



TOWN OF DEWEY BEACH

www.townofdeweybeach.com

105 Rodney Avenue
Dewey Beach, DE 19971
302-227-6363 (Voice or TDD)
302-227-8319 (Fax)

To: Town Commissioners

From: Mr. Scott Koenig, P.E.
Town Manager

Date: June 11, 2019

For several months, there has been discussion of the attached proposal from Remington & Vernick Engineers to create a GIS Stormwater Infrastructure Management Mapping Database for the Town of Dewey Beach. This is a “pilot” project and will focus on Rodney Avenue, Read Avenue and McKinley Street from S.R. 1 to the Rehoboth Bay. The proposal details the tasks and services to be completed. The estimated costs are as follows:

Task 1 – Map Existing Facilities - \$4,100.00

Task 2 – Land Surveying & GPS Data Support Services - \$5,950.00

Task 3 – Televiser Pipe and Identify Areas Not Draining - \$10,200.00

The total estimated cost for this Phase 1 “Pilot” Project is \$20,250.00. The “pilot” project received support from the Infrastructure Committee in April 2019. The public hearing for the use of the proposed funds is scheduled for Friday, June 14, 2019. As indicated previously, the Town Manager is requesting an authorized budget of \$25,000 for Phase 1. Funds to pay for this project are proposed to be released from the Street Infrastructure Set-Aside Account (1000120).

Recommended Motion:

“Motion to authorize the Town Manager to issue a purchase order to Remington & Vernick Engineers for the completion of the tasks outlined in their proposal dated March 12, 2019 for the GIS Stormwater Infrastructure Management Mapping Database for the Town of Dewey Beach – Phase 1. Funds for this project are hereby released from the Street Infrastructure Set-Aside Account (1000120) based upon the required public hearing conducted on Friday, June 14, 2019.”

sdk/SDK

Attachment

**§ 93-2. Infrastructure maintenance and improvements.
[Amended 2-11-2012 by Ord. No. 689]**

- A. Twenty percent of the revenues derived from building permits each month shall be transferred to the infrastructure maintenance and improvements escrow account ("infrastructure account") to be used for infrastructure maintenance and improvements undertaken by the Town.
- B. For the purpose of this chapter, "infrastructure" shall be defined to include only those areas directly impacting health and safety issues related to roads and rights-of-way, such as roadways and road surfaces, mitigation of roadway flooding and stormwater drainage, pedestrian walkways and crossings and street lighting.
- C. Activities authorized to be funded out of the infrastructure account shall serve to create new infrastructure or result in the maintenance or improvement of existing infrastructure-related grant writing, feasibility studies, engineering design, permitting, construction and construction oversight, repairs and maintenance and maintenance contracts.
- D. Prior to any appropriation of funds from the infrastructure account, proposed projects may be referred to the Infrastructure Committee for its review and recommendation to Council, and council shall subsequently hold a public hearing on the proposed project.

AGENDA

**Town Infrastructure Committee Meeting
at Dewey Beach lifesaving Station
1 dagsworthy Avenue, Dewey Beach, DE 19971
Thursday April 25, 2019
4:00 PM**

Convene Committee Meeting at 4:00 PM

Opening Ceremonies: Pledge/Roll Call – Chairman Tyler

Adoption of Agenda

AGENDA

1. Approve March 2019 Meeting Minutes.
2. Discuss and possibly vote approval of proposal from REMINGTON & VERNICK ENGINEERS to create a GIS Stormwater Infrastructure Management Database for the Town of Dewey Beach and to recommend acceptance by the Commissioners.
3. Public comments.
4. Member comments.
5. Next meeting.
6. Adjourn meeting

Supporting document – Subject proposal may be found on the Town web site under the Agenda for the March 30, 2019 Commissioners' Meeting as supporting document (6).

Please be advised that this Agenda is subject to amendment in accordance with FOIA. Agenda items are subject to deletion at any time, including the course of the meeting. Persons with disabilities requiring special accommodations should contact Town Hall at (302)227-6363 seventy-two (72) hours in advance of the meeting.

Infrastructure Committee Draft Meeting Minutes

April 25, 2019

The meeting was called to order by Chair, Jim Tyler, at 4:00 P.M.

