APTA STANDARDS PROGRAM
GUIDELINE

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Bus Rapid Transit Working Group

Bus Rapid Transit Program Development and Financing

Abstract: This document provides guidance for a public transportation agency on funding and financing a bus rapid transit service or system. Included is a high-level review of U.S. Federal Transit Administration funding programs that can be applied to BRT as well as non-traditional funding and revenue options; considerations for agencies in pursuing particular funding options; and project scoping guidance.

Keywords: bus rapid transit, BRT, Capital Investment Grant (CIG), formula funding, joint development, New Starts, Small Starts, transit-oriented development (TOD), value capture

Summary: Launching a new bus rapid transit project requires careful and strategic planning around how to secure funding. This guideline outlines recommendations and considerations for public transportation agencies around funding, project scoping and fleet/design considerations based on the experiences of subject matter experts. This guideline reflects the state of eligible funding for, and policies related to, BRT as of the publication of the document; these funding programs and policies are subject to change.

Foreword

The American Public Transportation Association is a standards development organization in North America. The process of developing standards is managed by the APTA Standards Program's Standards Development Oversight Council (SDOC). These activities are carried out through several standards policy and planning committees that have been established to address specific transportation modes, safety and security requirements, interoperability, and other topics.

APTA used a consensus-based process to develop this document and its continued maintenance, which is detailed in the manual for the APTA Standards Program. This document was drafted in accordance with the approval criteria and editorial policy as described. Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

This document was prepared by the Policy Sub-Working Group of the Bus Rapid Transit (BRT) Working Group as directed by the Bus Systems Standards Policy and Planning Committee. The Sub-Working Group adapted a white paper developed by the Policy Subcommittee of the APTA BRT Committee to create this document for the APTA Standards Program.

This document represents a common viewpoint of those parties concerned with its provisions, namely transit operating/planning agencies, manufacturers, consultants, engineers and general interest groups. The application of any recommended practices or guidelines contained herein is voluntary. APTA standards are mandatory to the extent incorporated by an applicable statute or regulation. In some cases, federal and/or state regulations govern portions of a transit agency's operations. In cases where there is a conflict or contradiction between an applicable law or regulation and this document, consult with a legal adviser to determine which document takes precedence.

This is a new document.

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Introduction

This introduction is not part of APTA BTS-BRT-GL-007-25, "Bus Rapid Transit Program Development and Financing."

This white paper was originally a project of the APTA BRT Committee, which formed three subcommittees to focus on specific areas of interest: roadway infrastructure, BRT policy, and vehicles/vehicle technology. This white paper is adapted from a paper written by the Policy Subcommittee of the BRT Committee. The APTA BRT Working Group formed the Bus Rapid Transit Program Development and Financing Sub-Working Group to turn the subcommittee's work into a white paper under the APTA standards program.

APTA recommends the use of this document by:

- individuals or organizations that operate or plan to operate bus transit systems;
- individuals or organizations that contract with others for the operation of bus transit systems; and

- individuals or organizations that influence how bus transit systems are operated (including but not limited to consultants, designers and contractors).

Scope and purpose

This guideline includes best practices and strategies around federal and local funding and policy when planning and deploying a bus rapid transit system in the U.S. It includes three sections focusing on three key topic areas, organized as follows:

- **Section 1: Identifying funding sources**
  - Federal and local funding: Covers Capital Investment Grants and other federal funding sources; how to think about combining federal and local funding; and tactics for small and midsized agencies.
  - Nontraditional sources of funding: Covers land donation, joint development, value capture, and tax increment financing.
- **Section 2: Project scoping**
  - CIG project phasing: Covers New Starts vs. Small Starts phasing.
  - CIG roadway/guideway scoping: Covers long-term implications of these decisions and local funding mixes.
  - Coordination/scoping with local roadway authority: Covers all aspects of cooperating with a local roadway authority.
  - Scoping to maximize federal formula grant: Covers pertinent information on FTA programs.
- **Section 3: Fleet and design considerations**
  - Designated service/fleet: Covers considerations when planning a BRT sub-fleet
  - Overlaid/underlying service: Covers station design, service patterns and fare payment.
  - Energy/propulsion: Covers additional funding sources available for zero emission fleets

Note that this guideline reflects the state of eligible funding for, and policies related to, BRT as of the publication of the document; these funding programs and policies are subject to change.

Bus Rapid Transit Program Development and Financing

1. Identifying funding sources

1.1 Federal and local funding

1.1.1 Capital Investment Grants

The signature discretionary federal funding program for transit capital projects in the U.S.—including rail-based modes as well as bus rapid transit—is the Federal Transit Administration's Capital Investment Grants (CIG) program. The CIG program is divided into three project types with different eligibility criteria: New Starts; Small Starts; and Core Capacity. BRT projects are eligible under New Starts and Small Starts. The CIG website contains extensive guidance, but the program's applicability to BRT can be summarized as follows:

- **New Starts** projects must operate in a dedicated guideway (i.e., bus lanes or busway) for more than 50% of the route length, and only projects with a capital cost exceeding $400 million or a CIG funding share exceeding $150 million are eligible.
- **Small Starts** projects cannot have a capital cost exceeding $400 million, nor a CIG funding share exceeding $150 million. Dedicated guideway is not required.

Both project types must have other typical BRT characteristics, including high-frequency, all-day service; stations; signal priority or queue jumps; and a brand distinct from regular bus service.

CIG grants are different from other types of federal grants in that securing funding entails not a one-time application process but a multiyear process with defined steps, with funds being awarded only after the process has been completed. Rather than the FTA simply providing funds and subsequent oversight, CIG is a full partnership between the FTA and the project sponsor (i.e., the agency leading the project).

CIG program shares are capped at 60% for New Starts and 80% for Small Starts. However, in practice the funding shares are limited by available funding and are typically lower than that. The CIG funding amount is locked in prior to grant award, when the project completes the project development phase.

1.1.2 Other federal grants and funding sources for BRT

Other federal grants are also commonly used for BRT. Common programs include the following:

- **FTA 5307, 5339a, 5339b, and 5339c programs.** Funding for 5307 (the Urbanized Area Formula Program), and 5339a (Bus and Bus Facilities formula funding) is distributed to transit agencies automatically based on a formula allocation, and the agency has discretion on the use of those funds. 5339b (Bus & Bus Facilities competitive program) and 5339c (Low or No Emission Grant Program) are competitively awarded funds that can be used to fund BRT infrastructure and fleet needs. In each

case, the maximum federal share is 80%. (See section 2.4 for more detail on the 5307 and 5339(a) formula funding programs.)

- **Better Utilizing Investments to Leverage Development (BUILD) grants** (previously known as RAISE and TIGER) are awarded annually by the U.S. Department of Transportation (USDOT) through a competitive process.
- **Congestion Mitigation and Air Quality (CMAQ) and Surface Transportation Block Grant (STBG) Federal Highway Administration programs.** Programs are administered by metropolitan planning organizations (MPOs) in metropolitan areas with populations larger than 50,000. Funding is typically awarded by the region's MPO board and transferred from the FHWA to the FTA (referred to as a "flex") for award directly to the transit agency. Funding is then subject to the same rules and requirements as FTA 5307 formula funds. The CMAQ program is limited to regions designated as air quality nonattainment and maintenance areas.

BUILD grants are typically capped at $25 million, although there are sometimes exceptions with special appropriations. CMAQ grant amounts vary considerably, and state and local authorities have wide discretion in awarding them. In the Chicago region, for example, individual CMAQ awards in 2023 ranged from $108,000 to $169 million.

