DEPARTMENT OF HOMELAND SECURITY
U.S. COAST GUARD FINAL ENVIRONMENTAL IMPACT STATEMENT

FOR

PROPOSED NEW BRIDGE ACROSS THE MANATEE RIVER, MILE 15.0,
AT PARRISH, MANATEE COUNTY, FLORIDA

APPENDIX F

NOISE STUDY REPORT

JUNE 2013

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METHODOLOGY

This traffic noise analysis was prepared in accordance with Title 23 Code of Federal Regulations (CFR) Part 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise*. The evaluation also uses methodologies established by the Florida Department of Transportation (FDOT) and documented in the *Project Development and Environment (PD&E) Manual*, Part 2, Chapter 17 (May 24, 2011). The predicted noise levels presented in this report are expressed in decibels (dB) on the A-weighted scale (dB(A)). This scale most closely approximates the response characteristics of the human ear to traffic noise. All noise levels are reported as equivalent levels (Leq(h)), which is the equivalent steady-state sound level that contains the same acoustic energy as a time-varying sound level over a period of 1 hour.

The noise analysis for this Environmental Impact Statement (EIS) was performed using the Federal Highway Administration's (FHWA's) computer model for highway traffic noise prediction and analysis – the Traffic Noise Model (TNM Version 2.5). The TNM propagates sound energy, in one-third octave bands, between highways and nearby receptors taking the intervening ground's acoustical characteristics/topography and other natural and manmade features into account.

Two build alternatives were analyzed for potential highway noise impacts:

- Upper Manatee River Road/Fort Hamer Road Alternative (Fort Hamer Alternative) and
- Rye Road/Golf Course Road/Fort Hamer Road Alternative (Rye Road Alternative).

Figure 1 depicts these alternatives.

TRAFFIC DATA

The existing and forecast future (year 2035) traffic data used in the TNM to predict noise levels within the Fort Hamer Alternative Study Area are presented in **Table 1**. Traffic data for the Rye Road Alternative Study Area is presented in **Table 2**. The study area of each build alternative is defined as the area contained within a 0.5-mile buffer of the alternative's centerline.

Because noise levels are low when traffic volumes are low [Level of Service (LOS) A or B] or when traffic is so congested that movement is slow (LOS D, E, or F), the maximum hourly noise level occurs between these two conditions. Therefore, traffic volumes used in the analysis reflect the demand volume (if forecast demand levels meet the LOS A or B criteria) or the design LOS C volumes, whichever is less. Vehicle speeds are based on posted speed limits.

FIGURE 1
RECOMMENDED ALTERNATIVES

TABLE 1
TRAFFIC DATA – FORT HAMER ALTERNATIVE

Roadway	Roadway Segment	Scenario	Demand AADT	LOS C ADT	Directional Split (%)	K (%)	Posted Speed (mph)
Upper Manatee River Road/Fort Hamer Road	Waterlefe Boulevard to Winding Stream Way	Existing 2011	5,500	12,375	59	10.0	45
		Future No-Build 2035	10,600	12,375	59	10.0	
		Future Build 2035	38,900	12,375	60	10.0	
Upper Manatee River Road/Fort Hamer Road	Winding Stream Way to River Isles/Hidden Harbour Entrance	Existing 2011	300	12,375	59	10.0	45
		Future No-Build 2035	2,100	12,375	60	10.0	
		Future Build 2035	39,100	12,375	60	10.0	

TABLE 2
TRAFFIC DATA – RYE ROAD ALTERNATIVE

Roadway	Roadway Segment	Scenario	Demand AADT	LOS C ADT	Directional Split (%)	K (%)	Posted Speed (mph)
Rye Road	SR 64 to Upper Manatee River Road	Existing 2011	5,700	12,300	60	10	55
		Future No-Build 2035	10,400	12,300	60	10	55
		Future Build 2035	23,200	32,000	60	10	45
Rye Road	Upper Manatee River Road to Golf Course Road	Existing 2011	2,800	12,300	60	10	55
		Future No-Build 2035	15,500	12,300	60	10	55
		Future Build 2035	28,000	32,000	60	10	45
Golf Course Road	Rye Road to Fort Hamer Road	Existing 2009	1,700	12,300	60	10	45
		Future No-Build 2035	10,600	12,300	60	10	
		Future Build 2035	25,800	32,000	60	10	
Fort Hamer Road	Golf Course Road to US 301	Existing 2011	1,900	12,300	60	10	45
		Future No-Build 2035	10,600	12,300	60	10	
		Future Build 2035	21,900	32,000	60	10	

NOISE-SENSITIVE SITES

Noise-sensitive sites are properties where frequent human use occurs and where a lowered noise level would be of benefit. To evaluate traffic noise, the FHWA established the Noise Abatement Criteria (NAC). As shown in **Table 3**, the criteria vary according to a property's activity category.

When predicted traffic noise levels "approach" or exceed the NAC, or when predicted noise levels increase substantially, the FHWA requires that noise abatement measures be considered. The term "approach" is considered to mean within 1 dB(A) of the NAC. This criteria was used to determine impacted receptors. For a substantial increase to occur, noise levels must increase 15 or more dB(A) above existing as a direct result of the transportation improvement project.

Within the Fort Hamer Alternative, 39 noise-sensitive sites were determined to have the potential to be affected by traffic noise with the proposed improvements. The 39 sites consist of 37 residences and a park (two sites). Within the Rye Road Alternative, 181 noise-sensitive sites were determined to have the potential to be affected by traffic noise with the proposed improvements. The 181 sites consist of 175 residences, an elementary school (Gene Witt Elementary School, two sites), and a park (Rye Preserve, four sites).

TABLE 3
FHWA NOISE ABATEMENT CRITERIA

Activity Category	Description	$L_{eq(h)}$[1]
A	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.	57 dB(A) (Exterior)
B[2]	Residential	67 dB(A) (Exterior)
C[2]	Active sports 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, recreational areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.	67 dB(A) (Exterior)
D	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.	52 dB(A) (Interior)
E[2]	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.	72 dB(A) (Exterior)
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.	N/A
G	Undeveloped lands that are not permitted.	N/A

(Based on Table 1 of 23 CFR Part 772)
[1] The $L_{eq(h)}$ Activity Criteria values are for impact determination only and are not design standards for noise abatement measures. $L_{eq(h)}$ is expressed in dB(A).
[2] Includes undeveloped lands permitted for this activity category.
Note: A substantial noise increase occurs when the existing noise level is predicted to be exceeded by 15 dB(A) or more as a result of the transportation improvement project. When this occurs, the requirement for abatement consideration will be followed.

All sites were considered as Activity Category B or C, and as such exterior noise levels were evaluated.

MEASURED NOISE LEVELS

Existing and future noise levels (with and without the Proposed Action) were modeled using the TNM. To ensure that these predictions are as accurate as possible, the computer model was validated using measured noise levels at locations adjacent to the project corridors. Traffic and meteorological data including motor vehicle volumes, vehicle mix, vehicle speeds, and wind/cloud conditions were recorded during each measurement period.

The field measurements for this EIS were conducted in accordance with the FHWA's *Measurement of Highway-Related Noise*. The field measurements were obtained using a Metrosonics dB-3100. The Dosimeter was calibrated before and after each monitoring period with a Metrosonics cl-304 Calibrator.

The recorded traffic data were used as input for the TNM to determine if, given the topography and actual site conditions of the area, the computer model could "re-create" the measured levels. A noise prediction model is considered within the accepted level of accuracy if measured and predicted noise levels are within a tolerance standard of 3 dB(A).

Table 4 presents the field measurements and the validation results for the Fort Hamer Alternative. As shown, the ability of the model to accurately predict noise levels for the project was confirmed. Documentation in support of the validation is located in Appendix B.

TABLE 4
VALIDATION DATA – FORT HAMER ALTERNATIVE

Location	Measurement Period	Noise Level (dB(A))			Valid
		Modeled	Measured	Difference	
Upper Manatee River Road	1	60.0	57.9	2.1	Yes
	2	60.5	58.2	2.3	Yes
	3	59.7	58.2	1.5	Yes
Fort Hamer Road	1	45.8	48.7	-2.9	Yes
	2	46.6	48.0	-1.4	Yes
	3	47.1	48.9	-1.8	Yes

Source: URS Corporation.

Table 5 presents the field measurements and the validation results for the Rye Road Alternative. As shown, the ability of the model to accurately predict noise levels for the project was confirmed. Documentation in support of the validation is located in Appendix B.

TABLE 5
VALIDATION DATA – RYE ROAD ALTERNATIVE

Location	Measurement Period	Noise Level (dB(A))			Valid
		Modeled	Measured	Difference	
Rye Road at Country Creek	1	62.0	60.6	1.4	Yes
	2	61.7	60.6	1.1	Yes
	3	62.7	61.1	1.6	Yes
Golf Course Road west of 167th Avenue East	1	56.0	53.7	2.3	Yes
	2	56.7	54.0	2.7	Yes
	3	57.6	55.9	1.7	Yes

Source: URS Corporation.

RESULTS OF THE NOISE ANALYSIS

Table 6 details the results of the traffic noise analysis for the proposed improvements to the Fort Hamer Alternative. Since the portion of the road between Receptors 13W to 35W and at Receptor 4E is on new alignment, measured background noise levels were used to represent existing and No-Build Alternative noise levels for these receptor sites. These measured noise levels are denoted by an asterisk (*). Documentation supporting the measured background levels is included in Appendix B. Aerial maps showing the locations of the noise-sensitive receptors are included in Appendix A.

TABLE 6
EXISTING/FUTURE NO-BUILD/FUTURE BUILD NOISE LEVELS
FORT HAMER ALTERNATIVE

Receptor	Number of Residences Represented	Activity Category	Existing (2011) Levels (dB(A))	Future 2035 No-Build Levels (dB(A))	Future 2035 Build Levels (dB(A))	Increase/ Decrease Existing to Future Build	Level Approaches, Meets, or Exceeds NAC	Substantial Increase
1W	1	Residential	37.5	40.4	42.6	5.1	No	No
2W	1	Residential	38.3	41.2	43.4	5.1	No	No
3W	1	Residential	39.2	42.1	44.5	5.3	No	No
4W	1	Residential	39.5	42.3	44.8	5.3	No	No
5W	1	Residential	39.6	42.4	44.9	5.3	No	No
6W	1	Residential	41.4	44.3	46.7	5.3	No	No
7W	1	Residential	40.4	43.2	45.6	5.2	No	No
8W	1	Residential	39.7	42.6	45.1	5.4	No	No
9W	1	Residential	39.7	42.5	45	5.3	No	No
10W	1	Residential	38.9	41.8	44.3	5.4	No	No
11W	1	Residential	38.1	40.9	43.5	5.4	No	No
12W	1	Residential	47.8	50.7	52.7	4.9	No	No
13W	1	Residential	44.5*	44.5*	62	17.5	No	Yes
14W	1	Residential	44.5*	44.5*	56.5	12	No	No
15W	1	Residential	44.5*	44.5*	53.6	9.1	No	No
16W	1	Residential	44.5*	44.5*	51.8	7.3	No	No
17W	1	Residential	44.5*	44.5*	50.7	6.2	No	No
18W	1	Residential	44.5*	44.5*	48.9	4.4	No	No
19W	1	Residential	44.5*	44.5*	55.8	11.3	No	No
20W	1	Residential	44.5*	44.5*	51.5	7	No	No
21W	1	Residential	44.5*	44.5*	50	5.5	No	No
22W	1	Residential	44.5*	44.5*	48.5	4	No	No
23W	1	Residential	44.5*	44.5*	56.9	12.4	No	No
24W	1	Residential	44.5*	44.5*	54.7	10.2	No	No
25W	1	Residential	44.5*	44.5*	51.6	7.1	No	No
26W	1	Residential	44.5*	44.5*	47.3	2.8	No	No
27W	1	Residential	44.5*	44.5*	47.5	3	No	No
28W	1	Residential	44.5*	44.5*	47.6	3.1	No	No
29W	1	Residential	44.5*	44.5*	48.2	3.7	No	No
30W	1	Residential	44.5*	44.5*	49.1	4.6	No	No
31W	1	Residential	44.5*	44.5*	51.2	6.7	No	No
32W	1	Residential	44.5*	44.5*	50.7	6.2	No	No
33W	1	Residential	44.5*	44.5*	48.4	3.9	No	No
34W	1	Park	48.2*	48.2*	53	4.8	No	No
35W	1	Park	48.2*	48.2*	53.2	5	No	No
1E	1	Residential	43.2	46	48.2	5	No	No
2E	1	Residential	51.7	54.5	56.4	4.7	No	No
3E	1	Residential	54.5	57.4	51.9	2.6	No	No
4E	1	Residential	44.5*	44.5*	55.9	11.4	No	No

* Measured background level.

As shown, existing exterior traffic noise levels are predicted to range from 37.5 to 54.5 dB(A). The results of the analysis indicate that existing traffic noise levels did not approach, meet, or exceed the NAC at any of the noise-sensitive receptors.

As also shown, in the future (year 2035) without the proposed improvements (No-Build Alternative), exterior traffic noise levels are predicted to range from 40.4 to 57.4 dB(A). These levels do not approach, meet, or exceed the NAC.

Finally, with the proposed improvements (2035 Build), exterior traffic noise levels are predicted to range from 42.6 to 62.0 dB(A) at the 39 noise-sensitive sites evaluated. These levels do not approach, meet, or exceed the NAC. The results also indicate that one site (13W) is predicted to experience noise levels that substantially exceed existing noise levels (an increase of 15 dB(A) or more).

Note that traffic noise levels at Fort Hamer Park are not expected to approach, meet, or exceed NAC under the existing condition or in the future with either the two build alternatives or the No-Build Alternatives.

Table 7 details the results of the traffic noise analysis for the proposed improvements to the Rye Road Alternative. As shown, existing exterior traffic noise levels are predicted to range from 40.8 to 61.5 dB(A). The results of the analysis indicate that existing traffic noise levels did not approach, meet, or exceed the NAC at any of the noise-sensitive receptors.

TABLE 7
EXISTING (YEAR 2010) AND FUTURE (YEAR 2035) NO-BUILD AND BUILD NOISE LEVELS
RYE ROAD ALTERNATIVE

Receiver	Number of Residences Represented	Activity Category	Traffic Noise Levels (dB(A))			Increase/ Decrease Existing to Build	Build Approaches, Meets, or Exceeds NAC	Build Level Increases Substantially
			Existing (2011)	Future (2035)				
				No-Build	Build			
1	1	Residential	60.7	63.3	67.8	7.1	Yes	No
2	1	Residential	55.3	57.9	61.1	5.8	No	No
3	1	Residential	52.8	55.4	58.5	5.7	No	No
4	1	Residential	51.9	54.5	57.6	5.7	No	No
5	1	Residential	59.1	61.8	65.9	6.8	No	No
6	1	Residential	54.7	57.4	60.6	5.9	No	No
7	1	Residential	51.9	54.5	57.6	5.7	No	No
8	1	Residential	50.1	52.7	55.8	5.7	No	No
9	1	Residential	48.3	50.9	53.8	5.5	No	No
10	1	Residential	55.4	58	61.5	6.1	No	No
11	1	Residential	50.2	52.9	56.1	5.9	No	No
12	1	Residential	47.7	50.3	53.2	5.5	No	No
13	1	Residential	56.9	59.5	63.3	6.4	No	No
14	1	Residential	55	57.6	61.1	6.1	No	No
15	1	Residential	54.4	57	60.4	6	No	No
16	1	Residential	55.1	57.7	61.3	6.2	No	No

TABLE 7 (CONTINUED)
EXISTING (YEAR 2010) AND FUTURE (YEAR 2035) NO-BUILD AND BUILD NOISE LEVELS
RYE ROAD ALTERNATIVE

Receiver	Number of Residences Represented	Activity Category	Traffic Noise Levels (dB(A))			Increase/ Decrease Existing to Build	Build Approaches, Meets, or Exceeds NAC	Build Level Increases Substantially
			Existing (2011)	Future (2035)				
				No-Build	Build			
17	1	Residential	55.2	57.9	61.5	6.3	No	No
18	1	Residential	56.3	59	62.8	6.5	No	No
19	1	Residential	48.3	51	54.4	6.1	No	No
20	1	Residential	47.8	50.4	53.8	6	No	No
21	1	Residential	61.5	64.2	69	7.5	Yes	No
22	1	Residential	53.7	56.4	59.9	6.2	No	No
23	1	Residential	49.9	52.5	56.1	6.2	No	No
24	1	Residential	48.3	50.9	54.5	6.2	No	No
25	1	Residential	57.8	60.4	64.3	6.5	No	No
26	1	Residential	50.8	53.4	56.9	6.1	No	No
27	1	Residential	47.3	50	53.4	6.1	No	No
28	1	Residential	47.2	49.8	53.3	6.1	No	No
29	1	Residential	58.3	60.9	64.8	6.5	No	No
30	1	Residential	55.7	58.3	61.9	6.2	No	No
31	1	Residential	55.3	57.9	61.4	6.1	No	No
32	1	Residential	52.1	54.7	58	5.9	No	No
33	1	Residential	49	51.6	55	6	No	No
34	1	Residential	61.1	63.9	65.6	4.5	No	No
35	1	Residential	55.4	58.1	60.8	5.4	No	No
36	1	Residential	53.2	55.9	58.5	5.3	No	No
37	1	Residential	51.6	54.2	56.9	5.3	No	No
38	1	Residential	60.2	62.9	64.7	4.5	No	No
39	1	Residential	54.7	57.4	59.9	5.2	No	No
40	1	Residential	50.9	53.6	56.4	5.5	No	No
41	1	Residential	49.3	52	54.9	5.6	No	No
42	1	Residential	54.2	56.9	59.5	5.3	No	No
43	1	Residential	56.4	59.2	61.9	5.5	No	No
44	1	Residential	54.9	57.6	60.3	5.4	No	No
45	1	Residential	58.6	61.3	63.4	4.8	No	No
47	1	Residential	48.9	51.5	55.1	6.2	No	No
48	1	Residential	51.2	53.9	57.2	6	No	No
49	1	Residential	55.9	58.5	62	6.1	No	No
50	1	Residential	57.1	59.7	63.3	6.2	No	No
51	1	Residential	53.4	56	59.2	5.8	No	No
52	1	Residential	49	51.6	55	6	No	No
53	1	Residential	49	51.6	53.1	4.1	No	No
54	1	Residential	51.9	54.5	58.1	6.2	No	No
55	1	Residential	49.1	51.7	54.8	5.7	No	No
56	1	Residential	47.1	49.7	52.8	5.7	No	No
57	1	Residential	47.5	50.2	52.8	5.3	No	No
58	1	Residential	47.6	50.2	53	5.4	No	No

TABLE 7 (CONTINUED)
EXISTING (YEAR 2010) AND FUTURE (YEAR 2035) NO-BUILD AND BUILD NOISE LEVELS
RYE ROAD ALTERNATIVE

Receiver	Number of Residences Represented	Activity Category	Traffic Noise Levels (dB(A))			Increase/ Decrease Existing to Build	Build Approaches, Meets, or Exceeds NAC	Build Level Increases Substantially
			Existing (2011)	Future (2035)				
				No-Build	Build			
59	1	Residential	48.4	51	53.8	5.4	No	No
60	1	Residential	49	51.6	54.4	5.4	No	No
61	1	Residential	49.8	52.4	55.3	5.5	No	No
62	1	Residential	50.9	53.6	56.8	5.9	No	No
63	1	Residential	51.7	54.3	57.9	6.2	No	No
64	1	Residential	52.5	55.1	58.8	6.3	No	No
65	1	Residential	53.6	56.2	60.1	6.5	No	No
66	1	Residential	53.1	55.7	59.5	6.4	No	No
67	1	Residential	52.7	55.3	59	6.3	No	No
68	1	Residential	52	54.6	58.3	6.3	No	No
69	1	Residential	51.1	53.7	57.2	6.1	No	No
70	1	Residential	50	52.6	56.1	6.1	No	No
71	1	Residential	49.1	51.7	55.1	6	No	No
72	1	Residential	48.1	50.8	54.1	6	No	No
73	1	Residential	47.2	49.8	53.6	6.4	No	No
74	1	Residential	55.1	57.7	68.3	13.2	Yes	No
75	1	Residential	53	55.6	61	8	No	No
76	1	Residential	51.1	53.7	57.9	6.8	No	No
77	1	Residential	49.3	52	55.7	6.4	No	No
78	1	Residential	48.5	51.2	54.6	6.1	No	No
79	1	Residential	55.5	58.1	66.1	10.6	Yes	No
80	1	Residential	53	55.6	60.1	7.1	No	No
81	1	Residential	50	52.7	56.5	6.5	No	No
82	1	Residential	48.9	51.5	55.3	6.4	No	No
83	1	School	57.8	60.4	62.1	4.3	No	No
84	1	School	45.6	48.2	50.9	5.3	No	No
85	1	Residential	54.2	56.9	59.7	5.5	No	No
86	1	Residential	49.4	52.1	55.2	5.8	No	No
87	1	Residential	51.3	54	56.8	5.5	No	No
88	1	Residential	51.7	54.3	57.1	5.4	No	No
89	1	Residential	49.3	52	55	5.7	No	No
90	1	Residential	49.3	51.6	54.6	5.3	No	No
91	1	Residential	49.5	51.8	55.1	5.6	No	No
93	1	Residential	56.1	58.2	59.1	3	No	No
94	1	Residential	48.9	51.4	53.6	4.7	No	No
95	1	Residential	48.8	51.4	53.8	5	No	No
96	1	Residential	50.7	53.3	55.6	4.9	No	No
97	1	Residential	55.3	57.9	57.6	2.3	No	No
98	1	Residential	48.9	51.6	53.9	5	No	No
99	1	Residential	48.7	51.3	54	5.3	No	No
101	1	Residential	50.8	53.5	55.7	4.9	No	No

TABLE 7 (CONTINUED)
EXISTING (YEAR 2010) AND FUTURE (YEAR 2035) NO-BUILD AND BUILD NOISE LEVELS
RYE ROAD ALTERNATIVE

Receiver	Number of Residences Represented	Activity Category	Traffic Noise Levels (dB(A))			Increase/ Decrease Existing to Build	Build Approaches, Meets, or Exceeds NAC	Build Level Increases Substantially
			Existing (2011)	Future (2035)				
				No-Build	Build			
102	1	Residential	55.4	58.1	59.8	4.4	No	No
103	1	Residential	54.6	57.6	58.9	4.3	No	No
104	1	Residential	54.8	57.5	58.9	4.1	No	No
105	1	Residential	54.7	57.5	59	4.3	No	No
106	1	Residential	54.3	57	58.9	4.6	No	No
107	1	Residential	48.9	51.6	53.9	5	No	No
108	1	Residential	48.4	51.1	53.4	5	No	No
109	1	Residential	48.5	51.3	53.4	4.9	No	No
110	1	Residential	48.3	51	53.3	5	No	No
111	1	Residential	54.4	57.1	59.4	5	No	No
112	1	Residential	52.5	55.2	57.3	4.8	No	No
113	1	Residential	49.1	51.8	54.3	5.2	No	No
114	1	Residential	47.4	50.1	52.7	5.3	No	No
115	1	Residential	49.4	52.1	56.2	6.8	No	No
116	1	Park	57.7	62.5	62.8	5.1	No	No
117	1	Park	59.5	64.8	64.7	5.2	No	No
118	1	Park	53.7	61.2	62.2	8.5	No	No
119	1	Park	46.5	54.2	55.2	8.7	No	No
121	1	Residential	56.4	62.5	64.7	8.3	No	No
122	2	Residential	58.1	64.3	67.2	9.1	Yes	No
123	1	Residential	59	65.3	68.8	9.8	Yes	No
124	1	Residential	59.3	65.4	68.6	9.3	Yes	No
125	1	Residential	59.5	65.6	68.8	9.3	Yes	No
126	1	Residential	51.5	57.7	59.6	8.1	No	No
127	1	Residential	44.9	51.4	54	9.1	No	No
128	1	Residential	53.9	60.4	61.7	7.8	No	No
129	1	Residential	49.9	56.5	59.8	9.9	No	No
130	1	Residential	55.9	62.5	66.6	10.7	Yes	No
131	1	Residential	52.3	58.7	61.9	9.6	No	No
132	1	Residential	51.9	58.4	61.6	9.7	No	No
133	1	Residential	48.4	55	57	8.6	No	No
134	1	Residential	48.5	55	56.7	8.2	No	No
135	1	Residential	51.6	58.1	58.7	7.1	No	No
136	1	Residential	50.1	56.6	57.6	7.5	No	No
137	1	Residential	52.2	58.7	59.4	7.2	No	No
138	1	Residential	47.9	54.5	56.7	8.8	No	No
139	1	Residential	46.1	52.6	55.1	9	No	No
140	1	Residential	50.1	56.7	58.7	8.6	No	No
141	1	Residential	46.9	53.6	56.4	9.5	No	No
142	1	Residential	48	54.6	57.3	9.3	No	No
143	1	Residential	49.2	55.9	58.6	9.4	No	No

