



RFQ-SF-01-0-2020
ADDENDUM NUMBER 1

REQUEST FOR QUALIFICATIONS
For

ENGINEERING AND PERMITTING
SPACE COMMERCE WAY CONNECTOR
4-LANE WIDENING

Date: May 19, 2020
To: All Interested Bidders and Other Interested Parties
From: Annette O'Donnell, Director of Contracts

Space Florida makes the following changes and considers Addendum Number 1 a part of the Request for Qualifications document.

- 1. Statement of Work Attachment B, Description of Project and Scope of Work Scope of Services for Engineering and Permitting Space Commerce Way Connector 4-Lane Widening**

Add: Attachment B - Technical Memorandum Infrastructure For Rebuilding America (INFRA) Grant Supporting Documentation Space Commerce Way Four-Laning Evaluation

Space Commerce Way Four-Laning Evaluation

TO: Steve Szabo, PE (Space Florida)

FROM: Richard Koller, PE, LEED AP; Walter Nickel, PE; Matt O'Brien, PE (Jones Edmunds), Priyanka Valletta, PE (BRPH)

DATE: April 5, 2019

SUBJECT: **Infrastructure For Rebuilding America (INFRA) Grant Supporting Documentation**
Space Commerce Way Four-Laning Evaluation
Jones Edmunds Project No. 02655-007-01

1 BACKGROUND

Space Commerce Way is a roadway owned and maintained by NASA at the Kennedy Space Center (KSC). It was originally completed in 2003 and provides a link between NASA Parkway and Kennedy Parkway around and outside the controlled-access KSC security gates. The roadway consists of a two-lane section constructed along the east portion within a 220-foot right-of-way. The roadway widens to four lanes at the intersections with NASA Parkway and Kennedy Parkway. Space Commerce Way provides the primary means of access to the KSC Visitor Complex, the Blue Origin facility, and Exploration Park. Signalized intersections are at NASA Parkway, Kennedy Parkway, and the entrance to the KSC Visitor Complex. Space Commerce Way also serves as the only public access between Kennedy Parkway and NASA Parkway before entering the controlled-access area of the KSC property and is an emergency evacuation route for the residents of Merritt Island. See Attachment 1, Figure 1 for a Project Map.

This Technical Memorandum has been prepared to inform the Space Florida Capital Improvement Program and to support Space Florida with completing an INFRA Grant Application for submittal to the Florida Department of Transportation (FDOT). This Technical Memorandum includes proposed design concepts for widening Space Commerce Way from the existing two-lane configuration to a four-lane configuration meeting FDOT standards, a summary of key environmental considerations and permitting strategy, opinion of probable project cost, and the expected project schedule for design and construction.

2 EXISTING CONDITIONS

The roadway is a two-lane crowned section (see Attachment 1, Figure 2, Existing Typical Section Facing North) with signalized intersections at NASA Parkway, Kennedy Parkway, and Galaxy Way (the entrance to the KSC Visitor Complex). Unsignalized intersections exist at

E Avenue SW, Exploration Parkway, and Ransom Road. The Project Map (Attachment 1, Figure 1) shows Space Commerce Way, which starts at NASA Parkway and runs south to approximately E Avenue SW, where it turns east and runs through an intersection with Galaxy Way (KSC Visitor Complex to the north; Blue Origin to the south). Space Commerce Way continues east and then turns south where it intersects with Exploration Way (Exploration Park to the east; Blue Origin to the west). Space Commerce Way continues south past Ransom Road and continues until it turns east to the intersection with Kennedy Parkway. The roadway is situated in the east and north portions of a 220-foot right-of-way corridor. The intersection configurations are summarized below:

- **NASA Parkway (Signalized)** – This intersection has two southbound lanes and northbound right and left turn lanes separated by a painted island. A 32-foot median is between the northbound and southbound lanes.
- **E Avenue SW (Unsignalized)** – This intersection has a southbound right-turn lane, a northbound left-turn lane, and southbound and northbound acceleration lanes with one through lane in each direction. The stop condition is on E Avenue SW.
- **Entrance to the KSC Visitor Complex (Signalized)** – This intersection has two eastbound left-turn lanes, one westbound right-turn lane, and one westbound left-turn lane with one through lane in each direction.
- **Exploration Parkway (Unsignalized)** – This intersection has a southbound left-turn lane, a northbound right-turn lane, and one through lane in each direction. The stop condition is on Exploration Parkway.
- **Ransom Road (Unsignalized)** – There are no turn lanes or acceleration lanes. The stop condition is on Ransom Road.
- **Kennedy Parkway (Signalized)** – This intersection has two westbound lanes and one eastbound lane with one eastbound lane striped off. A 32-foot median is between the westbound and eastbound lanes.

Drainage for Space Commerce Way currently consists of roadside swales and cross-drains that convey the runoff to wet treatment ponds along the outer east and north edges of the right-of-way. The current configuration does not comply with current FDOT design standards, including the following:

- **Canal Hazard Violation** – The FDOT Design Manual (FDM) criteria for canal hazards requires additional clear zone setbacks to such hazards. Continuous linear wet retention ditches such as those that currently exist along Space Commerce Way meet the canal hazard definition. These ditches require an increase in the required clear zone from 24-feet to 60-feet. Therefore, the outer ditches will be converted to dry treatment swales that then convey water to wet ponds outside the 60-foot setback requirement.
- **Cross Slope** – The current two-lane cross-slope geometry is crowned along its centerline rather than its inner lane edge of pavement. Although this is not a violation of current FDOT standards, additional lanes with this cross-slope geometry complicate conveyance of stormwater from the center grassed median and the conversion of the outer ditches to shallow, dry water quality treatment swales. Asphalt leveling courses will be used to correct the current cross slope geometry.

A Traffic Impact Study completed in September 2017 for design of Galaxy Way, the new Visitor Complex south access roadway, determined that current and projected traffic

volumes for 2035 were under the maximum capacity that would require a four-lane configuration based on traditional traffic operation considerations. However, special considerations that support expanding Space Commerce Way to a four-lane road include:

1. Increased capacity as an emergency evacuation route for residents of Merritt Island.
2. Increased capacity for the Visitor Complex's recently constructed (2019) Visitor Entrance at the intersection of Galaxy Way and Space Commerce Way. This new intersection creates significantly more traffic on Space Commerce Way, especially during launch events when traffic backs up on Space Commerce Way and NASA Causeway. The Visitor Complex expects increasing traffic demands as they expand their operations and the number of NASA and commercial launches increases.
3. Increased commercial development and associated hauling and deliveries (e.g. Blue Origin, OneWeb) for new developments anticipated in Exploration Park and along Space Commerce Way.
4. Specialized uses involving transportation of oversized aerospace flight hardware. These operations often require shutting down up to two lanes of traffic. A four-lane road would potentially allow Space Commerce Way to remain open through such operations.

