

# 2014 FRA Rail Program Delivery



## **Technical Capacity and Capability of the Extended Project Team**

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# Overview

- **NCDOT Rail Background**
- **PIP Program Development**
  - Roles of NCDOT staff
  - Roles of Extended staff
  - Program Process & Controls
- **Program Administration**
  - Plan Progression
  - Program Delivery



# Background

## Rail Division Branches



- Rail Project Engineering
- Construction Management
- Crossing Safety
- Rail Corridor Preservation
- Industry Safety Inspections
- Transit Safety Oversight
- Freight/Port/Intermodal Planning
- Highway-Railroad Project Coordination & Delivery
- Economic & Industrial Development
- Environmental & Planning
- North Carolina's Amtrak
  - Intercity Passenger Service
  - Stations, Equipment & Facilities
  - Marketing

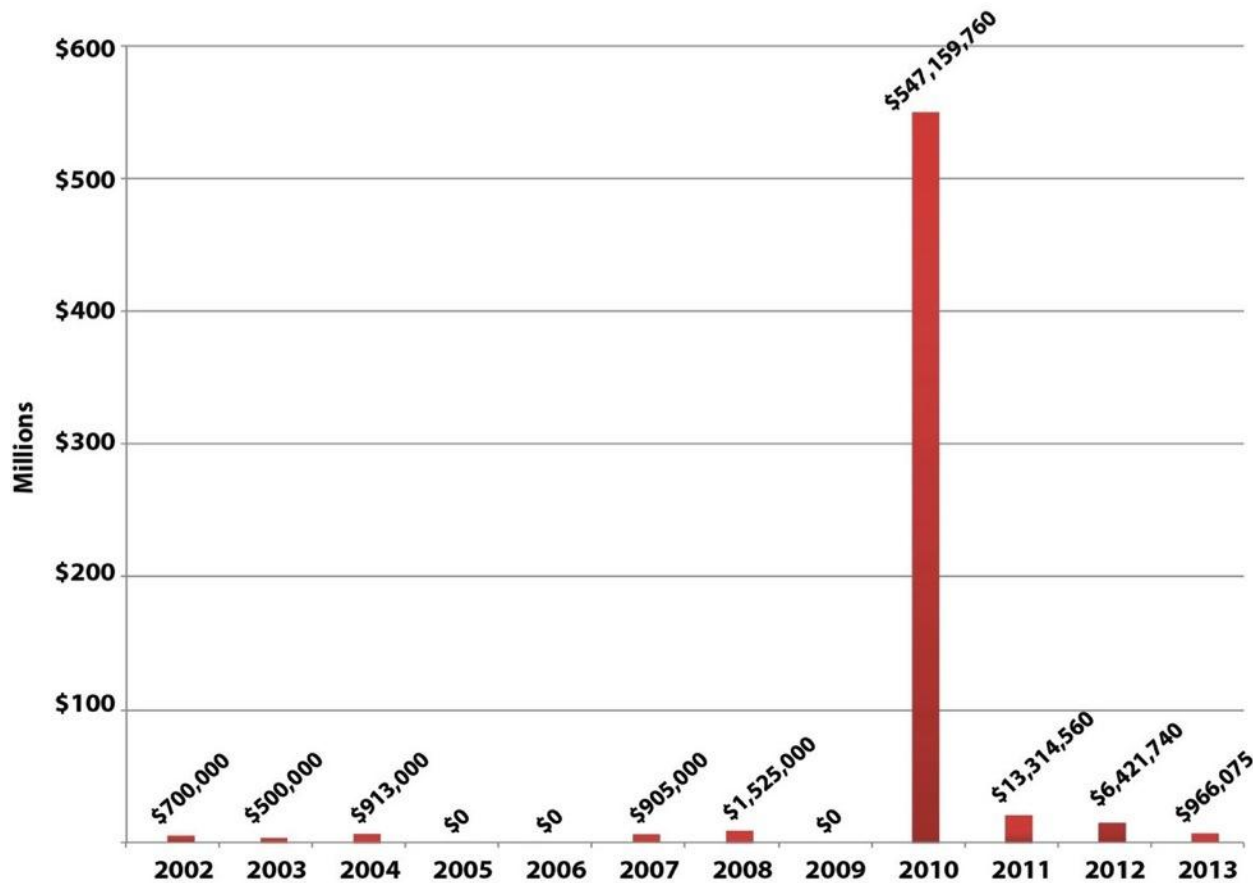
# Background

## Rail Division Initiatives

- Capacity Improvement Projects
  - North Carolina Railroad Improvement Program
  - Roadbed, Track, Signal, Crossing Improvements
- Traffic Separation Studies
  - Grade Separations, Crossing Consolidation
- Grade Crossing Technology
  - Sealed Corridor
- Southeast High Speed Rail Development
- Station Projects

