

JUNCTION AND BREAKWATER TRAIL REHOBOTH EXTENSION

Contract No. T201330012



CONCEPT DESIGN REPORT March 2014



Century Engineering, Inc.
4134 N. DuPont Highway, Dover, DE 19901

Junction and Breakwater Trail

Rehoboth Extension

Contract No. T201330012

March 2014

Prepared for:



Division of Planning
800 Bay Road
PO Box 778
Dover, Delaware 19903

Prepared by:



4134 N. Dupont Highway
Dover, Delaware 19901

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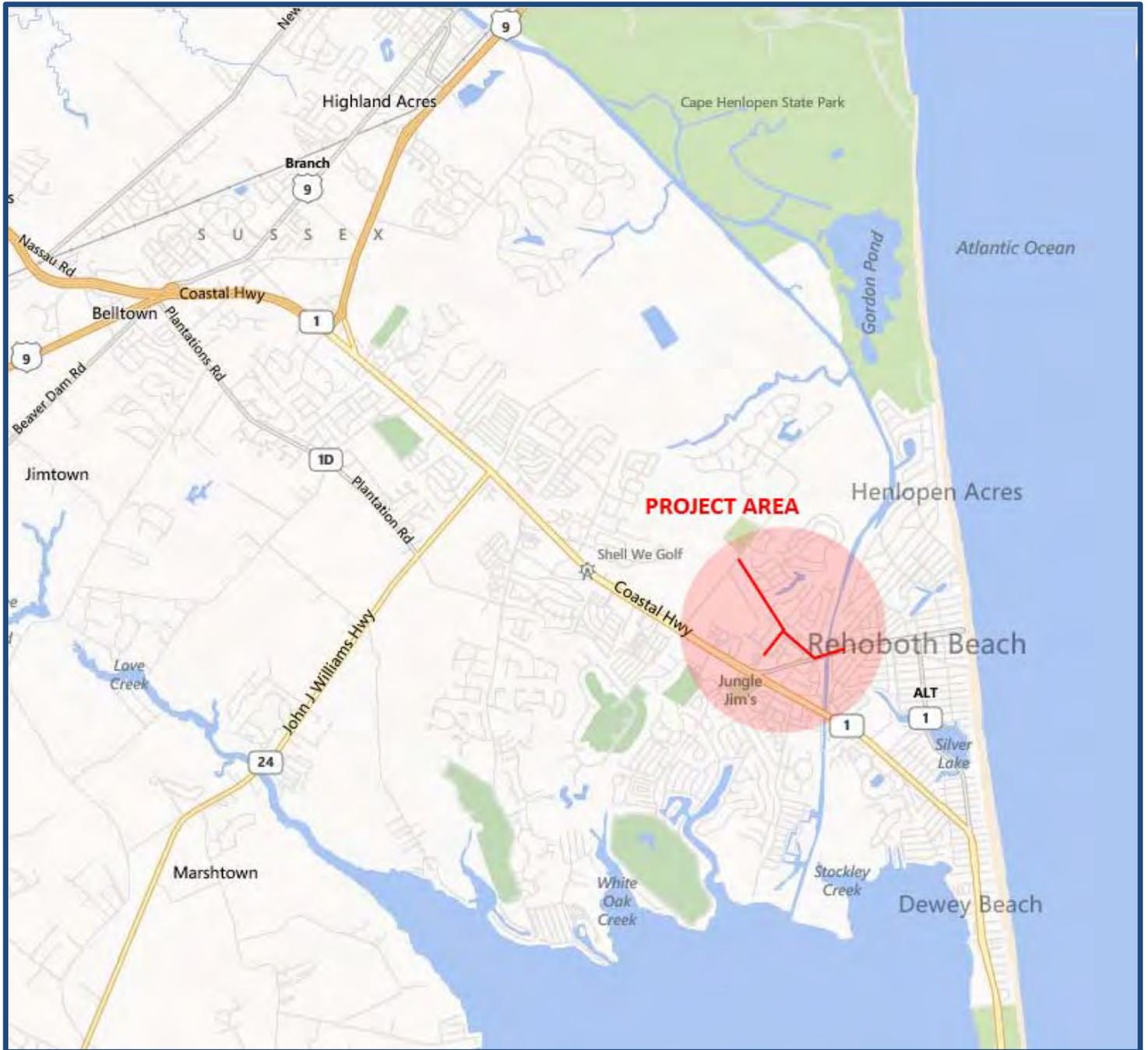
Workshop Comments

Concept Plan

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LOCATION MAP



LOCATION MAP

Not to Scale

PROJECT NARRATIVE

Project Need

The existing Junction and Breakwater Trail is a heavily used multi-use trail that follows a section of the former Penn Central railroad between Lewes and Rehoboth Beach for approximately five miles. The existing trail splits in West Rehoboth and terminates at the intersection of Hebron Road and Holland Glade Road, as well as near the intersection of Hebron Road and Harmon Street. The trail currently terminates onto existing streets and provides no dedicated off road route into the City of Rehoboth.

Project Description and Purpose

The project involves the construction of an approximately 7400' long multi-use path from the termination of the existing Junction and Breakwater Trail into the City of Rehoboth. A 10' wide porous asphalt section of trail will begin at the intersection of Hebron Road and Holland Glade Road, realigning the existing Junction and Breakwater trail (Photo 1) to the south side of the intersection. The trail will continue along the west side of Hebron Road, replacing the existing concrete sidewalk (Photo 2). The trail will cross Hebron Road at the north side of the intersection with Canal Street, continuing along the north side of Canal Street, replacing the existing concrete sidewalk (Photo 5). At the intersection with Church Street the trail will continue southeast to Rehoboth Avenue. The trail will continue along the north side of Rehoboth Avenue as a 10' concrete section to the existing roundabout (Photos 7, 8 & 9). This will include modifications to the draw bridge to allow for a 10' wide sidewalk on the north side of the bridge (Photo 10). An alternate to this trail alignment would be to turn southwest at the intersection of Canal Street and Church Street, along the west side of Church Street to the intersection of Rehoboth Avenue (Photo 6). At this intersection the trail would utilize the existing cross walk system and continue along the north side of Rehoboth Avenue.

The last segment of the Junction and Breakwater Rehoboth Extension trail is a 10' wide porous asphalt section of trail will begin at the existing Junction and Breakwater trailhead (Photo 3) just to the south of the intersection of Hebron Road and Harmon Road. A cross walk would be placed at the existing trail to the east side of Hebron Road. The trail continues to the north along the east side of Hebron Road (Photo 4) to the intersection of Hebron Road and Canal Street. A cross walk would be placed at the intersection to connect to the proposed trail.

This proposed project is being undertaken to improve accessibility and safety for pedestrian and bicyclist users of the heavily used Junction and Breakwater Trail.

Existing Conditions

There are multiple roads throughout the project area. Holland Glad Road (S271, Local Road) is an asphalt two lane road with minimal shoulders that are striped as bike lanes. Hebron Road (S273, Local Road) is an asphalt two lane road with minimal shoulders that are striped as bike lanes from Holland Glade Road to Canal Street and is posted at 35MPH. Hebron Road has a curb and gutter closed drainage system on both sides of the road through this section. Existing sidewalk exists on both sides of the road from Holland Glade Road to Kennet Lane, continuing to the south with sidewalk only on the west side of Hebron Road to the turn to the southwest prior to the intersection with Canal Street. Hebron Road from the intersection with Canal Street

to the existing Junction & Breakwater Trail head to the south is an asphalt two lane road with no shoulders, curbs or sidewalks and is posted at 25MPH. Canal Street and Church Street (Local Roads) are asphalt two lane roads with minimal shoulders that are striped as bike lanes with curb and gutter closed drainage systems, and posted at 25MPH. Existing sidewalks exist on the north side of Canal Street and the west side of Church Street. Rehoboth Avenue (1A, Minor Arterial) varies from a two to four lane road with center turn lane and varying width shoulders striped for bikes to a roundabout at the intersection with Grove Street and Columbia Avenue, and is posted at 25 MPH. Rehoboth Avenue has a curb and gutter closed drainage system and sidewalks continuously on the south side and intermittent on the north side of the road.

The drawbridge on Rehoboth Avenue over the Lewes and Rehoboth Canal has a 50 foot wide roadway section which includes travel ways and shoulders/bike lanes. Both sides of the bridge have sidewalks (6'-8" wide) behind an 8" high curb.

The existing right of way along Hebron Road from Holland Glade Road to Canal Street varies from 40' to 80' wide. Hebron Road from Canal Street to the existing Junction & Breakwater Trailhead has a 35' wide existing right of way. Canal Street has an 80' wide existing right of way. Church Street and Rehoboth Avenue, west of the drawbridge, have a 60' wide existing right of way.

