FLAGLER BEACH CITY COMMISSION

Item No. 7

Meeting Date: July 27, 2023
Issue Receive a presentation of the Impact Fee Study results and approve implementation of the recommendations of the study
From: Summary provided by Mike Abels, Interim City Manager
Organization: Tischler Bise

RECOMMENDATION: Motion to approve.

BACKGROUND:

Flagler Beach currently charges impact fees for water and sewer improvements. In 2022, the City Commission authorized a contract with Tischler Bise to review and update the impact fees the city charges new development. As new development impacts more than utilities, Tischler Bise was instructed to expand their evaluation to Police, Fire, Parks & Recreation, Library, and Administrative Support.

As a summary, impact fees are designed to offset the demands future development creates for city infrastructure that supports that development. Impact fees assist in paying for the improvements the City must construct or purchase to serve new growth. Impact fees are applied to new development on vacant lands as well as with the expansion of existing uses.

Tischler Bise will present the study completed for Flagler Beach. To implement the recommendations of the study, the City will need to implement the new impact fee structure through adoption of an ordinance with the first reading scheduled at the Commission's meeting on August 17.

BUDGETARY IMPACT:

LEGAL CONSIDERATIONS/SIGN-OFF:

PERSONNEL: Interim City Manager

POLICY/REQUIREMENT FOR BOARD ACTION:

IMPLEMENTATION/COORDINATION: Executive, Legal, Finance Department

Attachments

- Report by Carson Bise

DRAFT
Impact Fee Study

Prepared for:
Flagler Beach, Florida

July 18, 2023

TischlerBise
FISCAL | ECONOMIC | PLANNING

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EXECUTIVE SUMMARY

Flagler Beach, Florida, contracted with TischlerBise to update its impact fees pursuant to Florida Statutes § 163.31801. Cities in Florida may assess impact fees to offset infrastructure costs necessitated by future growth. Impact fees are one-time payments used to construct system improvements needed to accommodate future development. The fee represents future development's proportionate share of infrastructure costs. Impact fees may be used for infrastructure improvements or debt service for growth-related infrastructure. In contrast to general taxes, impact fees may not be used for operations, maintenance, replacement, or correcting existing deficiencies.

FLORIDA IMPACT FEE ENABLING LEGISLATION

The authority for Florida counties to adopt and collect impact fees to offset the demands future development creates for new infrastructure is well established. St. Johns County v. Northeast Florida Builders Association (583 So. 2d 635, 638 Fla. 1991) states, "The use of impact fees has become an accepted method of paying for public improvements that must be constructed to serve new growth."[1] State statutes specifically "encourage the use of innovative land development regulations which include provisions such as [...] impact fees," and Florida courts have upheld local government's authority to adopt fees under general home rule and police power theories.[2]

In 2006, the Florida legislature passed the "Florida Impact Fee Act," which recognized impact fees as "an outgrowth of the home rule power of a local government to provide certain services within its jurisdiction." § 163.31801(2), Fla. Stat. The statute – concerned mostly with procedural and methodological limitations – did not expressly allow or disallow any particular public facility type from being funded with impact fees. The Act did specify procedural and methodological prerequisites, most of which were common to the practice already. Subsequent amendments to the Act, in 2009, removed prior notice requirements for impact fee reductions (but not increases) and purported to elevate the standard of judicial review. Under Florida law, impact fees must comply with the "dual rational nexus" test, which requires "a reasonable connection, or rational nexus, between the need for additional capital facilities and the growth in service units generated by new development. In addition, the government must show a reasonable connection, or rational nexus, between the expenditures of the funds collected and the benefits accruing to the subdivision," St. Johns County, 583 So.2d at 637 (quoting Hollywood, Inc. 431 So. 2d at 611-12). Impact fee calculation studies, generally speaking, establish the pro rata, or proportionate, "need" for new infrastructure and implementing ordinances to ensure that new growth paying the fees receive a pro rata "benefit" from their expenditure.

In the most recent amendments to the Florida Impact Fee Act, House Bill 750 (2021) specified that impact fees can only be used for fixed capital expenditures, revised requirements for crediting contributions against the collection of impact fees, and restricted impact fee increases. Among the increase restrictions, an adopted increase of 25 percent or less must be phased over two years; increases between 25-50 percent must be phased over four years; no increase can exceed 50 percent; and impact fees cannot be

[1] Citing Home Builders & Contractors Association v. Palm Beach City., 446 So.2d 140 (Fla. 4th DCA 1984); Hollywood, Inc. v. Broward County, 431 So.2d 606 (Fla. 4th DCA 1983).
[2] See §163.3202(3), Fla. Stat.; see also Home Builders & Contractors Association, 446 So.2d 140.

increased more than once every four years. The restrictions can be bypassed if the jurisdiction complies with the impact fee rational nexus test; can demonstrate extraordinary circumstances; and the jurisdiction hold two publicly noticed workshops the need to exceed the limitations; and the increase is approved by no less than two-thirds vote of the governing body.

Flagler Beach is updating its impact fees related to police, fire, park and recreation, libraries, water, and wastewater in order to fund capital facilities needed to meet the demand created by future development. The need for these services, and the infrastructure necessary to provide them, is driven by development; therefore, as vacant lands within Flagler Beach develop, or as existing uses expand, the demand imposed upon Flagler Beach for additional capital facilities increases proportionately.

The need for additional capacity for future development is further shown through an established level-of-service standard and Flagler Beach's existing capital improvement plan. Hollywood, Inc., 431 So.2d at 611 (holding that a plan for providing facilities at a reasonable level of service demonstrates "a reasonable connection between the need for additional park facilities and the growth in population"). Capital facilities necessary to provide this infrastructure have been provided by Flagler Beach to date; however, Flagler Beach will need to provide new residents and visitors with the same levels of service. The expenditures required to maintain existing levels of service are not necessitated by existing development, but rather by future development.

Furthermore, through the implementation of Flagler Beach's capital improvement plans, future development paying impact fees will receive a pro rata benefit from new facilities built with those fees. In addition, Flagler Beach's impact fee ordinance, including any amendments necessary to implement the fees recommended in this study, earmarks impact fees solely for capital facilities necessary to accommodate future development.

Finally, there are several steps Flagler Beach will take to ensure ongoing compliance with applicable Florida laws related to impact fees. First, it will continue to update and implement plans for expending impact fee revenues on the types of facilities TischlerBise has used to develop the fees in this study. In Florida, this is typically satisfied through the Capital Improvement Plan (CIP) and Capital Improvements Element (CIE) framework. Also, Flagler Beach will update its existing impact fee ordinance to ensure compliance with the approach used here and any developments in statutory and case law since Flagler Beach's fees were last updated. This update will address, among other things, earmarking of impact fee revenues, limitations on the use of revenues, revisions related to developer credits, and ongoing compliance with other city and state law requirements.

CONCEPTUAL DEVELOPMENT FEE CALCULATION

In contrast to project-level improvements, impact fees fund growth-related infrastructure that will benefit multiple development projects, or the entire service area (usually 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 service units for each unit of development. For example, an appropriate indicator of the demand for parks is population growth and the increase in population can be estimated from the average number of persons per housing unit. The second step in the impact fee formula is to determine infrastructure improvement units per service unit, typically called level-of-service

(LOS) standards. In keeping with the park example, a common LOS standard is improved park acres per person. The third step in the impact fee formula is the cost of various infrastructure units. To complete the park example, this part of the formula would establish a cost per acre for land acquisition and/or park improvements.

GENERAL METHODOLOGIES

Impact fees for the capital improvements made necessary by new development must be based on the same level of service provided to existing development in the service area. There are three basic methodologies used to calculate impact fees that examine the past, present, and future status of infrastructure. The objective of evaluating these different methodologies is to determine the best measure of the demand created by new development for additional infrastructure capacity. Each methodology has advantages and disadvantages in a particular situation and can be used simultaneously for different capital improvements.

Reduced to its simplest terms, the process of calculating 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 basic methodologies for calculating impact fees and how those methodologies 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 development 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 methodology documents current LOS standards for each type of public facility, using both quantitative and qualitative measures. This approach assumes 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 methodology is best suited for public facilities that will be expanded in regular increments to keep pace with development.

- **Plan-Based** (future improvements) - The plan-based methodology 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 basic 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).

Evaluation of Credits

Regardless of the methodology, a consideration of credits is integral to the development of a legally defensible impact fee. There are two types of credits that should be addressed in impact fee studies and ordinances. The first is a revenue credit due to possible double payment situations, which could occur when other revenues may contribute to the capital costs of infrastructure covered by the impact fee. This type of credit is integrated into the fee calculation, thus reducing the fee amount. The second is a site-specific credit or developer reimbursement for dedication of land or construction of system improvements. This type of credit is addressed in the administration and implementation of the impact fee program. For ease of administration, TischlerBise normally recommends developer reimbursements for system improvements.

IMPACT FEE COMPONENTS

Figure 1 summarizes service areas, methodologies, and infrastructure components for each fee category. There is a single, citywide service area for all impact fees.

Figure 1: Proposed Impact Fee Service Areas, Methodologies, and Cost Components

Category	Service Area	Cost Recovery	Incremental Expansion	Plan Based	Cost Allocation
Library	Citywide	N/A	Facilities	N/A	Population
Parks and Recreation	Citywide	N/A	Land, Amenities	N/A	Population
Police Services	Citywide	N/A	Facilities, Vehicles	N/A	Population, Vehicle Trips
Fire	Citywide	N/A	Facilities, Vehicles	N/A	Population, Vehicle Trips
Water	Citywide	Treatment Plant	N/A	Wells, Storage, Transmission	EDU
Wastewater	Citywide	N/A	N/A	System Upgrades	EDU
Administrative Charge	Citywide	N/A	N/A	Administrative Costs	Population, Jobs

MAXIMUM SUPPORTABLE IMPACT FEES

Impact fees for residential development will be assessed per dwelling unit, based on the size of the unit, and nonresidential fees will be assessed per 1,000 square feet of floor area, based on the land use. Water and Wastewater fees will be assessed based on meter size. Flagler Beach may adopt fees that are less than the proposed fees shown below; however, a reduction in impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital improvements, and/or a decrease in Flagler Beach's LOS standards. All costs in the Impact Fee Study are in current dollars with no assumed inflation rate over time.

Figure 2: Maximum Supportable Impact Fees

Residential Fees per Unit						
Development Type	Library	Parks and Recreation	Fire	Police Services	Administrative Charge	Total
1,100 or less	$123	$1,352	$538	$455	$13	**$2,480**
1,101 to 1,500	$193	$2,132	$849	$717	$20	**$3,911**
1,501 to 2,000	$244	$2,691	$1,071	$905	$26	**$4,936**
2,001 to 2,500	$284	$3,133	$1,247	$1,054	$30	**$5,747**
2,501 to 3,000	$317	$3,497	$1,392	$1,176	$33	**$6,415**
3,001 to 3,500	$345	$3,809	$1,516	$1,281	$36	**$6,987**
3,501 or more	$370	$4,082	$1,625	$1,373	$39	**$7,488**

Nonresidential Fees per 1,000 Square Feet						
Development Type	Library	Parks and Recreation	Fire	Police Services	Administrative Charge	Total
Industrial	$0	$0	$451	$381	$18	**$850**
Commercial	$0	$0	$2,261	$1,911	$24	**$4,196**
Office & Other Services	$0	$0	$1,003	$848	$38	**$1,889**
Institutional	$0	$0	$1,380	$1,166	$35	**$2,581**

Meter Size and Type		Water	Wastewater	Total
0.75	Displacement	$1,755	$1,860	**$3,615**
1.00	Displacement	$2,931	$3,106	**$6,037**
1.50	Displacement	$5,844	$6,194	**$12,038**
2.00	Displacement	$9,354	$9,914	**$19,268**
3.00	Singlejet	$18,726	$19,846	**$38,572**
3.00	Compound	$18,726	$19,846	**$38,572**
3.00	Turbine	$20,481	$21,706	**$42,187**
4.00	Singlejet	$29,256	$31,006	**$60,262**
4.00	Compound	$29,256	$31,006	**$60,262**
4.00	Turbine	$36,855	$39,060	**$75,915**
6.00	Singlejet	$58,494	$61,994	**$120,488**
6.00	Compound	$58,494	$61,994	**$120,488**
6.00	Turbine	$76,044	$80,594	**$156,638**
8.00	Compound	$93,594	$99,194	**$192,788**
8.00	Turbine	$163,794	$173,594	**$337,388**
10.00	Turbine	$245,700	$260,400	**$506,100**
12.00	Turbine	$310,056	$328,606	**$638,662**

1. AWWA Manual of Water Supply Practices M-1, 7th Edition

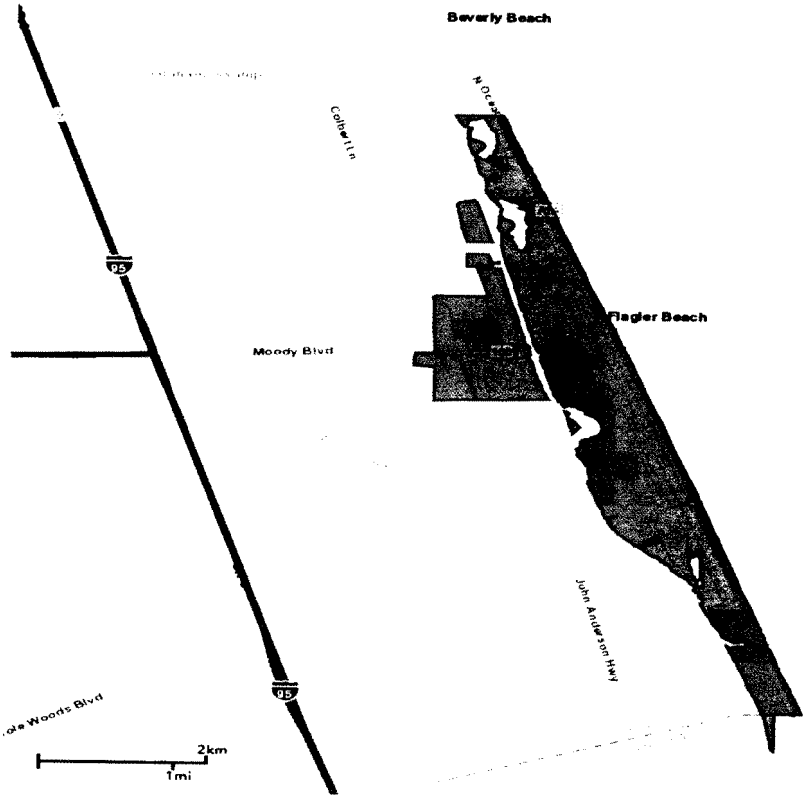
POLICE IMPACT FEES

METHODOLOGY

The Police impact fees include components for police facilities and police vehicles. The incremental expansion methodology is used for all components.