TABLE 7 (CONTINUED)
EXISTING (YEAR 2010) AND FUTURE (YEAR 2035) NO-BUILD AND BUILD NOISE LEVELS
RYE ROAD ALTERNATIVE

Receiver	Number of Residences Represented	Activity Category	Traffic Noise Levels (dB(A))			Increase/ Decrease Existing to Build	Build Approaches, Meets, or Exceeds NAC	Build Level Increases Substantially
			Existing (2011)	Future (2035)				
				No-Build	Build			
144	1	Residential	52.2	59.4	63.1	10.9	No	No
145	1	Residential	50.5	57.1	54.1	3.6	No	No
146	1	Residential	47.1	54.5	58.4	11.3	No	No
147	1	Residential	45.2	52.9	58.2	13	No	No
148	1	Residential	49	56.9	63.7	14.7	No	No
149	1	Residential	50.4	58.3	64.8	14.4	No	No
150	1	Residential	49.3	57.2	62.9	13.6	No	No
151	1	Residential	42.6	50.4	56	13.4	No	No
152	1	Residential	46.7	54.6	60.7	14	No	No
153	1	Residential	42.7	50.6	56.4	13.7	No	No
154	1	Residential	48.4	56.4	63.4	15	No	Yes
155	1	Residential	45.2	53.2	60.1	14.9	No	No
156	1	Residential	40.8	48.7	52.9	12.1	No	No
157	1	Residential	51.8	59.7	63.4	11.6	No	No
158	1	Residential	52.9	60.8	64.9	12	No	No
159	1	Residential	50.1	58	61.7	11.6	No	No
160*	1	Commercial	54.8	62.7	66.2	11.4	N/A	N/A
161*	1	Commercial	57.9	65.8	69.2	11.3	N/A	N/A
162	1	Residential	51	58.9	65.1	14.1	No	No
163	1	Residential	49.7	57.7	64.8	15.1	No	Yes
164	1	Residential	42.8	50.7	56.1	13.3	No	No
165	1	Residential	52.7	60.7	62.8	10.1	No	No
166	1	Residential	46.3	54.2	57.2	10.9	No	No
167	1	Residential	45.2	49.6	53.8	8.6	No	No
168	1	Residential	45.2	53.1	57.9	12.7	No	No
169	1	Residential	46.9	54.6	58	11.1	No	No
170	1	Residential	52.6	60.2	58.8	6.2	No	No
171	1	Residential	55.3	62.8	63.4	8.1	No	No
172	1	Residential	47.2	54.8	64.7	17.5	No	Yes
173	1	Residential	47.4	55.1	57.8	10.4	No	No
174	1	Residential	53.2	60.8	57.9	4.7	No	No
175	1	Residential	46.4	54	62.9	16.5	No	Yes
176	1	Residential	44.3	52	56.6	12.3	No	No
177	1	Residential	51.9	59.4	55.1	3.2	No	No
178	1	Residential	50.1	57.7	60.4	10.3	No	No
179	1	Residential	52	59.6	61.1	9.1	No	No
180	1	Residential	53.1	60.7	61.8	8.7	No	No
181	1	Residential	51.9	59.5	58.7	6.8	No	No
182	1	Residential	45.2	52.8	56.7	11.5	No	No
183	1	Residential	52.3	59.9	66.1	13.8	Yes	No
184	1	Residential	48.4	56.1	56	7.6	No	No

TABLE 7 (CONTINUED)
EXISTING (YEAR 2010) AND FUTURE (YEAR 2035) NO-BUILD AND BUILD NOISE LEVELS
RYE ROAD ALTERNATIVE

Receiver	Number of Residences Represented	Activity Category	Traffic Noise Levels (dB(A))			Increase/ Decrease Existing to Build	Build Approaches, Meets, or Exceeds NAC	Build Level Increases Substantially
			Existing (2011)	Future (2035)				
				No-Build	Build			
185	1	Residential	46.2	53.8	57.3	11.1	No	No
186	1	Residential	43.4	51.1	59.9	16.5	No	Yes

* These sites were identified as vacant commercial landscape/nursery structures, and as such, were not evaluated for noise abatement measures.

As also shown, in the future (year 2035) without the proposed improvements (No-Build Alternative), exterior traffic noise levels are predicted to range from 48.2 to 65.6 dB(A), none of which approach, meet, or exceed the NAC.

Results for the design (year 2035) Rye Road Alternative indicate that exterior noise levels are predicted to range from 52.7 to 69.2 dB(A) at 183 noise-sensitive sites with levels predicted to approach, meet, or exceed the NAC at 13 noise-sensitive sites. As indicated in Table 7, Sites 160 and 161, that exceeded NAC, were field verified and identified as abandoned commercial landscape/nursery structures. As such, these sites were not evaluated for noise abatement. Of the remaining 11 impacted sites, two are residences in Mill Creek subdivision (Sites 1 and 21), two are residences in Country Creek (Sites 74 and 79), five are residences in Rye Acres (Sites 122-125), and two are considered scattered residences (Sites 130 and 183). Additionally, traffic noise levels for five noise-sensitive sites (Sites 154, 163, 172, 175, and 186) are predicted to increase substantially as a result of the Rye Road Alternative. All are scattered single-family residences.

Note that traffic noise levels at Rye Preserve are not expected to approach, meet, or exceed NAC under the existing condition or in the future with either of the two build alternatives or the No-Build Alternative.

Aerial maps showing the locations of the noise-sensitive receptors are included in Appendix A.

EVALUATION OF NOISE ABATEMENT ALTERNATIVES

The FHWA requires that noise abatement measures be considered when predicted traffic noise levels approach or exceed the NAC. The measures considered for the FHWA's Fort Hamer Bridge PD&E Study were traffic management, alternative roadway alignment, buffer zones, and noise barriers. The following discusses the feasibility (e.g., amount of noise reduction, engineering considerations) and reasonableness (e.g., number of noise-sensitive sites benefited, absolute noise levels, cost, etc.) of the measures.

Traffic Management

Traffic management measures that limit motor vehicle speeds and reduce volumes can be effective noise mitigation measures. However, these measures also negate a project's ability to accommodate forecast traffic volumes. For example, if the posted speed were reduced, the capacity of the roadway to handle the forecast motor vehicle demand would also be reduced. Therefore, reducing traffic speeds and/or traffic volumes is inconsistent with the goal of improving the ability of the roadway to handle the forecast volumes. Although feasible, traffic management measures are not considered a reasonable noise mitigation measure for the project.

Alternative Roadway Alignment

The proposed alignment seeks to minimize the need for additional right-of-way (ROW) within the project corridor. Maintaining the alignment within the existing ROW, where feasible, will minimize impacts to surrounding noise-sensitive sites located both east and west of the roadway.

Noise Buffer Zones

Providing a buffer between a roadway and future noise-sensitive land uses is an abatement measure that can minimize/eliminate noise impacts in areas of future development. To encourage use of this abatement measure through local land use planning, noise contours have been developed and are further discussed under the Noise Contours section at the end of this report.

Noise Barriers

Noise barriers have the potential to reduce noise levels by blocking the sound path between the motor vehicles on the roadway (the source) and the noise-sensitive sites adjacent to the roadway. To be effective in reducing traffic noise, a noise barrier must be relatively long, continuous (without intermittent openings), and sufficiently tall to provide the necessary reduction in noise levels. In order for a barrier to be considered both feasible and reasonable, the barrier should:

1. Provide a minimum insertion loss (IL) or noise reduction of 5 dB(A) with a design goal of 7 dB(A) or more being desirable,

2. Cost no more than $42,000 per benefited receptor (a benefited receptor is a site that receives at least a 5 dB(A) reduction in noise from the barrier), and

3. Benefit at least two impacted noise sensitive receptors, with one or more meeting the design goal of 7 dB(A).

The current estimated cost to construct a noise barrier (materials and labor) is $30.00 per square foot.

Feasibility factors that relate to noise barriers include driver/pedestrian sight distance (safety), ingress and egress requirements to and from affected properties, ROW requirements including

access rights and easements for construction and/or maintenance, impacts on existing/planned utilities, and drainage.

After considering the amount of reduction that may be provided and the cost reasonableness, additional factors must also be considered when evaluating a noise barrier as a potential noise abatement measure. These factors address both the feasibility of a barrier (given site-specific details, can a barrier actually be constructed) and the reasonableness of a barrier.

Reasonableness factors can include:

- The relationship of the predicted future noise levels to the NAC (do the predicted levels approach, meet, or far surpass the NAC);
- Land use stability (are the noise-sensitive land uses likely to remain for an indefinite period of time);
- Antiquity (the amount of development that has occurred before and after the initial construction of a roadway);
- The desires of the affected property owners to have a noise barrier adjacent to their property; and
- Aesthetics.

NOISE BARRIER ANALYSIS

The TNM (Version 2.5) was used to evaluate the effectiveness of noise barriers to reduce traffic noise levels at the affected noise-sensitive sites. The noise barrier lengths were optimized to maintain at least a 5 dB(A) reduction at the affected receivers while reducing excess barrier length.

As previously stated, during the year 2035 with the proposed improvements (the two build alternatives), noise levels are predicted to approach, meet or exceed the NAC at 11 sites (along the Rye Road Alternative), and traffic noise levels are predicted to increase substantially at six noise-sensitive sites (one on the Fort Hamer Alternative and five on the Rye Road Alternative). The following discusses the feasibility and reasonableness of providing noise barriers for the 17 affected noise-sensitive sites.

Fort Hamer Road Alternative

As previously stated, traffic noise levels are not predicted to approach, meet, or exceed the NAC at any of the noise-sensitive sites along the Fort Hamer Alternative. One noise-sensitive site was predicted to experience a substantial increase in traffic noise levels – Receptor 13W located on Winding Stream Way at the back entrance into the Waterlefe subdivision. However, in order for a noise barrier to be considered feasible, two or more impacted receptors must achieve a 5 dB(A) or greater reduction. No other receptors are impacted; therefore, a noise barrier is not considered a feasible noise abatement measure at this location.

Rye Road Alternative

As previously stated, during the design year 2035 for the Rye Road Alternative, traffic noise levels are predicted to approach, meet, or exceed the NAC at 11 sites, of which 10 sites are located along Rye Road and the remaining site is on Fort Hamer Road. In addition, traffic noise levels are predicted to increase substantially at five noise-sensitive sites, two on Golf Course Road, and three on Fort Hamer Road. Barriers were not modeled for Receptors 1, 21, 74, 79, 130, 154, 163, 172, 175, 183, and 186 because they are single impacted receptors (no other nearby receptors are impacted) and, as such, barriers are not considered reasonable. One noise barrier was analyzed for the Rye Road Alternative, at Rye Acres.

Barrier 1E: Residences at Rye Acres Subdivision

Barrier 1E was evaluated for the five affected residences (Receptors 122-125) located in the Rye Acres subdivision along the east side of Rye Road approximately 1 mile south of Golf Course Road. Receptor 122 represents two residences. The predicted future noise levels are as follows: Receptor 122 - 67.2 dB(A) (two sites), Receptor 123 - 68.8 dB(A), Receptor 124 - 68.6 dB(A), and Receptor 125 - 68.8 dB(A). A noise barrier was evaluated located 5 feet inside the east ROW line for Rye Road. The length of the barrier was optimized within the TNM in an attempt to provide at least 5 dBA of traffic noise reduction and to meet the design goal of at least 7 dB(A) of traffic noise reduction for at least two of the affected residences. The height of the barrier was evaluated from 8 to 22 feet in 2-foot increments.

The affected residences are located somewhat closely together facing the highway with driveways opening directly on the highway. As such, the barrier included openings for these driveways, which reduced the overall effectiveness of the barrier.

The results of Barrier 1E are provided in **Table 8**. As shown, the desired goal of reducing predicted traffic noise levels by 7 dB(A) or more could be achieved for a wall height of 16 feet at the two sites designated as Receptor 122. One additional receptor, Receptor 121, received a benefit of 5.5 dB(A). At a height of 16 feet, the total cost to construct the barrier is $546,232 and the cost per benefitted receptor is $136,558. The cost per benefitted receiver greatly exceeds the cost reasonable guideline, therefore, Barrier Rye 1E is not considered reasonable.

TABLE 8
BARRIER 1E: RESIDENCES AT RYE ACRES SUBDIVISION
(SITES 121-125)

Barrier Height (ft)	Affected Residences with Insertion Loss of (dB(A))						Number of Benefited Residences			Total Estimated Cost**	Cost Per Benefited Residence	Cost Reasonable Yes/No
	5	6	7	8	9	10 or >	Affected	Other*	Total			
8	0	0	0	0	0	0	0	0	0	NA	NA	No
10	1	2	0	0	0	0	3	0	3	$341,395	$113,798	No
12	2	2	0	0	0	0	3	1	4	$409,674	$102,419	No
14	1	3	0	0	0	0	3	1	4	$477,953	$119,488	No
16	1	1	2	0	0	0	3	1	4	$546,232	$136,558	No
18	1	1	2	0	0	0	3	1	4	$614,511	$153,628	No
20	1	1	2	0	0	0	3	1	4	$682,790	$170,698	No
22	1	1	2	0	0	0	3	1	4	$751,069	$187,767	No

*Other = Receivers determined to be unaffected by the Build Alternative (traffic noise levels less than 66 dB(A), but benefited by the noise barrier.
**Current FDOT estimated cost to construct a noise barrier (materials and labor) is $30.00 per square foot.

An aerial photograph showing the modeled noise barrier location at Rye Acres is included in Appendix A.

SUMMARY OF NOISE BARRIER ANALYSIS

Although feasible, traffic management, alternative roadway alignments, and noise buffer zones were determined to be unreasonable methods to reduce the predicted traffic noise impacts for the 17 impacted sites. Noise barriers were evaluated to determine if barriers would be a feasible and reasonable noise abatement measure. One barrier was analyzed for the five impacted noise-sensitive sites at Rye Acres. The results of the analysis indicate that construction of the noise barrier appears feasible, however, the barrier is not considered reasonable. The effectiveness of the barrier was affected due to required property access (driveways) and the cost per benefitted receptor greatly exceeded the cost reasonable guideline.

Based on the noise analyses performed to date, there appears to be no apparent solutions available to mitigate the noise impacts at the locations identified previously in Tables 6 and 7.

CONSTRUCTION NOISE AND VIBRATION

Construction of roadway improvements may have a temporary impact on noise-sensitive sites adjacent to the project corridor. Trucks, earth moving equipment, pumps, and generators are construction noise and vibration sources. Construction noise and vibration impacts will be minimized by adherence to best management practices and current standard specifications for road and bridge construction. Special provisions can be included in the construction contract that relate to the control of noise.

NOISE CONTOURS

Land uses such as residences, schools, churches, auditoriums, recreation areas, and parks are considered incompatible with highway noise levels above 66 dB(A). In order to reduce the possibility of additional noise related impacts, noise level contours were developed for the future improved roadway facility. These noise contours delineate the distance from the improved roadway's edge-of-travel lane to where the 66 dB(A) (based on FHWA Activity Categories B and C) is expected to occur in the year 2035 with the proposed improvements.

As shown in **Table 9** and **Figure 2**, from Waterlefe Boulevard to River Isles Run entrance along the Fort Hamer Alternative, the 66 dB(A) noise level extends 56 feet from the improved roadway's edge-of-travel lane. As also shown in Table 9 and Figure 2, along the Rye Road Alternative the 66 dB(A) noise level extends from 69 to 86 feet from the improved roadway's edge-of-travel lane.

TABLE 9
NOISE CONTOURS

Roadway Segment	Distance to 66 dB(A)* – Feet From Edge-of-Travel Lane
Fort Hamer Alternative	
Waterlefe Boulevard to River Isles Run	**56**
Rye Road Alternative	
SR 64 to Upper Manatee River Road	**73**
Upper Manatee River Road to Golf Course Road	**86**
Golf Course Road from Rye Road to Fort Hamer Road	**80**
Fort Hamer Road from Golf Course Road to US 301	**69**

* Distances do not reflect any reduction in noise levels that would result from existing structures (shielding).

FIGURE 2
PREDICTED NOISE CONTOURS

	Roadway Segment	Distance to 66 dB(A)* Feet from Edge-of-Travel Lane
	Fort Hamer Alternative	
A	Waterlefe Boulevard to River Isles Run	56
	Rye Road Alternative	
B	SR 64 to Upper Manatee River Road	73
C	Upper Manatee River Road to Golf Course Road	86
D	Golf Course Road from Rye Road to Fort Hamer Road	80
E	Fort Hamer Road from Golf Course Road to US 301	69

* Distances do not reflect any reduction in noise levels that would result from existing structures (shielding).

APPENDIX A

AERIAL CONCEPT PLANS

Segment 1 (From SR 64 to Waterlefe Boulevard) | Segment 2 (From North of Waterlefe Boulevard to Old Tampa Road)

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	MANATEE	199668 1 22 01

FORT HAMER BRIDGE NEPA STUDY
MANATEE RIVER ROAD/FORT HAMER ROAD ALTERNATIVE
From S.R. 64 to U.S. 301

SHEET NO. 4

$DATE$ $TIME$ $FILE$

Segment 2 (From Waterlefe Boulevard to Old Tampa Road)

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

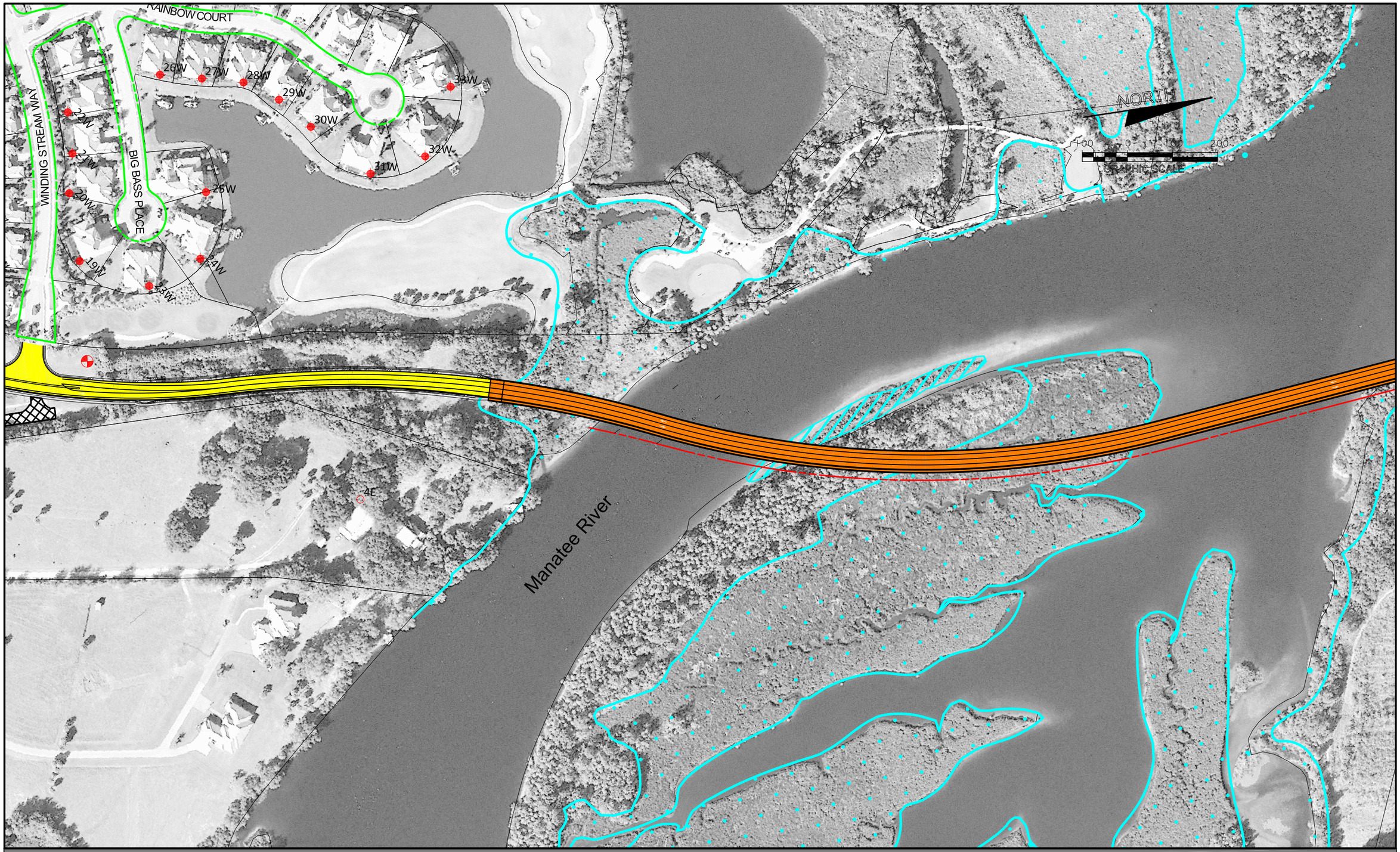
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	MANATEE	199668 1 22 01

FORT HAMER BRIDGE NEPA STUDY
MANATEE RIVER ROAD/FORT HAMER ROAD ALTERNATIVE
From S.R. 64 to U.S. 301

SHEET NO. 5

$DATE$ $TIME$ $FILE$



Segment 2 (From Waterlefe Boulevard to Old Tampa Road)

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	MANATEE	199668 1 22 01

FORT HAMER BRIDGE NEPA STUDY
MANATEE RIVER ROAD/FORT HAMER ROAD ALTERNATIVE
From S.R. 64 to U.S. 301

SHEET NO. 6

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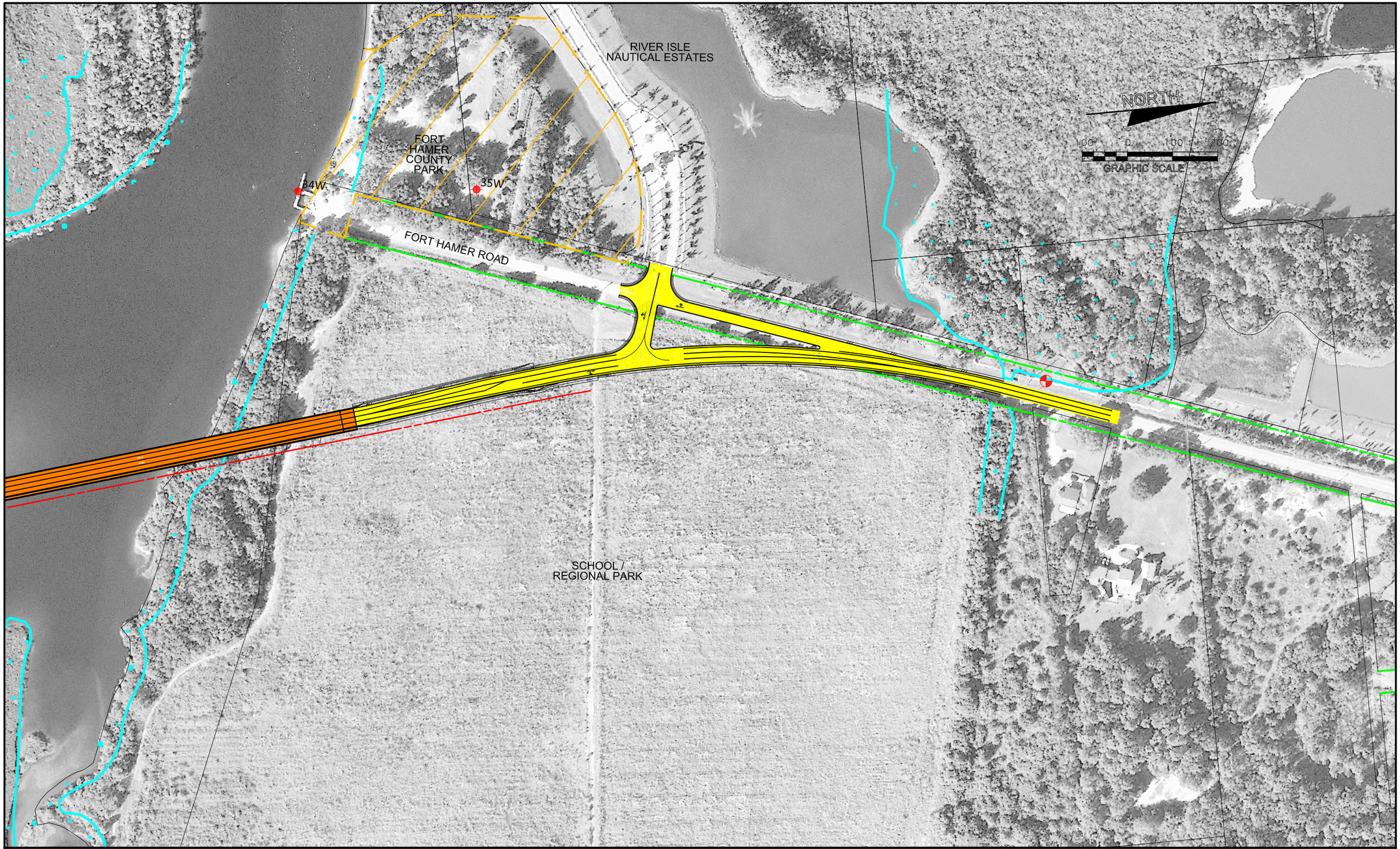

Segment 2 (From Waterlefe Boulevard to Old Tampa Road)

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	MANATEE	199668 1 22 01

FORT HAMER BRIDGE NEPA STUDY

MANATEE RIVER ROAD/FORT HAMER ROAD ALTERNATIVE

From S.R. 64 to U.S. 301

SHEET NO. 7

$DATE$ $TIME$ $FILE$

APPENDIX B

TNM OUTPUT

<<< TABULAR TIME HISTORY REPORT FROM FILE 2356FH >>> Temp 72
RH 65%
Test Location..... Ft Hamer Rd - North of River Wilderness entrance Winds NE 10
Employee Name.....bo/vs
Employee Number...
Department.....
Comment.....