# Background

## Rail Division – Federal Funding History



# Background

## PIP Projects – Time & Money Constraints

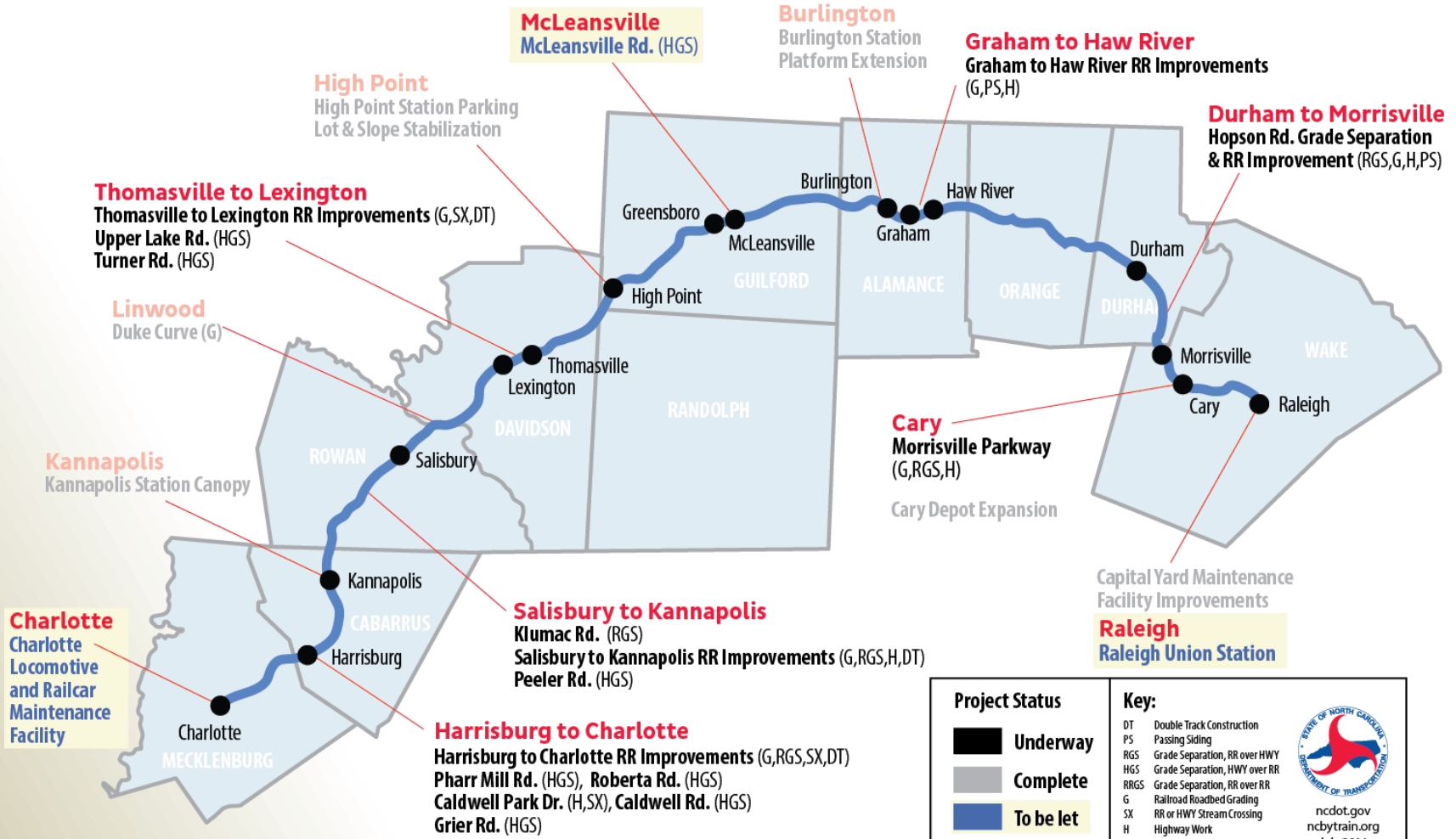
- The grant money is *limited* and must be spent *quickly* on a *set group* of projects – *PIP Projects*

