

EAST GUILFORD TRAFFIC SEPARATION STUDY for the NCDOT RAIL DIVISION

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EXECUTIVE SUMMARY

In a joint cooperative effort with the City of Greensboro, Norfolk Southern Railway (NS), and North Carolina Railroad (NCRR), the North Carolina Department of Transportation (NCDOT) has completed the East Guilford Traffic Separation Study (TSS), focusing on six existing at-grade roadway-railroad crossings along a 2-mile span: Franklin Boulevard, O'Ferrell Street, Ward Road, Maxfield Road, Buchanan Church Road, and Wagoner Bend Road. The consultants evaluated the rail line in eastern Guilford County that crosses these six streets, as well as any planned or programmed railroad and roadway improvements within the study area. The study area consisted of the existing rail line from Franklin Boulevard to Wagoner Bend Road. Figure 1 defines the study area of the project.

While the study focused only on six crossings, it also supports the larger goals of the NCDOT Rail Division's focus on improved freight and passenger rail (standard and high-speed rail) operations and quality of life impacts (crossing safety, noise, air quality) for rail-adjacent communities. With the projected increase in both passenger and freight rail traffic, there is a need to focus attention to the safety of this corridor and the mobility of all forms of traffic. The corridor is also part of the Southeast High Speed Rail Corridor, and NCDOT Rail Division has been committed to enhancing the operations of passenger rail service by upgrading the rail corridor for increased passenger train operations and speeds.

The process involved public input and involved a series of meetings to gather information and receive public comments on proposed recommendations. These recommendations include safety improvements and possible closures at existing street/rail grade crossings in the City of Greensboro and Guilford County, North Carolina.

A Stakeholder Committee was established in order to provide critical input in reaching consensus on grade crossing recommendations. The Stakeholder Committee met three times during the course of this study. Additionally, the Public Involvement program included two Citizens Informational Workshops (CIWs). These meetings are summarized below.

Citizens Informational Workshop #1

The first CIW was held on September 24, 2012 at the Guilford County Cooperative Extension office. Study team members were available to introduce the East Guilford Traffic Separation Study, to answer questions related to the study, and to receive comments to aid in developing recommendations for improving the six rail crossings.

Residents of area neighborhoods were primarily concerned with access to homes and businesses south of the tracks, given the area's current lack of east-west street access. Auto scrap yards in the area had notable concerns about access, as several of them have parcels on both sides of the tracks and regularly cross the tracks while ferrying vehicles and equipment between sites. Additionally, a large building/construction supply yard at Buchanan Church Road had concerns about truck access.



Citizens Informational Workshop #2

The second CIW was held on March 7, 2013 at the Guilford County Cooperative Extension office. Study team members were available to introduce the East Guilford Traffic Separation Study, to answer questions related to the study, and to receive comments to aid in developing recommendations for improving the six rail crossings.

The study team developed and presented tiered scenarios of long-term improvements, contingent on the eastward expansion of Naco Road and the grade-separation of crossings at Franklin Boulevard, Ward Road, and Wagoner Bend Road. Closures of crossings at O'Ferrell Street, Maxfield Road, and Buchanan Church Road would all be contingent on both the Naco Road extension and the installation of all three grade-separated crossings.

As with results from the first CIW, residents of area neighborhoods were primarily concerned with access to homes and businesses south of the tracks, given the area's current lack of east-west street access. Auto scrap yards in the area had notable concerns about access, as several of them have parcels on both sides of the tracks and regularly cross the tracks while ferrying vehicles and equipment between sites. Additionally, a citizen requested contact information for City of Greensboro planning and transportation staff, in order to learn more about transportation and land development projects south of the TSS study area.



Final Recommendations

A. Franklin Boulevard (Crossing # 722 959A)

1. Short-Term

Continue to operate the crossing as an at-grade crossing.

2. Long-Term

Grade-separate Franklin Boulevard. The recommendation would locate the roadway under the railroad, thus creating a railroad bridge overpass. Creating an underpass also requires that the intersecting streets north of the tracks be lowered to meet the new lower elevation of Franklin Boulevard. This crossing is the highest priority of the six under study, given its traffic volumes and connectivity with the larger street network.

B. O'Ferrell Street (Crossing # 722 961B)

1. Short-Term

Continue to operate the crossing as an at-grade crossing.

2. Long-Term

Close the existing crossing, contingent on the gradeseparation of Franklin Boulevard or the eastern extension of Naco Road to Ward Road (the Ward Road crossing is also planned for a realignment with a grade-separation).

C. Ward Road (Crossing # 722 962H)

1. Short-Term

Continue to operate the crossing as an at-grade crossing.

2. Long-Term

Close the existing crossing and create an underpass grade-separation of Ward Road immediately east of it. This project is listed in the Greensboro MPO's Long Range Transportation Plan (LRTP) for horizon year 2025, yet the street realignment and underpass could be constructed sooner, should private development occur in the extension footprint.

D. Maxfield Road (Crossing # 722 964W)

1. Short-Term

Continue to operate the crossing as an at-grade crossing.

2. Long-Term

Close the crossing once the Naco Road Extension is constructed to the east, to the north-south extension of Wagoner Bend Road, creating an eastern access option for the area near Maxfield Road and Buchanan Church Road. The Naco Road street extension is contingent on funding in the Greensboro MPO's Long Range Transportation Plan (LRTP). The project is currently planned for horizon year 2025, yet the street could be constructed sooner, should private development occur in extension footprint.

E. Buchanan Church Road (Crossing # 722 965D)

1. Short-Term

Continue to operate the crossing as an at-grade crossing.

2. Long-Term

Close the crossing once the Naco Road Extension is constructed to Wagoner Bend Road, creating an eastern access option for the area near Maxfield Road and Buchanan Church Road. The Naco Road and Wagoner



Bend Road street extensions are contingent on funding in the Greensboro MPO's Long Range Transportation Plan (LRTP). The projects are currently planned for horizon year 2025, yet the streets could be constructed sooner, should private development occur in extension footprint.

F. Wagoner Bend Road (Crossing # 722 966K)

1. Short-Term

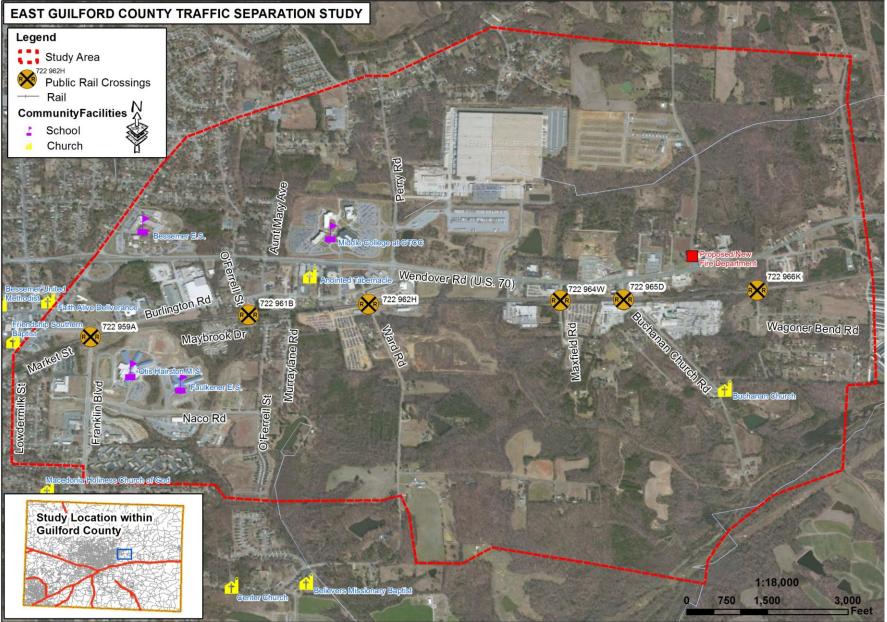
Continue to operate the crossing as an at-grade crossing.

2. Long-Term

Grade separate Wagoner Bend Road once the Naco Road Extension is constructed to Wagoner Bend Road, creating an eastern access option for the industrial and residential area near Buchanan Church Road and the residential area east of Wagoner Bend Road. The Naco Road and Wagoner Bend Road street extensions are contingent on funding in the Greensboro MPO's Long Range Transportation Plan (LRTP). The projects are currently planned for horizon year 2025, yet the streets could be constructed sooner, should private development occur in the extension footprint.



Figure 1 – East Guilford County TSS Project Limits





A. INTRODUCTION

Every year more than 450 persons are killed and nearly 500 injured nationwide as a result of crashes between vehicles and trains. According to statistics from the Federal Railroad Administration (FRA), there are 4,006 public crossings in North Carolina. In the last four years (2009-2012), the number of street-rail incidents in North Carolina ranged from 35 to 55 per year. The number of fatalities ranged from one to eight, and the number of nonfatal conditions ranged from 20 to 37. Safety initiatives have reduced street-rail incidents from 300 in 1975, 187 in 1985, 135 in 1995, 67 in 2005, and 45 in 2012.

Traditionally, The North Carolina Department of Transportation (NCDOT) uses a Traffic Separation Study (TSS) to systematically review crossing safety. Traffic Separation Studies comprehensively evaluate traffic patterns and road usage for an entire municipality or region, determining the need for improving and/or eliminating public grade crossings.

NCDOT entered into an agreement with the City of Greensboro and Norfolk Southern Railway (NS) to prepare this TSS, focusing on six existing at-grade roadway-railroad crossings along a 2-mile span: Franklin Boulevard, O'Ferrell Street, Ward Road, Maxfield Road, Buchanan Church Road, and Wagoner Bend Road. The consultants evaluated the Norfolk Southern rail line in eastern Greensboro/Guilford County that crosses these six streets, as well as any planned or programmed railroad and roadway improvements within the study area. The study area consisted of the existing Norfolk Southern rail line from Franklin Boulevard to Wagoner Bend Road.

The Traffic Separation Study process has three phases:

1. Preliminary Phase

The NCDOT and the City of Greensboro contractually agreed to make a "best" effort to approve and implement improvements identified by the study. An engineering consultant was then selected by NCDOT.

2. Study Phase

The engineering consultant evaluated the existing crossing conditions, average daily traffic (both trains and vehicles) and socioeconomic impact of potential closings for all public crossings within the study area, and prepared recommendations for NCDOT and local officials to review. Recommendations would be broken into three categories, Short-term, mid-term, and long-term based on possible improvements. Below describes the possible recommended improvements and timeframes.

Short-term recommendations (within two to five years) include improvements such as installation of flashing lights and gates, enhanced devices such as four-quadrant gates and longer gate arms, installation of concrete or rubber crossings, crossing closures, median barrier installation, pavement markings, roadway approach modifications and crossings realignments, connector roads, roadway realignments, crossing closures, relocations of existing crossings to safer locations and feasibility studies to evaluate potential grade separation locations.



<u>Mid-term recommendations</u> (five to eight years) include improvements such as grade separations, connector roads and crossing closures.

<u>Long-term recommendations</u> (more than 8 years) include improvements such as grade separations, connector roads and crossing closures that require longer-term planning/funding than mid-term projects.

Recommendations were presented to the public for comment.

3. Implementation Process

If applicable, funding sources for improvements are identified, project agreements are developed between funding partners, which identify responsibilities for project design, crossing closure coordination with railroad and state highway and local officials, and oversight of project implementation. City staff typically assists with project development, utility relocation and right of way acquisition, if needed.



B. DATA COLLECTION

The information included in Table C-1 was gathered for each grade crossing in order to evaluate the crossing conditions in terms of traffic and safety.

