



Appendix K - Preliminary
and Detailed Noise
Analysis Reports

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Preliminary Noise Assessment

Date: February 12, 2016

Subject: US 21 Over Harbor River, SCDOT Project ID P026862, Beaufort County, South Carolina

Introduction

This Preliminary Noise Analysis (i.e. Analysis) was prepared to assess noise impacts from five Alternatives to replace the Harbor River bridge along US 21 in Beaufort County, South Carolina (see Figures 1 and 2). Traffic noise impacts were analyzed in accordance with the procedures established for the abatement of highway traffic noise and construction noise as outlined in Part 772 of Title 23 of the Code of Federal Regulations (CFR) and the *South Carolina Department of Transportation Traffic (SCDOT) Noise Abatement Policy*, effective September 2014 (see Table 1).

The purpose of the Analysis is to compare noise impacts from the five Alternatives to noise sensitive land use within the project area of each alternative. Upon selection of a preferred alternative, a Detailed Noise Analysis will be conducted based on the most current design and traffic information available.

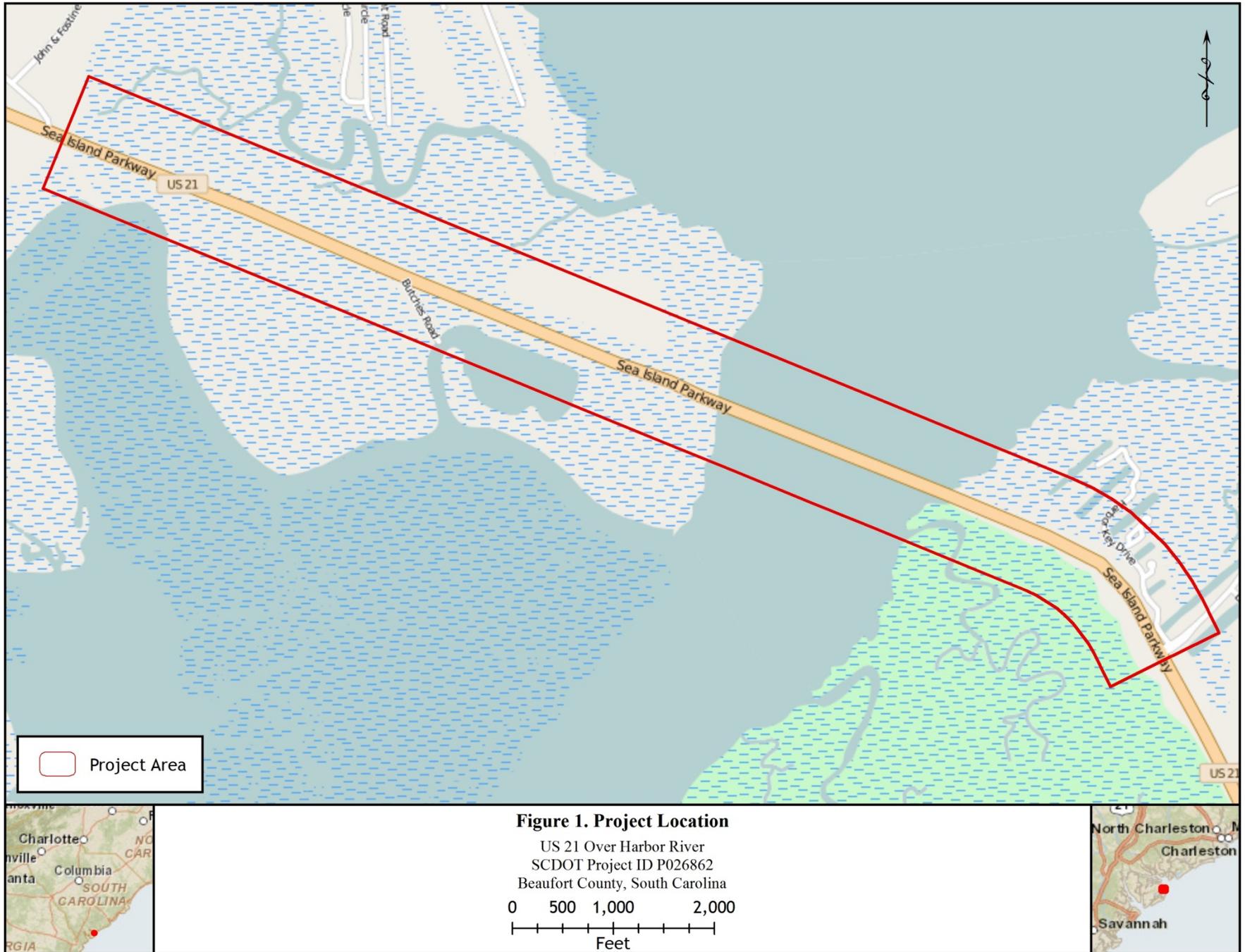
Methodology

The Federal Highway Administration (FHWA) Traffic Noise Model (TNM version 2.5) was used to calculate existing noise levels and predict future design year noise levels. Inputs to this model include noise sensitive receiver locations, existing and future roadway alignments, and traffic volumes and posted speeds. The following was assumed:

- Peak hour traffic volumes and truck percentages were provided by SCDOT. Medium and heavy truck percentage splits for all roadway segments were assumed to be 50/50. The highest posted speed of 55 miles per hour (mph) was used as a worst case condition. Traffic data is included in Attachment 1.
- Ground elevations for all inputs to the model were assumed to be 0 feet.
- A land use survey was conducted for the project area. The corresponding Noise Abatement Criteria (NAC) category from the *SCDOT Traffic Noise Abatement Policy* was used.
- Roadway shoulders were modeled as separate roadways in the TNM model, where applicable.

Traffic Noise Impacts

Pursuant to *23 CFR Part 772*, two methods are used for predicting a noise impact. The first is a comparison of predicted noise levels with the NAC established by *23 CFR Part 772*. A 67 dBA criterion has been established for residences (NAC Category B), as well as active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, institutional medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings (NAC Category C). A 72 dBA criterion has been established for hotels, motels, offices, restaurants/bars, and other developed lands commercial activities (NAC Category E). Any predicted noise level that approaches or exceeds the applicable NAC is considered an impact. For the purpose of this study, approach means within one dBA of the noise abatement criterion.



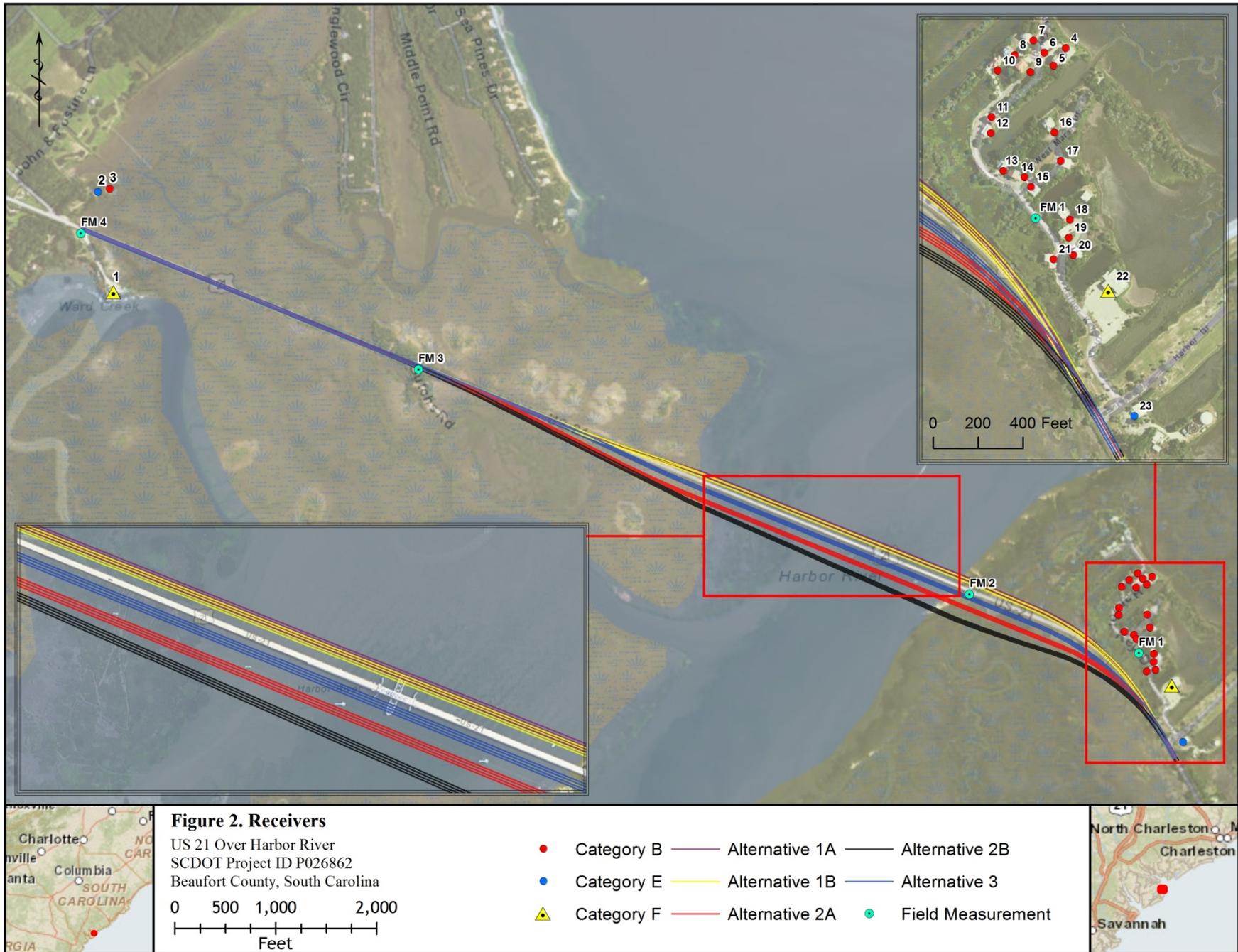


TABLE 1. RECEIVERS

Receiver #	Receptors	Land Use / NAC	Existing		Build					Impact Status
			NAC Category	Leq dBA	Alt 1A	Alt 1B	Alt 2A	Alt 2B	Alt 3	
1	1	Gay Fish Company	F	46.6	48.2	48.2	48.2	48.2	48.2	Not Impacted
2	1	Restaurant	E	46.6	47.5	47.5	47.6	47.6	47.6	Not Impacted
3	1	Single-Family	B	45.4	46.6	46.6	46.7	46.7	46.6	Not Impacted
4	1	Single-Family	B	40.1	41.9	41.8	40.3	39.6	40.8	Not Impacted
5	1	Single-Family	B	41.2	43.1	42.9	41.2	40.5	41.7	Not Impacted
6	1	Single-Family	B	40.9	42.8	42.7	41.0	40.3	41.5	Not Impacted
7	1	Single-Family	B	40.8	42.7	42.6	40.8	40.1	41.4	Not Impacted
8	1	Single-Family	B	42.0	44.1	44.0	41.8	41.1	42.5	Not Impacted
9	1	Single-Family	B	42.3	44.4	44.2	42.1	41.4	42.8	Not Impacted
10	1	Single-Family	B	43.5	45.8	45.6	43.0	42.1	43.8	Not Impacted
11	1	Single-Family	B	46.9	49.5	49.3	46.0	44.8	47.0	Not Impacted
12	1	Single-Family	B	48.2	51.0	50.8	47.2	45.9	48.3	Not Impacted
13	1	Single-Family	B	50.9	54.0	53.8	49.6	48.2	50.8	Not Impacted
14	1	Single-Family	B	49.7	52.4	52.2	48.8	47.6	49.7	Not Impacted
15	1	Single-Family	B	50.2	52.7	52.6	49.2	47.9	50.1	Not Impacted
16	1	Single-Family	B	44.5	46.6	46.4	44.2	43.3	44.8	Not Impacted
17	1	Single-Family	B	45.9	48.0	47.9	45.6	44.6	46.2	Not Impacted
18	1	Single-Family	B	49.6	51.5	51.4	49.1	48.1	49.7	Not Impacted
19	1	Single-Family	B	51.1	53.1	53.1	50.8	49.7	51.5	Not Impacted
20	1	Single-Family	B	52.4	54.3	54.2	52.2	51.0	52.4	Not Impacted
21	1	Single-Family	B	56.0	58.0	57.8	54.9	53.4	55.3	Not Impacted
22	1	General Store (vacant)	F	51.2	52.8	52.8	51.6	51.0	51.6	Not Impacted
23	1	Realty Office	E	58.2	59.9	60.0	59.8	59.9	59.6	Not Impacted

The second method of determining noise impacts involves the amount of increase from the existing noise levels to the predicted future noise levels. An impact occurs when there is a substantial increase from existing levels. According to the *SCDOT Noise Abatement Policy*, a “substantial increase” occurs when the future predicted noise levels increase at least 15 dBA or more over existing levels.

A receiver is a discrete point modeled in the TNM program where as a receptor is a defined as a representative location of a noise sensitive area for various land uses. In areas where there is a common noise environment, one modeled TNM receiver can be considered representative of many receptors. This occurs in places like multi-family buildings where noise level estimates at one modeled TNM receiver on a given floor may be representative of noise conditions for all the receptors on that floor.

Field Measurements

Field measurements were gathered from four SCDOT approved locations within the project corridor on September 3, 2015. These measurements were taken for 15 minutes at each location and traffic volumes were recorded for each direction of traffic along US 21. These volumes were then multiplied by 4 to arrive at the hourly traffic volume equivalent. This information is provided in Table 2 below. The locations of these measurements are depicted on Figure 2.

TABLE 2. HOURLY TRAFFIC BASED ON CONCURRENT TRAFFIC COUNTS ON US 21

Site	Time Period	Northbound Lanes					Southbound Lanes					Measured L_{eq}
		Autos	MT	HT	Bus	MC	Autos	MT	HT	Bus	MC	
F1	12:16 PM-12:31 PM	31	1	1	0	0	38	1	0	0	0	52.9
F2	11:39 AM-11:54 AM	30	2	0	0	0	22	0	0	0	0	65.1
F3	11:09 AM-11:24 AM	31	2	0	0	0	32	1	0	0	0	68.3
F4	10:47 AM-11:02 AM	34	2	0	0	0	17	1	0	0	0	61.0
MT = Medium Trucks			HT = Heavy Trucks			MC = Motorcycles						
Notes: F1: No anomalies												

Model Validation

Traffic volumes recorded during the field study were utilized to validate the TNM 2.5 model. Utilizing these recorded traffic volumes as well as field measurement location, the model was run and the resulting noise levels were compared to those obtained in the field. Per SCDOT policy, a discrepancy of no greater than 3 dBA asserts the validity of the TNM 2.5 model. This comparison is provided in Table 3 below. Because noise levels at all field measurements fall within the acceptable 3-decibel range prescribed in SCDOT policy, the model is considered valid.

TABLE 3. FHWA TNM MODEL VALIDATION

Field Receiver Location	Figure	Field Measurement	TNM Measurement	Difference (+/-)
Field Measurement 1	2	52.9	51.3	-1.6
Field Measurement 2	2	65.1	65.2	0.1
Field Measurement 3	2	68.3	66.6	-1.7
Field Measurement 4	2	61.0	63.0	2.0

Existing Condition

A total of 23 receivers (23 receptors) were analyzed along the project corridor. The existing land use consists primarily of single-family residences (Category B) as well as one restaurant and a realty office (Category E). Based on this analysis, no receivers are currently impacted.

Design Year Build

A total of 23 receivers (23 receptors) were analyzed for all five Alternatives. No receivers are predicted to be impacted based on a substantial increase or exceeding the NAC under any of the five Alternatives.

Conclusion

This Analysis was prepared to assess noise impacts from five Alternatives to replace the Harbor River bridge along US 21 in Beaufort County, South Carolina. Based on this analysis, there are no traffic noise related impacts predicted along the project corridor under any of the proposed Alternatives. Given the relatively low traffic volumes along US 21 within the project area as well as the locations of noise sensitive receivers relative to the proposed bridge replacement, there would be no appreciable difference in noise levels amongst the five Alternatives.

A Detailed Noise Analysis will be completed upon decision of a preferred alternative. In addition to parameters utilized in the Preliminary Noise Analysis, receiver and roadway elevations, terrain features, rows of existing structures, and distinctive ground zones may be used to more precisely assess existing and future noise levels and determine impacts.

Prepared By: 
Brandon Batt

2/12/2016
Date

QA/QC : 
Josh Earhart

2/12/2016
Date

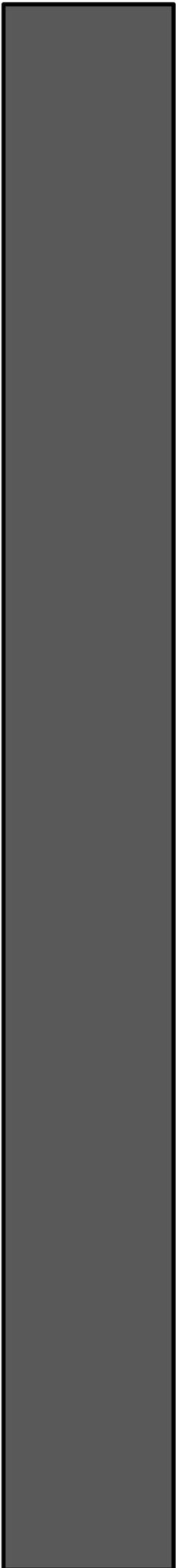
Approved By: _____
Name

Date

ATTACHMENT 1

TRAFFIC

SCDOT PROJECT ID: P026862



TRAFFIC DATA FOR PAVEMENT LOADING

Factors revised February 1999

Report date: 7/29/2015

County 7 BEAUFORT

Route US 21 Route Name: Sea Island Pkwy

Beginning termini: MP 2.5

Ending termini: MP 1.5

Beginning mile post: 0.00

1-way 2-way

Number of lanes: 2

Type of pavement

Percent Trucks.: 10

Flexible Rigid

Critical Lane: 100

Rd. Grp. (A-P) - Class 9 %: J - 36

Base year: 2017

Base year ADT: 4,200

Future year: 2027

Projected ADT: 4900

Future year: 2037

Projected ADT: 5600

4900

ONE-WAY EQUIVALENT DAILY 18 KIP SINGLE AXLE LOAD APPLICATIONS IN THE CRITICAL LANE

5 YR. DES. = 32.02

10 YR. DES. = 65.74

15 YR. DES. = 100.94

20 YR. DES. = 137.82

YEAR	ADT	AVERAGE ONE-WAY		ADJUSTED TRUCKS	1-WAY EQUIV. 18 KIP	
		ADT	TRUCKS		TOTAL	CRT. LN.
2017	4,200					
2022	4,600	2,200	220	55	32.02	32.02
2027	4,900	2,258	226	113	65.74	65.74
2032	5,200	2,312	231	173	100.94	100.94
2037	5,600	2,367	237	237	137.82	137.82

TRAFFIC DATA FOR PAVEMENT LOADING

Factors revised February 1999

Report date: 7/29/2015

County 7 BEAUFORT

Route US 21 Route Name: Sea Island Pkwy

Beginning termini: MP 2.5

Ending termini: MP 1.5

Beginning mile post: 0.00

1-way 2-way

Number of lanes: 2

Type of pavement

Percent Trucks.: 10

Flexible Rigid

Critical Lane: 100

Rd. Grp. (A-P) - Class 9 %: J - 36

Base year: 2017

Base year ADT: 4,200

Future year: 2027

Projected ADT: 4900

Future year: 2037

Projected ADT: 5600

4900

ONE-WAY EQUIVALENT DAILY 18 KIP SINGLE AXLE LOAD APPLICATIONS IN THE CRITICAL LANE

5 YR. DES. = 43.61

10 YR. DES. = 89.53

15 YR. DES. = 137.47

20 YR. DES. = 187.69

YEAR	ADT	AVERAGE ONE-WAY		ADJUSTED	1-WAY EQUIV. 18 KIP	
		ADT	TRUCKS		TRUCKS	TOTAL
2017	4,200					
2022	4,600	2,200	220	55	43.61	43.61
2027	4,900	2,258	226	113	89.53	89.53
2032	5,200	2,312	231	173	137.47	137.47
2037	5,600	2,367	237	237	187.69	187.69



SCDOT Project Screening Tool



Logged in as NTS\StoneburTH (Viewer)

**Traffic Projection Request
for BEAUFORT US-21 N Main Line (07020002100N)
from Milepost 2.50 to 1.50**

Home Request a New Traffic Projection Find Traffic Projections View Open Requests

General

Created by NTS\StoneburTH on 7/28/2015 10:10 AM

Base Year: 2017

Future Year: 2037

Roadwork Type: Other

Comments:

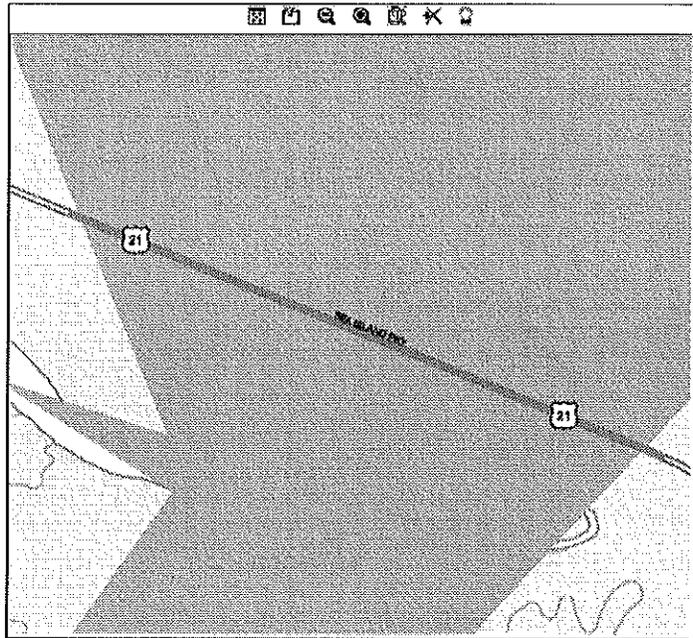
Harbor River Bridge Replacement Project to include pavement, bridge and roadway design.

Traffic Projections

	Year	ADT	LOS
Present	2014	4,100	
Base	2017	4,200	
Mid	2027	4,900	
Design	2037	5,600	

Number of Lanes: 0

Comments:



P2S ITMS Plan Library Primavera

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DISCLAIMER: ALL GIS DATA NEEDS TO BE FIELD VERIFIED

REQUEST FOR TRAFFIC DATA

Route to Road Data Services Engineer

1. DATA REQUESTED *

- Traffic Loading for Pavement Design
- Classification Count for Pavement Design
- Design Data
- Intersection Two-Way Traffic Flow (ADT)
- Intersection Turning Movement Counts
- Other (Explain)

* Requestor should complete sections 1, 2, and 4 as well as Base Year and Number of Lanes.

