



May 6, 2022
036053.006

Ms. Melissa Reynolds, P.E., CFM
City Engineer
City of Seguin
205 N. River Street
Seguin, Texas 78155

RE: Lidar, impervious cover analysis, and aerial imagery

Dear Ms. Reynolds,

Halff is pleased to submit this proposal for consulting services per your request. The work effort is anticipated to be broken into the following general tasks.

1.0 Project Management

This task includes the effort by Halff's project manager, principal, and QA/QC leads to run the project and execute Halff's project management program. Halff's project management activities shall include task leadership and direction, in-person, telephone and written communication, project status reports, project invoicing, and personnel and data management among other general project management activities. Specific meetings beyond staff management coordination and regular communication include the following:

1.1 Project Meetings

- i. Attend project coordination meetings with staff from the City. The meetings will be coordinated by the Halff Project Manager and are intended to discuss key items such as project schedule, budget, and any specific directives. Halff will provide a preliminary schedule of tasks for each meeting.

1.2 Project Status Reports

- i. Monthly project status reports shall be provided to the City with the monthly invoice. Progress shall include notes regarding work completed in the preceding billing cycle, work expected to be completed in the next cycle, and any outstanding questions or issues for discussion.

2.0 Digital Data Set Development

Halff will develop data sets in support of the SWUR implementation as requested by the city. The data sets, supporting documentation, and open-source base data will be provided to the City in formats compatible with the City's Geographic Information System.

2.1 Land Cover Analysis (per parcel) including Impervious Cover

The Nearmap aerial imagery open-source data will be used to calculate impervious cover for use in applying the new utility rate. Halff will use in house analysis techniques to develop the data set for review by city. The deliverables will include:

- Nearmap open-source data in GIS .shp files with land cover analysis information

- Seguin Land Cover .shp including 5 main land cover classes on a per parcel basis: Water Bodies, Urban Tree Canopy, Low Vegetation, Bare Soil, and Impervious Surfaces
- Seguin Urban Tree Canopy .shp providing perimeter length in feet along with area in acres
- Seguin Impervious Surfaces .shp will distinguish between impervious and pervious surface classes
 - GIS .shp file with two attribute features: 1. Impervious; 2. Pervious
- Seguin Parcel .shp has parcel and attribute information includes per parcel acres and tree canopy percentage
- Seguin Land Use .shp with multi-part polygons including land use classes, total area is size in acres, etc.

2.2 LiDAR Coverage, Validation, and DTM Creation

In order to provide a seamless LiDAR coverage for the expanded area desired by City staff, Halff proposes to use publicly available data from state agency sources. The open-source LiDAR data will allow the City and mapping professionals to examine both natural and manmade environments with a higher level of detail. The LiDAR data can also be used to help the City identify some open channels and surface structures associated with the stormwater system which will help make inventory of the network more efficient. The following process steps will be used to create the deliverables:

- TNRIS open-source 2017 & 2019 combined LiDAR coverage of Seguin
 - Data management including downloading and managing individual tiles, removing duplicate points, eliminating gaps/voids, etc. The data will be validated using known city monumentation (provided by City of Seguin) and checked against those coordinates
 - DTM creation from the open-source TNRIS LiDAR data to produce 2-foot contours covering the extents provided by the City on 3/14/2022

3.0 Public Outreach Support

The City and Halff know it is vital to continue communicating with the public, stakeholder groups and City Council. It's also important to show Seguin residents progress that is being made in identifying and solving the drainage issues. Halff and Seguin will work collaboratively to communicate the progress of the Stormwater Utility and ongoing CDBG-MIT projects.

3.1 Outreach Support

- a. Stakeholder Group Meetings
 - i. Work with staff to develop updated outreach materials for the public and stakeholder groups.
 - ii. Conduct up to 3 meetings with Stakeholder groups such as Chamber of Commerce, Downtown Alliance, and Manufacturers association.
- b. Mayor & Council Meetings:

The team anticipates that we will need to present status reports and the final implementation of the SWUR to elected officials.

 - i. Attend and present at 2 City Council meetings.
 - 1. 1st meeting – Halff supports staff to present a status update to Mayor & Council.