1.1.3 Mixing federal sources

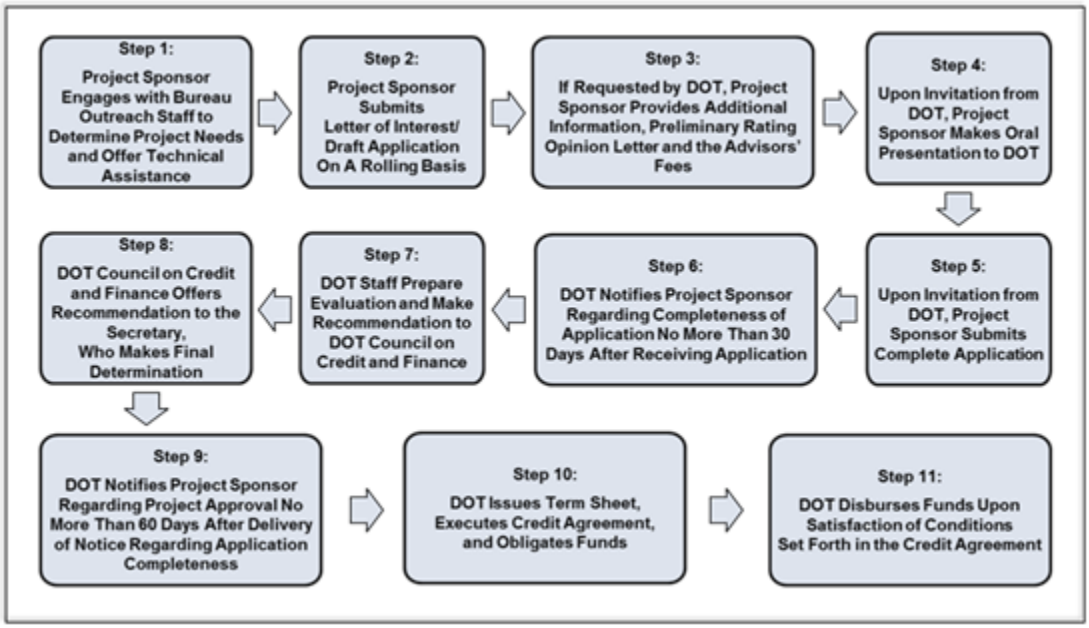
Project sponsors can, and often do, mix multiple federal sources in compiling a project's funding stack. Most important when doing this is ensuring that the project complies with the funding limits for all sources used. For most federal programs, including CIG, BUILD and CMAQ, the total federal share is capped at 80%. Some programs include exceptions, notably the following:

- The BUILD program allowed projects in Historically Disadvantaged Communities or Areas of Persistent Poverty to receive up to 100% federal funding, although this policy has shifted over time.
- Transportation Development Credits may be used to increase the federal share on projects funded through 23 U.S.C., which includes CMAQ. Although TDCs (or toll credits) are not a funding source, utilizing local or state funds spent elsewhere (i.e., tollway funds) can help to meet local cost share (match) requirements for federal grants. When using toll credits, the federal share of a CMAQ-funded project may be as high as 100%.
- Federal loan programs, like the USDOT Build America Bureau's Transportation Infrastructure Finance and Innovation Act (TIFIA) program, can provide low-interest loans to support capital investments, including transit infrastructure and some transit-oriented development (TOD) projects. Local funding will need to be identified to pay back the loan. Requirements for TIFIA can be very intense (e.g., project schedule impacts can require an amendment to the loan), and negotiating a TIFIA loan can be time-consuming, but it allows for longer payback periods with local resources and less expensive borrowing. According to a FAST Act Fact Sheet, TIFIA loans can be used to cover up to 49% of project costs, and the total federal share (including loans and grants) cannot exceed 80%. Furthermore, the Build America Bureau's Railroad Rehabilitation and Improvement Financing (RRIF) program can finance up to 75% of project costs for TOD projects, such as horizontal and vertical development at commuter rail and intercity rail stations under the Build America Bureau TOD program. While BRT projects are generally not eligible for RRIF loans, the development of such stations may benefit BRT service.

It is important to remember that if more than one funding program is applied to a single project, whichever program's allowable federal share is lowest will be the controlling amount.

Figure 1 provides an overview of the USDOT funding process.

FIGURE 1
USDOT Funding Process



1.1.4 Considerations for CIG funding

The CIG program is the most typical path of funding for BRT projects, but it takes considerable time and financial resources to complete that process.

If a project is expected to receive CIG funding, the agency must first determine whether it qualifies as a New Start or Small Start. Following this determination, the agency should conduct early scoping and cost estimation efforts and submit a request to enter “Project Development” (PD).

The FTA will review the request to ensure that the project meets the requirements of the CIG program and that the agency has committed sufficient local funding to complete this phase of the project (including the NEPA environmental review and 30% engineering design). Once granted PD status, all costs from that point forward are considered reimbursable from the grant when executed.

For either New Starts and Small Starts, the agency must put considerable work into design before being eligible to execute a grant and draw any funds. CIG grants are generally not executed until the FTA has determined a project’s “readiness” for construction. This means that agencies must pay for most design activity, which would total tens of millions of dollars, before being able to draw on grant funds.

For small projects (or small agencies), it often can be more appealing to pursue other competitive grants, such as the FTA’s Grants for Buses and Bus Facilities Program or discretionary grant programs such as the USDOT’s BUILD grant program. If a project has a low price tag (generally less than $30 million) or the agency doesn’t have the ability to float up to $10 million while waiting on grant execution, it should take a closer look at these other programs as a potential alternative to CIG. Those programs offer a dramatically simpler path toward funding.

1.1.5 Considerations for small or midsized agencies

To achieve success with federal funding programs, small and midsized transit agencies may need to employ some creative tactics. Certain tactics, tips and tricks highlighted as a part of this guideline are documented from agency research as a means to help other agencies seeking to implement a BRT corridor and/or program with successful funding means. It should be noted that these do not necessarily showcase an exhaustive set of approaches to seek funding, but rather are a set of helpful ideas to either mirror or use to leverage further creative/critical thinking.

Several small and midsized agencies that had active projects at any stage in the 2023 CIG pipeline were invited to participate in an interview that helped demonstrate how they were successful in preparing their BRT projects for successful CIG and/or other funding programs. These are the agencies that participated in the interview that supports information for this section:

- Chapel Hill Transit, Chapel Hill, North Carolina
- MAX BRT, Fort Collins, Colorado
- Flash Bus, Montgomery County, Maryland
- GoRaleigh, Raleigh, North Carolina

Effective cost-estimating exercises, based on the preferred alternative for a BRT corridor, are critical to help inform overall project costs as well as the ask of the FTA through the CIG program and/or other funding sources. The FTA publishes Guidance for Transit Financial Plans and Standard Cost Categories for Capital Projects, as well as a workbook for both New Starts and Small Starts programs. In addition, some agencies use cost estimating exercises that align with the Association for the Advancement of Cost Engineering (AACE) standards for a Class 3 estimate. Per AACE, Class 3 estimates are generally used at a 10% to 40% design completion and are typically accurate to −5% to −15% on the low side and +10% to +20% on the high side, depending on the complexity of the project. Another agency said it used state cost estimating templates and then transitioned to FTA templates and associated methodologies. Depending on the delivery mechanism, a contractor and third party may also be required to develop cost estimates.

Evaluation of all three cost estimates (agency, contractor and third party) is exercised while also considering a level of contingency at appropriate design milestones. As the project moves close to grant submission/finalization, those costs should approach a higher level of confidence as each cost factor evaluation reaches critical milestones prior to submitting to the FTA. Per the FTA, for projects seeking New Starts grants, a risk review should be conducted before approving the project to enter engineering, and then a risk “refresh” review before awarding the Full Funding Grant Agreement. For projects seeking Small Starts grants, a risk review is conducted before awarding the Small Starts Grant Agreement.

FTA CIG funding is competitive in nature, and agencies employ strategies to achieve a successful grant award. Many strategies take time to develop but work to inform overall cost-shares from the federal government. **Table 1** shows how the combination of federal and other funding used by the four agencies that were interviewed and the federal share requested from the indicated CIG program.

TABLE 1
Four Small or Midsize Agencies' Project Funding

Agency and Project	Federal Share	CIG Program	Other Funding Sources
Chapel Hill Transit, N-S Corridor	80%	Small Starts	Local sales tax; MPO and state funds
MAX BRT, Elizabeth Corridor	67%	Small Starts	RAISE Grant, LoNo Emissions Grant; Parks & Rec, Transit & Climate 2050 Tax; multimodal options funding; CDOT FASTER Funds; Colorado State University Partner Funding; Xcel EV Infrastructure Funding
Flash Bus, Viers Mill Road Corridor	60%	Small Starts	LoNo Emissions Grant; State BRT Fund; state aid; GO Bonds; local mass transit fund
GoRaleigh, New Bern Corridor	50%	Small Starts	Local county sales tax

The agencies mentioned a variety of approaches and tactics for securing funding for their BRT projects, including:

- One agency emphasized the importance of securing funding for any BRT project while support from elected representatives at the local, regional, state and federal levels is strong. Local community support, along with a need for better transit service, will help support any agency's pursuit of both CIG and non-CIG funding.
- Some agencies may be successful achieving a higher percentage share if there is a high demand for improved transit service along a corridor.
- Other agencies may choose a more conservative approach of requesting a lower percentage share.
- Throughout the early planning stages for a corridor or full program, it is necessary to ensure that local funding sources have the forecasted capacity necessary to support the desired match to the FTA CIG share. The City of Raleigh, for example, worked with its partners at Wake County during the development of the Wake Transit Plan (2016) which coincided with successful passing of a local sales tax for public transportation. The team prioritized local sales tax projections to support overall capital investment at the 50% level before any preferred alternative was confirmed. The city was also aware of the overall effectiveness of the corridor in comparison with other cities/agencies and presented a conservative approach, knowing it would have the local sales tax to support the priority for a BRT program.
- Another tactic recommended by interviewed agencies is to utilize third parties to help study, analyze and strategize on the most appropriate set of funding strategies and methodologies. Large agencies may have the resources in-house to conduct such exercises, but small and midsized agencies should consider the greater industry expertise that exists, whether from cities, larger agencies or strategic consultancy services.
- One final piece of common advice from all interviewed agencies is to ensure that the FTA is invited to participate in the project planning process early and often. When a relationship with the FTA is developed, that demonstrates proficiency and credibility to further justify fulfilling the CIG cost share sought to support a particular capital project.