Proposed Improvements

The proposed improvements will generally include construction of asphalt and concrete multi-use trails. Specifically the project improvements include:

- Realignment of the existing trailhead at the intersection of Holland Glade Road and Hebron Road.
- Construct a 10' wide asphalt trail along the west side of Hebron Road to the intersection of Canal Street, in place of the existing concrete sidewalk.
- Construct a 10' wide asphalt trail along the east side of Canal Street to the intersection of Church Street, in place of the existing concrete sidewalk.
- Either construct a 10' wide asphalt trail thru private property from Canal Street to Rehoboth Avenue OR construct a 8' to 10' concrete sidewalk along the north side of Church Street and modify the existing cross walk at intersection with Rehoboth Avenue, continuing the 8' to 10' wide concrete sidewalk along the north side of Rehoboth Avenue. Easements will be required.
- Construct an 8' to 10' wide concrete sidewalk along the north side of Rehoboth Avenue to the west drawbridge approach and from the east drawbridge approach to the traffic circle, except for the newly constructed 8' wide concrete sidewalk fronting the Shoal Harbor Subdivision.
- Widen the existing north drawbridge and approach sidewalk to a 10' wide section.
- Construct ADA Compliant curb ramps and crosswalks where required.
- Concept identifies required easements along Hebron Road, Church Street and Rehoboth Avenue.

Construction Phases

At the direction of the Department, the project will be constructed in two phases. Phase I begins at the existing trailhead on Hebron Road just to the south of Harmon Street, running along Hebron Street to the intersection of Canal Street. The trail will continue along the east side of Canal Street, connecting to the North side of Rehoboth Avenue by way of one of the three alternatives shown on the Concept Display. The trail will continue across the Lewes and Rehoboth Canal to the existing roundabout. Phase II begins at the existing trailhead at the intersection of Holland Glade Road and Hebron Road. The trail runs along the west side of Hebron Road to the intersection with Canal Street, tying into the Phase I trail. Much of Phase II would be constructed when the commercial parcels across from Limerick Drive develop. However, design plans/ROW acquisitions would still be required at the endpoints, and design oversight would be needed for the entire length to ensure conformity. The CTP estimates included in this Concept Design Report assume both projects are being constructed by DelDOT.

Assumptions and Limitations

The following assumptions and limiting conditions were considered in the preparation of this conceptual plan package:

- Stormwater management will be designed to the new regulations.
- Temporary and Permanent easements will be required from the property owners
- No subsurface investigation has been performed. Subbase materials are assumed to be adequate. If subsurface conditions are determined to be insufficient, corrective measures will be required.
- Property survey was performed. Limits of existing right of way is based on actual found monumentation in the field.
- Detailed topographic survey was not performed. Information contained herein regarding topographic features was obtained by site visit observations.
- Although aware of some existing drainage concerns, this project is providing drainage facilities related to this proposed improvements only.
- Utility Pole relocations will be required.
- Minimal (if any) environmental impacts are anticipated.

PUBLIC INVOLVEMENT

Public Involvement Overview

The project was part of the initial 1st State Trails and Pathways public meetings, held in each of the three counties, which occurred in May 2012. DelDOT has coordinated with DNREC over the past three years to discuss the multiple prongs of the Junction and Breakwater trail system between Lewes and Rehoboth Beach. Additionally, any time a member of the public, including elected officials, inquired about a bike/pedestrian access issue within this area, the intent to connect through from the southern end points of the existing Junction and Breakwater trails to Rehoboth Avenue was made known.

A public involvement meeting was held on January 28th, 2014 at the Rehoboth Beach Convention Center. The meeting notice was posted in the Delaware State News and Cape Gazette. The workshop was very well attended by the public and generally the comments (written and verbal) were favorable. The attendees included local public officials, business owners along the proposed trail route, and residents of the surrounding neighborhoods. The workshop presented a proposed trail alignment with three (3) options at the intersection of Church Street and Rehoboth Avenue for discussion. A separate display showed the overall master plan of the trail network from Rehoboth Beach to Lewes. Also several renderings were presented to give the public a feel for how the final trail would look.

Additional meetings may be required to meet individually with property owners, after delivery of the concept design report, as individual questions and concerns arise during the design phase.



Delaware Department of Transportation
Shailen Bhatt, Secretary

Public Workshop

Junction and Breakwater Trail, Rehoboth Extension

**Rehoboth Beach Convention Center
Conference Suite
229 Rehoboth Avenue
Rehoboth Beach, DE 19971**

**Tuesday,
January 28, 2014
4:00 p.m. - 6:00 p.m.**

The Delaware Department of Transportation (DelDOT) is holding a Public Workshop to obtain comments from surrounding residents, businesses and the general public for the proposed extension of the Junction and Breakwater Trail to Rehoboth Avenue. The project proposes to construct a 10' wide multi-use path from the termination of the existing Junction and Breakwater Trail at both Hebron Road and Holland Glade Road into the City of Rehoboth. The project will include pedestrian improvements to the existing drawbridge as well as ADA compliant curb ramps and crosswalks. This work will improve pedestrian and bicycle access and safety along the corridor while connecting to the existing regional network of trails.

The Public Workshop will be held on January 28, 2014 at the Rehoboth Beach Convention Center Conference Suite from 4:00 p.m. to 6:00 p.m. Interested persons are invited to express their views either in person, online, or in writing giving reasons for support of or in opposition to the proposed project. Comments will be received during the workshop or can be mailed to DelDOT Public Relations, P.O. Box 778, Dover, DE 19903 or sent via email to dotpr@state.de.us.

This location is accessible to persons having disabilities. Any person having special needs or requiring special aid, such as an interpreter for the hearing impaired, is requested to contact DelDOT by phone or mail one week in advance.

For further information contact Public Relations at 1-800-652-5600 (in DE) or 302-760-2080 or write to the above address.

PUBLIC NOTICE

PUBLIC WORKSHOP

Welcome to the Junction and Breakwater – Rehoboth Extension Trail Public Workshop. This proposed project is being undertaken to improve accessibility and safety for pedestrian and bicyclist users of the heavily used Junction and Breakwater Trail. This project was initially presented as part of the 1st State Trails and Pathways public meetings in May 2012.

The information presented tonight is at a Conceptual level and we are seeking input from the public. Please review the displays and talk with a project team member to discuss any questions you might have in regards to the proposed improvements. Comment forms are available if you wish to submit written comments.

Thank you for your interest in the project.



Existing Rehoboth Avenue Drawbridge
(Looking West from the East side of the Canal)



Existing Hebron Road
(Looking East from Limerick Drive)



Proposed Hebron Road
(Looking East from Limerick Drive)



Existing Hebron Road
(Looking North from Harmon Street)



Proposed Hebron Road
(Looking North from Harmon Street)



- EXISTING JUNCTION & BREAKWATER TRAIL
- PROPOSED REHOBOTH EXTENSION
- PROPOSED REHOBOTH EXTENSION ALT ROUTES
- PROPOSED SHOWFIELD EXTENSION
- PROPOSED LEWES TO GEORGETOWN TRAIL
- PROPOSED LEWES TO CAPE HENLOPEN TRAIL
- EXISTING CAPE HENLOPEN BIKE LOOP
- PROPOSED GORDONS POND TRAIL

MAPPING IS BASED ON THE 2012 STATE OF DELAWARE ORTHO PHOTOS. ALL INFORMATION SHOWN IS FOR DISPLAY PURPOSES ONLY.



- EXISTING JUNCTION & BREAKWATER TRAIL
- PROPOSED REHOBOTH EXTENSION
- PROPOSED ALTERNATE ROUTE 1
- PROPOSED ALTERNATE ROUTE 2
- PROPOSED ALTERNATE ROUTE 3

MAPPING IS BASED ON 2012 STATE OF DELAWARE ORTHO PHOTOS. ALL INFORMATION SHOWN IS FOR DISPLAY PURPOSES ONLY.

JUNCTION AND BREAKWATER TRAIL - REHOBOTH EXTENSION



Junction and Breakwater Trail - Rehoboth Extension
 DeIDOT Contract No. T201330012
 Public Workshop
 January 28, 2014



***Please Print

Name	Address	Phone
Organization	37 SANDALWOOD DR	302 227 9596
Name	Address	Phone
Organization	109 HICKMAN ST. R.B.	302-227-16434
Name	Address	Phone
Organization	16649 Coaster Hwy hwy	302 827 3575
Name	Address	Phone
Organization	Michele a partnerships for Development .com	
Name	Address	Phone
Organization	32715 HASTINGS DR. LEWES, DE	856-906-0605
Name	Address	Phone
Organization	JAYTHEREDWOL.COM.	
Name	Address	Phone
Organization	P.O. BOX 204 REHOBOTH BEACH.	302.945-5141
Name	Address	Phone
Organization	SUSSEX CYCLE KURPERVENIZON, NET	
Name	Address	Phone
Organization	35 Lantern Ln Rehoboth DE 19971	302-430-2418
Name	Address	Phone
Organization	navy@yahoo.com	
Name	Address	Phone
Organization	37565 WORCESTER DR REHOBOTH BEACH	302-727-5011
Name	Address	Phone
Organization	glang45c.comcast.net	
Name	Address	Phone
Organization	62 Columbia Ave	302-227-1484
Name	Address	Phone
Organization	wyn@achenbaum.com	



Junction and Breakwater Trail - Rehoboth Extension
 DeIDOT Contract No. T201330012
 Public Workshop
 January 28, 2014



