

Capital Improvement Element For Transportation/Mobility

An Amendment to the Comprehensive Plan

Impact Fee Analysis Prepared By:
Governmental Enterprises



Introduction
Designation of Service Area and Level of Service
Current Status and Future Needs Projection
Schedule of Improvements

Bryan County, Georgia
 Capital Improvement Element
 &
 Impact Fee Analysis Report
 FOR
 The Unincorporated South Bryan County
 Transportation Impact Fee District

November 9, 2018

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Section 1

INTRODUCTION / OVERVIEW

Located approximately ten miles south of Savannah, Bryan County is among the many thriving communities located in the coastal region of southeast Georgia that has experienced extraordinary growth in residential population and the accompanying commercial and retail growth.

Although it is among the smaller communities of the region in terms of land area due to the presence of Fort Stewart, Bryan County has developed a reputation for providing first-rate government services to the County's residents and visitors. As an increasing number of people and businesses decide to locate within the community, Bryan County officials are facing the challenging task of maintaining the current high level of County-provided services while accommodating the new growth and developments. To off-set the potential degradation of County services, infrastructure and overall quality of life for existing residents, County officials are considering a development impact fee program to assist in the funding of *capacity-expanding* capital improvements in order to maintain current service levels while accommodating new growth and development.

More specifically stated, to meet the service demands from both the new residents and commercial development, Bryan County will be required to provide additional parks, and recreation, public safety, and water & sewer infrastructure/facilities in order to maintain the current level of service throughout the County's service area. Furthermore, with this influx of new residents and resultant vehicular as well as pedestrian and bicycle traffic along with the traffic increase that will be generated from the projected commercial developments, the County's road, street and pedestrian/bicycle trail network must be improved. To plan, schedule and manage the construction/expansion of the needed County facilities and infrastructure, Bryan County has developed a comprehensive Capital Improvement Program (CIP) that is presented in ***Current Status and Future Needs*** section in this report.

All new development in a community creates additional demands on many, if not all, public services and facilities that are provided by the respective local governments. If the capacity of the facilities and infrastructure are not increased/expanded/modified to placate or satisfy the additional demands, the quality or availability of local government-provided facilities and/or services for the entire community will deteriorate.

There are many types of “public facilities” that are impacted by population growth and new development. In the state of Georgia there are seven categories of public improvements that are eligible for impact fees. These facilities include:

- Water supply, production, treatment and distribution facilities;
- Wastewater collection, treatment and disposal facilities;
- Roads, streets and bridges, including rights-of-way, traffic signals, landscaping and any components of state or federal highways;
- Stormwater collection, retention, detention, treatment, and disposal facilities, flood control facilities, and bank and shore protection and enhancement improvements;
- Parks, open space, and recreation areas and related facilities;
- Public Safety, including police, fire, emergency medical and rescue facilities;
- Libraries and related facilities.

The focus of this report is solely on transportation and the facilities associated with public vehicle and pedestrian movement/mobility/traffic.

For the most part, and for the purposes of this report, the term *new development* includes new residential, retail, office, commercial, industrial and all other new construction.

Purpose of This Report

This Transportation Development Impact Fee Analysis Report provides the Bryan County Board of Commissioners with the necessary technical documentation and guidance to support the adoption of a Development Impact Fee Program to fund capital facilities, amenities and infrastructure for roadway/transportation facilities and infrastructure that will include (but not limited to) roads, streets, bridges, intersections, etc. As well, this report provides the necessary practical and procedural analysis as required by Georgia law to support a schedule of fees to be established by the adoption of the Bryan County Development Impact Fee Ordinance.

A separate analysis report for development impact fees pertaining to Public Safety, Recreation, Library (and related facilities) plus Water & Sewer will be prepared at a future date and submitted to the Board of Commissioners for consideration.

Development Impact Fees, In General

Impact fees are a means for local governments to require new developments to pay a *proportionate and equitable share (nexus)* of the facility and infrastructure costs they impose on the community. In this report, the impact of future development on facility and infrastructure needs is analyzed in terms of quantifiable relationships between the various types of development and the demand for specific facilities, based on applicable and relevant level-of-service standards.

Accordingly, the Georgia Development Impact Fee Act¹ (DIFA) provides that Bryan County may levy development impact fees on new construction based on the development's fair share of the costs associated with the construction or expansion of County-owned facilities to accommodate the increase in population and the resulting demand for services.

This report presents the methodologies employed to determine new development's ***fair share*** of the costs associated with the expansion, upgrade and overall

¹ Official Code of Georgia Annotated (O.C.G.A.) Section 37-71.

enhancement of the road, street, intersection and bridge network and facilities within the unincorporated area of South Bryan County that have been identified as necessary to maintain the current levels of transportation and mobility within the area.

The methodology described herein is consistent with similar methodologies employed elsewhere by other jurisdictions utilizing standard impact fee practices and complies with the requirements of Georgia law.

Data Sources

The data in this report relies heavily on the information provided in the ***“Richmond Hill – South Bryan County Transportation Study”***; dated April 2016, prepared by Thomas & Hutton. Land use codes and corresponding average daily traffic data is taken from the ***“Trip Generation Manual”*** prepared by the Institute of Transportation Engineers.