Deadline to deliver and  
reimburse for all projects:  
**September 30, 2017**

*Grant funds will expire!*



# Piedmont Improvement Program Projects



**Piedmont Equipment**  
5 Locomotives rebuilt, 4 Lounge Cars, 4 Coaches refurbished & in service

Reburbish 3 Railcars  
Rebuild 2 Locomotives  
Build 5 Cab Control Units



Project Status		Key:	
	Underway	DT	Double Track Construction
	Complete	PS	Passing Sliding
	To be let	RGS	Grade Separation, RR over HWY
		HGS	Grade Separation, HWY over RR
		RRGS	Grade Separation, RR over RR
		G	Railroad Roadbed Grading
		SX	RR or HWY Stream Crossing
		H	Highway Work



ncdot.gov  
ncbytrain.org  
July 2014

Private Crossing Safety Initiative Projects totaling \$1.3M will be constructed in Alamance, Cabarrus, Guilford, Orange, Rowan & Wake Counties.

# Program Development



## How will we make the PIP Program successful?

### First Step – the right team

- **NCDOT Staff managing projects and construction** (*including in-house resources normally committed to highway projects only*)
- **Hatch Mott McDonald (HMM) brought in to manage program controls, develop links to NCDOT processes**
- **Key consultant contracts where needed** (*using in-place limited services agreements or RFP by task*)





# Program Development

## Roles of NCDOT staff

- Executive Program Management
- Procurement Process and Approval
- Project Management
- Construction Management
- Technical Expertise
- Railroad Relationships
- Communications



# Program Development

## Roles of extended team

- Program Development
- Schedule and Budget Management
- Design Support
- Construction Support
- Document Control
- Program Documentation and Reporting
- Railroad Coordination
- Public Outreach



