

**UNITED STATES OF AMERICA  
DEPARTMENT OF TRANSPORTATION  
FEDERAL TRANSIT ADMINISTRATION**

**GRANT AGREEMENT  
(FTA G-25, October 1, 2018)**

On the date the authorized U.S. Department of Transportation, Federal Transit Administration (FTA) official signs this Grant Agreement, FTA has obligated and awarded federal assistance as provided below. Upon execution of this Grant Agreement by the Recipient named below, the Recipient affirms this FTA Award, enters into this Grant Agreement with FTA, and binds its compliance with the terms of this Grant Agreement.

The following documents are incorporated by reference and made part of this Grant Agreement:

- (1) "Federal Transit Administration Master Agreement," FTA MA(25), October 1, 2018, <http://www.transit.dot.gov>,
- (2) The Certifications and Assurances applicable to the FTA Award that the Recipient has selected and provided to FTA, and
- (3) Any Award notification containing special conditions or requirements, if issued.

WHEN THE TERM "FTA AWARD" OR "AWARD" IS USED, EITHER IN THIS GRANT AGREEMENT OR THE APPLICABLE MASTER AGREEMENT, "AWARD" ALSO INCLUDES ALL TERMS AND CONDITIONS SET FORTH IN THIS GRANT AGREEMENT.

FTA OR THE FEDERAL GOVERNMENT MAY WITHDRAW ITS OBLIGATION TO PROVIDE FEDERAL ASSISTANCE IF THE RECIPIENT DOES NOT EXECUTE THIS GRANT AGREEMENT WITHIN 90 DAYS FOLLOWING FTA'S AWARD DATE SET FORTH HEREIN.

**FTA AWARD**

Federal Transit Administration (FTA) hereby awards a Federal Grant as follows:

**Recipient Information**

Recipient Name: Greenville, County Of

Recipient ID: 7315

DUNS No: 077991206

## **Award Information**

Federal Award Identification Number: SC-2019-026-00

Award Name: 20005(b) TOD Grant - PL Funds; GPATS; Greenville County, SC

Award Start Date: 8/20/2019

Award End Date: 3/29/2023

Award Executive Summary: Federal Transit Administration Grant FTA-2018-004-TPE Award for Transit-Oriented Development Pilot Planning Program along the Laurens Road Corridor through the City of Greenville, City of Mauldin, and Greenville County. Land-Use Study to be compatible with future high-capacity transit operations between Greenville and Mauldin, focusing on Uses, Density, Benefits, and Impacts.

This project has a total cost of \$355k with the local match of \$88,750 provided by Greenville and Pickens counties local PL Funds.

Research and Development: This award includes research and development activities.

Indirect Costs: This award does not include an indirect cost rate.

Suballocation Funds: Recipient organization is directly allocated these funds and is eligible to apply for and receive these funds directly.

Pre-Award Authority: This award is using Pre-Award Authority.

## **Award Budget**

Total Award Budget: \$443,750.00

Amount of Federal Assistance Obligated for This FTA Action (in U.S. Dollars): \$355,000.00

Amount of Non-Federal Funds Committed to This FTA Action (in U.S. Dollars): \$88,750.00

Total FTA Amount Awarded and Obligated (in U.S. Dollars): \$355,000.00

Total Non-Federal Funds Committed to the Overall Award (in U.S. Dollars): \$88,750.00

## Award Budget Control Totals

(The Budget includes the individual Project Budgets (Scopes and Activity Line Items) or as attached)

<b>Funding Source</b>	<b>Section of Statute</b>	<b>CFDA Number</b>	<b>Amount</b>
TOD Planning Pilot Program (20005b)	2005bMAP21	20500	\$355,000
Local			\$88,750
Local/In-Kind			\$0
State			\$0
State/In-Kind			\$0
Other Federal			\$0
Transportation Development Credit			\$0
Adjustment			\$0
<b>Total Eligible Cost</b>			<b>\$443,750</b>

(The Transportation Development Credits are not added to the amount of the Total Award Budget.)

## U.S. Department of Labor Certification of Public Transportation Employee Protective Arrangements:

Original Certification Date:

## Special Conditions

There are no special conditions.

## FINDINGS AND DETERMINATIONS

By signing this Award on behalf of FTA, I am making all the determinations and findings required by federal law and regulations before this Award may be made.