1.2 Non-traditional sources of funding

1.2.1 Land donation

Obtaining land donations from private and public entities can serve as one way to fund BRT projects. Private parties may want to donate land to encourage service near properties and/or to expedite a valuable BRT

facility. Besides helping to reduce funding gaps, land donation can serve as a key source of local match funding when seeking federal grants, such as from the CIG program.

For public entities, land donation is not as clear. In many BRT projects it is common that the primary land used in BRT is public right-of-way (ROW) or other land owned by a municipality or state, often separate from the transit agency. In that case, public agencies usually do not donate land; rather, they sign a legally binding agreement or other long-term agreement benefitting the BRT project.

Therefore, the land donation process—mostly from private entities—often focuses on discrete sites, including for stations or maintenance facilities.

When considering land donation and its application as local match, it is also important to ensure that this process meets relevant local and state regulations, which may vary, as well as federal requirements, including the Uniform Relocation Assistance and Real Property Acquisition Policies for Federal and Federally Assisted Programs (the "URA"), which includes protections for renters/residents and requires that relocation support be provided.

1.2.2 Joint development

Transit agencies can consider joint development sources to bridge funding gaps. For example, where they have surplus property, they can jointly develop stations as well as surrounding TODs. Such TODs can result in increased ridership and help agencies fulfill other public policy goals, including fostering affordable and workforce housing and creating multimodal transportation hubs.

By leveraging surplus land and station-adjacent properties, transit agencies can generate revenue streams that support the financial viability of BRT projects. This model plays a critical role in strengthening CIG applications by demonstrating long-term financial sustainability.

1.2.3 Property ownership and lease agreements

1.2.3.1 Ground leases

Transit agencies can utilize long-term ground leases (typically ranging from 20 to 50 years) to retain property ownership while allowing private developers to construct and manage mixed-use developments. Ground leases provide a steady revenue stream to support transit operations and maintenance without relinquishing control over the land.

1.2.3.2 Property sales and development agreements

Where surplus property exists, transit agencies may choose to sell parcels to private entities under agreements that ensure transit-supportive development. This approach can include mixed-use developments, affordable housing, retail spaces and office buildings that enhance ridership and station-area activity.

1.2.3.3 Air rights and over-building opportunities

In cases where land availability is limited, air rights agreements allow private developers to construct above transit facilities while ensuring that transit operations remain uninterrupted. This model is particularly useful in urban settings with high land costs.

1.2.4 Incorporating joint development into for CIG applications

The FTA considers local financial commitment as a key criterion in CIG applications. The following joint development options can serve as revenue sources to bolster project funding:

- **Lease revenues:** Long-term lease agreements generate predictable, recurring revenue that supports BRT operational costs.
- **Property sales:** One-time capital injections from property sales can contribute to project funding, reducing the need for federal grant dependency.
- **Tax increment financing (TIF):** Increased property values around BRT stations can be leveraged to capture incremental tax revenues that contribute to transit funding.
- **Public-private partnerships (P3s):** Collaboration with private developers to fund station enhancements and surrounding infrastructure can offset capital costs.

To strengthen a CIG application, transit agencies should do the following:

- **Identify and quantify developable land:** Conduct an assessment of station-adjacent parcels that can be sold or leased for development.
- **Secure commitments from private developers:** Establish preliminary agreements that outline expected revenue contributions and development timelines.
- **Demonstrate long-term financial sustainability:** Include projected lease revenues and tax benefits in the funding plan.
- **Align with local and regional planning goals:** Ensure that developments support TOD principles, enhancing ridership and economic growth.

Joint development presents a viable strategy for securing long-term funding and maximizing the economic benefits of BRT investments. By integrating property ownership models, ground leases and revenue-generating agreements into CIG applications, transit agencies can enhance project feasibility while fostering sustainable urban growth.

1.2.5 Value capture opportunities

BRT sponsors may want to consider certain value-capture opportunities to enhance funding. Value capture refers to a set of techniques that generally take advantage of increases in economic value related to investments in economic development, infrastructure and other targeted projects.

Professor Arthur Nelson at the University of Arizona and research associate Victoria Perk at the University of South Florida conducted studies indicating that BRT lines and stations can enhance the value of properties that are within ¼ to ½ mile from stations or lines, which supports the use of value capture revenues for transit investments.

Table 2 lists some of the major value-capture instruments that could be applied to a BRT corridor, helping to serve as material funding sources.

TABLE 2
Key Value-Capture Instruments

Instrument (examples)	Definition	Application to BRT Corridor
Impact fees	One-time fees imposed on developers to fund additional public services, infrastructure or transportation facilities required due to the new development.	Used frequently in new development areas. Since they are one-time, they may not result in enough investible surplus.
Special assessment districts or betterment districts	Fees charged on property owners within a designated district whose properties are the primary beneficiaries of an infrastructure improvement.	Depending on how many properties are affected—just businesses or residential units as well—this can serve as a major funding source. Can have direct financial impacts to local businesses.

TABLE 2
Key Value-Capture Instruments

Instrument (examples)	Definition	Application to BRT Corridor
Tax increment financing (TIF)	Charges that capture incremental property tax value increases from an investment in a designated district to fund or finance the investment.	Like betterment districts, these are very applicable instruments for the BRT corridor. However, these require accurate and frequently updated property assessment systems. May require legislation at different levels of governments to implement a TIF.
Joint development	Projects that occur within the existing development rights, including air or underground rights, of a transit project.	Depends on the nature of stations and availability of surplus property that can be sold or leased to private developers.
Naming rights	A transaction that involves a public agency selling the rights to name infrastructure to a private company.	Depending on public policies on this type of branding, this can result in material net revenues that can add incrementally to the funding stack.
Parking fees	Payment made by a parking operator and/or individual user within a specific region, area or corridor.	Supportive fee that encourages BRT ridership.
Density bonus/ development rights	Provide incentives for developers to build public amenities in return for the right to build higher-density properties than are permitted; Permit higher density development on one site in exchange for lower density at another site (or unused allowable density at an already-developed nearby site).	For dense urban areas with strong zoning administration, this can be a very supportive funding source and aligned with BRT corridor density goals. Like density bonus, this depends on strong zoning and planning administration.

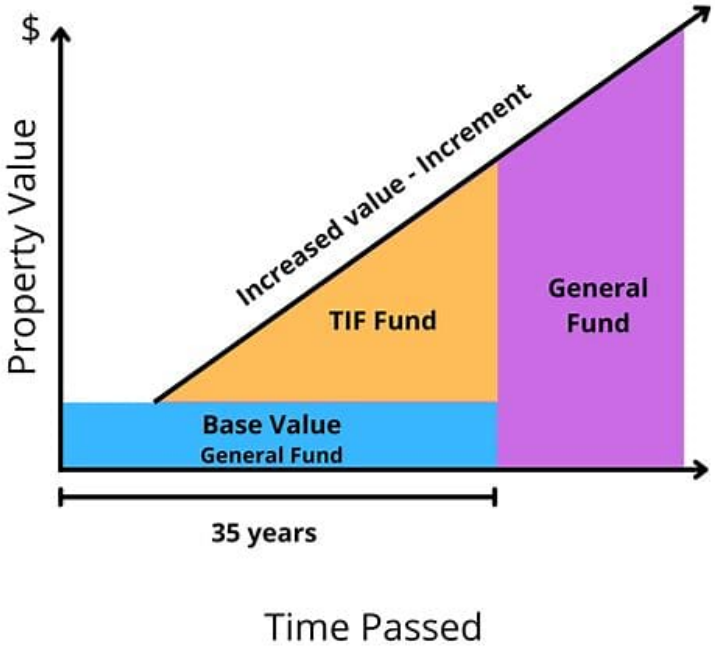
1.2.5.1 Tax increment financing

Tax-increment financing is a type of value-capture where the growth in property tax revenues is used to invest in projects that will stimulate economic development in a specific area. TIFs are one of the most popular value capture methods, since they do not result in new taxes or fees, but rather the allocation of future tax increment revenues. Because they involve uncertainty regarding the increase in future property values, they can be more difficult to leverage for financing purposes. That is why they are often "backed" by creditworthy sources such as transit fares, special assessments or dedicated taxes like sales taxes.