3 PROPOSED CONDITIONS

The new roadway will be designed to meet the current FDOT standards. The four-laning of Space Commerce Way will have two travel lanes added so that two lanes are provided in each direction separated by a 32-foot median with 8-foot inside shoulders (2-foot paved) and 12-foot outside shoulders (5-foot paved). Attachment 1, Figure 3, is a Proposed Typical Section Facing North. Intersections with existing driveways and cross-streets will include turn lanes and signalization modifications as required to meet the designed condition. The design will seek to use the existing pavement as much as possible through milling, overbuilding to adjust cross-slope deficiencies, and resurfacing.

Drainage is expected to be provided by roadside dry retention swales and cross-drains to convey the stormwater to wet detention ponds outside the existing right-of-way. Preliminary recommendations for wet pond locations are shown in Attachment 1, Figures 1 and 4. Wetland delineation, listed species assessments, and stormwater design and permitting will be required for the new wet detention ponds locations.

Interviews conducted with NASA and leaseholders along Space Commerce Way indicate that new driveways will be needed for future developments to include tractor-trailers. Additional turn lanes will need to be added to the alignment. The cost opinions provided in Attachment 2 encompass the cost for these turn lanes.

Space Commerce Way must also have special geometric accommodations for aerospace hardware transportation between tenants along Space Commerce Way and launch facilities at KSC and the Cape Canaveral Air Force Station to the east. This typically includes transporting flight hardware (e.g., rocket segments) on large multi-axle transporters from manufacturing facilities. Past intersection improvement projects have included larger turning radii, specialized traffic signalization configurations, and street lighting spacing to allow for

oversized loads. The cost opinions provided in Attachment 2 encompass the costs for these special configurations.

Street lighting is included in the proposed roadway widening project and is also captured in the cost opinions provided in Attachment 2.

4 ENVIRONMENTAL CONSIDERATIONS

4.1 NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

The original Space Commerce Way design in 2001 consisted of a four-lane divided configuration, with an option to construct only the north/east two lanes. A NEPA-compliant Environmental Assessment (EA) was completed by NASA at that time for the four-lane configuration. A meeting was conducted with Space Florida, NASA KSC Master Planning, and NASA Environmental on February 6, 2019. Discussion occurred regarding whether NASA's original EA should cover the proposed road widening as long as NASA continues to own the roadway. However, if roadway ownership is transferred to FDOT, then FDOT will need to determine whether a new EA must be conducted to their standards.

A NASA *Environmental Checklist* was submitted to NASA Environmental to initiate a formal process to evaluate applicable environmental requirements. NASA issued a Record of Environmental Considerations confirming that the original Space Experiments Research and Processing Laboratory (March 2000) and Space Commerce Way Road, Phase II (May 2002) EAs provide NEPA coverage.

4.2 WETLANDS

The project was permitted as a four-lane design and wetland impacts for the four-lane design were mitigated with the creation of wetlands west of the Visitors Center (Attachment 1, Figure 5). However, the two-lane option was ultimately selected and construction of two lanes was completed in 2003.

A phone conference was conducted on February 11, 2019, with St. Johns River Water Management District (SJRWMD) staff to discuss permitting requirements and to obtain guidance whether wetland delineations developed for the original Space Commerce Way permitting in 2001 could be used for the proposed widening project. SJRWMD indicated that the new widening project would require a new wetland delineation for undisturbed areas within the right-of-way based on current conditions and wetland impacts will require mitigation despite wetlands in these areas having been previously mitigated (Attachment 1, Figure 6).

Similarly, Jeff Collins of the US Army Corps of Engineers (USACE), permit reviewer for this region, stated on February 14, 2019, that since the permits expired, new wetland delineations will be required and impacts will need to be mitigated despite wetlands in these areas having been previously mitigated.

The original design and permit documents were also reviewed to determine if any excess mitigation was performed during the original construction project that may benefit the current project. The records indicate that most wetland impacts for the original four-lane

design occurred on the east and north sides of the right-of-way, which is where the current two-lanes were constructed. Mitigation constructed was adequate to offset the impacts at that time. The undeveloped west and south portions of the right-of-way where the future lanes will be constructed had minimal wetland impacts; therefore, minimal excess wetland mitigation would be available.

Current water quality treatment requirements for the new widening will require dry pretreatment swales adjacent to the roadway and stormwater wet detention ponds outside but adjacent to the right-of-way. Total minimum land area needed for the new wet detention ponds is estimated to be approximately 10 acres. For planning purposes, we recommend 20 acres of wet ponds be sited. The ponds are recommended to be distributed along Space Commerce Way to improve gravity drainage and minimize flow distances given the relatively flat alignment. Given conditions within the available undeveloped land that could potentially be used for these wet detention ponds, up to 50 percent of the land likely contains wetlands requiring permitting and mitigation. Any required wetland mitigation is assumed to be handled via the purchase of wetland credits, the cost of which is captured in the cost opinions provided in Attachment 2.

5 OPINION OF PROBABLE PROJECT COST

A concept-level opinion of probable project cost for this project is included as Attachment 2. The rough order of magnitude cost range for the project is \$26 million to \$28 million.

The cost opinion contains a breakdown of construction line items using approximate construction quantities based on a notional four-laning design using the original four-lane design as a basis and adjusting for current FDOT design requirements. Rounded unit costs were used based on the FDOT Construction Contract History 6-Month Moving Averages. The cost opinion was verified by using the FDOT Long Range Estimating System, the calculation of which is attached to the detailed cost opinion. Engineering costs were estimated using typical percentages of construction value for budgetary purposes. Actual costs for each project element will depend on the final design, specifications, construction phasing, procurement method, unforeseen conditions, and other market conditions at the time of bidding and construction.

6 IMPLEMENTATION SCHEDULE

An estimated implementation schedule was prepared and is presented in Attachment 3. This schedule includes 12 months for design and 24 months for construction, with approximately 7 months as a notional timeframe for procurement of these services, so that the total duration of the project is expected to be 3.5 years. The 12 months for design would include field investigations, wetland delineations, surveying, design, and permit application preparation. Excessive permit review times are excluded from this schedule. If an FDOT-compliant Project Development and Environment (PD&E) Study becomes necessary (e.g., if FDOT takes ownership of Space Commerce Way), additional time will be needed in the schedule.