Additional data in this study of impact fees for roads, streets and intersections as well as multi-modal facilities within the unincorporated areas of Bryan County, Georgia was provided by Bryan County unless specifically cited otherwise.

The analysis and presentation shown in this study was prepared using computer spreadsheet software. In some instances, the tables in this study will reflect very small variations from the results that would be obtained using a calculator to compute the same data. The reason for these insignificant differences is that the spreadsheet software was allowed to calculate results to more places after the decimal than is reported in the tables of these reports. The calculation to extra places after the decimal increases the accuracy of the end results, but often cause occasional differences due to rounding of data that appears in this study.

Rules Governing Impact Fees in Georgia

The Georgia Development Impact Fee Act (DIFA) requires that development impact fees be determined in a manner that ensures a reasonable correlation or relationship (nexus) between the fee levied and the specific capital improvements to be

constructed. Since different communities have different facility and infrastructure needs, it is not unusual for impact fees to vary from one jurisdiction to another.

In summary, legally defensible impact fees in Georgia must:

- Be in compliance with the Georgia Development Impact Fee Act.
- Not be arbitrary or discriminatory.
- Not be based on the relationship of the impact fee charged and the benefits received by the fee payer.
- Be used to finance new facilities/infrastructure needed to serve new development.
- Not exceed the proportionate share of the cost of the facilities needed to serve new residents or developments (i.e. nexus).

Under DIFA, Bryan County must:

- Use impact fee revenues appropriately:
 - Only for expansion of facilities and infrastructure.
 - Never for O & M expenses.
- Establish a Capital Improvement Program also referred to as the Capital Improvement Element which includes a Schedule of Improvements also known as the Short-Term Work Program (STWP).
- Establish impact fee accounts (cannot be co-mingled with other County funds).
- Establish an Advisory Committee to assist and advise with regard to the adoption of an impact fee ordinance.
- Establish service area districts
- Prepare an annual report in conjunction with the annual audit.
- Update the Capital Improvement Element on an annual basis.

Definition and Rationale of Impact Fees

Impact fees are charges paid by new development to local governments for the cost of constructing or expanding public facilities that are needed to maintain the current

service levels throughout the County's service area and are authorized by the State of Georgia and strictly defined by State statute.

Within the context of this report, new development is synonymous with "growth".

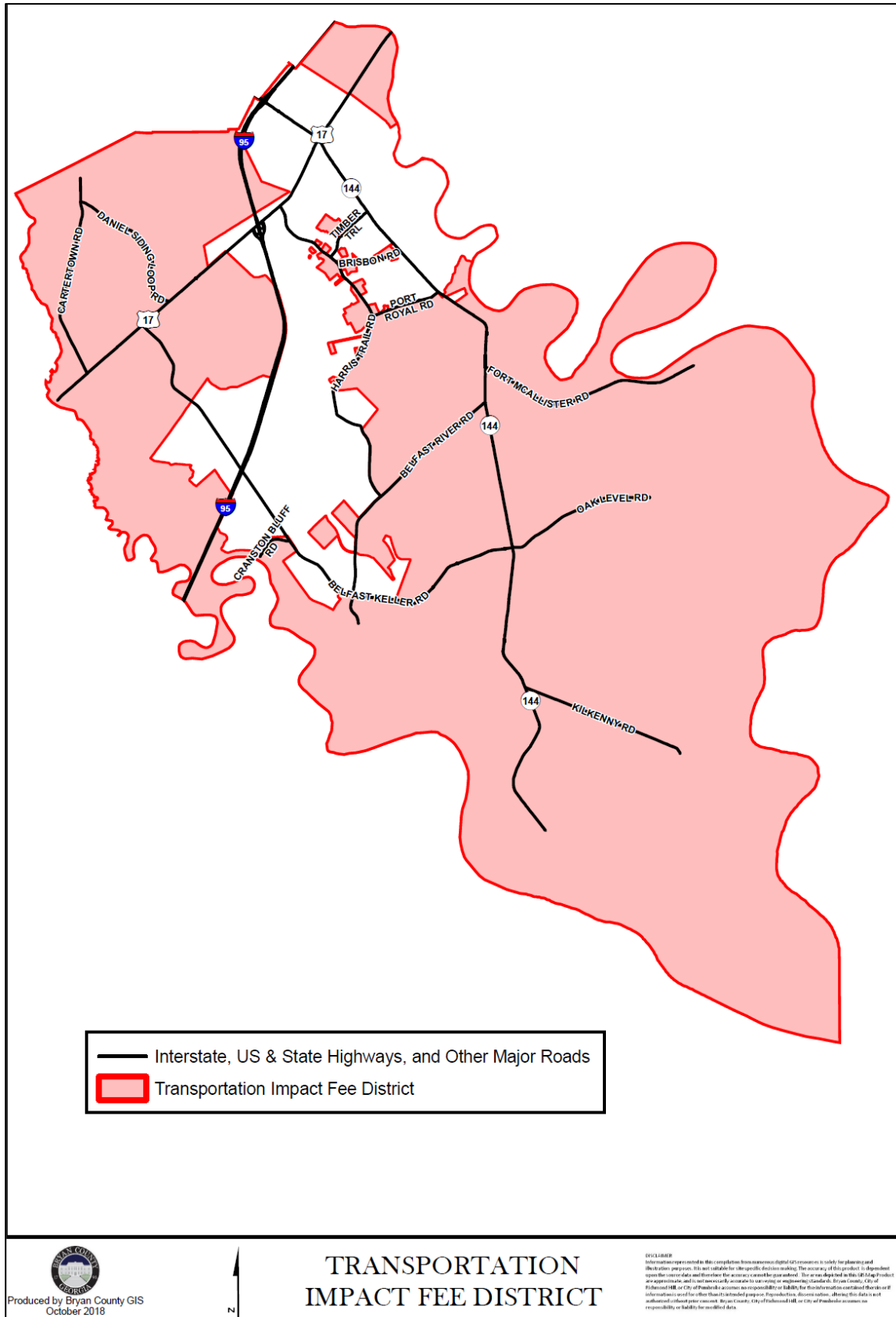
Throughout Georgia, local governments charge development impact fees on either of two bases. First, as a matter of policy and legislative discretion, they may decide for new development to pay the full cost of its share of new public facilities because that portion of the facilities would not be needed except to serve the new development.