Practically speaking, the taxable value of existing properties within a TIF district are estimated at the time the TIF is implemented. This is called the *base equalized assessed value* or base EAV, and the property taxes generated against the base EAV continue to go to the existing taxing bodies once the TIF is in place. The additional tax amount that is generated from the growth in property values or new properties is the increment available to fund eligible projects within that TIF district.

Public infrastructure investments, including fixed assets related to BRT (i.e., not vehicles), are often eligible projects within a TIF district (local laws would apply). Recently, transit agencies have created transit-specific TIF districts, where transit projects are the only eligible project type. These transit TIFs may have other differences, such as a longer time frame for the TIF, to better align with the financing mechanisms for the transit projects and their payback periods. **Figure 2** is a diagram from the Chicago Transit Authority's website showing a base value of property tax receipts (blue), the incremental growth in tax revenue during the TIF's designation period (orange) available for the project, and the receipts then returning to the general fund after the TIF expires (purple), which is 35 years in this case.

FIGURE 2
How a TIF Works



1.2.6 BRT and joint development in practice

Two examples—from Atlanta and California—show how BRT is increasingly associated with joint development, a major form of value capture.

1.2.6.1 Summerhill BRT/Rapid A-Line TOD in Atlanta

The Metropolitan Atlanta Regional Transit Authority (MARTA) has an active TOD program. This program fosters TOD at its rail transit stations, and now it is also fostering TOD at and around its BRT program. One example of this is the development of the Summerhill BRT line, now known as the Rapid A-Line. The BRT runs on a five-mile loop, with 14 stations, connecting the Atlanta Beltline to downtown along with the Georgia State, Five Points and Garnett train stations. The service will run on dedicated lanes and receive priority traffic signal prioritization.

The 250-unit affordable housing Skyline Apartments project opening in 2025, located at the terminus of the A-Line, is an example of such a BRT TOD. The project was financed in conjunction with MARTA's Atlanta Affordable Housing and Transit-Oriented Development Initiative, a partnership between MARTA and Goldman Sachs and other stakeholders.

Skyline Apartments will be available to families earning 60% or below of area median income (AMI) for an affordability period of at least 20 years. The project is part of a larger development near the Rapid A-Line that has been rezoned to facilitate a total of 875 new apartments.

1.2.6.2 California AB 2011 and BRT

In California, AB 2011 (2022) and subsequent legislation AB 2243 (2024) are examples of a number of recent state laws that allow for multifamily housing at and near transit stations. While the policy goal is to foster more housing, especially affordable, a consequence of this legislation is to encourage more transit service, including BRT.

AB 2011 allows developers to build multifamily housing up to five stories or 80 dwelling units per acre in areas zoned commercial, as long as existing housing is not torn down; is not 500 feet from a highway; is not close to industry; and is served by frequent transit service, such as BRT. The developer has to build at least 15% affordable housing that serves renters with incomes of 80% of the AMI or lower.

The poster child of such an "arterial" is El Camino Real in northern California, connecting San Francisco and San Jose (and beyond). It is a classic "strip" with all types of retail stores, gas stations, hotels and some apartments, which is common in much of the U.S. outside of core urban areas.

Critical to the law is that this entitlement is "by right," removing the procedural obstacle of seeking local zoning board approval that sometimes requires fatal concessions. This helps to overcome "not in my backyard" objections from those who view density as a threat to land values and neighborhood character.

It is too soon to know the impact of this legislation on California's housing supply, but supporters believe it could significantly address the state's housing shortfall if the acres of underused land, including declining shopping centers, could be redeveloped.

Other states have passed similar legislation in recent years allowing for greater density, primarily for multifamily housing, around rail and bus facilities, including Colorado's Housing in Transit-Oriented Communities Act, Florida's Live Local Act, and Massachusetts' MBTA Communities Act.

1.2.7 BRT development flexibility

Many communities across the U.S. and worldwide have discovered that BRT offers exceptional flexibility in determining service levels and locations. While BRT service is known for frequent and reliable service on one primary right-of-way, a number of systems have experimented with routes that may veer off the primary ROW and serve nearby activity generators. For instance, CTfastrak in central Connecticut has a "trunk" line, but other bus routes use that ROW in part as well to serve nearby hospitals and major employment centers. While still achieving most of a public entity's service standards, a transit provider could allow some developers to request off-route diversions to serve their developments in return for meaningful contributions to station or route construction.

While this can be the case, developers often use this argument in ways that can dilute BRT services and local routes. Key questions to consider include these:

- If multiple TODs exist along a route, should the BRT divert into each one?
- How would these diversions impact through riders?
- Would it be more effective to advocate for TODs to be designed with strong connections to BRT services rather than requiring route deviations?

Such diversions may be particularly justified if TODs provide significant public benefits, such as increasing affordable and workforce housing options.

2. Project scoping

2.1 CIG project phasing

Once an agency has made the decision to move forward with the CIG program, it is important to perform initial scoping to understand the various steps and paths within that program. The Small Starts program is limited to projects with a total cost of less than $400 million and a maximum CIG grant size of $150 million. If a project does not meet both thresholds, the agency will need to pursue the New Starts program instead.

However, in order to qualify for the New Starts program, the project must meet the definition of a "fixed guideway"—at least 50% of the corridor must be in dedicated lanes.

The New Starts process is more challenging and time consuming to navigate. Further, it has a lower federal participation rate in that a maximum of 60% of project costs can be covered by the CIG program, as compared to 80% in Small Starts. For projects that are just out of reach for Small Starts, it may be advantageous for the agency to reduce scope/cost of a project to fall below the $400 million threshold or break the project into two separate projects so each will meet the threshold for Small Starts. This can be accomplished in a variety of ways.

Agencies interested in the CIG can review the differences between Small Starts and New Starts grants in greater detail at https://www.transit.dot.gov/CIG.

The simplest way to phase a project would be to split the route into two portions. This method may be feasible for cross-town routes where the major trip generator (like downtown or a university) is somewhere in the middle of the route. Splitting the route at that major trip generator would allow both remaining segments to benefit from the ridership effects of the generator. However, for routes with the trip generator at one end, this method may not work. Each segment will need to meet ridership thresholds for grant eligibility, so splitting a radial route from downtown may leave the agency with one strong segment in the urban core and another weak segment in more suburban areas that likely cannot meet CIG thresholds on its own.

For these radial routes, the agency may choose to use an "open" BRT concept, where the bus continues past the end of the BRT infrastructure to serve traditional local stops, without any significant infrastructure investment, in lower density suburban areas. This can lower the cost of the BRT project without introducing unnecessary transfers into the system. However, the remaining segment will likely score poorly in the CIG program, and it will be difficult to gain funding to upgrade it in the future.

Conversely, if an agency has a high-ridership project that is well below the Small Starts project maximum size, it may be able to include additional items into that project's scope that will reduce the costs of other future projects and make them more competitive. For example, in Madison, Wisconsin, the East-West BRT project was a high-ridership project sharing a portion of the alignment with a planned future North-South BRT line that will have lower ridership. Madison was able to include the fleet for both corridors and infrastructure for the overlapping segment into the East-West BRT, assigning more cost to the higher performing project and lowering the cost of the future lower performing project.

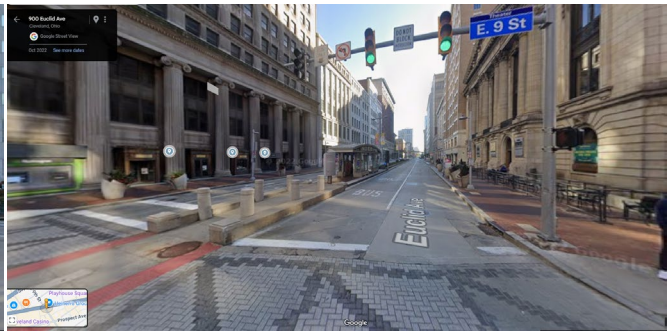
2.2 CIG roadway/guideway scoping

2.2.1 Lanes

When determining the lane configuration to use in a corridor, the most critical decision will likely be center vs. curbside running. Center-running BRT is superior in nearly all cases, but it has some challenges. Center running can use a single station platform, saving cost and right-of-way width, but in order to do so it requires a dedicated fleet of buses with left-side doors, which hinders fleet flexibility. Alternatively, station pairs on the right side of each lane are still possible, but that requires considerably more right-of-way to accommodate. A look at the Healthline in Cleveland shows both configurations being used, with left-side stations in more constrained segments and right-side stations in less constrained segments.

FIGURE 3
Station Configurations on the Healthline

Right-side station.



Left-side station.