Calibrator Type & Serial MS 3100 #...2356
Calibrator Calibration Date.. 10/6/2010

METROSOI db-3100 SN 2356 V1.7
REPORT PRINTED 10/7/2010 AT 10:48:16
OF PERIODS: 179 MODE: CONTINUOUS
PERIOD LENGTH: 0:00:10
TIME HISTORY CUTOFF: NONE
Ln(1): 10.00% Ln(2): 90.00%

DATE: 10/7/2010

INT	TIME	Lav	energy	Lmx	L1	L2
Start AM Run						
122	10:23:10	47.4	54954.09	47.6	47	47
123	10:23:20	47.8	60255.96	48.4	48	47
124	10:23:30	49.2	83176.38	54.3	51	47
125	10:23:40	58.7	741310.2	64.2	63	48
126	10:23:50	47.6	57543.99	47.9	47	47
127	10:24:00	47.8	60255.96	47.9	47	47
128	10:24:10	47.5	56234.13	47.8	47	47
129	10:24:20	47.3	53703.18	47.5	47	47
130	10:24:30	47.2	52480.75	47.3	47	47
131	10:24:40	47.1	51286.14	47.2	47	47
132	10:24:50	47.2	52480.75	47.6	47	47
133	10:25:00	47.3	53703.18	47.6	47	47
134	10:25:10	47.3	53703.18	47.6	47	47
135	10:25:20	47.7	58884.37	48.6	48	47
136	10:25:30	48.1	64565.42	49.8	49	47
137	10:25:40	47.5	56234.13	47.9	47	47
138	10:25:50	50.3	107151.9	57	53	47
139	10:26:00	53.2	208929.6	58.3	57	47
140	10:26:10	47.2	52480.75	47.5	47	47
141	10:26:20	47.1	51286.14	47.2	47	47
142	10:26:30	47.1	51286.14	47.2	47	47
143	10:26:40	47.1	51286.14	47.2	47	47
144	10:26:50	47.3	53703.18	47.6	47	47
145	10:27:00	47.3	53703.18	47.6	47	47
146	10:27:10	49	79432.82	50.9	50	47
147	10:27:20	47.9	61659.5	48.4	48	47
148	10:27:30	51.2	131825.7	54	53	48
150	10:27:50	50.4	109647.8	56.9	53	47
151	10:28:00	47.3	53703.18	47.6	47	47
152	10:28:10	47.2	52480.75	47.4	47	47
153	10:28:20	47.5	56234.13	47.8	47	47
154	10:28:30	47.5	56234.13	47.9	47	47
155	10:28:40	47.4	54954.09	47.8	47	47
156	10:28:50	47.4	54954.09	47.6	47	47
157	10:29:00	47.4	54954.09	47.6	47	47
158	10:29:10	47.4	54954.09	47.5	47	47
159	10:29:20	47.2	52480.75	47.4	47	47
160	10:29:30	47.2	52480.75	47.4	47	47
161	10:29:40	47.2	52480.75	47.4	47	47

162	10:29:50	47.1	51286.14	47.2	47	47	
163	10:30:00	47.2	52480.75	47.3	47	47	
164	10:30:10	47.1	51286.14	47.2	47	47	
165	10:30:20	47.1	51286.14	47.2	47	47	
166	10:30:30	47.1	51286.14	47.2	47	47	
167	10:30:40	47.2	52480.75	47.7	47	47	
168	10:30:50	47.2	52480.75	47.4	47	47	
169	10:31:00	47.3	53703.18	47.4	47	47	
170	10:31:10	47.3	53703.18	47.4	47	47	
171	10:31:20	47.2	52480.75	47.4	47	47	
172	10:31:30	47.1	51286.14	47.2	47	47	
173	10:31:40	47.1	51286.14	47.6	47	47	
174	10:31:50	47	50118.72	47.1	47	46	
175	10:32:00	47.6	57543.99	48	47	47	
176	10:32:10	48	63095.73	48.3	48	47	
177	10:32:20	48	63095.73	48.3	48	47	
178	10:32:30	47.8	60255.96	48.1	47	47	
179	10:32:40	48	63095.73	49.4	48	47	
End AM Run			48.7	64.2			yes
Start PM Run							
2	16:05:39	48.1	64565.42	52.2	49	45	
3	16:05:49	46.8	47863.01	48.7	48	45	
4	16:05:59	45.8	38018.94	47.4	46	45	
5	16:06:09	45.4	34673.69	46.1	45	45	
6	16:06:19	45.3	33884.42	45.5	45	45	
7	16:06:29	45.3	33884.42	45.5	45	45	
8	16:06:39	45.2	33113.11	45.4	45	45	
9	16:06:49	45.6	36307.81	47.5	46	45	
10	16:06:59	47	50118.72	49.2	48	45	
11	16:07:09	45.3	33884.42	45.5	45	45	
12	16:07:19	45.5	35481.34	45.8	45	45	
13	16:07:29	45.6	36307.81	45.8	45	45	
14	16:07:39	45.8	38018.94	47.3	46	45	
15	16:07:49	45.6	36307.81	46.7	46	45	
16	16:07:59	48.2	66069.34	51.1	50	46	
17	16:08:09	46.1	40738.03	46.5	46	45	
18	16:08:19	51.6	144544	56.2	55	46	
19	16:08:29	49.4	87096.36	52.2	50	47	
20	16:08:39	46.2	41686.94	48.2	47	45	
21	16:08:49	45.8	38018.94	46.2	46	45	
22	16:08:59	45.7	37153.52	46.4	45	45	
23	16:09:09	45.5	35481.34	45.7	45	45	
24	16:09:19	45.7	37153.52	46.3	46	45	
25	16:09:29	45.4	34673.69	45.6	45	45	
26	16:09:39	45.8	38018.94	47.5	47	45	
27	16:09:49	45.5	35481.34	46.6	46	45	
28	16:09:59	45.2	33113.11	45.4	45	45	
29	16:10:09	45.4	34673.69	45.6	45	45	
30	16:10:19	45.3	33884.42	45.5	45	45	
31	16:10:29	45.5	35481.34	45.9	45	45	
32	16:10:39	45.5	35481.34	46	45	45	
33	16:10:49	45.3	33884.42	45.5	45	45	
34	16:10:59	45.6	36307.81	45.7	45	45	
35	16:11:09	45.6	36307.81	45.9	45	45	
36	16:11:19	45.7	37153.52	46.1	45	45	
37	16:11:29	45.7	37153.52	45.9	45	45	
38	16:11:39	45.6	36307.81	46.4	46	45	
39	16:11:49	45.7	37153.52	46.5	46	45	
40	16:11:59	46.1	40738.03	46.7	46	45	
41	16:12:09	47	50118.72	49.5	48	45	
42	16:12:19	48	63095.73	50.2	49	46	
43	16:12:29	47.7	58884.37	49.2	48	46	

44	16:12:39	47.9	61659.5	49.2	48	47	
47	16:13:09	45.9	38904.51	48	47	45	
48	16:13:19	45.3	33884.42	45.5	45	45	
49	16:13:29	45.4	34673.69	45.6	45	45	
50	16:13:39	45.5	35481.34	45.6	45	45	
51	16:13:49	46.3	42657.95	47.9	47	45	
52	16:13:59	46.9	48977.88	48.2	47	45	
53	16:14:09	45.5	35481.34	45.9	45	45	
54	16:14:19	45.4	34673.69	45.9	45	45	
55	16:14:29	45.5	35481.34	45.7	45	45	
56	16:14:39	45.9	38904.51	46.4	46	45	
57	16:14:49	47.1	51286.14	50	47	46	
58	16:14:59	54	251188.6	64.5	57	47	
59	16:15:09	60.1	1023293	67.1	65	46	
60	16:15:19	46.2	41686.94	47.1	46	45	
61	16:15:29	45.6		45.8	45	45	
End PM Run			48.0	67.1			yes
Start PM Run 2							
62	16:15:39	45.6	36307.81	45.8	45	45	
63	16:15:49	45.7	37153.52	46.4	46	45	
64	16:15:59	46.1	40738.03	47	46	45	
65	16:16:09	46	39810.72	47.1	46	45	
66	16:16:19	45.5	35481.34	46	45	45	
67	16:16:29	45.5	35481.34	45.8	45	45	
68	16:16:39	45.4	34673.69	45.8	45	45	
69	16:16:49	45.4	34673.69	45.6	45	45	
70	16:16:59	45.2	33113.11	45.4	45	45	
71	16:17:09	45.2	33113.11	45.5	45	45	
72	16:17:19	45.4	34673.69	45.7	45	45	
73	16:17:29	45.3	33884.42	45.8	45	45	
74	16:17:39	45.4	34673.69	45.9	45	45	
75	16:17:49	45.5	35481.34	46.1	45	45	
76	16:17:59	45.2	33113.11	45.5	45	45	
77	16:18:09	45.3	33884.42	45.7	45	45	
78	16:18:19	45.1	32359.37	45.3	45	45	
79	16:18:29	45.3	33884.42	45.7	45	45	
80	16:18:39	45.4	34673.69	45.7	45	45	
81	16:18:49	45.4	34673.69	45.6	45	45	
82	16:18:59	45.4	34673.69	45.6	45	45	
83	16:19:09	45.4	34673.69	45.7	45	45	
84	16:19:19	45.4	34673.69	45.8	45	45	
85	16:19:29	45.4	34673.69	45.5	45	45	
86	16:19:39	46.9	48977.88	49.8	48	45	
87	16:19:49	48	63095.73	50.8	49	45	
88	16:19:59	45.5	35481.34	45.9	45	45	
89	16:20:09	45.4	34673.69	45.6	45	45	
90	16:20:19	45.5	35481.34	45.8	45	45	
91	16:20:29	45.3	33884.42	45.4	45	45	
92	16:20:39	45.4	34673.69	45.7	45	45	
93	16:20:49	50	100000	51.6	51	46	
94	16:20:59	52.2	165958.7	52.7	52	51	
95	16:21:09	48.9	77624.71	52.7	52	45	
96	16:21:19	46	39810.72	46.4	46	45	
97	16:21:29	47.2	52480.75	48.4	48	46	
98	16:21:39	47.4	54954.09	48.6	48	46	
99	16:21:49	58.4	691831	64.2	63	49	
100	16:21:59	46.7	46773.51	49.4	48	45	
101	16:22:09	45.3	33884.42	45.6	45	45	
102	16:22:19	45.6	36307.81	45.9	45	45	
103	16:22:29	45.6	36307.81	45.8	45	45	
104	16:22:39	45.4	34673.69	45.6	45	45	
105	16:22:49	45.7	37153.52	46.1	45	45	

	106	16:22:59	45.5	35481.34	46.1	45	45	
	107	16:23:09	45.2	33113.11	45.4	45	45	
	108	16:23:19	45.3	33884.42	45.5	45	45	
	109	16:23:29	45.4	34673.69	45.5	45	45	
	110	16:23:39	45.4	34673.69	45.6	45	45	
	111	16:23:49	45.3	33884.42	45.4	45	45	
	112	16:23:59	45.4	34673.69	45.6	45	45	
	113	16:24:09	45.7	37153.52	46.3	46	45	
	114	16:24:19	46.1	40738.03	46.6	46	45	
	115	16:24:29	47	50118.72	47.6	47	46	
	116	16:24:39	46.5	44668.36	47.4	47	45	
	117	16:24:49	61.8	1513561	67.7	66	48	
	118	16:24:59	49.6	91201.08	56.6	53	46	
	119	16:25:09	45.6	36307.81	46.2	46	45	
	120	16:25:19	45.3	33884.42	45.5	45	45	
	121	16:25:29	45.3	33884.42	45.5	45	45	
End PM Run 2				48.9	67.7			yes

<<< TABULAR TIME HISTORY REPORT FROM FILE 2356UMRF >>>

Test Location.....Upper Manatee River Rd north of Waterlefe entrance
Employee Name.....od/vs
Employee Number...
Department.....
Comment.....

Calibrator Type & Serial MS31000 #...2356
Calibrator Calibration Date.. ########

METROSOI db-3100 SN 2356 V1.7
REPORT PRINTED ######## AT 15:18:15
OF PERIODS: 545 MODE: CONTINUOUS
PERIOD LENGTH: 0:00:10
TIME HISTORY CUTOFF: NONE
Ln(1): 10.00% Ln(2): 90.00%

DATE: ########

INT	TIME	Lav	Lmx	L1	L2
1	9:57:04	58.2	61.9	61	51

DATE: ########

INT	TIME	Lav	energy	Lmx	L1	L2	UMRR
180	12:22:17	55.2	331131.1	60	59	49	
181	12:22:27	51	125892.5	58.6	55	41	
182	12:22:37	39.9	9772.372	43.7	41	39	
183	12:22:47	43.2	20892.96	46.2	45	40	
184	12:22:57	57.9	616595	60.4	59	50	
185	12:23:07	53.1	204173.8	58.7	58	45	
186	12:23:17	58.3	676083	60.7	60	45	
187	12:23:27	50.8	120226.4	57.7	55	44	
188	12:23:37	58.1	645654.2	63.1	62	52	
189	12:23:47	57.9	616595	62.6	61	48	
190	12:23:57	46.3	42657.95	54.7	48	43	
191	12:24:07	54.9	309029.5	59.7	59	42	
192	12:24:17	40.2	10471.29	41.4	40	39	
193	12:24:27	54.5	281838.3	60.6	60	42	
194	12:24:37	56.4	436515.8	63.5	59	49	
195	12:24:47	61.9	1548817	65.6	65	49	
196	12:24:57	43.1	20417.38	46.8	45	41	
197	12:25:07	54.4	275422.9	58.2	57	47	
198	12:25:17	56.4	436515.8	59	58	52	
199	12:25:27	56.5	446683.6	59	58	48	
200	12:25:37	46	39810.72	53.1	49	41	
201	12:25:47	56.3	426579.5	59.9	59	47	
202	12:25:57	41	12589.25	45.3	43	39	
203	12:26:07	39.6	9120.108	40.7	40	39	

	204	12:26:17	45.2	33113.11	52.3	49	40	
	205	12:26:27	58.8	758577.6	63.3	62	52	
	206	12:26:37	62.4	1737801	69.4	69	48	
	207	12:26:47	64.9	3090295	69.1	67	55	
	208	12:26:57	58.9	776247.1	63.7	63	52	
	209	12:27:07	56.2	416869.4	59.5	58	51	
	210	12:27:17	47.8	60255.96	54.4	52	43	
	211	12:27:27	58.4	691831	63.6	63	45	
	212	12:27:37	51.5	141253.8	58.5	56	43	
	213	12:27:47	56	398107.2	61.3	60	46	
	214	12:27:57	50.7	117489.8	59.1	55	43	
	215	12:28:07	53.8	239883.3	59.4	58	47	
	216	12:28:17	59.6	912010.8	64.4	63	49	
	217	12:28:27	47	50118.72	52.2	48	44	
	218	12:28:37	56.7	467735.1	59.1	58	52	
	219	12:28:47	67.7	5888437	73	72	51	
	220	12:28:57	65.6	3630781	70	68	53	
	221	12:29:07	45.6	36307.81	50.5	48	42	
	222	12:29:17	42.3	16982.44	44.1	43	41	
	223	12:29:27	41.1	12882.5	42.9	42	39	
	224	12:29:37	41.6	14454.4	43.6	42	39	
	225	12:29:47	42.4	17378.01	44.8	43	41	
	226	12:29:57	56.8	478630.1	60.7	60	41	
	227	12:30:07	57.9	616595	59.8	59	55	
	228	12:30:17	49.2	83176.38	56.3	53	43	
	229	12:30:27	41.8	15135.61	43.3	42	41	
	230	12:30:37	51	125892.5	59	57	42	
	231	12:30:47	55.4	346736.9	59.1	58	47	
	232	12:30:57	53.9	245470.9	58.3	58	44	
	233	12:31:07	45.9	38904.51	50.6	49	43	
	234	12:31:17	68.2	6606934	75.2	74	41	
	235	12:31:27	60.1	1023293	69.5	65	43	
	236	12:31:37	41	12589.25	42.7	41	40	
	237	12:31:47	41.8	15135.61	44	42	40	
	238	12:31:57	55.1	323593.7	60.5	60	44	
	239	12:32:07	51.4	138038.4	59.2	56	43	
End Run 1				57.9	75.2			yes
Start Run 2								
	362	14:15:17	63.5	2238721	73	53	47	
	363	14:15:27	58.2	660693.4	62.2	61	53	
	364	14:15:37	53.1	204173.8	59.4	58	44	
	365	14:15:47	49.9	97723.72	53.4	51	46	
	366	14:15:57	51.4	138038.4	56.7	54	49	
	367	14:16:07	56.3	426579.5	61.2	59	52	
	368	14:16:17	61.4	1380384	65.2	64	52	
	369	14:16:27	56.2	416869.4	62.5	62	47	
	370	14:16:37	58.3	676083	61.8	61	49	
	371	14:16:47	55.6	363078.1	61.9	60	46	
	372	14:16:57	58.7	741310.2	61.9	61	52	
	373	14:17:07	57.8	602559.6	61.1	60	51	

374	14:17:17	57.3	537031.8	60.4	60	51	
375	14:17:27	45.7	37153.52	49.9	48	43	
376	14:17:37	49.3	85113.8	51.8	51	46	
377	14:17:47	51.9	154881.7	55.6	53	50	
378	14:17:57	58.8	758577.6	61.8	61	54	
379	14:18:07	51.6	144544	58.3	55	47	
380	14:18:17	57.8	602559.6	61	60	53	
381	14:18:27	45.5	35481.34	53.1	50	40	
382	14:18:37	51.9	154881.7	59.7	57	41	
383	14:18:47	58.3	676083	60.7	60	50	
384	14:18:57	43.4	21877.62	47.6	45	40	
385	14:19:07	49.2	83176.38	50	50	47	
386	14:19:17	46.4	43651.58	49.6	49	40	
387	14:19:27	47.9	61659.5	57.4	53	40	
388	14:19:37	57.9	616595	62.8	61	51	
389	14:19:47	64.8	3019952	68.4	68	61	
390	14:19:57	55.5	354813.4	61.4	61	46	
391	14:20:07	43.9	24547.09	45.8	45	42	
392	14:20:17	60.4	1096478	66.2	65	43	
393	14:20:27	49.4	87096.36	57.7	54	41	
394	14:20:37	51.3	134896.3	60.9	56	40	
395	14:20:47	56.9	489778.8	62	61	43	
396	14:20:57	40.6	11481.54	42	41	39	
397	14:21:07	40.6	11481.54	44.9	42	39	
398	14:21:17	54.7	295120.9	59.4	59	45	
399	14:21:27	55.7	371535.2	58.7	58	46	
400	14:21:37	55.5	354813.4	58.3	58	52	
401	14:21:47	50.1	102329.3	51	50	49	
402	14:21:57	46.4	43651.58	50.7	50	39	
403	14:22:07	39.4	8709.636	39.8	39	39	
404	14:22:17	39.6	9120.108	39.9	39	39	
405	14:22:27	41.7	14791.08	43.6	43	39	
406	14:22:37	54.3	269153.5	59	58	45	
407	14:22:47	43.7	23442.29	46.3	46	41	
408	14:22:57	48.9	77624.71	49.6	49	48	
409	14:23:07	49.7	93325.43	50.4	50	48	
410	14:23:17	49.5	89125.09	50.2	49	49	
411	14:23:27	52.2	165958.7	55.7	54	50	
412	14:23:37	63.9	2454709	70.4	67	57	
413	14:23:47	72.1	16218101	74.6	74	66	
414	14:23:57	59.8	954992.6	64.2	62	57	
415	14:24:07	54	251188.6	58	57	47	
416	14:24:17	49.3	85113.8	58.6	53	44	
417	14:24:27	56.5	446683.6	61.9	61	46	
418	14:24:37	48.9	77624.71	49.6	49	47	
419	14:24:47	49	79432.82	49.4	49	48	
420	14:24:57	52.2	165958.7	59.1	57	45	
421	14:25:07	52.8	190546.1	59.3	58	42	
End Run 2			58.2	74.6			yes
Start Run 3							