2. LOCATION *

COUNTY Beaufort ROUTE/ROAD US 21 (Sea Island Pkwy)
 From MP 2.5 To MP 1.5
 (ATTACH MAP)

*Station 147
US-21*

3. CONTROLS

For Pavement Loading

	<u>Year</u>	<u>ADT</u>
Base Year	<u>2017</u> *	<u>4200</u>
Middle Year	<u>2027</u>	<u>4900</u>
End Year	<u>2037</u>	<u>5600</u>
No. of Lanes	<u>2</u> *	_____

	<u>Year</u>	<u>ADT</u>
Present ADT	<u>(2017)</u>	<u>4200</u>
Future ADT	<u>(2037)</u>	<u>5600</u>
Design Speed (V)	_____	_____

K% 10% D% 50/50

Provide ESALS for Flexible and Rigid Pavement Types

Trucks:
% ADT 10%

% DHV 7%

Other _____

Road Group

J

Lane Distribution

100

Trucks (% ADT)

10%

4. FURNISH COPIES OF TRAFFIC DATA TO *

- Lowcounty Regional Production Group Engineer
- Midlands Regional Production Group Engineer
- Pee Dee Regional Production Group Engineer
- Upstate Regional Production Group Engineer
- Material & Research Engineer
- Design Build Design Manager (Gaskins)
- Program Manager (Mattox)

Requested By: Tyke Redfearn Section: Design Build

Date: 7/28/2015

Stoneburner, Tammy H

From: Eargle, Stacy A
Sent: Tuesday, July 28, 2015 8:14 AM
To: Stoneburner, Tammy H
Subject: FW: US21 Harbor River Traffic Data Request 07.28.15
Attachments: US21_Harbor_River_Traffic_Data_Request.pdf

From: Anderson, Todd
Sent: Tuesday, July 28, 2015 8:08 AM
To: Eargle, Stacy A
Subject: FW: US21 Harbor River Traffic Data Request 07.28.15

Hey Stacy,

Will you get a special count for this, or use an existing coverage count?

From: Redfearn, Tyke
Sent: Tuesday, July 28, 2015 8:05 AM
To: Anderson, Todd; Eargle, Stacy A
Cc: Mattox, James H.; Gaskins, Chris; Thompson Jr, Jesse U.
Subject: US21 Harbor River Traffic Data Request 07.28.15

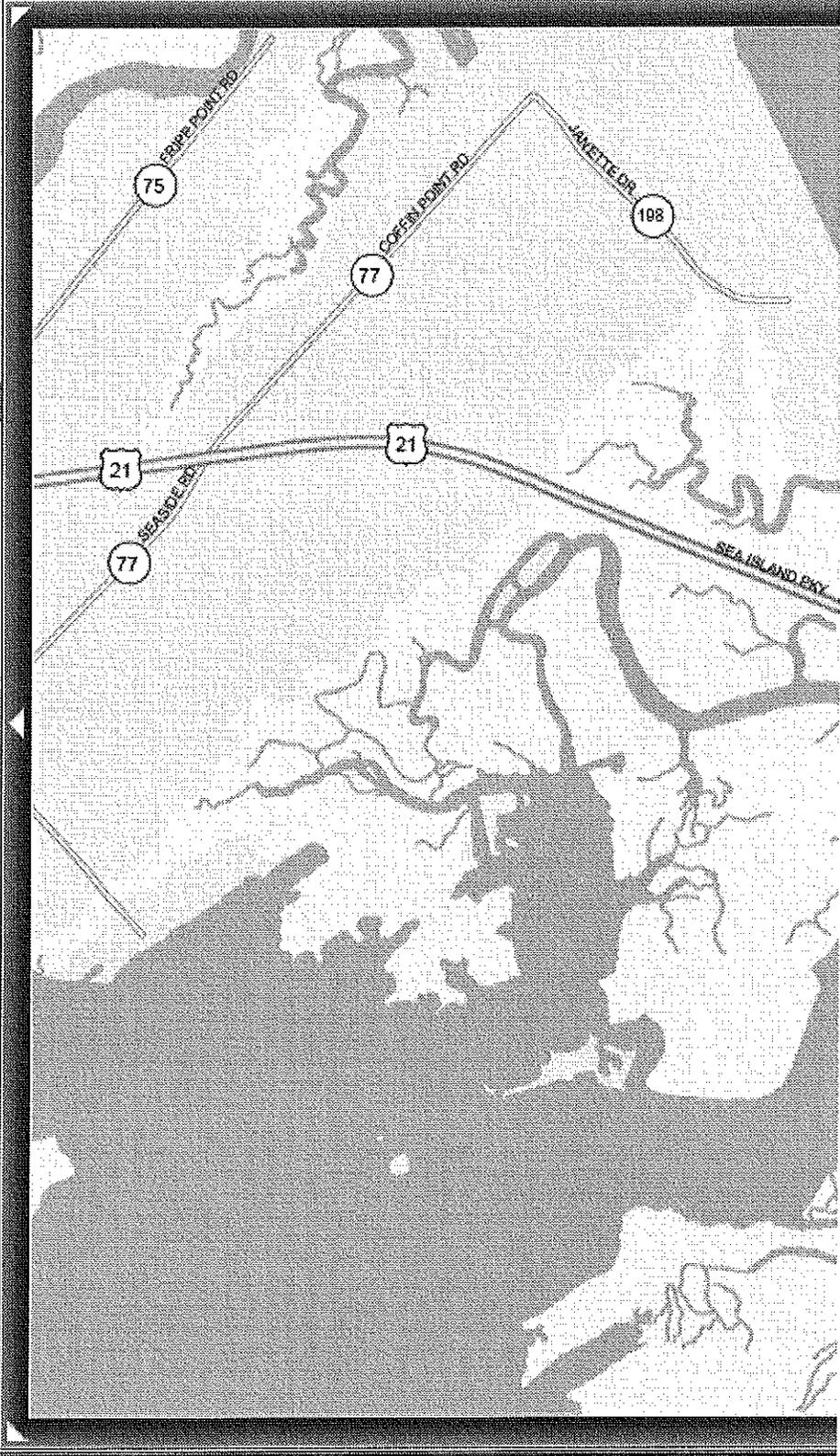
Good Morning-

Please see attached request for traffic data for pavement, bridge, and roadway design for the Harbor River Bridge Replacement Project. Below is a map of the site. If you have any questions, please let me know.
Thanks!

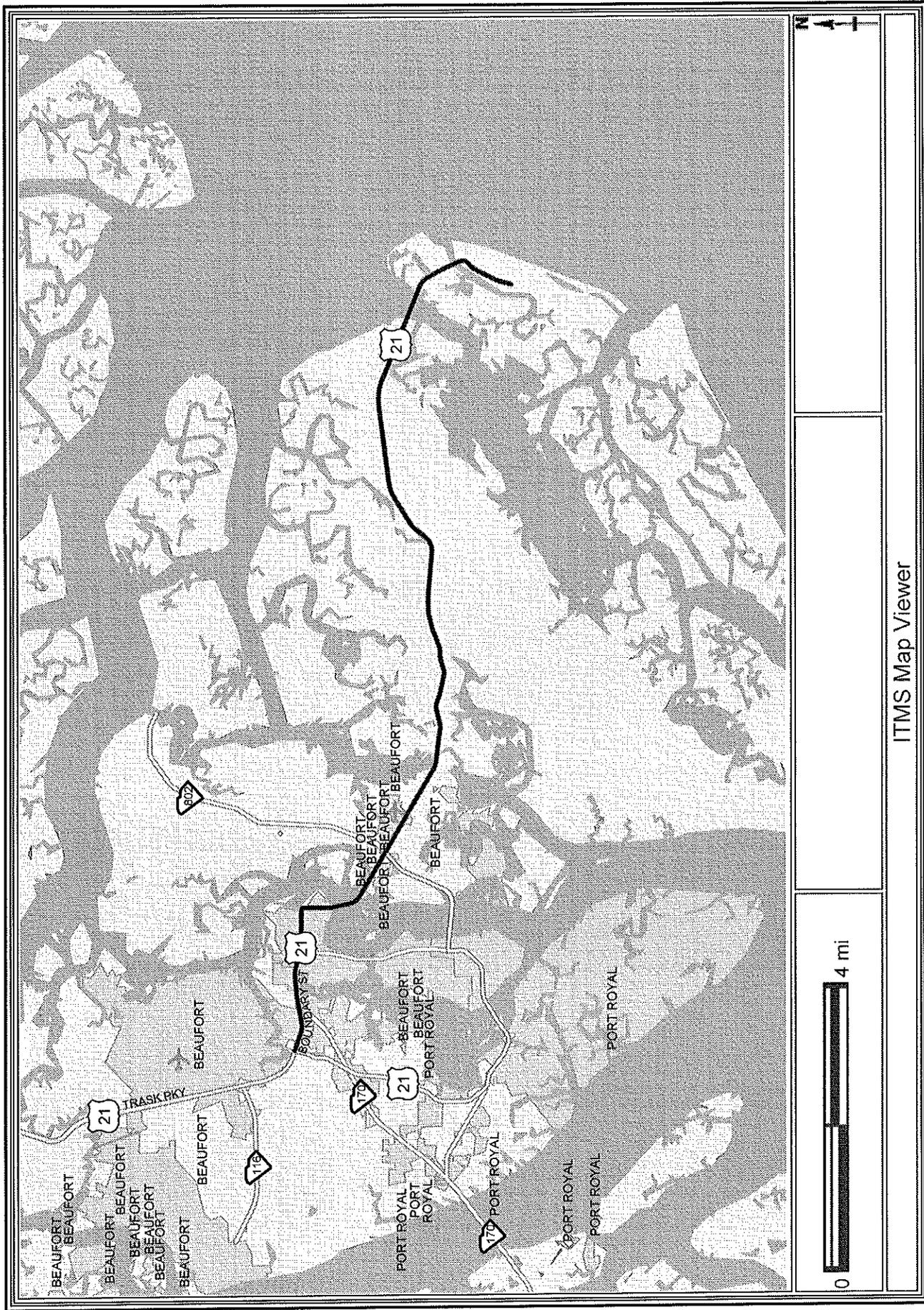
- Viewers **Field Queries** Thematic
- Legend Find Info Reports
- Road Conditions Active Projects TCount
- Area Query
- Distance Query
- Pavement Query
- Photolog Query
- Google Street View
- Range Query
- Review Information
- ▼ Route Information

1. Please select the type of route information to view.
 - AADT (Factored)
 - Federal-Aid Eligible
 - Flagged Priority
2. Please select a point on a road to view route information.

AADT (Factored) 4100
Federal-Aid Eligible Yes
Flagged Priority X
Location BEAUFORT US
 21
Milepoint 1.909
Municipality
Commission
District 1



W. Tyke Redfearn, P.E.
 Program Manager
 SCDOT | Design-Build
 Room 219 | (803) 737-1430





07/28/2015

US21.txt
Average Daily Traffic for Map Sales

Page 1

County	Station	Route	Route Location	Est. AADT	AADT Year
7	145	US 21	S- 77 TO S- 74	4300	2014
7	147	US 21	S- 406 TO S- 77	4100	2014

Disclaimer - The South Carolina Department of Transportation makes no representation or warranties, implied or expressed, concerning the accuracy, completeness, reliability, or suitability for any particular purpose of the information and data contained on this printout.

	ADT	K-Factor	Total DHV	Unidirectional DHV	M-Trucks	H-Trucks	Auto	Medium	Heavy
Existing 2014	4100	10%	410	205	3.5%	3.5%	189	8	8
Build 2037	5600	10%	560	280	3.5%	3.5%	205	10	10

NOISE IMPACT ASSESSMENT

SCDOT Project ID: P026862



EDWARDS-PITMAN

ENVIRONMENTAL, INC.

US 21 OVER HARBOR RIVER

APRIL 2016

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EXECUTIVE SUMMARY

Noise Impact Assessment
Beaufort County, South Carolina
April 2016
SCDOT Project ID P026862
US 21 Over Harbor River

Project Description:

The South Carolina Department of Transportation (SCDOT) plans to replace the US 21 Bridge over Harbor River. The project area is located along US 21 between St. Helena Island and Harbor Island. The study area begins 150 feet west of Gay Fish County Road on US 21, extends east across the bridge to Harbor Island, and ends 150 feet past the intersection of US 21 and Harbor Drive. The purpose of the project is to correct structural and functional deficiencies of the US 21 Bridge over the Harbor River and to upgrade the bridge and its approaches to current design standards.

Traffic Data:

Traffic volumes and truck percentages approved by the South Carolina Department of Transportation (SCDOT) for existing year (2014) and design year (2037) were provided by SCDOT.

Executive Summary:

Of the 23 receivers (23 receptors) analyzed under the Build condition it is anticipated that construction of the proposed project would not result in any traffic related noise impacts.

- Total Receivers Modeled (Existing, Build, and No Build): **23 (23 receptors)**
- Total Impacted Receivers (Build): **0**
 - Impacted Due to Approaching the NAC: **0**
 - Impacted Due to a Substantial Increase: **0**
 - Impacted Due to NAC and Substantial Increase: **0**

Prepared By: _____

Brandon Batt

4/1/2016

Date

INTRODUCTION

In compliance with *23 USC Section 109(h) and (i)*, the Federal Highway Administration (FHWA) established guidelines for the assessment of highway traffic-generated noise. These guidelines, published as *Part 772 of Title 23 of the Code of Federal Regulations (23 CFR Part 772)*, provide procedures to be followed in conducting noise analyses that will protect the public health and welfare. In accordance with the Noise Control Act of 1972, coordination of this regulation with the Environmental Protection Agency (EPA) has been completed. The following assessment has been prepared in accordance with *23 CFR Part 772* and South Carolina Department of Transportation (SCDOT) Traffic Noise Abatement Policy, effective September 2014.

This report documents the results of a detailed noise analysis completed for the proposed project, in order to:

- a. Provide baseline noise levels that will be used in determining project impact.
- b. Predict the effects that the proposed project will have on the noise environment.
- c. Identify noise sensitive sites where noise impacts are likely to occur
- d. Determine the feasibility of noise abatement measures that will eliminate or reduce expected noise impacts and satisfy the requirements of *23 CFR Part 772*.

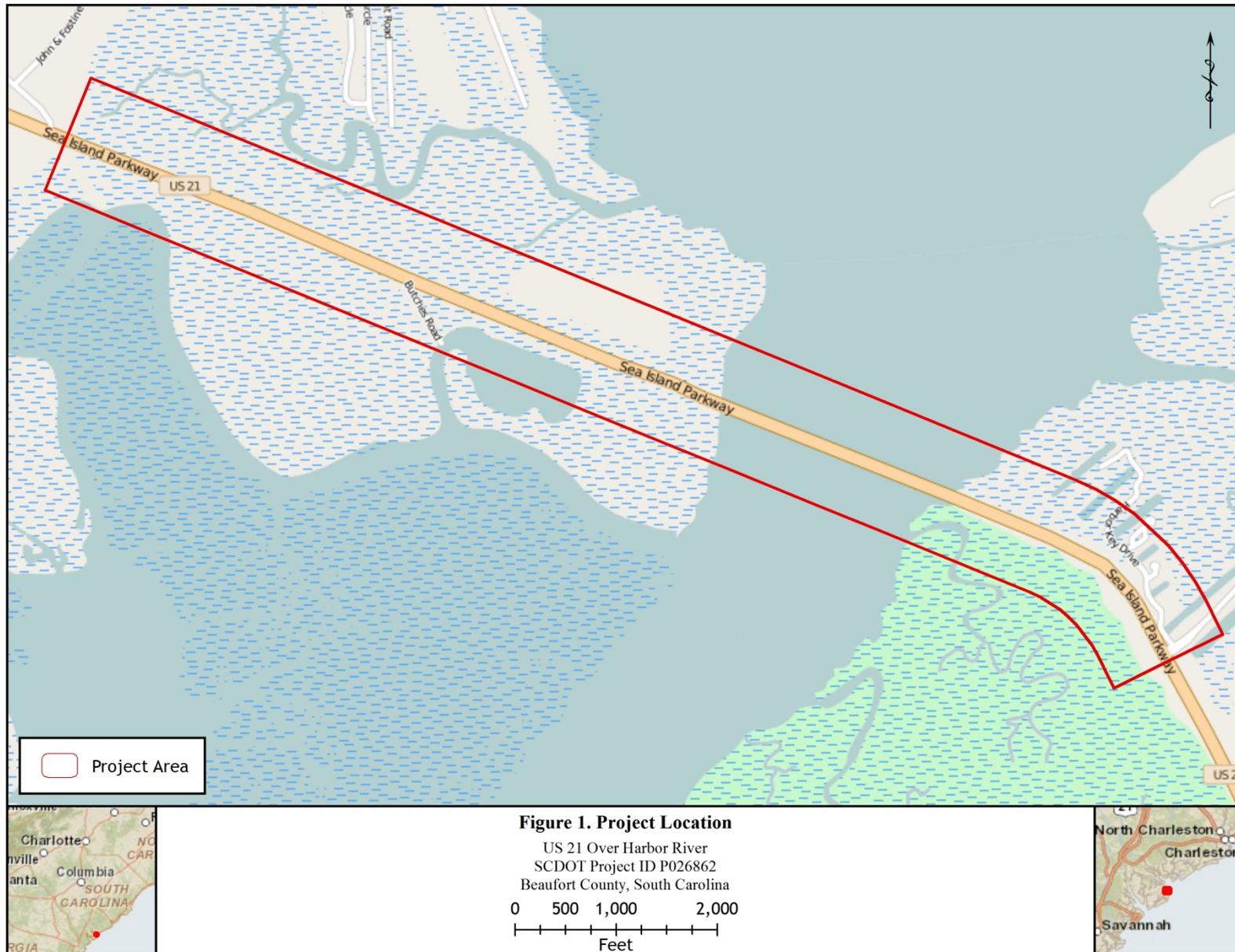
PROJECT DESCRIPTION

SCDOT plans to replace the US 21 Bridge over Harbor River (see Figure 1 on page 2). The project area is located along US 21 between St. Helena Island and Harbor Island. The study area begins 150 feet west of Gay Fish County Road on US 21, extends east across the bridge to Harbor Island, and ends 150 feet past the intersection of US 21 and Harbor Drive. The purpose of the project is to correct structural and functional deficiencies of the US 21 Bridge over the Harbor River and to upgrade the bridge and its approaches to current design standards.

TYPE I PROJECT NOISE ASSESSMENT CRITERIA

"Highway Traffic Noise Policy and Guidance," was issued in July 2010 (revised January 2011) by the FHWA. In compliance with this guidance, a Type I project is defined below:

- (1) The construction of a highway on new location; or,
- (2) the physical alteration of an existing highway where there is either:
 - (i) Substantial Horizontal Alteration. A project that halves the distance between the traffic noise source and the closest receptor between the existing condition to the future build condition; or,
 - (ii) Substantial Vertical Alteration. A project that removes shielding therefore exposing the line-of-sight between the receptor and the traffic noise source. This is done by either altering the vertical alignment of the highway or by altering the topography between the highway traffic noise source and the receptor; or,
- (3) the addition of a through-traffic lane(s). This includes the addition of a through-traffic lane that functions as a high occupancy vehicle (HOV) lane, high occupancy toll (HOT) lane, bus lane, or truck climbing lane; or,
- (4) the addition of an auxiliary lane, except for when the auxiliary lane is a turn lane; or,
- (5) the addition or relocation of interchange lanes or ramps added to a quadrant to complete an existing partial interchange; or,



- (6) restriping existing pavement for the purpose of adding a through-traffic lane or an auxiliary lane, except for when the auxiliary lane is a turn lane; or,
- (7) the addition of a new or substantial alteration of a weigh station, rest stop, ride-share lot or toll plaza.

The US 21 Over Harbor River bridge replacement would be classified as a Type I Project.

FHWA NOISE ABATEMENT CRITERIA

Noise considerations are part of the planning, design and construction of all Federal-aid projects. Regulations included in 23 CFR Part 772 defines traffic noise impacts as “impacts which occur when the future predicted traffic noise levels approach or exceed the Noise Abatement Criteria (Table 1), or when the future predicted traffic noise levels substantially exceed the existing noise levels.”

TABLE 1. NOISE ABATEMENT CRITERIA [HOURLY A-WEIGHTED SOUND LEVEL DECIBELS, dB(A)]

Activity Category	Activity Leq(h)	Evaluation Location	Activity Description
A	57	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67	Exterior	Residential
C	67	Exterior	Active sport areas, amphitheatres, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A-D or F
F	-	-	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing
G	-	-	Undeveloped lands that are not permitted

Source: Federal Highway Administration (23 CFR Part 772)

Note: These sound levels are only to be used to determine impact. These are the absolute levels above which abatement must be considered. Noise abatement is designed to achieve a substantial noise reduction. Noise abatement is not designed to achieve the noise abatement criteria.

ANALYSIS METHODOLOGY

Modeling Parameters

Existing and future noise levels were calculated using the FHWA Traffic Noise Model (TNM) 2.5. Traffic volumes for the existing condition as well as the 2037 Build conditions were provided by SCDOT. Inputs to the existing model include the existing roadway alignment, existing traffic volumes,

receiver and road elevations, water features, and worst-case vehicle speeds of 55 miles per hour (mph). A truck percentage of 7 percent (3.5 percent heavy and 3.5 percent medium) was used on US 21. Inputs to the No Build model include the existing roadway alignment, design year traffic volumes, receiver and road elevations, water features, and vehicle speeds equivalent to those used for the existing condition. Equivalent truck percentages to the existing truck percentages were used in the No Build model. Inputs to the Build model include the proposed roadway alignment, design year traffic volumes, receiver elevations, elevations of the proposed roadway alignment, water features, and vehicle speeds equivalent to those used for the No Build condition. Equivalent truck percentages to the No Build truck percentages were used in the Build model. TNM input tables and sound level results are included in Appendix A. Traffic calculations are included in Appendix B.

Receptor Locations and Land Use

Aerial orthoimagery was utilized to identify sensitive receivers and land use within the study area (see Figure 2). These land uses were subsequently validated in the field. Land use consists primarily of single-family residences (Category B) within the Harbor Island community, located on the southern end of the project area. Other land uses include a realty office and the Gay Fish Company restaurant (Category E) as well as an abandoned shop front (Category F).