Attachment 1
Figures

SAVED: 3/29/2019 2:44 PM DHAUBRICH \\JEA.NET\PAN02\WORKSPACE\02655 - SPACE FLORIDA\PROJECTS\007-01 - SCW 4 - LAMING\FIGURES\FIGURE 1 - SPACE COMMERCE WAY N&S.WALBTWD: 3/29/2019 02:47 PM DEAN HAUBRICH

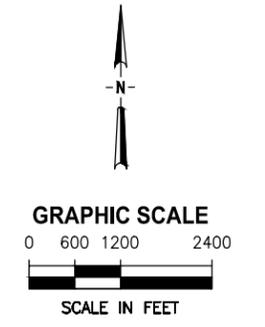
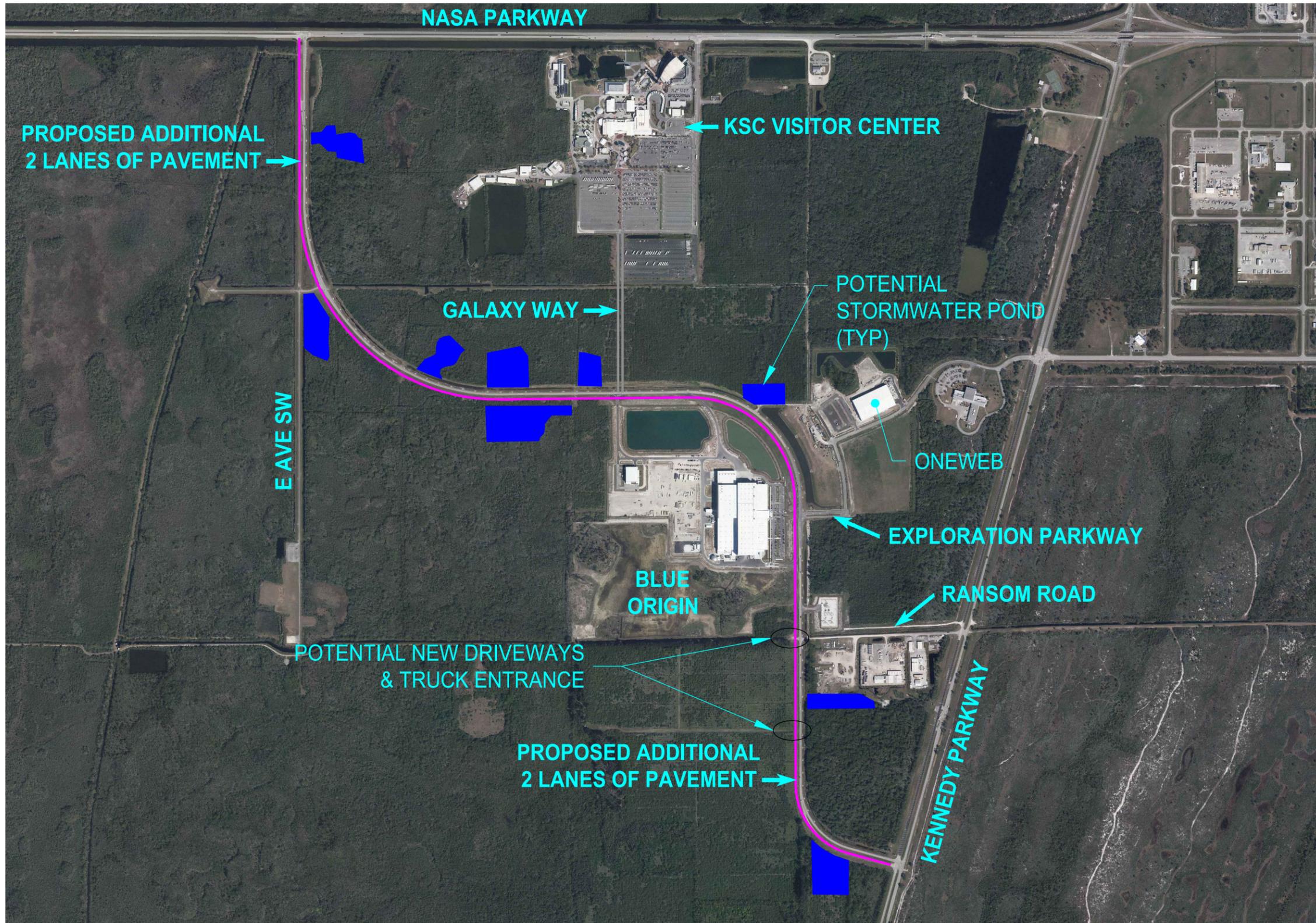


FIGURE 1
PROJECT MAP

SAVED: 3/28/2019 4:37 PM DHAUBRICH Y:\SCOPING\001-01 - SLF SCOPING\CAD\FIGURES\FIGURE 2 - SPACE COMMERCE WAY NBS-EXIST-XSECTION.DWG PLOTTED: 3/28/2019 04:40 PM DEAN HAUBRICH

