

Project Development & Environment Study

Selmon Expressway (SR 618) Downtown Viaduct Improvements
From Florida Avenue to South 22nd Street

Final Contamination Screening Evaluation Report

THEA Project Number: 52.20.02
FDOT WPI Segment Number: 416361 4
Hillsborough County

Prepared for



June 2010

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Prepared for:



Prepared by:
American Consulting Engineers of Florida, LLC



2818 Cypress Ridge Blvd, Suite 200
Wesley Chapel, FL 33544

In cooperation with:
REA Remedial Solutions, L.C.
106 10 Oak Place
Valrico, FL 33594-3835

June 2010

EXECUTIVE SUMMARY

The Tampa Hillsborough County Expressway Authority (THEA) conducted a Project Development and Environment (PD&E) Study to identify and analyze various alternative design concepts to meet the future traffic needs on the Selmon Expressway (SR 618) from Florida Avenue to South 22nd Street in Hillsborough County (**Figure 1-1**). The total project length is approximately 1.7 miles and is located within the Tampa city limits. Proposed improvements include the widening of the existing structures to the inside to provide a divided 6-lane roadway. The build alternative and any related stormwater improvements will be situated within the existing right-of-way (ROW). The design year for this project is 2035. A separate project within the limits of this study is the proposed re-decking of an approximately one mile segment of the existing viaduct structures, to be constructed by the Florida Department of Transportation (FDOT). The proposed re-decking will extend from Florida Avenue to North 12th Street.

This PD&E Study was conducted by THEA in cooperation with the FDOT District Seven. The objective of this study was to reach a decision on the type, location and conceptual design for the necessary improvements for the Selmon Expressway to safely and efficiently accommodate future travel demand. This Study documents the need for the improvements as well as the procedures utilized to develop and evaluate various improvements including elements such as proposed typical sections and preliminary horizontal alignments. The social, physical, and natural environmental effects and costs of these improvements have been identified. The alternatives were evaluated and compared based on a variety of parameters utilizing a matrix format. This process identified the alternative that will best balance the benefits (such as improved traffic operations and safety) with the impacts (such as environmental effects and construction costs). In addition, full consideration was given to a “No-Build” alternative.

In accordance with the FDOT policy a *Contamination Screening Evaluation Report (CSER)* was prepared for this PD&E Study. The CSER has been prepared pursuant to the FDOT’s *PD&E Manual, Part 2, Chapter 22*, (revised January 17, 2008). Risk rankings

were assigned to each potential contamination site after reviewing data obtained from regulatory site lists, historical land uses and on-site field visits.

The data collection effort involved all potential contamination sites within the vicinity of the proposed project and pond sites. Of the 15 sites evaluated in this *CSEER*, no sites were assigned a “High” risk rating, four were assigned “Medium” risk ratings, and 11 were assigned “Low” risk ratings.

At the four facilities ranked “medium” risk due to potential contamination near the project areas, additional environmental assessment may be warranted. A more detailed assessment of these sites should be conducted prior to starting the construction phase.

In addition, an asbestos survey was completed on the Selmon Expressway structures from Morgan Street to North 12th Street. This survey did not identify any asbestos containing materials. A paint coating sampling survey was also conducted and the results of this survey shows the presence of lead and chromium at levels which exceed the maximum contaminant levels.

Proper precautions will be taken during the renovation and/or demolition of these structures as outlined within the paint coating sampling survey report found in **Appendix G**. These precautions include: complying with the Occupational Safety and Health Administrations (OSHA) Construction Standard contained in 29 CFR 1926 for personnel health and safety; and containerize all paint related waste in US Department of Transportation (USDOT) approved containers, properly labeled, stored and disposed of.

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*Via CD

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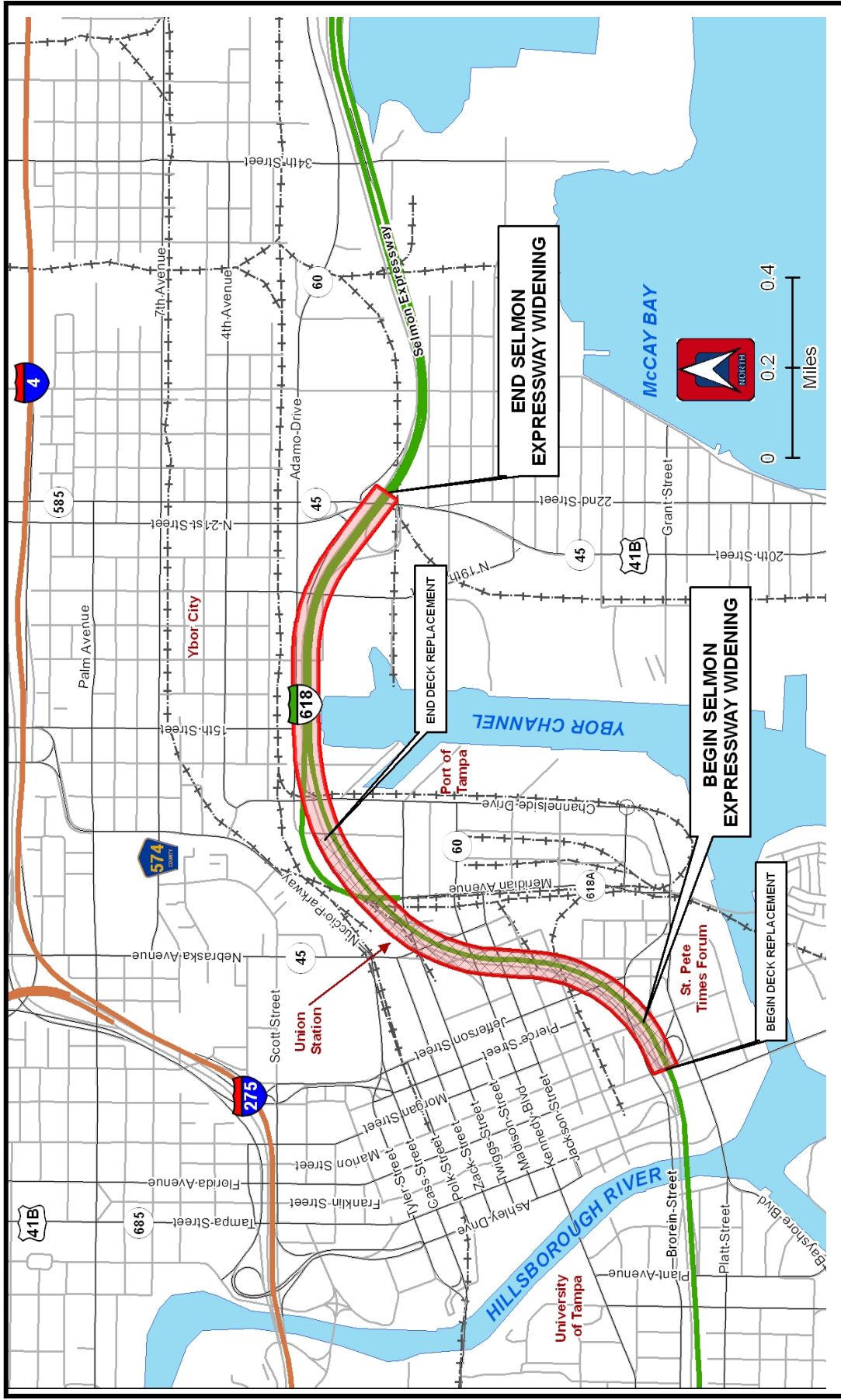
Section 1 – INTRODUCTION

1.1 Project Description

The Tampa Hillsborough County Expressway Authority (THEA) conducted a Project Development and Environment (PD&E) Study to evaluate possible capacity improvements along approximately 1.7 miles of the Selmon Expressway (SR 618), currently a four-lane, continuous elevated structure through downtown Tampa. The study limits for this project are from Florida Avenue to South 22nd Street in Hillsborough County, Florida. The design year for the improvements is 2035. A project location map is shown in **Figure 1-1**.

Evaluated alternative capacity and related stormwater improvements included: 1) widening the existing structures to the inside to provide a divided six-lane roadway and 2) constructing a westbound, one-lane ramp from the nearby expressway Reversible Express Lanes (REL) structure that will tie to the downtown viaduct. The westbound (WB), one-lane ramp alternative included a one-lane widening of the eastbound (EB) viaduct structure to the outside for a total of three EB lanes. A separate project within the limits of this study is the proposed re-decking of an approximately one mile segment of the existing viaduct structures, to be constructed by the Florida Department of Transportation (FDOT). The proposed re-decking will extend from Florida Avenue to North 12th Street.

This PD&E Study was prepared and funded by THEA in cooperation with the FDOT District Seven and is in the FDOT Work Program as Work Program Item (WPI) Segment No.: 416361-4.



**Selmon Expressway (SR 618)
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Figure 1-1: Project Location Map



The western terminus of the project is Florida Avenue; this terminus was selected because it incorporates the deck replacement limits, and enables the four high volume, downtown exit and entrance ramps of the expressway to be contained within the project limits. These four ramps receive and apply approximately one-third (12,000 of the 37,000 daily trips) of the total am and pm peak hour traffic along the Selmon Expressway entering downtown from the east (refer to the *Design Traffic Technical Memorandum*, November 2009). Downtown ramps that are located west of the project limits experience relatively low traffic volumes.

The majority of downtown traffic on the Selmon Expressway enters and leaves from the east. This volume is expected to increase by approximately 10 percent with the opening of the I-4 Connector (refer to *DTTM* for future traffic volumes).

The eastern project terminus meets the four-lane to six-lane transition that will be constructed as part of the I-4 Connector. This will allow for a continuous six-lane section for the expressway in this area, and is thus the logical terminus both geometrically and for traffic.

The sections, township and ranges where the project is located are summarized in **Table 1-1**. Based on long-range planning, projected population and employment growth, and projected traffic volumes, the Hillsborough County Metropolitan Planning Organization (MPO) has included this project in their Cost Feasible Long-Range Transportation Plan (LRTP) that was adopted on December 9, 2009. This project will also be included in the transportation element of the Hillsborough County Comprehensive Plan for consistency.

Table 1-1 Project Sections, Township, Ranges

Hillsborough County		
Sections	Township	Ranges
24	29 S	18 E
17, 18, 19	29 S	19 E

In addition, full consideration was given to a “No-Build” alternative. Study objectives included the following: determine proposed typical sections, develop preliminary horizontal and vertical geometry for the bridges and roadway approaches, while minimizing impacts to the environment and ensuring project compliance with all applicable federal and state laws. Improvement alternatives were identified which will improve safety and meet future transportation demand.

Based on comments received during the preliminary planning for this project through FDOT’s Efficient Transportation Decision Making (ETDM) Process (Programming Screen #11840), a *State Environment Impact Report (SEIR)* is the level of environmental documentation established. **Appendix A** contains an excerpt of the *Programming Screen Summary Report* related to contamination.

1.2 Purpose of Report

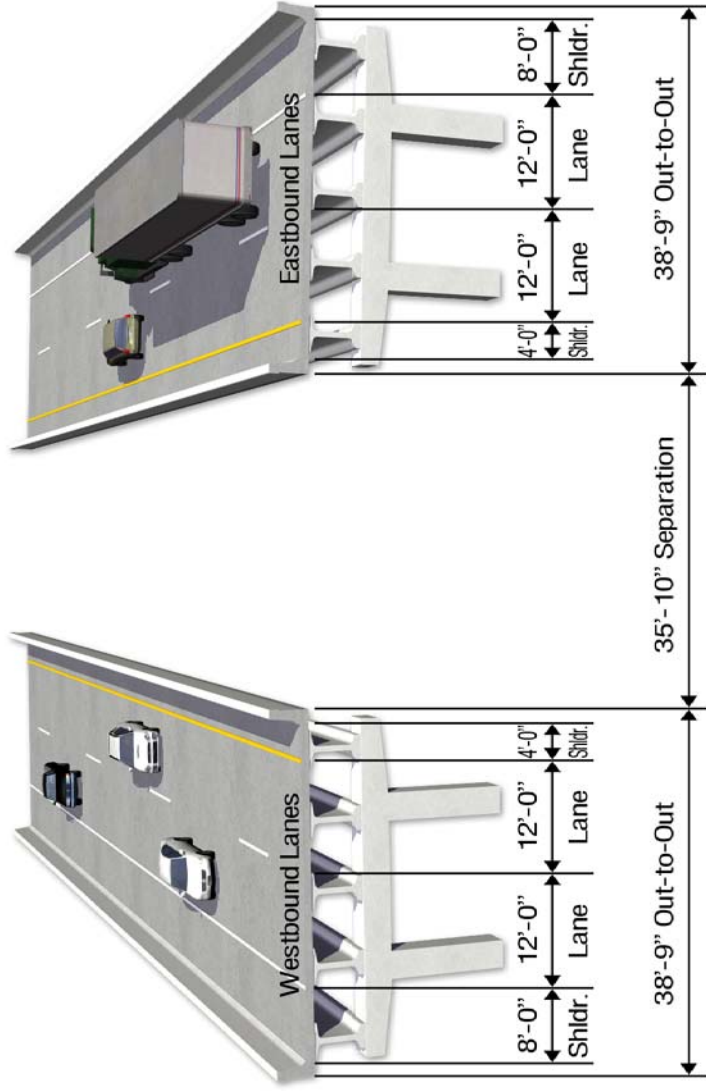
This *Contamination Screening Evaluation Report (CSER)* was prepared as part of the PD&E Study to determine if potential contamination conditions exist that may have adverse environmental impacts, and thus create environmental liability along the project corridor. By determining contaminated areas early in the project development process, those sites can be avoided or remediation costs established. In addition, this will help prevent delays in construction. This evaluation was prepared in general accordance with the FDOT *Project Development and Environment (PD&E) Manual* Part 2, Chapter 22 (revised January 17, 2008). This report identifies and evaluates known or potential contamination problems, presents recommendations concerning these potential problems, and discusses possible impacts to the proposed project area.

1.3 Existing Facility and Proposed Improvements

The Selmon Expressway is primarily an east/west facility, which in its entirety, extends from a western terminus at Gandy Boulevard (US 92/SR 600) to an eastern terminus at Brandon Parkway in Hillsborough County. The Selmon Expressway corridor is

functionally classified as Urban Arterial – Freeways and Expressways. It is part of the Florida Intrastate Highway System (FIHS), which is comprised of interconnected limited and controlled access roadways including interstate highways, Florida’s Turnpike, selected urban expressways and major arterial highways. The FIHS is the highway component of the Strategic Intermodal System (SIS), which is a statewide network of highways, railways, waterways and transportation hubs that handle the bulk of Florida’s passenger and freight traffic.

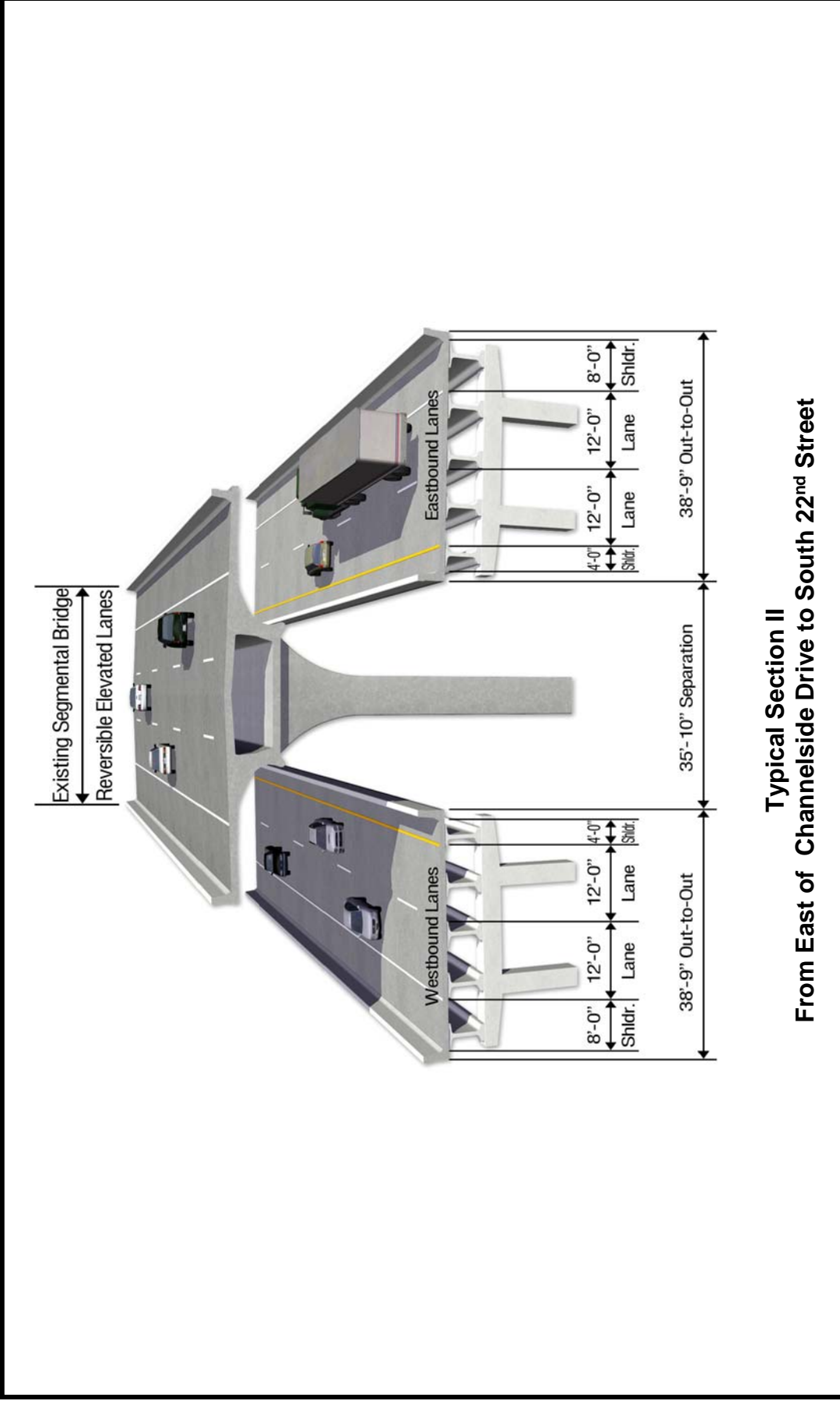
The existing typical section of the Selmon Expressway from Florida Avenue to west of Channelside Drive is currently a set of twin viaduct bridges carrying two elevated lanes in each direction (**Figure 1-2a**). Within the study limits, a separate bridge carrying three RELs from east of Channelside Drive to South 22nd Street is situated north of, or straddled within the viaduct structures, at the east end of the study area (**Figure 1-2b**). The Recommended Alternative includes an additional travel lane in each direction of the viaduct generally to the inside of the existing lanes (**Figures 1-3a-d**).



