

PROFESSIONAL SERVICES TASK ORDER

Task Order Number: 001
Task Order Date: March 11, 2020

Subject to the Master Services Agreement between *the City of Dalton, Georgia* [Client] and *Arcadis U.S., Inc.* [Arcadis], dated _____, 20__, Client hereby authorizes Arcadis to perform services as specified in this Task Order and in accordance with the above mentioned Agreement.

1. Project Description: A description of Client’s Project for which work is requested is provided in Attachment 1, incorporated into this Task Order.

Client's Project Number: _____
Project Name: Prater Alley Drainage Study
Client's Representative: Andrew Parker

2. Scope of Work: Arcadis shall perform its services as described in Attachment 1, incorporated into this Task Order.

Arcadis's Job Number: _____
Arcadis's Representative: Richard Greuel, P.E.

3. Time Schedule: Arcadis shall use reasonable efforts to complete its work by: 120 days from receipt of surveying data or Notice to Proceed whichever is greater

4. Compensation: Arcadis's Compensation authorized under this Task Order, which shall not be exceeded without prior written authorization of Client, is:

\$ 72,544 [_____] This Task Order's Method of Payment is incorporated and attached as Attachment 2.

5. Special Conditions: This Task Order is subject to the special provisions as described in Attachment 3, attached and incorporated into this Task Order:

6. Amendment: [_____] This Task Order amends a previously executed Task Order:
Previous Task Order Number: _____ Previous Task Order Date: _____

ISSUED AND AUTHORIZED BY:
Client

ACCEPTED AND AGREED TO BY:
Arcadis, INC.

By: _____ By: _____

Title: _____ Title: _____

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Attachment 1

Description of Project & Scope of Work

Introduction

The City of Dalton Public Works Department has requested that Arcadis prepare this proposal to provide engineering analysis and support to address known flooding issues at the property known as Dalton Storage located at 426 North Thornton Avenue. It is our understanding that the property has flooded in the past and that the property owner has requested that the City of Dalton (city) identify potential improvements that could reduce the severity / frequency of flooding at the subject property. The following scope of work has been developed to assist with the first phase of a potential project to implement drainage improvements within the basin.

Phase 1 – Alternatives Evaluation

The purpose of Phase 1 is to analyze the drainage system's existing conditions and test different solutions in order to relieve flooding at the 426 North Thornton Ave property. Arcadis proposes that the work be divided into the following tasks:

- Task 1 – Existing Conditions Analysis
- Task 2 – Alternatives Analysis
- Task 3 – Report

Each task is described below. Please note that this work authorization only includes the efforts necessary to identify a preferred solution by the City. Additional efforts will be required to design the preferred solution once identified. A second phase of the project to be authorized at a later date would follow upon completion of Phase 1 of the project. Phase 2 will address the development of a full set of construction drawings for the preferred alternative as well as permitting necessary to move forward with a construction project. Phase 2 is not included in this scope of work and accompanying fee proposal.

Task 1 – Existing Conditions Analysis

Task 1 will consist of development of appropriate hydrologic and hydraulic computer models to quantify the nature of the drainage conditions that currently exist within the basin. Arcadis will use PCSWMM to conduct the hydrologic and hydraulic (H&H) modeling needed for both this task and Task 2. Arcadis will coordinate with the Whitfield County Stormwater Engineer to obtain geographic information systems (GIS) data for the drainage area's pipes and structures. It is assumed that any surveying efforts required for this effort will be secured by the City separately and coordinated with Arcadis staff to ensure efficient collection of data. As such, surveying is not included in this work authorization.

After data review, Arcadis will provide a survey request to the City that is meant to close data gaps in the pipe network. The main focus will be the portion of the system that runs from the W Waugh St and N Thornton Ave intersection north to the point it crosses under W Tyler St. Arcadis staff will also conduct a limited field reconnaissance within the project area to assess existing drainage patterns including open channel and culvert connectivity.

Arcadis will develop an existing conditions model based on the data collected or provided. The following 24-hour storms will be modeled; 1-year, 2-year, 5-year, 10-year, 25-year, 50-year, and 100-year. The results will be analyzed and discussed with City staff.

Assumptions:

- Data transfer from County and City will be via electronic means.
- Pipe and structure survey will be conducted by others.
- Land use will be based on existing conditions.

Deliverables:

- Limited Technical Memorandum outlining means and methods as well as results of the analysis.

