



**County Council of
Beaufort County
Planning Commission
Meeting**

Chairman
ED PAPPAS

Vice Chairman
RANDOLPH STEWART

Commission Members

DIANE CHMELIK
KEVIN HENNELLY
CAROLINE FERMIN
CECILY MCMILLAN
JASON HINCHER
HAROLD MITCHELL
FRANK DUCEY

County Administrator

ASHLEY M. JACOBS

Staff Support

ERIC GREENWAY
ROBERT MERCHANT
NOAH KREPPS

Administration Building

Beaufort County Government
Robert Smalls Complex
100 Ribaut Road

Contact

Post Office Drawer 1228
Beaufort, South Carolina 29901-1228
(843) 255-2140
www.beaufortcountysc.gov

Planning Commission Agenda

Monday, August 3, 2020 at 6:00 PM

Virtual Meeting

THIS MEETING IS BEING HELD VIRTUALLY IN ACCORDANCE WITH
BEAUFORT COUNTY RESOLUTION 2020-05.

LIVE BROADCAST WILL OCCUR VIA THE COUNTY CHANNEL. CITIZEN COMMENTS
CAN BE SENT THROUGH THE COUNTY'S FACEBOOK LIVE STREAM.

1. CALL TO ORDER
2. PLEDGE OF ALLEGIANCE
3. ADOPTION OF VIRTUAL MEETING RESOLUTION
4. FOIA – PUBLIC NOTIFICATION OF THIS MEETING HAS BEEN PUBLISHED, POSTED, AND DISTRIBUTED IN COMPLIANCE WITH THE SOUTH CAROLINA FREEDOM OF INFORMATION ACT
5. APPROVAL OF MINUTES - July 6, 2020 and July 21, 2020
6. CITIZEN COMMENTS (*Comments are limited to 3 minutes.*)

ACTION ITEMS

7. Consideration of Approval – Impact Fee Study Update
8. Text Amendment to the Community Development Code (CDC) Article 5, Section 5.6.50.E(2) To Allow for Minor Modifications to Billboards to Improve Safety Standards During Hurricanes and High Wind Events.
9. ADJOURNMENT

RESOLUTION NO. 2020 / 05

A RESOLUTION AMENDING COUNTY COUNCIL’S RULES AND PROCEDURES BY ESTABLISHING STANDARDS FOR ELECTRONIC MEETINGS AS AUTHORIZED BY THE FREEDOM OF INFORMATION ACT SC CODE OF LAWS 30-4-10 *et seq.* FOR COUNTY COUNCIL AND COUNTY COUNCIL COMMITTEE MEETINGS DURING A STATE OF EMERGENCY.

WHEREAS, the South Carolina Freedom of Information Act, which is codified at Title 30, Chapter 4 of the Code of Laws of South Carolina 1976, as amended, (the “*Act*”) defines a “Meeting” as “the convening of a quorum of the constituent membership of a public body, whether corporal *or by means of electronic equipment*, to discuss or act upon a matter over which the public body has supervision, control, jurisdiction or advisory power” (emphasis added); and

WHEREAS, a committee of Council reviewing Council’s Rules and Procedures recommended allowing meetings by means of electronic equipment during an emergency at its November 4, 2019 meeting; and

WHEREAS, the Act further permits that emergency meetings of public bodies may be held without having provided twenty-four hours’ notice of such meeting; and

WHEREAS, South Carolina law provides that cities and counties may enact emergency ordinances to meet public emergencies affecting life, health, safety or the property of the people upon a single reading, provided that such ordinance does not levy taxes, grant, renew or extend a franchise or impose or change a service rate, upon the affirmative vote of at least two-thirds of the city or county council present, and provided that such emergency ordinance shall expire automatically on the sixty-first day following its enactment; and

WHEREAS, the Act providing for meetings “by means of electronic equipment” is generally understood to include use of telephonic equipment, video conferencing, and electronic mail (e-mail); and

WHEREAS, S.C. Code of Laws Section 4-9-110 provides that County Council may “determine its own rules and order of business” including adopting Rules and Procedures for facilitating Council meetings.

NOW THEREFORE BE IT RESOLVED, by County Council of Beaufort County (the “*Governing Body*”), that County Council Rules and Procedures be amended to allow for meetings by means of electronic equipment during the duration of an emergency declaration by inserting into County Council’s Rules and Procedures “**Chapter 2 Meetings and Agendas**” a paragraph “J” as follows:

Section 1. Standards for Electronic Meetings. The Governing Body is hereby authorized to conduct public meetings exclusively in electronic form during a declaration of an emergency adopted by emergency ordinance that has been approved by a 2/3 vote of the members present at a duly assembled meeting of County Council, provided the medium for such meeting, whether telephonic, broadcast video, computer-based, or other electronic media, or any

combination of these, and the conduct of the electronic meeting, allows for the following standards and practices to be met:

(a) At the beginning of any electronic meeting, the presiding officer shall poll the members of the Governing Body by name to confirm attendance, and any member of the Governing Body attending by way of electronic media shall be considered present for the purposes of constituting a quorum. All other staff in official attendance shall be announced by name and title.

(b) Throughout the duration of the electronic meeting, all members of the Governing Body, as well as any officials, staff, or others present required to speak at such meeting, shall announce his or her presence by name and official capacity and must have the capability to be heard at all times by any other member of the Governing Body and by the general public.

(c) Any vote of the Governing Body must be conducted by individual voice vote of the members of the Governing Body, who by name shall verbally indicate their vote by roll call on any matter by stating his or her name along with the vote of “yay” or “nay.” All individual votes shall be recorded by the clerk, secretary, or presiding officers, as appropriate.

(d) Meetings shall be recorded or minutes kept in the same manner as an in-person meeting as required by the Act.

(e) All members of the Governing Body, officials, staff, and presenters *must* identify themselves and be recognized prior to speaking. Members of the Governing Body shall strictly comply with the rules of the Governing Body as they relate to procedural matters in order to preserve order and allow for the effectiveness of electronic meetings.

(f) Electronic executive sessions shall be permitted in accordance with the provisions of the Act and the Governing Body shall properly announce its reason for going into any executive session in conformance with Section 30-4-70 of the Act. Upon the entry into any electronic executive session, meeting minutes need not be kept and the electronic meeting utilized for such executive session may be held by (i) a separate telephonic, broadcast video, computer-based, or other electronic media, or any combination of these wherein the public shall not be permitted to participate, or (ii) on the initial telephonic, broadcast video, computer-based, or other electronic media, or any combination of these, with the implementation of necessary participation or listening restrictions, provided that in either instance all members of the Governing Body must have the capability to be heard at all times.

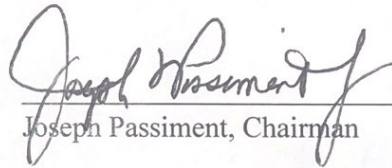
(g) With respect to any electronic meeting, any public comment periods provided for by local ordinance, resolution, policy, or bylaws may be suspended by a majority vote of members present. Public comments should generally be accepted and made part of the record. Members of the public may submit written, or video, or by phone, public comments which shall be distributed to the members of the Governing Body.

Section 2. Suspension of Local Provisions. During the period of effectiveness of this Ordinance, any ordinance, resolution, policy, or bylaw of the Governing Body that conflicts with the provisions hereof is suspended and shall be superseded hereby. The Governing Body may call an emergency meeting by use of electronic equipment. The Clerk to Council shall record votes of an emergency meeting by roll call identifying the Councilmember by name and his or her vote for any action taken at an emergency meeting.

Section 3. Effective Date; Expiration. The provisions hereof shall be effective upon a single meeting of County Council and two-thirds vote of the members present adopting an ordinance declaring an emergency, and shall expire on the sixty-first day following the effective date of the emergency ordinance.

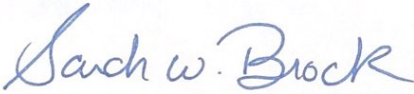
Adopted this 23rd day of March, 2020.

COUNTY COUNCIL OF BEAUFORT COUNTY



Joseph Passiment, Chairman

ATTEST:



Sarah Brock, Clerk to Council



COUNTY COUNCIL OF BEAUFORT COUNTY
Beaufort County Community Development Department

Beaufort County Government Robert Smalls Complex
Physical: Administration Building, Room 115 100 Ribaut Road
Mailing: Post Office Drawer 1228, Beaufort, SC 29901-1228
Phone: 843-255-2140 / FAX: 843-255-9432

The regular meeting of the Beaufort County Planning Commission (hereinafter “Commission”) was held on Monday, July 6, 2020, 6:00 p.m., in Council Chambers, County Administration Building, 100 Ribaut Road, Beaufort, South Carolina.

Members Present:

Mr. Ed Pappas, Chairman	Dr. Caroline Fermin	Mr. Frank Ducey
Ms. Diane Chmelik	Ms. Cecily McMillan	Mr. Harold Mitchell
Mr. Kevin Hennelly	Mr. Jason Hinch	

Members Absent:

Mr. Randolph Stewart, Vice Chairman

Staff Present:

Mr. Eric Greenway, BC Community Development Director
Mr. Robert Merchant, BC Community Development Assistant Director
Mr. Noah Krepps, BC Long Range Planner
Ms. Diane McMaster, Senior Administrative Specialist

CALL TO ORDER: Chairman Ed Pappas called the meeting to order at 6:00 p.m.

PLEDGE OF ALLEGIANCE: Chairman Ed Pappas led those assembled in the pledge of allegiance.

REVIEW OF MEETING MINUTES: The Commissioners reviewed the January 6, 2020, meeting minutes. Chairman Ed Pappas entertained a motion to accept the minutes as written. Dr. Caroline Fermin made a motion, seconded by Ms. Diane Chmelik, to accept the minutes as written. There was unanimous support for the motion.

AGENDA REVIEW: Chairman Ed Pappas requested a motion amending the meeting agenda for non-agenda-related comments to occur at the beginning of the meeting. Dr. Caroline Fermin made the motion to amend, seconded by Ms. Cecily McMillan. There was unanimous support for the motion.

CITIZEN COMMENTS: Mr. Tony Criscitiello gave a brief presentation on the Bindon Plantation conservation easement.

ACTION ITEMS

Southern Beaufort County Map Amendment / Rezoning Request for

R600 021 000 0003 0000, R600 021 000 002A 0000, R600 021 000

003A 0000 (approx 4.2 acres at 143 Graves Road, 145 Graves Road, and 147 Graves Road, Bluffton, SC) from T2R Rural to C3 Neighborhood Mixed Use; Applicant: Judy Graves

Mr. Noah Krepps, BC Long Range Planner, presented the staff report regarding the three (3) parcels. The Planning Commissioners expressed concern regarding possible adverse effects to the Okatie River.

Chairman Ed Pappas requested a motion to approve the proposed Rezoning Request. Mr. Jason Hinchler made a motion to approve the proposed Rezoning Request, seconded by Mr. Harold Mitchell. The motion failed with a vote of 4:4 (**FOR: Ms. Diane Chmelik, Mr. Frank Ducey, Mr. Jason Hinchler, and Mr. Harold Mitchell and OPPOSED: Chairman Ed Pappas, Mr. Kevin Hennelly, Dr. Caroline Fermin, and Ms. Cecily McMillan and ABSENT: Mr. Randolph Stewart.**)

Chairman Ed Pappas requested a second motion to approve the proposed Rezoning Request. The motion to approve the proposed Rezoning Request was defeated by a vote of 3:5 (**FOR: Mr. Frank Ducey, Mr. Jason Hinchler, and Mr. Harold Mitchell and OPPOSED: Chairman Ed Pappas, Mr. Kevin Hennelly, Dr. Caroline Fermin, Ms. Diane Chmelik, and Ms. Cecily McMillan and ABSENT: Mr. Randolph Stewart.**)

Mr. Jason Hinchler stated for the record that due to the vote, he felt it appropriate to send the Request to County Council. The Rezoning Request will be heard at the Natural Resources Committee and then County Council.

Northern Beaufort County Zoning Map Amendment/Rezoning

Request for 18.3 acres (R100 024 000 032A 0000, R100 024 000 0276 0000,

R100 024 000 030C 0000, and R100 024 000 033A 0000) at the Intersection of Bay Pines Road and Laurel Bay Road from T2 Rural and S1 Industrial to C4-Community Center Mixed-Use District; Applicant:

Robert M. Deeb

Mr. Robert Merchant spoke on behalf of Beaufort County staff. He stated that the Rezoning Request was presented in March 2020 at the Metropolitan Planning Commission (MPC). Both the MPC and Beaufort County staff are in favor of this Rezoning Request. Mr. Robert Deeb, attorney for the property owner, and Mr. David Bennett, Bennett & Reindl Companies, spoke during the meeting. Public comment was also heard during the presentation.

Chairman Ed Pappas requested a motion to approve the proposed Rezoning Request. Dr. Caroline Fermin made a motion to approve the proposed Rezoning Request, seconded by Ms. Cecily McMillan. The motion was approved with a vote of 7:0 (**FOR: Ms. Diane Chmelik, Mr. Frank Ducey, Mr. Harold Mitchell, Chairman Ed Pappas, Mr. Kevin Hennelly, Dr. Caroline Fermin, and Ms. Cecily McMillan RECUSED: Mr. Jason Hinchler and ABSENT: Mr. Randolph Stewart.**)

Text Amendment to the Beaufort County Community Development Code (CDC):

Campground Standards: Article 4, Section 4.1.190 (Recreation Facilities: Campgrounds) and Article 3, Section 3.1.60 (Consolidated Use Table) to provide distinctions between primitive, semi-developed, and developed campgrounds.

Mr. Eric Greenway spoke on behalf of County staff. There was discussion regarding the three (3) campground categories: primitive, semi-developed, and developed. Due to textual errors vs the use table and feedback from the public, this matter will be heard at a Planning Commission Special Workshop session scheduled for July 21, 2020. Mr. Chester Williams sent a draft amendment on this subject to Mr. Eric Greenway for review and discussion.

Public comments were heard from the following meeting attendees: Mr. Pat Parkinson, Mr. Thomas Mike, and Mr. Neal Turner. Additional public comment was received through the County's Facebook live stream.

Chairman Ed Pappas requested a motion to hold further discussion of this matter at the Planning Commission Special Workshop set for Tuesday, July 21, 2020, 4:00 p.m. Dr. Caroline Fermin made a motion to hold further discussion of this matter at the Tuesday, July 21, 2020, Planning Commission Special Workshop, seconded by Ms. Cecily McMillan. The motion was approved with a vote of 8:0 (**FOR: Ms. Diane Chmelik, Mr. Frank Ducey, Mr. Harold Mitchell, Mr. Jason Hinchler, Chairman Ed Pappas, Mr. Kevin Hennelly, Dr. Caroline Fermin, and Ms. Cecily McMillan and ABSENT: Mr. Randolph Stewart.**)

Text Amendment To the Beaufort County Community Development Code (CDC):

Article 5, Section 5.3.20 Applicability – To Apply Architectural Standards and Guidelines to Two-Family (Duplex) Residential

Mr. Robert Merchant presented this staff-initiated Text Amendment.

Chairman Ed Pappas requested a motion to approve the requested Text Amendment. Ms. Diane Chmelik made a motion to approve the requested change, seconded by Dr. Caroline Fermin. The motion was approved with a vote of 8:0 (**FOR: Ms. Diane Chmelik, Mr. Frank Ducey, Mr. Harold Mitchell, Mr. Jason Hinchler, Chairman Ed Pappas, Mr. Kevin Hennelly, Dr. Caroline Fermin, and Ms. Cecily McMillan and ABSENT: Mr. Randolph Stewart.**)

Text amendment To the Community Development Code (CDC):

Appendix B (Daufuskie Island Community Development Code), Sections B.1.50, B.1.60, B.1.70, and B.1.80 to Eliminate Maximum Lot Size Requirement for Minor Subdivisions

Mr. Robert Merchant presented this staff-initiated Text Amendment. He stated that the Daufuskie Island Council was not in favor of the proposed change.

Chairman Ed Pappas requested a motion to approve the requested Text Amendment. Mr. Jason Hinchler made a motion to approve the requested change, seconded by Dr. Caroline Fermin. The motion was approved with a vote of 7:1 (**FOR: Ms. Diane Chmelik, Mr. Frank Ducey, Mr. Harold Mitchell, Mr. Jason Hinchler, Chairman Ed Pappas, Mr. Kevin Hennelly, Dr. Caroline Fermin OPPOSED: Ms. Cecily McMillan and ABSENT: Mr. Randolph Stewart.**)

NEW/OTHER BUSINESS:

New Business: None

Other Business: A **Planning Commission Special Workshop** session is set for Tuesday, July 21, 2020, 4:00 p.m., Council Chambers, County Administration Building, 100 Ribaut Road, Beaufort, SC.

ADJOURNMENT: With no further business to discuss, Chairman Ed Pappas adjourned the meeting at 8:26 p.m. All Commission members were in favor of adjournment.

SUBMITTED BY: Diane McMaster
Community Development Senior Administrative Specialist



COUNTY COUNCIL OF BEAUFORT COUNTY
Beaufort County Community Development Department

Beaufort County Government Robert Smalls Complex
Physical: Administration Building, Room 115 100 Ribaut Road
Mailing: Post Office Drawer 1228, Beaufort, SC 29901-1228
Phone: 843-255-2140 / FAX: 843-255-9432

A Special Workshop virtual meeting of the Beaufort County Planning Commission (hereinafter “Commission”) was held on Tuesday, July 21, 2020, 2:00 p.m., via Webex.

Members Present:

Mr. Ed Pappas, Chairman	Dr. Caroline Fermin	Mr. Randolph Stewart, Vice Chairman
Ms. Cecily McMillan	Mr. Harold Mitchell	Mr. Frank Ducey
Mr. Kevin Hennelly	Mr. Jason Hinchler	

Members Absent:

Ms. Diane Chmelik

Staff Present:

Mr. Eric Greenway, BC Community Development Director
Mr. Robert Merchant, BC Community Development Assistant Director
Mr. Noah Krepps, BC Long Range Planner
Ms. Diane McMaster, Senior Administrative Specialist

CALL TO ORDER: Chairman Ed Pappas called the meeting to order at 2:00 p.m.

PLEDGE OF ALLEGIANCE: Chairman Ed Pappas led those assembled in the pledge of allegiance.

CITIZEN COMMENTS: Mr. Alex James, representing the Hilton Head Island Homebuilders Association, shared the Association’s comments/concerns. Mr. Chris Collins with Shoreline Construction also shared his comments/concerns.

ACTION ITEM

Impact Fee Study Update – Mr. Colin McAweeney, Consultant with Tischler Bise, presented the fee analysis to include:

- ❖ Fee Methods and Cost Components
- ❖ Maximum Supportable Development Impact Fee – North and South of the Broad
- ❖ Projected Demand
- ❖ Parks & Recreation
- ❖ Libraries
- ❖ Public Safety – EMS and Fire
- ❖ Solid Waste
- ❖ Transportation
- ❖ Capital Improvement Plan
- ❖ Housing Affordability
- ❖ Land Use Assumptions and Definitions
- ❖ Service Units by Housing Unit Size
- ❖ School District

Chairman Ed Pappas requested a motion to defer approval of the Impact Fee Study until the next regular meeting of the Planning Commission scheduled for Monday, August 3, 2020, 6:00 p.m. Mr. Frank Ducey made a motion to defer any action by the Planning Commission until the Monday, August 3, 2020, meeting. The motion to defer was seconded by Ms. Cecily McMillan and passed by a vote of 8:0 (**FOR: Chairman Ed Pappas, Dr. Caroline Fermin, Mr. Jason Hincer, Vice Chairman Randolph Stewart, Mr. Harold Mitchell, Mr. Kevin Hennelly, Mr. Frank Ducey, and Ms. Cecily McMillan and ABSENT: Ms. Diane Chmelik**).

Mr. Eric Greenway, Community Development Director, asked that any additional Impact Fee Study Update questions/concerns be sent to his office by close of business Friday, July 24, 2020, for further discussion and decision at the upcoming August 3, 2020, Planning Commission meeting. Consideration of the Impact Fee Study Update would be heard at the August 2020 Beaufort County Natural Resources Committee meeting and then County Council.

NEW/OTHER BUSINESS:

New Business: None

Other Business: The next scheduled Planning Commission meeting is set for Monday, August 3, 2020, 6:00 p.m., Council Chambers, County Administration Building, 100 Ribaut Road, Beaufort, SC.

ADJOURNMENT: With no further business to discuss, Chairman Ed Pappas adjourned the Special Workshop meeting at 4:16 p.m. All Commission members were in favor of adjournment.

SUBMITTED BY: Diane McMaster
Community Development Senior Administrative Specialist



Capital Improvement Plan and Development Impact Fee Study

Prepared for:

Beaufort County, South Carolina

July 18, 2020

DRAFT

Prepared by:

TischlerBise

FISCAL | ECONOMIC | PLANNING

4701 Sangamore Road

Suite S240

Bethesda, Maryland 20816

800.424.4318

www.tischlerbise.com



TischlerBise
4701 Sangamore Road
Suite S240
Bethesda, Maryland 20816
800.424.4318

www.tischlerbise.com

DEVELOPMENT IMPACT FEE STUDY

TABLE OF CONTENTS

EXECUTIVE SUMMARY9

SOUTH CAROLINA DEVELOPMENT IMPACT FEE ACT..... 9

CONCEPTUAL DEVELOPMENT IMPACT FEE CALCULATION..... 10

GENERAL METHODOLOGIES 10

 Cost Recovery (Past Improvements).....10

 Incremental Expansion (Concurrent Improvements)11

 Plan-Based Fee (Future Improvements)11

 Credits.....11

PROPOSED FEE METHODS AND COST COMPONENTS 11

 Figure 1. Proposed Fee Methods and Cost Components 12

PROPOSED DEVELOPMENT IMPACT FEE SCHEDULE..... 12

 Figure 2. Maximum Supportable Development Impact Fee – North of the Broad..... 14

 Figure 3. Maximum Supportable Development Impact Fee – South of the Broad..... 14

PROJECTED DEMAND 15

 Figure 4. Beaufort County Residential and Nonresidential Projections 16

PARKS & RECREATION CIP AND DEVELOPMENT IMPACT FEE17

METHODOLOGY 17

PARKS & RECREATION SERVICE AREA..... 17

PARK & RECREATION SERVICE UNITS 18

 Figure 5. Residential Service Units 18

PARKS & RECREATION FACILITIES LEVEL OF SERVICE & COST ANALYSIS..... 19

 Countywide Parks & Recreation Facilities.....19

 Figure 6. Regional Park Level of Service and Cost Factors..... 19

 North of the Broad Parks & Recreation Facilities20

 Figure 7. Community Park Level of Service and Cost Factors – North of the Broad..... 20

 Figure 8. Neighborhood Park Level of Service and Cost Factors – North of the Broad 21

 Figure 9. Recreational Facility Level of Service and Cost Factors – North of the Broad 22

 South of the Broad Parks & Recreation Facilities23

 Figure 10. Community Park Level of Service and Cost Factors – South of the Broad..... 23

 Figure 11. Neighborhood Park Level of Service and Cost Factors – South of the Broad 24

 Figure 12. Recreational Facility Level of Service and Cost Factors – South of the Broad 25

CREDIT FOR FUTURE DEBT PAYMENTS..... 26

 Figure 13. Credit for Future Debt Payments..... 26

PROJECTION OF PARKS & RECREATION GROWTH-RELATED FACILITY NEEDS 27

 Countywide Parks & Recreation Facilities.....27

 Figure 14. 10-Year Regional Park Needs to Accommodate Growth – Countywide 27

 North of the Broad Parks & Recreation Facilities28

 Figure 15. 10-Year Community Park Needs to Accommodate Growth – North of the Broad 28

Figure 16. 10-Year Neighborhood Park Needs to Accommodate Growth – North of the Broad.....	29
Figure 17. 10-Year Recreational Facility Land Needs to Accommodate Growth – North of the Broad	30
Figure 18. 10-Year Recreational Facility Building Needs to Accommodate Growth – North of the Broad.....	31
South of the Broad Parks & Recreation Facilities	31
Figure 19. 10-Year Community Park Needs to Accommodate Growth – South of the Broad	32
Figure 20. 10-Year Neighborhood Park Needs to Accommodate Growth – South of the Broad.....	33
Figure 21. 10-Year Recreational Facility Land Needs to Accommodate Growth – South of the Broad	34
Figure 22. 10-Year Recreational Facility Building Needs to Accommodate Growth – South of the Broad.....	35
MAXIMUM SUPPORTABLE PARKS AND RECREATION DEVELOPMENT IMPACT FEE.....	36
Figure 23. Maximum Supportable Parks and Recreation Development Impact Fee – North of the Broad.....	36
Figure 24. Maximum Supportable Parks and Recreation Development Impact Fee – South of the Broad.....	37
REVENUE FROM PARKS AND RECREATION DEVELOPMENT IMPACT FEE	38
Figure 25. Estimated Revenue from the Parks & Rec Development Impact Fee – North of the Broad.....	38
Figure 26. Estimated Revenue from the Parks & Rec Development Impact Fee – South of the Broad.....	39
LIBRARY CIP AND DEVELOPMENT IMPACT FEE	40
METHODOLOGY	40
LIBRARY SERVICE AREA.....	40
LIBRARY SERVICE UNITS.....	40
Figure 27. Residential Service Units	41
LIBRARY FACILITIES LEVEL OF SERVICE & COST ANALYSIS.....	42
Figure 28. Library Branch Level of Service and Cost Factors – North of the Broad	42
Figure 29. Library Branch Level of Service and Cost Factors – South of the Broad	43
Figure 30. Bookmobile Level of Service and Cost Factors	44
CREDIT FOR FUTURE DEBT PAYMENTS.....	44
Figure 31. Credit for Future Debt Payments – North of the Broad	44
PROJECTION OF LIBRARY GROWTH-RELATED FACILITY NEEDS	45
Library Branches	45
Figure 32. 10-Year Library Branches Facility Needs to Accommodate Growth – North of the Broad	45
Figure 33. 10-Year Library Branches Facility Needs to Accommodate Growth – South of the Broad	46
Library Land	46
Figure 34. 10-Year Library Land Needs to Accommodate Growth – North of the Broad	47
Figure 35. 10-Year Library Land Needs to Accommodate Growth – South of the Broad	48
Bookmobiles	48
Figure 36. 10-Year Bookmobile Needs to Accommodate Growth - Countywide	49
MAXIMUM SUPPORTABLE LIBRARY DEVELOPMENT IMPACT FEE	49
Figure 37. Maximum Supportable Library Development Impact Fee– North of the Broad.....	50
Figure 38. Maximum Supportable Library Development Impact Fee – South of the Broad.....	51
REVENUE FROM LIBRARY DEVELOPMENT IMPACT FEE.....	52
Figure 39. Estimated Revenue from the Library Development Impact Fee – North of the Broad	52
Figure 40. Estimated Revenue from the Library Development Impact Fee – South of the Broad.....	53
PUBLIC SAFETY CIP AND DEVELOPMENT IMPACT FEE: EMS	54

METHODOLOGY	54
EMS SERVICE AREA	54
EMS SERVICE UNITS	55
Figure 41. Residential Service Units	55
Figure 42. Nonresidential Service Units	56
EMS PROPORTIONATE SHARE	56
Figure 43. Beaufort County EMS Service Calls.....	56
EMS FACILITIES LEVEL OF SERVICE & COST ANALYSIS	57
Figure 44. EMS Station Level of Service and Cost Factors - Countywide.....	58
Figure 45. EMS Vehicle Level of Service and Cost Factors - Countywide.....	59
CREDIT FOR FUTURE DEBT PAYMENTS.....	60
Figure 46. Credit for Future Debt Payments.....	60
PROJECTION OF EMS FACILITY GROWTH-RELATED FACILITY NEEDS	61
Figure 47. 10-Year EMS Station Needs to Accommodate Growth	61
Figure 48. 10-Year EMS Vehicle Needs to Accommodate Growth	62
MAXIMUM SUPPORTABLE EMS DEVELOPMENT IMPACT FEE	63
Figure 49. Maximum Supportable EMS Development Impact Fee.....	64
REVENUE FROM EMS DEVELOPMENT IMPACT FEE	64
Figure 50. Estimated Revenue from EMS Development Impact Fee.....	65
PUBLIC SAFETY CIP AND DEVELOPMENT IMPACT FEE: FIRE.....	66
METHODOLOGY	66
FIRE SERVICE AREA	66
FIRE SERVICE UNITS	67
Residential Functional Population	67
Figure 51. Residential Functional Population per Housing Unit – North of the Broad.....	67
Figure 52. Residential Functional Population per Housing Unit – Bluffton Fire District.....	67
Nonresidential Functional Population	67
Figure 53. Nonresidential Functional Population per 1,000 Square Feet.....	68
Equivalent Dwelling Unit Factors	68
Figure 54. North of the Broad EDU Factors	68
Figure 55. Bluffton Fire District EDU Factors.....	68
Service Area Base Year EDUs	69
Figure 56. North of the Broad Service Area Base Year EDUs.....	69
Figure 57. Bluffton Fire District Base Year EDUs.....	69
BLUFFTON FIRE DISTRICT FACILITIES LEVEL OF SERVICE & COST ANALYSIS	70
Figure 58. Fire Station Level of Service and Cost Factors – Bluffton Fire District.....	70
Figure 59. Fire Admin and Maintenance Facilities Level of Service and Cost Factors – Bluffton Fire District	71
Figure 60. Fire Apparatuses Level of Service and Cost Factors – Bluffton Fire District	72
Figure 61. Credit for Future Debt Payments – Bluffton Fire District	73
NORTH OF THE BROAD SERVICE AREA FACILITIES LEVEL OF SERVICE & COST ANALYSIS.....	74
Figure 62. Fire Station Level of Service and Cost Factors – North of the Broad Service Area	74
Figure 63. Fire Admin and Maintenance Facilities Level of Service and Cost Factors – North Service Area	75

Figure 64. Fire Apparatuses Level of Service and Cost Factors – North of the Broad Service Area.....	76
Figure 65. Credit for Future Debt Payments – North Service Area.....	77
BLUFFTON FIRE DISTRICT PROJECTION OF GROWTH-RELATED FIRE FACILITY NEEDS.....	78
Figure 66. 10-Year Fire Station Needs to Accommodate Growth – Bluffton Fire District	78
Figure 67. 10-Year Admin Facilities Needs to Accommodate Growth – Bluffton Fire District.....	79
Figure 68. 10-Year Fire Apparatus Needs to Accommodate Growth – Bluffton Fire District	80
NORTH OF THE BROAD SERVICE AREA PROJECTION OF GROWTH-RELATED FIRE FACILITY NEEDS.....	81
Figure 69. 10-Year Fire Station Needs to Accommodate Growth – North Service Area.....	81
Figure 70. 10-Year Admin Facilities Needs to Accommodate Growth – North Service Area.....	82
Figure 71. 10-Year Fire Apparatus Needs to Accommodate Growth – North Service Area	83
MAXIMUM SUPPORTABLE FIRE DEVELOPMENT IMPACT FEE	84
Figure 72. Maximum Supportable Fire Development Impact Fee – Bluffton Fire District Service Area	84
Figure 73. Maximum Supportable Fire Development Impact Fee – North Service Area.....	85
Figure 74. Maximum Supportable Fire Development Impact Fee – Nonresidential Fee Schedule	85
REVENUE FROM FIRE DEVELOPMENT IMPACT FEE	86
Figure 75. Estimated Revenue from Fire Development Impact Fee – Bluffton Fire District Service Area	86
Figure 76. Estimated Revenue from Fire Development Impact Fee – North Service Area.....	87
PROPOSED FIRE DEVELOPMENT IMPACT FEE ADMINISTRATION	87
SOLID WASTE CIP AND DEVELOPMENT IMPACT FEE	88
METHODOLOGY	88
SOLID WASTE SERVICE AREA	88
SOLID WASTE SERVICE UNITS	89
Figure 77. Residential Service Units	89
SOLID WASTE FACILITIES LEVEL OF SERVICE & COST ANALYSIS	90
Figure 78. Convenience Center Level of Service and Cost Factors – North of the Broad	90
Figure 79. Convenience Center Level of Service and Cost Factors – South of the Broad	91
Figure 80. Heavy-Duty Vehicles Level of Service and Cost Factors - Countywide	92
PROJECTION OF SOLID WASTE GROWTH-RELATED FACILITY NEEDS.....	93
Figure 81. 10-Year Convenience Center Needs to Accommodate Growth – North of the Broad	93
Figure 82. 10-Year Convenience Center Needs to Accommodate Growth – South of the Broad	94
Figure 83. 10-Year Heavy-Duty Vehicle Needs to Accommodate Growth - Countywide	95
MAXIMUM SUPPORTABLE SOLID WASTE DEVELOPMENT IMPACT FEE	96
Figure 84. Maximum Supportable Solid Waste Development Impact Fee – North of the Broad.....	96
Figure 85. Maximum Supportable Solid Waste Development Impact Fee – South of the Broad.....	97
REVENUE FROM SOLID WASTE DEVELOPMENT IMPACT FEE	98
Figure 86. Estimated Revenue from Solid Waste Development Impact Fee – North of the Broad.....	98
Figure 87. Estimated Revenue from Solid Waste Development Impact Fee – South of the Broad	99
TRANSPORTATION CIP AND DEVELOPMENT IMPACT FEE	100
METHODOLOGY	100
TRANSPORTATION SERVICE AREAS.....	100
TRANSPORTATION SERVICE UNITS	101

Residential Vehicle Trips	101
Figure 88. Residential Service Units – North of the Broad Service Area.....	101
Figure 89. Residential Service Units – South of the Broad Service Area.....	102
Nonresidential Vehicle Trips	102
Figure 90. Nonresidential Service Units	102
Projected Travel Demand	102
Figure 91. Average Daily Vehicle Miles Traveled – North of the Broad.....	104
Figure 92. Average Daily Vehicle Miles Traveled – South of the Broad.....	105
NEED FOR TRANSPORTATION IMPROVEMENTS.....	106
Need for Roadway Improvements and Facilities - North of the Broad.....	107
Figure 93. Roadway Improvement Projects – North of the Broad	107
Need for Roadway Improvements and Facilities - South of the Broad.....	108
Figure 94. Roadway Improvement Projects – South of the Broad	108
CREDIT FOR FUTURE DEBT PAYMENTS.....	109
Figure 95. Credit for Future Debt Payments – South of the Broad.....	109
TRANSPORTATION DEVELOPMENT IMPACT FEE.....	110
Figure 96. Maximum Supportable Transportation Development Impact Fee – North of the Broad.....	111
Figure 97. Maximum Supportable Transportation Development Impact Fee – South of the Broad.....	112
REVENUE FROM TRANSPORTATION DEVELOPMENT IMPACT FEE	113
Figure 98. Estimated Revenue from Transportation Impact Fee – North of the Broad.....	113
Figure 99. Estimated Revenue from Transportation Impact Fee – South of the Broad.....	114
SUMMARY OF DEVELOPMENT IMPACT FEE.....	115
Figure 100. Development Impact Fee Summary – North of the Broad	115
Figure 101. Development Impact Fee Summary – South of the Broad	115
Figure 102. Total Development Impact Fee Revenue	116
CAPITAL IMPROVEMENT PLAN	117
Figure 103. Capital Improvement Plan	117
Figure 104. Capital Improvement Plan cont.....	118
Figure 105. Capital Improvement Plan cont.....	119
IMPLEMENTATION AND ADMINISTRATION.....	120
CREDITS AND REIMBURSEMENTS	120
SERVICE AREAS	120
Figure 106. Beaufort County Service Area Map	121
APPENDIX A: HOUSING AFFORDABILITY ANALYSIS	122
NORTH OF THE BROAD SERVICE AREA HOUSING AFFORDABILITY ANALYSIS	123
Maximum Supportable Development Impact Fee.....	123
Figure 107. Maximum Supportable Development Impact Fee – North of the Broad.....	123
Housing Stock.....	124
Figure 108. Housing Stock Characteristics – North of the Broad.....	124
Household Income	124

Figure 109. Median Household Income – North of the Broad	124
Cost of Homeownership	125
Cost of Renting.....	126
Cost Burden Analysis.....	126
Figure 110. Scenario 1: Cost Burden Analysis without Maximum Supportable Development Impact Fee	127
Figure 111. Scenario 2: Cost Burden Analysis with Proposed Development Impact Fee	127
Conclusion.....	127
Figure 112. Cost of Homeownership – North of the Broad	128
SOUTH OF THE BROAD SERVICE AREA HOUSING AFFORDABILITY ANALYSIS	129
Maximum Supportable Development Impact Fee.....	129
Figure 113. Maximum Supportable Development Impact Fee – South of the Broad.....	129
Housing Stock.....	130
Figure 114. Housing Stock Characteristics – South of the Broad.....	130
Household Income	130
Figure 115. Median Household Income – South of the Broad	130
Cost of Homeownership	131
Cost of Renting.....	132
Cost Burden Analysis.....	132
Figure 116. Scenario 1: Cost Burden Analysis without Maximum Supportable Development Impact Fee	132
Figure 117. Scenario 2: Cost Burden Analysis with Proposed Development Impact Fee	133
Conclusion.....	133
Figure 118. Cost of Homeownership – South of the Broad	134
APPENDIX B: LAND USE ASSUMPTIONS	135
POPULATION AND HOUSING CHARACTERISTICS.....	135
Figure 119. Beaufort County Persons per Household – Unincorporated Areas	135
Figure 120. Beaufort County Persons per Household – Countywide	135
Figure 121. Beaufort County Persons per Household – North of the Broad Service Area	136
Figure 122. Beaufort County Persons per Household – South of the Broad Service Area.....	136
BASE YEAR POPULATION AND HOUSING UNITS.....	136
Permanent Residents.....	136
Figure 123. Permanent Population.....	137
Seasonal Residents	137
Figure 124. Seasonal Population	137
Seasonal Visitors	137
Figure 125. Total Countywide Visitors.....	137
Figure 126. Peak Season Daily Countywide Visitor Total.....	138
Peak Population	138
Figure 127. Base Year Peak Population	138
HOUSING UNITS.....	138
Figure 128. Base Year Housing Units by Location.....	138
Figure 129. Base Year Housing Units by Housing Type.....	139
POPULATION AND HOUSING UNIT PROJECTIONS.....	139

Figure 130. Annual Residential Development Projections - Countywide	140
CURRENT EMPLOYMENT AND NONRESIDENTIAL FLOOR AREA	141
Figure 131. Employment by Industry (2019)	141
Figure 132. Institute of Transportation Engineers Nonresidential Factors	141
Figure 133. Base Year Nonresidential Floor Area	142
NONRESIDENTIAL FLOOR AREA AND EMPLOYMENT PROJECTIONS	142
Figure 134. Employment and Nonresidential Floor Area Projections - Countywide	143
FUNCTIONAL POPULATION	144
Figure 135. Beaufort County Functional Population	144
VEHICLE TRIP GENERATION	145
Residential Vehicle Trips	145
Figure 136. Customized Residential Trip End Rates – Unincorporated Beaufort County	145
Residential Vehicle Trips Adjustment Factors.....	145
Figure 137. Trip Adjustment Factor for Commuters	146
Nonresidential Vehicle Trips	146
Figure 138. Institute of Transportation Engineers Nonresidential Factors	146
Figure 139. Daily Vehicle Trip Factors	147
VEHICLE TRIP PROJECTION	147
Figure 140. Countywide Total Daily Vehicle Trip Projections	148
Figure 141. Unincorporated Beaufort County Total Daily Vehicle Trip Projections	148
APPENDIX C: SERVICE UNITS BY HOUSING UNIT SIZE	149
PERSONS PER HOUSING UNIT BY SIZE.....	149
Figure 142. Persons per Household by Number of Bedrooms	149
Figure 143. Persons per Household by Housing Size – Countywide	150
Figure 144. Persons per Household Comparison	150
Figure 145. Persons per Household by Housing Size – North of the Broad Service Area	151
Figure 146. Persons per Household by Housing Size – South of the Broad Service Area	152
TRIP GENERATION RATES BY HOUSING SIZE	152
Figure 147. Average Weekday Vehicle Trip Ends (AWVTE) by Bedroom Range	153
Figure 148. Vehicle Trip Ends by Housing Size – Countywide.....	154
Figure 149. Vehicle Trip End Rate Comparison	155
Figure 150. Vehicle Trip Ends by Housing Size – North of the Broad Service Area	155
Figure 151. Vehicle Trip Ends by Housing Size – South of the Broad Service Area	156
APPENDIX D: LAND USE DEFINITIONS	157
RESIDENTIAL DEVELOPMENT	157
NONRESIDENTIAL DEVELOPMENT	158
APPENDIX E: SERVICE AREA MAP.....	159
Figure 152. Service Area Map.....	159
APPENDIX F: SOUTH CAROLINA DEVELOPMENT IMPACT FEE ACT	160

EXECUTIVE SUMMARY

Beaufort County, South Carolina retained TischlerBise to prepare a Capital Improvement Plan and Development Impact Fee study. Development impact fees are collected from new construction at the time a building permit is issued. The fees are one-time payments for new development's proportionate share of the capital cost of infrastructure. The following study addresses Beaufort County's Parks & Recreation, Library, Public Safety: Emergency Medical Services, Public Safety: Fire, Solid Waste, and Transportation facilities. Development impact fees do have limitations and should not be regarded as the total solution for infrastructure funding. Rather, they are one component of a comprehensive funding strategy to ensure provision of adequate public facilities. Development impact fees may only be used for capital improvements or debt service for growth-related infrastructure. Under South Carolina Development Impact Fee enabling legislation (Section 6-1-910), fees may not be used for operations, maintenance, replacement of infrastructure, or correcting existing deficiencies.

South Carolina Development Impact Fee Act¹

The State of South Carolina grants the power for cities and counties to collect development impact fees on new development pursuant to the rules and regulations set forth in the South Carolina Development Impact Fee Act (Code of Laws of South Carolina, Section 6-1-910 et seq.). The process to create a local impact fee system begins with a resolution by the County Council directing the Planning Commission to conduct an impact fee study and recommend a development impact fee ordinance for legislative action.

Generally, a governmental entity must have an adopted comprehensive plan to enact development impact fees; however, certain provisions in State law allow counties, cities, and towns that have not adopted a comprehensive plan to impose development impact fees. Those jurisdictions must prepare a capital improvement plan as well as prepare an impact fee study that substantially complies with Section 6-1-960(B) of the Code of Laws of South Carolina.

All counties, cities, and towns are also required to prepare a report that estimates the effect of development impact fees on the availability of affordable housing before imposing development impact fees on residential dwelling units. Based on the findings of the study, certain developments may be exempt from development impact fees when all or part of the project is determined to create affordable housing, and the exempt development's proportionate share of system improvements is funded through a revenue source other than impact fees. A housing affordability analysis in support of the development impact fee study is published as a separate report.

Eligible costs may include design, acquisition, engineering, and financing attributable to those improvements recommended in the local capital improvements plan that qualify for impact fee funding. Revenues collected by the county, city, or town may not be used for administrative or operating costs associated with imposing the impact fee. All revenues from development impact fees must be

¹ See Appendix F for a copy of the South Carolina Development Impact Fee Act.

maintained in an interest-bearing account prior to expenditure on recommended improvements. Monies must be returned to the owner of record of the property for which the impact fee was collected if they are not spent within three years of the date they are scheduled to be encumbered in the local capital improvements plan. All refunds to private land owners must include the pro rata portion of interest earned while on deposit in the impact fee account.

Beaufort County is also responsible for preparing and publishing an annual report describing the amount of impact fees collected, appropriated, and spent during the preceding year. These updates must occur at least once every five years. Pursuant to State Law, Beaufort County will not be empowered to recommend additional projects eligible for impact fee funding or charge higher maximum allowable development impact fees until the Development Impact Fee study and capital improvement plan have been updated.

Conceptual Development Impact Fee Calculation

In contrast to project-level improvements, development impact fees fund growth-related infrastructure that will benefit multiple development projects, or the entire jurisdiction (referred to as system improvements). The first step is to determine an appropriate demand indicator for the particular type of infrastructure. The demand indicator measures the number of demand units for each unit of development. For example, an appropriate indicator of the demand for park facilities is population growth, and the increase in population can be estimated from the average number of residents per housing unit. The second step in the development impact fee formula is to determine infrastructure units per demand unit, typically called level-of-service (LOS) standards. In keeping with the parks example, a common LOS standard is park acreage per resident. The third step in the development impact fee formula is the cost of various infrastructure units. To complete the parks example, this part of the formula would establish the cost per acreage for acquiring new parkland.

General Methodologies

There are three general methods for calculating development impact fees. The choice of a particular method depends primarily on the timing of infrastructure construction (past, concurrent, or future) and service characteristics of the facility type being addressed. Each method has advantages and disadvantages in a particular situation, and can be used simultaneously for different cost components.

Reduced to its simplest terms, the process of calculating development impact fees involves two main steps: (1) determining the cost of development-related capital improvements and (2) allocating those costs equitably to various types of development. In practice, though, the calculation of development impact fees can become quite complicated because of the many variables involved in defining the relationship between development and the need for facilities within the designated service area. The following paragraphs discuss three basic methods for calculating development impact fees and how those methods can be applied.

Cost Recovery (Past Improvements)

The rationale for recoupment, often called cost recovery, is that new development is paying for its share of the useful life and remaining capacity of facilities already built, or land already purchased, from which

new growth will benefit. This methodology is often used for utility systems that must provide adequate capacity before new development can take place. This methodology is based on an existing level of service.

Incremental Expansion (Concurrent Improvements)

The incremental expansion method documents current level-of-service (LOS) standards for each type of public facility, using both quantitative and qualitative measures. This approach ensures that there are no existing infrastructure deficiencies or surplus capacity in infrastructure. New development is only paying its proportionate share for growth-related infrastructure. Revenue will be used to expand or provide additional facilities, as needed, to accommodate new development. An incremental expansion cost method is best suited for public facilities that will be expanded in regular increment to keep pace with development.

Plan-Based Fee (Future Improvements)

The plan-based method allocates costs for a specified set of improvements to a specified amount of development. Improvements are typically identified in a long-range facility plan and development potential is identified by a land use plan. There are two options for determining the cost per demand unit: (1) total cost of a public facility can be divided by total demand units (average cost), or (2) the growth-share of the public facility cost can be divided by the net increase in demand units over the planning timeframe (marginal cost).

Credits

Regardless of the methodology, a consideration of “credits” is integral to the development of a legally defensible development impact fee methodology. There are two types of “credits” with specific characteristics, both of which should be addressed in development impact fee studies and ordinances.

- First, a revenue credit might be necessary if there is a double payment situation and other revenues are contributing to the capital costs of infrastructure to be funded by development impact fees. This type of credit is integrated into the development impact fee calculation, thus reducing the fee amount.
- Second, a site-specific credit or developer reimbursement might be necessary for dedication of land or construction of system improvements funded by development impact fees. This type of credit is addressed in the administration and implementation of the development impact fee program.

Proposed Fee Methods and Cost Components

Figure 1 summarizes the methods and cost allocation components used for each infrastructure category in Beaufort County’s development impact fee study. The development impact fees are based on the actual level of service. The Parks & Recreation, Library, and Solid Waste components are attributed to only residential development based on population. The EMS component is attributed to residential and nonresidential development based on population and vehicle trips. The Fire component is attributed to

residential and nonresidential development based on equivalent dwelling units (EDU). Lastly, the Transportation component is allocated to residential and nonresidential development based on vehicle miles traveled (VMT).

Furthermore, in most cases, the analysis has been divided into two service areas, North and South of the Broad River. Some County services are being provided not at a countywide level, but based on a north and south service area. In this case, the analysis is more accurate at determining the current level of service and future demands. A map of the service areas can be found in Appendix E.

Figure 1. Proposed Fee Methods and Cost Components

Fee Category	Service Area	Incremental Expansion	Plan-Based	Cost Recovery	Cost Allocation
Parks & Recreation	North and South of the Broad River	Regional, Community, Neighborhood Parks, and Rec Facilities			Population
Library	North and South of the Broad River	Library Branches, Book Mobiles			Population
Emergency Medical Services	Countywide	EMS Facilities, Vehicles			Population & Vehicle Trips
Fire	North of the Broad River and Bluffton Fire District	Fire Stations, Admin Facilities, Fire Apparatuses			Equivalent Dwelling Unit (EDU)
Solid Waste	North and South of the Broad River	Convenience Centers, Heavy-Duty Vehicles			Population
Transportation	North and South of the Broad River		Roadway, Intersection Improvements		Vehicle Miles Traveled (VMT)

Proposed Development Impact Fee Schedule

As documented in this report, Beaufort County has complied with the South Carolina Development Impact Fee Act and applicable legal precedents. Development impact fees are proportionate and reasonably related to capital improvement demands of new development. Specific costs have been identified using local data and current dollars. This report documents the formulas and input variables used to calculate the development impact fees. The development impact fee methodologies also identify the extent to which new development is entitled to various types of credits to avoid potential double payment of growth-related capital costs.

For residential development, proposed fees are assessed per household by the size of the housing unit. The proposed fee schedule for nonresidential development is designed to provide a reasonable development impact fee determination for broad property classes – retail, office/services, industrial, and institutional.

Figure 2 summarizes proposed development impact fees for new development in Beaufort County. The amounts shown are “maximum supportable” amounts based on the methodologies, levels of service,

and costs for the capital improvements identified herein. The fees represent the highest amount
feasible for

each type of applicable development, which represent new growth’s fair share of the system improvement costs detailed in this report. The County can adopt amounts that are lower than the maximum amounts shown; however, a reduction in fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in the County’s level of service.

Figure 2. Maximum Supportable Development Impact Fee – North of the Broad

North of the Broad

Development Type	Parks & Recreation	Library	EMS	Solid Waste	Transportation	Fire [1]	Maximum Supportable Fee	Current Dev. Impact Fee Total	Increase/ (Decrease)
Residential Fee by Housing Size (square feet)									
1,000 or less	\$486	\$225	\$95	\$24	\$123	\$601	\$1,554	\$1,850	(\$296)
1,001 to 1,250	\$590	\$273	\$118	\$29	\$155	\$742	\$1,907	\$1,850	\$57
1,251 to 1,500	\$694	\$321	\$138	\$34	\$184	\$872	\$2,243	\$1,850	\$393
1,501 to 1,750	\$798	\$369	\$155	\$39	\$206	\$1,001	\$2,568	\$2,080	\$488
1,751 to 2,000	\$868	\$401	\$169	\$43	\$225	\$1,084	\$2,790	\$2,080	\$710
2,001 to 2,500	\$1,006	\$466	\$193	\$49	\$256	\$1,260	\$3,230	\$2,080	\$1,150
2,501 to 3,000	\$1,076	\$498	\$213	\$53	\$285	\$1,343	\$3,468	\$2,080	\$1,388
3,001 to 3,500	\$1,180	\$546	\$230	\$58	\$307	\$1,473	\$3,794	\$2,080	\$1,714
3,501 or 4,000	\$1,249	\$578	\$245	\$61	\$326	\$1,555	\$4,014	\$2,080	\$1,934
4,001 or more	\$1,319	\$610	\$258	\$65	\$342	\$1,649	\$4,243	\$2,080	\$2,163
Nonresidential (per 1,000 square feet)									
Retail	\$0	\$0	\$373	\$0	\$369	\$1,260	\$2,002	\$2,379	(\$376)
Office/Services	\$0	\$0	\$127	\$0	\$183	\$789	\$1,099	\$1,234	(\$134)
Industrial	\$0	\$0	\$51	\$0	\$74	\$401	\$526	\$553	(\$27)
Institutional	\$0	\$0	\$139	\$0	\$171	\$860	\$1,170	\$1,854	(\$684)

Note: the current fee listed is the average of the fees for the current service areas north of the Broad River. Some existing fees are based on housing type, so for comparison, a multifamily unit is assumed to be 1,500 square feet and less.

[1] The nonresidential Fire Development Impact Fee is based on fire hazard level. The complexity of fire safety is determined case by case, so for illustrative purposes the nonresidential fee listed is based on EDUs per 1,000 square feet.

Figure 3. Maximum Supportable Development Impact Fee – South of the Broad

South of the Broad

Development Type	Parks & Recreation	Library	EMS	Solid Waste	Transportation	Fire [1]	Maximum Supportable Fee	Current Dev. Impact Fee Total	Increase/ (Decrease)
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Projected Demand

Section 6-1-960(6) of the South Carolina Development Impact Fee Act requires:

“the total number of service units necessitated by and attributable to new development within the service area, based on the land use assumptions and calculated in accordance with generally accepted engineering or planning criteria.”

Based on the land use assumptions discussed in Appendix B, both residential and nonresidential development is expected to continue in Beaufort County over the next ten years. Figure 4 on the following page shows projected population, housing units, nonresidential floor area, and vehicle miles traveled over the next ten years.

The Beaufort County Traffic Analysis Zone Transportation Model provides permanent population, permanent housing unit, and seasonal housing unit estimates for 2010, 2020, and 2030. A straight-line approach was applied to the estimates to calculate year-to-year totals. The seasonal population was calculated by multiplying the seasonal housing unit total by the single family and multifamily persons per housing unit factors. The peak daily visitor population was estimated with Beaufort County Convention and Visitor Bureau 2017 data. The peak population total is the sum of the permanent, seasonal, and visitor populations. By 2029, there is projected to be 224,969 permanent residents, 42,656 seasonal residents, and 59,543 peak daily visitors in Beaufort County. That is an increase of 49,722 residents, an 18 percent increase from the base year. Furthermore, there are 18,962 new housing units projected, a 20 percent increase from the base year.

The Beaufort County Traffic Analysis Zone Transportation Model provides nonresidential estimates as well. By summing several job types, Retail, Office/Service, Industrial, and Institutional job totals were calculated. Over the next ten years, there are 16,253 jobs projected in the County. The Office/Service sector has the most growth, while Industrial and Retail have a significant increase as well.

The nonresidential floor area projections are calculated by applying square feet per employee factors from Institute of Transportation Engineers’ (ITE) data to the job totals. In the next ten years, the nonresidential floor area is projected to increase by 7 million square feet. The Industrial sector is projected to have the largest growth, 2.5 million square feet.

Vehicle miles traveled (VMT) are necessary for the Transportation Development Impact Fee. The Countywide VMT is calculated by combining the vehicle trip end factors, trip adjustment factors, trip length factors, and the residential and nonresidential assumptions for housing stock and floor area. Through 2029, a total increase of 441,458 VMT is projected with the majority of the growth being generated by single family (65 percent), multifamily (12 percent), and retail (10 percent) development.

Figure 4. Beaufort County Residential and Nonresidential Projections

	Base Year	5-year increment						Total
	2019	1	2	3	4	5	10	Increase
		2020	2021	2022	2023	2024	2029	
Population								
Permanent Residents	183,712	187,838	191,964	196,090	200,216	204,342	224,969	41,257
Seasonal Residents	39,122	39,746	40,070	40,394	40,718	41,042	42,656	3,534
Peak Daily Visitors	54,612	55,483	55,935	56,387	56,839	57,291	59,543	4,931
Total Peak Population	277,446	283,067	287,969	292,871	297,773	302,675	327,168	49,722
Housing Type								
Single Family	72,441	73,848	75,254	76,661	78,067	79,473	86,506	14,065
Multifamily	23,601	24,090	24,580	25,069	25,559	26,049	28,498	4,897
Total Housing Units	96,042	97,938	99,834	101,730	103,626	105,522	115,004	18,962
Jobs								
Retail	15,943	16,311	16,678	17,046	17,414	17,782	19,620	3,677
Office/Service	27,466	28,117	28,769	29,420	30,072	30,723	33,980	6,514
Industrial	14,825	15,223	15,620	16,018	16,415	16,813	18,801	3,976
Institutional	8,246	8,455	8,663	8,872	9,080	9,289	10,332	2,086
Total Jobs	66,480	68,105	69,731	71,356	72,981	74,606	82,733	16,253
Nonresidential Floor Area (1,000 sq. ft.)								
Retail	6,808	6,965	7,122	7,279	7,436	7,593	8,378	1,570
Office/Service	9,256	9,476	9,695	9,915	10,134	10,354	11,451	2,195
Industrial	9,310	9,560	9,809	10,059	10,309	10,558	11,807	2,497
Institutional	2,919	2,993	3,067	3,141	3,214	3,288	3,658	738
Total Floor Area	28,293	28,993	29,693	30,393	31,093	31,793	35,293	7,000
Vehicle Miles Traveled (VMT)								
Single Family	1,478,623	1,507,342	1,536,041	1,564,760	1,593,458	1,622,157	1,765,710	287,087
Multifamily	264,434	269,913	275,403	280,882	286,372	291,862	319,302	54,868
Residential Subtotal	1,743,058	1,777,255	1,811,444	1,845,642	1,879,830	1,914,019	2,085,012	341,954
Retail	193,359	197,818	202,278	206,737	211,197	215,656	237,954	44,595
Office	130,637	133,736	136,834	139,932	143,031	146,129	161,620	30,983
Industrial	53,019	54,441	55,862	57,284	58,706	60,128	67,236	14,218
Institutional	38,377	39,348	40,319	41,290	42,261	43,231	48,086	9,708
Nonresidential Subtotal	415,392	425,343	435,293	445,243	455,194	465,144	514,896	99,504
Total VMT	2,158,450	2,202,598	2,246,737	2,290,885	2,335,024	2,379,163	2,599,908	441,458

Source: Beaufort County TAZ Transportation Model; U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates; Beaufort County Convention and Visitor Bureau, 2017; [Trip Generation](#), Institute of Transportation Engineers, 10th Edition (2017); National Household Travel Survey, 2009; TischlerBise analysis

A note on rounding: Calculations throughout this report are based on an analysis conducted using Excel software. Most results are discussed in the report using one, two, and three digit places, which represent rounded figures. However, the analysis itself uses figures carried to their ultimate decimal places; therefore, the sums and products generated in the analysis may not equal the sum or product if the reader replicates the calculation with the factors shown in the report (due to the rounding of figures shown, not in the analysis).