***Please Print

Name Karen Fleck	Address 170 Seagull Drive, Lewes, DE 19958	Phone 4438348100
Organization	Email Address kfleckster@hotmail.com	
Name FRANK COOPER	Address 96 E. LAKE DR. REHOBOTH BEACH 19971	Phone 202-422-2522
Organization	Email Address	
Name PAUL KUNNS	Address 125 STOCKLEY ST. REHOBOTH	Phone 302-430-8484
Organization	Email Address	
Name JOHN GAUER	Address 304 LAUREL ST RB	Phone (302) 296-8952
Organization	Email Address	
Name Donald Smith	Address 35 Lantern Lane RB, DE 19921	Phone 302-430-1005
Organization Fitness After Fifty	Email Address donald@fitnessafterfifty.biz	
Name Bill & Jane O'Connor	Address 37375 Oxford Ct. Rehoboth Beach DE	Phone 410-502-8148
Organization	Email Address 37375oxford@gmail.com	
Name Bruce KAUFFMAN	Address 21088 Andrew Ave. Rehoboth Beach, DE	Phone 703 598 6364
Organization	Email Address B.KAUFFMAN598@gmail.com	
Name JIM ELLISON	Address 107 HENRY AVENUE R.B.	Phone 202 997 1044
Organization	Email Address JIM.ELLISON2@VERIZON.NET	

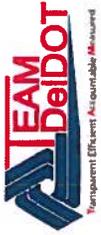


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***Please Print

Name	Steve White	Address	19878 Hibern Rd.	Phone	302-777-6072
Organization	First State Appraisals	Email Address			
Name	Carol A. Nagyski Jr	Address		Phone	702-5977
Organization	DeIDOT Safety	Email Address			
Name	DIANE WILSON	Address	10 DELAWARE AVE	Phone	643-5268
Organization	DE. COUNCIL GREENWAYS	Email Address			
Name	Karen Zafarian	Address	21059 Elizabeth Ave FB	Phone	302-236-1363
Organization		Email Address	Kanzak@aol.com		
Name	LuAnn Goldfaub	Address	26 Glade Circle East	Phone	302-245-3579
Organization		Email Address			
Name	Tony Pezone	Address	3 Black Walnut Ct Reh	Phone	
Organization	Sussex Cyclists	Email Address			
Name	Tom Kinzella	Address	28 Twp Poplar Turn	Phone	609-368646
Organization	Sussex Cyclists	Email Address	tkinzella@optnet.com		
Name	Tom Crivella	Address	117 Church St, Rehoboth	Phone	302-381-0917
Organization		Email Address	CLEANbeachesDel@aol.com		



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***Please Print

Name Edward G. Fleck	Address 110 SEAGULL DRIVE LEWES, DE	Phone 443-834-8101
Organization	Email Address egfleck8@gmail.com	
Name Tom Melvin	Address 312 LA-REX ST NB	Phone 410-707-4517
Organization Surr	Email Address femcglone@comcast.net	
Name Edie Herron	Address 36 Park Ave, RB	Phone (302) 227-1951
Organization	Email Address	
Name Tom Herron	Address 11	Phone 11
Organization	Email Address	
Name MARK CARTER	Address 6 Cannery Village Center / Milton, DE 19968	Phone (302) 684-1000 X225
Organization Dogfish Head Craft Brewery	Email Address mark@dogfish.com	
Name BOB BROTSCHOL	Address 30948 KNOLL CT LEWES, DE 19958	Phone (302) 231-8482
Organization SWS-CYC	Email Address RBROTSCHOL@aol.com	
Name TONI SHARP	Address 1002 SCARBOROUGH EXT. REHOBOTH	Phone 302-226-9762
Organization	Email Address BETHSHARP@GMAIL.COM	
Name Greg Gayton	Address DeIDOT RB	Phone
Organization	Email Address	



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 January 28, 2014



***Please Print

Name Bill Sargent	Address 10 Pennsylvania Ave, Rehoboth	Phone 302-245-5833
Organization City of Rehoboth	Email Address wsargent@tenpenn.com	
Name Joe Gottschall	Address 5 Fitcher Dr, Rehoboth Beach	Phone 302-226-9686
Organization	Email Address joe.gottschall@gmail.com	
Name Diane Daly	Address 2006 Bluff Point Dr Millsboro DE	Phone 609.313.2309
Organization	Email Address dudaly6@gmail.com	
Name MICHAEL R. LYER	Address 10 Drake Knoll Lewes	Phone 645 7572
Organization	Email Address m3000@surfbest.net	
Name Walter Brattingham	Address 123 Henlopen Ave	Phone 236-1020
Organization	Email Address Rehoboth Beach 19911-1634	
Name Ray Dribben	Address 21005 Sycamore Drive Lewes DE 19958	Phone 645-7149
Organization Self/Sycamore dist	Email Address raygribben@comcast.net	
Name Betsy Wayremer	Address 5 Thompson Ct RB 19971	Phone 381-0894
Organization	Email Address betsyremer@comcast.net	
Name SCOTT THOMAS	Address	Phone
Organization Southern Delaware Tourism	Email Address SCOTT@VISITsouthernDelaware.com	



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***Please Print

Name	PAT Couzzi	Address	41 Sussex St. RB, DE 19971	Phone	302-249-7878
Organization	RB Farmers' MARKET	Email Address	pat@coluzziconsulting.com		
Name	STAN MILLS	Address		Phone	302-542-1909
Organization	CITY OF REHOBOTH BCH	Email Address	smills@cityofrehoboth.com		
Name	Juan Maerschal	Address		Phone	
Organization	State Parks	Email Address			
Name	SAM COOPER	Address		Phone	302-227-4641
Organization		Email Address			
Name	Keith Biker	Address		Phone	302-745-6963
Organization		Email Address			
Name	ERNE GORA	Address		Phone	
Organization		Email Address			
Name	Dale Bellinger	Address	17 Cavdiss Rd RM	Phone	302-542-6541
Organization		Email Address			
Name		Address		Phone	
Organization		Email Address			

Junction & Breakwater Trail - Rehoboth Extension
DeIDOT Contract T201330012

January 28, 2014

COMMENT FORM

NAME: Keith Riker
ADDRESS: 19875 Hebron Road
EMAIL: KRiker6969@gmail.com
TELEPHONE#: 302-745-6963

I am concerned about a set back
issue I am already having with the
County concerning my decks & stairs on my
pole building in the back. they are making
me going for a variance on the existing
50x100 lot & the sq footage. if I get
the variance, I have no problem with this
except for the electrical lines to be
moved back into a 2 hundred year old
tree on my property. I think the utility
poles should be moved to the other side
of the road. please feel free to contact me
on these matters at my cell phone 302-745-6963

Keith Riker

Attach additional pages if necessary.

PROXIMITY OF WELL TO
ROAD, MIGHT NOT
BE ENOUGH ROOM FOR THE TRAIL

PLEASE RETURN BY February 11, 2014 TO:



Steven Penza
Century Engineering, Inc
4134 N. Dupont Hwy
Dover, DE 19901
302-734-9188



Comments can also be submitted via e-mail:
spenoza@centuryeng.com

Your comments and opinions are very important. All information you provide on this form will be carefully reviewed by the Department of Transportation. Under State law this survey form is public domain, and if requested, a copy of it must be provided to the public or media. Thank you for your participation and contribution to this important transportation project in Delaware.

Junction & Breakwater Trail - Rehoboth Extension
DeIDOT Contract T201330012

January 28, 2014

COMMENT FORM

NAME:

DALE BELLINGER

ADDRESS:

17 CARDIFF

EMAIL:

dale@bellingersjewelers.com

TELEPHONE#:

227 6410(w)

- Gordon Park route; Emergency solar phone stations
Key Points on specifications. " " " "
- Trash issues; whose responsibility (depends on location)? De State Parks, City of Rehoboth DNR/Del Dot? Trash Receptacles
- Plopping or worse; so far have they occurred (see #1 above) and with what frequency? Are you (RACKING) also car breakins @ autos behind North side OUTLET parking for trail
- Restrooms) facilities?
- Air Pressure systems (like @ SP beaches)

Attach additional pages if necessary.

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COMMENT FORM

NAME: TIMOTHY WATERS
ADDRESS: 37 SANDALWOOD DR.
EMAIL: JAKK WAT @ YAHOO . COM.
TELEPHONE#: _____

PURCHASE MARSH PROPERTY, WITH RENTING
~~ADDITIONAL~~ THE EXTRA SPACE TO SHOAL HARBOR
FOR PARKING. THEY HAVE NO PARKING FOR
RESIDENTS OUT SIDE OF THERE ~~TOWNHOUSES~~
TOWNHOUSES.

Attach additional pages if necessary.

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COMMENT FORM

NAME: FRANK CODDER
ADDRESS: 96 E. LAKE DR. R.B. DE. 19971
EMAIL: FBCNOVA@AOL.COM
TELEPHONE#: 202-422-7522

I WOULD SUGGEST PROVISIONS BE MADE
FOR CROSSING RT 1A (REHOBOTH AVE. EXT) AT
THE END OF CANAL ST (THE CANAL ST. IN THE
CITY OF REHOBOTH). TRAFFIC COMING FROM THE CIRCLE
IS STEADY AND ACCELERATING MAKING CROSSING HARD.
THERE IS NOTHING IN THE WAY OF EFFECTIVE
TRAFFIC CONTROL THAT HELPS CROSSING.

