads, as well as surge protection from lightning strikes, with automatic resets of breakers to minimize any interruption of power for operation of trains.

HSR2: Cost Estimate

The table below provides a summary of the cost estimate structure for this project and subprojects based on FDOT's planning documents submitted with the FY 2009 ARRA application. The estimates in this table are partial budgets based on the percentage completion anticipated in this SOW for the respective phase and will be refined by FDOT in SOW #2.

HSR2: Traction Power and OCS	
Project/Subproject/Phase	**Cost Estimate**
Phase I-A Final Design	
Subproject HSR2.1: OCS system	$ 3,913,000
Subproject HSR2.2: Electric substations for power supply	$ 2,087,000
HSR2: Phase II Subtotal:	**$ 6,000,000**
Phase III Construction	
Subproject HSR2.1: OCS system	$ 58,843,000
Subproject HSR2.2: Electric substations for power supply	$ 27,657,000
HSR2: Phase III Subtotal:	**$ 86,500,000**
HSR2: Total:	**$ 92,500,000**

-- End of HSR2 --

Project HSR3: Communications and Signaling

This Component Project includes final design, fabrication, and installation of the C&S components of the HSR Project. These C&S components will be consistent with FRA regulations (49 CFR Part 236, Subpart I – Positive Train Control Systems), or an agreed-to equivalent or improved system based on existing HSR technology in operation elsewhere, to provide a safe environment for HSR operation. The C&S system will be designed and installed to accommodate a two-track, bidirectional railroad operation, incorporating functions of command and control subsystems, such as positive train control (PTC), and train integrity and health monitoring modes.

The C&S system, as with the OCS, will be designed as a systems approach, similar to the design utilized in such HSR systems elsewhere to sustain safe and reliable operation of an HSR service. The C&S system will protect trains in the normal flow of traffic and will incorporate broken rail detection, ROW intrusion detection, and remote camera verification at any detected intrusion activation location. Wayside signals will be provided in accordance with design parameters. The C&S system will be designed and installed to enforce train speed and, to the extent required during hours of normal train operations, enforce work zone protection. The provision of PTC functional criteria will comply with the Rail Safety Improvement Act of 2008.

The C&S system will be developed in coordination with the FRA Office of Railroad Safety. Guidelines will be developed in SOWs #1 and #2 that define acceptable criteria and

specifications for provision of the C&S system, including the transmission of functions between the HSR line/trains and the HSR-CC for monitoring and control of trackside systems, traction power systems, and communication requirements at interface points.

The C&S components must work as integral elements of the HSR system to include the infrastructure components, track, and power supply/OCS. The control for the C&S system for the railroad will reside at the HSR-CC planned to be located at the maintenance facility in Orlando (Operations Dispatch Desk).

HSR3: Cost Estimate

The table below provides a summary of the cost estimate structure for this project and subprojects based on FDOT's planning documents submitted with the FY 2009 ARRA application. The estimates in this table are partial budgets based on the percentage completion anticipated in this SOW for the respective phase and will be refined by FDOT in SOW #2.

HSR3: Communications and Signaling	
Project/Subproject/Phase	**Cost Estimate**
Phase II-A Final Design	
Project HSR3: C&S system	$ 9,000,000
HSR3: Phase II Subtotal:	**$ 9,000,000**
Phase III Construction	
Project HSR: C&S system	$ 86,500,000
HSR3: Phase III Subtotal:	**$ 86,500,000**
HSR3: Total:	**$ 95,500,000**

-- End of HSR3 --

Project HSR4: Maintenance Facility and HSR-CC

The maintenance facility to be built as part of the HSR Project will sit on property owned by the Greater Orlando Aviation Authority. This maintenance facility location will also house the HSR-CC. The maintenance facility and HSR-CC will serve the initial HSR Project from Tampa to Orlando but will include provisions for future expansion to also serve as the north end facility for Phase II of the Florida HSR Program from Orlando to Miami.

Subproject HSR4.1: Civil-Site Components

The maintenance facility work in this project will include the final design and construction of the site including site clearing, earthwork, drainage, utilities, employee and visitor parking, and roadway access.

Subproject HSR4.2: Maintenance Facility and Support Facilities

This subproject includes the buildings and other structures required for servicing of the initial fleet of trains for the HSR Project from Tampa to Orlando as well as material delivery locations and storage site for the HSR system. The storage yard area site will also have the capacity for the future build-out to accommodate the HSR Project from Orlando to Miami, including up to 25 (possibly +) trainsets of eight cars each (including both Phases I and II of the project). This additional capacity will allow for the evacuation of trainsets from South Florida for protection during a hurricane emergency (similar to the way airlines evacuate aircraft during a hurricane). The following inventory of elements will be included in the maintenance facility:

- Operations and Maintenance (O&M) Company building
- Maintenance-of-way building
- Main workshop for rolling stock maintenance
- Infrastructure workshop for non-rolling stock maintenance system-wide
- Train storage tracks for daily cleaning and inspection
- Train crew and car cleaners' facility
- Train washing plant for automatic washing of trains
- Wheel truing plant

Subproject HSR4.3 HSR-CC

This subproject consists mainly of constructing the shell of the HSR-CC building itself. The contents of the building, communications, and signaling for the HSR system are included in Project HSR3. The HSR-CC building will be designed and constructed to be expandable to accommodate the capacity that will be needed for Phase II. The three major functions ("desks") at the HSR-CC are for Operation, Power, and Safety/Security.