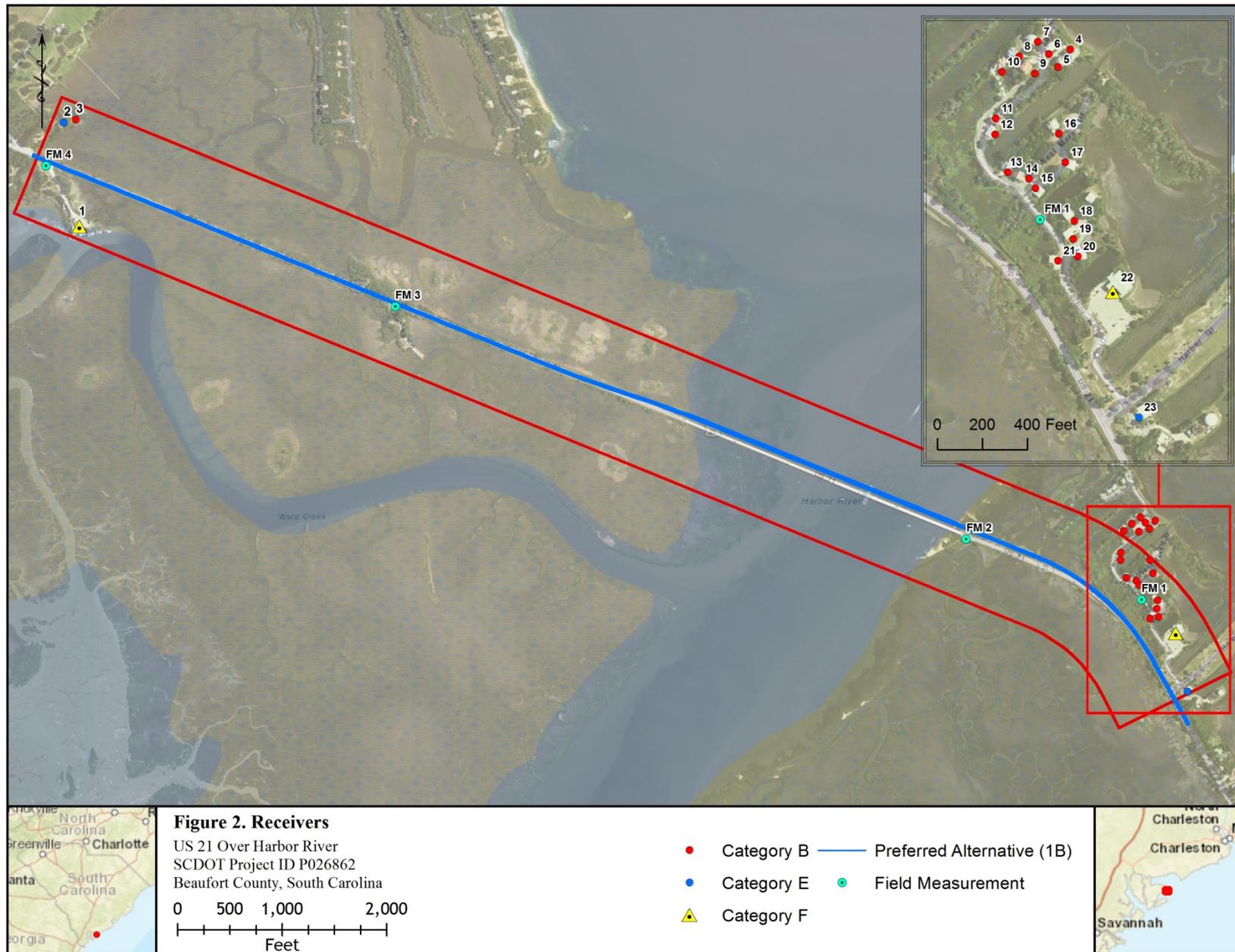
Overall, 23 receivers (23 receptors) were analyzed in the existing, No Build, and Build conditions.

Field Measurements

Field measurements were gathered from four SCDOT approved locations within the project corridor on September 3, 2015. These measurements were taken for 15 minutes at each location and traffic volumes were recorded for each direction of traffic along US 21. These volumes were then multiplied by 4 to arrive at the hourly traffic volume equivalent. This information is provided in Table 2 below. The locations of these measurements are depicted on Figure 2. Field data sheets are provided in Appendix C.

TABLE 2. HOURLY Traffic BASED ON CONCURRENT TRAFFIC COUNTS ON US 21

Site	Time Period	Northbound Lanes					Southbound Lanes					Measured L_{eq}
		Autos	MT	HT	Bus	MC	Autos	MT	HT	Bus	MC	
F1	12:16 PM-12:31 PM	31	1	1	0	0	38	1	0	0	0	52.9
F2	11:39 AM-11:54 AM	30	2	0	0	0	22	0	0	0	0	65.1
F3	11:09 AM-11:24 AM	31	2	0	0	0	32	1	0	0	0	68.3
F4	10:47 AM-11:02 AM	34	2	0	0	0	17	1	0	0	0	61.0
MT = Medium Trucks		HT = Heavy Trucks					MC = Motorcycles					
Notes: F1: No anomalies												



Model Validation

Traffic volumes recorded during the field study were utilized to validate the TNM 2.5 model. Utilizing these recorded traffic volumes as well as field measurement location, the model was run and the resulting noise levels were compared to those obtained in the field. Per SCDOT policy, a discrepancy of no greater than 3 dBA asserts the validity of the TNM 2.5 model. This comparison is provided in Table 3 below. Because noise levels at all field measurements fall within the acceptable 3-decibel range prescribed in SCDOT policy, the model is considered valid.

TABLE 3. FHWA TNM MODEL VALIDATION

Field Receiver Location	Field Measurement	TNM Measurement	Difference (+/-)
Field Measurement 1	52.9	50.8	-2.1
Field Measurement 2	65.1	65.2	0.1
Field Measurement 3	68.3	66.6	-1.7
Field Measurement 4	61.0	63.0	2.0

TRAFFIC NOISE IMPACTS

Pursuant to *23 CFR Part 772*, two methods are used for predicting a noise impact. The first is a comparison of predicted noise levels with the NAC established by *23 CFR Part 772*. As indicated in Table 1, a 67 dBA criterion has been established for residences (NAC Category B), as well as active sport areas, amphitheatres, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings (NAC Category C). A 72 dBA criterion has been established for hotels, motels, offices, restaurants/bars, and other developed lands commercial activities (NAC Category E). The corresponding NAC category for each of the analyzed receivers is provided in Appendix A. Any predicted noise level that approaches or exceeds the applicable NAC is considered an impact. For the purpose of this study, approach means within one dBA of the noise abatement criterion.

The second method of determining noise impacts involves the amount of increase from the existing noise levels to the predicted future noise levels. An impact occurs when there is a substantial increase from existing levels. According to SCDOT Noise Policy (effective 9.1.2014), a “substantial increase” occurs when the future predicted noise levels increase at least 15 dBA or more over existing levels. See Table 4 for results.

TABLE 4. NOISE IMPACT RESULTS

Receiver #	Receptors	Land Use / NAC	Exterior Use?	Existing			No Build (2037)			Build (2037)		
				NAC Category	Leq dBA	Noise Impact Type	Leq dBA	Difference From Existing	Noise Impact Type	Leq dBA	Difference from Existing	Noise Impact Type
Receiver 1	1	Gay Fish Company	No	F	46.6	----	47.8	1.2	----	51.6	5.0	----
Receiver 2	1	Restaurant	Yes	E	46.6	----	47.8	1.2	----	51.9	5.3	----
Receiver 3	1	Single-Family	Yes	B	45.4	----	46.6	1.2	----	50.4	5.0	----
Receiver 4	1	Single-Family	Yes	B	42.9	----	44.1	1.2	----	44.5	1.6	----
Receiver 5	1	Single-Family	Yes	B	43.6	----	44.7	1.1	----	45.2	1.6	----
Receiver 6	1	Single-Family	Yes	B	43.5	----	44.7	1.2	----	45.2	1.7	----
Receiver 7	1	Single-Family	Yes	B	43.5	----	44.7	1.2	----	45.2	1.7	----
Receiver 8	1	Single-Family	Yes	B	44.4	----	45.6	1.2	----	46.2	1.8	----
Receiver 9	1	Single-Family	Yes	B	44.4	----	45.6	1.2	----	46.0	1.6	----
Receiver 10	1	Single-Family	Yes	B	45.4	----	46.6	1.2	----	47.2	1.8	----
Receiver 11	1	Single-Family	Yes	B	47.5	----	48.6	1.1	----	49.9	2.4	----
Receiver 12	1	Single-Family	Yes	B	48.7	----	49.8	1.1	----	51.0	2.3	----
Receiver 13	1	Single-Family	Yes	B	51.2	----	52.4	1.2	----	53.6	2.4	----
Receiver 14	1	Single-Family	Yes	B	50.0	----	51.1	1.1	----	52.0	2.0	----
Receiver 15	1	Single-Family	Yes	B	50.4	----	51.6	1.2	----	52.2	1.8	----
Receiver 16	1	Single-Family	Yes	B	45.2	----	46.4	1.2	----	47.2	2.0	----
Receiver 17	1	Single-Family	Yes	B	46.4	----	47.6	1.2	----	48.3	1.9	----
Receiver 18	1	Single-Family	Yes	B	49.7	----	50.9	1.2	----	51.2	1.5	----
Receiver 19	1	Single-Family	Yes	B	51.3	----	52.4	1.1	----	52.9	1.6	----
Receiver 20	1	Single-Family	Yes	B	52.5	----	53.7	1.2	----	53.9	1.4	----
Receiver 21	1	Single-Family	Yes	B	56.0	----	57.2	1.2	----	57.6	1.6	----
Receiver 22	1	General Store (vacant)	No	F	51.3	----	52.5	1.2	----	52.6	1.3	----
Receiver 23	1	Realty Office	Yes	E	58.2	----	59.4	1.2	----	60.2	2.0	----

Existing Year (2016)

No receivers are impacted in the existing condition as a result of approaching the NAC.

No Build Year (2037)

No receivers are predicted to be impacted in the No Build condition as a result of approaching the NAC. No receivers are predicted to be impacted based on a substantial increase from existing levels.

Build Year (2037)

No receivers are predicted to be impacted in the Build condition as a result of approaching the NAC. No receivers are predicted to be impacted based on a substantial increase from existing levels.

ANALYSIS OF NOISE ABATEMENT MEASURES

When traffic noise impacts are identified, noise abatement shall be considered and evaluated for feasibility and reasonableness. In abating traffic noise impacts, a highway agency shall give primary consideration to exterior areas where frequent human use occurs. South Carolina is not part of the FHWA-approved Quiet Pavement Program, so use of quieter pavements is not an acceptable Federal-aid noise abatement measure for Federal projects. Planting of vegetation or landscaping is not an acceptable Federal-aid noise abatement measure because only dense stands of evergreen vegetation at least 100 feet deep will reduce noise levels

No traffic related impacts were identified under the Build Alternative; therefore, noise abatement is not being proposed.

FINDINGS AND RECOMMENDATIONS

Based on the discussion in the previous paragraphs and in accordance with SCDOT Noise Policy (8.24.2014) and FHWA Noise Policy, of the 23 receivers (23 receptors) analyzed under the Build condition it is predicted that construction of the proposed project would not result in traffic related noise impacts to any of the receivers within the study area.

CONSTRUCTION NOISE

The SCDOT recognizes that minimizing construction noise is important; however, in the absence of standardized federal criteria for assessing construction noise impacts related to transportation projects (*FHWA Construction Noise Handbook, 2006*), it is necessary to primarily rely on the standards and requirements developed by local governments to determine the criteria to which contractors must adhere.

In South Carolina, contractors on all highway construction projects are required to adhere to SCDOT Standard Specification Section 107.1 – Laws to Be Observed, which states in part that the contractor shall “Keep fully informed of, and at all times observe and comply with, all federal, state, and local laws, ordinances, regulations, and all orders and decrees of bodies or tribunal having any jurisdiction or authority...” unless the necessary variance is obtained.

The impact of construction noise does not appear to be serious in most instances. Nevertheless, low-cost, easy-to-implement measures may be incorporated into project plans and specifications, where applicable. Such measures may include work-hour limits, equipment muffler requirements, locations of

haul roads, elimination of “tail gate banging”, ambient sensitive back-up alarms, community rapport, and complaint mechanisms.

INFORMATION FOR LOCAL OFFICIALS

Highway traffic noise is a program of shared responsibility. The FHWA encourages state and local governments to practice noise compatible land planning and control near highways. Local governments may use their power to regulate land development to prohibit noise-sensitive land uses adjacent to a highway, or require developers to plan, design, and construct projects that minimize highway traffic noise impacts on adjacent properties.

The data provided in Table 5 provides information to aid local officials with jurisdiction over properties in proximity to the project. Table 5 summarizes for each exterior use NAC the minimum distance from the nearest edge of pavement that would result in approaching its impact criteria. These distances represent receptors adjacent to the section of the project corridor with the highest anticipated traffic volumes under the Build Alternative, and therefore represent a worst-case scenario.

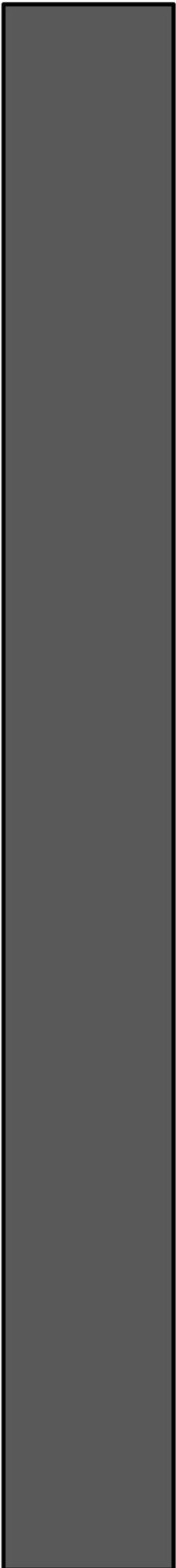
TABLE 5. MINIMUM EOP DISTANCE TO EXCEED NAC THRESHOLD

NAC Category	dBA Threshold (Approaching)	Distance from Nearest Edge of Pavement
Category A	57	145 feet
Category B	67	55 feet
Category C	67	55 feet
Category E	72	20 feet

APPENDIX A

TNM OUTPUTS

SCDOT PROJECT ID: P026862



INPUT: RECEIVERS**SC_HDR-1502**

23.0	23	1	2,171,943.2	206,301.5	2.00	5.00	0.00	71	15.0	8.0	Y
------	----	---	-------------	-----------	------	------	------	----	------	-----	---

RESULTS: SOUND LEVELS

SC_HDR-1502

Dwelling Units	# DUs	Noise Reduction								
		Min	Avg	Max						
		dB	dB	dB						
All Selected	23	0.0	0.0	0.0						
All Impacted	0	0.0	0.0	0.0						
All that meet NR Goal	0	0.0	0.0	0.0						

RESULTS: SOUND LEVELS

SC_HDR-1502

Dwelling Units	# DUs	Noise Reduction								
		Min	Avg	Max						
		dB	dB	dB						
All Selected	23	0.0	0.0	0.0						
All Impacted	0	0.0	0.0	0.0						
All that meet NR Goal	0	0.0	0.0	0.0						

RESULTS: SOUND LEVELS

SC_HDR-1502

Dwelling Units	# DUs	Noise Reduction								
		Min	Avg	Max						
		dB	dB	dB						
All Selected	23	0.0	0.0	0.0						
All Impacted	0	0.0	0.0	0.0						
All that meet NR Goal	0	0.0	0.0	0.0						

INPUT: ROADWAYS

SC_HDR-1502

		Point25	747	2,170,203.8	207,649.2	0.60				Average	
		Point26	748	2,170,111.0	207,686.9	0.40				Average	
		Point27	749	2,170,018.5	207,724.7	0.30				Average	
		Point28	750	2,169,925.8	207,762.4	0.20				Average	
		Point29	751	2,167,054.8	208,931.7	0.80				Average	
		Point30	752	2,166,962.2	208,969.5	1.00				Average	
		Point31	753	2,166,869.5	209,007.2	1.10				Average	
		Point32	754	2,166,777.0	209,044.9	1.30				Average	
		Point33	755	2,166,684.5	209,082.6	1.40				Average	
		Point34	756	2,166,591.8	209,120.4	1.50				Average	
		Point35	757	2,166,499.2	209,158.1	1.50				Average	
		Point36	758	2,166,406.5	209,195.8	1.50				Average	
		Point37	759	2,166,314.0	209,233.5	1.40				Average	
		Point38	760	2,166,221.2	209,271.2	1.40				Average	
		Point39	761	2,166,128.8	209,309.0	1.20				Average	
		Point40	762	2,166,036.0	209,346.7	1.10				Average	
		Point41	763	2,165,943.5	209,384.4	1.10				Average	
		Point42	764	2,165,851.0	209,422.1	1.00				Average	
		Point43	765	2,165,758.2	209,459.8	1.10				Average	
		Point44	766	2,165,665.5	209,497.6	1.00				Average	
		Point45	767	2,165,573.0	209,535.3	1.00				Average	
		Point46	768	2,165,480.5	209,573.0	0.90				Average	
		Point47	769	2,165,387.8	209,610.7	1.00				Average	
		Point48	770	2,165,295.2	209,648.5	1.00				Average	
		Point49	771	2,165,202.5	209,686.2	0.90				Average	
		Point50	772	2,165,110.0	209,723.9	1.00				Average	
		Point51	773	2,165,017.5	209,761.6	1.00				Average	
		Point52	774	2,164,924.8	209,799.3	1.00				Average	
		Point53	775	2,164,832.0	209,837.1	1.10				Average	
		Point54	776	2,164,739.5	209,874.8	1.20				Average	
		Point55	777	2,164,647.0	209,912.5	1.40				Average	
		Point56	778	2,164,554.2	209,950.2	1.60				Average	
		Point57	779	2,164,461.8	209,987.9	1.80				Average	
		Point58	780	2,164,369.0	210,025.7	2.00				Average	
		Point59	781	2,164,276.5	210,063.4	2.20				Average	
		Point60	782	2,164,183.8	210,101.1	2.40				Average	
		Point61	783	2,164,091.2	210,138.8	2.50				Average	
		Point62	784	2,163,998.5	210,176.6	2.70				Average	
		Point63	785	2,163,906.0	210,214.3	3.00				Average	

INPUT: ROADWAYS

SC_HDR-1502

		Point64	786	2,163,813.5	210,252.0	3.20				Average	
		Point65	787	2,163,720.8	210,289.7	3.30				Average	
		Point66	788	2,163,628.2	210,327.4	3.50				Average	
		Point67	789	2,163,535.5	210,365.2	3.60				Average	
		Point68	790	2,163,426.0	210,409.9	3.70				Average	
		Point69	791	2,163,333.5	210,447.7	3.70				Average	
		Point70	792	2,163,240.8	210,485.5	3.70				Average	
		Point71	793	2,163,148.2	210,523.3	3.70				Average	
		Point72	794	2,163,055.5	210,561.1	3.70				Average	
		Point73	795	2,162,963.0	210,598.9	3.60				Average	
		Point74	796	2,162,870.5	210,636.7	3.50				Average	
		Point75	797	2,162,778.0	210,674.4	3.30				Average	
		Point76	798	2,162,685.2	210,712.2	3.10				Average	
		Point77	799	2,162,592.8	210,750.0	2.80				Average	
		Point78	800	2,162,500.0	210,787.8	2.70				Average	
		Point79	801	2,162,407.5	210,825.6	2.40				Average	
		Point80	802	2,162,315.0	210,863.4	2.10				Average	
		Point81	803	2,162,222.5	210,901.2	2.00				Average	
		Point82	804	2,162,129.8	210,939.0	1.80				Average	
		Point83	805	2,162,037.2	210,976.8	1.70				Average	
		Point84	806	2,161,944.5	211,014.6	1.50				Average	
		Point85	807	2,161,852.0	211,052.4	1.50				Average	
		Point86	808	2,161,759.5	211,090.2	1.60				Average	
		Point87	809	2,161,667.0	211,128.0	1.70				Average	
		Point88	810	2,161,574.2	211,165.7	2.20				Average	
		Point89	811	2,161,481.8	211,203.5	2.40				Average	
		Point90	812	2,161,389.0	211,241.3	2.70				Average	
		Point91	813	2,161,296.5	211,279.1	3.10				Average	
		Point92	814	2,161,204.0	211,316.9	3.40				Average	
		Point93	815	2,161,111.5	211,354.7	3.80				Average	
		Point94	816	2,161,018.8	211,392.5	4.40				Average	
		Point95	817	2,160,926.2	211,430.3	4.90					
US 21 SB	12.0	Point0	818	2,160,921.8	211,419.2	4.70				Average	
		Point1	819	2,161,014.2	211,381.4	4.30				Average	
		Point2	820	2,161,106.8	211,343.6	3.80				Average	
		Point3	821	2,161,199.5	211,305.8	3.40				Average	
		Point4	822	2,161,292.0	211,268.0	3.10				Average	
		Point5	823	2,161,384.5	211,230.2	2.70				Average	
		Point6	824	2,161,477.2	211,192.4	2.20				Average	

INPUT: ROADWAYS

SC_HDR-1502

		Point7	825	2,161,569.8	211,154.6	2.00				Average	
		Point8	826	2,161,662.2	211,116.8	1.70				Average	
		Point9	827	2,161,755.0	211,079.0	1.60				Average	
		Point10	828	2,161,847.5	211,041.3	1.50				Average	
		Point11	829	2,161,940.0	211,003.5	1.50				Average	
		Point12	830	2,162,032.8	210,965.7	1.50				Average	
		Point13	831	2,162,125.2	210,927.9	1.60				Average	
		Point14	832	2,162,217.8	210,890.1	1.90				Average	
		Point15	833	2,162,310.5	210,852.3	2.10				Average	
		Point16	834	2,162,403.0	210,814.5	2.40				Average	
		Point17	835	2,162,495.5	210,776.7	2.60				Average	
		Point18	836	2,162,588.2	210,738.9	2.80				Average	
		Point19	837	2,162,680.8	210,701.1	3.10				Average	
		Point20	838	2,162,773.2	210,663.3	3.30				Average	
		Point21	839	2,162,866.0	210,625.5	3.50				Average	
		Point22	840	2,162,958.5	210,587.8	3.60				Average	
		Point23	841	2,163,051.0	210,550.0	3.60				Average	
		Point24	842	2,163,143.8	210,512.2	3.70				Average	
		Point25	843	2,163,236.2	210,474.4	3.70				Average	
		Point26	844	2,163,328.8	210,436.6	3.70				Average	
		Point27	845	2,163,421.5	210,398.8	3.60				Average	
		Point28	846	2,163,513.0	210,354.0	3.60				Average	
		Point29	847	2,163,623.5	210,316.3	3.50				Average	
		Point30	848	2,163,716.2	210,278.6	3.30				Average	
		Point31	849	2,163,809.0	210,240.9	3.10				Average	
		Point32	850	2,163,901.5	210,203.2	2.90				Average	
		Point33	851	2,163,994.0	210,165.4	2.70				Average	
		Point34	852	2,164,086.8	210,127.7	2.50				Average	
		Point35	853	2,164,179.2	210,090.0	2.40				Average	
		Point36	854	2,164,272.0	210,052.3	2.20				Average	
		Point37	855	2,164,364.5	210,014.6	2.00				Average	
		Point38	856	2,164,457.2	209,976.8	1.70				Average	
		Point39	857	2,164,549.8	209,939.1	1.50				Average	
		Point40	858	2,164,642.5	209,901.4	1.40				Average	
		Point41	859	2,164,735.0	209,863.7	1.20				Average	
		Point42	860	2,164,827.5	209,825.9	1.10				Average	
		Point43	861	2,164,920.2	209,788.2	1.00				Average	
		Point44	862	2,165,012.8	209,750.5	0.80				Average	
		Point45	863	2,165,105.5	209,712.8	0.90				Average	

