

TECHNICAL PROPOSAL

REGIONAL TRAIL NETWORK

- Feasibility Survey -



- NOVEMBER 9, 2020 -

Submitted by:



Submitted to:



South Jersey
Transportation
Planning Organization



a Narrative

Through this project, SJTPO is looking to evaluate alignment options and identify a feasible right-of-way (ROW) for the Atlantic County Bikeway West, which will ultimately connect the Atlantic County Bikeway with the planned Camden County Link Trail. Making this connection would represent a significant step in advancing a regional trail network in South Jersey by providing a continuous, off-road, multi-use trail for all ages and abilities that is consistent with the Circuit trail network and other high-quality trails in the SJTPO region.

PROJECT UNDERSTANDING

The Atlantic County Bikeway (subsequently referred to as the Atlantic County Bikeway East) runs for approximately 7 ½ miles between Harbor Square in Egg Harbor Township and the intersection of 19th Street and Atlantic Avenue in Hamilton Township (near the Atlantic County Institute of Technology). The Camden County Link is a planned 33-mile off-road trail located primarily on public, utility, or Conrail property terminating near the intersection of Camden, Gloucester, and Atlantic counties. The proposed alignment is based on a feasibility study completed in 2017 for the Cross Camden County Trail, which was subsequently dubbed the Camden County Link. Once completed, the trail will traverse 17 municipalities and connect a variety of municipal and County parks, several downtown business districts, and provide access to hundreds of acres of public open space in Winslow Township. Two-thirds of the trail is anticipated to be in design over the next several years.



Proposed Study Area

Furthering the foundation for this effort is SJTPO's South Jersey Trails Design Guide, which was published in 2019 as an outgrowth of their *Transportation Matters* regional plan. This document provides local jurisdictions

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with resources, direction, and a clear process for bolstering and advancing bicycle and pedestrian mobility throughout the region while catalyzing increased economic development and tourism throughout South Jersey. Advancing the Atlantic County Bikeway West was a key recommendation from the guide, as it would form the backbone for the region-wide trails network that SJTPO envisions. The guide refers to several promising rights-of-way and suggests a potential alignment could take advantage of an existing shared rail and utility corridor that extends southeast from Piney Hollow Road and parallels Route 40 for several miles before weaving through Mays Landing and ultimately connecting with the Atlantic County Bikeway.



TECHNICAL APPROACH

The WSP Team’s multimodal approach is driven by our award-winning experience delivering trail, bicycle/pedestrian, and Complete Streets projects across New Jersey. Based on this experience, we see two primary challenges to making a feasible connection between the planned Camden County Link and the Atlantic County Bikeway:

1. ***Determining a feasible alignment for the entire 16-mile length, both the physical layout as well as the legal viability of the ROW***

Ultimately, the success of the project will hinge on finding a feasible alignment. Our Project Manager and supporting team have extensive expertise advancing trail projects throughout the region, including the Delaware River Heritage Trail and Atlantic County Bikeway in New Jersey and the Cobbs Creek Connector Trail and Schuylkill River Trail in Pennsylvania. Through these projects, we’ve successfully addressed similar feasibility issues related to ROW, traffic operations, and environmental impacts. Our expertise covers all stages of project development, from

conceptual planning and feasibility studies through engineering design and construction. This integrated approach to trail planning allows us to think “big picture” while at the same time understanding the real-life feasibility considerations and constraints that can either stop a project in its tracks or allow it to move forward.

2. ***Obtaining consensus from local officials and key stakeholders on the value of the project, and subsequently building the support needed to both build and operate the trail***

In addition to evaluating the physical alignment alternatives, we understand the importance of local input and feedback from stakeholders that are directly impacted by changes made to local roads or other ROWs. The needs of the local community, and those that that will be using any proposed bike trail, must be considered early in project development and continue throughout to gain support from the community and

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WSP conducted a similar benefit-cost analysis for a proposed 17.7-mile “rails-to-trails” project in Jackson County, Missouri. As part of this analysis, WSP estimated the increase in real estate values along the corridor. Based on case study research of similar projects, WSP estimated the percentage increase in real estate values on parcels within a half mile of the trail. To measure other project benefits, WSP estimated future pedestrian and bicyclist use of the trail and resulting reduction in automobile use.



Rock Island Multi-Use Trail in Jackson County, Missouri

key decision makers. We will draw on our significant experience and work with SJTPO and local officials in South Jersey to develop an effective, inclusive, and transparent public participation process, one that provides opportunities for all sectors of the population to weigh in with their concerns and suggestions.