Typical Section I
From Florida Avenue to West of Channelside Drive

Selmon Expressway (SR 618)
 Downtown Viaduct
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Figure 1-2a: Existing Typical Sections

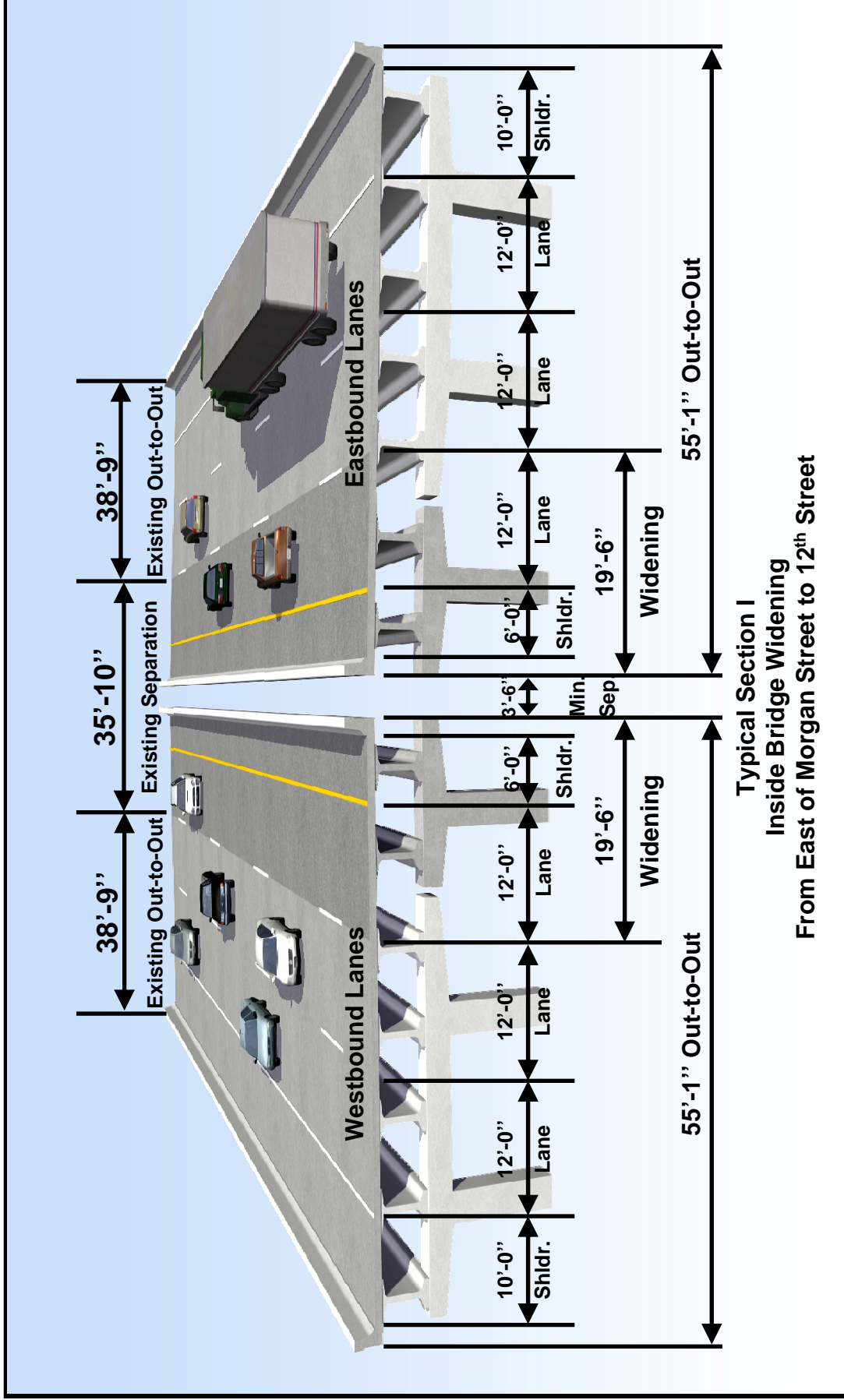


Typical Section II
From East of Channelside Drive to South 22nd Street

Selmon Expressway (SR 618)
 Downtown Viaduct
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Figure 1-2b: Existing Typical Sections

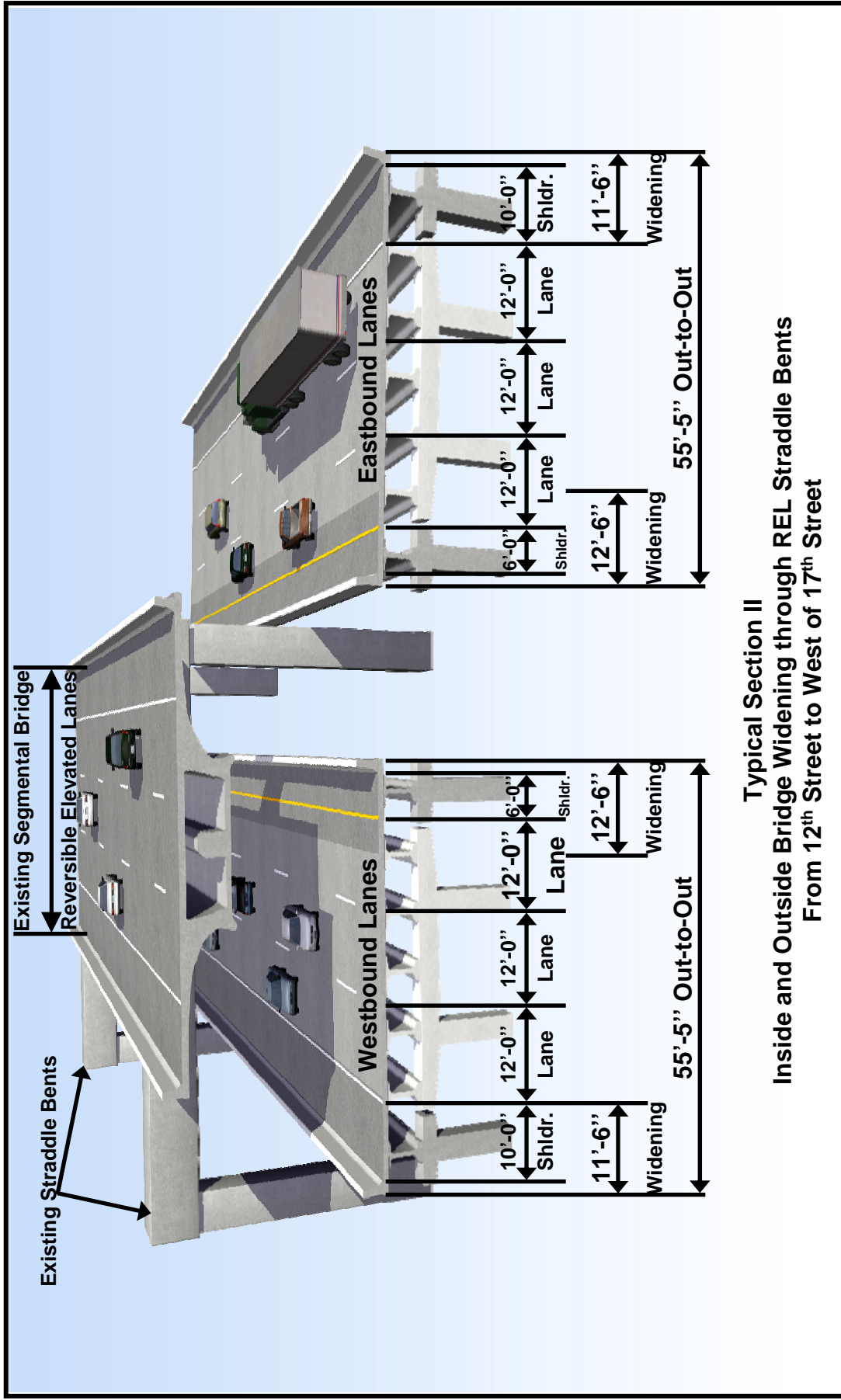




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Figure 1-3a: Recommended Typical Section I

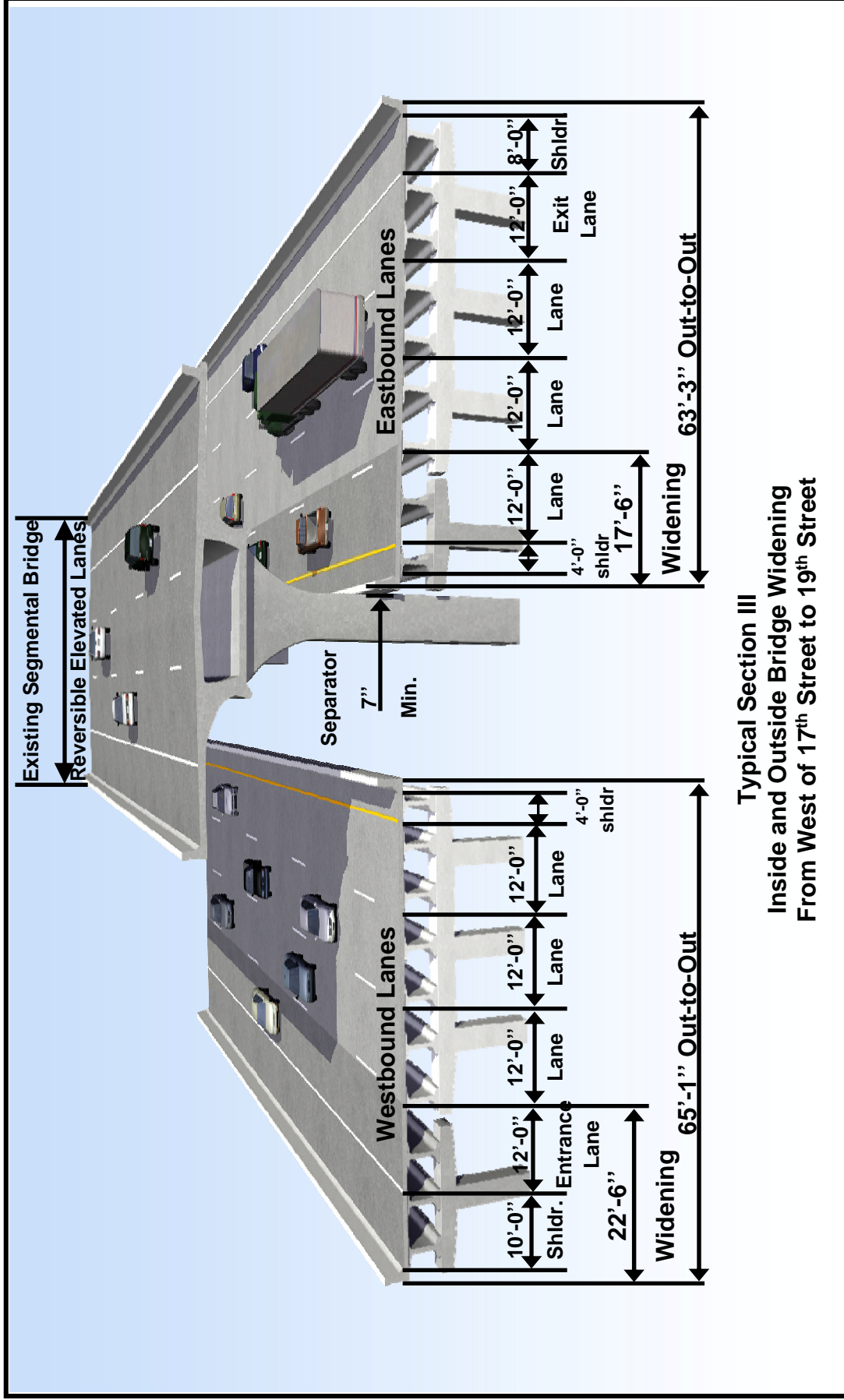


Typical Section II
Inside and Outside Bridge Widening through REL Straddle Bents
From 12th Street to West of 17th Street

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Figure 1-3b: Recommended Typical Section II



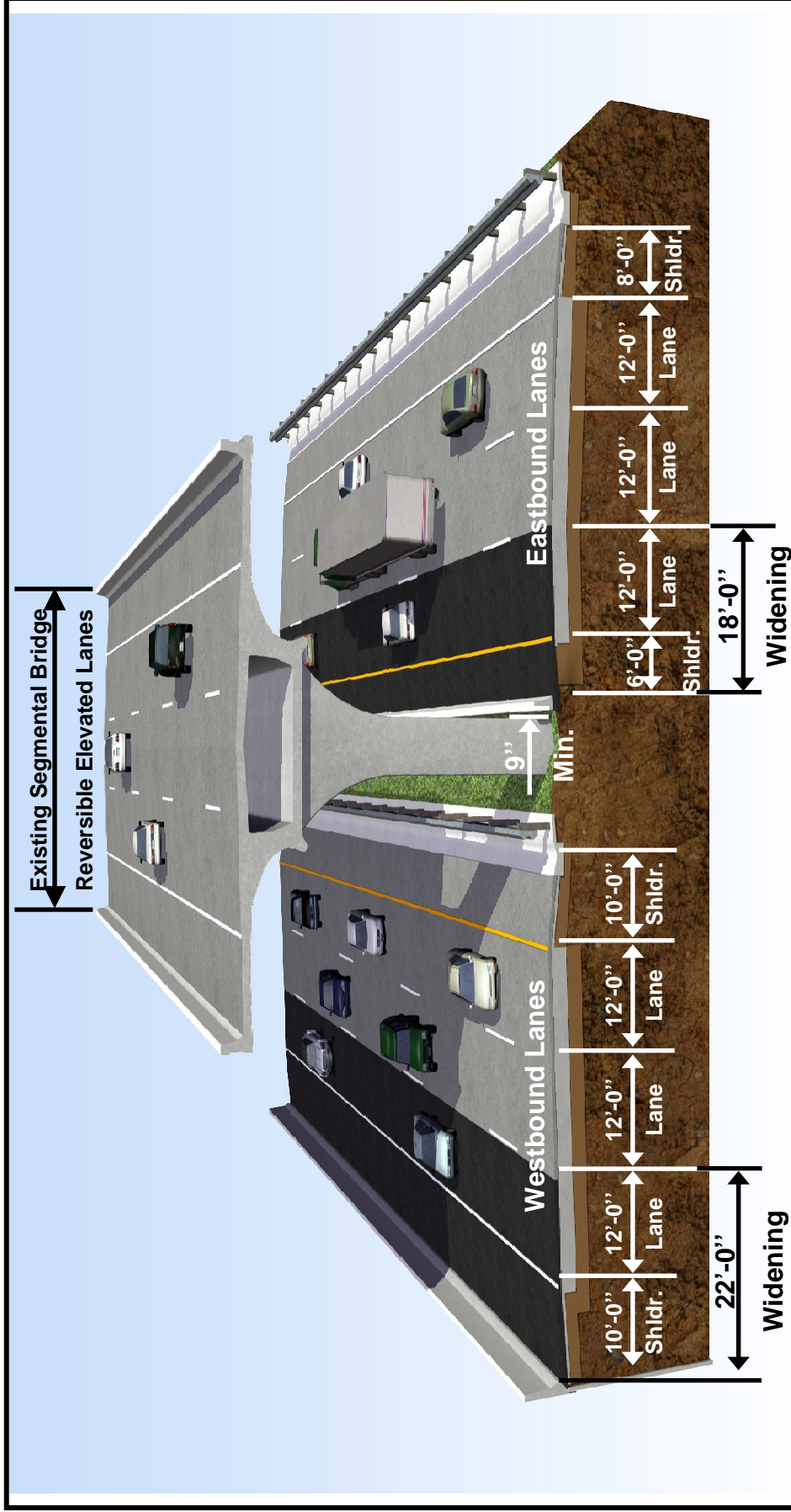


Typical Section III
 Inside and Outside Bridge Widening
 From West of 17th Street to 19th Street

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Figure 1-3c: Recommended Typical Section III





Typical Section IV Roadway Widening
From 19th Street to South 22nd Street

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Figure 1-3d: Recommended Typical Section IV

1.4 Purpose and Need of Proposed Improvements

The Selmon Expressway will need capacity improvements to maintain the required level of service (LOS) based on projected traffic volumes, particularly as a result of the FDOT's nearby I-4 Connector Project. The purpose of this PD&E Study was to develop and evaluate build alternatives that will accomplish this need, by expanding this divided four-lane facility into the equivalent of a divided six-lane facility.

The Selmon Expressway experienced higher than anticipated traffic growth after the REL Project was opened to traffic in August 2006. The original Tampa Interstate Study (TIS) and LRTP planning for the capacity improvement on the Selmon Expressway within the downtown area did not anticipate construction of the I-4 Connector until approximately 2025. However, the FDOT will be constructing the I-4 Connector Project (WPI Segment No.: 258415-1) starting in year 2010. Based on the *Design Traffic Technical Memo (DTTM)* the I-4 Connector will contribute approximately 10 percent of the total volume to the study area of the Selmon Expressway. Thus, additional capacity on the downtown portion of the Selmon Expressway is being evaluated sooner than originally planned.

The Selmon Expressway is an evacuation route designated by the Hillsborough County Emergency Management Office (HCEMO). The HCEMO submitted an emergency plan to FDOT's Central Office for the Selmon Expressway to operate in a contraflow condition, providing four-lanes for evacuation purposes from Gandy Boulevard eastward to 50th Street when necessary.

Since the Selmon Expressway is mainly a commuter facility, the traffic is expected to grow correspondingly with the increase in population and employment of the Tampa area. The population of Hillsborough County, according to the 2000 Census, was 998,948. This reflected an average annual increase of 16,489 persons, or about 2 percent per year, since the 1990 Census. The Hillsborough County MPO's 2025 LRTP is based on a future population estimate of 1,532,000. Based on the 2000 Census, employment was 672,400 and is projected to be 1,120,000 in 2025. This represents an increase in

employment of approximately 67 percent. These socioeconomic projections are used in the Tampa Bay Regional Planning Model (TBRPM) to estimate travel demand in the future.

Current (2008) Directional Design Hourly Volumes (DDHV) on the Selmon Expressway range from 1,490 vehicles per hour (VPH) to 2,380 VPH. Projected DDHV on the Selmon Expressway with the implementation of the I-4 Connector range from 2,250 VPH to 3,580 VPH in 2015; from 3,270 VPH to 5,260 VPH in 2025; and from 4,290 VPH to 6,980 VPH in 2035. These volumes result in a LOS E of the Selmon Expressway at the WB off ramp to Kennedy Boulevard in 2025 PM peak period and LOS F in 2035 PM peak period with the No-Build alternative. The Selmon Expressway at the WB off ramp to Morgan Street is LOS D and LOS E for 2025 and 2035 PM peak period, respectively.