On the other hand, due to the urgent need for the road/street/transportation improvements, Bryan County officials have elected to utilize other sources of revenue along with development impact fees to pay for the new public facilities that are required to serve new development.

Impact Fee District

Bryan County will establish an impact fee district that will encompass all property located within unincorporated south Bryan County and is referred to as the "South Bryan County Impact Fee District".

Figure 1
Map of Service Area




Produced by Bryan County GIS
October 2018

TRANSPORTATION IMPACT FEE DISTRICT

DISCLAIMER
Information represented in this compilation from numerous digital GIS sources is solely for planning and reference purposes. It is not suitable for site-specific decision making. The accuracy of this product is dependent upon the source data and therefore the warranty cannot be guaranteed. The user is advised that this GIS Product is an approximate and is not necessarily accurate to engineering standards. Bryan County, City of Peachtree Hill, or City of Peachtree is not responsible or liable for the information contained therein or if information is used for other than its intended purpose. Reproduction, dissemination, sharing, or other use without authorized prior consent. Bryan County, City of Peachtree Hill, or City of Peachtree assumes no responsibility or liability for modified data.

Section 2

EXECUTIVE SUMMARY

The Georgia Development Impact Fee Act (O.C.G.A. 36-71-1) sets forth the foundation local jurisdictions must follow in order to develop and implement a development impact fee program. Accordingly, Bryan County has developed its land use/growth pattern projections and assumptions in accordance with Georgia law with specific guidance provided by the Georgia Department of Community Affairs with the update, preparation and submittal of the ***“Bryan County Comprehensive Plan”***.

It is important to note that references to any ordinances, statutes or regulations contained herein shall (unless otherwise noted) be deemed to be those in effect as of the date of adoption of the Capital Improvement Element and thereafter as amended, renumbered or otherwise revised.

Capital Improvement Plan / Capital Improvement Element

This document, the Impact Fee Analysis Report, will serve as the basis for the Transportation Capital Improvement Element of the Bryan County Comprehensive Plan. As such it provides a guide for the efficient use of public funds that are to be invested in roads and streets. The investment in the facilities presented in this report will significantly contribute to the quality of life in Bryan county for both the residential and commercial citizens and for future populations as well.

Consistent with the framework set forth in the Comprehensive Plan, the Transportation Capital Improvement Plan has been separated into “North Bryan County” and “South Bryan County” segments to accurately reflect the long-term capital improvement needs of both areas of the community.

The key component of any Development Impact Fee Program is the establishment of a Capital Improvement Element. Bryan County has selected certain projects within the transportation CIP to be included in the CIE for impact fee calculation purposes.

In straightforward language, a CIP is simply a capital improvement budget or *spending plan* that sets the priority and timing for the construction or purchase of facilities, equipment and/or infrastructure that have been identified as necessary to maintain the current level of service demands from the public and to maintain the overall quality of life within a community.

As with most Capital Improvement Plans, Bryan County has developed the current CIP based upon input received from the County's consulting engineers, County staff and input from Bryan County residents submitted during the update of the Comprehensive Plan.

In summary, the Capital Improvement Plan for the South Bryan County Transportation District is \$68,469,000 and is presented in Table 5 of this report.

The projects to be presented in the CIE and projected costs are based on current conditions and development patterns and form the basis for the *nexus* of the Transportation Development Impact Fees calculated in this report. As the development in the South Bryan County community occurs, the assumptions and recommendations made as part of this study will need to be updated periodically to ensure that they align with actual development patterns.²

Initial Project Funding Sources

With the impending anticipated growth that is expected in the near-term, construction of many of the projects itemized in the CIP should commence at the earliest possible date. Therefore, funds from the Bryan County General Fund along with the proceeds from the Special Purpose Local Option Sales Tax (SPLOST) and the Transportation Special Purpose Local Option Sales Tax (TSPLOST) will be used to provide initial funding for *some* of these projects. In these instances, as Development Impact Fees are collected, the General Fund and appropriate SPLOST

² Richmond Hill – South Bryan County Transportation Study, Thomas & Hutton – April, 2016 (paraphrased).