Perhaps the biggest challenge with center-running is that it may require a median to control turns across the bus lanes. If the corridor does not already have medians in place, that could result in a substantial loss of left-turn access. Albuquerque New Mexico's BRT initially attempted to continue to allow those left turn movements, but had to reverse course after several incidents.

However, if those challenges can be overcome, the benefits of center-running can be substantial. Curbside lanes experience much more friction and frequent blockages from parking cars, delivery drivers and taxis, so center-running service is faster and more reliable. Construction activity of curbside stations more heavily affects adjacent property owners and creates more complaints. Drainage-related roadway slopes are more severe in the curbside lanes, which create a roller-coaster effect through intersections at higher speeds. And, at least in the case of a single center platform, it can reduce both cost and required right-of-way.

For extremely constrained corridors, center-running can also allow for bidirectional lanes. While not desirable, a bidirectional lane can offer an alternative to merging into mixed traffic to get through constrained points. Essentially, both directions of BRT use a single lane much like a single-track railroad. This has utility in some short segments but does not work well for long distances or with headways less than 10 minutes. However, it is used in several cities, including Eugene, Oregon; Indianapolis; and Albuquerque, New Mexico.

2.2.2 Scopes

BRT roadway designs, and scopes of reconstruction, can vary wildly from one project to the next. Projects range from mixed traffic with no change in lane configuration all the way to a full reconstruction of the right-of-way. Leveraging the investment in BRT to make other necessary changes to the street section can be a way to make the project a win-win for many community stakeholders that may not see the benefit of the transit service. However, the CIG program cannot be an open checkbook for non-transit-related improvements, and it is important to know the limitations. Some elements can be included in the project but need to be funded and tracked separately.

Any improvements that are made in the right-of-way need to have a clear connection to the transit investment being made. For example, adding sidewalks to enable better pedestrian connectivity to stations is an easy win, as can be pavement restoration of the lanes that buses operate in. However, other infrastructure improvements can be included only if there is a nexus to the transit service. For example, in Indianapolis, dedicating an existing lane to BRT altered the stormwater spread requirements for the remaining lanes. This change enabled the project to fund upgrades to the storm sewers. Additionally, it covered the cost of restoring the pavement in general traffic lanes that were damaged during the sewer installation.

2.3 Coordination/scoping with local roadway authority

> **NOTE:** The following assumes that a project is receiving an FTA CIG funding contribution. Some of the guidance is less applicable when a project is not seeking CIG funding.

When transit and roadway agencies are separate entities, it is essential to determine which agency should lead the design and construction of a BRT project. The project sponsor should be carefully selected, considering factors such as eligibility to receive FTA Section 5309 funding, agency management capacity and experience with similar projects—especially those involving significant roadway infrastructure such as bridges, drainage, tunnels, pavement, and traffic signals. If the roadway agency is the lead, then a clear, written agreement on the project's purpose and priorities should be established. Additionally, transit agency staff must be involved to ensure expertise in BRT design elements, including fleet operability, vehicle movements, and station technology, which may not be adequately represented by the roadway agency.

Another critical consideration is contractor interest and comfort in working with the transit agency. Evaluating the agency's past performance on similar projects, including the number and size of projects led, construction outcomes and contractor community perception, can provide insight into its suitability as the project lead. Additionally, it is important to assess the roadway agency's commitment to and familiarity with BRT to ensure alignment with project goals.

A minimum of two representatives from the roadway agency should be involved from the project's inception, participating in scoping and regular coordination meetings. Clearly defining project goals and securing agreement from agency leadership will help ensure a shared vision and smooth execution. Establishing and agreeing-upon design criteria early in the project is also crucial. These criteria should address aspects such as design vehicle specifications, lane widths, pedestrian and bicyclist facilities, driveway radii (if differing from local or state standards), and pavement rehabilitation.

In comparing BRT to light rail transit, it is important to note that while LRT construction requires complete pavement replacement, BRT does not. However, achieving a similar ride quality is desirable. The scope of pavement rehabilitation should be determined early in the design phase to mitigate design risks and potential cost increases.

Dedicated or semi-dedicated lanes are often most needed in areas where they are most difficult to implement due to their impact on general traffic. Roadway agencies may be reluctant to approve dedicated bus lanes, fearing a reduction in general traffic capacity. They may be more willing to approve these lanes if the transit agency assumes maintenance responsibilities, including upkeep of red paint for transit lanes. The transit agency should carefully consider whether this arrangement aligns with the project's goals.

Dedicated lanes also offer significant safety benefits, particularly when general traffic lanes are converted to bus-only lanes. These benefits include reduced traffic speeds, removal of buses making stops in general traffic lanes, and in the case of center-running bus lanes a reduction in crashes. These advantages can serve as a persuasive argument for stakeholders focused on roadway safety improvements.

Pedestrian and bicyclist infrastructure should also be assessed during project planning. Considerations include whether curb ramps or sidewalks need repair or replacement, the integration of existing bicycle infrastructure into the proposed cross-section, and the accessibility of stations along the corridor. Since transit trips begin and end on foot, enhanced pedestrian infrastructure could justify increased contributions from the roadway agency. Additionally, pedestrian signal improvements, such as audible signals at intersections, may be necessary.

Traffic analysis is often an obstacle in reallocating street space for dedicated transit use. Developing a mode-shift factor that accounts for reduced general traffic trips due to increased transit use can be beneficial. For instance, assessing the number of zero- or one-car households within walking distance of stations can help estimate potential traffic reduction. Climate reduction goals should also be factored into traffic volume projections. Instead of relying solely on level-of-service metrics, alternative measures such as overall throughput or peak-hour demand-to-capacity ratios should be considered to better justify transit space allocation. Identifying specific tools for traffic analysis and travel demand modeling early in the process will help ensure consistency between sponsoring and partnering agencies.

Guarding against "BRT scope creep" is essential. As design progresses and project costs become clearer, budget pressures may lead to reductions in scope. This often results in the elimination of key BRT elements, potentially diminishing the project's overall effectiveness and weakening local support. Establishing early buy-in on core project components and nonnegotiable elements can help prevent detrimental scope reductions.

A formalized agreement between the transit agency and the roadway owner is highly recommended. An MOU or similar agreement can delineate responsibilities for design, construction and funding. To ensure flexibility as the project evolves, agencies may choose to develop separate MOUs for different project phases, such as design, construction, and operations and maintenance. This phased approach allows for adjustments based on public engagement and ongoing design refinements, ensuring that project goals remain achievable while accommodating new information and stakeholder input. Example MOUs are provided in Appendix A.

2.4 Scoping to maximize federal formula grant

The FTA appropriates billions of dollars in annual funding for transit systems, including specific formula funding designated for BRT corridors that meet certain requirements. Transit agencies can see additional FTA formula funding resulting from new or expanded transit service, both fixed-guideway and corridor-based, but a more robust BRT can yield higher annual formula funding. Since the data unit values for fixed guideways are higher than for non-fixed guideways, fixed-guideway BRT will tend to attract a higher level of annual funding support under the Section 5307 program for the same length of corridor and level of service.

2.4.1 Formula funding metrics and BRT

Formula funding is subject to annual appropriations, with the total available funding apportioned among all eligible recipients based on legally binding apportionment formulas that take into account multiple quantitative measures such as the size of the urbanized area, amount of service (revenue-miles, revenue-hours, etc.), and extent of the system (route-miles, etc.). The quantitative metrics used for apportioning funding are those reported to the National Transit Database (NTD). NTD data is reported by mode. BRT service reported to the NTD may be grouped with other fixed-route bus service (i.e., mode MB [bus], CB [commuter bus], or TB [trolley bus]) for corridor-based BRT, or may be reported as a separate BRT mode (i.e., mode RB [bus rapid transit]), which corresponds to fixed guideway BRT as defined in the CIG program (50% fixed guideway, defined stations, branded service, signal priority, etc.). Each year, the FTA publishes "data unit values" that show the precise relationship between each formula metric and the amount of funding available per unit of each metric.

NOTE: FY 2023 data unit values can be found here.

2.4.2 FTA formula programs

The section provides pertinent information regarding FTA's formula funding programs as it relates to BRT.

2.4.2.1 Section 5307: Urbanized Area Formula Program

Section 5307 program funding can be used for capital expenses and limited operating expenses through the preventative maintenance provision. Funding is apportioned based on multiple metrics, which depend on the size of the region and the transit mode:

- All urbanized areas with fixed-route bus service receive funding based on population, population density, non-fixed guideway vehicle revenue-miles, and bus passenger-miles.
- Urbanized areas with fixed-guideway systems (rail and RB-mode BRT) receive additional funding based on fixed guideway revenue-miles, fixed guideway route-miles and fixed guideway passenger-miles.

