

2ND UPDATE
SPECIAL MEETING/WORKSHOP OF CITY COUNCIL
NOVEMBER 21, 2019 - 4:00 PM
MUNICIPAL COURTROOM
GEORGETOWN, SOUTH CAROLINA



Notice of this meeting has been made in accordance with the
South Carolina Code of Laws as amended.

1. **CALL TO ORDER**
2. **ANNOUNCEMENT CONCERNING ELECTRONIC DEVICES**
3. **PRESENTATION OF CITY HALL SCHEMATIC DESIGN BY CREECH & ASSOCIATES**
4. **PLANNING AND COMMUNITY DEVELOPMENT**
 - A. **Motion to approve an Economic Development Incentive Agreement between the City of Georgetown and Beverly Construction for development of 60 single-family homes in the Harbor Club neighborhood.**

Attachments:

1	Incentive Agreement - Harbor Club	(PDF)
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5. **ENGINEERING**
 - A. **Motion to adopt the Storm Water Management Plan (SWMP) prepared and completed by WK Dickson in July of 2019 and presented to City Council at a workshop meeting on August 1st, 2019 and October 24, 2019. The adoption of the SWMP include: 1. Approval of 12 stormwater projects as part of the Capital Improvement Plan in priority order. 2. Authorize staff to initiate process to amend Stormwater Utility and Drainage ordinances. 3. Approve the recommended collection method and revised storm water utility fees as proposed. 4. Adopt stormwater design standards.**

Attachments:

1	2019-06-24 Georgetown SMP - Executive Summary - FINAL	(PDF)
2	2019-07-15 Georgetown_Design_Standards_Rev1	(PDF)
3	2019.10.24 Stormwater Management Plan-final	(PDF)
4	Proposed Stormwater Utility Rates	(PDF)
 - B. **Motion to approve City Hall schematic design as presented by architect of record, Creech and Associates, PA.**
6. **EXECUTIVE SESSION**
 - A. **Motion to adjourn Special Meeting and enter into Executive Session pursuant to Sec. 30-4-70(a)(2) to discuss and review qualifications and contract proposal fee from Construction Manager at Risk firms and Sec. 30-4-70(a)(3) and (4) to discuss investigative proceedings regarding security.**
 - B. **Motion to adjourn Executive Session and reconvene Special Meeting.**

- C. NO FORMAL ACTION WAS TAKEN IN EXECUTIVE SESSION.**
- D. City Council may take action on items discussed in Executive Session.**

7. ADJOURNMENT

- A. Motion to adjourn the Special Meeting of City Council.**



120 North Fraser Street • Georgetown, SC 29440 • (843) 545-4000

ACTION ITEM

DOC ID: 2897

Council Meeting Date:	21 November 2019
Department:	Housing and Community Development
Issue Under Consideration:	Motion to approve an Economic Development Incentive Agreement between the City of Georgetown and Beverly Construction for development of 60 single-family homes in the Harbor Club neighborhood.
Amount Requested:	N/A
Is Item in Current Budget?	N/A
If no, please explain:	
Financial Impact:	N/A
Points to Consider:	• The agreement proposes to refund 50% of Building Permit fees and 50% of the total gross development Business License fees collected by the City. • The total reimbursed fees are estimated to be \$38,100 based on a total development (60 homes) costs from Beverly Construction of \$12,960,000. • No funds shall be paid until the issuance of a C/O on each house.
Options:	Approve or deny the Incentive Agreement.
Staff Recommendation:	Staff recommends denial based on the Public Purpose Doctrine.

Reviews:

Angela Rambeau Completed 11/15/2019 4:56 PM
 Finance Completed 11/18/2019 9:27 AM
 City Attorney Completed 11/18/2019 11:18 AM
 Sandra E. Yudice Ph.D. Completed 11/18/2019 11:19 AM
 Stephanie Buccione Completed 11/18/2019 1:33 PM
 Georgetown City Council Pending 11/21/2019 4:00 PM

Attachments:

1. A Incentive Agreement - Harbor Club (PDF)

ECONOMIC DEVELOPMENT INCENTIVE AGREEMENT

between

THE CITY OF GEORGETOWN, SOUTH CAROLINA

and

HARBOR CLUB BUILDERS, LLC,
a South Carolina limited liability company

Dated as of _____, 2019

INCENTIVE AGREEMENT

THIS INCENTIVE AGREEMENT (this “Agreement”) dated as of _____, 2019, between THE CITY OF GEORGETOWN, SOUTH CAROLINA (the “City”), a body politic and corporate and a political subdivision of the State of South Carolina, and HARBOR CLUB BUILDERS, LLC, a South Carolina limited liability company organized and existing under the laws of the State of South Carolina, acting for itself, one or more affiliates or other project sponsors (the “Company”);

W I T N E S S E T H:

WHEREAS, the City has determined it is in the best interest of the City to enter into this Agreement with the Company, subject to the terms and conditions set forth herein and, by Ordinance enacted on _____, 2019 (the “Ordinance”), Council approved the form, terms and conditions of this Agreement; and

WHEREAS, The City has, through its Ordinances, Chapter 17, Article IV, Sections 17-30, 17-31, 17-33, 17-34, 17-35 and 17-36 of the City of Georgetown, provided for a system of incentives for development with the City; and

WHEREAS, the City is desirous of providing incentives to the Company as set forth herein.

NOW, THEREFORE, in consideration of the premises; the potential investment and jobs to be created, or caused to be created, by the Company which contributes to the tax base and the economic welfare of the City; the respective representations, benefits and agreements hereinafter contained; and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the City and the Company agree as follows:

ARTICLE I

DEFINITIONS

Section 1.01. Definitions. In addition to the words and terms elsewhere defined in this Agreement, the following words and terms as used herein and in the preambles hereto shall have the following meanings unless the context or use indicates another or different meaning or intent.

“*Affiliate*” shall mean any corporation, limited liability company, partnership or other Person or entity which owns all or part of the Company or which is owned in whole or in part by the Company or by any partner, shareholder or owner of the Company.

“*Agreement*” shall mean this Incentive Agreement as originally executed and from time to time supplemented or amended as permitted herein.

“*City*” shall mean City of Georgetown, South Carolina, a body politic and corporate and

a political subdivision of the State, and its successors and assigns.

“*Code*” shall mean the Code of Laws of South Carolina 1976, as amended, unless the context clearly requires otherwise.

“*Company*” shall mean Harbor Club Builders, LLC a South Carolina limited liability company, and any transferee entity in any merger, consolidation or transfer of assets permitted under **Sections 3.04** hereof or any other assignee hereunder which is designated by the Company and approved by the City.

“*Council*” shall mean the governing body of the City and its successors.

“*Event of Default*” shall mean an Event of Default, as set forth in **Section 6.01** hereof.

“*Land*” shall mean the land upon which the Project is or will be located, as described in **Exhibit A** attached hereto, as **Exhibit A** may be supplemented from time to time in accordance with the provisions hereof.

“*Person*” shall mean and include any individual, association, unincorporated organization, corporation, partnership, limited liability company, joint venture, or government or agency or political subdivision thereof.

“*Project*” shall mean: (i) the Land and all homes, buildings, structures, fixtures and other real property improvements now or hereafter constructed on the Land; (ii) all machinery, equipment, furnishings and other personal property heretofore or hereafter acquired by or on behalf of the Company for use on or about the Land; and (iii) any replacement property; provided, however, except as to replacement property, the term Project shall be deemed to include such real property improvements and personal property, whether now existing or hereafter constructed or acquired, only to the extent placed in service in the City within the Investment Period.

“*Property Tax Year*” shall mean the annual period which is equal to the fiscal year of the Company, as the case may be, *i.e.*, with respect to the Company, the period ending on December 31 of each year.

“*State*” shall mean the State of South Carolina.

“*Term*” shall mean the term of this Agreement, as set forth in **Section 7.01** hereof.

Section 1.02. References to Agreement. The words “hereof”, “herein”, “hereunder”, and other words of similar import refer to this Agreement as a whole.

END OF ARTICLE I

ARTICLE II

REPRESENTATIONS AND WARRANTIES

Section 2.01. Representations and Warranties by City. The City represents and warrants that: (i) it is a body politic and corporate and a political subdivision of the State; (ii) it is authorized by the Act to enter into this Agreement; (iii) it has approved this Agreement in accordance with the procedural requirements of the Act and any other applicable state law; and (iv) it has authorized its officials to execute and deliver this Agreement.

Section 2.02. Representations and Warranties by Company. The Company makes the following representations and warranties as the basis for the undertakings on its part herein contained:

(a) The Company is a limited liability company organized and existing and in good standing under the laws of the State of South Carolina and authorized to do business in the State; has all requisite power to enter into this Agreement and to carry out its obligations hereunder; and by proper action has been duly authorized to execute and deliver this Agreement. The Company's fiscal year end is December 31, and the Company will notify the City of any changes in the fiscal year of the Company.

(b) The Company presently intends to operate, or cause operation of, the Project as single-family residential development.

(c) The agreement with the City were primary factors in inducing the Company to locate the Project within the City and the State.

(d) No actions, suits, proceedings, inquiries, or investigations known to the Company are pending or threatened against or affecting the Company in any court or before any governmental authority or arbitration board or tribunal, which could materially adversely affect this Agreement or which could, in any way, adversely affect the validity or enforceability of this Agreement, or the transactions contemplated hereby.

END OF ARTICLE II

ARTICLE III

COVENANTS OF COMPANY

Section 3.01. Minimum Contractual Investment Requirement. The Company agrees that it will comply with, or cause compliance with, the Minimum Contractual Investment Requirement, consistent with Art. IV, §17 of the City of Georgetown Code of Ordinances, in the amount of a minimum of \$1,500,000.00 and to provide proof of same to the City upon request.

Section 3.02. Investment in Project.

(a) The Company shall retain title to, or other property rights in, its respective portion of the Project throughout the Term of this Agreement, and the Company shall

have full right to sell, lease, mortgage or encumber the Project, including, without limitation, in connection with any financing transactions, in its sole discretion.