Funds will be reimbursed for the amounts that were used to provide initial funding for the critically needed projects.

Development Credits

Bryan County's Development Impact Fee Ordinance allows for the issuance of offsets or "credits" against the impact fees determined for a new development. Such credits can include (but not limited to):

- Right-of-way dedication outside of the development
- Construction of roadways/thoroughfares that enhance the Countywide road network
- Other development prerequisites required by Bryan County may be eligible for credit consideration

In addition to these development *exactions*, recognition must be given that new development results in growth in the tax base of a community. Additionally, the existing businesses and residents of South Bryan County will also benefit from the expanded and enhanced transportation facilities constructed to accommodate future growth. Accordingly, the impact fee methodology presented herein considers these factors.

It is important to note that consideration has been given that would give new development credit against debt service payments made by the General Fund from annual property tax revenues. However, since Bryan County does not anticipate issuing any debt to finance these facilities, this credit is not applicable at the time of this report.

The relevance of a development credit should be considered each year to examine and determine if circumstances exist whereby further credit in development impact fee calculation is appropriate. Likewise, the County's Capital Improvement Plan should be amended/updated each year in conjunction with the preparation of the annual budget.

Impact Fee Calculation

In simple terms, the calculation formula for the South Bryan County Transportation Development Impact Fee is as follows:

- Cost of planned capital improvements
- (-) Funding From Outside Sources (SPLOST, TSPLOST, Grants, etc.)
- $x \text{ Added demand from growth} \div \text{Total demand} = \text{Cost Per Trip}$

Cost Per Trip is applied to the Average Daily Trip Factor furnished by the Institute of Traffic Engineers.

The following Table 1 (next page) lists the calculation of the Development Impact Fee for residential and various businesses and commercial enterprises for the South Bryan County Transportation Impact Fee District.

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Table 1
Impact Fee Calculation Schedule

<p align="center">Bryan County Board of Commissioners South Bryan County Transportation Impact Fee District Development Impact Fee Schedule</p>						
Category/Classification	ITE Code	Land Use Category	Average Daily Trips	Pass by Reduction	Transportation & Mobility Impact Fee	Unit of Measure
<i>Residential</i>	210	Single-Family Detached Housing	4.72	N/A	\$ 3,128	per dwelling
	220	Apartment/Attached Housing	3.66	N/A	\$ 2,426	per dwelling
<i>Industrial/Agricultural</i>	110	General Light Industrial	2.48	N/A	\$ 1,644	per 1,000 square foot
	140	Manufacturing	1.97	N/A	\$ 1,302	per 1,000 square foot
	150	Warehousing	0.87	N/A	\$ 577	per 1,000 square foot
	151	Mini-Warehouse	0.76	N/A	\$ 500	per 1,000 square foot
<i>Lodging</i>	310	Hotel or Conference Motel	4.18	N/A	\$ 2,770	per room
	320	Motel	4.00	N/A	\$ 2,651	per room
<i>Recreational</i>	492	Health/Fitness Center	0.66	N/A	\$ 434	per 1,000 square foot
	495	Recreational Community Center	14.41	N/A	\$ 9,550	per 1,000 square foot
<i>Institutional</i>	560	Church/Place of Worship	3.48	N/A	\$ 2,303	per 1,000 square foot
	565	Day Care Center	23.81	N/A	\$ 15,780	per 1,000 square foot
<i>Medical</i>	610	Hospital	5.36	N/A	\$ 3,552	per 1,000 square foot
	620	Nursing Home	3.32	N/A	\$ 2,200	per 1,000 square foot
<i>Office</i>	710	General Office Building	4.87	N/A	\$ 3,228	per 1,000 square foot
	715	Single-Tenant Office Building	5.63	N/A	\$ 3,728	per 1,000 square foot
	720	Medical-Dental Office Building	17.40	N/A	\$ 11,532	per 1,000 square foot
	770	Business Park	6.22	N/A	\$ 4,122	per 1,000 square foot
<i>Retail</i>	812	Building Materials and Lumber Store	9.03	60%	\$ 2,393	per 1,000 square foot
	815	Free-Standing Discount Store	26.56	60%	\$ 7,041	per 1,000 square foot
	816	Hardware/Paint Store	4.57	60%	\$ 1,211	per 1,000 square foot
	817	Nursery (Garden Center)	34.05	60%	\$ 9,027	per 1,000 square foot
	818	Nursery (Wholesale)	19.50	60%	\$ 5,169	per 1,000 square foot
	820	Shopping Center	18.88	60%	\$ 5,004	per 1,000 square foot
	843	Auto Parts Store	27.67	60%	\$ 7,335	per 1,000 square foot
	848	Tire Store	14.26	60%	\$ 3,780	per 1,000 square foot
	850	Supermarket	53.39	60%	\$ 14,154	per 1,000 square foot
	851	Convenience Market (Open 24 Hours)	381.14	60%	\$ 101,040	per 1,000 square foot
	853	Convenience Market with Gasoline Pumps	312.10	60%	\$ 82,737	per 1,000 square foot
	880	Pharmacy/Drugstore	45.04	60%	\$ 11,940	per 1,000 square foot
<i>Services</i>	912	Drive-in Bank	50.02	60%	\$ 13,259	per 1,000 square foot
	932	High-Turnover (Sit-Down) Restaurant	56.09	60%	\$ 14,869	per 1,000 square foot
	934	Fast-Food Restaurant	235.48	60%	\$ 62,424	per 1,000 square foot
	941	Quick Lubrication Vehicle Shop	34.79	60%	\$ 9,221	per 1,000 square foot
	945	Gasoline Station w/Convenience Market	720.01	60%	\$ 190,873	per 1,000 square foot
	947	Self-Service Car Wash	54.00	60%	\$ 14,315	wash stalls