HSR4: Cost Estimate

The table below provides a summary of the cost estimate structure for this project and subprojects based on FDOT's planning documents submitted with the FY 2009 ARRA application. The estimates in this table are partial budgets based on the percentage completion anticipated in this SOW for the respective phase and will be refined by FDOT in SOW #2.

HSR4: Maintenance Facility and Operations Center	
Project/Subproject/Phase	**Cost Estimate**
Phase II-A Final Design	
Subproject HSR4.1: Civil-site components	$ 652,000
Subproject HSR4.2: Maintenance facility and support facilities	$ 3,913,000
Subproject HSR4.3: HSR-CC	$ 1,435,000
HSR4: Phase II Subtotal:	**$ 6,000,000**
Phase-III Construction	
Subproject HSR4.1: Civil-site components	$ 11,769,000
Subproject HSR4.2: Maintenance facility and support facilities	$ 23,449,000
Subproject HSR4.3: HSR-CC	$ 8,032,000
HSR4: Phase III Subtotal:	**$ 43,250,000**
HSR4: Total:	**$ 49,250,000**

-- End of HSR4 --

Project HSR5: Stations

This Component Project consists of the final design and construction of the five stations on the HSR Project corridor. Each station will provide an attractive, inviting environment and serve as a multimodal hub for connecting transportation systems as well as an arrival and departure location for the HSR system travelers. The stations will include both open public and secure controlled areas. The controlled areas will be restricted to ticketed passengers prior to train

boarding and connected through vertical circulation elements to the train platforms. Stations will contain climate-controlled lobby space and lounges; weather-protected and sheltered passenger platforms; vertical circulation systems including elevators, escalators, and powered walkways; elevated sheltered bridge connections; passenger amenities that may include food service, business support, and retail facilities; passenger ticketing facilities; public restrooms; rail maintenance support spaces; administrative support spaces and offices; and building support areas. Interface with bus, taxi, and kiss-and-ride will be located curbside on the first level.

The final design and construction at each station will include, at a minimum, the following elements and conform to complete FRA Station Guidelines:

- Site – civil, parking, and circulation
- Station building architecture
- Station structural
- Station heating ventilation and air-conditioning
- Station security and controls
- Train platforms

Station Area Plan Design Standards

FDOT (in partnership with appropriate local government entities) will develop a station area plan incorporating a transit-oriented development zoning overlay to the local comprehensive plan for a one-quarter to one-half mile area around each station. The station area plan will address station site(s) and conceptual design; surrounding infill development; transportation connectivity; development parcel economic viability analysis; and a financing/phasing plan. Station area plans should address the following goals for each station in a manner appropriate to the local context:

1. Treat the HSIPR station as a new city gateway – consider the station's form and spaces, both primary and secondary (backside, underside); the station's place-making effects and iconic and readily identifiable design; and consider co-locating transit services and intensifying transit services by realigning transit routes.

2. Plan intensified development for the one-half mile area around the station site – step up the development densities closer to the station; set minimums for dwelling units/acre for residential and floor area ratio for commercial/light industrial; establish development massing and setbacks from the street; and set urban design and building design treatments so public spaces within the "station district" will be inviting to walk through both day and night by people of all ages.

3. Plan an urban scale and streetscape that promotes walking, biking, and transit use – establish continuity of the public way; create a hierarchy of streets; set a walkable street pattern/grid; emphasize pedestrian spaces immediately around the HSIPR station; and accommodate bicyclists, transit, taxis, and passenger drop-off, car-sharing services, and access to parking.

4. Tailor a phased parking strategy to the station context and market, paying particular attention to the amount and price of parking in the station area – account for expected parking demand for the HSIPR service; account for possible substitution of additional transit services for

parking demand; and include parking policies that manage supply and charge locally appropriate market rates to encourage station access by transit, taxis, and walking.

Subproject HSR5.1: Downtown Tampa Station
The proposed downtown station will sit on a 13.5-acre site with an elevated third-level platform with three tracks and will be a multimodal terminal station design that will accommodate future light rail. This station will include a full range of passenger amenities, including climate controlled second-level lobby, queue, and passenger hold/lounge. Entry points and building massing will be coordinated with other properties immediately adjacent to the site.

Subproject HSR5.2: Lakeland/Polk County Station
The proposed Lakeland/Polk County station will sit on a 20-acre site (Kathleen Road, University of South Florida Polytechnic or alternate sites) and be an at-grade through station adjacent to the I-4 corridor that connects via an overhead interior climate controlled passenger lobby that spans the I-4 lanes to the center median where either at-grade or elevated (dependent on final location) passenger platforms will serve two tracks. A covered open-air roof element will span the passenger platforms. This station will be designed and constructed with a basic level of passenger amenities and climate-controlled ground-level lobby, queue, and passenger hold/lounge.

