NOISE IMPACT ASSESSMENT
P.I. No. 0010425
Gwinnett County
February 2014

Grade Separation of Walther Boulevard Over SR 316

2013 ADT: 3,650
2036 ADT: 8,400

Executive Summary

This report addresses increases in traffic generated noise that can be expected to occur due to the grade separation of Walther Boulevard at SR 316 in Gwinnett County, Georgia.

Two hundred and thirty receivers (representing 1,076 receptors) were identified. Eleven receivers (representing 70 receptors) were predicted to approach or exceed the NAC in the 2036 Build Year. Abatement measures were not investigated because all of the impacts would be a result of traffic on SR 316 and not Walther Boulevard.

Prepared By:

CTV

Christen Vickery
Atkins

QC/QA Reviewer:

for

Henry Borovich, AICP
Atkins

Approved By (GDOT):

Andrew Clay

Date: 2/27/2014

NOISE IMPACT ASSESSMENT
P.I. No. 0010425
Gwinnett County
February 2014

This report addresses increases in traffic generated noise that can be expected to occur due to the grade separation of Walther Boulevard at SR 316 in Gwinnett County, Georgia. Georgia Department of Transportation (GDOT) P.I. No. 0010425 would remove the existing access to Walther Boulevard from SR 316 and provide a grade separation of Walther Boulevard over SR 316 in Gwinnett County. The proposed project is approximately 0.3 mile in length. The existing typical section of Walther Boulevard consists of two 12-foot travel lanes (one in each direction) with a 12-foot flush median. The proposed typical section of Walther Boulevard would consist of two 12-foot travel lanes with a 14-foot two way left turn lane and a 12-foot shoulder. Four foot bike lanes and 5-foot sidewalk would be located on both sides of the roadway. The proposed Walther Boulevard bridge over SR 316 would be a four span bridge 404 ft in length. Refer to Figure 1 for the project location.

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.

This report documents the results of a 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

e. Design the most cost effective noise wall height that will eliminate or reduce noise impacts associated with the proposed project where both reasonable and feasible.

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:

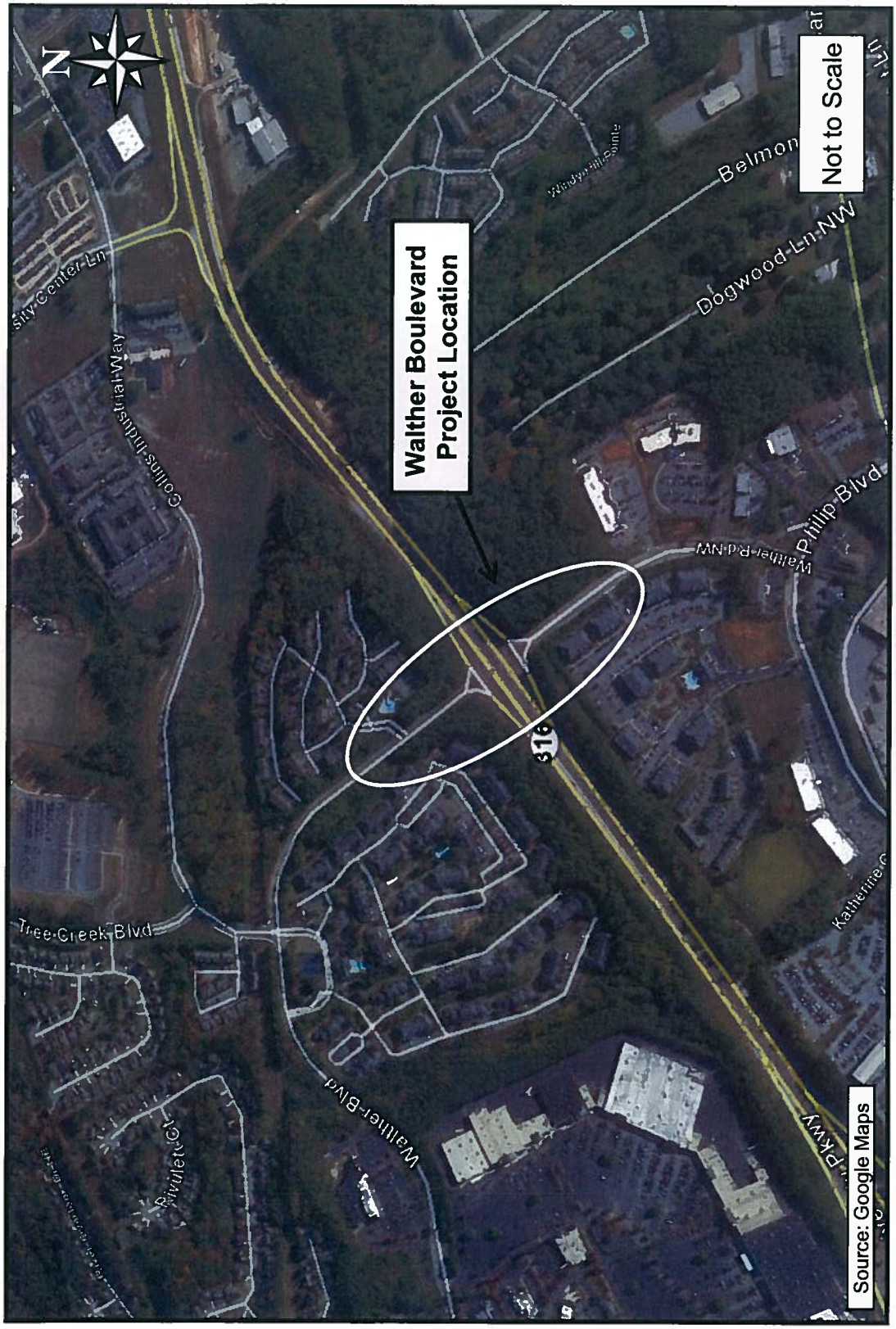
Type I Project:

(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,



Walther Boulevard Grade Separation
P.I. Number 0010425
Gwinnett County, Georgia

Project Location Map
Figure 1

(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 proposed grade separation at Walther Boulevard would be considered a Type I project.

FHWA Noise Abatement Criteria

Noise considerations are part of the planning, design and construction of all Federal-aid projects. Title 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 (NAC) (Table 1), or when the future predicted traffic noise levels substantially exceed the existing noise levels."

Table 1 to Part 772 - 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, amphitheaters, 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 Highways Administration (23 CFR 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

The purpose of a noise assessment is to disclose all noise impacts that will occur in the future Build condition of a Type I roadway project.

Category F activities are not studied for noise since there is no abatement criteria established for non-noise sensitive receptors. Category G activities are studied for future planning purposes. The results are sent to local planners.

Only exterior areas of frequent human use would be considered for abatement measures unless they are Category D activities. Frequent human exterior use areas are defined as exterior areas with a permanent fixture for the purpose of outdoor recreation (e.g. patios, decks, porches, permanently affixed picnic tables, grills, etc.).

Federal Highway Administration Traffic Noise Model (TNM), version 2.5 was used to calculate existing noise levels and predict future noise levels. Two methods are used for identifying a noise impact.

First is a comparison of predicted noise levels with FHWA's NAC, as seen in Table 1. Any predicted noise level that approaches or exceeds the applicable NAC is considered an impact. Georgia DOT has defined noise levels within 1dB of the NAC as approaching criteria.

The second method is a comparison of predicted traffic noise levels with existing noise levels. A site is considered to be impacted if there is a substantial increase from existing levels. Georgia DOT has defined a substantial increase from existing as occurring when the future predicted noise levels increase by at least 15 dBA or more over existing levels.

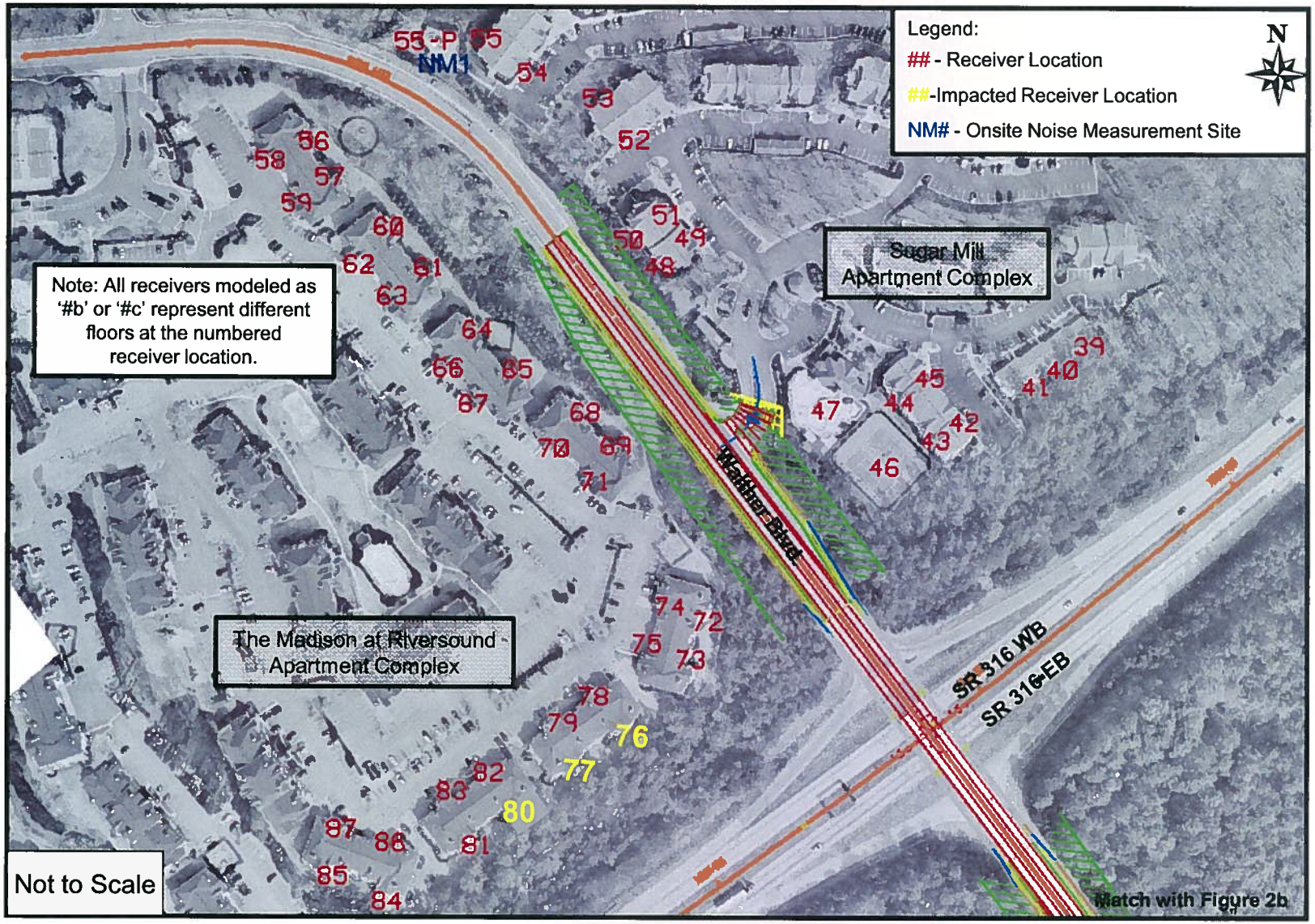
1. Identification of Existing Activities or Land Uses Which May Be Affected By Noise from the Highway

Land use along the proposed project corridor consists of residential and office sites. There were 230 receivers modeled (a receiver is a point within the noise model) representing 1,076 receptors (a receptor is a noise recipient that represents outdoor use). This large number of receivers/receptors in a relatively small project area is due to the fact that most of the sites are multifamily residential dwellings. Refer to Figures 2a-2b for the location of the receivers.

2. Validation

Field model validation measurements were collected on January 8, 2013 at three sites along the corridor. Measurements were taken in 15 minute intervals at each location. Field measurements indicate existing noise levels range between 53.2 dBA Leq and 68.6 dBA Leq. Modeled results, utilizing traffic counted in the field, indicate existing noise ranges between 56.1 dBA Leq and 67.8 dBA Leq. (See Figure 2a-2b: Receiver Location Map for locations and Attachment 2 for field notes and validation model runs.)

All of the field model sites are within the acceptable 3-decibel range. Therefore, the model has been determined to be valid for assessing noise impacts in the project area. The comparisons of the modeled noise levels and the measured noise are shown in Table 2.



Walther Boulevard Grade Separation
P.I. Number 0010425
Gwinnett County, Georgia

Project Location Map

Figure 2a

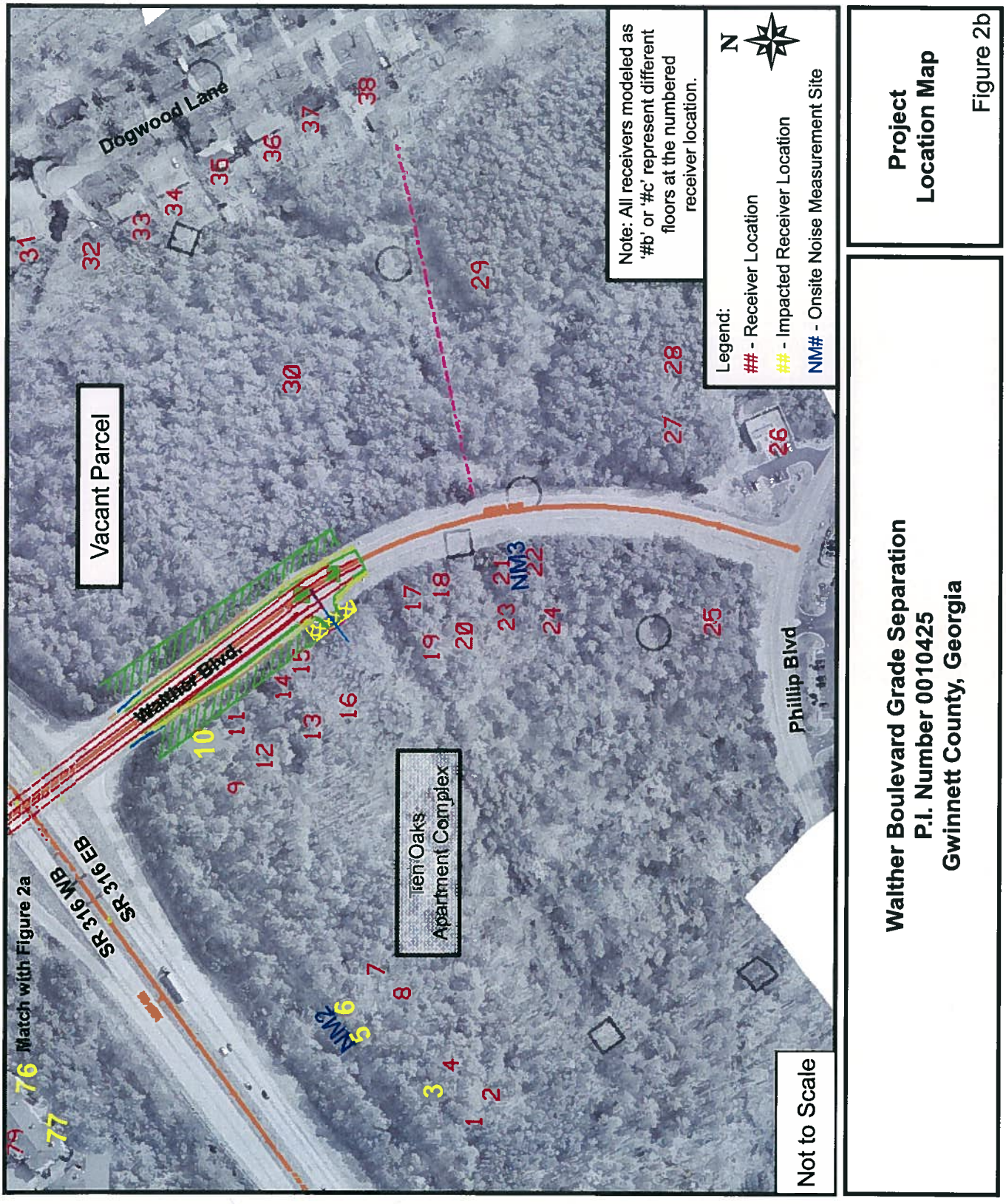

Vacant Parcel
Dogwood Lane
Walther Blvd.
Ten Oaks Apartment Complex
Phillip Blvd
SR 316 EB
SR 316 WB
Match with Figure 2a
NM2
NM3
Note: All receivers modeled as '#b' or '#c' represent different floors at the numbered receiver location.
Legend:
- Receiver Location
- Impacted Receiver Location
NM# - Onsite Noise Measurement Site
N
Not to Scale
Walther Boulevard Grade Separation
P.I. Number 0010425
Gwinnett County, Georgia
Project Location Map
Figure 2b

Table 2: Model Validation

Site	Location	Field	TNM	Difference
NM1	Sugar Mill Apartments Playground	58.6	58.3	-0.3
NM2	SR 316 at Ten Oaks Apartment Complex	68.6	67.8	-0.8
NM3	Walther Blvd at Ten Oaks Apartment Complex	53.2	56.1	2.9

3. Determination of Ambient Noise Levels and Future No Build Levels for Existing Activities or Developed Land Uses

Existing noise levels were calculated using the FHWA TNM 2.5. Input to the model includes the existing roadway alignment, existing traffic volumes and vehicle speeds of 35 mph on Walther Boulevard and 65 mph on SR 316. Truck percentages on Walther Boulevard were modeled at 4% medium trucks and on SR 316 were modeled at 2% medium and 3% heavy trucks.

Results from the model for existing noise levels in this area range from 49.6 to 68.8 dBA Leq. See Table 3 for the model results.

4. Prediction of Future Build Traffic Noise Levels

Traffic-generated noise levels for the future conditions at Walther Boulevard were also calculated using TNM. A computer analysis of the future traffic-generated noise was performed for the design year (2036) for the Build and No Build conditions. Input to the model includes future roadway alignments, future traffic, vehicle speeds of 35 mph on Walther Boulevard and 65 mph on SR 316. Truck percentages on Walther Boulevard were modeled at 4% medium trucks and on SR 316 were modeled at 2% medium and 3% heavy trucks. Results from the model for Build noise levels in the area range from 50.1 to 68.4 dBA Leq. Results from the model for No Build noise levels range from 50.6 to 69.8 dBA Leq. Refer to Table 3 for the model results.

5. Comparison of Predicted Traffic Noise Levels for Each Alternative with Existing Noise Levels and with Noise Abatement Criteria

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. Any predicted noise level that approaches or exceeds the applicable NAC is considered an impact. For the purpose of this study, approach means within 1 dBA of the NAC. There were 11 receivers (representing 70 receptors) predicted to be impacted on the basis of the NAC established by 23 CFR Part 772.

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. Noise increases of 15 dBA or more are considered a substantial increase. There were no noise impacts of this type predicted for the sites studied.

The Build Noise levels range from 50.1 to 68.4 dBA Leq. The construction of this project would result in a maximum 4.7 decibel increase in traffic generated noise from existing conditions. The 4.7 decibel increase at Receiver 22a is due to increased traffic. It should be noted in some instances, the noise levels decrease in the Build alternative versus the Existing or No Build alternative. This is due to the difference between the existing elevation on Walther Boulevard and the proposed elevation (to construct the bridge) in the Build alternative.

Table 3: Noise Levels for Existing and Future Build and No-Build Conditions								
Receptor Number	Receptor Identification	Dwelling Units	Impact Criterion Level	Existing (2013)	No Build (2036)	Build (2036)	Difference between Existing and Build	Impact
Receiver1	Ten Oaks Apts	8	66	63.8	64.8	64.2	0.4	No
Receiver1a-2nd story	Ten Oaks Apts	8	66	64.4	65.3	64.8	0.4	No
Receiver1b-3rd story	Ten Oaks Apts	8	66	65.1	66.1	65.3	0.2	No
Receiver2	Ten Oaks Apts	8	66	62.2	63.2	62.4	0.2	No
Receiver2a-2nd story	Ten Oaks Apts	8	66	62.5	63.5	62.9	0.4	No
Receiver2b-3rd story	Ten Oaks Apts	8	66	63.2	64.1	63.3	0.1	No
Receiver3	Ten Oaks Apts	8	66	64.9	65.8	65.2	0.3	No
Receiver3a-2nd story	Ten Oaks Apts	8	66	65.5	66.5	65.8	0.3	No
Receiver3b-3rd story	Ten Oaks Apts	8	66	66.3	67.3	66.4	0.1	Yes
Receiver4	Ten Oaks Apts	8	66	62.7	63.7	63.0	0.3	No
Receiver4a-2nd story	Ten Oaks Apts	8	66	63.1	64.1	63.4	0.3	No
Receiver4b-3rd story	Ten Oaks Apts	8	66	63.9	64.8	63.9	0.0	No
Receiver5	Ten Oaks Apts	8	66	66.7	67.6	67.1	0.4	Yes
Receiver5a-2nd story	Ten Oaks Apts	8	66	67.6	68.6	67.7	0.1	Yes
Receiver5b-3rd story	Ten Oaks Apts	8	66	68.6	69.6	68.4	-0.2	Yes
Receiver6	Ten Oaks Apts	8	66	66.8	67.7	67.1	0.3	Yes
Receiver6a-2nd story	Ten Oaks Apts	8	66	67.8	68.8	67.7	-0.1	Yes
Receiver6b-3rd story	Ten Oaks Apts	8	66	68.8	69.8	68.4	-0.4	Yes
Receiver7	Ten Oaks Apts	8	66	63.6	64.6	63.6	0.0	No
Receiver7a-2nd story	Ten Oaks Apts	8	66	64.2	65.2	64.0	-0.2	No
Receiver7b-3rd story	Ten Oaks Apts	8	66	65.1	66.1	64.5	-0.6	No
Receiver8	Ten Oaks Apts	8	66	63.0	63.9	63.1	0.1	No
Receiver8a-2nd story	Ten Oaks Apts	8	66	63.5	64.5	63.5	0.0	No
Receiver8b-3rd story	Ten Oaks Apts	8	66	64.4	65.3	64.0	-0.4	No
Receiver9	Ten Oaks Apts	8	66	64.0	65.0	63.9	-0.1	No
Receiver9a-2nd story	Ten Oaks Apts	8	66	66.3	67.3	64.7	-1.6	No
Receiver9b-3rd story	Ten Oaks Apts	8	66	67.6	68.6	65.6	-2.0	No
Receiver10	Ten Oaks Apts	8	66	64.2	65.2	64.0	-0.2	No
Receiver10a-2nd story	Ten Oaks Apts	8	66	67.2	68.1	65.3	-1.9	No
Receiver10b-3rd story	Ten Oaks Apts	8	66	68.4	69.4	66.9	-1.5	Yes
Receiver11	Ten Oaks Apts	8	66	61.8	63.0	61.8	0.0	No
Receiver11a-2nd story	Ten Oaks Apts	8	66	64.3	65.3	63.4	-0.9	No
Receiver11b-3rd story	Ten Oaks Apts	8	66	66.1	67.1	65.0	-1.1	No
Receiver12	Ten Oaks Apts	8	66	61.5	62.6	61.6	0.1	No
Receiver12a-2nd story	Ten Oaks Apts	8	66	63.6	64.6	62.5	-1.1	No
Receiver12b-3rd story	Ten Oaks Apts	8	66	65.4	66.4	63.5	-1.9	No
Receiver13	Ten Oaks Apts	8	66	59.0	60.0	60.1	1.1	No
Receiver13a-2nd story	Ten Oaks Apts	8	66	60.8	61.9	60.7	-0.1	No
Receiver13b-3rd story	Ten Oaks Apts	8	66	62.7	63.8	61.5	-1.2	No
Receiver14	Ten Oaks Apts	8	66	59.2	60.3	61.0	1.8	No
Receiver14a-2nd story	Ten Oaks Apts	8	66	61.5	62.7	62.0	0.5	No

Table 3: Noise Levels for Existing and Future Build and No-Build Conditions								
Receptor Number	Receptor Identification	Dwelling Units	Impact Criterion Level	Existing (2013)	No Build (2036)	Build (2036)	Difference between Existing and Build	Impact
Receiver14b-3rd story	Ten Oaks Apts	8	66	63.7	64.8	63.6	-0.1	No
Receiver15	Ten Oaks Apts	8	66	60.0	61.0	61.5	1.5	No
Receiver15a-2nd story	Ten Oaks Apts	8	66	60.6	61.7	62.1	1.5	No
Receiver15b-3rd story	Ten Oaks Apts	8	66	62.6	63.8	63.6	1.0	No
Receiver16	Ten Oaks Apts	8	66	58.5	59.7	59.4	0.9	No
Receiver16a-2nd story	Ten Oaks Apts	8	66	59.2	60.3	59.9	0.7	No
Receiver16b-3rd story	Ten Oaks Apts	8	66	60.9	62.0	60.7	-0.2	No
Receiver17	Ten Oaks Apts	8	66	57.7	59.2	60.7	3.0	No
Receiver17a-2nd story	Ten Oaks Apts	8	66	57.3	58.5	60.2	2.9	No
Receiver17b-3rd story	Ten Oaks Apts	8	66	59.0	60.2	61.3	2.3	No
Receiver18	Ten Oaks Apts	8	66	57.2	58.5	60.4	3.2	No
Receiver18a-2nd story	Ten Oaks Apts	8	66	56.5	57.8	59.9	3.4	No
Receiver18b-3rd story	Ten Oaks Apts	8	66	58.3	59.5	60.8	2.5	No
Receiver19	Ten Oaks Apts	8	66	56.3	58.1	57.9	1.6	No
Receiver19a-2nd story	Ten Oaks Apts	8	66	56.6	57.8	58.1	1.5	No
Receiver19b-3rd story	Ten Oaks Apts	8	66	58.2	59.3	59.1	0.9	No
Receiver20	Ten Oaks Apts	8	66	55.4	57.2	57.4	2.0	No
Receiver20a-2nd story	Ten Oaks Apts	8	66	55.5	56.7	57.1	1.6	No
Receiver20b-3rd story	Ten Oaks Apts	8	66	57.4	58.4	58.2	0.8	No
Receiver21	Ten Oaks Apts	8	66	55.6	56.6	59.6	4.0	No
Receiver21a-2nd story	Ten Oaks Apts	8	66	55.2	56.4	59.4	4.2	No
Receiver21b-3rd story	Ten Oaks Apts	8	66	56.8	57.9	59.9	3.1	No
Receiver22	Ten Oaks Apts	8	66	56.1	56.9	60.0	3.9	No
Receiver22a-2nd story	Ten Oaks Apts	8	66	55.2	56.5	59.9	4.7	No
Receiver22b-3rd story	Ten Oaks Apts	8	66	56.5	57.7	60.3	3.8	No
Receiver23	Ten Oaks Apts	8	66	54.6	55.9	57.2	2.6	No
Receiver23a-2nd story	Ten Oaks Apts	8	66	54.5	55.7	57.0	2.5	No
Receiver23b-3rd story	Ten Oaks Apts	8	66	56.0	57.2	57.8	1.8	No
Receiver24	Ten Oaks Apts	8	66	54.1	55.4	56.6	2.5	No
Receiver24a-2nd story	Ten Oaks Apts	8	66	53.8	54.9	56.6	2.8	No
Receiver24b-3rd story	Ten Oaks Apts	8	66	55.0	56.2	56.9	1.9	No
Receiver25-Office	Office	1	71	52.4	53.7	55.2	2.8	No
Receiver26-Office	Office	1	71	51.1	52.0	53.9	2.8	No
Receiver27-Office	Office	1	71	52.5	53.6	56.1	3.6	No
Receiver28-Office	Office	1	71	50.8	51.8	52.8	2.0	No
Receiver29-Office	Office	1	71	51.9	52.9	52.5	0.6	No
Receiver30-Office	Office	1	71	55.3	56.4	55.7	0.4	No
Receiver31	House	1	66	58.3	59.3	59.3	1.0	No
Receiver32	House	1	66	56.2	57.2	56.8	0.6	No
Receiver33	House	1	66	54.8	56.1	55.4	0.6	No
Receiver34	House	1	66	53.6	54.5	54.2	0.6	No

Table 3: Noise Levels for Existing and Future Build and No-Build Conditions								
Receptor Number	Receptor Identification	Dwelling Units	Impact Criterion Level	Existing (2013)	No Build (2036)	Build (2036)	Difference between Existing and Build	Impact
Receiver35	House	1	66	52.4	53.6	53.0	0.6	No
Receiver36	House	1	66	51.7	52.7	52.0	0.3	No
Receiver37	House	1	66	50.7	51.8	51.3	0.6	No
Receiver38	House	1	66	49.6	50.6	50.1	0.5	No
Receiver39	Sugar Mill Apts	3	66	64.7	65.7	64.5	-0.2	No
Receiver40	Sugar Mill Apts	3	66	64.9	65.9	64.4	-0.5	No
Receiver41	Sugar Mill Apts	3	66	64.7	65.7	64.2	-0.5	No
Receiver42	Sugar Mill Apts	2	66	63.3	64.3	63.1	-0.2	No
Receiver42a- 2nd story	Sugar Mill Apts	2	66	64.9	65.8	63.5	-1.4	No
Receiver42b - 3rd story	Sugar Mill Apts	2	66	65.8	66.7	64.3	-1.5	No
Receiver43	Sugar Mill Apts	2	66	63.0	64.0	62.9	-0.1	No
Receiver43ll - lower level	Sugar Mill Apts	2	66	62.1	63.1	62.3	0.2	No
Receiver43a - 2nd story	Sugar Mill Apts	2	66	64.8	65.8	63.3	-1.5	No
Receiver43b - 3rd story	Sugar Mill Apts	2	66	65.8	66.7	64.3	-1.5	No
Receiver44	Sugar Mill Apts	2	66	60.8	61.8	60.9	0.1	No
Receiver44ll - lower level	Sugar Mill Apts	2	66	60.1	60.9	60.7	0.6	No
Receiver44a - 2nd story	Sugar Mill Apts	2	66	62.5	63.5	61.1	-1.4	No
Receiver44b- 3rd story	Sugar Mill Apts	2	66	63.5	64.5	62.4	-1.1	No
Receiver45	Sugar Mill Apts	2	66	60.7	61.7	60.8	0.1	No
Receiver45a- 2nd story	Sugar Mill Apts	2	66	62.1	63.1	60.9	-1.2	No
Receiver45b- 3rd story	Sugar Mill Apts	2	66	63.2	64.2	61.9	-1.3	No
Receiver46-tennis court	Sugar Mill Apts	4	66	62.1	63.1	62.1	0.0	No
Receiver47-pool	Sugar Mill Apts	240	66	60.1	61.1	60.7	0.6	No
Receiver48	Sugar Mill Apts	1	66	57.9	58.3	59.8	1.9	No
Receiver48ll-lower level	Sugar Mill Apts	1	66	55.9	56.3	58.9	3.0	No
Receiver48a- 2nd story	Sugar Mill Apts	1	66	58.7	59.1	60.4	1.7	No
Receiver48b- 3rd story	Sugar Mill Apts	1	66	59.9	60.5	61.4	1.5	No
Receiver49	Sugar Mill Apts	1	66	56.5	57.1	57.9	1.4	No
Receiver49a- 2nd story	Sugar Mill Apts	1	66	57.5	58.0	58.5	1.0	No
Receiver49b- 3rd story	Sugar Mill Apts	1	66	58.9	59.5	59.7	0.8	No
Receiver50	Sugar Mill Apts	1	66	58.1	58.3	60.8	2.7	No
Receiver50ll-lower level	Sugar Mill Apts	1	66	56.7	56.8	60.1	3.4	No
Receiver50a- 2nd story	Sugar Mill Apts	1	66	59.0	59.2	61.2	2.2	No
Receiver50b- 3rd story	Sugar Mill Apts	1	66	59.9	60.2	61.9	2.0	No
Receiver51	Sugar Mill Apts	1	66	56.4	56.8	57.9	1.5	No
Receiver51a-2nd story	Sugar Mill Apts	1	66	57.3	57.8	58.5	1.2	No
Receiver51b-3rd story	Sugar Mill Apts	1	66	58.6	59.2	59.6	1.0	No
Receiver52	Sugar Mill Apts	1	66	55.3	55.7	56.4	1.1	No
Receiver52a-2nd story	Sugar Mill Apts	1	66	56.5	56.9	57.6	1.1	No
Receiver52b-3rd story	Sugar Mill Apts	1	66	57.6	58.2	58.6	1.0	No
Receiver53	Sugar Mill Apts	1	66	54.7	55.0	56.7	2.0	No