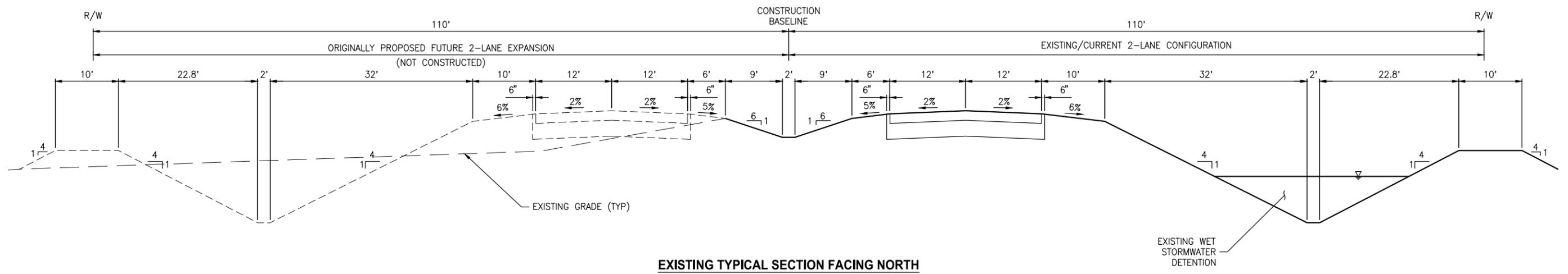
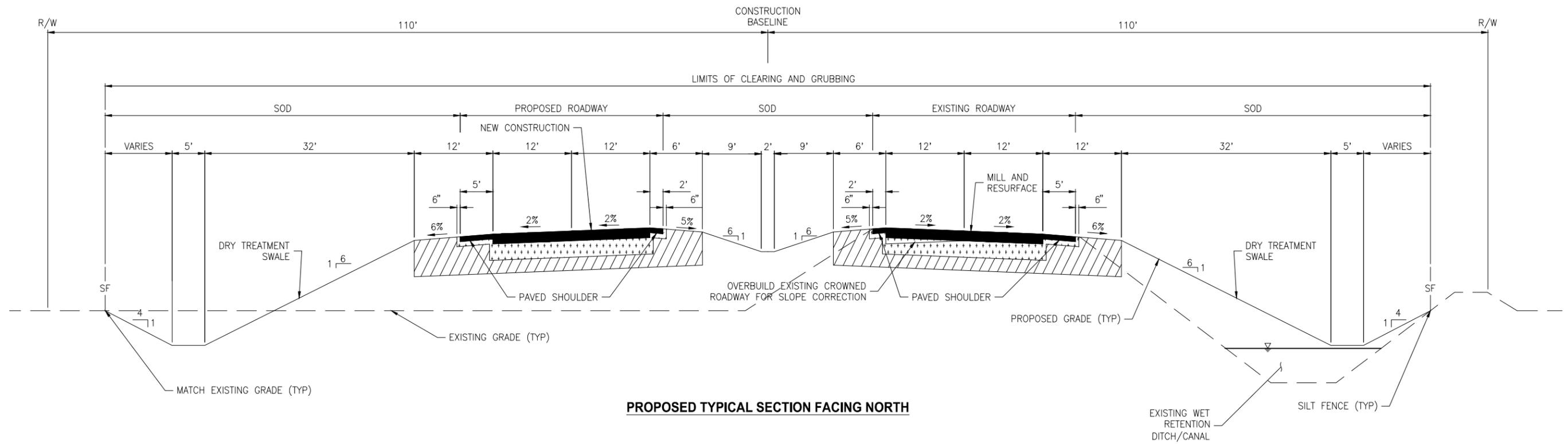


FIGURE 2
EXISTING TYPICAL SECTION

SAVED: 3/28/2019 2:22 PM DHAUBRICH Y:\02655 - SPACE FLORIDA\PROJECTS\001-01 - SLF SCOPING\CAD\FIGURES\FIGURE 3 - SPACE COMMERCE WAY N&S_PROP-XSECTION.DWG PLOTTED: 3/28/2019 03:15 PM DEAN HAUBRICH



