

A collage of transportation images. On the left, a blue and white 'Cross Country' bus is parked on a street lined with palm trees. In the center, a blue car is driving on a road. On the right, a winding road curves through a forested area. At the bottom right, a large concrete bridge spans a body of water. The entire collage is overlaid with a dark blue, textured background.

Feasibility Reports



South Carolina Department of Transportation

Feasibility Report Presentation Overview

- Overview
- Process
- Report Adoption
- Uses and Benefits

Feasibility Report Overview

Main Goals of the Feasibility Report

- Develop
 - Purpose and Need
 - Project Goals
 - Scope
 - Cost
 - Schedule

Feasibility Report Overview

- Feasibility Report Tasks
 - Identifies the Project Team
 - Serves as an Agreement between the Department and Project Sponsor
 - Defines the Project
 - Provide Project History

Feasibility Report Overview

Identifies the Project Development Team (PDT)

- Project Sponsor
- Regional Planner
- Feasibility Report Manager
- Program Manager
- Design Lead
- District
- Environmental
- Traffic Engineering Design and Safety
- Maintenance
- Construction
- Transit, Multimodal, and Freight Planners
- Stakeholders – City, County, etc.
- Pavement Design
- FHWA
- Right-of-Way
- Utility Coordinator

Feasibility Report Overview

- Serves as an Agreement between the Department and Project Sponsor
 - Acts as a Living Document
 - Documents Project Goals and Scope
 - Documents Decisions and Discussions
 - Documents Project Timeline



Feasibility Report Overview

- **Defines the Project**
 - Purpose and Need
 - Project Goals and Metrics
 - Project Scope
 - Potential Envr., Cultural, and Social Impacts
 - Alternatives
 - Risk Analysis
 - Estimated Cost & Schedule
 - Benefit Cost Analysis



Feasibility Report Overview

What should be My Level of Effort?

- Planning Level
- 85% Confidence Level
- Confident Answer vs. Defined Risk
- Risks can require Time and/or Cost Element

Feasibility Report Process

Continuous
improvement
is better than
delayed
perfection.

Mark Twain

Feasibility Report Process

- Set up PL Phase in TIP and STIP
- PDT Scoping Meeting
- Final PDT Meeting
- Subcommittee Meeting
- Report Compilation and Adoption



Feasibility Report Process

Planning Phase Estimates

- Ask your Regional Planner
- Cost Estimates derived from Schedule Estimates



Feasibility Report Process

- Project Development Team (PDT) Formed and Scoping Meeting Planned



Know what's below.
Call before you dig.

Feasibility Report Process

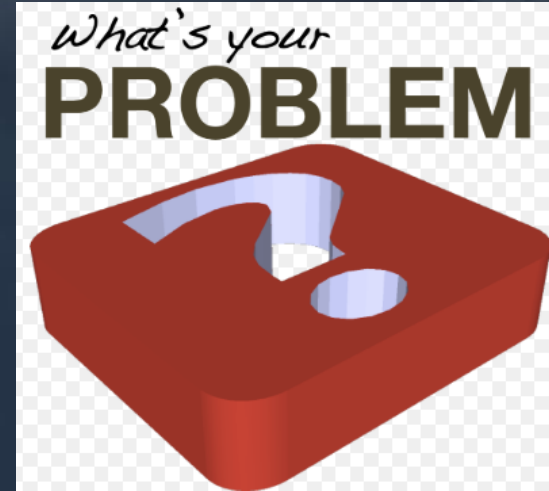
- PDT Scoping Meeting
 - Project Overview
 - Identify the Problem
 - Define P&N, Goals, and Metrics
 - Define the Scope
 - Identify Risks
 - Discuss Alternatives
- PDT Concurrence
- Cost and Schedule for Project
- Subcommittee Concurrence
- Adoption Process



Feasibility Report Process

Purpose & Need

- Purpose is the Problem
- Need is the Support Documentation
- Causes of Problem
- Primary and Secondary



Feasibility Report Process

Goals

- Critical Goals from P&N
- What We are Shooting to Accomplish
- May Not Meet the Non Critical Goals