Table 3: Noise Levels for Existing and Future Build and No-Build Conditions								
Receptor Number	Receptor Identification	Dwelling Units	Impact Criterion Level	Existing (2013)	No Build (2036)	Build (2036)	Difference between Existing and Build	Impact
Receiver53ll-lower level	Sugar Mill Apts	1	66	52.3	53.0	54.9	2.6	No
Receiver53a-2nd story	Sugar Mill Apts	1	66	55.3	55.6	56.6	1.3	No
Receiver53b-3rd story	Sugar Mill Apts	1	66	56.4	56.8	57.6	1.2	No
Receiver54	Sugar Mill Apts	1	66	53.1	53.2	56.1	3.0	No
Receiver54a-2nd story	Sugar Mill Apts	1	66	54.9	54.9	57.4	2.5	No
Receiver54b-3rd story	Sugar Mill Apts	1	66	55.6	55.7	57.5	1.9	No
Receiver55	Sugar Mill Apts	1	66	52.3	52.7	55.7	3.4	No
Receiver55ll-lower level	Sugar Mill Apts	1	66	50.3	51.1	53.8	3.5	No
Receiver55a-2nd story	Sugar Mill Apts	1	66	54.0	54.2	56.7	2.7	No
Receiver55b-3rd story	Sugar Mill Apts	1	66	54.9	55.2	57.2	2.3	No
Receiver55-P - park	Sugar Mill Apts-PARK	1	66	55.8	56.4	59.4	3.6	No
Receiver56	Madison at Riversound Apts	2	66	54.8	55.2	57.8	3.0	No
Receiver56a-2nd story	Madison at Riversound Apts	2	66	55.4	55.9	58.0	2.6	No
Receiver56b-3rd story	Madison at Riversound Apts	2	66	56.1	56.7	58.4	2.3	No
Receiver57	Madison at Riversound Apts	2	66	54.3	54.5	56.5	2.2	No
Receiver57a-2nd story	Madison at Riversound Apts	2	66	54.9	55.2	56.7	1.8	No
Receiver57b-3rd story	Madison at Riversound Apts	2	66	55.7	56.2	57.4	1.7	No
Receiver58	Madison at Riversound Apts	1	66	53.4	53.9	55.7	2.3	No
Receiver58a-2nd story	Madison at Riversound Apts	2	66	54.1	54.5	55.8	1.7	No
Receiver58b-3rd story	Madison at Riversound Apts	2	66	54.9	55.4	56.5	1.6	No
Receiver59	Madison at Riversound Apts	1	66	53.3	53.6	54.9	1.6	No
Receiver59a-2nd story	Madison at Riversound Apts	2	66	54.0	54.3	54.9	0.9	No
Receiver59b-3rd story	Madison at Riversound Apts	2	66	54.8	55.3	55.8	1.0	No
Receiver60	Madison at Riversound Apts	2	66	54.5	54.5	56.4	1.9	No
Receiver60a-2nd story	Madison at Riversound Apts	2	66	55.4	55.5	56.7	1.3	No
Receiver60b-3rd story	Madison at Riversound Apts	2	66	56.3	56.6	57.5	1.2	No
Receiver61	Madison at Riversound Apts	2	66	54.7	54.9	56.6	1.9	No
Receiver61a-2nd story	Madison at Riversound Apts	2	66	55.7	55.9	56.9	1.2	No
Receiver61b-3rd story	Madison at Riversound Apts	2	66	56.8	57.2	58.0	1.2	No
Receiver62	Madison at Riversound Apts	1	66	53.6	54.0	55.2	1.6	No
Receiver62a-2nd story	Madison at Riversound Apts	2	66	54.5	54.9	55.2	0.7	No
Receiver62b-3rd story	Madison at Riversound Apts	2	66	55.5	56.0	56.2	0.7	No
Receiver63	Madison at Riversound Apts	1	66	54.1	54.6	55.6	1.5	No
Receiver63a-2nd story	Madison at Riversound Apts	2	66	54.9	55.3	55.4	0.5	No
Receiver63b-3rd story	Madison at Riversound Apts	2	66	55.8	56.4	56.5	0.7	No
Receiver64	Madison at Riversound Apts	2	66	55.5	55.9	56.6	1.1	No
Receiver64a-2nd story	Madison at Riversound Apts	2	66	56.4	57.0	57.5	1.1	No
Receiver64b-3rd story	Madison at Riversound Apts	2	66	57.6	58.4	58.6	1.0	No
Receiver65	Madison at Riversound Apts	2	66	56.3	56.9	57.8	1.5	No
Receiver65a-2nd story	Madison at Riversound Apts	2	66	57.0	57.7	58.1	1.1	No
Receiver65b-3rd story	Madison at Riversound Apts	2	66	58.3	59.2	59.3	1.0	No

Table 3: Noise Levels for Existing and Future Build and No-Build Conditions								
Receptor Number	Receptor Identification	Dwelling Units	Impact Criterion Level	Existing (2013)	No Build (2036)	Build (2036)	Difference between Existing and Build	Impact
Receiver66	Madison at Riversound Apts	1	66	54.8	55.5	55.5	0.7	No
Receiver66a-2nd story	Madison at Riversound Apts	2	66	55.7	56.5	56.1	0.4	No
Receiver66b-3rd story	Madison at Riversound Apts	2	66	57.0	57.9	57.5	0.5	No
Receiver67	Madison at Riversound Apts	1	66	55.1	55.7	55.7	0.6	No
Receiver67a-2nd story	Madison at Riversound Apts	2	66	56.1	56.9	56.4	0.3	No
Receiver67b-3rd story	Madison at Riversound Apts	2	66	57.4	58.4	57.7	0.3	No
Receiver68	Madison at Riversound Apts	2	66	57.2	58.0	60.2	3.0	No
Receiver68a-2nd story	Madison at Riversound Apts	2	66	58.4	59.2	59.7	1.3	No
Receiver68b-3rd story	Madison at Riversound Apts	2	66	59.9	60.9	60.9	1.0	No
Receiver69	Madison at Riversound Apts	2	66	58.0	58.7	60.7	2.7	No
Receiver69a-2nd story	Madison at Riversound Apts	2	66	59.3	60.2	60.1	0.8	No
Receiver69b-3rd story	Madison at Riversound Apts	2	66	60.6	61.7	61.3	0.7	No
Receiver70	Madison at Riversound Apts	1	66	56.4	57.3	59.1	2.7	No
Receiver70a-2nd story	Madison at Riversound Apts	2	66	57.7	58.7	58.0	0.3	No
Receiver70b-3rd story	Madison at Riversound Apts	2	66	59.1	60.1	59.3	0.2	No
Receiver71	Madison at Riversound Apts	1	66	58.0	58.8	59.8	1.8	No
Receiver71a-2nd story	Madison at Riversound Apts	2	66	58.6	59.7	59.1	0.5	No
Receiver71b-3rd story	Madison at Riversound Apts	2	66	60.0	61.1	60.2	0.2	No
Receiver72	Madison at Riversound Apts	2	66	62.8	63.8	62.5	-0.3	No
Receiver72a-2nd story	Madison at Riversound Apts	2	66	64.0	65.0	63.5	-0.5	No
Receiver72b-3rd story	Madison at Riversound Apts	2	66	66.0	67.0	64.0	-2.0	No
Receiver73	Madison at Riversound Apts	2	66	63.6	64.6	63.6	0.0	No
Receiver73a-2nd story	Madison at Riversound Apts	2	66	65.0	66.0	64.2	-0.8	No
Receiver73b-3rd story	Madison at Riversound Apts	2	66	66.8	67.7	64.8	-2.0	No
Receiver74	Madison at Riversound Apts	1	66	61.6	62.5	61.4	-0.2	No
Receiver74a-2nd story	Madison at Riversound Apts	2	66	62.4	63.4	62.0	-0.4	No
Receiver74b-3rd story	Madison at Riversound Apts	2	66	64.4	65.4	62.5	-1.9	No
Receiver75	Madison at Riversound Apts	1	66	62.4	63.4	62.0	-0.4	No
Receiver75a-2nd story	Madison at Riversound Apts	2	66	63.1	64.1	62.5	-0.6	No
Receiver75b-3rd story	Madison at Riversound Apts	2	66	64.9	65.8	62.9	-2.0	No
Receiver76	Madison at Riversound Apts	2	66	64.9	65.9	65.1	0.2	No
Receiver76a-2nd story	Madison at Riversound Apts	2	66	65.8	66.8	65.4	-0.4	No
Receiver76b-3rd story	Madison at Riversound Apts	2	66	67.2	68.2	66.0	-1.2	Yes
Receiver77	Madison at Riversound Apts	2	66	65.4	66.4	65.4	0.0	No
Receiver77a-2nd story	Madison at Riversound Apts	2	66	65.9	66.9	65.6	-0.3	No
Receiver77b-3rd story	Madison at Riversound Apts	2	66	67.1	68.1	66.2	-0.9	Yes
Receiver78	Madison at Riversound Apts	1	66	62.9	63.9	62.7	-0.2	No
Receiver78a-2nd story	Madison at Riversound Apts	2	66	63.2	64.2	62.7	-0.5	No
Receiver78b-3rd story	Madison at Riversound Apts	2	66	64.5	65.5	63.2	-1.3	No
Receiver79	Madison at Riversound Apts	1	66	62.9	63.9	62.6	-0.3	No
Receiver79a-2nd story	Madison at Riversound Apts	2	66	63.1	64.1	62.6	-0.5	No

Table 3: Noise Levels for Existing and Future Build and No-Build Conditions								
Receptor Number	Receptor Identification	Dwelling Units	Impact Criterion Level	Existing (2013)	No Build (2036)	Build (2036)	Difference between Existing and Build	Impact
Receiver79b-3rd story	Madison at Riversound Apts	2	66	64.2	65.2	63.1	-1.1	No
Receiver80	Madison at Riversound Apts	2	66	65.3	66.3	65.9	0.6	No
Receiver80a-2nd story	Madison at Riversound Apts	2	66	65.5	66.4	65.4	-0.1	No
Receiver80b-3rd story	Madison at Riversound Apts	2	66	66.5	67.5	66.0	-0.5	Yes
Receiver81	Madison at Riversound Apts	2	66	64.9	65.9	65.5	0.6	No
Receiver81a-2nd story	Madison at Riversound Apts	2	66	65.1	66.1	65.2	0.1	No
Receiver81b-3rd story	Madison at Riversound Apts	2	66	66.1	67.0	65.9	-0.2	No
Receiver82	Madison at Riversound Apts	1	66	62.2	63.2	62.3	0.1	No
Receiver82a-2nd story	Madison at Riversound Apts	2	66	62.8	63.8	62.6	-0.2	No
Receiver82b-3rd story	Madison at Riversound Apts	2	66	63.7	64.7	63.1	-0.6	No
Receiver83	Madison at Riversound Apts	1	66	61.8	62.8	62.2	0.4	No
Receiver83a-2nd story	Madison at Riversound Apts	2	66	62.2	63.2	62.2	0.0	No
Receiver83b-3rd story	Madison at Riversound Apts	2	66	63.1	64.0	62.7	-0.4	No
Receiver84	Madison at Riversound Apts	2	66	64.3	65.3	65.0	0.7	No
Receiver84a-2nd story	Madison at Riversound Apts	2	66	64.6	65.6	65.0	0.4	No
Receiver84b-3rd story	Madison at Riversound Apts	2	66	65.4	66.4	65.7	0.3	No
Receiver85	Madison at Riversound Apts	2	66	60.9	61.9	61.4	0.5	No
Receiver85a-2nd story	Madison at Riversound Apts	2	66	61.2	62.2	61.6	0.4	No
Receiver85b-3rd story	Madison at Riversound Apts	2	66	61.9	62.8	62.1	0.2	No
Receiver86	Madison at Riversound Apts	1	66	61.6	62.6	62.0	0.4	No
Receiver86a-2nd story	Madison at Riversound Apts	2	66	62.1	63.1	62.3	0.2	No
Receiver86b-3rd story	Madison at Riversound Apts	2	66	62.8	63.7	62.8	0.0	No
Receiver87	Madison at Riversound Apts	1	66	59.9	60.9	60.4	0.5	No
Receiver87a-2nd story	Madison at Riversound Apts	2	66	60.0	61.0	60.4	0.4	No
Receiver87b-3rd story	Madison at Riversound Apts	2	66	60.5	61.5	60.6	0.1	No

6. Vacant/Undeveloped Parcel Information

Vacant/Undeveloped land is studied to provide local planning officials the tools they need for compatible land use planning. There is currently one vacant land parcel directly adjacent to the project area. According to the online Gwinnett County Building Permit Website, the parcel does not have any pending building permits. Table 4 below provides the noise levels at various distances from the edge of pavement at the parcel in question. It should be noted that the noise level barely decreases as the distance from Walther Boulevard is increased. This is due to the noise from SR 316 traffic. The modeled points were placed at approximately 350 feet away from SR 316. The location of the vacant parcel is identified on the Receiver Location Map, Figure 2b on page 6.

Table 4: Vacant/Undeveloped Parcel Identification

	50 Feet	100 feet	200 feet	300 feet	400 feet	500 feet
Vacant Area 1 – SE Quadrant of Walther Blvd Intersection	63.0	61.6	61.0	60.7	60.4	60.2

7. Examination and Evaluation of Alternative Noise Abatement Measures

In accordance with 23 CFR Part 772, all impacts need to be studied to determine if abatement measures in the forms of acquisition of rights-of-way, traffic management, alteration of horizontal and vertical alignments, and barriers are feasible and reasonable.

The impacted receivers were included in the study due to their proximity to Walther Boulevard. However, all of the impacts are a result of traffic on SR 316 and none from Walther Boulevard. (This was tested in a model run with no SR 316 traffic. In that model, the highest Build year decibel level was 59.2 dBA.) Since no improvement would occur on SR 316, no abatement measures were analyzed for the grade separation of Walther Boulevard.

8. Construction Noise

Georgia DOT 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 Georgia, contractors on all highway construction projects are required to adhere to GDOT Standard Specification Section 107.01 – Laws to Be Observed, which states in part, "The Contractor shall at all times observe and comply with all such laws, ordinances, codes, regulations, orders and decrees..." unless the necessary variance is obtained.

In order to further minimize construction noise, GDOT's Office of Environmental Services will give the Project Manager and the design team the noise sensitive receptor information as early as possible during project development. This information would be used for the incorporation of construction noise control strategies in the project layout and design. For example, haul roads could be relocated to areas that would minimize construction vehicle noise exposure to noise sensitive receptors. The sequencing of construction activities and techniques could also be developed to minimize construction noise impacts. For example, permanent noise barriers included

in project design could be constructed as early as possible, and daytime (or specified) hours could be required for certain activities.

9. Summary

In the project vicinity, for the 2036 Build year, 11 receivers (representing 70 receptors) were predicted to be impacted on the basis of the NAC established by 23 CFR Part 772. No receivers were predicted to be impacted by substantial increase. Existing noise levels range between 49.6 to 68.8 dBA Leq. The predicted Build noise levels range between 50.1 to 68.4 dBA Leq. The predicted No Build noise levels range from 50.6 to 69.8 dBA Leq. The construction of this project would result in a maximum 4.7 decibel increase at Receiver 22a, from traffic generated noise. Noise abatement for the impacted sites was not considered because all of the impacts are a result of traffic on SR 316 and not Walther Boulevard. (This was tested in a model run with no SR 316 traffic. In that model, the highest Build year decibel level was 59.2 dBA.) Since no improvement would occur on SR 316 as a result of this project, and because the proposed project would not increase the expected traffic on SR 316, FHWA concurred in a phone conversation on January 10, 2014 that no abatement measures were necessary for the grade separation of Walther Boulevard.

Attachment 1

TNM Files

Inputs

Atkins
csv

20 January 2014
TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: 0010425
RUN: Walther Blvd

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
R1-SR 316 EB west of Walther Blvd	24.0	R1-1	1	2,343,457.0	1,444,111.9	1,028.00				Average	
		R1-2	2	2,343,661.2	1,444,264.8	1,030.00				Average	
		R1-3	3	2,343,863.8	1,444,415.9	1,032.00				Average	
		R1-4	4	2,344,066.0	1,444,565.5	1,034.00					
R2-SR 316 EB bw Walter in and out	24.0	R2-1	5	2,344,066.0	1,444,565.5	1,034.00				Average	
		R2-2	6	2,344,231.2	1,444,689.5	1,038.00				Average	
		R2-3	7	2,344,416.8	1,444,825.9	1,038.00				Average	
		R2-4	8	2,344,615.8	1,444,972.4	1,038.00				Average	
		R2-5	9	2,344,815.5	1,445,128.5	1,038.00				Average	
		R2-6	10	2,345,008.8	1,445,286.9	1,036.00				Average	
		R2-7	11	2,345,153.2	1,445,405.9	1,033.00					
R3-SR 316 EB east of Walther Blvd	24.0	R3-1	12	2,345,153.2	1,445,405.9	1,033.00				Average	
		R3-2	13	2,345,340.0	1,445,564.4	1,028.00				Average	
		R3-3	14	2,345,547.8	1,445,740.0	1,023.00				Average	
		R3-4	15	2,345,741.5	1,445,904.9	1,020.00					
R4-SR 316 WB east of Walter Blvd	24.0	R4-1	16	2,345,694.0	1,445,946.9	1,020.00				Average	
		R4-2	17	2,345,496.5	1,445,780.4	1,023.00				Average	
		R4-3	18	2,345,298.2	1,445,613.8	1,028.00				Average	
		R4-4	19	2,345,113.5	1,445,454.6	1,033.00					
R5-SR 316 WB bw Walther in and out	24.0	R5-1	20	2,345,113.5	1,445,454.6	1,033.00				Average	
		R5-2	21	2,344,970.2	1,445,332.9	1,036.00				Average	
		R5-3	22	2,344,761.0	1,445,162.8	1,038.00				Average	
		R5-4	23	2,344,576.0	1,445,019.4	1,038.00				Average	
		R5-5	24	2,344,368.5	1,444,866.0	1,038.00				Average	
		R5-6	25	2,344,173.0	1,444,721.9	1,038.00				Average	

		R5-7	26	2,344,024.0	1,444,617.1	1,034.00					
R6-SR 316 WB west of Walther Blvd	24.0	R6-1	27	2,344,024.0	1,444,617.1	1,034.00				Average	
		R6-2	28	2,343,821.2	1,444,464.5	1,032.00				Average	
		R6-3	29	2,343,612.5	1,444,312.4	1,030.00				Average	
		R6-4	30	2,343,420.0	1,444,171.4	1,028.00					
R7-Walther Blvd SB turn south of SR31	12.0	R7-1	31	2,344,066.0	1,444,565.5	1,034.00				Average	
		R7-2	32	2,344,245.5	1,444,670.4	1,036.00				Average	
		R7-3	33	2,344,436.2	1,444,787.4	1,038.00				Average	
		R7-4	34	2,344,566.2	1,444,855.4	1,040.00				Average	
		R7-5	35	2,344,632.0	1,444,878.9	1,042.00				Average	
		R7-6	36	2,344,684.8	1,444,876.6	1,045.00				Average	
		R7-7	37	2,344,725.2	1,444,842.5	1,048.00				Average	
		R7-8	38	2,344,816.0	1,444,712.4	1,055.00					
R7a-Walther Blvd SB south of SR316	24.0	R7a-1	39	2,344,816.0	1,444,712.4	1,055.00				Average	
		R7a-2	40	2,344,869.8	1,444,640.6	1,055.00				Average	
		R7a-3	41	2,344,955.8	1,444,524.2	1,054.00					
R7b-Walther Blvd SB south of SR316	12.0	R7b-0	42	2,344,955.8	1,444,524.2	1,054.00				Average	
		R7b-1	43	2,345,017.0	1,444,437.8	1,053.00				Average	
		R7b-2	44	2,345,059.0	1,444,339.2	1,052.00				Average	
		R7b-3	45	2,345,088.8	1,444,238.2	1,053.00				Average	
		R7b-4	46	2,345,103.5	1,444,148.0	1,054.00				Average	
		R7b-5	47	2,345,108.0	1,444,061.1	1,054.00				Average	
		R7b-6	48	2,345,100.2	1,443,970.9	1,053.00				Average	
		R7b-7	49	2,345,079.2	1,443,870.2	1,051.00				Average	
		R7b-8	50	2,345,036.8	1,443,720.6	1,046.00					
R8-Walther Blvd NB south of SR 316	12.0	R8-1	51	2,345,066.8	1,443,711.8	1,046.00				Average	
		R8-2	52	2,345,106.5	1,443,864.0	1,051.00				Average	
		R8-3	53	2,345,124.8	1,443,972.6	1,053.00				Average	
		R8-4	54	2,345,129.2	1,444,062.2	1,054.00				Average	
		R8-5	55	2,345,124.8	1,444,153.9	1,054.00				Average	
		R8-6	56	2,345,113.0	1,444,241.1	1,053.00				Average	
		R8-7	57	2,345,081.8	1,444,350.6	1,052.00				Average	
		R8-8	58	2,345,037.8	1,444,452.0	1,053.00				Average	
		R8-9	59	2,344,980.0	1,444,544.1	1,055.00				Average	
		R8-10	60	2,344,893.2	1,444,662.8	1,055.00				Average	
		R8-11	61	2,344,740.2	1,444,854.8	1,048.00				Average	
		R8-12	62	2,344,720.0	1,444,896.6	1,046.00				Average	
		R8-13	63	2,344,719.2	1,444,927.5	1,044.00				Average	

		R8-14	64	2,344,722.8	1,444,955.6	1,044.00				Average	
		R8-15	65	2,344,747.0	1,444,987.4	1,042.00				Average	
		R8-16	66	2,344,780.8	1,445,026.4	1,040.00				Average	
		R8-17	67	2,344,828.5	1,445,082.8	1,039.00				Average	
		R8-18	68	2,344,933.8	1,445,195.4	1,037.00				Average	
		R8-19	69	2,345,032.2	1,445,277.5	1,036.00				Average	
		R8-20	70	2,345,153.8	1,445,404.9	1,033.00					
R9-Walther Blvd NB turn north of SR31	12.0	R9-1	71	2,345,113.8	1,445,454.9	1,033.00				Average	
		R9-2	72	2,344,956.0	1,445,350.4	1,035.00				Average	
		R9-3	73	2,344,835.8	1,445,269.5	1,037.00				Average	
		R9-4	74	2,344,758.0	1,445,217.5	1,039.00				Average	
		R9-5	75	2,344,682.5	1,445,175.2	1,042.00				Average	
		R9-6	76	2,344,603.0	1,445,133.8	1,042.00				Average	
		R9-7	77	2,344,547.5	1,445,135.2	1,042.00				Average	
		R9-8	78	2,344,499.2	1,445,173.9	1,042.00				Average	
		R9-9	79	2,344,420.0	1,445,284.4	1,040.00					
R9a-Walther Blvd NB north of SR 316	24.0	R9a-1	80	2,344,420.0	1,445,284.4	1,040.00				Average	
		R9a-2	81	2,344,348.8	1,445,380.8	1,035.00				Average	
		R9a-3	82	2,344,278.5	1,445,468.0	1,029.00					
R9b-Walther Blvd NB north of SR316	12.0	R9b-1	83	2,344,278.5	1,445,468.0	1,029.00				Average	
		R9b-2	84	2,344,195.5	1,445,574.9	1,020.00				Average	
		R9b-3	85	2,344,046.0	1,445,770.4	1,007.00				Average	
		R9b-4	86	2,343,958.2	1,445,883.1	1,001.00				Average	
		R9b-5	87	2,343,876.8	1,445,958.9	1,001.00				Average	
		R9b-6	88	2,343,778.2	1,446,020.2	1,004.00				Average	
		R9b-7	89	2,343,653.8	1,446,063.2	1,015.00				Average	
		R9b-8	90	2,343,519.5	1,446,077.4	1,023.00				Average	
		R9b-9	91	2,343,368.2	1,446,068.5	1,025.00					
R10-Walther Blvd SB north of SR316	12.0	R10-1	92	2,343,373.0	1,446,038.8	1,025.00				Average	
		R10-2	93	2,343,525.2	1,446,052.2	1,023.00				Average	
		R10-3	94	2,343,648.5	1,446,038.8	1,015.00				Average	
		R10-4	95	2,343,762.8	1,445,997.6	1,004.00				Average	
		R10-5	96	2,343,864.5	1,445,937.6	1,001.00				Average	
		R10-6	97	2,343,939.5	1,445,863.5	1,001.00				Average	
		R10-7	98	2,344,024.5	1,445,755.9	1,007.00				Average	
		R10-8	99	2,344,176.8	1,445,558.9	1,020.00				Average	
		R10-9	100	2,344,328.2	1,445,359.9	1,035.00				Average	
		R10-10	101	2,344,483.2	1,445,162.1	1,044.00				Average	

		R10-11	102	2,344,501.5	1,445,126.1	1,044.00				Average	
		R10-12	103	2,344,504.0	1,445,089.4	1,042.00				Average	
		R10-13	104	2,344,484.0	1,445,044.1	1,041.00				Average	
		R10-14	105	2,344,423.8	1,444,975.5	1,038.00				Average	
		R10-15	106	2,344,352.2	1,444,897.4	1,037.00				Average	
		R10-16	107	2,344,159.8	1,444,740.1	1,036.00				Average	
		R10-17	108	2,344,023.0	1,444,617.2	1,034.00					
R11-Flush Median north of SR316	12.0	R11-1	109	2,344,339.0	1,445,369.8	1,035.00				Average	
		R11-2	110	2,344,186.5	1,445,569.8	1,020.00				Average	
		R11-3	111	2,344,032.5	1,445,766.0	1,007.00				Average	
		R11-4	112	2,343,948.0	1,445,874.2	1,001.00				Average	
		R11-5	113	2,343,868.8	1,445,949.2	1,001.00				Average	
		R11-6	114	2,343,769.5	1,446,009.1	1,004.00				Average	
		R11-7	115	2,343,647.2	1,446,052.1	1,015.00				Average	
		R11-8	116	2,343,524.0	1,446,064.8	1,023.00				Average	
		R11-9	117	2,343,370.5	1,446,052.9	1,025.00					
R12-Flush Median south of SR316	12.0	R12-1	118	2,345,052.8	1,443,715.6	1,046.00				Average	
		R12-2	119	2,345,092.0	1,443,870.4	1,051.00				Average	
		R12-3	120	2,345,112.8	1,443,973.5	1,053.00				Average	
		R12-4	121	2,345,118.8	1,444,066.2	1,054.00				Average	
		R12-5	122	2,345,114.2	1,444,152.2	1,054.00				Average	
		R12-6	123	2,345,102.5	1,444,237.2	1,053.00				Average	
		R12-7	124	2,345,072.8	1,444,344.9	1,052.00				Average	
		R12-8	125	2,345,027.5	1,444,446.5	1,053.00				Average	
		R12-9	126	2,344,972.8	1,444,535.1	1,055.00				Average	
		R12-10	127	2,344,885.2	1,444,654.6	1,055.00					

Atkins
csv

20 January 2014
TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: 0010425
RUN: Walther Blvd

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
R1-SR 316 EB west of Walther Blvd	R1-1	1	2028	65	43	65	64	65	0	0	0	0
	R1-2	2	2028	65	43	65	64	65	0	0	0	0
	R1-3	3	2028	65	43	65	64	65	0	0	0	0
	R1-4	4										
R2-SR 316 EB bw Walter in and out	R2-1	5	1957	65	41	65	62	65	0	0	0	0
	R2-2	6	1957	65	41	65	62	65	0	0	0	0
	R2-3	7	1957	65	41	65	62	65	0	0	0	0
	R2-4	8	1957	65	41	65	62	65	0	0	0	0
	R2-5	9	1957	65	41	65	62	65	0	0	0	0
	R2-6	10	1957	65	41	65	62	65	0	0	0	0
	R2-7	11										
R3-SR 316 EB east of Walther Blvd	R3-1	12	2028	65	43	65	64	65	0	0	0	0
	R3-2	13	2028	65	43	65	64	65	0	0	0	0
	R3-3	14	2028	65	43	65	64	65	0	0	0	0
	R3-4	15										
R4-SR 316 WB east of Walter Blvd	R4-1	16	1824	65	38	65	58	65	0	0	0	0
	R4-2	17	1824	65	38	65	58	65	0	0	0	0
	R4-3	18	1824	65	38	65	58	65	0	0	0	0
	R4-4	19										
R5-SR 316 WB bw Walther in and out	R5-1	20	1686	65	36	65	53	65	0	0	0	0
	R5-2	21	1686	65	36	65	53	65	0	0	0	0
	R5-3	22	1686	65	36	65	53	65	0	0	0	0

	R5-4	23	1686	65	36	65	53	65	0	0	0	0
	R5-5	24	1686	65	36	65	53	65	0	0	0	0
	R5-6	25	1686	65	36	65	53	65	0	0	0	0
	R5-7	26										
R6-SR 316 WB west of Walther Blvd	R6-1	27	1762	65	37	65	56	65	0	0	0	0
	R6-2	28	1762	65	37	65	56	65	0	0	0	0
	R6-3	29	1762	65	37	65	56	65	0	0	0	0
	R6-4	30										
R7-Walther Blvd SB turn south of SR31	R7-1	31	74	35	1	35	0	0	0	0	0	0
	R7-2	32	74	35	1	35	0	0	0	0	0	0
	R7-3	33	74	35	1	35	0	0	0	0	0	0
	R7-4	34	74	35	1	35	0	0	0	0	0	0
	R7-5	35	74	35	1	35	0	0	0	0	0	0
	R7-6	36	74	35	1	35	0	0	0	0	0	0
	R7-7	37	74	35	1	35	0	0	0	0	0	0
	R7-8	38										
R7a-Walther Blvd SB south of SR316	R7a-1	39	74	35	1	35	0	0	0	0	0	0
	R7a-2	40	74	35	1	35	0	0	0	0	0	0
	R7a-3	41										
R7b-Walther Blvd SB south of SR316	R7b-0	42	74	35	1	35	0	0	0	0	0	0
	R7b-1	43	74	35	1	35	0	0	0	0	0	0
	R7b-2	44	74	35	1	35	0	0	0	0	0	0
	R7b-3	45	74	35	1	35	0	0	0	0	0	0
	R7b-4	46	74	35	1	35	0	0	0	0	0	0
	R7b-5	47	74	35	1	35	0	0	0	0	0	0
	R7b-6	48	74	35	1	35	0	0	0	0	0	0
	R7b-7	49	74	35	1	35	0	0	0	0	0	0
	R7b-8	50										
R8-Walther Blvd NB south of SR 316	R8-1	51	74	35	1	35	0	0	0	0	0	0
	R8-2	52	74	35	1	35	0	0	0	0	0	0
	R8-3	53	74	35	1	35	0	0	0	0	0	0
	R8-4	54	74	35	1	35	0	0	0	0	0	0
	R8-5	55	74	35	1	35	0	0	0	0	0	0
	R8-6	56	74	35	1	35	0	0	0	0	0	0

	R8-7	57	74	35	1	35	0	0	0	0	0	0
	R8-8	58	74	35	1	35	0	0	0	0	0	0
	R8-9	59	74	35	1	35	0	0	0	0	0	0
	R8-10	60	74	35	1	35	0	0	0	0	0	0
	R8-11	61	74	35	1	35	0	0	0	0	0	0
	R8-12	62	74	35	1	35	0	0	0	0	0	0
	R8-13	63	74	35	1	35	0	0	0	0	0	0
	R8-14	64	74	35	1	35	0	0	0	0	0	0
	R8-15	65	74	35	1	35	0	0	0	0	0	0
	R8-16	66	74	35	1	35	0	0	0	0	0	0
	R8-17	67	74	35	1	35	0	0	0	0	0	0
	R8-18	68	74	35	1	35	0	0	0	0	0	0
	R8-19	69	74	35	1	35	0	0	0	0	0	0
	R8-20	70										
R9-Walther Blvd NB turn north of SR31	R9-1	71	139	35	6	35	0	0	0	0	0	0
	R9-2	72	139	35	6	35	0	0	0	0	0	0
	R9-3	73	139	35	6	35	0	0	0	0	0	0
	R9-4	74	139	35	6	35	0	0	0	0	0	0
	R9-5	75	139	35	6	35	0	0	0	0	0	0
	R9-6	76	139	35	6	35	0	0	0	0	0	0
	R9-7	77	139	35	6	35	0	0	0	0	0	0
	R9-8	78	139	35	6	35	0	0	0	0	0	0
	R9-9	79										
R9a-Walther Blvd NB north of SR 316	R9a-1	80	139	35	6	35	0	0	0	0	0	0
	R9a-2	81	139	35	6	35	0	0	0	0	0	0
	R9a-3	82										
R9b-Walther Blvd NB north of SR316	R9b-1	83	139	35	6	35	0	0	0	0	0	0
	R9b-2	84	139	35	6	35	0	0	0	0	0	0
	R9b-3	85	139	35	6	35	0	0	0	0	0	0
	R9b-4	86	139	35	6	35	0	0	0	0	0	0
	R9b-5	87	139	35	6	35	0	0	0	0	0	0
	R9b-6	88	139	35	6	35	0	0	0	0	0	0
	R9b-7	89	139	35	6	35	0	0	0	0	0	0
	R9b-8	90	139	35	6	35	0	0	0	0	0	0

	R9b-9	91										
R10-Walther Blvd SB north of SR316	R10-1	92	77	35	3	35	0	0	0	0	0	0
	R10-2	93	77	35	3	35	0	0	0	0	0	0
	R10-3	94	77	35	3	35	0	0	0	0	0	0
	R10-4	95	77	35	3	35	0	0	0	0	0	0
	R10-5	96	77	35	3	35	0	0	0	0	0	0
	R10-6	97	77	35	3	35	0	0	0	0	0	0
	R10-7	98	77	35	3	35	0	0	0	0	0	0
	R10-8	99	77	35	3	35	0	0	0	0	0	0
	R10-9	100	77	35	3	35	0	0	0	0	0	0
	R10-10	101	77	35	3	35	0	0	0	0	0	0
	R10-11	102	77	35	3	35	0	0	0	0	0	0
	R10-12	103	77	35	3	35	0	0	0	0	0	0
	R10-13	104	77	35	3	35	0	0	0	0	0	0
	R10-14	105	77	35	3	35	0	0	0	0	0	0
	R10-15	106	77	35	3	35	0	0	0	0	0	0
	R10-16	107	77	35	3	35	0	0	0	0	0	0
	R10-17	108										
R11-Flush Median north of SR316	R11-1	109	0	0	0	0	0	0	0	0	0	0
	R11-2	110	0	0	0	0	0	0	0	0	0	0
	R11-3	111	0	0	0	0	0	0	0	0	0	0
	R11-4	112	0	0	0	0	0	0	0	0	0	0
	R11-5	113	0	0	0	0	0	0	0	0	0	0
	R11-6	114	0	0	0	0	0	0	0	0	0	0
	R11-7	115	0	0	0	0	0	0	0	0	0	0
	R11-8	116	0	0	0	0	0	0	0	0	0	0
	R11-9	117										
R12-Flush Median south of SR316	R12-1	118	0	0	0	0	0	0	0	0	0	0
	R12-2	119	0	0	0	0	0	0	0	0	0	0
	R12-3	120	0	0	0	0	0	0	0	0	0	0
	R12-4	121	0	0	0	0	0	0	0	0	0	0
	R12-5	122	0	0	0	0	0	0	0	0	0	0
	R12-6	123	0	0	0	0	0	0	0	0	0	0
	R12-7	124	0	0	0	0	0	0	0	0	0	0