The data summary sheets for each crossing are located in Figures C-1a, C-2a, and C-3a. Photographs for each crossing are found with the corresponding data summary sheets, and are labeled Figures C-1b, C-2b, and C-3b.

Average Daily Traffic data was collected in the Fall of 2011 in order to gauge the level of traffic on Franklin Boulevard, O'Ferrell Street, Ward Road, Maxfield Road, Buchanan Church Road, and Wagoner Bend Road. The traffic data was broken down into the number of trips heading northbound and southbound, as well as percentage of dual axle vehicles and Truck Tractor Semi-Trailer (TTST).

For Franklin Boulevard, the Average Daily Traffic for 2011 was 5,679 vehicles per day (vpd). Traffic counts were not available for O'Ferrell Street, Ward Road, Maxfield Road, Buchanan Church Road, and Wagoner Bend Road.

TABLE B-1

TABLE 6-1	Τ •
Data Item	Source
Crossing Number	NCDOT Rail
Street or Route	NCDOT Rail
Railroad Company	NCDOT Rail
Railroad Milepost	NCDOT Rail
Existing Warning Devices	Site Inspection
Vehicle Traffic	STV/RWA
24 hour train volumes	FRA Inventory Forms
Accident History	Accident Reports (NCDOT & FRA)
Truck Route	NA
Transit Route	GTA*
School Bus Route (Yes/No)	Guilford County Schools
Crossing Surface and	Site Inspection
Condition	
Land Use	Site Inspection
Redundant Crossing (Yes/No)	Site Inspection
Humped Crossing	Site Inspection
Crossing Geometry	Site Inspection
Need for Enhanced Warning	Site Inspection and accident
devices	history
Feasibility of Roadway	Site Inspection and
Improvements	engineering judgment

^{*}Greensboro Transit Authority



Figure 2 – Franklin Boulevard, Crossing Inventory

Crossing Nun	nber		Milepost		Railroad			Street Nar	ne			Street Classification		Warning	Device		Land Use
722 959A			H003.01		NCRR/NS			Franklin B	oulevard		Minor Arterial CB, G				S		Institutional
24 Hour ADT		24 Hour Tr	rain Volum	e	30		Accident History Transit R			ute	te School Bus Route			Truck Route			
7,000		16					n/a		No			Yes	n/a				
Preemption	Humped (Crossing				Crossing C	ondition (Geometry			Crossing S	Surface Condition	Crossing C	ondition	Sight	Redundar	nt Crossing
No	No			ite.		Good					Good		Poor			1	No
Economic Imp	pact if Clos	sed		Feasibility	y of Roadw	ay Improve	ements			Grade Sep	paration In	vestigation			Need for Enhanced	Warning D	evices
High				Medium			High No										
Aerials																	
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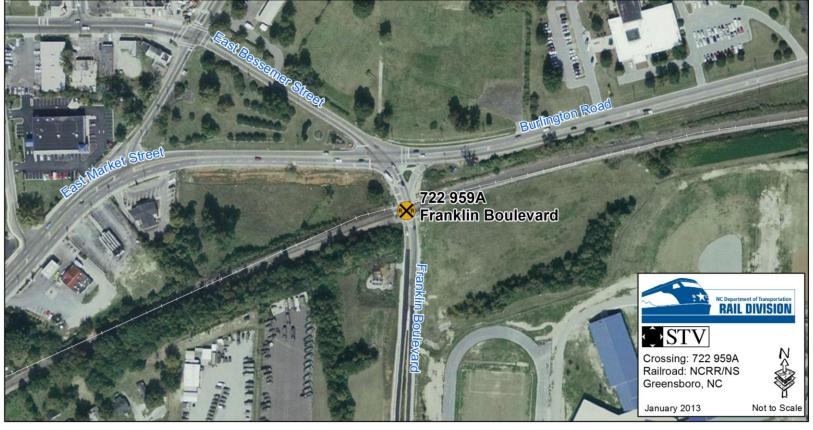




Figure 3 – Franklin Boulevard, Photos of Directional Views





Looking North



Looking South



Looking East

Looking West



Figure 4 – O'Ferrell Street, Crossing Inventory

Crossing Num	nber		Milepost		Railroad			Street Name Street Classification Warning						Warning [g Device		Land Use
722 961B			H003.49		NCRR/NS	S O'Ferrell Street			Street	Local			CB, Gates			Residential	
24 Hour ADT		24 Hour Tr	ain Volum	e			Accident I	History	Transit Ro	oute School Bus Route Truck Ro			Truck Rou	ute			0.0
n/a		17					2 PD No					No	n/a				
Preemption	Humped (Crossing				Crossing C	ondition (Geometry			Crossing S	Surface Condition	Crossing (Condition S	ight	Redunda	ant Crossing
No	Yes					Good				Good				Poor			No
Economic Imp	pact if Clos	sed		Feasibility	y of Roadw	ay Improve	provements				paration In	vestigation			Need for Enhanced Warning Devices		
Low				High		Low No											
Aerials	,	,		_			,						,	,			

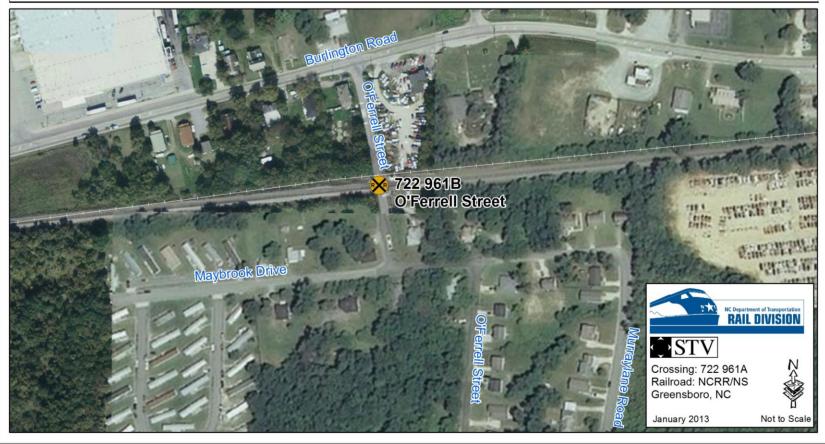




Figure 5 – O'Ferrell Street, Photos of Directional Views





Looking North



Looking East



Looking West



Figure 6 – Ward Road, Crossing Inventory

Crossing Number	Milep	ost	Railroad			Street Na	me			Street Classification		Warning I	Device		Land Use
722 962 H	H003.8	1	NCRR/NS			Ward Roa	d			Local		CB, Gates			Commercial
24 Hour ADT 24 Hour Train Volume Accident History Transit Route School Bus Route Truck Route															
n/a 16 2PD No No n/a															
Preemption Humped Cr	rossing			Crossing C	ondition (Geometry			Crossing S	Surface Condition	Crossing C	ondition S	ight	Redunda	nt Crossing
No No				Good					Good		1	Go	od		No
Economic Impact if Close	ed	Feasibilit	of Roadw	ay Improve	ements			Grade Sep	paration In	vestigation			Need for Enhanced	Warning D	evices
Low		Low				, and the second		High	, and the second		, and the second		No		
Aerials															

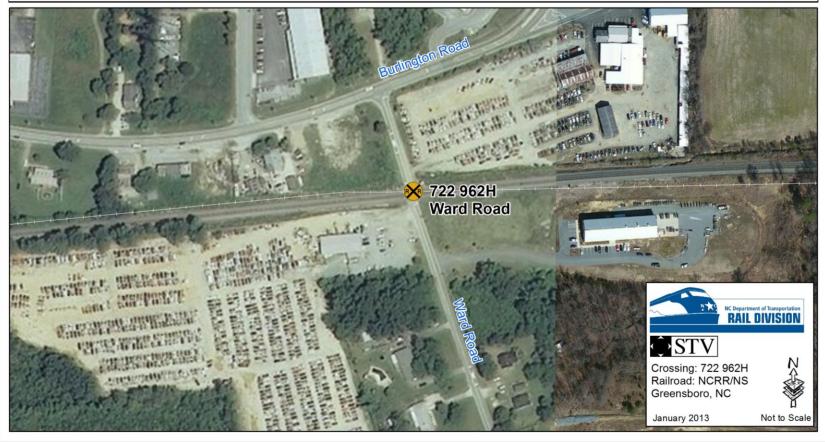
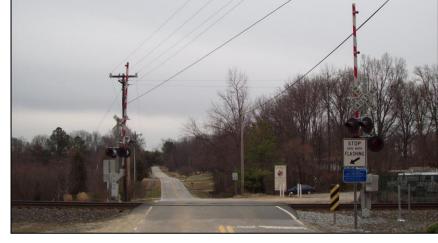




Figure 7 – Ward Road, Photos of Directional Views





Looking North



Looking South



Looking East

Looking West



Figure 8 – Maxfield Road, Crossing Inventory

Crossing Nur	nber		Milepost		Railroad	Street Name				Street Classification			Warning Device			Land Use	
722 964 W			00H4.35		NCRR/NS	Maxfie			Maxfield Road			Local CB, Gate		CB, Gates	es		Commercial
24 Hour ADT		24 Hour Tr	ain Volum	e			Accident History Transit			ute	ite School Bus Route Truck			oute			
n/a			2 PD No					No	n/a								
Preemption	Humped (Crossing				Crossing C	ssing Condition Geometry				Crossing S	Surface Condition	Crossing C	Condition S	ight	Redundar	nt Crossing
No	No					Good				Good			Good				No
Economic Im	pact if Clos	sed		Feasibility	of Roadw	ay Improv	mprovements				Grade Separation Investigation				Need for Enhanced Warning Device		evices
Low				Low		Low No											
Aerials																	

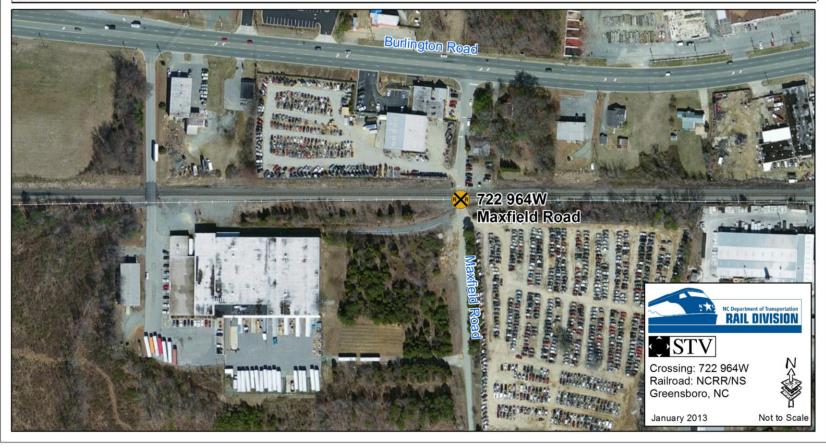




Figure 9 – Maxfield Road, Photos of Directional Views



Looking North



Looking East



Looking South



Looking West



Figure 10 – Buchanan Church Road, Crossing Inventory

Crossing Numb	ber		Milepost		Railroad			Street Na	me			Street Classification	0	Warning D	Device		Land Use
722 965D			H004.54		NCRR/NS	NS Buchanan Chur				Road Local CB, Gates						Commercial	
24 Hour ADT		24 Hour Tr	rain Volum	e		Accident History			Transit Route			School Bus Route	Truck Route				
n/a		17					2 PD		No			No	n/a				
Preemption H	Humped (Crossing				Crossing Condition Geometry					Crossing S	Surface Condition	Crossing C	Condition S	ight	Redunda	nt Crossing
No N	No					Good				Poor				Poor			No
Economic Impa		Feasibility	of Roadw	f Roadway Improvements					Grade Separation Investigation				Need for Enhanced Warning I				
Low				Low		High No						No					
Aerials																	·