Subproject HSR5.3: Walt Disney World Station
The WDW station building will be located on an up to 50-acre site currently owned by Disney adjacent to the I-4 corridor with an overhead interior climate controlled passenger lobby spanning the westbound lanes to the train platforms serving two through-tracks in the median of I-4. A covered open-air roof element will span the passenger platforms. This station will include a basic level of passenger amenities and a climate controlled ground-level lobby, queue, and passenger hold/lounge.

Subproject HSR5.4: Orange County Convention Center Station
The proposed OCCC station will sit on a 20-acre parcel (Destination Drive Site) and be a through-track multimodal station intended to interface with the I-Drive circulator and future light rail. The HSR platform will be located on the third level on the north side of the 528 Beachline Expressway corridor and will be connected through a climate controlled passenger walkway to the adjacent station building. A covered open-air roof element will span the passenger platforms. This station will be designed to include a full complement of passenger amenities, including a climate controlled second-level lobby, queue, and passenger hold/lounge.

Subproject HSR5.5: Orlando International Airport Station
The OIA station will sit on airport property near the site of the proposed future south terminal at OIA. The HSR station will be integrated into the multimodal facility being planned adjacent to the station that will provide connectivity to OIA through the airport people-mover system, regional connectivity through the proposed SunRail commuter rail system, and local access through a planned light-rail system. This station will include a full range of passenger amenities.

HSR5: Cost Estimate
The table below provides a summary of the cost estimate structure for this project and subprojects based on FDOT's planning documents submitted with the FY 2009 ARRA

application. The estimates in this table are partial budgets based on the percentage completion anticipated in this SOW for the respective phase and will be refined by FDOT in SOW #2.

HSR5: Stations	
Project/Subproject/Phase	**Cost Estimate**
Phase II-A Final Design	
Subproject HSR5.1: Downtown Tampa Station	$ 1,957,000
Subproject HSR5.2: Lakeland/Polk Station	$ 978,000
Subproject HSR5.3: Walt Disney Station	$ 1,109,000
Subproject HSR5.4: OCCC Station	$ 2,348,000
Subproject HSR5.5: OIA Station	$ 2,608,000
HSR5: Phase II Subtotal:	**$ 9,000,000**
Phase III-A Construction	
Subproject HSR5.1: Downtown Tampa Station	$ 8,827,000
Subproject HSR5.2: Lakeland/Polk Station	$ 3,531,000
Subproject HSR5.3: Walt Disney Station	$ 5,884,000
Subproject HSR5.4: OCCC Station	$ 10,298,000
Subproject HSR5.5: OIA Station	$ 14,710,000
HSR5: Phase III Subtotal:	**$ 43,250,000**
HSR5: Total:	**$ 52,250,000**

-- End of HSR5 --

Project HSR6: Rolling Stock

The rolling stock will be a proven technology that is in commercial operation elsewhere as an HSR system capable of speeds in excess of 186 mph and designed for a maximum operating speed of 220 mph. This rolling stock will be adapted for use in this HSR Project to conform to FRA safety and Americans with Disability Act requirements. The components will meet Tier V compliance for rolling stock with relevant parts of 49 CFR Part 238 and as approved by FRA with input from the FRA Rail Safety Advisory Committee (RSAC) Engineering Task Force (ETF) II.

Criteria aspects of Tier V train sets include:

- Trainset Crashworthiness
- Glazing Standards (windows)
- Passenger Occupied End Cars
- Luggage Retention
- Emergency Lighting
- Emergency Evacuation
- Trainset Width
- Trainset Floor Height
- Strategies for the Disabled (Americans with Disabilities Act, ADA)

Subproject HSR6.1: Design

This subproject consists of the development of designs and plans of HSR trainsets that will be proposed for acceptance by FDOT and FRA from the selected concessionaire for use on the

Florida HSR system. Although the concessionaire will be required to demonstrate that the proposed system is in revenue service elsewhere in the world, there will also be requirements to adapt these trains to meet FRA and other domestic requirements.

Subproject HSR6.2: Carbody Fabrication
Subject to the vehicle system proposed by the concessionaire and approved by FDOT and FRA, the Carbody Fabrication subproject is anticipated to consist of the fabrication of the component elements needed to either build a U.S. version of an entire train based FRA Safety criteria or the reconfiguration of a train that has been built for use in other countries.

Subproject HSR6.3: Final Assembly Manufacturing
Subject to the vehicle system proposed by the concessionaire and approved by FDOT and FRA, this subproject, ideally performed in the United States, may consist of the final assembly of the trainsets using the design and components that are specific for use in the Florida HSR corridor. Regardless of manufacturing location, this subproject will include onsite inspection by FRA and Florida safety personnel prior to delivery for the HSR Project.

Subproject HSR6.4: Transport and Delivery
This subproject is the final step in the process of getting a train to the HSR Project for initial testing. This will include a detailed plan resulting in the delivery from the final assembly location to the maintenance facility at OIA.

HSR6: Cost Estimate
The table below provides a summary of the cost estimate structure for this project and subprojects based on FDOT's planning documents submitted with the FY 2009 ARRA application. The estimates in this table are partial budgets based on the percentage completion anticipated in this SOW for the respective phase and will be refined by FDOT in SOW #2.