	R12-8	125	0	0	0	0	0	0	0	0	0	0	0
	R12-9	126	0	0	0	0	0	0	0	0	0	0	0
	R12-10	127											

Atkins
csv

20 February 2014
TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: 0010425
RUN: Walther Blvd

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
R1-SR 316 EB west of Walther Blvd	24.0	R1-1	1	2,343,457.0	1,444,111.9	1,028.00				Average	
		R1-2	2	2,343,661.2	1,444,264.8	1,030.00				Average	
		R1-3	3	2,343,863.8	1,444,415.9	1,032.00				Average	
		R1-4	4	2,344,066.0	1,444,565.5	1,034.00					
R2-SR 316 EB bw Walter in and out	24.0	R2-1	5	2,344,066.0	1,444,565.5	1,034.00				Average	
		R2-2	6	2,344,231.2	1,444,689.5	1,038.00				Average	
		R2-3	7	2,344,416.8	1,444,825.9	1,038.00				Average	
		R2-4	8	2,344,615.8	1,444,972.4	1,038.00				Average	
		R2-5	9	2,344,815.5	1,445,128.5	1,038.00				Average	
		R2-6	10	2,345,008.8	1,445,286.9	1,036.00				Average	
		R2-7	11	2,345,153.2	1,445,405.9	1,033.00					
R3-SR 316 EB east of Walther Blvd	24.0	R3-1	12	2,345,153.2	1,445,405.9	1,033.00				Average	
		R3-2	13	2,345,340.0	1,445,564.4	1,028.00				Average	
		R3-3	14	2,345,547.8	1,445,740.0	1,023.00				Average	
		R3-4	15	2,345,741.5	1,445,904.9	1,020.00					
R4-SR 316 WB east of Walter Blvd	24.0	R4-1	16	2,345,694.0	1,445,946.9	1,020.00				Average	
		R4-2	17	2,345,496.5	1,445,780.4	1,023.00				Average	
		R4-3	18	2,345,298.2	1,445,613.8	1,028.00				Average	
		R4-4	19	2,345,113.5	1,445,454.6	1,033.00					
R5-SR 316 WB bw Walther in and out	24.0	R5-1	20	2,345,113.5	1,445,454.6	1,033.00				Average	
		R5-2	21	2,344,970.2	1,445,332.9	1,036.00				Average	
		R5-3	22	2,344,761.0	1,445,162.8	1,038.00				Average	
		R5-4	23	2,344,576.0	1,445,019.4	1,038.00				Average	
		R5-5	24	2,344,368.5	1,444,866.0	1,038.00				Average	
		R5-6	25	2,344,173.0	1,444,721.9	1,038.00				Average	

		R5-7	26	2,344,024.0	1,444,617.1	1,034.00					
R6-SR 316 WB west of Walther Blvd	24.0	R6-1	27	2,344,024.0	1,444,617.1	1,034.00				Average	
		R6-2	28	2,343,821.2	1,444,464.5	1,032.00				Average	
		R6-3	29	2,343,612.5	1,444,312.4	1,030.00				Average	
		R6-4	30	2,343,420.0	1,444,171.4	1,028.00					
R7-Walther Blvd SB turn south of SR31	12.0	R7-1	31	2,344,066.0	1,444,565.5	1,034.00				Average	
		R7-2	32	2,344,245.5	1,444,670.4	1,036.00				Average	
		R7-3	33	2,344,436.2	1,444,787.4	1,038.00				Average	
		R7-4	34	2,344,566.2	1,444,855.4	1,040.00				Average	
		R7-5	35	2,344,632.0	1,444,878.9	1,042.00				Average	
		R7-6	36	2,344,684.8	1,444,876.6	1,045.00				Average	
		R7-7	37	2,344,725.2	1,444,842.5	1,048.00				Average	
		R7-8	38	2,344,816.0	1,444,712.4	1,054.00					
R7a-Walther Blvd SB south of SR316	24.0	R7a-1	39	2,344,816.0	1,444,712.4	1,054.00				Average	
		R7a-2	40	2,344,869.8	1,444,640.6	1,054.00				Average	
		R7a-3	41	2,344,955.8	1,444,524.2	1,054.00					
R7b-Walther Blvd SB south of SR316	12.0	R7b-0	42	2,344,955.8	1,444,524.2	1,054.00				Average	
		R7b-1	43	2,345,017.0	1,444,437.8	1,052.00				Average	
		R7b-2	44	2,345,059.0	1,444,339.2	1,054.00				Average	
		R7b-3	45	2,345,088.8	1,444,238.2	1,054.00				Average	
		R7b-4	46	2,345,103.5	1,444,148.0	1,054.00				Average	
		R7b-5	47	2,345,108.0	1,444,061.1	1,054.00				Average	
		R7b-6	48	2,345,100.2	1,443,970.9	1,054.00				Average	
		R7b-7	49	2,345,079.2	1,443,870.2	1,052.00				Average	
		R7b-8	50	2,345,036.8	1,443,720.6	1,046.00					
R8-Walther Blvd NB south of SR 316	12.0	R8-1	51	2,345,066.8	1,443,711.8	1,046.00				Average	
		R8-2	52	2,345,106.5	1,443,864.0	1,052.00				Average	
		R8-3	53	2,345,124.8	1,443,972.6	1,054.00				Average	
		R8-4	54	2,345,129.2	1,444,062.2	1,054.00				Average	
		R8-5	55	2,345,124.8	1,444,153.9	1,054.00				Average	
		R8-6	56	2,345,113.0	1,444,241.1	1,054.00				Average	
		R8-7	57	2,345,081.8	1,444,350.6	1,054.00				Average	
		R8-8	58	2,345,037.8	1,444,452.0	1,052.00				Average	
		R8-9	59	2,344,980.0	1,444,544.1	1,054.00				Average	
		R8-10	60	2,344,893.2	1,444,662.8	1,054.00				Average	
		R8-11	61	2,344,740.2	1,444,854.8	1,048.00				Average	
		R8-12	62	2,344,720.0	1,444,896.6	1,046.00				Average	
		R8-13	63	2,344,719.2	1,444,927.5	1,044.00				Average	

		R8-14	64	2,344,722.8	1,444,955.6	1,044.00				Average	
		R8-15	65	2,344,747.0	1,444,987.4	1,042.00				Average	
		R8-16	66	2,344,780.8	1,445,026.4	1,040.00				Average	
		R8-17	67	2,344,828.5	1,445,082.8	1,039.00				Average	
		R8-18	68	2,344,933.8	1,445,195.4	1,037.00				Average	
		R8-19	69	2,345,032.2	1,445,277.5	1,036.00				Average	
		R8-20	70	2,345,153.8	1,445,404.9	1,033.00					
R9-Walther Blvd NB turn north of SR31	12.0	R9-1	71	2,345,113.8	1,445,454.9	1,033.00				Average	
		R9-2	72	2,344,956.0	1,445,350.4	1,035.00				Average	
		R9-3	73	2,344,835.8	1,445,269.5	1,037.00				Average	
		R9-4	74	2,344,758.0	1,445,217.5	1,039.00				Average	
		R9-5	75	2,344,682.5	1,445,175.2	1,042.00				Average	
		R9-6	76	2,344,603.0	1,445,133.8	1,042.00				Average	
		R9-7	77	2,344,547.5	1,445,135.2	1,042.00				Average	
		R9-8	78	2,344,499.2	1,445,173.9	1,042.00				Average	
		R9-9	79	2,344,420.0	1,445,284.4	1,040.00					
R9a-Walther Blvd NB north of SR 316	24.0	R9a-1	80	2,344,420.0	1,445,284.4	1,040.00				Average	
		R9a-2	81	2,344,348.8	1,445,380.8	1,034.00				Average	
		R9a-3	82	2,344,278.5	1,445,468.0	1,028.00					
R9b-Walther Blvd NB north of SR316	12.0	R9b-1	83	2,344,278.5	1,445,468.0	1,028.00				Average	
		R9b-2	84	2,344,195.5	1,445,574.9	1,020.00				Average	
		R9b-3	85	2,344,046.0	1,445,770.4	1,007.00				Average	
		R9b-4	86	2,343,958.2	1,445,883.1	1,002.00				Average	
		R9b-5	87	2,343,876.8	1,445,958.9	1,002.00				Average	
		R9b-6	88	2,343,778.2	1,446,020.2	1,005.00				Average	
		R9b-7	89	2,343,653.8	1,446,063.2	1,015.00				Average	
		R9b-8	90	2,343,519.5	1,446,077.4	1,022.00				Average	
		R9b-9	91	2,343,368.2	1,446,068.5	1,024.00					
R10-Walther Blvd SB north of SR316	12.0	R10-1	92	2,343,373.0	1,446,038.8	1,024.00				Average	
		R10-2	93	2,343,525.2	1,446,052.2	1,022.00				Average	
		R10-3	94	2,343,648.5	1,446,038.8	1,015.00				Average	
		R10-4	95	2,343,762.8	1,445,997.6	1,005.00				Average	
		R10-5	96	2,343,864.5	1,445,937.6	1,002.00				Average	
		R10-6	97	2,343,939.5	1,445,863.5	1,002.00				Average	
		R10-7	98	2,344,024.5	1,445,755.9	1,007.00				Average	
		R10-8	99	2,344,176.8	1,445,558.9	1,020.00				Average	
		R10-9	100	2,344,328.2	1,445,359.9	1,034.00				Average	
		R10-10	101	2,344,483.2	1,445,162.1	1,044.00				Average	

		R10-11	102	2,344,501.5	1,445,126.1	1,044.00				Average	
		R10-12	103	2,344,504.0	1,445,089.4	1,042.00				Average	
		R10-13	104	2,344,484.0	1,445,044.1	1,041.00				Average	
		R10-14	105	2,344,423.8	1,444,975.5	1,038.00				Average	
		R10-15	106	2,344,352.2	1,444,897.4	1,037.00				Average	
		R10-16	107	2,344,159.8	1,444,740.1	1,036.00				Average	
		R10-17	108	2,344,023.0	1,444,617.2	1,034.00					
R11-Flush Median north of SR316	12.0	R11-1	109	2,344,339.0	1,445,369.8	1,034.00				Average	
		R11-2	110	2,344,186.5	1,445,569.8	1,028.00				Average	
		R11-3	111	2,344,032.5	1,445,766.0	1,028.00				Average	
		R11-4	112	2,343,948.0	1,445,874.2	1,020.00				Average	
		R11-5	113	2,343,868.8	1,445,949.2	1,007.00				Average	
		R11-6	114	2,343,769.5	1,446,009.1	1,002.00				Average	
		R11-7	115	2,343,647.2	1,446,052.1	1,002.00				Average	
		R11-8	116	2,343,524.0	1,446,064.8	1,005.00				Average	
		R11-9	117	2,343,370.5	1,446,052.9	1,015.00					
R12-Flush Median south of SR316	12.0	R12-1	118	2,345,052.8	1,443,715.6	1,046.00				Average	
		R12-2	119	2,345,092.0	1,443,870.4	1,052.00				Average	
		R12-3	120	2,345,112.8	1,443,973.5	1,054.00				Average	
		R12-4	121	2,345,118.8	1,444,066.2	1,054.00				Average	
		R12-5	122	2,345,114.2	1,444,152.2	1,054.00				Average	
		R12-6	123	2,345,102.5	1,444,237.2	1,054.00				Average	
		R12-7	124	2,345,072.8	1,444,344.9	1,054.00				Average	
		R12-8	125	2,345,027.5	1,444,446.5	1,052.00				Average	
		R12-9	126	2,344,972.8	1,444,535.1	1,054.00				Average	
		R12-10	127	2,344,885.2	1,444,654.6	1,054.00					

Atkins
csv

20 January 2014
TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: 0010425
RUN: Walther Blvd

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
R1-SR 316 EB west of Walther Blvd	R1-1	1	2541	65	54	65	80	65	0	0	0	0
	R1-2	2	2541	65	54	65	80	65	0	0	0	0
	R1-3	3	2541	65	54	65	80	65	0	0	0	0
	R1-4	4										
R2-SR 316 EB bw Walter in and out	R2-1	5	2437	65	51	65	77	65	0	0	0	0
	R2-2	6	2437	65	51	65	77	65	0	0	0	0
	R2-3	7	2437	65	51	65	77	65	0	0	0	0
	R2-4	8	2437	65	51	65	77	65	0	0	0	0
	R2-5	9	2437	65	51	65	77	65	0	0	0	0
	R2-6	10	2437	65	51	65	77	65	0	0	0	0
	R2-7	11										
R3-SR 316 EB east of Walther Blvd	R3-1	12	2551	65	54	65	81	65	0	0	0	0
	R3-2	13	2551	65	54	65	81	65	0	0	0	0
	R3-3	14	2551	65	54	65	81	65	0	0	0	0
	R3-4	15										
R4-SR 316 WB east of Walter Blvd	R4-1	16	2294	65	48	65	72	65	0	0	0	0
	R4-2	17	2294	65	48	65	72	65	0	0	0	0
	R4-3	18	2294	65	48	65	72	65	0	0	0	0
	R4-4	19										
R5-SR 316 WB bw Walther in and out	R5-1	20	2119	65	45	65	67	65	0	0	0	0
	R5-2	21	2119	65	45	65	67	65	0	0	0	0
	R5-3	22	2119	65	45	65	67	65	0	0	0	0

	R5-4	23	2119	65	45	65	67	65	0	0	0	0
	R5-5	24	2119	65	45	65	67	65	0	0	0	0
	R5-6	25	2119	65	45	65	67	65	0	0	0	0
	R5-7	26										
R6-SR 316 WB west of Walther Blvd	R6-1	27	2218	65	47	65	70	65	0	0	0	0
	R6-2	28	2218	65	47	65	70	65	0	0	0	0
	R6-3	29	2218	65	47	65	70	65	0	0	0	0
	R6-4	30										
R7-Walther Blvd SB turn south of SR31	R7-1	31	109	35	1	35	0	0	0	0	0	0
	R7-2	32	109	35	1	35	0	0	0	0	0	0
	R7-3	33	109	35	1	35	0	0	0	0	0	0
	R7-4	34	109	35	1	35	0	0	0	0	0	0
	R7-5	35	109	35	1	35	0	0	0	0	0	0
	R7-6	36	109	35	1	35	0	0	0	0	0	0
	R7-7	37	109	35	1	35	0	0	0	0	0	0
	R7-8	38										
R7a-Walther Blvd SB south of SR316	R7a-1	39	109	35	1	35	0	0	0	0	0	0
	R7a-2	40	109	35	1	35	0	0	0	0	0	0
	R7a-3	41										
R7b-Walther Blvd SB south of SR316	R7b-0	42	109	35	1	35	0	0	0	0	0	0
	R7b-1	43	109	35	1	35	0	0	0	0	0	0
	R7b-2	44	109	35	1	35	0	0	0	0	0	0
	R7b-3	45	109	35	1	35	0	0	0	0	0	0
	R7b-4	46	109	35	1	35	0	0	0	0	0	0
	R7b-5	47	109	35	1	35	0	0	0	0	0	0
	R7b-6	48	109	35	1	35	0	0	0	0	0	0
	R7b-7	49	109	35	1	35	0	0	0	0	0	0
	R7b-8	50										
R8-Walther Blvd NB south of SR 316	R8-1	51	119	35	1	35	0	0	0	0	0	0
	R8-2	52	119	35	1	35	0	0	0	0	0	0
	R8-3	53	119	35	1	35	0	0	0	0	0	0
	R8-4	54	119	35	1	35	0	0	0	0	0	0
	R8-5	55	119	35	1	35	0	0	0	0	0	0
	R8-6	56	119	35	1	35	0	0	0	0	0	0

	R8-7	57	119	35	1	35	0	0	0	0	0	0
	R8-8	58	119	35	1	35	0	0	0	0	0	0
	R8-9	59	119	35	1	35	0	0	0	0	0	0
	R8-10	60	119	35	1	35	0	0	0	0	0	0
	R8-11	61	119	35	1	35	0	0	0	0	0	0
	R8-12	62	119	35	1	35	0	0	0	0	0	0
	R8-13	63	119	35	1	35	0	0	0	0	0	0
	R8-14	64	119	35	1	35	0	0	0	0	0	0
	R8-15	65	119	35	1	35	0	0	0	0	0	0
	R8-16	66	119	35	1	35	0	0	0	0	0	0
	R8-17	67	119	35	1	35	0	0	0	0	0	0
	R8-18	68	119	35	1	35	0	0	0	0	0	0
	R8-19	69	119	35	1	35	0	0	0	0	0	0
	R8-20	70										
R9-Walther Blvd NB turn north of SR31	R9-1	71	178	35	7	35	0	0	0	0	0	0
	R9-2	72	178	35	7	35	0	0	0	0	0	0
	R9-3	73	178	35	7	35	0	0	0	0	0	0
	R9-4	74	178	35	7	35	0	0	0	0	0	0
	R9-5	75	178	35	7	35	0	0	0	0	0	0
	R9-6	76	178	35	7	35	0	0	0	0	0	0
	R9-7	77	178	35	7	35	0	0	0	0	0	0
	R9-8	78	178	35	7	35	0	0	0	0	0	0
	R9-9	79										
R9a-Walther Blvd NB north of SR 316	R9a-1	80	178	35	7	35	0	0	0	0	0	0
	R9a-2	81	178	35	7	35	0	0	0	0	0	0
	R9a-3	82										
R9b-Walther Blvd NB north of SR316	R9b-1	83	178	35	7	35	0	0	0	0	0	0
	R9b-2	84	178	35	7	35	0	0	0	0	0	0
	R9b-3	85	178	35	7	35	0	0	0	0	0	0
	R9b-4	86	178	35	7	35	0	0	0	0	0	0
	R9b-5	87	178	35	7	35	0	0	0	0	0	0
	R9b-6	88	178	35	7	35	0	0	0	0	0	0
	R9b-7	89	178	35	7	35	0	0	0	0	0	0
	R9b-8	90	178	35	7	35	0	0	0	0	0	0

	R9b-9	91										
R10-Walther Blvd SB north of SR316	R10-1	92	101	35	4	35	0	0	0	0	0	0
	R10-2	93	101	35	4	35	0	0	0	0	0	0
	R10-3	94	101	35	4	35	0	0	0	0	0	0
	R10-4	95	101	35	4	35	0	0	0	0	0	0
	R10-5	96	101	35	4	35	0	0	0	0	0	0
	R10-6	97	101	35	4	35	0	0	0	0	0	0
	R10-7	98	101	35	4	35	0	0	0	0	0	0
	R10-8	99	101	35	4	35	0	0	0	0	0	0
	R10-9	100	101	35	4	35	0	0	0	0	0	0
	R10-10	101	101	35	4	35	0	0	0	0	0	0
	R10-11	102	101	35	4	35	0	0	0	0	0	0
	R10-12	103	101	35	4	35	0	0	0	0	0	0
	R10-13	104	101	35	4	35	0	0	0	0	0	0
	R10-14	105	101	35	4	35	0	0	0	0	0	0
	R10-15	106	101	35	4	35	0	0	0	0	0	0
	R10-16	107	101	35	4	35	0	0	0	0	0	0
	R10-17	108										
R11-Flush Median north of SR316	R11-1	109	0	0	0	0	0	0	0	0	0	0
	R11-2	110	0	0	0	0	0	0	0	0	0	0
	R11-3	111	0	0	0	0	0	0	0	0	0	0
	R11-4	112	0	0	0	0	0	0	0	0	0	0
	R11-5	113	0	0	0	0	0	0	0	0	0	0
	R11-6	114	0	0	0	0	0	0	0	0	0	0
	R11-7	115	0	0	0	0	0	0	0	0	0	0
	R11-8	116	0	0	0	0	0	0	0	0	0	0
	R11-9	117										
R12-Flush Median south of SR316	R12-1	118	0	0	0	0	0	0	0	0	0	0
	R12-2	119	0	0	0	0	0	0	0	0	0	0
	R12-3	120	0	0	0	0	0	0	0	0	0	0
	R12-4	121	0	0	0	0	0	0	0	0	0	0
	R12-5	122	0	0	0	0	0	0	0	0	0	0
	R12-6	123	0	0	0	0	0	0	0	0	0	0
	R12-7	124	0	0	0	0	0	0	0	0	0	0

	R12-8	125	0	0	0	0	0	0	0	0	0	0
	R12-9	126	0	0	0	0	0	0	0	0	0	0
	R12-10	127										

Atkins
csv

20 January 2014
TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: 0010425
RUN: Walther Blvd

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
R1-SR 316 EB west of Walther Blvd	24.0	R1-1	1	2,343,457.0	1,444,111.9	1,028.00				Average	
		R1-2	2	2,343,661.2	1,444,264.8	1,030.00				Average	
		R1-3	3	2,343,863.8	1,444,415.9	1,032.00				Average	
		R1-4	4	2,344,066.0	1,444,565.5	1,034.00					
R2-SR 316 EB bw Walter in and out	24.0	R2-1	5	2,344,066.0	1,444,565.5	1,034.00				Average	
		R2-2	6	2,344,231.2	1,444,689.5	1,038.00				Average	
		R2-3	7	2,344,416.8	1,444,825.9	1,038.00				Average	
		R2-4	8	2,344,615.8	1,444,972.4	1,038.00				Average	
		R2-5	9	2,344,815.5	1,445,128.5	1,038.00				Average	
		R2-6	10	2,345,008.8	1,445,286.9	1,036.00				Average	
		R2-7	11	2,345,153.2	1,445,405.9	1,033.00					
R3-SR 316 EB east of Walther Blvd	24.0	R3-1	12	2,345,153.2	1,445,405.9	1,033.00				Average	
		R3-2	13	2,345,340.0	1,445,564.4	1,028.00				Average	
		R3-3	14	2,345,547.8	1,445,740.0	1,023.00				Average	
		R3-4	15	2,345,741.5	1,445,904.9	1,020.00					
R4-SR 316 WB east of Walter Blvd	24.0	R4-1	16	2,345,694.0	1,445,946.9	1,020.00				Average	
		R4-2	17	2,345,496.5	1,445,780.4	1,023.00				Average	
		R4-3	18	2,345,298.2	1,445,613.8	1,028.00				Average	
		R4-4	19	2,345,113.5	1,445,454.6	1,033.00					
R5-SR 316 WB bw Walther in and out	24.0	R5-1	20	2,345,113.5	1,445,454.6	1,033.00				Average	
		R5-2	21	2,344,970.2	1,445,332.9	1,036.00				Average	
		R5-3	22	2,344,761.0	1,445,162.8	1,038.00				Average	
		R5-4	23	2,344,576.0	1,445,019.4	1,038.00				Average	
		R5-5	24	2,344,368.5	1,444,866.0	1,038.00				Average	
		R5-6	25	2,344,173.0	1,444,721.9	1,038.00				Average	

		R5-7	26	2,344,024.0	1,444,617.1	1,034.00					
R6-SR 316 WB west of Walther Blvd	24.0	R6-1	27	2,344,024.0	1,444,617.1	1,034.00				Average	
		R6-2	28	2,343,821.2	1,444,464.5	1,032.00				Average	
		R6-3	29	2,343,612.5	1,444,312.4	1,030.00				Average	
		R6-4	30	2,343,420.0	1,444,171.4	1,028.00					
R7-Walther Blvd SB	12.0	R7-1	31	2,343,372.2	1,446,037.1	1,025.00				Average	
		R7-2	32	2,343,524.8	1,446,050.2	1,023.00				Average	
		R7-3	33	2,343,648.5	1,446,038.8	1,015.00				Average	
		R7-4	34	2,343,764.5	1,445,998.1	1,004.00				Average	
		R7-5	35	2,343,866.0	1,445,934.5	1,001.00				Average	
		R7-6	36	2,343,936.8	1,445,862.8	1,001.00				Average	
		R7-7	37	2,344,024.8	1,445,756.2	1,007.00				Average	
		R7-8	38	2,344,177.0	1,445,558.4	1,023.00				Average	
		R7-9	39	2,344,328.2	1,445,359.4	1,043.00				Average	
		R7-10	40	2,344,479.5	1,445,160.8	1,061.00				Average	Y
		R7-11	41	2,344,631.2	1,444,959.5	1,066.00				Average	Y
		R7-12	42	2,344,721.2	1,444,839.9	1,064.00				Average	
		R7-13	43	2,344,818.2	1,444,709.6	1,060.00					
R7a-Walther Blvd SB south of SR316	24.0	R7a-1	44	2,344,818.8	1,444,708.2	1,060.00				Average	
		R7a-2	45	2,344,869.0	1,444,640.2	1,058.00				Average	
		R7a-3	46	2,344,954.8	1,444,526.0	1,055.00				Average	
		R7a-4	47	2,345,014.8	1,444,439.5	1,053.00					
R7B-Walther Blvd SB	12.0	R7B-1	48	2,345,014.8	1,444,439.5	1,053.00				Average	
		R7B-2	49	2,345,058.5	1,444,342.0	1,052.00				Average	
		R7B-3	50	2,345,088.5	1,444,239.1	1,053.00				Average	
		R7B-4	51	2,345,102.8	1,444,150.8	1,054.00				Average	
		R7B-5	52	2,345,105.5	1,444,060.5	1,054.00				Average	
		R7B-6	53	2,345,101.2	1,443,970.5	1,053.00				Average	
		R7B-7	54	2,345,080.2	1,443,868.8	1,051.00				Average	
		R7B-8	55	2,345,036.0	1,443,719.5	1,046.00					
B8-Walther Blvd NB	12.0	B8-1	56	2,345,063.2	1,443,710.5	1,046.00				Average	
		B8-2	57	2,345,106.0	1,443,865.1	1,051.00				Average	
		B8-3	58	2,345,123.5	1,443,972.5	1,053.00				Average	
		B8-4	59	2,345,130.2	1,444,062.6	1,054.00				Average	
		B8-5	60	2,345,125.0	1,444,155.2	1,054.00				Average	
		B8-6	61	2,345,113.0	1,444,240.8	1,053.00				Average	
		B8-7	62	2,345,082.8	1,444,347.2	1,052.00				Average	
		B8-8	63	2,345,035.5	1,444,454.1	1,053.00				Average	

		B8-9	64	2,344,983.8	1,444,543.6	1,055.00				Average	
		B8-10	65	2,344,892.0	1,444,662.4	1,058.00				Average	
		B8-11	66	2,344,744.5	1,444,855.8	1,064.00				Average	Y
		B8-12	67	2,344,652.8	1,444,976.9	1,066.00				Average	Y
		B8-13	68	2,344,500.8	1,445,178.0	1,061.00				Average	
		B8-14	107	2,344,419.0	1,445,288.0	1,051.00					
B8a-Walther Blvd NB	24.0	B8a-1	69	2,344,419.0	1,445,288.0	1,051.00				Average	
		B8a-2	70	2,344,352.0	1,445,378.0	1,043.00				Average	
		B8a-3	71	2,344,282.0	1,445,464.2	1,035.00					
B8b-Walther Blvd NB	12.0	B8b-1	73	2,344,282.0	1,445,464.2	1,035.00				Average	
		B8b-2	74	2,344,196.5	1,445,574.4	1,023.00				Average	
		B8b-3	75	2,344,043.8	1,445,773.6	1,007.00				Average	
		B8b-4	76	2,343,959.5	1,445,883.9	1,001.00				Average	
		B8b-5	77	2,343,878.5	1,445,958.6	1,001.00				Average	
		B8b-6	78	2,343,778.8	1,446,018.8	1,004.00				Average	
		B8b-7	79	2,343,654.0	1,446,064.6	1,015.00				Average	
		B8b-8	80	2,343,519.5	1,446,074.6	1,023.00				Average	
		B8b-9	81	2,343,369.2	1,446,068.9	1,025.00					
B9-Walther Blvd Flush Median	14.0	B9-1	82	2,345,048.0	1,443,712.8	1,046.00				Average	
		B9-2	83	2,345,092.2	1,443,866.5	1,051.00				Average	
		B9-3	84	2,345,112.8	1,443,965.1	1,053.00				Average	
		B9-4	85	2,345,118.5	1,444,058.5	1,054.00				Average	
		B9-5	86	2,345,115.0	1,444,152.8	1,054.00				Average	
		B9-6	87	2,345,100.2	1,444,240.2	1,053.00				Average	
		B9-7	88	2,345,068.5	1,444,347.8	1,052.00				Average	
		B9-8	89	2,345,027.5	1,444,448.5	1,053.00				Average	
		B9-9	90	2,344,970.5	1,444,537.9	1,055.00				Average	
		B9-10	91	2,344,882.0	1,444,655.0	1,058.00				Average	
		B9-11	92	2,344,834.2	1,444,718.1	1,060.00				Average	
		B9-12	93	2,344,734.5	1,444,848.4	1,064.00				Average	Y
		B9-13	94	2,344,644.0	1,444,968.5	1,066.00				Average	Y
		B9-14	95	2,344,490.0	1,445,166.6	1,061.00				Average	
		B9-15	96	2,344,408.2	1,445,276.4	1,051.00				Average	
		B9-16	97	2,344,339.2	1,445,365.2	1,043.00				Average	
		B9-17	98	2,344,269.8	1,445,455.8	1,035.00				Average	
		B9-18	99	2,344,185.5	1,445,567.1	1,023.00				Average	
		B9-19	100	2,344,035.8	1,445,763.6	1,007.00				Average	
		B9-20	101	2,343,950.0	1,445,874.2	1,001.00				Average	

		B9-21	102	2,343,869.5	1,445,949.1	1,001.00				Average	
		B9-22	103	2,343,775.5	1,446,005.0	1,004.00				Average	
		B9-23	104	2,343,648.5	1,446,049.2	1,015.00				Average	
		B9-24	105	2,343,527.2	1,446,065.1	1,023.00				Average	
		B9-25	106	2,343,369.5	1,446,053.5	1,025.00					

Atkins
csv

20 January 2014
TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: 0010425
RUN: Walther Blvd

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
R1-SR 316 EB west of Walther Blvd	R1-1	1	2318	65	49	65	73	65	0	0	0	0
	R1-2	2	2318	65	49	65	73	65	0	0	0	0
	R1-3	3	2318	65	49	65	73	65	0	0	0	0
	R1-4	4										
R2-SR 316 EB bw Walter in and out	R2-1	5	2318	65	49	65	73	65	0	0	0	0
	R2-2	6	2318	65	49	65	73	65	0	0	0	0
	R2-3	7	2318	65	49	65	73	65	0	0	0	0
	R2-4	8	2318	65	49	65	73	65	0	0	0	0
	R2-5	9	2318	65	49	65	73	65	0	0	0	0
	R2-6	10	2318	65	49	65	73	65	0	0	0	0
	R2-7	11										
R3-SR 316 EB east of Walther Blvd	R3-1	12	2318	65	49	65	73	65	0	0	0	0
	R3-2	13	2318	65	49	65	73	65	0	0	0	0
	R3-3	14	2318	65	49	65	73	65	0	0	0	0
	R3-4	15										
R4-SR 316 WB east of Walter Blvd	R4-1	16	2204	65	46	65	70	65	0	0	0	0
	R4-2	17	2204	65	46	65	70	65	0	0	0	0
	R4-3	18	2204	65	46	65	70	65	0	0	0	0
	R4-4	19										
R5-SR 316 WB bw Walther in and out	R5-1	20	2204	65	46	65	70	65	0	0	0	0
	R5-2	21	2204	65	46	65	70	65	0	0	0	0
	R5-3	22	2204	65	46	65	70	65	0	0	0	0

	R5-4	23	2204	65	46	65	70	65	0	0	0	0
	R5-5	24	2204	65	46	65	70	65	0	0	0	0
	R5-6	25	2204	65	46	65	70	65	0	0	0	0
	R5-7	26										
R6-SR 316 WB west of Walther Blvd	R6-1	27	2204	65	46	65	70	65	0	0	0	0
	R6-2	28	2204	65	46	65	70	65	0	0	0	0
	R6-3	29	2204	65	46	65	70	65	0	0	0	0
	R6-4	30										
R7-Walther Blvd SB	R7-1	31	283	35	12	35	0	0	0	0	0	0
	R7-2	32	283	35	12	35	0	0	0	0	0	0
	R7-3	33	283	35	12	35	0	0	0	0	0	0
	R7-4	34	283	35	12	35	0	0	0	0	0	0
	R7-5	35	283	35	12	35	0	0	0	0	0	0
	R7-6	36	283	35	12	35	0	0	0	0	0	0
	R7-7	37	283	35	12	35	0	0	0	0	0	0
	R7-8	38	283	35	12	35	0	0	0	0	0	0
	R7-9	39	283	35	12	35	0	0	0	0	0	0
	R7-10	40	283	35	12	35	0	0	0	0	0	0
	R7-11	41	283	35	12	35	0	0	0	0	0	0
	R7-12	42	283	35	12	35	0	0	0	0	0	0
	R7-13	43										
R7a-Walther Blvd SB south of SR316	R7a-1	44	283	35	12	35	0	0	0	0	0	0
	R7a-2	45	283	35	12	35	0	0	0	0	0	0
	R7a-3	46	283	35	12	35	0	0	0	0	0	0
	R7a-4	47										
R7B-Walther Blvd SB	R7B-1	48	283	35	12	35	0	0	0	0	0	0
	R7B-2	49	283	35	12	35	0	0	0	0	0	0
	R7B-3	50	283	35	12	35	0	0	0	0	0	0
	R7B-4	51	283	35	12	35	0	0	0	0	0	0
	R7B-5	52	283	35	12	35	0	0	0	0	0	0
	R7B-6	53	283	35	12	35	0	0	0	0	0	0
	R7B-7	54	283	35	12	35	0	0	0	0	0	0
	R7B-8	55										
B8-Walther Blvd NB	B8-1	56	346	35	14	35	0	0	0	0	0	0

