

## SCOPE OF SERVICES

### CITY OF DELTONA ENGINEERING DESIGN AND PERMITTING FOR WATER QUALITY POND GC-4

#### Description

As part of the approval process for the Theresa Basin Emergency Outfall system, extending from Doyle Lake to Lake Bethel, the City had to develop a water quality mitigation plan to show good faith efforts in mitigating for increased nutrient loading into Lake Monroe. Tetra Tech developed a plan for the City showing tracts of land outside of the Theresa Basin, which could be used to construct water quality ponds and retrofit drainage improvements to help reduce nutrient loads. Retrofit drainage improvements are required to maximize the size of the drainage areas draining into the water quality ponds.

The terms and conditions of this agreement will be based on the terms set forth in the Master Agreement for Professional Services Pursuant to RFQ #PW-25012 Dated December 10, 2025.

#### 1. Surveying

Tetra Tech will obtain one-foot topographic Lidar from the United States Geologic Survey (USGS) for mass grading of stormwater retention pond and refinement of drainage basin. Our field surveyors will conduct a verification survey of the ground elevations in the proposed pond area; a ground survey along the drainage easement on the west side of Whitewood Drive and along the shoulders of Fourth Avenue North to pick up grade elevations along the edge of pavement and driveways. Elevations will extend to five feet beyond the right of way lines extending south along Fourth Avenue North to Westline Avenue.

The field services will include surveying trees 24-inches and larger in diameter.

#### 2. GEOTECHNICAL

It is a Water Management District standard to have at least two geotechnical boring when designing retention ponds. Given the proposed size of this pond, the minimum of two should be adequate. This data is needed to assess the estimated depth to the seasonal high-water elevation and the permeability of the onsite soils to a depth of five to seven feet below ground surface.

#### 3. ECOLOGICAL SERVICES

The existing site is heavily wooded and near the Lake Gleason ecosystem. Tetra Tech will subconsult the services of Howe Ecological to conduct a threaten and endangered species assessment. Howe Ecological will also assess the flora and fauna of the proposed pond site.

#### 4. ENGINEERING DESIGN

##### A. Hydrologic Modeling

A drainage basin has been preliminarily delineated for the proposed pond as part of the City's water quality mitigation plan for the Theresa Basin Emergency High Level Overflow system. This task will include conducting a hydrologic analysis to estimate flows to the proposed pond. This analysis will also be used to size proposed stormwater infrastructure required to direct flows to the pond and provide backup documentation for the SJRWMD ERP application.

##### B. Construction Drawings and Specifications

Tetra Tech will prepare a set of construction drawings and technical specifications. The drawings are anticipated to include the following sheets:

No. of Sheets	Sheet Descriptions
1	Cover Sheet, Index of Drawings, and Signature Block
1	Legend, Abbreviation and Utility Owners List
1	General Notes and Key Map
1	Existing Conditions and Erosion Control
1	Demolition
3	Grading and Drainage
3	Standard Detail sheets
<b>11</b>	<b>Total Estimated Number of Drawing Sheets</b>

The construction drawings will be submitted to the City for comment and review at the 60 and 100 percent complete milestones.

##### C. Project Manual

Tetra Tech will prepare a set of technical specifications for the proposed improvements. We will provide this to the City for insertion into the City's standard Project Manual. The City typically prepares the Project Manual with the front-end documents and technical specifications. A copy of the manual is provided to Tetra Tech for review prior to finalizing it.

#### 5. PERMITTING

Tetra Tech will prepare the ERP application and exhibits to submit for a modification to the existing permit (Permit No. 4-127-87817-2) for review by SJRWMD and approval.

The anticipated labor hours herein are predicated on this project being straight forward with a trouble-free permitting process as a modification to add Pond GC-4 to the list of water quality treatment improvements provided for the pollution load reduction associated with the operation of Theresa Basin Emergency High Level Overflow. If any unforeseen extenuating circumstances were to arise, Tetra Tech will amend this agreement with the City to account for any additional services. One (1) Request for Additional Information (RAI)

is included in the fee herein. In addition, permit application fees are not included. The City typically pays the application fees separately.

**6. MEETINGS**

We anticipate two (2) meetings with the SJRWMD. One for a preapplication and another in response to a Request for Additional Information (RAI). Both meetings will be conducted at their local office in Maitland.

**7. Reimbursable Expenses and Other Direct Costs**

- A. Field supplies and travel for field surveying task,
- B. Miscellaneous travel associated with attending the SJRWMD preapplication meeting and a field visit to the project site, and
- C. Reproduction and Mailings.