PARKS & RECREATION CIP AND DEVELOPMENT IMPACT FEE

Methodology

Section 6-1-920(18c) of the South Carolina Development Impact Fee Act states that a development impact fee may be imposed on public facilities including:

"...parks, libraries, and recreational facilities."

The Parks and Recreation Development Impact Fee is calculated only for residential development and on a per capita basis. The incremental expansion methodology is used to calculate the current level of service for:

- Regional parks (countywide service area)
- Community parks (north and south of the Broad River service areas)
- Neighborhood parks (north and south of the Broad River service areas)
- Recreational facilities (north and south of the Broad River service areas)

Section 6-1-960(1) of the South Carolina Development Impact Fee Act requires:

"a general description of all existing facilities and their existing deficiencies, within the service area or areas of the governmental entity, a reasonable estimate of all costs, and a plan to develop the funding resources, including existing sources of revenues, related to curing existing deficiencies including, but not limited to, the upgrading, updating, improving, expanding, or replacing of these facilities to meet existing needs and usage."

Section 6-1-960(2) of the South Carolina Development Impact Fee Act requires:

"an analysis of total capacity, the level of current usage, and commitments for usage of capacity of existing public facilities, which must be prepared by qualified a professional using generally accepted principles and professional standards."

Residential development impact fees are calculated on a per housing unit basis using persons per household factors by housing unit size. Based on services and facilities provided by Beaufort County, current levels of service are calculated based on the incorporated and unincorporated permanent and seasonal population.

However, only the Town of Bluffton has an intergovernmental agreement with Beaufort County to collect the Parks and Recreation Development Impact Fee.

Parks & Recreation Service Area

Furthermore, most of the facilities are being provided based on a service area level (north and south of the Broad River). Thus, the service areas have been included in the analysis for community parks, neighborhood parks, and recreational facilities. However, it was determined that regional parks are serving countywide.

Park & Recreation Service Units

Section 6-1-960(4) of the South Carolina Development Impact Fee Act requires:

“a definitive table establishing the specific service unit for each category of system improvements and an equivalency or conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial, agricultural, and industrial, as appropriate.”

The “service unit” used for residential development is persons per household (PPHH). This is a measure of, on average, the number of persons residing in each occupied housing unit. As shown in Figure 5, persons per household factors are calculated based on the housing unit size and for each service area. Calculations are based off local U.S. Census data and further discussion can be found in Appendix C.

Figure 5. Residential Service Units

Housing Size Square Feet	Persons per Household	
	North	South
1,000 or less	1.40	1.20
1,001 to 1,250	1.70	1.50
1,251 to 1,500	2.00	1.80
1,501 to 1,750	2.30	2.00
1,751 to 2,000	2.50	2.20
2,001 to 2,500	2.90	2.50
2,501 to 3,000	3.10	2.80
3,001 to 3,500	3.40	3.00
3,501 or 4,000	3.60	3.20
4,001 or more	3.80	3.30

See Appendix C for details about calculations

Parks & Recreation Facilities Level of Service & Cost Analysis

The Parks and Recreation Development Impact Fee includes the County’s regional, community, neighborhood, and recreational facilities. Additional expansion will be necessary to serve future growth to maintain current levels of service. The level of service is calculated based on an incremental methodology with population as the base year demand factor. To best address how future parks will be constructed, the 2019 permanent and seasonal population is included.

Countywide Parks & Recreation Facilities

As shown in Figure 6, there are two regional parks with a total area of 510.72 acres. The land costs have been calculated based on the location of the parks and the improvement costs are based on the cost to replace the existing improvements. The regional parks total \$27.7 million in land costs and \$15.9 million in improvement costs.

To calculate the current level of service, the total acreage is divided by the current countywide population. As a result, there are 2.29 acres per 1,000 persons (510.72 acres / 222,834 residents = 2.29 acres per 1,000 persons, rounded).

The level of service is combined separately with the average land cost per acre and the average improvement cost per acre to calculate the capital cost per person. This results in the capital cost per person totaling \$195 (2.29 acres per 1,000 persons x \$54,241 per acre of parkland = \$124 per person; 2.29 acres per 1,000 persons x \$31,168 per acre of park improvements = \$71 per person; \$124 + \$71 = \$195).

Figure 6. Regional Park Level of Service and Cost Factors

Facility	Acres	Land Cost	Improvement Cost
Buckwalter Park	142.72	\$22,549,760	\$11,230,000
Burton Wells Park	368.00	\$5,152,000	\$4,687,900
Total	510.72	\$27,701,760	\$15,917,900

<i>Level-of-Service Standards</i>	Land Cost	Improvement Cost
Residential Share	100.0%	100.0%
Share of Facility Acres	510.72	510.72
2019 Countywide Population	222,834	222,834
Acres per 1,000 Persons	2.29	2.29

<i>Cost Analysis</i>	Land Cost	Improvement Cost
Acres per 1,000 Persons	2.29	2.29
Average Cost per Acre	\$54,241	\$31,168
Capital Cost Per Person	\$124	\$71

North of the Broad Parks & Recreation Facilities

There are four community parks with a total area of 89.80 acres in the North of the Broad Service Area. The cost to purchase new parkland in the north has been determined to cost \$14,000 per acre² while improvement costs are based on the cost to replace the existing improvements. The community parks total \$1.3 million in land costs and \$5 million in improvement costs.

To calculate the current level of service, the total acreage is divided by the current population north of the Broad River. As a result, there are 1.01 acres per 1,000 persons (89.80 acres / 88,819 residents = 1.01 acres per 1,000 persons, rounded).

The level of service is combined separately with the average land cost per acre and the average improvement cost per acre to calculate the capital cost per person. This results in the capital cost per person totaling \$70 (1.01 acres per 1,000 persons x \$14,000 per acre of parkland = \$14 per person; 1.01 acres per 1,000 persons x \$55,122 per acre of park improvements = \$56 per person; \$14 + \$56 = \$70).

Figure 7. Community Park Level of Service and Cost Factors – North of the Broad

Facility	Acres	Land Cost	Improvement Cost
Basil Green	4.74	\$66,360	\$4,000,000
Coursen-Tate Park	17.63	\$246,820	\$800,000
Hamptons Lake Property - Future Park	53.43	\$748,020	-
St. Helena/Wesley Felix	14.00	\$196,000	\$150,000
Total	89.80	\$1,257,200	\$4,950,000

<i>Level-of-Service Standards</i>	Land Cost	Improvement Cost
Residential Share	100.0%	100.0%
Share of Facility Acres	89.80	89.80
2019 North of Broad Population	88,819	88,819
Acres per 1,000 Persons	1.01	1.01

<i>Cost Analysis</i>	Land Cost	Improvement Cost
Acres per 1,000 Persons	1.01	1.01
Average Cost per Acre	\$14,000	\$55,122
Capital Cost Per Person	\$14	\$56

Listed in Figure 8, there are ten neighborhood parks with a total area of 39.13 acres in the North Service Area. The cost to purchase new parkland in the north has been determined to cost \$14,000 per acre

² The cost to purchase an acre of parkland in the North Service Area was determined by examining current listings of undeveloped land in the area. Information was provided by a local realty group. Along with the property listings, Beaufort County staff was consulted. From this process, it was established that an acre of parkland would cost Beaufort County \$14,000 in the North of the Broad Service Area.

while improvement costs are based on the cost to replace the existing improvements. The neighborhood parks total \$550,000 in land costs and \$2.5 million in improvement costs.

To calculate the current level of service, the total acreage is divided by the current population north of the Broad River. As a result, there are 0.44 acres per 1,000 persons (39.13 acres / 88,819 residents = 0.44 acres per 1,000 persons, rounded).

The level of service is combined separately with the average land cost per acre and the average improvement cost per acre to calculate the capital cost per person. This results in the capital cost per person totaling \$34 (0.44 acres per 1,000 persons x \$14,000 per acre of parkland = \$6 per person; 0.44 acres per 1,000 persons x \$62,612 per acre of park improvements = \$28 per person; \$6 + \$28 = \$34).

Figure 8. Neighborhood Park Level of Service and Cost Factors – North of the Broad

Facility	Acres	Land Cost	Improvement Cost
Agnes A Major	4.16	\$58,240	\$550,000
Bob Jones Field	3.90	\$54,600	\$50,000
Booker T Washington [1]	-	\$0	\$220,000
Broomfield Ballfield	2.00	\$28,000	\$220,000
Bruce Edgerly (Baseball field)	2.98	\$41,720	\$400,000
Dale Center [1]	-	\$0	\$340,000
Gloria Potts/Seaside	4.20	\$58,800	\$170,000
Metz Field (Baseball field)	3.00	\$42,000	\$220,000
Shell Point Park	14.84	\$207,760	\$180,000
Southside Tennis Court	4.05	\$56,700	\$100,000
Total	39.13	\$547,820	\$2,450,000

<i>Level-of-Service Standards</i>	Land Cost	Improvement Cost
Residential Share	100.0%	100.0%
Share of Facility Acres	39.13	39.13
2019 North of Broad Population	88,819	88,819
Acres per 1,000 Persons	0.44	0.44

<i>Cost Analysis</i>	Land Cost	Improvement Cost
Acres per 1,000 Persons	0.44	0.44
Average Cost per Acre	\$14,000	\$62,612
Capital Cost Per Person	\$6	\$28

[1] Note: the land for the facility is not owned by Beaufort County

The recreational facilities in the North Service Area are listed in Figure 9. There are five facilities which total 5.71 acres. The cost to purchase new parkland in the north has been determined to cost \$14,000 per acre while improvement costs are based on the cost to replace the existing improvements. The recreational facilities total \$80,000 in land costs and \$4.5 million in improvement costs.

To calculate the current level of service, the total acreage and square feet are divided by the current population north of the Broad River. As a result, there are 0.06 acres per 1,000 persons (5.71 acres / 88,819 residents = 0.06 acres per 1,000 persons, rounded). There are 289.76 square feet per 1,000 persons.

The level of service is combined separately with the average land cost per acre and the average improvement cost per square foot to calculate the capital cost per person. This results in the capital cost per person totaling \$52 (0.06 acres per 1,000 persons x \$14,000 per acre of parkland = \$1 per person; 289.76 square feet per 1,000 persons x \$176 per square foot = \$51 per person; \$1 + \$51 = \$52).

Figure 9. Recreational Facility Level of Service and Cost Factors – North of the Broad

Facility	Acres	Land Cost	Square Feet	Improvement Cost
Battery Creek Pool [1]	-	-	3,432	\$750,000
Beaufort Pool [1]	-	-	3,432	\$750,000
Beaufort Tennis	3.00	\$42,000	-	\$140,000
Charles Lind Brown	1.63	\$22,820	16,600	\$2,860,000
Port Royal Center	1.08	\$15,120	2,272	\$25,000
Total	5.71	\$79,940	25,736	\$4,525,000

<i>Level-of-Service Standards</i>	Land Cost	Improvement Cost
Residential Share	100.0%	100.0%
Share of Facility Acres/Square Feet	5.71	25,736
2019 North of Broad Population	88,819	88,819
Acres/Square Feet per 1,000 Persons	0.06	289.76

<i>Cost Analysis</i>	Land Cost	Improvement Cost
Acres/Square Feet per 1,000 Persons	0.06	289.76
Average Cost per Acre/Square Foot	\$14,000	\$176
Capital Cost Per Person	\$1	\$51

[1] Note: the land for the facility is owned by Beaufort County School District

South of the Broad Parks & Recreation Facilities

There is one community park with a total area of 7.8 acres in the South of the Broad Service Area. The cost to purchase new parkland in the south has been determined to cost \$158,000 per acre³ while improvement costs are based on the cost to replace the existing improvements. The community park totals \$1.2 million in land costs and \$600,000 in improvement costs.

To calculate the current level of service, the total acreage is divided by the current population south of the Broad River. As a result, there are 0.06 acres per 1,000 persons (7.8 acres / 134,015 residents = 0.06 acres per 1,000 persons, rounded).

The level of service is combined separately with the average land cost per acre and the average improvement cost per acre to calculate the capital cost per person. This results in the capital cost per person totaling \$14 (0.06 acres per 1,000 persons x \$158,000 per acre of parkland = \$9 per person; 0.06 acres per 1,000 persons x \$76,923 per acre of park improvements = \$5 per person; \$9 + \$5 = \$14).

Figure 10. Community Park Level of Service and Cost Factors – South of the Broad

Facility	Acres	Land Cost	Improvement Cost
Barker Field	7.80	\$1,232,400	\$600,000
Total	7.80	\$1,232,400	\$600,000

<i>Level-of-Service Standards</i>	Land Cost	Improvement Cost
Residential Share	100.0%	100.0%
Share of Facility Acres	7.80	7.80
2019 South of Broad Population	134,015	134,015
Acres per 1,000 Persons	0.06	0.06

<i>Cost Analysis</i>	Land Cost	Improvement Cost
Acres per 1,000 Persons	0.06	0.06
Average Cost per Acre	\$158,000	\$76,923
Capital Cost Per Person	\$9	\$5

Listed in Figure 11, there are two neighborhood parks with a total area of 5.21 acres in the South Service Area. The cost to purchase new parkland in the south has been determined to cost \$158,000 per acre while improvement costs are based on the cost to replace the existing improvements. The neighborhood parks total \$820,000 in land costs and \$1.4 million in improvement costs.

³ The cost to purchase an acre of parkland in the South Service Area was determined by examining current listings of undeveloped land in the area. Information was provided by a local realty group. Along with the property listings, Beaufort County staff was consulted. From this process, it was established that an acre of parkland would cost Beaufort County \$158,000 in the South of the Broad Service Area.

To calculate the current level of service, the total acreage is divided by the current population south of the Broad River. As a result, there are 0.04 acres per 1,000 persons (5.21 acres / 134,015 residents = 0.04 acres per 1,000 persons, rounded).

The level of service is combined separately with the average land cost per acre and the average improvement cost per acre to calculate the capital cost per person. This results in the capital cost per person totaling \$17 (0.04 acres per 1,000 persons x \$158,000 per acre of parkland = \$6 per person; 0.04 acres per 1,000 persons x \$271,440 per acre of park improvements = \$11 per person; \$6 + \$11 = \$17).

Figure 11. Neighborhood Park Level of Service and Cost Factors – South of the Broad

Facility	Acres	Land Cost	Improvement Cost
Hilton Head Annex Park	4.21	\$665,180	\$114,200
M.C. Riley	1.00	\$158,000	\$1,300,000
Total	5.21	\$823,180	\$1,414,200

<i>Level-of-Service Standards</i>	Land Cost	Improvement Cost
Residential Share	100.0%	100.0%
Share of Facility Acres	5.21	5.21
2019 South of Broad Population	134,015	134,015
Acres per 1,000 Persons	0.04	0.04

<i>Cost Analysis</i>	Land Cost	Improvement Cost
Acres per 1,000 Persons	0.04	0.04
Average Cost per Acre	\$158,000	\$271,440
Capital Cost Per Person	\$6	\$11

The recreational facilities in the South Service Area are listed in Figure 12. There are two facilities which total 25 acres. The cost to purchase new parkland in the south has been determined to cost \$158,000 per acre while improvement costs are based on the cost to replace the existing improvements. The recreational facilities total \$4 million in land costs and \$1.3 million in improvement costs.

To calculate the current level of service, the total acreage and square feet are divided by the current population south of the Broad River. As a result, there are 0.19 acres per 1,000 persons (25 acres / 134,015 residents = 0.19 acres per 1,000 persons, rounded). There are 258.94 square feet per 1,000 persons.

The level of service is combined separately with the average land cost per acre and the average improvement cost per square foot to calculate the capital cost per person. This results in the capital cost per person totaling \$40 (0.19 acres per 1,000 persons x \$158,000 per acre of parkland = \$30 per person; 258.94 square feet per 1,000 persons x \$37 per square foot = \$10 per person; \$30 + \$10 = \$40).

Figure 12. Recreational Facility Level of Service and Cost Factors – South of the Broad

Facility	Acres	Land Cost	Square Feet	Improvement Cost
Bluffton Center	25.00	\$3,950,000	31,270	\$530,000
Bluffton Pool [1]	0.00	\$0	3,432	\$750,000
Total	25.00	\$3,950,000	34,702	\$1,280,000

<i>Level-of-Service Standards</i>	Land Cost	Improvement Cost
Residential Share	100.0%	100.0%
Share of Facility Acres/Square Feet	25.00	34,702.00
2019 South of Broad Population	134,015	134,015
Acres/Square Feet per 1,000 Persons	0.19	258.94

<i>Cost Analysis</i>	Land Cost	Improvement Cost
Acres/Square Feet per 1,000 Persons	0.19	258.94
Average Cost per Acre/Square Foot	\$158,000	\$37
Capital Cost Per Person	\$30	\$10

[1] Note: the land for the facility is owned by Beaufort County School District

Credit for Future Debt Payments

To ensure fee-payers avoid potential double payment for annual debt service, TischlerBise included in credit in the development impact fee calculations. The current debt is for five previous capital projects, two in the North and three in the South. Based on the dollar amount, 8 percent of the existing debt is for the North of the Broad level of service and 92 percent is for the South of the Broad level of service.

Following the same methodology as the level of service analysis, annual debt service is applied to only residential development and then divided by annual demand unit (population) to yield payments per person. To account for the time value of money, annual payments are discounted using a net present value formula based on the applicable discount (interest) rate. This results in a credit of \$4 per person in the North and \$31 per person in the South.

Figure 13. Credit for Future Debt Payments

			Residential - North of the Broad				Residential - South of the Broad			
Fiscal Year	Payment	Residential 100%	Fiscal Year	Payment 8%	Projected Population	Payment/ Capita	Fiscal Year	Payment 92%	Projected Population	Payment/ Capita
Base Year	\$628,272	\$628,272	Base Year	\$50,262	88,819	\$0.57	Base Year	\$578,010	134,015	\$4.31
2020	\$630,222	\$630,222	2020	\$50,418	90,719	\$0.56	2020	\$579,804	136,865	\$4.24
2021	\$426,016	\$426,016	2021	\$34,081	92,620	\$0.37	2021	\$391,935	139,414	\$2.81
2022	\$426,584	\$426,584	2022	\$34,127	94,521	\$0.36	2022	\$392,457	141,963	\$2.76
2023	\$426,700	\$426,700	2023	\$34,136	96,421	\$0.35	2023	\$392,564	144,513	\$2.72
2024	\$426,652	\$426,652	2024	\$34,132	98,322	\$0.35	2024	\$392,520	147,062	\$2.67
2025	\$426,145	\$426,145	2025	\$34,092	100,222	\$0.34	2025	\$392,053	149,612	\$2.62
2026-2030	\$2,133,709	\$2,133,709	2026-2030	\$170,697	109,003	\$1.61	2026-2030	\$1,963,012	161,331	\$12.50
2031-2035	\$1,745,037	\$1,745,037	2031-2035	\$139,603	114,924	\$1.25	2031-2035	\$1,605,434	168,955	\$9.72
2036-2039	\$151,655	\$151,655	2036-2039	\$12,132	119,660	\$0.12	2036-2039	\$139,523	175,055	\$0.80
Total	\$7,420,992	\$7,420,993	Total	\$593,679		\$5.88	Total	\$6,827,313		\$45.15
					Discount Rate	5.00%			Discount Rate	5.00%
					Total Credit per Person	\$4			Total Credit per Person	\$31

Note: In the out-years of the payment schedule, payments have been summed, but payments are annualized in analysis

Projection of Parks & Recreation Growth-Related Facility Needs

Section 6-1-960(5) of the South Carolina Development Impact Fee Act requires:

“a description of all system improvements and their costs necessitated by and attributable to new development in the service area, based on the approved land use assumptions, to provide a level of service not to exceed the level of service currently existing in the community or service area, unless a different or higher level of service is required by law, court order, or safety consideration.”

Section 6-1-960(7) of the South Carolina Development Impact Fee Act requires:

“the projected demand for system improvements required by new service units projected over a reasonable period of time not to exceed twenty years.”

Countywide Parks & Recreation Facilities

To estimate the 10-year growth needs for regional parks in Beaufort County, the current level of service (2.29 acres per 1,000 persons) is applied to the residential growth projected. Including municipalities, Beaufort County is projected to increase by 44,791 residents over the next ten years (see Appendix B). Listed in Figure 14, there will need to be a total of 612.8 acres of regional parks to accommodate the growth, with future development accounting for 102.6 new acres. By applying the average cost of a park (\$85,408 per acre), the total expenditure for the growth is calculated (102.6 acres x \$84,408 = \$8,762,878).

Figure 14. 10-Year Regional Park Needs to Accommodate Growth – Countywide

Type of Infrastructure	Level of Service		Demand Unit	Cost / Acre
Regional Parks	Residential	2.29	per 1,000 persons	\$85,408
	Nonresidential	0.00	per 1,000 jobs	

Growth-Related Need for Regional Parks						
Year	Population	Jobs	Residential Acres	Nonresidential Acres	Total Acres	
Base	2019	222,834	66,479	510.2	0.0	510.2
Year 1	2020	227,584	68,104	521.1	0.0	521.1
Year 2	2021	232,034	69,730	531.3	0.0	531.3
Year 3	2022	236,484	71,355	541.5	0.0	541.5
Year 4	2023	240,934	72,980	551.7	0.0	551.7
Year 5	2024	245,384	74,606	561.9	0.0	561.9
Year 6	2025	249,834	76,231	572.1	0.0	572.1
Year 7	2026	254,283	77,856	582.3	0.0	582.3
Year 8	2027	258,733	79,482	592.4	0.0	592.4
Year 9	2028	263,183	81,107	602.6	0.0	602.6
Year 10	2029	267,625	82,733	612.8	0.0	612.8
Ten-Year Increase		44,791	16,254	102.6	0.0	102.6
		Projected Expenditure		\$8,762,878	\$0	\$8,762,878

Growth-Related Expenditures for Regional Parks	\$8,762,878
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North of the Broad Parks & Recreation Facilities

To estimate the 10-year growth needs for community parks in northern Beaufort County, the current level of service (1.01 acres per 1,000 persons) is applied to the residential growth projected. The North Service Area is projected to increase by 19,000 residents over the next ten years. There will need to be a total of 108.8 acres of community parks to accommodate the growth, with future development accounting for 19.1 new acres. By applying the average cost of a park (\$69,122 per acre), the total expenditure for the growth is calculated (19.1 acres x \$69,122 = \$1,320,240).

Figure 15. 10-Year Community Park Needs to Accommodate Growth – North of the Broad

Type of Infrastructure	Level of Service		Demand Unit	Cost / Acre
Community Parks	Residential	1.01	per 1,000 persons	\$69,122
	Nonresidential	0.00	per 1,000 jobs	

Growth-Related Need for Community Parks						
Year	Population	Jobs	Residential Acres	Nonresidential Acres	Total Acres	
Base	2019	88,819	26,435	89.7	0.0	89.7
Year 1	2020	90,719	27,311	91.6	0.0	91.6
Year 2	2021	92,620	28,187	93.5	0.0	93.5
Year 3	2022	94,521	29,063	95.4	0.0	95.4
Year 4	2023	96,421	29,939	97.3	0.0	97.3
Year 5	2024	98,322	30,816	99.3	0.0	99.3
Year 6	2025	100,222	31,692	101.2	0.0	101.2
Year 7	2026	102,123	32,568	103.1	0.0	103.1
Year 8	2027	104,024	33,444	105.0	0.0	105.0
Year 9	2028	105,924	34,320	106.9	0.0	106.9
Year 10	2029	107,819	35,196	108.8	0.0	108.8
Ten-Year Increase		19,000	8,761	19.1	0.0	19.1
			Projected Expenditure	\$1,320,240	\$0	\$1,320,240

Growth-Related Expenditures for Community Parks	\$1,320,240
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Found in Figure 16, the 10-year growth needs for neighborhood parks in northern Beaufort County is estimated by applying the current level of service (0.44 acres per 1,000 persons) to the projected residential growth. The North Service Area is projected to increase by 19,000 residents over the next ten years. There will need to be a total of 47.4 acres of neighborhood parks to accommodate the growth, with future development accounting for 8.4 new acres. By applying the average cost of a park (\$76,612 per acre), the total expenditure for the growth is calculated (8.4 acres x \$76,612 = \$643,539).

Figure 16. 10-Year Neighborhood Park Needs to Accommodate Growth – North of the Broad

Type of Infrastructure	Level of Service		Demand Unit	Cost / Acre
Neighborhood Parks	Residential	0.44	Acres	\$76,612
	Nonresidential	0.00		

Growth-Related Need for Neighborhood Parks						
Year		Population	Jobs	Residential Acres	Nonresidential Acres	Total Acres
Base	2019	88,819	26,435	39.0	0.0	39.0
Year 1	2020	90,719	27,311	39.9	0.0	39.9
Year 2	2021	92,620	28,187	40.7	0.0	40.7
Year 3	2022	94,521	29,063	41.5	0.0	41.5
Year 4	2023	96,421	29,939	42.4	0.0	42.4
Year 5	2024	98,322	30,816	43.2	0.0	43.2
Year 6	2025	100,222	31,692	44.0	0.0	44.0
Year 7	2026	102,123	32,568	44.9	0.0	44.9
Year 8	2027	104,024	33,444	45.7	0.0	45.7
Year 9	2028	105,924	34,320	46.6	0.0	46.6
Year 10	2029	107,819	35,196	47.4	0.0	47.4
Ten-Year Increase		19,000	8,761	8.4	0.0	8.4
Projected Expenditure				\$643,539	\$0	\$643,539

Growth-Related Expenditures for Neighborhood Parks | \$643,539

The 10-year growth needs for recreational facility land in northern Beaufort County is estimated by applying the current level of service (0.06 acres per 1,000 persons) to the projected residential growth, 19,000 new residents over the next ten years. There will need to be a total of 6.4 acres of recreational facility land to accommodate the growth, with future development accounting for 1.1 new acres. By applying the average cost of a recreational facility (\$14,000 per acre), the total expenditure for the growth is calculated (1.1 acres x \$14,000 = \$15,400).

Figure 17. 10-Year Recreational Facility Land Needs to Accommodate Growth – North of the Broad

Type of Infrastructure	Level of Service		Demand Unit	Cost / Acre
Recreational Facilities	Residential	0.06	Acres	per 1,000 persons
	Nonresidential	0.00		per 1,000 jobs
				\$14,000

Growth-Related Need for Recreational Facilities							
Year		Population	Jobs	Residential Acres	Nonresidential Acres	Total Acres	
Base	2019	88,819	26,435	5.3	0.0	5.3	
Year 1	2020	90,719	27,311	5.4	0.0	5.4	
Year 2	2021	92,620	28,187	5.5	0.0	5.5	
Year 3	2022	94,521	29,063	5.6	0.0	5.6	
Year 4	2023	96,421	29,939	5.7	0.0	5.7	
Year 5	2024	98,322	30,816	5.8	0.0	5.8	
Year 6	2025	100,222	31,692	6.0	0.0	6.0	
Year 7	2026	102,123	32,568	6.1	0.0	6.1	
Year 8	2027	104,024	33,444	6.2	0.0	6.2	
Year 9	2028	105,924	34,320	6.3	0.0	6.3	
Year 10	2029	107,819	35,196	6.4	0.0	6.4	
Ten-Year Increase		19,000	8,761	1.1	0.0	1.1	
Projected Expenditure				\$15,400	\$0	\$15,400	

Growth-Related Expenditures for Recreational Facilities | \$15,400

The 10-year growth needs for recreational facility buildings in northern Beaufort County is estimated by applying the current level of service (289.76 square feet per 1,000 persons) to the projected residential growth, 19,000 new residents over the next ten years. There will need to be a total of 31,241 square feet of recreational facilities to accommodate the growth, with future development accounting for 5,505 new square feet. By applying the average cost of a recreational facility (\$176 per square foot), the total expenditure for the growth is calculated (5,505 square feet x \$176 = \$967,910).

Figure 18. 10-Year Recreational Facility Building Needs to Accommodate Growth – North of the Broad

Type of Infrastructure	Level of Service		Demand Unit	Cost / Sq. Ft.
Recreational Facilities	Residential	289.76	Square Feet	per 1,000 persons
	Nonresidential	0.00		per 1,000 jobs
				\$176

Growth-Related Need for Recreational Facilities						
Year	Population	Jobs	Residential Square Feet	Nonresidential Square Feet	Total Square Feet	
Base	2019	88,819	26,435	25,736	0.0	25,736
Year 1	2020	90,719	27,311	26,286	0.0	26,286
Year 2	2021	92,620	28,187	26,837	0.0	26,837
Year 3	2022	94,521	29,063	27,388	0.0	27,388
Year 4	2023	96,421	29,939	27,938	0.0	27,938
Year 5	2024	98,322	30,816	28,489	0.0	28,489
Year 6	2025	100,222	31,692	29,040	0.0	29,040
Year 7	2026	102,123	32,568	29,591	0.0	29,591
Year 8	2027	104,024	33,444	30,141	0.0	30,141
Year 9	2028	105,924	34,320	30,692	0.0	30,692
Year 10	2029	107,819	35,196	31,241	0.0	31,241
Ten-Year Increase		19,000	8,761	5,505	0	5,505
		Projected Expenditure		\$967,910	\$0	\$967,910

Growth-Related Expenditures for Recreational Facilities | \$967,910

South of the Broad Parks & Recreation Facilities

To estimate the 10-year growth needs for community parks in southern Beaufort County, the current level of service (0.06 acres per 1,000 persons) is applied to the residential growth projected. The South Service Area is projected to increase by 25,791 residents over the next ten years. As a result, there will need to be a total of 9.5 acres of community parks to accommodate the growth, with future development accounting for 1.5 new acres. By applying the average cost of a park (\$234,923 per acre), the total expenditure for the growth is calculated (1.5 acres x \$234,923 = \$352,385).

Figure 19. 10-Year Community Park Needs to Accommodate Growth – South of the Broad

Type of Infrastructure	Level of Service		Demand Unit	Cost / Acre
Community Parks	Residential	0.06	per 1,000 persons	\$234,923
	Nonresidential	0.00	per 1,000 jobs	

Growth-Related Need for Community Parks						
Year		Population	Jobs	Residential Acres	Nonresidential Acres	Total Acres
Base	2019	134,015	40,044	8.0	0.0	8.0
Year 1	2020	136,865	40,793	8.2	0.0	8.2
Year 2	2021	139,414	41,543	8.3	0.0	8.3
Year 3	2022	141,963	42,292	8.5	0.0	8.5
Year 4	2023	144,513	43,041	8.6	0.0	8.6
Year 5	2024	147,062	43,790	8.8	0.0	8.8
Year 6	2025	149,612	44,540	8.9	0.0	8.9
Year 7	2026	152,160	45,289	9.1	0.0	9.1
Year 8	2027	154,709	46,038	9.2	0.0	9.2
Year 9	2028	157,259	46,787	9.4	0.0	9.4
Year 10	2029	159,806	47,537	9.5	0.0	9.5
Ten-Year Increase		25,791	7,493	1.5	0.0	1.5
Projected Expenditure				\$352,385	\$0	\$352,385

Growth-Related Expenditures for Community Parks	\$352,385
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Found in Figure 20, the 10-year growth needs for neighborhood parks in southern Beaufort County is estimated by applying the current level of service (0.04 acres per 1,000 persons) to the projected residential growth. The South Service Area is projected to increase by 25,791 residents over the next ten years. There will need to be a total of 6.3 acres of neighborhood parks to accommodate the growth, with future development accounting for 1.0 new acres. By applying the average cost of a park (\$429,440 per acre), the total expenditure for the growth is calculated (1.0 acres x \$429,440 = \$429,440).

Figure 20. 10-Year Neighborhood Park Needs to Accommodate Growth – South of the Broad

Type of Infrastructure	Level of Service		Demand Unit	Cost / Acre
Neighborhood Parks	Residential	0.04	per 1,000 persons	\$429,440
	Nonresidential	0.00	per 1,000 jobs	

Growth-Related Need for Neighborhood Parks						
Year		Population	Jobs	Residential Acres	Nonresidential Acres	Total Acres
Base	2019	134,015	40,044	5.3	0.0	5.3
Year 1	2020	136,865	40,793	5.4	0.0	5.4
Year 2	2021	139,414	41,543	5.5	0.0	5.5
Year 3	2022	141,963	42,292	5.6	0.0	5.6
Year 4	2023	144,513	43,041	5.7	0.0	5.7
Year 5	2024	147,062	43,790	5.8	0.0	5.8
Year 6	2025	149,612	44,540	5.9	0.0	5.9
Year 7	2026	152,160	45,289	6.0	0.0	6.0
Year 8	2027	154,709	46,038	6.1	0.0	6.1
Year 9	2028	157,259	46,787	6.2	0.0	6.2
Year 10	2029	159,806	47,537	6.3	0.0	6.3
Ten-Year Increase		25,791	7,493	1.0	0.0	1.0
Projected Expenditure				\$429,440	\$0	\$429,440

Growth-Related Expenditures for Neighborhood Parks | \$429,440

The 10-year growth needs for recreational facility lands in southern Beaufort County is estimated by applying the current level of service (0.19 acres per 1,000 persons) to the projected residential growth, 25,791 new residents over the next ten years. There will need to be a total of 30.3 acres of recreational facility land to accommodate the growth, with future development accounting for 4.9 new acres. By applying the average cost of a recreational facility (\$158,000 per acre), the total expenditure for the growth is calculated (4.9 acres x \$158,000 = \$774,200).

Figure 21. 10-Year Recreational Facility Land Needs to Accommodate Growth – South of the Broad

Type of Infrastructure	Level of Service		Demand Unit	Cost / Acre
Recreational Facilities	Residential	0.19	per 1,000 persons	\$158,000
	Nonresidential	0.00	per 1,000 jobs	

Growth-Related Need for Recreational Facilities						
Year	Population	Jobs	Residential Acres	Nonresidential Acres	Total Acres	
Base	2019	134,015	40,044	25.4	0.0	25.4
Year 1	2020	136,865	40,793	26.0	0.0	26.0
Year 2	2021	139,414	41,543	26.4	0.0	26.4
Year 3	2022	141,963	42,292	26.9	0.0	26.9
Year 4	2023	144,513	43,041	27.4	0.0	27.4
Year 5	2024	147,062	43,790	27.9	0.0	27.9
Year 6	2025	149,612	44,540	28.4	0.0	28.4
Year 7	2026	152,160	45,289	28.9	0.0	28.9
Year 8	2027	154,709	46,038	29.3	0.0	29.3
Year 9	2028	157,259	46,787	29.8	0.0	29.8
Year 10	2029	159,806	47,537	30.3	0.0	30.3
Ten-Year Increase		25,791	7,493	4.9	0.0	4.9
		Projected Expenditure		\$774,200	\$0	\$774,200

Growth-Related Expenditures for Recreational Facilities \$774,200

The 10-year growth needs for recreational facility buildings in southern Beaufort County is estimated by applying the current level of service (258.94 square feet per 1,000 persons) to the projected residential growth, 25,791 new residents over the next ten years. There will need to be a total of 41,380 square feet of recreational facilities to accommodate the growth, with future development accounting for 6,679 new square feet. By applying the average cost of a recreational facility (\$37 per square foot), the total expenditure for the growth is calculated (6,679 square feet x \$37 = \$247,123).

Figure 22. 10-Year Recreational Facility Building Needs to Accommodate Growth – South of the Broad

Type of Infrastructure	Level of Service		Demand Unit	Cost / Sq. Ft.
Recreational Facilities	Residential	258.94	Square Feet	per 1,000 persons
	Nonresidential	0.00		per 1,000 jobs
				\$37

Growth-Related Need for Recreational Facilities							
Year		Population	Jobs	Residential Square Feet	Nonresidential Square Feet	Total Square Feet	
Base	2019	134,015	40,044	34,701	0.0	34,701	
Year 1	2020	136,865	40,793	35,439	0.0	35,439	
Year 2	2021	139,414	41,543	36,099	0.0	36,099	
Year 3	2022	141,963	42,292	36,759	0.0	36,759	
Year 4	2023	144,513	43,041	37,420	0.0	37,420	
Year 5	2024	147,062	43,790	38,080	0.0	38,080	
Year 6	2025	149,612	44,540	38,740	0.0	38,740	
Year 7	2026	152,160	45,289	39,400	0.0	39,400	
Year 8	2027	154,709	46,038	40,060	0.0	40,060	
Year 9	2028	157,259	46,787	40,720	0.0	40,720	
Year 10	2029	159,806	47,537	41,380	0.0	41,380	
Ten-Year Increase		25,791	7,493	6,679	0	6,679	
				Projected Expenditure	\$247,123	\$0	\$247,123

Growth-Related Expenditures for Recreational Facilities	\$247,123
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Maximum Supportable Parks and Recreation Development Impact Fee

The following figures list the maximum supportable Parks and Recreation Development Impact Fee for the North and South of the Broad Service Areas. Development impact fees for Parks & Recreation facilities are only assessed on residential development and based on household size (i.e., persons per household). Differentiating the fee by housing size allows the results to be more exact about the level of demand (persons per household) a residential development will place on the current infrastructure based on level of service standards. For residential development, the total cost per person is multiplied by the household size to calculate the proposed fee.

The average current fee is included in the figure to highlight the change.

The fees represent the highest amount supportable for each type of development, which represents new growth’s fair share of the cost for capital facilities. The County may adopt fees that are less than the amounts shown. However, a reduction in development impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service.

Figure 23. Maximum Supportable Parks and Recreation Development Impact Fee – North of the Broad

North of the Broad Service Area

Fee Component	Land Cost per Person	Improvement Cost per Person
Regional Parks	\$124	\$71
Community Parks	\$14	\$56
Neighborhood Parks	\$6	\$28
Recreational Facilities	\$1	\$51
Gross Total	\$145	\$206
Gross Total per Person		\$351
Credit for Debt Payments		(\$4)
Net Total		\$347

Residential

Housing Unit Size (Sq. Ft.)	Persons per Household	Maximum Supportable Fee per Unit	Current Fee [1]	Increase/ (Decrease)
1,000 or less	1.40	\$486	\$321	\$165
1,001 to 1,250	1.70	\$590	\$321	\$269
1,251 to 1,500	2.00	\$694	\$321	\$373
1,501 to 1,750	2.30	\$798	\$321	\$477
1,751 to 2,000	2.50	\$868	\$321	\$547
2,001 to 2,500	2.90	\$1,006	\$321	\$685
2,501 to 3,000	3.10	\$1,076	\$321	\$755
3,001 to 3,500	3.40	\$1,180	\$321	\$859
3,501 to 4,000	3.60	\$1,249	\$321	\$928
4,001 or more	3.80	\$1,319	\$321	\$998

[1] fee listed is the average of the fees for the current service areas north of the Broad River

Figure 24. Maximum Supportable Parks and Recreation Development Impact Fee – South of the Broad
South of the Broad Service Area

Fee Component	Land Cost per Person	Improvement Cost per Person
Regional Parks	\$124	\$71
Community Parks	\$9	\$5
Neighborhood Parks	\$6	\$11
Recreational Facilities	\$30	\$10
Gross Total	\$169	\$97
Gross Total per Person		\$266
Credit for Debt Payments		(\$31)
Net Total		\$235

Residential

Housing Unit Size (Sq. Ft.)	Persons per Household	Maximum Supportable Fee per Unit	Current Fee [1]	Increase/ (Decrease)
1,000 or less	1.20	\$282	\$671	(\$389)
1,001 to 1,250	1.50	\$353	\$671	(\$318)
1,251 to 1,500	1.80	\$423	\$671	(\$248)
1,501 to 1,750	2.00	\$470	\$671	(\$201)
1,751 to 2,000	2.20	\$517	\$671	(\$154)
2,001 to 2,500	2.50	\$588	\$671	(\$83)
2,501 to 3,000	2.80	\$658	\$671	(\$13)
3,001 to 3,500	3.00	\$705	\$671	\$34
3,501 to 4,000	3.20	\$752	\$671	\$81
4,001 or more	3.30	\$776	\$671	\$105

[1] fee listed is the average of the fees for the current service areas south of the Broad River

Revenue from Parks and Recreation Development Impact Fee

Revenue from the Parks and Recreation Development Impact Fee is estimated in Figure 25 and Figure 26. The following revenue estimations include only the areas of the County where the Parks and Recreation Development Impact Fee is being collected. Those areas are the unincorporated parts of Beaufort County and the Town of Bluffton. No other municipalities have entered into an intergovernmental agreement with Beaufort County to collect on their behalf.

There is projected to be 4,406 new housing units in northern unincorporated Beaufort County by 2029. To find the revenue, the fee is multiplied by the growth. However, it is impossible to anticipate the size of new housing units, so the fees for the current average sized single family unit (2,815 square feet) and multifamily unit (1,154 square feet) are applied. For example, single family development is estimated to generate \$3,639,533 in revenue (\$1,076 x 3,382 units = \$3,639,533). The revenue from the development impact fee covers 64 percent of the anticipated costs from the projected growth. This is a result of no municipalities collecting the County’s development impact fee, but residents being included in the level of service.

Figure 25. Estimated Revenue from the Parks & Rec Development Impact Fee – North of the Broad Infrastructure Costs for Parks & Recreation Facilities

	Total Cost	Growth Cost
Regional Parks	\$3,717,146	\$3,717,146
Community Parks	\$1,320,240	\$1,320,240
Neighborhood Parks	\$643,539	\$643,539
Recreational Facilities	\$983,310	\$983,310
Total Expenditures	\$6,664,235	\$6,664,235

Projected Development Impact Fee Revenue

		Single Family \$1,076 per unit	Multifamily \$590 per unit	Retail \$0 per KSF	Office/Service \$0 per KSF	Industrial \$0 per KSF	Institutional \$0 per KSF
Year		Housing Units	Housing Units	KSF	KSF	KSF	KSF
Base	2019	15,141	4,582	459	674	703	107
Year 1	2020	15,479	4,684	475	698	728	110
Year 2	2021	15,817	4,786	491	722	753	114
Year 3	2022	16,155	4,888	507	745	778	118
Year 4	2023	16,492	4,991	523	769	803	122
Year 5	2024	16,830	5,093	539	793	827	125
Year 6	2025	17,168	5,195	555	816	852	129
Year 7	2026	17,506	5,297	571	840	877	133
Year 8	2027	17,844	5,399	587	864	902	137
Year 9	2028	18,181	5,502	603	888	927	141
Year 10	2029	18,524	5,605	619	911	951	144
Ten-Year Increase		3,382	1,024	159	237	248	38
Projected Revenue		\$3,639,533	\$603,885	\$0	\$0	\$0	\$0
						Projected Revenue =>	\$4,243,418
						Total Expenditures =>	\$6,664,235
						Non-Impact Fee Funding =>	\$2,420,816

Listed in Figure 26, there is projected to be 6,447 new housing units in southern unincorporated Beaufort County and the Town of Bluffton by 2029. The revenue from the development impact fee covers 53 percent of the anticipated costs from the projected growth. This is a result of only the Town of Bluffton collecting the County’s development impact fee, while other incorporated residents included in the level of service. Additionally, the credit included to ensure no double payment issues creates a funding gap from the development impact fee.

Figure 26. Estimated Revenue from the Parks & Rec Development Impact Fee – South of the Broad Infrastructure Costs for Parks & Recreation Facilities

	Total Cost	Growth Cost
Regional Parks	\$5,045,732	\$5,045,732
Community Parks	\$352,385	\$352,385
Neighborhood Parks	\$429,440	\$429,440
Recreational Facilities	\$1,021,323	\$1,021,323
Total Expenditures	\$6,848,880	\$6,848,880

Projected Development Impact Fee Revenue

		Single Family \$658 per unit	Multifamily \$353 per unit	Retail \$0 per KSF	Office/Service \$0 per KSF	Industrial \$0 per KSF	Institutional \$0 per KSF
Year		Housing Units	Housing Units	KSF	KSF	KSF	KSF
Base	2019	31,421	13,757	2,662	3,394	4,816	1,692
Year 1	2020	31,824	13,930	2,720	3,467	4,923	1,730
Year 2	2021	32,276	14,131	2,788	3,549	5,046	1,773
Year 3	2022	32,728	14,331	2,857	3,632	5,170	1,817
Year 4	2023	33,180	14,532	2,925	3,714	5,293	1,860
Year 5	2024	33,632	14,732	2,994	3,796	5,417	1,904
Year 6	2025	34,084	14,933	3,062	3,879	5,540	1,947
Year 7	2026	34,536	15,133	3,131	3,961	5,664	1,991
Year 8	2027	34,988	15,334	3,199	4,044	5,787	2,034
Year 9	2028	35,440	15,534	3,268	4,126	5,911	2,078
Year 10	2029	35,890	15,735	3,336	4,209	6,034	2,121
Ten-Year Increase		4,469	1,978	674	814	1,219	429
Projected Revenue		\$2,940,661	\$698,167	\$0	\$0	\$0	\$0
						Projected Revenue =>	\$3,638,828
						Total Expenditures =>	\$6,848,880
						General Fund's Share =>	\$3,210,052

LIBRARY CIP AND DEVELOPMENT IMPACT FEE

Methodology

Section 6-1-920(18c) of the South Carolina Development Impact Fee Act states that a development impact fee may be imposed on public facilities including:

"...parks, libraries, and recreational facilities."

The Library Development Impact Fee is calculated only for residential development and on a per capita basis. The incremental expansion methodology is used to calculate the current level of service for:

- Library branches and land (north and south of the Broad River service areas)
- Bookmobiles (countywide service area)

Section 6-1-960(1) of the South Carolina Development Impact Fee Act requires:

"a general description of all existing facilities and their existing deficiencies, within the service area or areas of the governmental entity, a reasonable estimate of all costs, and a plan to develop the funding resources, including existing sources of revenues, related to curing existing deficiencies including, but not limited to, the upgrading, updating, improving, expanding, or replacing of these facilities to meet existing needs and usage."

Section 6-1-960(2) of the South Carolina Development Impact Fee Act requires:

"an analysis of total capacity, the level of current usage, and commitments for usage of capacity of existing public facilities, which must be prepared by qualified a professional using generally accepted principles and professional standards."

Residential development impact fees are calculated on a per housing unit basis using persons per household factors by housing size. Based on services and facilities provided by Beaufort County, it has been determined that the current level of service will be calculated based on the unincorporated and incorporated populations of Beaufort County. Municipalities in the County are not currently providing library services. The population total is the sum of permanent and seasonal residents.

There are current or proposed intergovernmental agreements between Beaufort County and the area's municipalities stating that the municipalities will collect the Library Development Impact Fee on behalf of the County.

Library Service Area

Furthermore, the library facilities are being provided based on a service area level (north and south of the Broad). Thus, the service areas have been included in the analysis. However, it was determined that bookmobiles are serving countywide.

Library Service Units

Section 6-1-960(4) of the South Carolina Development Impact Fee Act requires:

“a definitive table establishing the specific service unit for each category of system improvements and an equivalency or conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial, agricultural, and industrial, as appropriate.”

The “service unit” used for residential development is persons per household (PPH). This is a measure of, on average, the number of persons residing in each occupied housing unit. As shown in Figure 27, persons per household factors are calculated based on the housing unit size and for each service area. Calculations are based off local U.S. Census data and further discussion can be found in Appendix C.

Figure 27. Residential Service Units

Housing Size Square Feet	Persons per Household	
	North	South
1,000 or less	1.40	1.20
1,001 to 1,250	1.70	1.50
1,251 to 1,500	2.00	1.80
1,501 to 1,750	2.30	2.00
1,751 to 2,000	2.50	2.20
2,001 to 2,500	2.90	2.50
2,501 to 3,000	3.10	2.80
3,001 to 3,500	3.40	3.00
3,501 or 4,000	3.60	3.20
4,001 or more	3.80	3.30

See Appendix C for details about calculations

Library Facilities Level of Service & Cost Analysis

The Library Development Impact Fee includes the County’s library branches and bookmobiles. Identified by County staff, additional expansion will be necessary to serve future growth. The incremental methodology is applied and the 2019 permanent and seasonal population for each service area is used in the calculations.

As shown in Figure 28, there are three library branches in the northern service area which total 59,747 square feet and 9.92 acres of land. It was determined that an engineered cost to build a new library would average \$285 per square foot. The total replacement cost of the facilities is \$17,027,895. The average cost for land is \$14,000 per acre.

To calculate the current level of service for library branches in the North of the Broad Service Area, the total floor area and acreage is divided by the current population in the north. As a result, there is 0.67 square feet per person (59,747 square feet / 88,819 residents = 0.67 square feet per person, rounded). There are 0.11 acres of land per 1,000 persons.

The level of service is combined with the average cost per library square foot and acre to calculate the capital cost per person. This results in the capital cost per person for branch construction totaling \$191 (0.67 square feet per person x \$285 per square foot = \$191 per person, rounded). There is a capital cost of \$2 per person for library land.

Figure 28. Library Branch Level of Service and Cost Factors – North of the Broad

Facility	Square Feet	Cost per Square Foot	Replacement Cost	Acres
Beaufort Branch	32,747	\$285	\$9,332,895	0.92
Lobeco Branch	4,000	\$285	\$1,140,000	4.00
St. Helena Branch	23,000	\$285	\$6,555,000	5.00
TOTAL	59,747		\$17,027,895	9.92

<i>Level-of-Service Standards</i>	Branch (sq. ft.)	Land (acres)
Proportionate Share	100%	100%
Share of Facility	59,747	10
2019 North of Broad Population	88,819	88,819
Square Feet per Person/Acres per 1,000 Persons	0.67	0.11

<i>Cost Analysis</i>	Branch (sq. ft.)	Land (acres)
Square Feet per Person/Acres per 1,000 Persons	0.67	0.11
Average Cost per Square Foot/Acre	\$285	\$14,000
Capital Cost Per Person	\$191	\$2

Listed in Figure 29, there are three library branches in the southern service area which total 51,900 square feet and 11.53 acres. It was determined that the cost to build a new library would average \$285 per square foot. The total replacement cost of the facilities is \$14,791,500. The average cost for land is \$158,000 per acre.

To calculate the current level of service for library branches in the South of the Broad Service Area, the total floor area and acreage is divided by the current population in the south. As a result, there is 0.39 square feet per person (51,900 square feet / 134,015 residents = 0.39 square feet per person, rounded). There are 0.09 acres of land per 1,000 persons.

The level of service is combined with the average cost per library square foot and acre to calculate the capital cost per person. This results in the capital cost per person totaling \$111 (0.39 square feet per person x \$285 per square foot = \$111 per person, rounded). There is a capital cost of \$14 per person for library land.

Figure 29. Library Branch Level of Service and Cost Factors – South of the Broad

Facility	Square Feet	Cost per Square Foot	Replacement Cost	Acres
Bluffton Branch	26,900	\$285	\$7,666,500	2.93
Hilton Head Branch	25,000	\$285	\$7,125,000	8.60
TOTAL	51,900		\$14,791,500	11.53

<i>Level-of-Service Standards</i>	Branch (sq. ft.)	Land (acres)
Residential Share	100%	100%
Share of Facility Square Feet	51,900	12
2019 South of Broad Population	134,015	134,015
Square Feet per Person/Acres per 1,000 Persons	0.39	0.09

<i>Cost Analysis</i>	Branch (sq. ft.)	Land (acres)
Square Feet per Person/Acres per 1,000 Persons	0.39	0.09
Average Cost per Square Foot/Acre	\$285	\$158,000
Capital Cost Per Person	\$111	\$14

To better address local demands, the County has been providing bookmobile services countywide. The County currently has two bookmobiles and the replacement cost for one vehicle is \$153,000. To calculate the current level of service for bookmobiles, the total fleet is divided by the countywide population. As a result, there are 0.009 bookmobiles per 1,000 persons (2 bookmobiles / 222,834 residents = 0.009 bookmobiles per 1,000 persons, rounded). The level of service is combined with the average cost per bookmobile to calculate the capital cost per person. This results in the capital cost per person totaling \$1 (0.009 bookmobiles per 1,000 persons x \$153,000 per bookmobile = \$1 per person, rounded).

Figure 30. Bookmobile Level of Service and Cost Factors

Facility	Vehicles	Cost per Vehicle	Replacement Cost
Bookmobiles	2	\$153,000	\$306,000
TOTAL	2		\$306,000

Level-of-Service Standards	Bookmobiles
Residential Share	100%
Share of Vehicles	2
2019 Countywide Population	222,834
Vehicles per 1,000 persons	0.009

Cost Analysis	Residential
Vehicles per 1,000 persons	0.009
Average Cost per Vehicle	\$153,000
Capital Cost Per Person	\$1

Credit for Future Debt Payments

To ensure fee-payers avoid potential double payment for annual debt service, TischlerBise included in credit in the development impact fee calculations. The current debt is for the St. Helena Library Branch which is serving the population north of the Broad River, so the credit is only applied to the North of the Broad Service Area.

Following the same methodology as the level of service analysis, annual debt service is applied to only residential development and then divided by annual demand unit (population) to yield payments per person. To account for the time value of money, annual payments are discounted using a net present value formula based on the applicable discount (interest) rate. This results in a credit of \$33 per person.

Figure 31. Credit for Future Debt Payments – North of the Broad

Fiscal Year	Payment	Residential 100%	Fiscal Year	Payment	Projected Population	Payment/ Capita
Base Year	\$439,658	\$439,658	Base Year	\$439,658	88,819	\$4.95
2020	\$415,989	\$415,989	2020	\$415,989	90,719	\$4.59
2021	\$280,980	\$280,980	2021	\$280,980	92,620	\$3.03
2022	\$280,980	\$280,980	2022	\$280,980	94,521	\$2.97
2023	\$280,980	\$280,980	2023	\$280,980	96,421	\$2.91
2024	\$280,980	\$280,980	2024	\$280,980	98,322	\$2.86
2025	\$280,980	\$280,980	2025	\$280,980	100,222	\$2.80
2026-2030	\$1,404,900	\$1,404,900	2026-2030	\$1,404,900	109,003	\$18.45
2031-2034	\$1,123,920	\$1,123,920	2031-2034	\$1,123,920	113,740	\$13.76
Total	\$4,789,367	\$4,789,367	Total	\$4,789,367		\$47.44
					Discount Rate	5.00%
					Total Credit per Person	\$33

Note: In the out-years of the payment schedule, payments have been summed, but payments are annualized in analysis

Projection of Library Growth-Related Facility Needs

Section 6-1-960(5) of the South Carolina Development Impact Fee Act requires:

“a description of all system improvements and their costs necessitated by and attributable to new development in the service area, based on the approved land use assumptions, to provide a level of service not to exceed the level of service currently existing in the community or service area, unless a different or higher level of service is required by law, court order, or safety consideration.”

Section 6-1-960(7) of the South Carolina Development Impact Fee Act requires:

“the projected demand for system improvements required by new service units projected over a reasonable period of time not to exceed twenty years.”

Library Branches

To estimate the 10-year growth needs for library branches in the North of the Broad Service Area, the current level of service (0.67 square feet per person) is applied to the residential growth projected for the entire service area. Including municipalities, northern Beaufort County is projected to increase by 19,000 residents over the next ten years (see Appendix B). Listed in Figure 32, there will need to be a total of 72,238 square feet of library branches to accommodate the growth, with future development accounting for 12,730 new square feet. By applying the average cost of a building (\$285 per square feet), the total expenditure for the growth is calculated (12,730 square feet x \$285 = \$3,628,050).