INPUT: ROADWAYS

SC_HDR-1502

		Point46	864	2,165,198.0	209,675.1	0.90				Average	
		Point47	865	2,165,290.8	209,637.3	1.00				Average	
		Point48	866	2,165,383.2	209,599.6	1.00				Average	
		Point49	867	2,165,476.0	209,561.9	0.90				Average	
		Point50	868	2,165,568.5	209,524.2	1.00				Average	
		Point51	869	2,165,661.0	209,486.5	0.90				Average	
		Point52	870	2,165,753.8	209,448.7	0.90				Average	
		Point53	871	2,165,846.2	209,411.0	1.00				Average	
		Point54	872	2,165,939.0	209,373.3	1.00				Average	
		Point55	873	2,166,031.5	209,335.6	1.10				Average	
		Point56	874	2,166,124.2	209,297.8	1.20				Average	
		Point57	875	2,166,216.8	209,260.1	1.40				Average	
		Point58	876	2,166,309.5	209,222.4	1.40				Average	
		Point59	877	2,166,402.0	209,184.7	1.50				Average	
		Point60	878	2,166,494.5	209,147.0	1.50				Average	
		Point61	879	2,166,587.2	209,109.2	1.50				Average	
		Point62	880	2,166,680.0	209,071.5	1.40				Average	
		Point63	881	2,166,772.5	209,033.8	1.30				Average	
		Point64	882	2,166,865.0	208,996.1	1.10				Average	
		Point65	883	2,166,957.8	208,958.4	1.00				Average	
		Point66	884	2,167,050.2	208,920.6	0.80				Average	
		Point67	885	2,169,921.2	207,751.3	0.20				Average	
		Point68	886	2,170,014.0	207,713.6	0.30				Average	
		Point69	887	2,170,106.5	207,675.8	0.40				Average	
		Point70	888	2,170,199.0	207,638.1	0.60				Average	
		Point71	889	2,170,291.8	207,600.4	0.70				Average	
		Point72	890	2,170,384.5	207,562.7	0.80				Average	
		Point73	891	2,170,477.0	207,524.9	0.90				Average	
		Point74	892	2,170,569.5	207,487.2	1.00				Average	
		Point75	893	2,170,662.0	207,449.4	1.10				Average	
		Point76	894	2,170,753.2	207,408.9	1.20				Average	
		Point77	895	2,170,842.0	207,363.6	1.30				Average	
		Point78	896	2,170,928.2	207,313.8	1.40				Average	
		Point79	897	2,171,012.0	207,259.5	1.40				Average	
		Point80	898	2,171,092.5	207,200.9	1.50				Average	
		Point81	899	2,171,170.0	207,138.2	1.50				Average	
		Point82	900	2,171,244.0	207,071.4	1.60				Average	
		Point83	901	2,171,314.5	207,000.9	1.70				Average	
		Point84	902	2,171,381.0	206,926.8	1.90				Average	

INPUT: ROADWAYS**SC_HDR-1502**

		Point85	903	2,171,443.8	206,849.3	1.90				Average	
		Point86	904	2,171,502.2	206,768.6	1.80				Average	
		Point87	905	2,171,556.5	206,685.0	1.80				Average	
		Point88	906	2,171,606.5	206,598.6	2.10				Average	
		Point89	907	2,171,654.8	206,511.1	1.80				Average	
		Point90	908	2,171,703.2	206,423.6	2.70				Average	
		Point91	909	2,171,751.5	206,336.1	3.70				Average	
		Point92	910	2,171,800.0	206,248.6	4.00				Average	
		Point93	911	2,171,848.5	206,161.1	5.00				Average	
		Point94	912	2,171,896.8	206,073.6	5.80				Average	
		Point95	913	2,171,910.2	206,049.4	5.80					

INPUT: ROADWAYS

SC_HDR-1502

		Point25	776	2,163,236.0	210,474.5	3.70				Average	
		Point26	777	2,163,328.5	210,436.7	3.70				Average	
		Point27	778	2,163,421.2	210,398.9	3.60				Average	
		Point28	779	2,163,513.8	210,361.1	3.60				Average	
		Point29	780	2,163,606.5	210,323.4	3.50				Average	
		Point30	781	2,163,699.0	210,285.7	3.40				Average	
		Point31	782	2,163,791.8	210,248.0	3.20				Average	
		Point32	783	2,163,884.2	210,210.3	3.00				Average	
		Point33	784	2,163,977.0	210,172.6	2.70				Average	
		Point34	785	2,164,069.5	210,134.9	2.50				Average	
		Point35	786	2,164,162.2	210,097.2	2.40				Average	
		Point36	787	2,164,254.8	210,059.5	2.20				Average	
		Point37	788	2,164,347.5	210,021.8	2.00				Average	
		Point38	789	2,164,440.0	209,984.1	1.80				Average	
		Point39	790	2,164,532.8	209,946.4	1.60				Average	
		Point40	791	2,164,625.2	209,908.7	1.40				Average	
		Point41	792	2,164,718.0	209,871.0	1.20				Average	
		Point42	793	2,164,810.5	209,833.3	1.10				Average	
		Point43	794	2,164,903.0	209,795.6	1.00				Average	
		Point44	795	2,164,995.8	209,757.9	1.00				Average	
		Point45	796	2,165,088.5	209,720.2	1.00				Average	
		Point46	797	2,165,181.0	209,682.5	1.00				Average	
		Point47	798	2,165,273.5	209,644.8	0.90				Average	
		Point48	799	2,165,366.2	209,607.1	1.00				Average	
		Point49	800	2,165,459.0	209,569.4	0.90				Average	
		Point50	801	2,165,551.5	209,531.7	1.00				Average	
		Point51	802	2,165,644.0	209,494.0	0.90				Average	
		Point52	803	2,165,736.8	209,456.3	1.00				Average	
		Point53	804	2,165,829.5	209,418.6	1.10				Average	
		Point54	805	2,165,922.5	209,382.2	1.00				Average	
		Point55	806	2,166,015.8	209,345.9	1.10				Average	
		Point56	807	2,166,109.5	209,311.1	1.20				Average	
		Point57	808	2,166,203.5	209,276.3	1.40				Average	
		Point58	809	2,166,297.8	209,243.0	1.40				Average	
		Point59	810	2,166,392.0	209,209.8	1.50				Average	
		Point60	811	2,166,487.0	209,178.1	1.50				Average	
		Point61	812	2,166,582.0	209,146.4	1.50				Average	
		Point62	813	2,166,676.8	209,114.7	1.40				Average	
		Point63	814	2,166,771.5	209,083.1	1.30				Average	

INPUT: ROADWAYS

SC_HDR-1502

		Point64	815	2,166,866.0	209,050.2	1.20				Average	
		Point65	816	2,166,959.8	209,015.9	1.00				Average	
		Point66	817	2,167,053.8	208,981.6	0.80				Average	
		Point67	818	2,167,147.8	208,947.5	0.60				Average	
		Point68	819	2,167,241.0	208,911.5	1.50				Average	
		Point69	820	2,167,334.0	208,874.8	4.50				Average	
		Point70	821	2,167,426.5	208,837.5	10.50				Average	
		Point71	822	2,167,519.2	208,799.8	14.50				Average	
		Point72	823	2,167,611.8	208,762.1	18.50				Average	
		Point73	824	2,167,704.5	208,724.4	22.50				Average	
		Point74	825	2,167,797.0	208,686.7	26.50				Average	
		Point75	826	2,167,889.8	208,648.9	30.50				Average	
		Point76	827	2,167,982.2	208,611.2	34.50				Average	
		Point77	828	2,168,075.0	208,573.5	38.50				Average	
		Point78	829	2,168,167.5	208,535.8	42.50				Average	
		Point79	830	2,168,260.0	208,498.1	46.50				Average	
		Point80	831	2,168,352.8	208,460.3	50.50				Average	
		Point81	832	2,168,445.5	208,422.6	54.50				Average	
		Point82	833	2,168,538.0	208,384.9	58.50				Average	
		Point83	834	2,168,630.5	208,347.2	62.50				Average	
		Point84	835	2,168,723.2	208,309.4	66.50				Average	
		Point85	836	2,168,815.8	208,271.7	70.00				Average	
		Point86	837	2,168,908.5	208,234.0	76.90				Average	
		Point87	838	2,169,001.0	208,196.3	72.50				Average	
		Point88	839	2,169,093.8	208,158.6	68.50				Average	
		Point89	840	2,169,186.2	208,120.8	64.50				Average	
		Point90	841	2,169,279.0	208,083.1	60.50				Average	
		Point91	842	2,169,371.5	208,045.4	56.50				Average	
		Point92	843	2,169,464.0	208,007.7	52.50				Average	
		Point93	844	2,169,556.8	207,970.0	48.50				Average	
		Point94	845	2,169,649.2	207,932.2	44.50				Average	
		Point95	846	2,169,742.0	207,894.5	40.50				Average	
		Point96	847	2,169,834.5	207,856.8	36.50				Average	
		Point97	848	2,169,927.2	207,819.1	32.50				Average	
		Point98	849	2,170,019.8	207,781.4	28.50				Average	
		Point99	850	2,170,112.5	207,743.6	24.50				Average	
		Point100	851	2,170,205.0	207,705.9	20.50				Average	
		Point101	852	2,170,297.5	207,668.2	16.50				Average	
		Point102	853	2,170,390.2	207,630.5	12.50				Average	

INPUT: ROADWAYS

SC_HDR-1502

		Point103	854	2,170,482.8	207,592.5	8.50				Average	
		Point104	855	2,170,574.5	207,553.6	4.50				Average	
		Point105	856	2,170,664.8	207,510.8	1.00				Average	
		Point106	857	2,170,752.8	207,464.0	1.10				Average	
		Point107	858	2,170,838.8	207,413.4	1.20				Average	
		Point108	859	2,170,922.0	207,358.6	1.20				Average	
		Point109	860	2,171,003.0	207,300.2	1.30				Average	
		Point110	861	2,171,081.0	207,238.4	1.40				Average	
		Point111	862	2,171,156.2	207,172.7	1.50				Average	
		Point112	863	2,171,228.5	207,103.9	1.50				Average	
		Point113	864	2,171,297.5	207,032.0	1.50				Average	
		Point114	865	2,171,363.0	206,956.8	1.70				Average	
		Point115	866	2,171,425.0	206,878.8	1.70				Average	
		Point116	867	2,171,483.8	206,798.1	1.90				Average	
		Point117	868	2,171,538.2	206,714.7	1.90				Average	
		Point118	869	2,171,589.5	206,628.9	1.90				Average	
		Point119	870	2,171,637.8	206,541.5	2.00				Average	
		Point120	871	2,171,686.2	206,454.1	2.20				Average	
		Point121	872	2,171,734.5	206,366.6	3.30				Average	
		Point122	873	2,171,783.0	206,279.1	3.70				Average	
		Point123	874	2,171,831.5	206,191.6	4.60				Average	
		Point124	875	2,171,947.8	205,981.6	6.30					
US 21 NB	12.0	Point0	876	2,171,958.2	205,987.4	6.30				Average	
		Point1	877	2,171,842.0	206,197.4	4.60				Average	
		Point2	878	2,171,793.5	206,284.9	3.70				Average	
		Point3	879	2,171,745.0	206,372.4	3.30				Average	
		Point4	880	2,171,696.8	206,459.9	2.20				Average	
		Point5	881	2,171,648.2	206,547.4	2.00				Average	
		Point6	882	2,171,599.8	206,634.9	1.90				Average	
		Point7	883	2,171,548.5	206,721.0	1.90				Average	
		Point8	884	2,171,493.5	206,804.9	1.90				Average	
		Point9	885	2,171,434.5	206,886.0	1.70				Average	
		Point10	886	2,171,372.0	206,964.4	1.70				Average	
		Point11	887	2,171,306.2	207,040.1	1.50				Average	
		Point12	888	2,171,236.8	207,112.4	1.50				Average	
		Point13	889	2,171,164.2	207,181.6	1.50				Average	
		Point14	890	2,171,088.8	207,247.6	1.40				Average	
		Point15	891	2,171,010.0	207,309.8	1.30				Average	
		Point16	892	2,170,928.8	207,368.5	1.20				Average	

INPUT: ROADWAYS

SC_HDR-1502

		Point17	893	2,170,845.0	207,423.6	1.20				Average	
		Point18	894	2,170,758.5	207,474.5	1.10				Average	
		Point19	895	2,170,670.0	207,521.6	1.00				Average	
		Point20	896	2,170,579.5	207,564.6	4.50				Average	
		Point21	897	2,170,487.2	207,603.6	8.50				Average	
		Point22	898	2,170,394.8	207,641.6	12.50				Average	
		Point23	899	2,170,302.0	207,679.3	16.50				Average	
		Point24	900	2,170,209.5	207,717.0	20.50				Average	
		Point25	901	2,170,117.0	207,754.7	24.50				Average	
		Point26	902	2,170,024.2	207,792.5	28.50				Average	
		Point27	903	2,169,931.8	207,830.2	32.50				Average	
		Point28	904	2,169,839.0	207,867.9	36.50				Average	
		Point29	905	2,169,746.5	207,905.6	40.50				Average	
		Point30	906	2,169,654.0	207,943.3	44.50				Average	
		Point31	907	2,169,561.2	207,981.1	48.50				Average	
		Point32	908	2,169,468.5	208,018.8	52.50				Average	
		Point33	909	2,169,376.0	208,056.5	56.50				Average	
		Point34	910	2,169,283.5	208,094.2	60.50				Average	
		Point35	911	2,169,190.8	208,132.0	64.50				Average	
		Point36	912	2,169,098.2	208,169.7	68.50				Average	
		Point37	913	2,169,005.5	208,207.4	72.50				Average	
		Point38	914	2,168,913.0	208,245.1	76.90				Average	
		Point39	915	2,168,820.2	208,282.8	70.00				Average	
		Point40	916	2,168,727.8	208,320.6	66.50				Average	
		Point41	917	2,168,635.0	208,358.3	62.50				Average	
		Point42	918	2,168,542.5	208,396.0	58.50				Average	
		Point43	919	2,168,450.0	208,433.7	54.50				Average	
		Point44	920	2,168,357.2	208,471.4	50.50				Average	
		Point45	921	2,168,264.8	208,509.2	46.50				Average	
		Point46	922	2,168,172.0	208,546.9	42.50				Average	
		Point47	923	2,168,079.5	208,584.6	38.50				Average	
		Point48	924	2,167,986.8	208,622.3	34.50				Average	
		Point49	925	2,167,894.2	208,660.1	30.50				Average	
		Point50	926	2,167,801.5	208,697.8	26.50				Average	
		Point51	927	2,167,709.0	208,735.5	22.50				Average	
		Point52	928	2,167,616.5	208,773.2	18.50				Average	
		Point53	929	2,167,523.8	208,810.9	14.50				Average	
		Point54	930	2,167,431.0	208,848.6	10.50				Average	
		Point55	931	2,167,338.2	208,885.9	4.50				Average	

INPUT: ROADWAYS

SC_HDR-1502

		Point56	932	2,167,245.2	208,922.7	1.50				Average	
		Point57	933	2,167,152.0	208,958.7	0.60				Average	
		Point58	934	2,167,057.8	208,992.9	0.80				Average	
		Point59	935	2,166,964.0	209,027.2	1.00				Average	
		Point60	936	2,166,870.0	209,061.5	1.20				Average	
		Point61	937	2,166,775.5	209,094.4	1.30				Average	
		Point62	938	2,166,680.5	209,126.1	1.40				Average	
		Point63	939	2,166,585.8	209,157.8	1.50				Average	
		Point64	940	2,166,490.8	209,189.5	1.50				Average	
		Point65	941	2,166,396.0	209,221.1	1.50				Average	
		Point66	942	2,166,301.8	209,254.3	1.40				Average	
		Point67	943	2,166,207.5	209,287.6	1.40				Average	
		Point68	944	2,166,113.8	209,322.3	1.20				Average	
		Point69	945	2,166,020.0	209,357.1	1.10				Average	
		Point70	946	2,165,927.0	209,393.4	1.00				Average	
		Point71	947	2,165,833.8	209,429.7	1.10				Average	
		Point72	948	2,165,741.2	209,467.4	1.00				Average	
		Point73	949	2,165,648.5	209,505.1	0.90				Average	
		Point74	950	2,165,556.0	209,542.8	1.00				Average	
		Point75	951	2,165,463.5	209,580.5	0.90				Average	
		Point76	952	2,165,370.8	209,618.2	1.00				Average	
		Point77	953	2,165,278.0	209,655.9	0.90				Average	
		Point78	954	2,165,185.5	209,693.6	1.00				Average	
		Point79	955	2,165,093.0	209,731.3	1.00				Average	
		Point80	956	2,165,000.2	209,769.0	1.00				Average	
		Point81	957	2,164,907.8	209,806.7	1.00				Average	
		Point82	958	2,164,815.0	209,844.4	1.10				Average	
		Point83	959	2,164,722.5	209,882.1	1.20				Average	
		Point84	960	2,164,629.8	209,919.8	1.40				Average	
		Point85	961	2,164,537.2	209,957.5	1.60				Average	
		Point86	962	2,164,444.5	209,995.2	1.80				Average	
		Point87	963	2,164,352.0	210,032.9	2.00				Average	
		Point88	964	2,164,259.2	210,070.6	2.20				Average	
		Point89	965	2,164,166.8	210,108.3	2.40				Average	
		Point90	966	2,164,074.0	210,146.0	2.50				Average	
		Point91	967	2,163,981.5	210,183.7	2.70				Average	
		Point92	968	2,163,888.8	210,221.4	3.00				Average	
		Point93	969	2,163,796.2	210,259.1	3.20				Average	
		Point94	970	2,163,703.5	210,296.8	3.40				Average	

INPUT: ROADWAYS

SC_HDR-1502

		Point95	971	2,163,611.0	210,334.5	3.50				Average	
		Point96	972	2,163,518.2	210,372.2	3.60				Average	
		Point97	973	2,163,425.8	210,410.0	3.60				Average	
		Point98	974	2,163,333.2	210,447.8	3.70				Average	
		Point99	975	2,163,240.5	210,485.6	3.70				Average	
		Point100	976	2,163,148.0	210,523.4	3.70				Average	
		Point101	977	2,163,055.5	210,561.1	3.60				Average	
		Point102	978	2,162,962.8	210,598.9	3.60				Average	
		Point103	979	2,162,870.2	210,636.7	3.50				Average	
		Point104	980	2,162,777.8	210,674.5	3.30				Average	
		Point105	981	2,162,685.0	210,712.3	3.10				Average	
		Point106	982	2,162,592.5	210,750.1	2.80				Average	
		Point107	983	2,162,500.0	210,787.9	2.70				Average	
		Point108	984	2,162,407.2	210,825.7	2.40				Average	
		Point109	985	2,162,314.8	210,863.5	2.10				Average	
		Point110	986	2,162,222.2	210,901.3	1.90				Average	
		Point111	987	2,162,129.5	210,939.1	1.80				Average	
		Point112	988	2,162,037.0	210,976.9	1.60				Average	
		Point113	989	2,161,944.5	211,014.7	1.50				Average	
		Point114	990	2,161,851.8	211,052.4	1.50				Average	
		Point115	991	2,161,759.2	211,090.2	1.60				Average	
		Point116	992	2,161,666.8	211,128.0	1.70				Average	
		Point117	993	2,161,574.0	211,165.8	2.00				Average	
		Point118	994	2,161,481.5	211,203.6	2.40				Average	
		Point119	995	2,161,389.0	211,241.4	2.70				Average	
		Point120	996	2,161,296.2	211,279.2	3.10				Average	
		Point121	997	2,161,203.8	211,317.0	3.40				Average	
		Point122	998	2,161,111.2	211,354.8	3.80				Average	
		Point123	999	2,160,998.5	211,400.7	4.50				Average	
		Point124	1000	2,160,889.2	211,445.4	5.10					
US 21 SB SH 4-ft	4.0	Point0	1001	2,160,881.5	211,426.9	5.10				Average	
		Point1	1002	2,160,991.0	211,382.2	4.50				Average	
		Point2	1003	2,161,103.5	211,336.3	3.80				Average	
		Point3	1004	2,161,196.2	211,298.5	3.40				Average	
		Point4	1005	2,161,288.8	211,260.7	3.10				Average	
		Point5	1006	2,161,381.5	211,222.9	2.70				Average	
		Point6	1007	2,161,474.0	211,185.1	2.40				Average	
		Point7	1008	2,161,566.5	211,147.3	2.00				Average	
		Point8	1009	2,161,659.0	211,109.5	1.70				Average	

INPUT: ROADWAYS

SC_HDR-1502

		Point9	1010	2,161,751.8	211,071.7	1.60				Average	
		Point10	1011	2,161,844.2	211,033.9	1.50				Average	
		Point11	1012	2,161,937.0	210,996.1	1.50				Average	
		Point12	1013	2,162,029.5	210,958.3	1.60				Average	
		Point13	1014	2,162,122.0	210,920.5	1.80				Average	
		Point14	1015	2,162,214.5	210,882.8	1.90				Average	
		Point15	1016	2,162,307.2	210,845.0	2.10				Average	
		Point16	1017	2,162,399.8	210,807.2	2.40				Average	
		Point17	1018	2,162,492.5	210,769.4	2.70				Average	
		Point18	1019	2,162,585.0	210,731.6	2.80				Average	
		Point19	1020	2,162,677.5	210,693.8	3.10				Average	
		Point20	1021	2,162,770.0	210,656.0	3.30				Average	
		Point21	1022	2,162,862.8	210,618.2	3.50				Average	
		Point22	1023	2,162,955.2	210,580.4	3.60				Average	
		Point23	1024	2,163,048.0	210,542.6	3.60				Average	
		Point24	1025	2,163,140.5	210,504.8	3.70				Average	
		Point25	1026	2,163,233.0	210,467.0	3.70				Average	
		Point26	1027	2,163,325.5	210,429.3	3.70				Average	
		Point27	1028	2,163,418.2	210,391.5	3.60				Average	
		Point28	1029	2,163,510.8	210,353.7	3.60				Average	
		Point29	1030	2,163,603.5	210,316.0	3.50				Average	
		Point30	1031	2,163,696.0	210,278.3	3.40				Average	
		Point31	1032	2,163,788.8	210,240.6	3.20				Average	
		Point32	1033	2,163,881.2	210,202.9	3.00				Average	
		Point33	1034	2,163,974.0	210,165.2	2.70				Average	
		Point34	1035	2,164,066.5	210,127.5	2.50				Average	
		Point35	1036	2,164,159.2	210,089.8	2.40				Average	
		Point36	1037	2,164,251.8	210,052.1	2.20				Average	
		Point37	1038	2,164,344.5	210,014.4	2.00				Average	
		Point38	1039	2,164,437.0	209,976.7	1.80				Average	
		Point39	1040	2,164,529.5	209,939.0	1.60				Average	
		Point40	1041	2,164,622.2	209,901.3	1.40				Average	
		Point41	1042	2,164,715.0	209,863.6	1.20				Average	
		Point42	1043	2,164,807.5	209,825.9	1.10				Average	
		Point43	1044	2,164,900.0	209,788.2	1.00				Average	
		Point44	1045	2,164,992.8	209,750.5	1.00				Average	
		Point45	1046	2,165,085.5	209,712.8	1.00				Average	
		Point46	1047	2,165,178.0	209,675.1	1.00				Average	
		Point47	1048	2,165,270.5	209,637.4	0.90				Average	