SERVICE AREA

Flagler Beach plans to provide a uniform level of service citywide; therefore, the police impact fees will be assessed in a citywide service area.



PROPORTIONATE SHARE

Impact fees should not exceed a proportionate share of the capital cost needed to provide capital facilities to the development. The police impact fees allocate the cost of capital facilities between residential and nonresidential development using functional population. Based on 2019 estimates from the U.S. Census Bureau's OnTheMap web application (the latest year available), residential development accounts for approximately 76 percent of functional population and nonresidential development accounts for the remaining 24 percent.

Figure P1: Proportionate Share

Demand Units in 2019					
Residential				**Demand Hours/Day**	Person Hours
	Population	5,002			
	Residents Not Working	3,231		**20**	64,620
	Employed Residents	1,771			
	Employed in Flagler Beach		218	**14**	3,052
	Employed outside Flagler Beach		1,553	**14**	21,742
				Residential Subtotal	89,414
				Residential Share	76%
Nonresidential					
	Non-working Residents	3,231		**4**	12,924
	Jobs Located in Flagler Beach	1,517			
	Residents Employed in Flagler Beach		218	**10**	2,180
	Non-Resident Workers (inflow commuters)		1,299	**10**	12,990
				Nonresidential Subtotal	28,094
				Nonresidential Share	24%
				Total	117,508

Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics, Version 6.8 (employment).

DEMAND UNITS

Residential impact fees are calculated on a per capita basis, then converted to an appropriate amount for each size of housing unit based on the number of persons per housing unit (PPHU). As shown in Figure P2, the current PPHU factors range from 1.04 persons per unit units that are 1,100 square feet or less, to 3.14 persons per units that are 3,501 square feet or more. These factors are based on the U.S. Census Bureau's 2016-2020 American Community Survey 5-year estimates (further discussed in Appendix B).

Nonresidential Police impact fees are calculated on a per vehicle trip basis, then converted to an appropriate amount for each type of nonresidential development based on the number of vehicle trip ends generated per 1,000 square feet of floor area. Trip generation rates are used 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 police 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, police impact 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, police impact fees would be disproportionately high for industrial development.

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 and require an adjustment factor to avoid double counting each trip at both the origin and destination points. As shown below, the current vehicle trip generation factors per 1,000 square feet of floor area are 2.44 trips for industrial, 12.21 trips for commercial, 5.42 trips for office and other service, and 7.45 trips for institutional. These factors are defined in *Trip Generation, 11th Edition*, published in 2021 by the Institute of Transportation Engineers (further discussed in Appendix A).

Figure P2: Service Units

Residential Development	
Development Type	Persons per Housing Unit[1]
1,100 or less	1.04
1,101 to 1,500	1.64
1,501 to 2,000	2.07
2,001 to 2,500	2.41
2,501 to 3,000	2.69
3,001 to 3,500	2.93
3,501 or more	3.14

Nonresidential Development			
Development Type	AWVT per 1,000 Sq Ft	Trip Rate Adjustment	AWVT per 1,000 Sq Ft
Industrial	4.87	50%	2.44
Commercial	37.01	33%	12.21
Office & Other Services	10.84	50%	5.42
Institutional	22.59	33%	7.45

1. See Land Use Assumptions

LEVEL-OF-SERVICE ANALYSIS

Police Facilities – Incremental Expansion

Flagler Beach will maintain current levels of service by incrementally expanding police facilities. As Figure P3 indicates, Flagler Beach's existing Police Station is 5,451 square feet. To allocate the proportionate share of demand to residential and nonresidential development, this analysis uses functional population outlined in Figure P1. Flagler Beach's existing level of service for residential development is 0.5655 square feet per person (5,451 square feet X 76 percent residential share / 7,326 persons). For nonresidential development, the existing LOS is 0.2023 square feet per vehicle trip (5,451 square feet X 24 percent nonresidential share / 6,466 nonresidential vehicle trips).

This analysis uses a construction cost of $520 per square foot. For police facilities, the cost is $294.07 per person (0.5655 square feet per person X $520 per square foot) and $105.21 per vehicle trip (0.2023 square feet per vehicle trip X $520 per square foot).

Figure P3: Existing Level of Service

Description	Square Feet
Main Station	5,451

Cost Factors	
Cost per Square Foot	$520

Level-of-Service (LOS) Standards	
Existing Square Feet	5,451
Residential	
Residential Share	76%
2023 Peak Population	7,326
Square Feet per Person	0.5655
Cost per Person	$294.07
Nonresidential	
Nonresidential Share	24%
2023 Vehicle Trips	6,466
Square Feet per Vehicle Trip	0.2023
Cost per Vehicle Trip	$105.21

Source: Flagler Beach Police Department

Police Vehicles – Incremental Expansion

As indicated in Figure P4, Flagler Beach has an inventory of 23 police vehicles. This fleet will need to be expanded as the City hires additional officers to serve new growth. To allocate the proportionate share of demand to residential and nonresidential development, this analysis uses functional population outlined in Figure P1. Flagler Beach's existing level of service for residential development is 0.0024 units per person (23 units X 76 percent residential share / 7,326 persons). For nonresidential development, the existing LOS is 0.0009 units per vehicle trip (23 units X 24 percent nonresidential share / 6,466 nonresidential vehicle trips).

Based on information from Flagler Beach staff, the cost for a new vehicle is $60,000 – this includes the cost of the vehicle and any equipment needed to place the vehicle into service (i.e., decals, lights, radios, computers, etc.). For police vehicles, the cost is $143.17 per person (0.0024 units per person X $60,000 per unit) and $51.22 per vehicle trip (0.0009 units per vehicle trip X $60,000 per unit).

Figure P4: Existing Level of Service

Description	Vehicles
Police Vehicles	23

Cost Factors	
Cost per Vehicle	$60,000

Level-of-Service (LOS) Standards	
Existing Vehicles	23
Residential	
Residential Share	76%
2023 Peak Population	7,326
Vehicles per Person	0.0024
Cost per Person	$143.17
Nonresidential	
Nonresidential Share	24%
2023 Vehicle Trips	6,466
Vehicles per Vehicle Trip	0.0009
Cost per Vehicle Trip	$51.22

Source: Flagler Beach Police Department

PROJECTED DEMAND FOR POLICE INFRASTRUCTURE

Police Facilities – Incremental Expansion

Projected demand for police facilities over the next 10 years is shown below in Figure P5. Based on a projected population increase of 1,579 persons, future residential development demands approximately 893 square feet of police facilities (1,525 additional persons X 0.5655 square feet per person). With projected nonresidential vehicle trip growth of 1,903 vehicle trips, future nonresidential development demands approximately 385 square feet of police facilities (1,903 additional vehicle trips X 0.2023 square feet per vehicle trip). Future development demands approximately 1,278 square feet of police facilities at a cost of $664,672 (1,278.2 square feet X $520 per square foot).

Figure P5: Projected Demand for Police Facilities

Type of Infrastructure	Level of Service	Demand Unit	Cost per Sq Ft
Police Facilities	0.5655 Square Feet	per Person	$520
	0.2023 Square Feet	per Vehicle Trip	

Demand for Police Facilities					
Year	Peak Population	Vehicle Trips	Square Feet		
			Residential	Nonresidential	Total
2023	7,326	6,466	4,142.8	1,308.2	5,451.0
2024	7,484	6,656	4,232.1	1,346.7	5,578.8
2025	7,641	6,846	4,321.4	1,385.3	5,706.6
2026	7,799	7,037	4,410.7	1,423.8	5,834.5
2027	7,957	7,227	4,500.0	1,462.3	5,962.3
2028	8,115	7,417	4,589.3	1,500.8	6,090.1
2029	8,273	7,608	4,678.7	1,539.3	6,217.9
2030	8,431	7,798	4,768.0	1,577.8	6,345.8
2031	8,589	7,988	4,857.3	1,616.3	6,473.6
2032	8,747	8,178	4,946.6	1,654.8	6,601.4
2033	8,905	8,369	5,035.9	1,693.3	6,729.2
10-Yr Increase	1,579	1,903	893.2	385.1	1,278.2
Growth-Related Expenditures			$464,440	$200,232	$664,672

Police Vehicles – Incremental Expansion

Projected demand for police vehicles over the next 10 years is shown below in Figure P6. Based on a projected population increase of 1,579 persons, future residential development demands approximately 3.8 police vehicles (1,579 additional persons X 0.0024 units per person). With projected nonresidential vehicle trip growth of 1,903 vehicle trips, future nonresidential development demands approximately 1.6 police vehicles (1,903 additional vehicle trips X 0.0009 units per vehicle trip). Future development demands approximately 5.4 police vehicles at a cost of $323,599 (5.4 units X $60,000 per unit).

Figure P6: Projected Demand for Police Vehicles

Type of Infrastructure	Level of Service	Demand Unit	Cost per Unit
Police Vehicles	0.0024 Vehicles	per Person	$60,000
	0.0009 Vehicles	per Vehicle Trip	

Demand for Police Vehicles					
Year	Peak Population	Vehicle Trips	Vehicles		
			Residential	Nonresidential	Total
2023	7,326	6,466	17.5	5.5	23.0
2024	7,484	6,656	17.9	5.7	23.5
2025	7,641	6,846	18.2	5.8	24.1
2026	7,799	7,037	18.6	6.0	24.6
2027	7,957	7,227	19.0	6.2	25.2
2028	8,115	7,417	19.4	6.3	25.7
2029	8,273	7,608	19.7	6.5	26.2
2030	8,431	7,798	20.1	6.7	26.8
2031	8,589	7,988	20.5	6.8	27.3
2032	8,747	8,178	20.9	7.0	27.9
2033	8,905	8,369	21.2	7.1	28.4
10-Yr Increase	1,579	1,903	3.8	1.6	5.4
Growth Related Expenditures			$226,115	$97,484	$323,599

CREDITS

As the City has no outstanding debt on its police facilities, a credit for future principal payments is not included. If elected officials make a legislative policy decision to fully fund growth-related costs from impact fees, there will be no potential double-payment from other revenue sources.

POLICE IMPACT FEES

Infrastructure components and cost factors for police impact fees are summarized in the upper portion of Figure P7. The cost for police impact fees is $437.24 per person and $156.43 per vehicle trip.

Police impact fees for residential development are assessed according to the number of persons per household. The 2,001 square feet to 2,500 square feet fee of $1,054 is calculated using a cost of $437.24 per person multiplied by 2.41 persons per household.

Police impact fees for nonresidential development are assessed according to the number of vehicle trips generated per 1,000 square feet of floor area. The industrial fee of $381 per 1,000 square feet is calculated using a cost of $156.43 per vehicle trip multiplied by 2.44 vehicle trips per 1,000 square feet of industrial development.

Figure P7: Schedule of Police Impact Fees

Fee Component	Cost per Person	Cost per Trip
Police Facilities	$294.07	$105.21
Police Vehicles	$143.17	$51.22
Total	$437.24	$156.43

Residential Fees per Unit		
Development Type	Persons per Household[1]	Proposed Fees
1,100 or less	1.04	$455
1,101 to 1,500	1.64	$717
1,501 to 2,000	2.07	$905
2,001 to 2,500	2.41	$1,054
2,501 to 3,000	2.69	$1,176
3,001 to 3,500	2.93	$1,281
3,501 or more	3.14	$1,373

Nonresidential Fees per 1000 Square Feet		
Development Type	Avg Weekday Vehicle Trips[1]	Proposed Fees
Industrial	2.44	$381
Commercial	12.21	$1,911
Office & Other Services	5.42	$848
Institutional	7.45	$1,166

1. See Land Use Assumptions

POLICE IMPACT FEE REVENUE

Projected fee revenue shown below is based on the development projections in Appendix B and the police impact fees shown on the previous page. To estimate single family revenue the 2,001 square feet to 2,500 square feet fee is used, and for multi-family the less than 1,100 square feet fee is used. If development occurs at a more rapid rate than projected, the demand for infrastructure will increase and impact fee revenue will increase at a corresponding rate. If development occurs at a slower rate than projected, the demand for infrastructure will also decrease, along with impact fee revenue. Over the next 10 years, projected impact fee revenues equal $1,047,800 and projected expenditures equal $988,270. Based on the actual mix of future residential construction, the projected police fee revenue shown below may change.