Figure 11 – Buchanan Church Road, Photos of Directional Views



Looking North



Looking East



Looking South



Looking West



Figure 12 – Wagoner Bend Road, Crossing Inventory

	Crossing Nun	nber		Milepost		Railroad			Street Na	me			Street Classification	0	Warning I	Device		Land Use
	722 966K			H004.92		NCRR/NS		Wagoner Bend Roa				Local CB,			CB, Gates			Residential
24 Hour ADT 24 Hour Train Volume Accident History Transit Route School Bus Route Truck Route																		
	n/a		16					n/a		No			No	n/a				
	Preemption	Humped (Crossing				Crossing C	ossing Condition Geometry				Crossing S	Surface Condition	Crossing C	Condition S	ight	Redunda	nt Crossing
	No	Yes					Good					Good			Go	ood		No
	Economic Imp	pact if Clos	sed		Feasibility	y of Roadw	ay Improve	ements			Grade Sep	aration In	vestigation			Need for Enhanced	Warning D	evices
	Low				Low						High					No		
	Aerials																	





Figure 13 – Wagoner Bend Road, Photos of Directional Views



Looking North



Looking East



Looking South



Looking West



C. CROSSING ANALYSIS

1. Exposure Index

NCDOT uses an exposure index as one indicator to determine if a grade separation structure is warranted at street/rail grade crossings. The exposure index is calculated by multiplying the number of trains per day by the number of vehicles per day that use the crossing. As a general rule, grade separations should be considered in RURAL areas when the exposure index is 15,000 or more. In URBAN areas grade separations should be considered when the exposure index is 30,000 or more. Other factors that need to be considered in the feasibility of grade separations are:

- Accident history
- Topography
- Adjacent land use
- Geometric designs
- Construction impacts
- Costs

The exposure index was calculated for each of the six crossings (see Table D-1).

TABLE C-1 – Exposure Index

NCRR / Norfolk Southern Crossings								
Crossing	Street Name	Trains	ADT	Exposure				
No.		per		Index				
		Day						
722 959A	Franklin Blvd.	17	7,103	120,751				
722 961B	O'Ferrell St.	17	614	10,438				
722 962H	Ward Rd.	17	650	11,050				
722 964W	Maxfield Rd.	17	303	5,151				
722 965D	Buchanan Church Rd.	17	1106	18,802				
722 966K	Wagoner Bend Rd.	17	78	1,326				

The Franklin Boulevard crossing exceeds the urban exposure index of 30,000.

2. Delay Analysis

Level of Service is a measure of the operational efficiency of the street/rail grade crossing. It is determined using procedures from the *Highway Capacity Manual* procedures. Level of service is expressed as a letter ranging from A (free flowing) to F (severely congested) and is determined using the average delay for all vehicles. Table D-2 summarizes the average delay and corresponding level of service.

TABLE C-2 - LOS

Level of Service	Avg. Delay/Vehicle (seconds)				
Α	10.0				
В	>10.0 to 15.0				
С	>15.0 to 25.0				
D	>25.0 to 35.0				
E	>35.0 to 50.0				
F	>50.0				



The delay calculations are based on the methodology developed for the Proposed Conrail Acquisition Draft Environmental Impact Statement (DEIS) by the Surface Transportation Board's Sections of Environmental Analysis (SEA) and modified as needed for this project.

The following values were calculated for existing and future conditions.

- Blocked crossing time per train
- Event time
- Average delay per day
- Maximum vehicle queue
- Total stopped vehicle delay per day
- Average delay for all vehicles
- Traffic level of service (LOS)

The level of service (LOS) for each crossing was determined based on these computed values and the Highway Capacity Manual procedures. Table D-3 summarizes the delay and LOS results for the existing conditions.

TABLE C-3 - Delay and LOS

	NS Crossings															
Crossing#	Street Name	No. Lanes (one- way direction)	АБТ	Arrival Rate (Veh/Min) 2x uniform	Departure Rate	Trains per day	Train Speed (miles/hr)	Train Length (feet)	Crossing Blockage Time (min) T _c	Event (Queue) Time (min) T _o	Total Stopped Vehicle Delay Per Day (min/day) D⊤	Number Vehicles Delayed/Day V _D	Max. Peak Hr. Queue (veh/lane) Q	Average Delay /Stopped Veh. (mins) D _{avg}	Avg. Delay/Veh. In Secs. (All Vehicles) D _v	гоз
722 959A	Franklin Boulevard	1	7,103	9.87	30.00	17	45.00	9,000	2.27	3.39	480.78	284	16	1.69	8.12	Α
722 961B	O'Ferrell Street	1	614	0.85	30.00	17	45.00	9,000	2.27	2.34	19.83	17	1	1.17	3.88	Α
722 962H	Ward Road	1	650	0.90	30.00	17	45.00	9,000	2.27	2.34	21.07	18	1	1.17	3.89	Α
722 964W	Maxfield Drive	1	303	0.42	30.00	17	45.00	9,000	2.27	2.31	9.50	8	1	1.15	3.76	Α
	Buchanan Church Road	1	1,106	1.54	30.00	17	45.00	9,000	2.27	2.40	37.46	31	3	1.20	4.06	Α
722 966K	Wagoner Bend Road	1	78	0.11	30.00	17	45.00	9,000	2.27	2.28	2.40	2	0	1.14	3.69	Α

3. Crash Analysis

At-Grade Crossings

At least eight crashes have occurred in the corridor. None have occurred in the past ten years, and two crashes involved injuries.

Crashes are summarized using the following classifications:

- Fatality
- > Injury
- > PDO property damage only

Table D-4 summarizes the accident data for the past ten years.

TABLE C-4 – Crash Summary

Norfolk Southern Crossings									
Crossing	Street	Total #	# of	# of	PDO				
Number	Name	of Crashes	Fatalities	Injuries					
722959A	Franklin Blvd	0	0	0	0				
722661B	O'Ferrell St.	2	0	1	1				
722962H	Ward Rd.	2	0	0	2				
722964W	Maxfield Rd.	2	0	0	2				
722965D	Buchanan Church Rd.	2	0	1	1				
722966K	Wagoner Bend Rd.	0	0	0	0				



D. SAFETY AND MOBILITY ISSUES

There are several methods available to enhance railroadcrossing safety. This chapter discusses some of these methods in more detail.

1. Vehicles Queuing across Railroad Tracks

The presence of nearby traffic signals, intersections, or parallel roadways can result in queues of stopped vehicles extending onto or across a street/rail crossing. During the site inspections, none of the crossings experienced queuing of vehicles across the tracks when trains were present.

2. Traffic Signal Preemption

Standard practice (based on *The Manual on Uniform Traffic Control Devices*) requires that traffic signals located within 200 feet of a street/rail at-grade crossing be coordinated with the crossing's train detection and warning system to preempt normal operations of the traffic signal. Franklin Boulevard is currently the only signalized street intersection with the NS rail line. However, if a traffic signal is warranted at any of the other intersections, signal preemption would be required.

3. Humped Crossings

A "humped" crossing exists where the elevation of the railroad is significantly higher than the crossing roadway, causing vehicles to ascend on one side of the tracks and descend on the other. The severity of this condition can range from discomfort at normal speeds, to "bottoming out" of vehicles with long wheelbases or low clearances. This dragging can damage vehicles, or cause them to become stuck on the crossing, creating a serious hazard. Routine track maintenance tends to exacerbate the problem over time, as

track ballast work typically adds about three inches per occurrence. Over a ten-year period, the railroad may rise as much as one foot as a result of this routine maintenance.

Crest vertical curves across the tracks that do not create a need for the driver to reduce speed are not considered to be a humped profile. The combination of short crest and sag vertical curves caused by a buildup of the ballast and raising of the track create a need to reduce speed across the crossing. The following crossing has a slight humped profile:

4. Grade Crossing Condition

A poor grade crossing surface can result in a rough, uneven ride. This can increase wear and tear on vehicles, potentially create a traffic safety hazard, and may add to congestion by reducing travel speeds. The crossing materials used on these grade crossings include asphalt, concrete slab, and rubber. Even though some materials provide a slightly improved ride and longer term maintenance, the main safety issue is the condition of the crossing. None of the crossings have surfaces that are deemed to be in poor condition.

5. Vehicles Driving Around Automated Gates

Several situations can lead to the circumvention of automated gates by motorists:

- Gates are lowered, but no train is visible
- Gates fail, and remain in the lowered position
- Gates are lowered and train is visible, but motorist is too impatient to wait

During the field analysis, there were no signs of vehicles circumventing the gates when a train was approaching. There were also no signs showing of vehicles (tire tracks, disturbed ground) circumventing the gates.



E. SYSTEM ENHANCEMENT OPTIONS

1. Grade Separation Structures

Many factors must be considered before suggesting grade separation, including:

- Traffic volumes (both vehicle and train)
- Accident history
- Topography
- Adjacent land use
- Construction impacts
- Costs

For the analysis of these crossings some of these factors apply to considering grade separated crossings for Franklin Boulevard, Ward Road, and Wagoner Bend Road, while proposed grade-separated crossings in close proximity to O'Ferrell Street, Maxfield Road, and Buchanan Church Road would permit their closure.

2. Crossing Protection Device Upgrades



Example of gates, signs and flashing lights

The most common, and cost-effective, way to increase the safety at a railway crossing is to upgrade existing warning devices at the crossing. Typical warning devices include signs, gate arms, flashing lights and bells. Passive devices, such as advanced warning signs and crossbucks, merely

warn the motorist of the existence of a railroad crossing. These devices are most suitable where train and traffic volumes and speeds are low, and where sight distance is adequate. *Active* devices that warn motorists of approaching trains include flashing lights, bells, and automated gates. Such devices are usually employed at locations exhibiting higher volumes or speeds, or greater potential for accidents. The hierarchy of standard warning treatments, from least to most protected are:

- 1. Unmarked:
- 2. Railroad crossbucks;
- 3. Standard STOP signs (limited sight distance) and crossbucks:
- 4. Flashing signals and bells;
- 5. Flashing signals, bells and gates.
 - a. Advanced Crossing Protection Devices

NCDOT Rail and Norfolk Southern Railway have been using advanced crossing protection devices on the main line from Raleigh to Charlotte since 1995. These devices are most appropriate where high-volume multi-lane roadways cross railroad main lines, and where significant numbers of motorists are ignoring or circumventing existing warning devices. The advanced warning devices are described below.



b. Median Barriers

Median barriers consist of markers mounted on raised islands along the roadway centerline to discourage motorists from driving in opposing travel lanes to "go around" lowered gate arms. Median treatments typically extend 70 feet to 100 feet back from the gates, but may be precluded by driveways or intersecting roads within this distance.