	B8-2	57	346	35	14	35	0	0	0	0	0	0
	B8-3	58	346	35	14	35	0	0	0	0	0	0
	B8-4	59	346	35	14	35	0	0	0	0	0	0
	B8-5	60	346	35	14	35	0	0	0	0	0	0
	B8-6	61	346	35	14	35	0	0	0	0	0	0
	B8-7	62	346	35	14	35	0	0	0	0	0	0
	B8-8	63	346	35	14	35	0	0	0	0	0	0
	B8-9	64	346	35	14	35	0	0	0	0	0	0
	B8-10	65	346	35	14	35	0	0	0	0	0	0
	B8-11	66	346	35	14	35	0	0	0	0	0	0
	B8-12	67	346	35	14	35	0	0	0	0	0	0
	B8-13	68	346	35	14	35	0	0	0	0	0	0
	B8-14	107										
B8a-Walther Blvd NB	B8a-1	69	346	35	14	35	0	0	0	0	0	0
	B8a-2	70	346	35	14	35	0	0	0	0	0	0
	B8a-3	71										
B8b-Walther Blvd NB	B8b-1	73	346	35	14	35	0	0	0	0	0	0
	B8b-2	74	346	35	14	35	0	0	0	0	0	0
	B8b-3	75	346	35	14	35	0	0	0	0	0	0
	B8b-4	76	346	35	14	35	0	0	0	0	0	0
	B8b-5	77	346	35	14	35	0	0	0	0	0	0
	B8b-6	78	346	35	14	35	0	0	0	0	0	0
	B8b-7	79	346	35	14	35	0	0	0	0	0	0
	B8b-8	80	346	35	14	35	0	0	0	0	0	0
	B8b-9	81										
B9-Walther Blvd Flush Median	B9-1	82	0	0	0	0	0	0	0	0	0	0
	B9-2	83	0	0	0	0	0	0	0	0	0	0
	B9-3	84	0	0	0	0	0	0	0	0	0	0
	B9-4	85	0	0	0	0	0	0	0	0	0	0
	B9-5	86	0	0	0	0	0	0	0	0	0	0
	B9-6	87	0	0	0	0	0	0	0	0	0	0
	B9-7	88	0	0	0	0	0	0	0	0	0	0
	B9-8	89	0	0	0	0	0	0	0	0	0	0
	B9-9	90	0	0	0	0	0	0	0	0	0	0

INPUT: TRAFFIC FOR LAeq1h Volumes **0010425**

	B9-10	91	0	0	0	0	0	0	0	0	0	0
	B9-11	92	0	0	0	0	0	0	0	0	0	0
	B9-12	93	0	0	0	0	0	0	0	0	0	0
	B9-13	94	0	0	0	0	0	0	0	0	0	0
	B9-14	95	0	0	0	0	0	0	0	0	0	0
	B9-15	96	0	0	0	0	0	0	0	0	0	0
	B9-16	97	0	0	0	0	0	0	0	0	0	0
	B9-17	98	0	0	0	0	0	0	0	0	0	0
	B9-18	99	0	0	0	0	0	0	0	0	0	0
	B9-19	100	0	0	0	0	0	0	0	0	0	0
	B9-20	101	0	0	0	0	0	0	0	0	0	0
	B9-21	102	0	0	0	0	0	0	0	0	0	0
	B9-22	103	0	0	0	0	0	0	0	0	0	0
	B9-23	104	0	0	0	0	0	0	0	0	0	0
	B9-24	105	0	0	0	0	0	0	0	0	0	0
	B9-25	106										

Atkins
csv

28 February 2014
TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: 0010425
RUN: Walther Blvd

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
R1-SR 316 EB west of Walther Blvd	24.0	R1-1	1	2,343,457.0	1,444,111.9	1,028.00				Average	
		R1-2	2	2,343,661.2	1,444,264.8	1,030.00				Average	
		R1-3	3	2,343,863.8	1,444,415.9	1,032.00				Average	
		R1-4	4	2,344,066.0	1,444,565.5	1,034.00					
R2-SR 316 EB bw Walter in and out	24.0	R2-1	5	2,344,066.0	1,444,565.5	1,034.00				Average	
		R2-2	6	2,344,231.2	1,444,689.5	1,038.00				Average	
		R2-3	7	2,344,416.8	1,444,825.9	1,038.00				Average	
		R2-4	8	2,344,615.8	1,444,972.4	1,038.00				Average	
		R2-5	9	2,344,815.5	1,445,128.5	1,038.00				Average	
		R2-6	10	2,345,008.8	1,445,286.9	1,036.00				Average	
		R2-7	11	2,345,153.2	1,445,405.9	1,033.00					
R3-SR 316 EB east of Walther Blvd	24.0	R3-1	12	2,345,153.2	1,445,405.9	1,033.00				Average	
		R3-2	13	2,345,340.0	1,445,564.4	1,028.00				Average	
		R3-3	14	2,345,547.8	1,445,740.0	1,023.00				Average	
		R3-4	15	2,345,741.5	1,445,904.9	1,020.00					
R4-SR 316 WB east of Walter Blvd	24.0	R4-1	16	2,345,694.0	1,445,946.9	1,020.00				Average	
		R4-2	17	2,345,496.5	1,445,780.4	1,023.00				Average	
		R4-3	18	2,345,298.2	1,445,613.8	1,028.00				Average	
		R4-4	19	2,345,113.5	1,445,454.6	1,033.00					
R5-SR 316 WB bw Walther in and out	24.0	R5-1	20	2,345,113.5	1,445,454.6	1,033.00				Average	
		R5-2	21	2,344,970.2	1,445,332.9	1,036.00				Average	
		R5-3	22	2,344,761.0	1,445,162.8	1,038.00				Average	
		R5-4	23	2,344,576.0	1,445,019.4	1,038.00				Average	
		R5-5	24	2,344,368.5	1,444,866.0	1,038.00				Average	
		R5-6	25	2,344,173.0	1,444,721.9	1,038.00				Average	

		R5-7	26	2,344,024.0	1,444,617.1	1,034.00					
R6-SR 316 WB west of Walther Blvd	24.0	R6-1	27	2,344,024.0	1,444,617.1	1,034.00				Average	
		R6-2	28	2,343,821.2	1,444,464.5	1,032.00				Average	
		R6-3	29	2,343,612.5	1,444,312.4	1,030.00				Average	
		R6-4	30	2,343,420.0	1,444,171.4	1,028.00					
R7-Walther Blvd SB	12.0	R7-1	31	2,343,372.2	1,446,037.1	1,025.00				Average	
		R7-2	32	2,343,524.8	1,446,050.2	1,023.00				Average	
		R7-3	33	2,343,648.5	1,446,038.8	1,015.00				Average	
		R7-4	34	2,343,764.5	1,445,998.1	1,004.00				Average	
		R7-5	35	2,343,866.0	1,445,934.5	1,001.00				Average	
		R7-6	36	2,343,936.8	1,445,862.8	1,001.00				Average	
		R7-7	37	2,344,024.8	1,445,756.2	1,007.00				Average	
		R7-8	38	2,344,177.0	1,445,558.4	1,023.00				Average	
		R7-9	39	2,344,328.2	1,445,359.4	1,043.00				Average	
		R7-10	40	2,344,479.5	1,445,160.8	1,061.00				Average	Y
		R7-11	41	2,344,631.2	1,444,959.5	1,066.00				Average	Y
		R7-12	42	2,344,721.2	1,444,839.9	1,064.00				Average	
		R7-13	43	2,344,818.2	1,444,709.6	1,060.00					
R7a-Walther Blvd SB south of SR316	24.0	R7a-1	44	2,344,818.8	1,444,708.2	1,060.00				Average	
		R7a-2	45	2,344,869.0	1,444,640.2	1,058.00				Average	
		R7a-3	46	2,344,954.8	1,444,526.0	1,055.00				Average	
		R7a-4	47	2,345,014.8	1,444,439.5	1,053.00					
R7B-Walther Blvd SB	12.0	R7B-1	48	2,345,014.8	1,444,439.5	1,053.00				Average	
		R7B-2	49	2,345,058.5	1,444,342.0	1,052.00				Average	
		R7B-3	50	2,345,088.5	1,444,239.1	1,053.00				Average	
		R7B-4	51	2,345,102.8	1,444,150.8	1,054.00				Average	
		R7B-5	52	2,345,105.5	1,444,060.5	1,054.00				Average	
		R7B-6	53	2,345,101.2	1,443,970.5	1,053.00				Average	
		R7B-7	54	2,345,080.2	1,443,868.8	1,051.00				Average	
		R7B-8	55	2,345,036.0	1,443,719.5	1,046.00					
B8-Walther Blvd NB	12.0	B8-1	56	2,345,063.2	1,443,710.5	1,046.00				Average	
		B8-2	57	2,345,106.0	1,443,865.1	1,051.00				Average	
		B8-3	58	2,345,123.5	1,443,972.5	1,053.00				Average	
		B8-4	59	2,345,130.2	1,444,062.6	1,054.00				Average	
		B8-5	60	2,345,125.0	1,444,155.2	1,054.00				Average	
		B8-6	61	2,345,113.0	1,444,240.8	1,053.00				Average	
		B8-7	62	2,345,082.8	1,444,347.2	1,052.00				Average	
		B8-8	63	2,345,035.5	1,444,454.1	1,053.00				Average	

		B8-9	64	2,344,983.8	1,444,543.6	1,055.00				Average	
		B8-10	65	2,344,892.0	1,444,662.4	1,058.00				Average	
		B8-11	66	2,344,744.5	1,444,855.8	1,064.00				Average	Y
		B8-12	67	2,344,652.8	1,444,976.9	1,066.00				Average	Y
		B8-13	68	2,344,500.8	1,445,178.0	1,061.00				Average	
		B8-14	107	2,344,419.0	1,445,288.0	1,051.00					
B8a-Walther Blvd NB	24.0	B8a-1	69	2,344,419.0	1,445,288.0	1,051.00				Average	
		B8a-2	70	2,344,352.0	1,445,378.0	1,043.00				Average	
		B8a-3	71	2,344,282.0	1,445,464.2	1,035.00					
B8b-Walther Blvd NB	12.0	B8b-1	73	2,344,282.0	1,445,464.2	1,035.00				Average	
		B8b-2	74	2,344,196.5	1,445,574.4	1,023.00				Average	
		B8b-3	75	2,344,043.8	1,445,773.6	1,007.00				Average	
		B8b-4	76	2,343,959.5	1,445,883.9	1,001.00				Average	
		B8b-5	77	2,343,878.5	1,445,958.6	1,001.00				Average	
		B8b-6	78	2,343,778.8	1,446,018.8	1,004.00				Average	
		B8b-7	79	2,343,654.0	1,446,064.6	1,015.00				Average	
		B8b-8	80	2,343,519.5	1,446,074.6	1,023.00				Average	
		B8b-9	81	2,343,369.2	1,446,068.9	1,025.00					
B9-Walther Blvd Flush Median	12.0	B9-1	82	2,345,048.0	1,443,712.8	1,046.00				Average	
		B9-2	83	2,345,092.2	1,443,866.5	1,051.00				Average	
		B9-3	84	2,345,112.8	1,443,965.1	1,053.00				Average	
		B9-4	85	2,345,118.5	1,444,058.5	1,054.00				Average	
		B9-5	86	2,345,115.0	1,444,152.8	1,054.00				Average	
		B9-6	87	2,345,100.2	1,444,240.2	1,053.00				Average	
		B9-7	88	2,345,068.5	1,444,347.8	1,052.00				Average	
		B9-8	89	2,345,027.5	1,444,448.5	1,053.00				Average	
		B9-9	90	2,344,970.5	1,444,537.9	1,055.00				Average	
		B9-10	91	2,344,882.0	1,444,655.0	1,058.00				Average	
		B9-11	92	2,344,834.2	1,444,718.1	1,060.00				Average	
		B9-12	93	2,344,734.5	1,444,848.4	1,064.00				Average	Y
		B9-13	94	2,344,644.0	1,444,968.5	1,066.00				Average	Y
		B9-14	95	2,344,490.0	1,445,166.6	1,061.00				Average	
		B9-15	96	2,344,408.2	1,445,276.4	1,051.00				Average	
		B9-16	97	2,344,339.2	1,445,365.2	1,043.00				Average	
		B9-17	98	2,344,269.8	1,445,455.8	1,035.00				Average	
		B9-18	99	2,344,185.5	1,445,567.1	1,023.00				Average	
		B9-19	100	2,344,035.8	1,445,763.6	1,007.00				Average	
		B9-20	101	2,343,950.0	1,445,874.2	1,001.00				Average	

		B9-21	102	2,343,869.5	1,445,949.1	1,001.00				Average	
		B9-22	103	2,343,775.5	1,446,005.0	1,004.00				Average	
		B9-23	104	2,343,648.5	1,446,049.2	1,015.00				Average	
		B9-24	105	2,343,527.2	1,446,065.1	1,023.00				Average	
		B9-25	106	2,343,369.5	1,446,053.5	1,025.00					

Atkins 28 February 2014
csv TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: 0010425
RUN: Walther Blvd

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
R1-SR 316 EB west of Walther Blvd	R1-1	1	0	0	0	0	0	0	0	0	0	0
	R1-2	2	0	0	0	0	0	0	0	0	0	0
	R1-3	3	0	0	0	0	0	0	0	0	0	0
	R1-4	4										
R2-SR 316 EB bw Walter in and out	R2-1	5	0	0	0	0	0	0	0	0	0	0
	R2-2	6	0	0	0	0	0	0	0	0	0	0
	R2-3	7	0	0	0	0	0	0	0	0	0	0
	R2-4	8	0	0	0	0	0	0	0	0	0	0
	R2-5	9	0	0	0	0	0	0	0	0	0	0
	R2-6	10	0	0	0	0	0	0	0	0	0	0
	R2-7	11										
R3-SR 316 EB east of Walther Blvd	R3-1	12	0	0	0	0	0	0	0	0	0	0
	R3-2	13	0	0	0	0	0	0	0	0	0	0
	R3-3	14	0	0	0	0	0	0	0	0	0	0
	R3-4	15										
R4-SR 316 WB east of Walter Blvd	R4-1	16	0	0	0	0	0	0	0	0	0	0
	R4-2	17	0	0	0	0	0	0	0	0	0	0
	R4-3	18	0	0	0	0	0	0	0	0	0	0
	R4-4	19										
R5-SR 316 WB bw Walther in and out	R5-1	20	0	0	0	0	0	0	0	0	0	0
	R5-2	21	0	0	0	0	0	0	0	0	0	0
	R5-3	22	0	0	0	0	0	0	0	0	0	0

	R5-4	23	0	0	0	0	0	0	0	0	0	0
	R5-5	24	0	0	0	0	0	0	0	0	0	0
	R5-6	25	0	0	0	0	0	0	0	0	0	0
	R5-7	26										
R6-SR 316 WB west of Walther Blvd	R6-1	27	0	0	0	0	0	0	0	0	0	0
	R6-2	28	0	0	0	0	0	0	0	0	0	0
	R6-3	29	0	0	0	0	0	0	0	0	0	0
	R6-4	30										
R7-Walther Blvd SB	R7-1	31	283	35	12	35	0	0	0	0	0	0
	R7-2	32	283	35	12	35	0	0	0	0	0	0
	R7-3	33	283	35	12	35	0	0	0	0	0	0
	R7-4	34	283	35	12	35	0	0	0	0	0	0
	R7-5	35	283	35	12	35	0	0	0	0	0	0
	R7-6	36	283	35	12	35	0	0	0	0	0	0
	R7-7	37	283	35	12	35	0	0	0	0	0	0
	R7-8	38	283	35	12	35	0	0	0	0	0	0
	R7-9	39	283	35	12	35	0	0	0	0	0	0
	R7-10	40	283	35	12	35	0	0	0	0	0	0
	R7-11	41	283	35	12	35	0	0	0	0	0	0
	R7-12	42	283	35	12	35	0	0	0	0	0	0
	R7-13	43										
R7a-Walther Blvd SB south of SR316	R7a-1	44	283	35	12	35	0	0	0	0	0	0
	R7a-2	45	283	35	12	35	0	0	0	0	0	0
	R7a-3	46	283	35	12	35	0	0	0	0	0	0
	R7a-4	47										
R7B-Walther Blvd SB	R7B-1	48	283	35	12	35	0	0	0	0	0	0
	R7B-2	49	283	35	12	35	0	0	0	0	0	0
	R7B-3	50	283	35	12	35	0	0	0	0	0	0
	R7B-4	51	283	35	12	35	0	0	0	0	0	0
	R7B-5	52	283	35	12	35	0	0	0	0	0	0
	R7B-6	53	283	35	12	35	0	0	0	0	0	0
	R7B-7	54	283	35	12	35	0	0	0	0	0	0
	R7B-8	55										
B8-Walther Blvd NB	B8-1	56	346	35	14	35	0	0	0	0	0	0

	B8-2	57	346	35	14	35	0	0	0	0	0	0
	B8-3	58	346	35	14	35	0	0	0	0	0	0
	B8-4	59	346	35	14	35	0	0	0	0	0	0
	B8-5	60	346	35	14	35	0	0	0	0	0	0
	B8-6	61	346	35	14	35	0	0	0	0	0	0
	B8-7	62	346	35	14	35	0	0	0	0	0	0
	B8-8	63	346	35	14	35	0	0	0	0	0	0
	B8-9	64	346	35	14	35	0	0	0	0	0	0
	B8-10	65	346	35	14	35	0	0	0	0	0	0
	B8-11	66	346	35	14	35	0	0	0	0	0	0
	B8-12	67	346	35	14	35	0	0	0	0	0	0
	B8-13	68	346	35	14	35	0	0	0	0	0	0
	B8-14	107										
B8a-Walther Blvd NB	B8a-1	69	346	35	14	35	0	0	0	0	0	0
	B8a-2	70	346	35	14	35	0	0	0	0	0	0
	B8a-3	71										
B8b-Walther Blvd NB	B8b-1	73	346	35	14	35	0	0	0	0	0	0
	B8b-2	74	346	35	14	35	0	0	0	0	0	0
	B8b-3	75	346	35	14	35	0	0	0	0	0	0
	B8b-4	76	346	35	14	35	0	0	0	0	0	0
	B8b-5	77	346	35	14	35	0	0	0	0	0	0
	B8b-6	78	346	35	14	35	0	0	0	0	0	0
	B8b-7	79	346	35	14	35	0	0	0	0	0	0
	B8b-8	80	346	35	14	35	0	0	0	0	0	0
	B8b-9	81										
B9-Walther Blvd Flush Median	B9-1	82	0	0	0	0	0	0	0	0	0	0
	B9-2	83	0	0	0	0	0	0	0	0	0	0
	B9-3	84	0	0	0	0	0	0	0	0	0	0
	B9-4	85	0	0	0	0	0	0	0	0	0	0
	B9-5	86	0	0	0	0	0	0	0	0	0	0
	B9-6	87	0	0	0	0	0	0	0	0	0	0
	B9-7	88	0	0	0	0	0	0	0	0	0	0
	B9-8	89	0	0	0	0	0	0	0	0	0	0
	B9-9	90	0	0	0	0	0	0	0	0	0	0

	B9-10	91	0	0	0	0	0	0	0	0	0	0
	B9-11	92	0	0	0	0	0	0	0	0	0	0
	B9-12	93	0	0	0	0	0	0	0	0	0	0
	B9-13	94	0	0	0	0	0	0	0	0	0	0
	B9-14	95	0	0	0	0	0	0	0	0	0	0
	B9-15	96	0	0	0	0	0	0	0	0	0	0
	B9-16	97	0	0	0	0	0	0	0	0	0	0
	B9-17	98	0	0	0	0	0	0	0	0	0	0
	B9-18	99	0	0	0	0	0	0	0	0	0	0
	B9-19	100	0	0	0	0	0	0	0	0	0	0
	B9-20	101	0	0	0	0	0	0	0	0	0	0
	B9-21	102	0	0	0	0	0	0	0	0	0	0
	B9-22	103	0	0	0	0	0	0	0	0	0	0
	B9-23	104	0	0	0	0	0	0	0	0	0	0
	B9-24	105	0	0	0	0	0	0	0	0	0	0
	B9-25	106										

Outputs

Atkins
csv

28 February 2014
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 0010425
RUN: Walther Blvd
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier					With Barrier			
				LAeq1h		Increase over existing		Type Impact	Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1	1	8	0.0	63.8	66	63.8	15	----	63.8	0.0	7	-7.0
Receiver1a-2nd story	2	8	0.0	64.4	66	64.4	15	----	64.4	0.0	7	-7.0
Receiver1b-3rd story	3	8	0.0	65.1	66	65.1	15	----	65.1	0.0	7	-7.0
Receiver2	4	8	0.0	62.2	66	62.2	15	----	62.2	0.0	7	-7.0
Receiver2a-2nd story	5	8	0.0	62.5	66	62.5	15	----	62.5	0.0	7	-7.0
Receiver2b-3rd story	6	8	0.0	63.2	66	63.2	15	----	63.2	0.0	7	-7.0
Receiver3	7	8	0.0	64.9	66	64.9	15	----	64.9	0.0	7	-7.0
Receiver3a-2nd story	8	8	0.0	65.5	66	65.5	15	----	65.5	0.0	7	-7.0
Receiver3b-3rd story	9	8	0.0	66.3	66	66.3	15	Snd Lvl	66.3	0.0	7	-7.0
Receiver4	10	8	0.0	62.7	66	62.7	15	----	62.7	0.0	7	-7.0
Receiver4a-2nd story	11	8	0.0	63.1	66	63.1	15	----	63.1	0.0	7	-7.0
Receiver4b-3rd story	12	8	0.0	63.9	66	63.9	15	----	63.9	0.0	7	-7.0
Receiver5	13	8	0.0	66.7	66	66.7	15	Snd Lvl	66.7	0.0	7	-7.0
Receiver5a-2nd story	14	8	0.0	67.6	66	67.6	15	Snd Lvl	67.6	0.0	7	-7.0
Receiver5b-3rd story	15	8	0.0	68.6	66	68.6	15	Snd Lvl	68.6	0.0	7	-7.0
Receiver6	16	8	0.0	66.8	66	66.8	15	Snd Lvl	66.8	0.0	7	-7.0
Receiver6a-2nd story	17	8	0.0	67.8	66	67.8	15	Snd Lvl	67.8	0.0	7	-7.0
Receiver6b-3rd story	18	8	0.0	68.8	66	68.8	15	Snd Lvl	68.8	0.0	7	-7.0
Receiver7	19	8	0.0	63.6	66	63.6	15	----	63.6	0.0	7	-7.0
Receiver7a-2nd story	20	8	0.0	64.2	66	64.2	15	----	64.2	0.0	7	-7.0
Receiver7b-3rd story	21	8	0.0	65.1	66	65.1	15	----	65.1	0.0	7	-7.0
Receiver8	22	8	0.0	63.0	66	63.0	15	----	63.0	0.0	7	-7.0
Receiver8a-2nd story	23	8	0.0	63.5	66	63.5	15	----	63.5	0.0	7	-7.0

Receiver8b-3rd story	24	8	0.0	64.4	66	64.4	15	----	64.4	0.0	7	-7.0
Receiver9	25	8	0.0	64.0	66	64.0	15	----	64.0	0.0	7	-7.0
Receiver9a-2nd story	26	8	0.0	66.3	66	66.3	15	Snd Lvl	66.3	0.0	7	-7.0
Receiver9b-3rd story	27	8	0.0	67.6	66	67.6	15	Snd Lvl	67.6	0.0	7	-7.0
Receiver10	28	8	0.0	64.2	66	64.2	15	----	64.2	0.0	7	-7.0
Receiver10a-2nd story	29	8	0.0	67.2	66	67.2	15	Snd Lvl	67.2	0.0	7	-7.0
Receiver10b-3rd story	30	8	0.0	68.4	66	68.4	15	Snd Lvl	68.4	0.0	7	-7.0
Receiver11	31	8	0.0	61.8	66	61.8	15	----	61.8	0.0	7	-7.0
Receiver11a-2nd story	32	8	0.0	64.3	66	64.3	15	----	64.3	0.0	7	-7.0
Receiver11b-3rd story	33	8	0.0	66.1	66	66.1	15	Snd Lvl	66.1	0.0	7	-7.0
Receiver12	34	8	0.0	61.5	66	61.5	15	----	61.5	0.0	7	-7.0
Receiver12a-2nd story	35	8	0.0	63.6	66	63.6	15	----	63.6	0.0	7	-7.0
Receiver12b-3rd story	36	8	0.0	65.4	66	65.4	15	----	65.4	0.0	7	-7.0
Receiver13	37	8	0.0	59.0	66	59.0	15	----	59.0	0.0	7	-7.0
Receiver13a-2nd story	38	8	0.0	60.8	66	60.8	15	----	60.8	0.0	7	-7.0
Receiver13b-3rd story	39	8	0.0	62.7	66	62.7	15	----	62.7	0.0	7	-7.0
Receiver14	40	8	0.0	59.2	66	59.2	15	----	59.2	0.0	7	-7.0
Receiver14a-2nd story	41	8	0.0	61.5	66	61.5	15	----	61.5	0.0	7	-7.0
Receiver14b-3rd story	42	8	0.0	63.7	66	63.7	15	----	63.7	0.0	7	-7.0
Receiver15	43	8	0.0	60.0	66	60.0	15	----	60.0	0.0	7	-7.0
Receiver15a-2nd story	44	8	0.0	60.6	66	60.6	15	----	60.6	0.0	7	-7.0
Receiver15b-3rd story	45	8	0.0	62.6	66	62.6	15	----	62.6	0.0	7	-7.0
Receiver16	46	8	0.0	58.5	66	58.5	15	----	58.5	0.0	7	-7.0
Receiver16a-2nd story	47	8	0.0	59.2	66	59.2	15	----	59.2	0.0	7	-7.0
Receiver16b-3rd story	48	8	0.0	60.9	66	60.9	15	----	60.9	0.0	7	-7.0
Receiver17	49	8	0.0	57.7	66	57.7	15	----	57.7	0.0	7	-7.0
Receiver17a-2nd story	50	8	0.0	57.3	66	57.3	15	----	57.3	0.0	7	-7.0
Receiver17b-3rd story	51	8	0.0	59.0	66	59.0	15	----	59.0	0.0	7	-7.0
Receiver18	52	8	0.0	57.2	66	57.2	15	----	57.2	0.0	7	-7.0
Receiver18a-2nd story	53	8	0.0	56.5	66	56.5	15	----	56.5	0.0	7	-7.0
Receiver18b-3rd story	54	8	0.0	58.3	66	58.3	15	----	58.3	0.0	7	-7.0
Receiver19	55	8	0.0	56.3	66	56.3	15	----	56.3	0.0	7	-7.0
Receiver19a-2nd story	56	8	0.0	56.6	66	56.6	15	----	56.6	0.0	7	-7.0
Receiver19b-3rd story	57	8	0.0	58.2	66	58.2	15	----	58.2	0.0	7	-7.0
Receiver20	58	8	0.0	55.4	66	55.4	15	----	55.4	0.0	7	-7.0
Receiver20a-2nd story	59	8	0.0	55.5	66	55.5	15	----	55.5	0.0	7	-7.0
Receiver20b-3rd story	60	8	0.0	57.4	66	57.4	15	----	57.4	0.0	7	-7.0
Receiver21	61	8	0.0	55.6	66	55.6	15	----	55.6	0.0	7	-7.0
Receiver21a-2nd story	62	8	0.0	55.2	66	55.2	15	----	55.2	0.0	7	-7.0
Receiver21b-3rd story	63	8	0.0	56.8	66	56.8	15	----	56.8	0.0	7	-7.0
Receiver22	64	8	0.0	56.1	66	56.1	15	----	56.1	0.0	7	-7.0

Receiver22a-2nd story	65	8	0.0	55.2	66	55.2	15	----	55.2	0.0	7	-7.0
Receiver22b-3rd story	66	8	0.0	56.5	66	56.5	15	----	56.5	0.0	7	-7.0
Receiver23	67	8	0.0	54.6	66	54.6	15	----	54.6	0.0	7	-7.0
Receiver23a-2nd story	68	8	0.0	54.5	66	54.5	15	----	54.5	0.0	7	-7.0
Receiver23b-3rd story	69	8	0.0	56.0	66	56.0	15	----	56.0	0.0	7	-7.0
Receiver24	70	8	0.0	54.1	66	54.1	15	----	54.1	0.0	7	-7.0
Receiver24a-2nd story	71	8	0.0	53.8	66	53.8	15	----	53.8	0.0	7	-7.0
Receiver24b-3rd story	72	8	0.0	55.0	66	55.0	15	----	55.0	0.0	7	-7.0
Receiver25-Office	73	1	0.0	52.4	71	52.4	15	----	52.4	0.0	7	-7.0
Receiver26-Office	74	1	0.0	51.1	71	51.1	15	----	51.1	0.0	7	-7.0
Receiver27-Office	75	1	0.0	52.5	71	52.5	15	----	52.5	0.0	7	-7.0
Receiver28-Office	76	1	0.0	50.8	71	50.8	15	----	50.8	0.0	7	-7.0
Receiver29-Office	77	1	0.0	51.9	71	51.9	15	----	51.9	0.0	7	-7.0
Receiver30-Office	78	1	0.0	55.3	71	55.3	15	----	55.3	0.0	7	-7.0
Receiver31-SF Residential	79	1	0.0	58.3	66	58.3	15	----	58.3	0.0	7	-7.0
Receiver32-SF Residential	80	1	0.0	56.2	66	56.2	15	----	56.2	0.0	7	-7.0
Receiver33-SF Residential	81	1	0.0	54.8	66	54.8	15	----	54.8	0.0	7	-7.0
Receiver34-SF Residential	82	1	0.0	53.6	66	53.6	15	----	53.6	0.0	7	-7.0
Receiver35-SF Residential	83	1	0.0	52.4	66	52.4	15	----	52.4	0.0	7	-7.0
Receiver36-SF Residential	84	1	0.0	51.7	66	51.7	15	----	51.7	0.0	7	-7.0
Receiver37-SF Residential	85	1	0.0	50.7	66	50.7	15	----	50.7	0.0	7	-7.0
Receiver38-SF Residential	86	1	0.0	49.6	66	49.6	15	----	49.6	0.0	7	-7.0
Receiver39	87	3	0.0	64.7	66	64.7	15	----	64.7	0.0	7	-7.0
Receiver40	89	3	0.0	64.9	66	64.9	15	----	64.9	0.0	7	-7.0
Receiver41	90	3	0.0	64.7	66	64.7	15	----	64.7	0.0	7	-7.0
Receiver42	91	2	0.0	63.3	66	63.3	15	----	63.3	0.0	7	-7.0
Receiver42a- 2nd story	92	2	0.0	64.9	66	64.9	15	----	64.9	0.0	7	-7.0
Receiver42b - 3rd story	93	2	0.0	65.8	66	65.8	15	----	65.8	0.0	7	-7.0
Receiver43	94	2	0.0	63.0	66	63.0	15	----	63.0	0.0	7	-7.0
Receiver43ll - lower level	95	2	0.0	62.1	66	62.1	15	----	62.1	0.0	7	-7.0
Receiver43a - 2nd story	96	2	0.0	64.8	66	64.8	15	----	64.8	0.0	7	-7.0
Receiver43b - 3rd story	97	2	0.0	65.8	66	65.8	15	----	65.8	0.0	7	-7.0
Receiver44	98	2	0.0	60.8	66	60.8	15	----	60.8	0.0	7	-7.0
Receiver44ll - lower level	99	2	0.0	60.1	66	60.1	15	----	60.1	0.0	7	-7.0
Receiver44a - 2nd story	100	2	0.0	62.5	66	62.5	15	----	62.5	0.0	7	-7.0
Receiver44b- 3rd story	101	2	0.0	63.5	66	63.5	15	----	63.5	0.0	7	-7.0
Receiver45	102	2	0.0	60.7	66	60.7	15	----	60.7	0.0	7	-7.0
Receiver45a- 2nd story	103	2	0.0	62.1	66	62.1	15	----	62.1	0.0	7	-7.0
Receiver45b- 3rd story	104	2	0.0	63.2	66	63.2	15	----	63.2	0.0	7	-7.0
Receiver46-tennis court	105	4	0.0	62.1	66	62.1	15	----	62.1	0.0	7	-7.0
Receiver47-pool	106	240	0.0	60.1	66	60.1	15	----	60.1	0.0	7	-7.0

Receiver48	107	1	0.0	57.9	66	57.9	15	----	57.9	0.0	7	-7.0
Receiver48ll-lower level	108	1	0.0	55.9	66	55.9	15	----	55.9	0.0	7	-7.0
Receiver48a- 2nd story	109	1	0.0	58.7	66	58.7	15	----	58.7	0.0	7	-7.0
Receiver48b- 3rd story	110	1	0.0	59.9	66	59.9	15	----	59.9	0.0	7	-7.0
Receiver49	111	1	0.0	56.5	66	56.5	15	----	56.5	0.0	7	-7.0
Receiver49a- 2nd story	112	1	0.0	57.5	66	57.5	15	----	57.5	0.0	7	-7.0
Receiver49b- 3rd story	113	1	0.0	58.9	66	58.9	15	----	58.9	0.0	7	-7.0
Receiver50	114	1	0.0	58.1	66	58.1	15	----	58.1	0.0	7	-7.0
Receiver50ll-lower level	115	1	0.0	56.7	66	56.7	15	----	56.7	0.0	7	-7.0
Receiver50a- 2nd story	116	1	0.0	59.0	66	59.0	15	----	59.0	0.0	7	-7.0
Receiver50b- 3rd story	117	1	0.0	59.9	66	59.9	15	----	59.9	0.0	7	-7.0
Receiver51	118	1	0.0	56.4	66	56.4	15	----	56.4	0.0	7	-7.0
Receiver51a-2nd story	119	1	0.0	57.3	66	57.3	15	----	57.3	0.0	7	-7.0
Receiver51b-3rd story	120	1	0.0	58.6	66	58.6	15	----	58.6	0.0	7	-7.0
Receiver52	121	1	0.0	55.3	66	55.3	15	----	55.3	0.0	7	-7.0
Receiver52a-2nd story	122	1	0.0	56.5	66	56.5	15	----	56.5	0.0	7	-7.0
Receiver52b-3rd story	123	1	0.0	57.6	66	57.6	15	----	57.6	0.0	7	-7.0
Receiver53	124	1	0.0	54.7	66	54.7	15	----	54.7	0.0	7	-7.0
Receiver53ll-lower level	125	1	0.0	52.3	66	52.3	15	----	52.3	0.0	7	-7.0
Receiver53a-2nd story	126	1	0.0	55.3	66	55.3	15	----	55.3	0.0	7	-7.0
Receiver53b-3rd story	127	1	0.0	56.4	66	56.4	15	----	56.4	0.0	7	-7.0
Receiver54	128	1	0.0	53.1	66	53.1	15	----	53.1	0.0	7	-7.0
Receiver54a-2nd story	129	1	0.0	54.9	66	54.9	15	----	54.9	0.0	7	-7.0
Receiver54b-3rd story	130	1	0.0	55.6	66	55.6	15	----	55.6	0.0	7	-7.0
Receiver55	131	1	0.0	52.3	66	52.3	15	----	52.3	0.0	7	-7.0
Receiver55ll-lower level	132	1	0.0	50.3	66	50.3	15	----	50.3	0.0	7	-7.0
Receiver55a-2nd story	133	1	0.0	54.0	66	54.0	15	----	54.0	0.0	7	-7.0
Receiver55b-3rd story	134	1	0.0	54.9	66	54.9	15	----	54.9	0.0	7	-7.0
Receiver55-P - park	135	1	0.0	55.8	66	55.8	15	----	55.8	0.0	7	-7.0
Receiver56	136	2	0.0	54.8	66	54.8	15	----	54.8	0.0	7	-7.0
Receiver56a-2nd story	137	2	0.0	55.4	66	55.4	15	----	55.4	0.0	7	-7.0
Receiver56b-3rd story	138	2	0.0	56.1	66	56.1	15	----	56.1	0.0	7	-7.0
Receiver57	139	2	0.0	54.3	66	54.3	15	----	54.3	0.0	7	-7.0
Receiver57a-2nd story	140	2	0.0	54.9	66	54.9	15	----	54.9	0.0	7	-7.0
Receiver57b-3rd story	141	2	0.0	55.7	66	55.7	15	----	55.7	0.0	7	-7.0
Receiver58	142	1	0.0	53.4	66	53.4	15	----	53.4	0.0	7	-7.0
Receiver58a-2nd story	143	2	0.0	54.1	66	54.1	15	----	54.1	0.0	7	-7.0
Receiver58b-3rd story	144	2	0.0	54.9	66	54.9	15	----	54.9	0.0	7	-7.0
Receiver59	145	1	0.0	53.3	66	53.3	15	----	53.3	0.0	7	-7.0
Receiver59a-2nd story	146	2	0.0	54.0	66	54.0	15	----	54.0	0.0	7	-7.0
Receiver59b-3rd story	147	2	0.0	54.8	66	54.8	15	----	54.8	0.0	7	-7.0