Figure 32. 10-Year Library Branches Facility Needs to Accommodate Growth – North of the Broad

Type of Infrastructure	Level of Service		Demand Unit	Unit Cost / Sq. Ft.
Library Branches	Residential	0.67	Square Feet	\$285
	Nonresidential	0.00		

Growth-Related Need for Library Branches						
Year	Population	Jobs	Residential Square Feet	Nonresidential Square Feet	Total Square Feet	
Base	2019	88,819	26,435	59,508	0	59,508
Year 1	2020	90,719	27,311	60,781	0	60,781
Year 2	2021	92,620	28,187	62,055	0	62,055
Year 3	2022	94,521	29,063	63,329	0	63,329
Year 4	2023	96,421	29,939	64,602	0	64,602
Year 5	2024	98,322	30,816	65,875	0	65,875
Year 6	2025	100,222	31,692	67,148	0	67,148
Year 7	2026	102,123	32,568	68,422	0	68,422
Year 8	2027	104,024	33,444	69,696	0	69,696
Year 9	2028	105,924	34,320	70,969	0	70,969
Year 10	2029	107,819	35,196	72,238	0	72,238
Ten-Year Increase		19,000	8,761	12,730	0	12,730
		Projected Expenditure		\$3,628,050	\$0	\$3,628,050

Growth-Related Expenditures for Library Branches \$3,628,050

To estimate the 10-year growth needs for library branches in the South of the Broad Service Area, the current level of service (0.39 square feet per person) is applied to the residential growth projected for the entire service area. Including municipalities, southern Beaufort County is projected to increase by 25,791 residents over the next ten years (see Appendix B). Listed in Figure 33, there will need to be a total of 62,324 square feet of library branches to accommodate the growth, with future development accounting for 10,058 new square feet. By applying the average cost of a building (\$285 per square feet), the total expenditure for the growth is calculated (10,058 square feet x \$285 = \$2,866,530).

Figure 33. 10-Year Library Branches Facility Needs to Accommodate Growth – South of the Broad

Type of Infrastructure	Level of Service		Demand Unit	Unit Cost / Sq. Ft.
Library Branches	Residential	0.39	per person	\$285
	Nonresidential	0.00	per job	

Growth-Related Need for Library Branches						
Year		Population	Jobs	Residential Square Feet	Nonresidential Square Feet	Total Square Feet
Base	2019	134,015	40,044	52,266	0	52,266
Year 1	2020	136,865	40,793	53,377	0	53,377
Year 2	2021	139,414	41,543	54,371	0	54,371
Year 3	2022	141,963	42,292	55,365	0	55,365
Year 4	2023	144,513	43,041	56,360	0	56,360
Year 5	2024	147,062	43,790	57,354	0	57,354
Year 6	2025	149,612	44,540	58,348	0	58,348
Year 7	2026	152,160	45,289	59,342	0	59,342
Year 8	2027	154,709	46,038	60,336	0	60,336
Year 9	2028	157,259	46,787	61,331	0	61,331
Year 10	2029	159,806	47,537	62,324	0	62,324
Ten-Year Increase		25,791	7,493	10,058	0	10,058
Projected Expenditure				\$2,866,530	\$0	\$2,866,530

Growth-Related Expenditures for Library Branches | \$2,866,530

Library Land

To estimate the 10-year growth needs for library land in the North of the Broad Service Area, the current level of service (0.11 acres per 1,000 persons) is applied to the residential growth projected for the entire service area. Including municipalities, northern Beaufort County is projected to increase by 19,000 residents over the next ten years (see Appendix B). Listed in Figure 34, there will need to be a total of 11.86 acres of library land to accommodate the growth, with future development accounting for 2.09 new acres. By applying the average cost of land in the north (\$14,000 per acre), the total expenditure for the growth is calculated (2.09 acres x \$14,000 = \$29,260).

Figure 34. 10-Year Library Land Needs to Accommodate Growth – North of the Broad

Type of Infrastructure	Level of Service		Demand Unit	Cost / Acre
Library Land	Residential	0.11	Acres	\$14,000
	Nonresidential	0.00		

Growth-Related Need for Library Land						
Year		Population	Jobs	Residential Acres	Nonresidential Acres	Total Acres
Base	2019	88,819	26,435	9.77	0.00	9.77
Year 1	2020	90,719	27,311	9.97	0.00	9.97
Year 2	2021	92,620	28,187	10.18	0.00	10.18
Year 3	2022	94,521	29,063	10.39	0.00	10.39
Year 4	2023	96,421	29,939	10.60	0.00	10.60
Year 5	2024	98,322	30,816	10.81	0.00	10.81
Year 6	2025	100,222	31,692	11.02	0.00	11.02
Year 7	2026	102,123	32,568	11.23	0.00	11.23
Year 8	2027	104,024	33,444	11.44	0.00	11.44
Year 9	2028	105,924	34,320	11.65	0.00	11.65
Year 10	2029	107,819	35,196	11.86	0.00	11.86
Ten-Year Increase		19,000	8,761	2.09	0.00	2.09
Projected Expenditure				\$29,260	\$0	\$29,260

Growth-Related Expenditures for Library Land	\$29,260
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To estimate the 10-year growth needs for library land in the South of the Broad Service Area, the current level of service (0.09 acres per 1,000 persons) is applied to the residential growth projected for the entire service area. Including municipalities, southern Beaufort County is projected to increase by 25,791 residents over the next ten years (see Appendix B). Listed in Figure 35, there will need to be a total of 14.38 acres of library land to accommodate the growth, with future development accounting for 2.32 new acres. By applying the average cost of land in the south (\$158,000 per acre), the total expenditure for the growth is calculated (2.32 acres x \$158,000 = \$366,560).

Figure 35. 10-Year Library Land Needs to Accommodate Growth – South of the Broad

Type of Infrastructure	Level of Service		Demand Unit	Cost / Acre
Library Land	Residential	0.09	Acres	\$158,000
	Nonresidential	0.00		

Growth-Related Need for Library Land						
Year		Population	Jobs	Residential Acres	Nonresidential Acres	Total Acres
Base	2019	134,015	40,044	12.06	0.00	12.06
Year 1	2020	136,865	40,793	12.31	0.00	12.31
Year 2	2021	139,414	41,543	12.54	0.00	12.54
Year 3	2022	141,963	42,292	12.77	0.00	12.77
Year 4	2023	144,513	43,041	13.00	0.00	13.00
Year 5	2024	147,062	43,790	13.23	0.00	13.23
Year 6	2025	149,612	44,540	13.46	0.00	13.46
Year 7	2026	152,160	45,289	13.69	0.00	13.69
Year 8	2027	154,709	46,038	13.92	0.00	13.92
Year 9	2028	157,259	46,787	14.15	0.00	14.15
Year 10	2029	159,806	47,537	14.38	0.00	14.38
Ten-Year Increase		25,791	7,493	2.32	0.00	2.32
Projected Expenditure				\$366,560	\$0	\$366,560

Growth-Related Expenditures for Library Land	\$366,560
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Bookmobiles

To estimate the 10-year growth needs for bookmobiles countywide, the current level of service (0.009 vehicles per 1,000 persons) is applied to the residential growth projected countywide. Including municipalities, Beaufort County is projected to increase by 44,791 residents over the next ten years (see Appendix B). Listed in Figure 36, there will need to be a total of 2.4 bookmobiles to accommodate the growth, with future development accounting for 0.4 new bookmobiles. By applying the average cost of a bookmobile (\$153,000), the total expenditure for the growth is calculated (0.4 bookmobiles x \$153,000 = \$61,200).

Figure 36. 10-Year Bookmobile Needs to Accommodate Growth - Countywide

Type of Infrastructure	Level of Service		Demand Unit	Unit Cost / Sq. Ft.
Bookmobiles	Residential	0.009	Vehicles	\$153,000
	Nonresidential	0.00		

Growth-Related Need for Bookmobiles						
Year	Population	Jobs	Residential Square Feet	Nonresidential Square Feet	Total Square Feet	
Base	2019	222,834	66,479	2.0	0.0	2.0
Year 1	2020	227,584	68,104	2.0	0.0	2.0
Year 2	2021	232,034	69,730	2.1	0.0	2.1
Year 3	2022	236,484	71,355	2.1	0.0	2.1
Year 4	2023	240,934	72,980	2.2	0.0	2.2
Year 5	2024	245,384	74,606	2.2	0.0	2.2
Year 6	2025	249,834	76,231	2.2	0.0	2.2
Year 7	2026	254,283	77,856	2.3	0.0	2.3
Year 8	2027	258,733	79,482	2.3	0.0	2.3
Year 9	2028	263,183	81,107	2.4	0.0	2.4
Year 10	2029	267,625	82,733	2.4	0.0	2.4
Ten-Year Increase		44,791	16,254	0.4	0.0	0.4
			Projected Expenditure	\$61,200	\$0	\$61,200

Growth-Related Expenditures for Bookmobiles	\$61,200
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Maximum Supportable Library Development Impact Fee

Figure 37 shows the maximum supportable Library Development Impact Fee for the North and South of the Broad Service Areas. Development impact fees for library facilities are based on household size (i.e., persons per household) for residential development. The fee is only assessed on residential development. Differentiating the fee by housing size allows the results to be more exact about the level of demand (persons per household) a residential development will place on the current infrastructure based on level of service standards. For residential development, the total cost per person is multiplied by the household size to calculate the proposed fee. The current fee is included in the figure to highlight the change.

The fees represent the highest amount supportable for each type of development, which represents new growth’s fair share of the cost for capital facilities. The County may adopt fees that are less than the amounts shown. However, a reduction in development impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service.

Figure 37. Maximum Supportable Library Development Impact Fee– North of the Broad

North of the Broad Service Area

Fee Component	Cost per Person
Library Branches	\$191
Library Land	\$2
Book Mobiles	\$1
Gross Total	\$194
Credit for Debt Payments	(\$33)
Net Total	\$161

Residential

Housing Unit Size (Sq. Ft.)	Persons per Household	Maximum Supportable Fee per Unit	Current Fee	Increase/ (Decrease)
1,000 or less	1.40	\$225	\$553	(\$328)
1,001 to 1,250	1.70	\$273	\$553	(\$280)
1,251 to 1,500	2.00	\$321	\$553	(\$232)
1,501 to 1,750	2.30	\$369	\$553	(\$184)
1,751 to 2,000	2.50	\$401	\$553	(\$152)
2,001 to 2,500	2.90	\$466	\$553	(\$87)
2,501 to 3,000	3.10	\$498	\$553	(\$55)
3,001 to 3,500	3.40	\$546	\$553	(\$7)
3,501 to 4,000	3.60	\$578	\$553	\$25
4,001 or more	3.80	\$610	\$553	\$57

Figure 38. Maximum Supportable Library Development Impact Fee – South of the Broad

South of the Broad Service Area

Fee Component	Cost per Person
Library Branches	\$111
Library Land	\$14
Book Mobiles	\$1
Gross Total	\$126
Credit for Debt Payments	\$0
Net Total	\$126

Residential

Housing Unit Size (Sq. Ft.)	Persons per Household	Maximum Supportable Fee per Unit	Current Fee	Increase/ (Decrease)
1,000 or less	1.20	\$151	\$553	(\$402)
1,001 to 1,250	1.50	\$189	\$553	(\$364)
1,251 to 1,500	1.80	\$227	\$553	(\$326)
1,501 to 1,750	2.00	\$252	\$553	(\$301)
1,751 to 2,000	2.20	\$278	\$553	(\$275)
2,001 to 2,500	2.50	\$316	\$553	(\$237)
2,501 to 3,000	2.80	\$353	\$553	(\$200)
3,001 to 3,500	3.00	\$379	\$553	(\$174)
3,501 to 4,000	3.20	\$404	\$553	(\$149)
4,001 or more	3.30	\$417	\$553	(\$136)

Revenue from Library Development Impact Fee

Revenue from the Library Development Impact Fee is estimated in Figure 39 and Figure 40. Since all municipalities have intergovernmental agreements with Beaufort County or are considering joining the program, the revenue estimations include countywide growth.

There is projected to be 8,034 new housing units in northern Beaufort County by 2029. However, it is impossible to anticipate the size of new housing units, so the fees for the current average sized single family unit (2,815 square feet) and multifamily unit (1,154 square feet) are applied. For example, single family development generates \$3,071,306 in revenue (\$498 x 6,167 units = \$3,071,306). The revenue from the development impact fee covers nearly all the capital costs generated by projected growth. The small remaining balance of the projected expenditures is expected because of the credit applied to prevent double payment.

Figure 39. Estimated Revenue from the Library Development Impact Fee – North of the Broad

Infrastructure Costs for Library Facilities

	Total Cost	Growth Cost
Library Branches	\$3,628,050	\$3,628,050
Library Land	\$29,260	\$29,260
Bookmobiles	\$25,928	\$25,928
Total Expenditures	\$3,683,238	\$3,683,238

Projected Development Impact Fee Revenue

		Single Family \$498 per unit	Multifamily \$273 per unit	Retail \$0 per KSF	Office/Service \$0 per KSF	Industrial \$0 per KSF	Institutional \$0 per KSF
Year	Housing Units	Housing Units	Housing Units	KSF	KSF	KSF	KSF
Base 2018	27,589	8,348	2,321	3,970	3,885	1,074	
Year 1 2019	28,206	8,535	2,401	4,100	4,015	1,109	
Year 2 2020	28,823	8,722	2,480	4,230	4,144	1,143	
Year 3 2021	29,440	8,909	2,559	4,360	4,273	1,178	
Year 4 2022	30,058	9,095	2,639	4,490	4,403	1,213	
Year 5 2023	30,675	9,282	2,718	4,620	4,532	1,248	
Year 6 2024	31,292	9,469	2,797	4,750	4,661	1,283	
Year 7 2025	31,909	9,656	2,877	4,880	4,791	1,318	
Year 8 2026	32,526	9,843	2,956	5,010	4,920	1,353	
Year 9 2027	33,144	10,029	3,035	5,140	5,049	1,388	
Year 10 2028	33,756	10,215	3,115	5,270	5,179	1,423	
Ten-Year Increase	6,167	1,866	793	1,300	1,293	349	
Projected Revenue	\$3,071,306	\$509,478	\$0	\$0	\$0	\$0	
Projected Revenue =>						\$3,580,784	
Total Expenditures =>						\$3,683,238	
Non-Impact Fee Funding =>						\$102,454	

Listed in Figure 40, there is projected to be 10,929 new housing units in southern Beaufort County by 2029. To find the revenue, the fee is multiplied by the growth. For example, single family development generates \$2,787,895 in revenue (\$353 x 7,898 units = \$2,787,895). The revenue from the development

impact fee covers all the capital costs generated by projected growth (rounding in the calculations result in the revenue slightly exceeding the expenditures).

Figure 40. Estimated Revenue from the Library Development Impact Fee – South of the Broad
Infrastructure Costs for Library Facilities

	Total Cost	Growth Cost
Library Branches	\$2,866,530	\$2,866,530
Library Land	\$366,560	\$366,560
Bookmobiles	\$35,272	\$35,272
Total Expenditures	\$3,268,362	\$3,268,362

Projected Development Impact Fee Revenue

		Single Family \$353 per unit	Multifamily \$189 per unit	Retail \$0 per KSF	Office/Service \$0 per KSF	Industrial \$0 per KSF	Institutional \$0 per KSF
Year		Housing Units	Housing Units	KSF	KSF	KSF	KSF
Base	2018	44,852	15,253	4,486	5,287	5,424	1,845
Year 1	2019	45,642	15,555	4,564	5,376	5,544	1,884
Year 2	2020	46,431	15,858	4,642	5,466	5,665	1,923
Year 3	2021	47,221	16,160	4,720	5,555	5,785	1,962
Year 4	2022	48,009	16,464	4,797	5,645	5,906	2,001
Year 5	2023	48,798	16,767	4,875	5,734	6,026	2,040
Year 6	2024	49,588	17,069	4,953	5,824	6,146	2,079
Year 7	2025	50,377	17,372	5,030	5,913	6,267	2,118
Year 8	2026	51,166	17,675	5,108	6,003	6,387	2,157
Year 9	2027	51,955	17,978	5,186	6,092	6,508	2,196
Year 10	2028	52,750	18,283	5,263	6,182	6,628	2,235
Ten-Year Increase		7,898	3,031	777	895	1,204	389
Projected Revenue		\$2,787,895	\$572,818	\$0	\$0	\$0	\$0
						Projected Revenue =>	\$3,360,712
						Total Expenditures =>	\$3,268,362
						Non-Impact Fee Funding =>	\$0

PUBLIC SAFETY CIP AND DEVELOPMENT IMPACT FEE: EMS

Methodology

Section 6-1-920(18f) of the South Carolina Development Impact Fee Act states that a development impact fee may be imposed on public facilities including:

“...public safety facilities, including law enforcement, fire, emergency medical and rescue, and street lighting facilities.”

The EMS Development Impact Fee includes components:

- EMS stations (countywide service area, excluding Hilton Head Island)
- EMS vehicles (countywide service area, excluding Hilton Head Island)

An incremental expansion methodology is applied to each component. Costs are allocated to both residential and nonresidential development using different demand indicators for each type of development.

Section 6-1-960(1) of the South Carolina Development Impact Fee Act requires:

“a general description of all existing facilities and their existing deficiencies, within the service area or areas of the governmental entity, a reasonable estimate of all costs, and a plan to develop the funding resources, including existing sources of revenues, related to curing existing deficiencies including, but not limited to, the upgrading, updating, improving, expanding, or replacing of these facilities to meet existing needs and usage.”

Section 6-1-960(2) of the South Carolina Development Impact Fee Act requires:

“an analysis of total capacity, the level of current usage, and commitments for usage of capacity of existing public facilities, which must be prepared by qualified a professional using generally accepted principles and professional standards.”

Residential development impact fees are calculated on a per housing unit basis using persons per household factors by housing size. Nonresidential development impact fees are calculated using nonresidential vehicle trips. Trip generation rates are highest for commercial/retail development and lowest for industrial development, whereas trip rates for office & institutional development fall between the other two categories. Using vehicle trip rates ensures that development impact fees are consistent with the relative demand for EMS services from nonresidential development.

EMS Service Area

Furthermore, it has been determined that EMS services are being provided at a countywide basis except for Hilton Head Island. The Town of Hilton Head Island provides EMS services within its jurisdiction. As a result, the current level of service for the EMS components are calculated using countywide totals less Hilton Head Island.

EMS Service Units

Section 6-1-960(4) of the South Carolina Development Impact Fee Act requires:

“a definitive table establishing the specific service unit for each category of system improvements and an equivalency or conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial, agricultural, and industrial, as appropriate.”

The “service unit” used for residential development is persons per household (PPHH). This is a measure of, on average, the number of persons residing in each occupied housing unit. As shown in Figure 41, persons per household factors are calculated based on the countywide housing unit size averages. Calculations are based off local U.S. Census data and further discussion can be found in Appendix C.

Figure 41. Residential Service Units

Housing Size Square Feet	Persons per Household Countywide
1,000 or less	1.30
1,001 to 1,250	1.62
1,251 to 1,500	1.89
1,501 to 1,750	2.12
1,751 to 2,000	2.32
2,001 to 2,500	2.65
2,501 to 3,000	2.92
3,001 to 3,500	3.15
3,501 or 4,000	3.35
4,001 or more	3.53

See Appendix C for details about calculations

TischlerBise recommends using nonresidential vehicle trips as the nonresidential “service unit” for EMS infrastructure. Average weekday vehicle trip ends for nonresidential development are from the 10th edition of the reference book, Trip Generation, published in 2017 by the Institute of Transportation Engineers. A “trip end” represents a vehicle either entering or exiting a development (as if a traffic counter were placed across a driveway). Trip ends for nonresidential development are calculated per thousand square feet.

Trip generation rates are used for nonresidential development because vehicle trips are highest for retail developments, such as shopping centers, and lowest for industrial development. Office and institutional trip rates fall between the other two categories. This ranking of trip rates is consistent with the relative demand for public safety services from nonresidential development. Other possible nonresidential demand indicators, such as employment or floor area, will not accurately reflect the demand for service. For example, if employees per thousand square feet were used as the demand indicator, EMS development fees would be disproportionately high for office and institutional development because offices typically have more employees per 1,000 square feet than retail uses. If floor area were used as the demand indicator, EMS development fees would be disproportionately high for industrial development.

For nonresidential land uses, the standard 50 percent adjustment is applied to Office/Service, Industrial, and Institutional. A lower vehicle trip adjustment factor is used for Retail because this type of development attracts vehicles as they pass-by on arterial and collector roads. For example, when someone stops at a convenience store on their way home from work, the convenience store is not their primary destination. Further detail on vehicle trip factors can be found in Appendix B: Land Use Assumptions.

Figure 42. Nonresidential Service Units

Land Use Type	Adj. Veh. Trips per 1,000 Sq. Ft.
Retail	14.35
Office/Service	4.87
Institutional	1.97
Industrial	9.76

Source: Trip Generation, Institute of Transportation Engineers, 10th Edition (2017)

EMS Proportionate Share

Both residential and nonresidential developments increase the demand on EMS facilities. To calculate the proportional share between residential and nonresidential demand on EMS facilities and vehicles, 2018 EMS calls for service are used. Shown in Figure 43, 64 percent of the calls were from residential locations, 18 percent were from nonresidential locations, and 19 percent were from vehicle traffic. The vehicle miles traveled (VMT) in the County were used to attribute the traffic calls to residential and nonresidential locations. After attributing the traffic calls, 79 percent of EMS service calls were estimated to come from residential locations and 21 percent of EMS service calls were estimated to come from nonresidential locations.

Figure 43. Beaufort County EMS Service Calls

Location	2018 Calls	%
Residential	10,032	64%
Nonresidential	2,767	18%
Traffic	2,952	19%
Total	15,751	100%

Traffic Calls	Vehicle Miles Traveled (VMT)	%
Residential	1,629,620	80%
Nonresidential	410,308	20%
Total	2,039,928	100%

Location	2018 Calls	%
Residential	12,390	79%
Nonresidential	3,361	21%
Total	15,751	100%

Source: Beaufort County EMS Department

EMS Facilities Level of Service & Cost Analysis

The EMS Development Impact Fee includes the facilities that house the County's EMS services. Identified by County staff, additional expansion will be necessary to serve future growth. Two stations (EMS 10 and 11) are currently under construction and are anticipated to be operational by 2021. These stations are considered in the current level of service, which requires the 2021 population and nonresidential vehicle trips to be included in the analysis.

As shown in Figure 44, the EMS Department occupies 14 buildings, totaling 35,530 square feet. To determine the level of service factors for the development impact fee, the EMS calls for service percentages are used to allocate the facility floor area in the figure. Of the total square feet, 28,069 is allocated to residential growth and 7,461 is allocated to nonresidential growth.

The allocated floor area of the Beaufort County EMS facilities is divided by the 2021 residential and nonresidential demand units (population and nonresidential vehicle trips). The result is the current level of service for EMS stations in the County. Specifically, 0.17 square feet of facility per person and 0.06 square feet per nonresidential vehicle trip.

From County staff, the new station construction costs an average of \$413 per square foot. That cost factor is used to determine the replacement cost of the other stations. To find the capital cost per person or per nonresidential vehicle trip, the level of service standards are applied to the average cost per square foot. For example, the residential cost per person is \$70 (0.17 square feet per person x \$413 per square foot = \$70 per person, rounded).

Figure 44. EMS Station Level of Service and Cost Factors - Countywide

Facility	Square Feet	Cost per Square Foot	Replacement Cost
EMS Base	10,551	\$413	\$4,357,563
EMS 2	1,840	\$413	\$759,920
EMS 3	1,679	\$413	\$693,427
EMS 4	1,226	\$413	\$506,338
EMS 5	1,158	\$413	\$478,254
EMS 6	2,037	\$413	\$841,281
EMS 7	1,564	\$413	\$645,932
EMS 8	1,568	\$413	\$647,584
EMS 9	2,044	\$413	\$844,172
EMS 10	3,712	\$413	\$1,533,056
EMS 11	4,044	\$413	\$1,670,172
EMS 25	1,284	\$413	\$530,292
EMS 26	1,155	\$413	\$477,015
EMS 27	1,668	\$413	\$688,884
TOTAL	35,530		\$14,673,890

<i>Level-of-Service Standards</i>	Residential	Nonresidential
Proportionate Share	79%	21%
Share of Facility Square Feet	28,069	7,461
2021 Population or Nonres. Trips [1]	167,928	119,945
Square Feet per Person or Nonres. Trip	0.17	0.06

<i>Cost Analysis</i>	Residential	Nonresidential
Square Feet per Person or Nonres. Trips	0.17	0.06
Average Cost per Square Foot	\$413	\$413
Capital Cost Per Person or Nonres. Trip	\$70	\$25

[1] Note: The Town of Hilton Head Island provides EMS services within its jurisdiction, so in the level-of-service calculation, Hilton Head population and nonresidential vehicle trips have been excluded.

The EMS Department has 18 ambulances in its fleet to conduct operations. To determine the level of service factors for the development impact fee, the EMS calls for service percentages are used to allocate the vehicles. Of the total, 14.22 vehicles are allocated to residential growth and 3.78 vehicles are allocated to nonresidential growth.

The allocated vehicles are divided by the 2021 residential and nonresidential demand units (population and nonresidential vehicle trips). The result is the current level of service for EMS vehicles in the County. Specifically, 0.08 vehicles per 1,000 persons and 0.03 vehicles per 1,000 nonresidential vehicle trips.

The replacement cost of an ambulance is \$300,000. To find the capital cost per person or per nonresidential vehicle trip, the level of service standards are applied to the average cost per vehicle. For example, the residential cost per person is \$24 (0.08 vehicles per 1,000 persons x \$300,000 = \$24 per person, rounded).

Figure 45. EMS Vehicle Level of Service and Cost Factors - Countywide

Vehicle Type	Units	Cost per Vehicle	Replacement Cost
Ambulance	18	\$300,000	\$5,400,000
TOTAL	18		\$5,400,000

<i>Level-of-Service Standards</i>	Residential	Nonresidential
Proportionate Share	79%	21%
Share of Vehicles	14.22	3.78
2021 Population or Nonres. Trips [1]	167,928	119,945
Units per 1,000 Persons or Nonres. Trips	0.08	0.03

<i>Cost Analysis</i>	Residential	Nonresidential
Units per 1,000 Persons or Nonres. Trips	0.08	0.03
Average Cost per Vehicle	\$300,000	\$300,000
Capital Cost Per Person or Nonres. Trip	\$24	\$9

[1] Note: The Town of Hilton Head Island provides EMS services within its jurisdiction, so in the level-of-service calculation, Hilton Head population and nonresidential vehicle trips have been excluded.

Credit for Future Debt Payments

To ensure fee-payers avoid potential double payment for annual debt service, TischlerBise included in credit in the development impact fee calculations for the bonds issued to the construct the EMS Stations 10 and 11. Following the same methodology as the level of service analysis, annual debt service was split between residential and nonresidential development and then divided by annual demand units (population and nonresidential vehicle trips) to yield payments per person or vehicle trip. To account for the time value of money, annual payments are discounted using a net present value formula based on the applicable discount (interest) rate. This results in a credit of \$21 per person and \$8 per nonresidential vehicle trip rounded.

Figure 46. Credit for Future Debt Payments

Fiscal Year	Payment	Residential 79%	Nonresidential 21%
Base Year	\$227,917	\$180,055	\$47,863
2020	\$227,917	\$180,055	\$47,863
2021	\$227,917	\$180,055	\$47,863
2022	\$299,129	\$236,312	\$62,817
2023	\$295,569	\$233,499	\$62,069
2024	\$292,008	\$230,686	\$61,322
2025	\$288,447	\$227,873	\$60,574
2026	\$284,887	\$225,061	\$59,826
2027	\$690,200	\$545,258	\$144,942
2028	\$624,062	\$493,009	\$131,053
2029	\$614,627	\$485,555	\$129,072
2030	\$613,469	\$484,641	\$128,829
2031	\$612,995	\$484,266	\$128,729
2032	\$612,971	\$484,247	\$128,724
2033	\$618,448	\$488,574	\$129,874
2034	\$623,896	\$492,878	\$131,018
2035	\$629,296	\$497,144	\$132,152
2036	\$628,573	\$496,573	\$132,000
2037	\$628,499	\$496,514	\$131,985
Total	\$9,040,827	\$7,142,255	\$1,898,575

Residential			
Fiscal Year	Payment	Projected Population	Payment/ Capita
Base Year	\$180,055	158,581	\$1.14
2020	\$180,055	163,613	\$1.10
2021	\$180,055	167,928	\$1.07
2022	\$236,312	172,243	\$1.37
2023	\$233,499	176,558	\$1.32
2024	\$230,686	180,874	\$1.28
2025	\$227,873	185,189	\$1.23
2026	\$225,061	189,502	\$1.19
2027	\$545,258	193,817	\$2.81
2028	\$493,009	198,132	\$2.49
2029	\$485,555	202,432	\$2.40
2030	\$484,641	204,845	\$2.37
2031	\$484,266	207,264	\$2.34
2032	\$484,247	209,683	\$2.31
2033	\$488,574	212,102	\$2.30
2034	\$492,878	214,521	\$2.30
2035	\$497,144	216,940	\$2.29
2036	\$496,573	219,358	\$2.26
2037	\$496,514	221,777	\$2.24
Total	\$7,142,255		\$35.81
		Discount Rate	5.00%
		Total Credit	\$21

Nonresidential			
Fiscal Year	Payment	Projected Nonres. Vehicle Trips	Payment/ Trip
Base Year	\$47,863	112,143	\$0.43
2020	\$47,863	115,883	\$0.41
2021	\$47,863	119,944	\$0.40
2022	\$62,817	124,005	\$0.51
2023	\$62,069	128,066	\$0.48
2024	\$61,322	132,127	\$0.46
2025	\$60,574	136,188	\$0.44
2026	\$59,826	140,249	\$0.43
2027	\$144,942	144,310	\$1.00
2028	\$131,053	148,371	\$0.88
2029	\$129,072	152,432	\$0.85
2030	\$128,829	155,351	\$0.83
2031	\$128,729	158,001	\$0.81
2032	\$128,724	160,651	\$0.80
2033	\$129,874	163,301	\$0.80
2034	\$131,018	165,951	\$0.79
2035	\$132,152	168,601	\$0.78
2036	\$132,000	171,252	\$0.77
2037	\$131,985	173,902	\$0.76
Total	\$1,898,575		\$12.63
		Discount Rate	5.00%
		Total Credit	\$8

Projection of EMS Facility Growth-Related Facility Needs

Section 6-1-960(5) of the South Carolina Development Impact Fee Act requires:

“a description of all system improvements and their costs necessitated by and attributable to new development in the service area, based on the approved land use assumptions, to provide a level of service not to exceed the level of service currently existing in the community or service area, unless a different or higher level of service is required by law, court order, or safety consideration.”

Section 6-1-960(7) of the South Carolina Development Impact Fee Act requires:

“the projected demand for system improvements required by new service units projected over a reasonable period of time not to exceed twenty years.”

To estimate the 10-year growth needs for EMS stations, the current level of service (0.17 square feet per person and 0.06 square feet per nonresidential vehicle trip) is applied to the residential and nonresidential growth projected for Beaufort County. The County (less Hilton Head Island) is projected to increase by 43,851 residents and 40,289 nonresidential vehicle trips over the next ten years (see Appendix B). Listed in Figure 47, there will need to be a total of 43,559 square feet of EMS stations in the County to accommodate the growth, with future developments accounting for 9,872 new square feet. By applying the average cost of a station (\$413 per square feet), the total expenditure for the growth is calculated (9,872 square feet x \$413 = \$4,077,136).

Figure 47. 10-Year EMS Station Needs to Accommodate Growth

Type of Infrastructure	Level of Service		Demand Unit	Unit Cost / Sq. Ft.
EMS Stations	Residential	0.17	Square Feet	\$413
	Nonresidential	0.06		

Growth-Related Need for EMS Stations						
Year	Population	Nonres. Trips	Residential Square Feet	Nonresidential Square Feet	Total Square Feet	
Base	2019	158,581	112,143	26,958	6,729	33,687
Year 1	2020	163,613	115,884	27,814	6,953	34,767
Year 2	2021	167,928	119,945	28,547	7,197	35,744
Year 3	2022	172,243	124,006	29,281	7,440	36,721
Year 4	2023	176,558	128,067	30,014	7,684	37,698
Year 5	2024	180,874	132,127	30,748	7,928	38,676
Year 6	2025	185,189	136,189	31,482	8,171	39,653
Year 7	2026	189,502	140,249	32,215	8,415	40,630
Year 8	2027	193,817	144,310	32,948	8,659	41,607
Year 9	2028	198,132	148,372	33,682	8,902	42,584
Year 10	2029	202,432	152,433	34,413	9,146	43,559
Ten-Year Increase		43,851	40,289	7,455	2,417	9,872
			Projected Expenditure	\$3,078,915	\$998,221	\$4,077,136

Growth-Related Expenditures for EMS Stations	\$4,077,136
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To estimate the 10-year growth needs for EMS vehicles, the current level of service (0.08 vehicles per 1,000 persons and 0.03 units per 1,000 nonresidential vehicle trips) is applied to the residential and nonresidential growth projected for Beaufort County. The County (less Hilton Head Island) is projected to increase by 43,851 residents and 40,289 nonresidential vehicle trips over the next ten years (see Appendix B). Listed Figure 48, there will need to be a total of 21.94 vehicles in the County to accommodate the growth, with future developments accounting for 4.99 new vehicles. By applying the average cost of a vehicle (\$300,000), the total expenditure for the growth is calculated (4.99 vehicles x \$300,000 = \$1,497,000).

Figure 48. 10-Year EMS Vehicle Needs to Accommodate Growth

Type of Infrastructure	Level of Service		Demand Unit	Unit Cost
EMS Vehicles	Residential	0.08	Vehicles	\$300,000
	Nonresidential	0.03		
			per 1,000 persons	
			per 1,000 vehicle trips	

Growth-Related Need for EMS Vehicles						
Year	Population	Nonres. Trips	Residential Vehicles	Nonresidential Vehicles	Total Vehicles	
Base	2019	158,581	112,143	13.42	3.53	16.95
Year 1	2020	163,613	115,884	13.85	3.65	17.50
Year 2	2021	167,928	119,945	14.22	3.78	18.00
Year 3	2022	172,243	124,006	14.58	3.91	18.49
Year 4	2023	176,558	128,067	14.95	4.04	18.99
Year 5	2024	180,874	132,127	15.31	4.16	19.47
Year 6	2025	185,189	136,189	15.68	4.29	19.97
Year 7	2026	189,502	140,249	16.04	4.42	20.46
Year 8	2027	193,817	144,310	16.41	4.55	20.96
Year 9	2028	198,132	148,372	16.77	4.68	21.45
Year 10	2029	202,432	152,433	17.14	4.80	21.94
Ten-Year Increase		43,851	40,289	3.72	1.27	4.99
		Projected Expenditure		\$1,116,000	\$381,000	\$1,497,000

Growth-Related Expenditures for EMS Vehicles	\$1,497,000
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Maximum Supportable EMS Development Impact Fee

Figure 49 shows the maximum supportable EMS Development Impact Fee. Development impact fees for EMS are based on housing unit size for residential development and vehicle trips per 1,000 square feet for nonresidential development. Differentiating the fee by housing unit size allows the results to be more exact about the level of demand (persons per household) a residential development will place on the current infrastructure based on level of service standards. For residential development, the total cost per person is multiplied by the household size to calculate the proposed fee. For nonresidential development, the total cost per vehicle trip is multiplied by the trips per 1,000 square feet to calculate the proposed fee.

The fees represent the highest amount supportable for each type of development, which represents new growth's fair share of the cost for capital facilities. The County may adopt fees that are less than the amounts shown. However, a reduction in development impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service.

Figure 49. Maximum Supportable EMS Development Impact Fee

Fee Component	Cost per Person	Cost per Nonres. Vehicle Trip
EMS Facilities	\$70	\$25
EMS Vehicles	\$24	\$9
Gross Total	\$94	\$34
Credit for Debt Payments	(\$21)	(\$8)
Net Total	\$73	\$26

Residential

Housing Unit Size (Sq. Ft.)	Persons per Household	Maximum Supportable Fee per Unit
1,000 or less	1.30	\$95
1,001 to 1,250	1.62	\$118
1,251 to 1,500	1.89	\$138
1,501 to 1,750	2.12	\$155
1,751 to 2,000	2.32	\$169
2,001 to 2,500	2.65	\$193
2,501 to 3,000	2.92	\$213
3,001 to 3,500	3.15	\$230
3,501 or 4,000	3.35	\$245
4,001 or more	3.53	\$258

Nonresidential

Development Type	Trips per 1,000 Sq. Ft.	Maximum Supportable Fee per 1,000 Sq. Ft.
Retail	14.35	\$373
Office/Service	4.87	\$127
Industrial	1.97	\$51
Institutional	5.36	\$139

Revenue from EMS Development Impact Fee

Revenue from the EMS Development Impact Fee is estimated in Figure 50. There is projected to be 16,558 new housing units and 6,748,000 new nonresidential square feet in Beaufort County (less Hilton Head Island) by 2029. To find the revenue from each development type, the fee is multiplied by the growth. However, it is impossible to anticipate the size of new housing units, so the fees for the current average sized single family unit (2,815 square feet) and multifamily unit (1,154 square feet) are applied. For example, the development fee for an average size single family housing unit is multiplied by the number of new units (\$213 x 12,511 units = \$2,662,864). The revenue from the development impact fee covers three-quarters of the capital costs generated by projected growth in Beaufort County. It is expected that the County’s will need to supplement a portion of the growth-related cost because of the credit being included to prevent development from double paying.

Figure 50. Estimated Revenue from EMS Development Impact Fee

Infrastructure Costs for Public Safety Facilities

	Total Cost	Growth Cost
EMS Facilities	\$4,077,136	\$4,077,136
EMS Vehicles	\$1,497,000	\$1,497,000
Total Expenditures	\$5,574,136	\$5,574,136

Projected Development Impact Fee Revenue

		Single Family \$213 per unit	Multifamily \$118 per unit	Retail \$373 per KSF	Office/Service \$127 per KSF	Industrial \$51 per KSF	Institutional \$139 per KSF
Year		Housing Units	Housing Units	KSF	KSF	KSF	KSF
Base	2019	53,764	13,384	4,109	5,930	6,807	2,043
Year 1	2020	55,015	13,788	4,241	6,136	7,045	2,113
Year 2	2021	56,266	14,193	4,392	6,347	7,288	2,185
Year 3	2022	57,517	14,597	4,543	6,559	7,531	2,258
Year 4	2023	58,768	15,002	4,693	6,771	7,774	2,330
Year 5	2024	60,019	15,407	4,844	6,983	8,017	2,402
Year 6	2025	61,270	15,811	4,995	7,195	8,260	2,475
Year 7	2026	62,521	16,216	5,146	7,407	8,503	2,547
Year 8	2027	63,772	16,621	5,297	7,618	8,746	2,619
Year 9	2028	65,023	17,025	5,448	7,830	8,989	2,692
Year 10	2029	66,275	17,431	5,599	8,042	9,232	2,764
Ten-Year Increase		12,511	4,047	1,490	2,112	2,425	721
Projected Revenue		\$2,664,864	\$477,546	\$555,776	\$268,179	\$123,676	\$100,242
						Projected Revenue =>	\$4,190,284
						Total Expenditures =>	\$5,574,136
						General Fund's Share =>	\$1,383,852

PUBLIC SAFETY CIP AND DEVELOPMENT IMPACT FEE: FIRE

Methodology

Section 6-1-920(18f) of the South Carolina Development Impact Fee Act states that a development impact fee may be imposed on public facilities including:

“...public safety facilities, including law enforcement, fire, emergency medical and rescue, and street lighting facilities.”

The Fire Development Impact Fee includes components:

- Fire stations (Bluffton Fire District and North of the Broad River Service Area)
- Fire administrative and maintenance facilities (Bluffton Fire District and North of the Broad River Service Area)
- Fire apparatuses (Bluffton Fire District and North of the Broad River Service Area)

An incremental expansion methodology is applied to each component. Costs are allocated to both residential and nonresidential development using different demand indicators for each type of development.

Section 6-1-960(1) of the South Carolina Development Impact Fee Act requires:

“a general description of all existing facilities and their existing deficiencies, within the service area or areas of the governmental entity, a reasonable estimate of all costs, and a plan to develop the funding resources, including existing sources of revenues, related to curing existing deficiencies including, but not limited to, the upgrading, updating, improving, expanding, or replacing of these facilities to meet existing needs and usage.”

Section 6-1-960(2) of the South Carolina Development Impact Fee Act requires:

“an analysis of total capacity, the level of current usage, and commitments for usage of capacity of existing public facilities, which must be prepared by qualified a professional using generally accepted principles and professional standards.”

Fire Service Area

The Fire Development Impact Fee analysis includes four fire districts: Bluffton, Burton, Lady’s Island St. Helena, and Sheldon. Furthermore, it has been determined that fire services are best calculated by splitting the fire districts by the Broad River. By doing this it creates two service areas: Bluffton Fire District and North of the Broad Service Area. The analysis calculates the level of service and cost factors for the North of the Broad Service Area by combining the three districts: Burton, Lady’s Island St. Helena, and Sheldon.

Fire Service Units

Section 6-1-960(4) of the South Carolina Development Impact Fee Act requires:

“a definitive table establishing the specific service unit for each category of system improvements and an equivalency or conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial, agricultural, and industrial, as appropriate.”

The service unit for the Fire Development Impact Fee is an equivalent dwelling unit, or EDU. The functional population based factors by residential and nonresidential land use type for fire services are converted into EDUs. The description of the functional population methodology, the calculation of the EDU factors, and the determination of existing and projected EDUs in each service area are presented below.

Residential Functional Population

For residential land uses, the impact of a dwelling unit on the need for capital facilities is generally proportional to the number of persons residing in the dwelling unit. This can be measured for different housing types and in this analysis, average household size is used to develop the functional population factors.

Determining residential functional population factors is done for the Bluffton Fire District and the North of the Broad Service Area. Each service area has its own persons per household factor and additionally it is estimated that residents, on average, spend 14 hours, or 58 percent, of each 24-hour weekday at their place of residence. Shown in Figure 51 and Figure 52, single family units have a higher functional population in the North Service Area than in the Bluffton Fire District.

Figure 51. Residential Functional Population per Housing Unit – North of the Broad

Development Type	Unit	Persons per Household [1]	Percent of Day at Home	Functional Population/Unit
Single Family	dwelling	2.82	58%	1.65
Multifamily	dwelling	2.06	58%	1.20

[1] Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Figure 52. Residential Functional Population per Housing Unit – Bluffton Fire District

Development Type	Unit	Persons per Household [1]	Percent of Day at Home	Functional Population/Unit
Single Family	dwelling	2.44	58%	1.42
Multifamily	dwelling	2.20	58%	1.28

[1] Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Nonresidential Functional Population

The functional population methodology for nonresidential land uses is based on trip generation and employee density data. Functional population per 1,000 square feet is derived by dividing the total number of hours spent by employees and visitors during a weekday by 24 hours. Employees are estimated to spend eight hours per day at their place of employment and visitors are estimated to spend one hour per visit.

Using this formula and information on trip generation rates, vehicle occupancy rates, and employee density, nonresidential functional population estimates per 1,000 square feet of floor area is calculated in Figure 53.

Figure 53. Nonresidential Functional Population per 1,000 Square Feet

Development Type	Unit	Vehicle Trips/ Unit [1]	Persons/ Trip [2]	Employee/ Unit [1]	Visitors/ Unit [3]	Functional Population/Unit [4]
Retail	1,000 sq. ft.	14.35	1.82	2.34	23.78	1.77
Office/Service	1,000 sq. ft.	4.87	1.18	2.97	2.78	1.11
Industrial	1,000 sq. ft.	1.97	1.18	1.59	0.73	0.56
Institutional	1,000 sq. ft.	5.36	1.67	2.83	6.12	1.20

[1] Source: Trip Generation, Institute of Transportation Engineers, 10th Edition (2017)

[2] Source: Summary of Travel Trends 2017 National Household Travel Survey, US Department of Transportation Federal Highway Administration, 2017

[3] The visitors per unit factor is found by multiplying vehicles trips and persons per trip then subtracting employees per unit.

[4] Functional population is found by multiplying the employee per unit by 8 hours and visitors for unit by 1 hour and then dividing the total by 24 hours.

Equivalent Dwelling Unit Factors

In each service area an equivalent dwelling unit (EDU) is set to the functional population of a single family unit. For example, in the North Service Area an EDU is set to a functional population of 1.65. This is compared to the functional population factors for the other development types to calculate its equivalent EDU. For example, a multifamily unit in the North Service Area has a functional population of 1.20, which results in 0.73 EDUs (1.20 functional population / 1.65 functional population per EDU = 0.73 EDUs).

Figure 54. North of the Broad EDU Factors

Development Type	Unit	Functional Population/Unit	EDUs/Unit
Single Family	dwelling	1.65	1.00
Multifamily	dwelling	1.20	0.73
Retail	1,000 sq. ft.	1.77	1.07
Office/Service	1,000 sq. ft.	1.11	0.67
Industrial	1,000 sq. ft.	0.56	0.34
Institutional	1,000 sq. ft.	1.20	0.73

Figure 55. Bluffton Fire District EDU Factors

Development Type	Unit	Functional Population/Unit	EDUs/Unit
Single Family	dwelling	1.42	1.00
Multifamily	dwelling	1.28	0.90
Retail	1,000 sq. ft.	1.77	1.25
Office/Service	1,000 sq. ft.	1.11	0.78
Industrial	1,000 sq. ft.	0.56	0.39
Institutional	1,000 sq. ft.	1.20	0.85

Service Area Base Year EDUs

To calculate the current level of service of fire facilities, it is necessary to determine the base year EDUs in each service area. This is done by applying the EDU factors to the base year housing and nonresidential floor area estimates. Shown at the bottom of Figure 56, there are a total of 20,314 EDUs in the North Service Area and shown at the bottom of Figure 57 there are a total of 36,276 EDUs in the Bluffton District.

Figure 56. North of the Broad Service Area Base Year EDUs

Development Type	Base Year Housing	EDUs/Unit	Base Year EDUs
Single Family	17,237	1.00	17,237
Multifamily	2,486	0.73	1,815
Residential Subtotal	19,723		19,052

Development Type	Base Year 1,000 Sq. Ft.	EDUs/Unit	Base Year EDUs
Retail	461	1.07	493
Office/Service	674	0.67	452
Industrial	703	0.34	239
Institutional	107	0.73	78
Nonresidential Subtotal	1,945		1,262

Development Type	Base Year EDUs	Percent of Total EDUs
Residential EDUs	19,052	94%
Nonresidential EDUs	1,262	6%
Total	20,314	100%

Figure 57. Bluffton Fire District Base Year EDUs

Development Type	Base Year Housing	EDUs/Unit	Base Year EDUs
Single Family	26,175	1.00	26,175
Multifamily	5,036	0.90	4,532
Residential Subtotal	31,211		30,707

Development Type	Base Year 1,000 Sq. Ft.	EDUs/Unit	Base Year EDUs
Retail	1,657	1.25	2,071
Office/Service	1,968	0.78	1,535
Industrial	2,921	0.39	1,139
Institutional	969	0.85	824
Nonresidential Subtotal	7,516		5,569

Development Type	Base Year EDUs	Percent of Total EDUs
Residential EDUs	30,707	85%
Nonresidential EDUs	5,569	15%
Total	36,276	100%

Bluffton Fire District Facilities Level of Service & Cost Analysis

As shown in Figure 58, the Bluffton Fire District has nine fire stations, totaling 58,657 square feet. To determine the level of service, the floor area is divided by the base year demand factor (EDUs). As a result, there are 1.62 square feet per EDU.

Based on the District’s insurance valuation report, the average cost per square foot is \$385. To find the capital cost per EDU, the level of service standard is applied to the average cost per square foot. This results in a capital cost of \$624 per EDU (1.62 square feet per EDU x \$385 per square foot = \$624 per EDU, rounded).

Figure 58. Fire Station Level of Service and Cost Factors – Bluffton Fire District

Facility	Square Feet [1]	Replacement Cost [2]
Station 30	7,500	\$2,862,500
Station 31	4,280	\$1,655,000
Station 32	4,150	\$1,606,250
Station 33	7,500	\$2,862,500
Station 34	4,150	\$1,606,250
Station 35	13,577	\$5,211,375
Station 36	4,000	\$1,550,000
Station 37	3,500	\$1,362,500
Station 38	10,000	\$3,850,000
Total	58,657	\$22,566,375

Level-of-Service Standards

Total Facility Square Feet	58,657
2019 Equivalent Dwelling Units (EDU)	36,276
Square Feet per EDU	1.62

Cost Analysis

Square Feet per EDU	1.62
Average Cost per Square Foot	\$385
Capital Cost Per EDU	\$624

[1] Source: Bluffton Fire Department

[2] Source: Insurance valuation report

As shown in Figure 59, the Bluffton Fire District has two other operating facilities for administrative and training purposes, totaling 15,000 square feet. To determine the level of service, the floor area is divided by the base year demand factor (EDUs). As a result, there are 0.41 square feet per EDU.

Based on the District’s insurance valuation report, the average cost per square foot is \$383. To find the capital cost per EDU, the level of service standard is applied to the average cost per square foot. This results in a capital cost of \$157 per EDU (0.41 square feet per EDU x \$383 per square foot = \$157 per EDU, rounded).

Figure 59. Fire Admin and Maintenance Facilities Level of Service and Cost Factors – Bluffton Fire District

Facility	Square Feet [1]	Replacement Cost [2]
Maintenance Building	12,500	\$4,787,500
Burn Building	2,500	\$962,500
Total	15,000	\$5,750,000

Level-of-Service Standards

Total Facility Square Feet	15,000
2019 Equivalent Dwelling Units (EDU)	36,276
Square Feet per EDU	0.41

Cost Analysis

Square Feet per EDU	0.41
Average Cost per Square Foot	\$383
Capital Cost Per EDU	\$157

[1] Source: Bluffton Fire Department

[2] Source: Insurance valuation report

The Bluffton Fire District has 20 vehicles to provided fire services. To determine the level of service, the fleet is divided by the base year demand factor (EDUs). As a result, there are 0.55 vehicles per 1,000 EDUs.

Based on the District’s expectation to replace the fleet, the average cost per vehicle is \$571,250. To find the capital cost per EDU, the level of service standard is applied to the average cost. This results in a capital cost of \$314 per EDU (0.55 vehicles per 1,000 EDUs x \$571,250 per vehicle = \$314 per EDU, rounded).

Figure 60. Fire Apparatuses Level of Service and Cost Factors – Bluffton Fire District

Vehicle Type	Units [1]	Cost per Vehicle [2]	Replacement Cost
Ladder	3	\$1,200,000	\$3,600,000
Engine	10	\$650,000	\$6,500,000
Tanker	3	\$250,000	\$750,000
Squad/Rescue	3	\$150,000	\$450,000
Battalion	1	\$125,000	\$125,000
Total	20		\$11,425,000

Level-of-Service Standards

Total Vehicles	20
2019 Equivalent Dwelling Units (EDU)	36,276
Vehicles per 1,000 EDUs	0.55

Cost Analysis

Vehicles per 1,000 EDUs	0.55
Average Cost per Vehicle	\$571,250
Capital Cost Per EDU	\$314

[1] Source: Bluffton Fire Department

[2] Fire District's expectation to pay for a new vehicle

To ensure fee-payers avoid potential double payment for annual debt service, TischlerBise included in credit in the development impact fee calculations for the bonds issued to purchase and construct facilities. Following the same methodology as the level of service analysis, annual debt service is divided by projected EDU to yield payments per EDU. To account for the time value of money, annual payments are discounted using a net present value formula based on the applicable discount (interest) rate. This results in a credit of \$142 per EDU.

Figure 61. Credit for Future Debt Payments – Bluffton Fire District

Fiscal Year	Payment	EDUs	Payment/ EDU
2020	\$329,000	37,296	\$8.82
2021	\$371,000	38,317	\$9.68
2022	\$385,000	39,337	\$9.79
2023	\$406,000	40,357	\$10.06
2024	\$423,500	41,378	\$10.24
2025	\$487,900	42,398	\$11.51
2026	\$487,900	43,418	\$11.24
2027	\$487,900	44,438	\$10.98
2028	\$487,900	45,459	\$10.73
2029	\$487,900	46,487	\$10.50
2030	\$576,800	47,103	\$12.25
2031	\$576,800	47,718	\$12.09
2032	\$576,800	48,334	\$11.93
2033	\$576,800	48,949	\$11.78
2034	\$576,800	49,564	\$11.64
2035	\$347,900	50,180	\$6.93
2036	\$347,900	50,795	\$6.85
2037	\$347,900	51,411	\$6.77
2038	\$347,900	52,026	\$6.69
2039	\$347,900	52,642	\$6.61
Total	\$8,977,500		\$197
		Discount Rate	3.50%
		Total Credit	\$142

North of the Broad Service Area Facilities Level of Service & Cost Analysis

There are three fire districts included in the North of the Broad Service Area: Burton, Lady’s Island St. Helena, and Sheldon. As shown in Figure 62, between the three districts there are 12 fire stations, totaling 77,857 square feet. To determine the level of service, the floor area is divided by the base year demand factor (EDUs). As a result, there are 3.83 square feet per EDU.

Based on the insurance valuation reports, the average cost per square foot is \$184. To find the capital cost per EDU, the level of service standard is applied to the average cost per square foot. This results in a capital cost of \$705 per EDU (3.83 square feet per EDU x \$184 per square foot = \$705 per EDU, rounded).

Figure 62. Fire Station Level of Service and Cost Factors – North of the Broad Service Area

Facility	Square Feet [1]	Replacement Cost [2]
Burton FD Station 81	8,144	\$1,335,539
Burton FD Station 82	5,600	\$1,343,683
Burton FD Station 83	4,000	\$532,651
Burton FD Station 84	8,860	\$1,245,045
Burton FD Station 85	6,902	\$1,288,456
Sheldon FD Station 40	8,000	\$1,400,000
Sheldon FD Station 41	4,048	\$551,123
Lady's Island St. Helena FD Station 21	9,000	\$1,688,540
Lady's Island St. Helena FD Station 22	4,403	\$565,802
Lady's Island St. Helena FD Station 23	4,200	\$582,832
Lady's Island St. Helena FD Station 24	5,400	\$728,352
Lady's Island St. Helena FD HQ Station	9,300	\$3,035,697
Total	77,857	\$14,297,720

Level-of-Service Standards

Total Facility Square Feet	77,857
2019 Equivalent Dwelling Units (EDU)	20,314
Square Feet per EDU	3.83

Cost Analysis

Square Feet per EDU	3.83
Average Cost per Square Foot	\$184
Capital Cost Per EDU	\$705

[1] Source: Burton, Lady’s Island St. Helena, and Sheldon Fire Districts

[2] Source: Districts' insurance valuation reports

Listed in Figure 63, in the North Service Area there are four operating facilities for administrative and training purposes, totaling 9,660 square feet. To determine the level of service, the floor area is divided by the base year demand factor (EDUs). As a result, there are 0.48 square feet per EDU.

Based on the insurance valuation reports, the average cost per square foot is \$199. To find the capital cost per EDU, the level of service standard is applied to the average cost per square foot. This results in a capital cost of \$96 per EDU (0.48 square feet per EDU x \$199 per square foot = \$96 per EDU, rounded).

Figure 63. Fire Admin and Maintenance Facilities Level of Service and Cost Factors – North Service Area

Facility	Square Feet [1]	Replacement Cost [2]
Burton FD Training Building	1,260	\$449,884
Sheldon FD Headquarters	3,000	\$307,893
Lady's Island St. Helena FD HQ Admin Area	3,000	\$979,257
Lady's Island St. Helena FD Maintenance Building	2,400	\$188,410
Total	9,660	\$1,925,444

Level-of-Service Standards

Total Facility Square Feet	9,660
2019 Equivalent Dwelling Units (EDU)	20,314
Square Feet per EDU	0.48

Cost Analysis

Square Feet per EDU	0.48
Average Cost per Square Foot	\$199
Capital Cost Per EDU	\$96

[1] Source: Burton, Lady's Island St. Helena, and Sheldon Fire Districts

[2] Source: Districts' insurance valuation reports

In the North Service Area there are 28 vehicles to provided fire services. To determine the level of service, the fleet is divided by the base year demand factor (EDUs). This results in 1.38 vehicles per 1,000 EDUs.

Based on the expectations to replace the fleet, the average cost per vehicle is \$507,143. To find the capital cost per EDU, the level of service standard is applied to the average cost. This results in a capital cost of \$700 per EDU (1.38 vehicles per 1,000 EDUs x \$507,143 per vehicle = \$700 per EDU, rounded).