Feasibility Report Process

Metrics

- How are we going to measure the success or failure of the project?
- Identify Performance Measures
- Tied to goals
- Measurable



Feasibility Report Process

Risks

- Never a Bad Time to Mention a Risk



Feasibility Report Process

Scope

- **Not Solutions**
- Focus on the driver or primary metrics
- What to address, but not how to address it



Feasibility Report Process

Alternatives

- Solutions



Feasibility Report Process

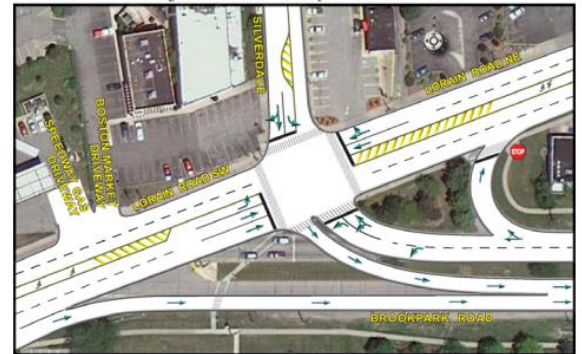
- Alternatives Generated
 - Precon and Traffic Design
- Traffic Safety Assessment
- Environmental Impacts Evaluated



Alternative 1 Schematic Diagram: Lorain Road / Brookpark Road / Silverdale



Alternative 2 Schematic Diagram: Lorain Road / Brookpark Road / Silverdale



Feasibility Report Process

- Final PDT Meeting
 - Review Alternatives
 - Discuss/Identify Risk
 - Discuss Mitigation Strategies
 - Review Metrics



	A	B	C	
1	Alternative Analysis Data			
2				
3		Roundabout	Signal with Turn Lanes	
4	Crash Reduction By 30%, %	40	25	
5	Increase LOS to B or A	A	B	
6	Nexus to Hospital by Adding Ped Facilities	N	Y	
7	Reduce HGL on Riverwood Dr by 0.5'	Y	N	
8	Wetlands Impacts, ac.	0.42	0.38	
9	Additional Safety Measures			
10				

Feasibility Report Process

- For Each Alternative, Review and Discuss
 - Cost
 - Schedule
 - Resource Management Plan
 - BC Ratio

Subcommittee Members

PM

Regional Planner

NEPA Coordinator

Sponsor

Stakeholders

FHWA

FRM



Feasibility Report Process

- Report Compiled
- Report Routed for Review and Signature
- Sponsor Adoption



Feasibility Report Adoption

- PDT COG/MPO Representative
 - Keep the Technical Advisory Committee and the Policy Committee Abreast of All Discussions and Concurrences within the PDT
 - Funnel Committee Information to the PDT
 - Present FR to Policy Committee

Feasibility Report Adoption

Policy Committee

- Give Comments to the PDT COG/MPO Representative
- Ask for Clarifications of the FR
- Sign the FR

Feasibility Report Adoption

Sponsor decision time

STIP Amendment for PE, RW, Construction

OR

COG/MPO Can Request Another Project to be evaluated



Feasibility Report Benefits

- COG/MPO
 - Evaluate LRTP
 - Budgeting
 - Regional Planner Discussions
- SCDOT
 - Manage Expectations
 - Budgeting
 - Reduced STIP Revisions
 - Project Focus in Development
 - Decision Documentation
- Municipalities and Counties
 - Budgeting and Planning Projects
 - Budgeting Maintenance
- Public
 - “Why are we doing this project?”
 - “What is the benefit?”
 - Consistency in Reporting