Members Present: Chair Jim Tyler, Martin Seitz, Diane Hanson, Drew Martin, Marty Tarr

Others present: Commissioner Dale Cooke and Commissioner David Moskowitz

Approval of March 21st, 2019 Minutes: Motion by Marty T, 2nd by Diane. Approved unanimously

Martin opened discussion on the GIS Stormwater Infrastructure Management Mapping Database for the Town of Dewey Beach. Diane questioned whether the cost of the work was determined by the Town Manager to be a competitive quote and priced correctly. Jim added that the cost seemed to be in line. Martin wanted to confirm that the contractor would access any past studies done by the Town, as well as public information provided by Sussex County in relation to similar drainage studies in the Town. Drew questioned the shelf life of the work, if needed repairs discovered through the study are not accomplished in next few years. Marty T made the point that the studies must be done, in order to potentially receive funds from State or Federal sources for repairs.

Martin makes the following motion;

The Infrastructure Committee recommends to the Town Commissioners to instruct the Town Manager to issue a purchase order to Remington & Vernick Engineers for the completion of the tasks outlined in their proposal dated March 12, 2019 for the GIS Stormwater Infrastructure Management Mapping Database for the Town of Dewey Beach-Phase 1. Funds for the project are hereby released from the Street Infrastructure Set-Aside Account (1000120) per the affirmative vote of the Commissioners. With the following conditions; The Town will immediately initiate the process to fund any needed repairs discovered from the above work and Town Manager will make sure that the contractor uses all past stormwater studies to help reduce the cost of the work. Diane 2nd, motion passed unanimously.

Public Comments: David M, asked if there was a possibility for lighted crosswalks with DelDot's current sidewalk ADA improvements. Dale C. let everyone know that the Dewey ADA sidewalk work would be done in Fall.

It was decided that the next Committee Meeting would be held in the Fall of 2019, date and time to be decided.

A motion to adjourn was made by Diane, 2nd Marty T. Motion passed unanimously. Meeting adjourned at 4:40 P.M.



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To: Town Commissioners

From: Mr. Scott Koenig, P.E.
Town Manager

A handwritten signature in blue ink, appearing to be "SK", is written over the name "Mr. Scott Koenig, P.E." and extends downwards.

Date: March 20, 2019

Per prior discussions with the Infrastructure Committee, I have requested the attached proposal from Remington & Vernick Engineers to create a GIS Stormwater Infrastructure Management Mapping Database for the Town of Dewey Beach. This is a “pilot” project and will focus on Rodney Avenue, Read Avenue and McKinley Street from S.R. 1 to the Rehoboth Bay. The proposal details the tasks and services to be completed. The estimated costs are as follows:

Task 1 – Map Existing Facilities - \$4,100.00

Task 2 – Land Surveying & GPS Data Support Services - \$5,950.00

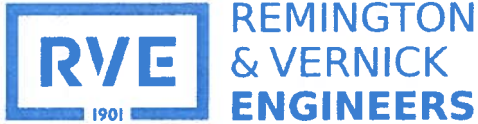
Task 3 – Televiser Pipe and Identify Areas Not Draining - \$10,200.00

The total estimated cost for this Phase 1 “Pilot” Project is \$20,250.00. The Town Manager is requesting an authorized budget of \$25,000 for Phase 1. Funds to pay for this project are proposed to be released from the Street Infrastructure Set-Aside Account (1000120). The requested motion is as follows:

“Motion to authorize the Town Manager to issue a purchase order to Remington & Vernick Engineers for the completion of the tasks outlined in their proposal dated March 12, 2019 for the GIS Stormwater Infrastructure Management Mapping Database for the Town of Dewey Beach – Phase 1. Funds for this project are hereby released from the Street Infrastructure Set-Aside Account (1000120) per the affirmative vote of the Commissioners.”

sdk/SDK

Attachment



University Office Plaza, Bellevue Building
262 Chapman Road, Suite 105
Newark, DE 19702
O: (302) 266-0212
F: (302) 266-6208

March 12, 2019

Town of Dewey Beach
Mr. Scott Koenig, Town Manager
105 Rodney Avenue
Dewey Beach, DE 19971

**Re: GIS Stormwater Infrastructure Management Mapping Database
for the Town of Dewey Beach - Phase I
M2019**

Dear Mr. Koenig:

Remington & Vernick Engineers (RVE) is pleased to present this proposal for the work (the “Work”) to provide GIS Stormwater Infrastructure Mapping for the Town of Dewey Beach based on available existing information. The Town is interested in creating an initial phase of a GIS Stormwater Infrastructure Management Mapping Database in accordance with State guidelines utilizing the latest Esri ArcGIS software applications and GIS grade GPS data collection.