Receiver60	148	2	0.0	54.5	66	54.5	15	----	54.5	0.0	7	-7.0
Receiver60a-2nd story	149	2	0.0	55.4	66	55.4	15	----	55.4	0.0	7	-7.0
Receiver60b-3rd story	150	2	0.0	56.3	66	56.3	15	----	56.3	0.0	7	-7.0
Receiver61	151	2	0.0	54.7	66	54.7	15	----	54.7	0.0	7	-7.0
Receiver61a-2nd story	152	2	0.0	55.7	66	55.7	15	----	55.7	0.0	7	-7.0
Receiver61b-3rd story	153	2	0.0	56.8	66	56.8	15	----	56.8	0.0	7	-7.0
Receiver62	154	1	0.0	53.6	66	53.6	15	----	53.6	0.0	7	-7.0
Receiver62a-2nd story	155	2	0.0	54.5	66	54.5	15	----	54.5	0.0	7	-7.0
Receiver62b-3rd story	156	2	0.0	55.5	66	55.5	15	----	55.5	0.0	7	-7.0
Receiver63	157	1	0.0	54.1	66	54.1	15	----	54.1	0.0	7	-7.0
Receiver63a-2nd story	158	2	0.0	54.9	66	54.9	15	----	54.9	0.0	7	-7.0
Receiver63b-3rd story	159	2	0.0	55.8	66	55.8	15	----	55.8	0.0	7	-7.0
Receiver64	160	2	0.0	55.5	66	55.5	15	----	55.5	0.0	7	-7.0
Receiver64a-2nd story	161	2	0.0	56.4	66	56.4	15	----	56.4	0.0	7	-7.0
Receiver64b-3rd story	162	2	0.0	57.6	66	57.6	15	----	57.6	0.0	7	-7.0
Receiver65	163	2	0.0	56.3	66	56.3	15	----	56.3	0.0	7	-7.0
Receiver65a-2nd story	164	2	0.0	57.0	66	57.0	15	----	57.0	0.0	7	-7.0
Receiver65b-3rd story	165	2	0.0	58.3	66	58.3	15	----	58.3	0.0	7	-7.0
Receiver66	166	1	0.0	54.8	66	54.8	15	----	54.8	0.0	7	-7.0
Receiver66a-2nd story	167	2	0.0	55.7	66	55.7	15	----	55.7	0.0	7	-7.0
Receiver66b-3rd story	168	2	0.0	57.0	66	57.0	15	----	57.0	0.0	7	-7.0
Receiver67	169	1	0.0	55.1	66	55.1	15	----	55.1	0.0	7	-7.0
Receiver67a-2nd story	170	2	0.0	56.1	66	56.1	15	----	56.1	0.0	7	-7.0
Receiver67b-3rd story	171	2	0.0	57.4	66	57.4	15	----	57.4	0.0	7	-7.0
Receiver68	172	2	0.0	57.2	66	57.2	15	----	57.2	0.0	7	-7.0
Receiver68a-2nd story	173	2	0.0	58.4	66	58.4	15	----	58.4	0.0	7	-7.0
Receiver68b-3rd story	174	2	0.0	59.9	66	59.9	15	----	59.9	0.0	7	-7.0
Receiver69	175	2	0.0	58.0	66	58.0	15	----	58.0	0.0	7	-7.0
Receiver69a-2nd story	176	2	0.0	59.3	66	59.3	15	----	59.3	0.0	7	-7.0
Receiver69b-3rd story	177	2	0.0	60.6	66	60.6	15	----	60.6	0.0	7	-7.0
Receiver70	178	1	0.0	56.4	66	56.4	15	----	56.4	0.0	7	-7.0
Receiver70a-2nd story	179	2	0.0	57.7	66	57.7	15	----	57.7	0.0	7	-7.0
Receiver70b-3rd story	180	2	0.0	59.1	66	59.1	15	----	59.1	0.0	7	-7.0
Receiver71	181	1	0.0	58.0	66	58.0	15	----	58.0	0.0	7	-7.0
Receiver71a-2nd story	182	2	0.0	58.6	66	58.6	15	----	58.6	0.0	7	-7.0
Receiver71b-3rd story	183	2	0.0	60.0	66	60.0	15	----	60.0	0.0	7	-7.0
Receiver72	184	2	0.0	62.8	66	62.8	15	----	62.8	0.0	7	-7.0
Receiver72a-2nd story	185	2	0.0	64.0	66	64.0	15	----	64.0	0.0	7	-7.0
Receiver72b-3rd story	186	2	0.0	66.0	66	66.0	15	Snd Lvl	66.0	0.0	7	-7.0
Receiver73	187	2	0.0	63.6	66	63.6	15	----	63.6	0.0	7	-7.0
Receiver73a-2nd story	188	2	0.0	65.0	66	65.0	15	----	65.0	0.0	7	-7.0

Receiver73b-3rd story	189	2	0.0	66.8	66	66.8	15	Snd Lvl	66.8	0.0	7	-7.0
Receiver74	190	1	0.0	61.6	66	61.6	15	----	61.6	0.0	7	-7.0
Receiver74a-2nd story	191	2	0.0	62.4	66	62.4	15	----	62.4	0.0	7	-7.0
Receiver74b-3rd story	192	2	0.0	64.4	66	64.4	15	----	64.4	0.0	7	-7.0
Receiver75	193	1	0.0	62.4	66	62.4	15	----	62.4	0.0	7	-7.0
Receiver75a-2nd story	194	2	0.0	63.1	66	63.1	15	----	63.1	0.0	7	-7.0
Receiver75b-3rd story	195	2	0.0	64.9	66	64.9	15	----	64.9	0.0	7	-7.0
Receiver76	196	2	0.0	64.9	66	64.9	15	----	64.9	0.0	7	-7.0
Receiver76a-2nd story	197	2	0.0	65.8	66	65.8	15	----	65.8	0.0	7	-7.0
Receiver76b-3rd story	198	2	0.0	67.2	66	67.2	15	Snd Lvl	67.2	0.0	7	-7.0
Receiver77	199	2	0.0	65.4	66	65.4	15	----	65.4	0.0	7	-7.0
Receiver77a-2nd story	200	2	0.0	65.9	66	65.9	15	----	65.9	0.0	7	-7.0
Receiver77b-3rd story	201	2	0.0	67.1	66	67.1	15	Snd Lvl	67.1	0.0	7	-7.0
Receiver78	202	1	0.0	62.9	66	62.9	15	----	62.9	0.0	7	-7.0
Receiver78a-2nd story	203	2	0.0	63.2	66	63.2	15	----	63.2	0.0	7	-7.0
Receiver78b-3rd story	204	2	0.0	64.5	66	64.5	15	----	64.5	0.0	7	-7.0
Receiver79	205	1	0.0	62.9	66	62.9	15	----	62.9	0.0	7	-7.0
Receiver79a-2nd story	206	2	0.0	63.1	66	63.1	15	----	63.1	0.0	7	-7.0
Receiver79b-3rd story	207	2	0.0	64.2	66	64.2	15	----	64.2	0.0	7	-7.0
Receiver80	208	2	0.0	65.3	66	65.3	15	----	65.3	0.0	7	-7.0
Receiver80a-2nd story	209	2	0.0	65.5	66	65.5	15	----	65.5	0.0	7	-7.0
Receiver80b-3rd story	210	2	0.0	66.5	66	66.5	15	Snd Lvl	66.5	0.0	7	-7.0
Receiver81	211	2	0.0	64.9	66	64.9	15	----	64.9	0.0	7	-7.0
Receiver81a-2nd story	212	2	0.0	65.1	66	65.1	15	----	65.1	0.0	7	-7.0
Receiver81b-3rd story	213	2	0.0	66.1	66	66.1	15	Snd Lvl	66.1	0.0	7	-7.0
Receiver82	214	1	0.0	62.2	66	62.2	15	----	62.2	0.0	7	-7.0
Receiver82a-2nd story	215	2	0.0	62.8	66	62.8	15	----	62.8	0.0	7	-7.0
Receiver82b-3rd story	216	2	0.0	63.7	66	63.7	15	----	63.7	0.0	7	-7.0
Receiver83	217	1	0.0	61.8	66	61.8	15	----	61.8	0.0	7	-7.0
Receiver83a-2nd story	218	2	0.0	62.2	66	62.2	15	----	62.2	0.0	7	-7.0
Receiver83b-3rd story	219	2	0.0	63.1	66	63.1	15	----	63.1	0.0	7	-7.0
Receiver84	220	2	0.0	64.3	66	64.3	15	----	64.3	0.0	7	-7.0
Receiver84a-2nd story	221	2	0.0	64.6	66	64.6	15	----	64.6	0.0	7	-7.0
Receiver84b-3rd story	222	2	0.0	65.4	66	65.4	15	----	65.4	0.0	7	-7.0
Receiver85	223	2	0.0	60.9	66	60.9	15	----	60.9	0.0	7	-7.0
Receiver85a-2nd story	224	2	0.0	61.2	66	61.2	15	----	61.2	0.0	7	-7.0
Receiver85b-3rd story	225	2	0.0	61.9	66	61.9	15	----	61.9	0.0	7	-7.0
Receiver86	226	1	0.0	61.6	66	61.6	15	----	61.6	0.0	7	-7.0
Receiver86a-2nd story	227	2	0.0	62.1	66	62.1	15	----	62.1	0.0	7	-7.0
Receiver86b-3rd story	228	2	0.0	62.8	66	62.8	15	----	62.8	0.0	7	-7.0
Receiver87	229	1	0.0	59.9	66	59.9	15	----	59.9	0.0	7	-7.0

Receiver87a-2nd story	230	2	0.0	60.0	66	60.0	15	----	60.0	0.0	7	-7.0
Receiver87b-3rd story	235	2	0.0	60.5	66	60.5	15	----	60.5	0.0	7	-7.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1076	0.0	0.0	0.0
All Impacted	108	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Atkins
csv

20 January 2014
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 0010425
RUN: Walther Blvd
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier					With Barrier			
				LAeq1h		Increase over existing		Type Impact	Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1	1	8	63.8	64.2	66	0.4	15	----	64.2	0.0	7	-7.0
Receiver1a-2nd story	2	8	64.4	64.8	66	0.4	15	----	64.8	0.0	7	-7.0
Receiver1b-3rd story	3	8	65.1	65.3	66	0.2	15	----	65.3	0.0	7	-7.0
Receiver2	4	8	62.2	62.4	66	0.2	15	----	62.4	0.0	7	-7.0
Receiver2a-2nd story	5	8	62.5	62.9	66	0.4	15	----	62.9	0.0	7	-7.0
Receiver2b-3rd story	6	8	63.2	63.3	66	0.1	15	----	63.3	0.0	7	-7.0
Receiver3	7	8	64.9	65.2	66	0.3	15	----	65.2	0.0	7	-7.0
Receiver3a-2nd story	8	8	65.5	65.8	66	0.3	15	----	65.8	0.0	7	-7.0
Receiver3b-3rd story	9	8	66.3	66.4	66	0.1	15	Snd Lvl	66.4	0.0	7	-7.0
Receiver4	10	8	62.7	63.0	66	0.3	15	----	63.0	0.0	7	-7.0
Receiver4a-2nd story	11	8	63.1	63.4	66	0.3	15	----	63.4	0.0	7	-7.0
Receiver4b-3rd story	12	8	63.9	63.9	66	0.0	15	----	63.9	0.0	7	-7.0
Receiver5	13	8	66.7	67.1	66	0.4	15	Snd Lvl	67.1	0.0	7	-7.0
Receiver5a-2nd story	14	8	67.6	67.7	66	0.1	15	Snd Lvl	67.7	0.0	7	-7.0
Receiver5b-3rd story	15	8	68.6	68.4	66	-0.2	15	Snd Lvl	68.4	0.0	7	-7.0
Receiver6	16	8	66.8	67.1	66	0.3	15	Snd Lvl	67.1	0.0	7	-7.0
Receiver6a-2nd story	17	8	67.8	67.7	66	-0.1	15	Snd Lvl	67.7	0.0	7	-7.0
Receiver6b-3rd story	18	8	68.8	68.4	66	-0.4	15	Snd Lvl	68.4	0.0	7	-7.0
Receiver7	19	8	63.6	63.6	66	0.0	15	----	63.6	0.0	7	-7.0
Receiver7a-2nd story	20	8	64.2	64.0	66	-0.2	15	----	64.0	0.0	7	-7.0
Receiver7b-3rd story	21	8	65.1	64.5	66	-0.6	15	----	64.5	0.0	7	-7.0
Receiver8	22	8	63.0	63.1	66	0.1	15	----	63.1	0.0	7	-7.0
Receiver8a-2nd story	23	8	63.5	63.5	66	0.0	15	----	63.5	0.0	7	-7.0

Receiver8b-3rd story	24	8	64.4	64.0	66	-0.4	15	----	64.0	0.0	7	-7.0
Receiver9	25	8	64.0	63.9	66	-0.1	15	----	63.9	0.0	7	-7.0
Receiver9a-2nd story	26	8	66.3	64.7	66	-1.6	15	----	64.7	0.0	7	-7.0
Receiver9b-3rd story	27	8	67.6	65.6	66	-2.0	15	----	65.6	0.0	7	-7.0
Receiver10	28	8	64.2	64.0	66	-0.2	15	----	64.0	0.0	7	-7.0
Receiver10a-2nd story	29	8	67.2	65.3	66	-1.9	15	----	65.3	0.0	7	-7.0
Receiver10b-3rd story	30	8	68.4	66.9	66	-1.5	15	Snd Lvl	66.9	0.0	7	-7.0
Receiver11	31	8	61.8	61.8	66	0.0	15	----	61.8	0.0	7	-7.0
Receiver11a-2nd story	32	8	64.3	63.4	66	-0.9	15	----	63.4	0.0	7	-7.0
Receiver11b-3rd story	33	8	66.1	65.0	66	-1.1	15	----	65.0	0.0	7	-7.0
Receiver12	34	8	61.5	61.6	66	0.1	15	----	61.6	0.0	7	-7.0
Receiver12a-2nd story	35	8	63.6	62.5	66	-1.1	15	----	62.5	0.0	7	-7.0
Receiver12b-3rd story	36	8	65.4	63.5	66	-1.9	15	----	63.5	0.0	7	-7.0
Receiver13	37	8	59.0	60.1	66	1.1	15	----	60.1	0.0	7	-7.0
Receiver13a-2nd story	38	8	60.8	60.7	66	-0.1	15	----	60.7	0.0	7	-7.0
Receiver13b-3rd story	39	8	62.7	61.5	66	-1.2	15	----	61.5	0.0	7	-7.0
Receiver14	40	8	59.2	61.0	66	1.8	15	----	61.0	0.0	7	-7.0
Receiver14a-2nd story	41	8	61.5	62.0	66	0.5	15	----	62.0	0.0	7	-7.0
Receiver14b-3rd story	42	8	63.7	63.6	66	-0.1	15	----	63.6	0.0	7	-7.0
Receiver15	43	8	60.0	61.5	66	1.5	15	----	61.5	0.0	7	-7.0
Receiver15a-2nd story	44	8	60.6	62.1	66	1.5	15	----	62.1	0.0	7	-7.0
Receiver15b-3rd story	45	8	62.6	63.6	66	1.0	15	----	63.6	0.0	7	-7.0
Receiver16	46	8	58.5	59.4	66	0.9	15	----	59.4	0.0	7	-7.0
Receiver16a-2nd story	47	8	59.2	59.9	66	0.7	15	----	59.9	0.0	7	-7.0
Receiver16b-3rd story	48	8	60.9	60.7	66	-0.2	15	----	60.7	0.0	7	-7.0
Receiver17	49	8	57.7	60.7	66	3.0	15	----	60.7	0.0	7	-7.0
Receiver17a-2nd story	50	8	57.3	60.2	66	2.9	15	----	60.2	0.0	7	-7.0
Receiver17b-3rd story	51	8	59.0	61.3	66	2.3	15	----	61.3	0.0	7	-7.0
Receiver18	52	8	57.2	60.4	66	3.2	15	----	60.4	0.0	7	-7.0
Receiver18a-2nd story	53	8	56.5	59.9	66	3.4	15	----	59.9	0.0	7	-7.0
Receiver18b-3rd story	54	8	58.3	60.8	66	2.5	15	----	60.8	0.0	7	-7.0
Receiver19	55	8	56.3	57.9	66	1.6	15	----	57.9	0.0	7	-7.0
Receiver19a-2nd story	56	8	56.6	58.1	66	1.5	15	----	58.1	0.0	7	-7.0
Receiver19b-3rd story	57	8	58.2	59.1	66	0.9	15	----	59.1	0.0	7	-7.0
Receiver20	58	8	55.4	57.4	66	2.0	15	----	57.4	0.0	7	-7.0
Receiver20a-2nd story	59	8	55.5	57.1	66	1.6	15	----	57.1	0.0	7	-7.0
Receiver20b-3rd story	60	8	57.4	58.2	66	0.8	15	----	58.2	0.0	7	-7.0
Receiver21	61	8	55.6	59.6	66	4.0	15	----	59.6	0.0	7	-7.0
Receiver21a-2nd story	62	8	55.2	59.4	66	4.2	15	----	59.4	0.0	7	-7.0
Receiver21b-3rd story	63	8	56.8	59.9	66	3.1	15	----	59.9	0.0	7	-7.0
Receiver22	64	8	56.1	60.0	66	3.9	15	----	60.0	0.0	7	-7.0

Receiver22a-2nd story	65	8	55.2	59.9	66	4.7	15	-----	59.9	0.0	7	-7.0
Receiver22b-3rd story	66	8	56.5	60.3	66	3.8	15	-----	60.3	0.0	7	-7.0
Receiver23	67	8	54.6	57.2	66	2.6	15	-----	57.2	0.0	7	-7.0
Receiver23a-2nd story	68	8	54.5	57.0	66	2.5	15	-----	57.0	0.0	7	-7.0
Receiver23b-3rd story	69	8	56.0	57.8	66	1.8	15	-----	57.8	0.0	7	-7.0
Receiver24	70	8	54.1	56.6	66	2.5	15	-----	56.6	0.0	7	-7.0
Receiver24a-2nd story	71	8	53.8	56.6	66	2.8	15	-----	56.6	0.0	7	-7.0
Receiver24b-3rd story	72	8	55.0	56.9	66	1.9	15	-----	56.9	0.0	7	-7.0
Receiver25-Office	73	1	52.4	55.2	71	2.8	15	-----	55.2	0.0	7	-7.0
Receiver26-Office	74	1	51.1	53.9	71	2.8	15	-----	53.9	0.0	7	-7.0
Receiver27-Office	75	1	52.5	56.1	71	3.6	15	-----	56.1	0.0	7	-7.0
Receiver28-Office	76	1	50.8	52.8	71	2.0	15	-----	52.8	0.0	7	-7.0
Receiver29-Office	77	1	51.9	52.5	71	0.6	15	-----	52.5	0.0	7	-7.0
Receiver30-Office	78	1	55.3	55.7	71	0.4	15	-----	55.7	0.0	7	-7.0
Receiver31-SF Residential	79	1	58.3	59.3	66	1.0	15	-----	59.3	0.0	7	-7.0
Receiver32-SF Residential	80	1	56.2	56.8	66	0.6	15	-----	56.8	0.0	7	-7.0
Receiver33-SF Residential	81	1	54.8	55.4	66	0.6	15	-----	55.4	0.0	7	-7.0
Receiver34-SF Residential	82	1	53.6	54.2	66	0.6	15	-----	54.2	0.0	7	-7.0
Receiver35-SF Residential	83	1	52.4	53.0	66	0.6	15	-----	53.0	0.0	7	-7.0
Receiver36-SF Residential	84	1	51.7	52.0	66	0.3	15	-----	52.0	0.0	7	-7.0
Receiver37-SF Residential	85	1	50.7	51.3	66	0.6	15	-----	51.3	0.0	7	-7.0
Receiver38-SF Residential	86	1	49.6	50.1	66	0.5	15	-----	50.1	0.0	7	-7.0
Receiver39	87	3	64.7	64.5	66	-0.2	15	-----	64.5	0.0	7	-7.0
Receiver40	89	3	64.9	64.4	66	-0.5	15	-----	64.4	0.0	7	-7.0
Receiver41	90	3	64.7	64.2	66	-0.5	15	-----	64.2	0.0	7	-7.0
Receiver42	91	2	63.3	63.1	66	-0.2	15	-----	63.1	0.0	7	-7.0
Receiver42a- 2nd story	92	2	64.9	63.5	66	-1.4	15	-----	63.5	0.0	7	-7.0
Receiver42b - 3rd story	93	2	65.8	64.3	66	-1.5	15	-----	64.3	0.0	7	-7.0
Receiver43	94	2	63.0	62.9	66	-0.1	15	-----	62.9	0.0	7	-7.0
Receiver43ll - lower level	95	2	62.1	62.3	66	0.2	15	-----	62.3	0.0	7	-7.0
Receiver43a - 2nd story	96	2	64.8	63.3	66	-1.5	15	-----	63.3	0.0	7	-7.0
Receiver43b - 3rd story	97	2	65.8	64.3	66	-1.5	15	-----	64.3	0.0	7	-7.0
Receiver44	98	2	60.8	60.9	66	0.1	15	-----	60.9	0.0	7	-7.0
Receiver44ll - lower level	99	2	60.1	60.7	66	0.6	15	-----	60.7	0.0	7	-7.0
Receiver44a - 2nd story	100	2	62.5	61.1	66	-1.4	15	-----	61.1	0.0	7	-7.0
Receiver44b- 3rd story	101	2	63.5	62.4	66	-1.1	15	-----	62.4	0.0	7	-7.0
Receiver45	102	2	60.7	60.8	66	0.1	15	-----	60.8	0.0	7	-7.0
Receiver45a- 2nd story	103	2	62.1	60.9	66	-1.2	15	-----	60.9	0.0	7	-7.0
Receiver45b- 3rd story	104	2	63.2	61.9	66	-1.3	15	-----	61.9	0.0	7	-7.0
Receiver46-tennis court	105	4	62.1	62.1	66	0.0	15	-----	62.1	0.0	7	-7.0
Receiver47-pool	106	240	60.1	60.7	66	0.6	15	-----	60.7	0.0	7	-7.0

Receiver48	107	1	57.9	59.8	66	1.9	15	-----	59.8	0.0	7	-7.0
Receiver48ll-lower level	108	1	55.9	58.9	66	3.0	15	-----	58.9	0.0	7	-7.0
Receiver48a- 2nd story	109	1	58.7	60.4	66	1.7	15	-----	60.4	0.0	7	-7.0
Receiver48b- 3rd story	110	1	59.9	61.4	66	1.5	15	-----	61.4	0.0	7	-7.0
Receiver49	111	1	56.5	57.9	66	1.4	15	-----	57.9	0.0	7	-7.0
Receiver49a- 2nd story	112	1	57.5	58.5	66	1.0	15	-----	58.5	0.0	7	-7.0
Receiver49b- 3rd story	113	1	58.9	59.7	66	0.8	15	-----	59.7	0.0	7	-7.0
Receiver50	114	1	58.1	60.8	66	2.7	15	-----	60.8	0.0	7	-7.0
Receiver50ll-lower level	115	1	56.7	60.1	66	3.4	15	-----	60.1	0.0	7	-7.0
Receiver50a- 2nd story	116	1	59.0	61.2	66	2.2	15	-----	61.2	0.0	7	-7.0
Receiver50b- 3rd story	117	1	59.9	61.9	66	2.0	15	-----	61.9	0.0	7	-7.0
Receiver51	118	1	56.4	57.9	66	1.5	15	-----	57.9	0.0	7	-7.0
Receiver51a-2nd story	119	1	57.3	58.5	66	1.2	15	-----	58.5	0.0	7	-7.0
Receiver51b-3rd story	120	1	58.6	59.6	66	1.0	15	-----	59.6	0.0	7	-7.0
Receiver52	121	1	55.3	56.4	66	1.1	15	-----	56.4	0.0	7	-7.0
Receiver52a-2nd story	122	1	56.5	57.6	66	1.1	15	-----	57.6	0.0	7	-7.0
Receiver52b-3rd story	123	1	57.6	58.6	66	1.0	15	-----	58.6	0.0	7	-7.0
Receiver53	124	1	54.7	56.7	66	2.0	15	-----	56.7	0.0	7	-7.0
Receiver53ll-lower level	125	1	52.3	54.9	66	2.6	15	-----	54.9	0.0	7	-7.0
Receiver53a-2nd story	126	1	55.3	56.6	66	1.3	15	-----	56.6	0.0	7	-7.0
Receiver53b-3rd story	127	1	56.4	57.6	66	1.2	15	-----	57.6	0.0	7	-7.0
Receiver54	128	1	53.1	56.1	66	3.0	15	-----	56.1	0.0	7	-7.0
Receiver54a-2nd story	129	1	54.9	57.4	66	2.5	15	-----	57.4	0.0	7	-7.0
Receiver54b-3rd story	130	1	55.6	57.5	66	1.9	15	-----	57.5	0.0	7	-7.0
Receiver55	131	1	52.3	55.7	66	3.4	15	-----	55.7	0.0	7	-7.0
Receiver55ll-lower level	132	1	50.3	53.8	66	3.5	15	-----	53.8	0.0	7	-7.0
Receiver55a-2nd story	133	1	54.0	56.7	66	2.7	15	-----	56.7	0.0	7	-7.0
Receiver55b-3rd story	134	1	54.9	57.2	66	2.3	15	-----	57.2	0.0	7	-7.0
Receiver55-P - park	135	1	55.8	59.4	66	3.6	15	-----	59.4	0.0	7	-7.0
Receiver56	136	2	54.8	57.8	66	3.0	15	-----	57.8	0.0	7	-7.0
Receiver56a-2nd story	137	2	55.4	58.0	66	2.6	15	-----	58.0	0.0	7	-7.0
Receiver56b-3rd story	138	2	56.1	58.4	66	2.3	15	-----	58.4	0.0	7	-7.0
Receiver57	139	2	54.3	56.5	66	2.2	15	-----	56.5	0.0	7	-7.0
Receiver57a-2nd story	140	2	54.9	56.7	66	1.8	15	-----	56.7	0.0	7	-7.0
Receiver57b-3rd story	141	2	55.7	57.4	66	1.7	15	-----	57.4	0.0	7	-7.0
Receiver58	142	1	53.4	55.7	66	2.3	15	-----	55.7	0.0	7	-7.0
Receiver58a-2nd story	143	2	54.1	55.8	66	1.7	15	-----	55.8	0.0	7	-7.0
Receiver58b-3rd story	144	2	54.9	56.5	66	1.6	15	-----	56.5	0.0	7	-7.0
Receiver59	145	1	53.3	54.9	66	1.6	15	-----	54.9	0.0	7	-7.0
Receiver59a-2nd story	146	2	54.0	54.9	66	0.9	15	-----	54.9	0.0	7	-7.0
Receiver59b-3rd story	147	2	54.8	55.8	66	1.0	15	-----	55.8	0.0	7	-7.0

Receiver60	148	2	54.5	56.4	66	1.9	15	----	56.4	0.0	7	-7.0
Receiver60a-2nd story	149	2	55.4	56.7	66	1.3	15	----	56.7	0.0	7	-7.0
Receiver60b-3rd story	150	2	56.3	57.5	66	1.2	15	----	57.5	0.0	7	-7.0
Receiver61	151	2	54.7	56.6	66	1.9	15	----	56.6	0.0	7	-7.0
Receiver61a-2nd story	152	2	55.7	56.9	66	1.2	15	----	56.9	0.0	7	-7.0
Receiver61b-3rd story	153	2	56.8	58.0	66	1.2	15	----	58.0	0.0	7	-7.0
Receiver62	154	1	53.6	55.2	66	1.6	15	----	55.2	0.0	7	-7.0
Receiver62a-2nd story	155	2	54.5	55.2	66	0.7	15	----	55.2	0.0	7	-7.0
Receiver62b-3rd story	156	2	55.5	56.2	66	0.7	15	----	56.2	0.0	7	-7.0
Receiver63	157	1	54.1	55.6	66	1.5	15	----	55.6	0.0	7	-7.0
Receiver63a-2nd story	158	2	54.9	55.4	66	0.5	15	----	55.4	0.0	7	-7.0
Receiver63b-3rd story	159	2	55.8	56.5	66	0.7	15	----	56.5	0.0	7	-7.0
Receiver64	160	2	55.5	56.6	66	1.1	15	----	56.6	0.0	7	-7.0
Receiver64a-2nd story	161	2	56.4	57.5	66	1.1	15	----	57.5	0.0	7	-7.0
Receiver64b-3rd story	162	2	57.6	58.6	66	1.0	15	----	58.6	0.0	7	-7.0
Receiver65	163	2	56.3	57.8	66	1.5	15	----	57.8	0.0	7	-7.0
Receiver65a-2nd story	164	2	57.0	58.1	66	1.1	15	----	58.1	0.0	7	-7.0
Receiver65b-3rd story	165	2	58.3	59.3	66	1.0	15	----	59.3	0.0	7	-7.0
Receiver66	166	1	54.8	55.5	66	0.7	15	----	55.5	0.0	7	-7.0
Receiver66a-2nd story	167	2	55.7	56.1	66	0.4	15	----	56.1	0.0	7	-7.0
Receiver66b-3rd story	168	2	57.0	57.5	66	0.5	15	----	57.5	0.0	7	-7.0
Receiver67	169	1	55.1	55.7	66	0.6	15	----	55.7	0.0	7	-7.0
Receiver67a-2nd story	170	2	56.1	56.4	66	0.3	15	----	56.4	0.0	7	-7.0
Receiver67b-3rd story	171	2	57.4	57.7	66	0.3	15	----	57.7	0.0	7	-7.0
Receiver68	172	2	57.2	60.2	66	3.0	15	----	60.2	0.0	7	-7.0
Receiver68a-2nd story	173	2	58.4	59.7	66	1.3	15	----	59.7	0.0	7	-7.0
Receiver68b-3rd story	174	2	59.9	60.9	66	1.0	15	----	60.9	0.0	7	-7.0
Receiver69	175	2	58.0	60.7	66	2.7	15	----	60.7	0.0	7	-7.0
Receiver69a-2nd story	176	2	59.3	60.1	66	0.8	15	----	60.1	0.0	7	-7.0
Receiver69b-3rd story	177	2	60.6	61.3	66	0.7	15	----	61.3	0.0	7	-7.0
Receiver70	178	1	56.4	59.1	66	2.7	15	----	59.1	0.0	7	-7.0
Receiver70a-2nd story	179	2	57.7	58.0	66	0.3	15	----	58.0	0.0	7	-7.0
Receiver70b-3rd story	180	2	59.1	59.3	66	0.2	15	----	59.3	0.0	7	-7.0
Receiver71	181	1	58.0	59.8	66	1.8	15	----	59.8	0.0	7	-7.0
Receiver71a-2nd story	182	2	58.6	59.1	66	0.5	15	----	59.1	0.0	7	-7.0
Receiver71b-3rd story	183	2	60.0	60.2	66	0.2	15	----	60.2	0.0	7	-7.0
Receiver72	184	2	62.8	62.5	66	-0.3	15	----	62.5	0.0	7	-7.0
Receiver72a-2nd story	185	2	64.0	63.5	66	-0.5	15	----	63.5	0.0	7	-7.0
Receiver72b-3rd story	186	2	66.0	64.0	66	-2.0	15	----	64.0	0.0	7	-7.0
Receiver73	187	2	63.6	63.6	66	0.0	15	----	63.6	0.0	7	-7.0
Receiver73a-2nd story	188	2	65.0	64.2	66	-0.8	15	----	64.2	0.0	7	-7.0