(b) The Company shall have the right at any time and from time to time during the Term hereof to undertake any of the following:

(i) The Company may, at its own expense, add to the Project all such real and personal property as the Company, as the case may be, in its discretion deems useful or desirable.

Section 3.03. Use of Project for Lawful Activities. During the Term of this Agreement, in consideration for economic incentives offered by the City, the Company shall use the Project as it deems fit for any lawful purpose consistent with this Agreement, the Master Plan, the City of Georgetown 2011 Comprehensive Plan, the public purpose doctrine, and the approved zoning for the property. The Company acknowledges economic incentives as agreed upon herein are only available for the project consistent with Art. IV, §17 of the City of Georgetown Code of Ordinances and this Agreement.

Section 3.04. Maintenance of Existence. Except in the event the resulting, surviving or transferee entity is the Company or an Affiliate of the Company, as to which such consolidation, merger, or transfer the City hereby consents, unless the City shall provide prior consent or subsequent ratification otherwise, which consent or ratification shall not be unreasonably withheld, conditioned, or delayed, the Company covenants that it will maintain its separate existence and will not dissolve or consolidate with, merge into or transfer, or otherwise dispose of substantially all of its property to any other entity or permit one or more other entities to consolidate with or merge into it or purchase substantially all of its property unless:

(a) the Company shall be the continuing business entity, or the business entity formed by such consolidation or into which the Company is merged or the entity which acquires by conveyance or transfer all or substantially all of the Company's assets shall (i) be an entity organized and existing under the laws of the United States of America or any state thereof or the District of Columbia and qualified to do business in the State; (ii) have a net worth equal to or greater than the net worth of the Company immediately preceding the date of such merger, consolidation or transfer; and (iii) expressly and unconditionally assume, by written agreement supplemental hereto and acceptable to the City as to form and content, in its reasonable discretion, every payment obligation of the Company herein and the performance of every covenant of this Agreement on the part of the Company to be performed or observed;

(b) immediately after giving effect to such transaction, no Event of Default,

and no event, which, after notice or lapse of time or both, would become an Event of Default, shall have happened and be continuing

Upon any consolidation or merger or any conveyance or transfer of all or substantially all of the Company's assets in accordance with this Section, the successor business entity formed by such consolidation or into which the Company is merged or to which such conveyance or transfer is made shall succeed to, and be substituted for, and may exercise every right and power

of the Company under this Agreement with the same effect as if such successor entity had been named as the Company herein, and thereafter the Company shall be relieved of all obligations and covenants under this Agreement.

If a consolidation, merger or conveyance or transfer is made as permitted by this Section, the provisions of this Section shall continue in full force and effect and no further consolidation, merger or conveyance or transfer shall be made except in compliance with the provisions of this Section.

3.05 The Project

The “Project” will initially consist of 60 lots and the single-family residential homes to be constructed on said lots located within the Harbor Club at Winyah Bay (“Harbor Club”) subdivision in the City of Georgetown, said development being more fully described on Exhibit A attached hereto. The Company is currently under contract to purchase an additional 30 lots in Harbor Club. Additionally, the Company shall have the right to add additional lots located within Harbor Club and to receive the same incentives as set forth hereinbelow with regard to any lot owned by the Company within Harbor Club if the Company meets the requirements for the economic incentives contained herein.

The Company further covenants the total value of the Project (which is estimated to consist of up to 92 single family residential homes) once completed will be approximately \$20,700,000.00. The Company, or its successors or assigns, will employ a full-time sales agent(s), a construction superintendent, a neighborhood specialist as well as numerous sub-contractors during the construction of the Project.

END OF ARTICLE III

ARTICLE IV

COVENANTS OF THE CITY – ECONOMIC INCENTIVES

Section 4.01. City-Provided In-Kind Infrastructure. The City, at City’s expense, will install the power needed to provide electricity to homes to be built in the Project and to the common area amenities, and common areas located within the Project.

Section 4.02. City Incentives. Upon compliance by Company with this Agreement, the City agrees to refund to the Company upon the issuance of each Certificate of Occupancy for a house constructed on a lot within the Project, the following:

- (1) Fifty (50%) percent of the building permit fees collected by the City for the house following issuance of the Certificate of Occupancy for said house;
- (2) Fifty (50%) percent of the total gross development business license fees collected by the City at the time of the permit issuance.

END OF ARTICLE IV

ARTICLE V TERM; TERMINATION

Section 5.01 Term. Unless sooner terminated pursuant to the terms and provisions herein contained, this Agreement shall be and remain in full force and effect for a term commencing on the date upon which the City approved this Agreement, and ending at midnight on December 31, 2030.

Section 5.02 Termination. The City and the Company may mutually agree to terminate this Agreement at any time, or the Company, may, at its sole option, terminate this Agreement at any time with respect to all, or a portion of, the Project.

END OF ARTICLE V

ARTICLE IVI EVENTS OF DEFAULT AND REMEDIES

Section 6.01 Events of Default. Any one or more of the following events (herein called an “Event of Default”, or collectively “Events of Default”) shall constitute an Event of Default by the Company (the “Defaulting Entity”) but only with respect to such Defaulting Entity’s rights, duties, and obligations contained herein:

(a) If default shall be made in the due performance of or compliance with any of the terms hereof and such default shall continue for ninety (90) days after the City shall have given the Defaulting Entity written notice of such default; provided, the City may, in its discretion, grant the Defaulting Entity a longer period of time as necessary to cure such default if the Defaulting Entity proceeds with due diligence to cure such default; provided however, that no Event of Default shall exist under this Agreement during any period when there is pending, before any judicial or administrative tribunal having jurisdiction, any proceeding in which the Defaulting Entity has contested in good faith the occurrence of such default.

Failure to meet any investment requirement or job creation requirement set forth hereinabove maybe deemed to be an Event of Default under this Agreement.

Section 6.02. Remedies on Event of Default. Upon the occurrence of any Event of Default, the City may exercise any of the following remedies only as to the Defaulting Entity:

(a) terminate this Agreement by delivery of written notice to the Defaulting Entity not less than sixty (60) days prior to the termination date specified therein;

Section 6.03. Default by City. Upon the default of the City in the performance of any of its obligations hereunder, the Company may take whatever action at law or in equity as may appear necessary or desirable to enforce its rights under this Agreement, including without limitation a suit for *mandamus* or specific performance. Any such action at law or equity shall be brought in South Carolina, subject to South Carolina law.

END OF ARTICLE VI

ARTICLE VII

MISCELLANEOUS

Section 7.01. Rights and Remedies Cumulative. Each right, power, and remedy of the City or of the Company provided for in this Agreement shall be cumulative and concurrent and shall be in addition to every other right, power, or remedy provided for in this Agreement or now or hereafter existing at law or in equity, in any jurisdiction where such rights, powers, and remedies are sought to be enforced; and the exercise by the City or by the Company of any one or more of the rights, powers, or remedies provided for in this Agreement or now or hereafter existing at law or in equity or by statute or otherwise shall not preclude the simultaneous or later exercise by the City or by the Company of any or all such other rights, powers, or remedies.

Section 7.02 Successors and Assigns. The terms and provisions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns as permitted hereunder. Except as otherwise set forth herein, with the prior written consent of the City, the Company may assign this Agreement in whole or in part.

Section 7.03 Notices; Demands; Requests. All notices, demands, and requests to be given or made hereunder to or by the City or the Company shall be in writing and shall be deemed to be properly given or made if sent by United States first class mail, postage prepaid, or via facsimile transmission or reputable courier service, to the following persons and addresses or to such other persons and places as may be designated in writing by such party.

(a) As to the City:

City of Georgetown
Attn.: City Administrator
1134 North Fraser Street
Post Office Box 939 (29442)
Georgetown, South Carolina 29440
Phone: (843) 545-4001
Fax: (843) 527-6173

(b) with a copy (which shall not constitute notice) to:

City of Georgetown
Attn: City Attorney

1134 North Fraser Street
 Post Office Box 939 (29442)
 Georgetown, South Carolina 29440
 Phone: (843) 545-4001
 Fax: (843) 546-0747

(c) As to the Company:

Harbor Club Builders, LLC
 9007 Hwy 544
 Myrtle Beach, SC 29588
 Attention: Forrest Beverly

(d) with a copy (which shall not constitute notice) to:

Robin Ciaccio
 Phone Number: 843-448-2380
 Address: 306 Main Street, Conway, SC 29526
 Email: robin@lcfirm.com

Section 7.04 Applicable Law. This Agreement shall be governed by and construed in accordance with the laws of this State. To the extent of any conflict between the provisions of this Agreement and the Inducement Resolution, the provisions of this Agreement controls.

Section 7.05 Entire Understanding. This Agreement expresses the entire understanding and all agreements of the parties hereto with each other, and neither party hereto has made or shall be bound by any agreement or any representation to the other party which is not expressly set forth in this Agreement or in certificates delivered in connection with the execution and delivery hereof.

Section 7.06 Severability. In the event that any clause or provision of this Agreement shall be held to be invalid by any court of competent jurisdiction, the invalidity of such clause or provision shall not affect any of the remaining provisions hereof.

Section 7.07 Headings and Table of Contents; References. The headings of the Agreement and any Table of Contents are for convenience of reference only and shall not define or limit the provisions hereof or affect the meaning or interpretation hereof. All references in this Agreement to particular articles or Sections or paragraphs of this Agreement are references to the designated articles or Sections or paragraphs of this Agreement.

Section 7.08 Multiple Counterparts. This Agreement may be executed in multiple counterparts, each of which shall be an original but all of which shall constitute but one and the same instrument.

Section 7.09 Amendments. This Agreement may be amended, or the rights and interest of the parties hereunder surrendered, only by a writing signed by all parties.

