



GoTriangle
Planning & Legislative Committee
January 22, 2020
2:30 pm-3:45 pm Eastern Time

- I. **Call to Order and Adoption of Agenda**
(1 minute Will Allen III)
ACTION REQUESTED: Adopt agenda.
- II. **Draft Minutes - May 22, 2019**
(1 minute Michelle Dawson)
ACTION REQUESTED: Approve minutes.
- III. **Commuter Rail Risk Assessment**
(60 minutes Katharine Eggleston)
Exhibit 1: Key Risks and Resulting Recommended Early Project Development Activities
- IV. **Adjournment**
(Will Allen III)

GoTriangle Board of Trustees
Planning & Legislative Committee Meeting Minutes
May 22, 2019
Board Room, The Plaza, 4600 Emperor Blvd., Suite 100
Durham, NC

Committee Members Present:

Will Allen III
Wendy Jacobs

Michael Parker, Committee Chair
Jennifer Robinson

Committee Members Absent:

Ellen Reckhow
Russ Stephenson (excused)

Nina Szlosberg-Landis

Committee Chair Michael Parker called the meeting to order at 2:46 p.m.

I. Adoption of Agenda

Action: On motion by Jacobs and second by Allen the agenda was adopted. The motion was carried unanimously.

II. Approval of Minutes

Action: On motion by Robinson and second by Jacobs the minutes of the January 23, 2019, meeting were approved. The motion was carried unanimously.

III. Sample Transit-Oriented Development Report

Patrick McDonough stated that when the Committee saw the first sample report in the fall, it was focused on zoning around light rail. He said the TOD guidebook was designed to be exportable to other communities and other projects within the Triangle. Based on Committee feedback that the report was too complicated, a second draft has been prepared.

Jay Heikes' presented, and the Committee discussed, the draft TOD report for Patterson Place, which is attached and hereby made a part of these minutes.

Parker suggested including a brief written story of the station location and the goal for how it fits into the broader picture.

Heikes noted that this document is intended as a progress report to measure development in station areas against adopted guidelines. This template will provide consistent reporting in the region.

Parker asked who would be responsible for keeping this document updated. Heikes responded that a transportation planner at GoTriangle likely would have

some TOD job responsibilities which would include updating this document, which will be minimal effort once created.

Parker asked about including the environmental benefits in a station area. McDonough suggested working on another area in the region outside the D-O LRT project corridor, perhaps the fairgrounds in Raleigh and around Cary Town Center.

IV. Adjournment

Action: Chair Parker adjourned the meeting at 3:19 p.m.

Prepared by:

Michelle C. Dawson, CMC
Clerk to the Board of Trustees

Draft

MEMORANDUM

TO: GoTriangle Board of Trustees Planning & Legislative Committee
FROM: Capital Development
DATE: January 12, 2020
SUBJECT: Commuter Rail Risk Assessment

Strategic Objective or Initiative Supported

1.1 Increase number of customers served with sustainable transportation services

Action Requested

None

Background and Purpose

FTA encourages project sponsors to proactively engage in strategic risk-informed, performance-based project management for major capital projects. At this early planning stage of commuter rail, the Greater Triangle Commuter Rail (GTCR) study includes an initial risk assessment, which will establish a risk register and preliminary risk management approach for the project. The purpose is two-fold: to inform decision-making on whether and how to proceed with the project, and to form the initial basis of the agency's risk and contingency management plan for the project.

FTA defines risk assessment for major capital projects as “a reasoned assessment of the potential inability to achieve project objectives within defined cost, schedule, institutional, and technical constraints.”

In its guidance for risk assessment for major capital projects, FTA defines four categories of risks, listed below in chronological order of relevance to the project development lifecycle. Of these, Requirements Risk and Design Risk are most relevant to commuter rail at its current stage of development.

- Requirements Risk relates to the difficulty of succinctly and fully developing project requirements. Generally, requirements risk is associated with project development activities from earliest concept through Alternatives Analysis. A significant portion of Requirements Risk can be attributed to differences in project stakeholder goals, third parties (such as regulatory agencies), and undefined requirements.
- Design Risk is associated with the performance and variability of design activities occurring after Alternatives Analysis. Design risk occurs when design-related assumptions are incorrect or in situations where unknown factors cause designs to change



- Market Risk refers to the risk of procuring project management, administrative, right-of-way, design, or construction services, materials, and equipment. This risk refers to both the effects of the open market pricing of goods and services, as well as the effects of the Sponsor’s contract packaging strategies.
- Construction Risk includes both risks that are due to variability of the project’s environment—including unusual weather, unexpected subsurface conditions, and unexpected construction contractor failure. Construction risk also includes performance risk of consultants and contractors. Capital construction risk may be subdivided into: Early-Range Construction Risk (composed generally of site activities such as Geotechnical or Utility activities, usually associated with up to 20% complete), MidRange Construction Risk (associated with coordination of contractors, etc., from 20% to 50%), and Late-Range Construction Risk (associated with 50% to substantial completion).

To date, as part of the GTCR study effort, staff has convened the following industry-standard initial risk identification activities:

- Half-day risk workshop led by GTCR consultant STV with staff of GTCR PMC member organizations
- One-hour jurisdiction-specific risk identification meetings with each municipality and university along the corridor

These engagements have generated dozens of individual risk items to be categorized, sorted, and organized into a formal risk register as the project advances into early project development activities. The project team will develop and manage a specific mitigation and monitoring plan for each risk, which will include the action, approval, or event required to retire the risk, a list of steps necessary to obtain that action, approval, or event, and an owner with authority to pursue the mitigation steps.