# Program Development

## Statement of Work

### Scope

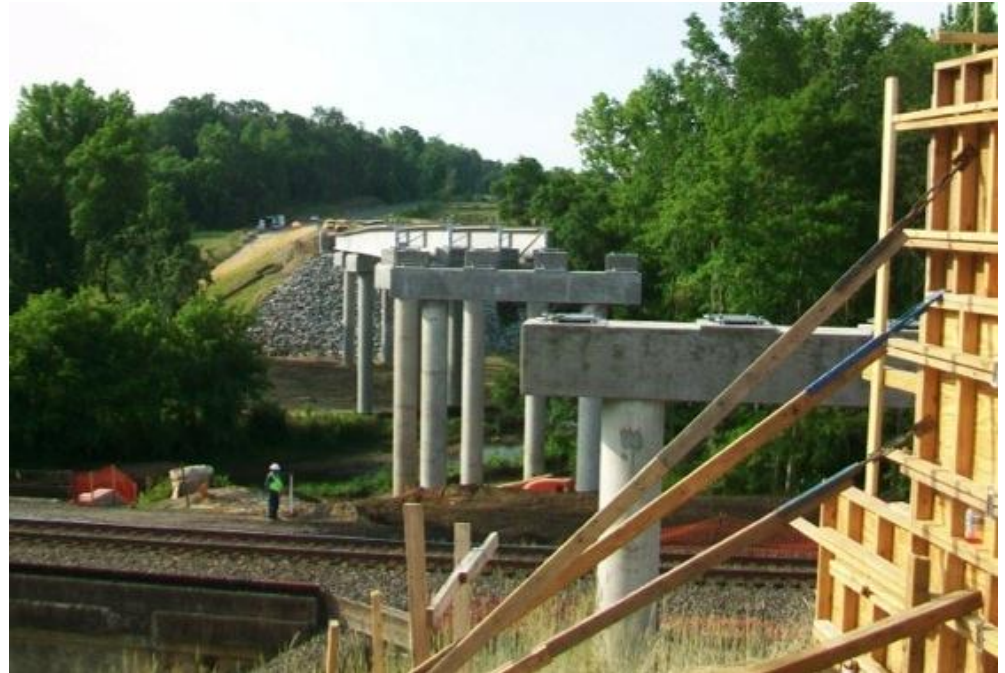
- Scope by Task
- Deliverable by Task

### Schedule

- Milestones tied to Task completion

### Budget

- Anticipated costs by Task



# Program Development

## Scope

### Deliverables by Tasks

- Procurement Plan
  - Number of Contracts
  - Anticipated procurement method (RFP-LSC)
  - Links to Project Estimates and Master Budget
- NCDOT Procurement Process