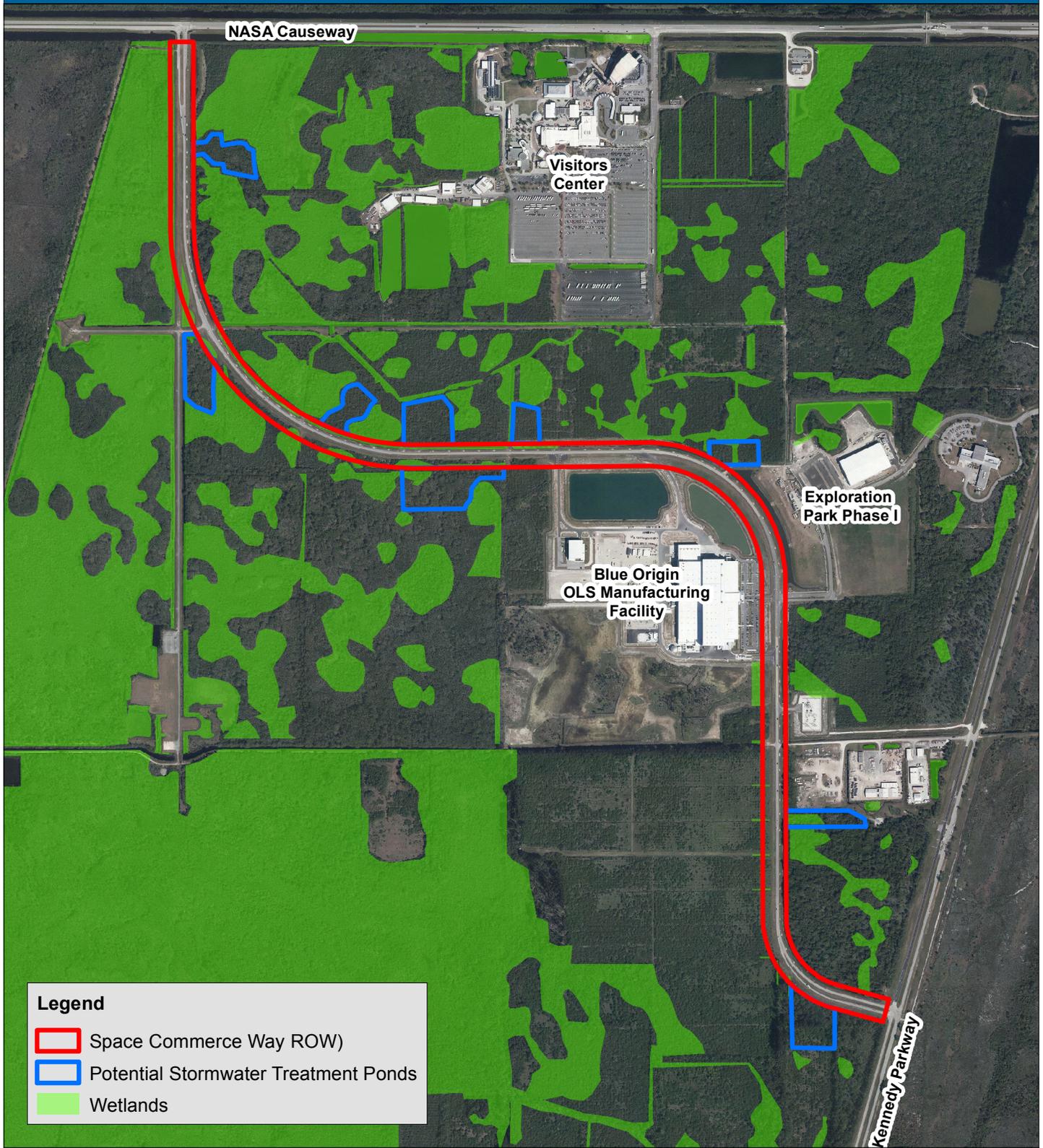
PROPOSED TYPICAL SECTION FACING NORTH

**FIGURE 3
PROPOSED TYPICAL SECTION**

Figure 4

Wetlands and Pond Locations Map

Space Commerce Way 4-Laning Evaluation



Legend

-  Space Commerce Way ROW)
-  Potential Stormwater Treatment Ponds
-  Wetlands

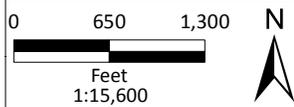
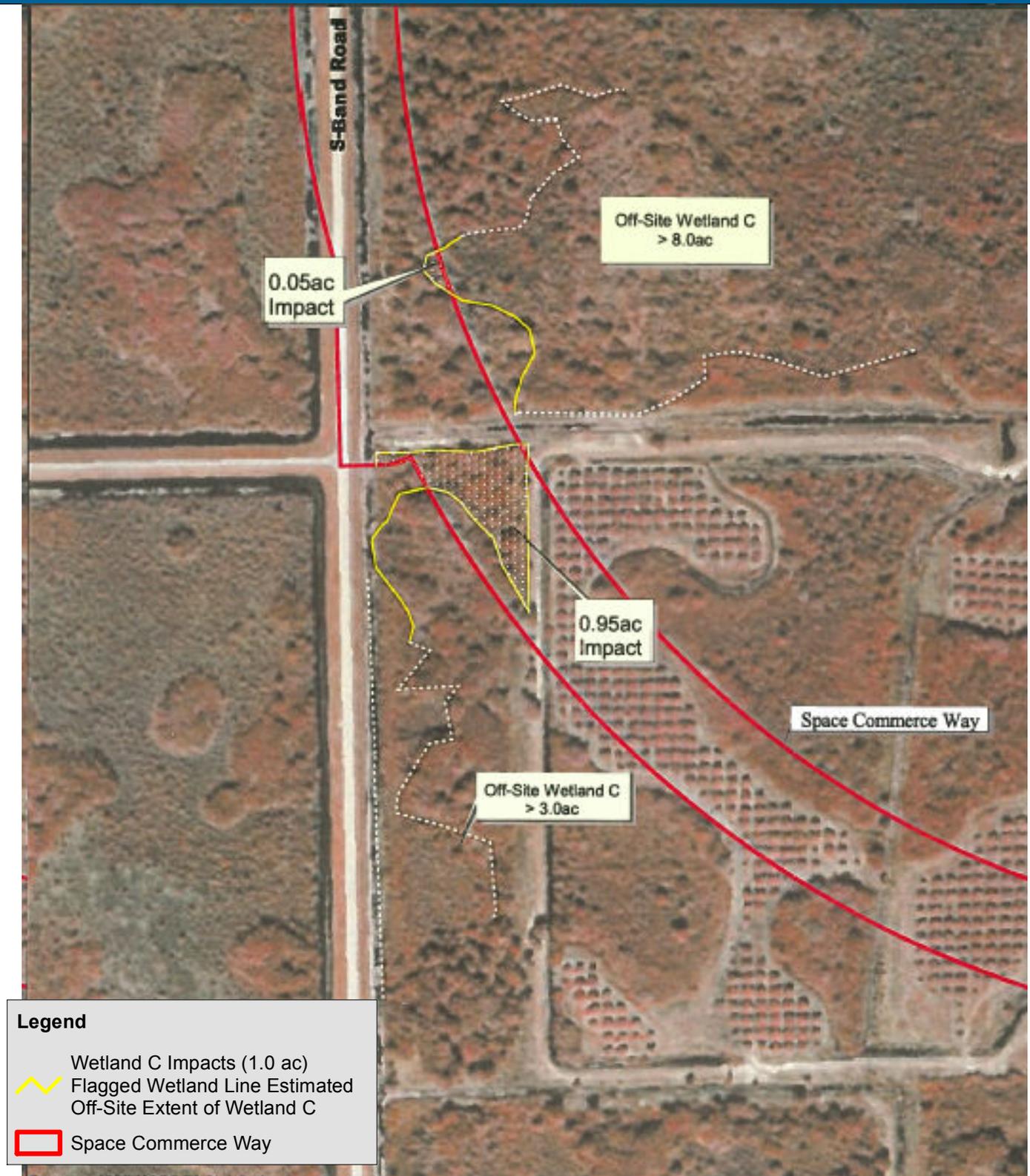


Figure 5

Wetland And Surface Water Location Map

Space Commerce Way 4-Laning Evaluation



Legend

- Wetland C Impacts (1.0 ac)
- Flagged Wetland Line Estimated Off-Site Extent of Wetland C
- Space Commerce Way

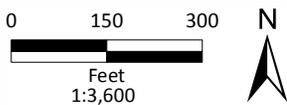
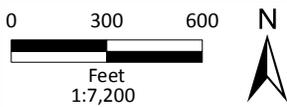
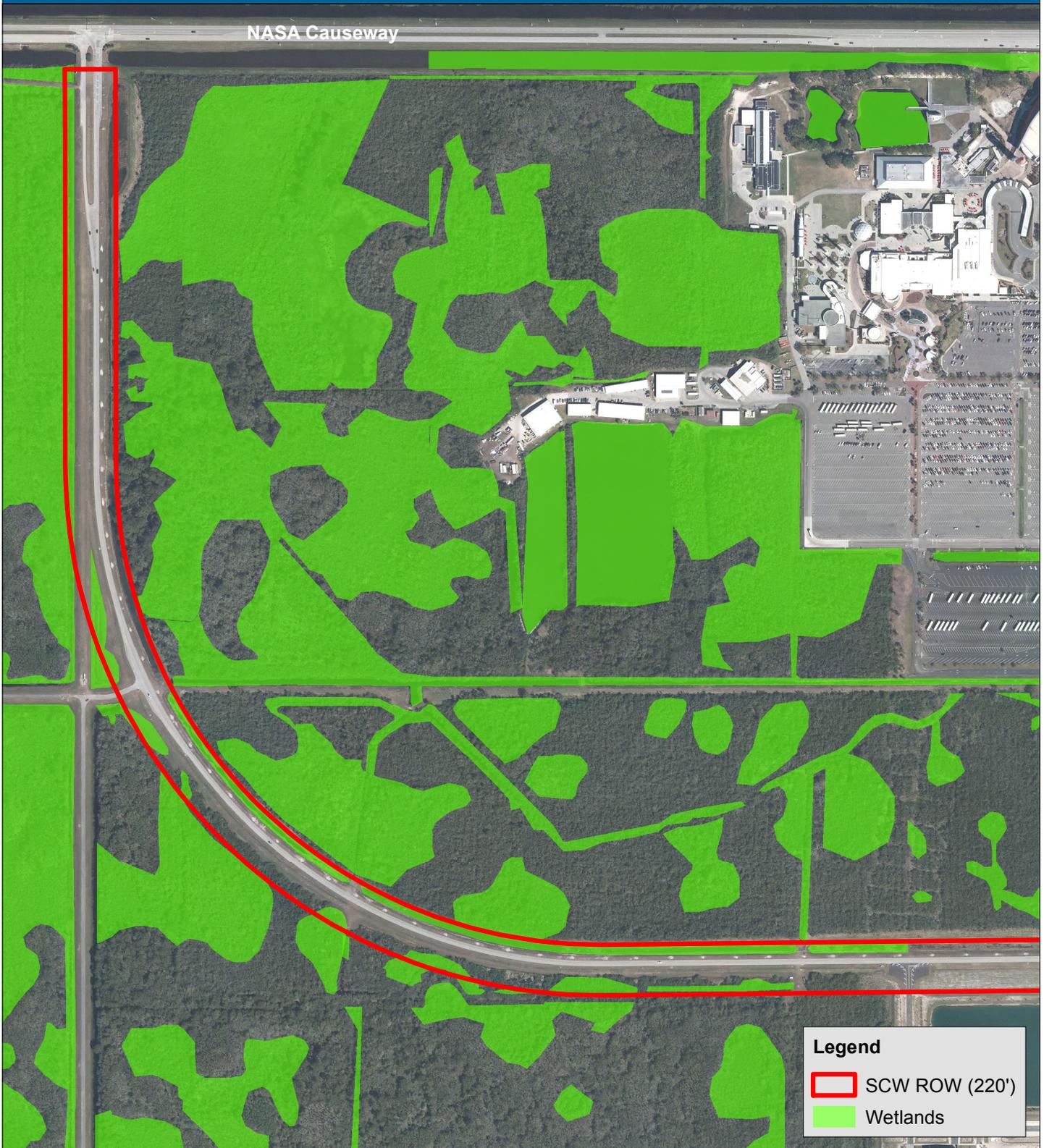