Notes: All dollar amounts shown rounded to "cents". See fee schedule for each public facility component for more accurate amounts to four decimals.
ITE Code means the land use code and the Average Daily Trips are from the *Trip Generation* manual published by the Institute of Transportation Engineers, 9th Edition.
Square foot means square foot of gross building floor area.

It is important to note that impact fees will be calculated distinctly for each development independently as they are submitted for consideration. The land use categories shown on Table 1 are for descriptive purposes only and do not represent a final impact fee calculation.

Furthermore, is important to note that, in technical terms, a “trip” has an origin and a destination at its two ends (known as trip ends). Each trip end is a part of a trip. For site trip generation, the analyst is usually interested in trips entering (inbound) and exiting (outbound) a site. An entering trip end is a destination trip end; an exiting trip end is an origin trip end. Common usage throughout the International Traffic Engineers Handbook is to refer to the inbound and outbound trip ends as “trips” because they are the site’s portion of those trips.

The following Sections of this report will present the methodologies used in determining new development’s fair share of the required capital improvements that will be necessary to support the increased commercial and residential populations of South Bryan County.

Section 3

CURRENT STATUS / FUTURE NEEDS

In 2010, Bryan County's population in the U. S. Census was reported as 30,403. According to population projections prepared by the Carl Vinson Institute of Government at the University of Georgia, the County's population is expected to increase approximately 32% to 40,165 by 2020. These projections estimate the Bryan County population to be 51,924 by 2030, a 70.8% increase from 2010 (see Table 2). Based on an average of 2.86³ persons per household, these population projections could possibly equate to an additional 5,870 dwelling units to be added to the community.

Table 2
Bryan County Population – Housing Forecast to 2030⁴

Bryan County, Georgia Population & Housing Forecast							
	2004	2007	2010	2015	2020	2025	2030
Population/Forecast	26,061	28,302	30,403	35,137	40,165	45,741	51,924
Population Increase		2,241	2,101	4,734	5,028	5,576	6,183
Population Per Household	2.86						
Projected Additional Housing Units (Per Year)					1,758	1,950	2,162

As stated earlier, this rapid increase in the residential population and the associated commercial growth that is anticipated over the next two decades will create a parallel increase in the demand for County-provided services.

³ Georgia County Guide 2017: Housing/Households. Carl Vinson Institute of Government – University of Georgia

⁴ Ibid: Population Projections.

With virtually all county transportation facilities at or near functional capacity, all are insufficient or marginally meeting current demand or operating at or below minimal service levels.

The following Sections will provide an examination and evaluation of the transportation needs, demands and services of unincorporated Bryan County.

Transportation: Current Status

As often mentioned in this report, roadway and other transportation improvements will be needed in order to accommodate and promote future growth and development of the South Bryan County area. It is important to note that the scheduled improvements listed in the Capital Improvement Plan (Table 5) are not only planned and intended to accommodate future growth but are also necessary to maintain an acceptable level of service for all residents of South Bryan County.

The major roadway corridors within South Bryan County include:

- U. S. Highway 17
- State Route 144
- Harris Trail Road
- Belfast River Road
- Belfast Keller Road

Traffic conditions are typically evaluated in terms of “Level of Service”. The Level of service (LOS) is a measurement of delay incurred at an intersection or for a particular traffic movement. A level of service ranking has been developed by the Transportation Research Board and published in their Highway Capacity Manual. This *A through F* ranking was developed as a means of expressing speed, travel time and the ability to efficiently maneuver that exists on specific roadways and intersections.

This LOS ranking designates that a level of service of “A” represents the best or ideal rating and signifies free-flow traffic conditions with minimal delays. The ratings continue with declining rankings of eroding traffic conditions ending at a LOS of “F” that represents the lowest rating reflective of severely congested traffic conditions with long delays.

The Impact Fee Methodology Report of January 2009 prepared by Ross & Associates for the Bryan County Board of Commissioners recommended that the minimal LOS for roadways and intersections should be LOS rating of “D”. The official LOS will be established by the Board of Commissioners in the impact fee policies section of the CIE.

Capacity analyses were completed on the recent peak-hour traffic counts and the results and LOS rankings are shown on the following Table 3.