Figure P8: Projected Police Impact Fee Revenue

Fee Component	Growth Share	Existing Share	Total
Police Facilities	$664,672	$0	$664,672
Police Vehicles	$323,599	$0	$323,599
Total	**$988,271**	**$0**	**$988,271**

Year		Single Family $1,054 per unit	Multi-Family $455 per unit	Industrial $380.92 per sq ft	Commercial $1,910.58 per sq ft	Office & Other $847.88 per sq ft	Institutional $1,166.17 per sq ft
		Hsg Unit	**Hsg Unit**	**KSF**	**KSF**	**KSF**	**KSF**
Base	2023	3,012	775	54	373	208	88
Year 1	2024	3,082	779	55	384	215	90
Year 2	2025	3,151	783	57	395	221	93
Year 3	2026	3,221	787	59	406	227	95
Year 4	2027	3,290	791	60	417	233	98
Year 5	2028	3,360	795	62	427	239	101
Year 6	2029	3,429	799	63	438	245	103
Year 7	2030	3,499	803	65	449	251	106
Year 8	2031	3,568	807	66	460	257	108
Year 9	2032	3,638	810	68	471	264	111
Year 10	2033	3,707	814	70	482	270	114
10-Year Increase		695	39	16	110	61	26
Projected Revenue		**$732,354**	**$17,734**	**$6,033**	**$209,563**	**$52,003**	**$30,108**

Projected Fee Revenue	$1,047,800
Total Expenditures	$988,270

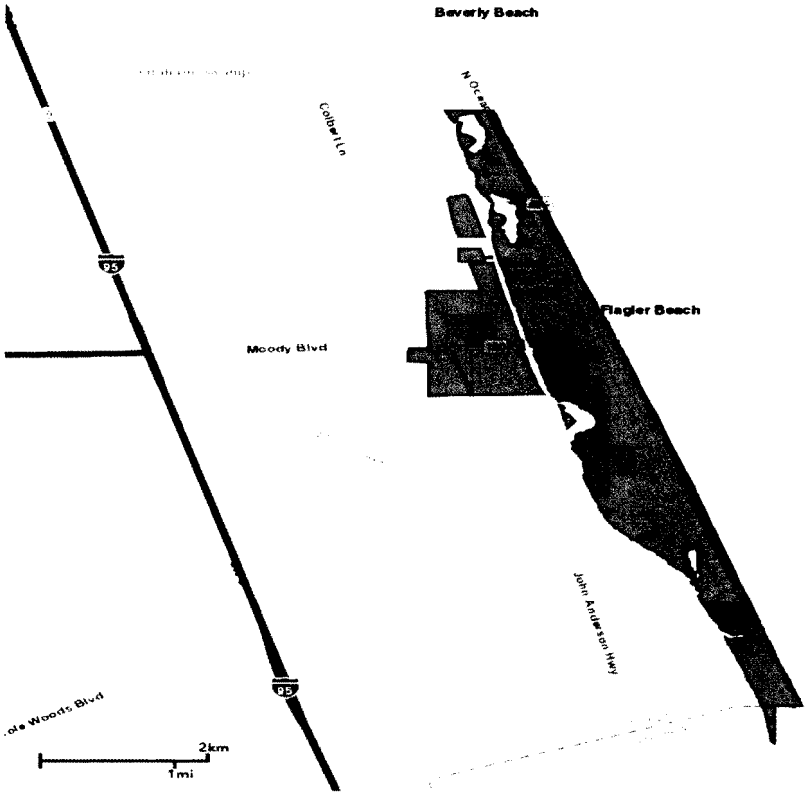
Fire Impact Fees

Methodology

The Fire impact fees include components for fire facilities and fire Apparatus. The incremental expansion methodology is used for all components.

Service Area

Flagler Beach plans to provide a uniform level of service citywide; therefore, the fire impact fees will be assessed in a citywide service area.



PROPORTIONATE SHARE

Impact fees should not exceed a proportionate share of the capital cost needed to provide capital facilities to the development. The fire impact fees allocate the cost of capital facilities between residential and nonresidential development using functional population. Based on 2019 estimates from the U.S. Census Bureau's OnTheMap web application (the latest year available), residential development accounts for approximately 76 percent of functional population and nonresidential development accounts for the remaining 24 percent.

Figure F1: Proportionate Share

Demand Units in 2019					
Residential				**Demand Hours/Day**	Person Hours
	Population	5,002			
	Residents Not Working		3,231	**20**	64,620
	Employed Residents		1,771		
	Employed in Flagler Beach		218	**14**	3,052
	Employed outside Flagler Beach		1,553	**14**	21,742
				Residential Subtotal	89,414
				Residential Share	76%
Nonresidential					
	Non-working Residents		3,231	**4**	12,924
	Jobs Located in Flagler Beach		1,517		
	Residents Employed in Flagler Beach		218	**10**	2,180
	Non-Resident Workers (inflow commuters)		1,299	**10**	12,990
				Nonresidential Subtotal	28,094
				Nonresidential Share	24%
				Total	117,508

Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics, Version 6.8 (employment).

DEMAND UNITS

Residential impact fees are calculated on a per capita basis, then converted to an appropriate amount for each size of housing unit based on the number of persons per housing unit (PPHU). As shown in Figure F2, the current PPHU factors range from 1.04 persons per unit units that are 1,100 square feet or less, to 3.14 persons per units that are 3,501 square feet or more. These factors are based on the U.S. Census Bureau's 2016-2020 American Community Survey 5-year estimates (further discussed in Appendix B).

Nonresidential fire impact fees are calculated on a per vehicle trip basis, then converted to an appropriate amount for each type of nonresidential development based on the number of vehicle trip ends generated per 1,000 square feet of floor area. Trip generation rates are used 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 fire and emergency medical 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, fire impact 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, fire impact fees would be disproportionately high for industrial development.

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 and require an adjustment factor to avoid double counting each trip at both the origin and destination points. As shown below, the current vehicle trip generation factors per 1,000 square feet of floor area are 2.44 trips for industrial, 12.21 trips for commercial, 5.42 trips for office and other service, and 7.45 trips for institutional. These factors are defined in *Trip Generation, 11th Edition*, published in 2021 by the Institute of Transportation Engineers (further discussed in Appendix A).

Figure F2: Service Units

Residential Development	
Development Type	Persons per Housing Unit[1]
1,100 or less	1.04
1,101 to 1,500	1.64
1,501 to 2,000	2.07
2,001 to 2,500	2.41
2,501 to 3,000	2.69
3,001 to 3,500	2.93
3,501 or more	3.14

Nonresidential Development			
Development Type	AWVT per 1,000 Sq Ft	Trip Rate Adjustment	AWVT per 1,000 Sq Ft
Industrial	4.87	50%	2.44
Commercial	37.01	33%	12.21
Office & Other Services	10.84	50%	5.42
Institutional	22.59	33%	7.45

1. See Land Use Assumptions

LEVEL-OF-SERVICE ANALYSIS

Fire Facilities – Incremental Expansion

Flagler Beach will maintain current levels of service by incrementally expanding Fire facilities. As Figure F3 indicates, Flagler Beach's existing Fire Station is 5,451 square feet. To allocate the proportionate share of demand to residential and nonresidential development, this analysis uses functional population outlined in Figure F1. Flagler Beach's existing level of service for residential development is 0.5655 square feet per person (5,451 square feet X 76 percent residential share / 7,326 persons). For nonresidential development, the existing LOS is 0.2023 square feet per vehicle trip (5,451 square feet X 24 percent nonresidential share / 6,466 nonresidential vehicle trips).

This analysis uses a construction cost of $520 per square foot. For Fire facilities, the cost is $294.07 per person (0.5655 square feet per person X $520 per square foot) and $105.21 per vehicle trip (0.2023 square feet per vehicle trip X $520 per square foot).

Figure F3: Existing Level of Service

Description	Square Feet
Main Station	5,451

Cost Factors	
Cost per Square Foot	$520

Level-of-Service (LOS) Standards	
Existing Square Feet	5,451
Residential	
Residential Share	76%
2023 Peak Population	7,326
Square Feet per Person	0.5655
Cost per Person	$294.07
Nonresidential	
Nonresidential Share	24%
2023 Vehicle Trips	6,466
Square Feet per Vehicle Trip	0.2023
Cost per Vehicle Trip	$105.21

Source: Flagler Beach

Fire Apparatus – Incremental Expansion

As indicated in Figure F4, Flagler Beach has an inventory of 16 Fire Apparatus. This fleet will need to be expanded to serve new growth. To allocate the proportionate share of demand to residential and nonresidential development, this analysis uses functional population outlined in Figure F1. Flagler Beach's existing level of service for residential development is 0.0017 units per person (16 units X 76 percent residential share / 7,326 persons). For nonresidential development, the existing LOS is 0.0006 units per vehicle trip (16 units X 24 percent nonresidential share / 6,466 nonresidential vehicle trips).

The weighted average cost for a new piece of fire apparatus is $134,557. For Fire Apparatus, the cost is $223.36 per person (0.0017 units per person X $134,557 per unit) and $79.91 per vehicle trip (0.0006 units per vehicle trip X $134,557 per unit).

Figure F4: Existing Level of Service

Description	Cost
75 ft. Ladder Truck	$650,000
Pumper Truck	$550,000
Pumper Truck	$550,000
Command Vehicle – Ford Explorer	$36,760
Command Vehicle – Ford Explorer	$36,760
Command Vehicle – Ford Expedition	$42,998
Fire Marshal Truck- Ford Ranger	$27,400
UTV Mule	$17,000
ATV	$8,399
Boat Trailer- 18-21 ft.	$3,596
Boat Trailer-21-25 ft.	$6,999
Jet Ski	$15,000
Jet Ski Trailer	$3,000
Brush Truck	$175,000
Boat- Transom Style, Rigid Hull 12 ft.	$12,000
Boat-Transom Style , Rigid Hull 15 ft.	$18,000

Cost Factors	
Weighted Average Cost per Unit	$134,557

Level of Service (LOS) Standards	
Existing Units	16
Residential	
Residential Share	76%
2023 Peak Population	7,326
Units per Person	0.0017
Cost per Person	$223.36
Nonresidential	
Nonresidential Share	24%
2023 Vehicle Trips	6,466
Units per Vehicle Trip	0.0006
Cost per Vehicle Trip	$79.91

Source: Flagler Beach Fire Department

PROJECTED DEMAND FOR FIRE INFRASTRUCTURE

Fire Facilities – Incremental Expansion

Projected demand for fire facilities over the next 10 years is shown below in Figure F5. Based on a projected population increase of 1,579 persons, future residential development demands approximately 893 square feet of Fire facilities (1,525 additional persons X 0.5655 square feet per person). With projected nonresidential vehicle trip growth of 1,903 vehicle trips, future nonresidential development demands approximately 385 square feet of Fire facilities (1,903 additional vehicle trips X 0.2023 square feet per vehicle trip). Future development demands approximately 1,278 square feet of Fire facilities at a cost of $664,672 (1,278.2 square feet X $520 per square foot).

Figure F5: Projected Demand for Fire Facilities

Type of Infrastructure	Level of Service	Demand Unit	Cost per Sq Ft
Fire Facilities	0.5655 Square Feet	per Person	$520
	0.2023 Square Feet	per Vehicle Trip	

Demand for Fire Facilities					
Year	Peak Population	Vehicle Trips	Square Feet		
			Residential	Nonresidential	Total
2023	7,326	6,466	4,142.8	1,308.2	5,451.0
2024	7,484	6,656	4,232.1	1,346.7	5,578.8
2025	7,641	6,846	4,321.4	1,385.3	5,706.6
2026	7,799	7,037	4,410.7	1,423.8	5,834.5
2027	7,957	7,227	4,500.0	1,462.3	5,962.3
2028	8,115	7,417	4,589.3	1,500.8	6,090.1
2029	8,273	7,608	4,678.7	1,539.3	6,217.9
2030	8,431	7,798	4,768.0	1,577.8	6,345.8
2031	8,589	7,988	4,857.3	1,616.3	6,473.6
2032	8,747	8,178	4,946.6	1,654.8	6,601.4
2033	8,905	8,369	5,035.9	1,693.3	6,729.2
10-Yr Increase	**1,579**	**1,903**	**893.2**	**385.1**	**1,278.2**
Growth-Related Expenditures			$464,440	$200,232	$664,672

Fire Apparatus – Incremental Expansion

Projected demand for fire apparatus over the next 10 years is shown below in Figure F6. Based on a projected population increase of 1,579 persons, future residential development demands approximately 2.6 Fire Apparatus (1,579 additional persons X 0.0017 units per person). With projected nonresidential vehicle trip growth of 1,903 vehicle trips, future nonresidential development demands approximately 1.1 Fire Apparatus (1,903 additional vehicle trips X 0.0006 units per vehicle trip). Future development demands approximately 3.8 Fire Apparatus at a cost of $504,841 (3.8 units X $134,557 per unit).

Figure F6: Projected Demand for Fire Apparatus

Type of Infrastructure	Level of Service	Demand Unit	Cost per Unit
Fire Apparatus	0.0017 Units	per Person	$134,557
	0.0006 Units	per Vehicle Trip	

Demand for Fire Apparatus					
Year	Peak Population	Unit Trips	Units		
			Residential	Nonresidential	Total
2023	7,326	6,466	12.2	3.8	16.0
2024	7,484	6,656	12.4	4.0	16.4
2025	7,641	6,846	12.7	4.1	16.8
2026	7,799	7,037	12.9	4.2	17.1
2027	7,957	7,227	13.2	4.3	17.5
2028	8,115	7,417	13.5	4.4	17.9
2029	8,273	7,608	13.7	4.5	18.3
2030	8,431	7,798	14.0	4.6	18.6
2031	8,589	7,988	14.3	4.7	19.0
2032	8,747	8,178	14.5	4.9	19.4
2033	8,905	8,369	14.8	5.0	19.8
10-Yr Increase	1,579	1,903	2.6	1.1	3.8
Growth-Related Expenditures			$352,758	$152,083	$504,841

CREDITS

As the City has no outstanding debt on its Fire facilities, a credit for future principal payments is not included. If elected officials make a legislative policy decision to fully fund growth-related costs from impact fees, there will be no potential double-payment from other revenue sources.

FIRE IMPACT FEES

Infrastructure components and cost factors for Fire impact fees are summarized in the upper portion of Figure F7. The cost for Fire impact fees is $517.43 per person and $185.12 per vehicle trip.

Fire impact fees for residential development are assessed according to the number of persons per household. The 2,001 square feet to 2,500 square feet fee of $1,247 is calculated using a cost of $517.43 per person multiplied by 2.41 persons per household.

Fire impact fees for nonresidential development are assessed according to the number of vehicle trips generated per 1,000 square feet of floor area. The industrial fee of $451 per 1,000 square feet is calculated using a cost of $185.12 per vehicle trip multiplied by 2.44 vehicle trips per 1,000 square feet of industrial development.

Figure F7: Schedule of Fire Impact Fees

Fee Component	Cost per Person	Cost per Trip
Fire Facilities	$294.07	$105.21
Fire Appartus	$223.36	$79.91
Total	$517.43	$185.12

Residential Fees per Unit		
Development Type	Persons per Household[1]	Proposed Fees
1,100 or less	1.04	$538
1,101 to 1,500	1.64	$849
1,501 to 2,000	2.07	$1,071
2,001 to 2,500	2.41	$1,247
2,501 to 3,000	2.69	$1,392
3,001 to 3,500	2.93	$1,516
3,501 or more	3.14	$1,625

Nonresidential Fees per 1000 Square Feet		
Development Type	Avg Weekday Vehicle Trips1	Proposed Fees
Industrial	2.44	$451
Commercial	12.21	$2,261
Office & Other Services	5.42	$1,003
Institutional	7.45	$1,380

1. See Land Use Assumptions

FIRE IMPACT FEE REVENUE

Projected fee revenue shown below is based on the development projections in Appendix B and the Fire impact fees shown on the previous page. To estimate single family revenue the 2,001 square feet to 2,500 square feet fee is used, and for multi-family the less than 1,100 square feet fee is used. If development occurs at a more rapid rate than projected, the demand for infrastructure will increase and impact fee revenue will increase at a corresponding rate. If development occurs at a slower rate than projected, the demand for infrastructure will also decrease, along with impact fee revenue. Over the next 10 years, projected impact fee revenues equal $1,239,960 and projected expenditures equal $1,169,510. Based on the actual mix of future residential construction, the projected Fire fee revenue shown below may change.