## FTA AWARD OF THE GRANT AGREEMENT

Awarded By:  
Yvette Taylor  
Regional Administrator  
FEDERAL TRANSIT ADMINISTRATION  
U.S. DEPARTMENT OF TRANSPORTATION

Contact Info: yvette.taylor@dot.gov  
Award Date: 8/20/2019

## **EXECUTION OF THE GRANT AGREEMENT**

Upon full execution of this Grant Agreement by the Recipient, the Effective Date will be the date FTA or the Federal Government awarded Federal assistance for this Grant Agreement.

By executing this Grant Agreement, the Recipient intends to enter into a legally binding agreement in which the Recipient:

- (1) Affirms this FTA Award,
- (2) Adopts and ratifies all of the following information it has submitted to FTA:
  - (a) Statements,
  - (b) Representations,
  - (c) Warranties,
  - (d) Covenants, and
  - (e) Materials,
- (3) Consents to comply with the requirements of this FTA Award, and
- (4) Agrees to all terms and conditions set forth in this Grant Agreement.

Executed By:  
*Asangwua Ikein*  
*Transit Planner*  
*Greenville, County Of*  
*8/21/2019*

# Applicant and Proposal Profile

(Pilot Program for Transit-Oriented Development Planning)

## Section I. Applicant Information

Is this a resubmission due to an invalid/error message from FTA?  Yes  No

Organization Legal Name:

FTA Recipient ID number:

## Section II. Comprehensive Planning Project Background

**\*\*\* Please be sure to attach a map of proposed study area to your application.  
See section(D)(2) of the Notice of Funding Opportunity for FTA's specifications for the map.**

Project Title:   
(Descriptive title of this project)

Specify the transit project with which the proposed comprehensive planning work is associated.

A new primary spine for high capacity transit in an extensive advanced transit network (ATN) in Laurens Road corridor. <http://www.gpats.org/wp-content/uploads/2018/07/TOD-Grant-Map.pdf>

Is the transit project a current or past New Starts, Core Capacity or fixed-guideway Small Starts project?  Yes  No

If you answered No to the previous question, please explain how the transit project meets the definition of a new fixed guideway project or core capacity improvement project as outlined in the Notice of Funding Opportunity.

The Laurens Road Corridor, its planned Swamp Rabbit Trail extension & a possible ATN/ GreenPod system should qualify for a comprehensive TOD planning project along a transit capital project corridor. Attached Greenville County-City Partner Letter outlines support for corridor transit project with traditional multi-modal options including cars, buses, bicycles, pedestrians, plus potential innovative options like A-Taxi shuttles & GreenPod vehicles. The corridor will extend the a fixed greenway Swamp Rabbit Trail (SRT) as a public transport facility with separate ROW for exclusive use of public transportation. It is exploring a high capacity fixed guideway (FG) ultralight rail (ATN) capital project for public transport as a minimum operable segment of a FG system. Thus, Laurens Road Corridor, its Swamp Rabbit Trail extension, and possible ATN/ GreenPod system should qualify as a "New Starts" Project Development as a comprehensive TOD planning project.

Summarize the work plan for the comprehensive planning work by task. Be sure to address:

- How the work plan addresses all six aspects of the general authority stipulated in MAP-21 Section 20005(b)(2).

- The schedule for each task, major milestones and the overall planning effort , including the anticipated date for incorporation of the planning effort into the region's unified planning work program and demonstration that work will be complete within 36 months of grant execution.
- Partner entities (including key staff with job titles) and their roles and responsibilities for each task.
- Substantial deliverables from the planning effort and the point at which each will be provided to FTA.

#### Project Management & Administration 10/2018-10/2020

Confirm work plan, deliverables, schedule, responsibilities & public engagement strategy. Manage (FTA & local), Budget Tracking, QA/QC Coordinate w/other TOD impactors, FHWA A-Taxi grant, County & City Comp Plans. Engage key public & private stakeholders.

Public Outreach, Research, Assessment, & Application (Up to 24 months) TOD Education, Awareness & Open house events, On-line meetings. Coordination, material preparation, internal coordination, QA/QC.

Research best practices for TOD & zoning, innovative funding tools & gentrification mitigation.

Compile baseline data & create profiles for transit station areas, corridor segments, mobility hubs & attractor locations & Gap Analyses

Assess Best practices. Corridor visioning. Land use & ridership modeling

Explore TOD issues in context of area plans, comprehensive plans & zoning ordinances include key land-use issues related to TOD in urban/suburban locations. Recommend TOD Land Use Regulation changes.

Develop a Regional Traffic Demand Model (TDM) formula for high capacity transit mode split

Calculate high capacity transit alignment modeling in corridor and integrate transit modeling & ridership.