A critical crash rate analysis and a safety ratio were analyzed for this project from 2004 to 2009. The critical crash rate is a function of roadway segment length, traffic volume, and the average crash rate for the category of highway being tested. The critical crash rate was obtained from the Statewide Average Crash Rates for Urban Segments (toll roads) received from the FDOT. The critical and actual crash rates are measured in number of crashes per million vehicle miles traveled. The safety ratio is the ratio between the actual and critical crash rates for a given segment for a given year. It identifies safety issues or high crash segments along roads. A safety ratio greater than 1.0 indicates that the segment is experiencing more crashes than would be expected for this type of a segment in other parts of the state. From the crash analysis, the safety ratio for the study segment of SR 618 is 1.446, 2.133, 1.326 and 1.021 during the years 2005 to 2008 respectively. For the year 2004 it is 0.756, and year 2009 it is 0.518 (only for 4 months). The construction of the Selmon Expressway REL took place from 2003 to 2007 with two realigned sections of the EB lanes opened in spring 2005. The construction and phased opening of the Selmon Expressway REL may have contributed to some of the crashes during that period. The Selmon Expressway within the study segment did exhibit a greater than average crash rate during the years 2005 to 2008.

Currently there are six express bus routes that utilize the expressway for the Hillsborough Area Regional Transit (HART), and one for the Pinellas Suncoast Transit Authority (PSTA). Areas served by these routes include Pinellas County, downtown Tampa, Brandon, Dover, Fishhawk, Riverview, MacDill Air Force Base, Southshore, South Brandon and Eastern Hillsborough County.

The Selmon Expressway is connected to the Port of Tampa and Cruise Terminal via South 22nd Street. As previously mentioned, the expressway also has direct ramp connections to I-75, US 41, and US 301 that benefit freight movements.

Bicycle and pedestrian facilities cannot be accommodated on the expressway due to high vehicle speeds and limited access, though at-grade trails are planned by the City of Tampa along the less urbanized area adjacent to the expressway. Along the limits of this project the expressway is elevated and standard sidewalks and other amenities are provided by others along the urban streets below.

Section 2 – LAND USE

2.1 Existing Land Use

The study corridor, located in the City of Tampa is primarily commercial and industrial with some residential areas. The industrial areas are located mainly near the Port of Tampa on the eastern end of the project. The Southwest Florida Water Management District (SWFWMD) land use mapping (2004), together with aerial photographs and wetland data from the National Wetland Inventory (NWI), were utilized to determine current land use and habitat types within the corridor. These land uses and habitat types were subsequently ground-truthed for verification during field visits. **Figure 2-1** shows the existing land uses within the project study corridor and their corresponding Florida Land Use, Cover and Forms Classification System (FLUCFCS) (FDOT 1999) classifications. Due to the large areas of commercial development, industrial sites and residential development, there is little natural landscape found along the project corridor.

According to the 2004 existing FLUCFCS land use data, the land use codes found along the corridor include: Transportation (810); Industrial (150); Commercial and Services (140); Institutional (170); and Open Land (190).

2.2 Future Land Use

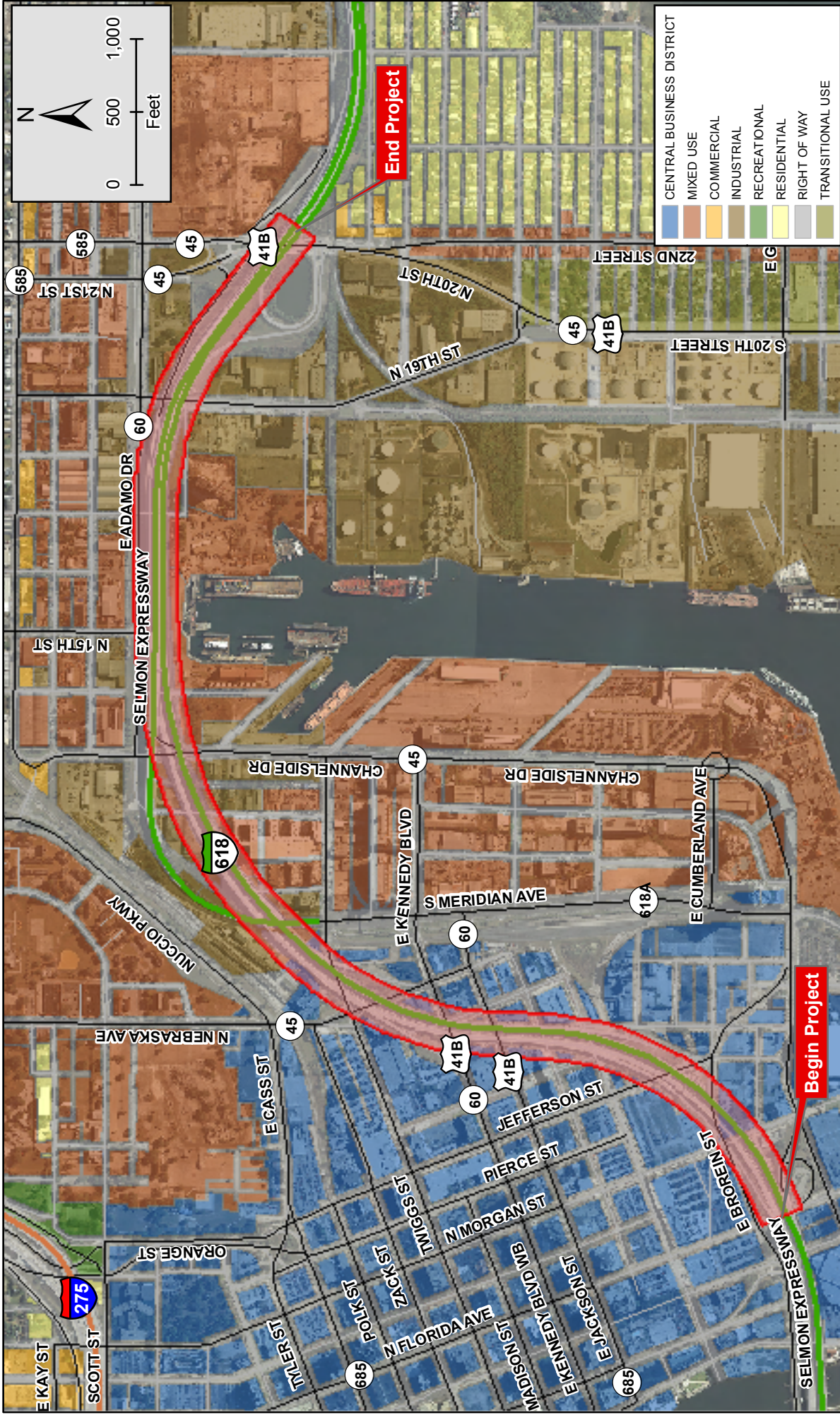
According to the City of Tampa Future Land Use data, minimal changes to the existing land use are anticipated along the project corridor (**Figure 2-2**). The corridor will predominately remain transportation, urban business district, and light and heavy industrial. It appears that some new residential areas will be developed within the urban business district.



**Figure 2-1: FLUCCS
 Existing Land Use Map**

**Selmon Expressway (SR 618)
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Source: FGDL, Hillsborough County



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Figure 2-2: Future Land Use Map

Source: FGD, The Planning Commission (Tampa)

Section 3 – HYDROLOGICAL FEATURES

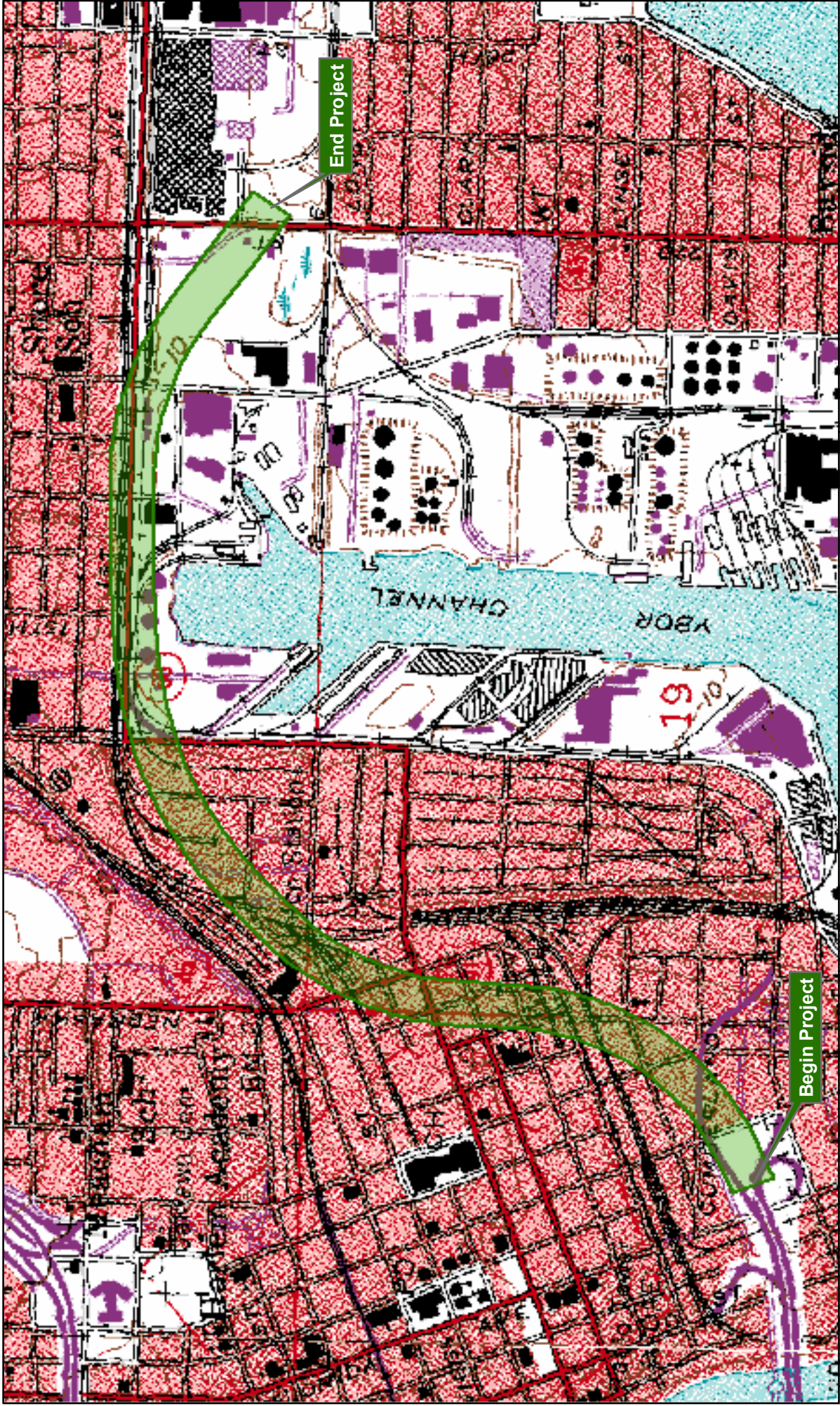
3.1 Geology/Hydrology

The National Resources Conservation Service (NRCS) Soil Survey for Hillsborough County, Florida (1989) provides general descriptions of subsurface conditions of the county. Hillsborough County is in the Floridian section of the Atlantic Coastal Plain. The noted physiographic features of the area are related to the ancient seas, which once covered the region. The project is located in the Gulf Coastal Lowlands, which are low, nearly level plains that lie next to the coast in the central portion of Hillsborough County north of the Port of Tampa and east of downtown Tampa, Florida. The majority of the soil in this area is identified as Urban land-Myakka-Smyrna, which is defined as nearly level, poorly drained soils that have sandy subsoil; most areas have been modified for urban use. The surface drainage is toward Hillsborough Bay. Eventually all water falling on the county that is not returned to the atmosphere by evaporation and transpiration ultimately ends up in the Gulf of Mexico. A US Geological Survey (USGS) Quadrangle map of the project area is shown in **Figure 3-1**.

3.2 Soils

The NRCS Soil Survey for Hillsborough County, FL (1989) indicates that there is one soil type that exists within and adjacent to the corridor: urban land (56). A description of the soil unit is listed below. A soils map is provided in **Figure 3-2**.

- **Urban Land** – Consists of areas covered by concrete, asphalt, buildings or other impervious surfaces that obscure or alter the soils so that identification is not feasible. Slopes are usually less than 2 percent but can range up to 5 percent. In this map unit, 85 percent of the surface is covered by impervious area (streets, buildings, parking lots, etc.). Most Urban Land map units are artificially drained by some type of manmade conveyance system.



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Figure 3-1: USGS Quadrangle Map

Source: FGD_L_UWF_USGS

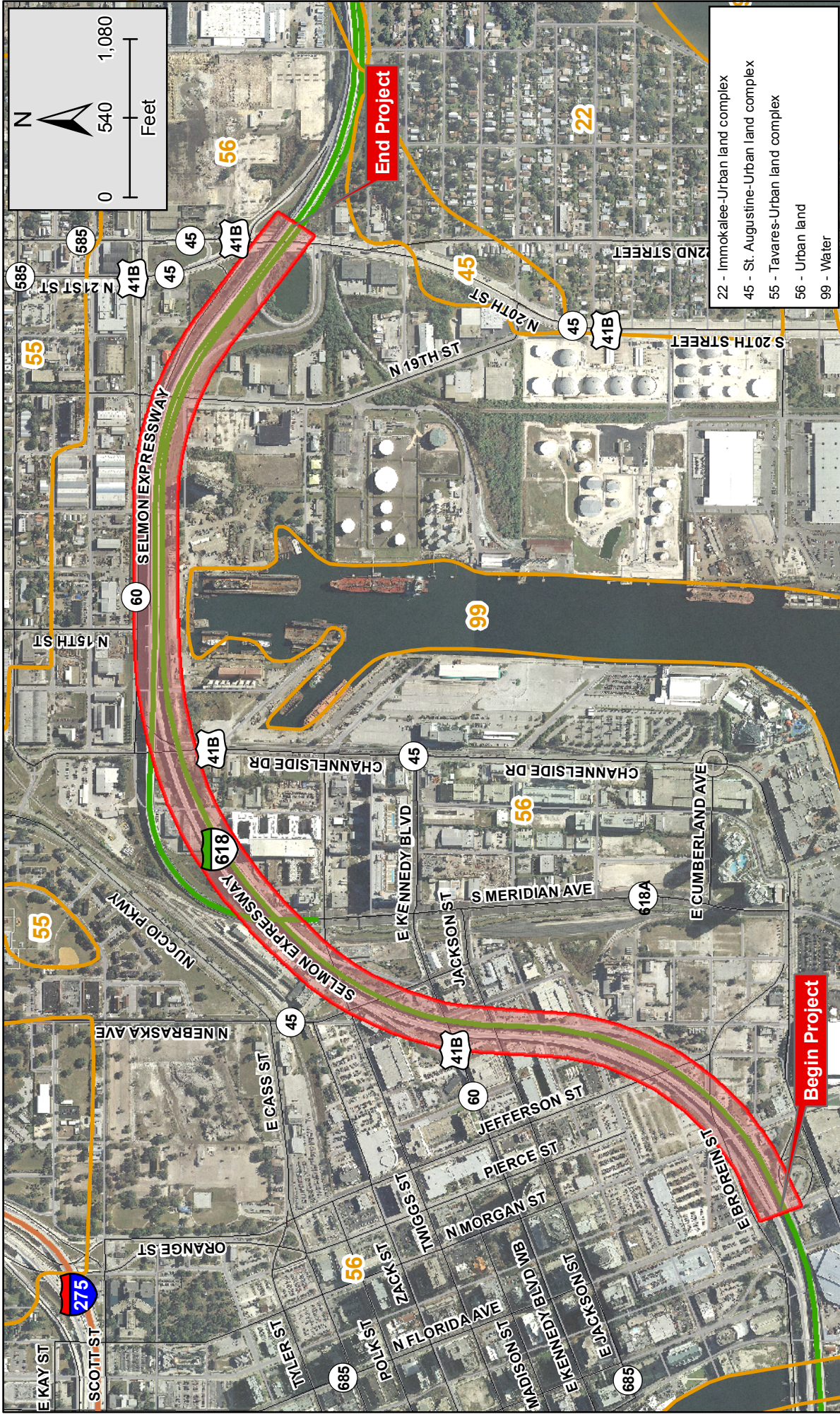


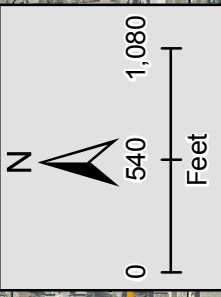
Figure 3-2: NRCS Soils Map

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Source: FGDL, NRCS

- 22 - Immokatee-Urban land complex
- 45 - St. Augustine-Urban land complex
- 55 - Tavares-Urban land complex
- 56 - Urban land
- 99 - Water



Section 4 – METHODOLOGY

4.1 Efficient Transportation Decision Making

A *Programming Screen Summary Report* was published on October 20, 2009 as part of the FDOT's ETDM process. The project is designated as #11840 in ETDM. The established Class of Action is a *State Environmental Impact Report (SEIR)*.

Through ETDM, the FDOT District 7 commented on contaminated sites. They recommended a Degree of Effect of Minimal, stating "There are no known contamination sites within the existing right-of-way (ROW). It is not likely that these sites will be encountered outside of the ROW during our acquisition of the necessary stormwater treatment system ponds since the FDOTs goal is to avoid acquiring these types of locations." The FHWA also gave a Degree of Effect of Minimal. The SWFWMD recommended a Degree of Effect of Moderate due to the close proximity of seven petroleum-related sites and a reported Hazardous Materials site. Relevant excerpts from the *ETDM Programming Screen Summary Report* are found in **Appendix A**.