Figure 64. Fire Apparatuses Level of Service and Cost Factors – North of the Broad Service Area

Vehicle Type	Units [1]	Cost per Vehicle [2]	Replacement Cost
Ladder	3	\$1,200,000	\$3,600,000
Engine	13	\$650,000	\$8,450,000
Tanker	4	\$250,000	\$1,000,000
Squad/Rescue	6	\$150,000	\$900,000
Battalion	2	\$125,000	\$250,000
Total	28		\$14,200,000

Level-of-Service Standards

Total Vehicles	28
2019 Equivalent Dwelling Units (EDU)	20,314
Vehicles per 1,000 EDUs	1.38

Cost Analysis

Vehicles per 1,000 EDUs	1.38
Average Cost per Vehicle	\$507,143
Capital Cost Per EDU	\$700

[1] Source: Burton, Lady’s Island St. Helena, and Sheldon Fire Districts

[2] Fire Districts' expectations to pay for a new vehicle

To ensure fee-payers avoid potential double payment for annual debt service, TischlerBise included in credit in the development impact fee calculations for the bonds issued to purchase and construct facilities. Following the same methodology as the level of service analysis, annual debt service is divided by projected EDU to yield payments per EDU. To account for the time value of money, annual payments are discounted using a net present value formula based on the applicable discount (interest) rate. This results in a credit of \$323 per EDU.

Figure 65. Credit for Future Debt Payments – North Service Area

Fiscal Year	Payment	EDUs	Payment/ EDU
2020	\$517,821	20,793	\$24.90
2021	\$518,768	21,271	\$24.39
2022	\$529,737	21,750	\$24.36
2023	\$535,729	22,229	\$24.10
2024	\$536,744	22,708	\$23.64
2025	\$547,783	23,187	\$23.63
2026	\$553,847	23,665	\$23.40
2027	\$559,935	24,144	\$23.19
2028	\$571,050	24,623	\$23.19
2029	\$577,190	25,107	\$22.99
2030	\$588,357	25,439	\$23.13
2031	\$594,551	25,771	\$23.07
2032	\$552,526	26,103	\$21.17
2033	\$557,526	26,435	\$21.09
2034	\$572,526	26,768	\$21.39
2035	\$497,526	27,100	\$18.36
2036	\$507,526	27,432	\$18.50
2037	\$512,526	27,764	\$18.46
2038	\$522,526	28,096	\$18.60
2039	\$532,526	28,428	\$18.73
Total	\$10,886,720		\$440
		Discount Rate	3.32%
		Total Credit	\$323

Bluffton Fire District Projection of Growth-Related Fire Facility Needs

Section 6-1-960(5) of the South Carolina Development Impact Fee Act requires:

“a description of all system improvements and their costs necessitated by and attributable to new development in the service area, based on the approved land use assumptions, to provide a level of service not to exceed the level of service currently existing in the community or service area, unless a different or higher level of service is required by law, court order, or safety consideration.”

Section 6-1-960(7) of the South Carolina Development Impact Fee Act requires:

“the projected demand for system improvements required by new service units projected over a reasonable period of time not to exceed twenty years.”

To estimate the 10-year growth needs for fire stations in Bluffton Fire District, the current level of service (1.62 square feet per EDU) is applied to the projected growth of EDUs in the district. The district is projected to increase by 10,211 EDUs over the next ten years. Listed in Figure 66, there will need to be a total of 75,309 square feet of fire stations in the district to accommodate the growth, with future developments accounting for 16,542 new square feet. By applying the average cost of a station (\$385 per square feet), the total expenditure for the growth is calculated (16,542 square feet x \$385 = \$6,368,670).

Figure 66. 10-Year Fire Station Needs to Accommodate Growth – Bluffton Fire District

Type of Infrastructure		Level of Service		Demand Unit	Cost/Sq. Ft.
Fire Stations		1.62	Square Feet	per EDU	\$385

Growth-Related Need for Fire Stations			
Year		Equivalent Dwelling Units	Total Square Feet
Base	2019	36,276	58,767
Year 1	2020	37,296	60,420
Year 2	2021	38,317	62,073
Year 3	2022	39,337	63,726
Year 4	2023	40,357	65,379
Year 5	2024	41,378	67,032
Year 6	2025	42,398	68,685
Year 7	2026	43,418	70,337
Year 8	2027	44,438	71,990
Year 9	2028	45,459	73,643
Year 10	2029	46,487	75,309
Ten-Year Increase		10,211	16,542

Growth-Related Expenditures for Fire Stations	\$6,368,670
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To estimate the 10-year growth needs for admin facilities in Bluffton Fire District, the current level of service (0.41 square feet per EDU) is applied to the projected growth of EDUs in the district. The district

is projected to increase by 10,211 EDUs over the next ten years. Listed in Figure 67, there will need to be a total of 19,060 square feet of admin facility space in the district to accommodate the growth, with future developments accounting for 4,187 new square feet. By applying the average cost (\$383 per square foot), the total expenditure for the growth is calculated (4,187 square feet x \$383 = \$1,603,621).

Figure 67. 10-Year Admin Facilities Needs to Accommodate Growth – Bluffton Fire District

Type of Infrastructure	Level of Service	Demand Unit	Cost/Sq. Ft.
Admin Facilities	0.41	Square Feet per EDU	\$383

Growth-Related Need for Admin Facilities			
Year		Equivalent Dwelling Units	Total Square Feet
Base	2019	36,276	14,873
Year 1	2020	37,296	15,292
Year 2	2021	38,317	15,710
Year 3	2022	39,337	16,128
Year 4	2023	40,357	16,546
Year 5	2024	41,378	16,965
Year 6	2025	42,398	17,383
Year 7	2026	43,418	17,801
Year 8	2027	44,438	18,220
Year 9	2028	45,459	18,638
Year 10	2029	46,487	19,060
Ten-Year Increase		10,211	4,187

Growth-Related Expenditures for Admin Facilities	\$1,603,621
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To estimate the 10-year growth needs for fire apparatuses, the current level of service (0.55 vehicles per 1,000 EDUs) is applied to the projected growth of EDUs in the district. The district is projected to increase by 10,211 EDUs over the next ten years. Listed in Figure 68, there will need to be a total of 25.6 vehicles in the district to accommodate the growth, with future developments accounting for 5.6 new vehicles. By applying the average cost (\$571,250 per apparatus), the total expenditure for the growth is calculated (5.6 vehicles x \$571,250 = \$3,199,000).

Figure 68. 10-Year Fire Apparatus Needs to Accommodate Growth – Bluffton Fire District

Type of Infrastructure	Level of Service	Demand Unit	Unit Cost
Fire Apparatus	0.55	Units	per 1,000 EDUs

Growth-Related Need for Fire Apparatus			
Year	Equivalent Dwelling Units	Total Vehicles	
Base	2019	36,276	20.0
Year 1	2020	37,296	20.5
Year 2	2021	38,317	21.1
Year 3	2022	39,337	21.6
Year 4	2023	40,357	22.2
Year 5	2024	41,378	22.8
Year 6	2025	42,398	23.3
Year 7	2026	43,418	23.9
Year 8	2027	44,438	24.4
Year 9	2028	45,459	25.0
Year 10	2029	46,487	25.6
Ten-Year Increase		10,211	5.6

Growth-Related Expenditures for Fire Apparatus	\$3,199,000
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North of the Broad Service Area Projection of Growth-Related Fire Facility Needs

Section 6-1-960(5) of the South Carolina Development Impact Fee Act requires:

“a description of all system improvements and their costs necessitated by and attributable to new development in the service area, based on the approved land use assumptions, to provide a level of service not to exceed the level of service currently existing in the community or service area, unless a different or higher level of service is required by law, court order, or safety consideration.”

Section 6-1-960(7) of the South Carolina Development Impact Fee Act requires:

“the projected demand for system improvements required by new service units projected over a reasonable period of time not to exceed twenty years.”

To estimate the 10-year growth needs for fire stations in the North Service Area, the current level of service (3.83 square feet per EDU) is applied to the projected growth of EDUs in the area. The service area is projected to increase by 4,793 EDUs over the next ten years. Listed in Figure 69, there will need to be a total of 96,160 square feet of fire stations in the area to accommodate the growth, with future developments accounting for 18,357 new square feet. By applying the average cost of a station (\$184 per square feet), the total expenditure for the growth is calculated (18,357 square feet x \$184 = \$3,377,688).

Figure 69. 10-Year Fire Station Needs to Accommodate Growth – North Service Area

Type of Infrastructure	Level of Service	Demand Unit	Cost/Sq. Ft.
Fire Stations	3.83 Square Feet	per EDU	\$184

Growth-Related Need for Fire Stations			
Year		Equivalent Dwelling Units	Total Square Feet
Base	2019	20,314	77,803
Year 1	2020	20,793	79,636
Year 2	2021	21,271	81,470
Year 3	2022	21,750	83,303
Year 4	2023	22,229	85,137
Year 5	2024	22,708	86,971
Year 6	2025	23,187	88,804
Year 7	2026	23,665	90,638
Year 8	2027	24,144	92,472
Year 9	2028	24,623	94,305
Year 10	2029	25,107	96,160
Ten-Year Increase		4,793	18,357

Growth-Related Expenditures for Fire Stations	\$3,377,688
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To estimate the 10-year growth needs for admin facilities in the North Service Area, the current level of service (0.48 square feet per EDU) is applied to the projected growth of EDUs in the area. The service area is projected to increase by 4,793 EDUs over the next ten years. Listed in Figure 70, there will need to be a total of 12,051 square feet of admin facility space in the area to accommodate the growth, with future developments accounting for 2,300 new square feet. By applying the average cost (\$199 per square feet), the total expenditure for the growth is calculated (2,300 square feet x \$199 = \$457,700).

Figure 70. 10-Year Admin Facilities Needs to Accommodate Growth – North Service Area

Type of Infrastructure	Level of Service	Demand Unit	Cost/Sq. Ft.
Admin Facilities	0.48 Square Feet	per EDU	\$199

Growth-Related Need for Admin Facilities			
Year		Equivalent Dwelling Units	Total Square Feet
Base	2019	20,314	9,751
Year 1	2020	20,793	9,981
Year 2	2021	21,271	10,210
Year 3	2022	21,750	10,440
Year 4	2023	22,229	10,670
Year 5	2024	22,708	10,900
Year 6	2025	23,187	11,130
Year 7	2026	23,665	11,359
Year 8	2027	24,144	11,589
Year 9	2028	24,623	11,819
Year 10	2029	25,107	12,051
Ten-Year Increase		4,793	2,300

Growth-Related Expenditures for Admin Facilities	\$457,700
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To estimate the 10-year growth needs for fire apparatuses, the current level of service (1.38 vehicles per 1,000 EDUs) is applied to the projected growth of EDUs in the service area. The area is projected to increase by 4,793 EDUs over the next ten years. Listed in Figure 71, there will need to be a total of 34.6 vehicles in the area to accommodate the growth, with future developments accounting for 6.6 new vehicles. By applying the average cost (\$507,143 per apparatus), the total expenditure for the growth is calculated (6.6 vehicles x \$507,143 = \$3,347,144).

Figure 71. 10-Year Fire Apparatus Needs to Accommodate Growth – North Service Area

Type of Infrastructure	Level of Service	Demand Unit	Unit Cost
Fire Apparatus	1.38	Units	per 1,000 EDUs

Growth-Related Need for Fire Apparatus		
Year	Equivalent Dwelling Units	Total Vehicles
Base	2019	20,314
Year 1	2020	20,793
Year 2	2021	21,271
Year 3	2022	21,750
Year 4	2023	22,229
Year 5	2024	22,708
Year 6	2025	23,187
Year 7	2026	23,665
Year 8	2027	24,144
Year 9	2028	24,623
Year 10	2029	25,107
Ten-Year Increase		4,793

Growth-Related Expenditures for Fire Apparatus	\$3,347,144
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Maximum Supportable Fire Development Impact Fee

The following figures lists the maximum supportable Fire Development Impact Fee. Development impact fees for fire are based on EDUs per housing unit for residential development. Illustrated in the fee schedules, smaller housing units in Beaufort County have smaller household sizes thus a smaller demand on facilities and services. To accurately capture this relationship, the fee schedule scales the EDUs per housing unit based on housing sizes.

The Fire Development Impact Fee Schedule for nonresidential development is based on demand per 1,000 square feet of development. The demand from nonresidential development follows the fire districts' current impact fee schedule and is based on fire hazard level (low, medium, high). For example, as listed in Figure 74, low hazard development has a base of 1 EDU while high hazard development has a base of 2 EDUs.

The fees represent the highest amount supportable for each type of development, which represents new growth's fair share of the cost for capital facilities. The County may adopt fees that are less than the amounts shown. However, a reduction in development impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service.

Figure 72. Maximum Supportable Fire Development Impact Fee – Bluffton Fire District Service Area

Fee Component	Cost per EDU
Fire Stations	\$624
Admin & Maintenance Facilities	\$157
Fire Apparatuses	\$314
Gross Total	\$1,095
Credit for Debt Payments	(\$142)
Net Total	\$953

Residential

Housing Unit Size (Sq. Ft.)	Persons per Household	Equivalent Dwelling Units	Maximum Supportable Fee per Unit
1,000 or less	1.20	0.50	\$477
1,001 to 1,250	1.50	0.63	\$600
1,251 to 1,500	1.80	0.75	\$715
1,501 to 1,750	2.00	0.83	\$791
1,751 to 2,000	2.20	0.92	\$877
2,001 to 2,500	2.50	1.04	\$991
2,501 to 3,000	2.80	1.17	\$1,115
3,001 to 3,500	3.00	1.25	\$1,191
3,501 or 4,000	3.20	1.33	\$1,267
4,001 or more	3.30	1.38	\$1,315

Figure 73. Maximum Supportable Fire Development Impact Fee – North Service Area

Fee Component	Cost per EDU
Fire Stations	\$705
Admin & Maintenance Facilities	\$96
Fire Apparatuses	\$700
Gross Total	\$1,501
Credit for Debt Payments	(\$323)
Net Total	\$1,178

Residential

Housing Unit Size (Sq. Ft.)	Persons per Household	Equivalent Dwelling Units	Maximum Supportable Fee per Unit
1,000 or less	1.40	0.51	\$601
1,001 to 1,250	1.70	0.63	\$742
1,251 to 1,500	2.00	0.74	\$872
1,501 to 1,750	2.30	0.85	\$1,001
1,751 to 2,000	2.50	0.92	\$1,084
2,001 to 2,500	2.90	1.07	\$1,260
2,501 to 3,000	3.10	1.14	\$1,343
3,001 to 3,500	3.40	1.25	\$1,473
3,501 or 4,000	3.60	1.32	\$1,555
4,001 or more	3.80	1.40	\$1,649

Figure 74. Maximum Supportable Fire Development Impact Fee – Nonresidential Fee Schedule

FIRE HAZARD LEVEL	BUILDING AREA (SQUARE FEET)			
	Up to 1,000 sq. ft.	1,001 to 5,000 sq. ft.	5,001 to 10,000 sq. ft.	10,000 sq. ft. and larger
	Base Minimum	Add Per 1,000 sq. ft.		
Low Hazard Occupancy	1.0 EDU	0.8 EDU	0.5 EDU	0.1 EDU
Medium Hazard Occupancy	1.5 EDU	1.2 EDU	0.75 EDU	0.15 EDU
High Hazard Occupancy	2.0 EDU	1.6 EDU	1.0 EDU	0.2 EDU

Revenue from Fire Development Impact Fee

Revenue from the Fire Development Impact Fee is estimated in following figures.

In the Bluffton Fire District, there is projected increase of 8,500 housing units and 2.7 million square feet of nonresidential development over the next ten years. To find the revenue from each development type, the fee is multiplied by the growth. However, it is impossible to accurately estimate the size of housing units, so the fees for an average sized single family unit (2,815 square feet) and multifamily unit (1,154 square feet) are applied. Similarly, it is impossible to accurately estimate the size of nonresidential development, so the EDUs per 1,000 square feet factors are multiplied by the fee by EDU for each development type to estimate an average fee.

In the Bluffton Fire District, the revenue from the development impact fee covers 91 percent of the capital costs generated by projected growth in the district. The funding gap of \$975,000 is expected because of the credit being included to prevent development from double paying.

Figure 75. Estimated Revenue from Fire Development Impact Fee – Bluffton Fire District Service Area Infrastructure Costs for Fire Facilities

	Total Cost	Growth Cost
Fire Stations	\$6,368,670	\$6,368,670
Admin Facilities	\$1,603,621	\$1,603,621
Fire Apparatuses	\$3,199,000	\$3,199,000
Total Expenditures	\$11,171,291	\$11,171,291

Projected Development Impact Fee Revenue

		Single Family \$1,115 per unit	Multifamily \$600 per unit	Retail \$1,191 per KSF	Office/Service \$743 per KSF	Industrial \$372 per KSF	Institutional \$810 per KSF
Year		Housing Units	Housing Units	KSF	KSF	KSF	KSF
Base	2019	26,175	5,036	1,657	1,968	2,921	969
Year 1	2020	26,809	5,253	1,715	2,033	3,022	1,002
Year 2	2021	27,442	5,471	1,774	2,097	3,122	1,034
Year 3	2022	28,077	5,689	1,833	2,161	3,223	1,067
Year 4	2023	28,710	5,907	1,891	2,225	3,323	1,100
Year 5	2024	29,344	6,125	1,950	2,290	3,424	1,132
Year 6	2025	29,978	6,342	2,009	2,354	3,524	1,165
Year 7	2026	30,612	6,561	2,067	2,418	3,625	1,198
Year 8	2027	31,245	6,779	2,126	2,482	3,725	1,231
Year 9	2028	31,880	6,996	2,185	2,546	3,825	1,263
Year 10	2029	32,519	7,217	2,243	2,611	3,926	1,296
Ten-Year Increase		6,344	2,181	586	642	1,004	327
Projected Revenue		\$7,073,358	\$1,308,468	\$698,548	\$477,288	\$373,337	\$264,964
						Projected Revenue =>	\$10,195,965
						Total Expenditures =>	\$11,171,291
						Non-Impact Fee Funding =>	\$975,326

In the North Service Area, there is projected increase of 4,400 housing units and 680,000 square feet of nonresidential development over the next ten years. By applying the average fee amount for each development type to the projected growth, there is an estimated revenue of \$6.3 million. The revenue

from the development impact fee covers 88 percent of the capital costs generated by projected growth in the service area. The funding gap of \$866,000 is expected because of the credit being included to prevent development from double paying.

Figure 76. Estimated Revenue from Fire Development Impact Fee – North Service Area

Infrastructure Costs for Fire Facilities

	Total Cost	Growth Cost
Fire Stations	\$3,377,688	\$3,377,688
Admin Facilities	\$457,700	\$457,700
Fire Apparatuses	\$3,347,144	\$3,347,144
Total Expenditures	\$7,182,532	\$7,182,532

Projected Development Impact Fee Revenue

		Single Family \$1,343 per unit	Multifamily \$742 per unit	Retail \$1,260 per KSF	Office/Service \$789 per KSF	Industrial \$401 per KSF	Institutional \$860 per KSF
Year		Housing Units	Housing Units	KSF	KSF	KSF	KSF
Base	2019	17,237	2,486	461	674	703	107
Year 1	2020	17,657	2,506	477	698	728	110
Year 2	2021	18,077	2,526	493	722	753	114
Year 3	2022	18,497	2,546	509	745	777	118
Year 4	2023	18,917	2,566	525	769	802	122
Year 5	2024	19,337	2,586	541	793	827	125
Year 6	2025	19,757	2,606	557	816	852	129
Year 7	2026	20,177	2,626	573	840	877	133
Year 8	2027	20,597	2,646	589	864	901	137
Year 9	2028	21,017	2,666	605	888	926	140
Year 10	2029	21,441	2,688	621	911	951	144
Ten-Year Increase		4,204	202	160	237	248	38
Projected Revenue		\$5,645,972	\$149,884	\$201,562	\$186,958	\$99,353	\$32,299
						Projected Revenue =>	\$6,316,028
						Total Expenditures =>	\$7,182,532
						Non-Impact Fee Funding =>	\$866,504

Proposed Fire Development Impact Fee Administration

Based on interviews with the fire districts, it is recommended that housing units constructed with internal sprinkler systems (to the standards of fire districts) should be exempt from the fire development impact fee. It has been determined by the fire districts that the sprinkler systems mitigate enough demand on fire services to justify the exemption. Furthermore, there is additional training and equipment necessary to serve larger housing units. As a result of the additional demand, it is recommended that the fee for housing units 5,000 square feet and bigger to be consistent to 2 EDUs.

SOLID WASTE CIP AND DEVELOPMENT IMPACT FEE

Methodology

Section 6-1-920(18c) of the South Carolina Development Impact Fee Act states that a development impact fee may be imposed on public facilities including:

"...solid waste and recycling collection, treatment, and disposal facilities."

The Solid Waste Development Impact Fee is calculated only for residential development and on a per capita basis. The incremental expansion methodology is used to calculate the current level of service for:

- Convenience centers (unincorporated areas north and south of the Broad River service areas)
- Heavy-duty vehicles (unincorporated countywide service area)

Section 6-1-960(1) of the South Carolina Development Impact Fee Act requires:

"a general description of all existing facilities and their existing deficiencies, within the service area or areas of the governmental entity, a reasonable estimate of all costs, and a plan to develop the funding resources, including existing sources of revenues, related to curing existing deficiencies including, but not limited to, the upgrading, updating, improving, expanding, or replacing of these facilities to meet existing needs and usage."

Section 6-1-960(2) of the South Carolina Development Impact Fee Act requires:

"an analysis of total capacity, the level of current usage, and commitments for usage of capacity of existing public facilities, which must be prepared by qualified a professional using generally accepted principles and professional standards."

Residential development impact fees are calculated on a per housing unit basis using persons per household factors by housing size. Based on the services and facilities being provided by Beaufort County, it has been determined that the current level of service will be calculated based on the unincorporated populations of Beaufort County because the municipalities provide solid waste services or contract a third-party to provide the services.

Solid Waste Service Area

Furthermore, the convenience center services are being provided at a service area level (north and south of the Broad). According the County staff, it is very unlikely residents are crossing the Broad River to use a convenience center. Thus, the service areas have been included in the analysis.

Solid Waste Service Units

Section 6-1-960(4) of the South Carolina Development Impact Fee Act requires:

“a definitive table establishing the specific service unit for each category of system improvements and an equivalency or conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial, agricultural, and industrial, as appropriate.”

The “service unit” used for residential development is persons per household (PPHH). This is a measure of, on average, the number of persons residing in each occupied housing unit. As shown in Figure 77, persons per household factors are calculated based on the housing unit size and for each service area. Calculations are based off local U.S. Census data and further discussion can be found in Appendix C.

Figure 77. Residential Service Units

Housing Size Square Feet	Persons per Household	
	North	South
1,000 or less	1.40	1.20
1,001 to 1,250	1.70	1.50
1,251 to 1,500	2.00	1.80
1,501 to 1,750	2.30	2.00
1,751 to 2,000	2.50	2.20
2,001 to 2,500	2.90	2.50
2,501 to 3,000	3.10	2.80
3,001 to 3,500	3.40	3.00
3,501 or 4,000	3.60	3.20
4,001 or more	3.80	3.30

See Appendix C for details about calculations

Solid Waste Facilities Level of Service & Cost Analysis

The Solid Waste Development Impact Fee includes the County’s convenience centers and heavy-duty vehicles. Identified by County staff, additional expansion will be necessary to serve future growth. The incremental methodology is applied and the 2019 unincorporated population for each service area is used in the calculations.

As shown in Figure 78, there are eight convenience centers in the northern service area which total 19 acres. In addition, there are 10 compacter units. It was determined that to purchase a new acre of land in the north it would cost \$14,000 and a new compacter unit costs \$21,000. The total replacement cost of the facilities is \$475,300.

To calculate the current level of service for convenience centers in the North of the Broad Service Area, the total acres and compacters are divided by the current population in the unincorporated areas of the County. As a result, there is 0.40 acres per 1,000 persons (19 acres / 46,882 residents = 0.40 acres per 1,000 persons, rounded) and 0.21 compacter units per 1,000 persons.

The level of service is combined with the average cost per acre and compacter unit to calculate the capital cost per person. This results in the capital cost per person totaling \$10.

Figure 78. Convenience Center Level of Service and Cost Factors – North of the Broad

Facility	Acres	Cost per Acre	Compacter Units	Cost per Unit	Total Replacement Cost
Big Estate	1.2	\$14,000	0	\$21,000	\$16,800
Coffin Point	1.5	\$14,000	0	\$21,000	\$21,000
Cuffy	1.0	\$14,000	0	\$21,000	\$14,000
Gates	1.0	\$14,000	0	\$21,000	\$14,000
Lobeco	1.0	\$14,000	0	\$21,000	\$14,000
Shanklin	6.0	\$14,000	6	\$21,000	\$210,000
Sheldon	1.3	\$14,000	0	\$21,000	\$17,500
St. Helena	6.0	\$14,000	4	\$21,000	\$168,000
TOTAL	19.0	\$265,300	10	\$210,000	\$475,300

<i>Level-of-Service Standards</i>	Land Cost	Improvement Cost
Residential Share	100.0%	100.0%
Share of Facility Acres or Compacter Units	19.0	10.0
2019 Unincorporated Population	46,882	46,882
Acres or Compacter Units per 1,000 Persons	0.40	0.21

<i>Cost Analysis</i>		
Acres or Compacter Units per 1,000 Persons	0.40	0.21
Average Cost per Acre or Compact Unit	\$14,000	\$21,000
Capital Cost Per Person	\$6	\$4

Listed in Figure 79, there are three convenience centers in the southern service area which total 12.8 acres. In addition, there are 10 compacter units. It was determined that to purchase a new acre of land

in the south it would cost \$158,000 and a new compact unit costs \$21,000. The total replacement cost of the facilities is \$2,232,400.

To calculate the current level of service for convenience centers in the South of the Broad Service Area, the total acres and compacter units are divided by the current population in the unincorporated areas of the County. As a result, there is 0.34 acres per 1,000 persons (12.8 acres / 37,774 residents = 0.34 acres per 1,000 persons, rounded) and 0.26 compacters per 1,000 persons.

The level of service is combined with the average cost per acre and compacter to calculate the capital cost per person. This results in the capital cost per person totaling \$59.

Figure 79. Convenience Center Level of Service and Cost Factors – South of the Broad

Facility	Acres	Cost per Acre	Compacter Units	Cost per Unit	Total Replacement Cost
Bluffton	6.0	\$158,000	9	\$21,000	\$1,137,000
Hilton Head	6.0	\$158,000	1	\$21,000	\$969,000
Pritchardville	0.8	\$158,000	0	\$21,000	\$126,400
TOTAL	12.8	\$2,022,400	10	\$210,000	\$2,232,400

<i>Level-of-Service Standards</i>	Land Cost	Improvement Cost
Residential Share	100.0%	100.0%
Share of Facility Acres or Compacter Units	12.8	10.0
2019 Unincorporated Population	37,774	37,774
Acres or Compacter Units per 1,000 Persons	0.34	0.26

<i>Cost Analysis</i>		
Acres or Compacter Units per 1,000 Persons	0.34	0.26
Average Cost per Acre or Compact Unit	\$158,000	\$21,000
Capital Cost Per Person	\$54	\$5

The level of service for County heavy-duty vehicles is calculated in Figure 80. Providing a countywide service, there are five vehicles in the Solid Waste Department Fleet. There is a total replacement cost of \$600,000.

To calculate the current level of service for heavy-duty vehicles, the total vehicles are divided by the current population in the unincorporated areas of the County. As a result, there is 0.06 vehicles per 1,000 persons (5 vehicles / 84,656 residents = 0.06 vehicles per 1,000 persons, rounded).

The level of service is combined with the average cost per vehicle to calculate the capital cost per person. The average cost per vehicle is \$120,000. This results in the capital cost per person totaling \$7 (0.06 acres per 1,000 persons x \$120,000 per vehicle = \$7 per person, rounded).

Figure 80. Heavy-Duty Vehicles Level of Service and Cost Factors - Countywide

Vehicle	Units	Cost per Unit	Replacement Cost
Packer Truck	2	\$150,000	\$300,000
Heavy-Duty Trucks	3	\$100,000	\$300,000
TOTAL	5		\$600,000

<i>Level-of-Service Standards</i>	Residential
Proportionate Share	100%
Share of Vehicles	5.00
2019 Unincorporated Population	84,656
Vehicles per 1,000 Persons	0.06

<i>Cost Analysis</i>	Residential
Vehicles per 1,000 Persons	0.06
Average Cost per Vehicle	\$120,000
Capital Cost Per Person	\$7

Projection of Solid Waste Growth-Related Facility Needs

Section 6-1-960(5) of the South Carolina Development Impact Fee Act requires:

“a description of all system improvements and their costs necessitated by and attributable to new development in the service area, based on the approved land use assumptions, to provide a level of service not to exceed the level of service currently existing in the community or service area, unless a different or higher level of service is required by law, court order, or safety consideration.”

Section 6-1-960(7) of the South Carolina Development Impact Fee Act requires:

“the projected demand for system improvements required by new service units projected over a reasonable period of time not to exceed twenty years.”

To estimate the 10-year growth needs for convenience centers in the North of the Broad Service Area, the current level of service (0.40 acres per 1,000 persons) is applied to the residential growth projected for Unincorporated Beaufort County. The County is projected to increase by 10,630 residents over the next ten years in the north (see Appendix B). Listed in Figure 81, there will need to be a total of 23 acres north of the Broad River to accommodate the growth, with future developments accounting for 4.3 new acres. By applying the average cost (\$25,082 per acre), the total expenditure for the growth is calculated (4.3 acres x \$25,082 per acre = \$107,853).

Figure 81. 10-Year Convenience Center Needs to Accommodate Growth – North of the Broad

Type of Infrastructure	Level of Service		Demand Unit	Unit Cost / Acre
	Residential	Nonresidential		
Convenience Centers	0.40	0.00	per 1,000 persons	\$25,082
	Improved Acres		per jobs	

Growth-Related Need for Convenience Centers						
Year	Population	Jobs	Residential Acres	Nonresidential Acres	Total Acres	
Base	2019	46,882	4,498	18.7	0	18.7
Year 1	2020	47,944	4,656	19.1	0	19.1
Year 2	2021	49,007	4,814	19.6	0	19.6
Year 3	2022	50,069	4,971	20.0	0	20.0
Year 4	2023	51,132	5,129	20.4	0	20.4
Year 5	2024	52,195	5,287	20.8	0	20.8
Year 6	2025	53,257	5,445	21.3	0	21.3
Year 7	2026	54,320	5,603	21.7	0	21.7
Year 8	2027	55,382	5,760	22.1	0	22.1
Year 9	2028	56,445	5,918	22.5	0	22.5
Year 10	2029	57,512	6,076	23.0	0	23.0
Ten-Year Increase		10,630	1,578	4.3	0	4.3
Projected Expenditure			\$107,853	\$0	\$107,853	

Growth-Related Expenditures for Convenience Centers	\$107,853
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To estimate the 10-year growth needs for convenience centers in the South of the Broad Service Area, the current level of service (0.34 acres per 1,000 persons) is applied to the residential growth projected for Unincorporated Beaufort County. The County is projected to increase by 5,492 residents over the next ten years in the south (see Appendix B). Listed in Figure 82, there will need to be a total of 14.7 acres south of the Broad River to accommodate the growth, with future developments accounting for 1.9 new acres. By applying the average cost (\$174,406 per acre), the total expenditure for the growth is calculated (1.9 acres x \$174,406 per acre = \$331,371).

Figure 82. 10-Year Convenience Center Needs to Accommodate Growth – South of the Broad

Type of Infrastructure	Level of Service		Demand Unit	Unit Cost / Acre
Convenience Centers	Residential	0.34	Improved Acres	per 1,000 persons
	Nonresidential	0.00		per jobs

Growth-Related Need for Convenience Centers						
Year		Population	Jobs	Residential Acres	Nonresidential Acres	Total Acres
Base	2019	37,774	11,360	12.8	0	12.8
Year 1	2020	38,323	11,724	13.0	0	13.0
Year 2	2021	38,873	12,087	13.2	0	13.2
Year 3	2022	39,422	12,451	13.4	0	13.4
Year 4	2023	39,972	12,815	13.5	0	13.5
Year 5	2024	40,521	13,179	13.7	0	13.7
Year 6	2025	41,071	13,542	13.9	0	13.9
Year 7	2026	41,620	13,906	14.1	0	14.1
Year 8	2027	42,170	14,270	14.3	0	14.3
Year 9	2028	42,720	14,633	14.5	0	14.5
Year 10	2029	43,266	14,997	14.7	0	14.7
Ten-Year Increase		5,492	3,637	1.9	0	1.9
Projected Expenditure				\$331,371	\$0	\$331,371

Growth-Related Expenditures for Convenience Centers	\$331,371
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To estimate the 10-year growth needs for heavy-duty vehicles countywide, the current level of service (0.06 vehicles per 1,000 persons) is applied to the residential growth projected for Unincorporated Beaufort County. The County is projected to increase by 16,122 residents over the next ten years (see Appendix B). Listed in Figure 83, there will need to be a total of 6 vehicles countywide to accommodate the growth, with future developments accounting for 1 new vehicle. By applying the average cost (\$120,000 per vehicle), the total expenditure for the growth is calculated (1 vehicle x \$120,000 per vehicle = \$120,000).

Figure 83. 10-Year Heavy-Duty Vehicle Needs to Accommodate Growth - Countywide

Type of Infrastructure	Level of Service		Demand Unit	Cost / Vehicle
Heavy-Duty Vehicles	Residential	0.06	Vehicles	\$120,000
	Nonresidential	0.00		

Growth-Related Need for Heavy-Duty Vehicles						
Year	Population	Jobs	Residential Vehicles	Nonresidential Vehicles	Total Vehicles	
Base	2019	84,656	15,858	5.0	0.0	5.0
Year 1	2020	86,267	16,380	5.1	0.0	5.1
Year 2	2021	87,880	16,901	5.2	0.0	5.2
Year 3	2022	89,491	17,423	5.3	0.0	5.3
Year 4	2023	91,104	17,944	5.4	0.0	5.4
Year 5	2024	92,716	18,466	5.5	0.0	5.5
Year 6	2025	94,328	18,987	5.6	0.0	5.6
Year 7	2026	95,940	19,509	5.7	0.0	5.7
Year 8	2027	97,552	20,030	5.8	0.0	5.8
Year 9	2028	99,165	20,552	5.9	0.0	5.9
Year 10	2029	100,778	21,073	6.0	0.0	6.0
Ten-Year Increase		16,122	5,215	1.0	0.0	1.0
			Projected Expenditure	\$120,000	\$0	\$120,000

Growth-Related Expenditures for Heavy-Duty Vehicles	\$120,000
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Maximum Supportable Solid Waste Development Impact Fee

Figure 84 shows the maximum supportable Solid Waste Development Impact Fee for the North and South of the Broad Service Areas. Development impact fees for solid waste facilities are based on household size (i.e., persons per household) for residential development. The fee is only assessed on residential development. Differentiating the fee by housing size allows the results to be more exact about the level of demand (persons per household) a residential development will place on the current infrastructure based on level of service standards. The total cost per person is multiplied by the household size to calculate the proposed fee.

The fees represent the highest amount supportable for each type of development, which represents new growth’s fair share of the cost for capital facilities. The County may adopt fees that are less than the amounts shown. However, a reduction in development impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service.

Figure 84. Maximum Supportable Solid Waste Development Impact Fee – North of the Broad

North of the Broad Service Area

Fee Component	Cost per Person
Convenience Centers	\$10
Vehicles	\$7
Gross Total	\$17
Net Total	\$17

Residential

Housing Unit Size (Sq. Ft.)	Persons per Household	Maximum Supportable Fee per Unit
1,000 or less	1.40	\$24
1,001 to 1,250	1.70	\$29
1,251 to 1,500	2.00	\$34
1,501 to 1,750	2.30	\$39
1,751 to 2,000	2.50	\$43
2,001 to 2,500	2.90	\$49
2,501 to 3,000	3.10	\$53
3,001 to 3,500	3.40	\$58
3,501 or 4,000	3.60	\$61
4,001 or more	3.80	\$65

Figure 85. Maximum Supportable Solid Waste Development Impact Fee – South of the Broad

South of the Broad Service Area

Fee Component	Cost per Person
Convenience Centers	\$59
Vehicles	\$7
Gross Total	\$66
Net Total	\$66

Residential

Housing Unit Size (Sq. Ft.)	Persons per Household	Maximum Supportable Fee per Unit
1,000 or less	1.20	\$79
1,001 to 1,250	1.50	\$99
1,251 to 1,500	1.80	\$119
1,501 to 1,750	2.00	\$132
1,751 to 2,000	2.20	\$145
2,001 to 2,500	2.50	\$165
2,501 to 3,000	2.80	\$185
3,001 to 3,500	3.00	\$198
3,501 or 4,000	3.20	\$211
4,001 or more	3.30	\$218

Revenue from Solid Waste Development Impact Fee

Revenue from the Solid Waste Development Impact Fee is estimated in Figure 86 and Figure 87.

There is projected to be 4,406 new housing units in northern unincorporated Beaufort County by 2029. To find the revenue, the fee is multiplied by the growth. For example, single family development generates \$179,271 in revenue (\$53 x 3,382 units = \$179,271). The revenue from the development impact fee covers all the capital costs generated by projected growth (rounding in the calculations result in the revenue slightly exceeding the expenditures).

Figure 86. Estimated Revenue from Solid Waste Development Impact Fee – North of the Broad Infrastructure Costs for Solid Waste Facilities

	Total Cost	Growth Cost
Convenience Centers	\$107,853	\$107,853
Heavy-Duty Vehicles	\$79,122	\$79,122
Total Expenditures	\$186,975	\$186,975

Projected Development Impact Fee Revenue

		Single Family \$53 per unit	Multifamily \$29 per unit	Retail \$0 per KSF	Office/Service \$0 per KSF	Industrial \$0 per KSF	Institutional \$0 per KSF
Year		Housing Units	Housing Units	KSF	KSF	KSF	KSF
Base	2019	15,141	4,582	1,076	2,001	1,120	301
Year 1	2020	15,479	4,684	1,113	2,071	1,160	312
Year 2	2021	15,817	4,786	1,151	2,142	1,199	322
Year 3	2022	16,155	4,888	1,188	2,212	1,239	333
Year 4	2023	16,492	4,991	1,225	2,282	1,278	344
Year 5	2024	16,830	5,093	1,263	2,353	1,318	355
Year 6	2025	17,168	5,195	1,300	2,423	1,357	365
Year 7	2026	17,506	5,297	1,337	2,493	1,397	376
Year 8	2027	17,844	5,399	1,374	2,563	1,436	387
Year 9	2028	18,181	5,502	1,412	2,634	1,476	397
Year 10	2029	18,524	5,605	1,449	2,704	1,515	408
Ten-Year Increase		3,382	1,024	373	703	395	107
Projected Revenue		\$179,271	\$29,682	\$0	\$0	\$0	\$0
						Projected Revenue =>	\$208,953
						Total Expenditures =>	\$186,975
						Non-Impact Fee Funding =>	\$0

Listed in Figure 87, there is projected to be 2,488 new housing units in southern unincorporated Beaufort County by 2029. To find the revenue, the fee is multiplied by the growth. For example, single family development generates \$353,355 in revenue (\$185 x 1,910 units = \$353,355). The revenue from the development impact fee covers all the capital costs generated by projected growth (rounding in the calculations result in the revenue slightly exceeding the expenditures).

Figure 87. Estimated Revenue from Solid Waste Development Impact Fee – South of the Broad
Infrastructure Costs for Solid Waste Facilities

	Total Cost	Growth Cost
Convenience Centers	\$331,371	\$331,371
Heavy-Duty Vehicles	\$40,878	\$40,878
Total Expenditures	\$372,249	\$372,249

Projected Development Impact Fee Revenue

		Single Family \$185 per unit	Multifamily \$99 per unit	Retail \$0 per KSF	Office/Service \$0 per KSF	Industrial \$0 per KSF	Institutional \$0 per KSF
Year		Housing Units	Housing Units	KSF	KSF	KSF	KSF
Base	2019	14,037	4,248	2,048	4,254	3,017	2,041
Year 1	2020	14,228	4,306	2,118	4,383	3,116	2,107
Year 2	2021	14,420	4,363	2,188	4,511	3,214	2,174
Year 3	2022	14,611	4,421	2,258	4,640	3,313	2,240
Year 4	2023	14,802	4,479	2,328	4,768	3,412	2,307
Year 5	2024	14,993	4,537	2,398	4,897	3,511	2,373
Year 6	2025	15,184	4,595	2,468	5,026	3,609	2,439
Year 7	2026	15,375	4,653	2,538	5,154	3,708	2,506
Year 8	2027	15,567	4,710	2,608	5,283	3,807	2,572
Year 9	2028	15,758	4,768	2,678	5,411	3,905	2,639
Year 10	2029	15,947	4,826	2,748	5,540	4,004	2,705
Ten-Year Increase		1,910	578	700	1,286	987	664
Projected Revenue		\$353,355	\$57,219	\$0	\$0	\$0	\$0
Projected Revenue =>							\$410,574
Total Expenditures =>							\$372,249
General Fund's Share =>							\$0

TRANSPORTATION CIP AND DEVELOPMENT IMPACT FEE

Methodology

Section 6-1-920(18d) of the South Carolina Development Impact Fee Act states that a development impact fee may be imposed on public facilities including:

"...roads, streets, and bridges including, but not limited to, rights-of-way and traffic signals."

To determine the Beaufort County Transportation Development Impact Fee, a plan-based methodology is used. The fee amounts for residential and nonresidential development are calculated by multiplying the vehicle miles traveled (VMT) generation rates by the capital cost per VMT. The methodology includes trip adjustment for pass-by trips, average trip length, and trip length adjustment factors. The capital cost of transportation improvements is based on a transportation improvement plan through 2030 which includes roadways, widening of roadways, and intersection improvements.

Section 6-1-960(1) of the South Carolina Development Impact Fee Act requires:

"a general description of all existing facilities and their existing deficiencies, within the service area or areas of the governmental entity, a reasonable estimate of all costs, and a plan to develop the funding resources, including existing sources of revenues, related to curing existing deficiencies including, but not limited to, the upgrading, updating, improving, expanding, or replacing of these facilities to meet existing needs and usage."

Section 6-1-960(2) of the South Carolina Development Impact Fee Act requires:

"an analysis of total capacity, the level of current usage, and commitments for usage of capacity of existing public facilities, which must be prepared by qualified a professional using generally accepted principles and professional standards."

Residential and nonresidential development impact fees are calculated on a per vehicle miles traveled (VMT) basis. Vehicle trip generation rates for different development types are provided by the Institute of Transportation Engineers (ITE). Residential rates are able to be customized for Beaufort County as well. Necessary factors are applied to vehicle trip rates to calculate the VMT generation for each land use.

Transportation Service Areas

Furthermore, the transportation improvement projects have been divided into two service areas: North and South of the Broad River. **This ensures an equitable analysis; future development will only be paying for those transportation projects which they will benefit from.**

Lastly, all the municipalities in the county have an intergovernmental agreement with Beaufort County to collect the Transportation Development Impact Fee.

Transportation Service Units

Section 6-1-960(4) of the South Carolina Development Impact Fee Act requires:

“a definitive table establishing the specific service unit for each category of system improvements and an equivalency or conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial, agricultural, and industrial, as appropriate.”

The “service unit” used in the analysis of the Transportation fee for residential and nonresidential development is average weekday vehicle miles of travel (VMT). The analysis includes adjustments for commuting patterns, pass-by trips, and average trip lengths by type of development. Trip generation rates are from the reference book Trip Generation published by the Institute of Transportation Engineers (ITE, 2017). A vehicle trip end represents a vehicle either entering or exiting a development (as if a traffic counter were placed across a driveway). To avoid double counting a single vehicle trip at both the origin and destination points, the basic trip adjustment factor is 50%. As discussed in Appendix B, the development fee methodology includes additional adjustments to make the fees proportionate to the infrastructure demand for particular types of development. Residential vehicle trip end rates are calculated based on housing unit size. Further discussion and details on calculations can be found in Appendix C.

Residential Vehicle Trips

The daily vehicle trip end, trip adjustment, and the trip length weighted factors are listed for residential land uses in Figure 88 and Figure 89. The factors are combined along with the average trip length to calculate the average daily vehicle miles of travel (VMT). As expected, as the housing unit size increases so does the VMT generated from the household.

Figure 88. Residential Service Units – North of the Broad Service Area

Land Use	Vehicle Trip Ends	Trip Adj. Factor	Ave. Trip Length (miles)	Trip Length Wgt. Factor	Vehicle Miles of Travel (VMT)
North of the Broad - Residential (per housing unit by size)					
1,000 or less	3.90	55%	3.66	121%	9.50
1,001 to 1,250	4.90	55%	3.66	121%	11.94
1,251 to 1,500	5.80	55%	3.66	121%	14.13
1,501 to 1,750	6.50	55%	3.66	121%	15.83
1,751 to 2,000	7.10	55%	3.66	121%	17.29
2,001 to 2,500	8.10	55%	3.66	121%	19.73
2,501 to 3,000	9.00	55%	3.66	121%	21.92
3,001 to 3,500	9.70	55%	3.66	121%	23.63
3,501 or 4,000	10.30	55%	3.66	121%	25.09
4,001 or more	10.80	55%	3.66	121%	26.31

Source: U.S. Census Public Use Microdata, 2013-2017 5-Year Estimate; Trip Generation, Institute of Transportation Engineers, 10th Edition (2017); National Household Travel Survey, 2009; TischlerBise analysis

Figure 89. Residential Service Units – South of the Broad Service Area

Land Use	Vehicle Trip Ends	Trip Adj. Factor	Ave. Trip Length (miles)	Trip Length Wgt. Factor	Vehicle Miles of Travel (VMT)
South of the Broad - Residential (per housing unit by size)					
1,000 or less	3.60	55%	3.66	121%	8.77
1,001 to 1,250	4.50	55%	3.66	121%	10.96
1,251 to 1,500	5.30	55%	3.66	121%	12.91
1,501 to 1,750	6.00	55%	3.66	121%	14.61
1,751 to 2,000	6.60	55%	3.66	121%	16.08
2,001 to 2,500	7.50	55%	3.66	121%	18.27
2,501 to 3,000	8.30	55%	3.66	121%	20.22
3,001 to 3,500	8.90	55%	3.66	121%	21.68
3,501 or 4,000	9.50	55%	3.66	121%	23.14
4,001 or more	10.00	55%	3.66	121%	24.36

Source: U.S. Census Public Use Microdata, 2013-2017 5-Year Estimate; *Trip Generation*, Institute of Transportation Engineers, 10th Edition (2017); National Household Travel Survey, 2009; TischlerBise analysis

Nonresidential Vehicle Trips

The Institute for Transportation Engineers’ land use code, daily vehicle trip end rate, trip adjustment factor, and the trip length weighted factor are listed for nonresidential land uses in Figure 90. The factors are combined along with the average trip length to calculate the average daily vehicle miles of travel (VMT). Found in the figure, the Retail land use has the highest average VMT rate, while the Office/Service and Institutional land uses have similar VMT rates, and the Industrial land use has the lowest VMT rate.

Figure 90. Nonresidential Service Units

Land Use	ITE Codes	Vehicle Trip Ends	Trip Adj. Factor	Ave. Trip Length (miles)	Trip Length Wgt. Factor	Vehicle Miles of Travel (VMT)
Nonresidential (per 1,000 square feet)						
Retail	820	37.75	38%	3.00	66%	28.40
Office/Service	710	9.74	50%	3.97	73%	14.11
Industrial	610	3.93	50%	3.97	73%	5.69
Institutional	140	10.72	50%	3.36	73%	13.15

Source: *Trip Generation*, Institute of Transportation Engineers, 10th Edition (2017); National Household Travel Survey, 2009; TischlerBise analysis

Projected Travel Demand

As mentioned, the Transportation Development Impact Fee analyzes the North and South of the Broad Service Areas separately. Projected development through 2030 and the corresponding need for additional lane miles is shown in Figure 91 and Figure 92. Trip generation rates and trip adjustment factors convert project development into average weekday vehicle trips. A typical vehicle trip, such as a person leaving their home and traveling to work, generally begins on a local street that connects to a collector street, which connects to an arterial road and eventually to a state or interstate highway. The progression of travel up and down the functional classification chain limits the average trip length determination, for the purpose of development fees, to the following question, “What is the average vehicle trip length on development fee system improvements?”

Staying consistent with the previous Transportation Development Impact Fee Study (Clarion Associates), the average trip length on arterial roadways varies based on the land use type. For example, the average trip length to a residential land use is 3.66 miles while the average for a retail land use is 3.00 miles. By combining the vehicle trips, the trip length factors, and trip length adjustment factors for pass-by trips the current vehicle miles traveled are calculated for the service areas. Shown in the following figures, there is an estimated 862,621 VMT in the North of the Broad Service Area and an estimated 1,331,134 VMT in the South of the Broad Service Area.

Listed in Figure 91, through 2030 there are an estimated increase of 61,464 vehicle trips in the North. After applying the trip length and average mile per trip factors to the vehicle trip generation, the total vehicle miles traveled (VMT) is calculated. Future development is projected to increase the demand on the arterial roadways by 223,900 VMT. That is an increase of 26 percent compared to the base year.

Illustrated at the bottom of the figure, based on the national average of capacity for an arterial roadway of 7,000 VMT per lane mile, in the base year there is a demand for 123.2 lane miles. Over the next eleven years, future growth will increase the demand to 155.2 lane miles, an increase of 31.99 lane miles.

Figure 91. Average Daily Vehicle Miles Traveled – North of the Broad

	Base Year	5-year increment							Total
	2019	1	2	3	4	5	6	11	Increase
		2020	2021	2022	2023	2024	2025	2030	
Single Family Units	27,589	28,206	28,823	29,440	30,058	30,675	31,292	34,144	6,555
Multifamily Units	8,348	8,535	8,722	8,909	9,095	9,282	9,469	10,332	1,984
Retail KSF	2,321	2,401	2,480	2,559	2,639	2,718	2,797	3,170	849
Office/Service KSF	3,970	4,100	4,230	4,360	4,490	4,620	4,750	5,360	1,391
Industrial KSF	3,885	4,015	4,144	4,273	4,403	4,532	4,661	5,269	1,383
Institutional KSF	1,074	1,109	1,143	1,178	1,213	1,248	1,283	1,447	374
Single Family Units Trips	136,564	139,619	142,674	145,730	148,785	151,840	154,896	169,011	32,447
Multifamily Units Trips	22,499	23,002	23,505	24,009	24,512	25,016	25,519	27,844	5,346
<i>Residential Subtotal</i>	<i>159,063</i>	<i>162,621</i>	<i>166,180</i>	<i>169,739</i>	<i>173,297</i>	<i>176,856</i>	<i>180,414</i>	<i>196,855</i>	<i>37,792</i>
Retail Trips	33,297	34,435	35,573	36,711	37,850	38,988	40,126	45,474	12,177
Office Trips	19,332	19,965	20,598	21,231	21,864	22,497	23,130	26,105	6,774
Industrial Trips	7,635	7,889	8,143	8,397	8,651	8,906	9,160	10,353	2,718
Institutional Trips	5,755	5,942	6,129	6,316	6,503	6,690	6,877	7,758	2,003
<i>Nonresidential Subtotal</i>	<i>66,019</i>	<i>68,231</i>	<i>70,443</i>	<i>72,656</i>	<i>74,868</i>	<i>77,081</i>	<i>79,293</i>	<i>89,691</i>	<i>23,672</i>
Total Trips	225,081	230,852	236,623	242,394	248,165	253,936	259,707	286,546	61,464
Arterial Road VMT	862,621	883,664	904,707	925,751	946,794	967,837	988,881	1,086,520	223,900
Arterial Road Lane Miles	123.2	126.2	129.2	132.3	135.3	138.3	141.3	155.2	31.99
ANL Arterial Road Lane Miles	123.2	3.0	3.0	3.0	3.0	3.0	3.0	1.9	31.99
Arterial Lane Miles per 10,000 VMT	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	

Found in Figure 92, through 2030 there are an estimated increase of 67,649 vehicle trips in the North. After applying the trip length and average mile per trip factors to the vehicle trip generation, the total vehicle miles traveled (VMT) is calculated. Future development is projected to increase the demand on the arterial roadways by 254,768 VMT. That is an increase of 19 percent compared to the base year.

Illustrated at the bottom of the figure, based on the national average of capacity for an arterial roadway of 7,000 VMT per lane mile, in the base year there is a demand for 190.2 lane miles. Over the next eleven years, future growth will increase the demand to 226.6 lane miles, an increase of 36.4 lane miles.

Figure 92. Average Daily Vehicle Miles Traveled – South of the Broad

	Base Year	5-year increment								Total
	2019	1	2	3	4	5	6	11	Increase	
		2020	2021	2022	2023	2024	2025	2030		
Single Family Units	44,852	45,642	46,431	47,221	48,009	48,798	49,588	53,229	8,377	
Multifamily Units	15,253	15,555	15,858	16,160	16,464	16,767	17,069	18,459	3,206	
Retail KSF	4,486	4,564	4,642	4,720	4,797	4,875	4,953	5,318	832	
Office/Service KSF	5,287	5,376	5,466	5,555	5,645	5,734	5,824	6,259	972	
Industrial KSF	5,424	5,544	5,665	5,785	5,906	6,026	6,146	6,721	1,297	
Institutional KSF	1,845	1,884	1,923	1,962	2,001	2,040	2,079	2,266	421	
Single Family Units Trips	204,751	208,356	211,957	215,562	219,163	222,764	226,369	242,992	38,242	
Multifamily Units Trips	37,750	38,498	39,249	39,997	40,747	41,498	42,246	45,686	7,936	
<i>Residential Subtotal</i>	<i>242,501</i>	<i>246,855</i>	<i>251,206</i>	<i>255,559</i>	<i>259,910</i>	<i>264,262</i>	<i>268,615</i>	<i>288,679</i>	<i>46,178</i>	
Retail Trips	64,359	65,473	66,587	67,701	68,815	69,930	71,044	76,293	11,935	
Office Trips	25,745	26,181	26,617	27,053	27,489	27,925	28,361	30,479	4,734	
Industrial Trips	10,658	10,895	11,131	11,368	11,604	11,841	12,078	13,206	2,548	
Institutional Trips	9,891	10,100	10,309	10,518	10,726	10,935	11,144	12,146	2,255	
<i>Nonresidential Subtotal</i>	<i>110,654</i>	<i>112,649</i>	<i>114,645</i>	<i>116,640</i>	<i>118,635</i>	<i>120,631</i>	<i>122,626</i>	<i>132,125</i>	<i>21,472</i>	
Total Trips	353,155	359,504	365,850	372,199	378,546	384,893	391,241	420,804	67,649	
Arterial Road VMT	1,331,134	1,355,080	1,379,017	1,402,964	1,426,901	1,450,838	1,474,784	1,585,901	254,768	
Arterial Road Lane Miles	190.2	193.6	197.0	200.4	203.8	207.3	210.7	226.6	36.40	
ANL Arterial Road Lane Miles	190.2	3.4	3.4	3.4	3.4	3.4	3.4	2.2	36.40	
Arterial Lane Miles per 10,000 VMT	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43		

Need for Transportation Improvements

The planned-based methodology is based on the 2030 transportation improvement plan provided by the County. This project list includes the recent Beaufort Penny Referendum, a voter-approved 1-cent sales tax in Beaufort County which provides funding for transportation projects. However, since future development will be paying the development impact fee and the sales tax to fund the same projects, a credit is necessary to ensure there is not double payment. In the following figures, the projects that are planned to be funded by the Penny Referendum have been reduced by the planned funding amount.

Below, the capital cost per vehicle miles traveled for transportation improvements by service area is calculated.

Need for Roadway Improvements and Facilities - North of the Broad

Listed in Figure 93, there are sixteen transportation improvement projects in the North of the Broad Service Area. These projects total \$51.7 million. However, the Penny Referendum is anticipated to fund \$35.1 million of those projects. Furthermore, the County anticipates receiving about 15 percent of the remaining funding from other sources (i.e. South Carolina DOT). As a result, Beaufort County is funding 85 percent of the projects after the Penny Referendum revenue is included, this totals \$14.1 million.

Found at the bottom of Figure 93, the County’s cost is divided by the projected 2030 VMT in the North. This results in a capital cost per VMT of \$12.99 (\$14,110,000 / 1,086,520 VMT = \$12.99 per VMT, rounded).