HSR6: Rolling Stock Design, Assembly, and Delivery	
Project/Subproject/Phase	**Cost Estimate**
Phase IV: Rolling Stock	
Subproject HSR6.1: Design	$ 10,000,000
Subproject HSR6.2: Carbody Fabrication	$ 40,000,000
Subproject HSR6.3: Final Assembly Manufacturing	$ 10,000,000
Subproject HSR6.4: Transport and Delivery	(future SOW)
HSR6: Phase IV Subtotal:	**$ 60,000,000**
HSR6: Total:	**$ 60,000,000**

-- End of HSR6 --

Project HSR7: Testing and Commissioning

This Component Project consists of the testing and commissioning required to ensure that all systems are functioning properly and consistently to a point where FDOT and FRA can certify that revenue service can begin. This project will begin with a proposed program of testing and commissioning that will be developed by the concessionaire and will address the following elements: track/infrastructure, C&S, traction power/OCS and HSR-CC, rolling stock, and

prerevenue service testing. The testing and commissioning process will be developed in conjunction with the final development of system approval by the FRA Office of Safety for the selected concessionaire's technology.

Subproject HSR7.1: Develop Program for Testing and Commissioning
For this subproject, the concessionaire will prepare and submit for approval its proposed program for testing and commissioning the individual elements of the HSR system as well as the integration thereof. This program will include a break-in period of testing the entire system for a defined period under prerevenue service prior to final certification and approval to open the system for public use.

Subproject HSR7.2: Test and Commission Track
This subproject will consist of the testing and commissioning of the track system for use by the HSR concessionaire. The track testing with trainsets will occur after detailed walk-through inspections of the entire length of the system. Tracks will be tested with both maintenance as well as HSR trainsets and will only be approved for use after there have been test runs.

Subproject HSR7.3: Test and Commission Rolling Stock
The testing of the rolling stock will be the subproject that occurs when the trainsets have been delivered to the Maintenance yard and all systems have been installed: track, power/OCS, and C&S. In addition, all of these systems and the HSR-CC will be tested for functionality prior to the trainsets making their first runs. The final certification for use of the rolling stock must be in place prior to beginning the prerevenue service.

Subproject HSR7.4: Prerevenue Service
This is the final subproject prior to commencing revenue service for the HSR Project. The concessionaire will be responsible for performing a number of test runs of the fully functioning HSR system as defined in the testing and commissioning program developed in Subproject HSR7.1. Upon satisfactorily completed testing, FDOT (including the Florida Rail Enterprise (FRE)), with FRA concurrence, will certify the HSR Project approved to begin revenue service for the public.

HSR7: Cost Estimate
The table below provides a summary of the cost estimate structure for this project and subprojects based on FDOT's planning documents submitted with the FY 2009 ARRA application. The estimates in this table are partial budgets based on the percentage completion anticipated in this SOW for the respective phase and will be refined by FDOT in SOW #2.

HSR7: Testing and Commissioning	
Project/Subproject/Phase	**Cost Estimate**
Phase V: Testing and Commissioning	
Subproject HSR7.1: Develop Program for Testing and Commissioning	$ 2,000,000
Subproject HSR7.1: Test and Commission Track	(future SOW)
Subproject HSR7.3: Test and Commission Rolling Stock	(future SOW)
Subproject HSR7.4: Prerevenue Service	(future SOW)
Phase V Total:	**$ 2,000,000**
HSR7: Total:	**$ 2,000,000**

-- End of HSR7 --

Project PD&A: DBOM&F contract Support and Program Administration

As identified in SOW #1 and SOW #2, FDOT has organized a team of internal resources and outside consultants to assist with the development and administration of the HSR Project. This SOW includes PD&A activities required to support the continued advancement of the HSR Project through a P3 for a DBOM&F contract:

PD&A: Task List

The activities for the HSR Project will be completed by the Grantee through the list of tasks described below.

PD&A: Task 1 – HSR Project Controls

FDOT has identified e-Builder, a web-based software platform that will be configured to provide Project Controls for the HSR Project. The following subtasks will be managed through the e-Builder platform:

Subtask 1.1: Document Control

FDOT will institute, through e-Builder, processes and procedures to manage the development, distribution, and long-term archive of the various document artifacts of the HSR Project. The processes and procedures will be structured to permit ready access to the artifacts throughout the life of the HSR Project. The e-Builder platform will have customizable functionality designed to assign specific roles and responsibilities to users such as FRA, FDOT, Design-Build Firm/Contractor/Concessionaire, HSR Project Management, or even third-party personnel to maximize efficiencies associated with document workflows. For Projects identified in this SOW, the document control system to be developed will offer key functionality in the following areas:

- Centralized Document Repository
- Early Works Portal for Procurement – RFP source; bid questions; addenda issuance
- DBOM&F contract Portal for Procurement – RFQ and RFP source: information exchange with prospective proposers; addenda issuance; evaluation documents; contract documents
- Consolidated Document Comment/Markup Capability
- Project Submittal Processing using Automated Workflows
- ROW Maps and Acquisition Status reporting
- Transparency and Audit Trail Capability