**8. CONSTRUCTION ADMINISTRATION (To be Completed Under Separate Task Authorization)**

The City typically separates this service as part of a separate task authorization.

**GENERAL EXCLUSIONS:**

- A. Offsite drainage studies, utility designs, other designs beyond simple connection to existing infrastructure located within the project limits.
- B. Only subconsultant services for geotechnical engineering and ecological services are included in this proposal. Any other unforeseen specialty services that may be requested will be addressed as an amendment to the scope of services.
- C. Permit and review fees, impact fees, taxes, etc. shall be paid separately by the City. Tetra Tech will provide timely notice to City when payments for permit application fees are required.
- D. Book specifications, bidding procedures, detailed cost estimates, earthwork analysis.
- E. Normal reimbursables including printing, copying, deliveries/mail, mileage, etc. beyond those described above.
- F. Any service or product not specifically described in the Scope of Services.

**ATTACHMENT "A"  
TASK AUTHORIZATION FORM**

In accordance with the Continuing Services Agreement between the City of Deltona, Florida, hereinafter referred to as "City", and Tetra Tech, hereinafter referred to as "Consultant", the City hereby authorizes Consultant to proceed with the services as set forth in the attached task order proposal as follows:

Tt Project Number: BP-08534

Engineering Firm: Tetra Tech

Scope of Work: Professional engineering services to prepare construction drawings and obtain a permit modification for Pond GC-4 as part of the water quality mitigation improvements for the Theresa Basin Emergency High Level Overflow System.


Estimated Fees:

<u>Tasks</u>	<u>Total Cost</u>
Surveying	\$15,450
Geotechnical	\$ 5,550
Ecological Services	\$ 5,100
Engineering Design	\$ 40,080
Permitting	\$ 5,670
Meetings	\$ 3,210
<u>Reimbursable Expenses &amp; ODCs</u>	<u>\$ 878</u>
<b>Total (Time and Material With Upset Limit)</b>	<b>\$75,938</b>

Consultant's Project Manager: Roderick Cashe, P.E., CDT, LEED AP®

City's Designated Project Leader: Phyllis Wallace, Deputy Public Works Director

CONSULTANT

Accepted By:  4/3/2026  
Roderick Cashe, P.E. Date  
Vice President

CITY

Reviewed and Accepted By: \_\_\_\_\_ Date  
Department Manager

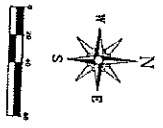
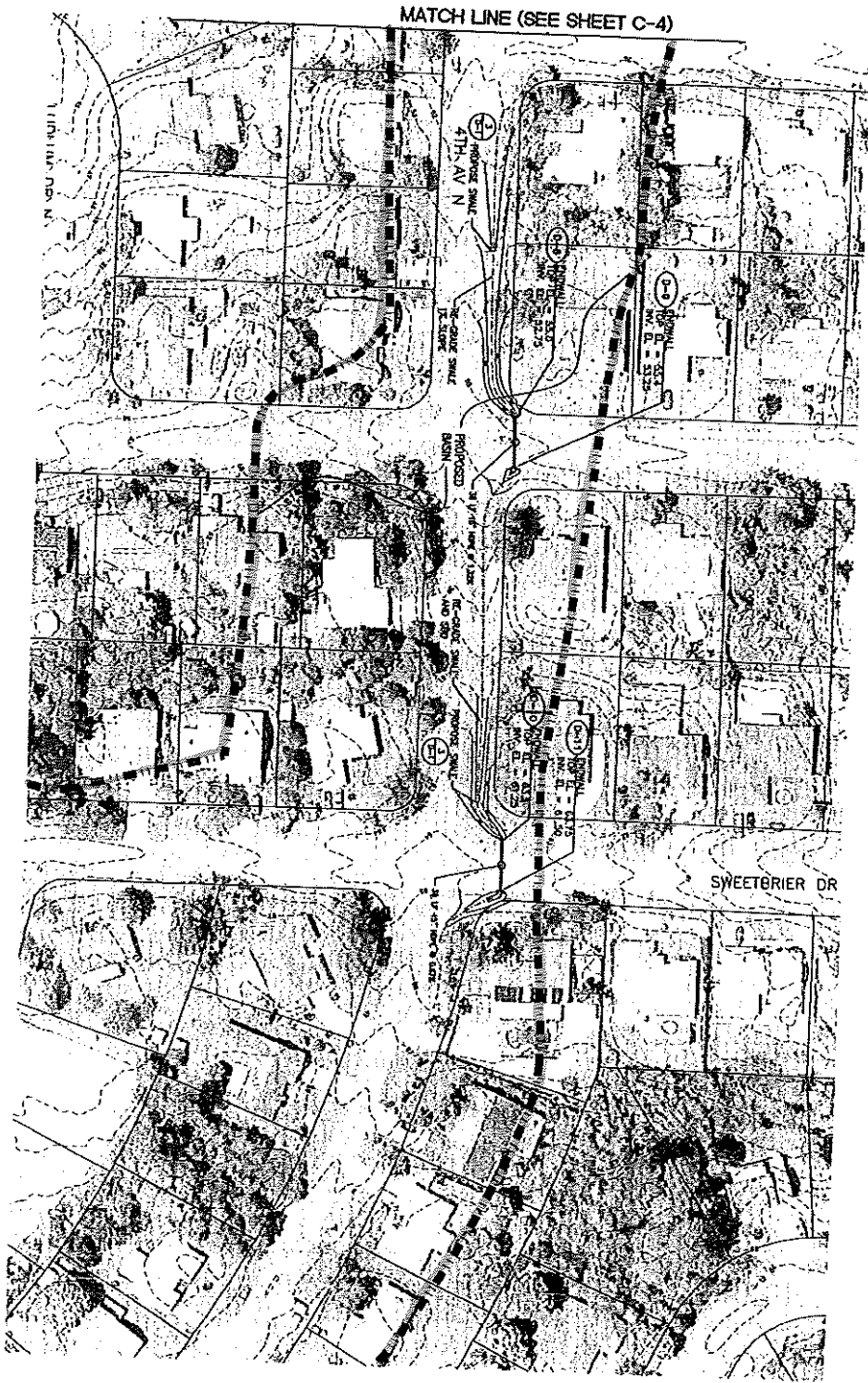
If more than \$5,000:

Reviewed and Accepted By: \_\_\_\_\_ Date  
City Manager

\_\_\_\_\_  
Deputy City Manager Date

cc: Pamela Tobin, Tetra Tech





Project: July 21, 2025 - 10:45am by chad.martinez@hca.com

DATE	BY	DESCRIPTION
07/21/2025	CHAD MARTINEZ	OPERATIONAL PHASE I
07/21/2025	CHAD MARTINEZ	DOYLE-BETHEL
07/21/2025	CHAD MARTINEZ	EMERGENCY CONNECTION
07/21/2025	CHAD MARTINEZ	DRAINAGE RETROFIT OF DRAS

**HARTMAN & ASSOCIATES, INC.**  
 Engineers, Architects, Planners & Environmental Scientists  
 200 West 1st Street - Suite 1000 - Deltona, FL 32708  
 Phone: (407) 249-3888 - Fax: (407) 249-2700  
 Website: www.hartman.com

**OPERATIONAL PHASE I  
 DOYLE-BETHEL  
 EMERGENCY CONNECTION  
 DRAINAGE RETROFIT OF DRAS**

CITY OF DELTONA

**DRA GC-4  
 SITE PLAN**

Tyler R. Henderson  
 P.E. No. 12328 FL  
 200 West 1st Street  
 Deltona, Florida 32708  
 Engineering License No. 3674

DATE	BY	REVISION	REVIEW CHECKS

# **Labor Hour Summary**



Revision Date: Apr 06, 2026

# Water Quality Improvements for Pond GC-4

Responsible design and permitting for water quality improvements to include subject tasks from the Technical Summary (High Level Overview with Lake Manager)

Submitted to: City of Deltona (Attn: Mr. Joseph Walker)