Table 3

Major Intersections of South Bryan County 2015/2016 Level of Service Survey					
		Morning Peak-Hour		Afternoon Peak-Hour	
Intersection	Control Device	LOS	Delay (Seconds)	LOS	Delay (Seconds)
U. S. 17 at S. R. 144	Traffic Signal	E - F	39 - 80	D	29 - 40
U. S. 17 at Harris Trail	Traffic Signal	C - D	17 - 35	C	22 - 35
U. S. 17 at Belfast Keller Road	Stop Sign	F	198	D	32
S. R. 144 at Timber Trail	Traffic Signal	B - C	10 - 24	A - C	5 - 22
Harris Trail at Timber Trail	Stop Sign	E	45	D	31
Harris Trail at Port Royal Road	Stop Sign	C	21	B	11
S. R. 144 at Port Royal Road	Stop Sign	F	83	F	212
S. R. 144 at Fort McAllister Road	Stop Sign	D	25	E	44
S. R. 144 at Belfast River Road	Roundabout	A - C	5 - 21	A - E	6 - 37
Belfast River Road at Harris Trail	Stop Sign	B - D	13 - 28	C	15 - 16
S. R. 144 at Belfast-Keller Road	Stop Sign	B - C	11 - 19	B - C	10 - 15
Belfast River Road at Belfast-Keller Road	Stop Sign	A - B	9 - 11	A - B	7 - 10
Source: Richmond Hill - South Bryan County Transportation Study - April 2016; Thomas & Hutton.					

With virtually all roadways and intersections in South Bryan County classified at or below the minimal service levels a sequence of planned capital improvement

projects have been developed to address the transportation and mobility challenges and issues.

These urgently needed roadway and intersection capital improvements are presented in the following Section 3.2.

It is important to note that due to the limited number of roads and thoroughfares available, ingress and egress to South Bryan County will be significantly impacted during the construction period of the planned improvements. For each of the roadway, roadway corridor and intersection enhancements that will be made in accord with the Capital Improvement Plan, **it will be important to implement a construction traffic management strategy that will support the current mobility and transportation network during the construction period for the planned Transportation and mobility projects.**

Transportation: Future Needs

This Section of the report will present the projected improvements to the roadway network of South Bryan County to accommodate the planned future growth and development while improving the LOS rankings shown previously in Table 3. As presented in the Capital Improvement Program, many of these projects have been identified as *critically needed* and many are scheduled for immediate construction while others are scheduled to occur by the year 2030. The following Tables 4 and 5 presents the planned transportation and mobility capital improvements for south Bryan County. Specifically, Table 4 provides a summary of the anticipated projects that will address the Transportation and mobility issues.

Table 4

South Bryan County Transportation District Capital Improvement Element 2018 Comprehensive Plan Update Capital Improvement Summary		
Asset Category	Estimated Budget	
Intersection Improvements	\$	12,621,000
Lane Additions		44,248,000
Pedestrian / Multimodal		1,500,000
Resurfacing / Widening		7,800,000
Road Improvements		500,000
Shoulder Improvements & Bike Lanes		1,800,000
Total	\$	68,469,000

Table 5 (following page) lists the individual and specific projects/improvements to be built/constructed in the South Bryan County service area along with the anticipated year of construction commencement.

Table 5

Bryan County Board of Commissioners Capital Improvement Element 2018 Comprehensive Plan Update South Bryan County Transportation Impact Fee District			
Asset Category	Project Number	Project Description	Estimated Cost
Intersection Improvement	Tran-01-2018	Interstate 95 / Belfast Keller Road Interchange	\$2,725,000
Resurfacing	Tran-02-2018	Resurfacing Package #1 (2018)	350,000
Resurfacing	Tran-03-2018	Resurfacing Package #2 (2018)	250,000
Intersection Improvement	Tran-04-2018	Port Royal - Harris Trail Roundabout	1,200,000
Shoulder Improvement	Tran-05-2018	Belfast River Road (Hwy 144 to Belfast Keller)	500,000
Intersection Improvement	Tran-01-2019	Belfast River - Harris Trail Roundabout	1,200,000
Resurfacing	Tran-02-2019	Resurfacing Package #1 (2019)	350,000
Resurfacing	Tran-03-2019	Resurfacing Package #2 (2019)	250,000
Shoulder Improvement	Tran-04-2019	Belfast Keller (Hwy 144 to Belfast River)	300,000
Intersection Improvement	Tran-05-2019	Belfast River / Belfast Keller	1,200,000
Road Improvement	Tran-06-2019	Mill Hill Road Elevation	500,000
Resurfacing	Tran-01-2020	Resurfacing Package #1 (2020)	350,000
Resurfacing	Tran-02-2020	Resurfacing Package #2 (2020)	250,000
Intersection Improvement	Tran-03-2020	Harris Trail / Timber Trail	770,000
Pedestrian / Multimodal	Tran-04-2020	Belfast River Road	1,500,000
Resurfacing	Tran-01-2021	Resurfacing Package #1 (2021)	350,000
Resurfacing	Tran-02-2021	Resurfacing Package #2 (2021)	250,000
Lane Addition	Tran-03-2021	Hwy 144 Utility Relocation	648,000
Intersection Improvement	Tran-04-2021	Hwy 144 Expand Roundabout	200,000
Intersection Improvement	Tran-05-2021	Hwy 17 / Belfast Keller	925,000
Resurfacing	Tran-01-2022	Resurfacing Package #1 (2022)	350,000
Resurfacing	Tran-02-2022	Resurfacing Package #2 (2022)	250,000
Resurfacing	Tran-01-2023	Resurfacing Package #1 (2023)	350,000
Resurfacing	Tran-02-2023	Resurfacing Package #2 (2023)	250,000
Resurfacing	Tran-01-2024	Resurfacing Package #1 (2024)	350,000
Resurfacing	Tran-02-2024	Resurfacing Package #2 (2024)	250,000
Shoulder Improvement	Tran-03-2024	Oak Level Road	1,000,000
Resurfacing	Tran-01-2025	Resurfacing Package #1 (2025)	350,000
Resurfacing	Tran-02-2025	Resurfacing Package #2 (2025)	250,000
Intersection Improvement	Tran-03-2025	Hwy 144 / Spur 144	1,610,000
Resurfacing	Tran-01-2026	Resurfacing Package #1 (2026)	350,000
Resurfacing	Tran-02-2026	Resurfacing Package #2 (2026)	250,000
Intersection Improvement	Tran-03-2026	Hwy 144 / Port Royal Road	1,161,000
Resurfacing	Tran-01-2027	Resurfacing Package #1 (2027)	350,000
Resurfacing	Tran-02-2027	Resurfacing Package #2 (2027)	250,000
Intersection Improvement	Tran-03-2027	Hwy 144 / Oak Level Road	1,630,000
Resurfacing	Tran-01-2028	Resurfacing Package #1 (2028)	350,000
Resurfacing	Tran-02-2028	Resurfacing Package #2 (2028)	250,000
Resurfacing	Tran-01-2029	Resurfacing Package #1 (2029)	350,000
Resurfacing	Tran-02-2029	Resurfacing Package #2 (2029)	250,000
Resurfacing	Tran-01-2030	Resurfacing Package #1 (2030)	350,000
Resurfacing	Tran-02-2030	Resurfacing Package #2 (2030)	250,000
Lane Addition	Tran-03-2030	Harris Trail (Timber Trail to Belfast River)	41,600,000
Lane Addition	Tran-04-2030	Hwy 144 (Belfast River to Oak Level (engineering))	2,000,000
Total:			\$68,469,000