Figure F8: Projected Fire Impact Fee Revenue

Fee Component	Growth Share	Existing Share	Total
Fire Facilities	$664,672	$0	$664,672
Fire Units	$504,841	$0	$504,841
Total	**$1,169,513**	**$0**	**$1,169,513**

Year		Single Family $1,247 per unit	Multi Family $538 per unit	Industrial $450.78 per sq ft	Commercial $2,260.98 per sq ft	Office & Other $1,003.38 per sq ft	Institutional $1,380.05 per sq ft
		Hsg Unit	**Hsg Unit**	**KSF**	**KSF**	**KSF**	**KSF**
Base	2023	3,012	775	54	373	208	88
Year 1	2024	3,082	779	55	384	215	90
Year 2	2025	3,151	783	57	395	221	93
Year 3	2026	3,221	787	59	406	227	95
Year 4	2027	3,290	791	60	417	233	98
Year 5	2028	3,360	795	62	427	239	101
Year 6	2029	3,429	799	63	438	245	103
Year 7	2030	3,499	803	65	449	251	106
Year 8	2031	3,568	807	66	460	257	108
Year 9	2032	3,638	810	68	471	264	111
Year 10	2033	3,707	814	70	482	270	114
10-Year Increase		695	39	16	110	61	26
Projected Revenue		**$866,668**	**$20,987**	**$7,140**	**$247,997**	**$61,541**	**$35,630**

Projected Fee Revenue	$1,239,960
Total Expenditures	$1,169,510

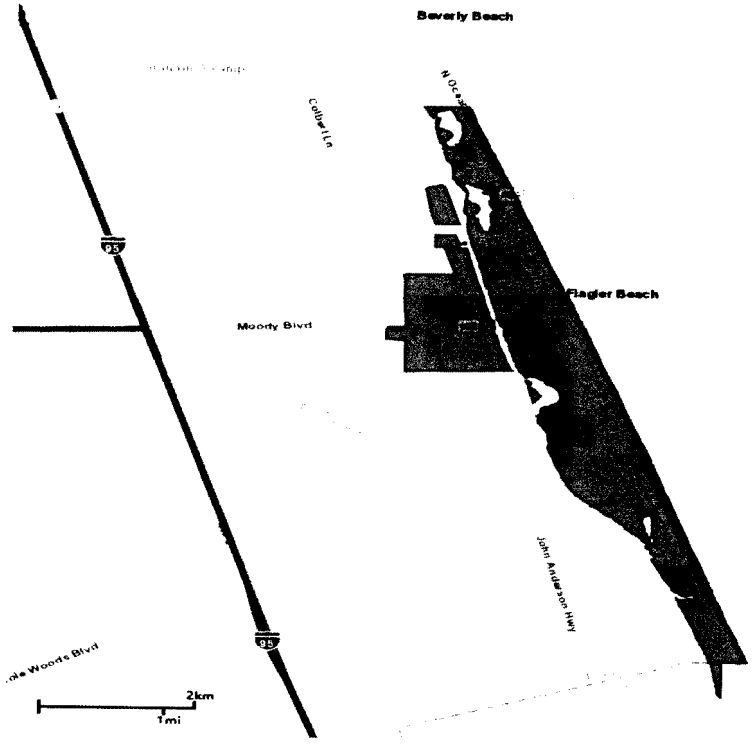
PARK AND RECREATION IMPACT FEES

METHODOLOGY

The Park and Recreation impact fees include components for park land and amenities. The incremental expansion methodology is used for all components.

SERVICE AREA

Flagler Beach plans to provide a uniform level of service and equal access to parks within the city limits; therefore, the park and recreation impact fees will be assessed in a citywide service area.



PROPORTIONATE SHARE

Impact fees should not exceed a proportionate share of the capital cost needed to provide capital facilities to the development. The park and recreation impact fees allocate 100 percent of the cost of capital facilities to residential development. The proportionate share of costs attributable to residential

development will be allocated to population and then converted to an appropriate amount by type of housing unit, based on housing unit type.

DEMAND UNITS

Residential impact fees are calculated on a per capita basis, then converted to an appropriate amount for each size of housing unit based on the number of persons per housing unit (PPHU). As shown in Figure P2, the current PPHU factors range from 1.04 persons per unit units that are 1,100 square feet or less, to 3.14 persons per units that are 3,501 square feet or more. These factors are based on the U.S. Census Bureau's 2016-2020 American Community Survey 5-year estimates (further discussed in Appendix B).

Figure PR 1: Service Units

Residential Development	
Development Type	Persons per Housing Unit[1]
1,100 or less	1.04
1,101 to 1,500	1.64
1,501 to 2,000	2.07
2,001 to 2,500	2.41
2,501 to 3,000	2.69
3,001 to 3,500	2.93
3,501 or more	3.14

LEVEL-OF-SERVICE ANALYSIS

Park Land – Incremental Expansion

As indicated in Figure PR2, the City of Flagler Beach has 57.2 acres of park land. The City plans on maintaining current levels of service by incrementally expanding park land over time. When the existing inventory of park land is compared to the existing residential population, the City's existing level of service is 0.0078 acres per person (57.2 acres X 100 percent residential share / 7,326 persons).

The City estimates a land acquisition cost of $100,000 per acre. For park land, the cost is $781.36 per person (0.0078 acres per person X $100,000 per acre).

Figure PR2: Existing Level of Service

Description	Acres
Pal and Irma Parker Reserve	5.2
Silver Lake Park	46.0
Custer Park	0.3
Venice Park	0.1
Wickline Park	4.4
Veterans Park	0.9
Flagler Beach Pier	0.3
Palm Circle Park	0.1
Total	57.2

Cost Factors	
Cost per Acre	$100,000

Level-of-Service (LOS) Standards	
Existing Acres	57.2
Residential	
Residential Share	100%
2023 Peak Population	7,326
Acres per Person	0.0078
Cost per Person	$781.36

Source: Flagler Beach

Park Amenities – Incremental Expansion

As indicated in Figure PR3, Flagler Beach currently provides 161 park amenities in its parks with an estimated value of $3,798,500, which results in a weighted average cost per amenity of $23,593 ($3,798,500 / 161 amenities). As is the case with park land, the City plans to construct additional park amenities to serve future development.

Figure PR3: Existing Inventory

Description	Units	Unit Cost	Total Cost
Fields	4	$90,000	$360,000
Basketball Courts	1	$30,000	$30,000
Canoe Launch	1	$10,000	$10,000
Tennis Courts	2	$100,000	$200,000
Volleyball Courts	1	$100,000	$100,000
Restrooms	2	$150,000	$300,000
Playgrounds	3	$260,000	$780,000
Pavilions	4	$20,000	$80,000
Fitness Trails	2	$20,000	$40,000
Grills	6	$200	$1,200
Benches	64	$1,000	$64,000
Picnic Tables	19	$700	$13,300
Walkovers	52	$35,000	$1,820,000
Total	**161**	**$23,593**	**$3,798,500**

When the City's inventory of 161 park amenities is compared to current population, the City's existing level of service is 0.0220 amenities per person (161 amenities X 100 percent residential share / 7,326 persons). Using the weighted average cost per amenity of $23,593, the cost per demand unit is $518.52 per person (0.0220 amenities per person X $23,593 per amenity).

Figure PR4: Existing Level of Service

Cost Factors	
Weighted Average per Unit	$23,593

Level-of-Service (LOS) Standards	
Existing Units	161
Residential	
Residential Share	100%
2023 Peak Population	7,326
Units per Person	0.0220
Cost per Person	$518.52

Source: Flagler Beach

PROJECTED DEMAND FOR PARK AND RECREATION INFRASTRUCTURE

Park Land – Incremental Expansion

Projected demand for park land over the next 10 years is shown below in Figure PR5. Based on a projected population increase of 1,579 persons, future residential development demands 12.3 acres of park land (1,579 additional persons X 0.0078 acres per person) at a cost of $1,234,038 (12.3 acres X $100,000 per acre).

Figure PR5: Projected Demand for Park Land

Park Land			
Level of Service		Demand Unit	Unit Cost
0.0078	Acres	per Person	$100,000

Demand for Park Land		
Year	Peak Population	Acres
2023	7,326	57.2
2024	7,484	58.5
2025	7,641	59.7
2026	7,799	60.9
2027	7,957	62.2
2028	8,115	63.4
2029	8,273	64.6
2030	8,431	65.9
2031	8,589	67.1
2032	8,747	68.3
2033	8,905	69.6
10-Yr Increase	1,579	12.3

Growth-Related Expenditures	$1,234,038

Park Amenities – Incremental Expansion

Projected demand for park amenities over the next 10 years is shown below in Figure PR6. Based on a projected peak population increase of 1,579 persons, future residential development demands approximately 34.7 park amenities (1,579 additional persons X 0.0220 amenities per person) at a cost of $818,934 (34.7 park amenities X $23,593 per amenity).

Figure PR6: Projected Demand for Park Amenities

Park Amenities		
Level of Service	Demand Unit	Unit Cost
0.0220 Units	per Person	$23,593

Demand for Park Amenities		
Year	Peak Population	Park Amenities
2023	7,326	161.0
2024	7,484	164.5
2025	7,641	167.9
2026	7,799	171.4
2027	7,957	174.9
2028	8,115	178.4
2029	8,273	181.8
2030	8,431	185.3
2031	8,589	188.8
2032	8,747	192.2
2033	8,905	195.7
10-Yr Increase	1,579	34.7

Growth-Related Expenditures	$818,934

CREDITS

As the City has no outstanding debt on its park and recreation facilities, a credit for future principal payments is not included. If elected officials make a legislative policy decision to fully fund growth-related costs from impact fees, there will be no potential double-payment from other revenue sources.

PARK AND RECREATION IMPACT FEES

Infrastructure components and cost factors for park and recreation impact fees are summarized in the upper portion of Figure PR7. The cost for park and recreation impact fees is $1,299.88 per person, and Flagler Beach will not assess park and recreation impact fees to nonresidential development.

Park and recreation impact fees for residential development are assessed according to the number of persons per household. The 2,001 square feet to 2,500 square feet fee of $3,133 is calculated using a cost of $1,299.88 per person multiplied by 2.41 persons per single-family household.

Figure PR7: Schedule of Park and Recreation Impact Fees

Fee Component	Cost per Person
Park Amenities	$518.52
Park Land	$781.36
Total	$1,299.88

Residential Fees per Unit		
Development Type	Persons per Household[1]	Proposed Fees
1,100 or less	1.04	$1,352
1,101 to 1,500	1.64	$2,132
1,501 to 2,000	2.07	$2,691
2,001 to 2,500	2.41	$3,133
2,501 to 3,000	2.69	$3,497
3,001 to 3,500	2.93	$3,809
3,501 or more	3.14	$4,082

1. See Land Use Assumptions

PARK AND RECREATION IMPACT FEE REVENUE

Projected fee revenue shown below is based on the development projections in Appendix B and the updated park and recreation impact fees shown on the previous page. To estimate single family revenue the 2,001 square feet to 2,500 square feet fee is used, and for multi-family the less than 1,100 square feet fee is used. If development occurs at a more rapid rate than projected, the demand for infrastructure will increase and impact fee revenue will increase at a corresponding rate. If development occurs at a slower rate than projected, the demand for infrastructure will also decrease, along with impact fee revenue. Over the next 10 years, projected impact fee revenue equals $2.26 million and projected expenditures equal $2.05 million. Based on the actual mix of future residential construction, the projected parks and recreation fee revenue shown below may change

Figure PR8: Projected Park and Recreation Impact Fee Revenue

Fee Component	Growth Share	Existing Share	Total
Park Amenities	$818,934	$0	$818,934
Park Land	$1,234,038	$0	$1,234,038
Total	**$2,052,972**	**$0**	**$2,052,972**

		Single Family $3,133 per unit	Multi-Family $1,352 per unit
Year		**Hsg Unit**	**Hsg Unit**
Base	2023	3,012	775
Year 1	2024	3,082	779
Year 2	2025	3,151	783
Year 3	2026	3,221	787
Year 4	2027	3,290	791
Year 5	2028	3,360	795
Year 6	2029	3,429	799
Year 7	2030	3,499	803
Year 8	2031	3,568	807
Year 9	2032	3,638	810
Year 10	2033	3,707	814
10-Year Increase		695	39
Projected Revenue		**$2,177,233**	**$83,140**

Projected Fee Revenue	$2,260,373
Total Expenditures	$2,052,972

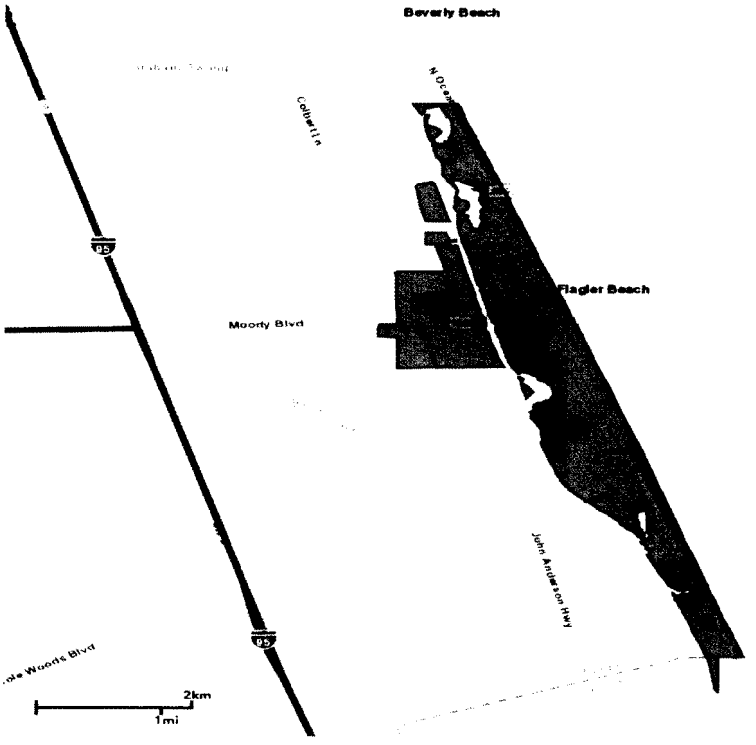
LIBRARY IMPACT FEES

METHODOLOGY

The Library impact fee includes a component for library facilities. The incremental expansion methodology is used for this component.