INPUT: ROADWAYS

SC_HDR-1502

		Point48	1049	2,165,363.2	209,599.7	1.00				Average	
		Point49	1050	2,165,456.0	209,562.0	0.90				Average	
		Point50	1051	2,165,548.5	209,524.3	1.00				Average	
		Point51	1052	2,165,641.0	209,486.6	0.90				Average	
		Point52	1053	2,165,733.8	209,448.9	1.00				Average	
		Point53	1054	2,165,826.5	209,411.1	1.10				Average	
		Point54	1055	2,165,919.8	209,374.8	1.00				Average	
		Point55	1056	2,166,013.0	209,338.4	1.10				Average	
		Point56	1057	2,166,106.8	209,303.6	1.20				Average	
		Point57	1058	2,166,200.8	209,268.8	1.40				Average	
		Point58	1059	2,166,295.0	209,235.5	1.40				Average	
		Point59	1060	2,166,389.5	209,202.2	1.50				Average	
		Point60	1061	2,166,484.5	209,170.5	1.50				Average	
		Point61	1062	2,166,579.5	209,138.8	1.50				Average	
		Point62	1063	2,166,674.2	209,107.2	1.40				Average	
		Point63	1064	2,166,769.0	209,075.5	1.30				Average	
		Point64	1065	2,166,863.2	209,042.7	1.20				Average	
		Point65	1066	2,166,957.0	209,008.4	1.00				Average	
		Point66	1067	2,167,051.0	208,974.1	0.80				Average	
		Point67	1068	2,167,145.0	208,940.0	0.60					
US 21 NB SH 4-ft	4.0	Point0	1069	2,167,154.8	208,966.2	0.60				Average	
		Point1	1070	2,167,060.5	209,000.4	0.80				Average	
		Point2	1071	2,166,966.8	209,034.7	1.00				Average	
		Point3	1072	2,166,872.5	209,069.1	1.20				Average	
		Point4	1073	2,166,778.0	209,102.0	1.30				Average	
		Point5	1074	2,166,683.0	209,133.7	1.40				Average	
		Point6	1075	2,166,588.2	209,165.4	1.50				Average	
		Point7	1076	2,166,493.5	209,197.1	1.50				Average	
		Point8	1077	2,166,398.5	209,228.7	1.50				Average	
		Point9	1078	2,166,304.5	209,261.9	1.40				Average	
		Point10	1079	2,166,210.2	209,295.1	1.40				Average	
		Point11	1080	2,166,116.5	209,329.8	1.20				Average	
		Point12	1081	2,166,023.0	209,364.6	1.10				Average	
		Point13	1082	2,165,930.0	209,400.9	1.00				Average	
		Point14	1083	2,165,836.8	209,437.1	1.10				Average	
		Point15	1084	2,165,744.2	209,474.8	1.00				Average	
		Point16	1085	2,165,651.8	209,512.5	0.90				Average	
		Point17	1086	2,165,559.0	209,550.2	1.00				Average	
		Point18	1087	2,165,466.5	209,587.9	0.90				Average	

INPUT: ROADWAYS

SC_HDR-1502

		Point19	1088	2,165,373.8	209,625.6	1.00				Average	
		Point20	1089	2,165,281.2	209,663.3	0.90				Average	
		Point21	1090	2,165,188.5	209,701.0	1.00				Average	
		Point22	1091	2,165,096.0	209,738.7	1.00				Average	
		Point23	1092	2,165,003.2	209,776.4	1.00				Average	
		Point24	1093	2,164,910.8	209,814.1	1.00				Average	
		Point25	1094	2,164,818.0	209,851.8	1.10				Average	
		Point26	1095	2,164,725.5	209,889.5	1.20				Average	
		Point27	1096	2,164,632.8	209,927.2	1.40				Average	
		Point28	1097	2,164,540.2	209,964.9	1.60				Average	
		Point29	1098	2,164,447.5	210,002.6	1.80				Average	
		Point30	1099	2,164,355.0	210,040.3	2.00				Average	
		Point31	1100	2,164,262.2	210,078.0	2.20				Average	
		Point32	1101	2,164,169.8	210,115.7	2.40				Average	
		Point33	1102	2,164,077.0	210,153.4	2.50				Average	
		Point34	1103	2,163,984.5	210,191.1	2.70				Average	
		Point35	1104	2,163,891.8	210,228.8	3.00				Average	
		Point36	1105	2,163,799.2	210,266.5	3.20				Average	
		Point37	1106	2,163,706.5	210,304.2	3.40				Average	
		Point38	1107	2,163,614.0	210,341.9	3.50				Average	
		Point39	1108	2,163,521.5	210,379.6	3.60				Average	
		Point40	1109	2,163,428.8	210,417.4	3.60				Average	
		Point41	1110	2,163,336.2	210,455.2	3.70				Average	
		Point42	1111	2,163,243.5	210,493.0	3.70				Average	
		Point43	1112	2,163,151.0	210,530.8	3.70				Average	
		Point44	1113	2,163,058.5	210,568.6	3.60				Average	
		Point45	1114	2,162,966.0	210,606.3	3.60				Average	
		Point46	1115	2,162,873.2	210,644.1	3.50				Average	
		Point47	1116	2,162,780.8	210,681.9	3.30				Average	
		Point48	1117	2,162,688.0	210,719.7	3.10				Average	
		Point49	1118	2,162,595.5	210,757.5	2.80				Average	
		Point50	1119	2,162,503.0	210,795.3	2.70				Average	
		Point51	1120	2,162,410.5	210,833.1	2.40				Average	
		Point52	1121	2,162,317.8	210,870.9	2.10				Average	
		Point53	1122	2,162,225.2	210,908.7	1.90				Average	
		Point54	1123	2,162,132.5	210,946.5	1.80				Average	
		Point55	1124	2,162,040.0	210,984.3	1.60				Average	
		Point56	1125	2,161,947.5	211,022.1	1.50				Average	
		Point57	1126	2,161,855.0	211,059.8	1.50				Average	

INPUT: ROADWAYS

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		Point58	1127	2,161,762.2	211,097.6	1.60				Average
		Point59	1128	2,161,669.8	211,135.4	1.70				Average
		Point60	1129	2,161,577.0	211,173.2	2.00				Average
		Point61	1130	2,161,484.5	211,211.0	2.40				Average
		Point62	1131	2,161,392.0	211,248.8	2.70				Average
		Point63	1132	2,161,299.5	211,286.6	3.10				Average
		Point64	1133	2,161,206.8	211,324.4	3.40				Average
		Point65	1134	2,161,114.2	211,362.2	3.80				Average
		Point66	1135	2,161,001.8	211,408.1	4.50				Average
		Point67	1136	2,160,892.2	211,452.8	5.10				
US 21 NB SH 4-ft	4.0	Point0	1137	2,171,965.2	205,991.3	6.30				Average
		Point1	1138	2,171,849.0	206,201.3	4.60				Average
		Point2	1139	2,171,800.5	206,288.8	3.70				Average
		Point3	1140	2,171,752.0	206,376.2	3.30				Average
		Point4	1141	2,171,703.8	206,463.7	2.20				Average
		Point5	1142	2,171,655.2	206,551.2	2.00				Average
		Point6	1143	2,171,606.8	206,638.9	1.90				Average
		Point7	1144	2,171,555.2	206,725.3	1.90				Average
		Point8	1145	2,171,500.2	206,809.5	1.90				Average
		Point9	1146	2,171,441.0	206,890.9	1.70				Average
		Point10	1147	2,171,378.2	206,969.6	1.70				Average
		Point11	1148	2,171,312.2	207,045.5	1.50				Average
		Point12	1149	2,171,242.5	207,118.1	1.50				Average
		Point13	1150	2,171,169.5	207,187.5	1.50				Average
		Point14	1151	2,171,094.0	207,253.8	1.40				Average
		Point15	1152	2,171,015.0	207,316.2	1.30				Average
		Point16	1153	2,170,933.2	207,375.0	1.20				Average
		Point17	1154	2,170,849.2	207,430.4	1.20				Average
		Point18	1155	2,170,762.5	207,481.5	1.10				Average
		Point19	1156	2,170,673.8	207,528.7	1.00				Average
		Point20	1157	2,170,582.8	207,571.9	4.50				Average
		Point21	1158	2,170,490.5	207,611.0	8.50				Average
		Point22	1159	2,170,397.8	207,649.0	12.50				Average
		Point23	1160	2,170,305.2	207,686.7	16.50				Average
		Point24	1161	2,170,212.5	207,724.4	20.50				Average
		Point25	1162	2,170,120.0	207,762.2	24.50				Average
		Point26	1163	2,170,027.2	207,799.9	28.50				Average
		Point27	1164	2,169,934.8	207,837.6	32.50				Average
		Point28	1165	2,169,842.0	207,875.3	36.50				Average

INPUT: ROADWAYS

SC_HDR-1502

		Point29	1166	2,169,749.5	207,913.0	40.50					
US 21 SB SH 4-ft	4.0	Point0	1167	2,169,739.0	207,887.1	40.50				Average	
		Point1	1168	2,169,831.5	207,849.4	36.50				Average	
		Point2	1169	2,169,924.0	207,811.7	32.50				Average	
		Point3	1170	2,170,016.8	207,773.9	28.50				Average	
		Point4	1171	2,170,109.5	207,736.2	24.50				Average	
		Point5	1172	2,170,202.0	207,698.5	20.50				Average	
		Point6	1173	2,170,294.5	207,660.8	16.50				Average	
		Point7	1174	2,170,387.2	207,623.1	12.50				Average	
		Point8	1175	2,170,479.5	207,585.2	8.50				Average	
		Point9	1176	2,170,571.5	207,546.3	4.50				Average	
		Point10	1177	2,170,661.0	207,503.7	1.00				Average	
		Point11	1178	2,170,749.0	207,457.1	1.10				Average	
		Point12	1179	2,170,834.5	207,406.7	1.20				Average	
		Point13	1180	2,170,917.5	207,352.0	1.20				Average	
		Point14	1181	2,170,998.0	207,293.8	1.30				Average	
		Point15	1182	2,171,076.0	207,232.2	1.40				Average	
		Point16	1183	2,171,150.8	207,166.8	1.50				Average	
		Point17	1184	2,171,222.8	207,098.2	1.50				Average	
		Point18	1185	2,171,291.5	207,026.6	1.50				Average	
		Point19	1186	2,171,356.8	206,951.6	1.70				Average	
		Point20	1187	2,171,418.8	206,873.9	1.70				Average	
		Point21	1188	2,171,477.0	206,793.6	1.90				Average	
		Point22	1189	2,171,531.5	206,710.4	1.90				Average	
		Point23	1190	2,171,582.5	206,625.0	1.90				Average	
		Point24	1191	2,171,630.8	206,537.7	2.00				Average	
		Point25	1192	2,171,679.2	206,450.2	2.20				Average	
		Point26	1193	2,171,727.5	206,362.7	3.30				Average	
		Point27	1194	2,171,776.0	206,275.2	3.70				Average	
		Point28	1195	2,171,824.5	206,187.7	4.60				Average	
		Point29	1196	2,171,940.8	205,977.7	6.30					
US 21 NB SH 10-ft	10.0	Point0	1197	2,169,750.5	207,915.8	40.50				Average	
		Point1	1198	2,169,658.0	207,953.5	44.50				Average	
		Point2	1199	2,169,565.5	207,991.3	48.50				Average	
		Point3	1200	2,169,472.8	208,029.0	52.50				Average	
		Point4	1201	2,169,380.2	208,066.7	56.50				Average	
		Point5	1202	2,169,287.5	208,104.4	60.50				Average	
		Point6	1203	2,169,195.0	208,142.1	64.50				Average	
		Point7	1204	2,169,102.2	208,179.9	68.50				Average	

INPUT: ROADWAYS

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		Point8	1205	2,169,009.8	208,217.6	72.50				Average	
		Point9	1206	2,168,917.0	208,255.3	76.90				Average	
		Point10	1207	2,168,824.5	208,293.0	70.00				Average	
		Point11	1208	2,168,732.0	208,330.8	66.50				Average	
		Point12	1209	2,168,639.2	208,368.5	62.50				Average	
		Point13	1210	2,168,546.8	208,406.2	58.50				Average	
		Point14	1211	2,168,454.0	208,443.9	54.50				Average	
		Point15	1212	2,168,361.5	208,481.6	50.50				Average	
		Point16	1213	2,168,268.8	208,519.4	46.50				Average	
		Point17	1214	2,168,176.2	208,557.1	42.50				Average	
		Point18	1215	2,168,083.5	208,594.8	38.50				Average	
		Point19	1216	2,167,991.0	208,632.5	34.50				Average	
		Point20	1217	2,167,898.5	208,670.2	30.50				Average	
		Point21	1218	2,167,805.8	208,708.0	26.50				Average	
		Point22	1219	2,167,713.0	208,745.7	22.50				Average	
		Point23	1220	2,167,620.5	208,783.4	18.50				Average	
		Point24	1221	2,167,528.0	208,821.1	14.50				Average	
		Point25	1222	2,167,435.2	208,858.8	10.50				Average	
		Point26	1223	2,167,342.5	208,896.1	4.50				Average	
		Point27	1224	2,167,249.2	208,932.9	1.50				Average	
		Point28	1225	2,167,155.8	208,969.0	0.60					
US 21 SB SH 10-ft	10.0	Point0	1226	2,167,143.8	208,937.2	0.60				Average	
		Point1	1227	2,167,237.0	208,901.3	1.50				Average	
		Point2	1228	2,167,329.8	208,864.5	4.50				Average	
		Point3	1229	2,167,422.5	208,827.3	10.50				Average	
		Point4	1230	2,167,515.0	208,789.6	14.50				Average	
		Point5	1231	2,167,607.8	208,751.9	18.50				Average	
		Point6	1232	2,167,700.2	208,714.2	22.50				Average	
		Point7	1233	2,167,793.0	208,676.5	26.50				Average	
		Point8	1234	2,167,885.5	208,638.8	30.50				Average	
		Point9	1235	2,167,978.0	208,601.0	34.50				Average	
		Point10	1236	2,168,070.8	208,563.3	38.50				Average	
		Point11	1237	2,168,163.5	208,525.6	42.50				Average	
		Point12	1238	2,168,256.0	208,487.9	46.50				Average	
		Point13	1239	2,168,348.5	208,450.1	50.50				Average	
		Point14	1240	2,168,441.2	208,412.4	54.50				Average	
		Point15	1241	2,168,533.8	208,374.7	58.50				Average	
		Point16	1242	2,168,626.5	208,337.0	62.50				Average	
		Point17	1243	2,168,719.0	208,299.3	66.50				Average	

INPUT: ROADWAYS**SC_HDR-1502**

		Point18	1244	2,168,811.8	208,261.5	70.00				Average	
		Point19	1245	2,168,904.2	208,223.8	76.90				Average	
		Point20	1246	2,168,997.0	208,186.1	72.50				Average	
		Point21	1247	2,169,089.5	208,148.4	68.50				Average	
		Point22	1248	2,169,182.0	208,110.7	64.50				Average	
		Point23	1249	2,169,274.8	208,072.9	60.50				Average	
		Point24	1250	2,169,367.2	208,035.2	56.50				Average	
		Point25	1251	2,169,460.0	207,997.5	52.50				Average	
		Point26	1252	2,169,552.5	207,959.8	48.50				Average	
		Point27	1253	2,169,645.2	207,922.0	44.50				Average	
		Point28	1254	2,169,737.8	207,884.3	40.50					

EPEI		31 March 2016											
B. Batt		TNM 2.5											
INPUT: TRAFFIC FOR LAeq1h Volumes													
PROJECT/CONTRACT:		SC_HDR-1502											
RUN:		Build											
Roadway	Points												
Name	Name	No.	Segment		MTrucks		HTrucks		Buses		Motorcycles		
			Autos		V	S	V	S	V	S	V	S	
			V	S	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	
US 21 NB	Point0	722	189	55	8	55	8	55					
	Point1	723	189	55	8	55	8	55					
	Point2	724	189	55	8	55	8	55					
	Point3	725	189	55	8	55	8	55					
	Point4	726	189	55	8	55	8	55					
	Point5	727	189	55	8	55	8	55					
	Point6	728	189	55	8	55	8	55					
	Point7	729	189	55	8	55	8	55					
	Point8	730	189	55	8	55	8	55					
	Point9	731	189	55	8	55	8	55					
	Point10	732	189	55	8	55	8	55					
	Point11	733	189	55	8	55	8	55					
	Point12	734	189	55	8	55	8	55					
	Point13	735	189	55	8	55	8	55					
	Point14	736	189	55	8	55	8	55					
	Point15	737	189	55	8	55	8	55					
	Point16	738	189	55	8	55	8	55					
	Point17	739	189	55	8	55	8	55					
	Point18	740	189	55	8	55	8	55					
	Point19	741	189	55	8	55	8	55					
	Point20	742	189	55	8	55	8	55					
	Point21	743	189	55	8	55	8	55					
	Point22	744	189	55	8	55	8	55					

INPUT: TRAFFIC FOR LAeq1h Volumes

SC_HDR-1502

	Point23	745	189	55	8	55	8	55				
	Point24	746	189	55	8	55	8	55				
	Point25	747	189	55	8	55	8	55				
	Point26	748	189	55	8	55	8	55				
	Point27	749	189	55	8	55	8	55				
	Point28	750	189	55	8	55	8	55				
	Point29	751	189	55	8	55	8	55				
	Point30	752	189	55	8	55	8	55				
	Point31	753	189	55	8	55	8	55				
	Point32	754	189	55	8	55	8	55				
	Point33	755	189	55	8	55	8	55				
	Point34	756	189	55	8	55	8	55				
	Point35	757	189	55	8	55	8	55				
	Point36	758	189	55	8	55	8	55				
	Point37	759	189	55	8	55	8	55				
	Point38	760	189	55	8	55	8	55				
	Point39	761	189	55	8	55	8	55				
	Point40	762	189	55	8	55	8	55				
	Point41	763	189	55	8	55	8	55				
	Point42	764	189	55	8	55	8	55				
	Point43	765	189	55	8	55	8	55				
	Point44	766	189	55	8	55	8	55				
	Point45	767	189	55	8	55	8	55				
	Point46	768	189	55	8	55	8	55				
	Point47	769	189	55	8	55	8	55				
	Point48	770	189	55	8	55	8	55				
	Point49	771	189	55	8	55	8	55				
	Point50	772	189	55	8	55	8	55				
	Point51	773	189	55	8	55	8	55				
	Point52	774	189	55	8	55	8	55				
	Point53	775	189	55	8	55	8	55				
	Point54	776	189	55	8	55	8	55				
	Point55	777	189	55	8	55	8	55				
	Point56	778	189	55	8	55	8	55				
	Point57	779	189	55	8	55	8	55				
	Point58	780	189	55	8	55	8	55				

INPUT: TRAFFIC FOR LAeq1h Volumes

SC_HDR-1502

	Point59	781	189	55	8	55	8	55				
	Point60	782	189	55	8	55	8	55				
	Point61	783	189	55	8	55	8	55				
	Point62	784	189	55	8	55	8	55				
	Point63	785	189	55	8	55	8	55				
	Point64	786	189	55	8	55	8	55				
	Point65	787	189	55	8	55	8	55				
	Point66	788	189	55	8	55	8	55				
	Point67	789	189	55	8	55	8	55				
	Point68	790	189	55	8	55	8	55				
	Point69	791	189	55	8	55	8	55				
	Point70	792	189	55	8	55	8	55				
	Point71	793	189	55	8	55	8	55				
	Point72	794	189	55	8	55	8	55				
	Point73	795	189	55	8	55	8	55				
	Point74	796	189	55	8	55	8	55				
	Point75	797	189	55	8	55	8	55				
	Point76	798	189	55	8	55	8	55				
	Point77	799	189	55	8	55	8	55				
	Point78	800	189	55	8	55	8	55				
	Point79	801	189	55	8	55	8	55				
	Point80	802	189	55	8	55	8	55				
	Point81	803	189	55	8	55	8	55				
	Point82	804	189	55	8	55	8	55				
	Point83	805	189	55	8	55	8	55				
	Point84	806	189	55	8	55	8	55				
	Point85	807	189	55	8	55	8	55				
	Point86	808	189	55	8	55	8	55				
	Point87	809	189	55	8	55	8	55				
	Point88	810	189	55	8	55	8	55				
	Point89	811	189	55	8	55	8	55				
	Point90	812	189	55	8	55	8	55				
	Point91	813	189	55	8	55	8	55				
	Point92	814	189	55	8	55	8	55				
	Point93	815	189	55	8	55	8	55				
	Point94	816	189	55	8	55	8	55				