Subtask 1.2: Management and Administration Systems

FDOT will develop processes within e-Builder to manage HSR Project contracts, budget, and invoicing. These processes will conform to FDOT and Federal reporting requirements and will be accessible and usable on a restricted basis. The system will provide the following:

- Contract Financial Status by HSR Project
- HSR Project Budget Summary
- HSR Project Funding Summary

Subtask 1.3: Scheduling

FDOT will continue to develop and maintain multiple schedules as required in association with the HSR Project: a schedule depicting high level activities and anticipated dates (similar to the one included in the Program Management Plan), a working level schedule for the HSR Project, and a detailed schedule for the approved work for the HSR Project. These schedules will be maintained for presentation with a minimum of the following three tiers:

7. HSR Project Schedule (Master HSR Project Schedule)
8. HSR Project SOW Schedules
   - SOW #1 Activities
   - SOW #2 Activities (Early Works HSR Projects, ROW, and PD&A)
   - SOW #3 Activities (DBOM&F contract and PD&A)
9. Individual HSR Project Schedules (subprojects, tasks, and subtasks)

Each schedule tier will be updated quarterly through the duration of the HSR Project, except for the Individual HSR Project schedules that will be updated monthly for the first quarter after issuance of a Notice to Proceed (NTP), then quarterly thereafter.

FDOT will submit schedule updates to FRA on all ongoing Early Works and HSR Project activities in Primavera P6 via e-Builder. The e-Builder platform will also provide reporting functionality for key milestone updates as they relate to the progress of the work at an individual HSR Project and overall HSR Project level. The e-Builder platform will also be used to link all the individual HSR Project schedules into an overall HSR Project schedule for monitoring of critical path activities.

Subtask 1.4: Budget

FDOT will continue to develop and maintain a consolidated budget as required in association with the HSR Project, individual HSR Projects, subprojects, and tasks. The budget will represent programmed cost estimates and be updated as HSR Project costs become refined during execution. This budget will be maintained for presentation with a minimum of the following three tiers:

7. HSR Project Budget (Master HSR Project Budget)
8. HSR Project SOW Budgets
   - SOW #1 Activities
   - SOW #2 Activities (Early Works HSR Projects, ROW, and PD&A)
   - SOW #3 Activities (DBOM&F contract and PD&A)
9. Individual HSR Project Budgets (subprojects, tasks, and subtasks)

Each budget tier will be updated quarterly through the duration of the HSR Project, except for the Individual HSR Project budgets that will be updated monthly for the first quarter after NTP, then quarterly thereafter.

Additionally, this subtask includes the preparation of cost estimates for all elements of the HSR Project such as program activities, professional services, the DBOM&F contract, engineering estimates, and procurement activities.

Subtask 1.5: Continued Development of HSR Project Management Documents

This subtask will consist in the continued development and update of HSR Project Management documents initially developed under SOW #1 including the following:

- HSR Project Management Plan
- Quality Control HSR Project
- Risk Management HSR Project
- Service Development Plan (including the HSR Project Financial Plan)

The Grantee will maintain an updated HSR Project budget including all HSR Project development and Early Works project activities included in this SOW, as well as anticipated DBOM&F contract procurement activities required through the completion and closeout of the HSR Project. This HSR Project budget will be updated quarterly through the duration of the HSR Project.

Subtask 1.6: Public Outreach and Communications

This will consist of the continuation of the Public Outreach and Communications for the HSR Project developed in SOW #1. FDOT has actively reached out to the following constituencies through different outreach tools and meetings:

- Elected officials
- HSR Project stakeholders
- Construction and engineering industry
- HSR industry
- Small and Disadvantaged Business Enterprises
- General public

The public awareness and outreach plan will be continued and grown as directed by FDOT as activities in the HSR Project advance. This effort will also be coordinated with the Orlando-Miami HSR Project, which is being performed under a separate Agreement.

Subtask 1.7: Stakeholder Agreements

A number of stakeholder Agreements have been identified and initiated under SOW #1. This subtask includes work to continue to develop, advance and finalize these agreements.

PD&A: Task 2: DBOM&F Contract Support Activities

FDOT will continue the monitoring of the DBOM&F contract for the HSR Project as selected from the proposals in SOW #2.

Subtask 2.1 FRA Office of Safety Regulation Development

Concurrent with the preparation of Design Criteria and Specifications identified in SOW #1, FDOT will continue to coordinate with the FRA Office of Safety to obtain regulatory approval for the Phase I HSR Project. Such regulatory approval and oversight may be carried out by a

Rule of Particular Applicability (RPA) or other regulatory means as the case may dictate. This will also include the continued development and advancement of criteria and specifications to support the information required to petition FRA for an RPA during the procurement stage of the DBOM&F contract, which information will be included in the RFP and reflect FRA's guidance to bidders. Frequent coordination with FRA is anticipated in the development of this process. For the DBOM&F contract, FDOT will support each of the short-listed teams by determining specific requirements for each to achieve FRA regulatory approval and then begin work with the selected concessionaire to take the FRA regulatory process to completion in accordance with the FRA-approved guidelines governing the RPA process, which guidelines will be included in the RFP.