  - Preparation of plans/ bids packages/ construction specifications
  - Management of the bid/selection process



# Program Development

## Schedule

### Design Phase

- Primavera Enterprise
- Projected based on Plan phase
- Links to Task/Procurement specific schedules and NCDOT's scheduling system (STARS)

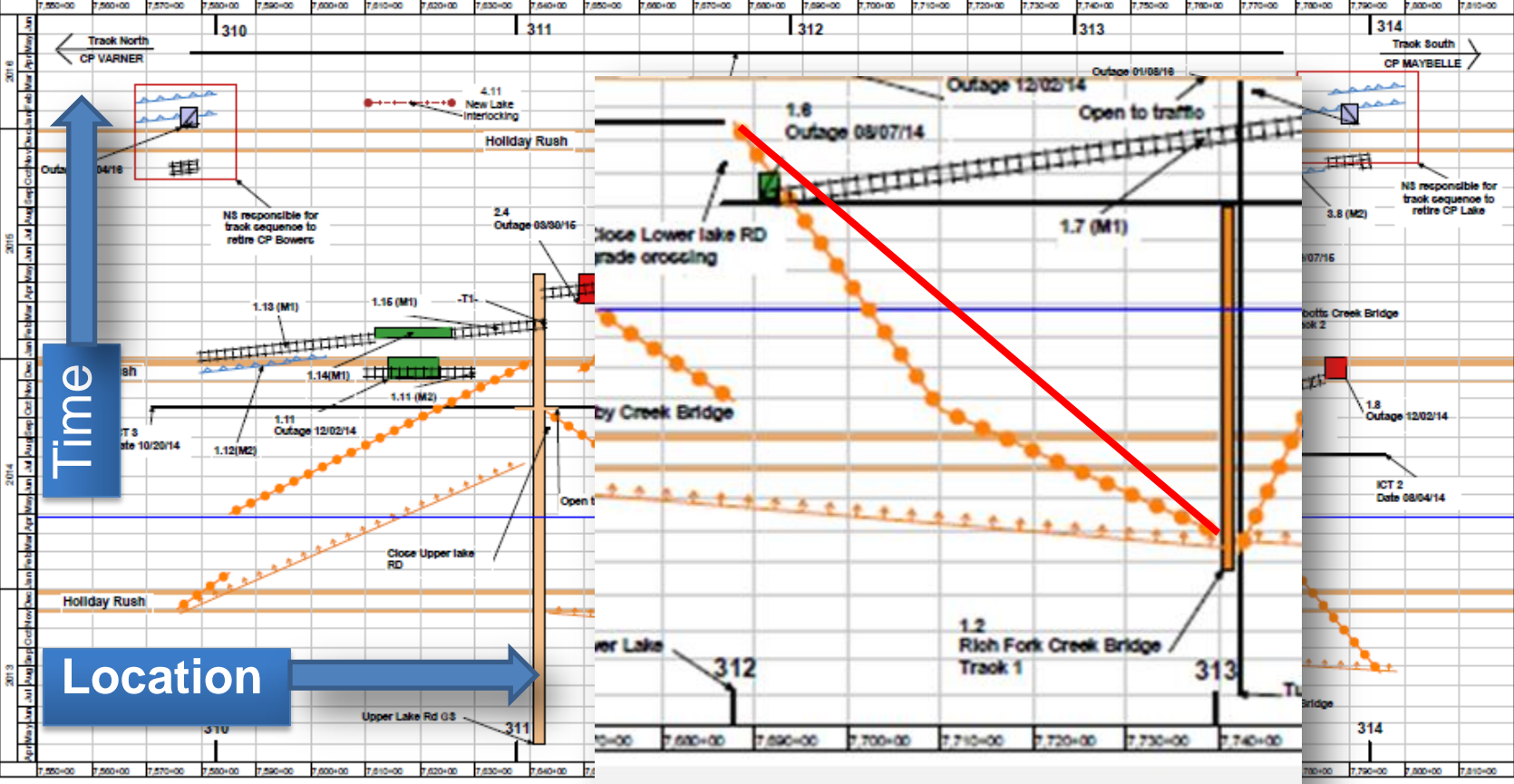
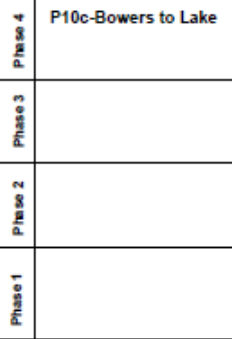
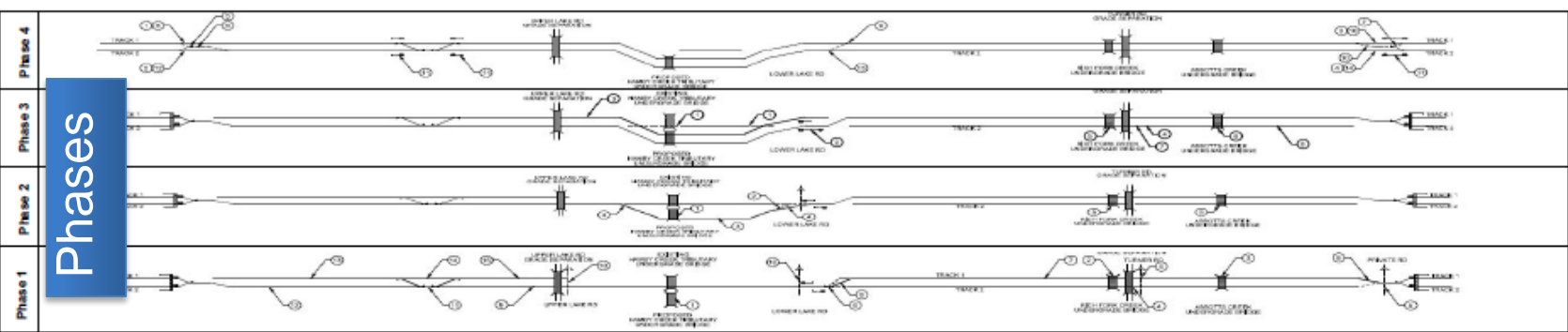
### Construction Phase