Example of Median Barriers

c. Four-Quadrant Gates

This crossing treatment requires an additional gate on each approach, completely "sealing" the crossing. Several measures are employed to prevent vehicles from becoming "trapped" inside the gates, including careful timing of the gates to



Example of 4 Quadrant Gate

allow traffic to clear; providing 16 feet of clearance between track center and gates; leaving adequate space between gate tips for a vehicle to "squeeze" out; and use of breakaway arms. In tests at the Sugar Creek Road crossing in Charlotte, four-quadrant gates alone reduced violations by 86%; in combination with median barriers, the reduction in violations rose to 98%.

d. Long Gate Arms

Extra-long arms cover at least ¾ of the crossing width. When tested at the Orr Road crossing in Charlotte, the installation of long gate arms reduced crossing violations by 67%.

e. Articulated Gates

Articulated gates are hinged arms that unfold to cover at least ³/₄ of crossing width. They are typically warranted where overhead obstructions prevent the use of long gate arms. Articulated gates installed at Orr Road in Charlotte reduced crossing violations by 78%.

f. Remote Video Detection

The Crossing Law Enforcement and Research of (CLEAR) Violations program employs video cameras to monitor selected crossings. The recordings provide information on crossing operations, violations, and accidents for both enforcement and research purposes.

g. Crossing Consolidation & Elimination

Many low-volume crossings are unnecessary due to the availability of alternative access across the tracks. These alternative crossings can often be made safer, since many low-volume crossings lack adequate warning devices. Resources are not available to upgrade warning devices on all existing crossings, and grade separation would be even less feasible. Therefore, consolidation and closure of these minor crossings is an effective strategy in terms of both costs and safety benefits. Typically, a crossing is considered redundant (and therefore a candidate for



elimination) if it is within a reasonable distance of another crossing connected to the same street network.

Crossing consolidations eliminate the potential for train/vehicle collisions. Crossing-related installation and maintenance costs are reduced, and by concentrating traffic at fewer, higher-volume crossings, more expensive active warning treatments and roadway improvements can be justified.

Crossings with high potential for elimination include:

- Redundant crossings near parallel crossings or grade separations, or where traffic can be safely and efficiently diverted to another crossing;
- Skewed crossings, or those where sight distance is limited by horizontal/vertical curvature, vegetation, or permanent obstructions;
- Crossings with a history of accidents;
- Crossings adjacent to a newly constructed crossing or grade separation;
- Private crossings with no identifiable owner, or where the owner is unwilling or unable to fund crossing upgrades (and where alternative access is reasonably available); Since NCDOT does not currently have jurisdiction over private crossings; closing of these crossings is determined by the railroad and property owner if identified.
- Complex crossings that cannot be effectively served by warning devices due to multiple tracks, extensive switching operations, etc.

h. Roadway Improvements

Roadway improvements can reduce both accident potential and traffic delay at railroad crossings.

Realignment and re-grading can improve visibility and reduce the time required to traverse a crossing. Additional lanes significantly increase capacity, reducing the residual delay following a crossing event. New roadways can provide alternative routes, allowing crossings to occur at more desirable locations, and potentially eliminate the number of crossing trips.

i. Traffic Signals

Traffic signals are not specifically intended as warning devices at railroad crossings. However, when a street/rail grade crossing is located near a signalized intersection (typically within 200 feet), special steps should be taken to insure that vehicles do not get trapped on the tracks due to queues resulting from an adjacent street intersection's red signal. The normal sequence of traffic signal indications should be preempted by the approach of a train, eliminating the possibility of entrapment due to conflicting traffic and railroad crossing signals. Ideally, the preempted signal phasing should be designed to allow non-conflicting movements to proceed during a train crossing, thereby minimizing overall traffic delay.



F. PUBLIC INVOLVEMENT

A Public Involvement program was established as part of this study. The program involved:

- Three Stakeholder Committee Meetings
- Two Citizens Informational Workshops (CIWs)

The stakeholders committee was established in order to provide critical input in reaching consensus on grade crossing recommendations. Stakeholders included the following:

- NCDOT Rail Division
- North Carolina Railroad (NCRR)
- Norfolk Southern
- NCDOT Division 7
- City of Greensboro Department of Transportation (GDOT)
- City of Greensboro Fire Department
- City of Greensboro Police Department
- Guilford County Planning & Development
- Guilford County Schools

Stakeholder Committee Meeting #1

The first stakeholder committee meeting was held on June 6, 2012 to review and discuss the scope of the project, data collection and next steps. Additionally, stakeholders discussed on-going transportation and land-use projects in the area, including construction of a new fire station.

Citizens Informational Workshop #1

The first CIW was held on September 24, 2012 at the Guilford County Cooperative Extension office. Study team members

were available to introduce the East Guilford Traffic Separation Study, to answer questions related to the study, and to receive comments to aid in developing recommendations for improving the six rail crossings.

Residents of area neighborhoods were primarily concerned with access to homes and businesses south of the tracks, given the area's current lack of east-west street access. Auto scrap yards in the area had notable concerns about access, as several of them have parcels on both sides of the tracks and regularly cross the tracks while ferrying vehicles and equipment between sites. Additionally, a large building/construction supply yard at Buchanan Church Road had concerns about truck access.

Stakeholder Committee Meeting #2

The second stakeholder committee meeting was held on December 11, 2012 to review and discuss the scope of the project, data collection and next steps. Additionally, stakeholders discussed on-going transportation projects in the area, including possible roadway extensions and a larger land-use/transportation plan, the East Greensboro Guide for Infrastructure, expected for completion in March 2013.

Citizens Informational Workshop #2

The second CIW was held on March 7, 2013 at the Guilford County Cooperative Extension office. Study team members were available to introduce the East Guilford Traffic Separation Study, to answer questions related to the study, and to receive comments to aid in developing recommendations for improving the six rail crossings.

The study team developed and presented tiered scenarios of long-term improvements, contingent on the eastward expansion of Naco Road and the grade-separation of



crossings at Franklin Boulevard, Ward Road, and Wagoner Bend Road. Closures of crossings at O'Ferrell Street, Maxfield Road, and Buchanan Church Road would all be contingent on both the Naco Road extension and the installation of all three grade-separated crossings.

The following comments were made concerning specific crossings and the project's general interaction with other area projects/planning efforts:

- Ward Road A resident on Ward Road requested an underpass or bridge at the Ward Road crossing, noting they cross the railroad tracks at least 12 times per day. Safety is their primary concern.
- Franklin Boulevard A resident on Franklin Boulevard liked and approved of the plans presented at the time.
- **City of Greensboro projects** A citizen requested that contact information for City of Greensboro planning/transportation staff be provided to them.

Buchanan Church Road

- A resident noted concern about the crossing, noting that trucks cross the railroad tracks at least 30 time per day. The resident also noted that drivers sometimes ignore crossing safety gates, and that trains always "win" in train/vehicle crashes.
- Maxfield Road Tri-City Auto Salvage, an auto scrap yard located immediately north and south of the Maxfield Road railroad crossing, called and e-mailed with concerns about closing the crossing, noting:

- Closure would prevent access to the business's "back of house" operations (parts retrieval, etc.). The business crosses the tracks 210 times over 8 hours, or 26 times per hour. These frequent crossings allow the business to access its rear lot in a "safe and timely manner."
- The business has two daily freight truck deliveries that use the southern end of Maxfield Road as a turnaround area. The business felt that closing the crossing would require these trucks to access and exit the business by backing into Wendover Road, which given its speeds, the business felt this was not a safe traffic option. In addition to two daily freight trucks, the business has two daily "car hauler" trucks unloading cars at the business's parcel south of the crossing. The business noted that these vehicles use the southern end of Maxfield Road for a turnaround area.
- The business stated that they were "very aware of the times that the Train passes," and that they have not had any past issues with train/vehicle crashes.
- The business was concerned that closing the rail crossing could create a need to relocate their business, and that doing so would be difficult under most local zoning/land use regulations.



Stakeholder Committee Meeting #3

The third stakeholder committee meeting was held on June 6, 2013 to review and discuss the proposed recommendations that were presented at the second CIW, as well as discuss the comments that were received from that workshop. There were no changes to the recommendations presented.

Greensboro Urbanized Area Metropolitan Planning Organization (GUAMPO)

The East Guilford TSS was presented to GUAMPO's Technical Coordinating Committee (TCC) and Technical Advisory Committee (TAC) on August 19, 2013 for incorporation into GUAMPO's Long Range Transportation Plan (LRTP). The TCC recommended that the TAC endorse the East Guilford TSS, and the TAC unanimously endorsed this study's recommendations, as they are compatible with existing LRTP projects (Naco Rd. Extension and Ward Rd. extension and grade-separation) and would enhance multimodal mobility and safety.



G. RECOMMENDATIONS

With the projected increase in both passenger and freight rail traffic, there is a need to focus attention to the safety of this corridor. Recommendations were identified for improvements to those at-grade crossings to provide a safer and improved mobility on and adjacent to the rail corridor to all forms of traffic. The corridor is also part of the Southeast High Speed Rail Corridor, and NCDOT Rail Division has been committed to enhancing the operations of passenger rail service by upgrading the rail corridor for increased passenger train operations and speeds.

Street/Rail Grade Crossing Recommendations

This section describes the recommendations (short-term and long-term) for the six at-grade crossings. The primary objective of these improvements is to provide guidance to the local and state agencies on the mechanisms that could trigger the need for further evaluation and design. The following figures illustrate the phasing of short-term and long-term recommendations.

A. Franklin Boulevard (Crossing # 722 959A)

1. Short-Term

Continue to operate the crossing as an at-grade crossing.

2. Long-Term

Grade-separate Franklin Boulevard by tunneling it under the tracks, creating a railroad bridge overpass. Creating an underpass also requires that the intersecting streets north of the tracks be regraded lower to meet the new lower elevation of Franklin Boulevard. This crossing is the highest priority of the six under study, given its traffic volumes and connectivity with the larger street network.



Figure 14 – Overview of Recommendations

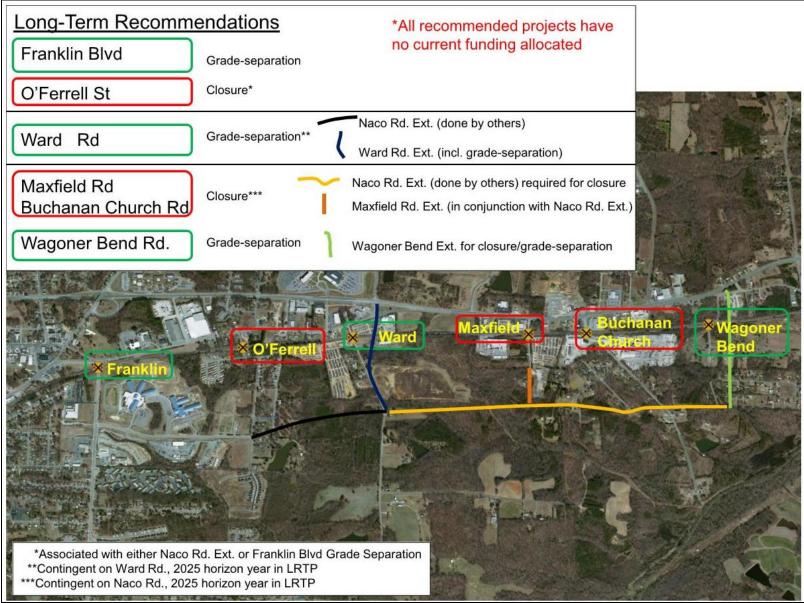


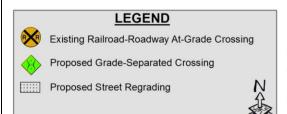
Figure 15 – Franklin Boulevard Recommendations



Short Term: Franklin Boulevard would continue to operate as an at-grade crossing. There would be no additional improvements recommended.



Long Term: Grade-separate Franklin Boulevard by tunneling the street under the tracks, creating a railroad bridge overpass. Creating an underpass also requires that the intersecting streets north of the tracks be regraded lower to meet the new lower elevation of Franklin Boulevard.



February 2013

Franklin Boulevard At-Grade Crossing 722 959A PROPOSED RECOMMENDATIONS







B. O'Ferrell Street (Crossing # 722 961B)

1. Short-Term

Continue to operate the crossing as an at-grade crossing.

2. Long-Term

Close the existing crossing, contingent on the grade-separation of Franklin Boulevard or the eastern extension of Naco Road to Ward Road (this crossing is also planned for full-closure and new street with grade-separation).