INPUT: TRAFFIC FOR LAeq1h Volumes

SC_HDR-1502

	Point95	817											
US 21 SB	Point0	818	189	55	8	55	8	55					
	Point1	819	189	55	8	55	8	55					
	Point2	820	189	55	8	55	8	55					
	Point3	821	189	55	8	55	8	55					
	Point4	822	189	55	8	55	8	55					
	Point5	823	189	55	8	55	8	55					
	Point6	824	189	55	8	55	8	55					
	Point7	825	189	55	8	55	8	55					
	Point8	826	189	55	8	55	8	55					
	Point9	827	189	55	8	55	8	55					
	Point10	828	189	55	8	55	8	55					
	Point11	829	189	55	8	55	8	55					
	Point12	830	189	55	8	55	8	55					
	Point13	831	189	55	8	55	8	55					
	Point14	832	189	55	8	55	8	55					
	Point15	833	189	55	8	55	8	55					
	Point16	834	189	55	8	55	8	55					
	Point17	835	189	55	8	55	8	55					
	Point18	836	189	55	8	55	8	55					
	Point19	837	189	55	8	55	8	55					
	Point20	838	189	55	8	55	8	55					
	Point21	839	189	55	8	55	8	55					
	Point22	840	189	55	8	55	8	55					
	Point23	841	189	55	8	55	8	55					
	Point24	842	189	55	8	55	8	55					
	Point25	843	189	55	8	55	8	55					
	Point26	844	189	55	8	55	8	55					
	Point27	845	189	55	8	55	8	55					
	Point28	846	189	55	8	55	8	55					
	Point29	847	189	55	8	55	8	55					
	Point30	848	189	55	8	55	8	55					
	Point31	849	189	55	8	55	8	55					
	Point32	850	189	55	8	55	8	55					
	Point33	851	189	55	8	55	8	55					
	Point34	852	189	55	8	55	8	55					

INPUT: TRAFFIC FOR LAeq1h Volumes

SC_HDR-1502

	Point35	853	189	55	8	55	8	55				
	Point36	854	189	55	8	55	8	55				
	Point37	855	189	55	8	55	8	55				
	Point38	856	189	55	8	55	8	55				
	Point39	857	189	55	8	55	8	55				
	Point40	858	189	55	8	55	8	55				
	Point41	859	189	55	8	55	8	55				
	Point42	860	189	55	8	55	8	55				
	Point43	861	189	55	8	55	8	55				
	Point44	862	189	55	8	55	8	55				
	Point45	863	189	55	8	55	8	55				
	Point46	864	189	55	8	55	8	55				
	Point47	865	189	55	8	55	8	55				
	Point48	866	189	55	8	55	8	55				
	Point49	867	189	55	8	55	8	55				
	Point50	868	189	55	8	55	8	55				
	Point51	869	189	55	8	55	8	55				
	Point52	870	189	55	8	55	8	55				
	Point53	871	189	55	8	55	8	55				
	Point54	872	189	55	8	55	8	55				
	Point55	873	189	55	8	55	8	55				
	Point56	874	189	55	8	55	8	55				
	Point57	875	189	55	8	55	8	55				
	Point58	876	189	55	8	55	8	55				
	Point59	877	189	55	8	55	8	55				
	Point60	878	189	55	8	55	8	55				
	Point61	879	189	55	8	55	8	55				
	Point62	880	189	55	8	55	8	55				
	Point63	881	189	55	8	55	8	55				
	Point64	882	189	55	8	55	8	55				
	Point65	883	189	55	8	55	8	55				
	Point66	884	189	55	8	55	8	55				
	Point67	885	189	55	8	55	8	55				
	Point68	886	189	55	8	55	8	55				
	Point69	887	189	55	8	55	8	55				
	Point70	888	189	55	8	55	8	55				

INPUT: TRAFFIC FOR LAeq1h Volumes

SC_HDR-1502

	Point71	889	189	55	8	55	8	55				
	Point72	890	189	55	8	55	8	55				
	Point73	891	189	55	8	55	8	55				
	Point74	892	189	55	8	55	8	55				
	Point75	893	189	55	8	55	8	55				
	Point76	894	189	55	8	55	8	55				
	Point77	895	189	55	8	55	8	55				
	Point78	896	189	55	8	55	8	55				
	Point79	897	189	55	8	55	8	55				
	Point80	898	189	55	8	55	8	55				
	Point81	899	189	55	8	55	8	55				
	Point82	900	189	55	8	55	8	55				
	Point83	901	189	55	8	55	8	55				
	Point84	902	189	55	8	55	8	55				
	Point85	903	189	55	8	55	8	55				
	Point86	904	189	55	8	55	8	55				
	Point87	905	189	55	8	55	8	55				
	Point88	906	189	55	8	55	8	55				
	Point89	907	189	55	8	55	8	55				
	Point90	908	189	55	8	55	8	55				
	Point91	909	189	55	8	55	8	55				
	Point92	910	189	55	8	55	8	55				
	Point93	911	189	55	8	55	8	55				
	Point94	912	189	55	8	55	8	55				
	Point95	913										

EPEI		31 March 2016											
B. Batt		TNM 2.5											
INPUT: TRAFFIC FOR LAeq1h Volumes													
PROJECT/CONTRACT:		SC_HDR-1502											
RUN:		Build											
Roadway	Points												
Name	Name	No.	Segment		MTrucks		HTrucks		Buses		Motorcycles		
			Autos		V	S	V	S	V	S	V	S	
			V	S	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	
US 21 NB	Point0	722	260	55	10	55	10	55					
	Point1	723	260	55	10	55	10	55					
	Point2	724	260	55	10	55	10	55					
	Point3	725	260	55	10	55	10	55					
	Point4	726	260	55	10	55	10	55					
	Point5	727	260	55	10	55	10	55					
	Point6	728	260	55	10	55	10	55					
	Point7	729	260	55	10	55	10	55					
	Point8	730	260	55	10	55	10	55					
	Point9	731	260	55	10	55	10	55					
	Point10	732	260	55	10	55	10	55					
	Point11	733	260	55	10	55	10	55					
	Point12	734	260	55	10	55	10	55					
	Point13	735	260	55	10	55	10	55					
	Point14	736	260	55	10	55	10	55					
	Point15	737	260	55	10	55	10	55					
	Point16	738	260	55	10	55	10	55					
	Point17	739	260	55	10	55	10	55					
	Point18	740	260	55	10	55	10	55					
	Point19	741	260	55	10	55	10	55					
	Point20	742	260	55	10	55	10	55					
	Point21	743	260	55	10	55	10	55					
	Point22	744	260	55	10	55	10	55					

INPUT: TRAFFIC FOR LAeq1h Volumes

SC_HDR-1502

	Point23	745	260	55	10	55	10	55				
	Point24	746	260	55	10	55	10	55				
	Point25	747	260	55	10	55	10	55				
	Point26	748	260	55	10	55	10	55				
	Point27	749	260	55	10	55	10	55				
	Point28	750	260	55	10	55	10	55				
	Point29	751	260	55	10	55	10	55				
	Point30	752	260	55	10	55	10	55				
	Point31	753	260	55	10	55	10	55				
	Point32	754	260	55	10	55	10	55				
	Point33	755	260	55	10	55	10	55				
	Point34	756	260	55	10	55	10	55				
	Point35	757	260	55	10	55	10	55				
	Point36	758	260	55	10	55	10	55				
	Point37	759	260	55	10	55	10	55				
	Point38	760	260	55	10	55	10	55				
	Point39	761	260	55	10	55	10	55				
	Point40	762	260	55	10	55	10	55				
	Point41	763	260	55	10	55	10	55				
	Point42	764	260	55	10	55	10	55				
	Point43	765	260	55	10	55	10	55				
	Point44	766	260	55	10	55	10	55				
	Point45	767	260	55	10	55	10	55				
	Point46	768	260	55	10	55	10	55				
	Point47	769	260	55	10	55	10	55				
	Point48	770	260	55	10	55	10	55				
	Point49	771	260	55	10	55	10	55				
	Point50	772	260	55	10	55	10	55				
	Point51	773	260	55	10	55	10	55				
	Point52	774	260	55	10	55	10	55				
	Point53	775	260	55	10	55	10	55				
	Point54	776	260	55	10	55	10	55				
	Point55	777	260	55	10	55	10	55				
	Point56	778	260	55	10	55	10	55				
	Point57	779	260	55	10	55	10	55				
	Point58	780	260	55	10	55	10	55				

INPUT: TRAFFIC FOR LAeq1h Volumes

SC_HDR-1502

	Point59	781	260	55	10	55	10	55				
	Point60	782	260	55	10	55	10	55				
	Point61	783	260	55	10	55	10	55				
	Point62	784	260	55	10	55	10	55				
	Point63	785	260	55	10	55	10	55				
	Point64	786	260	55	10	55	10	55				
	Point65	787	260	55	10	55	10	55				
	Point66	788	260	55	10	55	10	55				
	Point67	789	260	55	10	55	10	55				
	Point68	790	260	55	10	55	10	55				
	Point69	791	260	55	10	55	10	55				
	Point70	792	260	55	10	55	10	55				
	Point71	793	260	55	10	55	10	55				
	Point72	794	260	55	10	55	10	55				
	Point73	795	260	55	10	55	10	55				
	Point74	796	260	55	10	55	10	55				
	Point75	797	260	55	10	55	10	55				
	Point76	798	260	55	10	55	10	55				
	Point77	799	260	55	10	55	10	55				
	Point78	800	260	55	10	55	10	55				
	Point79	801	260	55	10	55	10	55				
	Point80	802	260	55	10	55	10	55				
	Point81	803	260	55	10	55	10	55				
	Point82	804	260	55	10	55	10	55				
	Point83	805	260	55	10	55	10	55				
	Point84	806	260	55	10	55	10	55				
	Point85	807	260	55	10	55	10	55				
	Point86	808	260	55	10	55	10	55				
	Point87	809	260	55	10	55	10	55				
	Point88	810	260	55	10	55	10	55				
	Point89	811	260	55	10	55	10	55				
	Point90	812	260	55	10	55	10	55				
	Point91	813	260	55	10	55	10	55				
	Point92	814	260	55	10	55	10	55				
	Point93	815	260	55	10	55	10	55				
	Point94	816	260	55	10	55	10	55				

INPUT: TRAFFIC FOR LAeq1h Volumes

SC_HDR-1502

	Point95	817											
US 21 SB	Point0	818	260	55	10	55	10	55					
	Point1	819	260	55	10	55	10	55					
	Point2	820	260	55	10	55	10	55					
	Point3	821	260	55	10	55	10	55					
	Point4	822	260	55	10	55	10	55					
	Point5	823	260	55	10	55	10	55					
	Point6	824	260	55	10	55	10	55					
	Point7	825	260	55	10	55	10	55					
	Point8	826	260	55	10	55	10	55					
	Point9	827	260	55	10	55	10	55					
	Point10	828	260	55	10	55	10	55					
	Point11	829	260	55	10	55	10	55					
	Point12	830	260	55	10	55	10	55					
	Point13	831	260	55	10	55	10	55					
	Point14	832	260	55	10	55	10	55					
	Point15	833	260	55	10	55	10	55					
	Point16	834	260	55	10	55	10	55					
	Point17	835	260	55	10	55	10	55					
	Point18	836	260	55	10	55	10	55					
	Point19	837	260	55	10	55	10	55					
	Point20	838	260	55	10	55	10	55					
	Point21	839	260	55	10	55	10	55					
	Point22	840	260	55	10	55	10	55					
	Point23	841	260	55	10	55	10	55					
	Point24	842	260	55	10	55	10	55					
	Point25	843	260	55	10	55	10	55					
	Point26	844	260	55	10	55	10	55					
	Point27	845	260	55	10	55	10	55					
	Point28	846	260	55	10	55	10	55					
	Point29	847	260	55	10	55	10	55					
	Point30	848	260	55	10	55	10	55					
	Point31	849	260	55	10	55	10	55					
	Point32	850	260	55	10	55	10	55					
	Point33	851	260	55	10	55	10	55					
	Point34	852	260	55	10	55	10	55					

INPUT: TRAFFIC FOR LAeq1h Volumes

SC_HDR-1502

	Point35	853	260	55	10	55	10	55				
	Point36	854	260	55	10	55	10	55				
	Point37	855	260	55	10	55	10	55				
	Point38	856	260	55	10	55	10	55				
	Point39	857	260	55	10	55	10	55				
	Point40	858	260	55	10	55	10	55				
	Point41	859	260	55	10	55	10	55				
	Point42	860	260	55	10	55	10	55				
	Point43	861	260	55	10	55	10	55				
	Point44	862	260	55	10	55	10	55				
	Point45	863	260	55	10	55	10	55				
	Point46	864	260	55	10	55	10	55				
	Point47	865	260	55	10	55	10	55				
	Point48	866	260	55	10	55	10	55				
	Point49	867	260	55	10	55	10	55				
	Point50	868	260	55	10	55	10	55				
	Point51	869	260	55	10	55	10	55				
	Point52	870	260	55	10	55	10	55				
	Point53	871	260	55	10	55	10	55				
	Point54	872	260	55	10	55	10	55				
	Point55	873	260	55	10	55	10	55				
	Point56	874	260	55	10	55	10	55				
	Point57	875	260	55	10	55	10	55				
	Point58	876	260	55	10	55	10	55				
	Point59	877	260	55	10	55	10	55				
	Point60	878	260	55	10	55	10	55				
	Point61	879	260	55	10	55	10	55				
	Point62	880	260	55	10	55	10	55				
	Point63	881	260	55	10	55	10	55				
	Point64	882	260	55	10	55	10	55				
	Point65	883	260	55	10	55	10	55				
	Point66	884	260	55	10	55	10	55				
	Point67	885	260	55	10	55	10	55				
	Point68	886	260	55	10	55	10	55				
	Point69	887	260	55	10	55	10	55				
	Point70	888	260	55	10	55	10	55				

INPUT: TRAFFIC FOR LAeq1h Volumes

SC_HDR-1502

	Point71	889	260	55	10	55	10	55				
	Point72	890	260	55	10	55	10	55				
	Point73	891	260	55	10	55	10	55				
	Point74	892	260	55	10	55	10	55				
	Point75	893	260	55	10	55	10	55				
	Point76	894	260	55	10	55	10	55				
	Point77	895	260	55	10	55	10	55				
	Point78	896	260	55	10	55	10	55				
	Point79	897	260	55	10	55	10	55				
	Point80	898	260	55	10	55	10	55				
	Point81	899	260	55	10	55	10	55				
	Point82	900	260	55	10	55	10	55				
	Point83	901	260	55	10	55	10	55				
	Point84	902	260	55	10	55	10	55				
	Point85	903	260	55	10	55	10	55				
	Point86	904	260	55	10	55	10	55				
	Point87	905	260	55	10	55	10	55				
	Point88	906	260	55	10	55	10	55				
	Point89	907	260	55	10	55	10	55				
	Point90	908	260	55	10	55	10	55				
	Point91	909	260	55	10	55	10	55				
	Point92	910	260	55	10	55	10	55				
	Point93	911	260	55	10	55	10	55				
	Point94	912	260	55	10	55	10	55				
	Point95	913										

EPEI		31 March 2016											
B. Batt		TNM 2.5											
INPUT: TRAFFIC FOR LAeq1h Volumes													
PROJECT/CONTRACT:		SC_HDR-1502											
RUN:		Build											
Roadway	Points												
Name	Name	No.	Segment		MTrucks		HTrucks		Buses		Motorcycles		
			Autos		V	S	V	S	V	S	V	S	
			V	S	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	
US 21 SB	Point0	751	260	55	10	55	10	55					
	Point1	752	260	55	10	55	10	55					
	Point2	753	260	55	10	55	10	55					
	Point3	754	260	55	10	55	10	55					
	Point4	755	260	55	10	55	10	55					
	Point5	756	260	55	10	55	10	55					
	Point6	757	260	55	10	55	10	55					
	Point7	758	260	55	10	55	10	55					
	Point8	759	260	55	10	55	10	55					
	Point9	760	260	55	10	55	10	55					
	Point10	761	260	55	10	55	10	55					
	Point11	762	260	55	10	55	10	55					
	Point12	763	260	55	10	55	10	55					
	Point13	764	260	55	10	55	10	55					
	Point14	765	260	55	10	55	10	55					
	Point15	766	260	55	10	55	10	55					
	Point16	767	260	55	10	55	10	55					
	Point17	768	260	55	10	55	10	55					
	Point18	769	260	55	10	55	10	55					
	Point19	770	260	55	10	55	10	55					
	Point20	771	260	55	10	55	10	55					
	Point21	772	260	55	10	55	10	55					
	Point22	773	260	55	10	55	10	55					

INPUT: TRAFFIC FOR LAeq1h Volumes

SC_HDR-1502

	Point23	774	260	55	10	55	10	55				
	Point24	775	260	55	10	55	10	55				
	Point25	776	260	55	10	55	10	55				
	Point26	777	260	55	10	55	10	55				
	Point27	778	260	55	10	55	10	55				
	Point28	779	260	55	10	55	10	55				
	Point29	780	260	55	10	55	10	55				
	Point30	781	260	55	10	55	10	55				
	Point31	782	260	55	10	55	10	55				
	Point32	783	260	55	10	55	10	55				
	Point33	784	260	55	10	55	10	55				
	Point34	785	260	55	10	55	10	55				
	Point35	786	260	55	10	55	10	55				
	Point36	787	260	55	10	55	10	55				
	Point37	788	260	55	10	55	10	55				
	Point38	789	260	55	10	55	10	55				
	Point39	790	260	55	10	55	10	55				
	Point40	791	260	55	10	55	10	55				
	Point41	792	260	55	10	55	10	55				
	Point42	793	260	55	10	55	10	55				
	Point43	794	260	55	10	55	10	55				
	Point44	795	260	55	10	55	10	55				
	Point45	796	260	55	10	55	10	55				
	Point46	797	260	55	10	55	10	55				
	Point47	798	260	55	10	55	10	55				
	Point48	799	260	55	10	55	10	55				
	Point49	800	260	55	10	55	10	55				
	Point50	801	260	55	10	55	10	55				
	Point51	802	260	55	10	55	10	55				
	Point52	803	260	55	10	55	10	55				
	Point53	804	260	55	10	55	10	55				
	Point54	805	260	55	10	55	10	55				
	Point55	806	260	55	10	55	10	55				
	Point56	807	260	55	10	55	10	55				
	Point57	808	260	55	10	55	10	55				
	Point58	809	260	55	10	55	10	55				

INPUT: TRAFFIC FOR LAeq1h Volumes

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	Point59	810	260	55	10	55	10	55				
	Point60	811	260	55	10	55	10	55				
	Point61	812	260	55	10	55	10	55				
	Point62	813	260	55	10	55	10	55				
	Point63	814	260	55	10	55	10	55				
	Point64	815	260	55	10	55	10	55				
	Point65	816	260	55	10	55	10	55				
	Point66	817	260	55	10	55	10	55				
	Point67	818	260	55	10	55	10	55				
	Point68	819	260	55	10	55	10	55				
	Point69	820	260	55	10	55	10	55				
	Point70	821	260	55	10	55	10	55				
	Point71	822	260	55	10	55	10	55				
	Point72	823	260	55	10	55	10	55				
	Point73	824	260	55	10	55	10	55				
	Point74	825	260	55	10	55	10	55				
	Point75	826	260	55	10	55	10	55				
	Point76	827	260	55	10	55	10	55				
	Point77	828	260	55	10	55	10	55				
	Point78	829	260	55	10	55	10	55				
	Point79	830	260	55	10	55	10	55				
	Point80	831	260	55	10	55	10	55				
	Point81	832	260	55	10	55	10	55				
	Point82	833	260	55	10	55	10	55				
	Point83	834	260	55	10	55	10	55				
	Point84	835	260	55	10	55	10	55				
	Point85	836	260	55	10	55	10	55				
	Point86	837	260	55	10	55	10	55				
	Point87	838	260	55	10	55	10	55				
	Point88	839	260	55	10	55	10	55				
	Point89	840	260	55	10	55	10	55				
	Point90	841	260	55	10	55	10	55				
	Point91	842	260	55	10	55	10	55				
	Point92	843	260	55	10	55	10	55				
	Point93	844	260	55	10	55	10	55				
	Point94	845	260	55	10	55	10	55				

INPUT: TRAFFIC FOR LAeq1h Volumes

SC_HDR-1502

	Point95	846	260	55	10	55	10	55				
	Point96	847	260	55	10	55	10	55				
	Point97	848	260	55	10	55	10	55				
	Point98	849	260	55	10	55	10	55				
	Point99	850	260	55	10	55	10	55				
	Point100	851	260	55	10	55	10	55				
	Point101	852	260	55	10	55	10	55				
	Point102	853	260	55	10	55	10	55				
	Point103	854	260	55	10	55	10	55				
	Point104	855	260	55	10	55	10	55				
	Point105	856	260	55	10	55	10	55				
	Point106	857	260	55	10	55	10	55				
	Point107	858	260	55	10	55	10	55				
	Point108	859	260	55	10	55	10	55				
	Point109	860	260	55	10	55	10	55				
	Point110	861	260	55	10	55	10	55				
	Point111	862	260	55	10	55	10	55				
	Point112	863	260	55	10	55	10	55				
	Point113	864	260	55	10	55	10	55				
	Point114	865	260	55	10	55	10	55				
	Point115	866	260	55	10	55	10	55				
	Point116	867	260	55	10	55	10	55				
	Point117	868	260	55	10	55	10	55				
	Point118	869	260	55	10	55	10	55				
	Point119	870	260	55	10	55	10	55				
	Point120	871	260	55	10	55	10	55				
	Point121	872	260	55	10	55	10	55				
	Point122	873	260	55	10	55	10	55				
	Point123	874	260	55	10	55	10	55				
	Point124	875										
US 21 NB	Point0	876	260	55	10	55	10	55				
	Point1	877	260	55	10	55	10	55				
	Point2	878	260	55	10	55	10	55				
	Point3	879	260	55	10	55	10	55				
	Point4	880	260	55	10	55	10	55				
	Point5	881	260	55	10	55	10	55				

INPUT: TRAFFIC FOR LAeq1h Volumes

SC_HDR-1502

	Point6	882	260	55	10	55	10	55				
	Point7	883	260	55	10	55	10	55				
	Point8	884	260	55	10	55	10	55				
	Point9	885	260	55	10	55	10	55				
	Point10	886	260	55	10	55	10	55				
	Point11	887	260	55	10	55	10	55				
	Point12	888	260	55	10	55	10	55				
	Point13	889	260	55	10	55	10	55				
	Point14	890	260	55	10	55	10	55				
	Point15	891	260	55	10	55	10	55				
	Point16	892	260	55	10	55	10	55				
	Point17	893	260	55	10	55	10	55				
	Point18	894	260	55	10	55	10	55				
	Point19	895	260	55	10	55	10	55				
	Point20	896	260	55	10	55	10	55				
	Point21	897	260	55	10	55	10	55				
	Point22	898	260	55	10	55	10	55				
	Point23	899	260	55	10	55	10	55				
	Point24	900	260	55	10	55	10	55				
	Point25	901	260	55	10	55	10	55				
	Point26	902	260	55	10	55	10	55				
	Point27	903	260	55	10	55	10	55				
	Point28	904	260	55	10	55	10	55				
	Point29	905	260	55	10	55	10	55				
	Point30	906	260	55	10	55	10	55				
	Point31	907	260	55	10	55	10	55				
	Point32	908	260	55	10	55	10	55				
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	Point34	910	260	55	10	55	10	55				
	Point35	911	260	55	10	55	10	55				
	Point36	912	260	55	10	55	10	55				
	Point37	913	260	55	10	55	10	55				
	Point38	914	260	55	10	55	10	55				
	Point39	915	260	55	10	55	10	55				
	Point40	916	260	55	10	55	10	55				
	Point41	917	260	55	10	55	10	55				