482	14:35:17	49	79432.82	49.6	49	48
483	14:35:27	49.1	81283.05	49.4	49	48
484	14:35:37	49.8	95499.26	51.2	50	48
485	14:35:47	50.5	112201.8	51.7	51	50
486	14:35:57	49.6	91201.08	50.3	50	49
487	14:36:07	49	79432.82	50.6	50	44
488	14:36:17	40.1	10232.93	41.8	40	39
489	14:36:27	49.2	83176.38	56.9	53	42
490	14:36:37	66.9	4897788	71.6	71	59
491	14:36:47	61.3	1348963	63.6	63	58
492	14:36:57	57.2	524807.5	59.4	58	54
493	14:37:07	64.8	3019952	68.7	68	60
494	14:37:17	58.1	645654.2	61.6	61	52
495	14:37:27	50.5	112201.8	51.5	51	50
496	14:37:37	55.6	363078.1	59.6	59	50
497	14:37:47	49.6	91201.08	50.4	50	49
498	14:37:57	59	794328.2	62.8	62	50
499	14:38:07	57.7	588843.7	61.2	60	52
500	14:38:17	53.2	208929.6	56.9	56	49
501	14:38:27	56.9	489778.8	59.8	59	50
502	14:38:37	56.3	426579.5	60.6	60	44
503	14:38:47	56.6	457088.2	61.1	60	46
504	14:38:57	41.3	13489.63	44.5	43	40
505	14:39:07	56.6	457088.2	61.6	61	41
506	14:39:17	47.5	56234.13	55	52	40
507	14:39:27	40.2	10471.29	41.4	41	39
508	14:39:37	56.1	407380.3	62.1	60	41
509	14:39:47	56.7	467735.1	62.9	62	44
510	14:39:57	42.7	18620.87	43.2	43	42
511	14:40:07	53.6	229086.8	63.4	58	43
512	14:40:17	65.7	3715352	70.6	70	57
513	14:40:27	50.2	104712.9	55.3	54	44
514	14:40:37	54.2	263026.8	60.4	60	44
515	14:40:47	52.4	173780.1	59.3	56	47
516	14:40:57	56.1	407380.3	59.9	59	50
517	14:41:07	55	316227.8	59.6	59	49
518	14:41:17	56.3	426579.5	60.6	59	50
519	14:41:27	50	100000	51.2	50	49
520	14:41:37	58.1	645654.2	60.6	60	51
521	14:41:47	61	1258925	64.8	64	56
522	14:41:57	57.6	575439.9	64.6	63	50
523	14:42:07	49.7	93325.43	50.2	50	49
524	14:42:17	50.2	104712.9	51.1	50	50
525	14:42:27	54.3	269153.5	57.3	57	49
526	14:42:37	43.7	23442.29	46.7	45	42
527	14:42:47	58.5	707945.8	65.8	62	49
528	14:42:57	67.2	5248075	71.5	71	57
529	14:43:07	57.7	588843.7	60.6	60	50
530	14:43:17	55.3	338844.2	59	58	50
531	14:43:27	56.1	407380.3	58.8	58	50

	532	14:43:37	56.7	467735.1	60.6	60	50	
	533	14:43:47	50.1	102329.3	51.3	51	48	
	534	14:43:57	54.6	288403.2	57.1	57	51	
	535	14:44:07	60.4	1096478	62.2	61	57	
	536	14:44:17	63.5	2238721	68.6	68	54	
	537	14:44:27	62.9	1949845	67	65	54	
	538	14:44:37	50.7	117489.8	53.4	52	49	
	539	14:44:47	49.9	97723.72	50.8	50	49	
	540	14:44:57	49	79432.82	52.1	51	45	
	541	14:45:07	60.3	1071519	64.1	63	52	
End Run 3				58.2	71.6			yes

URS
vs

24-Apr-13
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Ft Hamer Bridge
RUN: Site 1 AM Run
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	1	0	45.8	66	45.8	10	----	45.8	0	8	-8

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	1	0	0	0
All Impacted	0	0	0	0
All that meet NR Goal	0	0	0	0

URS
vs

24-Apr-13
TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: Ft Hamer Bridge
RUN: Site 1 AM Run

Roadway Name	Points Name	No.	Segment Autos V veh/hr	Autos S mph	MTrucks V veh/hr	MTrucks S mph	HTrucks V veh/hr	HTrucks S mph	Buses V veh/hr	Buses S mph	Motorcycles V veh/hr	Motorcycles S mph
SB Ft Hamer Rd	point4	4	6	40	0	0	0	0	0	0	0	0
	point5	5										
NB Ft Hamer Rd	point6	6	12	40	0	0	0	0	0	0	0	0
	point7	7										

URS 24-Apr-13
vs TNM 2.5
Calculated with TNM 2.5

RESULTS: S
PROJECT/C Ft Hamer Bridge
RUN: Site 1 PM Run
BARRIER D INPUT HEIGHTS

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

ATMOSPHI 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier LAeq1h	Calculated Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1	1	1	0	46.6	66	46.6	10	----	46.6	0	8	-8

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	1	0	0	0
All Impacted	0	0	0	0
All that meet NR Goa	0	0	0	0

URS 24-Apr-13
vs TNM 2.5

INPUT: TRA
PROJECT/C Ft Hamer Bridge
RUN: Site 1 PM Run

Roadway Name	Points Name	No.	Segment Autos V veh/hr	Autos S mph	MTrucks V veh/hr	MTrucks S mph	HTrucks V veh/hr	HTrucks S mph	Buses V veh/hr	Buses S mph	Motorcycles V veh/hr	Motorcycles S mph
SB Ft Ham	point4	4	12	44	0	0	0	0	0	0	0	0
	point5	5										
NB Ft Han	point6	6	0	0	0	0	0	0	0	0	0	0
	point7	7										

URS 24-Apr-13
vs TNM 2.5
Calculated with TNM 2.5

RESULTS: S
PROJECT/C Ft Hamer Bridge
RUN: Site 1 PM Run 2
BARRIER D INPUT HEIGHTS

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

ATMOSPHI 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier LAeq1h	Calculated Noise Reduction	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1	1	1	0	47.1	66	47.1	10	----	47.1	0	8	-8

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	1	0	0	0
All Impacted	0	0	0	0
All that meet NR Goa	0	0	0	0

URS 24-Apr-13
vs TNM 2.5

INPUT: TRA
PROJECT/C Ft Hamer Bridge
RUN: Site 1 PM Run 2

Roadway Name	Points Name	No.	Segment Autos V veh/hr	Autos S mph	MTrucks V veh/hr	MTrucks S mph	HTrucks V veh/hr	HTrucks S mph	Buses V veh/hr	Buses S mph	Motorcycles V veh/hr	Motorcycles S mph
SB Ft Ham	point4	4	12	42	0	0	0	0	0	0	0	0
	point5	5										
NB Ft Han	point6	6	6	42	0	0	0	0	0	0	0	0
	point7	7										

URS 24-Apr-13
vs TNM 2.5
Calculated with TNM 2.5

RESULTS: S
PROJECT/C Fort Hamer Bridge
RUN: Site 3 PM Run
BARRIER D INPUT HEIGHTS
ATMOSPHI 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	1	0	60	66	60	10	----	60	0	8	-8

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	1	0	0	0
All Impacted	0	0	0	0
All that meet NR Goa	0	0	0	0

URS 24-Apr-13
vs TNM 2.5

INPUT: TR/
PROJECT/C Fort Hamer Bridge
RUN: Site 3 PM Run

Roadway Name	Points Name	No.	Segment Autos V veh/hr	Autos S mph	MTrucks V veh/hr	MTrucks S mph	HTrucks V veh/hr	HTrucks S mph	Buses V veh/hr	Buses S mph	Motorcycles V veh/hr	Motorcycles S mph
SB Upper	point21	21	132	50	12	44	0	0	0	0	0	0
	point22	22										
NB Upper	point23	23	180	50	6	44	0	0	0	0	0	0
	point24	24										

URS 24-Apr-13
vs TNM 2.5
Calculated with TNM 2.5

RESULTS: S
PROJECT/C Fort Hamer Bridge
RUN: Site 3 PM Run 2
BARRIER D INPUT HEIGHTS

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

ATMOSPHI 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1	1	1	0	60.5	66	60.5	10	----	60.5	0	8	-8

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	1	0	0	0
All Impacted	0	0	0	0
All that meet NR Goa	0	0	0	0

URS 24-Apr-13
vs TNM 2.5

INPUT: TR/
PROJECT/C Fort Hamer Bridge
RUN: Site 3 PM Run 2

Roadway Name	Points Name	No.	Segment Autos V veh/hr	Autos S mph	MTrucks V veh/hr	MTrucks S mph	HTrucks V veh/hr	HTrucks S mph	Buses V veh/hr	Buses S mph	Motorcycles V veh/hr	Motorcycles S mph
SB Upper	point21	21	150	47	0	0	0	0	6	47	12	45
	point22	22										
NB Upper	point23	23	132	47	12	37	12	21	0	0	0	0
	point24	24										

URS 24-Apr-13
vs TNM 2.5
Calculated with TNM 2.5

RESULTS: S
PROJECT/C Fort Hamer Bridge
RUN: Site PM Run 3
BARRIER D INPUT HEIGHTS

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

ATMOSPHI 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1	1	1	0	59.7	66	59.7	10	----	59.7	0	8	-8

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	1	0	0	0
All Impacted	0	0	0	0
All that meet NR Goa	0	0	0	0

URS 24-Apr-13
vs TNM 2.5

INPUT: TR/
PROJECT/C Fort Hamer Bridge
RUN: Site 3 PM Run 3

Roadway Name	Points Name	No.	Segment Autos V veh/hr	Autos S mph	MTrucks V veh/hr	MTrucks S mph	HTrucks V veh/hr	HTrucks S mph	Buses V veh/hr	Buses S mph	Motorcycles V veh/hr	Motorcycles S mph
SB Upper	point21	21	114	45	0	0	0	0	6	41	0	0
	point22	22										
NB Upper	point23	23	234	45	12	43	6	44	3	41	0	0
	point24	24										

<<< TABULAR TIME HISTORY REPORT FROM FILE 4043SITE >>>

Test Location..... Rye Road Site 1
Employee Name..... O'Donnell/Purcell
Employee Number...
Department.....
Comment.....

Calibrator Type & Serial #... Metrosonics cl-304 /3979
Calibrator Calibration Date..

METROSOI db-3100 SN 4043 V1.7
REPORT PRINTED 4/14/2011 AT 9:46:11
OF PERIODS: 311 MODE: CONTINUOUS
PERIOD LENGTH: 0:00:10
TIME HISTORY CUTOFF: NONE
Ln(1): 10.00% Ln(2): 99.90%

DATE: 4/14/2011

INT	TIME	Lav	energy	Lmx	Lpk	L1	L2
Start Rye Morning Run							
162	9:11:00	65.5	3548134	71.1	70	47	
163	9:11:10	55	316227.8	64.6	61	47	
164	9:11:20	61.6	1445440	67.9	67	46	
165	9:11:30	54.7	295120.9	63.7	60	48	
166	9:11:40	61.7	1479108	69.3	68	48	
167	9:11:50	64.2	2630268	67.4	66	59	
168	9:12:00	60.4	1096478	68.4	67	51	
169	9:12:10	60.8	1202264	65.9	65	50	
170	9:12:20	45.4	34673.69	50.3	47	42	
171	9:12:30	61.5	1412538	66.2	65	48	
172	9:12:40	52.1	162181	57	54	49	
173	9:12:50	55.9	389045.1	67.4	65	47	
174	9:13:00	65.2	3311311	68.5	68	59	
175	9:13:10	50.5	112201.8	59.7	56	43	
176	9:13:20	42	15848.93	43.2	42	41	
177	9:13:30	42.3	16982.44	43.3	43	41	
178	9:13:40	44.8	30199.52	45.8	45	43	
179	9:13:50	51.9	154881.7	65.2	59	45	
180	9:14:00	61.2	1318257	68.2	67	45	
181	9:14:10	44.2	26302.68	46.4	45	43	
182	9:14:20	57.9	616595	70.1	68	44	
183	9:14:30	60.9	1230269	69.9	67	53	
184	9:14:40	69.1	8128305	75	74	57	
185	9:14:50	51.5	141253.8	57.7	56	46	
186	9:15:00	53.3	213796.2	65.4	62	45	
187	9:15:10	57	501187.2	65.8	64	43	
188	9:15:20	55.8	380189.4	65.2	64	43	
189	9:15:30	57.7	588843.7	65.2	64	47	
190	9:15:40	45.7	37153.52	47.4	47	42	
191	9:15:50	42.6	18197.01	43.9	43	41	

192	9:16:00	58.9	776247.1	67.4	67	43
193	9:16:10	63	1995262	68.5	68	51
194	9:16:20	51.3	134896.3	54.1	53	46
195	9:16:30	48	63095.73	50	49	46
196	9:16:40	66.5	4466836	71.8	71	49
197	9:16:50	66	3981072	70.9	70	58
198	9:17:00	54.3	269153.5	62.7	59	47
199	9:17:10	47	50118.72	49.7	49	41
200	9:17:20	40.9	12302.69	41.6	41	40
201	9:17:30	40.4	10964.78	40.8	40	40
202	9:17:40	42.7	18620.87	46	45	40
203	9:17:50	61.6	1445440	67.5	67	46
204	9:18:00	49.6	91201.08	58.1	55	41
205	9:18:10	41	12589.25	41.8	41	40
206	9:18:20	40.1	10232.93	40.6	40	39
207	9:18:30	40.3	10715.19	41.4	41	39
208	9:18:40	41	12589.25	41.4	41	40
209	9:18:50	40	10000	40.4	40	39
210	9:19:00	51.3	134896.3	64.5	59	39
211	9:19:10	60.5	1122018	67.5	67	44
212	9:19:20	42.8	19054.61	44.6	43	42
213	9:19:30	54.5	281838.3	65.3	61	42
214	9:19:40	69.8	9549926	75.1	74	62
215	9:19:50	59.7	933254.3	62.9	61	57
216	9:20:00	64.7	2951209	68.6	68	54
217	9:20:10	49	79432.82	54.3	52	46
218	9:20:20	59.7	933254.3	69.7	69	47
219	9:20:30	64.3	2691535	68.5	65	62
220	9:20:40	60.5	1122018	65.3	65	50
221	9:20:50	48.8	75857.76	53.1	50	47
222	9:21:00	67.3	5370318	73.1	72	53
End Rye Morning Run			60.6	75.1		
Begin Rye Morning 2 Run						
234	9:23:00	45.4	34673.69	49.3	48	43
235	9:23:10	42	15848.93	43.5	43	41
236	9:23:20	42.3	16982.44	43.8	43	40
237	9:23:30	42.9	19498.45	45.6	44	41
238	9:23:40	62.3	1698244	67.8	67	45
239	9:23:50	52.6	181970.1	60.6	57	47
240	9:24:00	49.1	81283.05	57.9	54	45
241	9:24:10	70.9	12302688	77.3	76	58
242	9:24:20	55.4	346736.9	61.9	59	50
243	9:24:30	65.2	3311311	73.7	73	51
244	9:24:40	61.4	1380384	71.5	68	54
245	9:24:50	60.3	1071519	65.6	65	53
246	9:25:00	51.3	134896.3	58.8	55	46
247	9:25:10	49.4	87096.36	51.4	50	46
248	9:25:20	65.7	3715352	71.7	71	51
249	9:25:30	52.7	186208.7	61.8	58	46
250	9:25:40	48.1	64565.42	51.2	50	46
251	9:25:50	54.9	309029.5	58	57	51
252	9:26:00	58.8	758577.6	59.6	59	57
253	9:26:10	56.4	436515.8	59.2	58	51

254	9:26:20	50.1	102329.3	51.9	51	48
255	9:26:30	47	50118.72	48.3	48	45
256	9:26:40	45.7	37153.52	46.5	46	44
257	9:26:50	53.4	218776.2	64.6	60	44
258	9:27:00	58.4	691831	65.2	64	48
259	9:27:10	63.3	2137962	69.6	69	48
260	9:27:20	66.6	4570882	73.7	73	51
261	9:27:30	64.4	2754229	72.1	69	57
262	9:27:40	66.5	4466836	69.5	69	59
263	9:27:50	55	316227.8	63.5	60	46
264	9:28:00	45.3	33884.42	47	46	44
265	9:28:10	52.9	194984.5	65.3	61	44
266	9:28:20	63.9	2454709	69	68	53
267	9:28:30	58.3	676083	62.6	62	49
268	9:28:40	45.2	33113.11	49.3	48	42
269	9:28:50	42.3	16982.44	43.2	43	41
270	9:29:00	41.3	13489.63	42.9	42	40
271	9:29:10	57.5	562341.3	65.5	64	42
272	9:29:20	57.9	616595	65.6	64	45
273	9:29:30	42.4	17378.01	45.3	44	40
274	9:29:40	40.1	10232.93	40.9	40	39
275	9:29:50	39.9	9772.372	41.2	40	39
276	9:30:00	39.9	9772.372	42.4	41	39
277	9:30:10	39.9	9772.372	42.4	41	39
278	9:30:20	39.4	8709.636	40	39	39
279	9:30:30	41.1	12882.5	44.3	42	39
280	9:30:40	60.1	1023293	65.1	64	44
281	9:30:50	61.7	1479108	66.7	66	53
282	9:31:00	48	63095.73	57.8	55	39
283	9:31:10	39.7	9332.543	40.8	40	39
284	9:31:20	41.6	14454.4	44.7	43	40
285	9:31:30	57.5	562341.3	63.8	63	44
286	9:31:40	54.5	281838.3	63.2	61	43
287	9:31:50	50.2	104712.9	60.4	55	43
288	9:32:00	62.7	1862087	66.7	66	51
289	9:32:10	46.7	46773.51	51.7	49	44
290	9:32:20	62.6	1819701	70	69	45
291	9:32:30	64.6	2884032	68.8	68	57
292	9:32:40	69.4	8709636	73.8	73	57
293	9:32:50	68.4	6918310	71.4	71	61
294	9:33:00	60.6	1148154	67.3	66	51
295	9:33:10	59.5	891250.9	67.2	67	45
296	9:33:20	47.3	53703.18	56	53	43
297	9:33:30	59.1	812830.5	63.9	63	50
298	9:33:40	60.3	1071519	66	65	50
299	9:33:50	47.1	51286.14	50.1	49	45
End Rye Morning 2 Run			60.6	77.3		
Begin Rye Afternoon Run						
198	13:33:08	61.6	1445440	69	68	47
199	13:33:18	54.3	269153.5	62.9	59	49
200	13:33:28	51.8	151356.1	64	56	46
201	13:33:38	62.2	1659587	68.2	67	53
202	13:33:48	69.2	8317638	72	71	58

203	13:33:58	60.6	1148154	69.5	67	48
204	13:34:08	49.1	81283.05	50.7	50	47
205	13:34:18	48.6	72443.6	52.9	51	46
206	13:34:28	62.4	1737801	68.1	67	51
207	13:34:38	49.2	83176.38	53.3	51	46
208	13:34:48	61	1258925	67.5	66	49
209	13:34:58	46.4	43651.58	49.2	48	45
210	13:35:08	62.5	1778279	69.1	68	47
211	13:35:18	55.1	323593.7	66.4	59	47
212	13:35:28	63	1995262	68.9	68	54
213	13:35:38	68.2	6606934	71.3	70	60
214	13:35:48	67.9	6165950	71.5	70	61
215	13:35:58	63.7	2344229	67.6	67	57
216	13:36:08	58.5	707945.8	66.3	65	51
217	13:36:18	58.6	724436	66.1	65	48
218	13:36:28	47.7	58884.37	49.1	48	46
219	13:36:38	63.1	2041738	67.7	67	48
220	13:36:48	64	2511886	71.3	70	52
221	13:36:58	63.2	2089296	69.1	68	47
222	13:37:08	52	158489.3	65.5	59	45
223	13:37:18	61.2	1318257	68	67	50
224	13:37:28	56.7	467735.1	60.1	59	51
225	13:37:38	62.5	1778279	69.3	68	51
226	13:37:48	51.2	131825.7	60.1	57	44
227	13:37:58	43.9	24547.09	45.7	45	42
228	13:38:08	43.6	22908.68	44.7	44	42
229	13:38:18	61.7	1479108	69.3	68	43
230	13:38:28	58.3	676083	66.3	63	50
231	13:38:38	66.3	4265795	68.2	67	63
232	13:38:48	60.9	1230269	68.4	67	51
233	13:38:58	56.3	426579.5	67.7	63	50
234	13:39:08	60.6	1148154	68.5	68	48
235	13:39:18	45.7	37153.52	49.1	48	43
236	13:39:28	44.8	30199.52	45.6	45	43
237	13:39:38	59.9	977237.2	67.3	66	44
238	13:39:48	62.9	1949845	67.7	66	55
239	13:39:58	62.1	1621810	67.8	67	53
240	13:40:08	61.7	1479108	67.7	67	49
241	13:40:18	47.4	54954.09	49.9	49	45
242	13:40:28	44.9	30902.95	45.5	45	44
243	13:40:38	50.5	112201.8	60.8	56	44
244	13:40:48	65.8	3801894	68.3	67	59
245	13:40:58	52.1	162181	58.8	56	48
246	13:41:08	62.9	1949845	68.8	68	52
247	13:41:18	58	630957.3	63.3	63	50
248	13:41:28	56.6	457088.2	65.5	63	48
249	13:41:38	59.1	812830.5	65.9	65	51
250	13:41:48	48.8	75857.76	52	50	46
251	13:41:58	51.8	151356.1	63.1	58	47
252	13:42:08	64.4	2754229	69	68	53
253	13:42:18	53.5	223872.1	65.6	59	49
254	13:42:28	61.1	1288250	68.5	67	49
255	13:42:38	47.3	53703.18	49.4	48	45

256	13:42:48	54.9	309029.5	66.8	63	46
257	13:42:58	58.7	741310.2	67	65	49
End Rye Afternoon Run			61.1	72.0		

<<< TABULAR TIME HISTORY REPORT FROM FILE 2005GOLF >>>

Test Location..... Golf Course Rd site 2
Employee Name..... O'Donnell/Purcell
Employee Number...
Department.....
Comment.....

Calibrator Type & Serial #... Metrosonics cl-304 /3979
Calibrator Calibration Date..