Items identified as key risks—those with high probability of occurrence and significant impacts on cost, schedule, and/or project viability—are the basis of activities identified as necessary elements of the scope of “early project development activities,” priority tasks for evaluation over the upcoming year if the project is advanced. Exhibit 1 summarizes those tasks.

Financial Impact

None

Attachments

- Exhibit 1: Key Risks and Resulting Recommended Early Project Development Activities

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Exhibit 1: Key Risks and Resulting Recommended Early Project Development Activities

Key Risk #1: Railroad coordination and buy-in—as with any major transit capital project within an existing railroad corridor, buy-in from the owner and operating railroads is critical and complex. Many of the proposed early project development activities are necessary to define the requirements and design risks associated with railroad coordination. The activities unique to railroad coordination are as follows:

- Engage with NSR and CSX to perform RTC modeling and determine an operating plan that can be approved by the railroad owners and operators
- Resolve and document railroads' requirements to the mutual satisfaction of North Carolina Railroad Company and GoTriangle (including financial and legal requirements such as fees, indemnification, and insurance)

Key Risk #2: Impact of project scope definition on project cost and schedule—the current study is evaluating a 70-mile corridor from Mebane to Selma. A clear definition of the physical and functional project definition to be carried forward into CIG Project Development must be identified. Development and execution of a robust and tailored stakeholder engagement approach will be required to identify and resolve differences in stakeholder goals and obtain a viable Project Concept. The following early project development activities are necessary to mitigate significant requirements risks associated with the project definition prior to entry to CIG Project Development:

- Prepare and begin implementing an agency coordination plan
- Prepare and begin implementing a community engagement plan
- Develop and begin implementing a project concurrence plan progressing to a recommendation of a locally preferred mode and termini
- Assess land availability for park-and-rides, and reach determination on whether sufficient park-and-ride spaces can be constructed to support adequate ridership
- Identify site(s) for maintenance facility, and reach determination on whether sufficient available land exists for an affordable facility
- Further refine and achieve consensus among Parties on project definition for purposes of initiating CIG Project Development, herein referred to as "Project Concept" (termini, station number and location, grade separations, street closures, number and location of additional tracks and improvements, frequency of trains, fleet size and composition, train storage and maintenance requirements). [Note: Jurisdiction-specific risk review has identified several primary focus areas for conceptual engineering prior to initiating CIG Project Development; the most significant of these is likely downtown Durham. Due to the cost and project viability implications of complex engineering challenges in these locations, early focus on these areas is critical.]
- Secure resolutions of support for moving forward with the Project Concept from boards of all affected municipalities and major institutions
- Facilitate adoption of a locally preferred mode and termini by all applicable MPOs and inclusion of Project in all applicable metropolitan transportation plans and transportation improvement programs
- Facilitate inclusion of the Project in each applicable Comprehensive Transportation Plan (CTP), Metropolitan Transportation Plan (MTP), State Transportation Improvement Program (STIP)/Transportation Improvement Program (TIP) and county transit plan

Key Risk #3: Federal funding eligibility—preliminary results of the current study indicate that all potential project scenarios evaluated to date are vulnerable to potentially scoring below the minimum Project Justification rating necessary to be considered eligible for CIG funding. Vulnerabilities are

Exhibit 1: Key Risks and Resulting Recommended Early Project Development Activities

primarily related to ridership (if ridership projections decrease, for example due to reduction of the number of stations assumed in the modeling) and criteria associated with corridor land use planning.

- Engage with local land use authorities to evaluate and consider strategies to bolster Land Use and Economic Development ratings
- Continue to perform ridership modeling as the project definition is refined during activities described under Key Risk #2 above
- Prepare a preliminary New Starts rating evaluation to determine whether there continues to be a strong likelihood of overall score of Medium (or better) for Project Justification and Local Financial Commitment

Key Risk #4: Funding commitments—although the Wake Transit Plan and current Durham County Transit Plan include funding for project implementation, the timelines for those funds are not in alignment, and to date local funding for implementation of an expanded project into Orange and/or Johnston counties has not been identified.

Commitment of 100% of funds for project implementation is not required by FTA at entry to CIG Project Development. However, it is a compelling approach to mitigating a range of project risks, in particular risks that are exacerbated by uncertainty of project viability. When a project is fully funded, it is significantly easier to recruit qualified staff and consultant team members, obtain agreements with critical third parties, and maintain momentum critical for controlling schedule delay, scope changes, and resulting cost increases. As a result, and especially in the context of GoTriangle's recent experience on the light rail project, the following early project development activities are strongly recommended:

- Secure commitment of funds for 100% of the non-federal share of estimated costs for project design, management, financing, construction, and operation and maintenance in a state of good repair

An agreement committing funds for project delivery should be based on best-available information for project cost and schedule. In addition to the items under Key Risk #2 above, the following items are necessary for this:

- Prepare updated cost estimates (costs to plan, design, build, finance, operate, and maintain the project in a state of good repair)
- Prepare an agreement work plan, including exhibit of draft matrix of critical agreements
- Obtain a class of action determination and begin National Environmental Policy Act (NEPA) scoping
- Prepare updated project schedule