Figure 93. Roadway Improvement Projects – North of the Broad

Project	Description	Total Cost	Penny Referendum Offset	County Contribution (85%)
US 21/SC 802 Connector SE (Hazel Farms Road)	New Road	\$5,244,000	\$5,244,000	\$0
US 21/SC 802 Connector NW (Sunset/Miller Road)	New Road	\$6,634,000	\$6,634,000	\$0
US 21/SC 802 Intersection Improvement (Sea Island Pkwy/Sams Pt. Road)	Intersection Improvements	\$2,500,000	\$2,500,000	\$0
US 21/SC 128 Intersection Improvement (Ribaut Road/Lady's Island Drive)	Intersection Improvements	\$1,000,000	\$1,000,000	\$0
Boundary Street Connectivity (Polk St. Parallel Road)	New Road	\$4,000,000	\$4,000,000	\$0
Joe Frazier Road Improvements	Access Management	\$7,000,000	\$0	\$5,950,000
US 21 Business (Woods Memorial Bridge ITS)	Intelligent Transportation Systems	\$1,000,000	\$0	\$850,000
Sea Island Parkway Improvements	Access Management/Complete Street	\$15,756,000	\$15,756,000	\$0
Spine Road - Port Royal Port	New Road	\$5,000,000	\$0	\$4,250,000
US 21 and Parker Drive Mast Arm Signal	Traffic Signal	\$125,000	\$0	\$106,250
9 Traffic Signals	Traffic Signal	\$2,525,000	\$0	\$2,146,250
Port Royal Road Interconnectivity	New Road	\$950,000	\$0	\$807,500
		\$51,734,000	\$35,134,000	\$14,110,000

Total Cost for Road Projects	\$14,110,000
2030 Vehicle Miles Traveled - North of the Broad	1,086,520
Capital Cost per Vehicle Miles Traveled	\$12.99

Need for Roadway Improvements and Facilities - South of the Broad

Listed in Figure 94, there are fifteen transportation improvement projects in the South of the Broad Service Area. These projects total \$357 million. However, the Penny Referendum is anticipated to fund \$80 million of those projects. Furthermore, the County anticipates receiving about 15 percent of the remaining funding from other sources (i.e. South Carolina DOT). As a result, Beaufort County is funding 85 percent of the projects after the Penny Referendum revenue is included, this totals \$235 million.

Found at the bottom of Figure 94, the County’s cost is divided by the projected 2030 VMT in the South. This results in a capital cost per VMT of \$148.21 ($\$235,053,500 / 1,585,901 \text{ VMT} = \$148.21 \text{ per VMT, rounded}$).

Figure 94. Roadway Improvement Projects – South of the Broad

Project	Description	Total Cost	Penny Referendum Offset	County Contribution (85%)
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Credit for Future Debt Payments

To ensure fee-payers avoid potential double payment for annual debt service, TischlerBise included in credit in the development impact fee calculations. The current debt is for previous road projects south of the Broad River, so the credit is only applied to the South of the Broad Service Area.

The annual debt service is applied to southern development and divided by annual demand unit (vehicle miles traveled) to yield payments per VMT. To account for the time value of money, annual payments are discounted using a net present value formula based on the applicable discount (interest) rate. This results in a credit of \$8.72 per VMT.

Figure 95. Credit for Future Debt Payments – South of the Broad

Fiscal Year	Payment	North 0%	South 100%	Fiscal Year	Payment	Projected VMT - South	Payment/ VMT
Base Year	\$618,718	\$0	\$618,718	Base Year	\$618,718	1,331,134	\$0.46
2020	\$618,682	\$0	\$618,682	2020	\$618,682	1,355,080	\$0.46
2021	\$618,577	\$0	\$618,577	2021	\$618,577	1,379,017	\$0.45
2022	\$789,925	\$0	\$789,925	2022	\$789,925	1,402,964	\$0.56
2023	\$781,383	\$0	\$781,383	2023	\$781,383	1,426,901	\$0.55
2024	\$772,820	\$0	\$772,820	2024	\$772,820	1,450,838	\$0.53
2025	\$764,140	\$0	\$764,140	2025	\$764,140	1,474,784	\$0.52
2026	\$755,593	\$0	\$755,593	2026	\$755,593	1,498,721	\$0.50
2027	\$1,730,543	\$0	\$1,730,543	2027	\$1,730,543	1,522,658	\$1.14
2028	\$1,571,405	\$0	\$1,571,405	2028	\$1,571,405	1,546,604	\$1.02
2029	\$1,548,580	\$0	\$1,548,580	2029	\$1,548,580	1,570,690	\$0.99
2030	\$1,545,878	\$0	\$1,545,878	2030	\$1,545,878	1,585,901	\$0.97
2031	\$1,544,763	\$0	\$1,544,763	2031	\$1,544,763	1,608,223	\$0.96
2032	\$1,544,599	\$0	\$1,544,599	2032	\$1,544,599	1,623,285	\$0.95
2033	\$1,557,790	\$0	\$1,557,790	2033	\$1,557,790	1,638,346	\$0.95
2034	\$1,571,103	\$0	\$1,571,103	2034	\$1,571,103	1,653,408	\$0.95
2035	\$1,513,366	\$0	\$1,513,366	2035	\$1,513,366	1,668,470	\$0.91
2036	\$1,511,627	\$0	\$1,511,627	2036	\$1,511,627	1,683,532	\$0.90
2037	\$1,511,449	\$0	\$1,511,449	2037	\$1,511,449	1,698,594	\$0.89
Total	\$22,870,940	\$0	\$22,870,940	Total	\$22,870,940		\$14.66
						Discount Rate	5.00%
						Total Credit per VMT	\$8.72

Furthermore, a credit has already been included for the revenue from the Penny Referendum. The credit is imbedded in the capital cost calculations by reducing the transportation projects by the anticipated funding from the sales tax.

Transportation Development Impact Fee

The cost factors for each component of Beaufort County's Transportation Development Impact Fee are listed in the following figures and are based on the service area. The development impact fees for transportation projects are based on vehicle miles traveled (VMT) per housing unit by size for residential development and VMT per 1,000 square feet for nonresidential development.

The fee components are calculated per VMT, so the maximum supportable fee is calculated by multiplying the total cost per VMT by the VMT generation factor for each land use. The VMT factor is calculated by multiplying the average daily vehicle trip end rate, trip rate adjustment factor, average miles per vehicle trip, and trip length weighting factor. For example, the maximum supportable fee for a single family housing unit that is 2,800 square feet in the North is \$285 ($\$12.99 \text{ per VMT} \times 9.00 \text{ vehicle trip ends} \times 55\% \times 3.66 \text{ miles} \times 121\% = \285 , rounded).

The fees represent the highest amount supportable for residential and nonresidential development, which represents new growth's fair share of the cost for capital facilities. The County may adopt fees that are less than the amounts shown. However, a reduction in development impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service.

The current fee is included in the figures to illustrate the change in fee level if the maximum supportable fee amount is adopted. Shown in Figure 96, the fee for all development types would decrease in the North of the Broad Service Area. While in the South Service Area, the fee for most of the development types would increase, Figure 97. This is a result of the level of transportation needs necessary to accommodate future growth in the South compared to the North.

Figure 96. Maximum Supportable Transportation Development Impact Fee – North of the Broad

North of the Broad

Fee Component	Cost per VMT
North of the Broad Projects	\$12.99
Gross Total	\$12.99
Credit for Debt Payments	\$0.00
Net Total	\$12.99

Development Type	Ave. Daily Veh. Trip Ends	Trip Rate Adjustment	Ave. Miles per Veh. Trip	Trip Length Weighting	Maximum Supportable Fee	Current Fee	Increase/ (Decrease)
Residential (per housing unit)							
1,000 or less	3.90	55%	3.66	121%	\$123	\$544	(\$421)
1,001 to 1,250	4.90	55%	3.66	121%	\$155	\$544	(\$389)
1,251 to 1,500	5.80	55%	3.66	121%	\$184	\$544	(\$360)
1,501 to 1,750	6.50	55%	3.66	121%	\$206	\$775	(\$569)
1,751 to 2,000	7.10	55%	3.66	121%	\$225	\$775	(\$550)
2,001 to 2,500	8.10	55%	3.66	121%	\$256	\$775	(\$519)
2,501 to 3,000	9.00	55%	3.66	121%	\$285	\$775	(\$490)
3,001 to 3,500	9.70	55%	3.66	121%	\$307	\$775	(\$468)
3,501 or 4,000	10.30	55%	3.66	121%	\$326	\$775	(\$449)
4,001 or more	10.80	55%	3.66	121%	\$342	\$775	(\$433)
Nonresidential (per 1,000 square feet)							
Retail	37.75	38%	3.00	66%	\$369	\$1,948	(\$1,579)
Office/Service	9.74	50%	3.97	73%	\$183	\$803	(\$620)
Industrial	3.93	50%	3.97	73%	\$74	\$122	(\$48)
Institutional	10.72	50%	3.36	73%	\$171	\$1,423	(\$1,252)

Figure 97. Maximum Supportable Transportation Development Impact Fee – South of the Broad
 South of the Broad

Fee Component	Cost per VMT
South of the Broad Projects	\$148.21
Gross Total	\$148.21
Credit for Debt Payments	(\$8.72)
Net Total	\$139.49

Development Type	Ave. Daily Veh. Trip Ends	Trip Rate Adjustment	Ave. Miles per Veh. Trip	Trip Length Weighting	Maximum Supportable Fee	Current Fee [1]	Increase/ (Decrease)
Residential (per housing unit)							
1,000 or less	3.60	55%	3.66	121%	\$1,223	\$1,471	(\$248)
1,001 to 1,250	4.50	55%	3.66	121%	\$1,529	\$1,471	\$58
1,251 to 1,500	5.30	55%	3.66	121%	\$1,801	\$1,471	\$330
1,501 to 1,750	6.00	55%	3.66	121%	\$2,039	\$2,095	(\$56)
1,751 to 2,000	6.60	55%	3.66	121%	\$2,242	\$2,095	\$148
2,001 to 2,500	7.50	55%	3.66	121%	\$2,548	\$2,095	\$454
2,501 to 3,000	8.30	55%	3.66	121%	\$2,820	\$2,095	\$726
3,001 to 3,500	8.90	55%	3.66	121%	\$3,024	\$2,095	\$930
3,501 or 4,000	9.50	55%	3.66	121%	\$3,228	\$2,095	\$1,134
4,001 or more	10.00	55%	3.66	121%	\$3,398	\$2,095	\$1,304
Nonresidential (per 1,000 square feet)							
Retail	37.75	38%	3.00	66%	\$3,962	\$4,314	(\$352)
Office/Service	9.74	50%	3.97	73%	\$1,969	\$2,353	(\$384)
Industrial	3.93	50%	3.97	73%	\$794	\$356	\$438
Institutional	10.72	50%	3.36	73%	\$1,834	\$3,531	(\$1,697)

[1] fee listed is the average between the Bluffton/Okatie and Hilton Head/Daufuski Island Assessment Districts

Revenue from Transportation Development Impact Fee

The total transportation capital costs and estimated revenue from the northern Transportation Development Impact Fee is listed Figure 98. The capital cost of future growth is found by applying new growth’s share of the 2030 VMT (21 percent) to the total capital cost (\$14,110,000 x 21% = \$2,963,100).

To find the revenue generated by residential and nonresidential development, the growth is multiplied by the corresponding fee. The revenue generation from residential development is based off the fee for an average size single family (2,815 square feet) and multifamily (1,154 square feet) unit. For example, future single family residential development is projected to generate \$1.9 million in revenue from the average fee (6,784 new housing units x \$285 = \$1,933,435). It is estimated that the Transportation Development Impact Fee will generate a total of \$3 million in revenue through 2030. The revenue from the development impact fee covers all the capital costs generated by projected growth (rounding in the calculations result in the revenues slightly exceeding the expenditures).

Figure 98. Estimated Revenue from Transportation Impact Fee – North of the Broad Infrastructure Costs for Transportation Facilities

		County Cost	Growth Cost				
Roadway Improvements		\$14,110,000	\$2,963,100				
Total Expenditures		\$14,110,000	\$2,963,100				

Projected Development Impact Fee Revenue		Single Family \$285 per unit	Multifamily \$155 per unit	Retail \$369 per KSF	Office/Service \$183 per KSF	Industrial \$74 per KSF	Institutional \$171 per KSF
Year		Housing Units	Housing Units	KSF	KSF	KSF	KSF
Base	2019	27,589	8,348	2,321	3,970	3,885	1,074
Year 1	2020	28,206	8,535	2,401	4,100	4,015	1,109
Year 2	2021	28,823	8,722	2,480	4,230	4,144	1,143
Year 3	2022	29,440	8,909	2,559	4,360	4,273	1,178
Year 4	2023	30,058	9,095	2,639	4,490	4,403	1,213
Year 5	2024	30,675	9,282	2,718	4,620	4,532	1,248
Year 6	2025	31,292	9,469	2,797	4,750	4,661	1,283
Year 7	2026	31,909	9,656	2,877	4,880	4,791	1,318
Year 8	2027	32,526	9,843	2,956	5,010	4,920	1,353
Year 9	2028	33,144	10,029	3,035	5,140	5,049	1,388
Year 10	2029	33,756	10,215	3,115	5,270	5,179	1,423
Year 11	2030	34,373	10,401	3,194	5,400	5,308	1,458
Eleven-Year Increase		6,784	2,053	873	1,430	1,423	384
Projected Revenue =>		\$1,933,435	\$318,187	\$322,014	\$261,686	\$105,277	\$65,654
						Projected Revenue =>	\$3,006,253
						Total Expenditures =>	\$2,963,100
						Non-Impact Fee Funding =>	\$0

The total transportation capital costs and estimated revenue from the southern Transportation Development Impact Fee is listed Figure 99. The capital cost of future growth is found by applying new growth’s share of the 2030 VMT (16 percent) to the total capital cost (\$293,016,000 x 16% = \$46,882,560).

To find the revenue generated by residential and nonresidential development, the growth is multiplied by the corresponding fee. The revenue generation from residential development is based off the fee for an average size single family (2,815 square feet) and multifamily (1,154 square feet) unit. For example, future single family residential development is projected to generate \$24.5 million in revenue from the average fee (8,688 new housing units x \$2,820 = \$24,498,803). It is estimated that the Transportation Development Impact Fee will generate a total of \$36.8 million in revenue through 2030. The revenue from the development impact fee covers nearly all the capital costs generated by projected growth. The small remaining balance of the projected expenditures is expected because of the credit applied to prevent double payment.

Figure 99. Estimated Revenue from Transportation Impact Fee – South of the Broad

Infrastructure Costs for Transportation Facilities

	County Cost	Growth Cost
Roadway Improvements	\$235,053,500	\$37,608,560
Total Expenditures	\$235,053,500	\$37,608,560

Projected Development Impact Fee Revenue

		Single Family \$2,820 per unit	Multifamily \$1,529 per unit	Retail \$3,962 per KSF	Office/Service \$1,969 per KSF	Industrial \$794 per KSF	Institutional \$1,834 per KSF
Year		Housing Units	Housing Units	KSF	KSF	KSF	KSF
Base	2019	44,852	15,253	4,486	5,287	5,424	1,845
Year 1	2020	45,642	15,555	4,564	5,376	5,544	1,884
Year 2	2021	46,431	15,858	4,642	5,466	5,665	1,923
Year 3	2022	47,221	16,160	4,720	5,555	5,785	1,962
Year 4	2023	48,009	16,464	4,797	5,645	5,906	2,001
Year 5	2024	48,798	16,767	4,875	5,734	6,026	2,040
Year 6	2025	49,588	17,069	4,953	5,824	6,146	2,079
Year 7	2026	50,377	17,372	5,030	5,913	6,267	2,118
Year 8	2027	51,166	17,675	5,108	6,003	6,387	2,157
Year 9	2028	51,955	17,978	5,186	6,092	6,508	2,196
Year 10	2029	52,750	18,283	5,263	6,182	6,628	2,235
Year 11	2030	53,540	18,587	5,341	6,271	6,748	2,274
Eleven-Year Increase		8,688	3,334	854	985	1,324	428
Projected Revenue =>		\$24,498,803	\$5,097,504	\$3,385,184	\$1,938,954	\$1,051,475	\$785,502
					Projected Revenue =>		\$36,757,423
					Total Expenditures =>		\$37,608,560
					Non-Impact Fee Funding =>		\$851,137

SUMMARY OF DEVELOPMENT IMPACT FEE

The six infrastructure categories are combined in Figure 100 for the study’s Maximum Supportable Fee. The residential fee is assessed per housing unit, while the nonresidential fee is assessed per 1,000 square feet of floor area.

Figure 100. Development Impact Fee Summary – North of the Broad

North of the Broad

Development Type	Parks & Recreation	Library	EMS	Solid Waste	Transportation	Fire [1]	Maximum Supportable Fee	Current Dev. Impact Fee Total	Increase/ (Decrease)
Residential Fee by Housing Size (square feet)									
1,000 or less	\$486	\$225	\$95	\$24	\$123	\$601	\$1,554	\$1,850	(\$296)
1,001 to 1,250	\$590	\$273	\$118	\$29	\$155	\$742	\$1,907	\$1,850	\$57
1,251 to 1,500	\$694	\$321	\$138	\$34	\$184	\$872	\$2,243	\$1,850	\$393
1,501 to 1,750	\$798	\$369	\$155	\$39	\$206	\$1,001	\$2,568	\$2,080	\$488
1,751 to 2,000	\$868	\$401	\$169	\$43	\$225	\$1,084	\$2,790	\$2,080	\$710
2,001 to 2,500	\$1,006	\$466	\$193	\$49	\$256	\$1,260	\$3,230	\$2,080	\$1,150
2,501 to 3,000	\$1,076	\$498	\$213	\$53	\$285	\$1,343	\$3,468	\$2,080	\$1,388
3,001 to 3,500	\$1,180	\$546	\$230	\$58	\$307	\$1,473	\$3,794	\$2,080	\$1,714
3,501 or 4,000	\$1,249	\$578	\$245	\$61	\$326	\$1,555	\$4,014	\$2,080	\$1,934
4,001 or more	\$1,319	\$610	\$258	\$65	\$342	\$1,649	\$4,243	\$2,080	\$2,163
Nonresidential (per 1,000 square feet)									
Retail	\$0	\$0	\$373	\$0	\$369	\$1,260	\$2,002	\$2,379	(\$376)
Office/Services	\$0	\$0	\$127	\$0	\$183	\$789	\$1,099	\$1,234	(\$134)
Industrial	\$0	\$0	\$51	\$0	\$74	\$401	\$526	\$553	(\$27)
Institutional	\$0	\$0	\$139	\$0	\$171	\$860	\$1,170	\$1,854	(\$684)

Note: the current fee listed is the average of the fees for the current service areas north of the Broad River. Some existing fees are based on housing type, so for comparison, a multifamily unit is assumed to be 1,500 square feet and less.

[1] The nonresidential Fire Development Impact Fee is based on fire hazard level. The complexity of fire safety is determined case by case, so for illustrative purposes the nonresidential fee listed is based on EDUs per 1,000 square feet.

Figure 101. Development Impact Fee Summary – South of the Broad

South of the Broad

Development Type	Parks & Recreation	Library	EMS	Solid Waste	Transportation	Fire [1]	Maximum Supportable Fee	Current Dev. Impact Fee Total	Increase/ (Decrease)
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To understand the annual cash flow of the Maximum Supportable Fee, Figure 102 lists the total revenues from each development type. Revenue is projected from 2019-2029. Over the ten years, it is estimated that the maximum support fee amounts will generate \$75.9 million in revenue for Beaufort County. The majority of the revenue (85 percent) is generated from residential development, while revenue from nonresidential development averages \$1.1 million annually.

Figure 102. Total Development Impact Fee Revenue

Development Type	Ten-Year Revenue	%
Single Family	\$54,788,454	72%
Multifamily	\$9,822,839	13%
Retail	\$5,163,084	7%
Office/ Service	\$3,133,065	4%
Industrial	\$1,753,119	2%
Institutional	\$1,248,662	2%
Total	\$75,909,222	100%

CAPITAL IMPROVEMENT PLAN

Section 6-1-960(9) of the South Carolina Development Impact Fee Act requires:

“a schedule setting forth estimated dates for commencing and completing construction of all improvements identified in the capital improvements plan.”

The capacity increasing projects from Beaufort County’s Capital Improvement Plan and the 2030 transportation capital improvement project list are listed in the following figures.

Figure 103. Capital Improvement Plan

Name of Project	Project Type	Sales Tax Funded	Total Cost
Parks and Recreation Projects			
Buckwalter Regional Park - soccer fields, baseball fields, and tennis complex	Park Expansion		\$12,000,000
Bluffton Center - Convert gym to indoor soccer arena - pave parking lot	Park Improvements		\$250,000
Okatie Recreation Complex - 1 multi-purpose field, 2 baseball fields	New Park		\$1,000,000
Camp St. Mary's - Implement Master Plan	New Park		\$2,000,000
Lady's Island Recreation Complex - gym and community rooms	New Park		\$3,000,000
Coursen-Tate Park - Field Lighting	Park Improvements		\$1,000,000
Old Burton Wells - Renovate existing fields, add new soccer field	Park Improvements		\$3,000,000
New Burton Wells - Renovate existing soccer fields	Park Improvements		\$150,000
Total			\$22,400,000
Library Projects			
Replace Self-Checkout Machines	System-wide Improvements		\$135,000
install public computer reservation and print vending solution	System-wide Improvements		\$100,000
Security Camera Installation	System-wide Improvements		\$80,000
Burton Wells Branch - 10,000 facility	New Construction		\$10,000,000
Okatie Branch - 15,000 sf new facility	New Construction		\$15,000,000
Total			\$25,315,000
EMS Projects			
Base Headquarters Renovations - Depot Road	Renovations		\$250,000
Sun City Station Renovations	Renovations		\$200,000
Two New South Facilities	New Construction		\$6,000,000
One New North Facility	New Construction		\$3,000,000
Total			\$9,450,000

Figure 104. Capital Improvement Plan cont.

Fire Projects - Bluffton Fire District			
Training Facilities Completion (Concrete, Bleachers, Shelter, Gate C2E)	New Construction		\$350,000
Fire Station #38 EOC (Draw to Complete Project)	New Construction		\$500,000
Fire Station #32 (Draw to Complete Project)	New Construction		\$250,000
Fire Station #34 Construction/Expansion	New Construction		\$500,000
Water Tender Upgrade Service Capability in the Pritchadville Area	Capacity Upgrade		\$150,000
Fire and Rescue Boat-System Improvement (New Capability)	Capacity Upgrade		\$200,000
Oldfield Fire Station - New Build Due to Growth	New Construction		\$3,500,000
Oldfield Fire Station - Quint Fire Apparatus	New Purchase		\$1,000,000
Buckwalter/May River Road Fire Station - New Build Due to Growth	New Construction		\$3,500,000
Buckwalter/May River Road Fire Station - Quint Fire Apparatus	New Purchase		\$1,000,000
Sun City Fire Station - New Build Due to Growth	New Construction		\$3,500,000
Sun City Fire Station - Quint Fire Apparatus	New Purchase		\$1,000,000
Total			\$15,450,000
Fire Projects - North of the Broad			
New station Bigestate /Jenkins area	New Construction		\$900,000
Tanker	New Purchase		\$350,000
Pumper	New Purchase		\$650,000
Squad Truck	New Purchase		\$140,000
Total			\$2,040,000

Figure 105. Capital Improvement Plan cont.

Transportation Projects - South of the Broad			
US 278 at Jenkins Island Alternate 2A Super Street Plan	Superstreet Plan		\$7,400,000
US 278 Bridge Widening 6-lane widening from Bluffton 5A to Jenkins Is	Bridge Widening	\$80,000,000	\$200,000,000
US 278 Access Management	Access Management		\$12,600,000
US 278/SC 170 Interchange - ramp reconfiguration for added capacity	Interchange Improvements		\$25,000,000
SC 170 - US 278 to Tide Watch - widen to 6 lanes	Road Widening		\$15,000,000
SC 46/170 Widen to 6-lane divided from Argent Blvd to SC 462	Road Widening		\$10,000,000
Buckwalter Parkway access mgmt - roadway connectivity	Access Management		\$2,000,000
May River Rd access mgmt (incl. bike/Ped)	Access Management		\$10,000,000
Burnt Church Rd from Bluffton Pkwy to All Joy Turn access mgmt (incl. bike/ped)	Access Management		\$5,000,000
Buck Island Rd widening to 3 lanes from US 278 to Bluffton Pkwy (incl. bike/ped)	Road Widening		\$8,000,000
Lake Point Dr / Old Miller Rd Connection with (incl. bike/ped)	New Road		\$1,000,000
SC 170/SC 46 Widening to 4-lane from roundabout to Jasper Co.	Road Widening		\$45,000,000
Innovation Drive	New Road		\$750,000
Buckwalter Frontage Connector Road from Buckwalter Parkway through Willow Run	New Road		\$880,000
16 Traffic Signal	Traffic Signal		\$4,480,000
	Total	\$80,000,000	\$347,110,000
Transportation Projects - North of the Broad			
US 21/SC 802 Connector SE (Hazel Farms Road)	New Road	\$5,244,000	\$5,244,000
US 21/SC 802 Connector NW (Sunset/Miller Road)	New Road	\$6,634,000	\$6,634,000
US 21/SC 802 Intersection Improvement (Sea Island Pkwy/Sams Pt. Road)	Intersection Improvements	\$2,500,000	\$2,500,000
US 21/SC 128 Intersection Improvement (Ribaut Road/Lady's Island Drive)	Intersection Improvements	\$1,000,000	\$1,000,000
Boundary Street Connectivity (Polk St. Parallel Road)	New Road	\$4,000,000	\$4,000,000
Joe Frazier Road Improvements	Access Management	\$0	\$7,000,000
US 21 Business (Woods Memorial Bridge ITS)	Intelligent Transportation Systems		\$1,000,000
Sea Island Parkway Improvements	Access Management/Complete Street	\$15,756,000	\$15,756,000
Spine Road - Port Royal Port	New Road		\$5,000,000
US 21 and Parker Drive Mast Arm Signal	Traffic Signal		\$125,000
9 Traffic Signals	Traffic Signal		\$2,525,000
Port Royal Road Interconnectivity	New Road		\$950,000
	Total	\$35,134,000	\$51,734,000

IMPLEMENTATION AND ADMINISTRATION

Development impact fees should be periodically evaluated and updated to reflect recent data. Beaufort County will continue to adjust for inflation. If cost estimates or demand indicators change significantly, the County should redo the fee calculations. South Carolina's enabling legislation exempts a project from development impact fees if it is determined to create affordable housing.

Credits and Reimbursements

A general requirement that is common to development impact fee methodologies is the evaluation of credits. A revenue credit may be necessary to avoid potential double payment situations arising from one-time development impact fees plus on-going payment of other revenues that may also fund growth-related capital improvements. The determination of revenue credits is dependent upon the development impact fee methodology used in the cost analysis and local government policies.

Policies and procedures related to site-specific credits should be addressed in the resolution or ordinance that establishes the development impact fees. Project-level improvements, required as part of the development approval process, are not eligible for credits against development impact fees. If a developer constructs a system improvement included in the fee calculations, it will be necessary to either reimburse the developer or provide a credit against the fees due from that particular development. The latter option is more difficult to administer because it creates unique fees for specific geographic areas.

Service Areas

A development impact fee service area is a region in which a defined set of improvements provide benefit to an identifiable amount of new development. Within a service area, all new development of a type (single family, commercial, etc.) is assessed at the same development impact fee rate. Land use assumptions and development impact fees are each defined in terms of this geography, so that capital facility demand, projects needed to meet that demand, and capital facility cost are all quantified in the same terms. Development impact fee revenue collected within a service area is required to be spent within that service area.

Implementation of many small service areas is problematic. Administration is complicated and, because funds collected within the service area must be spent within that area multiple service areas may make it impossible to accumulate sufficient revenue to fund any projects within the time allowed.

As part of our analysis, the Parks & Recreation, Library, Fire, Solid Waste, and Transportation Development Impact Fees were determined to have two service areas: North and South of the Broad River. The Emergency Medical Services was determined to have one, countywide service area.

Figure 106. Beaufort County Service Area Map



APPENDIX A: HOUSING AFFORDABILITY ANALYSIS

Section 6-1-930(2) of the South Carolina Development Impact Fee Act requires:

“Before imposing a development impact fee on residential units, a governmental entity shall prepare a report which estimates the effect of recovering capital costs through impact fees on the availability of affordable housing within the political jurisdiction of the governmental entity.”

In accordance with South Carolina Development Impact Fee Act, this chapter estimates the effects of imposing the maximum supportable development impact fees on the affordability of housing in the Beaufort County. The analysis will examine the current household income and housing expenses that burden an average household in the County. Next, the maximum supportable development impact fee will be included in the cost burden analysis to identify the effect the proposed development impact fees will have on affordable housing in the County. Additionally, most of the fee categories use two service areas (North and South of the Broad River), so the housing affordability analysis was conducted for both service areas.

South Carolina Development Impact Fee Act

Affordable housing is defined in South Carolina Development Impact Fee Act as housing to families whose incomes do not exceed 80 percent of the median income for the service area or areas within the jurisdiction of the governmental entity. The Act does not mention a preferred methodology to examine the household’s whose income does not exceed 80 percent of the median income. Therefore, the analysis uses the US Housing and Urban Development’s (HUD) criteria that housing should be 30 percent or less of a household’s income. The cost of housing is “moderately burdensome” if its cost burden is over 30 percent and “severely burdensome” if the ratio is over 50 percent.

North of the Broad Service Area Housing Affordability Analysis

Maximum Supportable Development Impact Fee

The development impact fees found in Figure 107 represent the highest amount supportable for housing units by size, which represents new growth’s fair share of the cost for capital facilities. The County may adopt fees that are less than the amounts shown. However, a reduction in development impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service. The housing affordability analysis will assume a conservative condition for assessing the effect of the development impact fee on affordable housing in Beaufort County (i.e. the maximum supportable development impact fee amount). If the County Council were to choose a lower development impact fee amount, the results presented in this report would improve.

Figure 107. Maximum Supportable Development Impact Fee – North of the Broad

North of the Broad

Development Type	Parks & Recreation	Library	EMS	Solid Waste	Transportation	Fire [1]	Maximum Supportable Fee	Current Dev. Impact Fee Total	Increase/ (Decrease)
Residential Fee by Housing Size (square feet)									
1,000 or less	\$486	\$225	\$95	\$24	\$123	\$601	\$1,554	\$1,850	(\$296)
1,001 to 1,250	\$590	\$273	\$118	\$29	\$155	\$742	\$1,907	\$1,850	\$57
1,251 to 1,500	\$694	\$321	\$138	\$34	\$184	\$872	\$2,243	\$1,850	\$393
1,501 to 1,750	\$798	\$369	\$155	\$39	\$206	\$1,001	\$2,568	\$2,080	\$488
1,751 to 2,000	\$868	\$401	\$169	\$43	\$225	\$1,084	\$2,790	\$2,080	\$710
2,001 to 2,500	\$1,006	\$466	\$193	\$49	\$256	\$1,260	\$3,230	\$2,080	\$1,150
2,501 to 3,000	\$1,076	\$498	\$213	\$53	\$285	\$1,343	\$3,468	\$2,080	\$1,388
3,001 to 3,500	\$1,180	\$546	\$230	\$58	\$307	\$1,473	\$3,794	\$2,080	\$1,714
3,501 or 4,000	\$1,249	\$578	\$245	\$61	\$326	\$1,555	\$4,014	\$2,080	\$1,934
4,001 or more	\$1,319	\$610	\$258	\$65	\$342	\$1,649	\$4,243	\$2,080	\$2,163

Note: the current fee listed is the average of the fees for the current service areas north of the Broad River. Some existing fees are based on housing type, so for comparison, a multifamily unit is assumed to be 1,500 square feet and less.

[1] The nonresidential Fire Development Impact Fee is based on fire hazard level. The complexity of fire safety is determined case by case, so for illustrative purposes the nonresidential fee listed is based on EDUs per 1,000 square feet.

Housing Stock

Listed in Figure 108, there are a total of 33,812 housing units in the North of the Broad Service Area. Of the total, 81 percent are occupied by permanent residents. Additionally, there are 16,681 owner-occupied households and 10,716 renter-occupied households. The majority (87 percent) of the housing in the service area is single family units.

Figure 108. Housing Stock Characteristics – North of the Broad

Units in Structure	Owner-Occupied		Renter-Occupied		Renter & Owner Combined					
	Persons	HsehlDs	Persons	HsehlDs	Persons	HsehlDs	Hsg Units	PPHH	PPHU	
Single family [1]	43,820	16,395	23,400	7,437	67,220	23,832	29,254	2.82	2.30	
2 to 4	162	101	1,682	805	1,844	906	1,238	2.04	1.49	
5 or more	334	185	5,161	2,474	5,495	2,659	3,320	2.07	1.66	
Total	44,316	16,681	30,243	10,716	74,559	27,397	33,812	2.72	2.21	
							Vacant HU	6,415		
							Occupancy Rate	81%		
Summary by Type of Housing	Totals									
	Persons	HsehlDs	Hsg Units	PPHH	PPHU	Hhld Mix	Hsg Mix			
Single Family [1]	67,220	23,832	29,254	2.82	2.30	87%	87%			
Multifamily [2]	7,339	3,565	4,558	2.06	1.61	13%	13%			
Total	74,559	27,397	33,812	2.72	2.21	100%	100%			

[1] Includes attached and detached single family homes and mobile homes

[2] Includes all other types

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Household Income

The purchasing power of northern residents to secure housing is represented by personal income. Personal income includes all wages, tips, and bonuses from employment, as well as retirement income earned from a pension plan or retirement account. In the analysis, household income represents all residents living in the housing unit, no matter relationship. From the US Census Bureau American Community Survey, in 2018 the median annual household income for owner-occupied household in the North Service Area was \$62,548. By using the US Bureau of Labor Statistics' CPI Calculator, the current household income is estimated at \$63,641. The annual income for a household making 80 percent of the area's median is \$50,913, or \$4,243 per month. This is done for renter-occupied households as well.

Figure 109. Median Household Income – North of the Broad

Tenure	Median Annual Hsehold Income (2018)	Median Annual Hsehold Income (2020)	Hsehold Income Factor	80% of Median Annual Income	Monthly Income
Owner-occupied	\$62,548	\$63,641	80%	\$50,913	\$4,243
Renter-occupied	\$40,001	\$40,700	80%	\$32,560	\$2,713

Source: U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates; U.S. Bureau of Labor Statistics CPI Calculator

Note: American Community Survey data represents information as of June, 2018. CPI calculator calculates median income to May, 2020 dollars.

Cost of Homeownership

The analysis uses seven categories to calculate the baseline cost of homeownership in the North Service Area: purchase price; mortgage payment; property tax; solid waste collection fee; water, sewer and electric utilities; telephone, cable and internet utilities; and homeowners insurance.

Furthermore, monthly household costs vary across the service area. To address this variation, when possible the analysis applies an average. The following section details the costs included.

Purchase Price

The median home value is used to estimate the purchase price of a home. The American Community Survey estimates that the median value of a home in the North Service Area in 2018 was \$186,107 (US Census Bureau, 2014-2018 American Community Survey 5-Year Estimates). With the US Bureau of Labor Statistics' CPI Calculator, the current home value is estimated to be \$189,360.

There are a few different impact fees that exist in the North of the Broad Service Area. The average impact fee for Beaufort County, municipalities, and fire districts is estimated at \$2,080. Taking a conservative approach, the full impact fee amount is added to the purchasing price, resulting in the purchasing price increasing to \$191,440.

Mortgage Payment

A conventional, fixed-rate 30-year mortgage is assumed to estimate monthly costs of principle and interest on a home loan. The down payment for a loan is assumed to be 20 percent of the purchase price ($\$191,440 \times 20\% = \$38,288$). The loan amount for the mortgage is determined by subtracting the down payment from the purchase price ($\$191,440 - \$38,288 = \$153,152$). As of July 7th, 2020, an interest rate of 3.22 percent is assumed for the home purchase based on a survey of competitive interest rates in Beaufort County (www.bankrate.com). The monthly mortgage payment is \$664.

Property Tax

To calculate annual property tax, homes in Beaufort County that are permanent residences are subject to 4 percent assessment ratio and a property tax millage rate. Depending on their location, residents are subject to a property tax for municipal services, school services, and fire services. The average total millage rate is 0.149. Assumed in the analysis, annual property tax for the average valued home is \$1,141 ($\$191,440 \times 4\% \times 0.149 = \$1,141$).

Solid Waste Collection Fee

Portion of the North Service Area require a resident to either transport their garbage to a refuse site or hire a private company. For this analysis, a weekly pick-up service was researched online. The service was found to cost an average of \$17 per month (May River Disposal).

Water, Sewer, and Electric Utilities

From the Beaufort – Jasper Water & Sewer Authority, an average household consumes 7,000 gallons of water a month. By combining the water usage with the Authority's water rate, a monthly charge for water of \$33.60 is estimated.

On average, a household generates 7,000 gallons of wastewater per month. Based on the sewer rates, a household that generates the average amount of wastewater will be charged the maximum amount, \$55 per month.

Additionally, for an average household that uses 1,000 kilowatts of electricity per month, Dominion Energy charges \$127.13.

As a result, there is an estimated monthly bill of \$216 per month for these utilities.

Telephone, Cable, and Internet Utilities

Spectrum is a provider of telephone, cable, and internet in Beaufort County. From their website, the three services costs \$90 per month.

Homeowner's Insurance

Homeowner's insurance provides protection for the home and is generally required when a home has a mortgage. The average cost for homeowner's insurance in Beaufort County is estimated to be \$800 per year (www.insurance.com).

Monthly Payment

By compiling the month obligations, it is estimated that the monthly cost for homeownership is \$1,149. At the end of this chapter the monthly costs are listed in Figure 112.

Cost of Renting

The cost of renting a home in the North of the Broad Service Area is estimated with data provided by the US Census Bureau. In 2018, the median gross rent (including all utilities and rental insurance) is estimated to be \$1,062. With the US Bureau of Labor Statistics' CPI Calculator, the current cost of renting is estimated to be \$1,080.

Cost Burden Analysis

The cost burden for affordable housing is measured as the ratio between monthly payments for housing (including property tax, fee, utilities, and insurance) and monthly gross household income. An analysis was conducted for residents that purchase a home and residents that rent a home. A cost burden ratio of 30 percent is used as the threshold to determine housing affordability in the North Service Area.

Scenario 1: Baseline Conditions

Figure 110 summarizes the cost burden analysis for residents purchasing or renting a median valued home without the proposed maximum supportable development impact fee included. Based on the results, owner-occupied housing costs are below the affordability cost burden for households whose income is 80 percent of the area's median income. Renter-occupied housing cost are above the threshold.

Figure 110. Scenario 1: Cost Burden Analysis without Maximum Supportable Development Impact Fee

Occupancy	Monthly Income	Monthly Cost	Cost Burden
Owner-Occupied	\$4,243	\$1,149	27.1%
Renter-Occupied	\$2,713	\$1,086	40.0%

Scenario 2: Baseline Condition + Proposed Development Impact Fee

In the second scenario, the maximum supportable development impact fee is included into the cost burden analysis to highlight the effects the fee has on housing affordability. Indicated in Figure 108, owner-occupied housing units are predominately single family units and renter-occupied housings is mixed between the three categories (single family, 2 to 4 units, and 5 or more). Since the development impact fee is calculated by housing size, the owner-occupied housing unit will be assessed the fee for an average sized single family unit (\$3,468) and the renter-occupied housing unit will be assessed the fee for an average sized multifamily unit (\$1,907).

However, there are existing development impact fees for Beaufort County which are being replaced by the maximum supportable fee amount. For a single family unit, the fee is increased by \$1,388. For a multifamily unit, the fee is increased by \$57.

The analysis takes a conservative approach and assumes the purchase price of the median home is raised by the development impact fee. This ultimately increases the household’s mortgage payment and property tax, see Figure 112. For renter-occupied housing units, the analysis assumes that the development impact fee will be recouped by the landlord through an increase in monthly rent and will be recouped over 30 years.

Listed in Figure 111, the monthly costs for owners and renters only marginally increases with the maximum supportable development impact fee. The cost burden for owner-occupied housing only increases by 0.1 percentage points while the increase in costs for renter-occupied housing is low enough that the cost burden ratio is unaffected.

Figure 111. Scenario 2: Cost Burden Analysis with Proposed Development Impact Fee

Occupancy	Monthly Income	Monthly Cost	Cost Burden
Owner-Occupied	\$4,243	\$1,154	27.2%
Renter-Occupied	\$2,713	\$1,085	40.0%

Conclusion

The South Carolina Development Impact Fee Act requires preparation of a report that estimates the effect of imposing development impact fees on affordability of housing in the jurisdiction. To calculate the effect, a household that earns 80 percent of the median income should have a cost burden ratio of 30 percent or less for housing. Currently, home ownership is below the affordability threshold, but renting is above the threshold. **This analysis has concluded that the maximum supportable development impact fee results in a marginal increase to the monthly cost for residents and that the increase is low enough that the existing cost burdens are unaffected.** As noted, this analysis takes a conservative approach and assumes that the development impact fees are absorbed entirely by the

home occupants. If the County Council were to choose a lower development impact fee amount, the results presented in this report would improve.

Figure 112. Cost of Homeownership – North of the Broad

	Monthly Payment Calculation	
	Scenario 1 Baseline Condition	Scenario 2 Baseline Condition + Impact Fee
Purchase Price	\$191,440	\$192,828
Down Payment	\$38,288	\$38,566
Loan Amount	\$153,152	\$154,262
Loan Length (Years)	30	30
Loan Length (Months)	360	360
Yearly Interest Rate	3.22%	3.22%
Monthly Interest Rate	0.27%	0.27%
Monthly Payment	\$664	\$669
Property Tax - County (per month)	\$40	\$40
Property Tax - City (per month)	\$6	\$6
Property Tax - School Debt (per month)	\$20	\$20
Property Tax - Fire (per month)	\$29	\$29
Solid Waste Collection Fee	\$17	\$17
Water, Sewer, Electric Utilities	\$216	\$216
Telephone, Cable, Internet Utilities	\$90	\$90
Homeowners Insurance	\$67	\$67
Monthly Cost	\$1,149	\$1,154

South of the Broad Service Area Housing Affordability Analysis

Maximum Supportable Development Impact Fee

The development impact fees found in Figure 113 represent the highest amount supportable for housing units by size, which represents new growth’s fair share of the cost for capital facilities. The County may adopt fees that are less than the amounts shown. However, a reduction in development impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service. The housing affordability analysis will assume a conservative condition for assessing the effect of the development impact fee on affordable housing in Beaufort County (i.e. the maximum supportable development impact fee amount). If the County Council were to choose a lower development impact fee amount, the results presented in this report would improve.

Figure 113. Maximum Supportable Development Impact Fee – South of the Broad

South of the Broad

Development Type	Parks & Recreation	Library	EMS	Solid Waste	Transportation	Fire [1]	Maximum Supportable Fee	Current Dev. Impact Fee Total	Increase/ (Decrease)
Residential Fee by Housing Size (square feet)									
1,000 or less	\$282	\$151	\$95	\$79	\$1,223	\$601	\$2,431	\$3,176	(\$745)
1,001 to 1,250	\$353	\$189	\$118	\$99	\$1,529	\$742	\$3,030	\$3,176	(\$146)
1,251 to 1,500	\$423	\$227	\$138	\$119	\$1,801	\$872	\$3,580	\$3,176	\$404
1,501 to 1,750	\$470	\$252	\$155	\$132	\$2,039	\$1,001	\$4,049	\$3,799	\$250
1,751 to 2,000	\$517	\$278	\$169	\$145	\$2,242	\$1,084	\$4,435	\$3,799	\$636
2,001 to 2,500	\$588	\$316	\$193	\$165	\$2,548	\$1,260	\$5,070	\$3,799	\$1,271
2,501 to 3,000	\$658	\$353	\$213	\$185	\$2,820	\$1,343	\$5,572	\$3,799	\$1,773
3,001 to 3,500	\$705	\$379	\$230	\$198	\$3,024	\$1,473	\$6,009	\$3,799	\$2,210
3,501 or 4,000	\$752	\$404	\$245	\$211	\$3,228	\$1,555	\$6,395	\$3,799	\$2,596
4,001 or more	\$776	\$417	\$258	\$218	\$3,398	\$1,649	\$6,716	\$3,799	\$2,917

Note: the current fee listed is the average of the fees for the current service areas south of the Broad River. Some existing fees are based on housing type, so for comparison, a multifamily unit is assumed to be 1,500 square feet and less.

[1] The nonresidential Fire Development Impact Fee is based on fire hazard level. The complexity of fire safety is determined case by case, so for illustrative purposes the nonresidential fee listed is based on EDUs per 1,000 square feet.

Housing Stock

Listed in Figure 114, there are a total of 62,583 housing units in the South of the Broad Service Area. Of the total, 66 percent are occupied by permanent residents. Additionally, there are 31,806 owner-occupied households and 9,581 renter-occupied households. The majority (82 percent) of the housing in the service area is single family units.

Figure 114. Housing Stock Characteristics – South of the Broad

Units in Structure	Owner-Occupied		Renter-Occupied		Renter & Owner Combined					
	Persons	Hsehlds	Persons	Hsehlds	Persons	Hsehlds	Hsg Units	PPHH	PPHU	
Single family [1]	68,284	29,554	14,395	4,270	82,679	33,824	44,748	2.44	1.85	
2 to 4	917	502	2,333	905	3,250	1,407	2,539	2.31	1.28	
5 or more	2,981	1,750	10,370	4,406	13,351	6,156	15,296	2.17	0.87	
Total	72,182	31,806	27,098	9,581	99,280	41,387	62,583	2.40	1.59	
							Vacant HU	21,196		
							Occupancy Rate	66%		
Summary by Type of Housing	Totals									
	Persons	Hsehlds	Hsg Units	PPHH	PPHU	Hhld Mix	Hsg Mix			
Single Family [1]	82,679	33,824	44,748	2.44	1.85	82%	72%			
Multifamily [2]	16,601	7,563	17,835	2.20	0.93	18%	28%			
Total	99,280	41,387	62,583	2.40	1.59	100%	100%			

[1] Includes attached and detached single family homes and mobile homes

[2] Includes all other types

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Household Income

The purchasing power of southern residents to secure housing is represented by personal income. Personal income includes all wages, tips, and bonuses from employment, as well as retirement income earned from a pension plan or retirement account. In the analysis, household income represents all residents living in the housing unit, no matter relationship. From the US Census Bureau American Community Survey, in 2018 the median annual household income for owner-occupied household in the South Service Area was \$80,527. By using the US Bureau of Labor Statistics' CPI Calculator, the current household income is estimated at \$81,934. The annual income for a household making 80 percent of the area's median is \$65,547, or \$5,462 per month. This is done for renter-occupied households as well.

Figure 115. Median Household Income – South of the Broad

Tenure	Median Annual Hsehold Income (2018)	Median Annual Hsehold Income (2020)	Household Income Factor	80% of Median Annual Income	Monthly Income
Owner-occupied	\$80,527	\$81,934	80%	\$65,547	\$5,462
Renter-occupied	\$49,220	\$50,080	80%	\$40,064	\$3,339

Source: U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates; U.S. Bureau of Labor Statistics CPI Calculator

Note: American Community Survey data represents information as of June, 2018. CPI calculator calculates median income to March, 2020 dollars.

Cost of Homeownership

The analysis uses seven categories to calculate the baseline cost of homeownership in the South Service Area: purchase price; mortgage payment; property tax; solid waste collection fee; water, sewer and electric utilities; telephone, cable and internet utilities; and homeowners insurance.

Furthermore, monthly household costs vary across the service area. To address this variation, when possible the analysis applies an average. The following section details the costs included.

Purchase Price

The median home value is used to estimate the purchase price of a home. The American Community Survey estimates that the median value of a home in the South Service Area in 2018 was \$364,583 (US Census Bureau, 2014-2018 American Community Survey 5-Year Estimates). With the US Bureau of Labor Statistics' CPI Calculator, the current home value is estimated to be \$370,956.

There are several different impact fees that exist in the South of the Broad Service Area. The average impact fee for Beaufort County, municipalities, and fire districts is estimated at \$4,124. Taking a conservative approach, the full impact fee amount is added to the purchasing price, resulting in the purchasing price increasing to \$375,080.

Mortgage Payment

A conventional, fixed-rate 30-year mortgage is assumed to estimate monthly costs of principle and interest on a home loan. The down payment for a loan is assumed to be 20 percent of the purchase price ($\$375,080 \times 20\% = \$75,016$). The loan amount for the mortgage is determined by subtracting the down payment from the purchase price ($\$375,080 - \$75,016 = \$300,064$). An interest rate of 3.22 percent is assumed for the home purchase based on a survey of competitive interest rates in Beaufort County (www.bankrate.com). The monthly mortgage payment is \$1,301.

Property Tax

To calculate annual property tax, homes in Beaufort County that are permanent residences are subject to 4 percent assessment ratio and a property tax millage rate. Depending on their location, residents are subject to a property tax for municipal services, school services, and fire services. The average total millage rate is 0.133. Assumed in the analysis, annual property tax for the average valued home is \$1,998 ($\$375,080 \times 4\% \times 0.133 = \$1,998$).

Solid Waste Collection Fee

Portion of the South Service Area require a resident to either transport their garbage to a refuse site or hire a private company. For this analysis, a weekly pick-up service was researched online. The service was found to cost an average of \$17 per month (May River Disposal).

Water, Sewer, and Electric Utilities

From the Beaufort – Jasper Water & Sewer Authority, an average household consumes 7,000 gallons of water a month. By combining the water usage with the Authority's water rate, a monthly charge for water of \$33.60 is estimated.

On average, a household generates 7,000 gallons of wastewater per month. Based on the sewer rates, a household that generates the average amount of wastewater will be charged the maximum amount, \$55 per month.

Additionally, for an average household that uses 1,000 kilowatts of electricity per month, Dominion Energy charges \$127.13.

As a result, the average monthly bill for these utilities is \$216.

Telephone, Cable, and Internet Utilities

Spectrum is a provider of telephone, cable, and internet in Beaufort County. From their website, the three services costs \$90 per month.

Homeowner’s Insurance

Homeowner’s insurance provides protection for the home and is generally required when a home has a mortgage. The average cost for homeowner’s insurance in Beaufort County is estimated to be \$800 per year (www.insurance.com).

Monthly Payment

By compiling the month obligations, it is estimated that the monthly cost for homeownership is \$1,857. At the end of this chapter the monthly costs are listed in Figure 118.

Cost of Renting

The cost of renting a home in the South of the Broad Service Area is estimated with data provided by the US Census Bureau. In 2018, the median gross rent (including all utilities and rental insurance) is estimated to be \$1,298. With the US Bureau of Labor Statistics’ CPI Calculator, the current cost of renting is estimated to be \$1,320.

Cost Burden Analysis

The cost burden for affordable housing is measured as the ratio between monthly payments for housing (including property tax, fee, utilities, and insurance) and monthly gross household income. An analysis was conducted for residents that purchase a home and residents that rent a home. A cost burden ratio of 30 percent is used as the threshold to determine housing affordability in the South Service Area.

Scenario 1: Baseline Conditions

Figure 116 summarizes the cost burden analysis for residents purchasing or renting a median valued home without the proposed maximum supportable development impact fee included. Based on the results, owner-occupied and renter-occupied housing costs are above the limit considered for affordability for households whose income is 80 percent of the County’s median income.

Figure 116. Scenario 1: Cost Burden Analysis without Maximum Supportable Development Impact Fee

Occupancy	Monthly Income	Monthly Cost	Cost Burden
Owner-Occupied	\$5,462	\$1,857	34.0%
Renter-Occupied	\$3,339	\$1,330	39.8%

Scenario 2: Baseline Condition + Proposed Development Impact Fee

In the second scenario, the maximum supportable development impact fee is included into the cost burden analysis to highlight the effects the fee has on housing affordability. Indicated in Figure 114, owner-occupied housing units are predominately single family units and renter-occupied housings is mixed between the three categories (single family, 2 to 4 units, and 5 or more). Since the development impact fee is calculated by housing type, the owner-occupied housing unit will be assessed the fee for an average sized single family unit (\$5,572) and the renter-occupied housing unit will be assessed the fee for an average sized multifamily unit (\$3,030).

However, there are existing development impact fees for Beaufort County which are being replaced by the maximum supportable fee amount. For a single family unit, the fee is increased by \$1,773. For a multifamily unit, the fee is decreases by \$146.

The analysis takes a conservative approach and assumes the purchase price of the median home is raised by the development impact fee. This ultimately increases the household’s mortgage payment and property tax, see Figure 118. For renter-occupied housing units, the decrease in the fee results in a decrease in rent for the next 30 years.

Listed in Figure 117, the monthly costs for owners only marginally increases with the maximum supportable development impact fee. The cost burden for owner-occupied housing increases by 0.1 percentage point, while the decrease in costs for renter-occupied housing is low enough that the cost burden ratio is unaffected.

Figure 117. Scenario 2: Cost Burden Analysis with Proposed Development Impact Fee

Occupancy	Monthly Income	Monthly Cost	Cost Burden
Owner-Occupied	\$5,462	\$1,864	34.1%
Renter-Occupied	\$3,339	\$1,329	39.8%

Conclusion

The South Carolina Development Impact Fee Act requires preparation of a report that estimates the effect of imposing development impact fees on affordability of housing in the jurisdiction. To calculate the effect, a household that earns 80 percent of the median income should have a cost burden ratio of 30 percent or less for housing. **This analysis has concluded that the maximum supportable development impact fee results in a marginal increase to the monthly cost for homeowners and the cost burden is unaffected for renters.** As noted, this analysis takes a conservative approach and assumes that the development impact fees are absorbed entirely by the home occupants. If the County Council were to choose a lower development impact fee amount, the results presented in this report would improve.

Figure 118. Cost of Homeownership – South of the Broad

	Monthly Payment Calculation	
	Scenario 1 Baseline Condition	Scenario 2 Baseline Condition + Impact Fee
Purchase Price	\$375,080	\$376,852
Down Payment	\$75,016	\$75,370
Loan Amount	\$300,064	\$301,482
Loan Length (Years)	30	30
Loan Length (Months)	360	360
Yearly Interest Rate	3.22%	3.22%
Monthly Interest Rate	0.27%	0.27%
Monthly Payment	\$1,301	\$1,307
Property Tax - County (per month)	\$78	\$79
Property Tax - City (per month)	\$26	\$26
Property Tax - School Debt (per month)	\$40	\$40
Property Tax - Fire (per month)	\$23	\$23
Solid Waste Collection Fee	\$17	\$17
Water, Sewer, Electric Utilities	\$216	\$216
Telephone, Cable, Internet Utilities	\$90	\$90
Homeowners Insurance	\$67	\$67
Monthly Cost	\$1,857	\$1,864

APPENDIX B: LAND USE ASSUMPTIONS

Population and Housing Characteristics

Impact fees often use per capita standards and persons per housing unit or persons per household to derive proportionate share fee amounts. Housing types have varying household sizes and, consequently, a varying demand on County infrastructure and services. Thus, it is important to differentiate between housing types and size.

When persons per housing unit (PPHU) is used in the development impact fee calculations, infrastructure standards are derived using year-round population. In contrast, when persons per household (PPHH) is used in the development impact fee calculations, the fee methodology assumes all housing units will be occupied, thus requiring seasonal or peak population to be used when deriving infrastructure standards. According to the state of South Carolina’s Department of Parks, Recreation, and Tourism, Beaufort County is the third most visited county in the state. In 2016, it was estimated that 3 million visitors came to the County. As a result, it is not just permanent residents occupying housing units. In response, County infrastructure and operating service levels are sized to accommodate not just permanent residents, but seasonal residents, seasonal workers, and visitors as well. Thus, TischlerBise recommends that fees for residential development in Beaufort County be imposed according to persons per household.

Figure 119 shows the US Census American Community Survey 2017 5-Year Estimates data for the unincorporated areas of Beaufort County. Single family units have a household size of 2.60 persons and multifamily units have a household size of 2.15 persons.

Figure 119. Beaufort County Persons per Household – Unincorporated Areas

Housing Type	Persons	Housing Units	Persons per Housing Unit	Households	Persons per Household	Housing Unit Mix
Single Family [1]	149,899	74,002	2.03	57,656	2.60	77%
Multifamily [2]	23,940	22,393	1.07	11,128	2.15	23%
Total	173,839	96,395	1.80	68,784	2.53	

[1] Includes attached and detached single family homes

[2] Includes structures with 2+ units

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

The persons per household factors are calculate below for other portions of Beaufort County.