Section 7.10 Waiver. Any party may waive compliance by any other party with any term or condition of this Agreement only in a writing signed by the waiving party. To the extent additional proceedings are required by law, the City agrees to undertake all such additional proceedings as may be reasonably required or appropriate to effectuate the intent of this Agreement.

END OF ARTICLE VII

SIGNATURES FOLLOW ON NEXT PAGE

Attachment: Incentive Agreement - Harbor Club (2897 : Harbor Club Incentive Agreement)

IN WITNESS WHEREOF, the parties hereto, each after due authorization, have executed this Agreement to be effective as of the date first written above.

CITY OF GEORGETOWN, SOUTH CAROLINA

By: _____
Mayor, City Council [SEAL]

Attest:

By: _____
City of Georgetown, South Carolina

Harbor Club Villas, LLC

By: _____
Name: Forrest Beverly
Title: Member

Attachment: Incentive Agreement - Harbor Club (2897 : Harbor Club Incentive Agreement)

EXHIBIT A
LAND DESCRIPTION

All that certain pieces, parcels or lots of land situate, lying and being in the City of Georgetown, State of South Carolina, consisting of lots 1-161 on the plat entitled “Final Bonded Subdivision Plat Showing The Plantation @ Winyah Bay, 79.866 Acres, Prepared For Landquest, Located in the City of Georgetown, Georgetown County, SC” prepared by Trico Engineering Consultants, Inc., dated June 27, 2007, and recorded July 18, 2007 in Plat Slide 647 at Page 1 in the in the Office of the Register of Deeds for Georgetown County.

Attachment: Incentive Agreement - Harbor Club (2897 : Harbor Club Incentive Agreement)



120 North Fraser Street • Georgetown, SC 29440 • (843) 545-4000

ACTION ITEM

DOC ID: 2896

Council Meeting Date:	21 November 2019
Department:	Engineering
Issue Under Consideration:	Motion to adopt the Storm Water Management Plan (SWMP) prepared and completed by WK Dickson in July of 2019 and presented to City Council at a workshop meeting on August 1st, 2019 and October 24, 2019. The adoption of the SWMP include: 1. Approval of 12 stormwater projects as part of the Capital Improvement Plan in priority order. 2. Authorize staff to initiate process to amend Stormwater Utility and Drainage ordinances. 3. Approve the recommended collection method and revised storm water utility fees as proposed. 4. Adopt stormwater design standards.
Amount Requested:	N/A
Is Item in Current Budget?	N/A
If no, please explain:	
Financial Impact:	
Points to Consider:	▪ Residential (Meter Method): Increase monthly rate from \$6 to \$8/meter/month ▪ Non-Residential(Impervious Surface): ERU's x \$12 per month ▪ One ERU (Equivalent Residential Unit) = 2,595 Square Feet per parcel ▪ Vacant or Undeveloped Parcels (Residential or Non-Residential): Flat rate of \$4/month billed semi-annually or annually. ▪ Adjust rates yearly to account for increased operational costs, inflation, and growth. (2.4%)
Options:	Approve or Disapprove
Staff Recommendation:	Approve

Reviews:

Orlando Arteaga Completed 11/14/2019 4:14 PM
 Sandra E. Yudice Ph.D. Completed 11/14/2019 4:26 PM
 Stephanie Buccione Completed 11/15/2019 11:48 AM
 Georgetown City Council Pending 11/21/2019 4:00 PM

Attachments:

1. A 2019-06-24 Georgetown SMP - Executive Summary - FINAL (PDF)
2. B 2019-07-15 Georgetown_Design_Standards_Rev1 (PDF)

Updated: 11/14/2019 4:14 PM by Orlando Arteaga (Page 1)

3. C 2019.10.24 Stormwater Management Plan-final (PDF)
4. D Proposed Stormwater Utility Rates (PDF)

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The City of Georgetown retained WK Dickson to complete a Stormwater Management Plan for the City's jurisdictional area. The development of the stormwater management plan is a strategic initiative with the following goals, as identified by the City:

- Address flooding in flood-prone areas;
- Protect property and the natural environment; and
- Enhance water quality.

Georgetown is in Georgetown County, South Carolina, between Charleston and Myrtle Beach. The City's well-preserved historic district and coastal location bring significant tourist activity throughout the year. Due to its location at the confluence of three major rivers (Great Pee Dee, Waccamaw, and Sampit), Georgetown is vulnerable to recurrent flooding during major storm events, as well as high tide conditions.

While tidal patterns were taken into account as part of the Stormwater Management Plan, the focus of the Management Plan is to mitigate flooding due to rainfall onto the Georgetown watershed, as opposed to river and bay waters rising out of their banks. The City of Georgetown, Georgetown County, and other stakeholders are actively analyzing methods to protect the City from rising water levels, and where feasible, will seek to incorporate recommendations found in the Management Plan with broader flood protection efforts.

The stormwater infrastructure maintained by the City covers approximately 4,500 acres (~7 square miles). The overall watershed is generally residential in land use, but also includes two commercial corridors along Front Street and North Fraser Street, as well as the International Paper and Liberty House Steel Mill industrial facilities.

The Stormwater Management Plan included a process to assess how stormwater is currently managed within the study area and to develop recommendations for improving the management of stormwater including the identification of capital projects. The process began with City personnel identifying 23 locations that have repetitive flooding during large storm events. The areas located within the historic district were given the highest priority based on the potential for property damage and disruption of tourist and commercial functions. They are outlined below:

- **Front Street/Orange Street** – frequent flooding occurs through Constitution Park and the Coastal Carolina parking lot into the intersection of Front Street and Orange Street. This location is in the center of the Front Street commercial corridor and is a prime tourist destination. The outfall is tidally influenced, and also experiences significant runoff due to the drainage area being fully developed with large impervious areas. As one of the most visible locations in Georgetown, resolving flooding in this area is the highest priority to City personnel and citizens.

EXECUTIVE SUMMARY

- **Front Street/Cannon Street/St. James Street/Highmarket Street/Screven Street** – encompassing over ten percent of the historic district, the recurrent flooding in this area poses significant threats to transportation and private property. The outfalls in this area are tidally influenced, and face challenges from flat topography and limited depth of cover.
- **Church Street/St. James Street** – The intersection of Church Street and St. James Street (US 17 and US 521) is one of the busiest in Georgetown and functions as a gateway to the historic district. Flooding at this location restricts access into the City. The outfall drains to the marsh north of Georgetown and is prone to sedimentation of the downstream pipes.
- **Church Street/Orange Street** – Despite the presence of a detention pond, the restaurant located at 829 Church Street experiences frequent flooding of its property. The flooding often extends to Church Street (US 17), resulting in further restriction of a major thoroughfare into Georgetown. The flat topography surrounding this area makes drainage a challenge, along with sedimentation of the outfall into the marsh.

The next step in the study process was to gather detailed data on the stormwater system in the most critical areas to support hydraulic modeling of the existing conditions. Approximately 500 drainage structures and ten (10) miles of pipes in the flood-prone locations were identified and surveyed to supplement GIS data provided by the City. In most areas, the size and location of stormwater GIS assets were in agreement with the true field conditions. Inventory and survey allowed the project team to assess the condition of assets, as well as to gather crucial elevation data required for an accurate model.

In part to help reach consensus on areas of concern within the City, the WK Dickson team conducted a public outreach process. The public outreach allowed residents and business owners the opportunity to provide feedback on specific drainage issues within the City. The community was able to give feedback through survey questionnaires. The one hundred fifty-two (152) completed questionnaires collected during the outreach process, as well as information from City staff, assisted the WK Dickson team in validating the hydraulic models against recent storm events and identifying areas with repetitive flooding for further analysis.

Engaging the community in stormwater management is critical for a successful program as many of the recommendations of the program are dependent on support and stewardship from the community. Capital project recommendations that include Stormwater Control Measures (SCMs) will likely require easements from landowners. Additionally, several neighborhoods have been identified for potential neighborhood green infrastructure retrofits. These can include modifications to the City or SCDOT rights-of-way (ROW) to promote the infiltration of stormwater runoff, as well as rain gardens and other practices on private property to treat rooftop drainage, prior to entering the conveyance system. These types of practices will require significant community buy-in prior to implementation. Individually these projects provide a small benefit; however, as more property owners implement practices to reduce the volume of

EXECUTIVE SUMMARY

runoff and pollutant loads, the cumulative downstream impacts on water quality and quantity can be significant.

As part of this study, the conveyance system within flood prone areas was evaluated through hydraulic models to determine the existing level of service and the potential capital improvements that would be required to reduce the risk of flooding. Most of the locations with frequent flooding is conveyed through piped systems as opposed to open channels, so additional floodplain model development beyond the effective Federal Emergency Management Agency (FEMA) floodplains was not necessary.

After completing all the assessments and modeling noted above, WK Dickson developed conceptual solutions for a wide variety of capital projects to address the goals identified with respect to water quantity, quality, and protecting public and private property.

The proposed capital projects follow with the locations of each project shown on Figure ES-1.

While the proposed capital projects are concentrated within the Historic District and the general Georgetown area north of the Sampit River, several areas with repetitive flooding were also identified in the Maryville area south of the Sampit River. The scope of the Stormwater Management Plan was sufficient for detailed hydraulic modeling of the systems where capital improvements were recommended. The problem areas within Maryville were included in the green infrastructure retrofit analysis, and have high retrofit potential. A follow-up detailed hydraulic analysis of the Maryville area is recommended to supplement the current Stormwater Management Plan to identify capital improvement projects necessary to reduce flood frequency and severity.

Project Recommendations

Significant flooding problems have been well documented in the City of Georgetown. Developing retrofit solutions to these types of flooding problems in developed areas is difficult because of the limited land available, topographic constraints, and existing infrastructure including roads, utilities, and buildings. Due to these constraints, a combination of projects will be required to achieve significant reductions in the frequency, duration, and severity of flooding particularly in the areas most at risk.