Figure 6

Wetlands And Surface Water Location Map

Space Commerce Way 4-Laning Evaluation



JonesEdmunds

Attachment 2

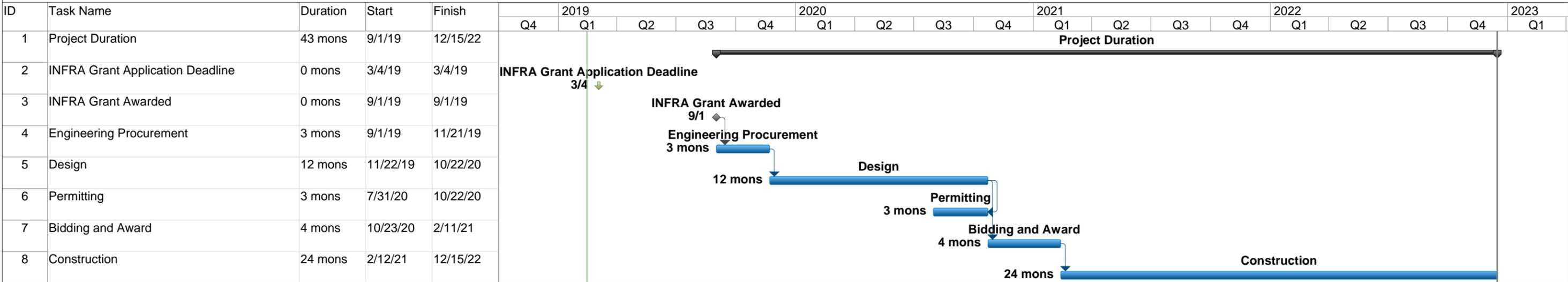
Opinion of Probable Project Cost

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Attachment 3
Implementation Schedule

Space Commerce Way 4-Lane Widening Assessment

Preliminary Construction Schedule



Avoid Verbal Orders

TO: AD-A/Steven Gilmore

DATE: 03/08/2019

FROM: SI-E3/Environmental Management Branch

SUBJECT: KSC Record of Environmental Consideration (REC)

REC #: 10567

1. PROJECT INFORMATION

Project Title: Widening of Space Commerce Way - 2 to 4 Lanes

Project Lead: Steven Gilmore, AD-A, 867-8207

Project No.: AD-02-07-2019

Project Description: To relieve freight mobility-routine workforce/public traffic conflicts and disruptions, Space Commerce Way is intended to be widened from two lanes to four lanes for its entire length. While only two lanes of the design have been constructed and operated to date, developments in the last twelve months have accelerated the urgency to increase capacity to four lanes. These developments were construction of Blue Origin's manufacturing facility for the company's New Glenn launch vehicle; completion of OneWeb's satellite manufacturing facility; and the December 17, 2018 opening of a new entrance to KSC's Visitor Complex that annually hosts 1.7 million tourists.

EPB Reviewer: LPH

Facility No.: Space Commerce Way

2. NEPA DETERMINATIONS

- | | |
|--|---|
| <input type="checkbox"/> a. Categorical Exclusions per 14 CFR Part 1216.304(d) | <input type="checkbox"/> e. Centerwide EIS |
| <input checked="" type="checkbox"/> b. Environmental Assessment (EA) Required | <input type="checkbox"/> f. AF Project on KSC/813 |
| <input type="checkbox"/> c. Environmental Impact Statement (EIS) Required | <input type="checkbox"/> g. NASA Project on CCAFS/813 |
| <input checked="" type="checkbox"/> d. Existing FONSI or ROD | |

3. ENVIRONMENTAL REQUIREMENTS

- | | | |
|----------------------------|---|-----------------------------|
| a. Non-Permit Requirements | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
| b. Permit Requirements | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |

This is a preliminary REC for the planning/study phase of Space Commerce Way widening. Additional KSC environmental checklists must be submitted for the design and construction phases of the project.

2.d.1. ENVIRONMENTAL ASSESSMENT (EA): This project cannot be categorically excluded (CATEX) as defined in 14 CFR 1216.305 from further NEPA review. The proposed action was covered under the EA for the Space Experiments Research and Processing Laboratory (March 2000) and the EA for Space Commerce Way Road, Phase II (May 2002). For additional information, please contact Don Dankert of the NASA Environmental Management Branch (SI-E3, 861-1196).

3.a.1. SOLID WASTE MANAGEMENT UNIT (SWMU): This area includes a SWMU site which has been investigated by the NASA Environmental Assurance Branch (EAB). The site, SWMU #97 "Agricultural Sheds" has been deemed a No Further Action (NFA) site. There is no knowledge of existing environmental contamination at this location and the project may proceed.