INPUT: TRAFFIC FOR LAeq1h Volumes

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	Point42	918	260	55	10	55	10	55				
	Point43	919	260	55	10	55	10	55				
	Point44	920	260	55	10	55	10	55				
	Point45	921	260	55	10	55	10	55				
	Point46	922	260	55	10	55	10	55				
	Point47	923	260	55	10	55	10	55				
	Point48	924	260	55	10	55	10	55				
	Point49	925	260	55	10	55	10	55				
	Point50	926	260	55	10	55	10	55				
	Point51	927	260	55	10	55	10	55				
	Point52	928	260	55	10	55	10	55				
	Point53	929	260	55	10	55	10	55				
	Point54	930	260	55	10	55	10	55				
	Point55	931	260	55	10	55	10	55				
	Point56	932	260	55	10	55	10	55				
	Point57	933	260	55	10	55	10	55				
	Point58	934	260	55	10	55	10	55				
	Point59	935	260	55	10	55	10	55				
	Point60	936	260	55	10	55	10	55				
	Point61	937	260	55	10	55	10	55				
	Point62	938	260	55	10	55	10	55				
	Point63	939	260	55	10	55	10	55				
	Point64	940	260	55	10	55	10	55				
	Point65	941	260	55	10	55	10	55				
	Point66	942	260	55	10	55	10	55				
	Point67	943	260	55	10	55	10	55				
	Point68	944	260	55	10	55	10	55				
	Point69	945	260	55	10	55	10	55				
	Point70	946	260	55	10	55	10	55				
	Point71	947	260	55	10	55	10	55				
	Point72	948	260	55	10	55	10	55				
	Point73	949	260	55	10	55	10	55				
	Point74	950	260	55	10	55	10	55				
	Point75	951	260	55	10	55	10	55				
	Point76	952	260	55	10	55	10	55				
	Point77	953	260	55	10	55	10	55				

INPUT: TRAFFIC FOR LAeq1h Volumes

SC_HDR-1502

	Point78	954	260	55	10	55	10	55				
	Point79	955	260	55	10	55	10	55				
	Point80	956	260	55	10	55	10	55				
	Point81	957	260	55	10	55	10	55				
	Point82	958	260	55	10	55	10	55				
	Point83	959	260	55	10	55	10	55				
	Point84	960	260	55	10	55	10	55				
	Point85	961	260	55	10	55	10	55				
	Point86	962	260	55	10	55	10	55				
	Point87	963	260	55	10	55	10	55				
	Point88	964	260	55	10	55	10	55				
	Point89	965	260	55	10	55	10	55				
	Point90	966	260	55	10	55	10	55				
	Point91	967	260	55	10	55	10	55				
	Point92	968	260	55	10	55	10	55				
	Point93	969	260	55	10	55	10	55				
	Point94	970	260	55	10	55	10	55				
	Point95	971	260	55	10	55	10	55				
	Point96	972	260	55	10	55	10	55				
	Point97	973	260	55	10	55	10	55				
	Point98	974	260	55	10	55	10	55				
	Point99	975	260	55	10	55	10	55				
	Point100	976	260	55	10	55	10	55				
	Point101	977	260	55	10	55	10	55				
	Point102	978	260	55	10	55	10	55				
	Point103	979	260	55	10	55	10	55				
	Point104	980	260	55	10	55	10	55				
	Point105	981	260	55	10	55	10	55				
	Point106	982	260	55	10	55	10	55				
	Point107	983	260	55	10	55	10	55				
	Point108	984	260	55	10	55	10	55				
	Point109	985	260	55	10	55	10	55				
	Point110	986	260	55	10	55	10	55				
	Point111	987	260	55	10	55	10	55				
	Point112	988	260	55	10	55	10	55				
	Point113	989	260	55	10	55	10	55				

INPUT: TRAFFIC FOR LAeq1h Volumes

SC_HDR-1502

	Point114	990	260	55	10	55	10	55				
	Point115	991	260	55	10	55	10	55				
	Point116	992	260	55	10	55	10	55				
	Point117	993	260	55	10	55	10	55				
	Point118	994	260	55	10	55	10	55				
	Point119	995	260	55	10	55	10	55				
	Point120	996	260	55	10	55	10	55				
	Point121	997	260	55	10	55	10	55				
	Point122	998	260	55	10	55	10	55				
	Point123	999	260	55	10	55	10	55				
	Point124	1000										
US 21 SB SH 4-ft	Point0	1001	260	55	10	55	10	55				
	Point1	1002	260	55	10	55	10	55				
	Point2	1003	260	55	10	55	10	55				
	Point3	1004	260	55	10	55	10	55				
	Point4	1005	260	55	10	55	10	55				
	Point5	1006	260	55	10	55	10	55				
	Point6	1007	260	55	10	55	10	55				
	Point7	1008	260	55	10	55	10	55				
	Point8	1009	260	55	10	55	10	55				
	Point9	1010	260	55	10	55	10	55				
	Point10	1011	260	55	10	55	10	55				
	Point11	1012	260	55	10	55	10	55				
	Point12	1013	260	55	10	55	10	55				
	Point13	1014	260	55	10	55	10	55				
	Point14	1015	260	55	10	55	10	55				
	Point15	1016	260	55	10	55	10	55				
	Point16	1017	260	55	10	55	10	55				
	Point17	1018	260	55	10	55	10	55				
	Point18	1019	260	55	10	55	10	55				
	Point19	1020	260	55	10	55	10	55				
	Point20	1021	260	55	10	55	10	55				
	Point21	1022	260	55	10	55	10	55				
	Point22	1023	260	55	10	55	10	55				
	Point23	1024	260	55	10	55	10	55				
	Point24	1025	260	55	10	55	10	55				

INPUT: TRAFFIC FOR LAeq1h Volumes

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	Point25	1026	260	55	10	55	10	55				
	Point26	1027	260	55	10	55	10	55				
	Point27	1028	260	55	10	55	10	55				
	Point28	1029	260	55	10	55	10	55				
	Point29	1030	260	55	10	55	10	55				
	Point30	1031	260	55	10	55	10	55				
	Point31	1032	260	55	10	55	10	55				
	Point32	1033	260	55	10	55	10	55				
	Point33	1034	260	55	10	55	10	55				
	Point34	1035	260	55	10	55	10	55				
	Point35	1036	260	55	10	55	10	55				
	Point36	1037	260	55	10	55	10	55				
	Point37	1038	260	55	10	55	10	55				
	Point38	1039	260	55	10	55	10	55				
	Point39	1040	260	55	10	55	10	55				
	Point40	1041	260	55	10	55	10	55				
	Point41	1042	260	55	10	55	10	55				
	Point42	1043	260	55	10	55	10	55				
	Point43	1044	260	55	10	55	10	55				
	Point44	1045	260	55	10	55	10	55				
	Point45	1046	260	55	10	55	10	55				
	Point46	1047	260	55	10	55	10	55				
	Point47	1048	260	55	10	55	10	55				
	Point48	1049	260	55	10	55	10	55				
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	Point56	1057	260	55	10	55	10	55				
	Point57	1058	260	55	10	55	10	55				
	Point58	1059	260	55	10	55	10	55				
	Point59	1060	260	55	10	55	10	55				
	Point60	1061	260	55	10	55	10	55				

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	Point61	1062	260	55	10	55	10	55				
	Point62	1063	260	55	10	55	10	55				
	Point63	1064	260	55	10	55	10	55				
	Point64	1065	260	55	10	55	10	55				
	Point65	1066	260	55	10	55	10	55				
	Point66	1067	260	55	10	55	10	55				
	Point67	1068										
US 21 NB SH 4-ft	Point0	1069	260	55	10	55	10	55				
	Point1	1070	260	55	10	55	10	55				
	Point2	1071	260	55	10	55	10	55				
	Point3	1072	260	55	10	55	10	55				
	Point4	1073	260	55	10	55	10	55				
	Point5	1074	260	55	10	55	10	55				
	Point6	1075	260	55	10	55	10	55				
	Point7	1076	260	55	10	55	10	55				
	Point8	1077	260	55	10	55	10	55				
	Point9	1078	260	55	10	55	10	55				
	Point10	1079	260	55	10	55	10	55				
	Point11	1080	260	55	10	55	10	55				
	Point12	1081	260	55	10	55	10	55				
	Point13	1082	260	55	10	55	10	55				
	Point14	1083	260	55	10	55	10	55				
	Point15	1084	260	55	10	55	10	55				
	Point16	1085	260	55	10	55	10	55				
	Point17	1086	260	55	10	55	10	55				
	Point18	1087	260	55	10	55	10	55				
	Point19	1088	260	55	10	55	10	55				
	Point20	1089	260	55	10	55	10	55				
	Point21	1090	260	55	10	55	10	55				
	Point22	1091	260	55	10	55	10	55				
	Point23	1092	260	55	10	55	10	55				
	Point24	1093	260	55	10	55	10	55				
	Point25	1094	260	55	10	55	10	55				
	Point26	1095	260	55	10	55	10	55				
	Point27	1096	260	55	10	55	10	55				
	Point28	1097	260	55	10	55	10	55				

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	Point29	1098	260	55	10	55	10	55				
	Point30	1099	260	55	10	55	10	55				
	Point31	1100	260	55	10	55	10	55				
	Point32	1101	260	55	10	55	10	55				
	Point33	1102	260	55	10	55	10	55				
	Point34	1103	260	55	10	55	10	55				
	Point35	1104	260	55	10	55	10	55				
	Point36	1105	260	55	10	55	10	55				
	Point37	1106	260	55	10	55	10	55				
	Point38	1107	260	55	10	55	10	55				
	Point39	1108	260	55	10	55	10	55				
	Point40	1109	260	55	10	55	10	55				
	Point41	1110	260	55	10	55	10	55				
	Point42	1111	260	55	10	55	10	55				
	Point43	1112	260	55	10	55	10	55				
	Point44	1113	260	55	10	55	10	55				
	Point45	1114	260	55	10	55	10	55				
	Point46	1115	260	55	10	55	10	55				
	Point47	1116	260	55	10	55	10	55				
	Point48	1117	260	55	10	55	10	55				
	Point49	1118	260	55	10	55	10	55				
	Point50	1119	260	55	10	55	10	55				
	Point51	1120	260	55	10	55	10	55				
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	Point53	1122	260	55	10	55	10	55				
	Point54	1123	260	55	10	55	10	55				
	Point55	1124	260	55	10	55	10	55				
	Point56	1125	260	55	10	55	10	55				
	Point57	1126	260	55	10	55	10	55				
	Point58	1127	260	55	10	55	10	55				
	Point59	1128	260	55	10	55	10	55				
	Point60	1129	260	55	10	55	10	55				
	Point61	1130	260	55	10	55	10	55				
	Point62	1131	260	55	10	55	10	55				
	Point63	1132	260	55	10	55	10	55				
	Point64	1133	260	55	10	55	10	55				

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	Point65	1134	260	55	10	55	10	55				
	Point66	1135	260	55	10	55	10	55				
	Point67	1136										
US 21 NB SH 4-ft	Point0	1137	0	0	0	0	0	0				
	Point1	1138	0	0	0	0	0	0				
	Point2	1139	0	0	0	0	0	0				
	Point3	1140	0	0	0	0	0	0				
	Point4	1141	0	0	0	0	0	0				
	Point5	1142	0	0	0	0	0	0				
	Point6	1143	0	0	0	0	0	0				
	Point7	1144	0	0	0	0	0	0				
	Point8	1145	0	0	0	0	0	0				
	Point9	1146	0	0	0	0	0	0				
	Point10	1147	0	0	0	0	0	0				
	Point11	1148	0	0	0	0	0	0				
	Point12	1149	0	0	0	0	0	0				
	Point13	1150	0	0	0	0	0	0				
	Point14	1151	0	0	0	0	0	0				
	Point15	1152	0	0	0	0	0	0				
	Point16	1153	0	0	0	0	0	0				
	Point17	1154	0	0	0	0	0	0				
	Point18	1155	0	0	0	0	0	0				
	Point19	1156	0	0	0	0	0	0				
	Point20	1157	0	0	0	0	0	0				
	Point21	1158	0	0	0	0	0	0				
	Point22	1159	0	0	0	0	0	0				
	Point23	1160	0	0	0	0	0	0				
	Point24	1161	0	0	0	0	0	0				
	Point25	1162	0	0	0	0	0	0				
	Point26	1163	0	0	0	0	0	0				
	Point27	1164	0	0	0	0	0	0				
	Point28	1165	0	0	0	0	0	0				
	Point29	1166										
US 21 SB SH 4-ft	Point0	1167	0	0	0	0	0	0				
	Point1	1168	0	0	0	0	0	0				
	Point2	1169	0	0	0	0	0	0				

INPUT: TRAFFIC FOR LAeq1h Volumes

SC_HDR-1502

	Point3	1170	0	0	0	0	0	0				
	Point4	1171	0	0	0	0	0	0				
	Point5	1172	0	0	0	0	0	0				
	Point6	1173	0	0	0	0	0	0				
	Point7	1174	0	0	0	0	0	0				
	Point8	1175	0	0	0	0	0	0				
	Point9	1176	0	0	0	0	0	0				
	Point10	1177	0	0	0	0	0	0				
	Point11	1178	0	0	0	0	0	0				
	Point12	1179	0	0	0	0	0	0				
	Point13	1180	0	0	0	0	0	0				
	Point14	1181	0	0	0	0	0	0				
	Point15	1182	0	0	0	0	0	0				
	Point16	1183	0	0	0	0	0	0				
	Point17	1184	0	0	0	0	0	0				
	Point18	1185	0	0	0	0	0	0				
	Point19	1186	0	0	0	0	0	0				
	Point20	1187	0	0	0	0	0	0				
	Point21	1188	0	0	0	0	0	0				
	Point22	1189	0	0	0	0	0	0				
	Point23	1190	0	0	0	0	0	0				
	Point24	1191	0	0	0	0	0	0				
	Point25	1192	0	0	0	0	0	0				
	Point26	1193	0	0	0	0	0	0				
	Point27	1194	0	0	0	0	0	0				
	Point28	1195	0	0	0	0	0	0				
	Point29	1196										
US 21 NB SH 10-ft	Point0	1197	0	0	0	0	0	0				
	Point1	1198	0	0	0	0	0	0				
	Point2	1199	0	0	0	0	0	0				
	Point3	1200	0	0	0	0	0	0				
	Point4	1201	0	0	0	0	0	0				
	Point5	1202	0	0	0	0	0	0				
	Point6	1203	0	0	0	0	0	0				
	Point7	1204	0	0	0	0	0	0				
	Point8	1205	0	0	0	0	0	0				

INPUT: TRAFFIC FOR LAeq1h Volumes

SC_HDR-1502

	Point9	1206	0	0	0	0	0	0				
	Point10	1207	0	0	0	0	0	0				
	Point11	1208	0	0	0	0	0	0				
	Point12	1209	0	0	0	0	0	0				
	Point13	1210	0	0	0	0	0	0				
	Point14	1211	0	0	0	0	0	0				
	Point15	1212	0	0	0	0	0	0				
	Point16	1213	0	0	0	0	0	0				
	Point17	1214	0	0	0	0	0	0				
	Point18	1215	0	0	0	0	0	0				
	Point19	1216	0	0	0	0	0	0				
	Point20	1217	0	0	0	0	0	0				
	Point21	1218	0	0	0	0	0	0				
	Point22	1219	0	0	0	0	0	0				
	Point23	1220	0	0	0	0	0	0				
	Point24	1221	0	0	0	0	0	0				
	Point25	1222	0	0	0	0	0	0				
	Point26	1223	0	0	0	0	0	0				
	Point27	1224	0	0	0	0	0	0				
	Point28	1225										
US 21 SB SH 10-ft	Point0	1226	0	0	0	0	0	0				
	Point1	1227	0	0	0	0	0	0				
	Point2	1228	0	0	0	0	0	0				
	Point3	1229	0	0	0	0	0	0				
	Point4	1230	0	0	0	0	0	0				
	Point5	1231	0	0	0	0	0	0				
	Point6	1232	0	0	0	0	0	0				
	Point7	1233	0	0	0	0	0	0				
	Point8	1234	0	0	0	0	0	0				
	Point9	1235	0	0	0	0	0	0				
	Point10	1236	0	0	0	0	0	0				
	Point11	1237	0	0	0	0	0	0				
	Point12	1238	0	0	0	0	0	0				
	Point13	1239	0	0	0	0	0	0				
	Point14	1240	0	0	0	0	0	0				
	Point15	1241	0	0	0	0	0	0				

INPUT: TRAFFIC FOR LAeq1h Volumes**SC_HDR-1502**

	Point16	1242	0	0	0	0	0	0				
	Point17	1243	0	0	0	0	0	0				
	Point18	1244	0	0	0	0	0	0				
	Point19	1245	0	0	0	0	0	0				
	Point20	1246	0	0	0	0	0	0				
	Point21	1247	0	0	0	0	0	0				
	Point22	1248	0	0	0	0	0	0				
	Point23	1249	0	0	0	0	0	0				
	Point24	1250	0	0	0	0	0	0				
	Point25	1251	0	0	0	0	0	0				
	Point26	1252	0	0	0	0	0	0				
	Point27	1253	0	0	0	0	0	0				
	Point28	1254										

INPUT: GROUND ZONES

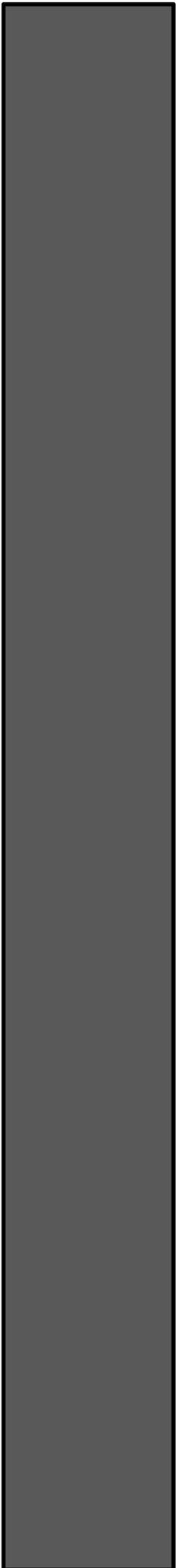
SC_HDR-1502

EPEI				31 March 2016	
B. Batt				TNM 2.5	
INPUT: GROUND ZONES					
PROJECT/CONTRACT:		SC_HDR-1502			
RUN:		Build			
Ground Zone			Points		
Name	Type	Flow Resistivity	No.	Coordinates	
		cgs rayls		X	Y
				ft	ft
Harbor River	Water	20000	1	2,167,223.2	208,224.5
			2	2,167,296.8	209,490.7
			3	2,170,081.2	208,353.4
			4	2,169,233.5	207,403.3

APPENDIX B

TRAFFIC

SCDOT PROJECT ID: P026862



TRAFFIC DATA FOR PAVEMENT LOADING

Factors revised February 1999

Report date: 7/29/2015

County 7 BEAUFORT

Route US 21 Route Name: Sea Island Pkwy

Beginning termini: MP 2.5

Ending termini: MP 1.5

Beginning mile post: 0.00

1-way 2-way

Number of lanes: 2

Type of pavement

Percent Trucks.: 10

Flexible Rigid

Critical Lane: 100

Rd. Grp. (A-P) - Class 9 %: J - 36

Base year: 2017

Base year ADT: 4,200

Future year: 2027

Projected ADT: 4900

Future year: 2037

Projected ADT: 5600

4900

ONE-WAY EQUIVALENT DAILY 18 KIP SINGLE AXLE LOAD APPLICATIONS IN THE CRITICAL LANE

5 YR. DES. = 32.02

10 YR. DES. = 65.74

15 YR. DES. = 100.94

20 YR. DES. = 137.82

YEAR	ADT	AVERAGE ONE-WAY		ADJUSTED TRUCKS	1-WAY EQUIV. 18 KIP	
		ADT	TRUCKS		TOTAL	CRT. LN.
2017	4,200					
2022	4,600	2,200	220	55	32.02	32.02
2027	4,900	2,258	226	113	65.74	65.74
2032	5,200	2,312	231	173	100.94	100.94
2037	5,600	2,367	237	237	137.82	137.82

TRAFFIC DATA FOR PAVEMENT LOADING

Factors revised February 1999

Report date: 7/29/2015

County 7 BEAUFORT

Route US 21 Route Name: Sea Island Pkwy

Beginning termini: MP 2.5

Ending termini: MP 1.5

Beginning mile post: 0.00 1-way 2-way

Number of lanes: 2

Percent Trucks.: 10

Critical Lane: 100

Type of pavement
 Flexible Rigid

Rd. Grp. (A-P) - Class 9 %: J - 36

Base year: 2017

Base year ADT: 4,200

Future year: 2027

Projected ADT: 4900

Future year: 2037

Projected ADT: 5600

4900

ONE-WAY EQUIVALENT DAILY 18 KIP SINGLE AXLE LOAD APPLICATIONS IN THE CRITICAL LANE

5 YR. DES. = 43.61

10 YR. DES. = 89.53

15 YR. DES. = 137.47

20 YR. DES. = 187.69

YEAR	ADT	AVERAGE ONE-WAY		ADJUSTED TRUCKS	1-WAY EQUIV. 18 KIP	
		ADT	TRUCKS		TOTAL	CRT. LN.
2017	4,200					
2022	4,600	2,200	220	55	43.61	43.61
2027	4,900	2,258	226	113	89.53	89.53
2032	5,200	2,312	231	173	137.47	137.47
2037	5,600	2,367	237	237	187.69	187.69



SCDOT Project Screening Tool



Logged in as NTS\StoneburTH (Viewer)

**Traffic Projection Request
for BEAUFORT US-21 N Main Line (07020002100N)
from Milepost 2.50 to 1.50**

Home Request a New Traffic Projection Find Traffic Projections View Open Requests

General

Created by NTS\StoneburTH on 7/28/2015 10:10 AM

Base Year: 2017

Future Year: 2037

Roadwork Type: Other

Comments:

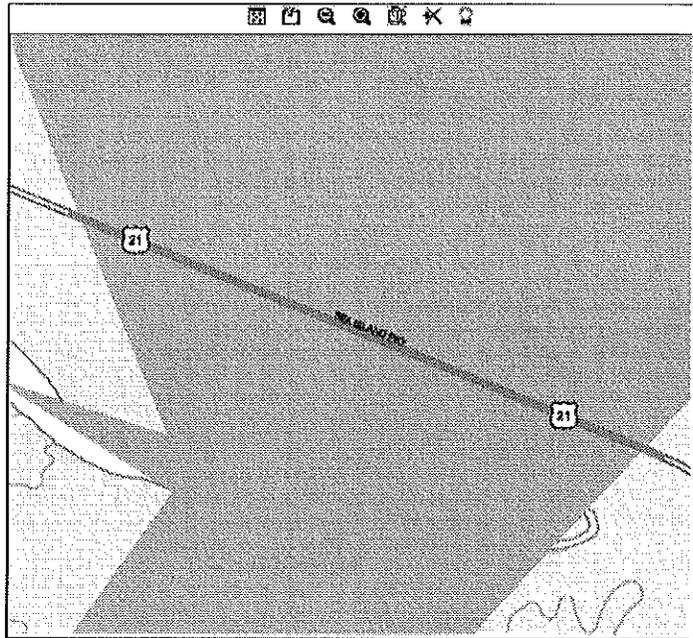
Harbor River Bridge Replacement Project to include pavement, bridge and roadway design.