Closed System Drainage Improvements

Closed system drainage improvements are recommended at the following locations:

- **Front Street** - near its intersection with Orange Street at Constitution Park;
- **Queen Street** - between Front Street and Highmarket Street;
- **El Cerro** - The area around El Cerro Grande Mexican Restaurant, including Orange Street, Duke Street, and Cypress Street;

EXECUTIVE SUMMARY

- **Highmarket Street – Broad Street** - Broad Street between Front Street and Highmarket Street, Highmarket Street between Broad Street and Screven Street, and Screven Street between Highmarket Street and Front Street;
- **Cannon Street** - between Front Street and Highmarket Street;
- **Highmarket Street** - between Cannon Street and Bay Street;
- **St. James Street – Church Street** - Church Street between St. James Street and Cannon Street;
- **S Fraser Street – Bourne Street** - S Fraser Street between Hawkins Street and Dock Street, and Hawkins Street between S Fraser Street and Wagstaff Alley;
- **Steel Mill** - The area around the Liberty House Steel Mill, including S Fraser Street, Emanuel Street, Gilbert Street, and Butts Street;
- **Highmarket Street – Lee Street** - N Alex Alford Drive between Highmarket Street and Butts Street;
- **Church Street – N Merriman Road** - W Church Street between N Merriman Road and N Fraser Street, and N Merriman Road between Sims Street, Timrod Street, and Hampton Street; and
- **St. James Street** - between Front Street and Prince Street.

Each of the recommended project areas was identified by residents and City staff as locations with repetitive flooding. Proposed improvements include replacing existing pipes with larger capacity pipes, rerouting drainage to the ROW as applicable, and adding inlet capacity. Utility conflicts will need to be resolved during design and implementation of these projects.

Water Quantity/Quality Projects

For several of the problem areas, the benefit of pipe size upgrades is limited by topography and lack of available land. To achieve significant reduction in flood frequency and severity, stormwater detention measures must be upgraded and/or constructed in the following locations:

- **El Cerro** - The area around El Cerro Grande Mexican Restaurant;
- **Highmarket Street – Lee Street** - Lee Street between Prince Street and Highmarket Street, and Highmarket Street between Lee Street and N Alex Alford Drive; and
- **Church Street – N Merriman Road** - N Merriman Road between Sims Street and W Church Street.

Additional areas with repetitive flooding complaints ranked high for the potential of green infrastructure retrofits. Possible components of retrofits in these areas could include green street features such as grass swales, grass medians, bioretention bump outs, inlet treatment, residential rain gardens, and disconnection of downspouts. The City should consider engaging the community in these locations to determine feasibility for pilot green infrastructure retrofits.

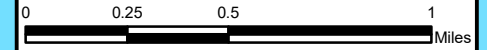
EXECUTIVE SUMMARY

System Maintenance

While collecting inventory data, several opportunities for proactive maintenance were noted. Cleaning or jetting pipes and digging out outfalls that have been filled with sediment may improve drainage for areas that experience repetitive flooding. The proactive maintenance of infrastructure even in areas that are not flood prone will reduce disruptions to roadways and other City infrastructure, ensure the designed level of service is routinely met, and most efficiently manage the City's limited resources. While proactive maintenance will extend the life of the existing infrastructure, in many instances the existing infrastructure does not provide the desired level of service, necessitating capital improvement projects.

Georgetown Stormwater Management Plan

Figure ES-1
Project Overview Map

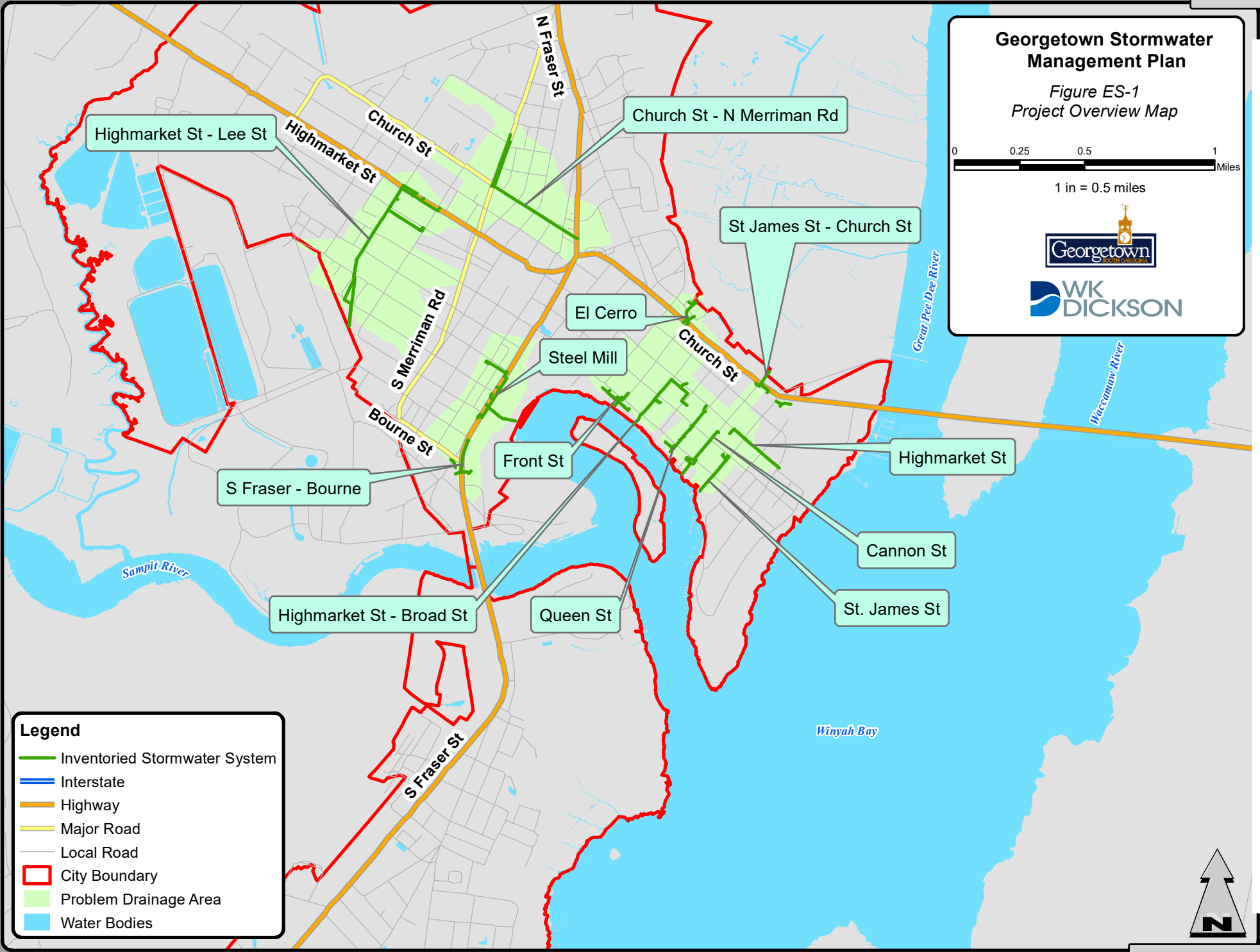


1 in = 0.5 miles



Legend

- Inventoried Stormwater System
- Interstate
- Highway
- Major Road
- Local Road
- City Boundary
- Problem Drainage Area
- Water Bodies



EXECUTIVE SUMMARY

Prioritization and Recommendations

To appropriately allocate City resources, the flood control projects listed above were prioritized based on the following categories as described in Appendix I:

- Public health and safety
- Severity of street flooding
- Cost effectiveness
- Effect of improvements
- Water quality/quantity – SCM
- Implementation constraints
- Constructability

Table ES-1 shows the proposed prioritizations for the proposed improvements. The total cost for all the recommended capital improvements is approximately \$20,822,000.

Based on the existing flooding, it is recommended that the City carefully review any rezoning requests that will increase impervious area and determine if additional stormwater measures are required. It is also recommended that the City look for opportunities to add green infrastructure and low impact development to the extent possible for both new development and redevelopment to promote infiltration and minimize increases to peak flow and volumes.

Table ES-1: Flood Control Project Prioritization

Prioritization	Project	Cost
1	Front Street System	\$1,109,000
2	El Cerro System	\$1,773,000
3	Queen Street System	\$1,362,000
4	St. James Street - Church Street System	\$192,000
5	S Fraser Street – Bourne Street System	\$1,174,000
6	St. James Street System	\$554,000
7	Cannon Street System	\$1,191,000
8	Church Street - N Merriman Road System	\$3,419,000
9	Highmarket Street - Broad Street System	\$1,941,000
10	Steel Mill System	\$2,149,000
11	Highmarket Street - Lee Street System	\$4,411,000
12	Highmarket Street System	\$1,547,000
Total		\$20,822,000

EXECUTIVE SUMMARY

Other Water Quality Projects

Neighborhood water quality retrofits are not separately prioritized; however, those projects that can be incorporated into flood control projects should be scheduled with the flood control projects. Neighborhood retrofits and stream stabilization projects on private property will be heavily dependent on Council support, community acceptance, and property owners' willingness to participate. The City should consider a pilot neighborhood retrofit project to encourage green infrastructure both in public rights-of-way and on private property. Neighborhood retrofits can improve aesthetics, water quality and reduce the quantity of stormwater runoff. While individual retrofits will not have a significant impact on flooding, the cumulative impact of these practices throughout a community and watershed can be significant. Outfall retrofit priorities will likely require adjustment based on project factors such as grant funding or availability of property.

July 15, 2019

SUBJECT: MINIMUM DRAINAGE STANDARDS AND PLAN SUBMITTAL CHECKLIST

Please find the attached documents entitled Minimum Design Standards for Storm Drainage and Development Plan Submittal Checklist. Both documents have been developed to assist in providing for a more uniform and efficient storm drainage system. At the direction of the City Manager and with the approval of the City Council, the Minimum Design Standards for Storm Drainage are to be met for all commercial and residential developments within the City limits. Stormwater plan submittals shall be reviewed and approved by City's authorized agent.