BACKGROUND

RVE understands it would be in the Town’s best interest to determine the current condition of the stormwater infrastructure before spending funds to address isolated problems areas. We also understand that Dewey Beach, Delaware is interested in performing the following task items:

- Task One: to identify and map the existing stormwater management facilities within a specified area of the Town utilizing AutoCAD and Esri software applications and then creating into a GIS geodatabase.
- Task Two: Land Surveying and GPS Data Collection Support Services, if and where directed and needed.
- Task Three: to use televising pipe to trouble shoot an area where water is collecting and not draining properly, if and where directed and needed.

The Town’s specific area of concern for this stormwater infrastructure mapping project is Rodney Avenue, Read Street and McKinley Street from S.R. 1 to the Rehoboth Bay. The Town desires to verify and map the stormwater pipes and the structures, including the outfalls. This area would be designated as a “pilot area” for review by the Town of Dewey.

The Town’s goal is to begin mapping its stormwater infrastructure by obtaining any available base data for the existing stormwater management system in Dewey Beach. We need to be provided access to any existing stormwater drawings both electronic and hard copy formats.

RVE already has a portion of the existing MS4 Storm Water Study mapping, in an Esri ArcGIS geodatabase file format with some stormwater information documented. We also have Zone Designations and Land Use Designations in an AutoCAD drawing file format as well as Downtown Business Districts in an Esri ArcGIS file format.

We will convert this digital mapping into a GIS compatible format and use as reference for this project. This will aide in the determination of the level of effort required to obtain the remaining necessary information.

In addition, RVE recommends creating a Dewey Beach GIS (Geographic Information System) data base to keep track of the condition of stormwater management system and other public works, economic development, and planning map services that RVE offers. This way Dewey Beach can take advantage of local, County, State and Federal digital data now and in the future.

The following scope of work includes the cost to inventory of Dewey Beach's stormwater infrastructure mapping.

SCOPE OF SERVICES

Remington & Vernick Engineers will perform the following phased scope of services outlined herein for the completion of this project.

RVE will develop and compile an inventory of all the stormwater assets, such as but not limited, to storm manholes, inlets and catch basins, outfalls using the latest Esri ArcGIS software applications, that are currently owned by the Town of Dewey Beach within the specified area of concern.

TASK ONE

A. Inventory and Compilation of Existing Data

RVE will complete a GIS base map foundation showing streets, roads, railroads, waterways and general parcel data. The new digital parcel map will serve as the foundation for the Town of Dewey Beach to be utilized as the layered base for the GIS Stormwater Infrastructure Mapping Database. RVE will also provide all available digital data from State, County and local offices be integrated with the Town's available hardcopy data as the initial foundation. The following new/current data will need to be provided/collected for the Town of Dewey Beach prior to the commencement of this project:

- Digital/hardcopy drawings, as-builts, sketches and plans of stormwater infrastructure facilities and service/franchise areas in the Town of Dewey Beach (see Item B, below)
- Existing numbering convention(s) for any/all infrastructure facilities as an Access database, (if available)
- Any/all digital mapping data, as available
- Database file containing the x/y locations of assets in the Town of Dewey Beach, (if available)
- Any/all tabular data regarding the wastewater infrastructure facilities in the Town of Dewey Beach (i.e. manufacturer information, installation date, pipe size/type, flow direction, condition, etc.)
- Any/all digital videos, photographs, shop drawings, inspection/maintenance reports and/or other data to be scanned and linked to the GIS Stormwater Infrastructure Mapping Database

RVE will contact the following agencies to obtain digital GIS data to be integrated into this project:

- ◆ Any/all Agency, Municipal GIS resource data available through data sharing agreement contracts (both electronic and hard copy)

- ◆ The Delaware Department of Natural Resources and Environmental Control
- ◆ The Delaware Department of Transportation (DELDOT)
- ◆ Sussex County Department of Planning Services
- ◆ Sussex County Department of Public Works
- ◆ Other State, County and regional organizations, as applicable
- ◆ USGS GIS Resource Data
- ◆ Year 2015/2017 Digital Aerial Orthophotography

A parcel-based foundation for the Dewey Beach GIS Stormwater Infrastructure Mapping Database will be based solely on the new digital parcel map(s) and any resource data outlined and created in GIS format utilizing the latest Autodesk AutoCAD Map and Esri ArcGIS software applications.