#### Financial Analysis & TOD Strategies

Review of financial tools such as land banking, value capture & development financing.

Develop list of strategies (station area profiles, general plan designations, area densities, regional TOD resolutions, comp/gen plan integration) Develop final implementation strategies.

Substantial Deliverables: Planners: A Publicly Acceptable Corridor TOD for Land Uses & Densities that Enable Transit Ridership, a Corridor Recreational Plan to extend & expand SRT, TOD Affordable Housing Plan. Developers: Potential Multi-modal hub locations & general design concepts to support low & high density GreenVillages TOD; Complete a right-of-way & permitting study

Transit: Identify future bus or rail transit adaptations & a high capacity transit mode split for modelling Regional TDM & ridership projections

Investors: Financial/ funding options.

Other Deliverables: Quarterly Reports, Best Practice memos, Mobility station profiles, Comp Plan Updates, station area profiles, Stakeholder info. Partners: Public: Greenville County, Cities of Greenville & Mauldin will provide Planning, Land Development & Transportation Staff, CU-ICAR, Private: Verdae, & other property owners will provide access to Corridor property & financial support for implementation; Carolinas Alliance 4 Innovation, a public benefit 501.c.6 corporation, is a public private consortium promoting innovation for economic development.

Timetable: Greenville anticipates an 18 month (7/2018-12/2019) on-going revision of the County's Comprehensive Plan & Zoning Code.

This plan aims to complete the Laurens Road Corridor (LRC) Pilot in 18-24 months. This plan will complement an A-Taxis grant for deployment of automated shuttles in 3 districts. That grant effort will inform & support efforts along the abandoned RR corridor connecting the CU-ICAR campus, the Downtown Greenville Airport, & the Downtown Greenville Central Business District.

As the A-Taxis grant progresses, TOD planning work will engage stakeholders, such as Greenville Hospital System, local business, community & place-based organizations & other key stakeholders, to field test smart city applications in the transit corridor(s). The project facilitates multimodal connectivity & accessibility by coordinating with regional long-range transportation planning & prioritizing infrastructure improvements needed to enhance pedestrian & bicycle access to & within the corridor.

Improve economic & community development & ridership

Develop strategic TOD plan reports that include LRC planning strategies & program recommendations to support both County & City-wide comprehensive planning efforts;

Promote multi-modal hubs as centers of GreenVillages (places people love to live, work, learn, shop & play). Demonstrate how GreenVillages help create jobs & transit opportunities along the LRC.

Multiple corridor attractor locations:

Greenville Memorial Medical Campus. A 1,000+ bed teaching hospital, medical & nursing schools & Healthcare Innovation Center and the largest private employer in the UZA with major parking and traffic congestion challenges.

Greenville's Downtown with office, shopping & entertainment centers that are currently high attractor locations but could be more attractive with improved transit access.

Verdae Development is planning a pedestrian bridge to connect the public SRT & its Mobility Hub to Hollingsworth Park.

Greenville is considering an automated transit network (ATN) system that would serve the LRC. Preliminary studies indicate it could attain 32% mode share of the 125,000 daily commuters. Foster multimodal connectivity & accessibility. Study multiple transport mode options & splits in the corridor, including cars, buses, A-Taxi shuttles, bicycles & pedestrians with access to existing roads, parking decks, park & ride lots, the SRT, A-Taxi shuttle service plus potential ATN routes & stations; Plan for integrating multimodal infrastructure with GreenVillages TOD along the LRC with major parking & ridership attractors. Plan for at least 20 off-line ATN stations to serve as multi-modal mobility hubs for people living or working within 1/2 mile radius of the stations and provide improved connectivity and easier

access to daily activities. Improve non-motorized (pedestrian & bicycle) access to transit hubs  
 Complete a planned pedestrian & bicycle SRT route greenway with bridges over major highways along the abandoned railroad corridor.  
 Enable mixed-use development near transit hub stations. Revise TOD-focused zoning codes & regulations to enable mixed-use economic & community development near transit hubs. Adapt land-use regulations to allow for variable urban parking spaces & densities for mixed uses: offices, retail & adaptive density residential near transit hubs. Promote GreenVillages TOD development around multi-modal transit hubs. Promote use of A-Taxi Shuttles for first/last mile mobility around transit hubs. Identify infrastructure needs associated with the transit project. Develop a strategic plan report that includes corridor specific (Laurens Road) infrastructure planning strategies & transit oriented development program recommendations to support regional comprehensive transit oriented development planning. Design competition for TOD infrastructure services & amenities to best serve a typical multi-modal transit hub along the LRC. Identify route way locations for at least 10 hub sites for multi-modal transit including high capacity transit system along the corridor to include right-of-way & permitting issue solutions. Engage private sector participation. Expand CA4 Innovation partnerships to identify at least 30 public private partners supporting TOD planning. Conduct public stakeholder meetings.