Draft FR Process Guide

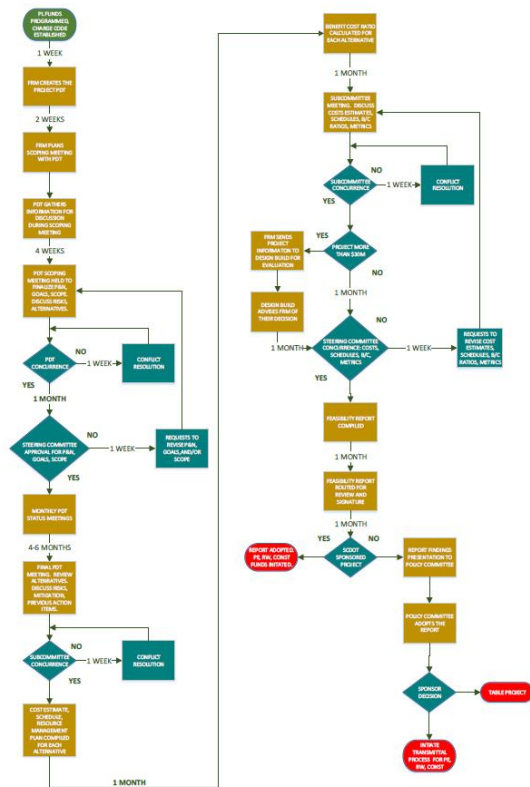
DRAFT FEASIBILITY REPORT PROCESS

In the state of South Carolina there are 11 MDNs and 10 CNGCs

Project Sponsor

The project sponsor is the entity that requests the PL funding from the Office of Planning for bridge replacement/rehabilitation and reconstruction projects and the Council of Governments Organizations (MPO) for Guidesshare funded projects. The Office of Maintenance to select bridge project candidates. The sponsor provides the following information:

- Project Ranking
- Problem and Cause
- Roadway Number/Name and County
- Preliminary Purpose and Need
- Corridor Information
- Existing LOS and Future Year LOS
- Traffic Volume
- Free Flow Speed and Travel Time
- AM & PM Peak Period Delay
- Project Goals
- Project History/Background/Commitments
- LRS and MM Project Limits
- Enhancements







Utilities Overview

Cedric Keitt P.E. Assistant Director of Right of Way for Utilities & Railroad

The Headquarters Team



Cedric Keitt, PE
**Assistant Director of
Right of Way for Utilities
& Railroad**



Jack Locklair, PLS
Utility Project Manager



Vanetta Jackson
Utility Project Engineer

The Headquarters Team



**Jamie Fowler, Railroad
Projects Manager**



**Theresa Penney
Railroad Projects Engineer**



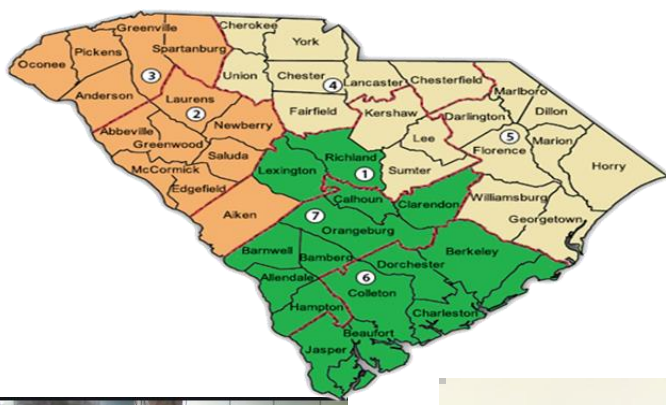
Cedric Keitt
Districts 4,5, &
Kershaw, Lee, & Sumter County
(803) 737-1407



Jack Locklair
Districts 2,3 &
Aiken County
(803) 737-1296



Vanetta Jackson
Districts 1,6 & 7
(803) 737-1457



SCDOT DISTRICT UTILITY COORDINATORS



Jay Clingman
District 1 Utility
Coordinator

Vanetta



Ann Ward
District 2 Utility
Coordinator

Jack



Robert Ryggs
District 3 Utility
Coordinator

Jack



Jake Gaston
District 4 Utility
Coordinator

Cedric
C
SCDOT



SCDOT DISTRICT UTILITY COORDINATORS



Johnson Dean
District 5 Utility
Coordinator

Cedric



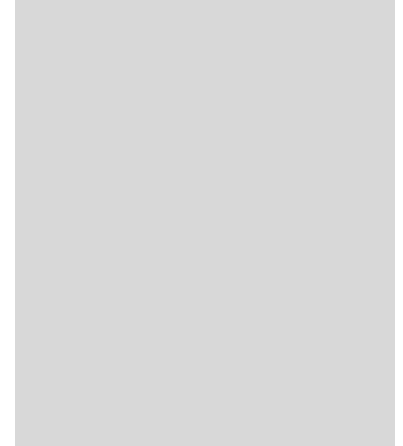
Yvette Oliver
District 6 Utility
Coordinator

Vanetta



Gwendeline Barrera
District 6 Utility
Coordinator

Vanetta



District 7 does not have a coordinator so it is a group effort. Consultant is an option.