For example, in 2023, funding was apportioned at $0.817 per fixed-guideway vehicle revenue-mile, compared with either $0.705 per non-fixed guideway bus revenue-mile for urbanized areas with populations under 1 million, or $0.569 per bus revenue-mile for urbanized areas with populations over 1 million. Additional per-guideway-mile funding available only for fixed-guideway systems ($50,239 per route-mile in FY 2023) further enhances the annual funding potential for fixed-guideway systems.

2.4.2.2 Section 5337: State of Good Repair (SGR)

Section 5337 funding is available only for fixed-guideway systems and allocated based on fixed-guideway directional route miles and fixed-guideway vehicle revenue-miles. The funds are restricted to the maintenance, replacement and rehabilitation of capital assets, along with the development and implementation of transit asset management plans. The funding can be used by transit agencies as long as the funding is used for the BRT assets. SGR funding is available seven years after the start of operations.

In fiscal year 2023, Section 5337 also apportioned $62,626 per directional route-mile of fixed guideway (for a bidirectional guideway, every route-mile is two directional route-miles).

When combined with Section 5307 apportionments, the addition of Section 5337 eligibility means that fixed-guideway BRT generates approximately three times more funding per revenue-mile than non-fixed guideway BRT.

2.4.2.3 Section 5339: Bus and Bus Facilities Formula

Section 5339 funding is apportioned to all urbanized areas with bus service, based on population, population density, and non-fixed guideway revenue-miles and passenger-miles. Fixed-guideway BRT systems do not generate additional formula funding under Section 5339. However, the data unit values for bus revenue-miles and passenger miles under this program are significantly smaller than the aforementioned two programs. For example, in FY 2023, the unit value was $0.055 per bus revenue-mile for urbanized areas with populations over 1 million under this program, as compared with $0.569 per bus revenue-mile for Section 5307. Therefore, the lack of Section 5339 revenue for fixed guideway BRT is more than offset by additional funding through Section 5307 and Section 5337.

3. Fleet and design considerations related to BRT and funding

3.1 Designated service/fleet

Certain funding sources and grant programs may require a BRT system to be developed with a separate brand, which may impact fleet management and operational decisions. Under the FTA's 2024 CIG Policy Guidance, FTA mandates that the transit service provider apply a separate and consistent brand identity to stations and vehicles, for both fixed-guideway BRT and corridor-based BRT projects that are developed with CIG funds.

Agencies must assess the logistical and financial implications of introducing a new sub-fleet, ensuring seamless integration with existing maintenance workflows and service patterns.

When evaluating BRT fleet decisions, agencies may want to consider the following factors, especially when a project necessitates introducing a new type of sub-fleet into an existing vehicle pool:

- Consider the number of spare buses required to initially operate but also consider adding service later in the future. An agency may be able to justify a higher spare ratio than required if the number of buses for a new BRT sub-fleet pool is small, as the impact of one or two unavailable buses may be a bigger interruption to serviceability and maintenance workflow compared with that of a bigger fleet pool.
- Consider the existing fleet pool and consider how the potentially new sub-fleet pool of BRT-branded fleet will be managed, stored, dispatched and maintained. Compatibility (or lack thereof) with an agency's maintenance workflow will affect ongoing operations and maintenance cost.

For more on considerations for BRT vehicles, refer to APTA BTS-BRT-GL-008-25, "BRT Vehicles: Characteristics and Selection Considerations" For more on BRT vehicle branding refer to APTA BTS-BRT-RP-001-10, "BRT Branding, Imaging and Marketing."

3.2 Overlaid/underlying service

Depending on corridor needs, or existing patterns, an agency may decide to keep overlaid or underlying local service that overlaps the BRT corridor. When planning a BRT system with an overlaid or replacement service model, it is crucial to consider branding, fleet compatibility, station design, service patterns, stop spacing and fare collection.

Agencies should consider facility and station design to be compatible with existing local fleet and service patterns, including platform heights, number and location of bus doors. Agencies must pay attention to the access from/to the bus fleet. Consider the potential trade-offs when making station design features that may make a BRT station inaccessible to an existing non-BRT fleet, including higher platforms (for level boarding), center island platforms with left-loading (which requires dedicated sub-fleet with left-loading doors), and in-vehicle bicycle loading. Thoughtful station design can enhance accessibility and operational efficiency while balancing the needs of BRT and local services.

Additionally, strategic stop spacing and fare collection methods play a vital role in optimizing service effectiveness. If bus stops are placed too far apart (the standard is ¼ to ½ mile for bus rapid transit, according to National Association of City Transportation Officials recommendations), it may require an underlying service. When consolidating existing bus stops for BRT service, agencies should consider access to stations, including walksheds and wait times.

Off-board fare payment for BRT should be compatible with other services. If proof of payment will be required, consider the labor needs for fare enforcement. All-door boarding with fare card validators on all doors, in addition to, or in lieu of, fare collection at stations, may help lessen the concern with detours and associated fare collection challenges.

By carefully evaluating these factors, agencies can create a sustainable, efficient, and well-integrated BRT system that meets both regulatory requirements and rider needs.

3.3 Energy/propulsion and funding

Agencies looking to deploy a zero or low emission bus fleet for their BRT service may want to consider applying for a grant under the FTA's Low or No Emission competitive program. This program provides

funding to state and local governmental authorities for the purchase or lease of zero-emission and low-emission transit buses, as well as acquisition, construction and leasing of required supporting facilities. The competitive grant type is eligible to applicants that are direct or designated recipients of FTA grants. The funding is meant to support efforts to buy or modernize fleets, improve bus facilities, and support workforce development. More information can be found on the FTA Low or No Emission grant program website.

Related APTA standards

APTA-BTS-BRT-RP-001-10, "BRT Branding, Imaging and Marketing"
APTA-BTS-BRT-RP-002-10, "Bus Rapid Transit Stations"
APTA-BTS-BRT-RP-003-10, "Designing Bus Rapid Transit Running Ways"
APTA-BTS-BRT-RP-004-10, "Bus Rapid Transit Service Design and Operations"
APTA-BTS-BRT-RP-005-10, "Implementing BRT Intelligent Transportation Systems"
APTA BTS-BRT-WP-006-25, "Agency Experiences in Applied Infrastructure Design for Bus Rapid Transit"
APTA BTS-BRT-GL-008-25, "BRT Vehicles: Characteristics and Selection Considerations"

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Abbreviations and acronyms

AACE	Association for the Advancement of Cost Engineering
AMI	area median income
BRT	bus rapid transit
BUILD	Better Utilizing Investments to Leverage Development
CIG	Capital Investment Grant
CMAQ	Congestion Mitigation and Air Quality
EAV	equalized assessed value
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
LRT	light rail transit
MARTA	Metropolitan Atlanta Regional Transit Authority
MOU	memorandum of understanding
MPO	metropolitan planning organization

NEPA	National Environmental Policy Act
NTD	National Transit Database
P3	public-private partnership
PD	Project Development
ROW	right-of-way
RRIF	Railroad Rehabilitation and Improvement Financing
SGR	state of good repair
STBG	Surface Transportation Block Grant
TDC	Transportation Development Credit
TIF	tax increment financing
TIFIA	Transportation Infrastructure Finance and Innovation Act
TOD	transit-oriented development
USDOT	U.S. Department of Transportation

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First published	April 25, 2025	June 4, 2025	July 25, 2025	August 27, 2025	August 27, 2025

Appendix A: Sample MOUs

Sample 1: Design

MEMORANDUM OF UNDERSTANDING

DESIGN

This Addendum ("MOU") is made and entered into as of this **[day]** day of **[month, year]** by and between **[Agency]**, a body politic and corporate and a political subdivision of **[City]**, having offices at **[Address]** ("Agency"), and the City of **[City]**, a municipal corporation within, having offices at **[Address]** ("City"). Agency and City are sometimes collectively referred to herein as the "Parties" and individually as the "Party."