Figure 120. Beaufort County Persons per Household – Countywide

Housing Type	Persons	Housing Units	Persons per Housing Unit	Households	Persons per Household	Housing Unit Mix
Single Family [1]	149,899	74,002	2.03	57,656	2.60	77%
Multifamily [2]	23,940	22,393	1.07	11,128	2.15	23%
Total	173,839	96,395	1.80	68,784	2.53	

[1] Includes attached and detached single family homes

[2] Includes structures with 2+ units

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Figure 121. Beaufort County Persons per Household – North of the Broad Service Area

Housing Type	Persons	Housing Units	Persons per Housing Unit	Households	Persons per Household	Housing Unit Mix
Single Family [1]	67,220	29,254	2.30	23,832	2.82	87%
Multifamily [2]	7,339	4,558	1.61	3,565	2.06	13%
Total	74,559	33,812	2.21	27,397	2.72	

[1] Includes attached and detached single family homes and mobile homes

[2] Includes structures with 2+ units

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Figure 122. Beaufort County Persons per Household – South of the Broad Service Area

Housing Type	Persons	Housing Units	Persons per Housing Unit	Households	Persons per Household	Housing Unit Mix
Single Family [1]	82,679	44,748	1.85	33,824	2.44	72%
Multifamily [2]	16,601	17,835	0.93	7,563	2.20	28%
Total	99,280	62,583	1.59	41,387	2.40	

[1] Includes attached and detached single family homes and mobile homes

[2] Includes structures with 2+ units

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

The previous figures are to illustrate the varying sizes of households in Beaufort County. **In Appendix C, persons per households are calculated by housing size.** A housing size analysis allows for more specific demand factors for residential demand and development impact fee calculations. See chapter for further details and calculations.

Base Year Population and Housing Units

There are three types of populations included in the Beaufort County development impact fee study:

- 1) Permanent Residents
- 2) Seasonal Residents
- 3) Visitors

As mentioned, the County is a destination for vacationers and because of the presence of temporary residents and visitors, County facilities and services have been sized to accommodate the additional demand. The seasonal population includes residents who have second homes in the County and the seasonal labor influx during peak tourism months. The visitor population includes overnight and day visitors. This section details the three population types.

Permanent Residents

The County’s Transportation Model provides permanent population projections at a Traffic Analysis Zone (TAZ) level. In 2010, a countywide permanent population was estimated at 162,233. Since 2010, there has been an increase of 21,479 residents, a 13 percent increase. In the base year, the permanent population in the unincorporated areas is estimated to be 72,954 and 110,759 in the incorporated areas.

Figure 123. Permanent Population

	2010	2011	2012	2013	2014	2015	2016	2017	2018	Base Year 2019	Total Increase
Permanent Population											
Unincorporated	63,556	64,600	65,644	66,689	67,733	68,777	69,821	70,865	71,910	72,954	9,398
Incorporated	98,677	100,019	101,362	102,704	104,047	105,389	106,731	108,074	109,416	110,759	12,082
Countywide	162,233	164,620	167,006	169,393	171,779	174,166	176,553	178,939	181,326	183,712	21,479

Source: Beaufort County TAZ Transportation Model

Seasonal Residents

To calculate the seasonal population, the seasonal housing total from the Transportation Model is multiplied by the average persons per household factor (PPHH). Based on the US Census American Community Survey, the average household size in the incorporated areas of the county is slightly smaller than in unincorporated areas. As a result, there are 39,122 seasonal residents in Beaufort County.

Figure 124. Seasonal Population

2019	Seasonal Housing Units	PPHH	Seasonal Residents
Unincorporated	4,625	2.56	11,841
Incorporated	10,956	2.49	27,281
Countywide	15,582		39,122

Source: Beaufort County TAZ Transportation Model

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Seasonal Visitors

According to the Beaufort County Convention and Visitor Bureau, there was over 3 million visitors to the County. The majority of stays being on Hilton Head Island, but the City of Beaufort and the Town of Bluffton are home to visitors as well.

Figure 125. Total Countywide Visitors

Destinations	Visitors
City of Beaufort	219,914
Town of Bluffton	122,364
Hilton Head Island	2,677,951
Total	3,020,229

Source: Beaufort County Convention and Visitor Bureau, 2017

In Figure 126, the County's daily peak visitor population is calculated. The estimated total of visitors is 3,020,229. From the County's 2010 Comprehensive Plan, an average stay is five days long. Resulting in 15.1 million visitor-stay days, or an average daily total of 41,373. Found in the Comprehensive Plan, during the peak month (July), the visitor population spikes to 132 percent of the annual average. This factor is applied to the County's average to calculate the daily peak season visitor total. As a result, it is estimated that Beaufort County's daily peak season visitor population is 54,612.

Figure 126. Peak Season Daily Countywide Visitor Total

Total Visitors	3,020,229
Average Length of Stay (days)	5
Visitor Stays (days)	15,101,145
Average Daily Visitor Total	41,373

Peak Season Factor	1.32
Peak Daily Visitor Total (July)	54,612

Source: Beaufort County Convention and Visitor Bureau, 2017; Beaufort County 2010 Comprehensive Plan

Peak Population

By combining the three population types, the County’s peak population is calculated. In total, it is estimated that in 2019, Beaufort County’s peak population is 277,447.

Figure 127. Base Year Peak Population

Countywide	Base Year
Permanent Residents	183,712
Seasonal Residents	39,122
Peak Daily Visitors	54,612
Total Peak Population	277,447

Housing Units

Beaufort County’s Transportation Model includes projections for households and seasonal units. To find the number of housing units, the US Census Bureau’s American Community Survey nonseasonal vacancy rate is added to the Transportation Model’s household projections. In unincorporated areas the vacancy rate is 8.36 percent and in incorporated areas the vacancy rate is 10.23 percent. As a result, in the base year there are 33,308 units in Unincorporated Beaufort County and 47,152 units in Incorporated Beaufort County. Also, from the Transportation Model, there are 15,582 units countywide that are considered seasonal units.

Figure 128. Base Year Housing Units by Location

Beaufort County	2019
Unincorporated Units	33,308
Incorporated Units	47,152
Seasonal Units	15,582
Total Housing Units	96,042

Source: Beaufort County TAZ Transportation Model; U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

The housing type split for unincorporated and incorporated areas are applied to the totals to estimate the number of single family and multifamily homes in the County. Listed in Figure 129, there are estimated to be 72,441 single family units (including mobile homes) and 23,601 multifamily units countywide.

Figure 129. Base Year Housing Units by Housing Type

Housing Type	2019
Single Family [1]	72,441
Multifamily	23,601
Total Housing Units	96,042

[1] Note: includes single family and mobile homes

Source: Beaufort County TAZ Transportation Model; U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Population and Housing Unit Projections

As a result of the unique characteristics of Beaufort County, several residential projections have been estimated. Shown in Figure 130, permanent population in the unincorporated and incorporated areas of the County are projected along with seasonal and visitor population. After discussions with County staff, it was determined that using the 2029 projections in the Transportation Model for a 10-year estimation would be underestimating future growth since the County has grown quicker than previously anticipated. As such, the 2035 population estimates for permanent residents has been shifted and used as the 10-year estimated growth.

Over the next ten years, the unincorporated areas of the County are projected to increase by 15,161 residents and the incorporated areas of the County are projected to increase by 26,096 residents.

Countywide seasonal population projection is based on seasonal housing unit growth. Each new seasonal unit is estimated to generate the person per housing unit average of 2.53 residents. As a result, 3,534 seasonal residents are projected through 2029. The seasonal population is assumed to be an accurate proxy for the County’s attractiveness for tourism, so the visitor population is anticipated to increase at the same rate as seasonal residents. The peak daily visitor population is projected to increase by 4,931 by 2029.

Additionally, the 10-year growth of housing in Beaufort County is projected to equal the 2035 projection in the County’s Transportation Model. Vacancy rates are applied to the household totals to calculate total housing units. Over the next ten years, 6,500 units are projected in the unincorporated areas of the County; 11,184 units are projected in the incorporated areas; and an additional 1,278 seasonal units countywide are projected. This totals 18,962 new units, a 20 percent increase. Of the increase, 75 percent is single family units and 25 percent is multifamily units.

Figure 130. Annual Residential Development Projections - Countywide

	Base Year 2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Increase
Population												
Permanent Unincorp. Residents	72,954	74,470	75,986	77,502	79,018	80,534	82,050	83,566	85,082	86,598	88,115	15,161
Permanent Incorp. Residents	110,758	113,368	115,978	118,588	121,198	123,808	126,418	129,028	131,638	134,248	136,855	26,096
Seasonal Residents	39,122	39,746	40,070	40,394	40,718	41,042	41,366	41,689	42,013	42,337	42,656	3,534
Peak Daily Visitors	54,612	55,483	55,935	56,387	56,839	57,291	57,743	58,194	58,646	59,098	59,543	4,931
Total Peak Population	277,446	283,067	287,969	292,871	297,773	302,675	307,577	312,477	317,379	322,281	327,168	49,722
Housing Units												
Unincorporated Units	33,308	33,958	34,608	35,258	35,908	36,558	37,208	37,858	38,508	39,158	39,808	6,500
Incorporated Units	47,152	48,270	49,388	50,506	51,624	52,742	53,860	54,978	56,096	57,214	58,336	11,184
Seasonal Units	15,582	15,710	15,838	15,966	16,094	16,222	16,350	16,478	16,606	16,734	16,860	1,278
Total Housing Units	96,042	97,938	99,834	101,730	103,626	105,522	107,418	109,314	111,210	113,106	115,004	18,962
Housing Type												
Single Family	72,441	73,848	75,254	76,661	78,067	79,473	80,880	82,286	83,692	85,099	86,506	14,065
Multifamily	23,601	24,090	24,580	25,069	25,559	26,049	26,538	27,028	27,518	28,007	28,498	4,897
Total Housing Units	96,042	97,938	99,834	101,730	103,626	105,522	107,418	109,314	111,210	113,106	115,004	18,962

Source: Beaufort County TAZ Transportation Model; U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates; Beaufort County Convention and Visitor Bureau, 2017

Current Employment and Nonresidential Floor Area

The impact fee study will include nonresidential development as well. Listed in Figure 131, it is estimated that there are 50,621 jobs in incorporated areas of Beaufort County and 15,859 jobs in Unincorporated Beaufort County. This results in 66,480 jobs countywide. The estimate is from Traffic Analysis Zone (TAZ) data, provided in the County’s Transportation Model. The model forecasts employment growth for the entire County for the years of 2010, 2020, 2030, and 2040. To find the total employment in the base year, 2019, a straight-line approach from 2010 to 2020 was used.

Summarizing the employment totals to several industry sectors allows for a streamlined implementation process of the impact fees and straightforward development projections. The majority of jobs in the county are considered Office/Service, while Retail and Industrial jobs have a significant portion of the market as well.

Figure 131. Employment by Industry (2019)

Industry	Incorp. County Jobs	Unincorp. County Jobs	Countywide Jobs	%
Retail	12,819	3,124	15,943	24%
Office/Service	21,211	6,255	27,466	41%
Industrial	10,688	4,137	14,825	22%
Institutional	5,903	2,343	8,246	12%
Total	50,621	15,859	66,480	100%

Source: Beaufort County TAZ Transportation Model

Base year nonresidential floor area for the industry sectors are calculated with the Institution of Transportation Engineers’ (ITE) square feet per employee averages, Figure 132. **For the Retail industry the Shopping Center factors are used, for Office/Service the General Office factors are used, for Industrial the Manufacturing factors are used, and for Institutional the Hospital factors are used.**

Figure 132. Institute of Transportation Engineers Nonresidential Factors

ITE Code	Land Use	Demand Unit	Emp Per Dmd Unit	Sq Ft Per Emp
110	Light Industrial	1,000 Sq Ft	1.63	615
130	Industrial Park	1,000 Sq Ft	1.16	864
140	Manufacturing	1,000 Sq Ft	1.59	628
150	Warehousing	1,000 Sq Ft	0.34	2,902
254	Assisted Living	bed	0.61	na
520	Elementary School	1,000 Sq Ft	0.93	1,076
610	Hospital	1,000 Sq Ft	2.83	354
710	General Office (avg size)	1,000 Sq Ft	2.97	337
714	Corporate Headquarters	1,000 Sq Ft	3.44	291
760	Research & Dev Center	1,000 Sq Ft	3.42	292
770	Business Park	1,000 Sq Ft	3.08	325
820	Shopping Center (avg size)	1,000 Sq Ft	2.34	427

Source: Trip Generation, Institute of Transportation Engineers, 10th Edition (2017)

By combining the base year job totals and the ITE square feet per employee factors, the nonresidential floor area is calculated in Figure 133. There is an estimated total of 21.4 million square feet of

nonresidential floor area in the incorporated areas of Beaufort County and 6.9 million square feet of floor area in the Unincorporated Beaufort County. This results in 28.3 million square feet of floor area countywide. The Office/Service and Industrial industries account for two-thirds of the total floor area, while Retail accounts for close to a quarter of the total.

Figure 133. Base Year Nonresidential Floor Area

Industry	Incorp. County Floor Area (sq. ft.)	Unincorp. County Floor Area (sq. ft.)	Countywide Floor Area (sq. ft.)	%
Retail	5,473,713	1,333,948	6,807,661	24%
Office/Service	7,148,107	2,107,935	9,256,042	33%
Industrial	6,712,064	2,598,036	9,310,100	33%
Institutional	2,089,662	829,422	2,919,084	10%
Total	21,423,546	6,869,341	28,292,887	100%

Source: Beaufort County TAZ Transportation Model; Trip Generation, Institute of Transportation Engineers, 10th Edition (2017)

Nonresidential Floor Area and Employment Projections

Beaufort County has grown quicker than anticipated in recent years and consistent with the residential projections, it was determined that the 2035 estimates from the County’s Transportation Model would be a better 10-year estimate than 2029. Over the ten-year projection period, it is estimated that there will be an increase of 16,253 jobs countywide, a 5,213 increase in the unincorporated areas. The majority of the increase comes from the Office/Service industry (38%), however, the Industrial sector (26%) and the Retail sector (21%) have a significant impact as well.

The nonresidential floor area projections are calculated by applying the ITE square feet per employee factors to the job totals. In the next ten years, the nonresidential floor area countywide is projected to increase by 7 million square feet, the unincorporated areas increasing by 2.3 million square feet. The Industrial and Office/Service sectors have the greatest increase.

Figure 134. Employment and Nonresidential Floor Area Projections - Countywide

Industry	Base Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Increase
	2019											
Countywide Jobs												
Retail	15,943	16,311	16,678	17,046	17,414	17,782	18,149	18,517	18,885	19,252	19,620	3,677
Office/Service	27,466	28,117	28,769	29,420	30,072	30,723	31,374	32,026	32,677	33,329	33,980	6,514
Industrial	14,825	15,223	15,620	16,018	16,415	16,813	17,210	17,608	18,005	18,403	18,801	3,976
Institutional	8,246	8,455	8,663	8,872	9,080	9,289	9,498	9,706	9,915	10,123	10,332	2,086
Total	66,480	68,105	69,731	71,356	72,981	74,606	76,232	77,857	79,482	81,107	82,733	16,253
Unincorporated County Jobs												
Retail	3,124	3,231	3,339	3,446	3,553	3,661	3,768	3,875	3,982	4,090	4,197	1,073
Office/Service	6,255	6,454	6,653	6,852	7,051	7,250	7,448	7,647	7,846	8,045	8,244	1,989
Industrial	4,137	4,275	4,413	4,551	4,689	4,828	4,966	5,104	5,242	5,380	5,518	1,381
Institutional	2,343	2,420	2,497	2,574	2,651	2,728	2,805	2,882	2,959	3,036	3,113	770
Total	15,859	16,380	16,902	17,423	17,944	18,465	18,987	19,508	20,029	20,550	21,072	5,213
Countywide Nonresidential Floor Area (1,000 sq. ft.)												
Retail	6,808	6,965	7,122	7,279	7,436	7,593	7,750	7,907	8,064	8,221	8,378	1,570
Office/Service	9,256	9,476	9,695	9,915	10,134	10,354	10,573	10,793	11,012	11,232	11,451	2,195
Industrial	9,310	9,560	9,809	10,059	10,309	10,558	10,808	11,058	11,307	11,557	11,807	2,497
Institutional	2,919	2,993	3,067	3,141	3,214	3,288	3,362	3,436	3,510	3,584	3,658	738
Total	28,293	28,993	29,693	30,393	31,093	31,793	32,493	33,193	33,893	34,593	35,293	7,000
Unincorporated County Nonresidential Floor Area (1,000 sq. ft.)												
Retail	1,334	1,380	1,426	1,471	1,517	1,563	1,609	1,655	1,700	1,746	1,792	458
Office/Service	2,108	2,175	2,242	2,309	2,376	2,443	2,510	2,577	2,644	2,711	2,778	670
Industrial	2,598	2,685	2,771	2,858	2,945	3,032	3,118	3,205	3,292	3,379	3,465	867
Institutional	829	857	884	911	938	966	993	1,020	1,047	1,075	1,102	272
Total	6,869	7,096	7,323	7,550	7,777	8,003	8,230	8,457	8,684	8,911	9,137	2,268

Source: Beaufort County TAZ Transportation Model; Trip Generation, Institute of Transportation Engineers, 10th Edition (2017)

Functional Population

Both residential and nonresidential developments increase the demand on County services and facilities. To calculate the proportional share between residential and nonresidential demand on service and facilities, a functional population approach is used. The functional population approach allocates the cost of the facilities to residential and nonresidential development based on the activity of residents and workers in the County through the 24 hours in a day. A countywide approach is necessary for this analysis.

Residents that do not work are assigned 20 hours per day to residential development and 4 hours per day to nonresidential development (annualized averages). Residents that work in Beaufort County are assigned 14 hours to residential development and 10 hours to nonresidential development. Residents that work outside the County are assigned 14 hours to residential development, the remaining hours in the day are assumed to be spent outside of the County working. Inflow commuters are assigned 10 hours to nonresidential development. Based on 2015 functional population data, residential development accounts for 75 percent of the functional population, while nonresidential development accounts for 25 percent, see Figure 135.

Figure 135. Beaufort County Functional Population

Demand Units in 2015				
			Demand Hours/Day	Person Hours
Residential				
Population*	171,420			
Residents Not Working	112,360		20	2,247,200
Employed Residents	59,060			
Employed in Beaufort County	40,960		14	573,440
Employed outside Beaufort County	18,100		14	253,400
			Residential Subtotal	3,074,040
			Residential Share =>	75%
Nonresidential				
Non-working Residents	112,360		4	449,440
Jobs Located in Beaufort County	58,417			
Residents Employed in Beaufort County	40,960		10	409,600
Non-Resident Workers (inflow commuters)	17,457		10	174,570
			Nonresidential Subtotal	1,033,610
			Nonresidential Share =>	25%
			TOTAL	4,107,650

Source: U.S. Census Bureau, OnTheMap 6.1.1 Application and LEHD Origin-Destination Employment Statistics.

* Source: U.S. Census Bureau, American Community Survey, 2015 (countywide population)

Vehicle Trip Generation

Residential Vehicle Trips

A customized trip rate is calculated for the single family and multifamily units in Unincorporated Beaufort County. In Figure 136, the most recent data from the US Census American Community Survey is inputted into equations provided by the ITE to calculate the trip ends per housing unit factor. A single family unit is estimated to generate 7.90 trip ends on an average weekday and a multifamily unit is estimated to generate 4.10 trip ends on an average weekday.

Figure 136. Customized Residential Trip End Rates – Unincorporated Beaufort County

	Vehicles Available (1)	Households (2)			Vehicles per Household by Tenure
		Single Family*	Multifamily Units	Total HHs	
Owner-occupied	49,334	26,816	321	27,137	1.82
Renter-occupied	15,694	7,328	3,143	10,471	1.50
TOTAL	65,028	34,144	3,464	37,608	1.73
Housing Units (6) =>		41,414	4,567	45,981	
Persons per Housing Unit =>		2.15	1.61	2.09	

	Persons (3)	Trip Ends (4)	Vehicles by Type of Housing	Trip Ends (5)	Average Trip Ends	Trip Ends per Housing Unit
Single Family*	88,940	265,367	59,734	389,511	327,439	7.90
Multifamily	7,351	16,753	5,294	21,153	18,953	4.10
TOTAL	96,291	282,120	65,028	410,664	346,392	7.50

* Includes Single Family Detached, Attached, and Manufactured Homes

(1) Vehicles available by tenure from Table B25046, 2013-2017 American Community Survey 5-Year Estimates.

(2) Households by tenure and units in structure from Table B25032, American Community Survey, 2013-2017.

(3) Persons by units in structure from Table B25033, American Community Survey, 2013-2017.

(4) Vehicle trips ends based on persons using formulas from Trip Generation (ITE 2017). For single family housing (ITE 210), the fitted curve equation is $EXP(0.89 * LN(persons) + 1.72)$. To approximate the average population of the ITE studies, persons were divided by 286 and the equation result multiplied by 286. For multifamily housing (ITE 221), the fitted curve equation is $(2.29 * persons) - 81.02$.

(5) Vehicle trip ends based on vehicles available using formulas from Trip Generation (ITE 2017). For single family housing (ITE 210), the fitted curve equation is $EXP(0.99 * LN(vehicles) + 1.93)$. To approximate the average number of vehicles in the ITE studies, vehicles available were divided by 485 and the equation result multiplied by 485. For multifamily housing (ITE 220), the fitted curve equation is $(3.94 * vehicles) + 293.58$ (ITE 2012).

(6) Housing units from Table B25024, American Community Survey, 2012-2016.

Residential Vehicle Trips Adjustment Factors

A vehicle trip end is the out-bound or in-bound leg of a vehicle trip. As a result, so to not double count trips, a standard 50 percent adjustment is applied to trip ends to calculate a vehicle trip. For example, the out-bound trip from a person's home to work is attributed to the housing unit and the trip from work back home is attributed to the employer.

However, an additional adjustment is necessary to capture County residents' work bound trips that are outside of the County. The trip adjustment factor includes two components. According to the National Household Travel Survey (2009), home-based work trips are typically 31 percent of out-bound trips (which are 50 percent of all trip ends). Also, utilizing the most recent data from the Census Bureau's web

application "OnTheMap", 31 percent of Beaufort County workers travel outside the County for work. In combination, these factors account for 5 percent of additional production trips ($0.31 \times 0.50 \times 0.31 = 0.05$). Shown in Figure 137, the total adjustment factor for residential housing units includes attraction trips (50 percent of trip ends) plus the journey-to-work commuting adjustment (5 percent of production trips) for a total of 55 percent.

Figure 137. Trip Adjustment Factor for Commuters

Employed Beaufort County Residents (2015)	59,060
Residents Working in the County (2015)	40,960
Residents Commuting Outside of the County for Work	18,100
Percent Commuting Out of the County	31%
Additional Production Trips	5%
Standard Trip Adjustment Factor	50%
Residential Trip Adjustment Factor	55%

Source: U.S. Census, OnTheMap Application, 2015

Note: Countywide totals are used

Nonresidential Vehicle Trips

Vehicle trip generation for nonresidential land uses are calculated by using ITE's average daily trip end rates and adjustment factors found in their recently published 10th edition of *Trip Generation*. To estimate the trip generation in Beaufort County, the weekday trip end per 1,000 square feet factors highlighted in Figure 138 are used.

Figure 138. Institute of Transportation Engineers Nonresidential Factors

ITE Code	Land Use	Demand Unit	Wkdy Trip Ends Per Dmd Unit	Wkdy Trip Ends Per Employee
110	Light Industrial	1,000 Sq Ft	4.96	3.05
130	Industrial Park	1,000 Sq Ft	3.37	2.91
140	Manufacturing	1,000 Sq Ft	3.93	2.47
150	Warehousing	1,000 Sq Ft	1.74	5.05
254	Assisted Living	bed	2.60	4.24
520	Elementary School	1,000 Sq Ft	19.52	21.00
610	Hospital	1,000 Sq Ft	10.72	3.79
710	General Office (avg size)	1,000 Sq Ft	9.74	3.28
714	Corporate Headquarters	1,000 Sq Ft	7.95	2.31
760	Research & Dev Center	1,000 Sq Ft	11.26	3.29
770	Business Park	1,000 Sq Ft	12.44	4.04
820	Shopping Center (avg size)	1,000 Sq Ft	37.75	16.11

Source: *Trip Generation*, Institute of Transportation Engineers, 10th Edition (2017)

For nonresidential land uses, the standard 50 percent adjustment is applied to Office/Service, Industrial, and Institutional. A lower vehicle trip adjustment factor is used for Retail because this type of development attracts vehicles as they pass-by on arterial and collector roads. For example, when someone stops at a convenience store on their way home from work, the convenience store is not their primary destination.

In Figure 139, the Institute for Transportation Engineers’ land use code, daily vehicle trip end rate, and trip adjustment factor is listed for each land use.

Figure 139. Daily Vehicle Trip Factors

Land Use	ITE Codes	Vehicle Trip Ends	Adjustment Factor
Residential (per housing unit)			
Single Family	210	7.90	55%
Multifamily	220	4.10	55%
Nonresidential (per 1,000 square feet)			
Retail	820	37.75	38%
Office/Service	710	9.74	50%
Institutional	610	10.72	50%
Industrial	140	3.93	50%

Source: [Trip Generation](#), Institute of Transportation Engineers, 10th Edition (2017)

Vehicle Trip Projection

The base year vehicle trip totals and vehicle trip projections are calculated by combining the vehicle trip end factors, the trip adjustment factors, and the residential and nonresidential assumptions for housing stock and floor area. Countywide, residential land uses account for 367,976 vehicle trips and nonresidential land uses account for 176,673 vehicle trips in the base year (Figure 140). Through 2029, there will be a total increase of 109,328 daily vehicle trips with the majority of the growth being generated by single family (56%) and retail (21%) development.

In the unincorporated areas of Beaufort County, residential land uses account for 137,809 vehicle trips and nonresidential land uses account for 38,952 vehicle trips in the base year (Figure 141). Through 2029, there will be a total increase of 38,190 daily vehicle trips with the majority of the growth being generated by single family (67%) and retail (17%) development.

Figure 140. Countywide Total Daily Vehicle Trip Projections

Development Type	Base Year 2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Increase
Residential Trips												
Single Family	314,756	320,870	326,979	333,092	339,201	345,310	351,424	357,533	363,642	369,755	375,869	61,113
Multifamily	53,220	54,323	55,428	56,531	57,636	58,740	59,843	60,948	62,053	63,156	64,263	11,043
Subtotal	367,976	375,193	382,407	389,623	396,837	404,050	411,267	418,481	425,695	432,911	440,132	72,156
Nonresidential Trips												
Retail	97,656	99,908	102,160	104,413	106,665	108,917	111,170	113,422	115,674	117,926	120,179	22,523
Office/Service	45,077	46,146	47,215	48,284	49,353	50,422	51,491	52,560	53,629	54,699	55,768	10,691
Industrial	18,294	18,785	19,276	19,766	20,257	20,747	21,238	21,728	22,219	22,710	23,200	4,906
Institutional	15,646	16,042	16,438	16,834	17,230	17,625	18,021	18,417	18,813	19,209	19,604	3,958
Subtotal	176,673	180,881	185,089	189,297	193,505	197,711	201,920	206,127	210,335	214,544	218,751	37,172
Vehicle Trips												
Grand Total	544,649	556,074	567,496	578,920	590,342	601,761	613,187	624,608	636,030	647,455	658,883	109,328

Source: Trip Generation, Institute of Transportation Engineers, 10th Edition (2017); TischlerBise analysis

Figure 141. Unincorporated Beaufort County Total Daily Vehicle Trip Projections

Development Type	Base Year 2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Increase
Residential Trips												
Single Family	130,349	132,893	135,436	137,980	140,524	143,067	145,611	148,155	150,699	153,242	155,786	25,437
Multifamily	7,460	7,606	7,751	7,897	8,042	8,188	8,334	8,479	8,625	8,770	8,916	1,456
Subtotal	137,809	140,499	143,187	145,877	148,566	151,255	153,945	156,634	159,324	162,012	164,702	26,893
Nonresidential Trips												
Retail	19,135	19,793	20,450	21,107	21,764	22,422	23,079	23,736	24,393	25,051	25,708	6,573
Office/Service	10,266	10,592	10,919	11,245	11,571	11,898	12,224	12,551	12,877	13,204	13,530	3,264
Industrial	5,105	5,276	5,446	5,616	5,787	5,957	6,128	6,298	6,468	6,639	6,809	1,704
Institutional	4,446	4,592	4,738	4,884	5,030	5,176	5,322	5,468	5,614	5,760	5,906	1,460
Subtotal	38,952	40,253	41,553	42,852	44,152	45,453	46,753	48,053	49,352	50,654	51,953	11,297
Vehicle Trips												
Grand Total	176,761	180,752	184,740	188,729	192,718	196,708	200,698	204,687	208,676	212,666	216,655	38,190

Source: Trip Generation, Institute of Transportation Engineers, 10th Edition (2017); TischlerBise analysis

APPENDIX C: SERVICE UNITS BY HOUSING UNIT SIZE

Residential demand on a majority of County services and facilities can be attributed to the number of residents that are generated a housing unit. Generally, household sizes grow as the size of a housing unit increases. Thus, by establishing a residential development impact fee that is based on the size of the housing unit the County can equitably attributed new residential development’s demand on facilities.

The following sections detail the calculations necessary to finding service units by housing size.

Persons per Housing Unit by Size

Custom tabulations of demographic data by bedroom range can be created from individual survey responses provided by the U.S. Census Bureau in files known as Public Use Microdata Samples (PUMS). Data comes from the SC Public Use Microdata Areas (PUMA) 1400, which includes Beaufort and Jasper County. Figure 142 lists the number of persons and households by bedrooms. As a result, persons per household factors are calculated by number of bedrooms. Furthermore, the unadjusted factors are calibrated to the Beaufort County countywide averages by adjusting based on the countywide average for all housing types.

Figure 142. Persons per Household by Number of Bedrooms

Bedroom Range	Persons	Households	Unadjusted Persons per Household	Adjusted Persons per Household [1]
0-1	235	179	1.31	1.48
2	1,541	827	1.86	2.11
3	4,450	1,944	2.29	2.59
4+	2,221	822	2.70	3.05
Total	8,447	3,772	2.24	2.53

Source: US Census American Community Survey, Public Use Microdata (PUM), 2013-2017 5-Year Estimates, PUMA 1400

[1] Household sizes are calibrated based on the countywide persons per household factor for all housing types

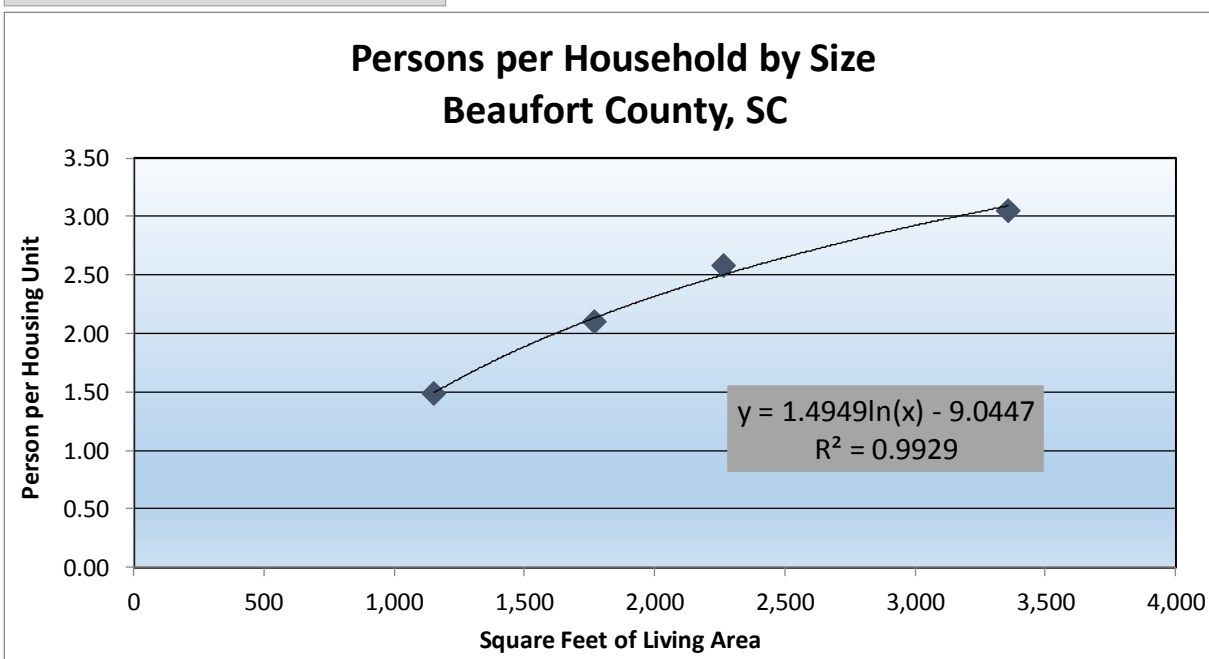
To calculate countywide household sizes by housing unit size, the average floor area by bedrooms and number of persons by bedrooms are plotted in Figure 143. The average floor area for a single family unit is available for the South Atlantic region from the U.S. Census Bureau and applied to the 2, 3, and 4+ bedroom units. The average floor area for multifamily units is available from a new construction report from the U.S. Census Bureau and applied to the 0-1 bedroom housing units. A logarithmic trend line derived from the plotted points. Using the trend line formula shown in the chart, TischlerBise derived the estimated average number of persons, by housing size, using ten size thresholds.

Shown in the Fitted-Curve Values table on the right, there is a noticeable increase in household sizes as the size of the housing unit increase.

Figure 143. Persons per Household by Housing Size – Countywide

Average persons per housing unit are derived from 2017 ACS PUMS data for the area that includes Beaufort County. Unit size for 0-1 bedroom is from the 2018 U.S. Census Bureau average for all multifamily units constructed in the Census South region. Unit size for 2, 3, and 4+ bedroom derived from single family units constructed in the South Atlantic region.

Actual Averages per Hsg Unit			Fitted-Curve Values	
Bedrooms	Square Feet	Persons	Sq Ft Range	Persons
0-1	1,154	1.48	1,000 or less	1.30
2	1,771	2.11	1,001 to 1,250	1.62
3	2,264	2.59	1,251 to 1,500	1.89
4+	3,359	3.05	1,501 to 1,750	2.12
			1,751 to 2,000	2.32
			2,001 to 2,500	2.65
			2,501 to 3,000	2.92
			3,001 to 3,500	3.15
			3,501 or 4,000	3.35
			4,001 or more	3.53



The countywide persons per household by number of bedrooms is adjusted to calculate the household sizes for the North and South Service Area. Shown below, the North of the Broad Service Area has a PPHH factor 108% of the countywide PPHH and the South of the Broad Service area has a PPHH factor 95% of the countywide PPHH. This is applied to the PPHH by number of bedrooms factor.

Figure 144. Persons per Household Comparison

Housing Type	Countywide	North of the Broad	North vs Countywide	South of the Broad	South vs Countywide
Average PPHH	2.53	2.72	108%	2.40	95%

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

The following figures lists the persons per household by housing size for the service areas.

Figure 145. Persons per Household by Housing Size – North of the Broad Service Area

Average persons per housing unit are derived from 2017 ACS PUMS data for the area that includes Beaufort County. Unit size for 0-1 bedroom is from the 2018 U.S. Census Bureau average for all multifamily units constructed in the Census South region. Unit size for 2, 3, and 4+ bedroom derived from single family units constructed in the South Atlantic region.

Averages per Hsg Unit			Fitted-Curve Values	
Bedrooms	Square Feet	Persons	Sq Ft Range	Persons
0-1	1,154	1.59	1,000 or less	1.40
2	1,771	2.26	1,001 to 1,250	1.70
3	2,264	2.78	1,251 to 1,500	2.00
4+	3,359	3.28	1,501 to 1,750	2.30
			1,751 to 2,000	2.50
			2,001 to 2,500	2.90
			2,501 to 3,000	3.10
			3,001 to 3,500	3.40
			3,501 or 4,000	3.60
			4,001 or more	3.80

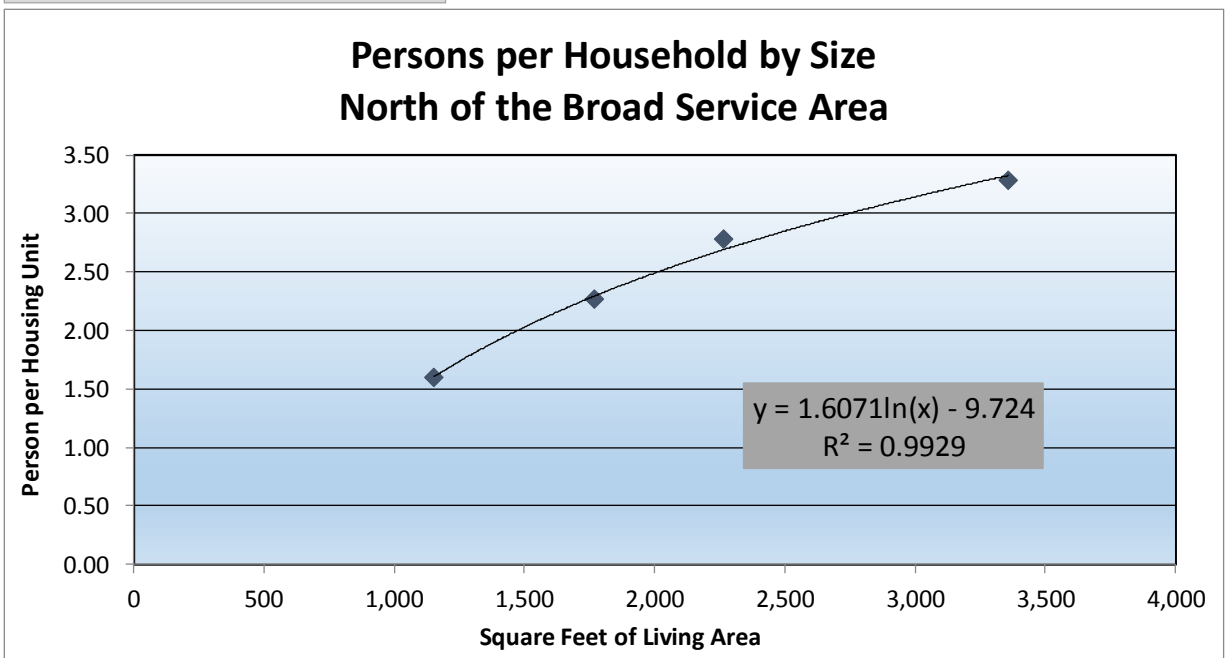
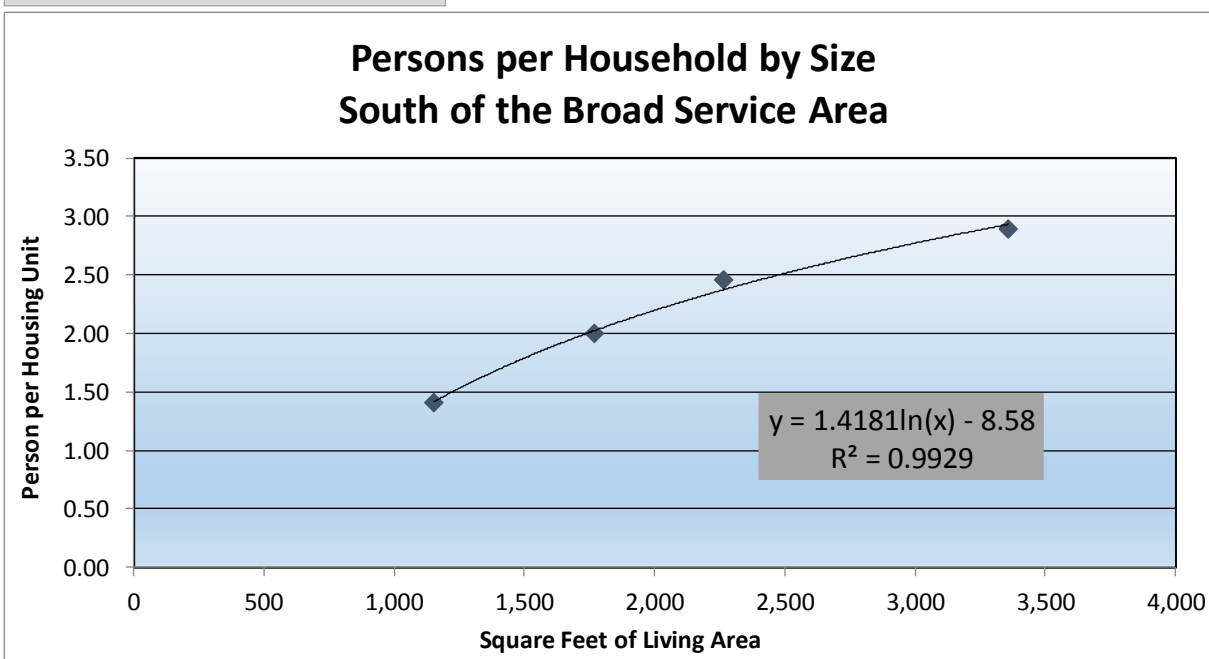


Figure 146. Persons per Household by Housing Size – South of the Broad Service Area

Average persons per housing unit are derived from 2017 ACS PUMS data for the area that includes Beaufort County. Unit size for 0-1 bedroom is from the 2018 U.S. Census Bureau average for all multifamily units constructed in the Census South region. Unit size for 2, 3, and 4+ bedroom derived from single family units constructed in the South Atlantic region.

Averages per Hsg Unit			Fitted-Curve Values	
Bedrooms	Square Feet	Persons	Sq Ft Range	Persons
0-1	1,154	1.41	1,000 or less	1.20
2	1,771	2.00	1,001 to 1,250	1.50
3	2,264	2.45	1,251 to 1,500	1.80
4+	3,359	2.90	1,501 to 1,750	2.00
			1,751 to 2,000	2.20
			2,001 to 2,500	2.50
			2,501 to 3,000	2.80
			3,001 to 3,500	3.00
			3,501 or 4,000	3.20
			4,001 or more	3.30



Trip Generation Rates by Housing Size

As an alternative to simply using the national average trip generation rate for residential development, published by the Institute of Transportation Engineers (ITE), TischlerBise derived custom trip rates using local demographic data. Key inputs needed for the analysis (i.e. vehicles available, housing, units and persons) are available from the U.S. Census American Community Survey (ACS) data for Beaufort County.

Custom tabulations of demographic data by bedroom range can be created from individual survey responses provided by the U.S. Census Bureau. Data comes from the SC Public Use Microdata Area (PUMA) 1400. A portion of the 1400 PUMA includes Jasper County as well as all of Beaufort County. At the top of Figure 147, in the cells with yellow shading, are the survey results for the PUMA 1400. The

unadjusted number of persons and vehicles available per dwelling, derived from the PUMS data, were adjusted upward to match Beaufort County control totals.

In comparison to the national averages based on ITE traffic studies, Beaufort County has fewer persons per housing unit and fewer number of vehicles per unit. Rather than rely on one methodology, the recommended multipliers shown below with grey shading and bold numbers are an average of trips rates based on persons and vehicles available for all types of housing units. From the analysis, average weekday vehicle trip ends (AWVTE) increase as the number of bedrooms in a housing unit increases.

Figure 147. Average Weekday Vehicle Trip Ends (AWVTE) by Bedroom Range

Beaufort County 2017 Data

Bedroom Range	Persons ¹	Vehicles Available ¹	Housing Units ¹	Housing Mix	Unadjusted Person/HU	Adjusted Persons/HU ²	Unadjusted Vehicles/HU	Adjusted Vehicles/HU ²
0-1	235	183	179	5%	1.31	1.48	1.02	0.70
2	1,541	1,198	827	22%	1.86	2.10	1.45	1.00
3	4,450	3,619	1,944	52%	2.29	2.59	1.86	1.28
4+	2,221	1,747	822	22%	2.70	3.05	2.13	1.46
Total	8,447	6,747	3,772		2.24	2.53	1.79	1.23

National Averages According to ITE

ITE Code	AWVTE per Person	AWVTE per Vehicle	AWVTE per Housing Unit	Housing Mix	Persons per Household	Vehicles per Household
210 SFD	2.65	6.36	9.44	77%	3.56	1.48
220 Apt	3.31	5.10	6.65	23%	2.01	1.30
Weighted Avg	2.80	6.07	8.79		3.20	1.44

Recommended AWVTE per Housing Unit

Bedroom Range	AWVTE per HU Based on Persons ³	AWVTE per HU Based on Vehicles ⁴	AWVTE per Housing Unit ⁵
0-1	4.14	4.25	4.20
2	5.88	6.07	5.98
3	7.25	7.77	7.51
4+	8.54	8.86	8.70
Total	7.08	7.47	7.28

AWVTE per Dwelling by House Type

ITE Code	AWVTE per HH Based on Persons ³	AWVTE per HH Based on Vehicles ⁴	AWVTE per Household ⁵	Unadjusted Person/HU	Adjusted Persons/HH	Unadjusted Vehicles/HU	Adjusted Vehicles/HH
210 SFD	7.28	11.13	9.21	3.56	2.60	1.48	1.83
220 Apt	6.02	8.86	7.44	2.01	2.15	1.30	1.46
All Types	7.08	10.46	8.77	3.20	2.53	1.44	1.72

1. American Community Survey, Public Use Microdata Sample for SC PUMA 1400, 2013-2017 5-Year unweighted data
 2. Adjusted multipliers are scaled to make the average PUMS values match control totals for Beaufort County, based on American Community Survey 2013-2017 5-Year Estimates.
 3. Adjusted persons per housing unit multiplied by national weighted average trip rate per person.
 4. Adjusted vehicles available per housing unit multiplied by national weighted average trip rate per vehicle.
 5. Average trip rates based on persons and vehicles per housing unit.
- AWVTE = Average weekly vehicle trip end

To derive the countywide average weekday vehicle trip ends by housing size, TischlerBise matched trip generation rates and average floor area, by bedroom range, as in Figure 148. The logarithmic trend line

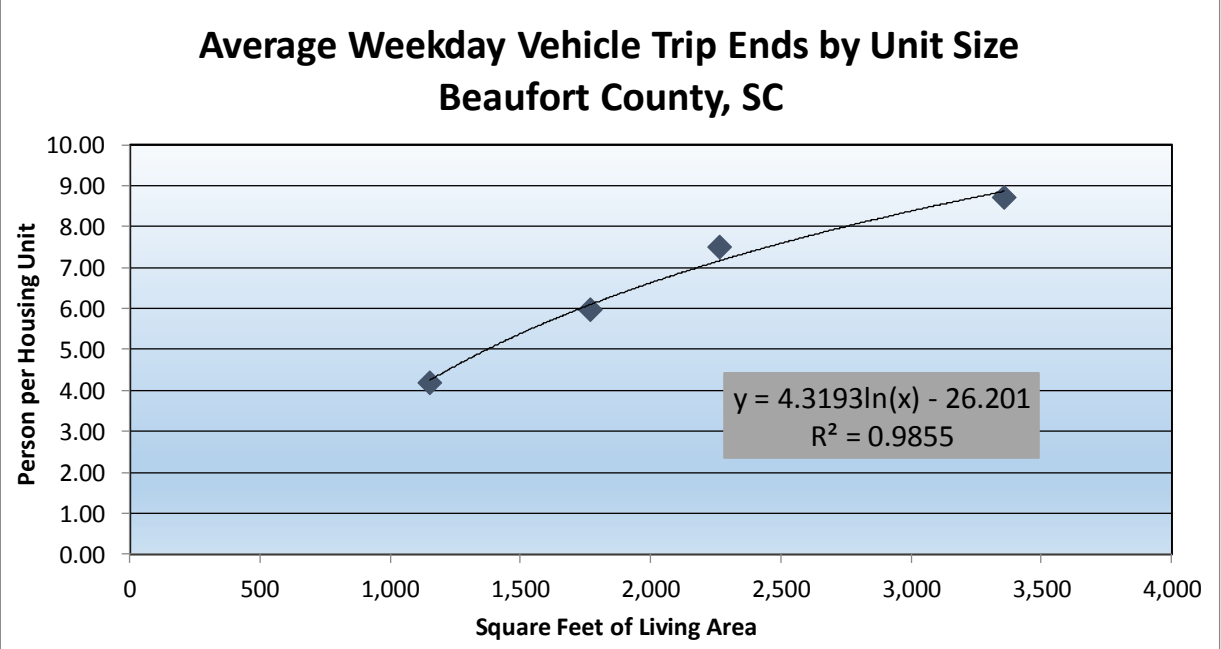
formula, derived from the four actual averages in Beaufort County, is used to derive estimated trip ends by housing size.

As shown in the Fitted-Curve Values table on the right, the vehicle trip ends increase as the housing unit size increases.

Figure 148. Vehicle Trip Ends by Housing Size – Countywide

Actual Averages per Hsg Unit			Fitted-Curve Values	
Bedrooms	Square Feet	Trip Ends	Sq Ft Range	Trip Ends
0-1	1,154	4.20	1,000 or less	3.60
2	1,771	5.98	1,001 to 1,250	4.60
3	2,264	7.51	1,251 to 1,500	5.39
4+	3,359	8.70	1,501 to 1,750	6.05
			1,751 to 2,000	6.63
			2,001 to 2,500	7.59
			2,501 to 3,000	8.38
			3,001 to 3,500	9.05
			3,501 or 4,000	9.62
			4,001 or more	10.13

Average weekday vehicle trips per housing unit are derived from 2017 ACS PUMS data for the area that includes Beaufort County. Unit size for 0-1 bedroom is from the 2018 U.S. Census Bureau average for all multifamily units constructed in the Census South region. Unit size for 2, 3, and 4+ bedroom derived from single family units constructed in the South Atlantic region.



The countywide vehicle trip ends by number of bedrooms is adjusted to calculate the trip ends for the North and South Service Area. Shown below, the North of the Broad Service Area has a trip end rate 107 percent of the countywide rate and the South of the Broad Service area has a trip end rate 99 percent of the countywide rate. This is applied to the trip ends by number of bedrooms factor.

Figure 149. Vehicle Trip End Rate Comparison

Housing Type	Countywide	North of the Broad	North vs Countywide	South of the Broad	South vs Countywide
Vehicle Trip Ends	8.80	9.40	107%	8.70	99%

Figure 150. Vehicle Trip Ends by Housing Size – North of the Broad Service Area

Average weekday vehicle trips per housing unit are derived from 2017 ACS PUMS data for the area that includes Beaufort County. Unit size for 0-1 bedroom is from the 2018 U.S. Census Bureau average for all multifamily units constructed in the Census South region. Unit size for 2, 3, and 4+ bedroom derived from single family units constructed in the South Atlantic region.

Averages per Hsg Unit			Fitted-Curve Values	
Bedrooms	Square Feet	Trip Ends	Sq Ft Range	Trip Ends
0-1	1,154	4.49	1,000 or less	3.90
2	1,771	6.39	1,001 to 1,250	4.90
3	2,264	8.02	1,251 to 1,500	5.80
4+	3,359	9.29	1,501 to 1,750	6.50
			1,751 to 2,000	7.10
			2,001 to 2,500	8.10
			2,501 to 3,000	9.00
			3,001 to 3,500	9.70
			3,501 or 4,000	10.30
			4,001 or more	10.80

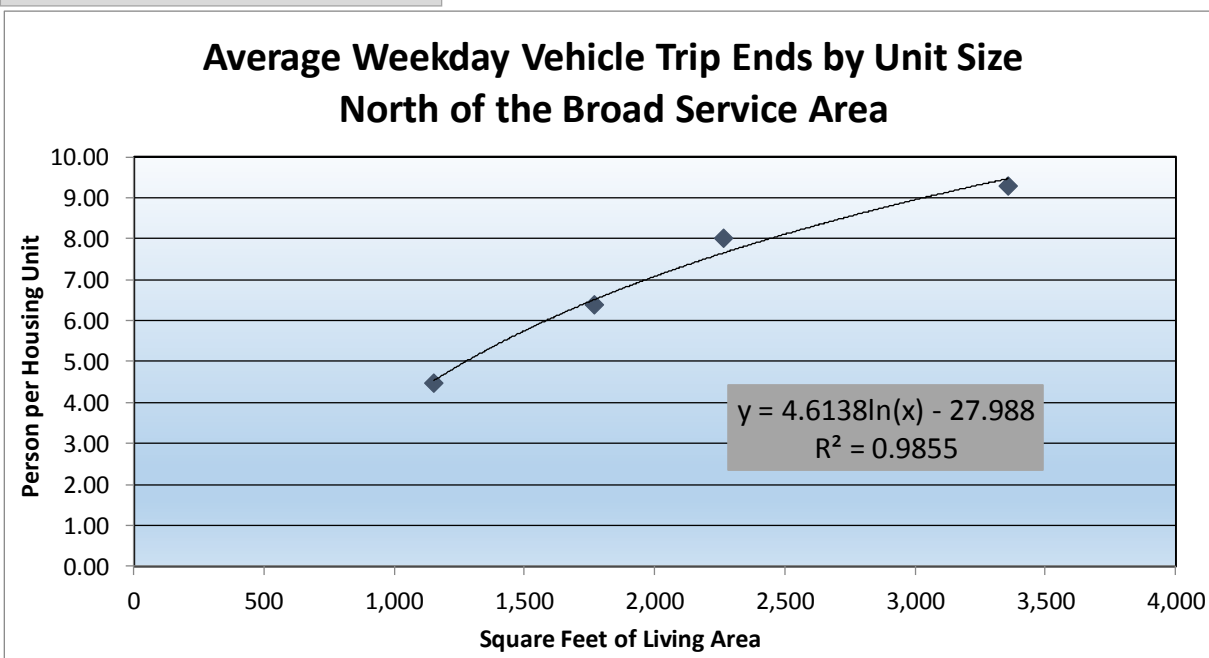
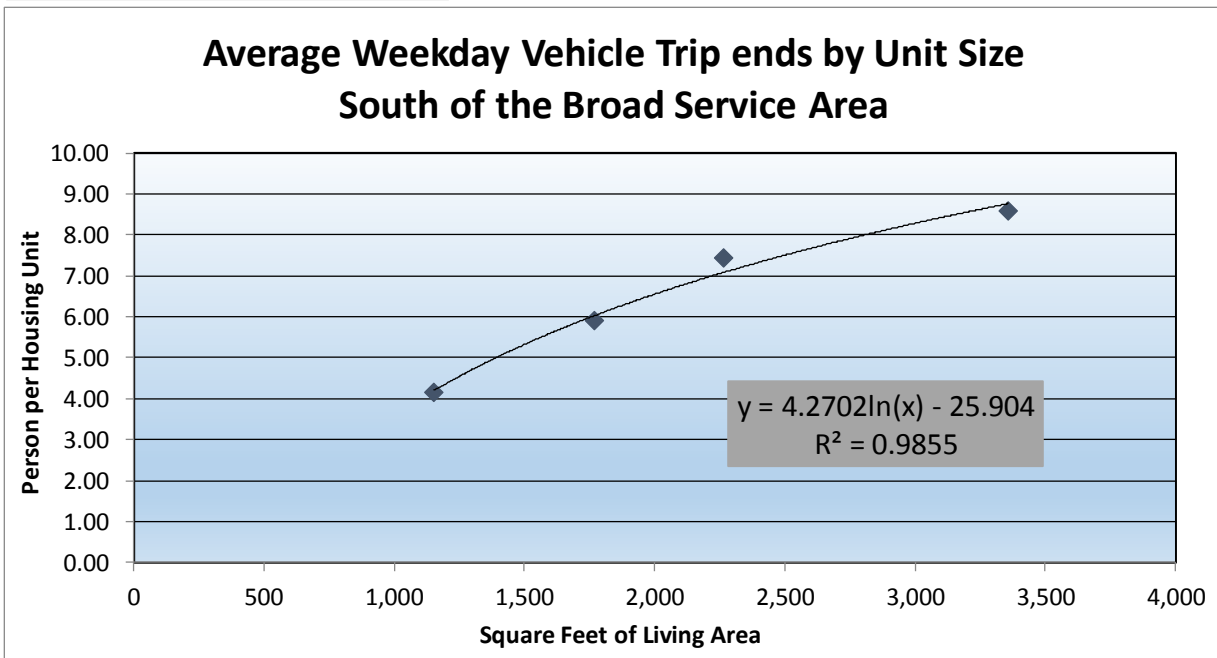


Figure 151. Vehicle Trip Ends by Housing Size – South of the Broad Service Area

Average weekday vehicle trips per housing unit are derived from 2017 ACS PUMS data for the area that includes Beaufort County. Unit size for 0-1 bedroom is from the 2018 U.S. Census Bureau average for all multifamily units constructed in the Census South region. Unit size for 2, 3, and 4+ bedroom derived from single family units constructed in the South Atlantic region.