SERVICE AREA

Flagler Beach plans to provide a uniform level of service and equal access to libraries within the city limits; therefore, the library impact fee will be assessed in a citywide service area.



PROPORTIONATE SHARE

Impact fees should not exceed a proportionate share of the capital cost needed to provide capital facilities to the development. The library impact fee allocates 100 percent of the cost of capital facilities to residential development. The proportionate share of costs attributable to residential development will be allocated to population and then converted to an appropriate amount by type of housing unit, based on housing unit type.

DEMAND UNITS

Residential impact fees are calculated on a per capita basis, then converted to an appropriate amount for each size of housing unit based on the number of persons per housing unit (PPHU). As shown in Figure P2, the current PPHU factors range from 1.04 persons per unit units that are 1,100 square feet or less, to 3.14 persons per units that are 3,501 square feet or more. These factors are based on the U.S. Census Bureau's 2016-2020 American Community Survey 5-year estimates (further discussed in Appendix B).

Figure L1: Service Units

Residential Development	
Development Type	Persons per Housing Unit[1]
1,100 or less	1.04
1,101 to 1,500	1.64
1,501 to 2,000	2.07
2,001 to 2,500	2.41
2,501 to 3,000	2.69
3,001 to 3,500	2.93
3,501 or more	3.14

LEVEL-OF-SERVICE ANALYSIS

Library Facilities – Incremental Expansion

The City of Flagler Beach operates one library facility – the Flagler Beach Library. As indicated in Figure L2, the library is currently 4,850 square feet. The City will either add on to this existing facility or construct an additional branch in order to maintain current levels of service for new growth. Flagler Beach's existing level of service for residential development is 0.6621 square feet per person (4,850 square feet X 100 percent residential share / 7,326 persons).

Based on RS Means data this analysis uses a construction cost of $178 per square foot. For library facilities, the cost is $117.85 per person (0.6621 square feet per person X $178 per square foot).

Figure L2: Existing Level of Service

Description	Square Feet
Flagler Beach Library	4,850

Cost Factors	
Cost per Square Foot	$178

Level-of-Service (LOS) Standards	
Existing Square Feet	4,850
Residential	
Residential Share	100%
2023 Peak Population	7,326
Square Feet per Person	0.6621
Cost per Person	$117.85

Source: Flagler Beach

PROJECTED DEMAND FOR LIBRARY INFRASTRUCTURE

Library Facilities – Incremental Expansion

Projected demand for library space over the next 10 years is shown below in Figure L3. Based on a projected population increase of 1,579 persons, future residential development demands 1,045.6 square feet of library facilities (1,579 additional persons X 0.6621 square feet per person) at a cost of $186,122 (1,045.6 square feet X $178 per square foot).

Figure L3: Projected Demand for Library Facilities

Library Facilities		
Level of Service	Demand Unit	Unit Cost
0.6621 Square Feet	per Person	$178

Demand for Library Facilities		
Year	Peak Population	Square Feet
2023	7,326	4,850
2024	7,484	4,955
2025	7,641	5,059
2026	7,799	5,164
2027	7,957	5,268
2028	8,115	5,373
2029	8,273	5,477
2030	8,431	5,582
2031	8,589	5,687
2032	8,747	5,791
2033	8,905	5,896
10-Yr Increase	1,579	1,046

Growth-Related Expenditures	$186,122

CREDITS

As the City has no outstanding debt on its library facilities, a credit for future principal payments is not included. If elected officials make a legislative policy decision to fully fund growth-related costs from impact fees, there will be no potential double-payment from other revenue sources.

LIBRARY IMPACT FEES

Infrastructure components and cost factors for the library impact fees are summarized in the upper portion of Figure L3. The cost for library impact fees is $117.85 per person, and Flagler Beach will not assess library impact fees to nonresidential development.

Library impact fees for residential development are assessed according to the number of persons per household. The 2,001 square feet to 2,500 square feet fee of $284 is calculated using a cost of $117.85 per person multiplied by 2.41 persons per single-family household.

Figure L3: Schedule of Library Impact Fees

Fee Component	Cost per Person
Library Facilities	$117.85
Total	$117.85

Residential Fees per Unit		
Development Type	Persons per Household	Proposed Fees
1,100 or less	1.04	$123
1,101 to 1,500	1.64	$193
1,501 to 2,000	2.07	$244
2,001 to 2,500	2.41	$284
2,501 to 3,000	2.69	$317
3,001 to 3,500	2.93	$345
3,501 or more	3.14	$370

1. See Land Use Assumptions

LIBRARY IMPACT FEE REVENUE

Projected fee revenue shown below is based on the development projections in Appendix B and the library impact fees shown on the previous page. To estimate single family revenue the 2,001 square feet to 2,500 square feet fee is used, and for multi-family the less than 1,100 square feet fee is used. If development occurs at a more rapid rate than projected, the demand for infrastructure will increase and impact fee revenue will increase at a corresponding rate. If development occurs at a slower rate than projected, the demand for infrastructure will also decrease, along with impact fee revenue. Over the next 10 years, projected impact fee revenue equals $202,170 and projected expenditures equal $186,120. Based on the actual mix of future residential construction, the projected library fee revenue shown below may change

Figure L4: Projected Library Impact Fee Revenue

Fee Component	Growth Share	Existing Share	Total
Library Facilities	$186,122	$0	$186,122
Total	**$186,122**	**$0**	**$186,122**

		Single Family $284 per unit	Multi-Family $123 per unit
Year		Hsg Unit	Hsg Unit
Base	2023	3,012	775
Year 1	2024	3,082	779
Year 2	2025	3,151	783
Year 3	2026	3,221	787
Year 4	2027	3,290	791
Year 5	2028	3,360	795
Year 6	2029	3,429	799
Year 7	2030	3,499	803
Year 8	2031	3,568	807
Year 9	2032	3,638	810
Year 10	2033	3,707	814
10-Year Increase		695	39
Projected Revenue		**$197,388**	**$4,780**

Projected Fee Revenue	$202,170
Total Expenditures	$186,120

WATER IMPACT FEES

METHODOLOGY

The City operates a water treatment plant with 2 million gallons a day (MGD) of capacity. Since the City's Water treatment plant has excess capacity in the system to serve future development, the Water impact fee includes a buy-in components for the City's investment. The Water impact fee utilizes a plan-based approach for planned water well, storage, and transmission projects.

PROPORTIONATE SHARE AND DEMAND UNITS

The Water impact fees are assessed on both residential and nonresidential development, using an equivalent dwelling unit approach. In order to determine the water system demand from an equivalent single family dwelling unit, TischlerBise obtained water billing data and production data for 2021. TischlerBise estimates that, the 2,937 residential customers served by the City accounted for 186.1 million gallons in 2021, or 509,919 gallons daily. The City's 1,118 nonresidential customers are estimated to have accounted for 71.2 million gallons annually, or 195,160 gallons daily. To determine an equivalent dwelling unit (EDU) for the water system, the 2,937 residential customers are compared to the average daily consumption (509,919 gallons), for an average of 174 gallons a day.

Figure W1: Water Demand Factors

Account Type		Annual	Daily	Avg. Daily Usage
Residential	2,937	186,120,462	509,919	174
Commercial	1,118	71,233,538	195,160	175
Total	**4,055**	**257,354,000**	**705,079**	**174**

Source: Flagler Beach

As discussed above, Water impact fees are calculated by multiplying the number of gallons per single family unit equivalent (EDU) by the capacity ratio for the corresponding size and type of meter multiplied by the cost per EDU. The City's demand for a single-family equivalent dwelling unit is 174 gallons per day. Figure W2 shows the capacity ratio by meter size from the *AWWA Manual of Water Supply Practices,* which is used for water meters larger than .75 inches.

Figure W2: Water Ratio of Demand Units to Development Units

Meter Size and Type		Capacity Ratio
0.75	Displacement	1.00
1.00	Displacement	1.67
1.50	Displacement	3.33
2.00	Displacement	5.33
3.00	Singlejet	10.67
3.00	Compound	10.67
3.00	Turbine	11.67
4.00	Singlejet	16.67
4.00	Compound	16.67
4.00	Turbine	21.00
6.00	Singlejet	33.33
6.00	Compound	33.33
6.00	Turbine	43.33
8.00	Compound	53.33
8.00	Turbine	93.33
10.00	Turbine	140.00
12.00	Turbine	176.67

1. AWWA Manual of Water Supply Practices M-1, 7th Edition

WATER IMPACT FEE COMPONENTS

Treatment Plant Investment Buy-In

The Water impact fee contains a buy-in component for the City's investment (original cost, no inflation included) in the water treatment plant, transmission lines, vehicles, and equipment, as well as administrative components. As shown in Figure W3, this investment is $16,563,374. The City has the capacity to treat 2 million gallons a day. This results in a cost per gallon of $8.28 ($16,563,374 / 2,000,000 gallons).

Figure W3: Water Treatment and Transmission System Investment Buy-In

Water Treatment Plant Investment	
New Pumps and Clear	$436,489
Portable Generator	$8,794
Sierra Model 210 Flow Meter Tester	$5,300
Water Treatment Plant from CIP 2009	$8,294,281
Upgrade to Water Water Treatment Plant in	$7,511,582
Acutec Detector Monitor	$11,099
Million Gallon Fuel Tank @ WTP	$57,731
Monitoring Equipment	$14,355
Sulfuric Acid Tank	$13,450
Sulfuric Acid Tank	$13,450
Sodium Hypoclorite Tank	$8,000
ABB Variable Frequency Drive Control Panel	$6,630
Variable Frequency Drive Well #10	$13,543
Variable Frequency Drive Well #11	$13,543
Variable Frequency Drive Well #13	$10,252
Antenna at South Tank	$8,668
2015 Ford F250 4 x 4	$31,474
High Speed Pump	$10,945
Pump Replaced Well #10	$15,870
2016 Ford F150	$22,858
16 inch Ultra Mag Meter	$6,576
Sand Separator	$16,161
Sand Separator	$16,161
Sand Separator	$16,161
Total	**$16,563,374**

Cost Allocation Factors	
Water Treatment Plant Investment	$16,563,374
System Capacity	2,000,000
Cost per Gallon of Capacity	$8.28

Planned Well Upgrades

Flagler Beach plans to construct an additional well to serve future development. This project will add 648,000 gallons of capacity to the water system, at a cost of $1.5 million. To calculate the cost per demand unit (gallons), the costs of planned improvements ($1.5 million) are allocated to the additional capacity added (648,000 gallons per day). This results in a cost of $2.34 per gallon.

Figure W4: Planned Well Upgrades

Description	Cost
Well 17 Design	$115,000
Well 17 Construction	$1,400,000
Total Cost	**$1,515,000**
Total Capacity (Gallons)	648,000
Cost per Gallon	$2.34

Planned Water Storage Upgrades

Flagler Beach plans to construct upgrades to the water storage system to serve future development. These projects will add 1 million gallons of capacity to the water storage system, at a cost of $1.9 million. To calculate the cost per demand unit (gallons), the costs of planned improvements ($1.9 million) are allocated to the additional capacity added (1 million gallons). This results in a cost of $2.00 per gallon.

Figure W5: Planned Water Storage Upgrades

Description	Cost
Tank Design	$150,000
Tank Construction	$1,800,000
High Service Pump #3	$45,000
Total Cost	**$1,995,000**
Total Capacity (Gallons)	1,000,000
Cost per Gallon	$2.00

Planned Water Transmission Upgrades

Flagler Beach plans to construct upgrades to the water transmission system to serve future development. These projects will cost $3.7 million. To calculate the cost per demand unit (gallons), the costs of planned improvements ($3.7 million) are allocated to the projected increase in water usage in the next 10 years (185,593 gallons). This results in a cost of $19.94 per gallon.

Figure W6: Planned Water Transmission Upgrades

Description	Total Cost
16" Main Running Down Lambert Ave.	$1,500,000
16" River Crossing	$2,200,000
Total Cost	**$3,700,000**
10 Year Increase in Gallons	185,593
Cost per Gallon	$19.94

MAXIMUM ALLOWABLE WATER IMPACT FEES

The proposed Water impact fees are shown in Figure W7. As shown in Figure W7, the total water system investment totals $32.56 per gallon. New residential units needing a 3/4" meter will have a maximum water impact fee of $5,653 (174 gallons X capital cost per gallon of capacity of $32.56 X 1.0 capacity ratio), and future development needing a 1.0" meter will have a maximum water impact fee charge of $9,441 (174 gallons X capital cost per gallon of capacity of $32.56 X 1.67 capacity ratio). The proposed fees represent a 50% increase from the current water impact fees.

Figure W7: Maximum Allowable Water Impact fees

Fee Component	Cost per Gallon
Wells	$2.34
Storage	$2.00
Investment in Plant	$8.28
Transmission	$19.94
Total	**$32.56**

Single Family (Base Meter) Demand Factors	
Average Day Gallons	174

Meter Size and Type		Capacity Ratio[1]	**Maximum Fees**	**Proposed Fees**	Current Fees[2]	Difference
0.75	Displacement	1.00	$5,653	**$1,755**	$1,170	$4,483
1.00	Displacement	1.67	$9,441	**$2,931**	$1,954	$7,487
1.50	Displacement	3.33	$18,826	**$5,844**	$3,896	$14,929
2.00	Displacement	5.33	$30,132	**$9,354**	$6,236	$23,896
3.00	Singlejet	10.67	$60,321	**$18,726**	$12,484	$47,837
3.00	Compound	10.67	$60,321	**$18,726**	$12,484	$47,837
3.00	Turbine	11.67	$65,974	**$20,481**	$13,654	$52,320
4.00	Singlejet	16.67	$94,241	**$29,256**	$19,504	$74,737
4.00	Compound	16.67	$94,241	**$29,256**	$19,504	$74,737
4.00	Turbine	21.00	$118,720	**$36,855**	$24,570	$94,150
6.00	Singlejet	33.33	$188,425	**$58,494**	$38,996	$149,429
6.00	Compound	33.33	$188,425	**$58,494**	$38,996	$149,429
6.00	Turbine	43.33	$244,959	**$76,044**	$50,696	$194,263
8.00	Compound	53.33	$301,492	**$93,594**	$62,396	$239,096
8.00	Turbine	93.33	$527,625	**$163,794**	$109,196	$418,429
10.00	Turbine	140.00	$791,466	**$245,700**	$163,800	$627,666
12.00	Turbine	176.67	$998,774	**$310,056**	$206,704	$792,070

1. AWWA Manual of Water Supply Practices M-1, 7th Edition
2. Base meter fee is the current water fee for an ELU and then is scaled up using the proposed meter capacity ratio

WASTEWATER IMPACT FEES

METHODOLOGY

The Wastewater impact fee utilizes a plan-based approach for planned wastewater capacity projects, and treatment plant improvements.