The information included in, and required by the Stormwater Design Standards and plan submittal checklist will assist engineers and developers to more clearly understand the expectations of the City Engineering Division with respect to stormwater runoff from new developments, as well as provide a list of submittal requirements that will help improve the plan review process by providing required information on plans and necessary calculations or documentation up front and at the time of submittal, not at the request of the reviewer.

- For residential development review, submit all necessary plans and documentation to the Engineering Division on the first floor of City Hall.
- For all commercial or industrial development, or developments that otherwise require building permits or review by zoning and inspections, submit all necessary plans and documentation to the Engineering Division either prior to, or the same time, as submittal for the building permit.

City Engineering encourages and welcomes engineers and developers to submit preliminary plans for comments or schedule a meeting with staff to look at drainage issues in the preliminary stages of planning and design.

Sincerely,

Orlando Arteaga
City Engineer

ENGINEERING DEPARTMENT

2377 MAYBANK DRIVE

GEORGETOWN, SC 29442

www.CityofGeorgetownSC.com

Attachment: 2019-07-15 Georgetown_Design_Standards_Rev1 (2896 : Approval of Storm Water Management Plan)

Table of Contents

1.0	Introduction
2.0	Stormwater Management Plan
3.0	Hydrologic Analysis
4.0	Storm Drainage Systems
5.0	Culvert Design
6.0	Open Channel Hydraulics
7.0	Stormwater Detention Design
8.0	Erosion and Sediment Control
9.0	Drainage Easements
10.0	Plan Submittal Checklist

1.0 INTRODUCTION

The Stormwater Design Standards have been developed to assist in the design and evaluation of stormwater drainage systems within the City of Georgetown, South Carolina. It provides engineering design guidance to:

- Engineers responsible for the design of stormwater drainage systems and management structures and,
- Developers involved in site planning and design.

Design engineers are encouraged to work with the City Engineering Department as early in the planning and development process as possible, when the maximum number of drainage alternatives are possible.

The Stormwater Design Standards are intended to establish the minimum uniform design practices; it neither replaces the need for sound engineering judgment nor precludes the use of information or methods not presented. The City's Stormwater Design Standards and ordinances are based on SCDHEC's Standards for Stormwater Management and Sediment Reduction Regulations.

Application of the Stormwater Design Standards will contribute to more uniform design and analysis of stormwater drainage systems throughout the City of Georgetown. Application of the standards and adherence to the Plan Submittal Checklist will also create uniformity in plan submittal, and therefore allow the City to provide more consistent Engineering review services.

In addition to the engineering procedures and criteria necessary for stormwater management, there are many drainage planning concepts which should be considered during the design phase. When considered early in a project, these concepts can be worked into the design to benefit developers, residents and local governments:

- Land use planning and location of developments should be closely coordinated with drainage planning to prevent drainage problems.
- Consideration should be given to major flood events, local drainage from small areas, and environmental consequences of proposed actions. As an example, when planning a new subdivision, various drainage configurations should be considered before decisions are made on block layout and street location.
- Sensitive environmental areas should be identified and integrated into the final plan. It is perhaps at this point in the development process where the greatest impact can be made on the cost of proposed drainage facilities.
- Consider flood hazard areas at an early stage to avoid unnecessary complications.

Advantages may include lower cost drainage systems, decreased flooding and maintenance problems, and facilities that provide more benefits.

There are also many secondary benefits received from good drainage planning:

- Reduced street maintenance costs;
- Reduced street construction costs;
- Improved movement of traffic;
- Improved public health;
- Lower cost open space;
- Lower cost park areas and more recreational opportunities;
- Development of otherwise undevelopable land;
- Opportunities for lower building costs;
- Reduced city administrative costs, and;
- Reduced maintenance costs of drainage facilities.

Engineering design methods other than those referenced in this document can be used if approved by the City Engineer. Complete documentation of other methods may be required for approval.

All requirements outlined in this document are in addition to federal, state and local requirements. Where regulations are not consistent between agencies, the developer shall adhere to the most stringent. Other agencies include, but are not limited to, South Carolina Coastal Council, Environmental Protection Agency, South Carolina Department of Health and Environmental Control, and South Carolina Land Resources Commission.

2.0 STORMWATER MANAGEMENT PLAN

All site development activities which disturb one acre or greater, except for single family parcels, shall be required to submit a stormwater management plan, designed and stamped by a designer registered in the State of South Carolina, for approval by the City's Authorized Agent, prior to development. The plan should address both temporary and permanent erosion and sedimentation control and permanent structural facilities such as the pipe system, stormwater control measures, channels, swales, etc.

The submittal consists of three parts and must include:

1. The SCDHEC stormwater permit application;
2. Technical engineering calculations including pre and post development discharge calculations, and;
3. Construction Documents and Plans (plans, details, specifications, stormwater pollution prevention plan).

The Stormwater Management Plan will be reviewed after the City receives payment of permit and plan review fees.

Stormwater Engineering Plans must include soil erosion and sediment controls, drainage pipe systems, stormwater structures, detention ponds, channels, swales, grading plans, pipe profiles, 100-year flood elevation, etc. Refer to SCDHEC Standards for Stormwater Management and Sediment Reduction Regulations for design standards and details in addition to these minimum standards.

3.0 HYDROLOGIC ANALYSIS

The purpose of the hydrologic analysis of a site is to define and address change in stormwater runoff and the impacts of that change on and off the site. Hydrologic analysis should be performed in accordance with the following general guidelines:

- Methodology for analysis shall follow the National Resource Conservation Service (NRCS) Technical Release No.55 (TR-55), June 1986.
- Design storm duration shall be the 24-hour rainfall event, using the NRCS Type III rainfall distribution with no more than a 6-minute time increment.
- The following rainfall depths should be used in hydrologic design and analysis.

	24-Hour Rainfall Depth for City of Georgetown					
Return Period (Years)	2	5	10	25	50	100
Depth (inches)	4.56	5.90	6.99	8.52	9.79	11.1

Source: NOAA Atlas 14 Point Precipitation Frequency Estimates - Georgetown 2 E (38-3468) Station

In consideration of the hydrologic function of the stormwater drainage elements on a site, the following is a list of minimum stormwater drainage system design requirements for residential subdivision and commercial development.

Summary of Design Frequencies

<u>Description</u>	<u>Design Storm</u>
Roadway Inlets	10 year
Storm drainage systems	25 year
Open Channels	25 year
Culverts (subdivision streets)	25 year
Culverts (thoroughfare streets)	50 year
Permanent Storage Facilities	25 year
Emergency Spillways	100 year
Energy Dissipaters	Same as Outlet System

Additional analysis may be required. See the section on storm drainage systems for further clarification.

The use of hydrologic software for the design of detention basins and open channels is encouraged. Acceptable models include, but are not limited to, Pond Pack, HEC RAS, Flow Master, and Hydraflow.

4.0 STORM DRAINAGE SYSTEMS

Design of storm drainage system should demonstrate adequate capacity to convey storm events for design frequencies as specified below under free flow (no surcharge) conditions. In addition to pipe capacity, attention should be given to proper design of surface drainage characteristics, gutter flow and inlet capacity. For more detailed guidance on design of these systems, see Federal Highway Administration (FHWA) HEC-12, Drainage of Highway Pavements (1984) and American Association of State Highway Transportation Officials (AASHTO) Model Drainage Manual (1991).

Hydraulic analysis should be performed in accordance with the following general guidelines:

- Methodology for analysis may follow NRCS TR-55 or the Rational Method.
- Design storm duration shall be the 24-hour rainfall event, using the NRCS Type III rainfall distribution with no more than a 6-minute time increment.
- The following rainfall depths should be used in hydraulic design and analysis.

	24-Hour Rainfall Depth for City of Georgetown					
Return Period (Years)	2	5	10	25	50	100
Depth (inches)	4.56	5.90	6.99	8.52	9.79	11.1

Source: NOAA Atlas 14 Point Precipitation Frequency Estimates - Georgetown 2 E (38-3468) Station

All drainage structures within City limits shall comply with SCDOT standards.

As part of the drainage analysis, the capacity of the downstream facilities to which the development discharges shall be evaluated to ensure said capacity is not exceeded. In the event that the capacity is exceeded, the project design and construction shall include all downstream drainage improvements if necessary to accommodate increased post development peak rate and volume of runoff from the site, or provide adequate detention so that post development peak rate and volume of runoff does not exceed the capacity of the downstream facilities.

The following criteria shall be used for inlet design within either existing City of Georgetown Rights-of-Way or proposed Rights-of-Way that are to be included in the City system.

Design Frequencies

	Facility Design Storm			
Roadway Type	Gutter Spread	Roadside Ditch	Storm Drain	Culvert Drainage
Arterial	10-yr	25-yr	25-yr	50-yr
Collectors	10-yr	25-yr	10-yr	25-yr

Additional considerations to be incorporated into the design of the system:

- No curb overtopping may occur in a sag.
- Maximum spread of eight (8) feet in a travel lane for all curb types.
- Depth of spread should not exceed six (6) inches.
- Inlet spacing should not exceed 300 feet.

The maximum and minimum slopes for storm drains should conform to the following criteria:

- The maximum pipe velocity shall not exceed 20 feet per second and shall not cause scour or other erosion problems in the receiving channel.
- Slopes required to maintain minimum velocity of three (3) feet per second at full flow are as follows:

Minimum Slope		
Manning n:	0.013	0.013
Pipe Size (in.)	RCP (ft.)	Corrugated HDPE (ft.)
15	0.00325	0.00325
18	0.00255	0.00255
24	0.00174	0.00174
30	0.00129	0.00129
36	0.00101	0.00101
42	0.00082	0.00082
48	0.00069	0.00069

Additional criteria for storm drainage system design includes the following:

1. All structures shall allow for access to the storm drainage system with a grate, manhole ring and cover, or a lid capable of being removed. No “blind boxes” are permitted.
2. Structures shall be required at changes in grade and/or alignment and at pipe junctions.
3. The maximum spacing between two manholes, or inlet structures, in any instance shall be 300 feet.
4. Headwall or flared end sections shall be required at the inlet and outlet of all pipe systems.
5. Energy dissipaters shall be designed and constructed at the outlets of all pipe systems to prevent erosion in the receiving watercourse.
6. The minimum size storm drain pipe diameter shall be 15 inches.
7. All storm drainage pipe used within a City right-of-way shall be corrugated High-Density Polyethylene (HDPE) or Reinforced Concrete Pipe (RCP) in compliance with SCDOT standards. All RCP shall be Class III or higher.
8. A minimum of one (1) foot cover shall be provided for all storm drain pipes unless otherwise specified in the SCDOT standards (SCDOT Standard 714-205-01, 714-205-02, 714-605-01, and 714-605-02).
9. Alternative pipe shapes may be approved where required by cover and/or utility conflicts.