POTENTIAL RELEASE (PRL) SITE: The proposed project will pass within the boundary of PRL 173, "Area 1 Write Off Sites" which surrounds the Space Life Sciences Laboratory. A PRL designation means a site has had historical operations with the potential to impact the environment. This area has been certified as requiring No Further Action (NFA) so project may proceed as planned. All personnel should be alert for signs of contamination (abrupt changes in soil colors, soil/groundwater odors, etc.). If any indications of contamination are observed, please halt all work and contact NASA Remediation Project Manager (RPM) Mike Deliz (SI-E2, 867-6971) immediately.

The project area also includes PRL #227 Stand Alone Electrical Equipment (SS 148 and LBS 55), RPM Lindsay Morgan (SI-E2, 867-5352). A confirmatory sampling workplan has been developed for this site but no sampling has occurred. The project may proceed with the understanding that all personnel should be alert for signs of contamination (abrupt changes in water color, odors, etc.). If any indications of contamination are observed, please halt all work and contact the RPM immediately.

This project may include work within the boundary of PRL 204, Manhole Dewatering Operations. There is an institutional control being implemented on the soil within a 25 ft radius of all manholes on KSC. The soil adjacent to manholes is contaminated with barium, copper, lead and polynuclear aromatic hydrocarbons. The maximum concentrations found

Avoid Verbal Orders

TO: AD-A/Steven Gilmore

DATE: 03/08/2019

FROM: SI-E3/Environmental Management Branch

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REC #: 10567

are barium at 410 mg/kg, copper at 440 mg/kg, lead at 4,900 mg/kg and B(a)P Equivalent at 35.4 mg/kg. If handling the soil (excavation or any other activity in which the soil is disturbed and handled by workers) within 25 ft of a manhole, contact your company's Safety and Health Office for recommendations on appropriate personal protective equipment (PPE). Erosion protection will be provided as needed and applicable to prevent the disturbance/erosion of soil due to construction activities and dewatering near manholes. For more information, or if soil must be disturbed, please contact Mike Deliz (SI-E2, 867-6971) to discuss control/disposal options.

3.a.1. HAZARDOUS/NON-HAZARDOUS WASTE: All hazardous and non-hazardous wastes generated on KSC must be managed, controlled and disposed of per the KSC Waste Management requirements outlined in KNPR 8500.1. A Process Waste Questionnaire (PWQ), KSC Form 26-551 along with any supporting documentation (MSDS, product formulation, lab analyses) must be submitted to the KEMCON Waste Management Office for each waste stream generated. That office will then generate a Technical Response Package (TRP) which will give direction on proper handling, storage, and disposal of the waste stream. Please contact KEMCON Waste Management Services at 867-8640 if assistance is required.

3.a.2. ARCHAEOLOGICAL: There are three historic areas (#97, #98, and #99) along Space Commerce Way with structures shown on the 1949 and 1970 USGS quadrangle maps. These areas have been previously disturbed by road construction and site development. The project may proceed as planned however, if any archaeological material (e.g., artifacts and/or cultural features or human remains) is found, work must stop immediately and the NASA Historic Preservation Officer (HPO) is to be notified. The site and materials must be protected from further disturbance until NASA gives clearance to proceed. Materials and remains will need to be identified per NAGPRA (Native American Graves Protection and Repatriation Act). Contact Don Dankert (SI-E3, 861-1196) for additional information.

3.a.3. THREATENED AND ENDANGERED SPECIES: This project has the potential to affect protected and/or threatened and endangered species; which may include the Florida scrub jay, Eastern indigo snake, manatees, ospreys, gopher tortoises, etc. Measures must be taken to minimize impacts to their habitat. A biological survey will be required to identify potential impacts prior to disturbances. Please contact Becky Bolt (IMSS-200, 867-7330), 14 days prior to beginning work to schedule a biological survey. If vegetation clearing or any disturbance of vegetated areas is necessary, a biological survey will be required to identify potential impacts to habitat and wetlands prior to disturbances. Please contact Becky Bolt (IMSS-200, 867-7330) to schedule a biological survey as soon as locations of vegetation impacts are known.

3.a.4. PROTECTED SPECIES: This project has the potential to impact protected bird species. Lighting, electrical, and communication structures on KSC have consistently been used by nesting birds such as ospreys. Because of the ospreys' protection under federal and state laws, disturbance of these nests while occupied with eggs and fledglings is illegal. If any nest is observed on the tower contact Becky Bolt (IMSS-200, 867-7330) at least 14 days prior to beginning work in order to schedule a biological survey. Other birds may use wooden towers for nesting, which may not be evident from the ground. If any wooden poles are to be removed during this project, they must be inspected for nests and eggs or fledglings. Please contact Becky Bolt (IMSS-200, 867-7330) 14 days prior to beginning work in order to schedule a biological survey for nesting birds.

3.a.5. EXTERIOR LIGHTING: The installation/modification and use of any lighting that is visible from the exterior of a facility or structure must be in compliance with the requirements in the KSC Exterior Lighting Guidelines in Chapter 24 of KNPR 8500.1 Rev. E, and requirements of the US Fish and Wildlife Service Biological Opinion for KSC regarding dark skies and artificial lighting. Safety and hazardous operations can apply for a waiver to allow for use of non-compliant lighting; however, justification must be provided to the NASA Environmental Management Branch (EMB). Development of a lighting operations manual (LOM) that meets these criteria is required for all new construction or major modification of structures or facilities. Please contact the NASA EMB (Don Dankert, SI-E3, 861-1196) for additional information, and

Avoid Verbal Orders

TO: AD-A/Steven Gilmore

DATE: 03/08/2019

FROM: SI-E3/Environmental Management Branch

SUBJECT: KSC Record of Environmental Consideration (REC)

REC #: 10567

for guidance on development of a LOM or for a copy of the referenced documents.

3.a.6. EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs): Precautions must be made to eliminate or reduce to the greatest extent possible any discharge of sediments outside established project boundaries. This can be accomplished by initiating proactive erosion control BMPs. Installation and maintenance of appropriate erosion/sediment control devices (such as wattles, turbidity screens, silt fences, inlet protectors, floating turbidity booms, etc.) must be completed prior to initial land disturbance where the possibility of sediment discharge could impact surrounding stormwater conveyances and other surface waters. The BMPs must be maintained so they remain functional until such time that the newly exposed soils are stabilized with sod or natural vegetation.

3.a.7. ASPHALT WASTE: All asphalt waste should be segregated from all other wastes generated, and transported to the KSC Landfill on Schwartz road. This material can be recycled in the form of roadway stabilization within the landfill if not contaminated by other waste streams. For more information, contact Zach Hall (SI-E2, 867-5178).