PROPORTIONATE SHARE AND DEMAND UNITS

The Wastewater impact fees are assessed on both residential and nonresidential development, using an equivalent dwelling unit approach. In order to determine the wastewater system demand from an equivalent single family dwelling unit, TischlerBise obtained sewer and production data for 2021. TischlerBise estimates that the 2,835 residential customers served by the City accounted for 171.4 million gallons in 2021, or approximately 469,000 gallons daily. The City's 1,003 nonresidential customers accounted for 65.8 million gallons, or approximately 180,000 gallons daily. To determine an equivalent dwelling unit (EDU) for the wastewater system, the 2,835 residential customers are compared to the average daily consumption (469,706 gallons), for an average of 166 gallons a day.

Figure WW1: Wastewater Demand Factors

Account Type		Annual Consumption	Daily Consumption	Avg. Daily Usage
Residential	2,835	171,442,777	469,706	166
Commercial	1,003	65,807,223	180,294	180
Total	**3,838**	**237,250,000**	**650,000**	**169**

Source: Flagler Beach

As discussed above, Wastewater impact fees are calculated by multiplying the number of gallons per single family unit equivalent (EDU) by the capacity ratio for the corresponding size and type of meter multiplied by the cost per EDU. The City's demand for a single family equivalent dwelling unit is 166 gallons per day. Figure WW2 shows the capacity ratio by meter size from the *AWWA Manual of Water Supply Practices,* which is used for meters larger than .75 inches.

Figure WW2: Wastewater Ratio of Demand Units to Development Units

Meter Size and Type		Capacity Ratio[1]
0.75	Displacement	1.00
1.00	Displacement	1.67
1.50	Displacement	3.33
2.00	Displacement	5.33
3.00	Singlejet	10.67
3.00	Compound	10.67
3.00	Turbine	11.67
4.00	Singlejet	16.67
4.00	Compound	16.67
4.00	Turbine	21.00
6.00	Singlejet	33.33
6.00	Compound	33.33
6.00	Turbine	43.33
8.00	Compound	53.33
8.00	Turbine	93.33
10.00	Turbine	140.00
12.00	Turbine	176.67

1. AWWA Manual of Water Supply Practices M-1, 7th Edition

WASTEWATER IMPACT FEE COMPONENTS

Planned Wastewater System Upgrades

The City of Flagler Beach plans to construct upgrades to its existing wastewater system to serve future development. These projects will cost a total of $34.45 million. To calculate the cost per demand unit (gallons), the costs of planned improvements ($34.45 million) are allocated to the total wastewater system capacity (1,500,000 gallons). This results in a cost of $22.97 per gallon.

Figure WW3: Planned Wastewater Systems Upgrade Cost

Description	Total Cost
Treatment Plant Improvements Project	$25,000,000
Reclaimed Water Infrastructure	$3,000,000
Reclaimed Water Distribution System	$4,500,000
New WWTF Operations Building	$1,100,000
Screw Press*	$850,000
Total	**$34,450,000**
Total System Capacity (Gallons per Day)	1,500,000
Cost per Gallon	$22.97

*City's share. Half is assumed to be funded through grants

MAXIMUM ALLOWABLE WASTEWATER IMPACT FEES

Cost factors for Wastewater infrastructure components are summarized in the upper portion of Figure WW5. The Wastewater impact fee is derived from the average gallons per day per single family equivalent residential connection of 166 gallons multiplied by the capital cost per gallon of capacity ($22.97). New residential units needing a 3/4" meter will have a maximum Wastewater impact fee of $3,806 (166 gallons X capital cost per gallon of capacity of $22.97 X 1.0 capacity ratio), and future development needing a 1.0" meter will have a maximum Wastewater impact fee charge of $6,356 (166 gallons X capital cost per gallon of capacity of $22.97 X 1.67 capacity ratio). The proposed fees represent a 50% increase from the current wastewater impact fees.

Figure WW4: Maximum Allowable Wastewater Impact fees

Fee Component	Cost per Gallon
System Upgrades	$22.97
Total	**$22.97**

Equivalent Dwelling Unit (Single Family Unit) Demand Factor	
Average Gallons per Day	166

Meter Size and Type		Capacity Ratio[1]	Maximum Fees	Proposed Fees	Current Fees	Difference
0.75	Displacement	1.00	$3,806	**$1,860**	$1,240	$620
1.00	Displacement	1.67	$6,356	**$3,106**	$2,071	$1,035
1.50	Displacement	3.33	$12,673	**$6,194**	$4,129	$2,065
2.00	Displacement	5.33	$20,284	**$9,914**	$6,609	$3,305
3.00	Singlejet	10.67	$40,607	**$19,846**	$13,231	$6,615
3.00	Compound	10.67	$40,607	**$19,846**	$13,231	$6,615
3.00	Turbine	11.67	$44,412	**$21,706**	$14,471	$7,235
4.00	Singlejet	16.67	$63,441	**$31,006**	$20,671	$10,335
4.00	Compound	16.67	$63,441	**$31,006**	$20,671	$10,335
4.00	Turbine	21.00	$79,920	**$39,060**	$26,040	$13,020
6.00	Singlejet	33.33	$126,844	**$61,994**	$41,329	$20,665
6.00	Compound	33.33	$126,844	**$61,994**	$41,329	$20,665
6.00	Turbine	43.33	$164,901	**$80,594**	$53,729	$26,865
8.00	Compound	53.33	$202,958	**$99,194**	$66,129	$33,065
8.00	Turbine	93.33	$355,186	**$173,594**	$115,729	$57,865
10.00	Turbine	140.00	$532,798	**$260,400**	$173,600	$86,800
12.00	Turbine	176.67	$672,353	**$328,606**	$219,071	$109,535

1. AWWA Manual of Water Supply Practices M-1, 7th Edition
2. Base meter fee is the current sewer fee for an ELU and then is scaled up using the proposed meter capacity ratio

ADMINISTRATIVE CHARGE

Figure AC1 summarizes expected administrative costs over the next five years, totaling approximately $12,866. This amount is split between residential and nonresidential components, with residential development paying for 76 percent of administrative costs and nonresidential development covering the remaining 24 percent. The residential share of administrative costs is divided by the projected increase in peak population over five years, 790 persons, to yield a cost per person of $12.38. Similarly, the nonresidential share of administrative costs is divided by the projected increase in jobs over five years, 268 jobs, to yield a cost per job of $11.53. The cost per person is then multiplied by the average number of persons per household for each size category to calculate the appropriate impact fee per residential dwelling unit. The cost per job is multiplied by the average number of jobs per 1,000 square feet for each nonresidential typology to calculate the appropriate impact fee per 1,000 square feet of nonresidential development.

Figure AC1. Administrative Costs

Bookkeeper salary (at 1%) [1]	$764.19	
Permit Technician salary (at 2.5%) [1]	$1,809.08	
Annual Administrative Costs	**$2,573.27**	
Five-Year Administrative Costs	**$12,866.36**	
	Residential	*Nonresidential*
Proportionate Share (Functional Population)	76%	24%
	Peak Population	*Jobs*
Five-Year Increase in Service Units	790	268
	Cost per Person	*Cost per Job*
	$12.38	$11.53

[1] Flagler Beach

Figure AC2. Proposed Administrative Fee

Residential Fees per Unit		
Development Type	Persons per Household[1]	Proposed Fees
1,100 or less	1.04	**$13**
1,101 to 1,500	1.64	**$20**
1,501 to 2,000	2.07	**$26**
2,001 to 2,500	2.41	**$30**
2,501 to 3,000	2.69	**$33**
3,001 to 3,500	2.93	**$36**
3,501 or more	3.14	**$39**

Nonresidential Fees per Square Foot		
Development Type	Jobs per 1,000 Sq Ft[1]	Proposed Fees
Industrial	1.57	**$18.11**
Commercial	2.12	**$24.49**
Office & Other Services	3.26	**$37.52**
Institutional	3.03	**$34.95**

1. See Land Use Assumptions

APPENDIX A: LAND USE DEFINITIONS

RESIDENTIAL DEVELOPMENT

As discussed below, residential development categories are based on data from the U.S. Census Bureau, American Community Survey. Flagler Beach will collect impact fees from all new residential units. One-time impact fees are determined by site capacity (i.e., number of residential units).

Single-Family Units:

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. 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.

Multi-Family Units:

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.

NONRESIDENTIAL DEVELOPMENT

As discussed below, the nonresidential development categories are defined by Trip Generation, Institute of Transportation Engineers, 11th Edition (2021). Flagler Beach will collect impact fees from all new nonresidential development. One-time impact fees are determined by site capacity (i.e., square feet).

Commercial: Establishments primarily selling merchandise, eating/drinking places, entertainment uses, and places of lodging. By way of example, *commercial* includes shopping centers, supermarkets, pharmacies, restaurants, bars, nightclubs, automobile dealerships, movie theaters, and lodging.

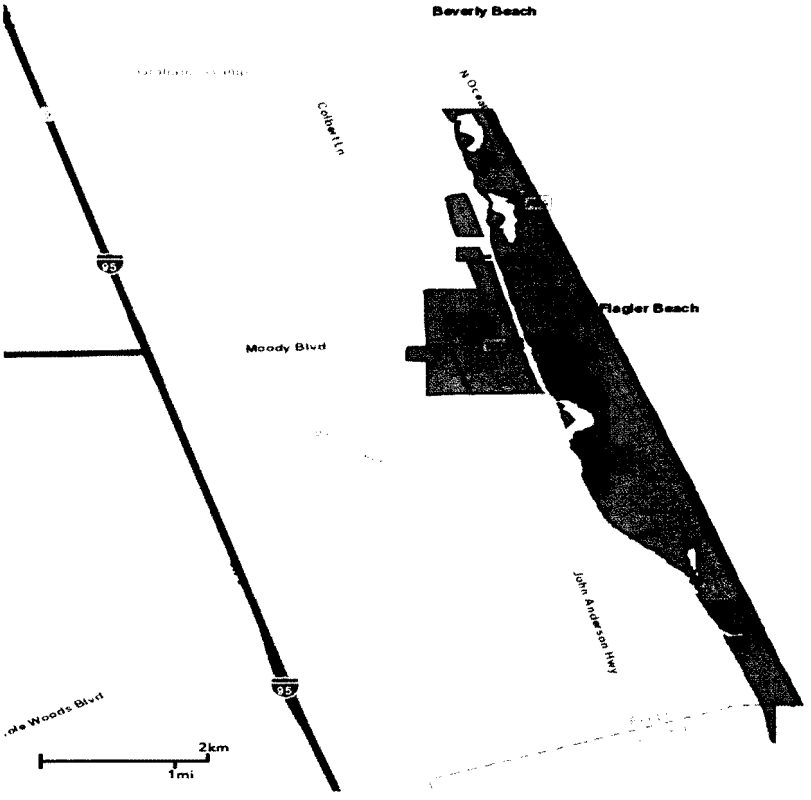
Industrial: Establishments primarily engaged in the production of goods. By way of example, *industrial – general* includes manufacturing plants, utility substations, power generation facilities, and telecommunications buildings.

Institutional: Public and quasi-public buildings providing educational, social assistance, or religious services. By way of example, *institutional* includes schools, universities, churches, daycare facilities, and government buildings.

Office & Other Services: Establishments providing management, administrative, professional, business services, and health services. By way of example, *office & other services* include banks, business offices, medical offices, hospitals, and veterinary clinics.

APPENDIX B: LAND USE ASSUMPTIONS

This section includes estimates and projections of development for areas within the boundaries of Flagler Beach, Florida. The map below illustrates Flagler Beach's Impact Fee Service Area.



SUMMARY OF GROWTH INDICATORS

Key land use assumptions for the Flagler Beach Impact Fee Study are population, housing units, employment, and nonresidential floor area. Based on discussions with staff, TischlerBise projects Flagler Beach to add approximately 69 single family housing units per year, and approximately 4 multi-family housing units per year. For population, TischlerBise applies person per housing unit factors derived from American Community Survey 2016-2020 5-Year Estimates to housing unit projections. For nonresidential development, TischlerBise uses job estimates from Esri's Business Analyst and uses projections based on the increase in Flagler Beach's population. These employment projections are converted to floor area using employment density factors published in Trip Generation, Institute of Transportation Engineers, 11th Edition (2021).

Complete development projections are summarized in Figure B13. These projections will be used to estimate impact fee revenue and to indicate the anticipated need for growth-related infrastructure. However, impact fee methodologies are designed to reduce sensitivity to development projections in the determination of the proportionate share fee amounts. If actual development is slower than projected, fee revenue will decline, but so will the need for growth-related infrastructure. In contrast, if development occurs faster than anticipated, fee revenue will increase, but Flagler Beach will need to accelerate infrastructure improvements to keep pace with the actual rate of development. Over the next 10 years, development projections indicate an average increase of approximately 73 housing units per year and approximately 21,300 square feet of nonresidential development per year.

RESIDENTIAL DEVELOPMENT

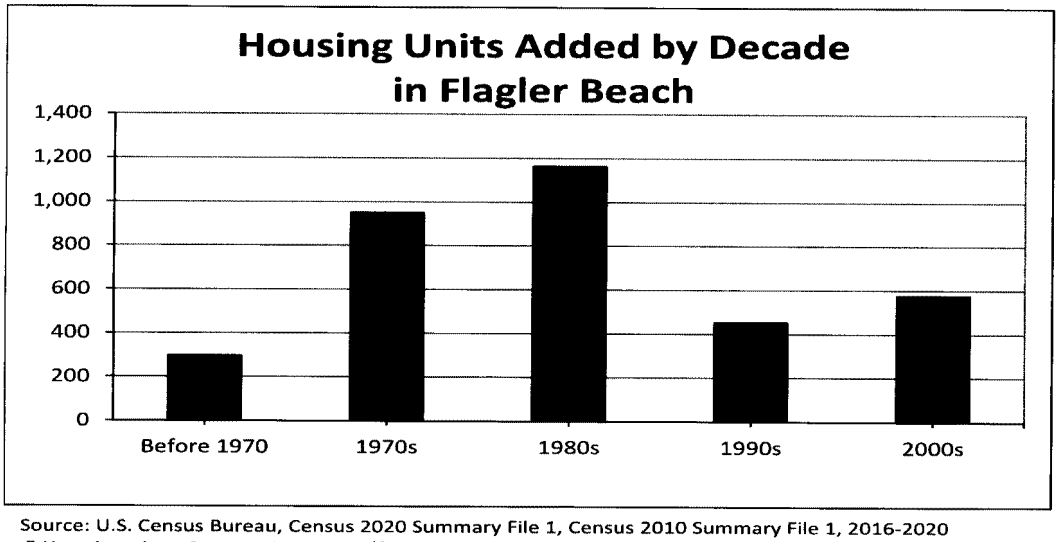
This section details current estimates and future projections of residential development including population and housing units.