The Goal of the Utility Office

To help with the relocation of utilities by reviewing and approving the relocation sketches and utility agreements for highway and bridge projects

Communicate utility project information to the Program managers, utility companies, construction personnel, and the utility coordinators

Review Encroachment Permits to ensure compliance with the policy for accommodating utilities within the states right of way

Attend state and local meetings for utility coordinating, and present information regarding construction projects

Objectives in Utility Coordination

- Identify utility locations early in project scoping
- Utilize Utility Information in Design (to avoid, minimize, and mitigate conflicts)
- Address all impacted utility facilities
- **SCDOT preference:** Complete utility accommodations prior to construction (not always possible).
- **Reality:** Many utilities are relocated during construction under a utility window or in contract. Most of the water and sewer should be done in contract



Utility Coordination Process Quick Reference Diagram



1

PROJECT INITIATION AND SCOPING

- Develop List of Utility Owners and Facilities (*Contact SC 811*)
- Project Scoping Meeting (*Field*)
- Establish Utility Coordination Matrix



2

PROJECT INTRODUCTION LETTER



3

SURVEY / SUE

- See Associated SUE Decision Diagram
- Request Utility Records



4

PROJECT REVIEW (AVOID IMPACTS)

- Alternatives Analysis
- Preliminary Design (30%)
- Preliminary Utility Installation/Constructability Discussion



5

EARLY COORDINATION DURING DESIGN (MINIMIZE IMPACTS)

- Design Field Review (*Field*)
- Environmental Permitting
- Preliminary ROW plans
- Utility Installation/Constructability Review



6

FINAL COORDINATION DURING ROW (MITIGATE IMPACTS)

- ROW Plans and Utility Coordination
- Notify utility company of required relocation with sufficient plans to design their relocation/adjustment
- Final Design
- Final Utility Coordination Meetings
- Final Utility Installation Drawings/Constructability Review



7

PLANS SPECIFICATIONS & ESTIMATES FINAL CONTRACT REVIEW

- Utility deliverables due 6 Months Prior to Bid Opening (*if utilities are included in SCDOT contract*)
- Utility Certification must be issued prior to the final plans submittal
- Utility Window Determination
- Utility Special Provisions



8

ADVERTISEMENT AND AWARD

- Include sealed drawings, specifications, bid tab, cost estimate and a list of minimum of 3 contractors utility companies have used in the past for utility relocation in contract (*if utilities are included in SCDOT contract*)



9

PROJECT CONSTRUCTION

- Contractor will submit ticket for utilities to be marked on project before construction initiation
- Invite utility companies and their contractors to pre-bid conference and regular utility progress meetings
- Request as-builts from relocated utilities. Utilities should provide within 60-days of construction completion.



In-Contract

Utility Work included in contract with SCDOT

- ✓ Include sealed drawings, specifications, cost estimate and a list of minimum of 3 contractors utility companies have used in the past for utility relocation in contract
- ✓ Separate bid worksheet for the utility relocation items in the utility relocation plans
- ✓ SCDOT will seek Utility Company concurrence on utility construction bid



Circumstances for Utility Certification

- NO CONFLICT - Utility facilities will not be affected by the project
- All Utility relocation work will be completed PRIOR to construction
- Arrangements are made to have utility work undertaken DURING construction within a Utility Window or included as in-contract work

What does this mean?