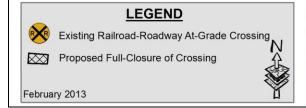
Figure 16 – O'Ferrell Street Recommendations





Short Term: O'Ferrell Street would continue to operate as an at-grade crossing. There would be no additional improvements recommended.

Long Term: Full-closure of O'Ferrell Street crossing, contingent on grade-separtion of Franklin Boulevard or eastern extension of Naco Road to Ward Road grade-separation



O'Ferrell Street At-Grade Crossing 722 961B PROPOSED RECOMMENDATIONS









C. Ward Road (Crossing # 722 962H)

Short-Term
 Continue to operate the crossing as an at-grade crossing.

2. Long-Term

Close the existing crossing and create an underpass grade-separation of Ward Road immediately east of it. This project is listed in the Greensboro MPO's Long Range Transportation Plan (LRTP) for horizon year 2025, yet the street realignment and underpass could be constructed sooner, should private development occur in the extension footprint.

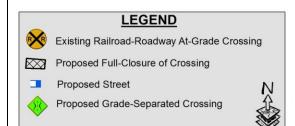
Figure 17 – Ward Road Recommendations



Short Term: Ward Road would continue to operate as an at-grade crossing. There would be no additional improvements recommended.



Long Term: Full-closure of Ward Road crossing, contingent on grade-separtion and street realignment of Ward Road (blue-and-white line).



February 2013

Ward Road At-Grade Crossing 722 962H PROPOSED RECOMMENDATIONS









D. Maxfield Road (Crossing # 722 964W)

1. Short-Term

Continue to operate the crossing as an at-grade crossing.

2. Long-Term

Extend Naco Road east to the north-south extension of Wagoner Bend Road, creating an eastern access option for the area near Maxfield Road and Buchanan Church Road. The Naco Road street extension is contingent on funding in the Greensboro MPO's Long Range Transportation Plan (LRTP) The project is currently planned for horizon year 2025, yet the street could be constructed sooner, should private development occur in extension footprint.

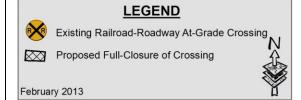
Figure 18 – Maxfield Road Recommendations



Short Term: Maxfield Road would continue to operate as an at-grade crossing. There would be no additional improvements recommended.



Long Term: Full-closure of Maxfield Road crossing (inset, center left), contingent on Naco Road east-west extension between grade-separtion/street realignment of Ward Road (inset, west) and Wagoner Bend Road (inset, right). Full-closure of Buchanan Church Road (inset, center right) is also proposed.



Maxfield Road At-Grade Crossing 722 964W PROPOSED RECOMMENDATIONS









E. Buchanan Church Road (Crossing # 722 965D)

1. Short-Term

Continue to operate the crossing as an at-grade crossing.

2. Long-Term

Extend Naco Road east to the north-south extension of Wagoner Bend Road, creating an eastern access option for the area near Maxfield Road and Buchanan Church Road. The Naco Road street extension is contingent on funding in the Greensboro MPO's Long Range Transportation Plan (LRTP) The Naco Road and Wagoner Bend Road street extensions are contingent on funding in the Greensboro MPO's Long Range Transportation Plan (LRTP) The projects are currently planned for horizon year 2025, yet the streets could be constructed sooner, should private development occur in extension footprint.

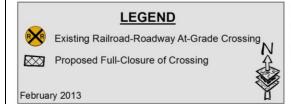
Figure 19 – Buchanan Church Road Recommendations



Short Term: Buchanan Church Road would continue to operate as an at-grade crossing. There would be no additional improvements recommended.



Long Term: Full-closure of Buchanan Church Road crossing (inset, center right), contingent on Naco Road east-west extension between grade-separtion/street realignment of Ward Road (inset, left) and Wagoner Bend Road (inset, right). Full-closure of Maxfield Road (inset, center left) is also proposed.



Buchanan Church Road At-Grade Crossing 722 965D PROPOSED RECOMMENDATIONS

0 150 300 600 900



F. Wagoner Bend Road (Crossing # 722 966K)

1. Short-Term

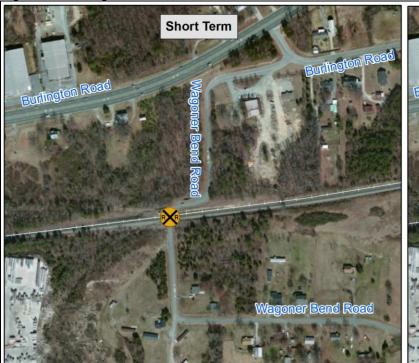
Continue to operate the crossing as an at-grade crossing.

2. Long-Term

Extend Naco Road east to the north-south extension of Wagoner Bend Road, creating an eastern access option for the industrial and residential area near Buchanan Church Road and the residential area east of Wagoner Bend Road. The Naco Road and Wagoner Bend Road street extensions are contingent on funding in the Greensboro MPO's Long Range Transportation Plan (LRTP) The projects are currently planned for horizon year 2025, yet the streets could be constructed sooner, should private development occur in extension footprint.



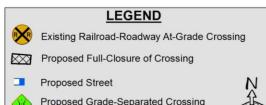
Figure 20 – Wagoner Bend Road Recommendations



Short Term: Wagoner Bend Road would continue to operate as an at-grade crossing. There would be no additional improvements recommended.



Long Term: Full-closure of Wagoner Bend Road crossing, contingent on grade-separtion/street realignment of new Wagoner Bend Road (blue-and-white line).



Proposed Street

Proposed Grade-Separated Crossing

February 2013

Wagoner Bend Road At-Grade Crossing 722 965D PROPOSED RECOMMENDATIONS









TABLE G-1 – Recommendations

Crossing Number	Street Name	Short-Term Recommendation	Long-Term Recommendation	Est. Long-Term Cost
			Grade-separate Franklin Blvd.	
		Continue energtion as	by tunneling it under the tracks, creating a railroad	
722 959A	Franklin Blvd.	Continue operation as at-grade crossing.	bridge overpass.	\$8,830,000
722 939A	FIANKIIII DIVU.	at-grade crossing.	Full-closure, contingent on	\$8,830,000
			either Franklin Blvd. grade-	
		Continue operation as	separation or Naco Rd.	
722 961R	O'Ferrell St.	at-grade crossing.	eastward extension.	\$25,000
722 901N	O Terreir St.	at-grade crossing.	Full-closure of existing crossing	323,000
			and creation of grade-	
			separated underpass	
		Continue operation as	immediately east of existing	
722 962H	Ward Rd.	at-grade crossing.	crossing.	\$1,832,000
722 30211	Wara na.	at grade crossing.	Full-closure of existing	71,032,000
			crossing, contingent on Naco	
			Rd. eastward extension,	
		Continue operation as	southward extension of	
722 964W	Maxfield Rd.	at-grade crossing.	Maxfield Rd.	\$25,000
		ar grand ar dataing.	Full-closure of existing	7-0/000
			crossing, contingent on Naco	
			Rd. eastward extension and	
		Continue operation as	grade-separation of Wagoner	
722 965D	Buchanan Church Rd.	at-grade crossing.	Bend Rd.	\$25,000
			Full-closure of existing crossing	
			and creation of grade-	
			separated underpass	
		Continue operation as	immediately east of existing	
722 966K	Wagoner Bend Rd.	at-grade crossing.	crossing.	\$2,284,000

Appendix A PUBLIC WORKSHOP SUMMARIES



East Guilford County Traffic Separation Study (TSS) Bublic Workshop Comment Benert

Public Workshop Comment Report September 24. 2012

Following is a compilation of the comments received from the September 24, 2012 East Guilford County TSS Public Workshop. Twenty-nine citizens signed-in at the workshop, and two written comments were received by the NCDOT Rail Division and the NCDOT Human Environment Unit.

General Comment

 Resident of Clapp Farms Rd. suggested that commuter rail be provided between Greensboro and Burlington, per May 2010 NCRR Study on Demand for Commuter Rail in NC, instead of widening U.S. 70 to a four-lane, median divided highway.

Franklin Boulevard

No written comment received.

O'Ferrell Street

- Resident on Aunt Mary Avenue (Greensboro) does not want O'Ferrell Street closed.
- Resident on Murraylane Road spoke about concern with three newer (last 5-10 years) homes built at curve/intersection of Maybrook Drive and Murraylane Road, noting they appear very close to railroad right of way.
- Resident on O'Ferrell Street does not want O'Ferrell Street closed, citing two primary issues.
 - A new school is planned behind Faulkner E.S. and Otis Hairston M.S. The resident noted that a new east-west street connection is planned from the school to O'Ferrell St., and is concerned about emergency access to the school via Franklin Blvd. or Ward Rd. if O'Ferrell St. is closed at Burlington Rd.
 - Resident does not want Naco Rd. extended, but rather, wants Whittemore St. extended east to Ward Rd. to lessen right-of-way impacts on residential areas. The resident also seeks the Whittemore St. extension to lessen the impact of commercial vehicle traffic in residential areas. (via mail 10-1-12)

Ward Road

- No written comment received.
- Resident spoke about auto scrap yard south of Burlington Road (U.S. 70) had just purchased auto scrap yard north of Burlington Road, spending over \$1 million. Their concern was ensuring long-term predictability of road access and viability of business operations.

Maxfield Road

- Resident on Aunt Mary Avenue (Greensboro) does not want O'Ferrell Street closed.
- Auto-yard owner needs access across railroad track, as their operation spans parcels north and south of tracks. The business owner estimates that his employees (35)/machinery cross the tracks 26 times per hour. The business owner also notes that the business has not had any conflicts with trains and is well aware of train schedules. (via e-mail. 9-27-12)

Buchanan Church Road

- Resident on Aunt Mary Avenue (Greensboro) does not want O'Ferrell Street closed.
- Resident spoke about concern for truck access from Oldcastle Products (construction materials site), which is south of the Buchanan Church Road crossing. Buchanan Church Road is currently the only in/out access point from commercial and residential area south of Burlington Road.

Wagoner Bend Road

No written comment received.



East Guilford Traffic Separation Study Public Workshop Comment Report March 7, 2013

The following is a compilation of the comments received from the March 7, 2013 East Guilford Traffic Separation Study Public Workshop. Twenty-five citizens signed-in at the workshop, and five written comments, plus one phone call, were received by the NCDOT Rail Division and the NCDOT Human Environment Unit.

Ward Road

Resident on Ward Road requested on underpass or bridge at Ward Road crossing, noting they
cross the railroad tracks at least twelve times per day. Safety is their primary concern.

Franklin Boulevard

Resident on Franklin Boulevard likes and approves of the plans presented thus far.

City of Greensboro projects

 A citizen requested that contact information for City of Greensboro planning/transportation staff be provided.

Buchanan Church Road

- Resident noted concern about the crossing, noting that trucks cross the railroad tracks at least 30 times per day.
- Resident noted that drivers sometimes ignore crossing safety gates, and that whether the train is going 100 mph or 10 mph, the train will "win" in a crash.

Maxfield Road

- Tri-City Auto Salvage called and e-mailed with concerns about closing the Maxfield Road crossing, noting:
 - Closure would prevent access to the business's "back of house" operations (parts
 retrieval, etc.). The business crosses the tracks 210 times over 8 hours, or 26 times per
 hour. These frequent crossings allow the business to access its rear lot in a "safe and
 timely manner."
 - The business has two daily freight truck deliveries that use the southern end of Maxfield Road as a turnaround area. The business feels that closing the crossing would require these trucks to access and exit the business by backing into Wendover Road, which given its speeds, the business feels is not a safe traffic option.
 - In addition to two daily freight trucks, the business has two daily "car hauler" trucks unloading cars at the business's parcel south of the crossing. The business notes that these vehicles use the southern end of Maxfield Road for a turnaround area.
 - The business states that they are "very aware of the times that the Train passes," and that they have not had any past issues with train/vehicle crashes.
 - The business is concerned that closing the rail crossing could create a need to relocate their business, and that doing so is difficult under most local zoning/land use regulations.