5.0 DESIGN OF CULVERTS

Culverts shall be checked for overtopping for the following flood frequencies:

- Cross-drainage culverts under arterial streets¹ – 100-year frequency
- Cross drainage culverts under other streets – 50-year frequency
- Other culverts – 25-year frequency.

Outlet protection shall be provided where discharge velocities will cause erosion problems.

Culvert skews shall not exceed 45 degrees as measured from a line perpendicular to the roadway centerline without approval.

The minimum culvert diameter shall be 18 inches for those culverts located within subdivision streets.

The minimum culvert diameter shall be 24 inches for those culverts located on arterial roads.¹

Notes:

¹Arterial streets include all numbered routes and all roads with four or more travel lanes or otherwise designated “arterial” by the City of Georgetown.

6.0 OPEN CHANNEL HYDRAULICS

In general, the following criteria should be used for open channels:

- Low flow sections shall be considered in the design of channels with large cross sections ($Q > 100$ cfs).
- Channel side slopes shall be stable throughout the entire length and side slope shall depend on the channel material. A maximum of 3:1 is allowed for vegetative cover and 2:1 for rip rap, unless otherwise justified by calculations.
- Super elevation of the water surface at horizontal curves shall be accounted for with increased freeboard. See SCDHEC design standards for further information.
- Trapezoidal or parabolic cross sections are preferred, and triangular shapes should be avoided.

The following criteria shall be considered at channel transitions:

- Transition to channel sections shall be smooth and gradual.
- Energy losses in transitions shall be accounted for as part of water surface profile calculations.

Open channel drainage systems shall be sized to handle a 25-year design storm. If, for the specified design storm, the peak flow in the channel equals or exceeds fifty (50) cubic feet per second under ultimate build out conditions, the 100-year design storm shall be routed through the channel system to determine if the 100-year flood elevation restrictions are exceeded, structures are flooded, or flood damages are increased. The post-development 100-year flood elevations and limits shall be shown on the recorded subdivision plat.

Additional analysis or measures may be required in areas that are documented as known drainage problems. For further information contact City Engineering.

Notes:

¹The intent/purpose of analyzing the 100-year storm is to verify that no structures will be flooded by the 100-year event and that any flooding that occurs within the streets is acceptable as determined by the staff of the governing authority. It is not the intent that the channel or pipe contains the 100-year event, but that buildings are not flooded, and no streets made impassable by the flooding

DRAFT

7.0 STORMWATER DETENTION AND QUANTITY CONTROL

In accordance with the City of Georgetown code of ordinances, the post-development stormwater discharge rate from a development of five acres or more proposing a fifteen per cent increase or 40,000 square feet (whichever is less) in surface impermeability, shall not exceed the predevelopment rate of a 10-year, twenty-four-hour storm for all rainfalls up to a 25-year, twenty-four-hour storm.

In addition, developments of two acres up to five acres proposing a thirty per cent increase or 30,000 S.F. (whichever is less) in surface impermeability, shall have a post development discharge rate not to exceed the predevelopment rate of a 10-year, twenty-four-hour storm for the same storm event.

All other development shall be evaluated on a case-by-case basis depending on the impact of the proposed development to the stormwater drainage basin. The City's Authorized Agent will determine the requirements of developments under two acres.

8.0 EROSION AND SEDIMENT CONTROL

For erosion and sediment control, see the South Carolina Department of Health and Environmental Control (SCDHEC) Stormwater BMP Handbook.

The South Carolina Stormwater and Sediment Reduction Act is administered by the State in the City of Georgetown. All subject projects must submit plans to the regional office of the South Carolina Department of Health and Environmental Control (SCDHEC). Projects that are 5 acres or larger will also need to obtain a permit for the discharge of stormwater from construction sites. NPDES General Permit SCR100000 is available for this discharge.

9.0 DRAINAGE EASEMENTS

Drainage easements will be required by the City for all open ditches, closed pipe systems, swales, or other systems dedicated to the City outside of public rights-of-way. Such rights-of-way or easements shall be centered over the closed pipe, culvert or watercourse with minimum widths based on the following:

- Easement Widths for Closed Pipe Systems
- Easement Width = the greater of 20 feet or;
- $10' + (\text{the diameter or total outside width for multiple pipes}) + (2 \times \text{invert depth})$, rounded to the nearest five (5) foot increment.

Drainage easements associated with culverts may be offset as long as a minimum of 10 feet is provided on both sides.

Easement Widths for Open Channels

<u>Drainage Area, ac</u>	<u>Easement Width, ft</u>
< 50 ac	10' on each side
> 50 ac	20' on each side

Development Plan Submittal Checklist for Engineering Review

The following items are required for Development Plan Submittals. Enclose this checklist with final design plan submittal. The construction plans must show all the information required on the preliminary subdivision plat, plus the following as it relates to the particular project.

Name of Project: _____ Name of Project Contact: _____

Phone Number: _____

General Plan Requirements

Engineer	Reviewer	N/A	Item
☐	☐	☐	Name, address and phone number of developer, property owner and design engineer on the Cover Sheet.
☐	☐	☐	Plan shall bear the note: "All construction to be in accordance with all City of Georgetown Standards and Specifications."
☐	☐	☐	Vicinity Map
☐	☐	☐	Scale on plan view no smaller than 1"=50'; scale on profile view no smaller than 1"=50' horizontally and 1"=5' vertically using a grid showing 1' intervals.
☐	☐	☐	All elevations in relation to mean sea level.
☐	☐	☐	Benchmark elevations and locations shall be shown on plan view.
☐	☐	☐	Plan view shall have a north arrow on each drawing.
☐	☐	☐	Building setback lines on plan view.
☐	☐	☐	All driveways and parking lots shall be shown.
☐	☐	☐	Houses, building numbers and property owners shown on existing property.
☐	☐	☐	Plan view shall show all property lines rights-of-way and easements. All street rights-of-way and easement widths shall be clearly labeled.
☐	☐	☐	Plan view shall show all street names and state road numbers if applicable.
☐	☐	☐	Floodplain boundaries and elevations, where applicable.
☐	☐	☐	Delineated wetlands surveyed and shown all plans, where applicable.
☐	☐	☐	Proposed and existing curb and gutter, storm sewers, drainage structures, driveway pipes, water mains, sanitary sewers, etc. All existing and proposed pipes shall have clearly labeled the material, size, class, slope and length.
☐	☐	☐	Plan views shall show all existing and proposed utility layout, including fiber optic, electric, gas and cable located on the right-of-way.
☐	☐	☐	Profile view shall show existing and proposed centerline elevations and slopes, in addition to left and right top of curb or edge of pavement elevations.
☐	☐	☐	Street typical sections include street and right-of-way width, sidewalk location, cross-slopes, street width (measured to back of curb) and pavement design.
☐	☐	☐	Dimensions and construction details of all pertinent items including but not limited to: curb and gutters, handicap ramps, sidewalks, catch basins, manholes, outlet protection, erosion control measures and headwalls.

Storm Drainage Design Requirements

Provide the following engineering design calculations where applicable. Refer to the City Storm Drainage Minimum Design Standards for specific requirements.

Engineer	Reviewer	N/A	Item
☐	☐	☐	Narrative describing how water entering, traveling within, and leaving site will be controlled and extent the development will impact existing conditions on-site and off-site.
☐	☐	☐	Topographic maps (min. 2' contours) clearly showing site limits. Maps extend a minimum of 1000 feet beyond the site boundaries or to the ridgelines of the contributing areas if less than 1000 feet.
☐	☐	☐	Gutter spacing and spread calculations.
☐	☐	☐	Pipe sizing calculations including proposed flows and velocities.
☐	☐	☐	Post development discharges for specified design storm at all outlets.
☐	☐	☐	Culvert sizing calculations and headwater analysis.
	☐	☐	Open channel sizing calculations including proposed flows and velocities.
☐	☐	☐	Where applicable, 100-year flood routing calculations through channel system. Provide post-development 100-year flood elevations on plan.
☐	☐	☐	2-year, 10-year, 25-year, and 100-year flood routing analysis through all detention/retention facilities.

If a 100-year floodplain analysis is required provide the following:

Engineer	Reviewer	N/A	Item
☐	☐	☐	100-year flood elevations
☐	☐	☐	100-year floodplain limits
☐	☐	☐	Location and Elevation of lowest floor in all proposed and existing buildings adjacent to the floodplain
☐	☐	☐	Summary of impacts from 100-year flood

Provide the following information where applicable:

Engineer	Reviewer	N/A	Item
☐	☐	☐	Maintenance Plan for all stormwater facilities
☐	☐	☐	Name and address of entity responsible for maintenance
☐	☐	☐	Landscaping details for stormwater management

Provide the following site information. For proposed residential subdivisions use planned average house sizes to determine proposed impervious area.