- For **Utility Agreements** the Following Must Be Submitted and Approved
 - Utility Agreement
 - Cost estimate
 - Relocation drawings
 - Prior Rights Documentation
 - Easements obtained
 - Environmental Permits obtained if required
 - Construction Schedule
 - Concurrence from the Consultant (if applicable)
 - Concurrence from Resident Construction Engineer and District Engineering Administrator

Purpose the Utility Bill

- **To assist in expediting state, county and municipal infrastructure improvement projects by aiding public water and sewer utilities in relocating impacted facilities.**
- **Law Title: A36, S401**
- **Governor's Action: May 13, 2019, Signed**

Conditions- Costs Share

- **For a small public water utility or a small public sewer utility, the the entity undertaking the transportation improvement project shall bear all of the relocation costs, including design costs.**
- **For a large public water utility or a large public sewer utility, the transportation improvement project shall bear all of the relocation costs, including design costs, up to four percent (4%) of the original construction bid amount of the transportation improvement project.**



Conditions- Costs Share

- Should more than one large public water utility or large public sewer utility be required to relocate by a single transportation improvement project, the total cost share of up to four percent (4%) shall be divided pro rata among the large public water or public sewer utilities required to relocate under the project.



Conditions- Costs Share

- **For a transportation improvement project that impacts both a large public utility and a small public utility, the entity undertaking the transportation improvement must pay all of the small public utility's relocation costs, without limitation. The entity must also pay up to four and one-half percent (4.5%), minus the costs of the small public utility's relocation costs, of the original construction bid amount of the transportation improvement project toward the large public utility's relocation costs.**

Definitions

- **'Small public water/sewer utility' means a public water/sewer utility that has ten thousand (10,000) or fewer connections AND that serves a population of thirty thousand (30,000) or less.**
- **'Large public water/sewer utility' means a public water/sewer utility that does not meet the definition of a small public water/sewer utility.**
- **Water taps and sewer connections shall be counted separately and shall not be combined.**

Definitions

- **'Betterment' - upgrades to a facility being relocated solely for the benefit of the public water system and that is not attributable to the improvement project**
- **'Costs' means the amount attributable to the relocation (less the amount of any betterment made to the system) including, but are not limited to: right of way acquisition to accommodate the relocated utility, (if in the best interests of the transportation improvement project), design, engineering, permitting, removal, installation, inspection, materials, and labor costs.**

Eligibility

- **For Public Water and Sewer Utilities to be eligible for payment of the relocation, the public water or public sewer utility must meet the bidding and construction schedule established by the entity undertaking the transportation improvement project, such as design conferences and submittal of all relocation drawings and bid documents. All documents necessary for inclusion in the transportation improvement project must be provided by the utility at least one hundred eighty (180) days prior to the receipt of bids for the project.**

Eligibility

- **For small public water and sewer companies to be eligible for payment of the relocation costs, the relocation must be placed under the control of the general contractor for the transportation improvement project.**

Conditions- Schedule

- A large public water or sewer utilities may choose NOT to have the relocation placed under the control of the general contractor. (Small cannot opt out!) **A decision by a large public water utility or large public sewer utility to not have the relocations placed under the control of the general contractor must be in writing to the entity undertaking the transportation improvement project one hundred eighty (180) days prior to the receipt of bids for the project.** Failure to meet the project contract requirements and construction schedule shall result in the utility having to bear all relocation costs.



Eligibility

- If the transportation improvement project is under an accelerated schedule, then the entity undertaking the project shall notify the utility of the date by which the documents must be provided.
- **Failure to meet the bidding and construction schedule requirements shall result in the utility having to bear all relocation costs, except if the delay is due to an event beyond the control of the utility.**

Conditions- Prior Rights

- **Nothing in the law shall prohibit or limit payment by a transportation improvement project for the relocation of public water or public sewer lines necessary for the transportation improvement project if a public utility has a prior right to situate the water or sewer lines in their present location.**

Process in Place to Handle the Law

- Utility Accommodations Bulletin (UAB)
- Intro Letters
- Check list
- Intent Letter In-Contract or not for Large (Number of taps for small and population serving size)
- In-contract MOA (Small, Large, Big & Big, Big &Small)
- Tracking water & sewer under the bill

Sunset Provision

- **The requirements by this act, expire on July 1, 2026, unless otherwise extended by the General Assembly.**



QUESTIONS?