The projects listed in Table 5 have been identified by the County’s consulting engineers as being necessary to provide road traffic capacity to serve the existing residents as well as the increased business and residential populations forecasted by the year 2030.

Project Funding

In addition to planning the specific improvements are needed to prepare for future growth, equally important is researching and identifying available funding sources for the respective projects. The experience and expertise of the County’s staff is both apparent and obvious as shown in the following Table 6. Extensive and practical working knowledge of State, Federal and local funding options is crucial in formulating funding scenarios for the extensive list of transportation improvements to be constructed in South Bryan County. Accordingly, the funding/financing plan for the transportation capital improvements for South Bryan County is as follows:

Table 6

CIP Funding Sources South Bryan County Transportation Impact Fee District	
SPLOST	\$ 3,275,000
TSPLOST	7,548,000
LOCAL (Impact Fees)	46,810,000
LMIG	2,275,000
Subtotal:	\$ 59,908,000
Unfunded Projects	8,561,000
CIP Total:	\$ 68,469,000

Where:

- SPLOST = Special Purpose Local Option Sales Tax
- TSPLOST = Transportation Special Purpose Local Option Sales Tax
- LOCAL = Locally generated funding from rates, fees, charges, impact fees, tax assessments, etc.
- LMIG = Local Maintenance & Improvement Grants (from Georgia DOT)

The projects in the CIP that are listed as “Unfunded Projects” are various road and transportation issues, circumstances or situations that have been identified by the Board of Commissioners and the County staff that need attention and corrective action. However, at the time of the printing of this report, specific decisions regarding the funding of these projects has not been identified. It is important to note that each year, during the preparation of the annual Bryan County operating budget, all items on the Capital Improvement Program are reviewed for both funding update and priority of need and adopted by the Board of Commissioners as part of the official Bryan County Budget document.

Section 4

IMPACT FEE CALCULATION

Where the preceding Table 6 presents the various funding sources to be used in implementing the transportation CIP, it is important to note that *public funding sources* such as State and/or Federal grants, loans, etc. are not eligible to be included in development impact fee calculations. Likewise, special purpose or *dedicated* sales taxes are not eligible as revenues generated by these taxes are paid by tourist, visitors and residents from surrounding communities.

Accordingly, the following projects listed in the CIP for the South Bryan County Transportation Impact Fee District are those projects that have been identified to be funded from impact fees.

Table 7

South Bryan County Transportation District Impact Fee Funded Projects			
Asset Category	Project Number	Project Description	Estimated Cost
Intersection Improvement	Tran-04-2018	Port Royal - Harris Trail Roundabout	1,200,000
Intersection Improvement	Tran-01-2019	Belfast River - Harris Trail Roundabout	1,200,000
Intersection Improvement	Tran-05-2019	Belfast River / Belfast Keller	1,200,000
Intersection Improvement	Tran-03-2025	Hwy 144 / Spur 144	1,610,000
Lane Addition	Tran-03-2030	Harris Trail (Timber Trail to Belfast River)	41,600,000
Total:			46,810,000

Of the projects totaling \$68,469,000 listed in the CIP for the South Bryan County Transportation District, \$46,810,000 have been designated to be funded by locally generated revenues in addition to SPLOST or TSPLOST. These projects (Table 7) will be the basis of the transportation impact fee for South Bryan County.