Contract Type: T&M

Project Phases / Tasks	Schedule				Total Labor Hrs	Labor Plan									Price Summary / Totals																			
	From	To	Month	Wk/Days		9 Resource									Task Pricing Totals																			
						300.00	210.00	125.00	140.00	150.00	120.00	225.00	145.00	120.00	Specify Add'l Fees on Setup Technology Use Fee																			
<b>1. Surveying</b> A. Field Services B. Office Work															422	16	48	112	32	112	10	12	30	30	30	30	15,450	65,010	10,050	520	193	75,938		
<b>2. Geotechnical</b> A. Coordination and management B. Subconsultant Services															1	1	1	1	1	1	1	1	1	1	1	1	300	300	5,250	-	-	5,550		
<b>3. Ecological Services</b> A. Coord and management B. Subconsultant Services															1	1	1	1	1	1	1	1	1	1	1	1	300	300	5,250	-	-	5,550		
<b>4. Engineering Design</b> A. Hydrologic Modeling B. Construction Drawings and Specs C. Project Manual															264	8	32	88	32	100	4	-	-	-	-	-	40,080	65,010	10,050	520	193	75,938		
<b>5. Permitting</b> A. Prepare Permit Application B. Respond to RA															36	2	10	18	6	6	6	6	6	6	6	6	5,670	5,670	-	-	-	5,670		
<b>6. Meetings</b> A. PreApp Meeting with SURWMD B. RA Meeting with SURWMD C. Coord with City Staff and T1 Project Team															16	4	6	6	6	6	6	6	6	6	6	6	3,210	3,210	-	-	-	3,210		
<b>7. Other Direct Costs and Reimbursable</b> A. Surveying travel and field activities B. Misc. Travel (SURWMD Preapp, Site Visit) C. Reproduction and Mailings															-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	165	520	193	878
<b>Totals</b>															422	16	48	112	32	112	10	12	30	30	30	30	65,010	10,050	10,050	165	520	193	75,938	

## **Subconsultant Proposals**

- **Ardaman and Associates**
- **Howe Ecological**



**Ardaman & Associates, Inc.**

Geotechnical, Environmental and  
Materials Consultants

March 27, 2026  
Proposal File No. 26-60-085

Tetra Tech  
201 E. Pine Street, Suite 100  
Orlando, Florida 32801

Attention: Mr. Roderick K. Cashè, P.E.

Subject: Proposal for Subsurface Soil Exploration and  
Geotechnical Engineering Evaluation  
Proposed Pond GC-4  
City of Deltona  
Volusia County, Florida

Dear Mr. Cashe:

As requested, we are pleased to present this proposal for conducting a subsurface soil exploration and geotechnical engineering evaluation for the subject project. Based on preliminary information supplied by you, and our recent discussion, the proposed development includes the construction of a new pond at the subject location.

The scope of our work will include exploring the soil stratigraphy in the pond area and providing results of soil permeability tests. We will also estimate the normal seasonal high groundwater table at the boring locations.

The following summarizes our proposed scope of work and associated fees for conducting the subject exploration.

#### **FIELD EXPLORATION**

The field exploration program will include the following:

<b>Description</b>	<b>Number of Borings</b>	<b>Depth Below Ground Surface (feet)</b>
Pond	2 Auger	15
Whitewood Drive	1 SPT	15

The SPT boring will be drilled using a procedure similar to the Standard Penetration Test outlined in ASTM D-1586. The boring will be sampled at 18-inch intervals to 10 feet deep. The auger borings will be drilled using a 4-inch diameter truck-mounted continuous flight auger. Each sample will be removed from the sampler or auger in the field and then examined and visually classified by our crew chief. Representative portions will be sealed and packaged for

transportation to our laboratory for further analysis as required. Water level observations will be made in the boreholes during the drilling operation.

In addition, a field permeability test will be performed adjacent to each of the auger borings. The field permeability tests will include installing a solid-walled PVC casing, snugly fit, into a 4-inch diameter auger boring. The bottom of the pipe will be open and raised 1 foot above the bottom of the boring. The bottom 1 foot of the boring will be gravel-packed. The rate water is taken in by the formation is measured and used to calculate permeability. The test will be run as a "constant head" test by maintaining the water level in the casing at ground surface level, or as a "falling head" test in which the rate of water drop will be measured. Test results will be provided in the units of feet/day.

We note that the subject pond site appears to be relatively heavily vegetated/wooded. As such, we have included two hours of hand clearing into this proposal such that borings can be drilled within the outer portions of the pond site. Drilling closer to the interior of the pond site will require subcontracted clearing using machinery, which is not included herein. We would be glad to provide a supplemental cost for subcontracted clearing costs, if requested.

#### **LABORATORY PROGRAM**

Routine laboratory visual classification will be performed along with specific classification tests deemed necessary (i.e., percent fines and organic content).

#### **ENGINEERING ANALYSIS AND REPORT**

Engineering analysis of data obtained will be made to evaluate general subsurface conditions. In addition, we will provide an estimate of the normal seasonal high groundwater table at the boring locations and the results of the soil permeability tests.

Data developed during the exploration, will be submitted in a written report upon conclusion of the study.