Subtask 2.2: Design Review Support for the DBOM&F Contract
FDOT will perform design review and approval activities as required through the HSR Project. Design reviews will be performed for the following HSR Project components:

- Roadway
- Utilities
- Rail/Highway Geometry
- Trackwork and OCS Support Foundation Layout
- Bridges and Structures
- Communications and Signaling
- Stations and Site
- Maintenance Facility plans

PD&A: Task 3 DBOM&F Contract Inspection, Progress, and Monitoring Program
FDOT will perform inspection and monitoring activities during construction. This work will include the development inspection and monitoring activities and will generally be divided into the following components.

Subtask 3.1: Construction Management and HSR Inspection
FDOT will use its Program Manager to perform overall construction management and inspection of specialty HSR elements such as track, power/OCS, C&S, HSR bridge structures, maintenance facility, HSR-CC, stations, and rolling stock.

Subtask 3.2: Inspection of Non-HSR Components
FDOT will hire a separate CE&I firm to perform inspection of non-HSR elements such as roadway, earthwork, subbase, drainage, non-HSR bridges and retaining walls, and other.

PD&A: Cost Estimate
The table below provides a summary of the cost estimate structure for this project and subprojects based on FDOT's planning documents submitted with the FY 2009 ARRA application. The estimates in this table are partial budgets based on the percentage completion anticipated in this SOW for the respective phase and will be refined by FDOT in SOW #2.

PD&A: DBOM&F Contract Support and Program Administration **Project/Subproject/Task/Phase**	
PHASE-I	**Cost Estimate**

Task 1 – Project Controls	
Subtask 1.1 Document Control	$ 1,000,000
Subtask 1.2 Management and Administration	$ 2,000,000
Subtask 1.3 Scheduling	$ 1,000,000
Subtask 1.4 Budget	$ 1,000,000
Subtask 1.5 HSR Project Management Documents	$ 1,000,000
Subtask 1.6 Public Outreach	$ 1,500,000
Subtask 1.7 Stakeholder Agreements	$ 500,000
Task 1 Subtotal	**$ 7,000,000**
Task 2 – DBOM&F Contract Support Activities	
Subtask 2.1 FRA Office of Safety	$ 1,000,000
Subtask 2.2 Engineering Support	$ 5,000,000
Task 2 Subtotal	**$ 6,000,000**
Task3 – DBOM&F contract Inspection and Program Monitoring	
Subtask 3.1 Inspection and Construction Management	$13,500,000
Subtask 3.2 Inspection of Non-HSR components	$13,500,000
Task 3 Subtotal	**$ 27,000,000**
Project PD&A Total	**$ 40,000,000**

-- End of PD&A --

HSR PROJECT SCHEDULE

Schedule of Work:
The period of performance for the work described in this SOW will be 46 months, beginning March 1, 2012, and ending September 30, 2017.

PERFORMANCE OBJECTIVES AND DELIVERABLES

As defined in the PD&A Component Project, FDOT will prepare and maintain an updated HSR Project schedule. This schedule will include all performance objectives and deliverables defined for all components of the HSR Project through completion. FDOT will achieve these performance objectives in order to be eligible for reimbursement for performance of the relevant objectives, and for the HSR Project (and the Component Projects) to be considered complete.

A schedule is included in the supporting documents to this SOW for the key milestone objectives listed below:

Milestone 1: Financial Close and Notice to Proceed
Milestone 2: Completion of Final Design
Milestone 3: Completion of Construction
Milestone 4: Delivery of Initial Trainset
Milestone 5: Completion of Testing and Start of Revenue Service

HSR PROJECT ESTIMATE/BUDGET

The total estimated cost of the HSR Project activities in SOW #3 is $1,080,077,959 for which FRA will contribute up to $1,080,077,959, or 100.00% of the total cost, but no more than $1,080,077,959.

SOW #3 PD&A	
Phase I: DBOM&F Contract Support and Program Administration	$ 40,000,000
SOW #3 Capital Construction Projects	
Phase II: Final Design for Capital Projects	$ 60,000,000
Phase III: Construction of Capital Projects	$ 865,000,000
Phase IV: Rolling Stock Design, Manufacturing, and Delivery	$ 60,000,000
Phase V: System Testing and Commissioning	$ 2,000,000
Total Capital Costs:	**$1,027,000,000**
Contingency:	$ 53,077,959
Total HSR Project Cost:	**$1,080,077,959**

This SOW provides a summary of the cost estimate structure for the projects and subprojects based on FDOT's planning documents submitted with the FY 2009 ARRA application. The cost estimates in this SOW are partial budgets based on the percentage completion anticipated in this SOW for the respective phase, and will be refined by FDOT in SOW #2. An updated cost estimate for the Component Projects and the subprojects is under development in SOW #1 and subject to refinement during the procurement activities in SOW #2. Upon selection of a concessionaire in SOW #2, the Grantee will prepare for FRA's review and approval an accurate cost estimate for the Component Projects and subprojects. In addition, the Milestones in this SOW describe an anticipated percentage of completion (based on FDOT's FY 2009 ARRA Application) for each of the phases in this SOW.