		Percentage of Total Site
Total Parcel Area	_____ ac	
Existing Impervious Area	_____ ac	_____ %
Proposed Impervious Area	_____ ac	_____ %
Percentage Increase in Impervious Area	_____ %	

Comments:

Stormwater Management Plan

CITY OF GEORGETOWN COUNCIL
WORKSHOP

OCTOBER 24, 2019



Agenda

- Brief Review of Stormwater Ordinances
- Components of the Stormwater Management Plan
- CIP Priority List of Projects
- Utility Rates Structure (Current and Proposed)
- Rates Calculations Procedure
- Financial Plan
- The Ask from City Council

Review of Stormwater Ordinances

- Current ordinances date back to March 18,1993
- Need to update stormwater ordinances
- Introduce new Stormwater Design Standards
 - Provide clear guidelines for new development projects
- Revise stormwater utility collection method

Components of the Stormwater Management Plan (SWMP)

- Adopt and accept SWMP as strategic plan
 - Mitigate flooding from rain fall throughout some critical areas
- Plan includes
 - Key areas in the Historic District and West End District subject to flooding
 - 12-Projects CIP list
 - Stormwater design standards
 - Recommendations for a new utility rate structure
- Plan does not include the Maryville District



CIP Priority List of Projects

Table ES-1: Flood Control Project Prioritization

Prioritization	Project	Cost
1	Front Street System	\$1,109,000
2	El Cerro System	\$1,773,000
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10	Steel Mill System	\$2,149,000
11	Highmarket Street - Lee Street System	\$4,411,000
12	Highmarket Street System	\$1,547,000
Total		\$20,822,000



CIP Priority List of Projects (cont.)

- Total estimated cost in today's dollars: \$20,822,000
 - The longer we wait to implement, the higher the cost
- Plan is a 20-year plan



CIP Priority List of Projects

- Reduction of flooding was identified as a key priority
- Prioritization criteria

Weight Factor	Criteria
10	Public Health and Safety
	Severity of Street Flooding
	Cost Effectiveness
6	Effect of Improvements
	Implementation Constraints
3	Water Quality
	Constructability



Project Prioritization Matrix

CATEGORY	Public Health and Safety		Severity of Street Flooding (City Owned)		Cost Effectiveness		Effect of Improvements		Implementation Constraints		Water Quality/Quantity - SCM		Constructibility		TOTAL WEIGHTED SCORE	Priority Level	Project Cost
Secondary System Projects																	
Front Street System	5	50	5	50	3	30	5	30	3	18	0	0	1	3	181	High	\$ 1,109,000.00
El Cerro System	5	50	5	50	1	10	5	30	3	18	5	15	1	3	176	High	\$ 1,773,000.00
Queen Street System	5	50	5	50	1	10	5	30	3	18	0	0	3	9	167	High	\$ 1,362,000.00
St James Street - Church Street System	1	10	5	50	5	50	3	18	5	30	0	0	3	9	167	High	\$ 192,000.00
S Fraser - Bourne System	3	30	5	50	1	10	5	30	5	30	0	0	3	9	159	Medium	\$ 1,174,000.00
St James Street System	3	30	3	30	3	30	3	18	5	30	0	0	3	9	147	Medium	\$ 554,000.00
Cannon Street System	5	50	4	40	1	10	4	24	3	18	0	0	1	3	145	Medium	\$ 1,191,000.00
Church Street - N Merriman System	3	30	5	50	1	10	4	24	2	12	5	15	1	3	144	Medium	\$ 3,419,000.00
Highmarket Street - Broad Street System	5	50	3	30	1	10	4	24	3	18	0	0	3	9	141	Medium	\$ 1,941,000.00
Steel Mill System	3	30	5	50	1	10	3	18	3	18	0	0	1	3	129	Low	\$ 2,149,000.00
Highmarket Street - Lee Street System	2	20	4	40	1	10	3	18	2	12	5	15	1	3	118	Low	\$ 4,411,000.00
Highmarket Street System	3	30	0	0	1	10	3	18	3	18	0	0	3	9	85	Low	\$ 1,547,000.00

WK Dickson Recommendations

1. Conduct audit of all existing accounts and parcels to align stormwater fee accounts and billing to current ordinance standard
2. Develop and implement a process for collection of fees from properties with inactive meter or no meter accounts
3. Develop and implement process to maintain GIS parcel data
4. Adjust ERU rate for commercial (non-residential) properties
5. Develop a process and workflows to update GIS impervious data for all parcels and provide to Finance on an annual or semi-annual basis

Utility Rate Structure

- Discuss current method of stormwater utility collection
 - Meter
- Discuss recommended methods of stormwater utility collection
 - Meter vs. Impervious Acres
 - Hybrid
- Reconsider current billing method
- How to bill vacant properties?
- Utility rate billing recommendations

Current Method (Meter Method)

- Total # of Residential electric or water meters @ \$6/month
- Total # of Non-residential (Commercial/Industrial) electric or water meters using 6.3 Factor x \$6/month.
- No billing for vacant or undeveloped properties.



Method Allowed by Ordinance (Hybrid: Meter + Acres)

Table 3. 2018 Annual Revenue Potential

Residential ERUs	3,869
Annual Residential ERU Rate	\$ 72.00
Annual Billings	\$ 278,568
Commercial/Other ERUs	2,249
Commercial Factor	6.3
Annual Commercial ERU Rate	\$ 72.00
Annual Billings	\$ 1,020,146
Total Potential Revenue from Billings	\$ 1,298,714



Proposed Rates

- Residential: Increase monthly rate from \$6 to \$8/meter/month
- Non-Residential: Establish new ERUs x \$12 per month
- Vacant or Undeveloped Parcels (Residential or Non-Residential): Flat rate of \$4/month billed semi-annually or annually.
- Adjust rates yearly to account for increased operational costs, inflation, and growth. (WK Dickson recommended 2.4%)

Proposed Non-Residential Rates Example (Options)

Samples for Stormwater Utility Fees - Commercial										
Business	Impervious Surface (sq ft)	Building Coverage (sq ft)	Impervious Total	ERU (2,595)	Times \$12 (month)	ERU (3,200)	Times \$12 (month)	ERU (3,770)	Times \$12 (month)	Current Charges
Walmart	503,641	209,960	713,601	275	\$ 3,300	223	2,676	189	2,271	\$ 113.40
Foodlion	152,980	7,600	160,580	62	\$648	50	602	43	511	\$ 34.02
Walgreens	62,485	16,750	79,235	31	\$324	25	297	21	252	\$ 75.60
CVS	40,970	13,400	54,370	21	\$228	17	204	14	173	\$ 37.50
Taco Bell	24,874	2,400	27,274	11	\$120	9	102	7	87	\$ 75.60
Dollar General	20,485	9,304	29,789	11	\$120	9	112	8	95	\$ 37.80
7/11 Sunoco Gas	16,849	12,825	29,674	11	\$120	9	111	8	94	\$ 37.80
Dialasys Center	57,198	11,480	68,678	26	\$276	21	258	18	219	\$ 37.80
KFC	28,797	4,575	33,372	13	\$132	10	125	9	106	\$ 37.80
Wells Fargo Bank	16,735	10,320	27,055	10	\$108	8	101	7	86	\$ 37.80
Georgetown Auto	133,900	15,000	148,900	57	\$600	47	558	39	474	\$ 75.60
Coastal Carolina Univ	12,434	8,514	20,948	8	\$84	7	79	6	67	\$ 37.80
Elliott & Phelan Law	1,924	2,504	4,428	2	\$12	1	17	1	14	\$ 37.80
Indigo Vision Center	12,177	7,565	19,742	8	\$84	6	74	5	63	\$ 75.60
The Boat Shed	27,587	13,545	41,132	16	\$168	13	154	11	131	\$ 37.80
Moore Dentistry	5,300	3,500	8,800	3	\$36	3	33	2	28	\$ 37.80
J&S Flooring	13,305	14,865	28,170	11	\$108	9	106	7	90	\$ 37.80
Exxon Gas Station	34,532	11,773	46,305	18	\$180	14	174	12	147	\$ 37.80
Tobacco Store	3,490	3,000	6,490	3	\$24	2	24	2	21	\$ 37.80
Causey Allstate Insura	3,150	1,675	4,825	2	\$24	2	18	1	15	\$ 37.80
Screven Baptist	27,141	15,200	42,341	16	\$168	13	159	11	135	\$ 189.00
1st Baptist Gtown	73,150	52,701	125,851	48	\$504	39	472	33	401	\$ 24.00
Gtown Pres Church	47,750	38,165	85,915	33	\$348	27	322	23	273	\$ 181.20
St. Stephens Church	59,530	18,202	77,732	30	\$312	24	291	21	247	\$ 37.80
Church of God	12,547	13,790	26,337	10	\$108	8	99	7	84	\$ 37.80
Family Justice Center	9,970	2,983	12,953	5	\$48	4	49	3	41	\$ 37.80
St. James Santee Fami	2,735	5,860	8,595	3	\$36	3	32	2	27	\$ 37.80
Tidelands Hospital	289,095	212,735	501,830	193	\$2,004	157	1,882	133	1,597	\$ 195.00
Gtown Housing Auth	145,690	103,610	249,300	96	\$996	78	935	66	794	\$ 37.80
Chamber of Commere	602	1,533	2,135	1	\$12	1	8	1	7	\$ 37.80