RECITALS

WHEREAS, Agency bus services are provided to City on **[location]**;

WHEREAS, Agency routes **[#]** are historically high-ridership routes in the system, even at pandemic ridership levels;

WHEREAS, Agency and City desire continuous, bidirectional center-running bus priority facilities on the corridor;

WHEREAS, bus boarding platforms need to be designed, constructed and maintained to enable the center-running bus priority facilities;

WHEREAS, Agency and City desire safe, comfortable and accessible bus boarding platforms with minimal conflict to other road users;

WHEREAS, existing median along the corridor will need to be removed and/or modified;

WHEREAS, Agency and City should preserve median where mature trees and/or landscaping exist, as well as mature trees and/or landscaping in other areas of the corridor;

WHEREAS, an urban design-focused approach that holistically considers corridor design is desired;

WHEREAS, bike facilities need to be maintained or improved, subject to City regulations;

WHEREAS, two-way bike facilities are desired on this corridor;

WHEREAS, shared bus/bike facilities are not desired on this corridor;

WHEREAS, pedestrian facilities need to be maintained or improved;

WHEREAS, corridor design should first address the pedestrian, bike and transit needs, and should consider impacts to general purpose traffic, including parking removal and/or restricting general purpose traffic along the corridor;

WHEREAS, design should consider signage, striping and signals along the corridor that prioritize transit, pedestrian and bike movements;

WHEREAS, design should include transit signal priority as infrastructure allows;

WHEREAS, start of implementation is desired in **[year]**, subject to funding, stakeholder engagement and mutually agreed-upon design;

WHEREAS, typical projects include a mix of funding sources, with Agency-provided funding typically restricted to bus-specific components of project implementation, with City funding required for non-bus components, subject to agreement by both parties;

WHEREAS, Agency has identified federal funding for bus priority projects, which must be committed by **[date]**;

WHEREAS, City must formally commit to matching funds and project implementation by **[date]**, for Agency to dedicate identified funding to this project;

WHEREAS, project advancement occurs via a separate MOU for each stage in the process: design, construction, and operations and maintenance, with agreement on each stage required from both parties prior to moving to the next stage; and,

WHEREAS, City and Agency wish to jointly facilitate and implement the above items as set forth in this MOU.

NOW THEREFORE, in consideration of the premises herein, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows.

1. Responsibilities. The responsibilities and obligations of both City and Agency for this project are as follows:

BUS LANE AND MULTIMODAL IMPROVEMENTS ON (X) AVE BETWEEN (X) AND(Y) DESIGN TERMS			
	Design Item Description	**Agency**	**City**
1	Fund and manage design consultant contract, up to 30% design.	X	
2	Acknowledge that advancement beyond 30% design requires an executed Construction MOU between City and Agency, and that design consultants will not provide further designs past 30% without an executed Construction MOU.		X
3	Prepare and distribute Construction MOU for review and approval.	X	
4	Fund and manage design consultant contract up to 100% design and construction plans, per the terms of an executed Construction MOU between City and Agency.	X	
5	Engage City throughout the design process to ensure that each party's design criteria are met and to provide opportunities to inform the design.	X	
6	Provide notice of direct and indirect issues that influence the design or potentially preempt design elements, including but not limited to: • stakeholder concerns and issues; • planned or recently constructed curb extensions; • planned or recent road resurfacing, striping or other roadway changes; • planned or recent utility and other service work; • city regulation changes that would impact project design or delivery; and • other items that may impact the design.		X

BUS LANE AND MULTIMODAL IMPROVEMENTS ON (X) AVE BETWEEN (X) AND(Y) DESIGN TERMS			
Design Item Description		**Agency**	**City**
7	Provide timely feedback on design elements as they are developed, to ensure adherence to the project timeline.	X	X
8	Participate in any other planning and/or development processes in the corridor with relevant entities, potentially including City, and/or other jurisdictions where applicable.	X	
9	Participate in any other planning and/or development processes in the corridor with relevant entities, potentially including Agency and/or other jurisdictions where applicable.		X
Stakeholder Engagement Item Description		**Agency**	**City**
10	Lead engagement of Agency stakeholders on project design, including but not limited to: • service planning; • bus operations; • training school; and • systemwide accessibility.	X	
11	Lead engagement of pertinent stakeholders and abutters, including but not limited to: • business engagement; • institutional abutter engagement; • public meetings and/or open houses; • advocacy organizations; and • other engagement as necessary or desired.		X
12	Engage public stakeholders in partnership with City via a regular email newsletter with updates on the project.	X	
13	Assist City in stakeholder engagement initiatives, as requested by City.	X	
Promotion Item Description		**Agency**	**City**
14	Provide attribution to both Agency and City in traditional media and social media outlets when promoting or otherwise discussing the project.	X	
15	Provide attribution to both Agency and City in traditional media and social media outlets when promoting or otherwise discussing the project.		X

Sample 2: MOU - Operations and Maintenance

MEMORANDUM OF UNDERSTANDING

OPERATIONS AND MAINTENANCE

This Addendum ("MOU") is made and entered into as of this **[day]** day of **[month, year]** by and between **[Agency]**, a body politic and corporate and a political subdivision of **[City]**, having offices at **[Address]** ("Agency"), and the City of **[City]**, a municipal corporation within, having offices at **[Address]** ("City"). Agency and City are sometimes collectively referred to herein as the "Parties" and individually as the "Party."

RECITALS

WHEREAS, Agency bus services are provided to City on **[location]**;

WHEREAS, center-running bus lane, boarding platforms and related pavement markings along the bus route need to be maintained;

WHEREAS, curbside signage on the bus route needs to be maintained;

WHEREAS, the traffic signal system on the bus route needs to be maintained;

WHEREAS, the sidewalks and pavement along and adjacent to the bus route are in need of repairs and/or maintenance;

WHEREAS, the project agreement occurs in three stages: design, construction, and operations and maintenance, with joint agreement on each stage required prior to moving to the next;

WHEREAS, City executed a construction agreement on **[date]**; and,

WHEREAS, City and Agency wish to jointly facilitate and implement the above items as set forth in this MOU.

NOW THEREFORE, in consideration of the premises herein, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows.

1. **Responsibilities and Funding.** The responsibilities and funding obligations of both City and Agency for this project are as follows:

BUS LANE ON STREET INBOUND FROM STREET TO STREET AND STREET OUTBOUND FROM STREET OPERATIONS AND MAINTENANCE TERM SHEET			
Maintenance Item Description		**Agency**	**City**
1	Maintenance of bus lane and stop-related pavement markings and red aggregate areas or similar) in a state of good repair, and to pertinent City, state, federal and/or Agency design standards at the time of maintenance.		X
2	Roadway pavement repairs, maintenance and reconstruction (including but not limited to potholes) along the bus lane, and including replacing red aggregate and pavement markings after repairs.		X

Maintenance Item Description		Agency	City
3	Roadway pavement repairs, maintenance and reconstruction (including but not limited to potholes) at Agency bus boarding platforms to Agency pavement specifications.		X
4	Coordinate replacement of white and red pavement markings after any roadway construction that removes markings as soon as practicable, and require that the funder of any subsequent roadway work or project be responsible for the cost or implementation of pavement marking replacement.		X
5	Maintenance of traffic signal systems, including pedestrian signals and related systems for bus boarding platforms, transit signal systems, conduit, and any other associated signal improvements resulting from the project.		X
6	Maintenance of all roadway signage along the bus lane and adjacent curb space (except for Agency bus stop signs).		X
7	Fabricate, install and maintain Agency bus stop signs.	X	
8	Maintenance of sidewalks and ramps adjacent to the bus lane corridor to maintain an accessible path of travel, including compliance with ADA, national transit organization, Agency and other pertinent requirements but does not include elements on the bus boarding platforms.		X
9	Maintenance of accessible path of travel on bus boarding platform to crosswalk, including but not limited to crash barrier and fencing, crash attenuators, surfaces and curbs, ramps, and tactile surface on or along the bus boarding platform.	X	
10	Maintenance of accessible path of travel from sidewalks to bus boarding platform entrance, including but not limited to crosswalks, surfaces, curbs, ramps, sidewalks and tactile surfaces.		X
11	Maintenance of protective bollards and curbing between pedestrian refuge at bus boarding platform entrance and the intersection to Agency and City specification.		X
12	Maintenance of vertical separation, including but not limited to flex posts, where vertical separation is installed.		X
13	Maintenance of passenger amenities related to the bus boarding platforms, including benches, shelters and windscreens.	X	
14	Maintenance of safety and security systems including police call box, security cameras and lighting systems on bus boarding platforms, and in shelters.	X	
15	Maintenance and utility costs of lighting systems along the accessible path of travel to bus boarding platforms, including but not limited to street lighting, and not including utility costs on the bus boarding platform, which is separately metered.		X
16	Maintenance of conduit, communications systems, lighting cabinet and power connections for Agency equipment.	X	
17	Maintenance of static signage, digital signage and real-time information, including but not limited to digital information displays, e-ink signs and countdown clocks installed on the bus boarding platform.	X	
18	Maintenance of fare-related equipment.	X	