To georeference, or link, each infrastructure feature to its geographical location on the GIS Base Map, unique identification numbers must be assigned on a feature by feature basis. The unique identification numbers will also tie any associated tabular data to its appropriate infrastructure feature and location on the new map. The unique identification numbers will be based on the Town's existing numbering convention(s) for stormwater system infrastructure features.

B. Stormwater System GIS Mapping

The Town of Dewey Beach existing stormwater infrastructure system contains approximately 75 structures and over 3,600 LF of storm sewer pipes within the specified area of concern, which is the focus area of the investigation for inclusion in the GIS Stormwater Infrastructure Mapping Database at this time (See Map Enclosed).

The following stormwater system facilities will be mapped based on the existing hardcopy data, (if applicable):

- Storm manholes, inlets and catch basins, outfalls (rims/grates and structure identification numbers)
- Stormwater system pipes (size/type, slope, length, flow directions)
- Location of booster stations

RVE already has a portion of the existing MS4 Storm Water Study mapping, in an Esri ArcGIS geodatabase file format with some stormwater information documented, which we will use as the foundation for a Geographic Information System (GIS) Digital Mapping Database. This database inventories the existing stormwater system structures, pipes and facilities, spatially related to a base map for the Town of Dewey Beach within this area.

The existing digital mapping data will be checked for accuracy against the Town's available hardcopy as-built plans. Any/all missing as-built data will be digitally applied to the new GIS Infrastructure Map. By referencing this digital information when creating the new GIS Stormwater Infrastructure Mapping Database will save the Town some time and expense.

RVE will provide a copy of the GIS Stormwater Infrastructure Mapping Database in "draft" form to the Town of Dewey Beach for final review. Any minor changes or revisions requested by the Town will be applied to the GIS database at that time. The final draft of the new map will be based upon this review process and will be considered complete and ready for delivery once any requested changes have been made.

The following final deliverables will be provided upon completion of the GIS Stormwater Infrastructure Mapping Database:

- One (1) 36" x 48" copy of the GIS Stormwater Infrastructure Mapping Database, in color on bond paper
- One (1) Flash Drive containing a copy of the GIS mapping database file and FGDC compliant metadata
- One (1) Flash Drive will contain a printable PDF copy of the GIS Stormwater Infrastructure Mapping Database

C. Additional GIS Mapping from Available Delaware Geospatial Data Exchange

Because a GIS database has the potential to combine almost unlimited layers of data about the Town of Dewey Beach, a variety of strategic spatial mapping options will be available to the Town once this initial infrastructure database has been created.

As indicated by RVE for the Town, the initial GIS database will include all available County, State and local GIS resource data as part of the GIS Base Map foundation. RVE will also include the following Sussex County Delaware GIS data layers for the Town of Dewey Beach at no additional cost:

- Wetlands delineations
- Soil classifications
- Floodprone areas
- Aerial photography
- 2' contours/DEM data

One (1) 36" x 48" map of the Town of Dewey Beach featuring each of the Sussex County Delaware GIS data layers will be included with the final mapping deliverables for this project. One (1) printable PDF copy of each map on a Flash Drive will also be included.

TASK TWO

A. Land Surveying and GPS Data Collection Support Services

The estimated completion cost for Land Surveying and GPS Data Collection support, if and where directed (see below):

(Field survey work may be required and/or requested by the Town of Dewey Beach for support and to verify/data collect any missing/obscured assets, if and where directed, as needed. We can provide a two-person field crew and any additional survey crew field work will be performed solely at the direction of the Town of Dewey Beach for an additional per diem fee of \$1,700.00. A two-person survey field crew includes coordination at start-up, necessary research, office support, set-up, downloads and computations and travel for this project).