4.2 Public Record Review and Site Reconnaissance

A regulatory database search was requested from FirstSearch Technology Corporation along the entire project corridor (**Appendix B**). The results of this search were used as a basis for performing the *CSE*R. The database research includes an evaluation of the following:

1. National Priorities List (NPL) and Proposed NPL
2. Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)
3. Comprehensive Environmental Response, Compensation, and Liability Information System Archived Sites (NFRAP)
4. Resource Conservation and Recovery Information System Treatment, Storage and Disposal Facilities (RCRA TSD)

5. Resource Conservation and Recovery Information System Sites (RCRA COR and RCRA GEN)
6. Emergency Response Notification System (ERNS)
7. Florida Sites List (FSL)
8. Solid Waste Facilities (SWF)
9. FL Cattle Dipping Vats
10. Dry Cleaning Facilities
11. Underground Storage Tank Database (UST)
12. Aboveground Storage Tank Database (AST)
13. Tribal Land Underground Storage Tanks
14. Leaking Underground Storage Tanks List (LUST)
15. Stationary Tank Inventory System (STI)
16. Florida Department of Environmental Protection (FDEP) OCULUS database management system

In addition to the database search of potential contamination sites, a site reconnaissance was conducted by REA Remedial Solutions LC on August 24-25, 2009 to further supplement the database results. The purpose of the site visit was to observe signs of other possible contamination sources not listed in the database search. This included a review of the following:

- Structures
- Potential sources of surface contamination
- Potential sources of waterborne contamination
- Tenant activities and general site conditions

4.3 Historical Aerial Photograph Review

Historical aerial photographs of the study area were reviewed to evaluate past land uses and to identify areas that may raise concern for potential hazardous materials or petroleum contamination. Aerial photographs of the study area were reviewed for the entire project corridor for years 1965, 1973, 1994, 2002, and 2008 with the exception of

2002 were only the northern area of the Crosstown could be located. The following is a brief explanation of each photograph and the actual photographs appear in **Appendix C**. Due to the highly developed commercial/industrial setting, the entire area and surrounding areas do exhibit areas of reasonable risk for contamination.

- The 1965 aerial depicts the area as highly developed with mixed commercial and industrial setting. The Crosstown itself has not yet been constructed.
- The 1973 photograph depicts the area much the same as the 1965 Photograph.
- The 1994 aerial shows the Crosstown Expressway as fully constructed with the surrounding areas remaining developed as mixed commercial and industrial.
- The 2002 aerial is northern section near the Port and the Southwestern section near Florida Ave. The surrounding areas are similar to that in 1994.
- The 2008 Aerial depicts the study area much as it looks today with heavy concentration of commercial and industrial development.

4.4 Risk Ratings

Sites identified as contaminated or potentially contaminated were further evaluated to determine the extent of contamination or the risk of contamination. There were 15 sites evaluated within the proposed project limits. The assignment of a risk rating was based on the current and past existence of hazardous materials or petroleum products and the potential of the material/product to be encountered during proposed roadway expansion activities. The rating system developed by the FDOT as part of the PD&E process expresses the likelihood that hazardous material or petroleum products exist and the potential impact on roadway construction.

The hazardous material rating system is divided into four degrees of risk as defined by the FDOT in Part 2, Chapter 22 of the *PD&E Manual*. These include “No”, “Low”, “Medium”, and “High” potential for risk. A description of each risk rating is found below:

No Risk

A review of all available information finds there is nothing to indicate contamination would be a problem. It is possible that contaminants were handled on the property; however, all information (DEP reports, monitoring wells, water and soil samples, etc.) indicate that contamination problems should not be expected. An example of an operation that may receive this rating is a wholesale or retail outlet that handles hazardous materials in sealed containers that are never opened while at the facility, such as cans of spray paint at a “drug store”.

Low Risk

The former or current operation has a hazardous waste generator identification (ID) number, or deals with hazardous materials; however, based on all available information, there is no reason to believe there would be any involvement with contamination in relation to this project. This is the lowest possible rating a gasoline station operating within current regulations can receive. This rating could also apply to a retail store that blends paint. Some Low sites, such as gas stations in compliance, should be reevaluated during the design phase.

Medium Risk

After a review of all available information, indications are found (reports, *Notice of Violations*, consent orders, etc.) that identify known soil and/or water contamination and that the problem does not need remediation, is being remediated (i.e., air stripping of the groundwater, etc.), or that continued monitoring is required. The complete details of remediation requirements are important to determine what the Department must do if the property were to be acquired. A recommendation should be made on each property falling into this category to its acceptability for use within the proposed project, what actions might be required if the property is acquired, and the possible alternatives if there is a need to avoid the property.

This rating expresses a degree of concern for potential contamination problems. Known problems may not necessarily present a high cause for concern if the regulatory agencies

are aware of the situation and corrective actions are either underway or complete. The actions may not have an adverse impact on the proposed project.

High Risk

After a review of all available information, there is a potential for contamination problems. Further assessment will be required after alignment selection to determine the actual presence and/or levels of contamination and the need for remedial action. A recommendation must be included for what further assessment is required. Conducting the actual Contamination Assessment is not expected to begin until alignment is defined; however, circumstances may require additional screening assessment (i.e. collecting soil or water sample for laboratory analysis necessary to determine the presence and /or levels of contaminants) to begin earlier. Properties previously used as gasoline stations and which have not been evaluated or assessed would probably receive this rating.

Hazardous Material

Any material that has, or when combined with other materials, will have, a deleterious effect on people or the environment. As further discussed and defined in **42 USC, Section 9601, et seq.**

Solid Waste

The **Resource Conservation and Recovery Act (RCRA)** defines a solid waste as: “any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial or minin and agricultural operations, and from community activities...[excluding]...solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows, or industrial discharges which are point sources subject to permits under **Section 402 of the Federal Water Pollution Control Act.**”

Hazardous Waste

Under **RCRA**, no material can be a hazardous waste unless it is a solid waste. In **RCRA**, the statutory definition of a hazardous waste is:

“...a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may – (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed. [Section 1004(5)]

Furthermore, a solid waste is a hazardous waste if it is not excluded by regulation (**40 CFR 261.4**) and if it is listed (261.30) as a hazardous waste, is a waste mixture containing one or more listed hazardous wastes, or exhibits one or more characteristics of hazardous waste (i.e. ignitability, corrosivity, reactivity, or toxicity) (**40 CFR 261.21 to 261.24**). Listed wastes meet the definition of hazardous waste regardless of the concentration level of hazardous constituents in them. With few exceptions [e.g., spent solvents listed solely because they are ignitable (**40 CFR 261.31**)], the only way to have a listed waste relieved from hazardous waste management requirements is to petition EPA or a state to delist the waste (**40 CFR 260.22**).

When listed wastes are mixed with nonhazardous wastes or materials, the mixture must be managed as hazardous waste. Two exceptions to this approach are hazardous debris meeting **Land Disposal Restriction (LDR)** standards [**40 CFR 261.3(f)**] and residues from processing certain wastes using high temperature metals recovery processing [**40 CFR 261.3(c)(2)(ii)(C)**]. In contrast to listed waste, a characteristic waste remains hazardous **only** as long as it exhibits a hazardous characteristic. Therefore, a mixture of waste is not considered hazardous waste unless the mixture exhibits a hazardous waste characteristic.”

Potential Hazardous Waste Sites

For the purposes of this report, a potential hazardous waste site is a parcel of land upon which hazardous materials are or were produced, stored or accumulated, regardless of the disposal method. Included in this category are gas stations and other businesses that store hazardous products, materials, or waste in tanks either above or underground. This

definition is not meant to imply that these sites are contaminated, but that the operations conducted on them involve hazardous materials and the overall potential exists for contamination if these materials were not properly handled on these sites. This definition also does not mean that petroleum products from gas station activities fall under regulatory scrutiny within hazardous waste regulations by either the EPA or the Florida Department of Environmental Protection (FDEP).

Contamination

Contamination is defined as the presence of any regulated material/chemical contained within the soil, surface water or groundwater on or adjacent to Department property, or proposed project property, that may require assessment, remediation, or special handling, or that has a potential for liability. These materials would include, but not be limited to, those substances normally referred to as petroleum or petroleum products, solvents, organic and inorganic substances, metals, hazardous materials or substances, etc.

Section 5 – ALTERNATIVE ALIGNMENTS

Alternative 1, the Recommended Alternative, includes; widening the existing structures to the inside to provide a divided six-lane roadway. Additional information regarding the Recommended Alternative can be found in Section 1.3 of this *CSE*R.

Prior to the completion of this assessment, three additional alternatives were considered as part of the PD&E process. These alternatives are as follows:

- Alternative 2A – Western exit from the REL on the north side of the REL
- Alternative 2B – Western exit from the REL on the south side of the REL, beginning west of the REL straddle bents
- Alternative 2C – Western exit from the REL on the south side of the REL, beginning east of the REL straddle bents

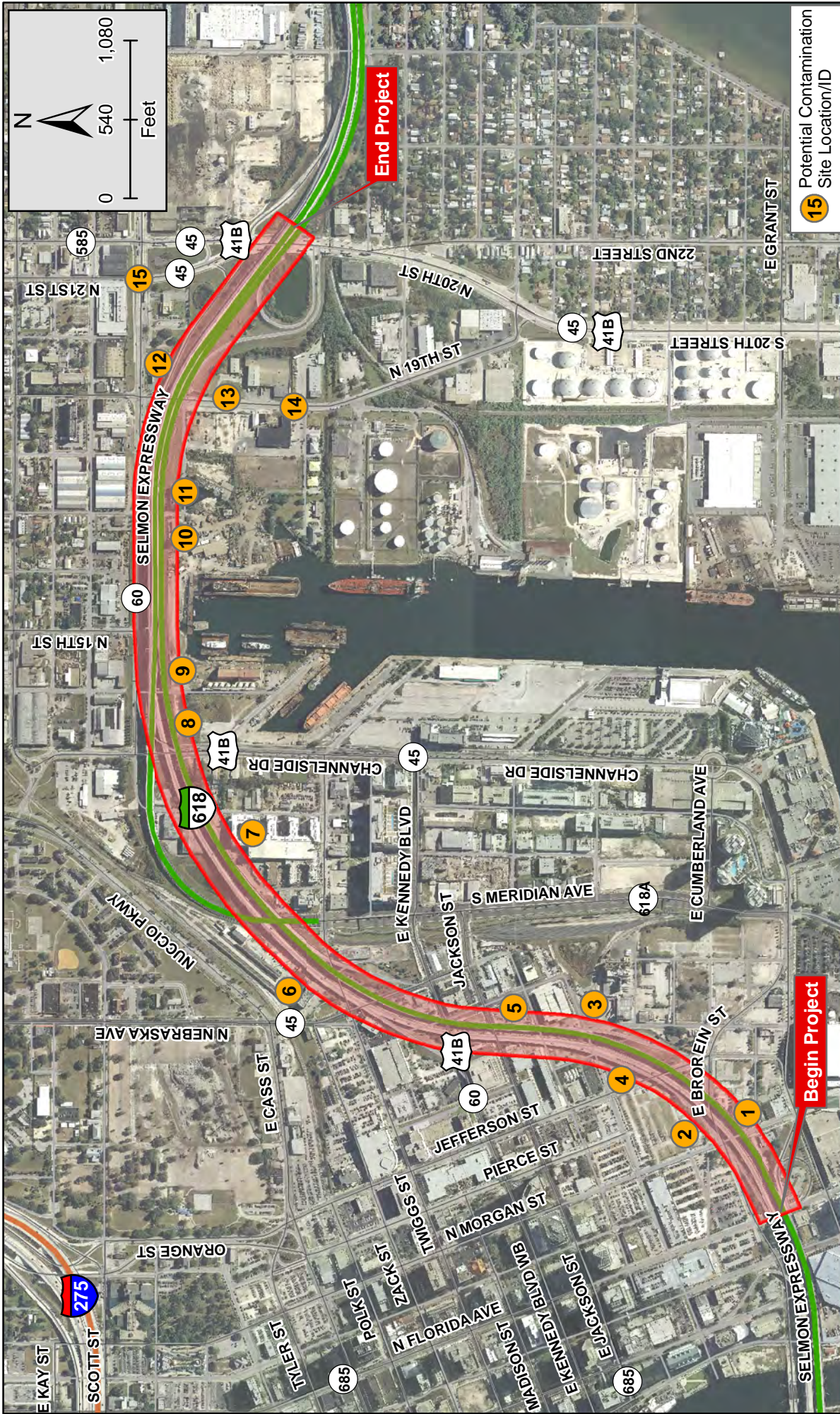
These alternatives were dropped from further consideration due to constructability, operational issues, and substantially higher costs.

Section 6 – PROJECT IMPACTS

A review of aerial photographs was conducted to determine potential problem areas. A list of the pertinent locations of sites within the study area is included in **Table 6-1**. The Map ID corresponds to the site locations depicted in **Figure 6-1**.

Table 6-1 Summary of Sites Located along the Selmon Expressway Project Corridor

Map ID (Site No.)	Site Name	Site Address	Risk Rating	Government Database
1	Eli Whit Co.	Intersection of E. Eunice Ave. and Morgan St.	Medium	UST/LUST/SPILL
2	Unknown Name	Intersection of E. Bell St. & Morgan St.	Low	ERNS
3	Con Agra, Inc.	110 S. Nebraska Ave.	Low	UST/LUST/SPILLS/FIND
4	Bayshore Four Seasons	102 Jefferson St.	Low	UST/LUST
5	Alley and Alley Chartered	205 N. Brush St.	Low	UST/LUST
6	CSX Transportation Union Station	601 Nebraska Ave.	Low	UST/LUST/SPILLS
7	City of Tampa Maintenance Yard	616 N. 12 th St.	Low	UST/LUST/SPILLS
8	Channelside Drive Spill	Intersection of Channelside and Adamo Dr.	Low	CERCLIS/FINDS
9	Detsco Terminal	739 N. 14 th St.	Low	UST/LUST/SPILLS/FINDS/CERCLIS
10	International Ship Repair	1616 Penny Ave.	Medium	UST/LUST/SPILLS/TRIS/FINDS/RCRAGN
11	JH Williams Oil CO-Bulk Lube Facility	Penny Ave. and N. 17 th St.	Low	UST
12	CITGO (Adamo Drive Inc.)	1909 Adamo Dr.	Medium	UST/LUST
13	ICI Paints	1010 N. 19 th St.	Low	UST/LUST/TRIS/SPILLS/FINDS
14	Sun Bank	605 N. 19 th St.	Low	UST/LUST
15	FDOT Right of Way/Exxon 4-9121	2105 Adamo Dr.	Low	UST/LUST/FINDS/RCRAGN



**Selmon Expressway (SR 618)
Downtown Viaduct
Improvements PD&E Study
from Florida Avenue to South 22nd Street**
Hillsborough County

**Figure 6-1: Potential Contamination
Sites Map**



Source: FGDL, FirstSearch, REA

6.1 Potential Contaminated Site Impacts

This section of the *CSER* includes a description of each potential contamination site as mentioned previously in **Table 4-1** and depicted in **Figure 4-1**. These sites represent the comprehensive list as determined from a combination of data sources. Photos of these sites are included in **Appendix D**.

No information was provided about construction means and methods at the time of this screening. Therefore ratings were based primarily on the proximity of the viaduct proposed modifications. Construction methods that may call for extended dewatering or other means of construction that could potentially move contamination used in a location that has been rated “low” potential may cause an environmental impact to the construction.

Potential Contamination Site 1 – Former Eli Whit Company

The former Eli Whit Company (First Search Data Base #299191430/OCULUS File #9101430) was located at the intersection of East Eunice Avenue and Morgan Street. The former facility has been removed and a vacant lot exist adjacent to the Selmon Expressway. The facility maintained six gasoline USTs (3-2,500 gallon, 1-2,000 gallon, and 2-1,000 gallon capacity tanks). The tanks were removed in 1991 under the FDEP’s Abandoned Tank Restoration Program. The former tank farm was located on the west side of the property which put it adjacent to the Selmon Expressway. Soil contamination was noted during the removal and a discharge notice filed. No groundwater or surface water contamination was noted. Additional site information was not available in the OCULUS database. Based on the location of the contamination and lack of known remediation efforts, this site is rated “Medium” for potential contamination impact to construction.

Potential Contamination Site 2 – Unknown Spill

The Tampa Electric Company (no OCULUS file available) had a transformer spill at the intersection of East Bell Street and Morgan Street. Based on the FirstSearch report, the transformer exploded during a storm in 2001 resulting in a spill of mineral oil onto the

property and washing into the storm drainage system. It is unknown if the transformer oil contained PCB. However since the incident happened during a storm, the material impact should be minor to construction in the vicinity of the Selmon Expressway. A cleanup crew did conduct a removal of stained soil material. Based on the available information, this site is rated “Low” for potential contamination impact to construction.

Potential Contamination Site 3 – Con Agra Facility

The Con Agra facility (First Search Data Base #298627167/OCULUS File #8627167) located at 110 South Nebraska Avenue has a long history of utilization of UST’s and due to the manufacturing nature of the business; numerous spill incidents have taken place. OCULUS files show discharge notifications typical of operating plant as discussed below. The Con Agra facility is adjacent to the Selmon Expressway. The facility is listed on the UST database and cross referenced on the LUST database. In addition, the facility is listed on the SPILLS and FIND databases. The facility closed and removed 4-8,000 gallon capacity diesel USTs in 1990. Discharge notifications were submitted to the FDEP for these tanks with FDEP providing a designation of No Cleanup Required in 2007. No information as to the volume of the discharges was available from the database review. In addition, the FirstSearch database indicates non major discharge notifications in the early 2000’s for both air and NPDES. No additional site information on these discharges was available. Based on the available information, this site is rated “Low” for potential contamination impact to construction. Data obtained from FDEP’s OCULUS can be found in **Appendix E**.

Potential Contamination Site 4 – Bayshore Four Seasons

The former Bayshore Four Seasons facility (First Search Data Base #299807787/OCULUS File #9807787) located at 102 Jefferson Street has been removed. The facility maintained 5-500 gallon capacity USTs of unknown content on site. The site was listed on the UST database and cross referenced on the LUST database. According to FDEP’s OCULUS database, a discharge notification submitted in 2005 indicated spill material consisting of gasoline. These UST’s were removed in 2005 and subsequent clean up operations garnered the site a “No Further Action” status from the

FDEP in 2006. Subsequently, the site has been redeveloped. During a site review no signs of obvious discharge were observed at this site. Based on this information, this site is rated “Low” for potential contamination impact to construction. Data obtained from FDEP’s OCULUS can be found in **Appendix E**.

Potential Contamination Site 5 – Alley and Alley Charters

The former Alley and Alley Charters facility (First Search Data Base #298841244/OCULUS File #8841244) located at 205 North Brush Street is currently utilized as a parking lot. The facility maintained 1-500 gallon capacity gas tank installed in 1956 and removed in 1988. The site is listed on the UST database and cross referenced on the LUST database. According the FDEP records, the site has soil contamination but no groundwater or surface water contamination. According to FDEP’s OCULUS database, approximately 11 tons of soil was excavated and treated for gasoline contamination in 1988. Based on the proximity to the Selmon Expressway combined with the fact that excavation and treatment of the contaminated soil has occurred, this site is rated “Low” for potential contamination impact to construction. Data obtained from FDEP’s OCULUS can be found in **Appendix E**.

Potential Contamination Site 6 – CSX Transportation, Union Station

The CSX Transportation, Union Station train depot (First Search Data Base #299101044/OCULUS File #9101044) located at 601 Nebraska Avenue. The property is an active train station servicing Amtrak. The facility is listed on the UST database and cross referenced on the LUST database. In addition, the facility is listed on the SPILLS database. The facility maintained two diesel USTs (1-850 gallon and 1-500 gallon capacity tank) that were used to fuel backup generators. The two tanks were removed in 1991 under the FDEP’s Abandoned Tanks Restoration Program. A discharge was reported during removal of the tanks which affected soil media at the site. According to FDEP’s OCULUS database, approximately 15 tons of soil was removed from the site. In 1992 the site was awarded a “No Further Action” status. During a site review no signs of obvious discharge were observed at this site. Based on this information, this site is rated

“Low” for potential contamination impact to construction. Data obtained from FDEP’s OCULUS can be found in **Appendix E**.

Potential Contamination Site 7 – Former City of Tampa 12th Street Maintenance Yard

The former City of Tampa Maintenance Yard (First Search Data Base #298807370/OCULUS File #9807370) was located at 612 North 12th Street. The facility is listed on the UST database and cross referenced on the LUST database. The site is also listed on the SPILLS database. The site maintained 1-500 gallon capacity leaded gasoline UST and 1-2,000 gallon capacity UST of unknown material. According to FDEP’s OCULUS database, these tanks were closed and partially filled with sand at an unknown time. Discharges were discovered in 2005 while performing a site assessment on the property, however; these were noted as old releases. Soil and groundwater contamination was subsequently discovered. In 2005, these tanks were removed and remediation began under the Brownfields Redevelopment Program. Approximately 18 cubic yards of soil were excavated for off-site disposal associated with the 2,000 gallon tank and approximately 385 tons of contaminated soil was removed for offsite disposal associated with the 500 gallon tank. The area has since been redeveloped into a condominium community. During a site review, no signs of obvious discharge were observed at this site. Based on this information, this site is rated “Low” for potential contamination impact to construction. Data obtained from FDEP’s OCULUS can be found in **Appendix E**.

Potential Contamination Site 8 – Channelside Drive Spill

The Channelside Drive spill (no OCULUS file available) site is located at the intersection of Channelside Drive and Adamo Drive adjacent to the Selmon Expressway. The site is listed on the CERCLIS and FINDS database due to an incident in which the USEPA funded a removal action of hazardous materials. The EPA lists the location as a potentially contaminated location. During a site review no signs of obvious discharge were observed at this site. Based on this information, this site is rated “Low” for potential contamination impact to construction.

Potential Contamination Site 9 – DETSCO Terminal

The DETSCO Terminal (First Search Data Base #298625085/OCULUS File #8625085) is located at 739 North 14th Street. The site formerly contained two USTs (1-1,500 gallon capacity gas tank and 1-10,000 gallon capacity diesel tank) for operational use. The facility is listed in the UST, LUST, SPILLS, FINDS, and CERCLIS databases. According to the FirstSearch database, these tanks have been closed and removed under the FDEP Abandoned Tank Restoration Program. According to FDEP's OCULUS database, a 1994 Petroleum Contamination Report Form noted the presence of excessively contamination soil at the site. The facility was granted a "No Further Action" in 2002 from FDEP regarding the site rehabilitation. During a site review it appears that the site is still operational and based on the available information regarding site rehabilitation completion activities, this site is rated "Low" for potential contamination impact to construction. Data obtained from FDEP's OCULUS can be found in **Appendix E**.

Potential Contamination Site 10 – International Ship Repair

The International Ship Repair facility (First Search Data Base #299802428/OCULUS File #9802428) is located at 1616 Penny Avenue. The facility is adjacent to the project and is listed on the UST, LUST, SPILLS, RCRA, TRIS, and FINDS databases. The facility has received several warning and violation notices from FDEP regarding petroleum and chemical contamination issues. Several EPA responses and clean up efforts have been initiated at the facility. Additional site information was not available in the OCULUS database. During a site review no signs of obvious discharge were observed at this site, however access to the property was not allowed. Based on this information, this site is rated "Medium" for potential contamination impact to construction.

Potential Contamination Site 11 – JH Williams Oil

The JH Williams Oil Bulk facility (First Search Data Base #299045969/OCULUS File #9045969) is located at the intersections of Penny Avenue and North 17th Street. The

property is adjacent to the Selmon Expressway ROW and is listed on the UST, LUST, TRIS and FINDS databases. The facility is a bulk lubricant distribution point. According to the most current inspection report obtained from FDEP's OCULUS database, this site contains 10 above ground storage tanks (AST) on the property. The FirstSearch report indicates this site had discharges of kerosene and vehicular diesel in 1992 and 1988, respectively. There is no information available from database searches indicating whether cleanup activity was completed at this site, however; the most current facility inspection report states that this facility is currently in compliance. It also describes the facility as having containment systems in place in the event of a spill. During a site review, no obvious signs of contamination were present. Based on the available information for this site, it is rated "Low" for potential contamination impact to construction. Data obtained from FDEP's OCULUS can be found in **Appendix E**.

Potential Contamination Site 12 – CITGO (Adamo Drive Inc.)

The CITGO station (listed as Adamo Drive Inc.) (First Search Data Base #298625191/OCULUS File #8625191) is located at 1909 Adamo Drive. The facility is adjacent to the Selmon Expressway and is a retail petroleum facility. The site is listed on the UST and LUST databases. The facility maintained seven USTs containing unleaded gasoline and vehicle diesel products (6-12,000 gallon capacity and 1-20,000 gallon capacity tanks). All of the USTs were installed in 1979 and removed in 2005 during a total site remodeling and fueling system upgrade. A discharge was noted in 1988 but due to the facilities low priority score work on the site was suspended in 2000. According to information obtained from FDEP's OCULUS database, approximately 1,300 tons of soil were removed and disposed of from within the UST areas during the 2005 remodeling. The tanks were replaced with 1-12,000 gallon capacity tank and 1-20,000 gallon capacity tank. The most current facility inspection report indicates that this site is currently in compliance. The site is under active remediation for groundwater contamination due to leakage of the removed tanks. During a site review, no signs of obvious discharge were observed at this site. Based on this information, this site is rated "Medium" for potential contamination impact to construction. Data obtained from FDEP's OCULUS can be found in **Appendix E**.

Potential Contamination Site 13 – Former ICI Paints Facility

The former ICI Paints facility (First Search Data Base #299102845/OCULUS File #9102845) located at 1010 North 19th Street was a paint mixing and formulation plant. The facility is listed on the UST, LUST, SPILLS, TRIS, and FINDS databases. The facility had a number of discharges of solvents and other organic and inorganic chemical compounds resulting in both soil and groundwater contamination. FDEP and EPA have been involved in oversight of the facility for an extended period of time. Monitoring continues on the site for both groundwater and soil contamination. During a site review no signs of obvious discharge were observed at this site. The site is currently being used for other commercial operations. Additional site information was not available in the OCULUS database. Due to the distance from the Selmon Expressway, the site is rated “Low” for potential contamination impact to construction.

Potential Contamination Site 14 –Sun Bank

The former Sun Bank property (First Search Data Base #298625122/OCULUS File #8625122) located at 605 North 19th Street previously maintained six USTs containing either leaded or unleaded gasoline and vehicle diesel products (1-888 gallon, 1-1,000 gallon, 2-2,000 gallon, and 2-10,000 gallon capacity tanks). The site is on both the UST and LUST databases. The USTs were closed and removed from the site under the FDEP Abandoned Tanks Restoration Program in 1992. The site had both soil and groundwater contamination present. A treatment system was installed and the site was awarded a “No Further Action” in 1993. During a site review no signs of obvious discharge were observed at this site. Based on this information and the distance from the Selmon Expressway, this site is rated “Low” for potential contamination. Data obtained from FDEP’s OCULUS can be found in **Appendix E**.

Potential Contamination Site 15 – FDOT Right of Way/Exxon 4-9121

The FDOT ROW (First Search Data Base #298625549/OCULUS File #8624826) at 2105 Adamo Drive and the Former Exxon facility are listed on the UST, LUST, RCRA, and FINDS databases. The former Exxon retail facility maintained 12 UST’s which were removed from the site. Removal of the tanks resulted in groundwater

contamination according to reports in FDEP's OCULUS database. Based on the review of the June 1995 groundwater contamination report, contamination was noted on the eastern portion of the property where the UST's were located. The low level contamination was contained on site. The site is currently an FDOT retention pond facility. During a site review no signs of obvious discharge were observed at this site. Based on this information, and the distance from the Selmon Expressway, this site is rated "Low" for potential contamination impact to construction. Data obtained from FDEP's OCULUS can be found in **Appendix E**.

6.2 Potential Bridge Hazardous Material Impacts

MACTEC Engineering and Consulting, Inc. completed a *Limited National Emissions Standards for Hazardous Air Pollutants (NESHAP) Asbestos Survey* on the Selmon Expressway Bridges 100332 and 100333. These bridges are the Selmon Expressway at Morgan Street to North 12th Street structures. The purpose of this survey was to locate, identify and sample designated materials which were suspected to contain asbestiform minerals. Based on the results of the materials sampled and analyzed, no asbestos containing materials were identified in the designated bridge spans. The complete survey report can be found in **Appendix F**. In addition to the Asbestos Survey, Shaw Environmental and Infrastructure, Inc. performed a paint coating sampling survey on these bridges. The purpose of this survey was to test for the eight RCRA metals as well as by the toxicity characteristic leaching procedure. The results of these surveys indicate the presence of chromium and lead in levels which exceed the maximum contaminant levels. The complete surveys can be found in **Appendix G**.

Section 7 – SUMMARY OF FINDINGS AND RECOMMENDATIONS

Information was obtained for this report through reports from *FirstSearch Technology Corporation*, observations during on-site visits, aerial information, and database information from the FDEP and Hillsborough County. A total of 15 sites were reviewed within the project area, and the following conclusions and recommendations were made regarding the proposed project:

- Of the 15 sites reviewed, 11 sites received rankings of LOW risk, four sites received a ranking of MEDIUM risk, and no sites received a ranking of HIGH risk.
- For sites ranked “Low” for potential contamination, no further action is required at this time. These sites/facilities have potential to impact the study area but based on select variables have been determined to have low risk to the corridor at this time. Variables that may change the risk ranking include: A facility’s non-compliance to environmental regulations; new discharges to the soil or groundwater; and modifications to current permits. Should any of these variables change, additional assessment of the facility should be conducted. These facilities should be re-evaluated during the design phase.
- For those locations with a risk ranking of “Medium”, additional evaluation should be conducted prior to undertaking construction activities. These sites have been determined to have potential contaminants, which may impact the project corridor. A soil and groundwater-sampling plan may need to be developed for each site. The sampling plan would provide sufficient detail as to the number of soil and groundwater samples to be obtained and the specific analytical test to be performed. A site location sketch for each facility showing all proposed boring locations and groundwater monitoring wells would be prepared as part of this plan. Three sites (Eli Whit Co., International Ship Repair, CITGO (Adamo Drive Inc.)) with a risk ranking of “Medium” are located immediately adjacent to the corridor, therefore; there is a likelihood of encountering contaminated soils in these areas.

- An asbestos survey was performed on the Selmon Expressway structures with no asbestos containing material identified.
- A paint coating sampling survey was conducted on the Selmon Expressway structures with lead and chromium identified at levels exceeding the maximum contaminant levels. Proper precautions will be taken during the renovation and/or demolition of these structures as outlined within the survey reports found in Appendix G. These precautions include: complying with the Occupational Safety and Health Administrations (OSHA) Construction Standard contained in 29 CFR 1926 for personnel health and safety; and to containerize all paint related waste in US Department Of Transportation (USDOT) approved containers, labeled and properly stored and disposed of.
- It must be recognized that the possibility still exists that other sites containing hazardous substances, hazardous wastes, petroleum products, or environmental contamination not identified during this assessment may exist on or in the immediate vicinity of the project study corridor. This is because regulatory agency records are not always complete; not all leaks, spills and discharges are reported; and not all USTs and ASTs are registered. Therefore, the purpose of this assessment is to reduce, but not eliminate, the unknown and uncertainty regarding the absence or presence of hazardous substances or environmental contamination in connection with the project.

The potential contamination sites are outlined in **Table 6-1**, and the locations of these sites are illustrated in **Figure 6-1**.

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APPENDIX A

***ETDM Programming
Summary Report
(Contamination Excerpts)***

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ETDM Summary Report

Project #11840 - SR 618 Widening

Preliminary Programming Screen - Published on 04/13/2010

Generated by Steve Love (on behalf of FDOT District 7)

Printed on: 4/14/2010

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Introduction to Programming Screen Summary Report

The Programming Screen Summary Report shown below is a read-only version of information contained in the Programming Screen Summary Report generated by the ETDM Coordinator for the selected project after completion of the ETAT Programming Screen review. The purpose of the Programming Screen Summary Report is to summarize the results of the ETAT Programming Screen review of the project; provide details concerning agency comments about potential effects to natural, cultural, and community resources; and provide additional documentation of activities related to the Programming Phase for the project. Available information for a Programming Screen Summary Report includes:

- Screening Summary Report chart
- Project Description information (including a summary description of the project, a summary of public comments on the project, and community-desired features identified during public involvement activities)
- Purpose and Need information (including the Purpose and Need Statement and the results of agency reviews of the project Purpose and Need)
- Alternative-specific information, consisting of descriptions of each alternative and associated road segments; an overview of ETAT Programming Screen reviews for each alternative; and agency comments concerning potential effects and degree of effect, by issue, to natural, cultural, and community resources.
- Project Scope information, consisting of general project commitments resulting from the ETAT Programming Screen review, permits, and technical studies required (if any)
- Class of Action determined for the project
- Dispute Resolution Activity Log (if any)

The legend for the Degree of Effect chart is provided in an appendix to the report.

For complete documentation of the project record, also see the GIS Analysis Results Report published on the same date as the Programming Screen Summary Report.

#11840 SR 618 Widening

District	District 7	Phase	Programming Screen
County	Hillsborough	From	Florida Avenue
Planning Organization	FDOT District 7	To	22nd Street
Plan ID	52.20.02	Financial Management No.	4163614
Federal Involvement	No federal involvement has been identified.		
Contact Information	Name: Steve Love Phone: (813) 975-6410 E-mail: steve.love@dot.state.fl.us		

Snapshot Data From: Programming Screen Summary Report Re-published on 04/13/2010 by Steve Love

Overview

		Evaluation of Direct Effects																				
		Natural						Cultural				Community										
Legend		Air Quality	Coastal and Marine	Contaminated Sites	Farmlands	Floodplains	Infrastructure	Navigation	Special Designations	Water Quality and Quantity	Wetlands	Wildlife and Habitat	Historic and Archaeological Sites	Recreation Areas	Section 4(f) Potential	Aesthetics	Economic	Land Use	Mobility	Relocation	Social	Secondary and Cumulative Effects
N/A	N/A / No Involvement																					
0	None (after 12/5/2005)																					
1	Enhanced																					
2	Minimal (after 12/5/2005)																					
3	Moderate																					
4	Substantial																					
5	Dispute Resolution (Programming)																					
ETAT Review Period: 8/18/2009 - 10/2/2009. Re-Published: 4/13/2010																						
Alternative #1		2	3	3	0	3	2	0	3	3	2	2	3	3	3	2	3	3	2	2	3	2
From Florida Avenue to 22nd Street		2	3	3	0	3	2	0	3	3	2	2	3	3	3	2	3	3	2	2	3	2

Project Description Data

Description Statement

Project Description Summary

A Project Development and Environment (PD&E) Study is being initiated to evaluate capacity improvements to the Selmon Expressway (expressway) downtown viaduct, currently a divided four-lane, continuous elevated structure through downtown Tampa. Capacity improvements to be evaluated include; 1) widening the existing structures to the inside to provide a divided 6-lane roadway, and 2) constructing a westbound, one-lane ramp from the nearby expressway Reversible Expressway Lanes (REL) structure that will tie to the downtown viaduct. The westbound, one-lane ramp alternative will also include a one lane widening of the eastbound viaduct structure to the outside for a total of three eastbound lanes. Both build alternatives will be within existing expressway right-of-way. Also included in this project is the proposed re-decking of an approximately one mile segment of the existing viaduct structure located within the project area. The proposed re-decking will extend from Florida Avenue to North 12th Street. The project area is within the Tampa city limits for the entire study length.

The PD&E Study is being prepared and funded by the Tampa Hillsborough Expressway Authority (THEA) in close coordination with the Florida Department of Transportation (FDOT) District 7; therefore, it is not in the FDOT Work Program. The length of the study corridor, from Florida Avenue to 22nd Street, is approximately 1.7 miles.

Estimated construction cost of the overall project is approximately 120 million dollars. Of this total cost, approximately 50 million dollars will be for the viaduct widening from Morgan Street to South 22nd Street, including transitions westward of Morgan Street to meet the existing viaduct section This will provide six travel lanes (three east and three west bound) in the viaduct segment that contains major downtown ramps. The remaining 70 million dollars will be for the deck replacement from Florida Ave to North 12th Street. The deck within this segment of the viaduct is being replaced due to high maintenance and public safety concerns resulting from the original construction technique. This technique utilized stay-in-place pre-stressed concrete deck forms, and FDOT has replaced this type of deck throughout the state due to the occurrence of de-lamination and "punch-throughs." This construction technique is no longer used by the FDOT. Segments of the existing viaduct located west of the proposed deck replacement utilized a different construction technique, which does not have the same high maintenance and public safety concerns.

The western terminus of the project is Florida Avenue; this terminus was selected because it incorporates the deck replacement limits, and enables the four high volume, downtown exit and entrance ramps of the expressway to be contained within the project limits. These four ramps receive and apply approximately 33% of the total am and pm peak hour traffic along the viaduct. Downtown ramps that are located west of the project limits experience relatively low traffic volumes.

The majority of downtown traffic on the expressway enters and leaves from the east. This volume will increase with the opening of the I-4 Connector. Previous THEA traffic studies have determined that if traffic significantly increases from the west, then an alternative entrance from the expressway system to the downtown business district would be needed. This alternative entrance would be via a northern extension of the expressway that would be located west of the Hillsborough River, and would cross the river at a new location. For these reasons, consideration of capacity improvements on the existing expressway, westward of the proposed logical terminus is unnecessary and would not affect the purpose and need of the project.

The eastern project terminus meets the 4-lane to 6-lane transition that will be constructed as part of the I-4 Connector. This will allow for a continuous 6-lane section for the expressway in this area, and is thus the logical terminus both geometrically and for traffic. The existing viaduct structure ends at 19th Street, so the continuation of the widening to South 22nd Street in a build alternative would be by embankment and asphalt pavement.

Additional Project Information

- The project will cost \$120 million. The phases this cost includes are Project Development and Environment (PD&E) and Design-Build. The funding will be generally \$70 million for the deck replacement from the FDOT and \$50 million for the widening from THEA.
- This project is in an Urban Service Area and is not in a Transportation Concurrency Exception Area (TCEA).
- The facility is part of the Strategic Intermodal System.
- The project is in the FDOT jurisdiction and the functional classification is an Urban Highway (Freeway).
- The traffic data for 2008 is 51,300 AADT for 4-lanes divided and in 2025 is 59,500 AADT for 6-lanes divided.

Summary of Public Comments not available at this time

Consistency

- Consistent with Air Quality Conformity.
- CONSISTENT with Coastal Zone Management Program.
- Not consistent with Local Government Comp Plan.
 - Comment: The Department of Community Affairs (DCA) has reviewed the referenced project and, based on current information, this project is not addressed in the local governments' comprehensive plan. If this project advances further or receives a funding source, it will be necessary to amend the comprehensive plan to identify the project on the Future Transportation Map and in the capital improvements element. It is understood, by the ETDM Project Description, that this is a potential Long Range Transportation Plan (LRTP) project and that coordination with the local government comprehensive plan is necessary subsequent to adoption of the LRTP. Department of Community Affairs staff will be available to assist in amending the Transportation Element of the local government comprehensive plan if necessary. Pursuant to Section 163.3177 (6)(a)(b), F.S., the Department also supports the use of congestion management techniques in lieu of widening where appropriate. This initiative supports alternative modes of transportation such as bicycles, walking and transit. The State of Florida is placing a greater emphasis on multi-modal opportunities as the Department seeks to promote greater mobility while reducing greenhouse gas emissions.
 - Submitted By: FDOT District 7
 - Comment Date: 2010-04-05 17:47:44.0
- Consistent with MPO Goals and Objectives.

Lead Agency

FL Department of Transportation

Exempted Agencies

Agency Name	Justification	Date
National Park Service	The project is not in the proximity to a National Park.	8/04/2009

US Coast Guard	There are no structures over waters. This project does not affect navigable waters.	8/04/2009
US Forest Service	The project is not in the proximity to a National Forest.	8/04/2009

Community Desired Features

No desired features have been entered into the database. This does not necessarily imply that none have been identified.

Purpose and Need

Purpose and Need Statement

Purpose and Need

The downtown viaduct of the Selmon Expressway will need capacity improvements to maintain the required level-of-service based on projected traffic volumes, particularly as a result of the FDOT's nearby I-4 Connector project. The purpose of the PD&E study is therefore to develop and evaluate build alternatives that will accomplish this need, by expanding this divided four lane facility into the equivalent of a divided six lane facility.

The expressway also experienced higher than anticipated traffic growth after the Reversible Expressway Lanes (REL) project was opened to traffic in August 2006, and the original Tampa Interstate Study (TIS) and LRTP planning for the capacity improvement on the expressway's downtown viaduct did not anticipate construction of the I-4 Connector until approximately 2025. By constructing the connector more than 10-years earlier than planned, the need for additional capacity on the viaduct into downtown Tampa has also been accelerated.

Regional Connectivity

The I-4 Connector project being implemented by FDOT, which will link I-4 to the expressway east of 22nd Street, is scheduled to begin construction in early 2010. System linkage, notably between the I-4 Connector that will serve the Port of Tampa and the Cruise Ship Terminal, the downtown exits into Tampa's Central Business District, and MacDill Air Force Base near the southern end of the expressway, would be enhanced by a capacity improvement to the downtown viaduct. This improvement should also provide some congestion relief as a traffic alternative to the I-4 / I-275 interchange and I-275 downtown ramps. The importance of the expressway to regional connectivity is also demonstrated by the designation as a highway corridor within the Strategic Intermodal System (SIS). This designation is included in the Regional 2025 LRTP adopted by the West Central Florida MPO's Chairs Coordinating Committee (CCC). The SIS is a statewide network of highways, railways, waterways and transportation hubs that handle the bulk of Florida's passenger and freight traffic, and the expressway is connected to this statewide network by its ramp connections to I-75, US 41, and US 301, and its future direct connection to I-4 via the connector project.

Plan Consistency

The widening of the downtown viaduct is being included in the current update of the MPO's Cost-Feasible Long Range Transportation Plan that was adopted in December 2009, and will also be included in the transportation element of the Hillsborough County Comprehensive Plan for consistency.

Emergency Evacuation

The expressway is an evacuation route designated by the Hillsborough County Emergency Management Office. This office also submitted an emergency plan to FDOT's Central Office for the expressway to operate in a contraflow condition, which will provide four lanes for evacuation purposes from Gandy Boulevard eastward to 50th Street when necessary.

Future Population and Employment Growth in the Corridor

Since the expressway is mainly a commuter facility, the traffic is expected to grow correspondingly with the increase in population and employment of the Tampa area. However, the greatest impact on future traffic growth is the I-4 Connector project mentioned previously.

The population of Hillsborough County, according to the 2000 Census, was 998,948. This reflected an average annual increase of 16,489 persons, or about 2 percent per year, since the 1990 Census. The Hillsborough MPO's 2025 LRTP is based on a future population estimate of 1,532,000. Based on the 2000 Census, employment was 672,400 and is projected to be 1,120,000 in 2025. This represents an increase in employment of approximately 67%. These socioeconomic projections are used in the Tampa Bay Regional Planning Model (TBRPM) to estimate travel demand in the future.

Future Traffic

Current peak hour traffic volumes system-wide on the expressway range from 2,322 VPH on weekends to 5,628 VPH on weekdays. On the viaduct, peak hour traffic volumes range from 2,350 VPH on weekends to 3,400 VPH during weekdays, for a level of service (LOS) of C and D, respectively. Projected peak hour traffic volumes on the viaduct with incorporation of the I-4 Connector are 3,661 VPH in 2015 and 4,176 VPH in 2020. These volumes result in a LOS E at the Kennedy Boulevard entrance and exit ramps and a LOS D at the Morgan Street entrance and exit ramps in 2015, and LOS F and LOS E respectively in 2025.

Safety / Crash Rates

Crash data was collected from the FDOT Crash Data Management System for the expressway from January 2004 through April 2009, and a total of 166-traffic crashes were reported for an average of 32-crashes per year along the study corridor. 80% of the crashes occurred at the approach and departure, and ramps, of the 22nd Street interchange area, and 17% occurred at the approach and departure, and ramps, of the Kennedy Boulevard interchange area. The highest type of crash was rear end for 34% of all crashes, followed by angle at 14%.

Statewide crash rates averaged 0.636 crashes per million-vehicle-miles along urban toll roads, and 0.0.304 at urban toll interchanges. While the 0.115 average crash rate for the expressway is below the statewide average, the 0.877 crash rate at the 22nd Street interchange is well above the statewide average and needs to be fully evaluated as part of the PD&E study. A thorough crash analysis will be performed as part of the PD&E Study to more specifically identify areas and problems.

Transit

Currently there are six express bus routes that utilize the expressway for the Hillsborough Area Regional Transit (HART), and one for the Pinellas Suncoast Transit Authority (PSTA). Areas served by these routes include Pinellas County, downtown Tampa, Brandon, Dover, Fishhawk, Riverview, MacDill AFB, Southshore, South Brandon and East County.

Access to Intermodal Facilities and Freight Activity Centers

The expressway is connected to the Port of Tampa and Cruise Terminal via 22nd Street, which will become more important when the I-4 Connector is completed. As previously mentioned, the expressway also has direct ramp connections to I-75, US 41 and US 301 that benefit freight movements.

Relief to Parallel Facilities

Improving the capacity of the viaduct should provide some congestion relief to the I-4 / I-275 interchange and I-275 downtown ramps, which are parallel facilities to the expressway.

Bikeways and Sidewalks

Bicycle and pedestrian facilities cannot be accommodated on the expressway due to high vehicle speeds and limited access, though at-grade trails are planned by the City of Tampa along the less urbanized areas adjacent to the expressway. Along the limits of this project the expressway is elevated and standard sidewalks and other amenities are provided by others along the urban streets below.

Summary of Public Comments
(None available)

Purpose and Need Reviews

Agency	Acknowledgment	Review Date
FL Fish and Wildlife Conservation Commission	Understood	8/20/2009
US Fish and Wildlife Service	Understood	8/21/2009
Natural Resources Conservation Service	Understood	8/26/2009
National Marine Fisheries Service	Understood	9/22/2009
US Environmental Protection Agency	Understood	10/1/2009
US Army Corps of Engineers	Understood	10/1/2009
FL Department of Environmental Protection	Understood	10/1/2009
Federal Highway Administration	Accepted	10/1/2009
Southwest Florida Water Management District	Understood	10/2/2009
FL Department of Community Affairs	Understood	10/9/2009
FDOT District 7	Accepted	4/6/2010

Alternative #1

Alternative Description

From:	Florida Avenue	To:	22nd Street
Type:	Widening	Status:	ETAT Review Complete
Total Length:	1.7 mi.	Cost:	\$120,000,000.00
Modes:	Roadway Transit	SIS:	No

Project Effects Overview

Issue	Degree of Effect	Organization	Date Reviewed
Natural			
Air Quality	2 Minimal	US Environmental Protection Agency	10/01/2009
Coastal and Marine	3 Moderate	Southwest Florida Water Management District	10/02/2009
Coastal and Marine	2 Minimal	National Marine Fisheries Service	9/22/2009
Contaminated Sites	3 Moderate	US Environmental Protection Agency	10/02/2009
Contaminated Sites	3 Moderate	Southwest Florida Water Management District	10/02/2009
Contaminated Sites	3 Moderate	FL Department of Environmental Protection	10/01/2009
Farmlands	0 None	Natural Resources Conservation Service	8/26/2009
Floodplains	2 Minimal	Southwest Florida Water Management District	10/02/2009
Floodplains	3 Moderate	US Environmental Protection Agency	10/02/2009
Infrastructure	N/A N/A / No Involvement	Southwest Florida Water Management District	10/02/2009
Navigation	0 None	US Army Corps of Engineers	10/01/2009
Special Designations	3 Moderate	US Environmental Protection Agency	10/02/2009
Special Designations	3 Moderate	Southwest Florida Water Management District	10/02/2009
Water Quality and Quantity	3 Moderate	US Environmental Protection Agency	10/02/2009
Water Quality and Quantity	3 Moderate	Southwest Florida Water Management District	10/02/2009
Water Quality and Quantity	3 Moderate	FL Department of Environmental Protection	10/01/2009
Wetlands	2 Minimal	Southwest Florida Water Management District	10/02/2009
Wetlands	2 Minimal	FL Department of Environmental Protection	10/01/2009
Wetlands	2 Minimal	US Army Corps of Engineers	10/01/2009
Wetlands	0 None	US Environmental Protection Agency	10/01/2009
Wetlands	2 Minimal	National Marine Fisheries Service	9/22/2009
Wetlands	N/A N/A / No Involvement	US Fish and Wildlife Service	8/26/2009
Wildlife and Habitat	2 Minimal	Southwest Florida Water Management District	10/02/2009
Wildlife and Habitat	N/A N/A / No Involvement	US Fish and Wildlife Service	8/26/2009
Wildlife and Habitat	2 Minimal	FL Fish and Wildlife Conservation Commission	8/20/2009
Cultural			
Historic and Archaeological Sites	N/A N/A / No Involvement	Southwest Florida Water Management District	10/02/2009
Historic and Archaeological Sites	3 Moderate	Federal Highway Administration	10/01/2009
Historic and Archaeological Sites	3 Moderate	FL Department of State	9/30/2009
Historic and Archaeological Sites	3 Moderate	Miccosukee Tribe of Indians of Florida	9/08/2009
Recreation Areas	N/A N/A / No Involvement	Southwest Florida Water Management District	10/02/2009
Recreation Areas	0 None	FL Department of Environmental Protection	10/01/2009
Recreation Areas	3 Moderate	Federal Highway Administration	10/01/2009

Recreation Areas	0	None	US Environmental Protection Agency	10/01/2009
Section 4(f) Potential	3	Moderate	Federal Highway Administration	10/01/2009
Community				
Aesthetics	No reviews recorded.			
Economic	No reviews recorded.			
Land Use	3	Moderate	FL Department of Community Affairs	10/09/2009
Land Use	N/A	N/A / No Involvement	FL Department of Agriculture and Consumer Services	9/16/2009
Mobility	No reviews recorded.			
Relocation	2	Minimal	Federal Highway Administration	10/01/2009
Social	2	Minimal	FL Department of Community Affairs	10/09/2009
Social	2	Minimal	US Environmental Protection Agency	10/02/2009
Social	3	Moderate	Federal Highway Administration	10/01/2009
Secondary and Cumulative				
Secondary and Cumulative Effects	2	Minimal	Southwest Florida Water Management District	10/02/2009

ETAT Reviews and Coordinator Summary: Natural Issues

Coordinator Summary: Air Quality Issue

2 Minimal assigned 10/20/2009 by FDOT District 7

Comments: The Florida Department of Transportation (FDOT) has evaluated comments from the US Environmental Protection Agency (USEPA) and recommends a Degree of Effect of Minimal.

The project is located in an area which is currently designated attainment for maintenance for ozone, carbon monoxide, or particulate matter. Also, there are no violations of the National Ambient Air Quality Standards under the criteria provided in the Clean Air Act. Therefore, the Clean Air Act conformity requirements do not apply to the project.

As requested by the USEPA, the FDOT recommends that the implementing agency conduct an Air Quality Screening Analysis.

No comments were received from the Federal Highway Administration (FHWA).

ETAT Reviews: Air Quality Issue: 1 found

2 Minimal assigned 10/01/2009 by Madolyn Dominy, US Environmental Protection Agency

Coordination Document: No Selection

Dispute Information: N/A

Identified Resources and Level of Importance: Resources: Air Quality

Level of Importance: Air quality within the region is of a high level of importance. Traffic volumes on the roads in the vicinity are expected to increase due to anticipated population and growth in the area and within the region.

Comments on Effects to Resources: Hillsborough County and the Tampa Area are not currently designated non-attainment or maintenance for ozone, carbon monoxide (CO) or particulate matter (PM) in accordance with the Clean Air Act. There are no violations of National Ambient Air Quality Standards (NAAQS). Nevertheless, the environmental review of this project should consider potential air quality impacts. This could include an air impact analysis which documents the current pollutant concentrations recorded at the nearest air quality monitors, an evaluation of anticipated emissions, and air quality trend analyses. It is recommended that the environmental review also include a hot spot analysis at the point in time and place where congestion is expected to be greatest during the design life of the project. FDOT should use approved software such as MOBILE 6 and CAL3QHC for CO screening. CO estimates should be compared to the one-hour and eight-hour NAAQS of 35 parts per million (ppm) and 9 ppm, respectively. Air pollutants to be evaluated (both short- and long-term) include carbon monoxide, sulfur dioxide, ozone/nitrogen, dioxide particulate matter (both PM 2.5 (microns) and PM 10), and lead.

Additional Comments (optional): As population growth and vehicle volumes increase, there is the potential to have air quality conformity and non-attainment issues in the future. FDOT, MPOs, municipalities, and regional planning agencies should conduct air quality modeling as traffic forecasts increase.

Coordinator Feedback: None

The following organization(s) were expected to but did not submit a review of the Air Quality issue for this alternative: Federal Highway Administration

Coordinator Summary: Coastal and Marine Issue

3 Moderate assigned 10/20/2009 by FDOT District 7

Comments: The Florida Department of Transportation (FDOT) has evaluated comments from the National Marine Fisheries Service (NMFS) and the Southwest Florida Water Management District (SFWMD) and recommends a Degree of Effect of Moderate.

A review of the Geographical Information Systems (GIS) analysis data shows 4.3 acres (1.33%) bays and estuaries habitat within the 500-foot buffer area. The NMFS staff conducted a site inspection of the project area on September 21, 2009 to assess potential concerns to living marine resources

and concluded that the project will not directly impact any NMFS trust resources.

The FDOT recommends that the implementing agency take all measures to develop avoidance alternatives and/or measures to minimize any harm to these resources.

No comments were received from the Federal Highway Administration (FHWA).

ETAT Reviews: Coastal and Marine Issue: 2 found

3 *Moderate* assigned 10/02/2009 by C. Lynn Miller, Southwest Florida Water Management District

Coordination Document: Permit Required

Dispute Information:N/A

Identified Resources and Level of Importance: The project occupies watersheds (Ybor Drain, Hillsborough River) that are included in the 2200-acre Tampa Bay Estuary Watershed, designated "estuary of national significance" by the US Congress in 1990. The project also contributes flows to water bodies that are included in the Tampa Bay Estuary Watershed (McKay Bay, East Bay). Additionally, both Tampa Bay and McKay Bay are considered as impaired waters.

Comments on Effects to Resources: The project has the potential to generate stormwater runoff and increased sedimentation that may contribute to a delay in recovery of McKay Bay and the Lower Hillsborough River and to the further deterioration of Ybor Drain and East Bay.

Additional Comments (optional): The SWFWMD has assigned a Degree of Effect based on their opinion of the potential of this project to result in increased coordination or effort associated with the SWFWMD's regulatory interests and obligations.

This project will require an Environmental Resource Permit for Construction Activities and for compliance with the District's participation in the Coastal Zone Management review process.

To minimize pollution potential, it would be helpful to collect all discharges from the viaduct and approach surfaces and redirect it to appropriate facilities to treat the water before discharging to the estuary areas.

Coordinator Feedback: None

2 *Minimal* assigned 09/22/2009 by David A. Rydene, National Marine Fisheries Service

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance: Estuarine habitats within Hillsborough Bay and the greater Tampa Bay System including mangrove, salt marsh, and seagrass, used by federally-managed fish species and their prey.

Comments on Effects to Resources: NOAA's National Marine Fisheries Service (NMFS) has reviewed the information contained in the Environmental Screening Tool for ETDM Project # 11840. The Florida Department of Transportation District 7, the Federal Highway Administration, and the Tampa Hillsborough Expressway Authority propose widening the Selmon Expressway (SR 618) from Florida Avenue to 22nd Street in Hillsborough County, Florida. The road would be widened from four lanes to six lanes. The construction of a westbound one-lane ramp to tie the Reversible Expressway Lanes to the downtown viaduct is also proposed.

NMFS staff conducted a site inspection of the project area on September 21, 2009, to assess potential concerns related to living marine resources within Hillsborough Bay. The lands adjacent to the proposed project are highly urbanized (principally commercial/industrial properties). It does not appear that the project will directly impact any NMFS trust resources. However, the road lies as close as 102 feet to the north end of Sparkman Channel in the Port of Tampa. Sparkman Channel contains a number of commercial/industrial ship facilities, but very little quality fish habitat. However, the channel drains to Hillsborough Bay. Increased use of the road could result in an increase in the amount of sediment, oil and grease, and other pollutants reaching estuarine habitats utilized by marine fishery resources in Hillsborough Bay. Therefore, NMFS recommends that stormwater treatment systems be upgraded to prevent degraded water from reaching estuarine habitats within Hillsborough Bay and the greater Tampa Bay System. In addition, best management practices should be employed during road construction to prevent siltation of these habitats.