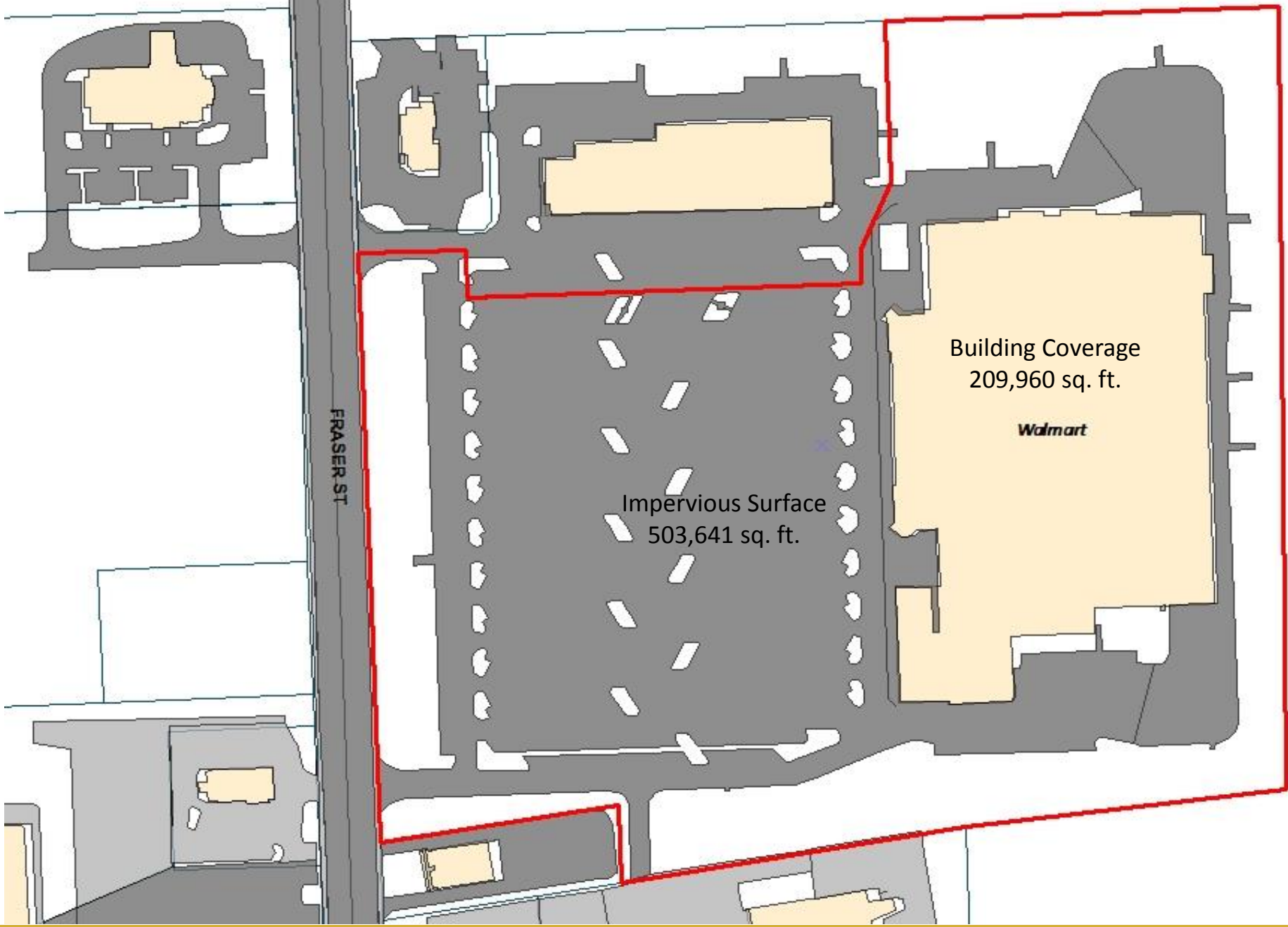
Attachment: 2019.10.24 Stormwater Management Plan-final (2896 : Approval of Storm

Rate Calculations Procedure

$$\blacksquare ((\text{ImS} + \text{BC}) / 2,595) \times \$12 = \text{SW Fee}$$

- Impervious Surface sq. ft.
- Building Coverage sq. ft.
- 1 ERU (Equivalent Residential Unit) equals 2,595 sq. ft.
 - Recommended 2,595 is sq. ft. of average residential parcel in city.
- Divide Impervious and Building Coverage total by 2,595.
- Multiply by fee per ERU (\$12).
- Calculation = New Stormwater Fee per month.





Total Coverage 713,601 sq. f
OR 16.38 acres

Divided by ERUs (2,595)

274.9 or 275 ERUs

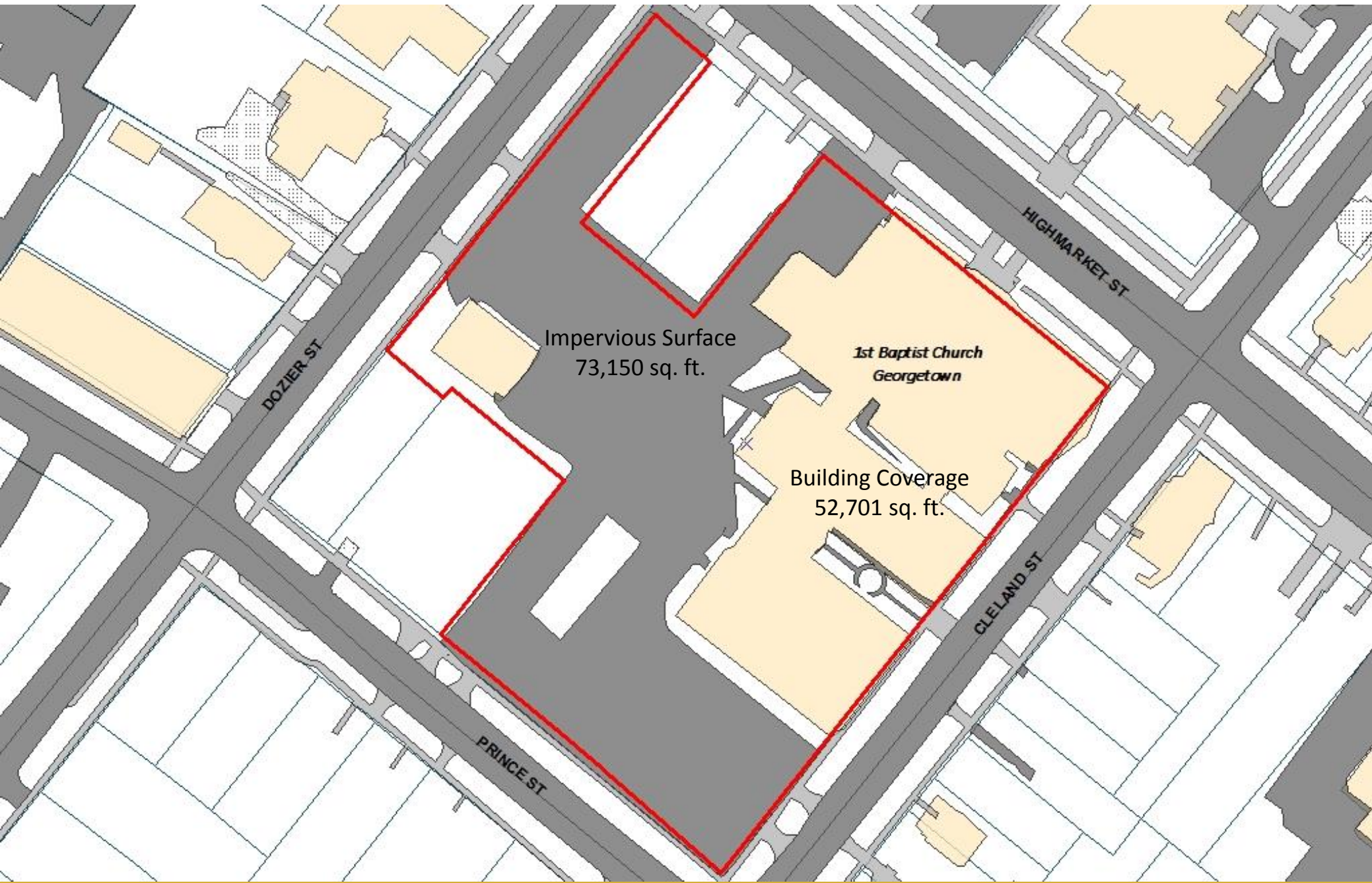
275 x \$12 = **\$3,300 month**

Current Charges only
\$113.40 month



Attachment: 2019.10.24 Stormwater Management Plan-final (2896 : Approval of Storm





Total Coverage 125,851 sq. ft.
OR 2.89 acres

Divided by ERUs (2,595)

48.5 or 49 ERUs

49 x \$12 = **\$588 month**

Current Charges only
\$24.00 month



Attachment: 2019.10.24 Stormwater Management Plan-final (2896 : Approval of Storm

Financial Plan

- Financial sources
 - Revenue collection
 - Bond vs. Pay-go
- Financial advisor's recommendations
 - To be discussed with financial advisor and bond counsel based on Council's approval of prioritized projects

The Ask

- Obtain from Council at the next Council meeting
 - Adopt the SWMP as strategic plan
 - Approve the 12 projects in priority order
 - Authorize to initiate process to amend Stormwater Utility ordinance
 - Approve recommended collection method
 - Approve financing plan
 - Presented at a future workshop based on recommendations from staff, financial advisor, and bond counsel

Proposed Billing Rates (Meter and Impervious Surface Method)

- Residential (Meter Method): Increase monthly rate from \$6 to \$8/meter/month
- Non-Residential(Impervious Surface): ERU's x \$12 per month
- One ERU (Equivalent Residential Unit) = 2,595 Square Feet per parcel
- Vacant or Undeveloped Parcels(Residential or Non-Residential): Flat rate of \$4/month billed semi-annually or annually.
- Adjust rates yearly to account for increased operational costs, inflation, and growth. (2.4%)



120 North Fraser Street • Georgetown, SC 29440 • (843) 545-4000

ACTION ITEM

DOC ID: 2898

Council Meeting Date:	21 November 2019
Department:	Engineering
Issue Under Consideration:	Motion to approve City Hall schematic design as presented by architect of record, Creech and Associates, PA.
Amount Requested:	N/A
Is Item in Current Budget?	
If no, please explain:	
Financial Impact:	
Points to Consider:	
Options:	Approve or Disapprove
Staff Recommendation:	Approve

Reviews:

Orlando Arteaga Completed 11/18/2019 1:28 PM
 Sandra E. Yudice Ph.D. Completed 11/18/2019 1:30 PM
 Stephanie Buccione Completed 11/18/2019 1:31 PM
 Georgetown City Council Pending 11/21/2019 4:00 PM

Attachments: