

FINAL
AIR QUALITY MEMORANDUM

STATE ROAD 52 PD&E STUDY
FROM I-75 (SR 93) to E. of EMMAUS CEMETERY ROAD

Pasco Work Order Number: C 3623.00
WPI Segment Number: 408827 1

Prepared for:



Pasco County Engineering Services Department

June 2005

In cooperation with the Florida Department of Transportation

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AIR QUALITY MEMORANDUM
STATE ROAD 52 PD&E STUDY
FROM I-75 (SR 93) to E. of EMMAUS CEMETERY ROAD
IN PASCO COUNTY, FLORIDA

Pasco Work Order Number: C 3623.00
WPI Segment Number: 408827 1

Prepared for:

Pasco County Engineering Services Department

Prepared by:

Wilson Miller, Inc.
15438 N. Florida Avenue
Suite 200
Tampa, Florida 33613

And

Environmental Science Associates, Inc.
2685 Ulmerton Road, Suite 102
Clearwater, Florida 33762

June 2005

M E M O R A N D U M

TO: Project File

FROM: Michael Mulbarger

DATE: December 28, 2004

SUBJECT: WPI Segment Number: 408827 1
State Road 52 SEIR, Pasco County, Florida
Air Quality Screening

An air quality review of the subject project was conducted following standard Florida Department of Transportation (FDOT) procedures. This project is located in Pasco County, which has been designated as attainment for all the air quality standards under the criteria provided in the Clean Air Act Amendments of 1990, and as such, conformity does not apply.

To ensure that no air quality standards will be violated resulting from the construction and operation of this project, the FDOT Air Quality Screening Model, CO Florida 2004, was used. The CO Florida 2004 model uses information from the Environmental Protection Agency's (EPA) MOBILE6 Emissions model and the CALINE3 model to produce an estimate of the carbon monoxide (CO) levels that might result from the operation of the project. The model predicts CO concentrations at default receptors located adjacent to the intersection.

The intersection of State Road 52 and Emmaus Cemetery Road was evaluated under the screening test for the year 2030, the design year for the project. Data used as input into the CO Florida 2004 model are provided in Table 1.

Table 1: CO Florida 2004 Input Data

Roadway	Peak Hour Traffic Volume	Approach Speed (mph)
State Road 52*	922	50
Emmaus Cemetery Road**	187	20
* Source: WilsonMiller, Inc.		
** Source: FDOT Generalized Level-of-Service Traffic Tables		

Using a suburban setting and standard default values for background concentrations and temperatures, the resultant maximum CO concentrations at the ten receptors were predicted to range from 3.8 to 4.9 parts per million (ppm) for 1 hour and from 2.3 to 3.0 ppm for 8 hours. The CO Florida 2004 modeled output results are attached on the following page. Since these values do not exceed the National Ambient Air Quality Standards (NAAQS) established by the United States Environmental Protection Agency (USEPA) of 35 ppm for 1 hour and 9 ppm for 8 hours, no adverse air quality impact will result from the operation of this project.

Construction activities may cause minor short-term air quality impacts in the form of dust from earthwork and unpaved roads. These impacts can be minimized by adherence to all applicable State and local regulations and application of appropriate construction specifications.

12-20-2004

CO Florida 2004

Project: State Road 52 SEIR
Facility: State Road 52
Analyst: MSM

Environmental Data:

Temperature: 48 F
Reid Vapor Pressure: 11.5 psi
Land Use: Suburban
Stability Class: D
Surface Roughness: 108
Background Concentration: 1-hr = 3.3 ppm 8-hr = 2.0 ppm

Project Data:

Region: 3: Central Florida
Year: 2030
Intersection Type: T Intersection
Max Traffic1: 922 veh/hour
Traffic2: 187 veh/hour
Speed1: 50
Speed2: 20

Receptor Data (all distances are in feet):

Receptor Name	East-West Distance from Intersection	North-South Distance from Intersection	Receptor Height
Default Rec 1	15	150	6
Default Rec 2	15	50	6
Default Rec 3	50	15	6
Default Rec 4	150	15	6
Default Rec 5	50	50	6
Default Rec 6	15	-150	6
Default Rec 7	15	-50	6
Default Rec 8	50	-15	6
Default Rec 9	150	-15	6
Default Rec 10	50	-50	6

RESULTS (including background CO):

Receptor Name	Max 1-Hr Conc (ppm)	Max 8-Hr Conc (ppm)
Default Rec 1	4.4	2.7
Default Rec 2	4.5	2.7
Default Rec 3	4.2	2.5
Default Rec 4	3.8	2.3
Default Rec 5	4.2	2.5
Default Rec 6	4.9	3.0
Default Rec 7	4.7	2.8
Default Rec 8	4.2	2.5
Default Rec 9	3.8	2.3
Default Rec 10	4.1	2.5

PROJECT PASSES - NO EXCEEDANCES OF NAAQ CO STANDARDS ARE PREDICTED