Identify specific goals in the metropolitan transportation plan and existing local plans in the transit project corridor that the proposed planning work supports:

GPATS MPO goals- Expand service to connect more communities; Prioritize service to high growth corridors as traffic mitigation; Support higher transit ridership; Land use controls should encourage higher-density & mixed-use development near transit corridors. Most important investments will be TOD characterized by walkable, mixed-use development focused around transit hubs w/ enhanced connections. While the transit technology decision is evaluated, local transit service envisions the following: operate in dedicated right-way, frequent service, prioritized signaling at intersections, pre-boarding tickets and level boarding to provide quick and reliable service within the corridor. A LRC map shows GCEDC Corridor w/100 ft ROW, transit project alignment and stations, major roadways and landmarks, and the geographic boundaries of proposed comprehensive plan activities, major activity centers & existing services. <http://www.gpats.org/wp-content/uploads/2018/07/TOD-Grant-Map.pdf>

Is the applicant the sponsor of the transit project?  Yes  No

Is the applicant responsible for land use planning in at least a portion of the transit project corridor?  Yes  No

**If you answered 'No' to one of the last two questions, attach to your SF424 application evidence of a partnership (such as a memorandum of agreement or letter of intent that describes the parties' roles and responsibilities) between the transit project sponsor and at least one entity in the project corridor with land use planning authority.**

### Project Budget

Major Task	Pilot Program for TOD Planning Request	Other Federal	Local Match	Total Cost by Task
T1: Project Management & Administration -Coordination, Budget Tracking -FTA Coordination	90,000	0	25,000	115,000
T2: Public Outreach and Assessment -Public Education & Awareness Events -Gap Analyses	120,000	0	75,000	195,000
T3: Land use and ridership modeling -TDM split for high capacity transit mode -TOD Landuse Regs	90,000	0	0	90,000
T4: Financial Analysis & Strategies -Funding tool options -TOD regional integration	100,000	0	25,000	125,000
<b>Total:</b>	<b>400,000</b>	<b>0</b>	<b>125,000</b>	<b>525,000</b>

## Congressional Districts Affected by the Project

Congressional District

Congressional Representative

SC-004

Gowdy, Trey

## Section III. Evaluation Criteria

### Demonstrated Need

What potential state, local and/or other impediments to implementation of the products of this planning effort exist, and how will the workplan overcome them?

Impediments to implementation of TOD products include:

- USDOT-FTA inertia protects existing "legacy" transit operations & reluctantly adopts innovative transit solutions
- State reluctance to pursue innovative solutions because of limited budgets & accumulated deferred maintenance
- Public opposition to tax increases
- Local Regulations & policies discourage higher densities near multi-modal transit centers & in primary corridors
- Public opposition to "NIMBY development" which is a growing challenge in public approval for projects
- Human reluctance to change behavior & unknown choice of Commuters to adopt innovative solutions

GreenVillages TOD workplan will help overcome impediments with:

- Data based recommendations
- Analysis of ridership and income projections that validate probable success of innovative transit solutions
- Projections of economic viability of private TOD projects that produce increased public tax revenue as TOD property value increases
- Public awareness, education, and feedback activities
- Citizen groups that advocate for TOD and use of Automated, Connected, Electric, Shared (ACES) technology for transit projects
- Legislative guides for actions that permit or fund Automated, Connected, Electric, Shared (ACES) technology projects that enhance TOD
- Recommendations for governmental policies that promote, fund & enable TOD & sustainable transit
- Plans for public private partnership funding options, such as TIFIA, Opportunity Zones, MCIP or TIF, etc

How will the proposed work advance transit-oriented development in the corridor and region?

Our Pilot Plan will advance GreenVillages TOD by identifying land use regulations that encourages higher-density, mixed-use TOD around mobility hubs in transit corridors, attracts population growth, and enables higher transit ridership within the region. Our TOD Pilot will attract private investments to create GreenVillages TOD, which is characterized by attractive, walkable, mixed-use development focused around mobility hubs with improved transit service.

GreenVillages TOD supports increased transit ridership, more efficient use of land and economic growth, and a better quality of life for ALL citizens.