Receiver73b-3rd story	189	2	66.8	64.8	66	-2.0	15	----	64.8	0.0	7	-7.0
Receiver74	190	1	61.6	61.4	66	-0.2	15	----	61.4	0.0	7	-7.0
Receiver74a-2nd story	191	2	62.4	62.0	66	-0.4	15	----	62.0	0.0	7	-7.0
Receiver74b-3rd story	192	2	64.4	62.5	66	-1.9	15	----	62.5	0.0	7	-7.0
Receiver75	193	1	62.4	62.0	66	-0.4	15	----	62.0	0.0	7	-7.0
Receiver75a-2nd story	194	2	63.1	62.5	66	-0.6	15	----	62.5	0.0	7	-7.0
Receiver75b-3rd story	195	2	64.9	62.9	66	-2.0	15	----	62.9	0.0	7	-7.0
Receiver76	196	2	64.9	65.1	66	0.2	15	----	65.1	0.0	7	-7.0
Receiver76a-2nd story	197	2	65.8	65.4	66	-0.4	15	----	65.4	0.0	7	-7.0
Receiver76b-3rd story	198	2	67.2	66.0	66	-1.2	15	Snd Lvl	66.0	0.0	7	-7.0
Receiver77	199	2	65.4	65.4	66	0.0	15	----	65.4	0.0	7	-7.0
Receiver77a-2nd story	200	2	65.9	65.6	66	-0.3	15	----	65.6	0.0	7	-7.0
Receiver77b-3rd story	201	2	67.1	66.2	66	-0.9	15	Snd Lvl	66.2	0.0	7	-7.0
Receiver78	202	1	62.9	62.7	66	-0.2	15	----	62.7	0.0	7	-7.0
Receiver78a-2nd story	203	2	63.2	62.7	66	-0.5	15	----	62.7	0.0	7	-7.0
Receiver78b-3rd story	204	2	64.5	63.2	66	-1.3	15	----	63.2	0.0	7	-7.0
Receiver79	205	1	62.9	62.6	66	-0.3	15	----	62.6	0.0	7	-7.0
Receiver79a-2nd story	206	2	63.1	62.6	66	-0.5	15	----	62.6	0.0	7	-7.0
Receiver79b-3rd story	207	2	64.2	63.1	66	-1.1	15	----	63.1	0.0	7	-7.0
Receiver80	208	2	65.3	65.9	66	0.6	15	----	65.9	0.0	7	-7.0
Receiver80a-2nd story	209	2	65.5	65.4	66	-0.1	15	----	65.4	0.0	7	-7.0
Receiver80b-3rd story	210	2	66.5	66.0	66	-0.5	15	Snd Lvl	66.0	0.0	7	-7.0
Receiver81	211	2	64.9	65.5	66	0.6	15	----	65.5	0.0	7	-7.0
Receiver81a-2nd story	212	2	65.1	65.2	66	0.1	15	----	65.2	0.0	7	-7.0
Receiver81b-3rd story	213	2	66.1	65.9	66	-0.2	15	----	65.9	0.0	7	-7.0
Receiver82	214	1	62.2	62.3	66	0.1	15	----	62.3	0.0	7	-7.0
Receiver82a-2nd story	215	2	62.8	62.6	66	-0.2	15	----	62.6	0.0	7	-7.0
Receiver82b-3rd story	216	2	63.7	63.1	66	-0.6	15	----	63.1	0.0	7	-7.0
Receiver83	217	1	61.8	62.2	66	0.4	15	----	62.2	0.0	7	-7.0
Receiver83a-2nd story	218	2	62.2	62.2	66	0.0	15	----	62.2	0.0	7	-7.0
Receiver83b-3rd story	219	2	63.1	62.7	66	-0.4	15	----	62.7	0.0	7	-7.0
Receiver84	220	2	64.3	65.0	66	0.7	15	----	65.0	0.0	7	-7.0
Receiver84a-2nd story	221	2	64.6	65.0	66	0.4	15	----	65.0	0.0	7	-7.0
Receiver84b-3rd story	222	2	65.4	65.7	66	0.3	15	----	65.7	0.0	7	-7.0
Receiver85	223	2	60.9	61.4	66	0.5	15	----	61.4	0.0	7	-7.0
Receiver85a-2nd story	224	2	61.2	61.6	66	0.4	15	----	61.6	0.0	7	-7.0
Receiver85b-3rd story	225	2	61.9	62.1	66	0.2	15	----	62.1	0.0	7	-7.0
Receiver86	226	1	61.6	62.0	66	0.4	15	----	62.0	0.0	7	-7.0
Receiver86a-2nd story	227	2	62.1	62.3	66	0.2	15	----	62.3	0.0	7	-7.0
Receiver86b-3rd story	228	2	62.8	62.8	66	0.0	15	----	62.8	0.0	7	-7.0
Receiver87	229	1	59.9	60.4	66	0.5	15	----	60.4	0.0	7	-7.0

Receiver87a-2nd story	230	2	60.0	60.4	66	0.4	15	----	60.4	0.0	7	-7.0
Receiver87b-3rd story	231	2	60.5	60.6	66	0.1	15	----	60.6	0.0	7	-7.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1076	0.0	0.0	0.0
All Impacted	70	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Atkins
csv

20 January 2014
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 0010425
RUN: Walther Blvd
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier					With Barrier			
				LAeq1h		Increase over existing		Type Impact	Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1	1	8	63.8	38.9	66	-24.9	15	----	38.9	0.0	7	-7.0
Receiver1a-2nd story	2	8	64.4	39.2	66	-25.2	15	----	39.2	0.0	7	-7.0
Receiver1b-3rd story	3	8	65.1	40.2	66	-24.9	15	----	40.2	0.0	7	-7.0
Receiver2	4	8	62.2	39.6	66	-22.6	15	----	39.6	0.0	7	-7.0
Receiver2a-2nd story	5	8	62.5	39.4	66	-23.1	15	----	39.4	0.0	7	-7.0
Receiver2b-3rd story	6	8	63.2	40.4	66	-22.8	15	----	40.4	0.0	7	-7.0
Receiver3	7	8	64.9	40.2	66	-24.7	15	----	40.2	0.0	7	-7.0
Receiver3a-2nd story	8	8	65.5	40.1	66	-25.4	15	----	40.1	0.0	7	-7.0
Receiver3b-3rd story	9	8	66.3	41.2	66	-25.1	15	----	41.2	0.0	7	-7.0
Receiver4	10	8	62.7	40.3	66	-22.4	15	----	40.3	0.0	7	-7.0
Receiver4a-2nd story	11	8	63.1	40.4	66	-22.7	15	----	40.4	0.0	7	-7.0
Receiver4b-3rd story	12	8	63.9	41.3	66	-22.6	15	----	41.3	0.0	7	-7.0
Receiver5	13	8	66.7	42.1	66	-24.6	15	----	42.1	0.0	7	-7.0
Receiver5a-2nd story	14	8	67.6	42.4	66	-25.2	15	----	42.4	0.0	7	-7.0
Receiver5b-3rd story	15	8	68.6	43.3	66	-25.3	15	----	43.3	0.0	7	-7.0
Receiver6	16	8	66.8	42.6	66	-24.2	15	----	42.6	0.0	7	-7.0
Receiver6a-2nd story	17	8	67.8	43.0	66	-24.8	15	----	43.0	0.0	7	-7.0
Receiver6b-3rd story	18	8	68.8	43.9	66	-24.9	15	----	43.9	0.0	7	-7.0
Receiver7	19	8	63.6	43.0	66	-20.6	15	----	43.0	0.0	7	-7.0
Receiver7a-2nd story	20	8	64.2	43.3	66	-20.9	15	----	43.3	0.0	7	-7.0
Receiver7b-3rd story	21	8	65.1	43.9	66	-21.2	15	----	43.9	0.0	7	-7.0
Receiver8	22	8	63.0	42.1	66	-20.9	15	----	42.1	0.0	7	-7.0
Receiver8a-2nd story	23	8	63.5	42.3	66	-21.2	15	----	42.3	0.0	7	-7.0

Receiver8b-3rd story	24	8	64.4	43.1	66	-21.3	15	----	43.1	0.0	7	-7.0
Receiver9	25	8	64.0	51.7	66	-12.3	15	----	51.7	0.0	7	-7.0
Receiver9a-2nd story	26	8	66.3	53.2	66	-13.1	15	----	53.2	0.0	7	-7.0
Receiver9b-3rd story	27	8	67.6	53.5	66	-14.1	15	----	53.5	0.0	7	-7.0
Receiver10	28	8	64.2	54.8	66	-9.4	15	----	54.8	0.0	7	-7.0
Receiver10a-2nd story	29	8	67.2	58.0	66	-9.2	15	----	58.0	0.0	7	-7.0
Receiver10b-3rd story	30	8	68.4	58.1	66	-10.3	15	----	58.1	0.0	7	-7.0
Receiver11	31	8	61.8	55.0	66	-6.8	15	----	55.0	0.0	7	-7.0
Receiver11a-2nd story	32	8	64.3	57.6	66	-6.7	15	----	57.6	0.0	7	-7.0
Receiver11b-3rd story	33	8	66.1	57.8	66	-8.3	15	----	57.8	0.0	7	-7.0
Receiver12	34	8	61.5	51.8	66	-9.7	15	----	51.8	0.0	7	-7.0
Receiver12a-2nd story	35	8	63.6	53.5	66	-10.1	15	----	53.5	0.0	7	-7.0
Receiver12b-3rd story	36	8	65.4	53.8	66	-11.6	15	----	53.8	0.0	7	-7.0
Receiver13	37	8	59.0	52.9	66	-6.1	15	----	52.9	0.0	7	-7.0
Receiver13a-2nd story	38	8	60.8	53.2	66	-7.6	15	----	53.2	0.0	7	-7.0
Receiver13b-3rd story	39	8	62.7	53.5	66	-9.2	15	----	53.5	0.0	7	-7.0
Receiver14	40	8	59.2	56.8	66	-2.4	15	----	56.8	0.0	7	-7.0
Receiver14a-2nd story	41	8	61.5	58.2	66	-3.3	15	----	58.2	0.0	7	-7.0
Receiver14b-3rd story	42	8	63.7	58.4	66	-5.3	15	----	58.4	0.0	7	-7.0
Receiver15	43	8	60.0	58.7	66	-1.3	15	----	58.7	0.0	7	-7.0
Receiver15a-2nd story	44	8	60.6	58.9	66	-1.7	15	----	58.9	0.0	7	-7.0
Receiver15b-3rd story	45	8	62.6	59.2	66	-3.4	15	----	59.2	0.0	7	-7.0
Receiver16	46	8	58.5	52.6	66	-5.9	15	----	52.6	0.0	7	-7.0
Receiver16a-2nd story	47	8	59.2	52.7	66	-6.5	15	----	52.7	0.0	7	-7.0
Receiver16b-3rd story	48	8	60.9	53.0	66	-7.9	15	----	53.0	0.0	7	-7.0
Receiver17	49	8	57.7	57.5	66	-0.2	15	----	57.5	0.0	7	-7.0
Receiver17a-2nd story	50	8	57.3	57.6	66	0.3	15	----	57.6	0.0	7	-7.0
Receiver17b-3rd story	51	8	59.0	57.9	66	-1.1	15	----	57.9	0.0	7	-7.0
Receiver18	52	8	57.2	57.2	66	0.0	15	----	57.2	0.0	7	-7.0
Receiver18a-2nd story	53	8	56.5	57.3	66	0.8	15	----	57.3	0.0	7	-7.0
Receiver18b-3rd story	54	8	58.3	57.5	66	-0.8	15	----	57.5	0.0	7	-7.0
Receiver19	55	8	56.3	52.7	66	-3.6	15	----	52.7	0.0	7	-7.0
Receiver19a-2nd story	56	8	56.6	52.8	66	-3.8	15	----	52.8	0.0	7	-7.0
Receiver19b-3rd story	57	8	58.2	53.1	66	-5.1	15	----	53.1	0.0	7	-7.0
Receiver20	58	8	55.4	52.0	66	-3.4	15	----	52.0	0.0	7	-7.0
Receiver20a-2nd story	59	8	55.5	52.1	66	-3.4	15	----	52.1	0.0	7	-7.0
Receiver20b-3rd story	60	8	57.4	52.5	66	-4.9	15	----	52.5	0.0	7	-7.0
Receiver21	61	8	55.6	56.9	66	1.3	15	----	56.9	0.0	7	-7.0
Receiver21a-2nd story	62	8	55.2	57.0	66	1.8	15	----	57.0	0.0	7	-7.0
Receiver21b-3rd story	63	8	56.8	57.3	66	0.5	15	----	57.3	0.0	7	-7.0
Receiver22	64	8	56.1	57.6	66	1.5	15	----	57.6	0.0	7	-7.0

Receiver22a-2nd story	65	8	55.2	57.9	66	2.7	15	----	57.9	0.0	7	-7.0
Receiver22b-3rd story	66	8	56.5	58.3	66	1.8	15	----	58.3	0.0	7	-7.0
Receiver23	67	8	54.6	52.8	66	-1.8	15	----	52.8	0.0	7	-7.0
Receiver23a-2nd story	68	8	54.5	53.1	66	-1.4	15	----	53.1	0.0	7	-7.0
Receiver23b-3rd story	69	8	56.0	53.4	66	-2.6	15	----	53.4	0.0	7	-7.0
Receiver24	70	8	54.1	52.1	66	-2.0	15	----	52.1	0.0	7	-7.0
Receiver24a-2nd story	71	8	53.8	52.4	66	-1.4	15	----	52.4	0.0	7	-7.0
Receiver24b-3rd story	72	8	55.0	52.6	66	-2.4	15	----	52.6	0.0	7	-7.0
Receiver25-Office	73	1	52.4	52.4	71	0.0	15	----	52.4	0.0	7	-7.0
Receiver26-Office	74	1	51.1	52.3	71	1.2	15	----	52.3	0.0	7	-7.0
Receiver27-Office	75	1	52.5	54.5	71	2.0	15	----	54.5	0.0	7	-7.0
Receiver28-Office	76	1	50.8	48.7	71	-2.1	15	----	48.7	0.0	7	-7.0
Receiver29-Office	77	1	51.9	44.4	71	-7.5	15	----	44.4	0.0	7	-7.0
Receiver30-Office	78	1	55.3	47.1	71	-8.2	15	----	47.1	0.0	7	-7.0
Receiver31-SF Residential	79	1	58.3	39.0	66	-19.3	15	----	39.0	0.0	7	-7.0
Receiver32-SF Residential	80	1	56.2	39.9	66	-16.3	15	----	39.9	0.0	7	-7.0
Receiver33-SF Residential	81	1	54.8	39.6	66	-15.2	15	----	39.6	0.0	7	-7.0
Receiver34-SF Residential	82	1	53.6	39.5	66	-14.1	15	----	39.5	0.0	7	-7.0
Receiver35-SF Residential	83	1	52.4	39.3	66	-13.1	15	----	39.3	0.0	7	-7.0
Receiver36-SF Residential	84	1	51.7	39.1	66	-12.6	15	----	39.1	0.0	7	-7.0
Receiver37-SF Residential	85	1	50.7	38.6	66	-12.1	15	----	38.6	0.0	7	-7.0
Receiver38-SF Residential	86	1	49.6	38.1	66	-11.5	15	----	38.1	0.0	7	-7.0
Receiver39	87	3	64.7	44.7	66	-20.0	15	----	44.7	0.0	7	-7.0
Receiver40	89	3	64.9	45.5	66	-19.4	15	----	45.5	0.0	7	-7.0
Receiver41	90	3	64.7	46.3	66	-18.4	15	----	46.3	0.0	7	-7.0
Receiver42	91	2	63.3	48.3	66	-15.0	15	----	48.3	0.0	7	-7.0
Receiver42a- 2nd story	92	2	64.9	48.9	66	-16.0	15	----	48.9	0.0	7	-7.0
Receiver42b - 3rd story	93	2	65.8	49.3	66	-16.5	15	----	49.3	0.0	7	-7.0
Receiver43	94	2	63.0	49.5	66	-13.5	15	----	49.5	0.0	7	-7.0
Receiver43ll - lower level	95	2	62.1	48.9	66	-13.2	15	----	48.9	0.0	7	-7.0
Receiver43a - 2nd story	96	2	64.8	50.2	66	-14.6	15	----	50.2	0.0	7	-7.0
Receiver43b - 3rd story	97	2	65.8	50.4	66	-15.4	15	----	50.4	0.0	7	-7.0
Receiver44	98	2	60.8	49.8	66	-11.0	15	----	49.8	0.0	7	-7.0
Receiver44ll - lower level	99	2	60.1	49.3	66	-10.8	15	----	49.3	0.0	7	-7.0
Receiver44a - 2nd story	100	2	62.5	50.2	66	-12.3	15	----	50.2	0.0	7	-7.0
Receiver44b- 3rd story	101	2	63.5	50.4	66	-13.1	15	----	50.4	0.0	7	-7.0
Receiver45	102	2	60.7	48.2	66	-12.5	15	----	48.2	0.0	7	-7.0
Receiver45a- 2nd story	103	2	62.1	48.6	66	-13.5	15	----	48.6	0.0	7	-7.0
Receiver45b- 3rd story	104	2	63.2	49.0	66	-14.2	15	----	49.0	0.0	7	-7.0
Receiver46-tennis court	105	4	62.1	52.7	66	-9.4	15	----	52.7	0.0	7	-7.0
Receiver47-pool	106	240	60.1	53.6	66	-6.5	15	----	53.6	0.0	7	-7.0

Receiver48	107	1	57.9	57.3	66	-0.6	15	----	57.3	0.0	7	-7.0
Receiver48ll-lower level	108	1	55.9	57.3	66	1.4	15	----	57.3	0.0	7	-7.0
Receiver48a- 2nd story	109	1	58.7	57.4	66	-1.3	15	----	57.4	0.0	7	-7.0
Receiver48b- 3rd story	110	1	59.9	57.4	66	-2.5	15	----	57.4	0.0	7	-7.0
Receiver49	111	1	56.5	53.9	66	-2.6	15	----	53.9	0.0	7	-7.0
Receiver49a- 2nd story	112	1	57.5	54.0	66	-3.5	15	----	54.0	0.0	7	-7.0
Receiver49b- 3rd story	113	1	58.9	54.1	66	-4.8	15	----	54.1	0.0	7	-7.0
Receiver50	114	1	58.1	58.8	66	0.7	15	----	58.8	0.0	7	-7.0
Receiver50ll-lower level	115	1	56.7	58.8	66	2.1	15	----	58.8	0.0	7	-7.0
Receiver50a- 2nd story	116	1	59.0	58.9	66	-0.1	15	----	58.9	0.0	7	-7.0
Receiver50b- 3rd story	117	1	59.9	58.8	66	-1.1	15	----	58.8	0.0	7	-7.0
Receiver51	118	1	56.4	54.5	66	-1.9	15	----	54.5	0.0	7	-7.0
Receiver51a-2nd story	119	1	57.3	54.5	66	-2.8	15	----	54.5	0.0	7	-7.0
Receiver51b-3rd story	120	1	58.6	54.5	66	-4.1	15	----	54.5	0.0	7	-7.0
Receiver52	121	1	55.3	52.5	66	-2.8	15	----	52.5	0.0	7	-7.0
Receiver52a-2nd story	122	1	56.5	52.6	66	-3.9	15	----	52.6	0.0	7	-7.0
Receiver52b-3rd story	123	1	57.6	52.6	66	-5.0	15	----	52.6	0.0	7	-7.0
Receiver53	124	1	54.7	52.3	66	-2.4	15	----	52.3	0.0	7	-7.0
Receiver53ll-lower level	125	1	52.3	52.1	66	-0.2	15	----	52.1	0.0	7	-7.0
Receiver53a-2nd story	126	1	55.3	52.4	66	-2.9	15	----	52.4	0.0	7	-7.0
Receiver53b-3rd story	127	1	56.4	52.5	66	-3.9	15	----	52.5	0.0	7	-7.0
Receiver54	128	1	53.1	54.0	66	0.9	15	----	54.0	0.0	7	-7.0
Receiver54a-2nd story	129	1	54.9	54.2	66	-0.7	15	----	54.2	0.0	7	-7.0
Receiver54b-3rd story	130	1	55.6	54.3	66	-1.3	15	----	54.3	0.0	7	-7.0
Receiver55	131	1	52.3	53.8	66	1.5	15	----	53.8	0.0	7	-7.0
Receiver55ll-lower level	132	1	50.3	51.1	66	0.8	15	----	51.1	0.0	7	-7.0
Receiver55a-2nd story	133	1	54.0	54.3	66	0.3	15	----	54.3	0.0	7	-7.0
Receiver55b-3rd story	134	1	54.9	54.4	66	-0.5	15	----	54.4	0.0	7	-7.0
Receiver55-P - park	135	1	55.8	58.7	66	2.9	15	----	58.7	0.0	7	-7.0
Receiver56	136	2	54.8	55.8	66	1.0	15	----	55.8	0.0	7	-7.0
Receiver56a-2nd story	137	2	55.4	55.9	66	0.5	15	----	55.9	0.0	7	-7.0
Receiver56b-3rd story	138	2	56.1	55.8	66	-0.3	15	----	55.8	0.0	7	-7.0
Receiver57	139	2	54.3	54.0	66	-0.3	15	----	54.0	0.0	7	-7.0
Receiver57a-2nd story	140	2	54.9	54.2	66	-0.7	15	----	54.2	0.0	7	-7.0
Receiver57b-3rd story	141	2	55.7	54.1	66	-1.6	15	----	54.1	0.0	7	-7.0
Receiver58	142	1	53.4	52.8	66	-0.6	15	----	52.8	0.0	7	-7.0
Receiver58a-2nd story	143	2	54.1	53.1	66	-1.0	15	----	53.1	0.0	7	-7.0
Receiver58b-3rd story	144	2	54.9	53.0	66	-1.9	15	----	53.0	0.0	7	-7.0
Receiver59	145	1	53.3	51.1	66	-2.2	15	----	51.1	0.0	7	-7.0
Receiver59a-2nd story	146	2	54.0	51.4	66	-2.6	15	----	51.4	0.0	7	-7.0
Receiver59b-3rd story	147	2	54.8	51.4	66	-3.4	15	----	51.4	0.0	7	-7.0

Receiver60	148	2	54.5	53.1	66	-1.4	15	----	53.1	0.0	7	-7.0
Receiver60a-2nd story	149	2	55.4	53.4	66	-2.0	15	----	53.4	0.0	7	-7.0
Receiver60b-3rd story	150	2	56.3	53.4	66	-2.9	15	----	53.4	0.0	7	-7.0
Receiver61	151	2	54.7	53.1	66	-1.6	15	----	53.1	0.0	7	-7.0
Receiver61a-2nd story	152	2	55.7	53.5	66	-2.2	15	----	53.5	0.0	7	-7.0
Receiver61b-3rd story	153	2	56.8	53.4	66	-3.4	15	----	53.4	0.0	7	-7.0
Receiver62	154	1	53.6	50.6	66	-3.0	15	----	50.6	0.0	7	-7.0
Receiver62a-2nd story	155	2	54.5	50.9	66	-3.6	15	----	50.9	0.0	7	-7.0
Receiver62b-3rd story	156	2	55.5	50.8	66	-4.7	15	----	50.8	0.0	7	-7.0
Receiver63	157	1	54.1	50.7	66	-3.4	15	----	50.7	0.0	7	-7.0
Receiver63a-2nd story	158	2	54.9	50.9	66	-4.0	15	----	50.9	0.0	7	-7.0
Receiver63b-3rd story	159	2	55.8	50.9	66	-4.9	15	----	50.9	0.0	7	-7.0
Receiver64	160	2	55.5	53.1	66	-2.4	15	----	53.1	0.0	7	-7.0
Receiver64a-2nd story	161	2	56.4	53.5	66	-2.9	15	----	53.5	0.0	7	-7.0
Receiver64b-3rd story	162	2	57.6	53.4	66	-4.2	15	----	53.4	0.0	7	-7.0
Receiver65	163	2	56.3	53.6	66	-2.7	15	----	53.6	0.0	7	-7.0
Receiver65a-2nd story	164	2	57.0	53.9	66	-3.1	15	----	53.9	0.0	7	-7.0
Receiver65b-3rd story	165	2	58.3	53.8	66	-4.5	15	----	53.8	0.0	7	-7.0
Receiver66	166	1	54.8	50.6	66	-4.2	15	----	50.6	0.0	7	-7.0
Receiver66a-2nd story	167	2	55.7	50.8	66	-4.9	15	----	50.8	0.0	7	-7.0
Receiver66b-3rd story	168	2	57.0	50.9	66	-6.1	15	----	50.9	0.0	7	-7.0
Receiver67	169	1	55.1	50.3	66	-4.8	15	----	50.3	0.0	7	-7.0
Receiver67a-2nd story	170	2	56.1	50.7	66	-5.4	15	----	50.7	0.0	7	-7.0
Receiver67b-3rd story	171	2	57.4	50.7	66	-6.7	15	----	50.7	0.0	7	-7.0
Receiver68	172	2	57.2	55.7	66	-1.5	15	----	55.7	0.0	7	-7.0
Receiver68a-2nd story	173	2	58.4	56.0	66	-2.4	15	----	56.0	0.0	7	-7.0
Receiver68b-3rd story	174	2	59.9	55.9	66	-4.0	15	----	55.9	0.0	7	-7.0
Receiver69	175	2	58.0	55.8	66	-2.2	15	----	55.8	0.0	7	-7.0
Receiver69a-2nd story	176	2	59.3	56.2	66	-3.1	15	----	56.2	0.0	7	-7.0
Receiver69b-3rd story	177	2	60.6	56.1	66	-4.5	15	----	56.1	0.0	7	-7.0
Receiver70	178	1	56.4	52.0	66	-4.4	15	----	52.0	0.0	7	-7.0
Receiver70a-2nd story	179	2	57.7	52.4	66	-5.3	15	----	52.4	0.0	7	-7.0
Receiver70b-3rd story	180	2	59.1	52.5	66	-6.6	15	----	52.5	0.0	7	-7.0
Receiver71	181	1	58.0	52.6	66	-5.4	15	----	52.6	0.0	7	-7.0
Receiver71a-2nd story	182	2	58.6	53.1	66	-5.5	15	----	53.1	0.0	7	-7.0
Receiver71b-3rd story	183	2	60.0	53.2	66	-6.8	15	----	53.2	0.0	7	-7.0
Receiver72	184	2	62.8	51.3	66	-11.5	15	----	51.3	0.0	7	-7.0
Receiver72a-2nd story	185	2	64.0	53.0	66	-11.0	15	----	53.0	0.0	7	-7.0
Receiver72b-3rd story	186	2	66.0	53.4	66	-12.6	15	----	53.4	0.0	7	-7.0
Receiver73	187	2	63.6	49.8	66	-13.8	15	----	49.8	0.0	7	-7.0
Receiver73a-2nd story	188	2	65.0	51.3	66	-13.7	15	----	51.3	0.0	7	-7.0

Receiver73b-3rd story	189	2	66.8	51.6	66	-15.2	15	----	51.6	0.0	7	-7.0
Receiver74	190	1	61.6	50.4	66	-11.2	15	----	50.4	0.0	7	-7.0
Receiver74a-2nd story	191	2	62.4	51.9	66	-10.5	15	----	51.9	0.0	7	-7.0
Receiver74b-3rd story	192	2	64.4	52.1	66	-12.3	15	----	52.1	0.0	7	-7.0
Receiver75	193	1	62.4	48.8	66	-13.6	15	----	48.8	0.0	7	-7.0
Receiver75a-2nd story	194	2	63.1	50.2	66	-12.9	15	----	50.2	0.0	7	-7.0
Receiver75b-3rd story	195	2	64.9	50.6	66	-14.3	15	----	50.6	0.0	7	-7.0
Receiver76	196	2	64.9	46.9	66	-18.0	15	----	46.9	0.0	7	-7.0
Receiver76a-2nd story	197	2	65.8	47.2	66	-18.6	15	----	47.2	0.0	7	-7.0
Receiver76b-3rd story	198	2	67.2	47.9	66	-19.3	15	----	47.9	0.0	7	-7.0
Receiver77	199	2	65.4	44.7	66	-20.7	15	----	44.7	0.0	7	-7.0
Receiver77a-2nd story	200	2	65.9	45.4	66	-20.5	15	----	45.4	0.0	7	-7.0
Receiver77b-3rd story	201	2	67.1	46.1	66	-21.0	15	----	46.1	0.0	7	-7.0
Receiver78	202	1	62.9	46.5	66	-16.4	15	----	46.5	0.0	7	-7.0
Receiver78a-2nd story	203	2	63.2	47.0	66	-16.2	15	----	47.0	0.0	7	-7.0
Receiver78b-3rd story	204	2	64.5	47.6	66	-16.9	15	----	47.6	0.0	7	-7.0
Receiver79	205	1	62.9	45.1	66	-17.8	15	----	45.1	0.0	7	-7.0
Receiver79a-2nd story	206	2	63.1	45.6	66	-17.5	15	----	45.6	0.0	7	-7.0
Receiver79b-3rd story	207	2	64.2	46.2	66	-18.0	15	----	46.2	0.0	7	-7.0
Receiver80	208	2	65.3	42.8	66	-22.5	15	----	42.8	0.0	7	-7.0
Receiver80a-2nd story	209	2	65.5	43.5	66	-22.0	15	----	43.5	0.0	7	-7.0
Receiver80b-3rd story	210	2	66.5	44.4	66	-22.1	15	----	44.4	0.0	7	-7.0
Receiver81	211	2	64.9	41.4	66	-23.5	15	----	41.4	0.0	7	-7.0
Receiver81a-2nd story	212	2	65.1	42.1	66	-23.0	15	----	42.1	0.0	7	-7.0
Receiver81b-3rd story	213	2	66.1	43.1	66	-23.0	15	----	43.1	0.0	7	-7.0
Receiver82	214	1	62.2	42.5	66	-19.7	15	----	42.5	0.0	7	-7.0
Receiver82a-2nd story	215	2	62.8	43.2	66	-19.6	15	----	43.2	0.0	7	-7.0
Receiver82b-3rd story	216	2	63.7	44.0	66	-19.7	15	----	44.0	0.0	7	-7.0
Receiver83	217	1	61.8	41.7	66	-20.1	15	----	41.7	0.0	7	-7.0
Receiver83a-2nd story	218	2	62.2	42.3	66	-19.9	15	----	42.3	0.0	7	-7.0
Receiver83b-3rd story	219	2	63.1	43.2	66	-19.9	15	----	43.2	0.0	7	-7.0
Receiver84	220	2	64.3	39.5	66	-24.8	15	----	39.5	0.0	7	-7.0
Receiver84a-2nd story	221	2	64.6	40.0	66	-24.6	15	----	40.0	0.0	7	-7.0
Receiver84b-3rd story	222	2	65.4	41.4	66	-24.0	15	----	41.4	0.0	7	-7.0
Receiver85	223	2	60.9	39.5	66	-21.4	15	----	39.5	0.0	7	-7.0
Receiver85a-2nd story	224	2	61.2	39.4	66	-21.8	15	----	39.4	0.0	7	-7.0
Receiver85b-3rd story	225	2	61.9	40.5	66	-21.4	15	----	40.5	0.0	7	-7.0
Receiver86	226	1	61.6	40.0	66	-21.6	15	----	40.0	0.0	7	-7.0
Receiver86a-2nd story	227	2	62.1	40.7	66	-21.4	15	----	40.7	0.0	7	-7.0
Receiver86b-3rd story	228	2	62.8	41.7	66	-21.1	15	----	41.7	0.0	7	-7.0
Receiver87	229	1	59.9	39.9	66	-20.0	15	----	39.9	0.0	7	-7.0

Receiver87a-2nd story	230	2	60.0	40.0	66	-20.0	15	-----	40.0	0.0	7	-7.0
Receiver87b-3rd story	231	2	60.5	41.0	66	-19.5	15	-----	41.0	0.0	7	-7.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1076	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

Atkins
csv

20 January 2014
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 0010425
RUN: Walther Blvd
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

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
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1	1	8	63.8	64.8	66	1.0	15	----	64.8	0.0	7	-7.0
Receiver1a-2nd story	2	8	64.4	65.3	66	0.9	15	----	65.3	0.0	7	-7.0
Receiver1b-3rd story	3	8	65.1	66.1	66	1.0	15	Snd Lvl	66.1	0.0	7	-7.0
Receiver2	4	8	62.2	63.2	66	1.0	15	----	63.2	0.0	7	-7.0
Receiver2a-2nd story	5	8	62.5	63.5	66	1.0	15	----	63.5	0.0	7	-7.0
Receiver2b-3rd story	6	8	63.2	64.1	66	0.9	15	----	64.1	0.0	7	-7.0
Receiver3	7	8	64.9	65.8	66	0.9	15	----	65.8	0.0	7	-7.0
Receiver3a-2nd story	8	8	65.5	66.5	66	1.0	15	Snd Lvl	66.5	0.0	7	-7.0
Receiver3b-3rd story	9	8	66.3	67.3	66	1.0	15	Snd Lvl	67.3	0.0	7	-7.0
Receiver4	10	8	62.7	63.7	66	1.0	15	----	63.7	0.0	7	-7.0
Receiver4a-2nd story	11	8	63.1	64.1	66	1.0	15	----	64.1	0.0	7	-7.0
Receiver4b-3rd story	12	8	63.9	64.8	66	0.9	15	----	64.8	0.0	7	-7.0
Receiver5	13	8	66.7	67.6	66	0.9	15	Snd Lvl	67.6	0.0	7	-7.0
Receiver5a-2nd story	14	8	67.6	68.6	66	1.0	15	Snd Lvl	68.6	0.0	7	-7.0
Receiver5b-3rd story	15	8	68.6	69.6	66	1.0	15	Snd Lvl	69.6	0.0	7	-7.0
Receiver6	16	8	66.8	67.7	66	0.9	15	Snd Lvl	67.7	0.0	7	-7.0
Receiver6a-2nd story	17	8	67.8	68.8	66	1.0	15	Snd Lvl	68.8	0.0	7	-7.0
Receiver6b-3rd story	18	8	68.8	69.8	66	1.0	15	Snd Lvl	69.8	0.0	7	-7.0
Receiver7	19	8	63.6	64.6	66	1.0	15	----	64.6	0.0	7	-7.0
Receiver7a-2nd story	20	8	64.2	65.2	66	1.0	15	----	65.2	0.0	7	-7.0
Receiver7b-3rd story	21	8	65.1	66.1	66	1.0	15	Snd Lvl	66.1	0.0	7	-7.0
Receiver8	22	8	63.0	63.9	66	0.9	15	----	63.9	0.0	7	-7.0
Receiver8a-2nd story	23	8	63.5	64.5	66	1.0	15	----	64.5	0.0	7	-7.0