Traffic Projections

	Year	ADT	LOS
Present	2014	4,100	
Base	2017	4,200	
Mid	2027	4,900	
Design	2037	5,600	

Number of Lanes: 0

Comments:



P2S ITMS Plan Library Primavera

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DISCLAIMER: ALL GIS DATA NEEDS TO BE FIELD VERIFIED

REQUEST FOR TRAFFIC DATA

Route to Road Data Services Engineer

1. DATA REQUESTED *

- Traffic Loading for Pavement Design
- Classification Count for Pavement Design
- Design Data
- Intersection Two-Way Traffic Flow (ADT)
- Intersection Turning Movement Counts
- Other (Explain)

* Requestor should complete sections 1, 2, and 4 as well as Base Year and Number of Lanes.

2. LOCATION *

COUNTY Beaufort ROUTE/ROAD US 21 (Sea Island Pkwy)
 From MP 2.5 To MP 1.5
 (ATTACH MAP)

*Station 147
US-21*

3. CONTROLS

For Pavement Loading

	<u>Year</u>	<u>ADT</u>
Base Year	<u>2017</u> *	<u>4200</u>
Middle Year	<u>2027</u>	<u>4900</u>
End Year	<u>2037</u>	<u>5600</u>
No. of Lanes	<u>2</u> *	_____

	<u>Year</u>	<u>ADT</u>
Present ADT	<u>(2017)</u>	<u>4200</u>
Future ADT	<u>(2037)</u>	<u>5600</u>
Design Speed (V)	_____	_____

K% 10% D% 50/50

Provide ESALS for Flexible and Rigid Pavement Types

Trucks:
% ADT 10%

% DHV 7%

Other _____

Road Group

J

Lane Distribution

100

Trucks (% ADT)

10%

4. FURNISH COPIES OF TRAFFIC DATA TO *

- Lowcounty Regional Production Group Engineer
- Midlands Regional Production Group Engineer
- Pee Dee Regional Production Group Engineer
- Upstate Regional Production Group Engineer
- Material & Research Engineer
- Design Build Design Manager (Gaskins)
- Program Manager (Mattox)

Requested By: Tyke Redfearn Section: Design Build

Date: 7/28/2015

Stoneburner, Tammy H

From: Eargle, Stacy A
Sent: Tuesday, July 28, 2015 8:14 AM
To: Stoneburner, Tammy H
Subject: FW: US21 Harbor River Traffic Data Request 07.28.15
Attachments: US21_Harbor_River_Traffic_Data_Request.pdf

From: Anderson, Todd
Sent: Tuesday, July 28, 2015 8:08 AM
To: Eargle, Stacy A
Subject: FW: US21 Harbor River Traffic Data Request 07.28.15

Hey Stacy,

Will you get a special count for this, or use an existing coverage count?

From: Redfearn, Tyke
Sent: Tuesday, July 28, 2015 8:05 AM
To: Anderson, Todd; Eargle, Stacy A
Cc: Mattox, James H.; Gaskins, Chris; Thompson Jr, Jesse U.
Subject: US21 Harbor River Traffic Data Request 07.28.15

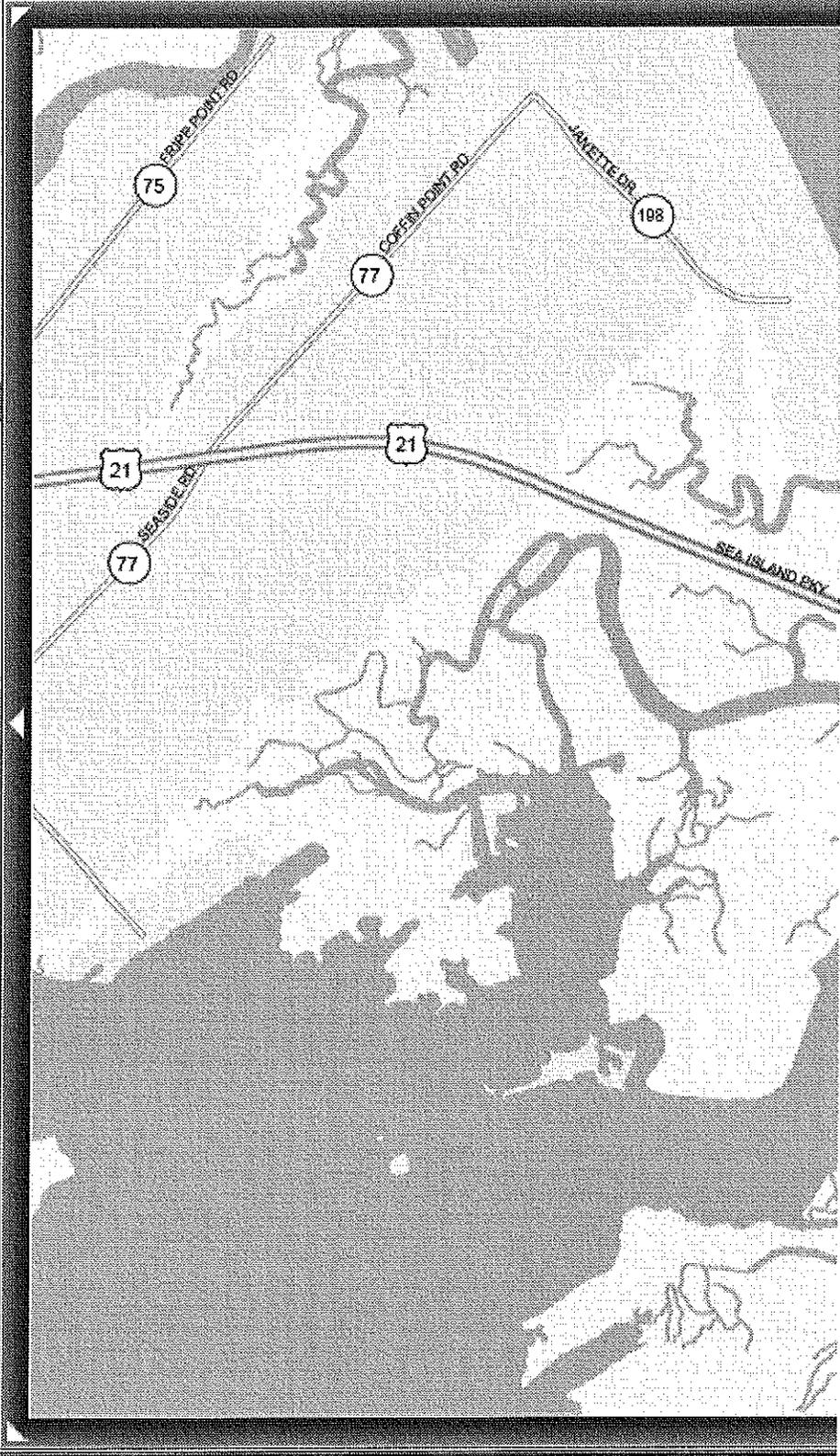
Good Morning-

Please see attached request for traffic data for pavement, bridge, and roadway design for the Harbor River Bridge Replacement Project. Below is a map of the site. If you have any questions, please let me know.
Thanks!

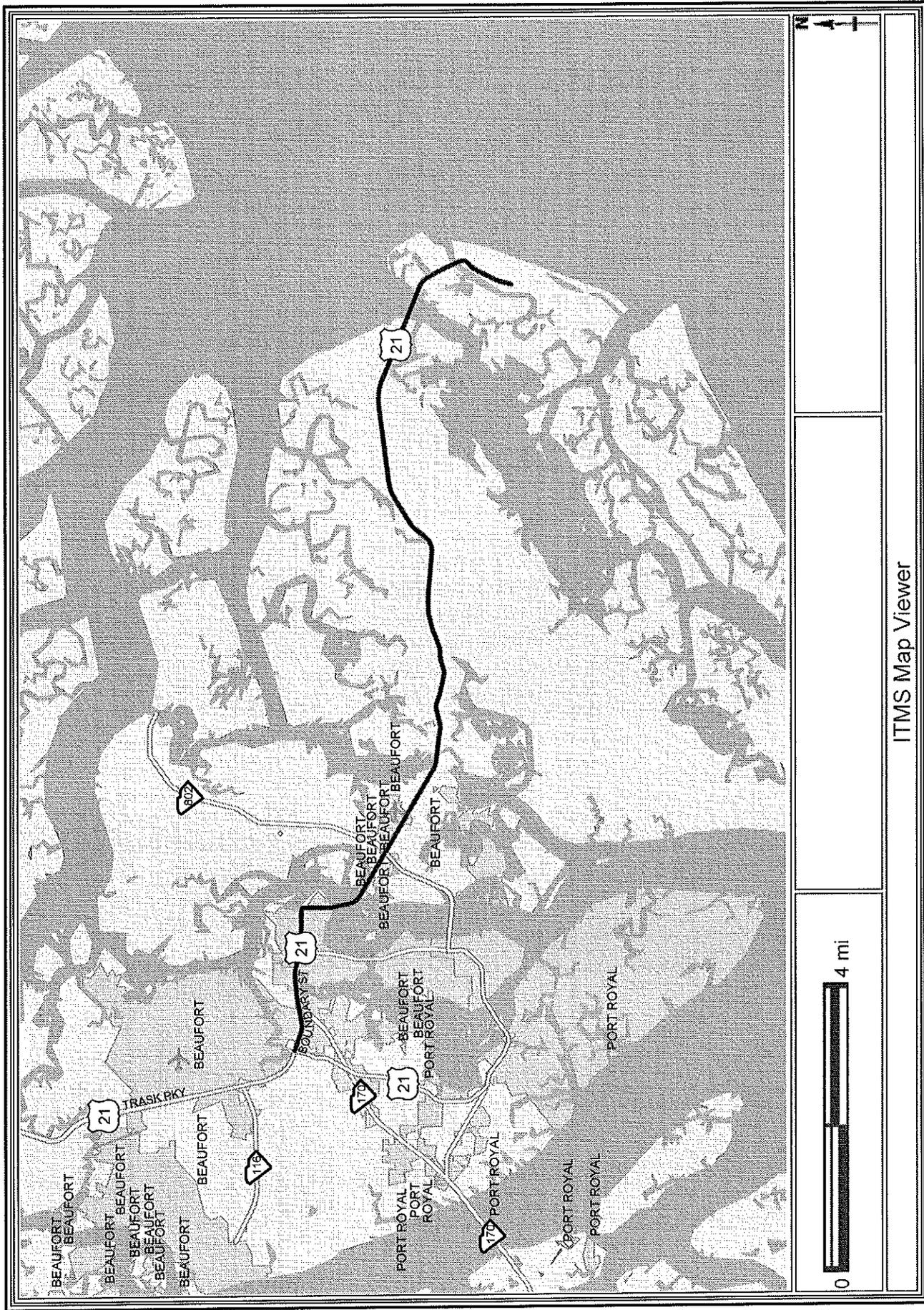
- Viewers **Field Queries** Thematic
- Legend Find Info Reports
- Road Conditions Active Projects TCount
- Area Query
- Distance Query
- Pavement Query
- Photolog Query
- Google Street View
- Range Query
- Review Information
- ▼ Route Information

1. Please select the type of route information to view.
 - AADT (Factored)
 - Federal-Aid Eligible
 - Flagged Priority
2. Please select a point on a road to view route information.

AADT (Factored) 4100
Federal-Aid Eligible Yes
Flagged Priority X
Location BEAUFORT US
 21
Milepoint 1.909
Municipality
Commission District 1



W. Tyke Redfearn, P.E.
 Program Manager
 SCDOT | Design-Build
 Room 219 | (803) 737-1430





07/28/2015

US21.txt
Average Daily Traffic for Map Sales

Page 1

County	Station	Route	Route Location	Est. AADT	AADT Year
7	145	US 21	S- 77 TO S- 74	4300	2014
7	147	US 21	S- 406 TO S- 77	4100	2014

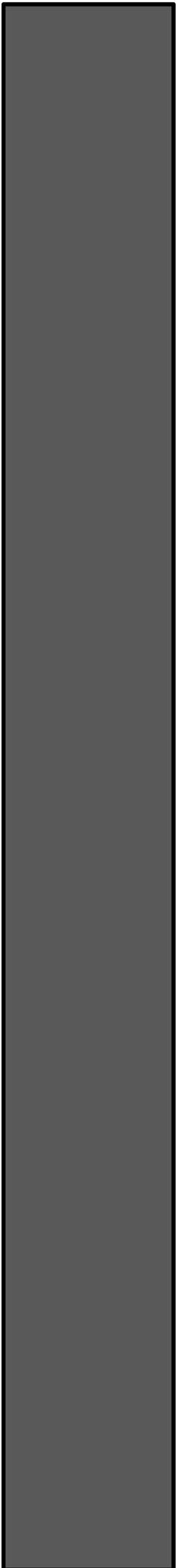
Disclaimer - The South Carolina Department of Transportation makes no representation or warranties, implied or expressed, concerning the accuracy, completeness, reliability, or suitability for any particular purpose of the information and data contained on this printout.

	ADT	K-Factor	Total DHV	Unidirectional DHV	M-Trucks	H-Trucks	Auto	Medium	Heavy
Existing 2014	4100	10%	410	205	3.5%	3.5%	189	8	8
Build 2037	5600	10%	560	280	3.5%	3.5%	205	10	10

APPENDIX C

FIELD DATA

SCDOT PROJECT ID: P026862



Noise Assessment Field Data Sheet

Project Data

EPEI Project No. & Name SC-HDR-1502 Date: 9/3/15

Project No. _____ County: Beaufort, SC

Sampling Data

Measurement No. 4 15 minute sample period: 10:47 am to 11:02 am LeqA 61.0

SLM: Bruel & Kjaer 2238 Mediator Factory Calibrated: 21 October 2011
 Field Calibrated: Date/ 93.8 -29.9 Initials/ DBB
-30.0 -29.7

Weather Conditions

82° , Sunny

Traffic

Road Name: US 21 / Sea Island Parkway Posted Speed Limit: 55

	15 min				Hourly			
	EB	WB	NB	SB	EB	WB	NB	SB
Cars	34			17				
Med Trucks	2			1				
Heavy Trucks	0			0				
Motorcycle	0			0				
Bus	0			0				

Notes/Site Sketch

GPS coords

The sketch shows a horizontal line representing a road. On the left side of the road, there is a vertical line with a small circle at the top, labeled 'FM4'. An arrow points from this point to the right, towards two simple drawings of vehicles on the road. Below the arrow, the text '16 ft' is written, indicating the distance between the measurement point and the vehicles.

Noise Assessment Field Data Sheet

Project Data

EPEI Project No. & Name SC-HDR-1502 Date: 9/3/15
 Project No. _____ County: Dee. Co. SC

Sampling Data

Measurement No. 3 15 minute sample period: 11:09 am to LeqA 68.3
 SLM: Bruel & Kjaer 2238 Mediator Factory Calibrated: 21 October 2011
 Field Calibrated: Date/ SAA Initials/ DB

Weather Conditions

82° Sunny

Traffic

Road Name: SC 21 / Sec Island Pkwy Posted Speed Limit: 55

	15 min				Hourly			
	EB	WB	NB	SB	EB	WB	NB	SB
Cars	30				31			
Med Trucks	2				1			
Heavy Trucks	0				0			
Motorcycle	1				1			
Bus	0				0			

Notes/Site Sketch

GPS collected

A hand-drawn site sketch showing a horizontal line representing a road. On the left side of the line, there is a vertical line with a small triangle at the top, labeled 'M'. Below the road line, there is a double-headed arrow labeled 'SFH'. On the right side of the road line, there are two simple rectangular shapes representing buildings.

Noise Assessment Field Data Sheet

Project Data

EPEI Project No. & Name SC-HDR-1501 Date: 9/3/15
 Project No. _____ County: Beaufort, SC

Sampling Data

Measurement No. 2 15 minute sample period: 11:39 am to LeqA 65.1
 SLM: Bruel & Kjaer 2238 Mediator Factory Calibrated: 21 October 2011
 Field Calibrated: Date/ SAA Initials/ DR

Weather Conditions

85° Sunny

Traffic

Road Name: US 21 / Sea Island Pkwy Posted Speed Limit: 55

	15 min				Hourly			
	EB	WB	NB	SB	EB	WB	NB	SB
Cars			<u>30</u>				<u>22</u>	
Med Trucks			<u>2</u>				<u>0</u>	
Heavy Trucks			<u>0</u>				<u>0</u>	
Motorcycle			<u>0</u>				<u>0</u>	
Bus			<u>0</u>				<u>0</u>	

Notes/Site Sketch

GPS (cont)

The sketch shows a horizontal line representing a road. On the left side, there is a north arrow pointing upwards, labeled 'FM'. To the right of the north arrow, there are two rectangular boxes representing measurement points, labeled 'SB' and 'NB' from left to right. A double-headed arrow labeled 'FFL' is positioned below the road line, spanning the distance between the two measurement points.

Noise Assessment Field Data Sheet

Project Data

EPEI Project No. & Name SC-14DR-1502 Date: 9/3/15
 Project No. _____ County: Douglas, SC

Sampling Data

Measurement No. 1 15 minute sample period: 12:16 to _____ LeqA 52.9
 SLM: Bruel & Kjaer 2238 Mediator Factory Calibrated: 21 October 2011
 Field Calibrated: Date/ SAA Initials/ BD

Weather Conditions

87°, Sunny

Traffic

Road Name: SC 21 / Sea Island Pkwy Posted Speed Limit: 45

	15 min				Hourly			
	EB	WB	NB	SB	EB	WB	NB	SB
Cars		31				38		
Med Trucks		1				1		
Heavy Trucks		1				0		
Motorcycle		0				0		
Bus		0				0		

Notes/Site Sketch

GPS collected

Notes: AC units running. Given low amount of traffic, may influence noise results.
 FM taken next to local drive; 1 truck passed within 5 feet of noise meter

RESULTS: SOUND LEVELS

SC-HDR1502

EPEI													31 March 2016	
B. Batt													TNM 2.5	
													Calculated with TNM 2.5	
RESULTS: SOUND LEVELS														
PROJECT/CONTRACT:			SC-HDR1502											
RUN:			Existing											
BARRIER DESIGN:			INPUT HEIGHTS											
													Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.	
ATMOSPHERICS:			68 deg F, 50% RH											
Receiver														
Name		No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal	
				dB	dB	dB	dB	dB		dB	dB	dB	dB	
1.0		1	1	52.9	50.8	100	-2.1	15	----	50.8	0.0	8	-8.0	
Dwelling Units			# DUs	Noise Reduction										
				Min dB	Avg dB	Max dB								
All Selected			1	0.0	0.0	0.0								
All Impacted			0	0.0	0.0	0.0								
All that meet NR Goal			0	0.0	0.0	0.0								

RESULTS: SOUND LEVELS

SC-HDR1502

EPEI													31 March 2016	
B. Batt													TNM 2.5	
													Calculated with TNM 2.5	
RESULTS: SOUND LEVELS														
PROJECT/CONTRACT:			SC-HDR1502											
RUN:			Existing											
BARRIER DESIGN:			INPUT HEIGHTS										Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.	
ATMOSPHERICS:			68 deg F, 50% RH											
Receiver														
Name		No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing		With Barrier					
							Calculated	Crit'n	Type Impact	Calculated LAeq1h	Noise Reduction		Calculated minus Goal	
								Sub'l Inc			Calculated	Goal	Calculated minus Goal	
				dB	dB	dB	dB	dB		dB	dB	dB	dB	
2.0		2	1	65.1	65.2	71	0.1	15	----	65.2	0.0	8	-8.0	
Dwelling Units			# DUs	Noise Reduction										
				Min	Avg	Max								
				dB	dB	dB								
All Selected			1	0.0	0.0	0.0								
All Impacted			0	0.0	0.0	0.0								
All that meet NR Goal			0	0.0	0.0	0.0								

RESULTS: SOUND LEVELS

SC-HDR1502

EPEI										31 March 2016			
B. Batt										TNM 2.5			
										Calculated with TNM 2.5			
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:			SC-HDR1502										
RUN:			Existing										
BARRIER DESIGN:			INPUT HEIGHTS							Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.			
ATMOSPHERICS:			68 deg F, 50% RH										
Receiver													
Name		No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing		Type Impact	With Barrier			
							Calculated	Crit'n		Calculated LAeq1h	Noise Reduction		Calculated minus Goal
								Sub'l Inc			Calculated	Goal	Calculated minus Goal
				dB	dB	dB	dB	dB		dB	dB	dB	dB
3.0		3	1	68.3	66.6	66	-1.7	15	Snd Lvl	66.6	0.0	8	-8.0
Dwelling Units			# DUs	Noise Reduction									
				Min	Avg	Max							
				dB	dB	dB							
All Selected			1	0.0	0.0	0.0							
All Impacted			1	0.0	0.0	0.0							
All that meet NR Goal			0	0.0	0.0	0.0							

RESULTS: SOUND LEVELS

SC-HDR1502

EPEI													31 March 2016	
B. Batt													TNM 2.5	
													Calculated with TNM 2.5	
RESULTS: SOUND LEVELS														
PROJECT/CONTRACT:			SC-HDR1502											
RUN:			Existing											
BARRIER DESIGN:			INPUT HEIGHTS										Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.	
ATMOSPHERICS:			68 deg F, 50% RH											
Receiver														
Name		No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing		With Barrier					
							Calculated	Crit'n	Type Impact	Calculated LAeq1h	Noise Reduction		Calculated minus Goal	
								Sub'l Inc			Calculated	Goal	Calculated minus Goal	
				dB	dB	dB	dB	dB		dB	dB	dB	dB	
4.0		4	1	61.0	63.0	66	2.0	15	----	63.0	0.0	8	-8.0	
Dwelling Units			# DUs	Noise Reduction										
				Min	Avg	Max								
				dB	dB	dB								
All Selected			1	0.0	0.0	0.0								
All Impacted			0	0.0	0.0	0.0								
All that meet NR Goal			0	0.0	0.0	0.0								