Operations Item Description		Agency	City
19	Snow and ice plowing and sanding/salting of bus lane, including gored areas at platform ends for maintenance, operations and safety visibility, where applicable.		X
21	Snow and ice removal at bus boarding platforms, including storage of snow and ice so it does not impede rights-of-way.	X	
22	Refuse removal from bus boarding platforms, including but not limited to emptying trash and recycling receptacles, removing litter from the bus boarding platform, and clearing drainage scuppers of debris.	X	
23	Graffiti removal from Agency-maintained assets, including but not limited to bus boarding platform, shelters and windscreens, lighting boxes, digital displays, and Agency signage.	X	
24	Graffiti removal from City-maintained assets, including but not limited to sidewalks and roadway signage.		X
25	Recurring public utilities costs for the bus boarding platform, which is metered separately from City power for street lights and other utilities.	X	
26	Maintain bus lane and gored areas free of debris, including removing any items obstructing the bus lane, and notifying the Agency Bus Operations Control Center in the event of a bus lane obstruction.		X
27	General streetscape maintenance including but not limited to landscaping, public art, parklets, benches unrelated to bus boarding platform, and other streetscape amenities and improvements.		X
28	Maintain access to the designated gored area at the end of each platform, available to Agency, City and emergency responders for maintenance, operations, safety or other needs related to the bus lane facility, including on bus boarding platforms, where applicable.		X
29	Require City maintenance providers to park vehicles in the specified locations at the beginning or end of each bus boarding platform while performing maintenance work, and to not block the bus lane, the bus boarding platform, or the general purpose lane, except in emergency situations to be reported to the Agency Bus Operations Control Center as soon as practicably possible.		X
30	Require Agency maintenance providers to park vehicles in the specified locations at the beginning or end of each bus boarding platform while performing maintenance work, and to not block the bus lane, the bus boarding platform or the general-purpose lane, except in emergency situations to be reported to the Agency Bus Operations Control Center as soon as practicably possible.	X	
31	Train Agency bus operators on proper use of the bus lane, bus boarding platforms and related facilities.	X	
32	Agree to allowable uses of the bus lane, to be modified only by future mutual agreement. This facility may be used by: • agency buses; • paratransit buses; • emergency vehicles; and • school buses.		X
33	Provide notice of planned disruption to bus lane due to construction or other reasons a minimum of one week in advance of the disruption, or as soon as practicably possible.		X

Operations Item Description		Agency	City
34	Enforce rules and regulations surrounding the bus lane and related facilities, including but not limited to, and subject to pertinent state and local authority: • unauthorized vehicles in the bus lane; • unauthorized vehicles parked in gore-striped areas; • vehicles parked, stopped or standing in the bus lane; and • vehicles parked, stopped or standing at bus stops.		X
35	Subject to execution of a subsequent agreement, conclude a ground lease of the **[corridor]** bus stop platforms to the Agency. This agreement shall be valid for a period of **[#]** years from the date of execution of a subsequent agreement between the City and Agency, anticipated to be concluded on or around **[date]**.		X
Promotion Item Description		**Agency**	**City**
36	Provide attribution to City in traditional media, social media, interviews, presentations and in any other promotion or discussion of the project.	X	
37	Provide attribution to Agency in traditional media, social media, interviews, presentations and in any other promotion or discussion of the project.		X

2. **Cooperation - Further Actions.** The Parties agree to cooperate and collaborate in good faith on all aspects of this MOU. Each of the Parties agrees that it shall hereafter execute and deliver such further instruments and do such further acts and things as may be required or useful to carry out the intent and purpose of this MOU and as are consistent with the terms hereof.

3. **Transportation Operations.** Notwithstanding anything to the contrary contained in this MOU, City shall not interfere with the transportation operations of Agency or any contractor of Agency.

4. **Indemnification.** To the extent allowed by law, City shall indemnify, defend and save harmless Agency from and against any and all liabilities, losses, damages, costs, expenses (including reasonable attorneys' expenses and fees), causes of action, suits, claims, demands, or judgments of any nature whatsoever that may be imposed upon or incurred by or asserted against Agency in connection with City's activities under this MOU except to the extent arising from the gross negligence or willful misconduct of Agency or its agents or employees.

5. **Limitation on Damages.** Notwithstanding anything to the contrary contained in this MOU, in no event shall either Party be liable to the other for indirect, special, consequential or punitive damages of any nature or for any reason whatsoever.

6. **City Insurance.** During the term of this Agreement, City shall continually maintain, with insurance carriers licensed to do business in the City, the following insurance:

a. Commercial General Liability Insurance

Commercial General Liability insurance for personal injury, bodily injury and property damage with limits of not less than 1 million dollars ($1,000,000.00) per occurrence and 3 million dollars ($3,000,000.00) in the aggregate. Such insurance shall be written on an occurrence basis (as opposed to a claims made basis). Coverage shall be equivalent to ISO Form CG 01 01 12 07. Coverage shall be provided on a first dollar basis without a deductible.

b. Workers' Compensation Insurance

Coverage A: Workers' Compensation: Statutory as required by law.

Coverage BL Employer's Liability: (i) bodily injury by accident five hundred thousand dollars ($500,000.00) each accident, (ii) bodily injury by disease five hundred thousand dollars ($500,000.00) each employee and (iii) bodily injury by disease five hundred thousand dollars ($500,000.00) policy limit.

c. Automobile Liability Insurance

Automobile liability insurance with limits of not less than one million dollars ($1,000,000.00) covering all owned, non-owned, hired, rented or leased vehicles of City and its subcontractors and consultants that are used in the activities permitted hereunder.

d. Umbrella

Umbrella insurance with limits at least equal to ten million dollars ($10,000,000.00) per occurrence and ten million dollars ($10,000,000.00) in the aggregate. Self-insured retention shall not exceed ten thousand dollars ($10,000.00). Coverage shall be equivalent or broader than the coverage afforded on the underlying Commercial General Liability, Automobile Liability and Employer's Liability grant within the Workers' Compensation policy.

All policies shall have a minimum requirement, and Agency shall be named as an additional insured on all policies except for Workers' Compensation. All policies shall contain a waiver of subrogation in favor of Agency and the Workers' Compensation policy shall be specifically endorsed to provide such waiver.

City shall provide proof of the foregoing coverage upon the request of Agency. Said proof of insurance may be in the form of a self-insurance letter if the City does choose to self-insure.

7. **Term.** This MOU shall become effective as of the date it is fully executed by City and Agency and shall remain in full force and effect until all activities contemplated by the Parties hereunder have been completed or the Parties have otherwise agreed in writing. Either Party shall have the right to terminate this MOU upon thirty (30) days' written notice to the other Party.

8. **Consent.** Where, pursuant to this MOU, the consent or approval of one Party shall be required, requested or appropriate, such Party agrees that its consent or approval shall not be unreasonably withheld, delayed or conditioned except as expressly provided otherwise in this MOU.

9. **Authority.** The individuals executing this MOU represent that they are empowered and duly authorized to so execute this MOU on behalf of the Parties they represent.

10. **Press Releases.** If either Party wishes to issue a press release regarding this MOU, the form and content of such release shall be approved in advance by both City and Agency.

11. **Governing Law.** This MOU and the rights and obligations of the Parties hereunder shall in all respects be governed by and construed and enforced in accordance with the laws of the City without regard to its choice of law rules.

12. **Notice.** Any notices required or permitted to be given hereunder shall be given in writing and shall be delivered (a) in person, (b) by certified or registered mail, postage prepaid, return receipt requested, or (c) by a commercial overnight courier that guarantees next day delivery and provides a receipt. Such notices shall be addressed as follows:

    If to Agency:

    Agency Address
    Attention: Deputy General Manager

    With a copy to:

    Agency
    Agency Address
    Attention: General Counsel

    If to City:

    City
    City Address
    Attention: Director of Policy and Planning

    With a copy to:

    City
    City address
    Attention: Corporation Counsel

    or to such other address as either Party may from time to time specify in writing to the other Party. Any notice shall be effective only upon delivery.

13. **Severability.** Any provisions of law that invalidate, or otherwise are inconsistent with, the terms of this MOU, or that would cause one or both of the Parties to be in violation of that law, shall be deemed to have superseded the terms of this MOU. Notwithstanding such invalidity or illegality, the remaining terms and provisions of this MOU shall remain in full force and effect in the same manner as if the invalid or illegal provision had not been contained herein.

14. **Counterparts.** This MOU may be executed in any number of counterparts, each of which shall be deemed an original, but all of which when taken together shall constitute one and the same instrument. The signature page of any counterpart may be detached therefrom without impairing the legal effect of the signature(s) thereon, provided such signature page is attached to any other counterpart identical thereto.

15. **Successors and Assigns.** This MOU shall be binding on and inure to the benefit of the Parties hereto and their permitted successors and assigns. This MOU may not be assigned without the prior written consent of Agency and City.

16. **Entire Agreement.** This MOU represents the entire agreement between the Parties regarding the subject matter hereof, superseding any prior oral or written agreements or understandings regarding the same.

REMAINDER OF PAGE LEFT INTENTIONALLY BLANK

SIGNATURE PAGE FOLLOWS

IN WITNESS WHEREOF, the parties hereto have duly executed this Memorandum of Understanding as of the day and year first above written.

Agency: _____ City: _____

Name: _____ Name: _____

Title: _____ Title: _____