3.b.1. EXCAVATION PERMIT: A KSC Excavation Permit will be required for any digging proposed by this project. Please contact the Utility Locate/Excavation Permit Request Customer Helpline at 867-2406 or go to website at <http://epr.ksc.nasa.gov/Home/> for an underground utility scan and dig permit. NOTE: If a trench or pit is to be left open all day or overnight, the trench/pit must be checked for trapped animals at the beginning and end of each work shift. If an animal is observed trapped, contact Becky Bolt (IMSS-200, 867-7330) or the Duty Office (861-5050, email KSC-ISC-DutyOffice@mail.nasa.gov) to arrange removal/release. Do not handle the animal(s).

3.b.2. PERMITTED STORMWATER ERP: The project area is covered under an existing stormwater system Environmental Resource Permit (ERP), Space Commerce Way (Permit # 67717-2), issued by the St. Johns River Water Management District (SJRWMD). Since this project proposes changes in ground cover, stormwater flow patterns, and impervious area, a permit modification or new stormwater permit will be required. Application forms with supporting material including maps and engineering drawings must be submitted to the Environmental Assurance Branch (Doug Durham, SI-E2, 867-8429) by the 90% Design Review phase for distribution to the regulatory agencies. An electronic version in PDF format should also be provided. No work can be performed until the permit process is completed. Please contact Doug Durham for more information.

3.b.3. ENVIRONMENTAL RESOURCE PERMIT (ERP) - DREDGE AND FILL: Dredge and fill permits from the St. Johns River Water Management District (SJRWMD) and Army Corp of Engineers (ACOE) may be required for this project. Provide project description and proposed site plan to Lynne Phillips (SI-E3, 867-4817) for permit determination. If a permit is deemed necessary, the application form with supporting material such as maps and engineering drawings must be submitted to the NASA Environmental Management Branch (EMB) by the 90% Design Review phase for distribution to the regulatory agencies. An electronic version in PDF format should also be provided. Please contact Lynne Phillips for assistance in preparing this application. Once all the information has been gathered, NASA EMB will submit the permit request. No work can be performed until the permit process is completed.

3.b.4. FDEP NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION ACTIVITY PERMIT: This project may require an NPDES Phase II construction permit. If 1 acre or more of land will be disturbed, a NPDES Construction Activity Permit from the Florida Department of Environmental Protection (FDEP) is required under F.A.C. 62-621.300(4), Notice of Intent to Use Generic Permit for Stormwater Discharge from Large (If over 5 Acres) and Small (1 Acre To 5 Acres) Construction Activities. http://www.dep.state.fl.us/water/stormwater/npdes/forms/cgp_noi.pdf.

This includes construction activity which will disturb less than one acre of land area that is part of a larger common plan of development that will ultimately disturb equal to or greater than one acre of land. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site. A condition of this permit is to provide a Stormwater Pollution Prevention Plan (SWPPP) detailing erosion and turbidity controls for the site. Information on completing the permit application and development of the SWPPP can be obtained by contacting Doug Durham (SI-E2, 867-8429).

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TO: AD-A/Steven Gilmore

DATE: 03/08/2019

FROM: SI-E3/Environmental Management Branch

SUBJECT: KSC Record of Environmental Consideration (REC)

REC #: 10567

3.b.5. DEWATERING: Construction dewatering is exempted from permitting under conditions of Rule 40C-2.051 (7) providing the conditions of exemption are met including: limiting withdrawal methods, limiting withdrawal to less than 300,000 gpd and limiting withdrawal to 30 days. Additional limitations are placed on discharge of produced water to prevent harm to the environment. If conditions of the exemption cannot be met, a construction dewatering general permit is required from SJRWMD using Form 40C-2.900(12). No dewatering may begin until 10 days after submittal of the complete form. If the dewatering activity does not qualify for a general permit by rule under Rule 40C-2.042(9), F.A.C., you must complete and submit a SJRWMD application for an individual Consumptive Use Permit pursuant to Rule 40C-2.041, F.A.C. Approval of the application must be obtained before starting the dewatering activity. If produced water discharge will reach surface waters, an FDEP permit may be required under Rule 62-621.300-2. Contact Doug Durham (SI-E2, 867-8429) with questions related to these requirements.

3.b.6. OPEN BURNING: Every effort must be made to deliver land clearing debris to the appropriate disposal area. Combustible vegetative material may be burned within the confines of KSC after obtaining a Burn Permit issued by the KSC Fire Inspector. Burning may be limited or prohibited during periods of dry weather, or when sensitive flight hardware is housed in the vicinity of the burn site. Notify KSC Spaceport Integration (Bill Heidtman/861-9339 or Greg Gaddis/861-9556) 3 days ahead of planned burn for a review of impacts. After the site is prepared for burning, notify Michael Good (US Fish and Wildlife Service, 861-2812, michael_good@fws.gov) of the proposed open burning. Also contact the Florida State Division of Forestry Cocoa Field Office (690-6465) to notify them of the planned burning of land clearing debris and schedule an inspection to ensure the setbacks, piles, and equipment are set up properly. The Cocoa Office will send inspection paperwork to the Division of Forestry Orlando District Field Unit who will issue a valid burn control number. The contractor must call the Orlando Unit (407-888-8767) every day before burning to receive a Burn Authorization Number. Call the KSC Duty Office at 861-5050 for a Burn Permit a minimum of 48 hours prior to the burn. The KSC Fire Inspector will schedule an onsite visit for the day you get the Burn Authorization Number.

No other environmental issues were identified based upon the information provided in the KSC Environmental Checklist. This Record of Environmental Consideration (REC) does not relinquish the project lead from obtaining and complying with any other internal NASA permits or directives necessary to ensure all organizations potentially impacted by this project are notified and concur with the proposed project.

Due to potential changes in regulations, permit requirements and environmental conditions, statements in this REC are valid for 6 months, and subject to review after this period. It is the responsibility of the project lead to submit current project information for a REC update prior to project commencement if REC is older than 6 months; and also to notify the Environmental Management Branch (SI-E3) if the scope of the project changes at any time after the REC is issued.

S. Gilmore/AD-A

cc:

N. Darre/SI-E3

J. Ryba/SI-E3

B. Bolt/IMSS-200

Avoid Verbal Orders

TO: AD-A/Steven Gilmore

DATE: 03/08/2019

FROM: SI-E3/Environmental Management Branch

SUBJECT: KSC Record of Environmental Consideration (REC)

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4. Upon evaluation of the subject project, the above determinations have been made and identified. Contact the Environmental Management Branch (SI-E3) at 861-1196 for re-evaluation should there be any modifications to the scope of work.



James Brooks

03/08/2019 15:03

Date