### COST ESTIMATE

The costs associated with the aforementioned tasks are estimated as follows. The total cost will not be exceeded without prior authorization.

Stake Borings and Coordinate Utility Locations with Sunshine State One-Call by Assistant Project Engineer; 3 hours @ \$155.00/hour	\$465.00
Mobilize Drilling Crew and Equipment; 1 mobilization @ \$550.00/mob.	\$550.00
SPT Boring; 1 boring x 15 l.f. (0 - 50 l.f.) 15 l.f. @ \$20.25/l.f.	\$303.75
Auger Borings; 2 borings x 15 l.f. @ \$15.50/l.f.	\$465.00
Field Permeability; 2 tests @ \$430.00/each	\$860.00
Light Hand Clearing; Drill Rig & Crew; 2 hours @ \$295.00/hour	\$590.00
Laboratory Classification Testing; estimate	\$283.25
Senior Engineer; 1 hour @ \$215.00/hour	\$215.00
Assistant Project Engineer; 7 hours @ \$155.00/hour	\$1,085.00
CADD Draftsperson; 3 hours @ \$96.00/hour	\$288.00
Technical Secretary; 2 hours @ \$72.50/hour	<u>\$145.00</u>
<b>TOTAL</b>	<b>\$5,250.00</b>

### TERMS AND CONDITIONS

The total cost is based on the unit prices as shown on the attached fee schedule (see Attachment 1). This proposal is subject to the following: (1) access to boring locations is to be readily available to our truck and/or mudbug-mounted drilling equipment (i.e. with no more than 2 hours of light hand clearing), (2) the proposed number of borings and the boring depths will be adequate, (3) undisturbed samples and consolidation tests on fine grained soils are not budgeted into the total cost, (4) Ardaman & Associates will not take responsibility for damages to underground structures and/or services that are not located by Sunshine State One-Call; their

locations are to be provided by the client prior to commencement of the field work, (5) exploration or evaluation of the environmental (ecological or hazardous/toxic material related) condition of the site and subsurface is not included, (6) this proposed exploration is a relatively shallow exploration and is not intended to be an evaluation for sinkhole potential, (8) maintenance of traffic is not required to perform the field work, (9) permits are not required to work on the subject site, and (10) subcontracted clearing of access pathways is not included herein.

### CLOSURE

We appreciate the opportunity to submit this proposal and look forward to working with you on this project. If this proposal meets with your approval, please provide authorization to proceed. Please call if you have any questions or require additional information.

Very truly yours,  
ARDAMAN & ASSOCIATES, INC.



Colin T. Jewsbury, P.E.  
Orlando Branch Manager

CTJ/lms  
26-60-085 Tetra Tech - Pond GC-4, City of Deltona.docx (2026PP)

## Consultant’s Scope of Services For Ecological Services

Howe Ecological LLC is pleased to provide this scope of services for environmental services to **Tetra Tech** 201 E. Pine Street, Suite 1000, Orlando, Florida 32801 here in after referred to as “Client.” The Client requested proposal for ecological services in support of the **City of Deltona Pond GC-4 Project**. The project located on **Volusia County parcel 813066000010** with a street address on **0 Whitewood Dr, Deltona, FL 32725** and herein referred to as “Site”.

**A. SCOPE OF SERVICES**

**1.0 LISTED SPECIES ASSESSMENT**

- The impact project on species listed by the FWC and USFWS will be assessed. This assessment includes searches of available FWC and USFWS wildlife database records for known records of site occurrences and field reconnaissance.
- A report suitable for submittal with permit applications will be provided to the Client summarizing the findings, a summary of applicable regulatory requirements and applicable recommendations.

**2.0 USFWS CONSULTATION**

The report will be submitted to USFWS, if necessary and upon the client’s approval for technical consultation.

**B. ADDITIONAL SERVICES**

Consultant will provide Additional Services as mutually agreed upon between Consultant and the Client.

**C. PROJECT SCHEDULE**

Consultant is prepared to begin work on the Sites immediately upon receipt of an executed Subconsultant’s Agreement. Howe Ecological, in consultation with the Client, shall perform its work in such a manner as to comply with a mutually agreed schedule.

**D. COMPENSATION**

All consultant fees will be billed lump sum on a **percent complete basis** for consultant fees and reimbursable expenses as listed below in Table 1.