Averages per Hsg Unit			Fitted-Curve Values	
Bedrooms	Square Feet	Trip Ends	Sq Ft Range	Trip Ends
0-1	1,154	4.15	1,000 or less	3.60
2	1,771	5.91	1,001 to 1,250	4.50
3	2,264	7.42	1,251 to 1,500	5.30
4+	3,359	8.60	1,501 to 1,750	6.00
			1,751 to 2,000	6.60
			2,001 to 2,500	7.50
			2,501 to 3,000	8.30
			3,001 to 3,500	8.90
			3,501 or 4,000	9.50
			4,001 or more	10.00



APPENDIX D: LAND USE DEFINITIONS

Residential Development

As discussed below, residential development categories are based on data from the U.S. Census Bureau, American Community Survey. Beaufort County will collect development fees from all new residential units. One-time development fees are determined by site capacity (i.e. number of residential units).

Single Family:

1. Single family detached is a one-unit structure detached from any other house, that is, with open space on all four sides. Such structures are considered detached even if they have an adjoining shed or garage. A one-family house that contains a business is considered detached as long as the building has open space on all four sides.
2. Single family attached (townhouse) is a one-unit structure that has one or more walls extending from ground to roof separating it from adjoining structures. In row houses (sometimes called townhouses), double houses, or houses attached to nonresidential structures, each house is a separate, attached structure if the dividing or common wall goes from ground to roof.
3. Mobile home includes both occupied and vacant mobile homes, to which no permanent rooms have been added, are counted in this category. Mobile homes used only for business purposes or for extra sleeping space and mobile homes for sale on a dealer's lot, at the factory, or in storage are not counted in the housing inventory.
4. Examples of respective land use codes in the Institute of Transportation Engineers [Trip Generation Manual](#), 2017: 210

Multifamily:

1. 2+ units (duplexes and apartments) are units in structures containing two or more housing units, further categorized as units in structures with “2, 3 or 4, 5 to 9, 10 to 19, 20 to 49, and 50 or more apartments.”
2. Boat, RV, Van, Etc. includes any living quarters occupied as a housing unit that does not fit the other categories (e.g., houseboats, railroad cars, campers, and vans). Recreational vehicles, boats, vans, railroad cars, and the like are included only if they are occupied as a current place of residence.
3. Examples of respective land use codes in the Institute of Transportation Engineers [Trip Generation Manual](#), 2017: 220, 221, 222

Nonresidential Development

The proposed general nonresidential development categories (defined below) can be used for all new construction within Beaufort County. Nonresidential development categories represent general groups of land uses that share similar average weekday vehicle trip generation rates and employment densities (i.e., jobs per thousand square feet of floor area).

Retail: Establishments primarily selling merchandise, eating/drinking places, and entertainment uses. By way of example, *Retail* includes shopping centers, supermarkets, pharmacies, restaurants, bars, nightclubs, automobile dealerships, and movie theaters, hotels, and motels.

- Examples of respective land use codes in the Institute of Transportation Engineers Trip Generation Manual, 2017: 820, 815, 823, 850, 875, 880

Office/Service: Establishments providing management, administrative, professional, or business services; By way of example, *Office/Service* includes banks, business offices, headquarter buildings, business parks, and research and development centers.

- Examples of respective land use codes in the Institute of Transportation Engineers Trip Generation Manual, 2017: 710, 712, 714, 720, 750, 770

Industrial: Establishments primarily engaged in the production, transportation, or storage of goods. By way of example, *Industrial* includes manufacturing plants, distribution warehouses, trucking companies, utility substations, power generation facilities, and telecommunications buildings.

- Examples of respective land use codes in the Institute of Transportation Engineers Trip Generation Manual, 2017: 110, 130, 150, 154, 160, 170

Institutional: Establishments providing management, administrative, professional, or business services; By way of example, *Institutional* includes assisted living facilities, nursing homes, hospitals, medical offices, veterinarian clinics, schools, universities, churches, daycare facilities, government buildings, and prisons.

- Examples of respective land use codes in the Institute of Transportation Engineers Trip Generation Manual, 2017: 520, 560, 565, 575, 580, 590

APPENDIX E: SERVICE AREA MAP

Illustrated below is a map for the North and South of the Broad Service Areas.

Figure 152. Service Area Map



APPENDIX F: SOUTH CAROLINA DEVELOPMENT IMPACT FEE ACT

<https://www.scstatehouse.gov/code/title6.php>

March 22, 2019

CHAPTER 1

General Provisions

ARTICLE 9

Development Impact Fees

SECTION 6-1-910. Short title.

This article may be cited as the “South Carolina Development Impact Fee Act”.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-920. Definitions.

As used in this article:

(1) “Affordable housing” means housing affordable to families whose incomes do not exceed eighty percent of the median income for the service area or areas within the jurisdiction of the governmental entity.

(2) “Capital improvements” means improvements with a useful life of five years or more, by new construction or other action, which increase or increased the service capacity of a public facility.

(3) “Capital improvements plan” means a plan that identifies capital improvements for which development impact fees may be used as a funding source.

(4) “Connection charges” and “hookup charges” mean charges for the actual cost of connecting a property to a public water or public sewer system, limited to labor and materials involved in making pipe connections, installation of water meters, and other actual costs.

(5) “Developer” means an individual or corporation, partnership, or other entity undertaking development.

(6) “Development” means construction or installation of a new building or structure, or a change in use of a building or structure, any of which creates additional demand and need for public facilities. A building or structure shall include, but not be limited to, modular buildings and manufactured housing. “Development” does not include alterations made to existing single-family homes.

(7) “Development approval” means a document from a governmental entity which authorizes the commencement of a development.

(8) “Development impact fee” or “impact fee” means a payment of money imposed as a condition of development approval to pay a proportionate share of the cost of system improvements needed to serve the people utilizing the improvements. The term does not include:

(a) a charge or fee to pay the administrative, plan review, or inspection costs associated with permits required for development;

(b) connection or hookup charges;

(c) amounts collected from a developer in a transaction in which the governmental entity has incurred expenses in constructing capital improvements for the development if the owner or developer has agreed to be financially responsible for the construction or installation of the capital improvements;

(d) fees authorized by Article 3 of this chapter.

(9) “Development permit” means a permit issued for construction on or development of land when no subsequent building permit issued pursuant to Chapter 9 of Title 6 is required.

(10) “Fee payor” means the individual or legal entity that pays or is required to pay a development impact fee.

(11) “Governmental entity” means a county, as provided in Chapter 9, Title 4, and a municipality, as defined in Section 5-1-20.

(12) “Incidental benefits” are benefits which accrue to a property as a secondary result or as a minor consequence of the provision of public facilities to another property.

(13) “Land use assumptions” means a description of the service area and projections of land uses, densities, intensities, and population in the service area over at least a ten-year period.

(14) “Level of service” means a measure of the relationship between service capacity and service demand for public facilities.

(15) “Local planning commission” means the entity created pursuant to Article 1, Chapter 29, Title 6.

(16) “Project” means a particular development on an identified parcel of land.

(17) “Proportionate share” means that portion of the cost of system improvements determined pursuant to Section 6-1-990 which reasonably relates to the service demands and needs of the project.

(18) “Public facilities” means:

(a) water supply production, treatment, laboratory, engineering, administration, storage, and transmission facilities;

(b) wastewater collection, treatment, laboratory, engineering, administration, and disposal facilities;

(c) solid waste and recycling collection, treatment, and disposal facilities;

(d) roads, streets, and bridges including, but not limited to, rights-of-way and traffic signals;

(e) storm water transmission, retention, detention, treatment, and disposal facilities and flood control facilities;

(f) public safety facilities, including law enforcement, fire, emergency medical and rescue, and street lighting facilities;

(g) capital equipment and vehicles, with an individual unit purchase price of not less than one hundred thousand dollars including, but not limited to, equipment and vehicles used in the delivery of public safety services, emergency preparedness services, collection and disposal of solid waste, and storm water management and control;

(h) parks, libraries, and recreational facilities;

(i) public education facilities for grades K-12 including, but not limited to, schools, offices, classrooms, parking areas, playgrounds, libraries, cafeterias, gymnasiums, health and music rooms, computer and science laboratories, and other facilities considered necessary for the proper public education of the state's children.

(19) "Service area" means, based on sound planning or engineering principles, or both, a defined geographic area in which specific public facilities provide service to development within the area defined. Provided, however, that no provision in this article may be interpreted to alter, enlarge, or reduce the service area or boundaries of a political subdivision which is authorized or set by law.

(20) "Service unit" means a standardized measure of consumption, use, generation, or discharge attributable to an individual unit of development calculated in accordance with generally accepted engineering or planning standards for a particular category of capital improvements.

(21) "System improvements" means capital improvements to public facilities which are designed to provide service to a service area.

(22) "System improvement costs" means costs incurred for construction or reconstruction of system improvements, including design, acquisition, engineering, and other costs attributable to the improvements, and also including the costs of providing additional public facilities needed to serve new growth and development. System improvement costs do not include:

(a) construction, acquisition, or expansion of public facilities other than capital improvements identified in the capital improvements plan;

(b) repair, operation, or maintenance of existing or new capital improvements;

(c) upgrading, updating, expanding, or replacing existing capital improvements to serve existing development in order to meet stricter safety, efficiency, environmental, or regulatory standards;

(d) upgrading, updating, expanding, or replacing existing capital improvements to provide better service to existing development;

(e) administrative and operating costs of the governmental entity; or

(f) principal payments and interest or other finance charges on bonds or other indebtedness except financial obligations issued by or on behalf of the governmental entity to finance capital improvements identified in the capital improvements plan.

HISTORY: 1999 Act No. 118, Section 1; 2016 Act No. 229 (H.4416), Section 2, eff June 3, 2016.

Effect of Amendment

2016 Act No. 229, Section 2, added (18)(i), relating to certain public education facilities.

SECTION 6-1-930. Developmental impact fee.

(A)(1) Only a governmental entity that has a comprehensive plan, as provided in Chapter 29 of this title, and which complies with the requirements of this article may impose a development impact fee. If a governmental entity has not adopted a comprehensive plan, but has adopted a capital improvements plan which substantially complies with the requirements of Section 6-1-960(B), then it may impose a development impact fee. A governmental entity may not impose an impact fee, regardless of how it is designated, except as provided in this article. However, a special purpose district or public service district which (a) provides fire protection services or recreation services, (b) was created by act of the General Assembly prior to 1973, and (c) had the power to impose development impact fees prior to the effective date of this section is not prohibited from imposing development impact fees.

(2) Before imposing a development impact fee on residential units, a governmental entity shall prepare a report which estimates the effect of recovering capital costs through impact fees on the availability of affordable housing within the political jurisdiction of the governmental entity.

(B)(1) An impact fee may be imposed and collected by the governmental entity only upon the passage of an ordinance approved by a positive majority, as defined in Article 3 of this chapter.

(2) The amount of the development impact fee must be based on actual improvement costs or reasonable estimates of the costs, supported by sound engineering studies.

(3) An ordinance authorizing the imposition of a development impact fee must:

(a) establish a procedure for timely processing of applications for determinations by the governmental entity of development impact fees applicable to all property subject to impact fees and for the timely processing of applications for individual assessment of development impact fees, credits, or reimbursements allowed or paid under this article;

(b) include a description of acceptable levels of service for system improvements; and

(c) provide for the termination of the impact fee.

(C) A governmental entity shall prepare and publish an annual report describing the amount of all impact fees collected, appropriated, or spent during the preceding year by category of public facility and service area.

(D) Payment of an impact fee may result in an incidental benefit to property owners or developers within the service area other than the fee payor, except that an impact fee that results in benefits to

property owners or developers within the service area, other than the fee payor, in an amount which is greater than incidental benefits is prohibited.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-940. Amount of impact fee.

A governmental entity imposing an impact fee must provide in the impact fee ordinance the amount of impact fee due for each unit of development in a project for which an individual building permit or certificate of occupancy is issued. The governmental entity is bound by the amount of impact fee specified in the ordinance and may not charge higher or additional impact fees for the same purpose unless the number of service units increases or the scope of the development changes and the amount of additional impact fees is limited to the amount attributable to the additional service units or change in scope of the development. The impact fee ordinance must:

(1) include an explanation of the calculation of the impact fee, including an explanation of the factors considered pursuant to this article;

(2) specify the system improvements for which the impact fee is intended to be used;

(3) inform the developer that he may pay a project's proportionate share of system improvement costs by payment of impact fees according to the fee schedule as full and complete payment of the developer's proportionate share of system improvements costs;

(4) inform the fee payor that:

(a) he may negotiate and contract for facilities or services with the governmental entity in lieu of the development impact fee as defined in Section 6-1-1050;

(b) he has the right of appeal, as provided in Section 6-1-1030;

(c) the impact fee must be paid no earlier than the time of issuance of the building permit or issuance of a development permit if no building permit is required.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-950. Procedure for adoption of ordinance imposing impact fees.

(A) The governing body of a governmental entity begins the process for adoption of an ordinance imposing an impact fee by enacting a resolution directing the local planning commission to conduct the studies and to recommend an impact fee ordinance, developed in accordance with the requirements of this article. Under no circumstances may the governing body of a governmental entity impose an impact fee for any public facility which has been paid for entirely by the developer.

(B) Upon receipt of the resolution enacted pursuant to subsection (A), the local planning commission shall develop, within the time designated in the resolution, and make recommendations to the governmental entity for a capital improvements plan and impact fees by service unit. The local planning commission shall prepare and adopt its recommendations in the same manner and using the same procedures as those used for developing recommendations for a comprehensive plan as provided in

Article 3, Chapter 29, Title 6, except as otherwise provided in this article. The commission shall review and update the capital improvements plan and impact fees in the same manner and on the same review cycle as the governmental entity's comprehensive plan or elements of it.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-960. Recommended capital improvements plan; notice; contents of plan.

(A) The local planning commission shall recommend to the governmental entity a capital improvements plan which may be adopted by the governmental entity by ordinance. The recommendations of the commission are not binding on the governmental entity, which may amend or alter the plan. After reasonable public notice, a public hearing must be held before final action to adopt the ordinance approving the capital improvements plan. The notice must be published not less than thirty days before the time of the hearing in at least one newspaper of general circulation in the county. The notice must advise the public of the time and place of the hearing, that a copy of the capital improvements plan is available for public inspection in the offices of the governmental entity, and that members of the public will be given an opportunity to be heard.

(B) The capital improvements plan must contain:

(1) a general description of all existing public facilities, and their existing deficiencies, within the service area or areas of the governmental entity, a reasonable estimate of all costs, and a plan to develop the funding resources, including existing sources of revenues, related to curing the existing deficiencies including, but not limited to, the upgrading, updating, improving, expanding, or replacing of these facilities to meet existing needs and usage;

(2) an analysis of the total capacity, the level of current usage, and commitments for usage of capacity of existing public facilities, which must be prepared by a qualified professional using generally accepted principles and professional standards;

(3) a description of the land use assumptions;

(4) a definitive table establishing the specific service unit for each category of system improvements and an equivalency or conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial, agricultural, and industrial, as appropriate;

(5) a description of all system improvements and their costs necessitated by and attributable to new development in the service area, based on the approved land use assumptions, to provide a level of service not to exceed the level of service currently existing in the community or service area, unless a different or higher level of service is required by law, court order, or safety consideration;

(6) the total number of service units necessitated by and attributable to new development within the service area based on the land use assumptions and calculated in accordance with generally accepted engineering or planning criteria;

(7) the projected demand for system improvements required by new service units projected over a reasonable period of time not to exceed twenty years;

(8) identification of all sources and levels of funding available to the governmental entity for the financing of the system improvements; and

(9) a schedule setting forth estimated dates for commencing and completing construction of all improvements identified in the capital improvements plan.

(C) Changes in the capital improvements plan must be approved in the same manner as approval of the original plan.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-970. Exemptions from impact fees.

The following structures or activities are exempt from impact fees:

(1) rebuilding the same amount of floor space of a structure that was destroyed by fire or other catastrophe;

(2) remodeling or repairing a structure that does not result in an increase in the number of service units;

(3) replacing a residential unit, including a manufactured home, with another residential unit on the same lot, if the number of service units does not increase;

(4) placing a construction trailer or office on a lot during the period of construction on the lot;

(5) constructing an addition on a residential structure which does not increase the number of service units;

(6) adding uses that are typically accessory to residential uses, such as a tennis court or a clubhouse, unless it is demonstrated clearly that the use creates a significant impact on the system's capacity;

(7) all or part of a particular development project if:

(a) the project is determined to create affordable housing; and

(b) the exempt development's proportionate share of system improvements is funded through a revenue source other than development impact fees;

(8) constructing a new elementary, middle, or secondary school; and

(9) constructing a new volunteer fire department.

HISTORY: 1999 Act No. 118, Section 1; 2016 Act No. 229 (H.4416), Section 1, eff June 3, 2016.

Effect of Amendment

2016 Act No. 229, Section 1, added (8) and (9), relating to certain schools and volunteer fire departments.

SECTION 6-1-980. Calculation of impact fees.

(A) The impact fee for each service unit may not exceed the amount determined by dividing the costs of the capital improvements by the total number of projected service units that potentially could use the capital improvement. If the number of new service units projected over a reasonable period of time is less than the total number of new service units shown by the approved land use assumptions at full development of the service area, the maximum impact fee for each service unit must be calculated by dividing the costs of the part of the capital improvements necessitated by and attributable to the projected new service units by the total projected new service units.

(B) An impact fee must be calculated in accordance with generally accepted accounting principles.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-990. Maximum impact fee; proportionate share of costs of improvements to serve new development.

(A) The impact fee imposed upon a fee payor may not exceed a proportionate share of the costs incurred by the governmental entity in providing system improvements to serve the new development. The proportionate share is the cost attributable to the development after the governmental entity reduces the amount to be imposed by the following factors:

(1) appropriate credit, offset, or contribution of money, dedication of land, or construction of system improvements; and

(2) all other sources of funding the system improvements including funds obtained from economic development incentives or grants secured which are not required to be repaid.

(B) In determining the proportionate share of the cost of system improvements to be paid, the governmental entity imposing the impact fee must consider the:

(1) cost of existing system improvements resulting from new development within the service area or areas;

(2) means by which existing system improvements have been financed;

(3) extent to which the new development contributes to the cost of system improvements;

(4) extent to which the new development is required to contribute to the cost of existing system improvements in the future;

(5) extent to which the new development is required to provide system improvements, without charge to other properties within the service area or areas;

(6) time and price differentials inherent in a fair comparison of fees paid at different times; and

(7) availability of other sources of funding system improvements including, but not limited to, user charges, general tax levies, intergovernmental transfers, and special taxation.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-1000. Fair compensation or reimbursement of developers for costs, dedication of land or oversize facilities.

A developer required to pay a development impact fee may not be required to pay more than his proportionate share of the costs of the project, including the payment of money or contribution or dedication of land, or to oversize his facilities for use of others outside of the project without fair compensation or reimbursement.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-1010. Accounting; expenditures.

(A) Revenues from all development impact fees must be maintained in one or more interest-bearing accounts. Accounting records must be maintained for each category of system improvements and the service area in which the fees are collected. Interest earned on development impact fees must be considered funds of the account on which it is earned, and must be subject to all restrictions placed on the use of impact fees pursuant to the provisions of this article.

(B) Expenditures of development impact fees must be made only for the category of system improvements and within or for the benefit of the service area for which the impact fee was imposed as shown by the capital improvements plan and as authorized in this article. Impact fees may not be used for:

- (1) a purpose other than system improvement costs to create additional improvements to serve new growth;
- (2) a category of system improvements other than that for which they were collected; or
- (3) the benefit of service areas other than the area for which they were imposed.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-1020. Refunds of impact fees.

(A) An impact fee must be refunded to the owner of record of property on which a development impact fee has been paid if:

- (1) the impact fees have not been expended within three years of the date they were scheduled to be expended on a first-in, first-out basis; or
- (2) a building permit or permit for installation of a manufactured home is denied.

(B) When the right to a refund exists, the governmental entity shall send a refund to the owner of record within ninety days after it is determined by the entity that a refund is due.

(C) A refund must include the pro rata portion of interest earned while on deposit in the impact fee account.

(D) A person entitled to a refund has standing to sue for a refund pursuant to this article if there has not been a timely payment of a refund pursuant to subsection (B) of this section.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-1030. Appeals.

(A) A governmental entity which adopts a development impact fee ordinance shall provide for administrative appeals by the developer or fee payor.

(B) A fee payor may pay a development impact fee under protest. A fee payor making the payment is not estopped from exercising the right of appeal provided in this article, nor is the fee payor estopped from receiving a refund of an amount considered to have been illegally collected. Instead of making a payment of an impact fee under protest, a fee payor, at his option, may post a bond or submit an irrevocable letter of credit for the amount of impact fees due, pending the outcome of an appeal.

(C) A governmental entity which adopts a development impact fee ordinance shall provide for mediation by a qualified independent party, upon voluntary agreement by both the fee payor and the governmental entity, to address a disagreement related to the impact fee for proposed development. Participation in mediation does not preclude the fee payor from pursuing other remedies provided for in this section or otherwise available by law.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-1040. Collection of development impact fees.

A governmental entity may provide in a development impact fee ordinance the method for collection of development impact fees including, but not limited to:

- (1) additions to the fee for reasonable interest and penalties for nonpayment or late payment;
- (2) withholding of the certificate of occupancy, or building permit if no certificate of occupancy is required, until the development impact fee is paid;
- (3) withholding of utility services until the development impact fee is paid; and
- (4) imposing liens for failure to pay timely a development impact fee.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-1050. Permissible agreements for payments or construction or installation of improvements by fee payors and developers; credits and reimbursements.

A fee payor and developer may enter into an agreement with a governmental entity, including an agreement entered into pursuant to the South Carolina Local Government Development Agreement Act, providing for payments instead of impact fees for facilities or services. That agreement may provide for the construction or installation of system improvements by the fee payor or developer and for credits or reimbursements for costs incurred by a fee payor or developer including interproject transfers of credits or reimbursement for project improvements which are used or shared by more than one development project. An impact fee may not be imposed on a fee payor or developer who has entered into an agreement as described in this section.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-1060. Article shall not affect existing laws.

(A) The provisions of this article do not repeal existing laws authorizing a governmental entity to impose fees or require contributions or property dedications for capital improvements. A development impact fee adopted in accordance with existing laws before the enactment of this article is not affected until termination of the development impact fee. A subsequent change or reenactment of the development impact fee must comply with the provisions of this article. Requirements for developers to pay in whole or in part for system improvements may be imposed by governmental entities only by way of impact fees imposed pursuant to the ordinance.

(B) Notwithstanding another provision of this article, property for which a valid building permit or certificate of occupancy has been issued or construction has commenced before the effective date of a development impact fee ordinance is not subject to additional development impact fees.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-1070. Shared funding among units of government; agreements.

(A) If the proposed system improvements include the improvement of public facilities under the jurisdiction of another unit of government including, but not limited to, a special purpose district that does not provide water and wastewater utilities, a school district, and a public service district, an agreement between the governmental entity and other unit of government must specify the reasonable share of funding by each unit. The governmental entity authorized to impose impact fees may not assume more than its reasonable share of funding joint improvements, nor may another unit of government which is not authorized to impose impact fees do so unless the expenditure is pursuant to an agreement under Section 6-1-1050 of this section.

(B) A governmental entity may enter into an agreement with another unit of government including, but not limited to, a special purpose district that does not provide water and wastewater utilities, a school district, and a public service district, that has the responsibility of providing the service for which an impact fee may be imposed. The determination of the amount of the impact fee for the contracting governmental entity must be made in the same manner and is subject to the same procedures and limitations as provided in this article. The agreement must provide for the collection of the impact fee by the governmental entity and for the expenditure of the impact fee by another unit of government including, but not limited to, a special purpose district that does not provide water and wastewater utilities, a school district, and a public services district unless otherwise provided by contract.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-1080. Exemptions; water or wastewater utilities.

The provisions of this chapter do not apply to a development impact fee for water or wastewater utilities, or both, imposed by a city, county, commissioners of public works, special purpose district, or nonprofit corporation organized pursuant to Chapter 35 or 36 of Title 33, except that in order to impose a development impact fee for water or wastewater utilities, or both, the city, county, commissioners of

public works, special purpose district or nonprofit corporation organized pursuant to Chapter 35 or 36 of Title 33 must:

- (1) have a capital improvements plan before imposition of the development impact fee; and
- (2) prepare a report to be made public before imposition of the development impact fee, which shall include, but not be limited to, an explanation of the basis, use, calculation, and method of collection of the development impact fee; and
- (3) enact the fee in accordance with the requirements of Article 3 of this chapter.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-1090. Annexations by municipalities.

A county development impact fee ordinance imposed in an area which is annexed by a municipality is not affected by this article until the development impact fee terminates, unless the municipality assumes any liability which is to be paid with the impact fee revenue.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-2000. Taxation or revenue authority by political subdivisions.

This article shall not create, grant, or confer any new or additional taxing or revenue raising authority to a political subdivision which was not specifically granted to that entity by a previous act of the General Assembly.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-2010. Compliance with public notice or public hearing requirements.

Compliance with any requirement for public notice or public hearing in this article is considered to be in compliance with any other public notice or public hearing requirement otherwise applicable including, but not limited to, the provisions of Chapter 4, Title 30, and Article 3 of this chapter.

HISTORY: 1999 Act No. 118, Section 1.



School Impact Fee Study and Capital Improvement Plan

Prepared for:
Beaufort County School District, South Carolina

July 18, 2020

DRAFT

Prepared by:

TischlerBise

FISCAL | ECONOMIC | PLANNING

4701 Sangamore Road

Suite S240

Bethesda, Maryland 20816

800.424.4318

www.tischlerbise.com



TischlerBise
4701 Sangamore Road
Suite S240
Bethesda, Maryland 20816
800.424.4318

www.tischlerbise.com

TABLE OF CONTENTS

EXECUTIVE SUMMARY	11
BEAUFORT COUNTY SCHOOL DISTRICT SCHOOL DEVELOPMENT IMPACT FEE OVERVIEW	11
GENERAL LEGAL FRAMEWORK	11
SOUTH CAROLINA DEVELOPMENT IMPACT FEE ACT	12
CONCEPTUAL DEVELOPMENT IMPACT FEE CALCULATION.....	13
GENERAL METHODOLOGIES	14
<i>Cost Recovery (Past Improvements)</i>	14
<i>Incremental Expansion (Concurrent Improvements)</i>	14
<i>Plan-Based Fee (Future Improvements)</i>	15
<i>Credits</i>	15
SERVICE/BENEFIT AREA	15
Figure 1. Map of Service Areas	16
MAXIMUM SUPPORTABLE IMPACT FEE SCHEDULE.....	16
Figure 2. Maximum Supportable School Development Impact Fees – South Service Area	17
STUDENT GENERATION RATES AND PROJECTED ENROLLMENT.....	18
STUDENT GENERATION RATES	18
Figure 3. Student Generation Rates by Housing Type – South Service Area	18
STUDENT ENROLLMENT PROJECTIONS.....	19
Figure 4. Projected South Service Area Elementary School Enrollment.....	20
Figure 5. Projected South Service Area Middle School Enrollment.....	21
Figure 6. Projected South Service Area High School Enrollment.....	22
SCHOOL LEVEL OF SERVICE	10
OVERVIEW OF CURRENT SCHOOL FUNDING ARRANGEMENTS.....	10
SCHOOL FACILITY LEVEL OF SERVICE STANDARDS	10
<i>South Service Area Elementary Schools</i>	10
Figure 7. Elementary School Inventory – South Service Area.....	11
<i>South Service Area Middle Schools</i>	11
Figure 8. Middle School Inventory – South Service Area.....	12
<i>South Service Area High Schools</i>	12
Figure 9. High School Inventory – South Service Area.....	13
<i>School Buses</i>	13
Figure 10. Beaufort County School District Buses.....	13
SCHOOL IMPACT FEE CALCULATION.....	14
METHODOLOGY	14
SERVICE/BENEFIT AREA	14
COST ASSUMPTIONS	14
Figure 11. Facility Cost Assumptions	14
CREDITS FOR FUTURE PRINCIPAL PAYMENTS ON EXISTING SCHOOL IMPROVEMENTS.....	14
Figure 12. Beaufort County Assessed Value by Property Type.....	15
Figure 13. Credit for Future Principal Payments on Existing Debt.....	16
CREDIT FOR 2019 BOND REFERENDUM	16

Figure 14. Countywide Property Assessed Value.....	16
Figure 15. Credit for 2019 Bond Referendum.....	17
SCHOOL DEVELOPMENT IMPACT FEE INPUT VARIABLES.....	18
Figure 16. School Development Impact Fee Input Variables.....	18
MAXIMUM SUPPORTABLE SCHOOL DEVELOPMENT IMPACT FEES.....	19
Figure 17. Maximum Supportable School Development Impact Fees – South of the Broad Service Area.....	19
PROJECTED REVENUE FROM MAXIMUM SUPPORTABLE DEVELOPMENT IMPACT FEE.....	20
Figure 18. Projected Revenue from Maximum Supportable Development Impact Fee.....	20
CAPITAL IMPROVEMENT PLAN	21
PLANNED CAPACITY PROJECTS	21
Figure 19. Beaufort County School District Planned Capacity Projects	21
APPENDIX A: HOUSING AFFORDABILITY ANALYSIS	22
SOUTH CAROLINA DEVELOPMENT IMPACT FEE ACT.....	22
MAXIMUM SUPPORTABLE SCHOOL DEVELOPMENT IMPACT FEE	22
Figure 20. Maximum Supportable School Development Impact Fee – South of the Broad Service Area.....	22
HOUSING STOCK	23
Figure 21. Housing Stock Characteristics – South of the Broad.....	23
HOUSEHOLD INCOME.....	23
Figure 22. Median Household Income – South of the Broad.....	23
COST OF HOMEOWNERSHIP	24
COST OF RENTING	25
COST BURDEN ANALYSIS.....	25
Figure 23. Scenario 1: Cost Burden Analysis without Maximum Supportable Development Impact Fee.....	26
Figure 24. Scenario 2: Cost Burden Analysis with Proposed Development Impact Fee.....	26
<i>Conclusion</i>	26
Figure 25. Cost of Homeownership – South of the Broad	27
APPENDIX B: LAND USE DEFINITIONS.....	28
RESIDENTIAL DEVELOPMENT	28
NONRESIDENTIAL DEVELOPMENT	29
APPENDIX C: SOUTH CAROLINA DEVELOPMENT IMPACT FEE ACT	30

EXECUTIVE SUMMARY

The Beaufort County School District retained TischlerBise to prepare a Capital Improvement Plan and Development Impact Fee Study. Development impact fees are one-time payments used to construct system improvements needed to accommodate new development. A development impact fee represents new growth's proportionate share of capital facility needs. Development impact fees do have limitations and should not be regarded as the total solution for infrastructure funding needs. Rather, they are one component of a comprehensive portfolio to ensure provision of adequate public facilities needed to serve new development. In contrast to general taxes, development impact fees may not be used for operations, maintenance, replacement of infrastructure, or correcting existing deficiencies.

BEAUFORT COUNTY SCHOOL DISTRICT SCHOOL DEVELOPMENT IMPACT FEE OVERVIEW

The Beaufort County School District has seen significant residential growth over the past several years and with the growth there has been increased enrollment. Also, this growth is expected to continue in the future. The District currently levies no school impact fees. In 1999, the State of South Carolina enacted new development impact fee enabling legislation. Any initiation of Beaufort County School District development impact fees requires a study that complies with the new enabling legislation.

The Beaufort County School District school development impact fees are derived using the incremental expansion approach. This approach determines current level of service standards for school buildings (i.e., elementary, middle, and high), land for school sites, and school buses. Level of service standards are derived using 2018-2019 permanent capacity and are expressed as follows:

1. School buildings: Square feet per student by type of school
2. Land: Acres per student by type of school
3. School buses: buses per student districtwide

Credits are included in the development impact fee to account for outstanding and anticipated debt on existing and future school facilities. Further details on the approach, levels of service, costs, and credits are provided in the body of this report.

GENERAL LEGAL FRAMEWORK

Both state and federal courts have recognized the imposition of impact fees on development as a legitimate form of land use regulation, provided the fees meet standards intended to protect against regulatory takings. Land use regulations, development exactions, and impact fees are subject to the Fifth Amendment prohibition on taking of private property for public use without just compensation. To comply with the Fifth Amendment, development regulations must be shown to substantially advance a legitimate governmental interest. In the case of impact fees, that interest is in the protection of public health, safety, and welfare by ensuring that development is not detrimental to the quality of essential public services. The means to this end is also important, requiring both procedural and substantive due

process. The process followed to receive community input, with stakeholder meetings, work sessions, and public hearings provide opportunity for comments and refinements to the impact fees.

There is little federal case law specifically dealing with impact fees, although other rulings on other types of exactions (e.g., land dedication requirements) are instructive. In one of the most important exaction cases, the U. S. Supreme Court found that a government agency imposing exactions on development must demonstrate an “essential nexus” between the exaction and the interest being protected (see *Nollan v. California Coastal Commission*, 1987). In a more recent case (*Dolan v. City of Tigard, OR*, 1994), the Court ruled that an exaction also must be “roughly proportional” to the burden created by development. However, the Dolan decision appeared to set a higher standard of review for mandatory dedications of land than for monetary exactions such as impact fees.

There are three reasonable relationship requirements for impact fees that related closely to “rational nexus” or “reasonable relationship” requirements enunciated by a number of state courts. Although the term “dual rational nexus” is often used to characterize the standard by which courts evaluate the validity of impact fees under the U.S. Constitution, we prefer a more rigorous formulation that recognizes three elements: “need,” “benefit,” and “proportionality.” The dual rational nexus test explicitly addresses only the first two, although proportionality is reasonably implied, and was specifically mentioned by the U.S. Supreme Court in the Dolan case. Individual elements of the nexus standard are discussed further in the following paragraphs.

All new development in a community creates additional demands on some, or all, public facilities provided by local government. If the capacity of facilities is not increased to satisfy that additional demand, the quality or availability of public services for the entire community will deteriorate. Impact fees may be used to recover the cost of development-related facilities, but only to the extent that the need for facilities is a consequence of development that is subject to the fees. The Nollan decision reinforced the principle that development exactions may be used only to mitigate conditions created by the developments upon which they are imposed. That principle clearly applies to impact fees. In this study, the impact of development on infrastructure needs is analyzed in terms of quantifiable relationships between various types of development and the demand for specific facilities, based on applicable level of service standards.

The requirement that exactions be proportional to the impacts of development was clearly stated by the U.S. Supreme Court in the Dolan case and is logically necessary to establish a proper nexus. Proportionality is established through the procedures used to identify development-related capital costs, and in the methods used to calculate impact fees for various types of facilities and categories of development. The demand for facilities is measured in terms of relevant and measurable attributes of development (e.g. a typical housing unit’s household size).

SOUTH CAROLINA DEVELOPMENT IMPACT FEE ACT

The State of South Carolina grants the power for cities and counties to collect impact fees on new development pursuant to the provisions set forth in the South Carolina Development Impact Fee Act

(Code of Laws of South Carolina, Section 6-1-910 et seq.). The process to create a local impact fee system begins with a resolution by the County Council directing the Planning Commission to conduct an impact fee study and recommend a development impact fee ordinance for legislative action.

Generally, a governmental entity must have an adopted comprehensive plan to enact impact fees; however, certain provisions in State law allow counties, cities, and towns that have not adopted a comprehensive plan to impose development impact fees. Those jurisdictions must prepare a capital improvement plan as well as prepare a development impact fee study that substantially complies with Section 6-1-960(B) of the Code of Laws of South Carolina.

All counties, cities, and towns are also required to prepare a report that estimates the effect of impact fees on the availability of affordable housing before imposing development impact fees on residential dwelling units. Based on the findings of the study, certain developments may be exempt from development impact fees when all or part of the project is determined to create affordable housing, and the exempt development's proportionate share of system improvements is funded through a revenue source other than development impact fees. A housing affordability analysis in support of the development impact fee study is published at the end of this report.

Eligible costs may include design, acquisition, engineering, and financing attributable to those improvements recommended in the local capital improvements plan that qualify for impact fee funding. Revenues collected by the county, city, or town may not be used for administrative or operating costs associated with imposing the impact fee. All revenues from impact fees must be maintained in an interest-bearing account prior to expenditure on recommended improvements. Monies must be returned to the owner of record of the property for which the impact fee was collected if they are not spent within three years of the date they are scheduled to be encumbered in the local capital improvements plan. All refunds to private landowners must include the pro rata portion of interest earned while on deposit in the impact fee account.

If ultimately adopted, the Beaufort County School District would also be responsible for preparing and publishing an annual report describing the amount of development impact fees collected, appropriated, and spent during the preceding year. Subsequent to adoption of a development impact fee ordinance, the Beaufort County Planning Commission will be required to review and update the development impact fee study report, capital improvements plan, housing affordability analysis, and development impact fee ordinance. These updates must occur at least once every five years. Pursuant to State Law, the Beaufort County School District will not be empowered to recommend additional projects eligible for impact fee funding or charge higher than the maximum supportable impact fees until the development impact fee study and capital improvement plan are updated.

CONCEPTUAL DEVELOPMENT IMPACT FEE CALCULATION

In contrast to project-level improvements, development impact fees fund growth-related infrastructure that will benefit multiple development projects, or the entire jurisdiction (referred to as system improvements). The first step is to determine an appropriate demand indicator for the infrastructure.

The demand indicator measures the number of demand units for each unit of development. For example, an appropriate indicator of the demand for schools is the population growth of school age children. The increases in that population can be estimated from the average number of students per housing unit. The second step in the development impact fee formula is to determine infrastructure units per demand unit, typically called level of service (LOS) standards. In keeping with the school example, a common LOS standard is square footage of school space per student, for each type of school (elementary, middle, and high). The third step in the development impact fee formula is the cost of various infrastructure units. To complete the school example, this part of the formula would establish the cost per square foot for school facility construction.

GENERAL METHODOLOGIES

There are three general methods for calculating development impact fees. The choice of a method depends primarily on the timing of infrastructure construction (past, concurrent, or future) and service characteristics of the facility type being addressed. Each method has advantages and disadvantages in a particular situation and can be used simultaneously for different cost components.

Reduced to its simplest terms, the process of calculating development impact fees involves two main steps: (1) determining the cost of development-related capital improvements and (2) allocating those costs equitably to various types of development. In practice, though, the calculation of impact fees can become quite complicated because of the many variables involved in defining the relationship between development and the need for facilities within the designated service area. The following paragraphs discuss three basic methods for calculating development impact fees and how those methods can be applied.

Cost Recovery (Past Improvements)

The rationale for recoupment, often called cost recovery, is that new development is paying for its share of the useful life and remaining capacity of facilities already built, or land already purchased, from which new growth will benefit. This methodology is often used for utility systems that must provide adequate capacity before new development can take place.

Incremental Expansion (Concurrent Improvements)

The incremental expansion method documents current level of service (LOS) standards for each type of public facility, using both quantitative and qualitative measures. This approach ensures that there are no existing infrastructure deficiencies or surplus capacity in infrastructure. New development is only paying its proportionate share for growth-related infrastructure. Revenue will be used to expand or provide additional facilities, as needed, to accommodate new development. **An incremental expansion cost method is best suited for public facilities that will be expanded in regular increment to keep pace with development, and is the methodology used for this school development impact fee calculation.**

Plan-Based Fee (Future Improvements)

The plan-based method allocates costs for a specified set of improvements to a specified amount of development. Improvements are typically identified in a long-range facility plan and development potential is identified by a land use plan. There are two options for determining the cost per demand unit: (1) total cost of a public facility can be divided by total demand units (average cost), or (2) the growth-share of the public facility cost can be divided by the net increase in demand units over the planning timeframe (marginal cost).

Credits

Regardless of the methodology, a consideration of “credits” is integral to the development of a legally defensible development impact fee methodology. There are two types of “credits” with specific characteristics, both of which should be addressed in development impact fee studies and ordinances.

- First, a revenue credit might be necessary if there is a double payment situation and other revenues are contributing to the capital costs of infrastructure to be funded by impact fees. This type of credit is integrated into the impact fee calculation, thus reducing the fee amount.
- Second, a site-specific credit or developer reimbursement might be necessary for dedication of land or construction of system improvements funded by impact fees. This type of credit is addressed in the administration and implementation of the impact fee program.

SERVICE/BENEFIT AREA

Based on projected growth and available school capacity, over the next ten years there are capacity needs in the school attendance zones south of the Broad River. However, over the next ten years there are no capacity needs projected in the school attendance zones north of the Broad River. To ensure the development impact fee study is meeting the required “rational nexus”, **TischlerBise recommends a development impact fee in only the South of the Broad Service Area.** By only applying the development impact fee to new growth in the South, new residents in the South will be certain that they are receiving a benefit from the fee. **Furthermore, new residents in the North will not be charged a fee without receiving a benefit.**

Figure 1. Map of Service Areas



MAXIMUM SUPPORTABLE IMPACT FEE SCHEDULE

As documented in this report, the Beaufort County School District has complied with the South Carolina Development Impact Fee Act and applicable legal precedents. The development impact fees proposed are proportionate and reasonably related to capital improvement demands of new development. Specific costs have been identified using local data and current dollars. This report documents the formulas and input variables used to calculate the school impact fees. Development impact fee methodologies also identify the extent to which new development is entitled to various types of credits to avoid potential double payment of growth-related capital costs.

School development impact fees are applied only to residential development and are per housing unit, reflecting the proportionate demand by type of unit. The amounts shown are “maximum supportable” amounts based on the methodologies, levels of service, and costs for the capital improvements identified herein. The fees represent the highest amount feasible for each type of applicable development, which represent new growth’s fair share of the school capital costs detailed in this report. The District, through Beaufort County, can adopt amounts that are lower than the maximum amounts

shown; however, a reduction in fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in the School District’s level of service.

Figure 2 provides the maximum supportable school development impact fees for the Beaufort County School District in the South Service Area. For a single family unit, the maximum supportable fee amount is \$9,535 per unit. For a multifamily unit, the maximum supportable development impact fee amount is \$4,508.

Figure 2. Maximum Supportable School Development Impact Fees – South Service Area

Maximum Supportable School Impact Fee				
Housing Type	<i>Elementary (K-5)</i>	<i>Middle (6-8)</i>	<i>High (9-12)</i>	Maximum Supportable Fee
Single Family	\$3,635	\$2,229	\$3,671	\$9,535
Multifamily	\$2,350	\$891	\$1,267	\$4,508

A note on rounding: calculations throughout this report are based on an analysis conducted using Excel software. Most results are discussed in the report using one, two, and three digit places, which represent rounded figures. However, the analysis itself uses figures carried to their ultimate decimal places; therefore, the sums and products generated in the analysis may not equal the sum or product if the reader replicates the calculation with the factors shown in the report (due to the rounding of figures shown, not in the analysis).

STUDENT GENERATION RATES AND PROJECTED ENROLLMENT

STUDENT GENERATION RATES

Section 6-1-960(3) of the South Carolina Development Impact Fee Act requires:

“a definitive table establishing the specific service unit for each category of system improvements and an equivalency or conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial, agricultural, and industrial, as appropriate.”

Demand for additional school capacity will come from new residential development. To determine the level of this demand, student generation rates are used as the “service unit” for the school development impact fees. The term “student generation rate” refers to the number of non-charter, public school students per housing unit within the Beaufort County School District. Public school students are a subset of school-aged children, which includes students in private schools and home-schooled children. Student generation rates are important demographic factors that help account for variations in demand for school facilities by type of housing. Students per housing unit are held constant over the projection period since the impact fees represent a “snapshot approach” of current levels of service and costs.

Student generation rates for the Beaufort County School District were developed by TischlerBise, based on housing unit and person data provided by the U.S. Census Bureau, 5-Year American Community Survey Public Use Microdata (2017). The results from the public use microdata is countywide, so student generation rates were scaled proportionately to the South Service Area based on persons per housing unit. The housing unit types that will be used in the impact fee calculations are (1) Single Family and (2) Multifamily. Student generation rates are listed by housing type below in Figure 3. Indicated in the figure, a single family unit is estimated to generate a total of .236 students, with .106 in elementary grades, .056 in middle school grades, and .074 in high school grades. As expected, a multifamily unit has a lower generation rate than a single family unit.

Figure 3. Student Generation Rates by Housing Type – South Service Area

Housing Type	Elem. (K-5)	Middle (6-8)	High (9-12)	All Grade
Single Family	0.106	0.056	0.074	0.236
Multifamily	0.069	0.023	0.026	0.117

Source: US Census Bureau, 5-Year 2017 American Community Survey PUMS data for South Carolina PUMA 01400; TischlerBise analysis

STUDENT ENROLLMENT PROJECTIONS

Section 6-1-960(6) of the South Carolina Development Impact Fee Act requires:

“the total number of service units necessitated by and attributable to new development within the service area, based on the land use assumptions and calculated in accordance with generally accepted engineering or planning criteria.”

Furthermore, the Beaufort County School District offers a Choice program that allows students to choose a learning program that fits a specific learning style or interest. This allows students to enroll in schools outside of their assigned school for the choice program of that school. To have the capacity in schools to offer the Choice program, the District has chosen to follow best practices and established a districtwide and clusterwide **capacity goal of 85%**. The capacity goal to adequately provide the Choice program is included in the following tables under the Choice Capacity column.

Included in the District’s *FY2020-2029 Ten-Year Plan and Capital Budget*, there are 5,759 elementary students and a capacity of 7,049 seats, an 82 percent utilization. Furthermore, to allow for the Choice Program to continue capacity levels must stay below 85 percent. According to the District’s *Ten-Year Plan*, student enrollment is projected to increase at a 2 percent annual growth rate in the South Service Area. Shown in Figure 4, the elementary school enrollment is projected to nearly reach current available capacity. Also, the projected increase in students exceeds the thresholds for the Choice Program.

Note: the current enrollment listed in Figure 4 differs from the enrollment used in the level of service calculations. Figure 4 data is listed to illustrate the future need from new students, while the enrollment used in the level of service is more recent and reflects a student total 45 days after the school year began.

Figure 4. Projected South Service Area Elementary School Enrollment

Beaufort County School District - Elementary					
Year		Total Capacity	Enrollment	Total Capacity Utilization	Choice Program Capacity Utilization [1]
Base	2019	7,049	5,759	82%	96%
1	2020	7,049	5,885	83%	98%
2	2021	7,049	5,980	85%	100%
3	2022	7,049	6,109	87%	102%
4	2023	7,049	6,177	88%	103%
5	2024	7,049	6,301	89%	105%
6	2025	7,049	6,427	91%	107%
7	2026	7,049	6,555	93%	109%
8	2027	7,049	6,686	95%	112%
9	2028	7,049	6,820	97%	114%
10	2029	7,049	6,956	99%	116%

[1] Choice capacity is the building capacity the District needs to keep all schools available for the Choice program, using the 85 percent recommendation

Source: Beaufort County School District FY2020-2029 Ten-Year Plan and Capital Budget

Listed in Figure 5, there are 3,130 middle students and a capacity of 3,329 seats, a 94 percent utilization. At the current level, the Choice Program cannot continue because the capacity utilization level has exceeded 85 percent. Based on the annual average growth rate, the middle school enrollment is projected to exceed current capacity by 478 students, a capacity utilization of 114 percent.

Note: the current enrollment listed in Figure 5 differs from the enrollment used in the level of service calculations. Figure 5 data is listed to illustrate the future need from new students, while the enrollment used in the level of service is more recent and reflects a student total 45 days after the school year began.

Figure 5. Projected South Service Area Middle School Enrollment

Beaufort County School District - Middle					
Year		Total Capacity	Enrollment	Total Capacity Utilization	Choice Program Capacity Utilization [1]
Base	2019	3,329	3,130	94%	111%
1	2020	3,329	3,301	99%	117%
2	2021	3,329	3,307	99%	117%
3	2022	3,329	3,300	99%	117%
4	2023	3,329	3,380	102%	119%
5	2024	3,329	3,448	104%	122%
6	2025	3,329	3,517	106%	124%
7	2026	3,329	3,587	108%	127%
8	2027	3,329	3,659	110%	129%
9	2028	3,329	3,732	112%	132%
10	2029	3,329	3,806	114%	135%

[1] Choice capacity is the building capacity the District needs to keep all schools available for the Choice program, using the 85 percent recommendation

Source: Beaufort County School District FY2020-2029 Ten-Year Plan and Capital Budget

Listed in Figure 6, there are 4,032 high students and a capacity of 4,216 seats, a 96 percent utilization. At the current level, the Choice Program cannot continue because the capacity utilization level has exceeded 85 percent. Based on the annual average growth rate, the high school enrollment is projected to exceed current capacity by 829 students, a capacity utilization of 120 percent.

Note: the current enrollment listed in Figure 6 differs from the enrollment used in the level of service calculations. Figure 6 data is listed to illustrate the future need from new students, while the enrollment used in the level of service is more recent and reflects a student total 45 days after the school year began.

Figure 6. Projected South Service Area High School Enrollment

Beaufort County School District - High					
Year		Total Capacity	Enrollment	Total Capacity Utilization	Choice Program Capacity Utilization [1]
Base	2019	4,216	4,032	96%	113%
1	2020	4,216	4,190	99%	117%
2	2021	4,216	4,369	104%	122%
3	2022	4,216	4,530	107%	126%
4	2023	4,216	4,480	106%	125%
5	2024	4,216	4,570	108%	128%
6	2025	4,216	4,661	111%	130%
7	2026	4,216	4,754	113%	133%
8	2027	4,216	4,849	115%	135%
9	2028	4,216	4,946	117%	138%
10	2029	4,216	5,045	120%	141%

[1] Choice capacity is the building capacity the District needs to keep all schools available for the Choice program, using the 85 percent recommendation

Source: Beaufort County School District FY2020-2029 Ten-Year Plan and Capital Budget

These projections differ from a recently published report conducted by McKibben Demographics. In the *Beaufort County Schools, SC Demographic Study (2019)* a similar analysis as the District’s *Ten-Year Plan and Capital Budget* was conducted; however, different projections resulted. In the demographic study, it is projected that the District will lose 142 students over the next ten years. A consequence of such results would be that no new schools or school expansions would be necessary to accommodate future growth. This is inconsistent with the current growth being observed, the District’s Capital Improvement Plan, and the projected housing growth in Beaufort County (TischlerBise is performing a Development Impact Fee Study for Beaufort County in conjunction with this study). Therefore, it was determined that the Development Impact Fee Study’s enrollment projections would be consistent with those in the District’s Capital Improvement Plan.

SCHOOL LEVEL OF SERVICE

OVERVIEW OF CURRENT SCHOOL FUNDING ARRANGEMENTS

Section 6-1-960(8) of the South Carolina Development Impact Fee Act requires:

“identification of all sources and levels of funding available to the governmental entity for the financing of the system improvements.”

In South Carolina, the construction of schools is largely the responsibility of each School District. In the case of the Beaufort County School District, the District is 100% responsible for the funding of new school capacity. Historically, the District has funded new school construction through the issuance of bonds, backed by property tax revenue. South Carolina’s State Constitution allows government entities to issue bonds to fund capital projects (construction of new schools and improvements to existing schools). The District has never collected development impact fees on new construction of residential units. The District is interested in adopting school development impact fees and applying the revenue to reduce the amount of principal the District needs to bond to construct needed school facilities in the future. In order to lessen the burden on existing residents and businesses of funding growth-related school capacity needs, the District has determined a development impact fee structure needs to be implemented to reflect current levels of service and costs.

SCHOOL FACILITY LEVEL OF SERVICE STANDARDS

Section 6-1-960(1) of the South Carolina Development Impact Fee Act requires:

“a general description of all existing facilities and their existing deficiencies, within the service area or areas of the governmental entity, a reasonable estimate of all costs, and a plan to develop the funding resources, including existing sources of revenues, related to curing existing deficiencies including, but not limited to, the upgrading, updating, improving, expanding, or replacing of these facilities to meet existing needs and usage.”

Section 6-1-960(2) of the South Carolina Development Impact Fee Act requires:

“an analysis of total capacity, the level of current usage, and commitments for usage of capacity of existing public facilities, which must be prepared by a qualified professional using generally accepted principles and professional standards.”

This section provides current inventories of elementary, middle, and high schools in the South Service Area of Beaufort County School District. The data contained in these tables are used to determine infrastructure standards for school buildings and sites on which the development impact fees are based. School buses are included in this analysis as well.

South Service Area Elementary Schools

The inventory and current levels of service for elementary schools in the South Service Area are shown below in Figure 7. As indicated, elementary school buildings have a total of 831,765 square feet of

building floor area on 207.6 acres. Total enrollment in all elementary schools (ES) for the 2018-2019 school year is 5,914 and total capacity is 7,049. In the 2018-2019 school year, capacity utilization for the elementary schools in the South is 84 percent.

Levels of service are shown for buildings and land for elementary schools at the bottom of Figure 7. Levels of service are calculated by dividing the amount of infrastructure by total enrollment and capacity. For example, 831,765 square feet of school building space is divided by a capacity of 7,049 students to arrive at 117.99 square feet per student.

Since elementary schools overall are currently operating under capacity, there are no existing deficiencies. Therefore, *the level of service standard on which the impact fees are based is calculated using existing capacity* (shaded in Figure 7). This ensures new development is not charged for a higher level of service than what is currently provided or what is planned to be provided, using a level of service that is based on capacity represents the level of service the District provides (or will ultimately provide). Levels of service differ when calculated based on enrollment and capacity. For example, the building square footage level of service is 140.64 square feet per student when based on enrollment versus a level of service of 117.99 square feet per student when based on capacity.

Current levels of service are:

- **Buildings: 117.99 square feet per student**
- **Land: 0.0295 acres per student**

Figure 7. Elementary School Inventory – South Service Area

Facility	Building Sq Ft	Acreage	2019 Enrollment	Capacity	Utilization
HHI-ECC	47,010	9.1	273	314	87%
HHIES	163,591	28.6	890	1,128	79%
HHI-SCA	118,543	23.4	644	921	70%
Bluffton ES	73,843	23.3	619	866	71%
Michael C. Riley ES	64,080	25.8	682	849	80%
Okatie ES	85,022	45.4	571	632	90%
Pritchardville ES	101,149	23.8	850	880	97%
Red Cedar ES	88,487	12.2	588	704	84%
River Ridge Academy	90,040	16.1	797	755	106%
Total	831,765	207.6	5,914	7,049	84%

<i>Elementary School Levels of Service</i>	<i>Building SF</i>	<i>Land</i>
LOS per Student (current enrollment)	140.64	0.0351
LOS per Student (current capacity)	117.99	0.0295

Source: Beaufort County School District. Enrollment totals reflect attendance 45 days into the school year.

South Service Area Middle Schools

The inventory and current levels of service for middle schools are shown in Figure 8. As indicated, middle school buildings have a total of 450,872 square feet of gross floor area on approximately 100.7

acres. Total enrollment in all middle schools for the 2018-2019 school year is 2,997 and total capacity is 3,329. Overall, middle schools are operating at 90 percent capacity utilization.

Levels of service are shown for buildings and land for middle schools at the bottom of Figure 8. Since middle schools overall are currently operating under capacity, there are no existing deficiencies. Therefore, *the level of service standard on which the impact fees are based is calculated using existing capacity* (shaded in Figure 8). Levels of service are calculated by dividing the amount of infrastructure by capacity. For example, 450,872 square feet of school building space is divided by middle school total capacity of 3,329 students to arrive at 135.45 square feet per student.

Current levels of service are:

- **Buildings: 135.68 square feet per student**
- **Land: 0.0303 acres per student**

Figure 8. Middle School Inventory – South Service Area

Facility	Building Sq Ft	Acreage	2019 Enrollment	Capacity	Utilization
Hilton Head MS	133,565	25.5	1,023	1,007	102%
Bluffton MS	139,215	41.9	784	1,035	76%
River Ridge Academy	45,020	8.1	399	378	106%
H.E. McCracken MS	133,072	25.2	791	909	87%
TOTAL	450,872	100.7	2,997	3,329	90%

<i>Middle School Levels of Service</i>	<i>Building SF</i>	<i>Land</i>
LOS per Student (current enrollment)	150.46	0.0336
LOS per Student (current capacity)	135.45	0.0303

Source: Beaufort County School District. Enrollment totals reflect attendance 45 days into the school year.

South Service Area High Schools

The inventory and current levels of service for high schools are shown in Figure 9. As indicated, high school buildings have a total of 653,384 square feet of gross floor area on approximately 299.4 acres. Total enrollment in all high schools for the 2018-2019 school year is 3,876 and total capacity is 4,216. Overall, high schools are operating at 92 percent capacity.

Levels of service are shown for buildings and land for high schools at the bottom of Figure 9. Since high schools overall are currently operating under capacity, there are no existing deficiencies. Therefore, *the level of service standard on which the impact fees are based is calculated using existing capacity* (shaded in Figure 9). Levels of service are calculated by dividing the amount of infrastructure by capacity. For example, 653,384 square feet of school building space is divided by high school total capacity of 4,216 students to arrive at 154.98 square feet per student.