Receiver8b-3rd story	24	8	64.4	65.3	66	0.9	15	----	65.3	0.0	7	-7.0
Receiver9	25	8	64.0	65.0	66	1.0	15	----	65.0	0.0	7	-7.0
Receiver9a-2nd story	26	8	66.3	67.3	66	1.0	15	Snd Lvl	67.3	0.0	7	-7.0
Receiver9b-3rd story	27	8	67.6	68.6	66	1.0	15	Snd Lvl	68.6	0.0	7	-7.0
Receiver10	28	8	64.2	65.2	66	1.0	15	----	65.2	0.0	7	-7.0
Receiver10a-2nd story	29	8	67.2	68.1	66	0.9	15	Snd Lvl	68.1	0.0	7	-7.0
Receiver10b-3rd story	30	8	68.4	69.4	66	1.0	15	Snd Lvl	69.4	0.0	7	-7.0
Receiver11	31	8	61.8	63.0	66	1.2	15	----	63.0	0.0	7	-7.0
Receiver11a-2nd story	32	8	64.3	65.3	66	1.0	15	----	65.3	0.0	7	-7.0
Receiver11b-3rd story	33	8	66.1	67.1	66	1.0	15	Snd Lvl	67.1	0.0	7	-7.0
Receiver12	34	8	61.5	62.6	66	1.1	15	----	62.6	0.0	7	-7.0
Receiver12a-2nd story	35	8	63.6	64.6	66	1.0	15	----	64.6	0.0	7	-7.0
Receiver12b-3rd story	36	8	65.4	66.4	66	1.0	15	Snd Lvl	66.4	0.0	7	-7.0
Receiver13	37	8	59.0	60.0	66	1.0	15	----	60.0	0.0	7	-7.0
Receiver13a-2nd story	38	8	60.8	61.9	66	1.1	15	----	61.9	0.0	7	-7.0
Receiver13b-3rd story	39	8	62.7	63.8	66	1.1	15	----	63.8	0.0	7	-7.0
Receiver14	40	8	59.2	60.3	66	1.1	15	----	60.3	0.0	7	-7.0
Receiver14a-2nd story	41	8	61.5	62.7	66	1.2	15	----	62.7	0.0	7	-7.0
Receiver14b-3rd story	42	8	63.7	64.8	66	1.1	15	----	64.8	0.0	7	-7.0
Receiver15	43	8	60.0	61.0	66	1.0	15	----	61.0	0.0	7	-7.0
Receiver15a-2nd story	44	8	60.6	61.7	66	1.1	15	----	61.7	0.0	7	-7.0
Receiver15b-3rd story	45	8	62.6	63.8	66	1.2	15	----	63.8	0.0	7	-7.0
Receiver16	46	8	58.5	59.7	66	1.2	15	----	59.7	0.0	7	-7.0
Receiver16a-2nd story	47	8	59.2	60.3	66	1.1	15	----	60.3	0.0	7	-7.0
Receiver16b-3rd story	48	8	60.9	62.0	66	1.1	15	----	62.0	0.0	7	-7.0
Receiver17	49	8	57.7	59.2	66	1.5	15	----	59.2	0.0	7	-7.0
Receiver17a-2nd story	50	8	57.3	58.5	66	1.2	15	----	58.5	0.0	7	-7.0
Receiver17b-3rd story	51	8	59.0	60.2	66	1.2	15	----	60.2	0.0	7	-7.0
Receiver18	52	8	57.2	58.5	66	1.3	15	----	58.5	0.0	7	-7.0
Receiver18a-2nd story	53	8	56.5	57.8	66	1.3	15	----	57.8	0.0	7	-7.0
Receiver18b-3rd story	54	8	58.3	59.5	66	1.2	15	----	59.5	0.0	7	-7.0
Receiver19	55	8	56.3	58.1	66	1.8	15	----	58.1	0.0	7	-7.0
Receiver19a-2nd story	56	8	56.6	57.8	66	1.2	15	----	57.8	0.0	7	-7.0
Receiver19b-3rd story	57	8	58.2	59.3	66	1.1	15	----	59.3	0.0	7	-7.0
Receiver20	58	8	55.4	57.2	66	1.8	15	----	57.2	0.0	7	-7.0
Receiver20a-2nd story	59	8	55.5	56.7	66	1.2	15	----	56.7	0.0	7	-7.0
Receiver20b-3rd story	60	8	57.4	58.4	66	1.0	15	----	58.4	0.0	7	-7.0
Receiver21	61	8	55.6	56.6	66	1.0	15	----	56.6	0.0	7	-7.0
Receiver21a-2nd story	62	8	55.2	56.4	66	1.2	15	----	56.4	0.0	7	-7.0
Receiver21b-3rd story	63	8	56.8	57.9	66	1.1	15	----	57.9	0.0	7	-7.0
Receiver22	64	8	56.1	56.9	66	0.8	15	----	56.9	0.0	7	-7.0

Receiver22a-2nd story	65	8	55.2	56.5	66	1.3	15	----	56.5	0.0	7	-7.0
Receiver22b-3rd story	66	8	56.5	57.7	66	1.2	15	----	57.7	0.0	7	-7.0
Receiver23	67	8	54.6	55.9	66	1.3	15	----	55.9	0.0	7	-7.0
Receiver23a-2nd story	68	8	54.5	55.7	66	1.2	15	----	55.7	0.0	7	-7.0
Receiver23b-3rd story	69	8	56.0	57.2	66	1.2	15	----	57.2	0.0	7	-7.0
Receiver24	70	8	54.1	55.4	66	1.3	15	----	55.4	0.0	7	-7.0
Receiver24a-2nd story	71	8	53.8	54.9	66	1.1	15	----	54.9	0.0	7	-7.0
Receiver24b-3rd story	72	8	55.0	56.2	66	1.2	15	----	56.2	0.0	7	-7.0
Receiver25-Office	73	1	52.4	53.7	71	1.3	15	----	53.7	0.0	7	-7.0
Receiver26-Office	74	1	51.1	52.0	71	0.9	15	----	52.0	0.0	7	-7.0
Receiver27-Office	75	1	52.5	53.6	71	1.1	15	----	53.6	0.0	7	-7.0
Receiver28-Office	76	1	50.8	51.8	71	1.0	15	----	51.8	0.0	7	-7.0
Receiver29-Office	77	1	51.9	52.9	71	1.0	15	----	52.9	0.0	7	-7.0
Receiver30-Office	78	1	55.3	56.4	71	1.1	15	----	56.4	0.0	7	-7.0
Receiver31-SF Residential	79	1	58.3	59.3	66	1.0	15	----	59.3	0.0	7	-7.0
Receiver32-SF Residential	80	1	56.2	57.2	66	1.0	15	----	57.2	0.0	7	-7.0
Receiver33-SF Residential	81	1	54.8	56.1	66	1.3	15	----	56.1	0.0	7	-7.0
Receiver34-SF Residential	82	1	53.6	54.5	66	0.9	15	----	54.5	0.0	7	-7.0
Receiver35-SF Residential	83	1	52.4	53.6	66	1.2	15	----	53.6	0.0	7	-7.0
Receiver36-SF Residential	84	1	51.7	52.7	66	1.0	15	----	52.7	0.0	7	-7.0
Receiver37-SF Residential	85	1	50.7	51.8	66	1.1	15	----	51.8	0.0	7	-7.0
Receiver38-SF Residential	86	1	49.6	50.6	66	1.0	15	----	50.6	0.0	7	-7.0
Receiver39	87	3	64.7	65.7	66	1.0	15	----	65.7	0.0	7	-7.0
Receiver40	89	3	64.9	65.9	66	1.0	15	----	65.9	0.0	7	-7.0
Receiver41	90	3	64.7	65.7	66	1.0	15	----	65.7	0.0	7	-7.0
Receiver42	91	2	63.3	64.3	66	1.0	15	----	64.3	0.0	7	-7.0
Receiver42a- 2nd story	92	2	64.9	65.8	66	0.9	15	----	65.8	0.0	7	-7.0
Receiver42b - 3rd story	93	2	65.8	66.7	66	0.9	15	Snd Lvl	66.7	0.0	7	-7.0
Receiver43	94	2	63.0	64.0	66	1.0	15	----	64.0	0.0	7	-7.0
Receiver43ll - lower level	95	2	62.1	63.1	66	1.0	15	----	63.1	0.0	7	-7.0
Receiver43a - 2nd story	96	2	64.8	65.8	66	1.0	15	----	65.8	0.0	7	-7.0
Receiver43b - 3rd story	97	2	65.8	66.7	66	0.9	15	Snd Lvl	66.7	0.0	7	-7.0
Receiver44	98	2	60.8	61.8	66	1.0	15	----	61.8	0.0	7	-7.0
Receiver44ll - lower level	99	2	60.1	60.9	66	0.8	15	----	60.9	0.0	7	-7.0
Receiver44a - 2nd story	100	2	62.5	63.5	66	1.0	15	----	63.5	0.0	7	-7.0
Receiver44b- 3rd story	101	2	63.5	64.5	66	1.0	15	----	64.5	0.0	7	-7.0
Receiver45	102	2	60.7	61.7	66	1.0	15	----	61.7	0.0	7	-7.0
Receiver45a- 2nd story	103	2	62.1	63.1	66	1.0	15	----	63.1	0.0	7	-7.0
Receiver45b- 3rd story	104	2	63.2	64.2	66	1.0	15	----	64.2	0.0	7	-7.0
Receiver46-tennis court	105	4	62.1	63.1	66	1.0	15	----	63.1	0.0	7	-7.0
Receiver47-pool	106	240	60.1	61.1	66	1.0	15	----	61.1	0.0	7	-7.0

Receiver48	107	1	57.9	58.3	66	0.4	15	-----	58.3	0.0	7	-7.0
Receiver48ll-lower level	108	1	55.9	56.3	66	0.4	15	-----	56.3	0.0	7	-7.0
Receiver48a- 2nd story	109	1	58.7	59.1	66	0.4	15	-----	59.1	0.0	7	-7.0
Receiver48b- 3rd story	110	1	59.9	60.5	66	0.6	15	-----	60.5	0.0	7	-7.0
Receiver49	111	1	56.5	57.1	66	0.6	15	-----	57.1	0.0	7	-7.0
Receiver49a- 2nd story	112	1	57.5	58.0	66	0.5	15	-----	58.0	0.0	7	-7.0
Receiver49b- 3rd story	113	1	58.9	59.5	66	0.6	15	-----	59.5	0.0	7	-7.0
Receiver50	114	1	58.1	58.3	66	0.2	15	-----	58.3	0.0	7	-7.0
Receiver50ll-lower level	115	1	56.7	56.8	66	0.1	15	-----	56.8	0.0	7	-7.0
Receiver50a- 2nd story	116	1	59.0	59.2	66	0.2	15	-----	59.2	0.0	7	-7.0
Receiver50b- 3rd story	117	1	59.9	60.2	66	0.3	15	-----	60.2	0.0	7	-7.0
Receiver51	118	1	56.4	56.8	66	0.4	15	-----	56.8	0.0	7	-7.0
Receiver51a-2nd story	119	1	57.3	57.8	66	0.5	15	-----	57.8	0.0	7	-7.0
Receiver51b-3rd story	120	1	58.6	59.2	66	0.6	15	-----	59.2	0.0	7	-7.0
Receiver52	121	1	55.3	55.7	66	0.4	15	-----	55.7	0.0	7	-7.0
Receiver52a-2nd story	122	1	56.5	56.9	66	0.4	15	-----	56.9	0.0	7	-7.0
Receiver52b-3rd story	123	1	57.6	58.2	66	0.6	15	-----	58.2	0.0	7	-7.0
Receiver53	124	1	54.7	55.0	66	0.3	15	-----	55.0	0.0	7	-7.0
Receiver53ll-lower level	125	1	52.3	53.0	66	0.7	15	-----	53.0	0.0	7	-7.0
Receiver53a-2nd story	126	1	55.3	55.6	66	0.3	15	-----	55.6	0.0	7	-7.0
Receiver53b-3rd story	127	1	56.4	56.8	66	0.4	15	-----	56.8	0.0	7	-7.0
Receiver54	128	1	53.1	53.2	66	0.1	15	-----	53.2	0.0	7	-7.0
Receiver54a-2nd story	129	1	54.9	54.9	66	0.0	15	-----	54.9	0.0	7	-7.0
Receiver54b-3rd story	130	1	55.6	55.7	66	0.1	15	-----	55.7	0.0	7	-7.0
Receiver55	131	1	52.3	52.7	66	0.4	15	-----	52.7	0.0	7	-7.0
Receiver55ll-lower level	132	1	50.3	51.1	66	0.8	15	-----	51.1	0.0	7	-7.0
Receiver55a-2nd story	133	1	54.0	54.2	66	0.2	15	-----	54.2	0.0	7	-7.0
Receiver55b-3rd story	134	1	54.9	55.2	66	0.3	15	-----	55.2	0.0	7	-7.0
Receiver55-P - park	135	1	55.8	56.4	66	0.6	15	-----	56.4	0.0	7	-7.0
Receiver56	136	2	54.8	55.2	66	0.4	15	-----	55.2	0.0	7	-7.0
Receiver56a-2nd story	137	2	55.4	55.9	66	0.5	15	-----	55.9	0.0	7	-7.0
Receiver56b-3rd story	138	2	56.1	56.7	66	0.6	15	-----	56.7	0.0	7	-7.0
Receiver57	139	2	54.3	54.5	66	0.2	15	-----	54.5	0.0	7	-7.0
Receiver57a-2nd story	140	2	54.9	55.2	66	0.3	15	-----	55.2	0.0	7	-7.0
Receiver57b-3rd story	141	2	55.7	56.2	66	0.5	15	-----	56.2	0.0	7	-7.0
Receiver58	142	1	53.4	53.9	66	0.5	15	-----	53.9	0.0	7	-7.0
Receiver58a-2nd story	143	2	54.1	54.5	66	0.4	15	-----	54.5	0.0	7	-7.0
Receiver58b-3rd story	144	2	54.9	55.4	66	0.5	15	-----	55.4	0.0	7	-7.0
Receiver59	145	1	53.3	53.6	66	0.3	15	-----	53.6	0.0	7	-7.0
Receiver59a-2nd story	146	2	54.0	54.3	66	0.3	15	-----	54.3	0.0	7	-7.0
Receiver59b-3rd story	147	2	54.8	55.3	66	0.5	15	-----	55.3	0.0	7	-7.0

Receiver60	148	2	54.5	54.5	66	0.0	15	----	54.5	0.0	7	-7.0
Receiver60a-2nd story	149	2	55.4	55.5	66	0.1	15	----	55.5	0.0	7	-7.0
Receiver60b-3rd story	150	2	56.3	56.6	66	0.3	15	----	56.6	0.0	7	-7.0
Receiver61	151	2	54.7	54.9	66	0.2	15	----	54.9	0.0	7	-7.0
Receiver61a-2nd story	152	2	55.7	55.9	66	0.2	15	----	55.9	0.0	7	-7.0
Receiver61b-3rd story	153	2	56.8	57.2	66	0.4	15	----	57.2	0.0	7	-7.0
Receiver62	154	1	53.6	54.0	66	0.4	15	----	54.0	0.0	7	-7.0
Receiver62a-2nd story	155	2	54.5	54.9	66	0.4	15	----	54.9	0.0	7	-7.0
Receiver62b-3rd story	156	2	55.5	56.0	66	0.5	15	----	56.0	0.0	7	-7.0
Receiver63	157	1	54.1	54.6	66	0.5	15	----	54.6	0.0	7	-7.0
Receiver63a-2nd story	158	2	54.9	55.3	66	0.4	15	----	55.3	0.0	7	-7.0
Receiver63b-3rd story	159	2	55.8	56.4	66	0.6	15	----	56.4	0.0	7	-7.0
Receiver64	160	2	55.5	55.9	66	0.4	15	----	55.9	0.0	7	-7.0
Receiver64a-2nd story	161	2	56.4	57.0	66	0.6	15	----	57.0	0.0	7	-7.0
Receiver64b-3rd story	162	2	57.6	58.4	66	0.8	15	----	58.4	0.0	7	-7.0
Receiver65	163	2	56.3	56.9	66	0.6	15	----	56.9	0.0	7	-7.0
Receiver65a-2nd story	164	2	57.0	57.7	66	0.7	15	----	57.7	0.0	7	-7.0
Receiver65b-3rd story	165	2	58.3	59.2	66	0.9	15	----	59.2	0.0	7	-7.0
Receiver66	166	1	54.8	55.5	66	0.7	15	----	55.5	0.0	7	-7.0
Receiver66a-2nd story	167	2	55.7	56.5	66	0.8	15	----	56.5	0.0	7	-7.0
Receiver66b-3rd story	168	2	57.0	57.9	66	0.9	15	----	57.9	0.0	7	-7.0
Receiver67	169	1	55.1	55.7	66	0.6	15	----	55.7	0.0	7	-7.0
Receiver67a-2nd story	170	2	56.1	56.9	66	0.8	15	----	56.9	0.0	7	-7.0
Receiver67b-3rd story	171	2	57.4	58.4	66	1.0	15	----	58.4	0.0	7	-7.0
Receiver68	172	2	57.2	58.0	66	0.8	15	----	58.0	0.0	7	-7.0
Receiver68a-2nd story	173	2	58.4	59.2	66	0.8	15	----	59.2	0.0	7	-7.0
Receiver68b-3rd story	174	2	59.9	60.9	66	1.0	15	----	60.9	0.0	7	-7.0
Receiver69	175	2	58.0	58.7	66	0.7	15	----	58.7	0.0	7	-7.0
Receiver69a-2nd story	176	2	59.3	60.2	66	0.9	15	----	60.2	0.0	7	-7.0
Receiver69b-3rd story	177	2	60.6	61.7	66	1.1	15	----	61.7	0.0	7	-7.0
Receiver70	178	1	56.4	57.3	66	0.9	15	----	57.3	0.0	7	-7.0
Receiver70a-2nd story	179	2	57.7	58.7	66	1.0	15	----	58.7	0.0	7	-7.0
Receiver70b-3rd story	180	2	59.1	60.1	66	1.0	15	----	60.1	0.0	7	-7.0
Receiver71	181	1	58.0	58.8	66	0.8	15	----	58.8	0.0	7	-7.0
Receiver71a-2nd story	182	2	58.6	59.7	66	1.1	15	----	59.7	0.0	7	-7.0
Receiver71b-3rd story	183	2	60.0	61.1	66	1.1	15	----	61.1	0.0	7	-7.0
Receiver72	184	2	62.8	63.8	66	1.0	15	----	63.8	0.0	7	-7.0
Receiver72a-2nd story	185	2	64.0	65.0	66	1.0	15	----	65.0	0.0	7	-7.0
Receiver72b-3rd story	186	2	66.0	67.0	66	1.0	15	Snd Lvl	67.0	0.0	7	-7.0
Receiver73	187	2	63.6	64.6	66	1.0	15	----	64.6	0.0	7	-7.0
Receiver73a-2nd story	188	2	65.0	66.0	66	1.0	15	Snd Lvl	66.0	0.0	7	-7.0

Receiver73b-3rd story	189	2	66.8	67.7	66	0.9	15	Snd Lvl	67.7	0.0	7	-7.0
Receiver74	190	1	61.6	62.5	66	0.9	15	----	62.5	0.0	7	-7.0
Receiver74a-2nd story	191	2	62.4	63.4	66	1.0	15	----	63.4	0.0	7	-7.0
Receiver74b-3rd story	192	2	64.4	65.4	66	1.0	15	----	65.4	0.0	7	-7.0
Receiver75	193	1	62.4	63.4	66	1.0	15	----	63.4	0.0	7	-7.0
Receiver75a-2nd story	194	2	63.1	64.1	66	1.0	15	----	64.1	0.0	7	-7.0
Receiver75b-3rd story	195	2	64.9	65.8	66	0.9	15	----	65.8	0.0	7	-7.0
Receiver76	196	2	64.9	65.9	66	1.0	15	----	65.9	0.0	7	-7.0
Receiver76a-2nd story	197	2	65.8	66.8	66	1.0	15	Snd Lvl	66.8	0.0	7	-7.0
Receiver76b-3rd story	198	2	67.2	68.2	66	1.0	15	Snd Lvl	68.2	0.0	7	-7.0
Receiver77	199	2	65.4	66.4	66	1.0	15	Snd Lvl	66.4	0.0	7	-7.0
Receiver77a-2nd story	200	2	65.9	66.9	66	1.0	15	Snd Lvl	66.9	0.0	7	-7.0
Receiver77b-3rd story	201	2	67.1	68.1	66	1.0	15	Snd Lvl	68.1	0.0	7	-7.0
Receiver78	202	1	62.9	63.9	66	1.0	15	----	63.9	0.0	7	-7.0
Receiver78a-2nd story	203	2	63.2	64.2	66	1.0	15	----	64.2	0.0	7	-7.0
Receiver78b-3rd story	204	2	64.5	65.5	66	1.0	15	----	65.5	0.0	7	-7.0
Receiver79	205	1	62.9	63.9	66	1.0	15	----	63.9	0.0	7	-7.0
Receiver79a-2nd story	206	2	63.1	64.1	66	1.0	15	----	64.1	0.0	7	-7.0
Receiver79b-3rd story	207	2	64.2	65.2	66	1.0	15	----	65.2	0.0	7	-7.0
Receiver80	208	2	65.3	66.3	66	1.0	15	Snd Lvl	66.3	0.0	7	-7.0
Receiver80a-2nd story	209	2	65.5	66.4	66	0.9	15	Snd Lvl	66.4	0.0	7	-7.0
Receiver80b-3rd story	210	2	66.5	67.5	66	1.0	15	Snd Lvl	67.5	0.0	7	-7.0
Receiver81	211	2	64.9	65.9	66	1.0	15	----	65.9	0.0	7	-7.0
Receiver81a-2nd story	212	2	65.1	66.1	66	1.0	15	Snd Lvl	66.1	0.0	7	-7.0
Receiver81b-3rd story	213	2	66.1	67.0	66	0.9	15	Snd Lvl	67.0	0.0	7	-7.0
Receiver82	214	1	62.2	63.2	66	1.0	15	----	63.2	0.0	7	-7.0
Receiver82a-2nd story	215	2	62.8	63.8	66	1.0	15	----	63.8	0.0	7	-7.0
Receiver82b-3rd story	216	2	63.7	64.7	66	1.0	15	----	64.7	0.0	7	-7.0
Receiver83	217	1	61.8	62.8	66	1.0	15	----	62.8	0.0	7	-7.0
Receiver83a-2nd story	218	2	62.2	63.2	66	1.0	15	----	63.2	0.0	7	-7.0
Receiver83b-3rd story	219	2	63.1	64.0	66	0.9	15	----	64.0	0.0	7	-7.0
Receiver84	220	2	64.3	65.3	66	1.0	15	----	65.3	0.0	7	-7.0
Receiver84a-2nd story	221	2	64.6	65.6	66	1.0	15	----	65.6	0.0	7	-7.0
Receiver84b-3rd story	222	2	65.4	66.4	66	1.0	15	Snd Lvl	66.4	0.0	7	-7.0
Receiver85	223	2	60.9	61.9	66	1.0	15	----	61.9	0.0	7	-7.0
Receiver85a-2nd story	224	2	61.2	62.2	66	1.0	15	----	62.2	0.0	7	-7.0
Receiver85b-3rd story	225	2	61.9	62.8	66	0.9	15	----	62.8	0.0	7	-7.0
Receiver86	226	1	61.6	62.6	66	1.0	15	----	62.6	0.0	7	-7.0
Receiver86a-2nd story	227	2	62.1	63.1	66	1.0	15	----	63.1	0.0	7	-7.0
Receiver86b-3rd story	228	2	62.8	63.7	66	0.9	15	----	63.7	0.0	7	-7.0
Receiver87	229	1	59.9	60.9	66	1.0	15	----	60.9	0.0	7	-7.0

Receiver87a-2nd story	230	2	60.0	61.0	66	1.0	15	----	61.0	0.0	7	-7.0
Receiver87b-3rd story	231	2	60.5	61.5	66	1.0	10	----	61.5	0.0	7	-7.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1076	0.0	0.0	0.0
All Impacted	160	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Atkins
csv

20 January 2014
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 0010425
RUN: Walther Blvd
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier					With Barrier			
				LAeq1h		Increase over existing		Type Impact	Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
U1-50	232	1	0.0	63.0	66	63.0	15	----	63.0	0.0	7	-7.0
U1-100	233	1	0.0	61.6	66	61.6	15	----	61.6	0.0	7	-7.0
U1-200	234	1	0.0	61.0	66	61.0	15	----	61.0	0.0	7	-7.0
U1-300	235	1	0.0	60.7	66	60.7	15	----	60.7	0.0	7	-7.0
U1-400	236	1	0.0	60.4	66	60.4	15	----	60.4	0.0	7	-7.0
U1-500	237	1	0.0	60.2	66	60.2	15	----	60.2	0.0	7	-7.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	6	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

Atkins
csv

22 January 2014
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 0010425
RUN: Walther Blvd
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier					With Barrier			
				LAeq1h		Increase over existing		Type Impact	Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
U1-50	232	1	0.0	63.0	66	63.0	15	----	63.0	0.0	7	-7.0
U1-100	233	1	0.0	61.6	66	61.6	15	----	61.6	0.0	7	-7.0
U1-200	234	1	0.0	61.0	66	61.0	15	----	61.0	0.0	7	-7.0
U1-300	235	1	0.0	60.7	66	60.7	15	----	60.7	0.0	7	-7.0
U1-400	236	1	0.0	60.4	66	60.4	15	----	60.4	0.0	7	-7.0
U1-500	237	1	0.0	60.2	66	60.2	15	----	60.2	0.0	7	-7.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	6	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

Attachment 2

Validation Field Notes and TNM Files

Field Validation
Site 1
Sugar Mill Playground
Day: Tuesday
Date: 1-8-13
Begin Time: 12:45
End Time: 1:00

Speed Limit 35 mph
Number of Lanes: 2 w/ flush
Approximate Distance
From Pavement: 50 ft.+/-
Cars: 76 (*4=304)
Medium Trucks: 1 (*4=4)
Heavy Trucks: 0

Field Validation Site 2
Ten Oaks Apartments at SR 316
Day: Tuesday
Date: 1-8-13
Begin Time: 1:51
End Time: 2:06

Speed Limit 65 mph
Number of Lanes: 4
Approximate Distance From Pavement: 185 ft.
Cars: 478 WB (*4=1912), 382 EB (*4=1528)
Medium Trucks: 18 WB (*4=72), 27 EB (*4=108)
Heavy Trucks: 32 WB (*4=128), 28 EB (*4=112)

Field Validation
Site 3
Ten Oaks Apartments at Walther Blvd.
Day: Tuesday
Date: 1-8-13
Begin Time: 2:30
End Time: 2:45

Speed Limit 35 mph
Number of Lanes: 2
Approximate Distance
From Pavement: 65 ft.
Cars: 23 (*4=92)
Medium Trucks: 4 (*4=16)
Heavy Trucks: 0

Atkins
csv

30 January 2013
TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: 0010425
RUN: Walther Blvd

Roadway Name	Points Name	No.	Segment									
			Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V veh/hr	S mph	V veh/hr	S mph	V veh/hr	S mph	V veh/hr	S mph	V veh/hr	S mph
R1-SR 316 EB west of Walther Blvd	R1-1	1	2018	65	43	65	64	65	0	0	0	0
	R1-2	2	2018	65	43	65	64	65	0	0	0	0
	R1-3	3	2018	65	43	65	64	65	0	0	0	0
	R1-4	4										
R2-SR 316 EB bw Walter in and out	R2-1	5	1905	65	40	65	60	65	0	0	0	0
	R2-2	6	1905	65	40	65	60	65	0	0	0	0
	R2-3	7	1905	65	40	65	60	65	0	0	0	0
	R2-4	8	1905	65	40	65	60	65	0	0	0	0
	R2-5	9	1905	65	40	65	60	65	0	0	0	0
	R2-6	10	1905	65	40	65	60	65	0	0	0	0
	R2-7	11										
R3-SR 316 EB east of Walther Blvd	R3-1	12	1952	65	41	65	62	65	0	0	0	0
	R3-2	13	1952	65	41	65	62	65	0	0	0	0
	R3-3	14	1952	65	41	65	62	65	0	0	0	0
	R3-4	15										
R4-SR 316 WB east of Walter Blvd	R4-1	16	1824	65	38	65	58	65	0	0	0	0
	R4-2	17	1824	65	38	65	58	65	0	0	0	0
	R4-3	18	1824	65	38	65	58	65	0	0	0	0
	R4-4	19										
R5-SR 316 WB bw Walther in and out	R5-1	20	1710	65	36	65	54	65	0	0	0	0
	R5-2	21	1710	65	36	65	54	65	0	0	0	0
	R5-3	22	1710	65	36	65	54	65	0	0	0	0
	R5-4	23	1710	65	36	65	54	65	0	0	0	0

	R5-5	24	1710	65	36	65	54	65	0	0	0	0
	R5-6	25	1710	65	36	65	54	65	0	0	0	0
	R5-7	26										
R6-SR 316 WB west of Walther Blvd	R6-1	27	1781	65	38	65	56	65	0	0	0	0
	R6-2	28	1781	65	38	65	56	65	0	0	0	0
	R6-3	29	1781	65	38	65	56	65	0	0	0	0
	R6-4	30										
R7-Walther Blvd SB turn south of SR31	R7-1	31	119	35	1	35	0	0	0	0	0	0
	R7-2	32	119	35	1	35	0	0	0	0	0	0
	R7-3	33	119	35	1	35	0	0	0	0	0	0
	R7-4	34	119	35	1	35	0	0	0	0	0	0
	R7-5	35	119	35	1	35	0	0	0	0	0	0
	R7-6	36	119	35	1	35	0	0	0	0	0	0
	R7-7	37	119	35	1	35	0	0	0	0	0	0
	R7-8	38										
R7a-Walther Blvd SB south of SR316	R7a-1	39	119	35	1	35	0	0	0	0	0	0
	R7a-2	40	119	35	1	35	0	0	0	0	0	0
	R7a-3	41										
R7b-Walther Blvd SB south of SR316	R7b-0	42	119	35	1	35	0	0	0	0	0	0
	R7b-1	43	119	35	1	35	0	0	0	0	0	0
	R7b-2	44	119	35	1	35	0	0	0	0	0	0
	R7b-3	45	119	35	1	35	0	0	0	0	0	0
	R7b-4	46	119	35	1	35	0	0	0	0	0	0
	R7b-5	47	119	35	1	35	0	0	0	0	0	0
	R7b-6	48	119	35	1	35	0	0	0	0	0	0
	R7b-7	49	119	35	1	35	0	0	0	0	0	0
	R7b-8	50										
R8-Walther Blvd NB south of SR 316	R8-1	51	49	35	1	35	0	0	0	0	0	0
	R8-2	52	49	35	1	35	0	0	0	0	0	0
	R8-3	53	49	35	1	35	0	0	0	0	0	0
	R8-4	54	49	35	1	35	0	0	0	0	0	0
	R8-5	55	49	35	1	35	0	0	0	0	0	0
	R8-6	56	49	35	1	35	0	0	0	0	0	0
	R8-7	57	49	35	1	35	0	0	0	0	0	0
	R8-8	58	49	35	1	35	0	0	0	0	0	0

	R8-9	59	49	35	1	35	0	0	0	0	0	0
	R8-10	60	49	35	1	35	0	0	0	0	0	0
	R8-11	61	49	35	1	35	0	0	0	0	0	0
	R8-12	62	49	35	1	35	0	0	0	0	0	0
	R8-13	63	49	35	1	35	0	0	0	0	0	0
	R8-14	64	49	35	1	35	0	0	0	0	0	0
	R8-15	65	49	35	1	35	0	0	0	0	0	0
	R8-16	66	49	35	1	35	0	0	0	0	0	0
	R8-17	67	49	35	1	35	0	0	0	0	0	0
	R8-18	68	49	35	1	35	0	0	0	0	0	0
	R8-19	69	49	35	1	35	0	0	0	0	0	0
	R8-20	70										
R9-Walther Blvd NB turn north of SR31	R9-1	71	119	35	1	35	0	0	0	0	0	0
	R9-2	72	119	35	1	35	0	0	0	0	0	0
	R9-3	73	119	35	1	35	0	0	0	0	0	0
	R9-4	74	119	35	1	35	0	0	0	0	0	0
	R9-5	75	119	35	1	35	0	0	0	0	0	0
	R9-6	76	119	35	1	35	0	0	0	0	0	0
	R9-7	77	119	35	1	35	0	0	0	0	0	0
	R9-8	78	119	35	1	35	0	0	0	0	0	0
	R9-9	79										
R9a-Walther Blvd NB north of SR 316	R9a-1	80	119	35	1	35	0	0	0	0	0	0
	R9a-2	81	119	35	1	35	0	0	0	0	0	0
	R9a-3	82										
R9b-Walther Blvd NB north of SR316	R9b-1	83	152	35	2	35	0	0	0	0	0	0
	R9b-2	84	152	35	2	35	0	0	0	0	0	0
	R9b-3	85	152	35	2	35	0	0	0	0	0	0
	R9b-4	86	152	35	2	35	0	0	0	0	0	0
	R9b-5	87	152	35	2	35	0	0	0	0	0	0
	R9b-6	88	152	35	2	35	0	0	0	0	0	0
	R9b-7	89	152	35	2	35	0	0	0	0	0	0
	R9b-8	90	152	35	2	35	0	0	0	0	0	0
	R9b-9	91										
R10-Walther Blvd SB north of SR316	R10-1	92	152	35	2	35	0	0	0	0	0	0
	R10-2	93	152	35	2	35	0	0	0	0	0	0