Coordinator Feedback: None

The following organization(s) were expected to but did not submit a review of the Coastal and Marine issue for this alternative: Federal Highway Administration

Coordinator Summary: Contaminated Sites Issue

3 *Moderate* assigned 10/20/2009 by FDOT District 7

Comments: The Florida Department of Transportation (FDOT) has evaluated comments from the Florida Department of Environmental Protection (FDEP), the US Environmental Protection Agency (USEPA), and the Southwest Florida Water Management District (SWFWMD) and recommends a Degree of Effect of Moderate.

A review of the Geographical Information Systems (GIS) analysis data indicated that there are three biomedical waste sites, one geocoded gasoline station, two USEPA National Pollution Discharge Elimination Systems (NPDES) facilities, one USEPA regulated Air Emissions Facility, and two USEPA Resource Conservation and Recovery Act (RCRA) regulated facility within the 100-foot buffer area, one USEPA Toxic Release Inventory Site, four additional USEPA NPDES facilities, one additional USEPA regulated Air Emissions Facility, and four additional USEPA RCRA regulated facilities are located within the 200-foot buffer area, and six additional USEPA NPDES facilities, one additional USEPA regulated Air Emissions Facility, and nine additional USEPA RCRA regulated facilities are located within the 500-foot buffer area.

Brownfield Location Boundaries lists 0.2 acres (0.14%) of 1010-1026 North 19th Street, 1.9 acres (1.74%) of 12th Street Operations Yard, and 0.3 acres (0.28%) of Tampa International Center Brownfield Area within the 100-foot buffer area, 0.8 acres (0.5%) of 1010-1026 North 19th Street, 3.9 acres (2.4%) of 12th Street Operations Yard, and 1.2 acres (0.73%) of Tampa International Center Brownfield Area within the 200-foot buffer area, and 3.0 acres (0.93%) of 1010-1026 North 19th Street, 7.9 acres (2.45%) of 12th Street Operations Yard, 1.0 acres (0.32%) of Grand Central at Kennedy Property Brownfield Area, and 7.6 acres (2.35%) of Tampa International Center Brownfield Area within the 500-foot buffer area.

The FDOT recommends that the implementing agency prepare a Contamination Screening Evaluation Report (CSER) to determine whether there

would be any contamination and hazardous materials issues associated with the project. Risk for contamination in the project area from any source identified should be assessed to determine the need for remediation during construction.

No comments were received from the Federal Highway Administration (FHWA).

ETAT Reviews: Contaminated Sites Issue: 3 found

3 Moderate assigned 10/02/2009 by Madolyn Dominy, US Environmental Protection Agency

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance: Resources: Soils, groundwater, surface water which have the potential to be negatively affected by contaminated site features such as underground petroleum storage tanks, industrial/commercial facilities with onsite storage of hazardous materials, solid waste facilities, hazardous waste facilities, National Priority List (NPL) sites, etc.

Level of Importance: These resources are of a high level of importance in the State of Florida. A moderate degree of effect is being assigned for the proposed project (ETDM #11840, SR 618 Widening).

Comments on Effects to Resources: EPA reviewed the following contaminated sites GIS analysis data for buffer distances of 100, 200, and 500 feet: Brownfield Location Boundaries, Geocoded Dry Cleaners, Geocoded Gasoline Stations, Geocoded Petroleum Tanks, Hazardous Waste Sites, National Priority List Sites, Nuclear Site Locations, Solid Waste Facilities, Superfund Hazardous Waste Sites, TANKS 2007, Toxic Release Inventory Sites, and USEPA RCRA Facilities.

There were no features listed within the buffer distances for Geocoded Dry Cleaners, Geocoded Petroleum Tanks, Hazardous Waste Sites, National Priorities List Sites, Nuclear Site Locations, Solid Waste Facilities, Superfund Hazardous Waste Sites, and TANKS 2007.

There are four (4) Brownfield Locations listed as being within proximity of the project: 1010 - 1026 North 19th Street, 12th Street Operations Yard, Grand Central and Kennedy Property Brownfield Area, and Tampa International Center Brownfield Area.

Brownfields projects are defined as abandoned, idled or under utilized property where expansion or redevelopment is complicated by the presence or potential presence of environmental contamination. Previous thriving areas of economic activity are listed as Brownfields if the area is abandoned by contamination from past uses. Areas being unused or under-utilized are impediments to economic development in rural and urban communities. Redeveloped, these Brownfields areas can be catalysts for community revitalization. The Brownfields program brings together federal agencies to address cleanup and redevelopment in a more coordinated approach. Often times, federal grant programs and public/private organizations assist in the cleanup and redevelopment of Brownfields areas.

There is one Gasoline Station (Adamo Drive CITGO) located within proximity of the project.

There is one Toxic Release Inventory Site (International Ship Repair & Marine) located within proximity of the project.

There are two USEPA RCRA sites located within the 100-foot buffer distance, six (6) within the 200-foot buffer distance, and 15 within the 500-foot buffer distance.

The environmental review (PD&E) phase of the project should include a survey of the area to confirm the location of current listed contaminated site features, along with other contaminated site features which may have been previously located in the area. Potential issues relating to contaminated sites include leaking underground storage tanks, leaking above ground storage tanks, improper storage and/or disposal of hazardous material, spills and/or leaks from transportation vehicles (trucks, trains, etc.). Direct and indirect impacts resulting from these issues include contamination of soils, groundwater, and surface water. If any petroleum storage tanks are to be impacted or removed during the construction phase of the project, sampling and analysis of soils and groundwater should be conducted to determine if petroleum and hydrocarbon pollutants are present above regulatory levels. If high levels of pollutants are identified, remediation of soils and/or groundwater may be required prior to commencement of construction of the project.

Coordinator Feedback: None

3 Moderate assigned 10/02/2009 by C. Lynn Miller, Southwest Florida Water Management District

Coordination Document: Permit Required

Dispute Information:N/A

Identified Resources and Level of Importance: There are nine reported significant contaminated waste sites within 500 feet of the project. In view of the current and past land uses in the project area, there may be other, as yet unknown, such sites.

Comments on Effects to Resources: The construction of the roadway in areas where there may be sources of contamination could mobilize the contamination.

Additional Comments (optional): The SWFWMD has assigned a Degree of Effect based on their opinion of the potential of this project to result in increased coordination or effort associated with the SWFWMD's regulatory interests and obligations. Because it is possible that unknown sources of contamination may exist that could be disturbed by construction, the Degree of Effect is judged "Moderate" due to the large number of contamination sites in the project area and the potential for the contamination of surface waters and receiving waters that are already designated as Impaired for certain parameters.

This project will require an Environmental Resource Permit for Construction Activities.

To minimize surface water pollution potential, it would be helpful to:

1. Evaluate potential stormwater treatment pond sites for the presence of contamination and eliminate contaminated areas as possible pond sites or steps must be taken (such as use of impermeable liners) to isolate stormwater from contaminated soil or groundwater;
2. Conduct an Environmental Audit at the appropriate level to identify specific facilities of interest and to develop a plan for their proper removal or abandonment;
3. Coordinate with FDEP and EPA and prepare a Contamination Assessment Report as necessary; and
4. Contaminated soils, if discovered during the recommended soils investigation, should be avoided during construction activities.

Coordinator Feedback: None

3 Moderate assigned 10/01/2009 by Lauren P. Milligan, FL Department of Environmental Protection

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance: The EST indicates that there are four Brownfield areas totaling 19.59 acres, a toxic release inventory site, three biomedical waste sites and 15 RCRA regulated facilities within the 500-ft. project buffer.

Comments on Effects to Resources: Contamination Screening Evaluations should outline specific procedures that would be followed by the applicant in the event that drums, wastes, tanks or potentially contaminated soils are encountered during construction.

In the event contamination is detected during construction, the Department and County should be notified, and the FDOT may need to address the problem through additional assessment and remediation activities. Reference should be made to the most recent FDOT specification entitled "Section 120 Excavation and Embankment -- Subarticle 120-1.2 Unidentified Areas of Contamination of the Standard Specifications for Road and Bridge Construction" in the project's construction contract documents that would require specific actions by the contractor in the event of any hazardous material or suspected contamination issue arises.

Depending on the findings of the Contamination Screening Evaluations and the proximity to known contaminated sites, projects involving "dewatering" should be discouraged or limited, since there is a potential to spread contamination to previously uncontaminated areas or less contaminated areas and affect contamination receptors, site workers and the public. Dewatering projects would require permits / approval from the Southwest Florida Water Management District.

Any land clearing or construction debris must be characterized for proper disposal. Potentially hazardous materials must be properly managed in accordance with Chapter 62-730, F.A.C. In addition, any solid wastes or other non-hazardous debris must be managed in accordance with Chapter 62-701, F.A.C. Petroleum cleanups must be managed in accordance with Chapter 62-770, F.A.C.

Please be advised that a new rule, 62-780, F.A.C., became effective on April 17, 2005. In addition, Chapters 62-770, 62-777, 62-782 and 62-785, F.A.C., were amended on April 17, 2005, to incorporate recent statutory changes. Depending on the findings of the environmental assessments, there are "off-property" notification responsibilities potentially associated with this project. These rules may be found at the following website: <http://www.dep.state.fl.us/waste/>

Based on our experience, the accurate identification, characterization and cleanup of sites requires experienced consulting personnel and laboratory support, management commitment of the project developers and their representatives, and will likely be very time-consuming. Early planning to address these issues is essential to meet construction and cleanup (if required) timeframes. Innovative technologies, such as special storm water management systems, engineering controls and institutional controls, such as conditions on water production wells and dewatering restrictions, may be required, depending on the results of environmental assessments.

Coordinator Feedback: None

The following organization(s) were expected to but did not submit a review of the Contaminated Sites issue for this alternative: Federal Highway Administration

Coordinator Summary: Farmlands Issue

0 None assigned 10/20/2009 by FDOT District 7

Comments: The Florida Department of Transportation (FDOT) has evaluated comments from the Natural Resources Conservation Service (NRCS) and recommends a Degree of Effect of None.

A review of the Geographical Information Systems (GIS) analysis data indicated that there are no prime and unique farmlands within the 500-foot buffer area. This project will not result in any impacts to farmlands.

No comments were received from the Federal Highway Administration (FHWA).

ETAT Reviews: Farmlands Issue: 1 found

0 None assigned 08/26/2009 by Rick Allen Robbins, Natural Resources Conservation Service

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance: The USDA-NRCS considers soils with important soil properties for agricultural uses to be Prime Farmland. In addition, the USDA-NRCS considers any soils used in the production of commodity crops (such as, cotton, citrus, row crops, specialty crops, nuts, etc.) to possibly be considered as Unique Farmlands. Nationally, there has been a reduction in the overall amount of Prime and Unique Farmlands through conversion to non-farm uses. This trend has the possibility of impacting the nation's food supply and exporting capabilities

Comments on Effects to Resources: Conducting GIS analysis of Prime Farmland (using USDA-NRCS data) and Important (Unique) Farmland Analysis (using SFWMD data) has resulted in the determination that there are no Prime and Unique Farmland soils within any buffer width within the Project Area. Therefore, no degree of effect to agricultural resources.

Additional Comments (optional): This Project is entirely within the urban areas and will have no impact to any type of agricultural land.

CLC Commitments and Recommendations: Coordinator Feedback: None

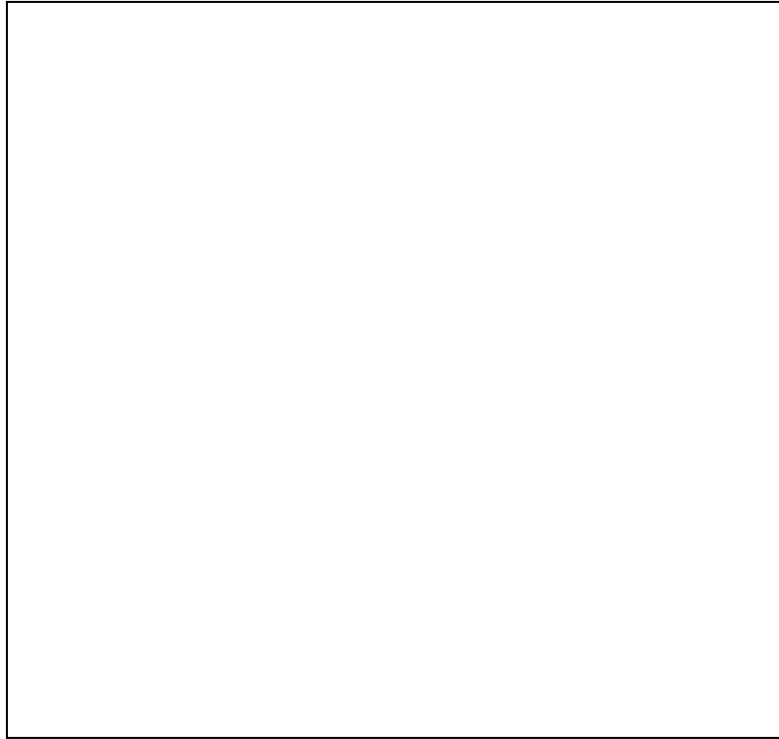
The following organization(s) were expected to but did not submit a review of the Farmlands issue for this alternative: Federal Highway Administration

Coordinator Summary: Floodplains Issue

3 Moderate assigned 10/20/2009 by FDOT District 7

Comments: The Florida Department of Transportation (FDOT) has evaluated comments from the US Environmental Protection Agency (USEPA) and the Southwest Florida Water Management District (SWFWMD) and recommends a Degree of Effect of Moderate.

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APPENDIX B

***FirstSearch Site
Information Report***

****Via CD***

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APPENDIX C

Historical Aerials

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2008 Aerial Photograph



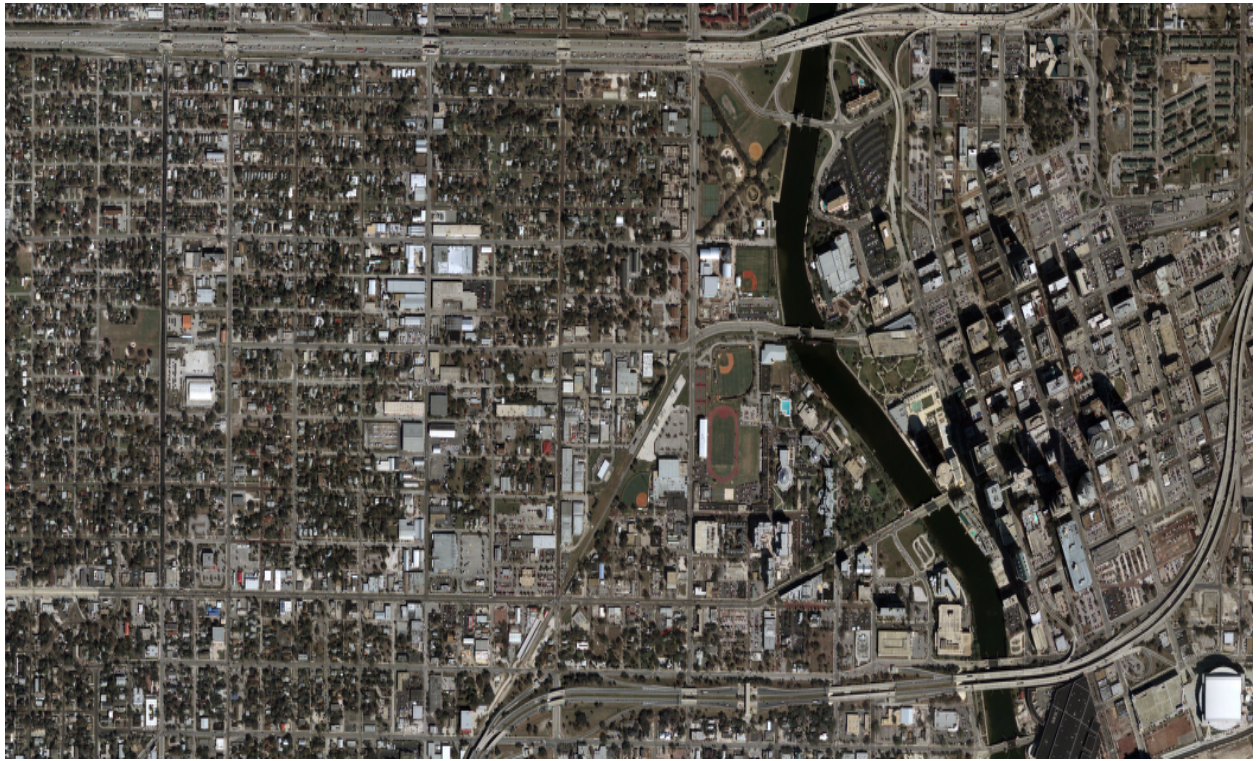
2008 Aerial Photograph – Crosstown to the Right.



2008 Aerial Photograph – Study Area to Left of Grey Building.



2002 Aerial Photo Graph – Study Area to the Left of Photo.



2002 Aerial – Crosstown Study Area to the Lower Right.



1994 Aerial Photograph



1973 Aerial Photograph



1965 Aerial Photograph

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APPENDIX D

Site Photos

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REA
REMEDIAL SOLUTIONS, L.C.



Downtown Viaduct PD&E Study



1. View of Crosstown Looking East Across Florida Ave. Near Site ID 1.



2. View of Vacant Parking and Crosstown Looking East. Near Site ID 1.



3. Cumberland Ave Under Crosstown



4. View under Expressway near Con Agra. ID 3



5. View of Con Agra Near Expressway. Site ID 3



6. View of Con Agra. Site ID 3

Phone: (813) 657-0747 Fax: (813) 657-0767

www.remedialsolutions.net

SDB/8(a) Certified #CG C061024 # PC C056763 #CUC1224089



REA
REMEDIAL SOLUTIONS, L.C.



Downtown Viaduct PD&E Study



7. View Under Crosstown



8. Hills. Cty Parking Garage.



9. Hills. County Parking Garage.



10. View of Crosstown near Raymond Ave.



11. Under Crosstown. Union Station is Distance Site ID 6



12. View of Union Station. Site ID 6.

Phone: (813) 657-0747 Fax: (813) 657-0767

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SDB/8(a) Certified #CG C061024 # PC C056763 #CUC1224089



13. Parking Lot At Union Station. Site ID 6



14. Parking Lot At Union Station. Site ID 6



15. CSX/Amtrak Station. Site ID 6.



16. View of Channel side Spill Site. Site ID 8



17. Channel side and Adamo Area. Site ID 8.



18. Under Crosstown near Adamo.

Phone: (813) 657-0747 Fax: (813) 657-0767

www.remedialsolutions.net

SDB/8(a) Certified #CG C061024 # PC C056763 #CUC1224089



REA
REMEDIAL SOLUTIONS, L.C.