Appendix B STAKEHOLDER MEETING MINUTES



1000 W. Morehead St., Ste. 200 Post Office Box 35624 Charlotte, NC 28235-5624 (704) 372-1885 (704) 372-3393 FAX

STV/RALPH WHITEHEAD ASSOCIATES, INC.

MINUTES OF MEETING:

PROJECT: East Guilford County TSS

LOCATION: City of Greensboro, NC

MTG. DATE: June 6, 2012

ATTENDING:

Scot Sibert	STV Inc.
Nancy Horne	NCDOT Rail Division
Katie Curry	
Craig McKinney	
Deniece Conway	
Chris Spencer	
Pat Wilson	
Bill Bruce	Guilford County P&D
Chuck Burnell	NC Rail

MINUTES:

This meeting served as the project overview for Stakeholders of the West Charlotte Corridor Study. The meeting began at approximately 11:00 AM with introductions.

Mr. Sibert began the meeting by introducing the project as well as summarizing the 2004 Greensboro TSS. Mr. Sibert explained how this project has come back with the Pine/Lowdermilk Study.

Mr. Sibert explained that the purpose of the meeting was to share ideas, recommendations, issues and concerns regarding the 8 crossings; and went on to discuss future stakeholder and public meeting schedules.

Mr. Sibert presented the "base map" of the study area and stated that emergency routes and school routes were needed to add to the map. Ms. Horne also recommended we show future land use in the area.

Mr. McKinney brought up that there will be a new fire station in the area; the fire department will have land acquisition this year and it is slated to be open 2014 or 2015. The fire station will service the city.

Mr. Sibert discussed traffic counts along the corridor and said he plans on using

Meeting Minutes June 6, 2012 Page 2 of 2

NCDOT counts unless GDOT counts area available for use. He went on to say that he had obtained FRA crossing inventories for each crossing and he plans on including a cost benefit analysis in the study.

Mr. McKinney and Mr. Spencer pointed out several development and road projects in the area that involve realignments and/or road extensions.

Mr. Bruce mentioned the Tier I water/sewer areas along with growth/development areas in the county; recommended we consider overlaying the boundaries on map.

Ms. Horne discussed the project process from here on out, mentioning looking at grade separation options.

Mr. Sibert inquired about any neighborhoods of significance along the corridor and mentioned they would be specifically invited to public meetings. He also talked about contacting the city councilmember Ms. Bellamy-Small to introduce the project and seek input.

Funding issues were brought up and Ms. Horne explained the funding set up for this project. Funding is only available for the study.

Mr. Sibert will develop a project schedule and wants to meet with the large land owners to discuss the project intent.

Mr. Spencer advised that we include the plans for Pine/Lowdermilk so people do not get this project confused.

ACTION ITEMS

- Mr. Sibert will contact the Ms. Bellamy-Small to introduce project
- Mr. Bruce will show map to county planners and will email Mr. Sibert with any questions or comments.
- Mr. Sibert and Ms. Curry will update base map to include all proposed development and road projects.
- Mr. Sibert and Ms. Curry will change the Naco Road Extension alignment to a buffer to show an area rather than an exact alignment.

The meeting ended at approximately 11:45 AM. These minutes serve as a formal record of the meeting.

Sincerely,

STV/RALPH WHITEHEAD ASSOCIATES, INC.

(submitted via e-mail)

Scot Sibert

cc: All in attendance



1000 W. Morehead St., Ste. 200 Post Office Box 35624 Charlotte, NC 28235-5624 (704) 372-1885 (704) 372-3393 FAX

STV/RALPH WHITEHEAD ASSOCIATES, INC.

MINUTES OF MEETING:

PROJECT: East Guilford County TSS

LOCATION: City of Greensboro, NC

MTG. DATE: December 11, 2012

ATTENDING:

Scot Sibert	STV Inc.
Scott Adams	STV Inc.
Nancy Horne	NCDOT Rail Division
	NCDOT Rail Division
	Greensboro Police Department
Bill Bruce	Guilford County Planning Department
Craig McKinney	GDOT
	GDOT
Chris Spencer	GDOT
Adam Fischer	GDOT
Ed Lewis	NCDOT Division 7
Darrell Ferguson	NCDOT Division 7
	NCDOT Division 7
Chris Bowman	Greensboro Fire Department
Jeff Harris	Guilford County Schools - Transportation
Chuck Burnell	NC Railroad

MINUTES:

This meeting served as the second project overview for the Stakeholders of the East Guilford County TSS. The meeting began at approximately 10:00 AM with introductions.

Mr. Sibert began the meeting by introducing the project as well as summarizing the 2004 East Guilford TSS. Mr. Sibert defined what a TSS entails, noting that NCDOT, NCRR and the City of Greensboro are working to improve safety and operations along the corridor.

Mr. Sibert explained that the purpose of the meeting was to share ideas, recommendations, issues and concerns regarding the 6 crossings, with meeting members referring to a printed PowerPoint presentation created by STV.

Mr. McKinney noted that part of the impetus for the city's collector/thoroughfare plan

is to attract economic development to the eastern part of Greensboro, given the already extensive development on the city's west side near PTI Airport.

Mr. Adams began the presentation by reviewing existing/planned land use for the area in addition to existing minority, low-income and renter/owner populations in the study area.

Mr. Sibert then gave an overview of each crossing and proposed recommendations.

<u>Franklin Blvd.</u> – An underpass extension of Franklin Blvd. under the tracks is recommended, with three possible street alignments resulting from this:

- 1. Simplify the intersection of Franklin Blvd./Burlington Rd. by creating a T-intersection, closing E. Bessemer St., with a possible roundabout at the intersection of E. Market St. and Huffine Mill Rd.
- 2. Close E. Market St. between Huffine Mill Rd. and Franklin Blvd., creating an enlarged land parcel for the gateway park, plus other possible uses. This option maintains/utilizes the existing 4-way signalized intersection of E. Bessemer St. and Huffine Mill Rd.
- 3. Close both E. Bessemer St. and E. Market St., creating a new street alignment through the gateway park parcel, intersecting with Huffine Mill Rd.

Ms. Horne noted that short, mid and long-term recommendations reference timeframes, not funding priorities/schedules.

Mr. Fischer noted that the city is initiating a six-month (March 2013) planning process, including meeting with business-specific focus groups, for an East Greensboro Guide for Infrastructure. This process will include inventorying developable sites 100 acres or larger, plus an overview of existing and planned utilities and street connections in the study area. Mr. Sibert, noted that the E. Guilford TSS schedule will likely hold its next Public Workshop in February 2013, with City Council review and adoption expected in April/May 2013. Given the overlap of schedules, there should be opportunities to integrate the two plans. A major element affecting both plans is the north-south Youngs Mill Rd. Extension (aka Ward Rd. extension).

Mr. Sibert then asked the group for questions/comments regarding Franklin Blvd. Mr. Wolfe (Greensboro Police Dept.) noted that the majority of their call-load comes from east Greensboro, and that they have to travel west to Benbow Rd. (west of Hwy. 29) to reach the study area when a train is blocking the tracks, so the Police Dept. is supportive of grade-separation for Franklin Blvd. Mr. Bowman (Greensboro Fire Dept.) also noted that 85% of their call-volume comes from east Greensboro, so they too support a grade-separation for Franklin Blvd. The fire

department also noted that they aim for a 4-minute response-time goal, and that they're hoping to relocate Station 56 from Frankiln Blvd. further east, toward the center of the study area in order to better serve their planning grid.

Mr. Fischer noted he would support closing E. Bessemer St. in order to simplify a future Franklin Blvd./Burlington Rd. intersection resulting from grade-separation. Craig McKinney, GDOT, noted that a realignment of Burlington Rd. to Huffine Mill Rd., north of existing E. Bessemer St., should be explored.

O'Ferrell St. – Closing the existing at-grade crossing is recommended.

Mr. McKinney noted that this closure could be associated with Franklin Blvd. grade-separation, as closure cost is minimal and may be more cost-efficient to lump into larger project cost associated with Franklin Blvd. The closure could also be contingent upon the construction of Naco Road Extension, depending on which of these projects occur first.

<u>Ward Rd.</u> – An underpass and roadway extension and re-alignment of Ward Road under the tracks is recommended

Mr. McKinney noted that any change to this crossing would hinge on the city's East Greensboro Guide for Infrastructure, especially on the planned north-south extension of Youngs Mill Rd. (aka Ward Rd.)

Maxfield Rd. – Closing the existing at-grade crossing is recommended.

Closing the existing crossing is contingent though on Naco Road Extension, the crossing would not be closed until the road is constructed. Ms. Horne noted that existing long-arm gate is a sufficient safety measure for the current crossing.

Mr. Lewis asked about possible property takings from the car-lot owner (north and south of tracks). STV staff noted that as long as the business had its "storefront" operations on its northern parcel fronting Burlington Rd./Maxfield Rd., then the business should still be sufficient and thus not eligible to claim takings (all or significant value, >75%, of business value).

<u>Buchanan Church Rd.</u> – Closing the existing at-grade crossing is recommended.

Closing the existing crossing is contingent though on either the Naco Road Extension or Wagoner Bend Road Extension, the crossing would not be closed until either of these roads are constructed.

Mr. Sibert recommended keeping the crossing open until Naco Rd. can be extended

Meeting Minutes December 11, 2012 Page 4 of 2

<u>Wagoner Bend Rd.</u> – An overpass, roadway extension and re-alignment is recommended.

Mr. Sibert recommended keeping the crossing open until grade-separation can be achieved.

ACTION ITEMS

- STV staff will begin preparing materials for Public Workshop #2, to be held February 2013.
- STV staff will amend the PowerPoint presentation to reflect comments made during the meeting.

The meeting ended at approximately 11:30 AM. These minutes serve as a formal record of the meeting.

Sincerely,

STV/RALPH WHITEHEAD ASSOCIATES, INC.

(submitted via e-mail)

Scot Sibert

cc: All in attendance



1000 W. Morehead St., Ste. 200 Post Office Box 35624 Charlotte, NC 28235-5624 (704) 372-1885 (704) 372-3393 FAX

STV/RALPH WHITEHEAD ASSOCIATES, INC.

MINUTES OF MEETING:

PROJECT: East Guilford County TSS

LOCATION: City of Greensboro, NC

MTG. DATE: June 6, 2013, 3-4 PM

ATTENDING:

Scot Sibert	STV Inc.
Dan Havener	NCDOT Rail Division
Pat Wilson	NCDOT Division 7
Craig McKinney	GDOT
Nancy Horne	NCDOT Rail Division
Michael Swails	Greensboro Fire Department/Planning Div.
Chuck Burnell	NC Railroad
Adam Fischer	GDOT

MINUTES:

No substantive comments were made at this meeting affecting the study's recommendations.

ACTION ITEMS

• STV staff will present the study's recommendations to the Greensboro Urbanized Area Metropolitan Planning Organization (GUAMPO), Technical Coordinating Committee (TCC) and Transportation Advisory Committee (TAC), at their August 19, 2013 meetings.

The meeting ended at approximately 4 PM. These minutes serve as a formal record of the meeting.

Sincerely,

STV/RALPH WHITEHEAD ASSOCIATES, INC.