INPUT: TRAFFIC FOR LAeq1h Volumes

0010425

	R10-3	94	152	35	2	35	0	0	0	0	0	0
	R10-4	95	152	35	2	35	0	0	0	0	0	0
	R10-5	96	152	35	2	35	0	0	0	0	0	0
	R10-6	97	152	35	2	35	0	0	0	0	0	0
	R10-7	98	152	35	2	35	0	0	0	0	0	0
	R10-8	99	152	35	2	35	0	0	0	0	0	0
	R10-9	100	152	35	2	35	0	0	0	0	0	0
	R10-10	101	152	35	2	35	0	0	0	0	0	0
	R10-11	102	152	35	2	35	0	0	0	0	0	0
	R10-12	103	152	35	2	35	0	0	0	0	0	0
	R10-13	104	152	35	2	35	0	0	0	0	0	0
	R10-14	105	152	35	2	35	0	0	0	0	0	0
	R10-15	106	152	35	2	35	0	0	0	0	0	0
	R10-16	107	152	35	2	35	0	0	0	0	0	0
	R10-17	108										
R11-Flush Median north of SR316	R11-1	109	0	0	0	0	0	0	0	0	0	0
	R11-2	110	0	0	0	0	0	0	0	0	0	0
	R11-3	111	0	0	0	0	0	0	0	0	0	0
	R11-4	112	0	0	0	0	0	0	0	0	0	0
	R11-5	113	0	0	0	0	0	0	0	0	0	0
	R11-6	114	0	0	0	0	0	0	0	0	0	0
	R11-7	115	0	0	0	0	0	0	0	0	0	0
	R11-8	116	0	0	0	0	0	0	0	0	0	0
	R11-9	117										
R12-Flush Median south of SR316	R12-1	118	0	0	0	0	0	0	0	0	0	0
	R12-2	119	0	0	0	0	0	0	0	0	0	0
	R12-3	120	0	0	0	0	0	0	0	0	0	0
	R12-4	121	0	0	0	0	0	0	0	0	0	0
	R12-5	122	0	0	0	0	0	0	0	0	0	0
	R12-6	123	0	0	0	0	0	0	0	0	0	0
	R12-7	124	0	0	0	0	0	0	0	0	0	0
	R12-8	125	0	0	0	0	0	0	0	0	0	0
	R12-9	126	0	0	0	0	0	0	0	0	0	0
	R12-10	127										

Atkins
csv

30 January 2013
TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: 0010425
RUN: Walther Blvd

Receiver Name	No.	#DUs	Coordinates (ground)			Height above Ground	Input Sound Levels and Criteria				Active in Calc.
			X	Y	Z		Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Site 1	237	1	2,343,820.0	1,446,047.0	1,010.00	4.92	0.00	66	15.0	7.0	Y

RESULTS: SOUND LEVELS

0010425

Atkins
csv

30 January 2013
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 0010425
RUN: Walther Blvd
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier					With Barrier			
				LAeq1h		Increase over existing		Type Impact	Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Site 1	237	1	0.0	58.3	66	58.3	15	---	58.3	0.0	7	-7.0

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

Atkins
csv

30 January 2013
TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: 0010425
RUN: Walther Blvd

Roadway Name	Points Name	No.	Segment									
			Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V veh/hr	S mph	V veh/hr	S mph	V veh/hr	S mph	V veh/hr	S mph	V veh/hr	S mph
R1-SR 316 EB west of Walther Blvd	R1-1	1	1528	65	108	65	112	65	0	0	0	0
	R1-2	2	1528	65	108	65	112	65	0	0	0	0
	R1-3	3	1528	65	108	65	112	65	0	0	0	0
	R1-4	4										
R2-SR 316 EB bw Walter in and out	R2-1	5	1905	65	40	65	60	65	0	0	0	0
	R2-2	6	1905	65	40	65	60	65	0	0	0	0
	R2-3	7	1905	65	40	65	60	65	0	0	0	0
	R2-4	8	1905	65	40	65	60	65	0	0	0	0
	R2-5	9	1905	65	40	65	60	65	0	0	0	0
	R2-6	10	1905	65	40	65	60	65	0	0	0	0
	R2-7	11										
R3-SR 316 EB east of Walther Blvd	R3-1	12	1952	65	41	65	62	65	0	0	0	0
	R3-2	13	1952	65	41	65	62	65	0	0	0	0
	R3-3	14	1952	65	41	65	62	65	0	0	0	0
	R3-4	15										
R4-SR 316 WB east of Walter Blvd	R4-1	16	1824	65	38	65	58	65	0	0	0	0
	R4-2	17	1824	65	38	65	58	65	0	0	0	0
	R4-3	18	1824	65	38	65	58	65	0	0	0	0
	R4-4	19										
R5-SR 316 WB bw Walther in and out	R5-1	20	1912	65	72	65	128	65	0	0	0	0
	R5-2	21	1912	65	72	65	128	65	0	0	0	0
	R5-3	22	1912	65	72	65	128	65	0	0	0	0
	R5-4	23	1912	65	72	65	128	65	0	0	0	0

INPUT: TRAFFIC FOR LAeq1h Volumes **0010425**

	R5-5	24	1912	65	72	65	128	65	0	0	0	0
	R5-6	25	1912	65	72	65	128	65	0	0	0	0
	R5-7	26										
R6-SR 316 WB west of Walther Blvd	R6-1	27	1912	65	72	65	128	65	0	0	0	0
	R6-2	28	1912	65	72	65	128	65	0	0	0	0
	R6-3	29	1912	65	72	65	128	65	0	0	0	0
	R6-4	30										
R7-Walther Blvd SB turn south of SR31	R7-1	31	119	35	1	35	0	0	0	0	0	0
	R7-2	32	119	35	1	35	0	0	0	0	0	0
	R7-3	33	119	35	1	35	0	0	0	0	0	0
	R7-4	34	119	35	1	35	0	0	0	0	0	0
	R7-5	35	119	35	1	35	0	0	0	0	0	0
	R7-6	36	119	35	1	35	0	0	0	0	0	0
	R7-7	37	119	35	1	35	0	0	0	0	0	0
	R7-8	38										
R7a-Walther Blvd SB south of SR316	R7a-1	39	119	35	1	35	0	0	0	0	0	0
	R7a-2	40	119	35	1	35	0	0	0	0	0	0
	R7a-3	41										
R7b-Walther Blvd SB south of SR316	R7b-0	42	119	35	1	35	0	0	0	0	0	0
	R7b-1	43	119	35	1	35	0	0	0	0	0	0
	R7b-2	44	119	35	1	35	0	0	0	0	0	0
	R7b-3	45	119	35	1	35	0	0	0	0	0	0
	R7b-4	46	119	35	1	35	0	0	0	0	0	0
	R7b-5	47	119	35	1	35	0	0	0	0	0	0
	R7b-6	48	119	35	1	35	0	0	0	0	0	0
	R7b-7	49	119	35	1	35	0	0	0	0	0	0
	R7b-8	50										
R8-Walther Blvd NB south of SR 316	R8-1	51	49	35	1	35	0	0	0	0	0	0
	R8-2	52	49	35	1	35	0	0	0	0	0	0
	R8-3	53	49	35	1	35	0	0	0	0	0	0
	R8-4	54	49	35	1	35	0	0	0	0	0	0
	R8-5	55	49	35	1	35	0	0	0	0	0	0
	R8-6	56	49	35	1	35	0	0	0	0	0	0
	R8-7	57	49	35	1	35	0	0	0	0	0	0
	R8-8	58	49	35	1	35	0	0	0	0	0	0

	R8-9	59	49	35	1	35	0	0	0	0	0	0
	R8-10	60	49	35	1	35	0	0	0	0	0	0
	R8-11	61	49	35	1	35	0	0	0	0	0	0
	R8-12	62	49	35	1	35	0	0	0	0	0	0
	R8-13	63	49	35	1	35	0	0	0	0	0	0
	R8-14	64	49	35	1	35	0	0	0	0	0	0
	R8-15	65	49	35	1	35	0	0	0	0	0	0
	R8-16	66	49	35	1	35	0	0	0	0	0	0
	R8-17	67	49	35	1	35	0	0	0	0	0	0
	R8-18	68	49	35	1	35	0	0	0	0	0	0
	R8-19	69	49	35	1	35	0	0	0	0	0	0
	R8-20	70										
R9-Walther Blvd NB turn north of SR31	R9-1	71	119	35	1	35	0	0	0	0	0	0
	R9-2	72	119	35	1	35	0	0	0	0	0	0
	R9-3	73	119	35	1	35	0	0	0	0	0	0
	R9-4	74	119	35	1	35	0	0	0	0	0	0
	R9-5	75	119	35	1	35	0	0	0	0	0	0
	R9-6	76	119	35	1	35	0	0	0	0	0	0
	R9-7	77	119	35	1	35	0	0	0	0	0	0
	R9-8	78	119	35	1	35	0	0	0	0	0	0
	R9-9	79										
R9a-Walther Blvd NB north of SR 316	R9a-1	80	119	35	1	35	0	0	0	0	0	0
	R9a-2	81	119	35	1	35	0	0	0	0	0	0
	R9a-3	82										
R9b-Walther Blvd NB north of SR316	R9b-1	83	134	35	1	35	0	0	0	0	0	0
	R9b-2	84	134	35	1	35	0	0	0	0	0	0
	R9b-3	85	134	35	1	35	0	0	0	0	0	0
	R9b-4	86	134	35	1	35	0	0	0	0	0	0
	R9b-5	87	134	35	1	35	0	0	0	0	0	0
	R9b-6	88	134	35	1	35	0	0	0	0	0	0
	R9b-7	89	134	35	1	35	0	0	0	0	0	0
	R9b-8	90	134	35	1	35	0	0	0	0	0	0
	R9b-9	91										
R10-Walther Blvd SB north of SR316	R10-1	92	74	35	1	35	0	0	0	0	0	0
	R10-2	93	74	35	1	35	0	0	0	0	0	0

	R10-3	94	74	35	1	35	0	0	0	0	0	0
	R10-4	95	74	35	1	35	0	0	0	0	0	0
	R10-5	96	74	35	1	35	0	0	0	0	0	0
	R10-6	97	74	35	1	35	0	0	0	0	0	0
	R10-7	98	74	35	1	35	0	0	0	0	0	0
	R10-8	99	74	35	1	35	0	0	0	0	0	0
	R10-9	100	74	35	1	35	0	0	0	0	0	0
	R10-10	101	74	35	1	35	0	0	0	0	0	0
	R10-11	102	74	35	1	35	0	0	0	0	0	0
	R10-12	103	74	35	1	35	0	0	0	0	0	0
	R10-13	104	74	35	1	35	0	0	0	0	0	0
	R10-14	105	74	35	1	35	0	0	0	0	0	0
	R10-15	106	74	35	1	35	0	0	0	0	0	0
	R10-16	107	74	35	1	35	0	0	0	0	0	0
	R10-17	108										
R11-Flush Median north of SR316	R11-1	109	0	0	0	0	0	0	0	0	0	0
	R11-2	110	0	0	0	0	0	0	0	0	0	0
	R11-3	111	0	0	0	0	0	0	0	0	0	0
	R11-4	112	0	0	0	0	0	0	0	0	0	0
	R11-5	113	0	0	0	0	0	0	0	0	0	0
	R11-6	114	0	0	0	0	0	0	0	0	0	0
	R11-7	115	0	0	0	0	0	0	0	0	0	0
	R11-8	116	0	0	0	0	0	0	0	0	0	0
	R11-9	117										
R12-Flush Median south of SR316	R12-1	118	0	0	0	0	0	0	0	0	0	0
	R12-2	119	0	0	0	0	0	0	0	0	0	0
	R12-3	120	0	0	0	0	0	0	0	0	0	0
	R12-4	121	0	0	0	0	0	0	0	0	0	0
	R12-5	122	0	0	0	0	0	0	0	0	0	0
	R12-6	123	0	0	0	0	0	0	0	0	0	0
	R12-7	124	0	0	0	0	0	0	0	0	0	0
	R12-8	125	0	0	0	0	0	0	0	0	0	0
	R12-9	126	0	0	0	0	0	0	0	0	0	0
	R12-10	127										

Atkins
csv

30 January 2013
TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: 0010425
RUN: Walther Blvd

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Site 2	237	1	2,344,230.0	1,444,448.0	1,038.00	4.92	0.00	66	15.0	7.0	Y

Atkins
csv

30 January 2013
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 0010425
RUN: Walther Blvd
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

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
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Site 2	237	1	0.0	67.8	66	67.8	15	Snd Lvl	67.8	0.0	7	-7.0

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

Atkins
csv

30 January 2013
TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: 0010425
RUN: Walther Blvd

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
R1-SR 316 EB west of Walther Blvd	R1-1	1	2018	65	43	65	64	65	0	0	0	0
	R1-2	2	2018	65	43	65	64	65	0	0	0	0
	R1-3	3	2018	65	43	65	64	65	0	0	0	0
	R1-4	4										
R2-SR 316 EB bw Walter in and out	R2-1	5	1905	65	40	65	60	65	0	0	0	0
	R2-2	6	1905	65	40	65	60	65	0	0	0	0
	R2-3	7	1905	65	40	65	60	65	0	0	0	0
	R2-4	8	1905	65	40	65	60	65	0	0	0	0
	R2-5	9	1905	65	40	65	60	65	0	0	0	0
	R2-6	10	1905	65	40	65	60	65	0	0	0	0
	R2-7	11										
R3-SR 316 EB east of Walther Blvd	R3-1	12	1952	65	41	65	62	65	0	0	0	0
	R3-2	13	1952	65	41	65	62	65	0	0	0	0
	R3-3	14	1952	65	41	65	62	65	0	0	0	0
	R3-4	15										
R4-SR 316 WB east of Walter Blvd	R4-1	16	1824	65	38	65	58	65	0	0	0	0
	R4-2	17	1824	65	38	65	58	65	0	0	0	0
	R4-3	18	1824	65	38	65	58	65	0	0	0	0
	R4-4	19										
R5-SR 316 WB bw Walther in and out	R5-1	20	1710	65	36	65	54	65	0	0	0	0
	R5-2	21	1710	65	36	65	54	65	0	0	0	0
	R5-3	22	1710	65	36	65	54	65	0	0	0	0
	R5-4	23	1710	65	36	65	54	65	0	0	0	0

INPUT: TRAFFIC FOR LAeq1h Volumes

0010425

	R5-5	24	1710	65	36	65	54	65	0	0	0	0	
	R5-6	25	1710	65	36	65	54	65	0	0	0	0	
	R5-7	26											
R6-SR 316 WB west of Walther Blvd	R6-1	27	1781	65	38	65	56	65	0	0	0	0	
	R6-2	28	1781	65	38	65	56	65	0	0	0	0	
	R6-3	29	1781	65	38	65	56	65	0	0	0	0	
	R6-4	30											
R7-Walther Blvd SB turn south of SR31	R7-1	31	119	35	1	35	0	0	0	0	0	0	
	R7-2	32	119	35	1	35	0	0	0	0	0	0	
	R7-3	33	119	35	1	35	0	0	0	0	0	0	
	R7-4	34	119	35	1	35	0	0	0	0	0	0	
	R7-5	35	119	35	1	35	0	0	0	0	0	0	
	R7-6	36	119	35	1	35	0	0	0	0	0	0	
	R7-7	37	119	35	1	35	0	0	0	0	0	0	
	R7-8	38											
R7a-Walther Blvd SB south of SR316	R7a-1	39	119	35	1	35	0	0	0	0	0	0	
	R7a-2	40	119	35	1	35	0	0	0	0	0	0	
	R7a-3	41											
R7b-Walther Blvd SB south of SR316	R7b-0	42	46	35	2	35	0	0	0	0	0	0	
	R7b-1	43	46	35	2	35	0	0	0	0	0	0	
	R7b-2	44	46	35	2	35	0	0	0	0	0	0	
	R7b-3	45	46	35	2	35	0	0	0	0	0	0	
	R7b-4	46	46	35	2	35	0	0	0	0	0	0	
	R7b-5	47	46	35	2	35	0	0	0	0	0	0	
	R7b-6	48	46	35	2	35	0	0	0	0	0	0	
	R7b-7	49	46	35	2	35	0	0	0	0	0	0	
	R7b-8	50											
R8-Walther Blvd NB south of SR 316	R8-1	51	46	35	2	35	0	0	0	0	0	0	
	R8-2	52	46	35	2	35	0	0	0	0	0	0	
	R8-3	53	46	35	2	35	0	0	0	0	0	0	
	R8-4	54	46	35	2	35	0	0	0	0	0	0	
	R8-5	55	46	35	2	35	0	0	0	0	0	0	
	R8-6	56	46	35	2	35	0	0	0	0	0	0	
	R8-7	57	46	35	2	35	0	0	0	0	0	0	
	R8-8	58	46	35	2	35	0	0	0	0	0	0	

INPUT: TRAFFIC FOR LAeq1h Volumes **0010425**

	R8-9	59	46	35	2	35	0	0	0	0	0	0
	R8-10	60	46	35	2	35	0	0	0	0	0	0
	R8-11	61	46	35	2	35	0	0	0	0	0	0
	R8-12	62	46	35	2	35	0	0	0	0	0	0
	R8-13	63	46	35	2	35	0	0	0	0	0	0
	R8-14	64	46	35	2	35	0	0	0	0	0	0
	R8-15	65	46	35	2	35	0	0	0	0	0	0
	R8-16	66	46	35	2	35	0	0	0	0	0	0
	R8-17	67	46	35	2	35	0	0	0	0	0	0
	R8-18	68	46	35	2	35	0	0	0	0	0	0
	R8-19	69	46	35	2	35	0	0	0	0	0	0
	R8-20	70										
R9-Walther Blvd NB turn north of SR31	R9-1	71	119	35	1	35	0	0	0	0	0	0
	R9-2	72	119	35	1	35	0	0	0	0	0	0
	R9-3	73	119	35	1	35	0	0	0	0	0	0
	R9-4	74	119	35	1	35	0	0	0	0	0	0
	R9-5	75	119	35	1	35	0	0	0	0	0	0
	R9-6	76	119	35	1	35	0	0	0	0	0	0
	R9-7	77	119	35	1	35	0	0	0	0	0	0
	R9-8	78	119	35	1	35	0	0	0	0	0	0
	R9-9	79										
R9a-Walther Blvd NB north of SR 316	R9a-1	80	119	35	1	35	0	0	0	0	0	0
	R9a-2	81	119	35	1	35	0	0	0	0	0	0
	R9a-3	82										
R9b-Walther Blvd NB north of SR316	R9b-1	83	134	35	1	35	0	0	0	0	0	0
	R9b-2	84	134	35	1	35	0	0	0	0	0	0
	R9b-3	85	134	35	1	35	0	0	0	0	0	0
	R9b-4	86	134	35	1	35	0	0	0	0	0	0
	R9b-5	87	134	35	1	35	0	0	0	0	0	0
	R9b-6	88	134	35	1	35	0	0	0	0	0	0
	R9b-7	89	134	35	1	35	0	0	0	0	0	0
	R9b-8	90	134	35	1	35	0	0	0	0	0	0
	R9b-9	91										
R10-Walther Blvd SB north of SR316	R10-1	92	74	35	1	35	0	0	0	0	0	0
	R10-2	93	74	35	1	35	0	0	0	0	0	0

INPUT: TRAFFIC FOR LAeq1h Volumes **0010425**

	R10-3	94	74	35	1	35	0	0	0	0	0	0	
	R10-4	95	74	35	1	35	0	0	0	0	0	0	
	R10-5	96	74	35	1	35	0	0	0	0	0	0	
	R10-6	97	74	35	1	35	0	0	0	0	0	0	
	R10-7	98	74	35	1	35	0	0	0	0	0	0	
	R10-8	99	74	35	1	35	0	0	0	0	0	0	
	R10-9	100	74	35	1	35	0	0	0	0	0	0	
	R10-10	101	74	35	1	35	0	0	0	0	0	0	
	R10-11	102	74	35	1	35	0	0	0	0	0	0	
	R10-12	103	74	35	1	35	0	0	0	0	0	0	
	R10-13	104	74	35	1	35	0	0	0	0	0	0	
	R10-14	105	74	35	1	35	0	0	0	0	0	0	
	R10-15	106	74	35	1	35	0	0	0	0	0	0	
	R10-16	107	74	35	1	35	0	0	0	0	0	0	
	R10-17	108											
R11-Flush Median north of SR316	R11-1	109	0	0	0	0	0	0	0	0	0	0	
	R11-2	110	0	0	0	0	0	0	0	0	0	0	
	R11-3	111	0	0	0	0	0	0	0	0	0	0	
	R11-4	112	0	0	0	0	0	0	0	0	0	0	
	R11-5	113	0	0	0	0	0	0	0	0	0	0	
	R11-6	114	0	0	0	0	0	0	0	0	0	0	
	R11-7	115	0	0	0	0	0	0	0	0	0	0	
	R11-8	116	0	0	0	0	0	0	0	0	0	0	
	R11-9	117											
R12-Flush Median south of SR316	R12-1	118	0	0	0	0	0	0	0	0	0	0	
	R12-2	119	0	0	0	0	0	0	0	0	0	0	
	R12-3	120	0	0	0	0	0	0	0	0	0	0	
	R12-4	121	0	0	0	0	0	0	0	0	0	0	
	R12-5	122	0	0	0	0	0	0	0	0	0	0	
	R12-6	123	0	0	0	0	0	0	0	0	0	0	
	R12-7	124	0	0	0	0	0	0	0	0	0	0	
	R12-8	125	0	0	0	0	0	0	0	0	0	0	
	R12-9	126	0	0	0	0	0	0	0	0	0	0	
	R12-10	127											

0010425

Atkins
csv

30 January 2013
TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: 0010425
RUN: Walther Blvd

Receiver Name	No.	#DUs	Coordinates (ground)			Height above Ground	Input Sound Levels and Criteria				Active in Calc.
			X	Y	Z		Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Site3	237	1	2,345,024.0	1,444,182.0	1,049.00	4.92	0.00	66	15.0	7.0	Y

Atkins
csv

30 January 2013
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 0010425
RUN: Walther Blvd
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier					With Barrier			
				LAeq1h		Increase over existing		Type Impact	Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Site3	237	1	0.0	56.1	66	56.1	15	---	56.1	0.0	7	-7.0

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

Attachment 3

Traffic Diagrams

Department of Transportation
State of Georgia

INTERDEPARTMENT CORRESPONDENCE

FILE Gwinnett County
P.I. # 0010425

OFFICE Planning

DATE December 6, 2013

FROM Cynthia L. VanDyke, State Transportation Planning Administrator

TO Darryl Duane VanMeter, State Innovative Program Delivery Engineer
Attention: Andrew Hoenig

SUBJECT **Updated Design Traffic Review** for SR 316 @ CR 3929/WALTHER BLVD – GRADE SEPARATION.

We have reviewed the consultant's updated design traffic for the above project. The Design Traffic is approved.

If you have any questions concerning this information, please contact Rhonda Niles at (404) 631-1924.

CLV/RFN

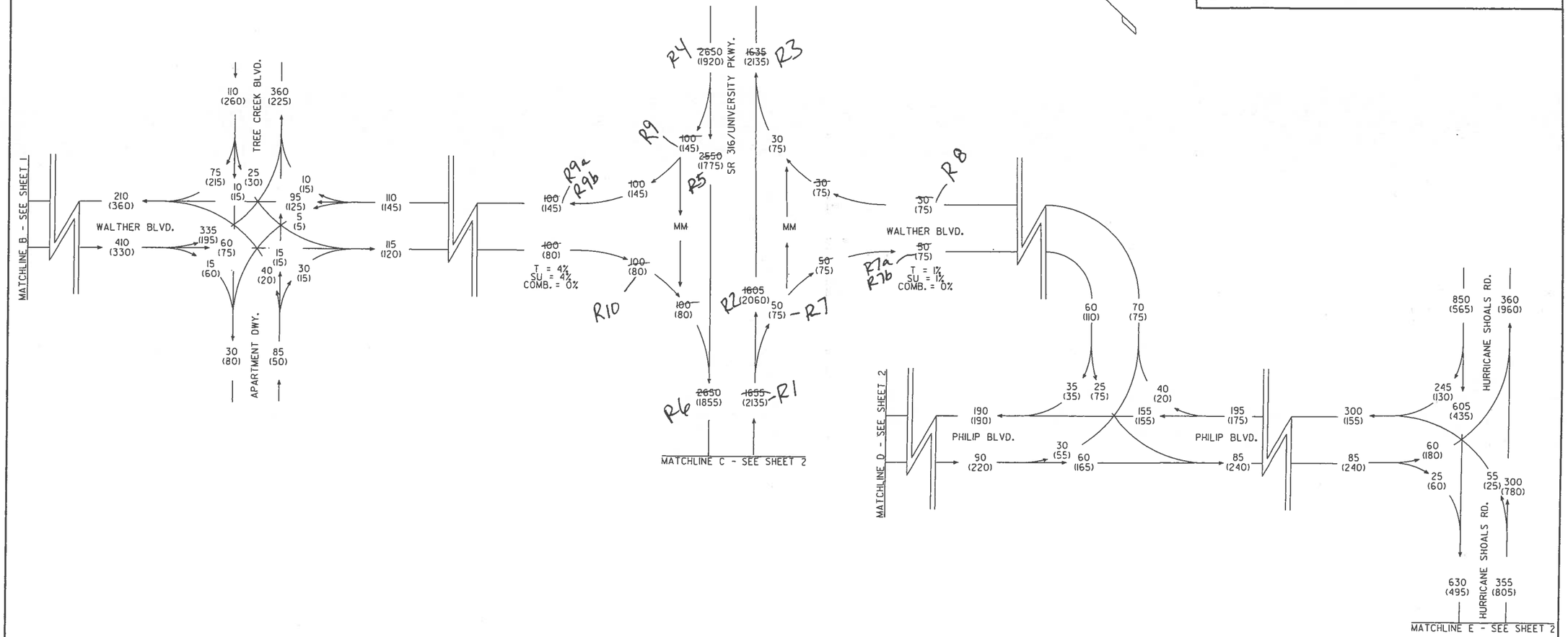
SHEET 6 OF 24

2013 EXISTING PEAK HOUR

GWINNETT COUNTY

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF PLANNING

HNTB
3715 NORTHSIDE PARKWAY, NW
200 NORTHCREEK, SUITE 800
ATLANTA, GEORGIA 30327



PI# 0010425
GWINNETT COUNTY

GRADE SEPARATION OF
CR 3929 (WALTHER BLVD.)
OVER SR 316

2013 EXISTING PEAK HOUR
2013 AM PEAK HOUR = 000
2013 PM PEAK HOUR = (000)

KAM 11/13

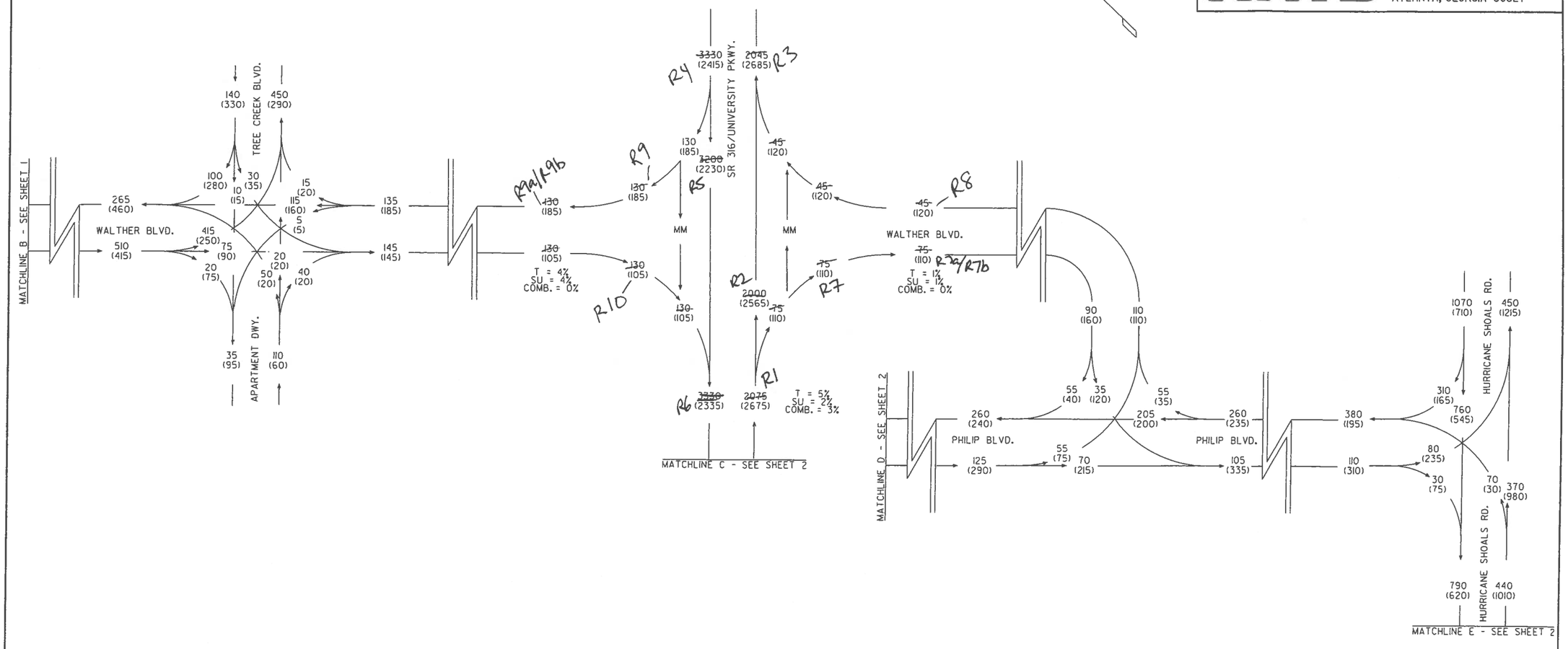
SHEET 15 OF 24

GWINNETT COUNTY

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF PLANNING

HNTB
3715 NORTHSIDE PARKWAY, NW
200 NORTHCREEK, SUITE 800
ATLANTA, GEORGIA 30327

2036 NO-BUILD DHV



PI# 0010425
GWINNETT COUNTY

GRADE SEPARATION OF
CR 3929 (WALTHER BLVD.)
OVER SR 316

2036 NO BUILD DHV
DHV AM = 0000
DHV PM = (0000)

KAM 11/13

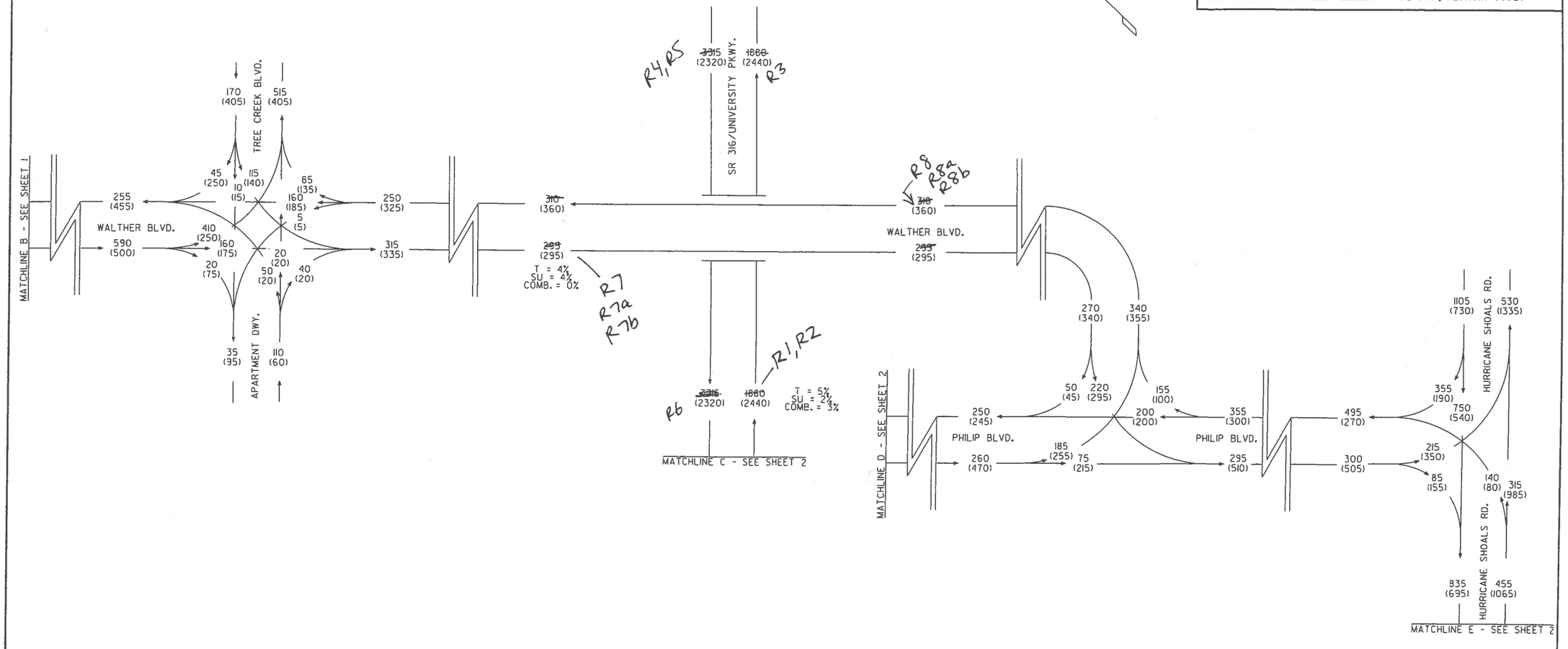
SHEET 24 OF 24

GWINNETT COUNTY

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF PLANNING

HNTB
3715 NORTHSIDE PARKWAY, NW
200 NORTHCREEK, SUITE 800
ATLANTA, GEORGIA 30327

2036 BUILD DHV



PI# 0010425
GWINNETT COUNTY

GRADE SEPARATION OF
CR 3929 (WALTHER BLVD.)
OVER SR 316

2036 BUILD DHV
DHV AM = 0000
DHV PM = (0000)

KAM 11/13