Attach additional pages if necessary.

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COMMENT FORM

NAME:

MICHAEL TYLER

ADDRESS:

10 Drake Knoll Lewes

EMAIL:

TELEPHONE#:

When trail gets to Rehoboth Ave using
proposed route 2 it is critical that
cyclists are not encouraged ~~to~~
to ride AGAINST traffic - signage or
road markings should direct bikes to
the correct side of the street

Attach additional pages if necessary.

PLEASE RETURN BY *February 11, 2014* TO:

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302-734-9188



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January 28, 2014

COMMENT FORM

NAME: Tom McGlone
ADDRESS: 318 Laurel St, NB, 19971
EMAIL: tomcglone@comcast.net
TELEPHONE#: 410-707-4577

- I think more analysis needs to be done regarding useable #s of users, before money is allocated for this project.

- Also more promotion of the trail would drive users.

- LHSR \Rightarrow yield to pedestrians needs to be on roundabout. @ This is a very dangerous place to cross Rehoboth Ave.

Attach additional pages if necessary.

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COMMENT FORM

NAME: PAT Coluzzi
ADDRESS: 41 Sussex St. Rehoboth Bch, DE
EMAIL: pat@coluzziconsulting.com
TELEPHONE#: 302-249-7878

① We need a safe ~~and~~ crossing across the bridge. - "composite" plates are made for this purpose. I will email the source to you.

② We need a "crossing" across Rehoboth Ave at Canal St.

③ There needs to be a continuation of the path thru Grove Park to connect to the Trail.

I was a RB City Commissioner for six years and recent chair of the transportation committee. We funded a bicycle master plan. I will send it to you.

Attach additional pages if necessary.
PLEASE RETURN BY February 11, 2014 TO:

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Century Engineering, Inc
4134 N. Dupont Hwy
Dover, DE 19901
302-734-9188



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spenoza@centuryeng.com

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January 28, 2014

COMMENT FORM

NAME: JOHN H GAUGER
ADDRESS: 304 LAUREL ST RB, DE
EMAIL: J.GAUGER304@GMAIL.COM
TELEPHONE#: (302) 296-8950

Walking of path across the drawbridge into RB looks
great! But the trail should connect to the RB
bike way into Green Park Bikes should not
continue into the traffic circle!

Rehoboth is part of the trail.

The cut through at Church Street is very good. I hate
to see bicycles in the middle of the street trying to
turn left into RB.

Light weight plates would be cheaper on the bridge and
would not harm the operation of a bridge which has
been difficult at times.

PLEASE RETURN BY February 11, 2014 TO:

Steven Penozza
Century Engineering, Inc
4134 N. Dupont Hwy
Dover, DE 19901
302-734-9188



Comments can also be submitted via e-mail:
spenoza@centuryeng.com

Your comments and opinions are very important. All information you provide on this form will be carefully reviewed by the Department of Transportation. Under State law this survey form is public domain, and if requested, a copy of it must be provided to the public or media. Thank you for your participation and contribution to this important transportation project in Delaware.

Junction & Breakwater Trail - Rehoboth Extension
DeIDOT Contract T201330012

January 28, 2014

COMMENT FORM

NAME:

Tony Pezono

ADDRESS:

EMAIL:

KAYAK42@VERIZON.NET

TELEPHONE#:

If is critical that there be a safe route from Rehoboth Ave ext. onto Church St for cyclists heading west "As is" is not safe.

Attach additional pages if necessary.

PLEASE RETURN BY February 11, 2014 TO:

Steven Penoz
Century Engineering, Inc
4134 N. Dupont Hwy
Dover, DE 19901
302-734-9188



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Junction & Breakwater Trail - Rehoboth Extension
DeIDOT Contract T201330012

January 28, 2014

COMMENT FORM

NAME: Jim + Edie Herron
ADDRESS: 36 Park Ave, RB
EMAIL: _____
TELEPHONE#: (302) 227-1951

We think that the Green
Option (#1) for Church St
is the best

Attach additional pages if necessary.

PLEASE RETURN BY *February 11, 2014* TO:



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Century Engineering, Inc
4134 N. Dupont Hwy
Dover, DE 19901
302-734-9188



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Junction & Breakwater Trail - Rehoboth Extension
DeIDOT Contract T201330012

January 28, 2014

COMMENT FORM

NAME: Karen Zakarian
ADDRESS: 121057 Elizabeth Ave, Rehoboth DE
EMAIL: kzakaria@aol.com 19971
TELEPHONE#: 1302-236-13123

Q: Will there be any lighting?
Ex Low-lighting via solar
panels in ground along
the pathways, especially
near areas that go from
heavy forest to bright light.
Good to have path
well lit.
Thank you
Karen

Attach additional pages if necessary.

PLEASE RETURN BY February 11, 2014 TO:



Steven Penozza
Century Engineering, Inc
4134 N. Dupont Hwy
Dover, DE 19901
302-734-9188



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Junction & Breakwater Trail - Rehoboth Extension
DeIDOT Contract T201330012

January 28, 2014

COMMENT FORM

NAME: Tom Herron
ADDRESS: 36 Park Ave, Rehoboth Bch 19971
EMAIL: tomherron@usa.net
TELEPHONE#: 302.727-1957

Comment on the rail-trail from Lewes to
Georgetown: There should be a high
priority given to building a trail under
Route 1 at Nassau. It is a huge safety
factor to try to cross Route 1 north of
Five Points. Use of the existing bridge
taking Route 1 over the railroad tracks
would help to solve this dangerous
situation.

Tom Herron

Attach additional pages if necessary.

PLEASE RETURN BY February 11, 2014 TO:

Steven Penozza
Century Engineering, Inc
4134 N. Dupont Hwy
Dover, DE 19901
302-734-9188



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spenoza@centuryeng.com

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From: cleanbeachesdel@aol.com [mailto:cleanbeachesdel@aol.com]
Sent: Tuesday, January 28, 2014 1:39 PM
To: DOT Public Relations (DelDOT)
Subject: Fwd: Bike Path - Hebron Road

Sent from Tony's
iPhone

Begin forwarded message:

From: "Theodore (Ted) Wilson" <teddywilson207@comcast.net>
Date: January 28, 2014 at 1:17:24 PM EST
To: CLEANBEACHESDEL@aol.com
Subject: **Bike Path - Hebron Road**

January 28,2014

Delaware Department of Transportation
Attn: Mr. Marco Boyce

I am a property owner in West Rehoboth (Dunbar Street). I continue to see many improvements in the neighborhood.

I am delighted to hear about plans for improving the bike path along Hebron Road. Please count me as fully supportive of this work.

Respectfully,

Theodore Wilson
(302)684-8251
teddywilson207@comcast.net.

From: cleanbeachesdel@aol.com [<mailto:cleanbeachesdel@aol.com>]
Sent: Tuesday, January 28, 2014 1:38 PM
To: DOT Public Relations (DelDOT)
Subject: Fwd: Bike Path: Hebron Road

Subject: Bike Path: Hebron Road

rpaulbroker@aol.com

January 28, 2014

Delaware Department of Transportation
Att: Mr. Marco Boyce

I have been a property owner at 19818 Hebron Road, Rehoboth Beach since 2001. I have seen great improvements to the existing area in this short time frame. The opening of bike paths has been a welcome sight to those of us who have been working to make this area a great place to work and live. We see a tremendous amount of people taking advantage of the bike paths all year long, especially on weekends and even more so during the summer season. What worries me however is the connection where the bike path ends behind Burton Avenue where it meets Hebron Road at the car wash. At that point, the only way for people to get into town is down Hebron Road to Church Street. The road is narrow and has heavy traffic all hours of the day. I have seen on many occasions where bikers were almost hit riding down that street. The road doesn't even have a dedicated side walk. We feel that it would be imperative to make improvements to this short stretch of street before someone is seriously hurt or killed.

On another note, a short stretch of Hebron Road to Church Street is dark due to no lighting. I see a lot of workers coming home late in the evening having worked in town Rehoboth. For safety reasons, some lights along that portion of the road make sense as well.