Prior to moving forward with the impact fee calculation, a closer examination of the current daily traffic patterns and volumes along with the capacities of the existing and proposed road/highway infrastructure needs to be made.

Current Road Capacity – Cost Per Trip Calculation

While road/street/intersection infrastructure projects listed in Table 7 are being built to accommodate the increase in vehicle traffic resulting from new growth and development, it is important to recognize that the existing residents will benefit from the improved roads, streets and intersections as well. Stated another way, road/street/intersection improvements being constructed to accommodate growth and development will improve the traffic flow for everyone in the South Bryan County community.

Currently, traffic circulates in and out of the South Bryan County area via 4 arterial roads that are commonly referred to as the *South Bryan Loop*:

- Belfast Keller Road
- Belfast River Road
- Harris Trail Road
- Highway 144

Table 8 lists traffic data taken from the “***Richmond Hill – South Bryan County Transportation Study***” for the South Bryan Loop.

Forecast show that by 2030 80.7% of the traffic traveling in and out of South Bryan County will be from individuals that do not live here today while 19.3% of the traffic volume will come from today’s residents.

Table 8

South Bryan County Transportation Impact Fee District Current & Projected Daily Traffic Volume			
	Average Vehicles Per Day	2030 Average VPD	% Attributable To Growth
Belfast - Keller Road (South Bryan Loop)	2,500	27,000	
Belfast River Road	3,000	10,000	
Harris Trail (South of Belfast River Road)	2,500	-	
Highway 144 (South of Belfast River Road)	3,000	10,000	
Commercial Industrial Area	-	10,000	
Total:	11,000	57,000	80.7%

This is a significant factor in determining the *fair share* of the costs to be included in development impact fee calculations. To determine the fair share of the cost that new development should be expected to pay toward the road and street infrastructure improvements needed to serve them the 80.7% factor must be applied against the \$46,810,000 CIP total shown on Table 7.

Accordingly, the total *fair share* of the costs of the CIP is reduced to \$37,776,491 and is shown in Table 9 on the following page.

Table 9

South Bryan County Transportation Impact Fee District Cost Per Trip Calculation		
Project Number	Project Description	Estimated Cost
Tran-04-2018	Port Royal - Harris Trail Roundabout	\$ 1,200,000
Tran-01-2019	Belfast River - Harris Trail Roundabout	1,200,000
Tran-05-2019	Belfast River / Belfast Keller	1,200,000
Tran-03-2025	Hwy 144 / Spur 144	1,610,000
Tran-03-2030	Harris Trail (Timber Trail to Belfast River)	41,600,000
Total		\$ 46,810,000
% Attributable To Growth		80.7%
CIP Costs Attributable To Growth		\$ 37,776,491
2030 Average Vehicles Per Day (Trips)		57,000
Cost Per Trip		\$ 662.75

Once the fair share of the costs has been determined, the next step in the calculation is to divide the fair share costs (\$37,776,491) by the projected traffic volume (57,000) to determine the *cost per trip*.

The final calculation is to apply the cost per trip amount to the appropriate land use category shown back on Table 1 to determine the appropriate Transportation Development Impact Fee for South Bryan County.

Section 5

POLICIES

Adopted Levels of Service

With this amendment of the County's Comprehensive Plan, the Bryan County Board of Commissioners have established that the minimal LOS for roadways and intersections shall be LOS Rating "D".

Exemptions

Bryan County recognizes that certain development projects provide extraordinary benefit in support of the economic advancement of the county's citizens over and above the access to jobs, goods and services that such uses offer in general. Bryan County therefore intends to encourage extraordinary economic development and employment growth of public benefit to Bryan County in accordance with adopted exemption criteria. It is also recognized that the cost of system improvements otherwise foregone through exemption of any impact fee must be funded through revenue sources other than impact fees.

Section 6

SCHEDULE OF IMPROVEMENTS

Project Number	Project Description	Service Area	Project Start Date	Estimated Project Cost	% Portion Chargeable to Impact Fees	Sources of Funds (& Share)	Responsible Party
Tran-04-2018	Port Royal - Harris Trail Roundabout	Unincorporated South Bryan County	2018	1,200,000	80.70%	Impact Fees (80.7%) TSPLOST (6.5%) SPLOST (6.4%) General Fund (6.4%)	County
Tran-01-2019	Belfast River - Harris Trail Roundabout	Unincorporated South Bryan County	2019	1,200,000	80.70%	Impact Fees (80.7%) TSPLOST (6.5%) SPLOST (6.4%) General Fund (6.4%)	County
Tran-05-2019	Belfast River / Belfast Keller	Unincorporated South Bryan County	2019	1,200,000	80.70%	Impact Fees (80.7%) TSPLOST (6.5%) SPLOST (6.4%) General Fund (6.4%)	County
Tran-03-2025	Hwy 144 / Spur 144	Unincorporated South Bryan County	2025	1,610,000	80.70%	Impact Fees (80.7%) TSPLOST (6.5%) SPLOST (6.4%) General Fund (6.4%)	County
Tran-03-2030	Harris Trail (Timber Trail to Belfast River)	Unincorporated South Bryan County	2030	41,600,000	80.70%	Impact Fees (80.7%) TSPLOST (6.5%) SPLOST (6.4%) General Fund (6.4%)	County