METROSONICS db-3100 SN 2005 V1.7
REPORT PRINTED 4/14/2011 AT 15:20:47
OF PERIODS: 494 MODE: CONTINUOUS
PERIOD LENGTH: 0:00:10
TIME HISTORY CUTOFF: NONE
Ln(1): 10.00% Ln(2): 99.90%

DATE: 4/14/2011

INT	TIME	Lav	energy	Lmx	Lpk	L1	L2
Begin Golf Course PM Run							
276	14:40:53	48.5	70794.578	57.5	44	44	
277	14:41:03	40.8	12022.644	44.1	42	39	
278	14:41:13	59.9	977237.22	66.5	65	42	
279	14:41:23	53.6	229086.77	67.1	60	47	
280	14:41:33	64.2	2630268	71.4	70	46	
281	14:41:43	42.4	17378.008	45.9	44	41	
282	14:41:53	56.7	467735.14	64.3	63	42	
283	14:42:03	44.9	30902.954	54.7	51	39	
284	14:42:13	39.3	8511.3804	39.3	39	39	
285	14:42:23	39.4	8709.6359	39.8	39	39	
286	14:42:33	40.1	10232.93	44.3	42	39	
287	14:42:43	59.4	870963.59	66.3	65	44	
288	14:42:53	42.9	19498.446	48.7	46	40	
289	14:43:03	52.4	173780.08	64.8	62	40	
290	14:43:13	54.3	269153.48	64.6	62	41	
291	14:43:23	55.4	346736.85	63.5	62	41	
292	14:43:33	47.9	61659.5	58.6	54	39	
293	14:43:43	43.1	20417.379	48.4	46	39	
294	14:43:53	56	398107.17	62.1	61	48	
295	14:44:03	52.4	173780.08	58.4	57	44	
296	14:44:13	55.4	346736.85	61.3	60	44	
297	14:44:23	41.6	14454.398	44	42	40	
298	14:44:33	39.7	9332.543	41.1	40	39	
299	14:44:43	39.3	8511.3804	39.4	39	39	
300	14:44:53	39.3	8511.3804	39.3	39	39	
301	14:45:03	39.3	8511.3804	39.3	39	39	
302	14:45:13	39.3	8511.3804	40	39	39	
303	14:45:23	49.4	87096.359	58.1	55	39	
304	14:45:33	53.8	239883.29	60.1	59	45	
305	14:45:43	55.8	380189.4	59.6	59	43	
306	14:45:53	42.2	16595.869	44	43	40	
307	14:46:03	54.2	263026.8	59.6	59	44	
308	14:46:13	55.7	371535.23	61.1	60	45	
309	14:46:23	44.3	26915.348	50.2	48	39	
310	14:46:33	43.3	21379.621	46.7	46	40	
311	14:46:43	44.8	30199.517	48.8	47	41	
312	14:46:53	41	12589.254	42.8	42	39	

313	14:47:03	41.1	12882.496	42.1	41	39
314	14:47:13	44.2	26302.68	46.8	45	41
315	14:47:23	50.6	114815.36	59	55	46
316	14:47:33	65.4	3467368.5	70.6	70	53
317	14:47:43	46.7	46773.514	53.1	50	41
318	14:47:53	40.2	10471.285	41.4	41	39
319	14:48:03	39.3	8511.3804	39.3	39	39
320	14:48:13	39.3	8511.3804	39.3	39	39
321	14:48:23	39.3	8511.3804	40	39	39
322	14:48:33	39.3	8511.3804	39.3	39	39
323	14:48:43	39.3	8511.3804	39.3	39	39
324	14:48:53	40.3	10715.193	45.8	43	39
325	14:49:03	54.3	269153.48	60.2	59	43
326	14:49:13	53.7	234422.88	63.2	62	41
327	14:49:23	58	630957.34	63.3	62	49
328	14:49:33	55.4	346736.85	61.2	60	43
329	14:49:43	41.9	15488.166	43	42	40
330	14:49:53	54.6	288403.15	64.2	63	40
331	14:50:03	57	501187.23	64.5	63	48
332	14:50:13	54	251188.64	63.9	61	41
333	14:50:23	40.5	11220.185	42.5	41	39
334	14:50:33	51.5	141253.75	59.4	59	40
335	14:50:43	55.2	331131.12	58.3	57	51
336	14:50:53	48.3	67608.298	55.1	54	39
End Golf Course PM Run			54.0	71.4		
Begin Golf Course PM 2 Run						
343	14:52:03	39.9	9772.3722	41.3	40	39
344	14:52:13	41.4	13803.843	47.8	44	39
345	14:52:23	58	630957.34	63.4	63	45
346	14:52:33	44.6	28840.315	48.4	48	39
347	14:52:43	42	15848.932	48.4	45	39
348	14:52:53	56.9	489778.82	63.6	63	44
349	14:53:03	56.9	489778.82	64.3	63	44
350	14:53:13	41.5	14125.375	45.4	43	39
351	14:53:23	39.6	9120.1084	41.4	40	39
352	14:53:33	39.3	8511.3804	41	39	39
353	14:53:43	41.9	15488.166	43.8	43	40
354	14:53:53	42.5	17782.794	49.5	45	39
355	14:54:03	56.4	436515.83	60.6	60	46
356	14:54:13	43.6	22908.677	46.7	45	42
357	14:54:23	58.6	724435.96	66.8	66	42
358	14:54:33	55	316227.77	64.8	62	45
359	14:54:43	58.2	660693.45	65.3	64	44
360	14:54:53	44.7	29512.092	47.4	46	43
361	14:55:03	58.4	691830.97	63.7	63	47
362	14:55:13	58.9	776247.12	65.7	62	53
363	14:55:23	69.3	8511380.4	70.5	70	66
364	14:55:33	60.6	1148153.6	67.7	66	52
365	14:55:43	49.1	81283.052	52.7	52	46
366	14:55:53	45.4	34673.685	46.8	46	44
367	14:56:03	42.3	16982.437	44.1	43	40
368	14:56:13	42.9	19498.446	46.8	45	40
369	14:56:23	58.7	741310.24	63.9	63	47
370	14:56:33	44.9	30902.954	50.9	48	41
371	14:56:43	53.8	239883.29	59.6	59	43
372	14:56:53	50.2	104712.85	61.4	57	42
373	14:57:03	53.9	245470.89	62.1	61	41
374	14:57:13	45.7	37153.523	49.7	49	40
375	14:57:23	42.1	16218.101	48.8	44	39
376	14:57:33	45.4	34673.685	50.5	49	39
377	14:57:43	39.3	8511.3804	39.3	39	39

378	14:57:53	39.3	8511.3804	39.5	39	39
379	14:58:03	40.6	11481.536	42.5	41	39
380	14:58:13	41.8	15135.612	42.7	42	40
381	14:58:23	50.7	117489.76	58.4	57	42
382	14:58:33	51.2	131825.67	58.4	57	44
383	14:58:43	42.8	19054.607	44.5	43	40
384	14:58:53	42	15848.932	43.1	42	41
385	14:59:03	60.3	1071519.3	74.9	69	43
386	14:59:13	65	3162277.7	74.9	72	51
387	14:59:23	50.7	117489.76	62.3	57	43
388	14:59:33	59.8	954992.59	66.6	66	45
389	14:59:43	41.9	15488.166	45.4	43	40
390	14:59:53	55.6	363078.05	63.5	62	42
391	15:00:03	47.3	53703.18	57.2	53	41
392	15:00:13	56.7	467735.14	63.4	62	42
393	15:00:23	41.3	13489.629	48.2	45	39
394	15:00:33	39.3	8511.3804	39.3	39	39
395	15:00:43	39.3	8511.3804	39.3	39	39
396	15:00:53	46.2	41686.938	57.9	54	39
397	15:01:03	40.8	12022.644	47.3	43	39
398	15:01:13	39.7	9332.543	41.8	40	39
399	15:01:23	55.6	363078.05	63.9	63	39
400	15:01:33	47.2	52480.746	57.9	54	39
401	15:01:43	39.9	9772.3722	42.5	41	39
402	15:01:53	39.8	9549.9259	41.3	40	39
403	15:02:03	47.4	54954.087	59.9	54	39
End Golf Course PM 2 Run			55.9	74.9		
Begin Golf Course AM Run						
312	10:05:06	49.2	83176.377	58.3	45	45
313	10:05:16	48.9	77624.712	59.2	55	43
314	10:05:26	44.7	29512.092	45.2	45	44
315	10:05:36	44.6	28840.315	45.2	44	44
316	10:05:46	45.6	36307.805	46.8	46	44
317	10:05:56	56.7	467735.14	61.9	61	46
318	10:06:06	62	1584893.2	65.5	65	54
319	10:06:16	48.7	74131.024	54.5	51	46
320	10:06:26	54.9	309029.54	59.8	59	46
321	10:06:36	49	79432.823	56.7	53	45
322	10:06:46	45.8	38018.94	46.7	46	44
323	10:06:56	46.3	42657.952	47	46	45
324	10:07:06	46.3	42657.952	46.9	46	45
325	10:07:16	46.3	42657.952	47	46	45
326	10:07:26	46.1	40738.028	46.7	46	45
327	10:07:36	45.8	38018.94	46.5	46	45
328	10:07:46	46.2	41686.938	46.8	46	45
329	10:07:56	45.7	37153.523	46.5	46	44
330	10:08:06	45.8	38018.94	46.4	46	45
331	10:08:16	46	39810.717	46.9	46	45
332	10:08:26	46.5	44668.359	47.1	46	45
333	10:08:36	46.3	42657.952	46.9	46	45
334	10:08:46	46.8	47863.009	47.4	47	46
335	10:08:56	46.9	48977.882	47.8	47	46
336	10:09:06	46.9	48977.882	47.8	47	46
337	10:09:16	46.3	42657.952	47.3	47	45
338	10:09:26	47.4	54954.087	54.5	50	45
339	10:09:36	62	1584893.2	65.4	65	53
340	10:09:46	47.7	58884.366	53.4	51	45
341	10:09:56	45.5	35481.339	46.3	46	45
342	10:10:06	45.2	33113.112	45.7	45	44
343	10:10:16	47.1	51286.138	55.4	51	44
344	10:10:26	52.1	162181.01	57.3	57	45

345	10:10:36	45.6	36307.805	46.2	45	44
346	10:10:46	44.8	30199.517	45.3	45	44
347	10:10:56	44.9	30902.954	45.2	45	44
348	10:11:06	45	31622.777	46.1	45	44
349	10:11:16	45.1	32359.366	45.6	45	44
350	10:11:26	44.9	30902.954	45.3	45	44
351	10:11:36	45	31622.777	45.5	45	44
352	10:11:46	45	31622.777	45.4	45	44
353	10:11:56	47.7	58884.366	54.2	51	45
354	10:12:06	53.4	218776.16	58.9	58	46
355	10:12:16	56.4	436515.83	63.6	62	46
356	10:12:26	51.6	144543.98	57.8	54	49
357	10:12:36	49	79432.823	51.1	49	48
358	10:12:46	53.2	208929.61	56.2	55	50
359	10:12:56	53.4	218776.16	58.9	57	49
360	10:13:06	52.9	194984.46	54.4	54	51
361	10:13:16	54.4	275422.87	57.4	55	52
362	10:13:26	64.8	3019951.7	71	70	56
363	10:13:36	61	1258925.4	68.7	65	55
364	10:13:46	58	630957.34	63.6	63	52
365	10:13:56	53.5	223872.11	58.1	56	49
366	10:14:06	51.6	144543.98	55.2	53	48
367	10:14:16	58.6	724435.96	62.8	62	50
368	10:14:26	55.2	331131.12	59.9	59	50
369	10:14:36	51.2	131825.67	59	57	45
370	10:14:46	44.7	29512.092	45.6	45	44
371	10:14:56	43.9	24547.089	44.5	44	43
End Golf Course AM Run			53.7	71.0		

URS 12-Jul-11
O'DONNELL TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: FT HAMER/RYE RD
RUN: Val Site 1 Run AM
BARRIER DESIGN: INPUT HEIGHTS

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

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
	50	6	1	0	62	66	62	10 ----	62	0	8	-8

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	1	0	0	0
All Impacted	0	0	0	0
All that meet NR Goal	0	0	0	0

URS 12-Jul-11
O'DONNELL TNM 2.5

INPUT: TRAFFIC FOR LAeq
PROJECT/CONTRACT: FT HAMER/RYE RD
RUN: Val Site 1 Run AM

Roadway Name	Points Name	No.	Segment Autos V veh/hr	S mph	MTrucks V veh/hr	S mph	HTrucks V veh/hr	S mph	Buses V veh/hr	S mph	Motorcycles V veh/hr	S mph
Roadway1	point1	1	108	47	0	0	6	46	0	0	0	0
	point2	2										
Roadway2	point3	3	72	50	0	0	6	39	0	0	0	0
	point4	4										

URS 12-Jul-11
O'DONNELL TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: FT HAMER/RYE RD
RUN: Val Site 1 Run AM 2
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
	50	6	1	0	61.7	66	61.7	10 ----	61.7	0	8	-8

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	1	0	0	0
All Impacted	0	0	0	0
All that meet NR Goal	0	0	0	0

URS 12-Jul-11
O'DONNELL TNM 2.5

INPUT: TRAFFIC FOR LAeq1
PROJECT/CONTRACT: FT HAMER/RYE RD
RUN: Val Site 1 Run AM 2

Roadway Name	Points Name	No.	Segment Autos V veh/hr	S mph	MTrucks V veh/hr	S mph	HTrucks V veh/hr	S mph	Buses V veh/hr	S mph	Motorcycles V veh/hr	S mph
Roadway1	point1	1	90	46	0	0	6	44	0	0	0	0
	point2	2										
Roadway2	point3	3	90	43	6	40	6	41	0	0	0	0
	point4	4										

URS 12-Jul-11
O'DONNELL TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVE
PROJECT/CONTRACT: FT HAMER/RYE RD
RUN: Val Site 1 Run PM
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 LAeq1h	Calculated Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
	50	6	1	0	62.7	66	62.7	10 ----	62.7	0	8	-8
	-50	12	1	0	62.6	66	62.6	10 ----	62.6	0	8	-8

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	2	0	0	0
All Impacted	0	0	0	0
All that meet NR Goal	0	0	0	0

URS 12-Jul-11
O'DONNELL TNM 2.5

INPUT: TRAFFIC FOR LA
PROJECT/CONTRACT: FT HAMER/RYE RD
RUN: Val Site 1 Run PM

Roadway Name	Points Name	No.	Segment Autos V veh/hr	Autos S mph	MTrucks V veh/hr	MTrucks S mph	HTrucks V veh/hr	HTrucks S mph	Buses V veh/hr	Buses S mph	Motorcycles V veh/hr	Motorcycles S mph
Roadway1	point1	1	126	47	6	37	0	0	0	0	0	0
	point2	2										
Roadway2	point3	3	108	46	6	45	12	27	0	0	0	0
	point4	4										

URS 12-Jul-11
O'DONNELL TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: FT HAMER/RYE RD
RUN: Val Site 2 AM Run
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 LAeq1h	Calculated Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
50 From centerline	6	1	0	56	66	56	10	----	56	0	8	-8

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	1	0	0	0
All Impacted	0	0	0	0
All that meet NR Goal	0	0	0	0

URS 12-Jul-11
O'DONNELL TNM 2.5

INPUT: TRAFFIC FOR LAeq1
PROJECT/CONTRACT: FT HAMER/RYE RD
RUN: Val Site 2 AM Run

Roadway Name	Points Name	No.	Segment Autos V veh/hr	Autos S mph	MTrucks V veh/hr	MTrucks S mph	HTrucks V veh/hr	HTrucks S mph	Buses V veh/hr	Buses S mph	Motorcycles V veh/hr	Motorcycles S mph
Roadway1	point1	1	24	31	0	0	0	0	0	0	6	29
	point2	2										
Roadway2	point3	3	48	36	0	0	6	29	0	0	0	0
	point4	4										

URS 12-Jul-11
O'DONNELL TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: FT HAMER/RYE RD
RUN: Val Site 2 PM Run
BARRIER DESIGN: INPUT HEIGHTS

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

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier LAeq1h	Calculated Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
	50	6	1	0	56.7	66	56.7	10 ----	56.7	0	8	-8

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	1	0	0	0
All Impacted	0	0	0	0
All that meet NR Goal	0	0	0	0

URS 12-Jul-11
O'DONNELL TNM 2.5

INPUT: TRAFFIC FOR LAeq1
PROJECT/CONTRACT: FT HAMER/RYE RD
RUN: Val Site 2 PM Run

Roadway Name	Points Name	No.	Segment Autos V veh/hr	S mph	MTrucks V veh/hr	S mph	HTrucks V veh/hr	S mph	Buses V veh/hr	S mph	Motorcycles V veh/hr	S mph
Roadway1	point1	1	30	35	0	0	0	0	0	0	0	0
	point2	2										
Roadway2	point3	3	108	32	0	0	6	29	0	0	0	0
	point4	4										

URS 12-Jul-11
O'DONNELL TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: FT HAMER/RYE RD
RUN: Val Site 2 PM Run 2
BARRIER DESIGN: INPUT HEIGHTS

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

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h	Calculated	Crit'n	Increase over existing	Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA		dB		dB		dBA		dB	dB
	50	6	1	0	57.6	66		57.6	10	----	57.6	0	8	-8

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	1	0	0	0
All Impacted	0	0	0	0
All that meet NR Goal	0	0	0	0

URS 12-Jul-11
O'DONNELL TNM 2.5

INPUT: TRAFFIC FOR LAeq1h
PROJECT/CONTRACT: FT HAMER/RYE RD
RUN: Val Site 2 PM Run 2

Roadway Name	Points Name	No.	Segment Autos V veh/hr	Autos S mph	MTrucks V veh/hr	MTrucks S mph	HTrucks V veh/hr	HTrucks S mph	Buses V veh/hr	Buses S mph	Motorcycles V veh/hr	Motorcycles S mph
Roadway1	point1	1	48	35	0	0	0	0	0	0	0	0
	point2	2										
Roadway2	point3	3	90	34	6	30	6	30	0	0	0	0
	point4	4										

<<< TABULAR TIME HISTORY REPORT FROM FILE AMB2

Test Location..... Temp 82
Employee Name..... RH 65%
Employee Number... Wind NE 2-3
Department.....
Comment.....

Calibrator Type & Serial #...
Calibrator Calibration Date..

METROSOI db-3100 SN 3250 V1.7
REPORT PRINTED 10/7/10 AT 15:51:35
OF PERIODS: 981 MODE: CONTINUOUS
PERIOD LENGTH: 0:00:10
TIME HISTORY CUTOFF: NONE
Ln(1): 10.00% Ln(2): 90.00%

DATE: 10/7/10

INT	TIME	Lav	energy	Lmx	L1	L2	
Begin Ambient 1 Run 1 Ft Hamer Park							
1	10:48:25	48.4	69183.1	54.5	52	43	Ft Hamer
2	10:48:35	43	19952.6	48.9	46	39	
3	10:48:45	41.5	14125.4	44.9	43	38	
4	10:48:55	38.4	6918.31	39.8	39	38	
5	10:49:05	41.5	14125.4	44.2	43	38	
6	10:49:15	39.2	8317.64	41.5	40	38	
7	10:49:25	41.3	13489.6	43.9	42	40	
8	10:49:35	52.8	190546	58.2	56	41	
9	10:49:45	50.8	120226	54.8	53	47	
10	10:49:55	52.3	169824	58.5	57	47	
11	10:50:05	54.2	263027	57	56	50	
12	10:50:15	56	398107	58.7	58	49	
13	10:50:25	52.9	194984	56.8	56	48	
14	10:50:35	58.4	691831	62.3	61	50	
15	10:50:45	57.5	562341	60.9	60	51	
16	10:50:55	53.4	218776	57.6	57	49	
17	10:51:05	46.9	48977.9	49.7	49	42	
18	10:51:15	48.7	74131	53.7	51	46	
19	10:51:25	51.1	128825	53.6	52	48	
20	10:51:35	47.3	53703.2	52.4	50	42	
21	10:51:45	51.2	131826	53.9	52	48	
22	10:51:55	52.2	165959	56	54	47	
23	10:52:05	47.1	51286.1	51.9	50	42	
24	10:52:15	45.6	36307.8	50.7	48	40	
25	10:52:25	38.3	6760.83	39.3	38	38	
26	10:52:35	38.6	7244.36	39.6	39	38	
27	10:52:45	38.2	6606.93	38.2	38	38	
28	10:52:55	38.2	6606.93	38.2	38	38	
29	10:53:05	38.2	6606.93	38.2	38	38	
30	10:53:15	47.6	57544	51.2	50	38	
31	10:53:25	45.8	38018.9	48	47	43	
32	10:53:35	43.4	21877.6	46.7	45	39	
33	10:53:45	50.7	117490	53.8	53	46	

34	10:53:55	41.2	13182.6	46.8	44	38
35	10:54:05	48.1	64565.4	51.9	51	45
36	10:54:15	49.1	81283.1	52.3	51	43
37	10:54:25	48.6	72443.6	52.7	51	43
38	10:54:35	45.8	38018.9	49.2	48	43
39	10:54:45	50	100000	54.1	53	47
40	10:54:55	52.6	181970	55.4	54	47
41	10:55:05	54.1	257040	56.1	55	52
42	10:55:15	48.7	74131	52.7	50	45
43	10:55:25	47.6	57544	50.8	49	44
44	10:55:35	54.9	309030	60.7	58	43
45	10:55:45	54.3	269153	58	56	47
46	10:55:55	43.1	20417.4	45.8	45	40
47	10:56:05	48.4	69183.1	53.5	52	41
48	10:56:15	49.1	81283.1	54.5	52	43
49	10:56:25	47.6	57544	52.4	51	43
50	10:56:35	47.7	58884.4	50	49	43
51	10:56:45	48.4	69183.1	52	51	46
52	10:56:55	49.4	87096.4	51.4	51	47
53	10:57:05	50.2	104713	53.4	52	45
54	10:57:15	43.3	21379.6	46.8	45	40
55	10:57:25	49.2	83176.4	55.4	54	40
56	10:57:35	53.7	234423	56.9	55	52
57	10:57:45	51.4	138038	56.5	54	47
58	10:57:55	52.1	162181	59.3	56	42
59	10:58:05	50.1	102329	56.3	54	41
60	10:58:15	57.3	537032	61.4	60	50
61	10:58:25	58.4	691831	61.6	60	55
62	10:58:35	56	398107	60.1	59	51
63	10:58:45	54.6	288403	59.2	57	47
64	10:58:55	53.3	213796	58.4	56	47
65	10:59:05	51.9	154882	58.3	55	45
66	10:59:15	51.9	154882	59.2	56	43
67	10:59:25	49.9	97723.7	56.1	54	42
68	10:59:35	49.1	81283.1	57.1	54	42
69	10:59:45	48.3	67608.3	52.4	51	43
70	10:59:55	48.5	70794.6	51.8	50	46
71	11:00:05	43	19952.6	46.4	45	39
72	11:00:15	40.2	10471.3	43.2	43	38
73	11:00:25	41.4	13803.8	43.2	43	39
74	11:00:35	42.6	18197	45.4	44	40
75	11:00:45	44.9	30903	47.2	46	41
76	11:00:55	45	31622.8	46.9	46	43
77	11:01:05	43.3	21379.6	46.1	45	41
78	11:01:15	44.4	27542.3	47.8	47	42
79	11:01:25	40.6	11481.5	42.8	42	39
80	11:01:35	38.8	7585.78	39.6	39	38
81	11:01:45	41.5	14125.4	46.3	44	38
82	11:01:55	38.2	6606.93	38.2	38	38
83	11:02:05	38.9	7762.47	40.6	40	38
84	11:02:15	39.7	9332.54	41.4	40	38
85	11:02:25	39.4	8709.64	42.6	41	38
86	11:02:35	44.7	29512.1	51.9	48	39
87	11:02:45	53.4	218776	58.1	57	38
88	11:02:55	50.7	117490	57.6	56	38

89	11:03:05	38.2	6606.93	38.2	38	38
90	11:03:15	56.1	407380	58.8	58	42
91	11:03:25	48.7	74131	56	53	41
92	11:03:35	41.7	14791.1	45	44	39
93	11:03:45	41.2	13182.6	43.9	43	40
94	11:03:55	40.1	10232.9	42.5	41	39
95	11:04:05	40.7	11749	43	42	39
96	11:04:15	40.9	12302.7	42.6	42	39
97	11:04:25	41.4	13803.8	43.7	43	40
98	11:04:35	39.3	8511.38	41.6	40	38
99	11:04:45	39.8	9549.93	41.1	40	39
100	11:04:55	39.4	8709.64	41.5	40	38
101	11:05:05	46.2	41686.9	51.2	50	40
102	11:05:15	40.7	11749	46.3	43	38
103	11:05:25	38.2	6606.93	38.2	38	38
104	11:05:35	38.2	6606.93	38.2	38	38
105	11:05:45	38.2	6606.93	38.2	38	38
106	11:05:55	38.2	6606.93	38.2	38	38
107	11:06:05	39.3	8511.38	41.4	40	38
108	11:06:15	40.9	12302.7	44.1	42	38
109	11:06:25	40.2	10471.3	43.5	42	38
110	11:06:35	41.8	15135.6	45.6	45	38
111	11:06:45	47.4	54954.1	49.7	49	43
112	11:06:55	46.3	42658	49.4	48	41
113	11:07:05	38.5	7079.46	40.2	39	38
114	11:07:15	45.6	36307.8	51.5	49	38
115	11:07:25	43.7	23442.3	49.6	48	38
116	11:07:35	38.2	6606.93	38.2	38	38
117	11:07:45	38.2	6606.93	38.2	38	38
118	11:07:55	38.2	6606.93	38.2	38	38
119	11:08:05	38.2	6606.93	38.2	38	38
120	11:08:15	38.8	7585.78	40.7	40	38
121	11:08:25	45.6	36307.8	52.4	49	40
122	11:08:35	50.2	104713	55	54	42
123	11:08:45	39.6	9120.11	41.7	40	38
124	11:08:55	39.1	8128.31	42	41	38
125	11:09:05	44.9	30903	49.1	48	40
126	11:09:15	48	63095.7	53.1	52	41
127	11:09:25	55.6	363078	63.4	62	45
128	11:09:35	55.5	354813	61.9	60	48
129	11:09:45	50.3	107152	54.5	53	47
130	11:09:55	48.3	67608.3	51.9	51	43
131	11:10:05	48.9	77624.7	52.6	51	44
132	11:10:15	50.2	104713	54.1	53	46
133	11:10:25	46.4	43651.6	51.1	49	42
134	11:10:35	38.6	7244.36	41.1	39	38
135	11:10:45	38.9	7762.47	41.6	40	38
136	11:10:55	38.8	7585.78	40.9	40	38
137	11:11:05	38.2	6606.93	38.2	38	38
138	11:11:15	38.2	6606.93	38.2	38	38
139	11:11:25	38.9	7762.47	41.4	40	38
140	11:11:35	40.5	11220.2	48.1	42	38
141	11:11:45	54.6	288403	58.3	57	50
142	11:11:55	49.9	97723.7	53.4	52	45
143	11:12:05	46.3	42658	51.7	48	43