High-quality sidewalk, trail, bicycle, park & ride lots, and A-Taxi shuttle connections near transit facilities help ensure success of a multi-modal system. If passengers are able to easily transfer between convenient and accessible services or reach their final destination, they are encouraged to use public transportation. Many leaders believe that Automated, Connected, Electric, Shared (ACES) technologies will determine sustainable mobility. A-Taxi shuttles promise improved first-last mile connectivity around a TOD hub, while GreenPods on ultralight rail networks offer safe, personal, on-demand, direct, safe, shared, comfortable connectivity between GreenVillages TOD hubs.

Why are Pilot Program for Transit-Oriented Development Planning funds needed to realize the expected outcomes of the planning work?

FTA Pilot TOD Program funds are needed to realize expected outcomes because

- State & local public funds are limited and already allocated for currently funded legacy projects
- New revenue sources are very limited



- Local citizen opposition to new transport expenditures until current roads, bridges & intersections are fixed first (local referendum in 2016 failed 2-1);
- Political leaders & Citizens reluctant to support new ACES technologies until demonstrated and financial barriers are eliminated;
- FTA TOD Pilot Plan results could answer questions, help attract local population support and private (global?) infrastructure funding

Provide the approximate current population and employment of the area that the workplan will address.

Population: 2017: GvCounty=506,837;City=68,219; Mauldin=25,130

Employment: 2017:Greenville County=238,524; Unemp =9,061; 3.7%

Describe ongoing transit-oriented development activity in the area that the workplan will address:

On-going TOD activity in Laurens Road corridor includes:

- Downtowns booming in both Greenville & Mauldin; need improved connectivity (personal, on-demand, direct, rapid, safe) & more vehicle park&ride or walk
- Verdae seeks to infill a 1200 acre area with \$2B in mixed uses, offices, retail, and mixed cost residences
- Re-development needed: Hiway276 (Laurens) & former railroad corridors; McAllister mall/University Center, & TD Convention Center
- Swamp Rabbit Trail (SRT) needs extended bicycle/pedestrian greenway to increase mobility & usage
- A-Taxi shuttles deployed in CU-ICAR and Verdae areas
- City UNITY 60 acre Park opens in 2 yrs, located on existing SRT
- Potential Opportunity Zones in West Greenville & Parker community
- FTA TOD grant will inform & interest citizens & developers to support TOD efforts along 100 foot wide ROW former RR GCEDC corridor connecting Mauldin, CU-ICAR campus, Downtown GMU Airport, TD Center; UC-G, Nicholtown (gentrification) & Downtown Greenville CBD

## Strength of the Work Plan, Schedule and Process

If the proposed workplan does not cover the entire transit project corridor, why not?

GPATS LRTP, HORIZON 2040 recommends: Priority Transit Corridors in Greenville County to connect incorporated cities. Laurens Road (US 276), the primary N-S route is about 30 miles long and connects the municipalities of Travelers Rest, Greenville, Mauldin, Simpsonville, & Fountain Inn.

The proposed TOD workplan focuses on about 10 miles between Greenville and Mauldin & covers issues that are generic to the transit project corridor. Pilot lessons learned will be applied to other corridor areas.

Identify performance measures for the proposed planning work.

Performance measures for Greenville's Pilot TOD plan include:

- Increased densities mean shorter travel times home to work & between activities
  - Both Development & Re-development opportunities identified
  - Increased multi-modal options lead to improved Mobility and increased Transit Ridership
  - Improved Safety (reduced accidents & deaths), reduced congestion & pollution
  - Population Growth in urban centers and corridors increase probability of increased transit use
  - Disadvantaged populations better connected to jobs, education, healthcare, shopping, and recreation
- Recent GPATS funded UPWP local grant analyzed feasibility of ATN system with GreenPod vehicles and study surveys indicated mode share of 20 to 32 and projects that ATN operations and maintenance could be covered by farebox income & repay capital costs over time. GPATS TDM had no mode split & needs to re-done to include ATN option.

## Funding Commitments

Identify the sources of all matching funds. For each source, indicate whether the funds are already committed. Attach documentation of all funding commitments to your SF424 application:

Matching funds will come from the following sources:

- County 2018-19 Budget: General Fund Transfers to Matching Grants-FY2019 Budget = \$200,000 (When FTA approves the TOD Grant, Administrator & County Council will appropriate up to \$100,000 as match for this grant). Greenville County Budget Doc p130 attached
- Carolinas Alliance 4 Innovation: cash funds=\$25,000 for TOD grant match from its fund-raising efforts. Letter. attached

In-kind support from County and City could be significant -TBD