We also recognize the importance of quantifying the economic benefits of trail development to local communities and

clearly articulating those benefits to elected officials, stakeholders, and the public. Defining potential economic and quality of life benefits will be vital in building the broad support necessary to secure both the funding and ROW needed to make the trail a reality. To that end, WSP has expert staff experienced with assessing usage/demand and performing similar economic impact analyses needed to “make the case” for this regionally significant trail connection.

SCOPE OF WORK

Our team’s proposed scope of work for this project consists of the nine tasks outlined in the RFP. WSP will manage the project and coordinate work for all tasks, with assistance from KMA for parts of Task 2 including the natural features inventory, structures assessment, utilities investigation, and identification of potential environmental hazards. A six month schedule is proposed with an anticipated Notice-to-Proceed (NTP) in early to mid-December of 2020. The schedule is included Section C.

TASK 1. COORDINATION

This task covers client communications, coordination meetings, financial administration, and overall quality management. As WSP’s Project Manager and single point of contact, John Federico, PE, PP,

AICP, will coordinate regularly with SJTPO’s Project Manager and other stakeholders. John will provide brief status updates every two weeks via email. These updates will list tasks completed in the past two weeks, upcoming tasks for the next four weeks, any delays that could affect the project schedule, any assistance that is anticipated to be needed from SJTPO or other stakeholders, and KMA’s progress towards meeting the project DBE/ESBE goal.

Following Notice to Proceed, staff from WSP and KMA will attend a kickoff meeting with SJTPO and other invited participants to review and confirm the project’s scope, schedule, methodology, and deliverables. We will also use this meeting to review previous studies and planning efforts so as not to duplicate existing work efforts.

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In addition to the kick-off meeting, we anticipate attending up to three meetings with key stakeholders, which may include local officials, advocacy groups such as Rails-to-Trails Conservancy, and ROW owners such as Conrail and Atlantic City Electric.

For all project meetings, WSP will coordinate with SJTPO to develop meeting agendas and determine the supporting meeting materials that are necessary. Following each meeting, we will prepare minutes that document the meeting's discussion, conclusions, and resulting action items. Given the current circumstances and project schedule, we assume that all of the Task 1 meetings will be held via video conference.



TASK 1 DELIVERABLES

- » Brief status updates via email every two weeks
- » Attendance at kickoff meeting
- » Attendance at up to three meetings with key stakeholders
- » Meeting minutes from above meetings

TASK 2. IDENTIFY AND EVALUATE FEASIBLE TRAIL ROUTING OPTIONS

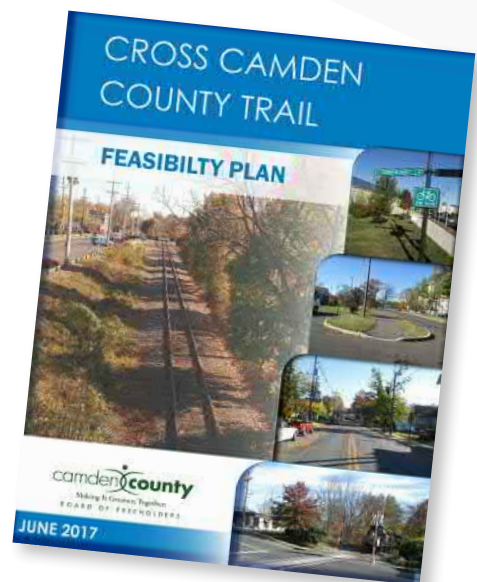
Building off previous efforts, the WSP Team will identify and evaluate feasible alternatives for routing an off-road multi-use trail between the planned Camden County Link and the existing Atlantic County Bikeway East. We will then work with SJTPO and county/municipal partners to determine a preferred trail alignment (or set of options) based on both the technical evaluation and political/legal feasibility. KMA will assist WSP on this task by obtaining geospatial data in shapefile format, leading the environmental inventory and analysis subtasks, and assisting with the structural and utility subtasks.

Review Background Data

WSP will coordinate with SJTPO to obtain background data and previous or on-going

studies that would affect the trail planning effort. Our team will evaluate data, findings, and recommendations from these studies so as to inform the work for this current effort. Studies to be considered in the document review are expected to include (among others):

- » **Cross Camden County Trail Feasibility Study**
- » **South Jersey Trails Design Guide**



Establish Project Base Mapping

WSP will work closely with KMA to establish project base mapping using Atlantic County GIS along with other publicly available GIS resources and data layers. At a minimum, the base mapping will include:

- » **Aerial Orthophotography from the New Jersey Geographic Information Network (NJGIN)**
- » **Elevation Contours**
 - » 5ft elevation contours from Atlantic County with steep slopes identified via a visual scan
- » **Bicycle, transit, and roadway infrastructure:**
 - » Roadway centerlines from Atlantic County

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- » Existing and proposed bike paths from Atlantic County
- » Existing transit routes and active/abandoned rail lines from NJGIN
- » **Political Boundaries:**
 - » Neighborhoods from Atlantic County
 - » Municipal/political boundaries from US Census TIGER data
- » **Parcel Boundaries & Ownership**
 - » Atlantic County property boundaries from NJ Bureau of GIS website
 - » Parcel ownership for parcels along or adjacent to proposed trail alignments will be obtained through tax parcel mapping that is readily available from local municipalities
- » **Points of Interest/Activity Centers:**
 - » Commercial centers from NJDEP Land Use Data
 - » Parks from NJGIN and Atlantic County Preserved Open Space
 - » School point features and locations from Atlantic County
- » **Zoning & Land Use**
 - » Atlantic County Municipal Zoning 2017
 - » Land Use Data from NJDEP

Evaluate Potential Trail Alignments

We will first work with SJTPO to identify potential trail corridors based on previous studies along with mapping of known existing rights-of-way such as railroads, utility corridors, and major roadways. The subtasks described below will then be used to evaluate and refine these corridors.

Natural Features Inventory - We anticipate that the majority of the geospatial data requested for the Natural Features Inventory can be retrieved from NJDEP's Bureau of GIS Open Data. Identification of wildlife will be accomplished using the NJDEP Landscape Mapping and the USFWS Information for Planning and Consultation (IPaC) online system. These tools are limited to NJ State and Federal

listed threatened and endangered species and will not provide a listing of all wildlife along the potential trail alignment. Similarly, vegetation from the NJDEP Open Data will only include those species categorized as a State or Federal listed threatened or endangered species. If needed, KMA will conduct a windshield survey in order to get a general sense of vegetation that is located along the trail corridor.

Structures Assessment - Since topographic survey mapping will not be collected during this phase of the project, identifying structures within the trail ROW will be conducted using the NJDOT bridge database. A limitation to the NJDOT database is that it only provides bridge information for (a) State-owned bridges or (b) bridges that are jointly owned by the State and County. To fill this data gap, we will also use Google Street View (where available) to identify any bridges or culverts at stream/waterway crossings along planned trail alignments. Aerial imagery will be used to identify buildings located immediately adjacent to the proposed trail alignments. Only buildings/structures that are adjoining or abutting the proposed trail and have the potential to impact the feasibility of the trail alignment will be included in the general assessment.

The general assessment will be developed by performing a desktop analysis with information compiled from readily available online resources from the County and State. Per the base mapping subtask, the NJGIN will be used to retrieve geospatial data on abandoned and active railroads, train stations, and other transportation facilities. Note that the geospatial data will not be field verified for all of the proposed alternatives; however, we have budgeted for a one-day field visit to investigate any potential encroachments or restrictions identified for the preferred alternative during the general assessment.

Utilities and Related Infrastructure - Identifying and locating potential utility

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conflicts, especially those related to underground utilities, will be difficult since topographic survey mapping will not be collected during this phase of the project and utility geospatial data is not readily available online. That being the case, our team will focus on identifying overhead utilities and corridors, since this data can be collected via a windshield survey, analyzing aerial imagery, and utilizing Google Street View. Where possible, information on underground utilities located near or within planned trail ROW will be described based on general development type and categorized in terms of “low, medium, high” but will not be mapped.

Aside from conflicts, an important outcome of this subtask will be to identify utility and other ROW corridors (such as rail) that could potentially be used for the trail alignment. To this end, we will coordinate with groups including Atlantic City Electric and Rails-to-Trails Conservancy to leverage their local knowledge and connections and begin the conversation for advancing these corridors, where appropriate.

Potential Environmental Hazards - We anticipate that majority of the geospatial data needed for this subtask can be retrieved from the NJDEP’s Bureau of GIS Open Data. Data retrieved for this task will be limited to NJDEP known contaminated sites, NJDEP historic fill, and groundwater contamination. Depending of the type of environmental hazards identified, KMA will provide recommendations on the need for further hazardous material investigations in subsequent project phases.

Determine a Preferred Trail Alignment

Based on results from the inventory and analysis tasks, the WSP team will work closely with SJTPO and key stakeholders to determine a preferred trail alignment for the Atlantic County Bikeway West. Based on our experience with similar projects, we anticipate it may be necessary to provide sub-options

for particularly challenging areas and carry them forward into the design phase. This would provide SJTPO with increased flexibility if issues with a particular sub-option were to arise based on further analysis.



Shared Trail/Utility Corridor in Mercer County



TASK 2 DELIVERABLES

- » GIS-based mapping of project study area and key features outlined in this section
- » Map of preferred trail alignment

TASK 3. DETERMINE DEMAND AND POTENTIAL USE FOR PROPOSED TRAIL

WSP will use a comprehensive approach to determine the demand and potential use of the proposed Atlantic County Bikeway West. Consistent with best practices from other trail feasibility studies, we will utilize existing County and State data sources and employ ArcGIS mapping and analysis techniques to estimate potential demand for the new trail.

The characteristics of potential trail users will be gathered from demographic, commuting, and residential data from the American Community Survey (ACS) and employment data from the Longitudinal Employer-Household Dynamics dataset. Taken together, this data will help define the project service area. NJDEP land use data will help differentiate and describe community characteristics, assisting with the designation of potential trail connections and enhancing the development of a potential trail user

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profile. Tax parcel data from NJDEP will further assist in establishing demand.

Working off demand data established from US Census files, trail user counts will be compiled from similar trails in New Jersey to help establish potential demand patterns for the Atlantic County Bikeway West. Data sources will include trail user counts from SJTPO, NJTPA, and DVRPC. The 2019 Cross Camden County Trail Feasibility Plan also includes trail user counts outside of the region across a variety of land use contexts (urban, suburban, rural). Counts gathered at different times of year will contribute to setting expectations for seasonal volumes for the bikeway.

Atlantic County's existing dataset of potential bike facilities will be overlaid with Census demographic and NJDEP land use data to inform the demand for potential trail linkages and connections. Statewide land use data and County facilities data will help establish points of interest throughout the project service area. Potential trail connections to these sites, including existing and proposed trails, historic sites, cultural and natural resource, business districts, and municipal and County facilities will be reviewed. Potential areas of conflict with adjacent land uses will be mapped using land use data to highlight areas that may require specialized access or screening/buffers.

TASK 3 DELIVERABLE

- » Trail Usage/Demand chapter of final plan (with accompanying tables and figures)

TASK 4. DETERMINE THE ECONOMIC IMPACT OF THE PROPOSED TRAIL

As stated earlier, defining potential economic and quality of life benefits will be vital in building the broad support necessary to secure both the funding and ROW needed to make the trail a reality. To assess the potential economic impact the proposed trail spine will have on the economy, WSP will analyze the following:

- » **Impact of additional tourism and associated spending as a result of the trail.** Relying on the Task 3 profiles of potential trail users and future usage levels, WSP will estimate the trail's potential to attract new tourists to the area. Then, based on a review of the literature surrounding typical spending of recreational trail user tourists, WSP will calculate the projected spending of these tourists within Atlantic County by category of spending. WSP will use the Bureau of Economic Analysis' RIMS II economic multipliers to assess the impacts of the new spending on direct, indirect, and induced employment, labor income, and gross product.
- » **Impact of spending on trail construction.** WSP will also use RIMS II multipliers to estimate the economic impacts of spending on trail construction (based on the cost estimates from Task 7) on local construction employment, as well as employment, GDP, and labor income generated from spending on materials and by employees of construction firms and suppliers.

TASK 4 DELIVERABLE

- » Economic Impact Analysis chapter of final plan (with accompanying tables and figures)

TASK 5. DETERMINE TRAIL OPERATION, MAINTENANCE, AND SECURITY OPTIONS

In most cases, trail facilities are owned by the local municipality they pass through; one example being the Linwood Bike Path which passes through Northfield, Linwood, and Somers Point in Atlantic County. However, there are multiple models for handling trail maintenance and operations ranging from public entities such as the county or municipality to non-profits including local

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“friends” groups or entities established specifically for the trail.

The Atlantic County Bikeway is maintained by the Atlantic County Park System, which may be an option for the proposed extension. WSP will coordinate with SJTPO and other stakeholders to explore the potential for extending the County’s jurisdiction over this new segment and then weigh this against other models. We will also coordinate directly with the Atlantic County Park System to understand their current maintenance practices and concerns along the existing trail. If needed, we will coordinate with other trail non-profits, such as the Lawrence Hopewell Trail Corporation, to garner lessons learned. Based on this information, we will develop a recommended operations and maintenance structure for the Atlantic County Bikeway West.

In some areas, safety and security concerns will need to be considered. This may include providing adequate lighting, keeping unauthorized vehicles such as ATVs from using the trails, and deterring unsafe roadway or railroad crossings. Options will be developed based on trail best practices, lessons learned from local trails, and guidance from the Rails-to-Trails Conservancy.

✓ TASK 5 DELIVERABLE

» Trail Operations & Maintenance chapter of final plan

TASK 6. PREPARE AN OFF-ROAD TRAIL CONCEPT PLAN

In coordination with SJTPO and project stakeholders, WSP will develop a trail concept plan for the preferred alignment identified through Task 2. The concept plan will clearly depict the preferred alignment on aerial mapping with political boundaries, ROW, and natural features shown. The concept plan will also highlight any areas where multiple feasible routing options are available and

further study or coordination is needed to determine the preferred routing. In addition, the trail concept plan will show:

- » The location of proposed trailheads and other amenities such as parking, rest areas, or maintenance facilities
- » Trail segments adjacent to land uses that would require natural or man-made buffers and/or screening
- » Potential bicycle and pedestrian **connections to parks, schools, historic sites, neighborhoods, and other local activity generators**



Example Crossing Treatment



Example Trailhead

To support the overall trail concept plan, WSP will develop conceptual designs on an aerial mapping base at up to five key locations along the alignment where further detail is needed to understand feasibility considerations. These locations could be roadway intersections or sidewalk locations where it is necessary to mitigate potential conflicts between users. We will also provide SJTPO with examples of typical conceptual designs for ancillary facilities and amenities based on best practices from other trails.

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TASK 6 DELIVERABLES

- » Trail Concept Plan map in both PDF and editable format (GIS or Illustrator)
- » Conceptual Designs at up to five specific locations

TASK 7. DEVELOP CONCEPTUAL COST ESTIMATES

WSP will develop a planning-level cost estimate for the preferred trail alignment and any associated amenities such as lighting, trailheads, and maintenance facilities. The estimate will be broken into the upfront costs (planning, design, early ROW acquisition) and construction costs. Recognizing that actual costs are hard to pinpoint during early planning stages due to the large range of unknowns, the estimate will incorporate a substantial contingency and can be provided as a range of costs based on certain factors (i.e. land acquisition, availability of ROW, etc.).

WSP will also develop logical phasing scenarios for implementation of the preferred trail alignment. These scenarios could incorporate both geographic considerations – providing needed connections to existing trails and activity generators – as well as complexity considerations (i.e. sections that are easier to implement versus more difficult sections). WSP will work with SJTPO and project stakeholders to determine which phasing scenario will be most helpful in providing flexibility to SJTPO and project partners in pursuing implementation strategies, including grant funding, and structure the cost estimate accordingly.

Annual operations/maintenance costs are also an important consideration, particularly related to garnering public support if entities such as the County or local municipalities will be responsible. WSP will coordinate with the Atlantic County Park System, who maintains the existing bikeway, to obtain actual operating cost information that can be applied to the extension for budgetary purposes.



TASK 7 DELIVERABLES

- » Planning-level capital cost estimate (Excel)
- » Estimate of annual maintenance costs (Excel)
- » Map of phasing options

TASK 8. PUBLIC AND STAKEHOLDER INVOLVEMENT

A Study Advisory Committee (SAC) will be created and meet three times over the course of the project. WSP, in conjunction with SJTPO, will identify members that include a mix of local and regional stakeholders, advocacy groups, and community groups. The SAC members will lend their specialized knowledge of the area to guide the study and recommendations. We anticipate that SJTPO will handle meeting location logistics. It is a goal that SAC meetings will be held in person, with conference call in options, as appropriate. However, as COVID-19 regulations change, all-virtual meetings may be implemented instead. SAC members will be expected to provide insights for discussion at team meetings, and will assist the outreach effort by identifying issues, information resources, stakeholders, and potential lines of communication.

Meetings will be held at the following key milestones:

- » **Project Initiation** - Kickoff meeting to discuss study approach, schedule, outreach ideas, and expectations.
- » **Existing Conditions** - The second SAC meeting will occur after the first public meeting. At this meeting, the WSP team will present what they heard from the public and consider potential ways to address any concerns.
- » **Review of Recommendations** - The final SAC meeting will allow the WSP team to present the draft Trail Concept Plan and gain feedback from the SAC before presenting to the public.

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Two public meetings will be planned for the study. Invitees for both will include local officials, community or advocacy groups, local businesses, adjacent property owners, organizations representing disadvantaged populations, and other interested parties. We anticipate that SJTPO will handle meeting location and invitation logistics. If possible, public meetings will be held in person, with contingency plans to host virtually should COVID-19 concerns still be present.

The first public meeting will occur after the completion of the existing conditions analysis. The purpose of this meeting will be to present the findings of Task 2 and solicit input from the public regarding concerns, problems locations, or areas of opportunities for trail siting. The second meeting will occur after SAC #3, to present draft Trail Concept Plan to the public for feedback. For both of these meetings, the WSP Team will provide easy to understand presentations, graphics, or renderings that explain depict current conditions and bring the draft recommendations to life.

The WSP team will be responsible for preparing all meeting materials including agendas, presentations, handouts and meeting summaries for SAC and public meetings. At the conclusion of public and stakeholder involvement, a summary of meetings and outreach results will be completed for inclusion in the final report.

A cursory screening of demographics reveals a moderate number of households with Limited English Proficiency (5-10%), or households where members 14 and over speak English less than 'very well'. In these locations, Spanish is the predominant non-English language being spoken. In an effort for full inclusion to the public participation activities, translated ads will be provided to be placed in local papers and on town and SJTPO's websites. A Spanish translator will be provided at the public meetings and any fact sheets provided will also be translated into Spanish.

We recognize that current conditions related to COVID-19 may require all meetings to be held virtually. One of two options will be provided for public meetings, if held virtually:

- » Zoom offers a translation feature whereby WSP, as meeting host, can assign an interpreter to the meeting. The interpreter will hear the original meeting audio which they can translate. Participants that have chosen that language will hear the translated audio and also the original audio at a lower volume.
- » Use a project website to host a pre-recorded presentation or project overview video, with or without interactive activities. In this setup, close captioning can be provided for the presentation in Spanish to reach the LEP participants. We anticipate that this would be hosted as a project page on SJTPO's website, with other meeting materials hosted at the same location.

If additional public input is needed during the study, focused feedback will be solicited through the use of either an online survey or a project wikimap. Both options can also include Spanish translations to reach LEP populations.



TASK 8 DELIVERABLES

- » Preparation, materials, and attendance at two public meetings with notifications/ads translated into Spanish
- » Develop either a wikimap or online survey to gather additional public feedback (also provided in Spanish)
- » Preparation, materials, attendance, and meeting minutes for three SAC meetings
- » Memo summarizing results from public outreach process

TASK 9. PROVIDE FINAL PRODUCT(S)

WSP will develop a draft and final Trail Feasibility Plan to formally document the work performed in Tasks 1 through 8. The plan will begin with a succinct Executive Summary

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followed by distinct and logical chapters covering each of the plan's components. Through our work on similar studies, we understand the importance of accurately and concisely documenting both (a) the technical analysis, including key assumptions, and (b) the public outreach process and how input from local stakeholders influenced the decision-making process. Both aspects are crucial to moving the process forward, both from a grants/funding perspective as well as informing the technical design.

The written portion of the document will be developed in Word format and will present the study analysis and results clearly using text, GIS-based maps, tables, and other visuals. We will submit a draft plan in electronic format for SJTPO review and then finalize the

plan based on up to two rounds of comments. We understand the number of final plan copies will be determined by the number of municipalities impacted by the preferred alignment. Anticipating that the study area will contain up to three counties (Atlantic, Camden, Gloucester) and three municipalities (Folsom, Buena Vista, and Hamilton), we have budgeted for 30 bound hard copies of the final plan. WSP will also produce a website-friendly version of the plan that can easily be posted on SJTPO's website for public viewing.



TASK 9 DELIVERABLES

- » **Draft Plan (PDF version)**
- » **Final Plan (30 printed and bound color copies + website-friendly PDF version)**



b. Staffing Plan

The staffing plan below contains a detailed description of the work team key staff and estimated hours required on the project. Please note key staff with salary is contained in the cost proposal under a separate cover.

Staff Name	Title	Hours Per Task									Total Hours	% of Total Hours
		Coordination	Routing Feasibility	Demand/ Potential Use Analysis	Economic Impact Analysis	Operation/ Maintenance/ Security Options	Trail Concept Plan	Cost Estimates	Public Involvement	Final Product		
		1	2	3	4	5	6	7	8	9		
WSP USA, Inc. (WSP)												
John Federico	Project Manager	24	16	4	4	4	24	4	24	24	128	83%
Himadri Kundu	Junior Planner	4	40					16			60	
Mike McDonagh	Structural Engineer		8								8	
Tom Pagani	Civil Engineer		16			8		8			32	
Sophie Cohen	Senior Consultant			4	16						20	
Charlie Romanow	Junior Planner	12	24	24			40		36	40	176	
Steve Chiaramonte	Senior Supervising Planner		8			8				4	20	
Debbie Hartman	Senior Supervising Planner	16							26		42	
Rebecca Son	Junior Planner			16			16		38	12	82	
Chris Wilhelm	Associate Consultant				40						40	
											0	
WSP Subtotal		56	112	48	60	20	80	28	124	80	608	
KMA Consulting Engineers, Inc. (KMA)												
Dennis K. Burgeson	Sr. Environmental Scientist	4	12								16	17%
Ebony Washington	GIS Specialist	8	40								48	
Amanda Burgeson	Environmental Scientist		58								58	
											0	
KMA Subtotal		12	110	0	0	0	0	0	0	0	122	
Totals		68	222	48	60	20	80	28	124	80	730	100%

* KMA Consulting Engineers, Inc. will be used to meet the project's 13.23% DBE/ESBE goal

c. Project Schedule

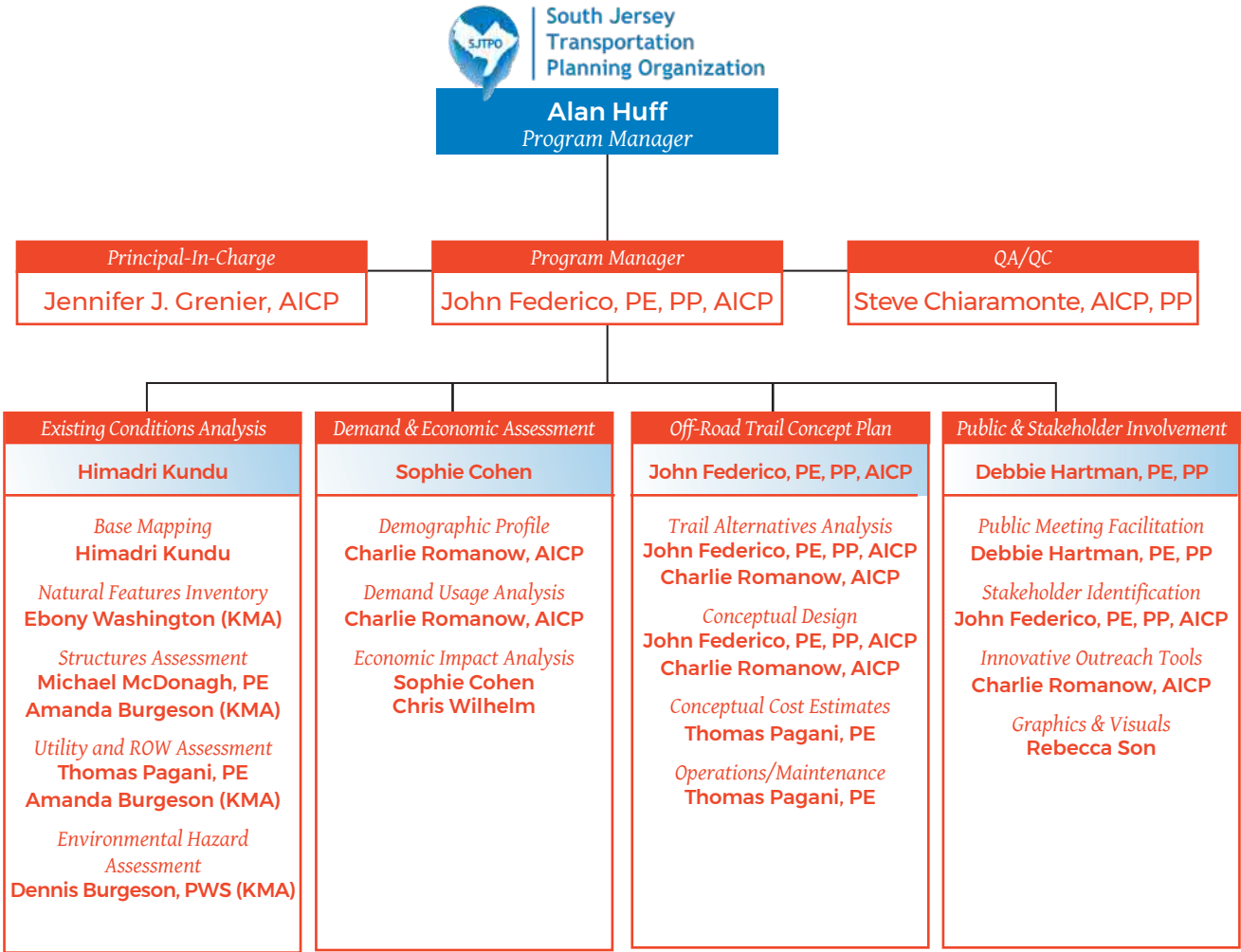
The project schedule below indicated project milestones, deliverables and key meetings using a notice to proceed as day 0.

MONTHS FROM	1	2	3	4	5	6
NOTICE TO PROCEED						
T1 - Coordination						
Kickoff Meeting	▲					
T2 - Routing Feasibility						
Existing Conditions Inventory						
Selection of Preferred Alignment				●		
T3 - Demand/Potential Use Analysis						
T4 - Economic Impact Analysis						
T5 - Operation/Maintenance/Security Options						
T6 - Trail Concept Plan						
T7 - Cost Estimates						
T8 - Public Involvement						
Study Advisory Committee Meeting 1	▲					
Study Advisory Committee Meeting 2			▲			
Study Advisory Committee Meeting 3					▲	
Public Meeting #1		▲				
Public Meeting #2						▲
T9 - Final Product						
Draft Plan					■	
SJTPO Review						
Final Plan						■

LEGEND		
Work in Progress		Meetings/Events ▲
SJTPO Review		Submission ■
		Milestone ●



d. Organization Chart



Key

Subconsultant

KMA Consulting Engineers, Inc (KMA)

All names without a designation are full-time WSP employees.

TOTAL COST BY TASK



	Costs by Task									Total Cost by Firm
	Coordination	Routing Feasibility	Demand/ Potential Use Analysis	Economic Impact Analysis	Operation/ Maintenance/ Security Options	Trail Concept Plan	Cost Estimates	Public Involvement	Final Product	
	1	2	3	4	5	6	7	8	9	
WSP USA, Inc. (WSP)										
	\$8,792	\$14,409	\$4,624	\$7,209	\$3,606	\$8,725	\$3,626	\$15,185	\$9,672	\$75,849
KMA Consulting Engineers, Inc. (KMA)										
	\$1,566	\$10,030	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,596
Total Cost by Task	\$10,358	\$24,439	\$4,624	\$7,209	\$3,606	\$8,725	\$3,626	\$15,185	\$9,672	\$87,445

* KMA Consulting Engineers, Inc. will be used to meet the project's 13.23% DBE/ESBE goal

COST SUMMARY



WSP USA, Inc. (WSP)		
Labor		\$28,960.02
Overhead	134.00%	\$38,806.43
	Subtotal	\$67,766.45
Fee	10%	\$6,776.64
	Subtotal	\$74,543.09
Direct Expenses		\$1,306.25
	WSP Total	\$75,849.34
KMA Consulting Engineers, Inc. (KMA)		
Labor		\$4,478.80
Overhead	131.08%	\$5,870.81
	Subtotal	\$10,349.61
Fee	10%	\$1,034.96
	Subtotal	\$11,384.57
Direct Expenses		\$211.20
	KMA Total	\$11,595.77
Total Project Cost		\$87,445.11

Direct Expenses (WSP)

RIMS II Multipliers	\$	275.00
Travel by Personal Vehicle	\$	431.25
Reproduction (Final Plans)	\$	600.00
Total	\$	1,306.25

Direct Expenses (KMA)

Travel by Personal Vehicle	\$	190.40
Travel by Mass Transit (to WSP offices)	\$	20.80
Total	\$	211.20