- TiLOS-Time Location Software
  - Linear relationship to time
- Links to Tasks/Procurement specific schedules

Phases

Time

Location



2016  
2015  
2014  
2013

NSR	
Install Turnout	
Construct Track	
Remove Turnout	
Line & Surface	
Remove Track	
Cut and Throw	
NSR Signals	
Shift Track	

NCDOT	
Grading	
Remove Track	
Erosion Control	
Re-Forestation	
Grading 2	

# Program Development

## Budget

### **Current Programmatic Estimate (HMM)**

- Standardized estimates for all projects

### **Master Budget (HMM)**

- Matches the available Funds/SOW
- Defines each charge number/ available funds/ spent to date

### **NCDOT's SAP Accounting System**

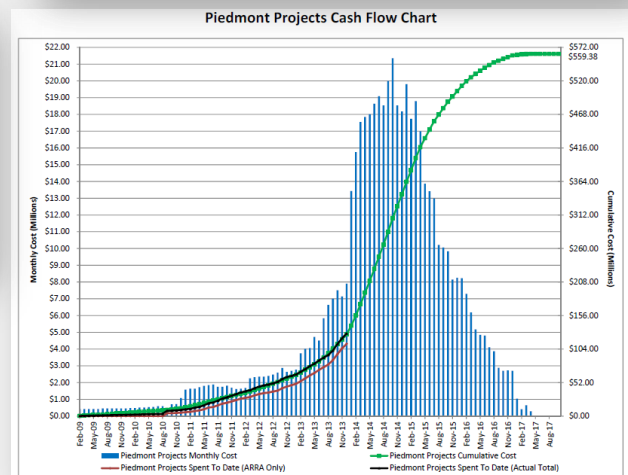
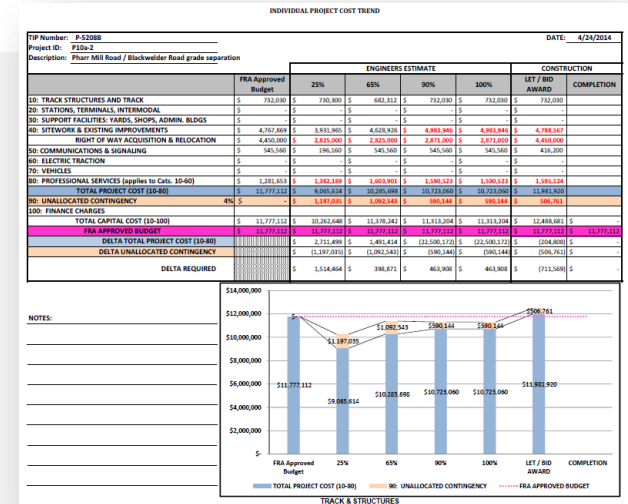
- All invoicing for Vendors, Stakeholders and Grantees

# Program Development

## Executive Level Reporting

- Financial Status Report
- Anticipated Cash Flow
- Program Trend Charts

Program Component		Total Funding (9)	Current Programmatic Estimate (4)	Budget Balance (10)	Potential Cost Reductions	Potential Budget Balance
Piedmont Improvement Program	Program Development and Administration	\$ 18.6	\$ 28.2	\$ (9.6)	\$ -	\$ (9.6)
	Equipment Procurement and Rehabilitation	\$ 28.8	\$ 34.2	\$ (5.4)	\$ -	\$ (5.4)
	Stations and Facilities	\$ 34.9	\$ 77.9	\$ (43.0)	\$ 0.2	\$ (42.8)
	Track and Structures	\$ 357.6	\$ 413.7	\$ (56.1)	\$ 1.7	\$ (54.4)
	CRISP Mainline Grade Separation	\$ 118.7	\$ 6.0	\$ 112.7	\$ -	\$ 112.7
<b>PIP Component Subtotal</b>		<b>\$ 558.6</b>	<b>\$ 560.0</b>	<b>\$ (1.3)</b>	<b>\$ 1.8</b>	<b>\$ 0.5</b>
Congestion	Congestion Mitigation	\$ 26.6	\$ 26.5	\$ 0.1	\$ -	\$ -
<b>Program Subtotal</b>		<b>\$ 585.2</b>	<b>\$ 586.5</b>	<b>\$ (1.3)</b>	<b>\$ 1.8</b>	<b>\$ 0.5</b>





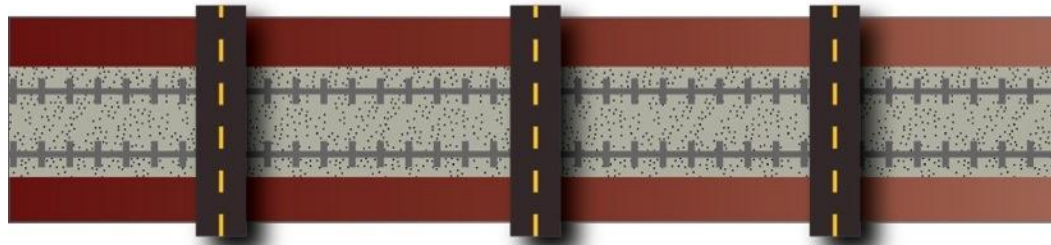
# Program Administration

## Plan Development

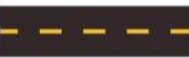
- Project design consultants selected through RFP
- Managed by NCDOT, supported by HMM
- Preliminary progressed to ~65% complete
- Stakeholder Concurrence and Signature Plans
- HMM coordinate FRA funds release checkpoint through the Individual Project Management Plan (IPMP)
- Final Stakeholder Concurrence and Signature Plans
- HMM update to the IPMP for final FRA Funds release for construction