(submitted via e-mail)

Scot Sibert

cc: All in attendance

Appendix C

NEWSLETTER

CONTACT INFORMATION

If you have additional questions or would like to be included on the study mailing list, please contact Nancy Horne or Scot Sibert as per the information below.

Nancy Horne, PE
Project Engineer

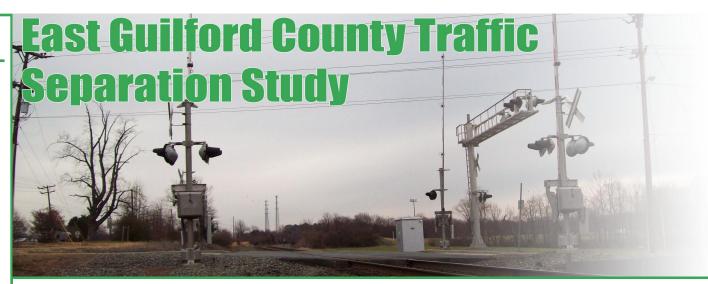
NCDOT Rail Division Engineering &
Safety Branch
1556 Mail Service Center
Raleigh, NC 27699-1556
Phone:(919) 715-3686
E-MAIL: nhorne@ncdot.gov

Scot Sibert, AICP STV/Ralph Whitehead Associates 1000 W. Morehead Street Suite 200 Charlotte, NC 28208 Phone: (704) 372-1885

PROJECT BACKGROUND

The North Carolina Department of Transportation (NCDOT) Rail Division. in cooperation with the City of Greensboro and Norfolk Southern Railroad (NS) has retained the firm of STV/Ralph Whitehead Associates, Inc. (Charlotte, North Carolina) to conduct a Traffic Separation Study re-evaluating recommendations contained in a previous Traffic Separation Study. The study recommended grade separated projects: Franklin Boulevard, Ward Road, and Wagner Bend Road; three at-grade crossing closures: O'Ferrell Street, Maxfield Road, and Buchanan Church Road, and one roadway extension: Naco Road Extension (O'Ferrell Street to US-70).





WHAT IS A TSS?

A Traffic Separation Study (TSS) is a comprehensive evaluation of traffic patterns at existing roadway- railroad at-grade crossings; that assesses existing safety conditions and determines the need for improvements. To improve railroad crossing safety across the state, the NCDOT Rail Division and NS works with communities to study how to best separate railroad and highway traffic.

Using comprehensive evaluations of rail and roadway traffic patterns for the entire municipality or region, the NCDOT and NS along with the communities involved determine the need for improvements and/or elimination of public at-grade crossings to improve the safety of motorists, rail passengers and train crews. These improvements may include crossing closures and consolidations, adding or upgrading warning devices, roadway improvements, elimination of sight obstructions and grade separations (bridges over or under the track).

CORRIDOR STUDY PROCESS

The evaluation involves utilizing quantitative and qualitative measures to analyze each existing roadway-highway at-grade crossing. The process involves qualitative community outreach in order to

understand the community sense of "what could be done" as well as utilizing a quantitative process through planning and engineering methods. Community outreach includes working with local stakeholders in identifying existing travel patterns, land use development patterns, and planned infrastructure projects; as well as hearing from the local community with regard to their perspective on issues and needs surrounding the roadway-railroad at-grade crossings.

STV/Ralph Whitehead Associates is currently evaluating six of the existing public street crossings along the NCRR Railroad and the Norfolk Southern (NS) Railroad in the City of Greensboro, NC. These include Franklin Boulevard, Ward Road, and Wagner Bend Road, O'Ferrell Street, Maxfield Road, and Buchanan Church Road. Average daily traffic data (both trains and vehicles) and socioeconomic impacts are being analyzed for the six street crossings, as well as gathering information on any future plans for the study area.

The process is a three-step process. The first step was to begin collecting existing conditions for the six at-grade crossings and receive public comment on the conditions and operations of those

at-grade crossings, which occurred September 24, 2012.

The next step is to develop short-term and long-term recommendations for review and comment. This step is currently underway and is the intent of the Public Workshop on March 7, 2013. Comments on the recommendations are essential. The final step will be to summarize all comments, recommendations, and develop funding sources for recommended improvements, presenting these to City of Greensboro for adoption and eventual implementation.

PUBLIC OUTREACH

As an integral part of this study, we are soliciting input from public officials and local citizens concerning the proposed recommendations along the six public street crossings being evaluated. You are invited to view the proposed recommendations, ask questions, and share your opinions. Representatives from the City of Greensboro, NCDOT, and STV/Ralph Whitehead Associates will be available to discuss the project with you.

Long-Term Recommendations *All recommended projects have no current funding allocated Franklin Blvd Grade-separation Closure* O'Ferrell St Naco Rd. Ext. (done by others) Grade-separation** Ward Rd Ward Rd. Ext. (incl. grade-separation) Maxfield Rd Naco Rd. Ext. (done by others) required for closure Closure*** Buchanan Church Rd Maxfield Rd. Ext. (in conjunction with Naco Rd. Ext.) Wagoner Bend Rd. Grade-separation Wagoner Bend Ext. for closure/grade-separation *Associated with either Naco Rd. Ext. or Franklin Blvd Grade Separation **Contingent on Ward Rd., 2025 horizon year in LRTP ***Contingent on Naco Rd., 2025 horizon year in LRTP

Appendix D

PUBLIC MEETING COMMENTS & SIGN-IN SHEETS

P-3309M - Citizens' Informational Workshop



Traffic Separation Study (TSS) and Safety Improvements at Several Public Railroad Crossings in East Guilford County

SIGN IN SHEET (please print)

NAME	ADDRESS	PHONE	NCDOT€
Tony Ruffalo	4316 Burlington Rd	3755523	
Ement mayer	1209 HICKORY AVE	274-5281	·
Richy Quick,	1209 Hickory Ave	7745281	
Desor Morsolar	136 Wosser Dans Rd	6218616	
Bot Sandat	280 Word Rel	272-3878	
Carol O'Fernell	2	375-5586	,
T.M. Phillips & Soil	407 monantine RD	375-3281	
Richard Glenn	3718 Centeral Ave	549-8173	
Markes Stubbs	3819 Central Ave	3362752478	
tisted LANE	163 WARD RO.	336 230-0062	
Thule I torner	4410 Buslington Rd.	7140-528-78E	
Vaka Stude	2819 Central Ave	336 -2752478	
Memas hother Bila	300 Burlington RC	336 480-3346	
Day all Feligison	1584 Kancezulle St. 6 Bora	336-334-316/	
father white	1584 Janceyville St 6-boro	38-34-3192	1



Traffic Separation Study (TSS) and Safety Improvements at Several Public Railroad Crossings in East Guilford County

MEDUI	SIGN IN SHEET (plea	ease print)	
NAME	ADDRESS	PHONE	NCDOT☑
Manage of Thomas	20 Aunt Mansano BEARING	376-621 64114	
Jammy O'Servell	re Rd. Greensho	336-621-3516	
Lave Jo Ferrall		4	
	371 Classo Farms Ry 650 2745	336-697-7459	
teather fulghum	1161 F Wendar Ar GO, MC	36-334-3515	7
John O'Bar	143 Wayner Bend Red	336-697-2922	
Michael GuAbaus	3848 Buplington Pel	336-525-5801	
	NC DOT DIVT	332-330-3192	7
Tony WATERSON	3812 POKTE PL	336-621-5502	
Charles WATTHEODA	3806 Porte PL	336.375-6930	
Tulies Kankin	119 Maxfield Rol	336-272-742	
Result for Tank	3818 Porte Pl. Cheroscom	3365092561	
Coleca Dipor	Fair Dy 27401	336-272-1949	
Joseph Kardy Turism	3512 Wilsonwood Rd. Go 27405	336-375-3739	

P-3309M - Citizens' Informational Workshop

NCDOT

Traffic Separation Study (TSS) and Safety Improvements at Several Public Railroad Crossings in East Guilford County

ANJEND FORTH TE GORIA NAME P.O. Boy 39. Mc LEANSVILLE 27301 209 Duchanan Ch. 3705 Coneron Chie PETEGORIA @AL. COM. SIGN IN SHEET (please print) **ADDRESS** 3394880 336-6276577 336-37E8 336.339.0470 **PHONE** NCDOT

Traffic Separation Study (TSS) for Railroad Crossings in East Guilford County
Greensboro, Guilford County

Citizens' Informational Workshop - September 24, 2012

TIP Project No. P-3309M WBS No. 40325.1.59 Laccy O'Fessell

411 Muccaylana Rd.

Thofessell@yahoo.com. NAME: ADDRESS: **EMAIL: COMMENTS and / or QUESTIONS:**

OR

Please mail comments by October 26, 2012 to:

Nancy Horne, P.E. NCDOT-Rail Division 1556 Mail Service Center Raleigh, NC 27699-1556

Phone: (919) 715-3686

Email: nhorne@ncdot.gov

Mr. Scot Sibert

STV/RWA Consultants, Inc. 1000 W. Morehead St., Suite 200

Charlotte, NC 28208 Phone: (704) 372-1885

Traffic Separation Study (TSS) for Railroad Crossings in East Guilford County Greensboro, Guilford County

Citizens' Informational Workshop - September 24, 2012

TIP Project No. P-3309M

Email: nhorne@ncdot.gov

WBS No. 40325.1.59

NAME: Harry Clapp		
ADDRESS:		
371 Clapp Farm	5 Rd., G 50,	NC 27405-8605
EMAIL: h Glapp 8345 @	aol. Com	
COMMENTS and / or QUESTIONS	:	
Provide commuter	rail servi	ce between Gsa and
Budington (a premie	er location Fo	V Gach prev the
May 2010 NC RI	R Study	on Demand for Commuter
Rail in WC instan	d of mai	King parallaling Rt. To
a divided 4-lane		
LENNER EFFOR GE	the exist	ing Rt. 70 15
		ant traffic. Commuter
pail could take a	*	
The proposed change	50 to Pt. 70	would take hundreds
of acres of farmi	and cause	disvuption to existing
Please mail comments by October 26.	esaborato or	1 this ton e-mail
Nancy Horne, P.E.		Mr. Scot Sibert
NCDOT-Rail Division		STV/RWA Consultants, Inc.
1556 Mail Service Center Raleigh, NC 27699-1556	OR	1000 W. Morehead St., Suite 200
Phone: (919) 715-3686	OK	Charlotte, NC 28208 Phone: (704) 372-1885

Traffic Separation Study (TSS) for Railroad Crossings in East Guilford County Greensboro, Guilford County

Citizens' Informational Workshop - September 24, 2012

TIP Project No. P-3309M

WBS No. 40325.1.59

NAME: MRS MARGARET S. Thomas
ADDRESS: 910 AUNT MARY AVE GREENSDORD NC
EMAIL: 27405-692
COMMENTS and / or QUESTIONS:
Do mat clase & Ferrell Street,
Mayfield Road, and Burkanan
Church Road

Please mail comments by October 26, 2012 to:

Nancy Horne, P.E. NCDOT-Rail Division 1556 Mail Service Center Raleigh, NC 27699-1556 Phone: (919) 715-3686

OR

Email: nhorne@ncdot.gov

Mr. Scot Sibert STV/RWA Consultants, Inc. 1000 W. Morehead St., Suite 200

Charlotte, NC 28208 Phone: (704) 372-1885

From: Michael Guarglia [mg@tricityautosalvage.com]

Sent: Thursday, September 27, 2012 4:59 PM

To: Scot R. Sibert

Subject: Rail Road Crossing at Maxfield Rd, Greensboro, N.C.