Current levels of service are:

- **Buildings: 154.98 square feet per student**
- **Land: 0.071 acres per student**

Figure 9. High School Inventory – South Service Area

Facility	Building Sq Ft	Acreage	2019 Enrollment	Capacity	Utilization
Hilton Head HS	231,768	35.0	1,300	1,382	94%
Bluffton HS	183,000	39.8	1,219	1,434	85%
May River HS	238,616	224.5	1,357	1,400	97%
TOTAL	653,384	299.4	3,876	4,216	92%

High School Levels of Service	Building SF	Land
LOS per Student (current enrollment)	168.57	0.0772
LOS per Student (current capacity)	154.98	0.0710

Source: Beaufort County School District. Enrollment totals reflect attendance 45 days into the school year.

School Buses

The District owns a fleet of buses, which will need to be expanded to accommodate enrollment. The District’s current fleet includes 57 buses, which have a purchase price of \$100,000. The bus fleet operates on a districtwide basis, so the level of service must be calculated as such. When the number of buses is compared to the current districtwide enrollment of 20,629, the level of service standard is 0.0028 buses per student.

Figure 10. Beaufort County School District Buses

Vehicle Type	District Owned Units	District Enrollment	Buses per Student
School Buses	57	20,629	0.0028

Source: Beaufort County School District. Enrollment totals reflect attendance 45 days into the school year.

SCHOOL IMPACT FEE CALCULATION

METHODOLOGY

The Beaufort County School District school development impact fee methodology is based on current average public school student generation rates, level of service standards, and local costs. The school development impact fees use an incremental expansion approach, which documents the current level of service for public facilities in both quantitative and qualitative measures. The intent is to use development impact fee revenue to expand or provide additional capital school facilities, as needed to accommodate new development, based on the current level of service and cost to provide capital improvements. All school levels are included in the development impact fees. Costs for school buildings, land for school sites, and school buses are included in the fee. Finally, credits for future principal payments towards debt is included.

SERVICE/BENEFIT AREA

Based on projected growth and available school capacity, over the next ten years there are capacity needs in the school attendance zones south of the Broad River. However, over the next ten years there are no capacity needs projected in the school attendance zones north of the Broad River. To ensure the development impact fee study is meeting the required “rational nexus”, **TischlerBise recommends a development impact fee in only the South of the Broad Service Area**. By only applying the development impact fee to new growth in the South, new residents in the South will be certain that they are receiving a benefit from the fee. **Furthermore, new residents in the North will not be charged a fee without receiving a benefit.**

COST ASSUMPTIONS

The Beaufort County School District is responsible for 100% of new school construction costs. The construction cost assumptions are based on estimates provided by the Beaufort County School District staff. The estimated cost assumptions are \$300 per square foot for school construction, \$100,000 per acre of land, and \$100,000 per school bus.

Figure 11. Facility Cost Assumptions

Facility Type	Cost
School Construction (per sq. ft.)	\$300
School Land (per acre)	\$100,000
School Bus	\$100,000

Source: Beaufort County School District

CREDITS FOR FUTURE PRINCIPAL PAYMENTS ON EXISTING SCHOOL IMPROVEMENTS

Section 6-1-990(B)(3) of the South Carolina Development Impact Fee Act requires and analysis of:

“extent to which the new development contributes to the cost of system improvements”

Because the Beaufort County School District debt-financed recent school capacity expansions, a credit is included for future principal payments on outstanding debt. A credit is necessary since new residential units that will pay the development impact fee will also contribute to future principal payments on this remaining debt through property taxes. A credit is not necessary for interest payments because interest costs are not included in the development impact fee. This credit for outstanding debt is credited to residential development at a rate of 35.1 percent, which is the residential percentage of the overall taxable value of real property within the Beaufort County School District.

Figure 12. Beaufort County Assessed Value by Property Type

Property Type	Assessed Value	% of Total
Owner Occupied	\$589,917,460	35.1%
Commercial/Rental Property	\$1,024,726,380	61.0%
Manufacturing	\$2,278,944	0.1%
Fee-in-Lieu	\$6,753,302	0.4%
Utility	\$54,885,480	3.3%
Total	\$1,678,561,566	100.0%

Source: Beaufort County School District CAFR 2018

As shown in Figure 13, outstanding debt from school capacity expansion projects allocated to residential development is estimated at approximately \$102 million. Annual principal payments are divided by student enrollment in each year to determine a per student credit. For example, in 2020, the total principal paid by the residential tax base (\$11,452,077) is divided by projected enrollment of 21,387 for a payment per student of \$535. To account for the time value of money, annual payments per student are discounted using a net present value formula based on an average interest rate of 2.5%. The total net present value of future principal payments per student is \$4,053. This amount is subtracted from the gross capital cost per student to derive a net capital cost per student.

Figure 13. Credit for Future Principal Payments on Existing Debt

Year	Principal Payment	Residential 35.1%	Total Enrollment	Payment per Pupil
2019	\$35,961,000	\$12,622,311	20,970	\$602
2020	\$32,627,000	\$11,452,077	21,387	\$535
2021	\$32,212,621	\$11,306,630	21,530	\$525
2022	\$28,129,000	\$9,873,279	21,769	\$454
2023	\$29,482,000	\$10,348,182	21,698	\$477
2024	\$19,430,000	\$6,819,930	21,902	\$311
2025	\$19,430,000	\$6,819,930	22,113	\$308
2026	\$19,430,000	\$6,819,930	22,330	\$305
2027	\$19,430,000	\$6,819,930	22,553	\$302
2028	\$19,430,000	\$6,819,930	22,784	\$299
2029	\$6,685,000	\$2,346,435	23,021	\$102
2030	\$6,685,000	\$2,346,435	23,251	\$101
2031	\$6,685,000	\$2,346,435	23,483	\$100
2032	\$6,685,000	\$2,346,435	23,718	\$99
2033	\$6,685,000	\$2,346,435	23,955	\$98
2034	\$1,855,000	\$651,105	24,195	\$27
Total	\$290,841,621	\$102,085,409		\$4,647
			Discount Rate	2.50%
			Total Credit per Pupil	\$4,053

Source: Beaufort County School District CAFR 2018

CREDIT FOR 2019 BOND REFERENDUM

The recent voter approved bond referendum will help the District improve school safety, renovate facilities, and add classroom space to address enrollment growth. To ensure that new residents are not double paying for capital improvements, a credit is included in the impact fee analysis.

In summary, the bond referendum included two ballot questions to the voters, and both were approved. There is \$26 million of capacity increasing projects districtwide. The bond will be repaid with property tax revenue and to attribute the appropriate amount of the future payments to residential development, the current percentage of the countywide assessed value is applied (35.1 percent).

Figure 14. Countywide Property Assessed Value

Property Type	Assessed Value	Percent
Owner Occupied	\$589,917,460	35.1%
Commercial/Rental Property	\$1,024,726,380	61.0%
Manufacturing	\$2,278,944	0.1%
Fee-in-Lieu	\$6,753,302	0.4%
Utility	\$54,885,480	3.3%
Total	\$1,678,561,566	100.0%

Source: Beaufort County School District CAFR 2018

A payment schedule is not yet available, so listed in Figure 15, TischlerBise has estimated the future payments of the bond based on a 20-year schedule. Annual principal payments are divided by student enrollment in each year to determine a per student credit. For example, in 2020, the principal paid by the residential tax base (\$1,017,825) is divided by projected enrollment of 21,387 for a payment per student of \$17. To account for the time value of money, annual payments per student are discounted using a net present value formula based on an average interest rate of 2.5%. The total net present value of future principal payments per student is \$301. This amount is subtracted from the gross capital cost per student to derive a net capital cost per student.

Figure 15. Credit for 2019 Bond Referendum

Year	Principal Payment	Residential 35.1%	Total Enrollment	Payment per Pupil
2020	\$1,017,825	\$357,257	21,387	\$17
2021	\$1,043,271	\$366,188	21,530	\$17
2022	\$1,069,353	\$375,343	21,769	\$17
2023	\$1,096,087	\$384,726	21,698	\$18
2024	\$1,123,489	\$394,345	21,902	\$18
2025	\$1,151,576	\$404,203	22,113	\$18
2026	\$1,180,365	\$414,308	22,330	\$19
2027	\$1,209,874	\$424,666	22,553	\$19
2028	\$1,240,121	\$435,283	22,784	\$19
2029	\$1,271,124	\$446,165	23,021	\$19
2030	\$1,302,902	\$457,319	23,251	\$20
2031	\$1,335,475	\$468,752	23,483	\$20
2032	\$1,368,862	\$480,471	23,718	\$20
2033	\$1,403,083	\$492,482	23,955	\$21
2034	\$1,438,161	\$504,794	24,195	\$21
2035	\$1,474,115	\$517,414	24,437	\$21
2036	\$1,510,967	\$530,350	24,681	\$21
2037	\$1,548,742	\$543,608	24,928	\$22
2038	\$1,587,460	\$557,199	25,177	\$22
2039	\$1,627,147	\$571,128	25,429	\$22
Total	\$26,000,000	\$9,126,000		\$391
			Discount Rate	2.50%
			Total Credit per Pupil	\$301

Source: TischlerBise estimated payment schedule

SCHOOL DEVELOPMENT IMPACT FEE INPUT VARIABLES

Factors used to derive the Beaufort County School District’s school development impact fees are summarized in Figure 16. Development impact fees for schools are based on student generation rates (i.e., public school students per housing unit) and are only assessed on residential development. Level of service standards are based on current costs per student for school buildings, school land, and school buses, as described in the previous sections and summarized below.

The gross capital cost per student is the sum of the cost per student for each component. For example, for the elementary school portion, the calculation is as follows: $\$35,397$ [building construction] + $\$2,950$ [land] + $\$280$ [buses] = $\$38,627$ gross capital cost per student.

The net local capital cost per student is the sum of the gross capital cost per student and the recommended credits. Continuing with the elementary school example, the calculation is as follows: $\$38,627$ [gross capital cost per student] - $\$4,053$ [credit for future payments on existing debt service principal] - $\$301$ [credit for future payments on 2019 bond referendum] = $\$34,273$ net local capital cost per student. The same approach is followed for middle schools and high schools.

Figure 16. School Development Impact Fee Input Variables

Student Generation Rates [1]	School Level			Total
	Elementary (K-5)	Middle (6-8)	High (9-12)	
Housing Type				
Single Family	0.106	0.056	0.074	0.236
Multifamily	0.069	0.023	0.026	0.117

Current Level of Service Standards			
	Elementary	Middle	High
School Floor Area per Student (sq. ft.)	117.99	135.45	154.98
School Cost per Sq. Ft. [2]	\$300	\$300	\$300
School Construction Cost per Student	\$35,397	\$40,635	\$46,494
School Land per Student (acres)	0.0295	0.0303	0.071
Land Cost per Acre [2]	\$100,000	\$100,000	\$100,000
Land Cost per Student	\$2,950	\$3,030	\$7,100
District Owned Buses per Student	0.0028	0.0028	0.0028
Cost per School Bus [2]	\$100,000	\$100,000	\$100,000
School Bus Cost per Student	\$280	\$280	\$280
Total Gross Capital Cost per Student	\$38,627	\$43,945	\$53,874
Credit for Existing Debt per Student	\$4,053	\$4,053	\$4,053
Credit for 2019 Bond per Student	\$301	\$301	\$301
Total Net Local Capital Cost Per Student	\$34,273	\$39,591	\$49,520

[1] Source: US Census Bureau, 5-Year 2017 American Community Survey PUMS data for South Carolina PUMA 01400; TischlerBise analysis

[2] Source: Beaufort County School District

MAXIMUM SUPPORTABLE SCHOOL DEVELOPMENT IMPACT FEES

Figure 17 shows the schedule of maximum supportable development impact fees for the South of the Broad Service Area. The development impact fees are calculated by multiplying the student generation rate for each housing type (shown in Figure 3) by the net capital cost per student for each type of school. Each component is then added together to derive the total school development impact fee.

For example, for a single family unit, the elementary school portion of the development impact fee is calculated by multiplying the student generation rate of .106 by the net local capital cost per elementary student of \$34,273, which results in a fee of \$3,635 per single family unit. This is repeated for the other school levels. Totals for the three school levels of the development impact fee are added together to calculate the total fee per single family unit of \$9,535 ($\$3,635 + \$2,229 + \$3,671 = \$9,535$). This is repeated for the multifamily housing types.

Figure 17. Maximum Supportable School Development Impact Fees – South of the Broad Service Area

Maximum Supportable School Impact Fee				
Housing Type	Elementary (K-5)	Middle (6-8)	High (9-12)	Maximum Supportable Fee
Single Family	\$3,635	\$2,229	\$3,671	\$9,535
Multifamily	\$2,350	\$891	\$1,267	\$4,508

PROJECTED REVENUE FROM MAXIMUM SUPPORTABLE DEVELOPMENT IMPACT FEE

Over the next ten years, there are 10,929 housing units are projected in the South Service Area. Estimated revenue is projected by applying the fee amounts to the projected housing growth. For example, single family development generates \$75.3 million (\$9,535 x 7,898 housing units = \$75,304,749). In total, the development impact fee is estimated to generated \$89 million.

Figure 18. Projected Revenue from Maximum Supportable Development Impact Fee

		Projected Development Impact Fee Revenue	
		Single Family \$9,535 per unit	Multifamily \$4,508 per unit
Year		Housing Units	Housing Units
Base	2019	44,852	15,253
Year 1	2020	45,642	15,555
Year 2	2021	46,431	15,858
Year 3	2022	47,221	16,160
Year 4	2023	48,009	16,464
Year 5	2024	48,798	16,767
Year 6	2025	49,588	17,069
Year 7	2026	50,377	17,372
Year 8	2027	51,166	17,675
Year 9	2028	51,955	17,978
Year 10	2029	52,750	18,283
Ten-Year Increase		7,898	3,031
Projected Revenue		\$75,304,749	\$13,662,761
Projected Revenue =>		<u>\$88,967,511</u>	

CAPITAL IMPROVEMENT PLAN

PLANNED CAPACITY PROJECTS

Section 6-1-960(9) of the South Carolina Development Impact Fee Act requires:

“a schedule setting forth estimated dates for commencing and completing construction of all improvements identified in the capital improvements plan.”

Figure 19 lists the capacity-related projects the Beaufort County School District has planned for the next ten years. Along with school expansion projects, there are several new schools listed in the Capital Improvement Plan to accommodate future growth. The projects total \$174 million.

Figure 19. Beaufort County School District Planned Capacity Projects

Project Description	Location	Year	Amount
Nine Mobile Classrooms	District Level	2020	\$1,378,125
Thirteen Mobile Classrooms	District Level	2021	\$2,257,369
Classroom Wing Addition	River Ridge Academy	2021	\$3,818,715
Wrestling Room	Beaufort HS	2022	\$1,585,521
CATE Building	Beaufort HS	2022	\$5,445,392
Wrestling and Weight Room	Bluffton HS	2022	\$1,585,521
Fieldhouse Facility for Football Stadium	Bluffton HS	2022	\$1,372,003
CATE Building	Bluffton HS	2022	\$5,445,392
Land Purchase for Future School Site	District Level	2022	\$8,103,375
New Wing Addition	May River HS	2022	\$15,327,534
Four Classrooms	River Ridge Academy	2022	\$2,686,269
New School (PK-8)	District Level	2023	\$53,800,600
New School Classroom Addition	District Level	2025	\$16,459,568
New School or School Expansion (PK-8)	District Level	2026	\$50,197,103
Additional Classrooms	Hilton Head HS	2026	\$4,127,503
Total			\$173,589,990

Source: Beaufort County School District 10-Year Capital Improvement Plan

APPENDIX A: HOUSING AFFORDABILITY ANALYSIS

In accordance with the South Carolina Development Impact Fee Act (Code of Laws of South Carolina, Title 6, Article 9, Chapter 1), this appendix estimates the effects of imposing the proposed school development impact fee on the affordability of housing in the Beaufort County School District. The analysis will examine the current household income and housing expenses that burden an average household in the **South of the Broad Service Area**. Next, the maximum school development impact fee will be included in the cost burden analysis to identify the effect the proposed school impact fee will have on affordable housing in the service area.

SOUTH CAROLINA DEVELOPMENT IMPACT FEE ACT

Affordable housing is defined in the South Carolina Development Impact Fee Act as housing to families whose incomes do not exceed 80% of the median income for the service area or areas within the jurisdiction of the governmental entity. The Act does not mention a preferred methodology to examine the household’s whose income does not exceed 80% of the median income. Therefore, the analysis uses the US Housing and Urban Development’s (HUD) criteria that housing costs should be 30% or less of a household’s income. The cost of housing is “moderately burdensome” if its cost burden is over 30% and “severely burdensome” if the ratio is over 50%.

MAXIMUM SUPPORTABLE SCHOOL DEVELOPMENT IMPACT FEE

The school impact fees found in Figure 20 are new development’s fair share of the cost to provide additional school capacity in the Beaufort County School District. The District may recommend, and Beaufort County may adopt on the District’s behalf fees that are less than the amounts shown. However, a reduction in impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service. The housing affordability analysis will assume a conservative condition for assessing the effect of the impact fee on affordable housing in the Beaufort County School District (i.e. the maximum supportable impact fee amount). If the County Council were to choose a lower impact fee amount, the results presented in this report would improve.

Figure 20. Maximum Supportable School Development Impact Fee – South of the Broad Service Area

Maximum Supportable School Impact Fee				
Housing Type	Elementary (K-5)	Middle (6-8)	High (9-12)	Maximum Supportable Fee
Single Family	\$3,635	\$2,229	\$3,671	\$9,535
Multifamily	\$2,350	\$891	\$1,267	\$4,508

HOUSING STOCK

Listed in Figure 21, there are a total of 62,583 housing units in the South of the Broad Service Area. Of the total, 66 percent are occupied by permanent residents. Additionally, there are 31,806 owner-occupied households and 9,581 renter-occupied households. The majority (82 percent) of the housing in the service area is single family units.

Figure 21. Housing Stock Characteristics – South of the Broad

Units in Structure	Owner-Occupied		Renter-Occupied		Renter & Owner Combined					
	Persons	Hsehlds	Persons	Hsehlds	Persons	Hsehlds	Hsg Units	PPHH	PPHU	
Single family [1]	68,284	29,554	14,395	4,270	82,679	33,824	44,748	2.44	1.85	
2 to 4	917	502	2,333	905	3,250	1,407	2,539	2.31	1.28	
5 or more	2,981	1,750	10,370	4,406	13,351	6,156	15,296	2.17	0.87	
Total	72,182	31,806	27,098	9,581	99,280	41,387	62,583	2.40	1.59	
							Vacant HU	21,196		
							Occupancy Rate	66%		
Summary by Type of Housing	Totals									
	Persons	Hsehlds	Hsg Units	PPHH	PPHU	Hhld Mix	Hsg Mix			
Single Family [1]	82,679	33,824	44,748	2.44	1.85	82%	72%			
Multifamily [2]	16,601	7,563	17,835	2.20	0.93	18%	28%			
Total	99,280	41,387	62,583	2.40	1.59	100%	100%			

[1] Includes attached and detached single family homes and mobile homes

[2] Includes all other types

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

HOUSEHOLD INCOME

The purchasing power of southern residents to secure housing is represented by personal income. Personal income includes all wages, tips, and bonuses from employment, as well as retirement income earned from a pension plan or retirement account. In the analysis, household income represents all residents living in the housing unit, no matter relationship. From the US Census Bureau American Community Survey, in 2018 the median annual household income for owner-occupied household in the South Service Area was \$80,527. By using the US Bureau of Labor Statistics' CPI Calculator, the current household income is estimated at \$81,934. The annual income for a household making 80 percent of the area's median is \$65,547, or \$5,462 per month. This is done for renter-occupied households as well.

Figure 22. Median Household Income – South of the Broad

Tenure	Median Annual Hsehold Income (2018)	Median Annual Hsehold Income (2020)	Household Income Factor	80% of Median Annual Income	Monthly Income
Owner-occupied	\$80,527	\$81,934	80%	\$65,547	\$5,462
Renter-occupied	\$49,220	\$50,080	80%	\$40,064	\$3,339

Source: U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates; U.S. Bureau of Labor Statistics CPI Calculator

Note: American Community Survey data represents information as of June, 2018. CPI calculator calculates median income to March, 2020 dollars.

COST OF HOMEOWNERSHIP

The analysis uses seven categories to calculate the baseline cost of homeownership in the South Service Area: purchase price; mortgage payment; property tax; solid waste collection fee; water, sewer and electric utilities; telephone, cable and internet utilities; and homeowners insurance.

Furthermore, monthly household costs vary across the service area. To address this variation, when possible the analysis applies an average. The following section details the costs included.

Purchase Price

The median home value is used to estimate the purchase price of a home. The American Community Survey estimates that the median value of a home in the South Service Area in 2018 was \$364,583 (US Census Bureau, 2014-2018 American Community Survey 5-Year Estimates). With the US Bureau of Labor Statistics' CPI Calculator, the current home value is estimated to be \$370,956.

There are several different impact fees that exist in the South of the Broad Service Area. The average impact fee for Beaufort County, municipalities, and fire districts is estimated at \$4,124. Taking a conservative approach, the full impact fee amount is added to the purchasing price, resulting in the purchasing price increasing to \$375,080.

Mortgage Payment

A conventional, fixed-rate 30-year mortgage is assumed to estimate monthly costs of principle and interest on a home loan. The down payment for a loan is assumed to be 20 percent of the purchase price ($\$375,080 \times 20\% = \$75,016$). The loan amount for the mortgage is determined by subtracting the down payment from the purchase price ($\$375,080 - \$75,016 = \$300,064$). An interest rate of 3.22 percent is assumed for the home purchase based on a survey of competitive interest rates in Beaufort County (www.bankrate.com). The monthly mortgage payment is \$1,301.

Property Tax

To calculate annual property tax, homes in Beaufort County that are permanent residences are subject to 4 percent assessment ratio and a property tax millage rate. Depending on their location, residents are subject to a property tax for municipal services, school services, and fire services. The average total millage rate is 0.133. Assumed in the analysis, annual property tax for the average valued home is \$1,998 ($\$375,080 \times 4\% \times 0.133 = \$1,998$).

Solid Waste Collection Fee

Portion of the South Service Area require a resident to either transport their garbage to a refuse site or hire a private company. For this analysis, a weekly pick-up service was researched online. The service was found to cost an average of \$17 per month (May River Disposal).

Water, Sewer, and Electric Utilities

From the Beaufort – Jasper Water & Sewer Authority, an average household consumes 7,000 gallons of water a month. By combining the water usage with the Authority’s water rate, a monthly charge for water of \$33.60 is estimated.

On average, a household generates 7,000 gallons of wastewater per month. Based on the sewer rates, a household that generates the average amount of wastewater will be charged the maximum amount, \$55 per month.

Additionally, for an average household that uses 1,000 kilowatts of electricity per month, Dominion Energy charges \$127.13.

As a result, the average monthly bill for these utilities is \$216.

Telephone, Cable, and Internet Utilities

Spectrum is a provider of telephone, cable, and internet in Beaufort County. From their website, the three services costs \$90 per month.

Homeowner’s Insurance

Homeowner’s insurance provides protection for the home and is generally required when a home has a mortgage. The average cost for homeowner’s insurance in Beaufort County is estimated to be \$800 per year (www.insurance.com).

Total Monthly Homeownership Cost

By compiling the month obligations, it is estimated that the monthly cost for homeownership is \$1,857. At the end of this chapter the monthly costs are listed in Figure 25.

COST OF RENTING

The cost of renting a home in the South of the Broad Service Area is estimated with data provided by the US Census Bureau. In 2018, the median gross rent (including all utilities and rental insurance) is estimated to be \$1,298. With the US Bureau of Labor Statistics’ CPI Calculator, the current cost of renting is estimated to be \$1,320.

COST BURDEN ANALYSIS

The cost burden for affordable housing is measured as the ratio between monthly payments for housing (including property tax, fee, utilities, and insurance) and monthly gross household income. An analysis was conducted for residents that purchase a home and residents that rent a home. A cost burden ratio of 30 percent is used as the threshold to determine housing affordability in the South Service Area.

Scenario 1: Baseline Conditions

Figure 23 summarizes the cost burden analysis for residents purchasing or renting a median valued home without the proposed maximum supportable development impact fee included. Based on the

results, owner-occupied and renter-occupied housing costs are above the limit considered for affordability for households whose income is 80 percent of the County’s median income.

Figure 23. Scenario 1: Cost Burden Analysis without Maximum Supportable Development Impact Fee

Occupancy	Monthly Income	Monthly Cost	Cost Burden
Owner-Occupied	\$5,462	\$1,857	34.0%
Renter-Occupied	\$3,339	\$1,330	39.8%

Scenario 2: Baseline Condition + Proposed Development Impact Fee

In the second scenario, the maximum supportable development impact fee is included into the cost burden analysis to highlight the effects the fee has on housing affordability. Indicated in Figure 21, owner-occupied housing units are predominately single family units and renter-occupied housings is mixed between the three categories (single family, 2 to 4 units, and 5 or more). Since the development impact fee is calculated by housing type, the owner-occupied housing unit will be assessed the fee a single family unit (\$9,535) and the renter-occupied housing unit will be assessed the fee a multifamily unit (\$3,431).

The analysis takes a conservative approach and assumes the purchase price of the median home is raised by the development impact fee. This ultimately increases the household’s mortgage payment and property tax, see Figure 25. For renter-occupied housing units, the analysis assumes that the development impact fee will be recouped over 30 years by the landlord through an increase in monthly rent.

Listed in Figure 24, the monthly costs for owners and renters only marginally increases with the maximum supportable development impact fee. The cost burden for owner-occupied housing increases by 0.7 percentage points, while the increase in costs for renter-occupied housing increases the burden by 0.3 percent points.

Figure 24. Scenario 2: Cost Burden Analysis with Proposed Development Impact Fee

Occupancy	Monthly Income	Monthly Cost	Cost Burden
Owner-Occupied	\$5,462	\$1,894	34.7%
Renter-Occupied	\$3,339	\$1,339	40.1%

Conclusion

The South Carolina Development Impact Fee Act requires preparation of a report that estimates the effect of imposing development impact fees on affordability of housing in the jurisdiction. To calculate the effect, a household that earns 80 percent of the median income should have a cost burden ratio of 30 percent or less for housing. **This analysis has concluded that the maximum supportable development impact fee results in a marginal increase to the monthly cost for residents and that the increase is low enough that the existing cost burden is unaffected.** As noted, this analysis takes a conservative approach and assumes that the development impact fees are absorbed entirely by the

home occupants. If the County Council were to choose a lower development impact fee amount, the results presented in this report would improve.

Figure 25. Cost of Homeownership – South of the Broad

	Monthly Payment Calculation	
	Scenario 1 Baseline Condition	Scenario 2 Baseline Condition + Impact Fee
Purchase Price	\$375,080	\$384,615
Down Payment	\$75,016	\$76,923
Loan Amount	\$300,064	\$307,692
Loan Length (Years)	30	30
Loan Length (Months)	360	360
Yearly Interest Rate	3.22%	3.22%
Monthly Interest Rate	0.27%	0.27%
Monthly Payment	\$1,301	\$1,334
Property Tax - County (per month)	\$78	\$80
Property Tax - City (per month)	\$26	\$26
Property Tax - School Debt (per month)	\$40	\$41
Property Tax - Fire (per month)	\$23	\$23
Solid Waste Collection Fee	\$17	\$17
Water, Sewer, Electric Utilities	\$216	\$216
Telephone, Cable, Internet Utilities	\$90	\$90
Homeowners Insurance	\$67	\$67
Monthly Cost	\$1,857	\$1,894

APPENDIX B: LAND USE DEFINITIONS

RESIDENTIAL DEVELOPMENT

As discussed below, residential development categories are based on data from the U.S. Census Bureau, American Community Survey. Beaufort County will collect development fees from all new residential units. One-time development fees are determined by site capacity (i.e. number of residential units).

Single Family:

1. Single family detached is a one-unit structure detached from any other house, that is, with open space on all four sides. Such structures are considered detached even if they have an adjoining shed or garage. A one-family house that contains a business is considered detached as long as the building has open space on all four sides.
2. Single family attached (townhouse) is a one-unit structure that has one or more walls extending from ground to roof separating it from adjoining structures. In row houses (sometimes called townhouses), double houses, or houses attached to nonresidential structures, each house is a separate, attached structure if the dividing or common wall goes from ground to roof.
3. Mobile home includes both occupied and vacant mobile homes, to which no permanent rooms have been added, are counted in this category. Mobile homes used only for business purposes or for extra sleeping space and mobile homes for sale on a dealer's lot, at the factory, or in storage are not counted in the housing inventory.
4. Examples of respective land use codes in the Institute of Transportation Engineers [Trip Generation Manual](#), 2017: 210

Multifamily:

1. 2+ units (duplexes and apartments) are units in structures containing two or more housing units, further categorized as units in structures with “2, 3 or 4, 5 to 9, 10 to 19, 20 to 49, and 50 or more apartments.”
2. Boat, RV, Van, Etc. includes any living quarters occupied as a housing unit that does not fit the other categories (e.g., houseboats, railroad cars, campers, and vans). Recreational vehicles, boats, vans, railroad cars, and the like are included only if they are occupied as a current place of residence.
3. Examples of respective land use codes in the Institute of Transportation Engineers [Trip Generation Manual](#), 2017: 220, 221, 222

NONRESIDENTIAL DEVELOPMENT

The proposed general nonresidential development categories (defined below) can be used for all new construction within Beaufort County. Nonresidential development categories represent general groups of land uses that share similar average weekday vehicle trip generation rates and employment densities (i.e., jobs per thousand square feet of floor area).

Retail: Establishments primarily selling merchandise, eating/drinking places, and entertainment uses. By way of example, *Retail* includes shopping centers, supermarkets, pharmacies, restaurants, bars, nightclubs, automobile dealerships, and movie theaters, hotels, and motels.

- Examples of respective land use codes in the Institute of Transportation Engineers [Trip Generation Manual](#), 2017: 820, 815, 823, 850, 875, 880

Office/Service: Establishments providing management, administrative, professional, or business services; By way of example, *Office/Service* includes banks, business offices, headquarter buildings, business parks, and research and development centers.

- Examples of respective land use codes in the Institute of Transportation Engineers [Trip Generation Manual](#), 2017: 710, 712, 714, 720, 750, 770

Industrial: Establishments primarily engaged in the production, transportation, or storage of goods. By way of example, *Industrial* includes manufacturing plants, distribution warehouses, trucking companies, utility substations, power generation facilities, and telecommunications buildings.

- Examples of respective land use codes in the Institute of Transportation Engineers [Trip Generation Manual](#), 2017: 110, 130, 150, 154, 160, 170

Institutional: Establishments providing management, administrative, professional, or business services; By way of example, *Institutional* includes assisted living facilities, nursing homes, hospitals, medical offices, veterinarian clinics, schools, universities, churches, daycare facilities, government buildings, and prisons.

- Examples of respective land use codes in the Institute of Transportation Engineers [Trip Generation Manual](#), 2017: 520, 560, 565, 575, 580, 590

APPENDIX C: SOUTH CAROLINA DEVELOPMENT IMPACT FEE ACT

<https://www.scstatehouse.gov/code/title6.php>

March 22, 2019

CHAPTER 1
General Provisions
ARTICLE 9
Development Impact Fees

SECTION 6-1-910. Short title.

This article may be cited as the “South Carolina Development Impact Fee Act”.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-920. Definitions.

As used in this article:

(1) “Affordable housing” means housing affordable to families whose incomes do not exceed eighty percent of the median income for the service area or areas within the jurisdiction of the governmental entity.

(2) “Capital improvements” means improvements with a useful life of five years or more, by new construction or other action, which increase or increased the service capacity of a public facility.

(3) “Capital improvements plan” means a plan that identifies capital improvements for which development impact fees may be used as a funding source.

(4) “Connection charges” and “hookup charges” mean charges for the actual cost of connecting a property to a public water or public sewer system, limited to labor and materials involved in making pipe connections, installation of water meters, and other actual costs.

(5) “Developer” means an individual or corporation, partnership, or other entity undertaking development.

(6) “Development” means construction or installation of a new building or structure, or a change in use of a building or structure, any of which creates additional demand and need for public facilities. A building or structure shall include, but not be limited to, modular buildings and manufactured housing. “Development” does not include alterations made to existing single-family homes.

(7) “Development approval” means a document from a governmental entity which authorizes the commencement of a development.

(8) “Development impact fee” or “impact fee” means a payment of money imposed as a condition of development approval to pay a proportionate share of the cost of system improvements needed to serve the people utilizing the improvements. The term does not include:

(a) a charge or fee to pay the administrative, plan review, or inspection costs associated with permits required for development;

(b) connection or hookup charges;

(c) amounts collected from a developer in a transaction in which the governmental entity has incurred expenses in constructing capital improvements for the development if the owner or developer has agreed to be financially responsible for the construction or installation of the capital improvements;

(d) fees authorized by Article 3 of this chapter.

(9) “Development permit” means a permit issued for construction on or development of land when no subsequent building permit issued pursuant to Chapter 9 of Title 6 is required.

(10) “Fee payor” means the individual or legal entity that pays or is required to pay a development impact fee.

(11) “Governmental entity” means a county, as provided in Chapter 9, Title 4, and a municipality, as defined in Section 5-1-20.

(12) “Incidental benefits” are benefits which accrue to a property as a secondary result or as a minor consequence of the provision of public facilities to another property.

(13) “Land use assumptions” means a description of the service area and projections of land uses, densities, intensities, and population in the service area over at least a ten-year period.

(14) “Level of service” means a measure of the relationship between service capacity and service demand for public facilities.

(15) “Local planning commission” means the entity created pursuant to Article 1, Chapter 29, Title 6.

(16) “Project” means a particular development on an identified parcel of land.

(17) “Proportionate share” means that portion of the cost of system improvements determined pursuant to Section 6-1-990 which reasonably relates to the service demands and needs of the project.

(18) “Public facilities” means:

(a) water supply production, treatment, laboratory, engineering, administration, storage, and transmission facilities;

(b) wastewater collection, treatment, laboratory, engineering, administration, and disposal facilities;

(c) solid waste and recycling collection, treatment, and disposal facilities;

(d) roads, streets, and bridges including, but not limited to, rights-of-way and traffic signals;

(e) storm water transmission, retention, detention, treatment, and disposal facilities and flood control facilities;

(f) public safety facilities, including law enforcement, fire, emergency medical and rescue, and street lighting facilities;

(g) capital equipment and vehicles, with an individual unit purchase price of not less than one hundred thousand dollars including, but not limited to, equipment and vehicles used in the delivery of public safety services, emergency preparedness services, collection and disposal of solid waste, and storm water management and control;

(h) parks, libraries, and recreational facilities;

(i) public education facilities for grades K-12 including, but not limited to, schools, offices, classrooms, parking areas, playgrounds, libraries, cafeterias, gymnasiums, health and music rooms, computer and science laboratories, and other facilities considered necessary for the proper public education of the state’s children.

(19) “Service area” means, based on sound planning or engineering principles, or both, a defined geographic area in which specific public facilities provide service to development within the area

defined. Provided, however, that no provision in this article may be interpreted to alter, enlarge, or reduce the service area or boundaries of a political subdivision which is authorized or set by law.

(20) "Service unit" means a standardized measure of consumption, use, generation, or discharge attributable to an individual unit of development calculated in accordance with generally accepted engineering or planning standards for a particular category of capital improvements.

(21) "System improvements" means capital improvements to public facilities which are designed to provide service to a service area.

(22) "System improvement costs" means costs incurred for construction or reconstruction of system improvements, including design, acquisition, engineering, and other costs attributable to the improvements, and also including the costs of providing additional public facilities needed to serve new growth and development. System improvement costs do not include:

(a) construction, acquisition, or expansion of public facilities other than capital improvements identified in the capital improvements plan;

(b) repair, operation, or maintenance of existing or new capital improvements;

(c) upgrading, updating, expanding, or replacing existing capital improvements to serve existing development in order to meet stricter safety, efficiency, environmental, or regulatory standards;

(d) upgrading, updating, expanding, or replacing existing capital improvements to provide better service to existing development;

(e) administrative and operating costs of the governmental entity; or

(f) principal payments and interest or other finance charges on bonds or other indebtedness except financial obligations issued by or on behalf of the governmental entity to finance capital improvements identified in the capital improvements plan.

HISTORY: 1999 Act No. 118, Section 1; 2016 Act No. 229 (H.4416), Section 2, eff June 3, 2016.

Effect of Amendment

2016 Act No. 229, Section 2, added (18)(i), relating to certain public education facilities.

SECTION 6-1-930. Developmental impact fee.

(A)(1) Only a governmental entity that has a comprehensive plan, as provided in Chapter 29 of this title, and which complies with the requirements of this article may impose a development impact fee. If a governmental entity has not adopted a comprehensive plan, but has adopted a capital improvements plan which substantially complies with the requirements of Section 6-1-960(B), then it may impose a development impact fee. A governmental entity may not impose an impact fee, regardless of how it is designated, except as provided in this article. However, a special purpose district or public service district which (a) provides fire protection services or recreation services, (b) was created by act of the General Assembly prior to 1973, and (c) had the power to impose development impact fees prior to the effective date of this section is not prohibited from imposing development impact fees.

(2) Before imposing a development impact fee on residential units, a governmental entity shall prepare a report which estimates the effect of recovering capital costs through impact fees on the availability of affordable housing within the political jurisdiction of the governmental entity.

(B)(1) An impact fee may be imposed and collected by the governmental entity only upon the passage of an ordinance approved by a positive majority, as defined in Article 3 of this chapter.

(2) The amount of the development impact fee must be based on actual improvement costs or reasonable estimates of the costs, supported by sound engineering studies.

(3) An ordinance authorizing the imposition of a development impact fee must:

(a) establish a procedure for timely processing of applications for determinations by the governmental entity of development impact fees applicable to all property subject to impact fees and for the timely processing of applications for individual assessment of development impact fees, credits, or reimbursements allowed or paid under this article;

(b) include a description of acceptable levels of service for system improvements; and

(c) provide for the termination of the impact fee.

(C) A governmental entity shall prepare and publish an annual report describing the amount of all impact fees collected, appropriated, or spent during the preceding year by category of public facility and service area.

(D) Payment of an impact fee may result in an incidental benefit to property owners or developers within the service area other than the fee payor, except that an impact fee that results in benefits to property owners or developers within the service area, other than the fee payor, in an amount which is greater than incidental benefits is prohibited.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-940. Amount of impact fee.

A governmental entity imposing an impact fee must provide in the impact fee ordinance the amount of impact fee due for each unit of development in a project for which an individual building permit or certificate of occupancy is issued. The governmental entity is bound by the amount of impact fee specified in the ordinance and may not charge higher or additional impact fees for the same purpose unless the number of service units increases or the scope of the development changes and the amount of additional impact fees is limited to the amount attributable to the additional service units or change in scope of the development. The impact fee ordinance must:

(1) include an explanation of the calculation of the impact fee, including an explanation of the factors considered pursuant to this article;

(2) specify the system improvements for which the impact fee is intended to be used;

(3) inform the developer that he may pay a project's proportionate share of system improvement costs by payment of impact fees according to the fee schedule as full and complete payment of the developer's proportionate share of system improvements costs;

(4) inform the fee payor that:

(a) he may negotiate and contract for facilities or services with the governmental entity in lieu of the development impact fee as defined in Section 6-1-1050;

(b) he has the right of appeal, as provided in Section 6-1-1030;

(c) the impact fee must be paid no earlier than the time of issuance of the building permit or issuance of a development permit if no building permit is required.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-950. Procedure for adoption of ordinance imposing impact fees.

(A) The governing body of a governmental entity begins the process for adoption of an ordinance imposing an impact fee by enacting a resolution directing the local planning commission to conduct the studies and to recommend an impact fee ordinance, developed in accordance with the requirements of this article. Under no circumstances may the governing body of a governmental entity impose an impact fee for any public facility which has been paid for entirely by the developer.

(B) Upon receipt of the resolution enacted pursuant to subsection (A), the local planning commission shall develop, within the time designated in the resolution, and make recommendations to the governmental entity for a capital improvements plan and impact fees by service unit. The local planning commission shall prepare and adopt its recommendations in the same manner and using the same procedures as those used for developing recommendations for a comprehensive plan as provided in Article 3, Chapter 29, Title 6, except as otherwise provided in this article. The commission shall review and update the capital improvements plan and impact fees in the same manner and on the same review cycle as the governmental entity's comprehensive plan or elements of it.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-960. Recommended capital improvements plan; notice; contents of plan.

(A) The local planning commission shall recommend to the governmental entity a capital improvements plan which may be adopted by the governmental entity by ordinance. The recommendations of the commission are not binding on the governmental entity, which may amend or alter the plan. After reasonable public notice, a public hearing must be held before final action to adopt the ordinance approving the capital improvements plan. The notice must be published not less than thirty days before the time of the hearing in at least one newspaper of general circulation in the county. The notice must advise the public of the time and place of the hearing, that a copy of the capital improvements plan is available for public inspection in the offices of the governmental entity, and that members of the public will be given an opportunity to be heard.

(B) The capital improvements plan must contain:

(1) a general description of all existing public facilities, and their existing deficiencies, within the service area or areas of the governmental entity, a reasonable estimate of all costs, and a plan to develop the funding resources, including existing sources of revenues, related to curing the existing deficiencies including, but not limited to, the upgrading, updating, improving, expanding, or replacing of these facilities to meet existing needs and usage;

(2) an analysis of the total capacity, the level of current usage, and commitments for usage of capacity of existing public facilities, which must be prepared by a qualified professional using generally accepted principles and professional standards;

(3) a description of the land use assumptions;

(4) a definitive table establishing the specific service unit for each category of system improvements and an equivalency or conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial, agricultural, and industrial, as appropriate;

(5) a description of all system improvements and their costs necessitated by and attributable to new development in the service area, based on the approved land use assumptions, to provide a level of

service not to exceed the level of service currently existing in the community or service area, unless a different or higher level of service is required by law, court order, or safety consideration;

(6) the total number of service units necessitated by and attributable to new development within the service area based on the land use assumptions and calculated in accordance with generally accepted engineering or planning criteria;

(7) the projected demand for system improvements required by new service units projected over a reasonable period of time not to exceed twenty years;

(8) identification of all sources and levels of funding available to the governmental entity for the financing of the system improvements; and

(9) a schedule setting forth estimated dates for commencing and completing construction of all improvements identified in the capital improvements plan.

(C) Changes in the capital improvements plan must be approved in the same manner as approval of the original plan.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-970. Exemptions from impact fees.

The following structures or activities are exempt from impact fees:

(1) rebuilding the same amount of floor space of a structure that was destroyed by fire or other catastrophe;

(2) remodeling or repairing a structure that does not result in an increase in the number of service units;

(3) replacing a residential unit, including a manufactured home, with another residential unit on the same lot, if the number of service units does not increase;

(4) placing a construction trailer or office on a lot during the period of construction on the lot;

(5) constructing an addition on a residential structure which does not increase the number of service units;

(6) adding uses that are typically accessory to residential uses, such as a tennis court or a clubhouse, unless it is demonstrated clearly that the use creates a significant impact on the system's capacity;

(7) all or part of a particular development project if:

(a) the project is determined to create affordable housing; and

(b) the exempt development's proportionate share of system improvements is funded through a revenue source other than development impact fees;

(8) constructing a new elementary, middle, or secondary school; and

(9) constructing a new volunteer fire department.

HISTORY: 1999 Act No. 118, Section 1; 2016 Act No. 229 (H.4416), Section 1, eff June 3, 2016.

Effect of Amendment

2016 Act No. 229, Section 1, added (8) and (9), relating to certain schools and volunteer fire departments.

SECTION 6-1-980. Calculation of impact fees.

(A) The impact fee for each service unit may not exceed the amount determined by dividing the costs of the capital improvements by the total number of projected service units that potentially could use the

capital improvement. If the number of new service units projected over a reasonable period of time is less than the total number of new service units shown by the approved land use assumptions at full development of the service area, the maximum impact fee for each service unit must be calculated by dividing the costs of the part of the capital improvements necessitated by and attributable to the projected new service units by the total projected new service units.

(B) An impact fee must be calculated in accordance with generally accepted accounting principles.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-990. Maximum impact fee; proportionate share of costs of improvements to serve new development.

(A) The impact fee imposed upon a fee payor may not exceed a proportionate share of the costs incurred by the governmental entity in providing system improvements to serve the new development. The proportionate share is the cost attributable to the development after the governmental entity reduces the amount to be imposed by the following factors:

(1) appropriate credit, offset, or contribution of money, dedication of land, or construction of system improvements; and

(2) all other sources of funding the system improvements including funds obtained from economic development incentives or grants secured which are not required to be repaid.

(B) In determining the proportionate share of the cost of system improvements to be paid, the governmental entity imposing the impact fee must consider the:

(1) cost of existing system improvements resulting from new development within the service area or areas;

(2) means by which existing system improvements have been financed;

(3) extent to which the new development contributes to the cost of system improvements;

(4) extent to which the new development is required to contribute to the cost of existing system improvements in the future;

(5) extent to which the new development is required to provide system improvements, without charge to other properties within the service area or areas;

(6) time and price differentials inherent in a fair comparison of fees paid at different times; and

(7) availability of other sources of funding system improvements including, but not limited to, user charges, general tax levies, intergovernmental transfers, and special taxation.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-1000. Fair compensation or reimbursement of developers for costs, dedication of land or oversize facilities.

A developer required to pay a development impact fee may not be required to pay more than his proportionate share of the costs of the project, including the payment of money or contribution or dedication of land, or to oversize his facilities for use of others outside of the project without fair compensation or reimbursement.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-1010. Accounting; expenditures.

(A) Revenues from all development impact fees must be maintained in one or more interest-bearing accounts. Accounting records must be maintained for each category of system improvements and the service area in which the fees are collected. Interest earned on development impact fees must be considered funds of the account on which it is earned, and must be subject to all restrictions placed on the use of impact fees pursuant to the provisions of this article.

(B) Expenditures of development impact fees must be made only for the category of system improvements and within or for the benefit of the service area for which the impact fee was imposed as shown by the capital improvements plan and as authorized in this article. Impact fees may not be used for:

- (1) a purpose other than system improvement costs to create additional improvements to serve new growth;
- (2) a category of system improvements other than that for which they were collected; or
- (3) the benefit of service areas other than the area for which they were imposed.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-1020. Refunds of impact fees.

(A) An impact fee must be refunded to the owner of record of property on which a development impact fee has been paid if:

- (1) the impact fees have not been expended within three years of the date they were scheduled to be expended on a first-in, first-out basis; or
- (2) a building permit or permit for installation of a manufactured home is denied.

(B) When the right to a refund exists, the governmental entity shall send a refund to the owner of record within ninety days after it is determined by the entity that a refund is due.

(C) A refund must include the pro rata portion of interest earned while on deposit in the impact fee account.

(D) A person entitled to a refund has standing to sue for a refund pursuant to this article if there has not been a timely payment of a refund pursuant to subsection (B) of this section.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-1030. Appeals.

(A) A governmental entity which adopts a development impact fee ordinance shall provide for administrative appeals by the developer or fee payor.

(B) A fee payor may pay a development impact fee under protest. A fee payor making the payment is not estopped from exercising the right of appeal provided in this article, nor is the fee payor estopped from receiving a refund of an amount considered to have been illegally collected. Instead of making a payment of an impact fee under protest, a fee payor, at his option, may post a bond or submit an irrevocable letter of credit for the amount of impact fees due, pending the outcome of an appeal.

(C) A governmental entity which adopts a development impact fee ordinance shall provide for mediation by a qualified independent party, upon voluntary agreement by both the fee payor and the governmental entity, to address a disagreement related to the impact fee for proposed development. Participation in mediation does not preclude the fee payor from pursuing other remedies provided for in this section or otherwise available by law.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-1040. Collection of development impact fees.

A governmental entity may provide in a development impact fee ordinance the method for collection of development impact fees including, but not limited to:

- (1) additions to the fee for reasonable interest and penalties for nonpayment or late payment;
- (2) withholding of the certificate of occupancy, or building permit if no certificate of occupancy is required, until the development impact fee is paid;
- (3) withholding of utility services until the development impact fee is paid; and
- (4) imposing liens for failure to pay timely a development impact fee.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-1050. Permissible agreements for payments or construction or installation of improvements by fee payors and developers; credits and reimbursements.

A fee payor and developer may enter into an agreement with a governmental entity, including an agreement entered into pursuant to the South Carolina Local Government Development Agreement Act, providing for payments instead of impact fees for facilities or services. That agreement may provide for the construction or installation of system improvements by the fee payor or developer and for credits or reimbursements for costs incurred by a fee payor or developer including interproject transfers of credits or reimbursement for project improvements which are used or shared by more than one development project. An impact fee may not be imposed on a fee payor or developer who has entered into an agreement as described in this section.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-1060. Article shall not affect existing laws.

(A) The provisions of this article do not repeal existing laws authorizing a governmental entity to impose fees or require contributions or property dedications for capital improvements. A development impact fee adopted in accordance with existing laws before the enactment of this article is not affected until termination of the development impact fee. A subsequent change or reenactment of the development impact fee must comply with the provisions of this article. Requirements for developers to pay in whole or in part for system improvements may be imposed by governmental entities only by way of impact fees imposed pursuant to the ordinance.

(B) Notwithstanding another provision of this article, property for which a valid building permit or certificate of occupancy has been issued or construction has commenced before the effective date of a development impact fee ordinance is not subject to additional development impact fees.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-1070. Shared funding among units of government; agreements.

(A) If the proposed system improvements include the improvement of public facilities under the jurisdiction of another unit of government including, but not limited to, a special purpose district that does not provide water and wastewater utilities, a school district, and a public service district, an agreement between the governmental entity and other unit of government must specify the reasonable share of funding by each unit. The governmental entity authorized to impose impact fees may not assume more than its reasonable share of funding joint improvements, nor may another unit of

government which is not authorized to impose impact fees do so unless the expenditure is pursuant to an agreement under Section 6-1-1050 of this section.

(B) A governmental entity may enter into an agreement with another unit of government including, but not limited to, a special purpose district that does not provide water and wastewater utilities, a school district, and a public service district, that has the responsibility of providing the service for which an impact fee may be imposed. The determination of the amount of the impact fee for the contracting governmental entity must be made in the same manner and is subject to the same procedures and limitations as provided in this article. The agreement must provide for the collection of the impact fee by the governmental entity and for the expenditure of the impact fee by another unit of government including, but not limited to, a special purpose district that does not provide water and wastewater utilities, a school district, and a public services district unless otherwise provided by contract.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-1080. Exemptions; water or wastewater utilities.

The provisions of this chapter do not apply to a development impact fee for water or wastewater utilities, or both, imposed by a city, county, commissioners of public works, special purpose district, or nonprofit corporation organized pursuant to Chapter 35 or 36 of Title 33, except that in order to impose a development impact fee for water or wastewater utilities, or both, the city, county, commissioners of public works, special purpose district or nonprofit corporation organized pursuant to Chapter 35 or 36 of Title 33 must:

- (1) have a capital improvements plan before imposition of the development impact fee; and
- (2) prepare a report to be made public before imposition of the development impact fee, which shall include, but not be limited to, an explanation of the basis, use, calculation, and method of collection of the development impact fee; and
- (3) enact the fee in accordance with the requirements of Article 3 of this chapter.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-1090. Annexations by municipalities.

A county development impact fee ordinance imposed in an area which is annexed by a municipality is not affected by this article until the development impact fee terminates, unless the municipality assumes any liability which is to be paid with the impact fee revenue.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-2000. Taxation or revenue authority by political subdivisions.

This article shall not create, grant, or confer any new or additional taxing or revenue raising authority to a political subdivision which was not specifically granted to that entity by a previous act of the General Assembly.

HISTORY: 1999 Act No. 118, Section 1.

SECTION 6-1-2010. Compliance with public notice or public hearing requirements.

Compliance with any requirement for public notice or public hearing in this article is considered to be in compliance with any other public notice or public hearing requirement otherwise applicable including, but not limited to, the provisions of Chapter 4, Title 30, and Article 3 of this chapter.

HISTORY: 1999 Act No. 118, Section 1.



MEMORANDUM

To: Beaufort County Planning Commission
From: Robert Merchant, AICP, Deputy Community Development Director
Subject: Text Amendment to The Community Development Code (CDC): Article 5, Section 5.6.50.E(2) To Allow for Minor Modifications to Billboards to Improve Safety Standards During Hurricanes and High Wind Events.

STAFF REPORT:

A. BACKGROUND:

Case No. ZTA 2020-05
Applicant: Bo Hodges, Adams Outdoor Advertising
Proposed Text Change: Text Amendment to The Community Development Code (CDC): Article 5, Section 5.6.50.E(2) To Allow for Minor Modifications to Billboards to Improve Safety Standards During Hurricanes and High Wind Events.

B. SUMMARY OF REQUEST:

Background: The applicant, Adams Outdoor Advertising, is proposing to amend the Section 5.6.50.E to allow for modifications to existing billboards to make the structures more resistant to high winds.

Beaufort County has prohibited new billboards since the early 1990s. The billboards that remain in the unincorporated County are non-conforming uses. Billboard companies are permitted to change the content, or sign face, of the billboard, but other improvements to the billboard are limited to cosmetic changes (cleaning and painting). The rationale of these limitations on improvements is that once these billboards outlive their useful life they are removed and not replaced.

The applicant is proposing to amend the ordinance to allow modifications to billboards that would make them more resistant to high winds. The changes would remove the solid sign panel and replace it with a steel framework overlaid with a vinyl sign face. During a hurricane, the vinyl would blow off the hurricane frame and leave the main structure intact. While this would reduce the possibility of a projectile during a high wind event, it would also prolong the life of the billboard by reducing the chance of the actual billboard structure from being damaged or destroyed.

Staff Recommendation: It is staff's position that the main aim of this amendment is to prolong the life of the billboard which is not consistent with the County's policies concerning billboards over the last 30 years. Staff recommends denial of the amendment.

C. ATTACHMENTS:

- Proposed changes to the CDC (see highlighted section)

5.6.50 Off-Premise Sign Standards

- A. **Commercial Off-Premise Signs.** New commercial off-premise signs prohibited.
- B. **Non-Commercial Off-Premise Signs.**
1. **Location.**
 - a. Non-commercial off-premise signs may be placed on any premises where the placement of commercial on-premise signs are allowed.
 - b. No portion of any noncommercial off-premise sign shall be located within 300 feet of any other off-premise sign on the same side of the street or highway, or any residence (single-family or multi-family).
 2. **Standards.** Noncommercial off-premise signs shall meet the standards in Section 5.6.120 (Freestanding Sign Type).
- C. **Directional Signs.**
1. **Location.** In order to provide information and directional aid to the general public, directional signs may be erected within 300 feet of intersections of major traveled thoroughfares and secondary roads to identify businesses, services, organizations, agencies, facilities and activities located down the secondary road. Such directional signs shall not be utilized to identify uses on the major traveled thoroughfare.
 2. **Standards.** Directional signs shall meet the standards in Section 5.6.90 (Directional Sign Type).
- D. **Directory Listings.**
1. **Location.** Directory listing signs may be placed at strategic locations along major highways in order to provide pertinent County area information to tourists and visitors.
 2. **Content.** Directory listings are intended to be informational and helpful for the convenience of visitors and not promotional of any particular business or type of business. Listings may be limited to local area hotels/motels, restaurants, major residential developments, major retail outlet centers and the like.
 3. **Standards.** Directory listings shall meet the standards in Section 5.6.120 (Freestanding Sign Type).
- E. **Maintenance Standards For Off-Premise Signs.** All off-premise signs must be structurally safe and maintained in a good state of repair, including but not limited to the following standards:
1. The sign face must be maintained free of peeling, chipping, rusting, wearing and fading so as to be fully legible at all times.
 2. Commercial off-premise signs may be maintained only by painting or refinishing the surface of the sign face or sign structure so as to keep the appearance of the sign as it was when originally permitted. Minor modification to the sign face to improve hurricane safety, ie "hurricane frames" may be performed as long as the sign foundation is not included so as to improve the structural integrity of the billboard structure in the hurricane safety modification. Upon determination by the Code Enforcement Department and notice to the permittee that a sign has become dilapidated or structurally unsound, such sign shall be removed within 20 days, unless an appeal of such determination has been previously filed with the ZBOA. Such sign shall, thereafter, be removed within 20 days of disposition of such appeal in favor of the council, its agencies, departments, and/or officials. Any structural or other substantive maintenance to a sign shall be deemed an abandonment of the sign, shall render the prior permit void and shall result in removal of the sign without compensation. Costs and expenses of such removal shall be paid by the owner of such sign.
 3. Extension, enlargement, replacement, rebuilding, adding lights to an un-illuminated sign, changing the height of the sign above ground, or re-erection of the sign are prohibited.