

Environmental Transportation Planning

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To: Steve Boylan, PE – GAI Consultants

From: Robbin Ossi, AICP

Subject: SR 429/46 from W. of Old McDonald Road to E. of Wekiva River (Wekiva 6)
FPN: 238275-7-32-02
Noise Impact Analysis for Wekiva River Bridge section

WHITE PAPER METHODOLOGY

To aid the engineering team in preparing permit documentation and coordinating with various environmental agencies, ETP was tasked with determining traffic noise impacts associated with the proposed project as it traverses the Wekiva River. Analysis limits for this effort extended ¼ mile in each direction of the Wekiva River in order to capture the full extents of the Outstanding Remarkable Values (ORV) of the River.

Noise receptors within the study area, illustrated on the attached graphic, are residential (FHWA Activity Category B land uses) and the Wekiva River (Activity Category C land use). Noise impacts to either of these land use categories requires a noise level of 66.0 dBA or greater, or a 15.0 dBA noise increase over existing conditions.

As shown in attached table, current noise levels within the ORV limits are well below 66.0 dBA. The proposed bridge profile is significantly higher than the existing bridge and actually lowers traffic noise through the study area, including on the Wekiva River. Please note, the noise prediction model, TNM, is incapable of predicting noise levels on the Wekiva underneath the bridge structure. Consequently, the proposed project will have no noise impacts through this segment.

Noise Impact Analysis - Wekiva River Bridge

Analyzed Receptor	Sites Represented	FHWA NAC	Existing Noise Level	Build Noise Level	Change
R1	1 residence	66.0	57.0	49.1	-7.9
R2	1 residence	66.0	58.2	52.7	-5.5
R3	1 residence	66.0	58.0	45.9	-12.1
R4	1 residence	66.0	55.0	47.3	-7.7
R5	1 residence	66.0	50.6	45.9	-4.7
R6	4 residences	66.0	57.8	48.4	-9.4
R7	2 residences	66.0	49.2	48.7	-0.5
R8	1 residence	66.0	54.7	47.3	-7.4
R9	1 residence	66.0	48.4	48.1	-0.3
R10	1 residence	66.0	53.4	47.6	-5.8
R11	1 residence	66.0	50.9	45.1	-5.8
R12	1 residence	66.0	50.3	44.3	-6.0
Wekiva N 100' bridge CL	1	66.0	53.6	43.7	-9.9
Wekiva N 150'	1	66.0	53.6	44.3	-9.3
Wekiva N 200'	1	66.0	53.2	44.2	-9.0
Wekiva N 250'	1	66.0	52.8	45.0	-7.8
Wekiva N 300'	1	66.0	52.4	44.6	-7.8
Wekiva S 150'	1	66.0	53.2	39.9	-13.3
Wekiva S 200'	1	66.0	53.1	44.0	-9.1
Wekiva S 250'	1	66.0	52.9	44.7	-8.2
Wekiva S 300'	1	66.0	52.5	45.2	-7.3

* Refer to illustration on following page



Wekiva River Bridge Analysis
 Station 908+00 to 937+20

Sheet 1



WEKIVA PARKWAY
 Completing Central Florida's Beltway

Noise Impact Reevaluation Report
 FPN: 238275-7-32-02

Legend



1 in = 200 ft

★ Analyzed Receptors



Wekiva River Bridge Analysis
 Station 908+00 to 937+20

WEKIVA PARKWAY
 Completing Central Florida's Beltway

Noise Impact Reevaluation Report
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Legend

NORTH
 1 in = 200 ft

Analyzed Receptors