Respectfully,

Robert H. Paul
Rpaulbroker@aol.com
410-235-4727

From: shorefunrb@verizon.net [mailto:shorefunrb@verizon.net]

Sent: Thursday, January 30, 2014 10:14 AM

To: DOT Public Relations (DeIDOT)

Subject: Junction and Breakwater Trail, Rehoboth Extension

To whom it may concern,

I was unable to attend the meeting on January 28th in Rehoboth. I am a avid biker and use the JBT frequently. I also live in town in Rehoboth and use the route you are updating. First of all, thank you for updating this critical part of the Junction and Breakwater Trail. From the description in your announcement, it appears that a wide pedestrian/ bike path will be put on the north side of Rehoboth Ave. coming over the Canal Bridge. If this is the case, a consideration needs to be made as to how bikers will access the south side of Rehoboth. Please consider a bike path across Rehoboth Ave. that will allow bikers to access either side of this very busy road when traveling in either direction. A light that can be activated when needed might be a consideration. That access will need to be on the West side of the Rehoboth Circle, possibly at Canal Street. There also needs to be a way of informing drivers that bicycles and pedestrians will be crossing in front of them. Once drivers are at the circle, they have great difficulty noticing incoming and outgoing drivers, let alone bicyclists. If your widened path is only on one side of the street, bikers will be facing traffic when coming into Rehoboth. As a biker, I know the rules regarding going with the flow of traffic. If you send visiting bicyclists into town on the wrong side of the road, they also need to be reminded to get on the correct side of the road when in Rehoboth. Also, please send bikers OFF Rehoboth Avenue at their entry into Rehoboth. I am aware that this is quite a complicated issue. If possible, would you please send me copies of the maps describing the possible routes and changes being considered. That way I can have better information in order to make informed comments.

I am also available for any questions or comments. Thank you!

Kathy Osterholm
109 Hickman Street
Rehoboth Beach, DE 19971
302-227-6434

P O Box 222
Rehoboth Beach DE
19971

January 27, 2014

DeIDOT Public Relations
P O Box 778
Dover DE 19903

RE Trails System

Dear Sir or Madam:

I am writing in response to your solicitation for comments regarding the Junction/Breakwater Trail extension.

I am fully in favor of extending the trail. Any enhancement to outdoor recreational facilities is to be desired.

However, I would like to see the addition of benches or seating along the trail.

My husband and I are retired and may be considered "snowbirds" as our permanent residence is in Canada. Under normal circumstances, the weather here is much better for outdoor activities during the winter months. We enjoy walking but are hampered by severe arthritis. The Junction/Breakwater Trail is great, but we cannot cover very much of its length because there is no place to rest along the way.

I suggest that seating should be provided at least every quarter mile. If funding is not available any seating would be helpful. Would the ADA be a source of funding?

Sincerely,


Colette Lancaster

From: Jay Tomlinson [<mailto:jaythrrep@aol.com>]
Sent: Thursday, January 30, 2014 1:51 PM
To: DOT Public Relations (DeIDOT)
Cc: Jay Tomlinson
Subject: Junction & Breakwater Rehobeth Extension

DOTPR,

I attended the Rehobeth workshop on Tuesday. It was good to see so many interested parties attend the meeting.

I have only a few comments about the extension primarily to do with the final link into Rehobeth. In my opinion, the terminus for arriving in Rehobeth should be in or near Grove Park and it looks like that is the general consensus. Hopefully the future will see a water taxi stop near that location to gain access to the trail and all points downtown Rehobeth.

As plans are finalized for the Rehobeth access, I hope that the larger trail picture is retained in creating safe journey out to Gordon's Pond and linkage with the new Gordon's Pond to Herring Point trail. I don't think I saw plans for the link from Rehobeth town to Gordon's Pond? Columbia or Henlopen Avenues would be the likely routes and would require updates.

At present, the missing pieces as far as I can determine are Rehobeth terminus, Lewes Terminus and safe access from Grove Park to Gordon's Pond. When completed, bikers, runners and other ambitious folks will be able to complete a 15 mile loop covering the best the area has to offer. I don't know of any other trail nationally that could rival the finished J&B Trail for access to the beach, parks, restaurants, activities and shopping without use of a motorized vehicle.

I am disappointed to see the best access routes entering that last 800 meters into Rehobeth to Grove Park/Circle unavailable due to missed opportunities by "Planners". Very disturbing and almost impossible to understand how developer approvals for projects currently under construction could gain those approvals without "Planners" considering the J&B Trail impacts and knowing that the last best access points into town were at stake. It seems like Rehobeth, Deldot and Engineers assign fault for the missed opportunity differently. The canal offers challenges to downtown access and there are only so many ways to cross. This point requires further review as to what went wrong with the planning process and hopefully we will see the story written soon.

Finally, I would like to advance one alternative access point which in my opinion should be examined. I mentioned the idea at the meeting, but didn't gain much traction. It may wrinkle some, but it may be possible and shouldn't be dismissed without examining closely and completely. There is safe and easy access to a point along the canal through the Canal Corkran development. The route would travel about 800 meters through the development using existing road at which point the trail would use an existing right of way to access the canal. It would travel about 200 meters along the canal to a point at the current bridge to cross the canal and into Rehobeth. The route would connect both Hebron Road trail points with Corkran Blvd. Much of the surface is in place and would require limited signage.

You may be aware of other less direct but doable access points to the canal between existing, defunct or proposed developments along Cockran Blvd or Hebron that would provide safe access into town? I assume if the trail can get to the canal we have right of way access?

Again thanks for holding the meeting. I look forward to the day when the Rehobeth access is completed and available for all that come to our area. If you have any questions I can assist with, please do not hesitate to let me know.

Sincerely,

Jay

Jay Tomlinson
32715 Hastings Drive
Lewes, DE 19958
856-906-0605
jaythrrep@aol.com

From: Karen Chaconas [<mailto:kchaconas@mchsi.com>]
Sent: Friday, January 31, 2014 1:47 PM
To: DOT Public Relations (DeDOT)
Subject: Junction and Breakwater Trail, Rehoboth Extension

I am forwarding my letter of this morning to Speaker Schwartzkopf, which expresses my comments on the subject project.

Thank you.

James Chaconas

----- Original Message -----

Subject: Junction and Breakwater Trail, Rehoboth Extension

Date: Fri, 31 Jan 2014 06:03:22 -0500

From: Karen Chaconas <kchaconas@mchsi.com>

To: Peter.Schwartzkopf@state.de.us

Mr. Speaker,

My name is James Chaconas. You may remember my brother Louis Chaconas, who you helped several years ago. I have properties in West Rehoboth, exactly where this proposed trail is proposed.

I absolutely oppose this bike trail, which would take up 10 ft. of my properties and would mostly benefit the SUMMER TOURIST.

I would, however, be in favor of an everyday, ordinary 3 ft. sidewalk. Most of all, I would like to see this money, wherever it is coming from, be funneled to construct a children's playground in the West Rehoboth neighborhood. There is nothing there for this mostly African American community. The tourist want it all.

Your support will be greatly appreciated.

I can be reached at the above email or at 302-934-5016.

James Chaconas

From: Kent Larson [<mailto:kent@dcairphotos.com>]

Sent: Saturday, February 01, 2014 10:40 AM

To: DOT Public Relations (DelDOT)

Cc: spenoza@centuryeng.com; Lopez, Ernesto B (LegHall); Lynette Larson; Janie & Bill OConnor; Gould-Crouch, Alison

Subject: Junction and Breakwater Trail Extension

Hello,

As full time, single family residents of Canal Pointe we fully support this effort to enhance the safety and pleasure of our Rehoboth Beach community. With the recent growth in the area we think you will find your efforts in bringing this project to fruition a wonderfully utilized and appreciated amenity.

Thank you so much for your continued work to improve our community.

Kent Larson

37448 Liverpool Lane

Rehoboth Beach, DE 19971

703-887-8703

Good morning,

I am writing in support of any effort to improve the bike trail connection/access to Rehoboth Avenue and the Canal Bridge. My wife and I are residents of the Canal Pointe community and we have enjoyed riding our bikes into downtown Rehoboth for years, and look forward to doing so for many years to come.

This past year has been more problematic, as I am sure you are well aware. We certainly understand the need for the Edgewater community and Canal Corkran to take the steps to limit bicycle traffic from cutting through their neighborhoods. Those access points are only necessary due to the lack of forethought regarding the volume of traffic and unintended hazards that one of the nicest amenities in Sussex County has created. We applaud your efforts to come up with a solution to the issue of providing a safe crossing onto Eastbound Rehoboth Avenue and the Canal Bridge.

The stop light at Church Street is already an aggressive, demolition derby of crossing car traffic coming from each direction on Church St. to head east on Rehoboth Ave. Add in to that unsuspecting bicyclists that are trying to be law abiding and ride along with traffic, and it is a recipe for disaster.

Thanks again for dedicating the time, effort and funds to study the options. We are hopeful that a reasonable, speedy solution is the result of everyone's effort. If there is anything that you feel a private citizen can assist you with regarding any issue that helps this problem, please let us know and we will be more than happy to help.

Regards,

Jeff Topley and Julie Buric
37369 Oxford Court
Rehoboth Beach, DE 19971

**Junction & Breakwater Trail - Rehoboth Extension
DelDOT Contract T201330012**

January 28, 2014

COMMENT FORM

NAME: Walter W. Brittingham
ADDRESS: 123 Henlopen Avenue Rehoboth Beach, DE 19971-1634
EMAIL: _____
TELEPHONE#: 302-227-6461

What is/are the proposed sidewalk width(s) from Church St to
the bridge?

What is the truth? Improvements east side of the bridge to across
from the 7-11, or across from the Royal Farm Store?

West side of the bridge at the cross walk gets a controlled signal
or is this to be a "pot luck" crosswalk?

What DELDOT department is sponsoring this contract, and who
is the responsible engineer?