144	11:12:15	52.1	162181	55	54	49
145	11:12:25	51.8	151356	54.7	54	50
146	11:12:35	49.5	89125.1	52.1	51	46
147	11:12:45	44.6	28840.3	46.7	46	42
148	11:12:55	48.1	64565.4	51.8	51	43
149	11:13:05	54.2	263027	58.9	58	43
150	11:13:15	53.3	213796	58.4	56	51
151	11:13:25	50.3	107152	53.3	52	47
152	11:13:35	54.6	288403	57.8	57	47
153	11:13:45	47.5	56234.1	52	50	43
154	11:13:55	51	125893	53.9	52	47
155	11:14:05	50.5	112202	54.3	53	45
156	11:14:15	47.9	61659.5	52.6	51	43
157	11:14:25	43.6	22908.7	49.1	47	39
158	11:14:35	39	7943.28	40.5	39	38
159	11:14:45	47.8	60256	53.9	51	40
160	11:14:55	45.9	38904.5	48.4	47	42
161	11:15:05	44.3	26915.3	49.6	47	38
162	11:15:15	39.8	9549.93	41	40	38
163	11:15:25	44.7	29512.1	49.4	48	40
164	11:15:35	43.3	21379.6	46.7	45	41
165	11:15:45	39.6	9120.11	41.9	41	38
166	11:15:55	38.6	7244.36	39.6	39	38
167	11:16:05	38.4	6918.31	39.2	39	38
168	11:16:15	38.2	6606.93	38.2	38	38
169	11:16:25	38.4	6918.31	39.2	39	38
170	11:16:35	38.4	6918.31	40.2	38	38
171	11:16:45	39.9	9772.37	41.5	41	38
172	11:16:55	39.4	8709.64	40	40	38
173	11:17:05	40.3	10715.2	47.9	43	38
174	11:17:15	52.4	173780	55.1	55	43
175	11:17:25	38.3	6760.83	40.2	38	38
176	11:17:35	38.2	6606.93	38.9	38	38
177	11:17:45	38.2	6606.93	38.3	38	38
178	11:17:55	38.3	6760.83	39.4	38	38
179	11:18:05	39.4	8709.64	41.7	41	38
180	11:18:15	47.4	54954.1	54.1	53	38
181	11:18:25	55.6	363078	57.2	57	53
182	11:18:35	51.1	128825	56.3	53	47
183	11:18:45	47.1	51286.1	47.4	47	46
End Ambient 1 Run 1 Ft Hamer Park			49.3	63.4		
Begin Ambient 1 Run 2 Ft Hamer Park						
1	15:57:49	38.7	7413.1	41.8	39	38
2	15:57:59	38.2	6606.93	38.2	38	38
3	15:58:09	38.2	6606.93	38.2	38	38
4	15:58:19	38.2	6606.93	38.2	38	38
5	15:58:29	38.3	6760.83	39	38	38
6	15:58:39	38.9	7762.47	41.9	40	38
7	15:58:49	38.2	6606.93	39	38	38
8	15:58:59	38.2	6606.93	38.3	38	38
9	15:59:09	38.5	7079.46	39.6	39	38
10	15:59:19	38.6	7244.36	40.3	39	38
11	15:59:29	38.4	6918.31	40.1	39	38
12	15:59:39	38.3	6760.83	38.8	38	38
13	15:59:49	38.9	7762.47	41.3	40	38

14	15:59:59	39.1	8128.31	42.9	40	38
15	16:00:09	43.9	24547.1	57.3	41	38
16	16:00:19	47	50118.7	56.3	52	38
17	16:00:29	38.5	7079.46	39.1	39	38
18	16:00:39	47.3	53703.2	56	52	38
19	16:00:49	42.8	19054.6	47	46	38
20	16:00:59	54	251189	57.4	56	48
21	16:01:09	48.7	74131	53	51	46
22	16:01:19	56.7	467735	60.4	60	50
23	16:01:29	48.4	69183.1	49.6	49	47
24	16:01:39	45.5	35481.3	48.7	47	42
25	16:01:49	46	39810.7	52.4	49	42
26	16:01:59	44	25118.9	50.9	47	40
27	16:02:09	41.5	14125.4	46.6	43	40
28	16:02:19	41.7	14791.1	45.2	45	39
29	16:02:29	42.7	18620.9	45.7	44	41
30	16:02:39	43.3	21379.6	45.3	44	41
31	16:02:49	47.9	61659.5	51.3	50	42
32	16:02:59	53.2	208930	55.1	55	49
33	16:03:09	43.9	24547.1	47.8	46	40
34	16:03:19	41.3	13489.6	42.8	42	40
35	16:03:29	43.3	21379.6	44.3	44	42
36	16:03:39	48.3	67608.3	54.2	51	44
37	16:03:49	54.3	269153	56.5	56	52
38	16:03:59	48.3	67608.3	51.7	50	45
39	16:04:09	43.7	23442.3	45.4	45	42
40	16:04:19	41.9	15488.2	42.5	42	41
41	16:04:29	41.1	12882.5	41.7	41	40
42	16:04:39	41	12589.3	41.4	41	40
43	16:04:49	41.4	13803.8	41.7	41	41
44	16:04:59	42.4	17378	43.1	42	41
45	16:05:09	44	25118.9	46.7	45	43
46	16:05:19	43.9	24547.1	46.7	46	41
47	16:05:29	44.3	26915.3	45	44	43
48	16:05:39	42.9	19498.4	44.3	44	41
49	16:05:49	41.9	15488.2	42.2	42	41
50	16:05:59	41.1	12882.5	41.8	41	40
51	16:06:09	41	12589.3	42	41	40
52	16:06:19	42.7	18620.9	43.6	43	42
53	16:06:29	51	125893	54.2	53	44
54	16:06:39	46.1	40738	47.8	47	44
55	16:06:49	53.3	213796	58.7	57	48
56	16:06:59	56.5	446684	59.7	59	52
57	16:07:09	48.3	67608.3	51.1	50	45
58	16:07:19	44.9	30903	49.7	47	43
59	16:07:29	42.1	16218.1	42.7	42	41
60	16:07:39	41	12589.3	41.7	41	40
61	16:07:49	40.7	11749	41.1	41	40
62	16:07:59	40.3	10715.2	40.5	40	40
63	16:08:09	40.3	10715.2	40.6	40	40
64	16:08:19	40.5	11220.2	41.5	41	40
65	16:08:29	39.9	9772.37	40.3	40	39
66	16:08:39	40.2	10471.3	40.5	40	40
67	16:08:49	43.6	22908.7	49.8	47	40
68	16:08:59	40.4	10964.8	41	40	40

69	16:09:09	41.9	15488.2	43.9	43	40
70	16:09:19	40.8	12022.6	41.9	41	40
71	16:09:29	45.9	38904.5	52.3	50	40
72	16:09:39	48.3	67608.3	52.4	51	45
73	16:09:49	51	125893	52.7	52	48
74	16:09:59	51.3	134896	52.1	52	50
75	16:10:09	53.6	229087	57	56	50
76	16:10:19	54.2	263027	58.2	57	51
77	16:10:29	53.9	245471	57.1	56	51
78	16:10:39	50.2	104713	51.6	51	47
79	16:10:49	45.8	38018.9	49.5	48	43
80	16:10:59	46.1	40738	50.8	48	43
81	16:11:09	45.3	33884.4	49.6	48	42
82	16:11:19	44	25118.9	45	44	43
83	16:11:29	46.3	42658	48.3	47	44
84	16:11:39	45.2	33113.1	52.5	49	41
85	16:11:49	45.7	37153.5	53	49	41
86	16:11:59	41.3	13489.6	42.6	41	41
87	16:12:09	41.8	15135.6	42.2	42	41
88	16:12:19	42.1	16218.1	42.8	42	41
89	16:12:29	41.4	13803.8	41.8	41	41
90	16:12:39	42.2	16595.9	43	42	41
91	16:12:49	41.6	14454.4	42.7	42	40
92	16:12:59	41.1	12882.5	41.6	41	40
93	16:13:09	41.8	15135.6	43.5	43	41
94	16:13:19	53.3	213796	58.7	57	45
95	16:13:29	51.7	147911	56.9	54	48
96	16:13:39	53.8	239883	56.5	56	51
97	16:13:49	48.8	75857.8	51.8	50	45
98	16:13:59	48.9	77624.7	51.6	51	44
99	16:14:09	51.6	144544	54	53	49
100	16:14:19	46.4	43651.6	48.2	48	45
101	16:14:29	44.2	26302.7	45.6	45	42
102	16:14:39	41.6	14454.4	43.4	42	40
103	16:14:49	40.9	12302.7	41.9	41	40
104	16:14:59	41.5	14125.4	42.4	42	41
105	16:15:09	41.4	13803.8	42.2	41	41
106	16:15:19	41.9	15488.2	44	43	41
107	16:15:29	41.5	14125.4	42.7	42	41
108	16:15:39	41.6	14454.4	43.8	42	40
109	16:15:49	42.2	16595.9	43.7	42	41
110	16:15:59	43.6	22908.7	48.4	46	41
111	16:16:09	43.2	20893	45.6	44	42
112	16:16:19	42.2	16595.9	45.1	44	40
113	16:16:29	41.3	13489.6	41.8	41	41
114	16:16:39	40.8	12022.6	41.2	41	40
115	16:16:49	40.6	11481.5	40.9	40	40
116	16:16:59	40.5	11220.2	41	40	40
117	16:17:09	41.5	14125.4	43.7	42	40
118	16:17:19	49.5	89125.1	54.5	52	43
119	16:17:29	48.7	74131	51.3	50	44
120	16:17:39	44.6	28840.3	46.8	45	43
121	16:17:49	43.6	22908.7	46.7	45	40
122	16:17:59	53.1	204174	62.4	58	41
123	16:18:09	40.9	12302.7	42.2	41	40

124	16:18:19	40.5	11220.2	41	40	40
125	16:18:29	42.1	16218.1	47.4	44	40
126	16:18:39	40.8	12022.6	43.3	41	40
127	16:18:49	50.8	120226	54.8	53	44
128	16:18:59	52.2	165959	55	54	49
129	16:19:09	48.6	72443.6	51	50	46
130	16:19:19	51.4	138038	55.9	55	46
131	16:19:29	48.9	77624.7	53.9	49	47
132	16:19:39	48.8	75857.8	53.8	50	47
133	16:19:49	51.2	131826	53.4	53	47
134	16:19:59	50.2	104713	52.7	52	47
135	16:20:09	44.3	26915.3	47.4	46	42
136	16:20:19	43.1	20417.4	45.4	44	41
137	16:20:29	41.4	13803.8	43.1	42	40
138	16:20:39	42	15848.9	44.6	43	41
139	16:20:49	40.2	10471.3	40.9	40	39
140	16:20:59	47.1	51286.1	59.9	40	40
141	16:21:09	48.6	72443.6	58	54	39
142	16:21:19	40.6	11481.5	41.7	41	40
143	16:21:29	40.2	10471.3	41	40	39
144	16:21:39	42.2	16595.9	48.1	45	39
145	16:21:49	41.9	15488.2	45.8	43	40
146	16:21:59	49.3	85113.8	53.5	52	42
147	16:22:09	46.8	47863	47.2	47	46
148	16:22:19	46.8	47863	47.1	47	46
149	16:22:29	46.7	46773.5	47	46	46
150	16:22:39	46.4	43651.6	46.6	46	46
151	16:22:49	46	39810.7	46.6	46	45
152	16:22:59	45.9	38904.5	47.8	47	45
153	16:23:09	55.3	338844	62.5	61	44
154	16:23:19	42.4	17378	43.3	42	42
155	16:23:29	42.7	18620.9	43.1	43	42
156	16:23:39	42.2	16595.9	42.5	42	41
157	16:23:49	42.4	17378	42.8	42	42
158	16:23:59	42.5	17782.8	43	42	42
159	16:24:09	43.8	23988.3	45.4	45	42
160	16:24:19	44.8	30199.5	45.8	45	43
161	16:24:29	42.9	19498.4	43.8	43	42
162	16:24:39	43.3	21379.6	45.3	45	42
163	16:24:49	43.4	21877.6	46.5	45	42
164	16:24:59	43.8	23988.3	45.9	45	42
165	16:25:09	45	31622.8	48	46	43
166	16:25:19	47.2	52480.7	47.8	47	46
167	16:25:29	45.2	33113.1	49.8	47	43
168	16:25:39	44.8	30199.5	50.4	48	42
169	16:25:49	42.5	17782.8	43.4	43	42
170	16:25:59	42.5	17782.8	43.4	43	42
171	16:26:09	44.3	26915.3	47.8	46	43
172	16:26:19	42.8	19054.6	43.5	43	42
173	16:26:29	42.4	17378	42.7	42	42
174	16:26:39	45.6	36307.8	48.8	48	42
175	16:26:49	47.2	52480.7	51.8	49	45
176	16:26:59	43.6	22908.7	46.2	44	42
177	16:27:09	43.6	22908.7	47.6	45	42
178	16:27:19	42.5	17782.8	47.8	43	41

	179	16:27:29	44.3	26915.3	47.7	46	42
End Ambient 1 Run 1 Ft Hamer Park				47.1	62.5		

<<< TABULAR TIME HISTORY REPORT FROM FILE AMB2

Test Location: northeast of Winding Stream Way Temp 82
Employee Name: BO, VAS RH 65%
Employee Number... Wind NE 2-3
Department.....
Comment.....

Calibrator Type Metrosonics cl-304 Serial #...
Calibrator Calibration Date..

METROSO db-3100 SN 3250 V1.7
REPORT PRINTED 10/7/10 AT 15:51:35
OF PERIODS: 981 MODE: CONTINUOUS
PERIOD LENGTH: 0:00:10
TIME HISTORY CUTOFF: NONE
Ln(1): 10.00% Ln(2): 90.00%

DATE: 10/7/10

INT	TIME	Lav	energy	Lmx	L1	L2	
Begin Ambient 2 Run 1 Upper Manatee River Rd							
187	12:06:17	43.3	21379.621	46.8	42	40	UMRR
188	12:06:27	48.2	66069.345	56.7	52	41	
189	12:06:37	41.8	15135.612	45	43	40	
190	12:06:47	41.1	12882.496	41.6	41	40	
191	12:06:57	41.4	13803.843	42.3	41	41	
192	12:07:07	40.8	12022.644	41.5	41	40	
193	12:07:17	40.6	11481.536	42.3	41	39	
194	12:07:27	51.3	134896.29	61.1	57	41	
195	12:07:37	45.3	33884.416	52.9	49	41	
196	12:07:47	42.6	18197.009	46.1	44	41	
197	12:07:57	43.5	22387.211	47.5	45	41	
198	12:08:07	42.6	18197.009	44.4	43	41	
199	12:08:17	42.5	17782.794	44.4	43	41	
200	12:08:27	41.7	14791.084	43.5	42	40	
201	12:08:37	41	12589.254	43.2	42	39	
202	12:08:47	41.1	12882.496	44.9	42	39	
203	12:08:57	40.9	12302.688	44.8	43	38	
204	12:09:07	40.5	11220.185	45.2	42	38	
205	12:09:17	40.1	10232.93	45	42	38	
206	12:09:27	40	10000	43.8	42	38	
207	12:09:37	39.8	9549.9259	43.6	41	38	
208	12:09:47	40.3	10715.193	44.6	42	38	
209	12:09:57	39.5	8912.5094	43.2	41	38	
210	12:10:07	38.7	7413.1024	41.9	39	38	
211	12:10:17	38.6	7244.3596	41.5	39	38	
212	12:10:27	40.4	10964.782	46.4	42	38	
213	12:10:37	38.5	7079.4578	40.6	39	38	
214	12:10:47	39.5	8912.5094	42.7	41	38	
215	12:10:57	39.8	9549.9259	41.9	41	38	
216	12:11:07	38.3	6760.8298	39.6	38	38	
217	12:11:17	39.1	8128.3052	42.1	39	38	
218	12:11:27	40.4	10964.782	43.3	42	38	
219	12:11:37	39.4	8709.6359	40.2	40	38	
220	12:11:47	39.1	8128.3052	40.3	40	38	

221	12:11:57	38.2	6606.9345	38.2	38	38
222	12:12:07	38.7	7413.1024	43.5	39	38
223	12:12:17	44	25118.864	48.2	46	41
224	12:12:27	54.9	309029.54	64.5	60	41
225	12:12:37	42.1	16218.101	45.5	43	40
226	12:12:47	43.4	21877.616	46.4	45	38
227	12:12:57	38.3	6760.8298	39.4	38	38
228	12:13:07	38.3	6760.8298	39.5	38	38
229	12:13:17	38.7	7413.1024	40.6	40	38
230	12:13:27	40.3	10715.193	44.1	42	38
231	12:13:37	39.6	9120.1084	42	40	38
232	12:13:47	40.4	10964.782	41.9	41	39
233	12:13:57	40.2	10471.285	42.1	41	39
234	12:14:07	40.1	10232.93	40.8	40	39
235	12:14:17	39.5	8912.5094	41.3	40	38
236	12:14:27	40.1	10232.93	41.1	40	39
237	12:14:37	40.3	10715.193	42	41	39
238	12:14:47	39.9	9772.3722	41.7	41	38
239	12:14:57	41.1	12882.496	42.5	42	40
240	12:15:07	42	15848.932	43.6	42	41
241	12:15:17	42.7	18620.871	44.9	44	41
242	12:15:27	47	50118.723	48.6	47	45
243	12:15:37	49.6	91201.084	51.2	50	47
244	12:15:47	47.3	53703.18	47.9	47	46
245	12:15:57	47.2	52480.746	48.2	47	46
246	12:16:07	47.8	60255.959	49.4	48	47
247	12:16:17	48.4	69183.097	50.3	49	47
248	12:16:27	48.1	64565.423	48.6	48	47
249	12:16:37	47.7	58884.366	47.9	47	47
250	12:16:47	47.4	54954.087	48	47	47
251	12:16:57	48	63095.734	51.1	49	47
252	12:17:07	48.6	72443.596	51.7	50	46
253	12:17:17	48.6	72443.596	50.7	50	47
254	12:17:27	47.9	61659.5	50.1	48	47
255	12:17:37	48.3	67608.298	49.8	49	47
256	12:17:47	50.6	114815.36	54.3	53	47
257	12:17:57	56.6	457088.19	57.9	57	55
258	12:18:07	53.4	218776.16	55.8	55	50
259	12:18:17	46.8	47863.009	48.8	47	45
260	12:18:27	42.5	17782.794	44.6	44	40
261	12:18:37	41.8	15135.612	44.2	43	40
262	12:18:47	39.3	8511.3804	41.2	40	38
263	12:18:57	38.9	7762.4712	41	40	38
264	12:19:07	38.5	7079.4578	39.6	39	38
265	12:19:17	40.2	10471.285	46.1	42	38
266	12:19:27	50.9	123026.88	56.4	55	41
267	12:19:37	46.5	44668.359	51.3	50	39
268	12:19:47	39.7	9332.543	41.5	40	38
269	12:19:57	38.2	6606.9345	38.8	38	38
270	12:20:07	38.2	6606.9345	38.2	38	38
271	12:20:17	38.2	6606.9345	38.2	38	38
272	12:20:27	38.5	7079.4578	40.2	39	38
273	12:20:37	39.8	9549.9259	41.1	41	38
274	12:20:47	41.3	13489.629	45.1	43	40
275	12:20:57	38.2	6606.9345	38.6	38	38
276	12:21:07	38.2	6606.9345	38.2	38	38

277	12:21:17	39.4	8709.6359	41.5	41	38
278	12:21:27	38.3	6760.8298	39	38	38
279	12:21:37	38.2	6606.9345	38.2	38	38
280	12:21:47	38.2	6606.9345	38.2	38	38
281	12:21:57	38.2	6606.9345	38.6	38	38
282	12:22:07	38.5	7079.4578	39.8	39	38
283	12:22:17	41.3	13489.629	45.4	43	39
284	12:22:27	40.5	11220.185	43.5	41	38
285	12:22:37	38.4	6918.3097	40.6	39	38
286	12:22:47	39.7	9332.543	43.2	42	38
287	12:22:57	38.2	6606.9345	38.2	38	38
288	12:23:07	38.2	6606.9345	38.4	38	38
289	12:23:17	38.4	6918.3097	39.4	39	38
290	12:23:27	38.2	6606.9345	38.2	38	38
291	12:23:37	38.2	6606.9345	38.2	38	38
292	12:23:47	38.2	6606.9345	38.2	38	38
293	12:23:57	38.2	6606.9345	38.2	38	38
294	12:24:07	38.2	6606.9345	38.2	38	38
295	12:24:17	38.2	6606.9345	38.2	38	38
296	12:24:27	38.2	6606.9345	38.2	38	38
297	12:24:37	38.2	6606.9345	38.2	38	38
298	12:24:47	38.2	6606.9345	38.2	38	38
299	12:24:57	38.2	6606.9345	38.2	38	38
300	12:25:07	38.2	6606.9345	38.2	38	38
301	12:25:17	38.2	6606.9345	38.2	38	38
302	12:25:27	38.2	6606.9345	38.2	38	38
303	12:25:37	38.2	6606.9345	38.6	38	38
304	12:25:47	46.9	48977.882	51.1	50	39
305	12:25:57	45.1	32359.366	48.9	46	43
306	12:26:07	42.3	16982.437	43.1	42	41
307	12:26:17	39.9	9772.3722	41.6	41	38
308	12:26:27	40.1	10232.93	45.4	43	38
309	12:26:37	38.2	6606.9345	38.2	38	38
310	12:26:47	38.2	6606.9345	38.2	38	38
311	12:26:57	38.6	7244.3596	39.5	39	38
312	12:27:07	38.2	6606.9345	38.2	38	38
313	12:27:17	38.4	6918.3097	39.6	39	38
314	12:27:27	39.7	9332.543	42.7	41	38
315	12:27:37	39.1	8128.3052	41.7	40	38
316	12:27:47	38.8	7585.7758	41	39	38
317	12:27:57	40.5	11220.185	42.5	41	39
318	12:28:07	47.2	52480.746	55	51	41
319	12:28:17	44	25118.864	47.3	45	41
320	12:28:27	42.9	19498.446	45.2	44	40
321	12:28:37	41.6	14454.398	44.5	43	39
322	12:28:47	41.6	14454.398	46.7	45	38
323	12:28:57	47.6	57543.994	51.9	49	44
324	12:29:07	43.9	24547.089	47.3	46	40
325	12:29:17	42.1	16218.101	45.8	44	39
326	12:29:27	43.5	22387.211	47.4	46	40
327	12:29:37	44.7	29512.092	49.1	47	40
328	12:29:47	43.8	23988.329	47.8	46	39
329	12:29:57	42.8	19054.607	47	46	38
330	12:30:07	40.7	11748.976	45.3	43	38
331	12:30:17	41.2	13182.567	45.1	43	38
332	12:30:27	42.2	16595.869	46.5	44	39