Task 2 – Alternatives Analysis

The purpose of this task is to test different alternatives' flood reduction effectiveness. Six scenarios have been discussed with City staff and are described below:

Scenario A – Regional Detention Pond Adjacent to City Hall

Scenario A will model the impacts of the conceptual construction of a regional detention pond adjacent to City Hall. The proposed detention pond would be constructed on the properties immediately west of City Hall and include the properties included in the figure below. As part of this effort, Arcadis will also model the existing drainage system at the intersection of Waugh Street and North Thornton Avenue with both the conceptual pond in place and not constructed to determine the impacts of the design on the existing drainage system.

Scenario B – Regional Detention Pond on Dalton Storage Site

Scenario B will model the impacts of the conceptual construction of a regional detention pond on the Dalton Storage property adjacent to the existing storage buildings. As was the case with Scenario A, Arcadis will compare the results of Scenario B with the existing conditions modeling results.

Scenario C – Increase System Capacity (3 Iterations)

Scenario C will evaluate the impacts of upgrading pipes between the Dalton Storage property and W Tyler St to provide additional hydraulic capacity for the system. This will likely be an iterative process to evaluate whether the additional capacity upstream will result in flooding downstream.

Please note that this system will need to evaluate the downstream hydrologic impacts to properties immediately adjacent to the project site. This downstream analysis will be limited to a point downstream at West Tyler Street.

Scenario D – Regional Detention Pond Adjacent to City Hall and Increase System Capacity (3 Iterations)

Scenario D will evaluate the need for downstream pipe upgrades for areas that still show flooding during Scenario A. This will likely be an iterative process to evaluate whether the additional capacity upstream will result in flooding downstream.

Please note that this system will need to evaluate the downstream impacts to properties immediately adjacent to the project site. This downstream analysis will be limited to a point downstream at West Tyler Street.

Scenario E – Regional Detention Pond on Dalton Storage Site and Increase System Capacity (3 Iterations)

Scenario E will evaluate the need for upstream and downstream pipe upgrades for areas that still show flooding during Scenario B. This will likely be an iterative process to evaluate whether the additional capacity upstream will result in flooding downstream.

Scenario F – Regional Detention Ponds at both locations and Increase System Capacity (3 Iterations)

Scenario F will include the detention from Scenario A and from Scenario B. It will evaluate the need for upstream and downstream pipe upgrades for areas that still show flooding. This will likely be an iterative process to evaluate whether the additional capacity upstream will result in flooding downstream.

Please note that this system will need to evaluate the upstream and downstream impacts to properties immediately adjacent to the project site. This downstream analysis will be limited to a point downstream at West Tyler Street.

Assumptions:

- City will provide survey data requested by Arcadis

Meetings and Deliverables:

- Up to two on-site meetings to discuss findings

Task 3 – Report

Arcadis will submit a draft technical memorandum summarizing the methodology utilized to conduct the analysis as well as the results of the alternative analysis outlined in Task 2. A final version of the report will be submitted two weeks after receipt of City comments.

Assumptions:

- Draft and final reports will be electronic format.

Deliverables:

- Draft Report
- Final Report that incorporates appropriate revisions resulting from City comments received.

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Attachment 2

Task Order Payment Terms

All work will be completed on a time and materials basis for a fee not to exceed the amount listed in this Task Order based on the 2020 rate table below.

2020 Rate Schedule

Title	Rate \$/hr
Project Administrative Assistant	\$70
Project Assistant	\$90
Sr Project Assistant	\$120
Project Manager	\$215
Engineering Technician I	\$90
Engineering Technician II	\$110
Staff Engineer/Scientist/Architect I	\$90
Staff Engineer/Scientist/Architect II	\$100
Staff Engineer/Scientist/Architect III	\$110
Project Engineer/Scientist/Architect I	\$120
Project Engineer/Scientist/Architect II	\$135
Project Engineer/Scientist/Architect III	\$150
Senior Engineer/Scientist/Architect I	\$165
Senior Engineer/Scientist/Architect II	\$180
Senior Engineer/Scientist/Architect III	\$195
Principal Engineer/Scientist/Architect I	\$240
Principal Engineer/Scientist/Architect II	\$265
Principal Engineer/Scientist/ Architect III	\$290
Registered Land Surveyor	\$150
2-man Survey Crew	\$150
3-man Survey Crew	\$225

* A rate schedule will be provided with each Task Order proposal based on the specific services that will be provided and the rates effective at that time.

*All direct expenses will be billed at cost plus 10%

*Mileage will be billed at the current federal mileage rate

* Additional Services requested by the City beyond those in Scope of Work will be billed on an hourly basis in accordance with this rate schedule

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Attachment 3
Special Conditions

None.