Scot. Nice to meet you last Monday. My brother Joey and I spoke to you and Daniel Havener. Our concerns with closing the Maxfield Rd R.R. crossing in Greensboro are many but I have listed the ones that would be detrimental to our family Auto recycling company which employee 35 people.

- 1. We could not access our back lot which our Parts Puller's, Loader Operator and Inventory dept work out of daily. I did a study on how many time they cross the track and it averaged 210 time in 8 hours. That's over 26 times per hourly .!
- 2. It is the only access to the back lot, and it is very convenient for us to get there in a safe and timely matter.

We have not had any problems with the crossing and are very aware of the times that the Train passes, As you may know: relocating a Auto Salvage is next to impossible in today's times. We are very environmental conscious and have set up our business to maintain that position. Please pass my concerns on to the proper authorities.

Sincerely Michael Guarglia President.



Michael P. Guarglia Tri-City Auto Salvage Inc. 3848 Burlington Rd. Greensboro, NC 27405 336-369-0034 (Direct Line) 800-451-0693 Ext 2114 (Toll Free)



RECEIVED OCT 0 4 2012

Traffic Separation Study (TSS) for Railroad Crossings in East Guilford County Charlotte, NC

Greensboro, Guilford County

Citizens' Informational Workshop - September 24, 2012

TIP	Proj	ect	No.	P-3	3	09N	1
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WBS No. 40325.1.59

NAME: CAROL O'FERRELL
ADDRESS: 421 O'FERRELL ST, GREENSBORD, NC 27405
EMAIL: N/A
COMMENTS and or QUESTIONS: Please see attached
<u> </u>
10-1-2012

OR

Please mail comments by October 26, 2012 to:

Nancy Horne, P.E. NCDOT-Rail Division 1556 Mail Service Center Raleigh, NC 27699-1556

Phone: (919) 715-3686

Email: nhorne@ncdot.gov

Mr. Scot Sibert

STV/RWA Consultants, Inc.

1000 W. Morehead St., Suite 200

Charlotte, NC 28208

Phone: (704) 372-1885

Comments - Project Background
Subject: O'Ferrell St (722 9618) grade crossing closure.
Reasons: A. a new school is being constructed behind Faulkner Elementary and Otis Hourston Middle Schools. a new street is being constructed to enter O'Ferrell St. Should there be an emergency at the schools it would be difficult or next to impossible to get emergency vehicles there by way of Franklin Blvd and Ward RI (US) due to rolumn of traffic.

1. Jeave O'Ferrell St crossing (722 961B) open upgrade the crossing.

2. Restrict school brusses and trucks from using this crossing, ext by way of Franklin Blad and Ward Rd (US-70).

B. Do not extend Naco Rel at O Ferrell It to Ward Rd (US-70), But extend the new road from the new school on O Ferrell It (Proposed Whitemore on the map) to Ward Rd (US-70). This would move Whitemore about 200 to 300 feet south. This would be less right of way land to Ward Rd (US-70) than extending Naco Rd, less property owners less conjection. If this new road were built it would go through property goned Light Industrial (12+ acres) on Murroylane Rd. By doing this, commercial vehicles would not have to go through residential districts; nor have to

•

through school zones. Commercial vehicles would exit by way of Ward Rd (US-70).

Traffic on Franklin Blad is a traffic jams now

Traffic on Franklin Blud is a traffic jamo mour when school opens and when it lets out. Traffic from the Guilford County Schools Maintance Building comes out Naco Rl to O'Ferrell St (even though Franklin Blud is the closest epit due to traffic conjection on Franklin Blud) which is a traffic hazard due to no center line on O'Ferrell St. Busses and other large vehicles have to stop to let others pass or O'Ferrell St.

There are < > 110 residents using O'ferrell St, Maybrook Dr and Murroylane Rh to get across the railroad to Burlington Rd now. This will drastically increase with the new school. There are 72 residents and 38 mobile homes on O'Ferrell St, Maybrook Dr and Murraylane Rd that would be directly effected by the closing of O'Ferrell St crossing (722 9618).

any consideration will be appreciated. any questions you may reach me at 336-375-5586

Please include me on the study mailing list.

TIP No. P-3309M VEHICLE / RAILROAD TRAFFIC SEPARATION STUDY

CITIZENS' INFORMATIONAL WORKSHOP SIGN IN SHEET

336-621-5582
7
3848 BURLINGTON RA GRORD
151 05/58 /2=0801/12
27405
Chora 27410
27 405

East Guilford County

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Co ~

TIP No. P-3309M VEHICLE / RAILROAD TRAFFIC SEPARATION STUDY



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CITIZENS' INFORMATIONAL WORKSHOP SIGN IN SHEET

NAME	ADDRESS	PHONE	NCDOT 🖸
1 TONY WATERSON	3812 PORTE PLACE GIBORD NC 27405	336 621 5582	
2 Charles WATTERSON	3806 PORTE PLACE CARCUSTON 7/6. 27408	386 - 375-6930	
3 Ton Towner	PO Bex 4557, Popi	336-868-9899	599
4 Phris Spinger	6007	336-433-7218	
5 Hardine H. Janes	401 Franklin Blud. G'BURO 27401	336-8789817	
6 Thomas BARNES	154 MAX Field Rd 6 /boto 27405	336-339-8959	
7 Chopay Sharely	502 Baywar Me. Show 27401	336 175-618	
& All Mid on	5631 Freder C. Wolfmande	158 (69) 983	
9 horienties	mest.	E6-957-1899	
10 William D Hoolgy	2366 Buffine mill be me Seonavell	3753637	-
11 Mus. Milded Hege		336-621-4114	
12 Robert pr fruit		336 5092561	
13 Kimberly Hinton	Public Involvement		
14			
15			·

VEHICLE / RAILROAD TRAFFIC SEPARATION STUDY

EAST GUILFORD COUNTY TIP PROJECT P-3309M

March 7, 2013

(Please Print)
NAME/EMAIL: 8 R. Landrett 9
MAILING ADDRESS: 300 Ward Pol
CITY: Greenston STATE: MC. ZIP CODE: 27405
Please take the time to fill out this comment sheet and insert it in the box labeled "COMMENTS" near the sign in table. If you do not have a chance to fill it out tonight, please mail in your comments by March 29, 2013.
Plase, Please, Please give an under Poss or bridge over the Rail Road,
My family Crosses about 12 terms a day.
Safety is my concer. I gues I would be
affected accessing wise if all ingrements were made both to crossings are Road ingrements (or
Shad both & crossing ar Road impresents (or
Goal authority).
Comments may be mailed to: Ms. Kimberly Hinton, NCDOT-Human Environment Unit 1598 Mail Service Center
PALEICH NC 27600-1508

PHONE: (919) 707-6072

EMAIL: KHINTON@NCDOT.GOV

COMMENT SHEET VEHICLE / RAILROAD TRAFFIC SEPARATION STUDY EAST GUILFORD COUNTY TIP PROJECT P-3309M

March 7, 2013

(Please Print)						
NAME/EMAIL: Pauling 6 Jones MAILING ADDRESS: 1401 Franklin Blud. CITY: 6,-ecuslus STATE: 140 ZIP CODE: 27/1401						
MAILING ADDRESS: 1/01 Franklin Blud						
CITY: Greenshare STATE: MC ZIP CODE: 27/1401						
Please take the time to fill out this comment sheet and insert it in the box labeled "COMMENTS" near the sign in table. If you do not have a chance to fill it out tonight, please mail in your comments by March 29, 2013.						
Nou are planning to do.						
nou are planning todo.						

Comments may be mailed to: Ms. KIMBERLY HINTON,

NCDOT-HUMAN ENVIRONMENT UNIT

1598 MAIL SERVICE CENTER RALEIGH, NC 27699-1598 PHONE: (919) 707-6072

EMAIL: KHINTON@NCDOT.GOV

VEHICLE / RAILROAD TRAFFIC SEPARATION STUDY

EAST GUILFORD COUNTY TIP PROJECT P-3309M

March 7, 2013

(Please Print) lownes
NAME/EMAIL: tomal triadeommercial, com MAILING ADDRESS: P.O. B.x 49579 650, NE 27419
MAILING ADDRESS: P.O. 13.x 49579 650, NE 27419
CITY: STATE: ZIP CODE:
Please take the time to fill out this comment sheet and insert it in the box labeled "COMMENTS" near the sign in table. If you do not have a chance to fill it out tonight, please mail in your comments by March 29, 2013.
Placest also provide contect
Places also provide contect into. For relevant city of GSU Trans contects.
contrats.
· · · · · · · · · · · · · · · · · · ·
*
Comments may be mailed to: Ms. KIMBERLY HINTON,
NCDOT-Human Environment Unit 1598 Mail Service Center
1070 Millio Direction Chilipin

RALEIGH, NC 27699-1598 PHONE: (919) 707-6072

EMAIL: KHINTON@NCDOT.GOV

Robert Pruit Old Castle Sarp Gloria Block I more than 30 trucks a day; maybe wavel to pur out comment sheets to folks to send in comments. Neighbres & businesses did not receive posteard, the did not receive, but he is on the mailing list. I don't see the beg separation of study ned. I don't have much sympathy for people who cross the Railpood when there's red flashing lights whether a train is going too myth or 10 mph., The train is going Action: Do worry about deadline for commuts. Have Rein Manded 3/8/2013 Gloria comment. mar Solvery

Hinton, Kimberly D

From:

Scot R. Sibert <Scot.Sibert@stvinc.com>

Sent:

Tuesday, March 12, 2013 1:30 PM

To:

Horne, Nancy M; Hinton, Kimberly D

Subject:

P-3309M public comment (EGTSS)

Follow Up Flag:

Follow up

Due By:

Monday, April 01, 2013 2:30 PM

Flag Status:

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Here is a comment from our public workshop last week from the owner of the used car parts facility on Maxfield Rd. Plus received a call from Joe Guarglia, the father/owner this afternoon who is concerned about our recommendation for closing the crossing. He would like to meet with us all to discuss their concerns, operations, etc (as noted in the email from Michael). I recommended that we wait till the 30-day public comment period is over, compile our comment report, and hold our meeting with NCDOT Rail and City of Greensboro to discuss comments, to then sit down with them and review the status of that crossing. I did explain to Joe that our recommendations are long-term, there is no funding allocated with this crossing recommendation, and that it is contingent upon the City constructing Naco Road Extension.

Scot,

Our concerns with closing the Maxfield Rd R.R. crossing in Greensboro are many but I have listed the ones that would be detrimental to our family Auto recycling company which employee 35 people.

- We could not access our back lot which our Parts Puller's, Loader Operator and Inventory dept work out of daily.
 I did a study on how many time they cross the track and it averaged 210 time in 8 hours. That's over 26 times per hourly!
- 2. It is the only access to the back lot, and it is very convenient for us to get there in a safe and timely matter.
- 3. We have two freight trucks that come in daily and use Maxfield road as a turnaround at the end. Backing a tractor trailer truck into Wendover Ave is asking for a sure problem
- 4. Along with the fright trucks we have 2 CAR haulers daily unload our inventory on Maxfeild Rd. They also will need a turn around area.

We have not had any problems with the crossing and are very aware of the times that the Train passes, As you may know: relocating a Auto Salvage is next to impossible in today's times. We are very environmental conscious and have set up our business to maintain that position. Please pass my concerns on to the proper authorities.

Sincerely Michael Guarglia President



Michael P. Guarglia Tri-City Auto Salvage Inc. 3848 Burlington Rd. Greensboro, NC 27405 336-369-0034 (Direct Line) 800-451-0693 Ext 2114 (Toll Free) Let me know if you have any questions.

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