Are any improvements proposed this spring and/or summer?

What are the tentative informational sessions anticipated?

*Thank you
Walter W. Brittingham*

Attach additional pages if necessary.

PLEASE RETURN BY February 11, 2014 TO:



Steven Penozza
Century Engineering, Inc
4134 N. Dupont Hwy
Dover, DE 19901
302-734-9188



Comments can also be submitted via e-mail:
spenoza@centuryeng.com

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JAN 28 2014

**Junction & Breakwater Trail - Rehoboth Extension
DeIDOT Contract T201330012**

January 28, 2014

COMMENT FORM

NAME: Todd Fritchman
ADDRESS: 19831 Hebron Road., Rehoboth, DE
EMAIL: todd@envirotechinc.com
TELEPHONE#: 302-462-5613

See attached letter:
Re: Junction + Breakwater Trail - Rehoboth Extension -
DelDot Contract T201330012 dated
2/28/14

Attach additional pages if necessary.

PLEASE RETURN BY February 11, 2014 TO:



Steven Penozza
Century Engineering, Inc
4134 N. Dupont Hwy
Dover, DE 19901
302-734-9188



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spenozza@centuryeng.com

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JAN 28 2014



Envirotech[™]

ENVIRONMENTAL CONSULTING, INC.
Providing Environmental Solutions

February 28, 2014

Mr. Steven Penoza
Century Engineering, Inc.
4134 N. DuPont Highway
Dover, Delaware 19901

Re: Junction & Breakwater Trail-Rehoboth Extension-DelDot Contract T201330012

Dear Mr. Penoza:

I recently learned of the Public Workshop held by the Delaware Department of Transportation on January 28, 2014 at the Rehoboth Beach Convention Center regarding the Junction & Breakwater Trail referenced above. We understand that the project proposes to construct a 10' wide multi-use path from the termination of the existing Junction and Breakwater Trail at both Hebron Road and Holland Glade Road into the City of Rehoboth. We also understand the project will include pedestrian improvements to the existing drawbridge as well as ADA compliant curb ramps and crosswalks.

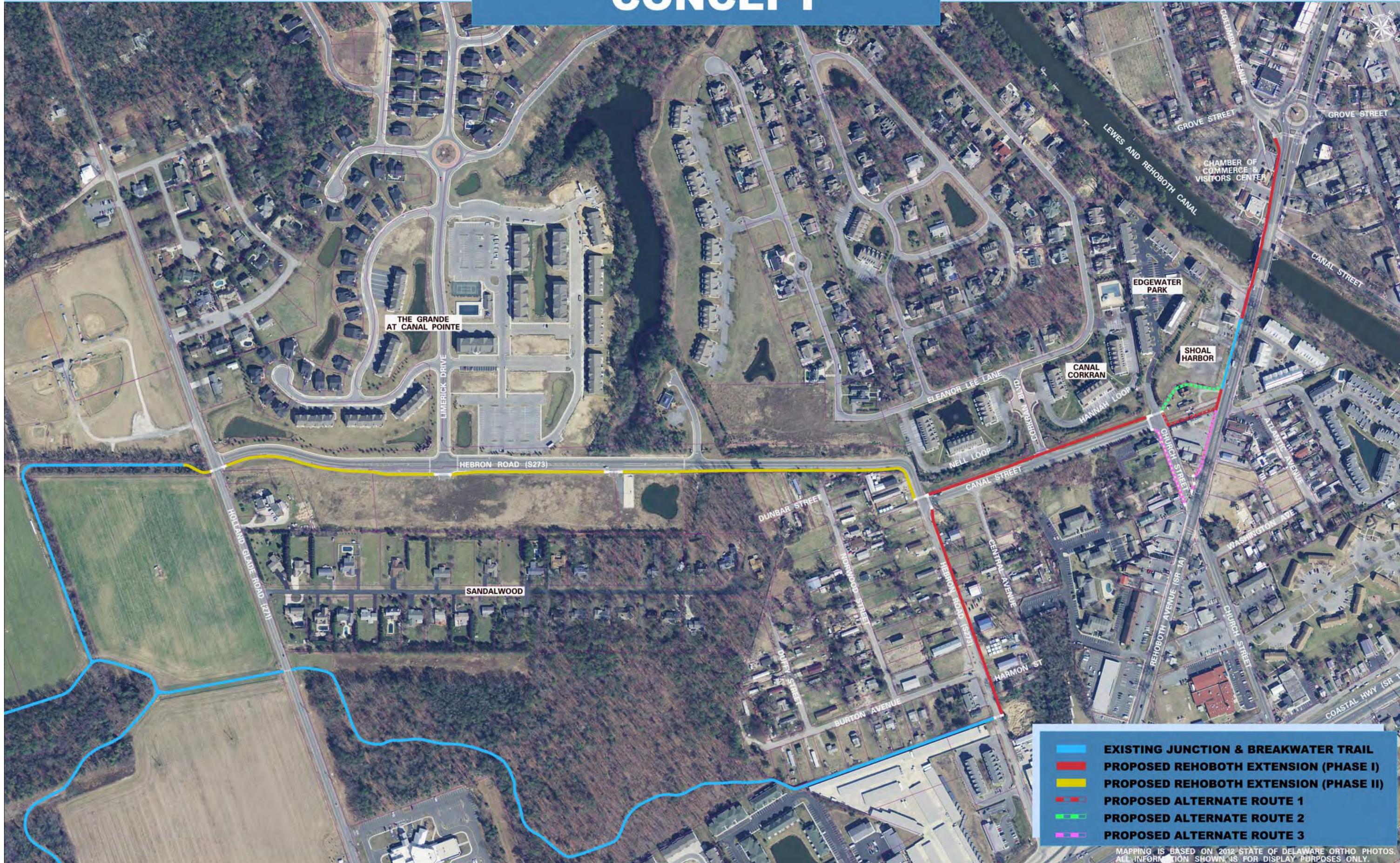
Envirotech Environmental Consulting, Inc.'s warehouse is located at 19831 Hebron Road, Rehoboth, Delaware utilizing Lots 9, 10 and 11 on the south side of Hebron Road. We import and export materials on all three lots and our field trucks, trailers and off-road vehicles operate out of this facility and are stored there at the end of each work day and on weekends. Also, employees' vehicles park there during each work day. So, if curbing and/or sidewalks are planned to be constructed in front of these three lots, then the Delaware Department of Transportation should provide for curb cuts to permit ingress/egress to Lots 9, 10 and 11. Otherwise, we are in opposition to the project.

Sincerely,

Todd A. Fritchman
President

cc: Shailen Bhatt, Secretary
Delaware Department of Transportation

CONCEPT PLAN



MAPPING IS BASED ON 2012 STATE OF DELAWARE ORTHO PHOTOS.
ALL INFORMATION SHOWN IS FOR DISPLAY PURPOSES ONLY.

JUNCTION AND BREAKWATER TRAIL - REHOBOTH EXTENSION

PROJECT PHOTOGRAPHS



Photo 1: Existing trailhead at the intersection of Holland Glade Road and Hebron Road



Photo 2: Existing sidewalk on the west side of Hebron Road (looking to the south)



Photo 3: Existing trailhead on Hebron Road, to the south of Harmon Street



Photo 4: Hebron Road, looking north, between Harmon Street and Canal Street



Photo 5: Existing sidewalk on the east side of Canal Street (looking to the north)



Photo 6: Existing sidewalk on the west side of Church Street (looking to the south)



Photo 7: Existing sidewalk on the north side of Rehoboth Avenue,
West of the drawbridge (looking to the west)



Photo 8: Existing sidewalk on the north side of Rehoboth Avenue,
East side of the drawbridge (looking to the west)



Photo 9: Existing sidewalk on the north side of Rehoboth Avenue,
Between the drawbridge and roundabout (looking to the east)



Photo 10: Drawbridge over Lewes and Rehoboth Canal (Rehoboth Avenue)

CTP ESTIMATES

CAPITAL TRANSPORTATION PROJECT COST ESTIMATE

1. NAME OF PROJECT J & B Trail - Rehoboth Extension, Phase I Sussex
County
Subdivision or Road Name

2. LIMITS Street Name or Road Number	From	To	Length
<u>Hebron Road</u>	<u>Canal Street</u>	<u>Harmon Street</u>	<u>950'</u>
<u>Canal Street</u>	<u>Hebron Road</u>	<u>Church Street</u>	<u>1030'</u>
<u>Rehoboth Avenue</u>	<u>Church Street</u>	<u>Grove Street</u>	<u>1700'</u>

3. ESTIMATE REQUESTED BY: Jeff Niezgoda for (check one) Project initiation Estimate only
Name Section or Legis. Dist.

4. DESCRIPTION OF IMPROVEMENT:
 Construct a multiuse pathway from the existing trailhead at Hebron Road of the Junction & Breakwater Trail into Rehoboth. The trail will begin near the intersection of Hebron Road and Harmon Street, heading east along the south side of Hebron Road to the intersection of Hebron Road and Canal Street. The trail will continue along the east side of Canal Street to Rehoboth Avenue, then head east across the drawbridge on the north side of Rehoboth Avenue to the existing roundabout.