Recent Residential Construction

Impact fees require an analysis of current levels of service. For residential development, current levels of service are determined using estimates of population and housing units. Shown below, Figure B1 indicates the estimated number of housing units added by decade according to data obtained from the U.S. Census Bureau. In the previous decade, Flagler Beach's housing stock grew by an average of 25 housing units per year.

Figure B1: Housing Units by Decade

Census 2010 Housing Units	3,439	Flagler Beach's housing stock grew by an average of 25 housing units per year from 2010 to 2020.
Census 2020 Housing Units	3,687	
New Housing Units 2010 to 2020	248	



Source: U.S. Census Bureau, Census 2020 Summary File 1, Census 2010 Summary File 1, 2016-2020 5-Year American Community Survey (for 2000s and earlier, adjusted to yield total units in 2010).

Housing Unit Size

According to the U.S. Census Bureau, a household is a housing unit occupied by year-round residents. Impact fees often use per capita standards and persons per housing unit (PPHU) or persons per household (PPH) to derive proportionate share fee amounts. When PPHU is used in the fee calculations, infrastructure standards are derived using year-round population. When PPH is used in the fee calculations, the impact fee methodology assumes a higher percentage of housing units will be occupied, thus requiring seasonal or peak population to be used when deriving infrastructure standards. TischlerBise recommends Flagler Beach impose impact fees for residential development according to the number of persons per household.

Occupancy calculations require data on population and the types of units by structure. The 2010 census did not obtain detailed information using a "long-form" questionnaire. Instead, the U.S. Census Bureau switched to a continuous monthly mailing of surveys, known as the American Community Survey (ACS), which has limitations due to sample-size constraints. For example, data on detached housing units are now combined with attached single units (commonly known as townhouses, which share a common sidewall, but are constructed on an individual parcel of land). For impact fees in Flagler Beach, detached, stick-built units and attached units are included in the "Single-Family" category. The "Multi-Family" category includes duplexes, structures with two or more units on an individual parcel of land, mobile homes, boats, RVs, and vans.

Figure B2 below shows the occupancy estimates for Flagler Beach. Single-family units average 2.19 persons per household and multi-family units average 1.39 persons per household.

Figure B2: Persons per Housing Unit

Housing Type	Persons	Households	Persons per Household	Housing Units	Persons per Housing Unit	Housing Mix	Vacancy Rate
Single-Family[1]	4,483	2,043	**2.19**	2,850	1.57	79.4%	28.32%
Multi-Family[2]	582	418	**1.39**	741	0.79	20.6%	43.59%
Total	5,065	2,461	**2.06**	3,591	1.41	100.0%	31.47%

Source: U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

1. Includes detached, attached (i.e., townhouses), and mobile home units.
2. Includes dwellings in structures with two or more units, RVs, and all other units.

Persons by Bedroom Range

Development fees must be proportionate to the demand for infrastructure. Because averages per housing unit have a strong, positive correlation to the number of bedrooms, TischlerBise recommends a fee schedule where larger units pay higher development fees. Benefits of the proposed methodology include 1) a proportionate assessment of infrastructure demand using local demographic data and 2) a progressive fee structure (i.e., smaller units pay less, and larger units pay more).

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).

PUMS files are only available for areas of at least 100,000 persons, and Flagler Beach is located within one Public Use Microdata Area (Florida PUMA 3500).

Shown in Figure B5 below, cells with yellow shading indicate the unweighted survey results, which yield the unadjusted estimate of 2.22 persons per household. Unadjusted persons per housing unit estimates are adjusted to match the control total for Flagler Beach – 2.06 persons per household. Adjusted persons per housing unit estimates range from 1.18 persons per housing unit for housing units with zero to one bedroom up to 3.27 persons per housing unit for housing units with five or more bedrooms.

Figure B3: Persons by Bedroom Range

Bedroom Range	Persons[1]	Households[1]	Housing Mix	Unadjusted PPH	Adjusted PPH[2]
0-1	81	64	3%	1.27	1.18
2	790	447	18%	1.77	1.64
3	3,108	1,430	58%	2.17	2.02
4	1,262	467	19%	2.70	2.51
5+	257	73	3%	3.52	3.27
Total	5,498	2,481	100%	2.22	2.06

1. American Community Survey, Public Use Microdata Sample for Florida PUMA 3500 (2016-2020 ACS 5-Year unweighted data).

2. Adjusted multipliers are scaled to make the average PUMS values match control totals for Flagler Beach based on 2016-2020 ACS 5-Year Estimates.

Persons by Square Feet of Living Area

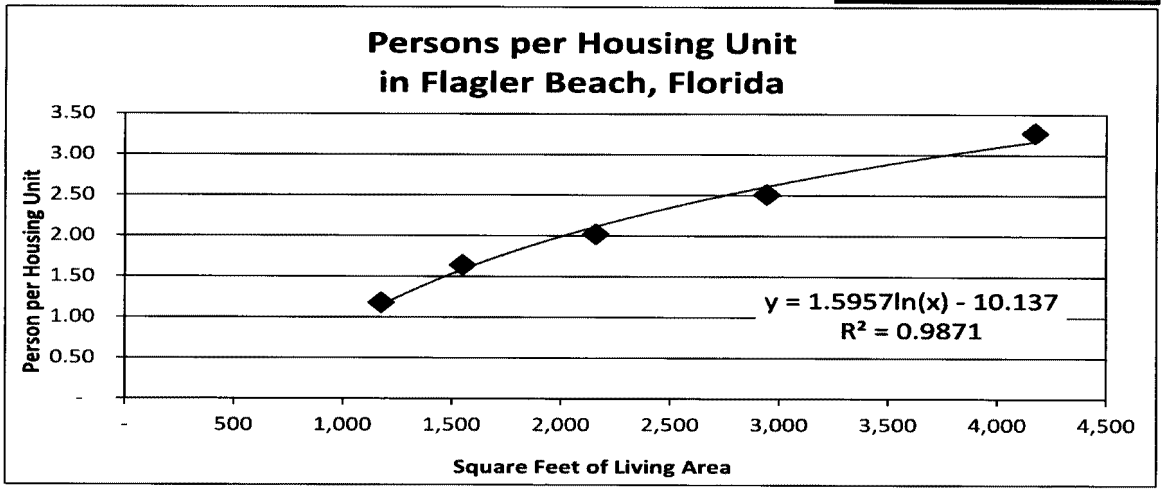
To estimate square feet of living area by bedroom range, TischlerBise uses 2020 U.S. Census Bureau data for housing units constructed in the South Atlantic region. Based on 2020 estimates, living area ranges from 1,178 square feet for housing units with zero to one bedroom up to 4,174 square feet for housing units with five or more bedrooms.

Average square feet of living area and persons per housing unit by bedroom range are plotted in Figure B4 with a logarithmic trend line derived from U.S. Census Bureau estimates discussed in the previous paragraph and adjusted persons per housing unit estimates shown in Figure B4. Using the trend line formula shown in Figure B4, TischlerBise calculates the number of persons per housing unit, by living area, using intervals of 500 square feet. For the purpose of development fees, TischlerBise recommends a minimum development fee based on a unit size of 1,100 square feet and a maximum fee for units 3,501 square feet or more.

Figure B4: Persons by Square Feet of Living Area

Average persons per housing unit derived from 2016-2020 ACS PUMS data Flagler Beach. Unit size from the 2020 U.S. Census Bureau average for units constructed in the Census South Atlantic region.

Average per Housing Unit			Fitted Curve Values	
Bedrooms	Square Feet	PPHU	Sq Ft Range	PPHU
0-1	1,178	1.18	1,100 or less	1.04
2	1,550	1.64	1,101 to 1,500	1.64
3	2,159	2.02	1,501 to 2,000	2.07
4	2,944	2.51	2,001 to 2,500	2.41
5+	4,174	3.27	2,501 to 3,000	2.69
			3,001 to 3,500	2.93
			3,501 or more	3.14



Seasonal Households

To account for seasonal residents, the analysis includes vacant households used for seasonal, recreational, or occasional use. According to 2020 ACS estimates, seasonal units account for 910 of Flagler Beach's 1,130 vacant units. With all seasonal units occupied, Flagler Beach's peak vacancy rate is 6.13 percent (3,527 peak households / 3,758 housing units). Applying Flagler Beach's persons per household factor of 2.06 to seasonal households provides a seasonal population estimate of 1,966 persons. Shown in Figure B5, Flagler Beach's peak population estimate for 2022 is 7,266 (5,300 fulltime resident population + 1,966 seasonal population).

Figure B5: Seasonal Households

Flagler Beach, Florida	2022
Population	
Single Family	4,691
Multi-Family	609
Resident Population	**5,300**
Seasonal Population	**1,960**
Peak Population	**7,260**
Housing Units	
Single Family	2,982
Multi-Family	775
Total Housing Units	**3,758**
Seasonal Households	**230**
Peak Households	**3,527**

Residential Estimates

According to information provided by city staff, Flagler Beach's 2022 resident population equals 5,300 persons. Applying the housing unit occupancy rates shown on the previous page to the 2022 population estimate provides a 2022 estimate of 3,758 housing units. 2022 building permit data is used to get an estimate for 2023 housing units and the housing unit occupancy rates are used to calculate population. This results in a base year housing unit estimate of 3,788 total housing units, and a peak population of 7,326.

Residential Projections

Population and housing unit projections are used to illustrate the possible future pace of service demands, revenues, and expenditures. To the extent these factors change, the projected need for infrastructure will also change. If development occurs at a more rapid rate than projected, the demand for infrastructure will increase at a corresponding rate. If development occurs at a slower rate than is projected, the demand for infrastructure will also decrease.

Based on discussions with Flagler Beach staff, in the next 10 years residential development is estimated at approximately 69 single family units per year, and approximately 4 multi-family units per year. Based on these projections, Flagler Beach can expect 734 additional housing units over the next 10 years. For this study, the analysis assumes the occupancy factors shown in Figure B2 will remain constant. Converting projected housing units to population, as discussed above, results in a 10-year population increase of 1,579 persons.

Figure B6: Residential Projections

Flagler Beach, Florida	Base Year	1	2	3	4	5	6	7	8	9	10	
Population												
Single Family	4,757	4,909	5,062	5,214	5,367	5,519	5,672	5,824	5,977	6,129	6,282	**1,525**
Multi-Family	609	614	620	625	631	636	642	647	652	658	663	**54**
Resident Population	**5,366**	**5,524**	**5,682**	**5,840**	**5,998**	**6,156**	**6,313**	**6,471**	**6,629**	**6,787**	**6,945**	**1,579**
Seasonal Population	**1,960**	**1,960**	**1,960**	**1,960**	**1,960**	**1,960**	**1,960**	**1,960**	**1,960**	**1,960**	**1,960**	**0**
Peak Population	**7,326**	**7,484**	**7,641**	**7,799**	**7,957**	**8,115**	**8,273**	**8,431**	**8,589**	**8,747**	**8,905**	**1,579**
Housing Units												
Single Family	3,012	3,082	3,151	3,221	3,290	3,360	3,429	3,499	3,568	3,638	3,707	**695**
Multi-Family	775	779	783	787	791	795	799	803	807	810	814	**39**
Total Housing Units	**3,788**	**3,861**	**3,934**	**4,008**	**4,081**	**4,155**	**4,228**	**4,301**	**4,375**	**4,448**	**4,522**	**734**
Seasonal Households	**230**	**230**	**230**	**230**	**230**	**230**	**230**	**230**	**230**	**230**	**230**	**0**
Peak Households	**3,556**	**3,624**	**3,693**	**3,762**	**3,831**	**3,900**	**3,969**	**4,038**	**4,107**	**4,176**	**4,245**	**689**

NONRESIDENTIAL DEVELOPMENT

This section details current estimates and future projections of nonresidential development including jobs and nonresidential floor area.

Nonresidential Demand Units

In Figure B7, gray shading indicates the nonresidential development prototypes used by TischlerBise to derive employment densities and average weekday vehicle trip ends. For nonresidential development, TischlerBise uses data published in Trip Generation, Institute of Transportation Engineers, 11th Edition (2021). The prototype for industrial development is Light Industrial (ITE 110) which generates 4.87 average weekday vehicle trip ends per 1,000 square feet of floor area and has 637 square feet of floor area per employee. Institutional development uses Government Office (ITE 730) and generates 22.59 average weekday vehicle trip ends per 1,000 square feet of floor area and has 330 square feet of floor area per employee. For office & other services development, the proxy is General Office (ITE 710); it generates 10.84 average weekday vehicle trip ends per 1,000 square feet of floor area and has 307 square feet of floor area per employee. The prototype for commercial development is Shopping Center (ITE 820) which generates 37.01 average weekday vehicle trips per 1,000 square feet of floor area and has 471 square feet of floor area per employee.