333	12:30:37	41.8	15135.612	45.7	44	38
334	12:30:47	48.5	70794.578	52.7	52	43
335	12:30:57	48.2	66069.345	52.1	51	45
336	12:31:07	64.5	2818382.9	67.5	67	48
337	12:31:17	56.9	489778.82	65.4	62	42
338	12:31:27	43.1	20417.379	46.5	45	40
339	12:31:37	41.3	13489.629	46.7	43	38
340	12:31:47	41.7	14791.084	47.2	45	38
341	12:31:57	42.8	19054.607	46.7	45	39
342	12:32:07	41.4	13803.843	44.4	43	38
343	12:32:17	38.3	6760.8298	39.6	38	38
344	12:32:27	38.2	6606.9345	38.2	38	38
345	12:32:37	38.4	6918.3097	40.2	38	38
346	12:32:47	40	10000	45.6	43	38
347	12:32:57	43.6	22908.677	49.6	47	38
348	12:33:07	43.3	21379.621	49.5	46	38
349	12:33:17	40.4	10964.782	44.7	42	38
350	12:33:27	39.9	9772.3722	45.3	42	38
351	12:33:37	40.3	10715.193	44.5	42	38
352	12:33:47	41	12589.254	44.8	43	38
353	12:33:57	40.2	10471.285	44.2	42	38
354	12:34:07	40.9	12302.688	45	43	38
355	12:34:17	41.7	14791.084	43.2	43	38
356	12:34:27	43.5	22387.211	46.2	45	39
357	12:34:37	39.3	8511.3804	44.6	40	38
358	12:34:47	40.8	12022.644	44.6	43	38
359	12:34:57	39.3	8511.3804	42.8	41	38
360	12:35:07	41.1	12882.496	43.4	43	38
361	12:35:17	40.8	12022.644	43.2	42	38
362	12:35:27	39.2	8317.6377	42	41	38
363	12:35:37	39	7943.2823	40.2	39	38
364	12:35:47	40.4	10964.782	42.5	42	39
365	12:35:57	42.1	16218.101	44.4	43	39
366	12:36:07	40	10000	42	41	38
End Ambient 2 Run 1 Upper Manatee River R			46.3	67.5		
Begin Ambient 2 Run 2 Upper Manatee River Rd						
367	12:36:17	42	15848.932	43.4	42	40
368	12:36:27	47.3	53703.18	50.4	49	43
369	12:36:37	44.4	27542.287	47.9	46	42
370	12:36:47	42.7	18620.871	44.7	44	41
371	12:36:57	42	15848.932	46	44	39
372	12:37:07	42.5	17782.794	45.6	44	40
373	12:37:17	40.8	12022.644	44.2	43	38
374	12:37:27	40.1	10232.93	41.5	41	38
375	12:37:37	40.4	10964.782	42.8	42	39
376	12:37:47	39.2	8317.6377	40.4	39	38
377	12:37:57	40.8	12022.644	41.9	41	39
378	12:38:07	39.8	9549.9259	41.5	40	38
379	12:38:17	40.1	10232.93	41.8	41	39
380	12:38:27	40.1	10232.93	40.9	40	39
381	12:38:37	38.2	6606.9345	38.8	38	38
382	12:38:47	38.2	6606.9345	38.3	38	38
383	12:38:57	39.7	9332.543	40.8	40	38
384	12:39:07	38.6	7244.3596	41.6	39	38
385	12:39:17	43.2	20892.961	44.2	44	41
386	12:39:27	40.6	11481.536	42.8	41	39

387	12:39:37	40.3	10715.193	44.3	42	38
388	12:39:47	38.2	6606.9345	38.6	38	38
389	12:39:57	38.2	6606.9345	38.2	38	38
390	12:40:07	38.2	6606.9345	38.4	38	38
391	12:40:17	39	7943.2823	40	39	38
392	12:40:27	38.2	6606.9345	38.9	38	38
393	12:40:37	40.1	10232.93	41.4	41	38
394	12:40:47	39.9	9772.3722	41.7	41	38
395	12:40:57	38.6	7244.3596	39.7	39	38
396	12:41:07	38.2	6606.9345	38.6	38	38
397	12:41:17	38.2	6606.9345	38.2	38	38
398	12:41:27	38.2	6606.9345	38.5	38	38
399	12:41:37	38.9	7762.4712	41.5	40	38
400	12:41:47	39.3	8511.3804	40.7	40	38
401	12:41:57	40.2	10471.285	43.2	41	38
402	12:42:07	41.1	12882.496	45.2	44	38
403	12:42:17	38.6	7244.3596	41.5	39	38
404	12:42:27	40.4	10964.782	42.8	42	38
405	12:42:37	38.3	6760.8298	39.4	38	38
406	12:42:47	38.2	6606.9345	38.2	38	38
407	12:42:57	38.2	6606.9345	39.3	38	38
408	12:43:07	38.5	7079.4578	40	39	38
409	12:43:17	38.6	7244.3596	41.3	39	38
410	12:43:27	38.4	6918.3097	40.7	38	38
411	12:43:37	38.5	7079.4578	40.5	39	38
412	12:43:47	38.8	7585.7758	40.3	39	38
413	12:43:57	42.3	16982.437	47.1	46	38
414	12:44:07	39.2	8317.6377	40.2	39	38
415	12:44:17	39	7943.2823	42.8	41	38
416	12:44:27	39	7943.2823	40.2	39	38
417	12:44:37	38.5	7079.4578	39.8	39	38
418	12:44:47	38.2	6606.9345	38.3	38	38
419	12:44:57	38.2	6606.9345	38.2	38	38
420	12:45:07	39.1	8128.3052	43.8	42	38
421	12:45:17	38.6	7244.3596	42.1	39	38
422	12:45:27	39	7943.2823	42.7	40	38
423	12:45:37	38.6	7244.3596	39.1	39	38
424	12:45:47	38.2	6606.9345	38.2	38	38
425	12:45:57	38.7	7413.1024	42.4	39	38
426	12:46:07	42.5	17782.794	44.6	44	39
427	12:46:17	49.4	87096.359	52.7	52	42
428	12:46:27	40.1	10232.93	41.2	41	38
429	12:46:37	38.2	6606.9345	38.4	38	38
430	12:46:47	38.2	6606.9345	38.5	38	38
431	12:46:57	42	15848.932	46.2	44	38
432	12:47:07	47.4	54954.087	52	51	40
433	12:47:17	43.8	23988.329	46.5	45	41
434	12:47:27	38.3	6760.8298	40.5	38	38
435	12:47:37	41.2	13182.567	45	43	38
436	12:47:47	44.7	29512.092	49.5	46	41
437	12:47:57	42.1	16218.101	45.4	44	38
438	12:48:07	40	10000	42.7	41	38
439	12:48:17	38.7	7413.1024	40.4	39	38
440	12:48:27	43.8	23988.329	46.6	45	40
441	12:48:37	43.3	21379.621	45.8	45	39
442	12:48:47	42.4	17378.008	46.4	44	39

443	12:48:57	39.4	8709.6359	42.8	41	38
444	12:49:07	43.4	21877.616	46.9	45	39
445	12:49:17	46.2	41686.938	50.1	48	44
446	12:49:27	43.4	21877.616	45.1	44	42
447	12:49:37	43.6	22908.677	45.8	45	41
448	12:49:47	43	19952.623	45.8	44	41
449	12:49:57	44.3	26915.348	48.2	46	41
450	12:50:07	39.9	9772.3722	43.5	42	38
451	12:50:17	40.5	11220.185	44.6	43	38
452	12:50:27	40.3	10715.193	42.5	41	38
453	12:50:37	44.2	26302.68	47.3	46	40
454	12:50:47	42.3	16982.437	43.9	43	41
455	12:50:57	40.6	11481.536	45.4	42	38
456	12:51:07	43.5	22387.211	46.1	45	41
457	12:51:17	47.1	51286.138	50.4	49	44
458	12:51:27	41.9	15488.166	44.2	43	40
459	12:51:37	41.1	12882.496	42.8	42	39
460	12:51:47	44.9	30902.954	49	47	42
461	12:51:57	43.6	22908.677	50.8	48	39
462	12:52:07	43.3	21379.621	45.2	44	41
463	12:52:17	46.6	45708.819	48.2	47	45
464	12:52:27	45.4	34673.685	48.7	47	42
465	12:52:37	43.3	21379.621	45.6	44	41
466	12:52:47	41.1	12882.496	43.5	42	39
467	12:52:57	43.2	20892.961	45.5	44	39
468	12:53:07	42.5	17782.794	45.5	44	39
469	12:53:17	43.7	23442.288	45.8	44	42
470	12:53:27	46.8	47863.009	53.6	49	40
471	12:53:37	46.1	40738.028	54.2	51	38
472	12:53:47	40.2	10471.285	46.6	42	38
473	12:53:57	45.5	35481.339	47.9	47	42
474	12:54:07	44.4	27542.287	46.5	45	42
475	12:54:17	44.6	28840.315	47.3	45	43
476	12:54:27	44.6	28840.315	46.6	45	43
477	12:54:37	44.4	27542.287	46.8	45	43
478	12:54:47	46	39810.717	47.2	46	45
479	12:54:57	48.1	64565.423	50	49	47
480	12:55:07	47.9	61659.5	49.6	49	46
481	12:55:17	43.5	22387.211	46.2	45	41
482	12:55:27	47.3	53703.18	52.4	51	41
483	12:55:37	48.4	69183.097	52.1	51	44
484	12:55:47	45.7	37153.523	48.9	47	43
485	12:55:57	42.5	17782.794	46.8	45	39
486	12:56:07	45.6	36307.805	49.6	49	38
487	12:56:17	42.5	17782.794	45.9	44	39
488	12:56:27	44.6	28840.315	47.8	46	41
489	12:56:37	43	19952.623	46.4	45	40
490	12:56:47	45.6	36307.805	47.7	46	44
491	12:56:57	45.7	37153.523	50.5	49	42
492	12:57:07	48.8	75857.758	53.3	52	41
493	12:57:17	41.8	15135.612	46.6	44	38
494	12:57:27	39.1	8128.3052	39.9	39	38
495	12:57:37	40.7	11748.976	43.3	42	38
496	12:57:47	38.3	6760.8298	38.8	38	38
497	12:57:57	38.2	6606.9345	38.2	38	38
498	12:58:07	39.7	9332.543	43.3	42	38

499	12:58:17	38.4	6918.3097	40.3	39	38
500	12:58:27	38.6	7244.3596	40.7	40	38
501	12:58:37	39	7943.2823	41.1	40	38
502	12:58:47	39.6	9120.1084	40.9	40	38
503	12:58:57	40.9	12302.688	44.5	44	38
504	12:59:07	43.3	21379.621	45.9	45	40
505	12:59:17	41.7	14791.084	46	44	39
506	12:59:27	42.8	19054.607	45.3	44	39
507	12:59:37	42.5	17782.794	44.9	44	41
508	12:59:47	43.8	23988.329	45.4	45	42
509	12:59:57	43.9	24547.089	46.5	45	41
510	13:00:07	43.7	23442.288	46.2	45	41
511	13:00:17	41.2	13182.567	42.5	42	40
512	13:00:27	40.8	12022.644	42.6	42	39
513	13:00:37	40.2	10471.285	40.9	40	39
514	13:00:47	40.5	11220.185	42.1	41	39
515	13:00:57	43.7	23442.288	50.2	47	40
516	13:01:07	40.9	12302.688	42	41	40
517	13:01:17	45.3	33884.416	49.4	47	42
518	13:01:27	41.4	13803.843	43.9	43	40
519	13:01:37	45.9	38904.514	53.1	49	40
520	13:01:47	44.8	30199.517	49.1	46	41
521	13:01:57	44.5	28183.829	47.5	46	41
522	13:02:07	45.9	38904.514	47.8	47	43
523	13:02:17	48.5	70794.578	49.5	49	47
524	13:02:27	51.8	151356.12	53.7	53	49
525	13:02:37	55.8	380189.4	57.5	57	53
526	13:02:47	56	398107.17	58.3	58	53
527	13:02:57	53.2	208929.61	54.5	54	51
528	13:03:07	51.7	147910.84	52.7	52	50
529	13:03:17	51	125892.54	52.3	51	50
530	13:03:27	50.4	109647.82	50.8	50	50
531	13:03:37	50.6	114815.36	51.4	50	50
532	13:03:47	50.9	123026.88	51.6	51	50
533	13:03:57	51.1	128824.96	51.8	51	50
534	13:04:07	51.4	138038.43	51.9	51	51
535	13:04:17	53.8	239883.29	55.9	55	51
536	13:04:27	50.6	114815.36	52.9	51	49
537	13:04:37	49.4	87096.359	51.1	50	46
538	13:04:47	43.8	23988.329	46.6	45	39
539	13:04:57	38.4	6918.3097	39.2	39	38
540	13:05:07	38.2	6606.9345	38.2	38	38
541	13:05:17	38.2	6606.9345	38.2	38	38
542	13:05:27	45	31622.777	47.5	46	38
543	13:05:37	46.1	40738.028	49.2	47	43
544	13:05:47	46.5	44668.359	49.5	48	44
545	13:05:57	44.6	28840.315	46.3	45	43
546	13:06:07	44	25118.864	46.6	45	43
End Ambient 2 Run 2 Upper Manatee River R			45.0	58.3		
Begin Ambient 2 Run 3 Upper Manatee River Rd						
547	13:06:17	43.5	22387.211	45.4	44	42
548	13:06:27	40.8	12022.644	43.5	42	40
549	13:06:37	39.1	8128.3052	40.8	39	38
550	13:06:47	42.5	17782.794	44.6	44	40
551	13:06:57	40.8	12022.644	43.8	42	39
552	13:07:07	40.1	10232.93	41.9	41	38

553	13:07:17	40.8	12022.644	42.8	42	39
554	13:07:27	39.6	9120.1084	41.7	41	38
555	13:07:37	41.7	14791.084	43.9	43	39
556	13:07:47	40	10000	42.6	41	38
557	13:07:57	40.5	11220.185	42.1	41	39
558	13:08:07	42.8	19054.607	45.8	45	40
559	13:08:17	46.3	42657.952	49.6	49	41
560	13:08:27	44.3	26915.348	47.2	45	42
561	13:08:37	43.2	20892.961	45.3	44	42
562	13:08:47	42.2	16595.869	45.9	44	40
563	13:08:57	41.4	13803.843	43.7	42	40
564	13:09:07	41.4	13803.843	43	42	40
565	13:09:17	41.2	13182.567	42.6	42	40
566	13:09:27	41.6	14454.398	43.7	43	40
567	13:09:37	40.8	12022.644	43.4	41	38
568	13:09:47	41.5	14125.375	42.6	42	39
569	13:09:57	42.1	16218.101	44.6	43	39
570	13:10:07	41.2	13182.567	46.7	44	38
571	13:10:17	43.2	20892.961	47.3	45	40
572	13:10:27	38.2	6606.9345	38.8	38	38
573	13:10:37	38.4	6918.3097	39.8	39	38
574	13:10:47	41.5	14125.375	46.6	43	39
575	13:10:57	44.5	28183.829	47.2	46	42
576	13:11:07	41	12589.254	43.4	42	39
577	13:11:17	40	10000	45	43	38
578	13:11:27	39.9	9772.3722	41.4	40	39
579	13:11:37	40.1	10232.93	42	41	38
580	13:11:47	43.7	23442.288	46.2	45	40
581	13:11:57	41.2	13182.567	43.4	42	39
582	13:12:07	39.7	9332.543	41.2	40	38
583	13:12:17	39.5	8912.5094	43.6	40	38
584	13:12:27	42.4	17378.008	44.3	43	41
585	13:12:37	42.2	16595.869	44.2	43	40
586	13:12:47	41.1	12882.496	43.9	42	39
587	13:12:57	39.6	9120.1084	42.7	41	38
588	13:13:07	42.1	16218.101	44.9	44	39
589	13:13:17	39.4	8709.6359	41.3	40	38
590	13:13:27	41.8	15135.612	45.4	44	38
591	13:13:37	42	15848.932	46.2	43	40
592	13:13:47	43.7	23442.288	47.1	46	40
593	13:13:57	40.7	11748.976	43.4	41	39
594	13:14:07	43.8	23988.329	46.4	45	40
595	13:14:17	43.9	24547.089	46.6	45	42
596	13:14:27	46	39810.717	49	48	44
597	13:14:37	46.6	45708.819	49.1	48	43
598	13:14:47	44.6	28840.315	47.2	46	42
599	13:14:57	48.4	69183.097	50.5	50	45
600	13:15:07	49.3	85113.804	50.7	50	47
601	13:15:17	48.5	70794.578	49.9	49	46
602	13:15:27	48.1	64565.423	50.6	49	47
603	13:15:37	50.2	104712.85	52	51	48
604	13:15:47	48.3	67608.298	50.7	49	46
605	13:15:57	48.4	69183.097	51.1	49	46
606	13:16:07	47.1	51286.138	48.7	48	46
607	13:16:17	47.1	51286.138	49.4	48	44
608	13:16:27	48.1	64565.423	51.6	50	44

609	13:16:37	40.9	12302.688	43.2	42	39
610	13:16:47	40	10000	42.8	42	38
611	13:16:57	41.1	12882.496	46.4	44	38
612	13:17:07	47.2	52480.746	50.2	48	43
613	13:17:17	44.6	28840.315	46.4	46	43
614	13:17:27	43.3	21379.621	47.2	45	39
615	13:17:37	44.6	28840.315	48.2	47	41
616	13:17:47	44.4	27542.287	47.5	46	42
617	13:17:57	44	25118.864	47.2	45	41
618	13:18:07	43.8	23988.329	46.3	45	42
619	13:18:17	42.8	19054.607	46.1	45	38
620	13:18:27	43.2	20892.961	45.1	44	41
621	13:18:37	41.5	14125.375	44.7	43	38
622	13:18:47	40	10000	44.1	42	38
623	13:18:57	44.9	30902.954	49.8	47	42
624	13:19:07	45.1	32359.366	49.9	47	41
625	13:19:17	43.5	22387.211	47.8	46	39
626	13:19:27	41.5	14125.375	45.2	44	38
627	13:19:37	44.9	30902.954	50.1	49	39
628	13:19:47	43	19952.623	48.4	46	38
629	13:19:57	43.3	21379.621	45.1	44	41
630	13:20:07	42.1	16218.101	43.8	42	41
631	13:20:17	40.1	10232.93	41.6	41	38
632	13:20:27	41.1	12882.496	42.8	42	40
633	13:20:37	38.6	7244.3596	40.9	39	38
634	13:20:47	38.2	6606.9345	38.2	38	38
635	13:20:57	38.3	6760.8298	38.8	38	38
636	13:21:07	39.9	9772.3722	41.4	41	38
637	13:21:17	38.2	6606.9345	38.2	38	38
638	13:21:27	38.2	6606.9345	38.2	38	38
639	13:21:37	38.3	6760.8298	39.8	38	38
640	13:21:47	38.2	6606.9345	38.5	38	38
641	13:21:57	44	25118.864	48.7	47	38
642	13:22:07	43.7	23442.288	48.5	46	41
643	13:22:17	38.8	7585.7758	41.3	40	38
644	13:22:27	40.5	11220.185	42.8	42	38
645	13:22:37	45.1	32359.366	48.4	48	41
646	13:22:47	44.3	26915.348	45.4	45	42
647	13:22:57	38.4	6918.3097	40.8	39	38
648	13:23:07	38.2	6606.9345	38.2	38	38
649	13:23:17	41.8	15135.612	46.8	45	38
650	13:23:27	44.8	30199.517	47.1	46	43
651	13:23:37	43.2	20892.961	47.3	46	38
652	13:23:47	42.7	18620.871	44.5	44	40
653	13:23:57	41.7	14791.084	43.6	43	40
654	13:24:07	49.2	83176.377	51.2	51	43
655	13:24:17	48.3	67608.298	49.9	49	45
656	13:24:27	42.4	17378.008	44.6	43	40
657	13:24:37	39.3	8511.3804	42.4	41	38
658	13:24:47	38.3	6760.8298	39.5	38	38
659	13:24:57	39.9	9772.3722	42.8	42	38
660	13:25:07	45.1	32359.366	48.1	47	42
661	13:25:17	40.4	10964.782	43.8	43	38
662	13:25:27	39.8	9549.9259	44	41	38
663	13:25:37	44.9	30902.954	47.8	46	41
664	13:25:47	44.2	26302.68	48.1	46	39

665	13:25:57	40	10000	44.6	43	38
666	13:26:07	40.5	11220.185	43.7	43	38
667	13:26:17	46.5	44668.359	48.9	47	44
668	13:26:27	46.7	46773.514	49.5	48	42
669	13:26:37	45	31622.777	48.6	47	41
670	13:26:47	40.3	10715.193	43.9	42	38
671	13:26:57	47.7	58884.366	53.9	51	43
672	13:27:07	46.3	42657.952	49.9	48	42
673	13:27:17	43.3	21379.621	49.3	45	40
674	13:27:27	47.7	58884.366	50.9	49	45
675	13:27:37	46.5	44668.359	49.6	49	42
676	13:27:47	43	19952.623	49	44	39
677	13:27:57	46.4	43651.583	49.5	47	43
678	13:28:07	42.9	19498.446	46.4	45	39
679	13:28:17	45.5	35481.339	47.9	47	44
680	13:28:27	41.2	13182.567	44.8	43	38
681	13:28:37	39.3	8511.3804	43.2	41	38
682	13:28:47	44.4	27542.287	47.5	46	42
683	13:28:57	43.1	20417.379	46.7	45	40
684	13:29:07	43.5	22387.211	46.9	45	40
685	13:29:17	45.2	33113.112	49.3	48	38
686	13:29:27	42.6	18197.009	46.9	45	38
687	13:29:37	44.1	25703.958	46.7	45	42
688	13:29:47	44.4	27542.287	50.4	48	38
689	13:29:57	40	10000	42.3	41	38
690	13:30:07	42.6	18197.009	44.4	44	39
691	13:30:17	44.9	30902.954	46.6	45	42
692	13:30:27	42.5	17782.794	44.9	44	38
693	13:30:37	43	19952.623	49.9	46	38
694	13:30:47	42.6	18197.009	46.5	45	39
695	13:30:57	41.2	13182.567	46	44	38
696	13:31:07	39.6	9120.1084	45.6	42	38
697	13:31:17	39.4	8709.6359	40.7	40	38
698	13:31:27	40	10000	41.9	41	38
699	13:31:37	38.7	7413.1024	40	39	38
700	13:31:47	38.2	6606.9345	38.2	38	38
701	13:31:57	38.2	6606.9345	38.2	38	38
702	13:32:07	38.2	6606.9345	38.2	38	38
703	13:32:17	38.2	6606.9345	38.2	38	38
704	13:32:27	38.2	6606.9345	38.2	38	38
705	13:32:37	38.2	6606.9345	38.2	38	38
706	13:32:47	38.2	6606.9345	38.2	38	38
707	13:32:57	38.2	6606.9345	38.2	38	38
708	13:33:07	38.3	6760.8298	39.5	38	38
709	13:33:17	38.3	6760.8298	39.5	38	38
710	13:33:27	38.2	6606.9345	38.5	38	38
711	13:33:37	38.2	6606.9345	38.2	38	38
712	13:33:47	38.2	6606.9345	38.2	38	38
713	13:33:57	40.1	10232.93	43.3	42	38
714	13:34:07	38.7	7413.1024	43.2	38	38
715	13:34:17	41.1	12882.496	47.6	45	38
716	13:34:27	39.7	9332.543	44.6	41	38
717	13:34:37	38.6	7244.3596	39.9	39	38
718	13:34:47	38.5	7079.4578	39.9	39	38
719	13:34:57	38.2	6606.9345	38.2	38	38
720	13:35:07	38.2	6606.9345	38.2	38	38