4. PROJECT IN C.I.P. Yes No If "Yes", indicate year F.Y. _____

5. TYPICAL SECTION
 ADA Compliant, 10' wide Pervious Asphalt Pavement Pathway along Hebron Road and Canal Street, 10' to 8' wide P.C.C. Pathway along Rehoboth Avenue.

6. STATE MAINTAINED CITY MAINTAINED PRIVATE OTHER (specify) _____

7. COST ESTIMATE:	from C.I.P. estimate form	Estimate prepared by:	Date:
a. Location and Environmental Studies (Part I to be included only for class "I" and "III" projects)	<u>\$25,300</u>	Part I <u>Century Engineering</u>	<u>03/03/14</u>
b. Preliminary Engineering	<u>\$150,000</u>	Part II <u>Century Engineering</u>	<u>03/03/14</u>
c. Real Estate	<u>\$286,000</u>	Part III <u>Century Engineering</u>	<u>03/03/14</u>
d. Construction *	<u>\$729,375</u>	Part IV <u>Century Engineering</u>	<u>03/03/14</u>
e. TOTAL ESTIMATED PROJECT COST	<u>\$1,190,675</u>		

* Includes Utilities, Traffic, and C.E.

APPROVED
 Valid thru _____ Date _____ Assistant Director, M&O/Transportation Solutions/Planning _____ Date _____

CAPITAL TRANSPORTATION PROJECT COST ESTIMATE

(Current Dollars)

Part I of V

Contract No. T201330012

Project Title: J & B Trail - Rehoboth Extension, Phase I

PART I - LOCATION & ENVIRONMENTAL STUDIES (N/A)
(Part I to be included only for class "I" & "III" projects)

A. ENGINEERING	<u>\$0</u>	E. HISTORIC	<u>\$7,500</u>
(Includes NEPA)			
B. ARCHAEOLOGY	<u>\$15,000</u>	1. Phase 1 (study)	<u>\$7,500</u>
1. Phase I (study)	<u>\$15,000</u>	2. Phase 2 (study)	<u> </u>
2. Phase 2 (study)	<u> </u>	3. Mitigation (by loc./env.)	<u> </u>
3. Phase 3 (mitigation)	<u> </u>	4. Mitigation (by design)	<u>yes <input type="checkbox"/> no <input type="checkbox"/></u>
C. WETLANDS	<u>\$0</u>	F. NOISE	<u>\$0</u>
1. Delineation (study)	<u> </u>	1. Studies	<u> </u>
2. Permit preparation	<u> </u>	2. Mitigation (by design)	<u>yes <input type="checkbox"/> no <input type="checkbox"/></u>
3. Mitigation (design)	<u> </u>	G. OTHER	<u>\$0</u>
D. HAZARDOUS MATERIAL	<u>\$0</u>	1. <u> </u>	<u> </u>
1. Phase 1 (study)	<u> </u>	2. <u> </u>	<u> </u>
2. Phase 2 (study)	<u> </u>		
3. Phase 3 (remediation)	<u> </u>		
TOTAL COSTS FOR PART I (A thru G) ROUNDED			<u>\$23,000</u>
CONTINGENCY COSTS		<u>10%</u>	<u>\$2,300</u>
(normally 5% for large projects and 10% for small projects - to be approved by section head)		(% used)	
TOTAL LOCATION AND ENVIRONMENTAL STUDIES COSTS			<u>\$25,300</u>
(also total for Construction Project Estimate form line 7a)			

Estimator: Century Engineering

Date: 03/03/14

CAPITAL TRANSPORTATION PROJECT COST ESTIMATE

(Current Dollars)

Part III of V

Contract No. T201330012

Project Title: J & B Trail - Rehoboth Extension, Phase I

PART III - REAL ESTATE

A. REAL PROPERTY	<u>\$262,000</u>	C. ASBESTOS PROGRAM	<u>\$0</u>
1. Total acquisitions	<u>\$77,250</u>	1. Testing	<u></u>
2. Partial acquisitions	<u></u>	2. Abatement	<u></u>
3. Permanent easements	<u>\$184,750</u>	D. DEMOLITION	<u></u>
4. Temporary easements	<u></u>	E. APPRAISAL FEES	<u>\$12,000</u>
5. Wetland mitigation	<u></u>	F. STAFF	<u></u>
Other (specify)	<u></u>	G. SETTLEMENT	<u>\$12,000</u>
6. <u></u>	<u></u>	H. REAL ESTATE ENG.	<u>\$0</u>
7. <u></u>	<u></u>	1. Consultant survey	<u></u>
B. RELOCATION	<u>\$0</u>	2. As acquired plans	<u></u>
1. Residential	<u></u>	I. CONDEMNATION	<u></u>
2. Business	<u></u>	J. OTHER (specify)	<u>\$0</u>
Other (specify)	<u></u>	1. <u></u>	<u></u>
3. <u></u>	<u></u>	2. <u></u>	<u></u>
4. <u></u>	<u></u>		

TOTAL COSTS FOR PART III (A thru J) ROUNDED \$286,000

CONTINGENCY COSTS \$0
(normally 5% for large projects and 10% for small projects - to be approved by section head) (% used)

TOTAL REAL ESTATE COSTS \$286,000
(also total for Construction Project Estimate form line 7c)

Estimator: Century Engineering

Date: 03/03/14

CAPITAL TRANSPORTATION PROJECT COST ESTIMATE

(Current Dollars)

Part IV-A of V

Contract No. T201330012

Project Title J & B Trail - Rehoboth Extension, Phase I

PART IV -CONSTRUCTION

A. ROADWAY/APPROACH CONSTRUCTION

	<u>\$360,702</u>
1. Grading	
a. Excavation (includes SWM pond)	<u>\$13,813</u>
b. Borrow	<u> </u>
2. Drainage	<u>\$7,500</u>
3. Pavement	
a. Surface	<u>\$134,529</u>
b. Base	<u>\$7,810</u>
c. Subbase	<u>\$11,697</u>
4. Erosion/Sed. Cont.	<u>\$7,635</u>
5. Miscellaneous	
a. Curb/Gutter	<u>\$7,020</u>
b. Sidewalk	<u>\$77,930</u>
c. Guardrail	<u> </u>
d. C.P.M. Schedule	<u> </u>
e. Clear/Grubb	<u>\$2,500</u>
f. Field Office	<u> </u>
Other (specify)	
g. <u>Removal of P.C.C.</u>	<u>\$14,380</u>
h. <u>Topsoil/Seed</u>	<u>\$5,888</u>
i. <u>Bridge Sidwalk Mods</u>	<u>\$70,000</u>
j. <u> </u>	<u> </u>
k. <u> </u>	<u> </u>
l. <u> </u>	<u> </u>
m. <u> </u>	<u> </u>

B. STRUCTURE CONSTRUCTION

	<u>\$0</u>
1. New Bridge	<u> </u>
a. Type	<u> </u>
b. Size	<u> </u>
c. \$/s.f.	<u> </u>
2. Old Structure Rem.	<u> </u>
a. Type	<u> </u>
b. Size	<u> </u>
c. \$/c.y.	<u> </u>
3. Retaining Wall	<u> </u>
a. Type	<u> </u>
b. Size	<u> </u>
c. \$/c.y.	<u> </u>
4. Box Culvert	<u> </u>
a. Type	<u> </u>
b. Size	<u> </u>
c. \$/s.f.	<u> </u>

C. LANDSCAPING

	<u>\$0</u>
1. Beautification	<u> </u>
2. Noise Mitigation	<u> </u>
3. Visual Mitigation	<u> </u>
4. Tree Mitigation	<u> </u>

D. MAINTENANCE OF TRAFFIC \$92,904

(refer to Capital Improvement Project form, Part IV - Continued)

CAPITAL TRANSPORTATION PROJECT COST ESTIMATE

(Current Dollars)

Part V of V

Contract No. T201330012

Project Title: J & B Trail - Rehoboth Extension, Phase I

SUMMARY

PART I - LOCATION AND ENVIRONMENTAL STUDIES (Part I to be included only for class "I" and "III" projects)	<u>\$25,300</u>
PART II - PRELIMINARY ENGINEERING	<u>\$150,000</u>
PART III - REAL ESTATE	<u>\$286,000</u>
PART IV - CONSTRUCTION	<u>\$729,375</u>
TOTAL ESTIMATED PROJECT COSTS (also total for Construction Project Estimate from line 7c)	<u>\$1,190,675</u>

Project Manager

Date: _____

REVIEWED & CONCURRED IN:

Section Head

Date: _____

NOTE: Concurring section heads are to forward the original estimate copy to the Director of Transportation Solutions with one estimate copy each to the Assistant Director of Project Development, Assistant Director of Design Support, and the Cost Estimate Engineer.

CAPITAL TRANSPORTATION PROJECT COST ESTIMATE

1. NAME OF PROJECT J & B Trail - Rehoboth Extension, Phase II Sussex
County
Subdivision or Road Name

2. LIMITS

Street Name or Road Number	From	To	Length
<u>Hebron Road</u>	<u>Holland Glade Road</u>	<u>Harmon Street</u>	<u>3100'</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

3. ESTIMATE REQUESTED BY: Jeff Niezgoda for (check one) Project initiation Estimate only
Name Section or Legis. Dist.

4. DESCRIPTION OF IMPROVEMENT:

Construct a multiuse pathway from the existing trailhead of the Junction & Breakwater Trail into Rehoboth. This section of trail will begin at the intersection of Holland Glade Road and Hebron Road, running along the west side of Hebron Road heading south to the intersection with Canal Street, connecting to the Phase I trail.

4. PROJECT IN C.I.P. Yes No If "Yes", indicate year F.Y. _____

5. TYPICAL SECTION

ADA Compliant, 10' wide Pervious Asphalt Pavement Pathway along Hebron Road.

6. STATE MAINTAINED CITY MAINTAINED PRIVATE OTHER (specify) _____

7. COST ESTIMATE:

		from C.I.P. estimate form	Estimate prepared by:	Date:
a. Location and Environmental Studies (Part I to be included only for class "I" and "III" projects)	<u>\$25,300</u>	Part I	<u>Century Engineering</u>	<u>03/03/14</u>
b. Preliminary Engineering	<u>\$95,000</u>	Part II	<u>Century Engineering</u>	<u>03/03/14</u>
c. Real Estate	<u>\$32,000</u>	Part III	<u>Century Engineering</u>	<u>03/03/14</u>
d. Construction *	<u>\$421,750</u>	Part IV	<u>Century Engineering</u>	<u>03/03/14</u>
e. TOTAL ESTIMATED PROJECT COST	<u>\$574,050</u>			

* Includes Utilities, Traffic, and C.E.

APPROVED

Valid thru _____ Date _____ Assistant Director, M&O/Transportation Solutions/Planning _____ Date _____

CAPITAL TRANSPORTATION PROJECT COST ESTIMATE

(Current Dollars)

Part I of V

Contract No. T201330012

Project Title: J & B Trail - Rehoboth Extension, Phase II

PART I - LOCATION & ENVIRONMENTAL STUDIES (N/A)

(Part I to be included only for class "I" & "III" projects)

A. ENGINEERING	<u>\$0</u>	E. HISTORIC	<u>\$7,500</u>
(Includes NEPA)			
B. ARCHAEOLOGY	<u>\$15,000</u>	1. Phase 1 (study)	<u>\$7,500</u>
1. Phase I (study)	<u>\$15,000</u>	2. Phase 2 (study)	<u> </u>
2. Phase 2 (study)	<u> </u>	3. Mitigation (by loc./env.)	<u> </u>
3. Phase 3 (mitigation)	<u> </u>	4. Mitigation (by design)	yes <input type="checkbox"/> no <input type="checkbox"/>
C. WETLANDS	<u>\$0</u>	F. NOISE	<u>\$0</u>
1. Delineation (study)	<u> </u>	1. Studies	<u> </u>
2. Permit preparation	<u> </u>	2. Mitigation (by design)	yes <input type="checkbox"/> no <input type="checkbox"/>
3. Mitigation (design)	<u> </u>	G. OTHER	<u>\$0</u>
D. HAZARDOUS MATERIAL	<u>\$0</u>	1. <u> </u>	<u> </u>
1. Phase 1 (study)	<u> </u>	2. <u> </u>	<u> </u>
2. Phase 2 (study)	<u> </u>		
3. Phase 3 (remediation)	<u> </u>		

TOTAL COSTS FOR PART I (A thru G) ROUNDED \$23,000

CONTINGENCY COSTS 10% \$2,300
(normally 5% for large projects and 10% for small projects - to be approved by section head) (% used)

TOTAL LOCATION AND ENVIRONMENTAL STUDIES COSTS \$25,300
(also total for Construction Project Estimate form line 7a)

Estimator: Century Engineering

Date: 03/03/14

CAPITAL TRANSPORTATION PROJECT COST ESTIMATE

(Current Dollars)

Part III of V

Contract No. T201330012

Project Title: J & B Trail - Rehoboth Extension, Phase II

PART III - REAL ESTATE

A. REAL PROPERTY	<u>\$26,000</u>	C. ASBESTOS PROGRAM	<u>\$0</u>
1. Total acquisitions	<u> </u>	1. Testing	<u> </u>
2. Partial acquisitions	<u> </u>	2. Abatement	<u> </u>
3. Permanent easements	<u>\$26,000</u>	D. DEMOLITION	<u> </u>
4. Temporary easements	<u> </u>	E. APPRAISAL FEES	<u>\$3,000</u>
5. Wetland mitigation	<u> </u>	F. STAFF	<u> </u>
Other (specify)	<u> </u>	G. SETTLEMENT	<u>\$3,000</u>
6. <u> </u>	<u> </u>	H. REAL ESTATE ENG.	<u>\$0</u>
7. <u> </u>	<u> </u>	1. Consultant survey	<u> </u>
B. RELOCATION	<u>\$0</u>	2. As acquired plans	<u> </u>
1. Residential	<u> </u>	I. CONDEMNATION	<u> </u>
2. Business	<u> </u>	J. OTHER (specify)	<u>\$0</u>
Other (specify)	<u> </u>	1. <u> </u>	<u> </u>
3. <u> </u>	<u> </u>	2. <u> </u>	<u> </u>
4. <u> </u>	<u> </u>		

TOTAL COSTS FOR PART III (A thru J) ROUNDED \$32,000

CONTINGENCY COSTS \$0
(normally 5% for large projects and 10% for small projects - to be approved by section head) (% used)

TOTAL REAL ESTATE COSTS \$32,000
(also total for Construction Project Estimate form line 7c)

Estimator: Century Engineering

Date: 03/03/14

CAPITAL TRANSPORTATION PROJECT COST ESTIMATE

(Current Dollars)

Part IV-A of V

Contract No. T201330012

Project Title J & B Trail - Rehoboth Extension, Phase II

PART IV -CONSTRUCTION

**A. ROADWAY/APPROACH
CONSTRUCTION**

	<u>\$248,315</u>
1. Grading	
a. Excavation (includes SWM pond)	<u>\$16,126</u>
b. Borrow	<u> </u>
2. Drainage	<u>\$2,500</u>
3. Pavement	
a. Surface	<u>\$171,035</u>
b. Base	<u>\$6,620</u>
c. Subbase	<u>\$1,459</u>
4. Erosion/Sed. Cont.	<u>\$6,243</u>
5. Miscellaneous	
a. Curb/Gutter	<u>\$4,320</u>
b. Sidewalk	<u>\$13,800</u>
c. Guardrail	<u> </u>
d. C.P.M. Schedule	<u> </u>
e. Clear/Grubb	<u>\$2,500</u>
f. Field Office	<u> </u>
Other (specify)	
g. <u>Removal of P.C.C.</u>	<u>\$17,050</u>
h. <u>Topsoil/Seed</u>	<u>\$6,662</u>
i. <u> </u>	<u> </u>
j. <u> </u>	<u> </u>
k. <u> </u>	<u> </u>
l. <u> </u>	<u> </u>
m. <u> </u>	<u> </u>

**B. STRUCTURE
CONSTRUCTION**

	<u>\$0</u>
1. New Bridge	<u> </u>
a. Type	<u> </u>
b. Size	<u> </u>
c. \$/s.f.	<u> </u>
2. Old Structure Rem.	<u> </u>
a. Type	<u> </u>
b. Size	<u> </u>
c. \$/c.y.	<u> </u>
3. Retaining Wall	<u> </u>
a. Type	<u> </u>
b. Size	<u> </u>
c. \$/c.y.	<u> </u>
4. Box Culvert	<u> </u>
a. Type	<u> </u>
b. Size	<u> </u>
c. \$/s.f.	<u> </u>

C. LANDSCAPING

	<u>\$0</u>
1. Beautification	<u> </u>
2. Noise Mitigation	<u> </u>
3. Visual Mitigation	<u> </u>
4. Tree Mitigation	<u> </u>

D. MAINTENANCE OF TRAFFIC \$51,398

(refer to Capital Improvement Project form, Part IV - Continued)

CAPITAL TRANSPORTATION PROJECT COST ESTIMATE

(Current Dollars)

Part V of V

Contract No. T201330012

Project Title: J & B Trail - Rehoboth Extension, Phase II

SUMMARY

PART I - LOCATION AND ENVIRONMENTAL STUDIES (Part I to be included only for class "I" and "III" projects)	<u>\$25,300</u>
PART II - PRELIMINARY ENGINEERING	<u>\$95,000</u>
PART III - REAL ESTATE	<u>\$32,000</u>
PART IV - CONSTRUCTION	<u>\$421,750</u>
TOTAL ESTIMATED PROJECT COSTS (also total for Construction Project Estimate from line 7c)	<u>\$574,050</u>

Project Manager

Date: _____

REVIEWED & CONCURRED IN:

Section Head

Date: _____

NOTE: Concurring section heads are to forward the original estimate copy to the Director of Transportation Solutions with one estimate copy each to the Assistant Director of Project Development, Assistant Director of Design Support, and the Cost Estimate Engineer.