**Table 1 Fee Schedule**

Tasks	Fees
<b>1.0 LISTED SPECIES ASSESSMENT</b>	\$4,000.00
<b>2.0 USFWS CONSULTATION</b>	\$800.00

**E. CLIENT RESPONSIBILITIES**

Client shall be responsible for all other aspects of the Site not specifically assigned to Consultant under this Scope of Services or any subsequent request (and acceptance) for Additional Service. Such as:

1. Client is responsible for all permit application fees and wetland and wildlife mitigation recipient site fees. The following estimates are provided for planning purposes only and may be subject to change based on survey data or agency requirement.
  2. Client shall provide full information to Consultant regarding Site requirements and constraints including, without limitation, a program setting forth the Client's objectives, and shall provide all applicable existing entitlements, data, drawings, information or other resources requested by Consultant that are necessary for completion of the Site.
  3. Client shall comply with any schedule requirements made known to the Client by Consultant and, in any event, shall be available to meet with Howe Ecological and provide decisions in a timely manner throughout the Site.
  4. Client shall provide access to the site.
  5. Client will be responsible for signing permit applications where necessary.
  6. Client is responsible for provided professional licensed survey and engineering services.
  7. This scope does not include professional survey services, geotechnical, surface water or effluent water quality sampling or testing, or archaeological services.
- 1 **F. Action of Agencies Not Guaranteed** – Consultant will exercise professional skill in executing its services, however, it cannot and does not guarantee the action of any governmental official, agency or judicial proceeding.



**Volusia County Property Appraiser**  
 123 W. Indiana Ave., Rm. 102  
 DeLand, FL. 32720  
 Phone: (386) 736-5901 Web: [vcpa.vcgov.org](http://vcpa.vcgov.org)

**Property Summary**

**Alternate Key:** 2888679  
**Parcel ID:** 813066000010  
**Township-Range-Section:** 18 - 31 - 30  
**Subdivision-Block-Lot:** 66 - 00 - 0010  
**Owner(s):** CITY OF DELTONA - M - Municipal - 100%  
**Mailing Address On File:** 2345 PROVIDENCE BLVD  
 DELTONA FL 32725  
**Physical Address:** WHITEWOOD DR, DELTONA 32725  
**Building Count:** 0  
**Neighborhood:** 5435 - DELTONA LAKES UNIT 66  
**Subdivision Name:** DELTONA LAKES UNIT 66  
**Property Use:** 8000 - VACANT GOVERNMENTAL  
**Tax District:** 016-DELTONA  
**2025 Final Millage Rate:** 18.7448  
**Homestead Property:** No  
**Agriculture Classification:** No  
**Short Description:** TRACT A DELTONA LAKES UNIT 66 MB 28 PGS 124 TO 127 INC PER O  
 R 4237 PG 1959

**Property Values**

Tax Year:	2026 Working	2025 Final	2024 Final
<b>Valuation</b>	1-Market Oriented	1-Market Oriented	1-Market Oriented
<b>Method:</b>	Cost	Cost	Cost
<b>Improvement</b>	\$0	\$0	\$0
<b>Value:</b>	\$69,080	\$69,080	\$69,080
<b>Land Value:</b>	\$69,080	\$69,080	\$69,080
<b>Just/Market Value:</b>			

**Working Tax Roll Values by Taxing Authority**

Values shown below are the 2026 WORKING TAX ROLL VALUES that are subject to change until certified. Millage Rates below that are used in the calculation of the Estimated Taxes are the 2025 FINAL MILLAGE RATES. The Just/Market listed below is not intended to represent the anticipated selling price of the property and should not be relied upon by any individual or entity as a determination of current market value.

Tax Authority	Just/Market Value	Assessed Value	Exempt Value	taxable Value	Millage Rate	Estimated Taxes
● CAPITAL	\$69,080	\$69,080	\$69,080	\$0	1.5000	\$0.00
0017 IMPROVEMENT						
● DISCRETIONARY	\$69,080	\$69,080	\$69,080	\$0	0.7480	\$0.00
0012						
● REQ LOCAL	\$69,080	\$69,080	\$69,080	\$0	3.0310	\$0.00
0011 EFFORT						
● GENERAL FUND	\$69,080	\$28,061	\$69,080	\$0	3.2007	\$0.00
0050						
● LAW	\$69,080	\$28,061	\$69,080	\$0	1.5994	\$0.00
0053 ENFORCEMENT						

# Volusia County Property Appraiser



3/25/2026, 2:42:56 PM

- Parcel
- Streets
- Parcel Text
- Cities
- Water Body Names
- Water Bodies
- County Boundary
- DELTONA