2. 2nd meeting – Halff/NewGen presents final financial information to City Council.
- c. Internal City Staff meetings: Attend regular meetings with City Staff to discuss the public campaign and stakeholder input. These meetings will be scheduled with the general project progress meetings

4.0 Utility Financial Implementation

The Halff team, led by NewGen's Matthew Garrett will analyze the financial aspects of existing stormwater funding at the City of Seguin and use the information to determine the rate setting approach and implementation of the stormwater utility fee.

4.1 Prepare Customer Billing Database

To create the customer billing database for the assessment of stormwater fees, the impervious area and ERU values previously developed must be merged and assigned to the City's utility billing accounts. The information contained in the impervious dataset and the City's utility billing database will likely vary, and a clean-up effort will be needed to properly merge the information.

For example, different street naming conventions may exist between the two databases such that an address-matching effort is required to link the two sources of information together. As a result, various complications may arise in resolving mismatches or no matches. Additionally, existing utility customers must be reviewed to see if they are also stormwater customers. Further, some stormwater customers who are not City customers may also be identified, and new accounts created.

It should be noted that the establishment of the customer billing database and evaluation and resolution of data discrepancies can be a time-consuming process depending on the quality of existing data and the desired basis for fee application. The Project Team will keep staff apprised of work efforts and will proactively discuss difficulties as they may arise.

NewGen will review the City's utility billing database to identify the following:

- Parcels with multiple billing accounts,
- Utility accounts that should be assigned multiple parcels for stormwater utility rates,
- Parcels with impervious coverage and no existing billing account,
- Other potential parcel definition billing issues.

4.2 Financial Forecast and Cost of Service Analysis

This will include meeting with the Finance Director to talk through the City's General Ledger and accounting methods already in place. NewGen will, at the request of the Finance Director, advise on establishing the Utility Fund within the City's financial system and provide guidance on ongoing policies.

NewGen and City staff will work with the City's Utility Billing System Provider to identify the information necessary to be included with the billing system and the preferred format for the transfer of the information. NewGen will convert (if needed) the billing database from the task above to create a master data file migration protocol for import of account specific drainage utility customer data.

NewGen will also provide recommendations regarding maintenance of the database following project completion. Recommendations will include steps during the development process where information from building permits will be processed to be included in the impervious cover files to keep impervious coverage up to date.

Once incorporated into the City's billing system, NewGen will complete a thorough review of all billing data loaded into customer billing account records and coordinate a test billing based on the rate codes, impervious area and customer class designations to ensure the billing system accurately reflects the original data compiled, including any known revisions from staff corrections or appeals.

5.0 Additional Support

Halff/NewGen have attempted to define all of the services that will be required based on input to date from City Staff. If additional services are requested by the City, Halff/NewGen will bill on an hourly basis using the rates in the table below:

Halff Associates 2022 Billing Rates

Position	Hourly Billing Rate
Principal Engineer	\$275 – \$370
Project Manager	\$225 – \$280
Professional Engineer	\$165 – \$230
Design Engineer	\$180 – \$225
Engineer in Training	\$110 – \$140
Outreach Specialist	\$140 – \$175
GIS Analyst	\$80 – \$125
Administrative Services	\$100

Note: Billing rates are subject to change based on annual reviews and salary increases.

NewGen Strategies and Solutions 2022 Billing Rates

Position	Hourly Billing Rate
Partner	\$235 – \$370
Principal	\$235 – \$360
Senior Manager	\$225 – \$270
Manager	\$180 – \$225
Senior Consultant	\$150 – \$180
Consultant	\$125 – \$150
Administrative Services	\$110

Note: Billing rates are subject to change based on annual reviews and salary increases.

Exclusions

Halff does not guarantee the quality of the open source data proposed for use in this project.

PROPOSED FEE SCHEDULE

The fees for Task 1 through 4, established above, shall be considered **lump sum** fees unless otherwise noted. Our services will be invoiced monthly based on the percentage of work completed. Costs incurred will be carefully monitored during the progress of this project and the fees will not be exceeded without prior approval from the City.

Task 1: Project Management	\$ 9,550.00
Task 2: Digital Data Set Development	\$ 126,000.00
Task 3: Public Outreach Support.....	\$ 23,900.00
Task 4: Utility Financial Implementation	\$ 19,260.00

TOTAL ENGINEERING SERVICES**\$ 178,710.00**

Sincerely,

HALFF ASSOCIATES, INC.

CITY OF SEGUIN



Troy Dorman, Ph.D., PE
Director of Water Resources

Steve Parker
City Manager

C: Josh Logan, PE