721	13:35:17	38.2	6606.9345	38.2	38	38
722	13:35:27	38.5	7079.4578	40.6	39	38
723	13:35:37	43	19952.623	48.1	45	41
724	13:35:47	41.8	15135.612	43.3	43	41
725	13:35:57	42.8	19054.607	44.3	44	41
726	13:36:07	43	19952.623	43.7	43	42
End Ambient 2 Run 3 Upper Manatee River R			43.2	53.9		
Begin Ambient 2 Run 4 Upper Manatee River Rd						
727	13:36:17	42.1	16218.101	43	43	40
728	13:36:27	38.3	6760.8298	39.7	38	38
729	13:36:37	38.2	6606.9345	38.2	38	38
730	13:36:47	46.7	46773.514	53.9	52	38
731	13:36:57	38.9	7762.4712	43.6	40	38
732	13:37:07	38.3	6760.8298	39	38	38
733	13:37:17	38.3	6760.8298	38.7	38	38
734	13:37:27	38.2	6606.9345	38.4	38	38
735	13:37:37	38.2	6606.9345	38.2	38	38
736	13:37:47	38.2	6606.9345	38.2	38	38
737	13:37:57	38.7	7413.1024	40.6	39	38
738	13:38:07	39.9	9772.3722	41.8	41	38
739	13:38:17	40.7	11748.976	42.1	41	39
740	13:38:27	39.7	9332.543	42.1	41	38
741	13:38:37	39.3	8511.3804	40.8	40	38
742	13:38:47	38.4	6918.3097	39.8	38	38
743	13:38:57	39.1	8128.3052	41.3	39	38
744	13:39:07	40.6	11481.536	42.3	41	39
745	13:39:17	38.8	7585.7758	40.3	39	38
746	13:39:27	38.2	6606.9345	38.6	38	38
747	13:39:37	38.8	7585.7758	40.8	39	38
748	13:39:47	40.2	10471.285	45.5	42	38
749	13:39:57	38.2	6606.9345	38.8	38	38
750	13:40:07	41	12589.254	47.4	45	38
751	13:40:17	39	7943.2823	43.9	41	38
752	13:40:27	38.8	7585.7758	41.3	40	38
753	13:40:37	38.6	7244.3596	40	39	38
754	13:40:47	38.4	6918.3097	39.5	38	38
755	13:40:57	38.2	6606.9345	38.2	38	38
756	13:41:07	38.7	7413.1024	41.4	40	38
757	13:41:17	38.2	6606.9345	38.6	38	38
758	13:41:27	38.5	7079.4578	40.3	39	38
759	13:41:37	41.9	15488.166	43.7	43	40
760	13:41:47	41.8	15135.612	42.7	42	40
761	13:41:57	38.3	6760.8298	39.4	38	38
762	13:42:07	38.3	6760.8298	39.2	38	38
763	13:42:17	43.3	21379.621	45.1	44	41
764	13:42:27	55.8	380189.4	65.8	62	42
765	13:42:37	48.8	75857.758	58.1	54	38
766	13:42:47	40.8	12022.644	43.5	42	38
767	13:42:57	39.1	8128.3052	41.5	40	38
768	13:43:07	42.1	16218.101	46.8	45	39
769	13:43:17	44.5	28183.829	49	48	39
770	13:43:27	43.8	23988.329	47.3	46	40
771	13:43:37	42.5	17782.794	46.3	44	40
772	13:43:47	44.9	30902.954	48.8	47	41
773	13:43:57	42.2	16595.869	47	43	39
774	13:44:07	45.6	36307.805	52.3	49	40

775	13:44:17	48.8	75857.758	52.4	51	44
776	13:44:27	47.9	61659.5	52.5	50	44
777	13:44:37	46.1	40738.028	50.8	49	39
778	13:44:47	41	12589.254	43.4	42	39
779	13:44:57	38.3	6760.8298	38.9	38	38
780	13:45:07	40.3	10715.193	43.6	42	38
781	13:45:17	40	10000	42.6	41	38
782	13:45:27	40.7	11748.976	42.6	41	39
783	13:45:37	41.4	13803.843	44.6	43	39
784	13:45:47	38.4	6918.3097	40.3	39	38
785	13:45:57	40.5	11220.185	42.7	41	39
786	13:46:07	41.4	13803.843	43.9	43	39
787	13:46:17	40.3	10715.193	42.8	41	38
788	13:46:27	38.3	6760.8298	39.9	38	38
789	13:46:37	38.2	6606.9345	38.2	38	38
790	13:46:47	38.2	6606.9345	38.2	38	38
791	13:46:57	38.2	6606.9345	38.2	38	38
792	13:47:07	42.5	17782.794	46.5	44	38
793	13:47:17	40.3	10715.193	43.6	42	38
794	13:47:27	41.4	13803.843	45.9	44	38
795	13:47:37	38.2	6606.9345	38.2	38	38
796	13:47:47	38.2	6606.9345	38.5	38	38
797	13:47:57	40.9	12302.688	44	43	38
798	13:48:07	40.2	10471.285	42.9	42	38
799	13:48:17	40.3	10715.193	44.7	42	38
800	13:48:27	46.3	42657.952	48.9	48	40
801	13:48:37	49.1	81283.052	56.3	54	44
802	13:48:47	52.2	165958.69	56.3	55	44
803	13:48:57	40	10000	43.7	42	38
804	13:49:07	38.4	6918.3097	39.4	38	38
805	13:49:17	43.9	24547.089	47.7	47	38
806	13:49:27	47.2	52480.746	50	49	43
807	13:49:37	46.4	43651.583	49	48	43
808	13:49:47	44.7	29512.092	48.2	46	41
809	13:49:57	44.9	30902.954	46.7	46	41
810	13:50:07	46.9	48977.882	49.8	48	44
811	13:50:17	46.9	48977.882	50.5	49	44
812	13:50:27	45.4	34673.685	50.1	47	40
813	13:50:37	41.8	15135.612	44	43	38
814	13:50:47	41.2	13182.567	45.7	43	38
815	13:50:57	41.5	14125.375	46.4	45	38
816	13:51:07	41.9	15488.166	45.1	43	40
817	13:51:17	43.4	21877.616	46.7	45	41
818	13:51:27	43.1	20417.379	46.2	45	40
819	13:51:37	42.1	16218.101	44.9	43	39
820	13:51:47	45.7	37153.523	48.3	47	43
821	13:51:57	43.4	21877.616	46	44	41
822	13:52:07	42.9	19498.446	45.8	45	40
823	13:52:17	45.9	38904.514	51.3	49	40
824	13:52:27	44.2	26302.68	46.4	45	42
825	13:52:37	39.2	8317.6377	44.2	41	38
826	13:52:47	38.2	6606.9345	38.2	38	38
827	13:52:57	38.2	6606.9345	38.2	38	38
828	13:53:07	38.2	6606.9345	38.2	38	38
829	13:53:17	38.2	6606.9345	38.2	38	38
830	13:53:27	38.2	6606.9345	38.2	38	38

831	13:53:37	38.2	6606.9345	38.8	38	38
832	13:53:47	43.4	21877.616	48	46	38
833	13:53:57	42	15848.932	45.5	44	38
834	13:54:07	38.2	6606.9345	38.2	38	38
835	13:54:17	39.5	8912.5094	42.8	41	38
836	13:54:27	42.5	17782.794	45.4	44	40
837	13:54:37	43.1	20417.379	46.2	44	41
838	13:54:47	41.3	13489.629	45.7	43	38
839	13:54:57	40.6	11481.536	43.4	42	38
840	13:55:07	39.6	9120.1084	42	41	38
841	13:55:17	44.3	26915.348	47.3	46	42
842	13:55:27	42.3	16982.437	47.9	45	38
843	13:55:37	39.6	9120.1084	42.2	40	38
844	13:55:47	39	7943.2823	41.2	40	38
845	13:55:57	39.2	8317.6377	41.5	40	38
846	13:56:07	45.3	33884.416	49.9	49	40
847	13:56:17	49.5	89125.094	52.6	51	46
848	13:56:27	46.1	40738.028	48.7	47	44
849	13:56:37	40.8	12022.644	44.7	42	39
850	13:56:47	40.2	10471.285	42.7	41	38
851	13:56:57	38.6	7244.3596	40.9	39	38
852	13:57:07	40	10000	42	40	38
853	13:57:17	39.7	9332.543	41.5	40	38
854	13:57:27	39	7943.2823	41.5	40	38
855	13:57:37	38.7	7413.1024	40.8	40	38
856	13:57:47	39.6	9120.1084	42.4	41	38
857	13:57:57	39.5	8912.5094	42.3	41	38
858	13:58:07	39	7943.2823	41.1	39	38
859	13:58:17	38.2	6606.9345	38.2	38	38
860	13:58:27	38.2	6606.9345	38.2	38	38
861	13:58:37	38.2	6606.9345	38.2	38	38
862	13:58:47	38.2	6606.9345	38.2	38	38
863	13:58:57	38.2	6606.9345	38.2	38	38
864	13:59:07	41.6	14454.398	46.3	45	38
865	13:59:17	38.2	6606.9345	38.2	38	38
866	13:59:27	38.2	6606.9345	38.2	38	38
867	13:59:37	38.2	6606.9345	38.2	38	38
868	13:59:47	38.2	6606.9345	38.2	38	38
869	13:59:57	38.2	6606.9345	38.2	38	38
870	14:00:07	38.2	6606.9345	38.2	38	38
871	14:00:17	38.2	6606.9345	38.6	38	38
872	14:00:27	38.3	6760.8298	38.8	38	38
873	14:00:37	38.2	6606.9345	38.2	38	38
874	14:00:47	43.1	20417.379	45.4	45	38
875	14:00:57	43.5	22387.211	45.1	44	42
876	14:01:07	40.5	11220.185	43.7	42	38
877	14:01:17	43.9	24547.089	46.5	45	41
878	14:01:27	41	12589.254	44.1	42	38
879	14:01:37	38.2	6606.9345	38.5	38	38
880	14:01:47	38.2	6606.9345	38.2	38	38
881	14:01:57	38.8	7585.7758	44.2	39	38
882	14:02:07	41.8	15135.612	46.3	45	38
883	14:02:17	38.2	6606.9345	38.2	38	38
884	14:02:27	38.4	6918.3097	40.1	39	38
885	14:02:37	38.6	7244.3596	42	39	38
886	14:02:47	41.3	13489.629	44	43	38

887	14:02:57	44.3	26915.348	46.5	45	41
888	14:03:07	39.6	9120.1084	42.5	41	38
889	14:03:17	40.1	10232.93	44	42	38
890	14:03:27	40	10000	44	42	38
891	14:03:37	39.8	9549.9259	43.9	41	38
892	14:03:47	40.1	10232.93	43.6	42	38
893	14:03:57	39.7	9332.543	43.2	41	38
894	14:04:07	39.3	8511.3804	42.9	41	38
895	14:04:17	39.3	8511.3804	42.8	41	38
896	14:04:27	39.5	8912.5094	44.2	41	38
897	14:04:37	39.5	8912.5094	42.5	41	38
898	14:04:47	42.3	16982.437	44.3	43	41
899	14:04:57	42.7	18620.871	47.5	46	40
900	14:05:07	41.2	13182.567	45.9	43	39
901	14:05:17	51.1	128824.96	60.2	57	39
902	14:05:27	58.1	645654.23	62.2	61	50
End Ambient 2 Run 4 Upper Manatee River R			43.6	65.8		

URS 25-Jul-11
O'Donnell TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: New Ft Hamer Bridge
RUN: 4L Build NB PM Peak w/Barriers
BARRIER DESIGN: Rye Rd 1E 8ft

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

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver125	125	1	0	67.8	66	67.8	10	Snd Lvl	62.9	4.9	8	-3.1
Receiver124	124	1	0	67.6	66	67.6	10	Snd Lvl	64.3	3.3	8	-4.7
Receiver123	123	1	0	67.8	66	67.8	10	Snd Lvl	65.4	2.4	8	-5.6
Receiver122	122	2	0	66.4	66	66.4	10	Snd Lvl	61.5	4.9	8	-3.1
Receiver121	121	1	0	64	66	64	10	----	60.6	3.4	8	-4.6

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	5	2.4	3.8	4.9
All Impacted	5	2.4	3.9	4.9
All that meet NR Goal	0	0	0	0

RESULTS: BARRIER DESCRIPT
PROJECT/CONTRACT: New Ft Hamer Bridge
RUN: 4L Build NB PM Peak w/Barriers
BARRIER DESIGN: Rye Rd 1E 8ft

Barriers Name	Type	Heights along Barrier Min	Avg	Max	Length	If Wall Area	If Berm Volume	Top Width	Run:Rise	Cost
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
RYE 3E	W	8	8	8	1138	9104				273116
									Total Cost:	273116

URS 25-Jul-11
O'Donnell TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: New Ft Hamer Bridge
RUN: 4L Build NB PM Peak w/Barriers
BARRIER DESIGN: Rye Rd 1E 10ft

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

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver125	125	1	0	67.8	66	67.8	10	Snd Lvl	62.3	5.5	8	-2.5
Receiver124	124	1	0	67.6	66	67.6	10	Snd Lvl	63.9	3.7	8	-4.3
Receiver123	123	1	0	67.8	66	67.8	10	Snd Lvl	65.2	2.6	8	-5.4
Receiver122	122	2	0	66.4	66	66.4	10	Snd Lvl	60.4	6	8	-2
Receiver121	121	1	0	64	66	64	10	----	59.5	4.5	8	-3.5

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	5	2.6	4.5	6
All Impacted	5	2.6	4.5	6
All that meet NR Goal	0	0	0	0

URS 25-Jul-11
O'Donnell TNM 2.5

RESULTS: BARRIER DESCRIPTI
PROJECT/CONTRACT: New Ft Hamer Bridge
RUN: 4L Build NB PM Peak w/Barriers
BARRIER DESIGN: Rye Rd 1E 10ft

Barriers Name	Type	Heights along Barrier Min	Avg	Max	Length	If Wall Area	If Berm Volume	Top Width	Run:Rise	Cost
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
RYE 3E	W	10	10	10	1138	11380				341395
									Total Cost:	341395

URS 25-Jul-11
O'Donnell TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: New Ft Hamer Bridge
RUN: 4L Build NB PM Peak w/Barriers
BARRIER DESIGN: Rye Rd 1E 12ft

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

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver125	125	1	0	67.8	66	67.8	10	Snd Lvl	62	5.8	8	-2.2
Receiver124	124	1	0	67.6	66	67.6	10	Snd Lvl	63.8	3.8	8	-4.2
Receiver123	123	1	0	67.8	66	67.8	10	Snd Lvl	65	2.8	8	-5.2
Receiver122	122	2	0	66.4	66	66.4	10	Snd Lvl	59.9	6.5	8	-1.5
Receiver121	121	1	0	64	66	64	10	----	59	5	8	-3

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	5	2.8	4.8	6.5
All Impacted	5	2.8	4.7	6.5
All that meet NR Goal	0	0	0	0

URS 25-Jul-11
O'Donnell TNM 2.5

RESULTS: BARRIER DESCRIPTI
PROJECT/CONTRACT: New Ft Hamer Bridge
RUN: 4L Build NB PM Peak w/Barriers
BARRIER DESIGN: Rye Rd 1E 12ft

Barriers Name	Type	Heights along Barrier Min	Avg	Max	Length	If Wall Area	If Berm Volume	Top Width	Run:Rise	Cost
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
RYE 3E	W	12	12	12	1138	13656				409674
									Total Cost:	409674

URS 25-Jul-11
O'Donnell TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: New Ft Hamer Bridge
RUN: 4L Build NB PM Peak w/Barriers
BARRIER DESIGN: Rye Rd 1E 14ft

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

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver125	125	1	0	67.8	66	67.8	10	Snd Lvl	61.8	6	8	-2
Receiver124	124	1	0	67.6	66	67.6	10	Snd Lvl	63.6	4	8	-4
Receiver123	123	1	0	67.8	66	67.8	10	Snd Lvl	65	2.8	8	-5.2
Receiver122	122	2	0	66.4	66	66.4	10	Snd Lvl	59.5	6.9	8	-1.1
Receiver121	121	1	0	64	66	64	10	----	58.7	5.3	8	-2.7

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	5	2.8	5	6.9
All Impacted	5	2.8	4.9	6.9
All that meet NR Goal	0	0	0	0

URS 25-Jul-11
O'Donnell TNM 2.5

RESULTS: BARRIER DESCRIPTI
PROJECT/CONTRACT: New Ft Hamer Bridge
RUN: 4L Build NB PM Peak w/Barriers
BARRIER DESIGN: Rye Rd 1E 14ft

Barriers Name	Type	Heights along Barrier Min	Avg	Max	Length	If Wall Area	If Berm Volume	Top Width	Run:Rise	Cost
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
RYE 3E	W	14	14	14	1138	15932				477953
									Total Cost:	477953

URS 25-Jul-11
O'Donnell TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: New Ft Hamer Bridge
RUN: 4L Build NB PM Peak w/Barriers
BARRIER DESIGN: Rye Rd 1E 16ft

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

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver125	125	1	0	67.8	66	67.8	10	Snd Lvl	61.7	6.1	8	-1.9
Receiver124	124	1	0	67.6	66	67.6	10	Snd Lvl	63.6	4	8	-4
Receiver123	123	1	0	67.8	66	67.8	10	Snd Lvl	64.9	2.9	8	-5.1
Receiver122	122	2	0	66.4	66	66.4	10	Snd Lvl	59.3	7.1	8	-0.9
Receiver121	121	1	0	64	66	64	10	----	58.5	5.5	8	-2.5

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	5	2.9	5.1	7.1
All Impacted	5	2.9	5	7.1
All that meet NR Goal	0	0	0	0

URS 25-Jul-11
O'Donnell TNM 2.5

RESULTS: BARRIER DESCRIPTI
PROJECT/CONTRACT: New Ft Hamer Bridge
RUN: 4L Build NB PM Peak w/Barriers
BARRIER DESIGN: Rye Rd 1E 16ft

Barriers

Name	Type	Heights along Barrier Min	Avg	Max	Length	If Wall Area	If Berm Volume	Top Width	Run:Rise	Cost
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
RYE 3E	W	16	16	16	1138	18208				546232
									Total Cost:	546232

URS 25-Jul-11
O'Donnell TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: New Ft Hamer Bridge
RUN: 4L Build NB PM Peak w/Barriers
BARRIER DESIGN: Rye Rd 1E 18ft

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

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver125	125	1	0	67.8	66	67.8	10	Snd Lvl	61.5	6.3	8	-1.7
Receiver124	124	1	0	67.6	66	67.6	10	Snd Lvl	63.5	4.1	8	-3.9
Receiver123	123	1	0	67.8	66	67.8	10	Snd Lvl	64.9	2.9	8	-5.1
Receiver122	122	2	0	66.4	66	66.4	10	Snd Lvl	59.1	7.3	8	-0.7
Receiver121	121	1	0	64	66	64	10	----	58.3	5.7	8	-2.3

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	5	2.9	5.3	7.3
All Impacted	5	2.9	5.2	7.3
All that meet NR Goal	0	0	0	0

URS 25-Jul-11
O'Donnell TNM 2.5

RESULTS: BARRIER DESCRIPTI
PROJECT/CONTRACT: New Ft Hamer Bridge
RUN: 4L Build NB PM Peak w/Barriers
BARRIER DESIGN: Rye Rd 1E 18ft

Barriers Name	Type	Heights along Barrier Min	Avg	Max	Length	If Wall Area	If Berm Volume	Top Width	Run:Rise	Cost
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
RYE 3E	W	18	18	18	1138	20484				614511
									Total Cost:	614511

URS 25-Jul-11
O'Donnell TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: New Ft Hamer Bridge
RUN: 4L Build NB PM Peak w/Barriers
BARRIER DESIGN: Rye Rd 1E 20ft

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

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver125	125	1	0	67.8	66	67.8	10	Snd Lvl	61.4	6.4	8	-1.6
Receiver124	124	1	0	67.6	66	67.6	10	Snd Lvl	63.4	4.2	8	-3.8
Receiver123	123	1	0	67.8	66	67.8	10	Snd Lvl	64.8	3	8	-5
Receiver122	122	2	0	66.4	66	66.4	10	Snd Lvl	58.9	7.5	8	-0.5
Receiver121	121	1	0	64	66	64	10	----	58.2	5.8	8	-2.2

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	5	3	5.4	7.5
All Impacted	5	3	5.3	7.5
All that meet NR Goal	0	0	0	0

URS 25-Jul-11
O'Donnell TNM 2.5

RESULTS: BARRIER DESCRIPTI
PROJECT/CONTRACT: New Ft Hamer Bridge
RUN: 4L Build NB PM Peak w/Barriers
BARRIER DESIGN: Rye Rd 1E 20ft

Barriers Name	Type	Heights along Barrier Min	Avg	Max	Length	If Wall Area	If Berm Volume	Top Width	Run:Rise	Cost
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
RYE 3E	W	20	20	20	1138	22760				682790
									Total Cost:	682790

URS 25-Jul-11
O'Donnell TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: New Ft Hamer Bridge
RUN: 4L Build NB PM Peak w/Barriers
BARRIER DESIGN: Rye Rd 1E 22ft

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

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver125	125	1	0	67.8	66	67.8	10	Snd Lvl	61.4	6.4	8	-1.6
Receiver124	124	1	0	67.6	66	67.6	10	Snd Lvl	63.4	4.2	8	-3.8
Receiver123	123	1	0	67.8	66	67.8	10	Snd Lvl	64.8	3	8	-5
Receiver122	122	2	0	66.4	66	66.4	10	Snd Lvl	58.8	7.6	8	-0.4
Receiver121	121	1	0	64	66	64	10	----	58.1	5.9	8	-2.1

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	5	3	5.4	7.6
All Impacted	5	3	5.3	7.6
All that meet NR Goal	0	0	0	0

URS 25-Jul-11
O'Donnell TNM 2.5

RESULTS: BARRIER DESCRIPT
PROJECT/CONTRACT: New Ft Hamer Bridge
RUN: 4L Build NB PM Peak w/Barriers
BARRIER DESIGN: Rye Rd 1E 22ft

Barriers Name	Type	Heights along Barrier Min	Avg	Max	Length	If Wall Area	If Berm Volume	Top Width	Run:Rise	Cost
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
RYE 3E	W	22	22	22	1138	25036				751069
									Total Cost:	751069

Barrier Height (ft)	Affected Residences with Insertion Loss of (dBA) 5	6	7	8	9	10 or More	Number of Benefited Residences Affected	Other*	Total	Total Estimated Cost	Cost Per Benefitted Receiver	Cost Reasonable Yes/No
8	0	0	0	0	0	0	0	0	0	NA	NA	No
10	1	2	0	0	0	0	3	0	3	$341,395	$113,798	No
12	2	2	0	0	0	0	4	0	4	$409,674	$102,419	No
14	1	3	0	0	0	0	4	0	4	$477,953	$119,488	No
16	1	1	2	0	0	0	4	0	4	$546,232	$136,558	No
18	1	1	2	0	0	0	4	0	4	$614,511	$153,628	No
20	1	1	2	0	0	0	4	0	4	$682,790	$170,698	No
22	1	1	2	0	0	0	4	0	4	$751,069	$187,767	No