Figure B7: Nonresidential Demand Units

ITE Code	Land Use / Size	Demand Unit	Wkdy Trip Ends Per Dmd Unit	Wkdy Trip Ends Per Employee	Emp Per Dmd Unit	Sq Ft Per Emp
110	**Light Industrial**	**1,000 Sq Ft**	**4.87**	**3.10**	**1.57**	**637**
130	Industrial Park	1,000 Sq Ft	3.37	2.91	1.16	864
140	Manufacturing	1,000 Sq Ft	4.75	2.51	1.89	528
150	Warehousing	1,000 Sq Ft	1.71	5.05	0.34	2,953
254	Assisted Living	bed	2.60	4.24	0.61	1,631
310	Hotel	room	7.99	14.34	0.56	1,795
610	Hospital	1,000 Sq Ft	10.77	3.77	2.86	350
620	Nursing Home	bed	3.06	3.31	0.92	1,082
710	**General Office (avg size)**	**1,000 Sq Ft**	**10.84**	**3.33**	**3.26**	**307**
720	Medical-Dental Office	1,000 Sq Ft	36.00	8.71	4.13	242
730	**Government Office**	**1,000 Sq Ft**	**22.59**	**7.45**	**3.03**	**330**
770	Business Park	1,000 Sq Ft	12.44	4.04	3.08	325
820	**Shopping Center (avg size)**	**1,000 Sq Ft**	**37.01**	**17.42**	**2.12**	**471**

1. Trip Generation, Institute of Transportation Engineers, 11th Edition (2021).

Nonresidential Estimates

TischlerBise uses the term jobs to refer to employment by place of work. Shown below in Figure B8, Esri Business Analyst estimates 2021 employment equal to 1,766 jobs. TischlerBise estimates 2021 nonresidential floor area equals 700,903 square feet. To estimate nonresidential floor area and employment in the 2023 base year, TischlerBise utilizes 2021 BEBR population estimates to get a population to jobs ratio, and then applies this ratio to the full time resident population estimate for 2023. As shown at the bottom of Figure B8, the 2023 estimate includes 1,821 jobs. Applying the employment

multipliers shown in Figure B7 to the jobs results in a nonresidential floor area increase of 21,657 square feet. The 2023 base year nonresidential floor area estimate equals 722,560 square feet (700,903 square feet in 2021 + 21,657 additional square feet).

Figure B8: Nonresidential Estimates

Nonresidential Category	2021 Jobs[1]	Percent of Total Jobs	Square Feet per Job[2]	2021 Estimated Floor Area[3]	Jobs per 1,000 Sq. Ft.[3]
Industrial[4]	82	5%	637	52,197	1.57
Commercial[5]	768	43%	471	361,485	2.12
Office & Other Service[6]	658	37%	307	202,135	3.26
Institutional[7]	258	15%	330	85,086	3.03
Total	1,766	100%		700,903	

1. Esri Business Analyst Online, Business Summary, 2021.
2. Trip Generation, Institute of Transportation Engineers, 11th Edition (2021).
3. TischlerBise calculation (2021 jobs X square feet per job).
4. Major sectors are Construction; Manufacturing.
5. Major sectors are Retail; Accommodation & Food Services.
6. Major sectors are Real Estate, Rental & Leasing; Other Services;
7. Major sectors are Public Administration; Health Care & Social Assistance.

Nonresidential Category	2023 Jobs[1]	Percent of Total Jobs	Square Feet per Job[2]	2022 Estimated Floor Area[3]	Jobs per 1,000 Sq. Ft.[3]
Industrial[4]	85	5%	637	53,810	1.57
Commercial[5]	792	43%	471	372,655	2.12
Office & Other Service[6]	678	37%	307	208,380	3.26
Institutional[7]	266	15%	330	87,715	3.03
Total	1,821	100%		722,560	

1. TischlerBise calculation.
2. Trip Generation, Institute of Transportation Engineers, 11th Edition (2021).
3. TischlerBise calculation (2023 jobs X square feet per job).
4. Major sectors are Construction; Manufacturing.
5. Major sectors are Retail; Accommodation & Food Services.
6. Major sectors are Real Estate, Rental & Leasing; Other Services;
7. Major sectors are Health Care & Social Assistance; Education.

Nonresidential Projections

This analysis projects jobs based off the projected increase in population. Shown below in Figure B9, this results in a 10-year increase of 536 jobs.

To project nonresidential floor area, TischlerBise divides the projected employment by the square feet per employee factors shown in Figure B7. Over the next 10 years, Flagler Beach is projected to gain 536 jobs and approximately 213,000 square feet of nonresidential floor area.

Figure B9: Nonresidential Projections

Flagler Beach, Florida	2023	2024	2025	2026	2027	2028	2033	10 Year
	Base Year	1	2	3	4	5	10	Increase
Population	**5,366**	**5,524**	**5,682**	**5,840**	**5,998**	**6,156**	**6,945**	**1,579**
Employment								
Industrial	85	87	90	92	94	97	109	**25**
Commercial	792	815	838	862	885	908	1,025	**233**
Office & Other Services	678	698	718	738	758	778	878	**200**
Institutional	266	274	282	289	297	305	344	**78**
Total	**1,821**	**1,874**	**1,928**	**1,981**	**2,035**	**2,088**	**2,356**	**536**
Nonres. Floor Area (x1,000)								
Industrial	54	55	57	59	60	62	70	**16**
Commercial	373	384	395	406	417	427	482	**110**
Office & Other Services	208	215	221	227	233	239	270	**61**
Institutional	88	90	93	95	98	101	114	**26**
Total	**723**	**744**	**765**	**786**	**808**	**829**	**935**	**213**

AVERAGE WEEKDAY VEHICLE TRIPS

Flagler Beach will use average weekday vehicle trips (AWVT) for nonresidential Police and Fire Impact Fees. Components used to determine average weekday vehicle trips include trip generation rates and adjustments for pass-by trips.

Nonresidential Demand Units

In Figure B10, gray shading indicates the nonresidential development prototypes used by TischlerBise to derive average weekday vehicle trip ends. For nonresidential vehicle trips, TischlerBise uses data published in Trip Generation, Institute of Transportation Engineers, 11th Edition (2021). The prototype for industrial development is Light Industrial (ITE 110) which generates 4.87 average weekday vehicle trip ends per 1,000 square feet of floor area. Institutional development uses Government Office (ITE 730) and generates 22.59 average weekday vehicle trip ends per 1,000 square feet of floor area. For office & other services development, the proxy is General Office (ITE 710); it generates 10.84 average weekday vehicle trip ends per 1,000 square feet of floor area. The prototype for commercial development is Shopping Center (ITE 820) which generates 37.01 average weekday vehicle trips per 1,000 square feet of floor area.

Figure B10: Nonresidential Demand Units

ITE Code	Land Use / Size	Demand Unit	Wkdy Trip Ends Per Dmd Unit	Wkdy Trip Ends Per Employee	Emp Per Dmd Unit	Sq Ft Per Emp
110	**Light Industrial**	**1,000 Sq Ft**	**4.87**	**3.10**	**1.57**	**637**
130	Industrial Park	1,000 Sq Ft	3.37	2.91	1.16	864
140	Manufacturing	1,000 Sq Ft	4.75	2.51	1.89	528
150	Warehousing	1,000 Sq Ft	1.71	5.05	0.34	2,953
254	Assisted Living	bed	2.60	4.24	0.61	1,631
310	Hotel	room	7.99	14.34	0.56	1,795
610	Hospital	1,000 Sq Ft	10.77	3.77	2.86	350
620	Nursing Home	bed	3.06	3.31	0.92	1,082
710	**General Office (avg size)**	**1,000 Sq Ft**	**10.84**	**3.33**	**3.26**	**307**
720	Medical-Dental Office	1,000 Sq Ft	36.00	8.71	4.13	242
730	**Government Office**	**1,000 Sq Ft**	**22.59**	**7.45**	**3.03**	**330**
770	Business Park	1,000 Sq Ft	12.44	4.04	3.08	325
820	**Shopping Center (avg size)**	**1,000 Sq Ft**	**37.01**	**17.42**	**2.12**	**471**

1. Trip Generation, Institute of Transportation Engineers, 11th Edition (2021).

Trip Rate Adjustments

To calculate impact fees, trip generation rates require an adjustment factor to avoid double counting each trip at both the origin and destination points. Therefore, the basic trip adjustment factor is 50 percent. As discussed further below, the impact fee methodology includes additional adjustments to make the fees proportionate to the infrastructure demand for particular types of development.

Adjustment for Pass-By Trips

For commercial and institutional development, the trip adjustment factor is less than 50 percent since these types of development attract vehicles as they pass by on arterial and collector roads. For example, when someone stops at a convenience store on the way home from work, the convenience store is not the primary destination. For an average shopping center, ITE data indicate 34 percent of the vehicles that enter are passing by on their way to another primary destination. The remaining 66 percent of attraction trips have the commercial site as their primary destination. Since attraction trips are half of all trips, the trip adjustment factor is 66 percent multiplied by 50 percent – approximately 33 percent of trip ends.

Average Weekday Vehicle Trips

Shown in Figure B11 are the demand indicators for nonresidential land uses related to average weekday vehicle trips (AWVT) generated per 1,000 square feet of floor area. To calculate average weekday vehicle trips, multiply average weekday vehicle trip ends by the trip rate adjustment factor. For example, the industrial demand unit of 2.44 average weekday vehicle trips per 1,000 square feet of floor area is the sum of 4.87 average weekday vehicle trip ends per 1,000 square feet of floor area multiplied by a trip rate adjustment factor of 50 percent. Figure B12 includes nonresidential vehicle trips in the 2022 base year.

Figure B11: Average Weekday Vehicle Trips (AWVT) by Development Type

Nonresidential Development			
Development Type	AWVTE per 1,000 Sq Ft[1]	Trip Rate Adjustment	AWVT per 1,000 Sq Ft[1]
Industrial	4.87	50%	**2.44**
Commercial	37.01	33%	**12.21**
Office & Other Services	10.84	50%	**5.42**
Institutional	22.59	33%	**7.45**

1. See Land Use Assumptions

Figure B12: Nonresidential Vehicle Trips

Development Type	ITE Code	Avg Wkday VTE	Trip Adjustment	2023 Dev Units	2023 Veh Trips
Industrial	110	4.87	50%	54	**131**
Commercial	820	37.01	33%	373	**4,551**
Office & Other Services	710	10.84	50%	208	**1,129**
Institutional	610	22.59	33%	88	**654**

DEVELOPMENT PROJECTIONS

Provided below are summaries of development projections used in the Impact Fee Study. Development projections are used to illustrate a possible future pace of demand for infrastructure and cash flows resulting from revenues and expenditures associated with those demands.

Figure B13: Development Projections

Flagler Beach, Florida	Base Year	1	2	3	4	5	6	7	8	9	10	10-year Increase
Resident Population												
Single Family	4,757	4,909	5,062	5,214	5,367	5,519	5,672	5,824	5,977	6,129	6,282	**1,525**
Multi-Family	609	614	620	625	631	636	642	647	652	658	663	**54**
Resident Population	**5,366**	**5,524**	**5,682**	**5,840**	**5,998**	**6,156**	**6,313**	**6,471**	**6,629**	**6,787**	**6,945**	**1,579**
Seasonal Population	**1,960**	**1,960**	**1,960**	**1,960**	**1,960**	**1,960**	**1,960**	**1,960**	**1,960**	**1,960**	**7,608**	**5,649**
Peak Population	**7,326**	**7,484**	**7,641**	**7,799**	**7,957**	**8,115**	**8,273**	**8,431**	**8,589**	**8,747**	**14,554**	**7,228**
Housing Units												
Single Family	3,012	3,082	3,151	3,221	3,290	3,360	3,429	3,499	3,568	3,638	3,707	**695**
Multi-Family	775	779	783	787	791	795	799	803	807	810	814	**39**
Total	**3,788**	**3,861**	**3,934**	**4,008**	**4,081**	**4,155**	**4,228**	**4,301**	**4,375**	**4,448**	**4,522**	**734**
Employment												
Industrial	85	87	90	92	94	97	99	102	104	107	109	**25**
Commercial	792	815	838	862	885	908	932	955	978	1,001	1,025	**233**
Office & Other Services	678	698	718	738	758	778	798	818	838	858	878	**200**
Institutional	266	274	282	289	297	305	313	321	329	336	344	**78**
Total	**1,821**	**1,874**	**1,928**	**1,981**	**2,035**	**2,088**	**2,142**	**2,196**	**2,249**	**2,303**	**2,356**	**536**
Nonres. Floor Area (x1,000)												
Industrial	54	55	57	59	60	62	63	65	66	68	70	**16**
Commercial	373	384	395	406	417	427	438	449	460	471	482	**110**
Office & Other Services	208	215	221	227	233	239	245	251	257	264	270	**61**
Institutional	88	90	93	95	98	101	103	106	108	111	114	**26**
Total	**723**	**744**	**765**	**786**	**808**	**829**	**850**	**871**	**893**	**914**	**935**	**213**

Provided below are summaries of nonresidential vehicle trip projections used in the Impact Fee Study.

Figure B14: Nonresidential Vehicle Trip Projections

	Flagler Beach, Florida	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
Development	Single Family Units	3,012	3,082	3,151	3,221	3,290	3,360	3,429	3,499	3,568	3,638	3,707	**656**
	Multi-Family Units	775	779	783	787	791	795	799	803	807	810	814	**35**
	Industrial KSF	54	55	57	59	60	62	63	65	66	68	70	**15**
	Commercial KSF	373	384	395	406	417	427	438	449	460	471	482	**103**
	Office & Other Services KSF	208	215	221	227	233	239	245	251	257	264	270	**58**
	Institutional KSF	88	90	93	95	98	101	103	106	108	111	114	**24**
Avg Weekday Vehicle Trips	Single-Family Trips	14,203	14,530	14,858	15,186	15,513	15,841	16,169	16,497	16,824	17,152	17,480	**3,091**
	Multi-Family Trips	2,613	2,626	2,639	2,652	2,666	2,679	2,692	2,705	2,718	2,731	2,744	**118**
	Residential Trips	**16,816**	**17,157**	**17,497**	**17,838**	**18,179**	**18,520**	**18,861**	**19,202**	**19,542**	**19,883**	**20,224**	**3,209**
	Industrial Trips	131	135	139	143	146	150	154	158	162	166	170	**36**
	Commercial Trips	4,551	4,685	4,819	4,953	5,087	5,221	5,355	5,489	5,623	5,757	5,891	**1,261**
	Office & Other Services Trips	1,129	1,163	1,196	1,229	1,262	1,296	1,329	1,362	1,395	1,429	1,462	**313**
	Institutional Trips	654	673	692	712	731	750	769	789	808	827	846	**181**
	Nonresidential Trips	**6,466**	**6,656**	**6,846**	**7,037**	**7,227**	**7,417**	**7,608**	**7,798**	**7,988**	**8,178**	**8,369**	**1,792**
	Total Vehicle Trips	**23,281**	**23,813**	**24,344**	**24,875**	**25,406**	**25,937**	**26,468**	**26,999**	**27,531**	**28,062**	**28,593**	**5,001**