

# Project Definitions

Updated June 2025

**Alternatives Analysis:** The evaluation of all reasonable alternatives and general alignment options for identified transportation needs in a particular, broadly defined travel corridor. (In the case of LCRT, that corridor is the I-26 Corridor.)

**BCDCOG (Berkeley-Charleston-Dorchester Council of Governments):** BCDCOG is an association of, by, and for local governments that was established to assist Berkeley, Charleston, and Dorchester County leaders in working collaboratively. The three-county regional planning agency is also the federally recognized project sponsor for Lowcountry Rapid Transit.

**Bi-directional Bus Lane:** A single bus lane, typically in the center of the road, that enables buses to have priority over congested traffic. If two buses arrive at the bi-directional bus lane at the same time, the bus that is traveling opposite of the majority of vehicles will yield to the bus traveling in the peak-direction (the same direction as the majority of vehicles). Locations with limited right-of-way may be a candidate for this type of application.

**BRT (Bus Rapid Transit):** Bus Rapid Transit is a high-quality, bus-based transit system that leverages modern technology to deliver fast, frequent, and reliable service that may include dedicated lanes, busways, traffic signal priority, off-board fare collection, elevated platforms, and enhanced stations.

**BRT Corridor:** A section of road or roads served by a bus route or multiple bus routes that includes dedicated bus lanes.

**Capital Investment Grants Program (CIG) Project Rating:** The CIG Project Rating is the score FTA uses to determine whether to approve a project's advancement into the next phase in the New Starts and Core Capacity approval process. It is based on a defined set of criteria. FTA computes this overall project rating by averaging the summary ratings of the project justification criteria and local financial commitment criteria. At Entry into Engineering in 2022, LCRT received a medium-high rating, the second highest on the rating scale.

**CARTA (Charleston Area Regional Transportation Authority):** CARTA operates the Charleston metro area's public transportation system. It is the state of South Carolina's largest public transportation provider.

**CHATS (Charleston Area Transportation Study):** CHATS is the designated Metropolitan Planning Organization (MPO) for our region. CHATS is staffed by BCDCOG, which facilitates the MPO's programs and initiatives.

**CIG (Capital Investment Grants) Program:** FTA’s CIG program is a discretionary and competitive federal grant program. Through the FTA, CIG funds more than \$4.6 billion per year to construct new and expanded rapid rail, commuter rail, light rail, streetcars, bus rapid transit, ferries and more, subject to Congressional approval. This program will fund up to 80% for major transit construction projects. LCRT will compete for these funds and, as the system expands, funding can be pursued through the program to fund future BRT corridors identified in the [Regional Transit Framework Plan](#).

**Class of Action:** A class of action indicates the seriousness of the impacts and the resulting level of documentation required in the NEPA process. The three classes of action, in order of increasing complexity, are: Categorical Exclusions, Environmental Assessments, and Environmental Impact Statements. The current class of action for LCRT is a Documented Categorical Exclusion (DCE). A DCE is a type of Categorical Exclusion that requires additional detail but does not involve significant environmental impacts to require the level of documentation of an Environmental Assessment.

**Commuter Express:** A commuter express bus service is a fixed-route bus characterized by service predominantly in one direction during peak periods, limited stops, use of multi-ride tickets and routes of extended length. Service is usually between the central business district and outlying suburbs.

**Contactless Ticketing:** Transit customers pay fare through electronic communication that allows two devices (i.e., a mobile phone and fare box on bus) to communicate wirelessly when they are within a specific distance of one another using radio-frequency identification.

**Design Criteria:** To assist the engineering team, design criteria are developed to document general requirements or regulations that cover project elements like stations, roadway, storm water, street lighting and bike/pedestrian facilities.

**Design Exception:** A design exception is a documented design decision that does not meet minimum design criteria for a project.

**Edge of Pavement:** The extent of pavement, including concrete, asphalt, gravel, or landscaping, and the location of curbing for a project.

**Fixed Guideway:** A fixed guideway is any public transportation infrastructure that uses and occupies a separate right-of-way for the exclusive use of public transportation and other high occupancy vehicles. BRT incorporates fixed guideways to improve reliability and travel speed along the corridor.

**Fixed Route Service:** Buses, vans and other vehicles that operate on a predetermined route according to a predetermined schedule.

**FTA (Federal Transit Administration):** The Federal Transit Administration is the lead federal agency providing financial and technical assistance for the LCRT project.

FTA also oversees the National Environmental Policy Act (NEPA), which is ultimately the deciding factor in whether to permit projects.

**FTA NEW Starts Program:** New Starts is one of the discretionary programs in the CIG grant program. New Starts is for large investments over \$400M and/or seeking more than \$150M in CIG funds. It is required that over 50% of the project's guideway must be exclusive, meaning it must run in dedicated lanes.

**Infrastructure Investment and Jobs Act (IIJA):** Also known as the Bipartisan Infrastructure Law (BIL), the IIJA was signed into law in November 2021 and includes a significant investment in U.S. infrastructure. The IIJA aims to address critical need areas and allocates funding to improve and implement roads, bridges, railways, and public transit systems.

**LCRT (Lowcountry Rapid Transit):** The Lowcountry Rapid Transit project is a proposed bus rapid transit system connecting Ladson, North Charleston and Downtown Charleston that would provide reliable public transportation with frequent service, connect communities, and energize economic opportunities along the corridor.

**Mobile Ticketing:** Transit customers can pay for, obtain and/or validate tickets using mobile phones without the need for a physical ticket.