Florida HSR Phase I: HSR Project (FRA Grant)	
FRA (100.00% of HSR Project cost)	$1,080,077,959
Grantee Contribution (0.00% of HSR Project cost):	$ 0
Total HSR Project Cost:	$1,080,077,959

HSR PROJECT COORDINATION

The HSR Project will be administered by the FRE of FDOT. All funds provided in the Agreement accompanying this SOW are for the exclusive use in the implementation of the HSR Project as provided for in the Agreement and accompanying attachments. An HSR Project organization chart is included in the PMP provided by FDOT with the supporting documents to this Agreement.

PREREQUISITES AND DELIVERABLES

Appendix A: Supporting Documents

The activities in this SOW are restricted to advancement only upon completion of the prerequisite procurement activities in SOW #2, resulting in the selection of a concessionaire for a DBOM&F contract for the HSR Project, including written authorization from FRA to proceed with activities included in SOW #3. A preliminary list of prerequisite deliverables is provided in "Appendix A: Supporting Documents" to this SOW.

Appendix B: Deliverables

A draft consolidated list of the deliverables required for the HSR Projects in this SOW (SOW #3) is provided in "Appendix B: Deliverables" to this SOW, which will be revised through the development of the HSR Project in SOW #2.

Appendix A: Supporting Documents and Prerequisites

Supporting Documents	Document Title/File Name	Version Date	SOW #2 Task
Project PD&A: Project Development and Administration			
HSR Project Schedule	Prerequisite under development in SOW #2		Task 1.3:
HSR Project Budget	Prerequisite under development in SOW #2		Task 1.4:
HSR PMP	Prerequisite under development in SOW #2		Task 1.5:
HSR Project Organization Chart	Prerequisite under development in SOW #2		Task 1.5:
Quality Control Plan	Prerequisite under development in SOW #2		Task 1.5:
Risk Management Plan	Prerequisite under development in SOW #2		Task 1.5:
Engineering Cost Estimate	Prerequisite under development in SOW #2		Task 1.5:
SDP with Financial Plan	Prerequisite under development in SOW #2		Task 1.5:
RFP document for DBOM&F contract	Prerequisite under development in SOW #2		Task 2.3:
Design Criteria and Specifications	Prerequisite under development in SOW #2		Task 2.1:
Safety Criteria and Specifications for Florida HSR (RPA Guidelines)	Prerequisite under development in SOW #2		Task 2.1:
DBOM&F Contract Selected Proposal	Prerequisite under development in SOW #2		Task 2.3:

Appendix B: Deliverables (Draft)

DELIVERABLE	PROJECT
HSR Project Documents	**PD&A**
HSR Project Schedule (Update quarterly)	Task 1.3:
HSR Project Budget (Update quarterly)	Task 1.4:
TBD	
Project Plan	
Revised HSR Project PMP – (as required)	Task 1.5:
Revised HSR Project SDP and Financial Plan – (as required)	Task 1.5:
Design	
Preliminary Engineering Drawing Update/Addenda – (as required)	Task 2.2:
HSR Project Cost Estimate Update – (as required)	Task 2.2:
TBD	

13. The Grantee will carry out the Project, to include all individual work efforts covered by the Statement of Work, Attachment 3, and all supplemental Statements of Work, in accordance with the terms of the Agreement.

14. Except as specifically amended hereby, all terms, conditions, and attachments of the original Agreement will remain in full force and effect, and the parties hereto agree thereto.

EXHIBIT

"G, Part 1"

CHARLIE CRIST
GOVERNOR

October 2, 2009

The Honorable Ray LaHood, Secretary
U.S. Department of Transportation
1200 New Jersey Avenue SE
Washington, D.C. 20590

The Honorable Joseph Szabo, Administrator
Federal Railroad Administration
U.S. Department of Transportation
1200 New Jersey Avenue SE
Washington, D.C. 20590

Dear Secretary LaHood and Administrator Szabo;

I am pleased to submit Florida's Track 2 Application for the Tampa-Orlando-Miami High Speed Rail Program. Florida is the State that can turn imagination into reality for world-class High Speed Rail in the United States faster than anywhere else in the nation. We are confident that based on Florida's long history of planning for High Speed Rail in our State, and the diligent work done to prepare this Application, we offer the best opportunity to deliver results as quickly as possible. Acceptance of this Track 2 Application by year-end 2009 will result in a contract by 2010 for implementing the Orlando-Tampa segment. Planning for the extension to Miami will proceed in parallel, providing full system implementation (Tampa-Orlando-Miami) by 2017.

The State of Florida has the demographics, geography, growth management plans, and economic and environmental features that make Florida's proposed High Speed Rail system most compelling. High Speed Rail also complements Florida's history and image as the cross-roads of entertainment and space technology, enhancing our global competitiveness as a entrepreneurial and travel destination.

Included with this Application are a wide range of letters of support and resolution from many stakeholders across the planned corridor. The commitment and support for this program is bi-partisan and widespread, including dedicated collaboration from the Florida Cabinet, a grass-roots initiative, many of Florida's senior legislators and multiple business organizations and stakeholders.