TASK THREE

A. Televising Pipe Work (See Map Enclosed)

The cost estimate pricing for televising pipe is provided by Standard Pipe Services, LLC. and this is the typical pricing breakdown for the DeIDOT Sinkhole Contract. This is work pertaining to the existing storm sewer within the Town of Dewey Beach specified area of concern. We can assume 600 – 800 feet per day that can be cleaned and televised.

Cleaning (15 to 24") @3.20 per foot

Cleaning (> 24") @\$4.20 per foot

Heavy Cleaning (3 passes of the jetter or more) @\$300 per hour

Televising @\$2.75 per foot

The DeIDOT contract also has repair work built into it:

Grouting (15 to 24") @\$450 per joint

Grouting (> 24") @\$525 per joint

Sectional Liners (15 to 24") @\$860 per foot

Sectional Liners (> 24") @\$960 per foot

Full Length Relining (15 to 24") @\$400 per foot

Full Length Relining (> 24") @\$500 per foot

Given this is Dewey Beach and the work would be taking place in areas fairly close to each other along with no-prevailing wages, it's safe to assume a cost reduction of 25%

ASSUMPTIONS AND EXCEPTIONS

1. RVE understands that this proposal is limited exclusively to the Scope of Services described herein and anything not expressly described shall be considered expressly excluded from the Work.
2. Once the database has been established, ownership will be transferred to the Town of Dewey Beach. Maintenance of the database is not included in this scope of services and if required will need to be determined under an additional scope of services.

ADDITIONAL WORK

Our experience indicates that certain additional items of work may be required or needed, which RVE cannot presently determine or estimate. For this reason the cost estimate for these items is not included in the provisions which follow under the cost of services. Furthermore, the performance of these items is not included in the Work unless the item is expressly described within the Scope of Work herein. These additional items of work (“Additional Work”) are generated by many factors, usually at the discretion of the Client. They may also be caused by reviewing agencies or client variance/deviation from present policies and standards of reviewing government agencies, (see “Assumptions and Exceptions” above). “Additional Work” may sometimes be referred to as extras, change orders, or add-ons, but for this Agreement all such descriptions are intended to be encompassed within the term Additional Work.

COST OF SERVICES

Based on the assumptions and exceptions as well as the current information available, RVE estimates the total fee associated with the performance of the work outlined above will be **\$20,250.00**. It is estimated that this Work will take approximately three (3) months to complete once Notice-To-Proceed has been issued by the Town of Dewey Beach and contingent on work schedules and weather conditions.

The total cost and time frame breakdown to complete the GIS Stormwater Infrastructure Management Mapping Database for the Town of Dewey Beach, as outlined above, is as follows:

- **Task One:** to identify and map the existing stormwater management facilities within the town utilizing AutoCAD and then converted into a GIS geodatabase using Esri software applications.
 - The estimated cost under Task One, will be **\$4,100.00**. It is estimated that this Task will take approximately two (2) weeks to complete.

- **Task Two:** Land Surveying and GPS Data Collection Support Services
 - The estimated cost under Task Two, will be **\$5,950.00 total (per diem fee of \$1,700.00 for 3 1/2 days total)**. It is estimated that this Task will take approximately one (1) week(s) to complete based on verifying/data collecting any missing/obscured assets, if and where directed, as needed by the Town of Dewey Beach.

- **Task Three:** to use televising pipe to trouble shoot areas where water is collecting and not draining properly. Televising pipe is also desired for this task
 - The estimated cost under Task Three, will be **\$10,200.00**. It is estimated that this Task will take approximately two (2) weeks to complete based on approximately 75 structures and over 3,600 LF of storm sewer pipe that is the focus area of the investigation for inclusion in the GIS Stormwater Infrastructure Mapping Database at this time, as needed, by the Town of Dewey Beach.

Additional map layers needed, which are not outlined within this proposal letter, can be proposed under a separate cover with hosting, maintenance and support included, upon request.

We trust the information provided meets your requirements for this project. Should you have any questions or require additional information, please do not hesitate to contact me directly at (302) 266-0212, extension 3002.

We look forward to assisting you with this very important project.

Sincerely,

REMINGTON & VERNICK ENGINEERS, INC.



Christopher J. Fazio, P.E., C.M.E.
Executive Vice President