**MPO (Metropolitan Planning Organization):** A Metropolitan Planning Organization is a federally funded organization that is required to carry out short- and long-term transportation planning for the urbanized portions of metro areas.

**NEPA (National Environmental Policy Act):** The National Environmental Policy Act is the primary law governing the Federal Transit Administration's (FTA) environmental protection process. The NEPA process must be followed in order to qualify for federal funding. The act has four primary purposes:

1. to declare a national environmental policy;
2. to promote efforts to protect the environment;
3. to improve national understanding of environmental issues; and
4. to establish the Council on Environmental Quality.

**Off-Board Fare Collection:** Transit passengers pay fares before boarding, typically via ticket vending machines on the platform. This increases speed of BRT operations.

**Paratransit Service:** Any type of passenger transit that is distinct from conventional transit, operating on schedules and routes determined by the needs of passengers rather than a fixed route. Paratransit services function as a "safety net" for persons whose disabilities prevent them from using a regular fixed route system.

**Platform Level Boarding:** Trains or buses that have interiors that are level with station platforms so that passengers do not have to climb steps to board. This configuration speeds up the boarding process and allows passengers in wheelchairs to board quickly and easily without any special assistance.

**Preferred Alignment:** The preferred alignment is the recommended routing that addresses the project's purpose and need and is supported by stakeholders and the community.

**Railroad Agreement:** In several locations, LCRT construction will interface with railroad property. Navigating these intersections will require agreements with railroad operators in the region. Railroad agreements identify key considerations related to safety, engineering, customer service, operations, legal and regulatory matters, expense, risk, and other issues specific to any proposed project and define a path forward for coordination and construction approvals.

**Right-of-Way:** The legal right, established by usage or grant, to pass along a specific route through grounds or property belonging to another.

**SCDOT (South Carolina Department of Transportation):** SCDOT is a state government agency that provides systematic planning, construction, maintenance and operation of the South Carolina highway system, as well as the development of a statewide mass transit system that is consistent with the needs and desires of the public. The majority of the roads and right-of-way in the LCRT corridor are controlled by SCDOT. SCDOT also holds the engineering design and construction contracts for LCRT.

**SHPO (State Historic Preservation Office):** The State Historic Preservation Office was created by the federal government under the [National Historic Preservation Act](#). The purposes of a SHPO include surveying and recognizing historic properties, reviewing nominations for properties to be included in the [National Register of Historic Places](#) and reviewing projects for their impact on historic properties in addition to supporting federal organizations, [state](#) and [local governments](#), and the private sector.

**Signal Warrant:** A warrant is a condition that an intersection must meet to justify a signal installation. LCRT will follow the SCDOT warrant process, which includes volume requirements, corridor context and safety.

**STOPS Model (Simplified Trips-on-Project Software):** The FTA Simplified Trips on Project Software (STOPS) application is a ridership estimation modeling tool designed exclusively for fixed guideway systems such as commuter rail, light rail, subway, BRT and streetcar. STOPS was developed by FTA to assist project sponsors in developing ridership forecasts for their New Starts or Small Starts projects. STOPS is also used by FTA to evaluate ridership forecasts and level the playing field for all projects (whether they use STOPS or another tool) applying for New Starts and Small Starts funds. (Note: LCRT is pursuing FTA New Starts funding.)

**TOD (Transit Oriented Development):** Transit Oriented Development and design strategically focuses redevelopment and new construction into areas where transit is convenient, attractive and easy to access. This type of planning supports the preservation, redevelopment and new development of distinct community centers where people can live, work and play with greater access to reliable public transit.

**Traffic Signal Prioritization:** Traffic signal priority means giving precedence to transit systems at intersections with traffic signals. This means that signals would allow the LCRT to proceed ahead of vehicular traffic, allowing for the rapid, unhindered movement of large groups of transit riders.

**Transit Dependent Communities:** Communities with populations that rely on public transit due to a lack of access or the inability to use personal transportation like cars or vehicles.

**Transit Network Analysis:** Analysis of the current bus network to develop recommendations for service changes to connect passengers traveling between LCRT and local (CARTA and TriCounty Link) routes.

**Transit Stations:** LCRT is planned to have transit stations along the corridor that are more substantial than standard bus stops, including, for instance, large, custom-designed canopies/shelters, security cameras, level boarding, ticket vending, passenger information signage, canopy lighting, protective bollards at crosswalks, crossing signals and more.

**30% Engineering:** The level of project design that typically includes: advanced concept design defining edge of pavement, hydrological and geotechnical studies, final form and material selection for station designs. LCRT uses this level of design to understand key cost drivers. 30% engineering also sets the federal funding match for FTA grants. The LCRT project team completed 30% design during the Project Development phase, which was completed in 2022.

**60% Engineering:** The level of project design that typically includes: the establishment of construction limits, detailed technical surveying and reporting, development of branding, engineering, pavement, and intersection design details to inform construction, coordination with corridor-adjacent projects, updates to ridership and cost projections, and right-of-way planning. 60% engineering details help position the project to secure final FTA funding grants. The LCRT project team completed 60% design in September 2024.

**90% Engineering:** The level of project design that typically includes: right-of-way acquisition, finalization of project design details, including construction limits and roadway, station, pavement, and intersection design, construction planning and coordination. 90% engineering will position the project to receive its final FTA funding grants and advance into the Construction phase. The LCRT project team completed 90% design and moved into final design in spring 2025.