THE CAPITOL
TALLAHASSEE, FLORIDA 32399 • (850) 488-2272 • FAX (850) 922-4292

We have an unprecedented opportunity to provide a transportation alternative that is widely available in other developed countries around the world. There has never been a better time than now, and there is no better place to invest in High Speed Rail than in Florida.

Sincerely,

Charlie Crist

EXHIBIT

"G, Part 2"

CHARLIE CRIST
GOVERNOR

August 5, 2010

The Honorable Ray LaHood, Secretary
U.S. Department of Transportation
1200 New Jersey Avenue SE
Washington, D.C. 20590

The Honorable Joseph Szabo, Administrator
Federal Railroad Administration
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington, D.C. 20590

Dear Secretary LaHood and Administrator Szabo:

I am pleased to submit Florida's application for High Speed Rail (HSR) Service Development Program (SDP) funding in the amount of $1,123,642,000. This funding will allow Florida to deliver HSR Express Service in the Tampa-Orlando Corridor with operating speeds of at least 168 mph by 2015.

The State of Florida is ready to assist the Federal Rail Administration (FRA) in aggressively implementing High Speed Rail. All major environmental clearances and a Record of Decision (ROD) have been received. Through our close work with and support from the FRA, Florida is poised to initiate a procurement process that will culminate in the operation of HSR Express revenue service in the Tampa-Orlando corridor in 2015.

Completion of the funding plan for the Tampa-Orlando project is the last essential element needed for expeditious construction of the project. At present, Florida has approximately 66% of the capital funding needed for this project, including substantial right of way in hand, ARRA funding, and state funds needed to match this application.

Florida recognizes the great demand and competition for these funds; however, Florida is uniquely positioned to bring to life the "Vision of High Speed Rail in America" by starting HSR Express service in 2015 in the heart of America's most popular family tourist destination and showcasing this technology and its benefits to tens of millions of Americans each year.

I ask for your favorable consideration of this funding request so we can capture this unprecedented opportunity to make high speed rail work in Florida.

Sincerely,

Charlie Crist

THE CAPITOL
TALLAHASSEE, FLORIDA 32399 • (850) 488-2272 • FAX (850) 922-4292

EXHIBIT

“H”

STATE OF FLORIDA
Office of the Governor
THE CAPITOL
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RICK SCOTT
GOVERNOR

February 16, 2011

The Honorable Ray LaHood
Secretary
U.S. Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Dear Mr. Secretary:

Since my election as Florida governor last November, I have been focused on those initiatives and investments that create the best opportunities for job creation over the long-term. In that regard, I am grateful for the time you and your team have spent discussing with me President Obama's high-speed rail program and the rationale for investment both in Florida and across the country.

As you know, my focus has been to ensure that transportation investments in our State reflect the diversity of needs we face – from port facilities and highway and rail connections that drive domestic commerce and international trade, to investments in aviation and transit.

I believe that the dollars being made available for proposed high-speed rail projects are better invested in higher yield projects, like those we have discussed in the past few weeks and that are listed below.

- Dredging improvements to the Jacksonville Port Authority
- Intermodal Container Transfer Facility at Port Everglades
- Dredging improvements at the Port of Miami
- I-295/SR 9A interchange at Heckscher Drive in Duval County
- Improvements to US 331, including a new bridge east of the existing bridge over Choctawhatchee Bay
- Widening I-95 in Martin, St. Lucie, Brevard and Volusia Counties
- Widening I-4 in Orange County
- Improvements to I-395 in Miami-Dade County
- Widening I-275 in Hillsborough County

The long-term job creation opportunities from these projects are greater, the private investment stronger and the economic yield more permanent. Given the limited dollars available, federal investments, rather than generating temporal job

creation, must be directed toward those projects offering real long-term growth potential and a broader return on investment for our economy and our citizens.

The high-speed rail project now targeted for Florida requires the federal government to invest $2.4 billion in taxpayer money for an 84-mile line from Tampa to Orlando that would likely not pay for itself. Conventional wisdom suggests that this line, like the vast majority of passenger rail lines, will not be economically sustainable, but that potential concessionaires will bid on the line to obtain a right of first refusal to operate the prospective line from Orlando to Miami. However, given that actual rider ship will not be known until well after the capital investment is made, the potential for significant capital and operating cost overruns and the nominal difference in travel times between the cities, it is likely that even with financial guarantees from a private sector builder/operator, moving forward with such a project would likely lead to a financial obligation by the state of Florida in the future. Moreover, there is no indication this investment will provide any meaningful job creation beyond the construction phase, nor will it result in sustainable economic growth opportunities. Put simply, the proposed high-speed rail line is far too uncertain and offers far too little long term benefit for me to consider moving forward and ultimately putting taxpayers at risk during an already challenging fiscal climate.

For the reasons outlined, Florida will not move forward with the high-speed rail project from Tampa to Orlando. However, I do look forward to our continued work together in meeting the broad array of transportation needs in our state as we seek to strengthen our economy for the long-term.

Sincerely,

Governor Rick Scott