# Program Administration

## Project Delivery



***NCDOT expanding an industry by exposing  
this type of work to a wider range of NC contractors***



**NCDOT Standard Let**  
Bridge & Road Construction

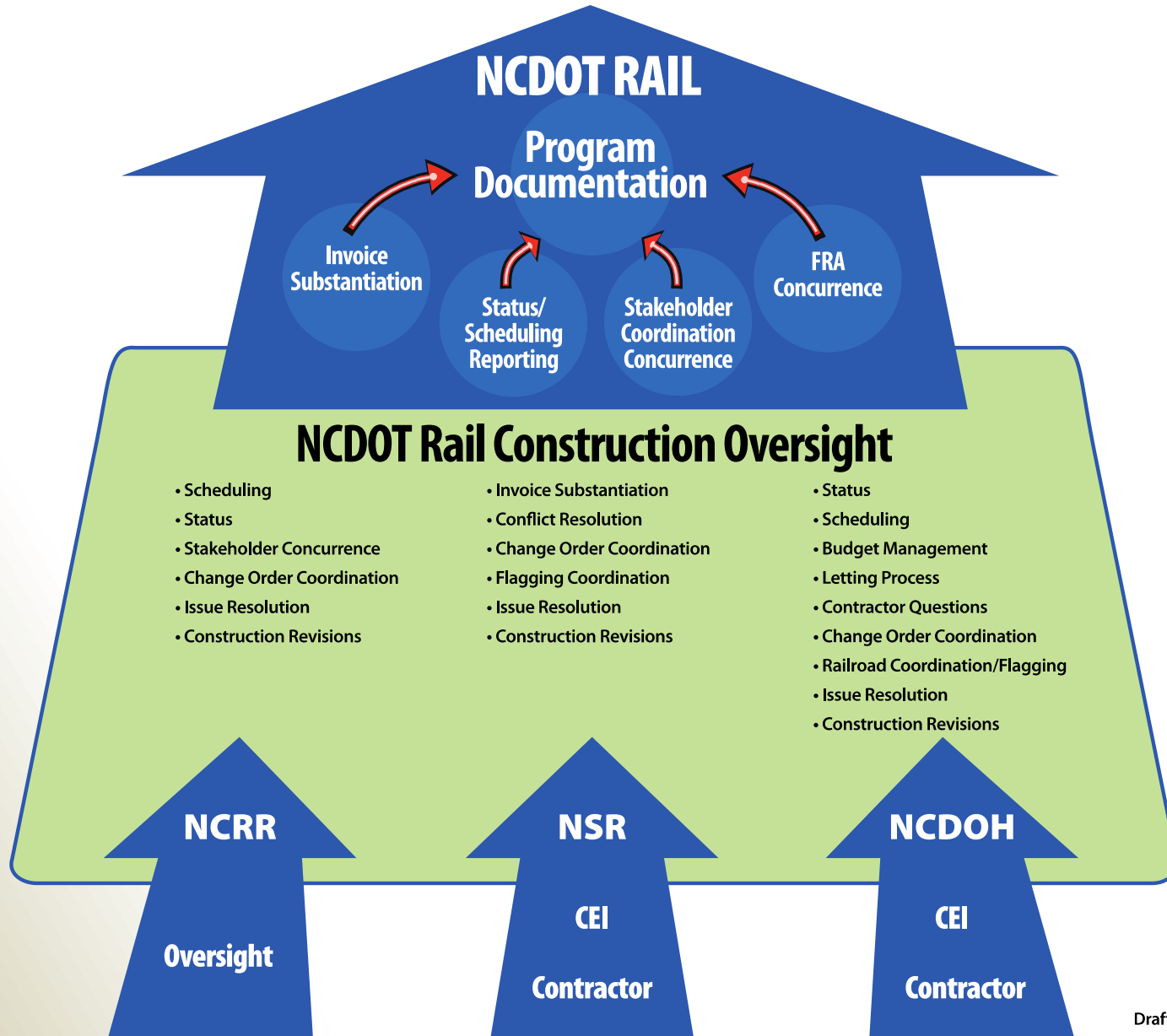


**NCDOT Let – Roadbed Prep**  
Earthwork, Grading & Drainage



**NS Let – From Ballast up**  
Track & Signals

# Federal Railroad Administration



# Thank You!