Downtown Viaduct PD&E Study



19. JH Williams Bulk Site. Site ID 11



20. JH Williams Bulk Site. Site ID 11



21. Crosstown near International Ship.
Site ID 10



22. Crosstown Adjacent to Citgo. Site ID 12

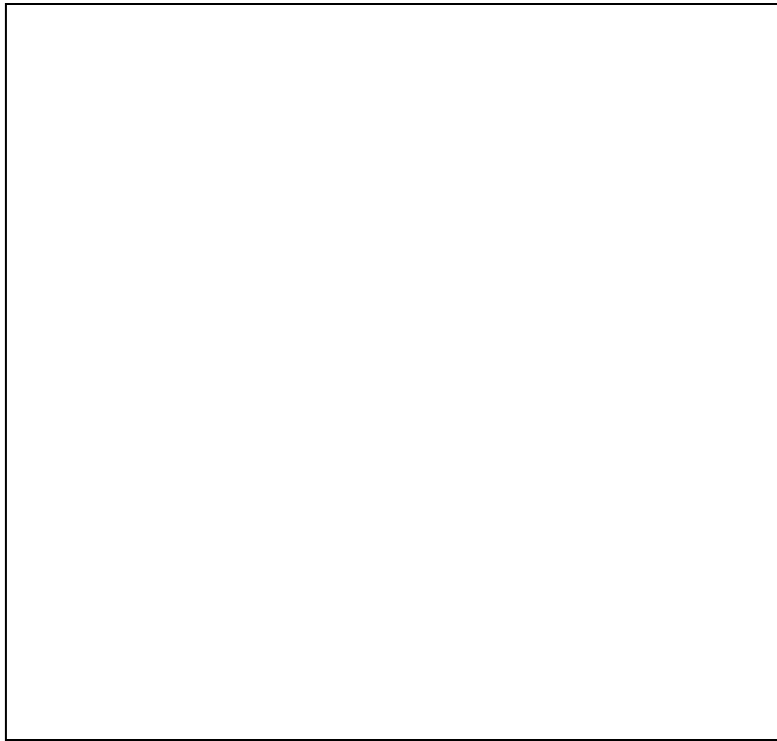


23. Citgo Adjacent to Crosstown. Site ID 12

Phone: (813) 657-0747 Fax: (813) 657-0767

www.remedialsolutions.net

SDB/8(a) Certified #CG C061024 # PC C056763 #CUC1224089



APPENDIX E

OCULUS Data

***Via CD**

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APPENDIX F

Limited NESHAP Asbestos Survey

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engineering and constructing a better tomorrow

416361-2 Lee Roy Selmon X-twn Deck Replacement
Asbestos Survey

March 9, 2009

Mr. Atiq Alvi
PB Americas, Inc.
5405 W. Cypress Street, Suite 300
Tampa, Florida 33607

Phone: 813-289-5300
Fax: 813-289-4405
E-mail: Alvi@pbworld.com

Subject: **Report of Limited NESHAP Asbestos Survey**
Crosstown Expressway Bridges 100332 & 100333
Tampa, Florida
MACTEC Project 6520-09-0149.01

Via E-mail & 1st Class Mail

Dear Mr. Alvi:

MACTEC Engineering and Consulting, Inc. (MACTEC) has completed the Limited NESHAP Asbestos Survey on the Crosstown Expressway Bridges 100332 & 100333. This report, consisting of 11 pages of narrative and 4 appendices, must be considered and utilized in its entirety.

We appreciate the opportunity to be of service to you and look forward to our continued association. If you should have any questions concerning this report, please contact us at your convenience.

Sincerely,

MACTEC ENGINEERING AND CONSULTING, INC.
Asbestos Business License No. ZA-0000116

Carol L. Thoma
Carol L. Thoma, MPH
Project Coordinator

Russell E. Stauffer
Russell E. Stauffer, P.E.
Florida Asbestos Consultant
License Number EA-0000016

P:\FACILITY\2009\Projects\6520-09-0149 Crosstown Bridge NESHAP\Report\Crosstown Bridge NESHAP.doc

Distribution: Addressee (3)
File (1)

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3.1.2 Bulk Sampling Procedures.....	2
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4.0 RESULTS OF LABORATORY ANALYSES.....	4
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1.0 BACKGROUND INFORMATION

We understand that the designated Crosstown Expressway Bridges are scheduled for renovation. MACTEC was requested by PB Americas, Inc. to perform a Limited NESHAP Asbestos Survey that will assist in complying with the Environmental Protection Agency (EPA), National Emissions Standards for Hazardous Air Pollutants (NESHAP), and other applicable regulations.

2.0 PROJECT INFORMATION SUMMARY

MACTEC PROJECT NUMBER	6520-09-0149
FACILITY NAME	Crosstown Expressway Bridges 100332 & 100333
FACILITY ADDRESS	Crosstown at Morgan Street to N. 12 th ST.
TYPE OF FACILITY	Bridge
DATES OF INSPECTION	March 2, 2009
ACCREDITED INSPECTOR	Pete MacKay

3.0 SURVEY PROCEDURES

3.1 ASBESTOS SURVEY PROCEDURES

3.1.1 General

The focus of the NESHAP Asbestos survey was to locate, identify, and sample designated materials, which were suspected to contain asbestiform minerals. The presence of friable suspect asbestos containing materials (ACM) encountered during the survey is addressed in this report. Friable materials, when dry, will crumble and release fibers under normal hand pressure.

We must emphasize that it is not possible to look within every location in the facility. This survey documents only general locations of suspect materials and does not determine the exact boundaries. No attempt was made to demolish structural elements and finishes or mechanical equipment, as this is beyond the scope of our authorized services. Due to these limitations, operating mechanical equipment, wall voids, building cavities, and other areas may contain unreported ACM.

3.1.2 Bulk Sampling Procedures

The bulk sampling procedures used for the collection of suspect ACM first required the establishment of homogeneous sampling areas, which are defined as areas of materials of the same type and applied during the same general time period. The homogeneous sampling areas were then examined, and representative samples of suspect materials were obtained from these areas.

The EPA has published guidelines and recommendations for obtaining samples of ACM. These guidelines were followed during our survey, where appropriate. Additionally, samples of these materials were obtained at the discretion of our personnel based on past experience.

Bulk samples collected during the site survey were analyzed by Polarized Light Microscopy (PLM) coupled with dispersion staining in accordance with EPA Method 600/R-93/116.

PLM is an analytical method for asbestos identification, which depends on the unique optical properties of mineral forms in the samples and specifically identified the various asbestos types. The optical properties are a result of the mineral's chemical composition, physical atomic structure, and visual morphology. This is the mandated method of analysis by EPA for asbestos identification in bulk samples. The samples were shipped to Cates Laboratories in Forney, Texas, which has attained National Institute of Standards and Technology (NIST) accreditation Number 200569-0 through participation in the National Voluntary Laboratory Accreditation Program (NVLAP).

3.1.3 Homogeneous Sampling Areas

Twenty-four samples of suspect ACM were obtained during this survey from the designated Crosstown Expressway Bridges and are outlined as follows:

- Asphalt Paving
- Concrete Guard Rail
- Expansion Joint
- Joint Tar
- Asphalt Patch

4.0 RESULTS OF LABORATORY ANALYSES

4.1 ASBESTOS

Asbestos Laboratory Analysis							
H.A.	SAMPLE	MATERIAL DESCRIPTION	SAMPLE LOCATION	ASBESTOS	APPROX. QUANTITY	NESHAP CATEGORY	RECOMMENDATIONS & COMMENTS
Sludge Pumping Station							
MS1	1 - 3 13 - 15	Asphalt Paving	Expressway (Eastbound) & E. Washington St.; Meridian Avenue; Nebraska Expressway (Westbound) & N. Maxwell St.; N. Brush St.; N. East St.	ND			
MS2	4 - 5 16 - 18	Guard Rail	Expressway (Eastbound) & E. Washington St.; Meridian Avenue; Nebraska Expressway (Westbound) & N. Maxwell St.; N. Brush St.; N. East St.	ND			
MS3	7 - 9 19 - 21	Expansion Joint	Expressway (Eastbound) & E. Washington St.; Meridian Avenue; Nebraska Expressway (Westbound) & N. Maxwell St.; N. Brush St.; N. East St.	ND			

Asbestos Laboratory Analysis

H.A.	SAMPLE	MATERIAL DESCRIPTION	SAMPLE LOCATION	ASBESTOS	APPROX. QUANTITY	NESHAP CATEGORY	RECOMMENDATIONS & COMMENTS
MS4	10 - 12	Joint Tar	Expressway (Eastbound) & Meridian Avenue; Nebraska; E. Washington St.	ND			
MSS	22 - 24	Asphalt Patch	Expressway (Westbound) & Morgan St.	ND			

LEGEND:

H.A. = Homogeneous Area of Material

SF = Square Feet

Asbestos detected is shown in bold type. All Asbestos detected is Chrysotile, unless noted otherwise.

ND = None Detected

LF = Linear Feet

Checked by: _____

5.0 ASBESTOS CONCLUSIONS AND RECOMMENDATIONS

5.1 GENERAL RECOMMENDATIONS

There are 4 recognized alternative courses of action to control asbestos-containing materials (ACM) in facilities: (1) asbestos removal and disposal, (2) enclosure, (3) encapsulation, and (4) special operations, maintenance and re-observation programs. The selection of a particular alternative should be based upon the intended use of the facility, actual exposure rates and cost.

Regarding Item 1 above, the EPA has Federal Regulations regarding asbestos. The NESHAP Final Rule Revision (EPA 40 CFR, Part 61), dated November 20, 1990, includes several items addressing asbestos removal and disposal. One key element is the categorization of ACM. These are categorized as follows:

- **Friable** means any material that can be reduced to powder by hand pressure when dry;
- **Category I Non-Friable ACM** means packing, gaskets, resilient floor coverings and roofing products that contain more than one percent asbestos;
- **Category II Non-Friable ACM** means any material, excluding Category I Non-Friable ACM, that contains more than one percent asbestos, and is not friable;
- **Regulated ACM (RACM)** includes all friable ACM, Category I Non-Friable ACM that will be or has been subject to sanding, grinding, cutting or abrading, Category II Non-Friable ACM that has become friable and Category II Non-Friable ACM that has a high probability of becoming, or has become crumbled, pulverized, or reduced to a powder by forces expected to act on the material in the course of demolition or renovation operations.

The definition for **Friable ACM** includes an option for verification by point-counting if it is determined by PLM analysis that asbestos is present in amounts less than 10 percent. If the point-counting method verifies that asbestos is present in amounts of one percent or less, then NESHAP removal requirements will not apply. Point-counting analysis was not part of the contractual scope of services for this project and was, therefore, not implemented.

The Occupational Safety and Health Administration (OSHA) asbestos regulations incorporate a category of suspect ACM (those which may contain asbestos) in which the likelihood of

containing asbestos is so great that they are presumed to contain asbestos -- **Presumed Asbestos-Containing Materials (PACM)**. Generally stated, these are friable or flooring materials installed in facilities prior to 1981. Additional sampling would typically be required to prove that any noted PACM does not contain asbestos. Alternatively, OSHA requires that any noted PACM to be handled as though they do contain asbestos.

5.2 ASBESTOS

The following section outlines our assessments and recommendations for the ACM identified in MACTEC's survey:

Friable ACM

- None

Category I Non-Friable ACM

- None

Category II Non-Friable ACM

- None

Overview Recommendations

Based upon the results of the materials sampled and analyzed, no ACM have been identified in the designated bridge spans. However, due to the numerous materials suspected to contain asbestos, certain of these may not have been accessible and identified during the current survey activities. MACTEC recommends that, if any other suspect materials are subsequently identified, they be treated as possibly containing asbestos until documented otherwise. *A Sample List of Suspect Asbestos – Containing Materials* is included in this report.

6.0 QUALIFICATIONS

MACTEC has endeavored to observe the existing conditions at the designated areas of the facility using generally accepted procedures. Regardless of the thoroughness of a survey, there is always the possibility that some areas were overlooked, inaccessible, or different from those at specific sample locations. Therefore, conditions at every location may not be as anticipated and as summarized in this report. In addition, renovation or demolition may uncover altered or differing conditions or other suspect ACM. We recommend that you notify MACTEC if any changed conditions are encountered so that we can assess the situation and its impact on our original recommendations. A list of typical Suspect Asbestos-Containing Materials is included in Section 7.0 of this report.

This report is intended for the exclusive use of the PB Americas, Inc. This survey was not intended to be or developed as a substitute for project-specific Bidding or Contract Documents. Use of this report or reliance upon information contained in this report by any other party acts as an agreement by that party to the same terms and conditions under which our services were provided. Furthermore, any use of this report by a party for purposes beyond those intended by MACTEC and the PB Americas, Inc. will be at the sole risk of that party.

7.0 SAMPLE LIST OF SUSPECT ASBESTOS-CONTAINING BUILDING MATERIALS⁽¹⁾

Cement Pipes	Elevator Brake Shoes
Cement Wall Board	HVAC Duct Insulation
Cement Siding	Boiler Insulation
Asphalt Floor Tile	Breeching Insulation
Vinyl Floor Tile	Ductwork Flexible Fabric Connections
Vinyl Sheet Flooring	Cooling Towers
Flooring Backing	Pipe Insulation (Corrugated Air-Cell, etc.)
Heating & Electrical Ducts	Construction Mastics (Flooring, Carpet, etc.)
Acoustical Plaster	Electrical Panel Partitions
Decorative Plaster	Electrical Cloth
Textured Paints/Coatings	Electrical Wiring Insulation
Ceiling Tiles & Lay-in Panels	Chalkboards
Spray-applied Insulation	Roofing Shingles
Blown-in Insulation	Roofing Felts
Fireproofing Materials	Base Flashings
Taping Compounds (Thermal)	Thermal Paper Products
Fire Doors	Packing Materials (Wall, Flooring Penetrations)
High Temperature Gaskets	Caulking/Putties
Laboratory Hoods/Table Tops	Adhesives
Laboratory Gloves	Wallboard
Fire Blankets	Joint Compound
Fire Curtains	Vinyl Wallcoverings
Elevator Equipment Panels	Spackling Compounds

NOTE: This list does not include every product/material that may contain asbestos. It is intended as a general guide to show which types of materials may contain asbestos.

(1) USEPA Document 20 T-2003, July 1990, "Managing Asbestos in Place, A Building Owner's Guide to Operations and Maintenance Programs for Asbestos-Containing Building Materials."

APPENDICES

APPENDIX A
PLM REPORT SUMMARIES

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PLM REPORT SUMMARY

Cates Laboratories
 613 S. Bois D'Arc
 Pomey, Texas 75126 (972) 564-4723

NVLAP Lab No. 200569-0
 TDH License No. 30-0287

Client: MACTEC Engineering & Consulting, Inc.

Lab Job No.: PLM-02671

Project: Crosstown Bridge NESHAP, Tampa, FL

Report Date: 3/4/2009

Project No: 6520-09-0149.01

Sample Date: 3/2/2009

Identification: Asbestos, Bulk Sample Analysis

Test Method: Polarized Light Microscopy/Dispersion Staining (PLM/DS)

EPA Method 600/R-93/116

Page 1 of 3

On 3/3/2009, twenty-four (24) bulk samples were submitted by Mr. Pete MacKay of MACTEC Engineering & Consulting, Inc. for asbestos analysis by PLM/DS. Copies of the lab data sheets are attached; additional information may be found therein. The results are summarized below:

Lab Sample No.	Client Field I.D.	Sample Description/Location	Asbestos Content
CL127903	1	Asphalt Paving - Expressway (E. Bound) and E. Washington St.	None Detected
CL127904	2	Asphalt Paving - Expressway (E. Bound) and Meridian Avenue	None Detected
CL127905	3	Asphalt Paving - Expressway (E. Bound) and Nebraska	None Detected
CL127906	4	Guard Rail - Expressway (E. Bound) and E. Washington St.	None Detected
CL127907	5	Guard Rail - Expressway (E. Bound) and Meridian Avenue	None Detected
CL127908	6	Guard Rail - Expressway (E. Bound) and Nebraska	None Detected
CL127909	7	Expansion Joint - Expressway (E. Bound) and E. Washington St.	None Detected
CL127910	8	Expansion Joint - Expressway (E. Bound) and Meridian Avenue	None Detected
CL127911	9	Expansion Joint - Expressway (E. Bound) and Nebraska	None Detected
CL127912	10	Joint Tar - Expressway (E. Bound) and Meridian Avenue	None Detected
CL127913	11	Joint Tar - Expressway (E. Bound) and Nebraska	None Detected
CL127914	12	Joint Tar - Expressway (E. Bound) and E. Washington St.	None Detected
CL127915	13	Asphalt Paving - Expressway (W. Bound) and N. Maxwell St.	None Detected
CL127916	14	Asphalt Paving - Expressway (W. Bound) and N. Brush St.	None Detected
CL127917	15	Asphalt Paving - Expressway (W. Bound) and N. East St.	None Detected
CL127918	16	Guard Rail - Expressway (W. Bound) and N. Maxwell St.	None Detected
CL127919	17	Guard Rail - Expressway (W. Bound) and N. Brush St.	None Detected
CL127920	18	Guard Rail - Expressway (W. Bound) and N. East St.	None Detected
CL127921	19	Expansion Joint - Expressway (W. Bound) and N. Maxwell St.	None Detected
CL127922	20	Expansion Joint - Expressway (W. Bound) and N. Brush St.	None Detected
CL127923	21	Expansion Joint - Expressway (W. Bound) and N. East St.	None Detected
CL127924	22	Asphalt Patch - Expressway (W. Bound) and S. Morgan St.	None Detected

These samples were analyzed by layers. The overall percent asbestos for the sample is reported when relevant. The EPA considers a material to be asbestos containing only if it contains greater than one percent asbestos by Calibrated Visual Area Estimation (CVAE). EPA regulations also indicate that Regulated Asbestos Containing Materials (RACM) - materials that are friable or may become friable - be further analyzed by point counting when the results indicate less than ten percent asbestos by CVAE. CatesLab utilizes CVAE on a routine basis and does not include point counting unless specifically requested by the client. The results may not be reproduced except in full.

CT

PLM REPORT SUMMARY

Cates Laboratories
 613 S. Bois D'Arc
 Forney, Texas 75126 (972) 564-4723

NVLAP Lab No. 200569-0
 TDH License No. 30-0287

Client: MACTEC Engineering & Consulting, Inc.
 Project: Crosstown Bridge NESHAP, Tampa, FL
 Project No: 6520-09-0149.01
 Identification: Asbestos, Bulk Sample Analysis
 Test Method: Polarized Light Microscopy/Dispersion Staining (PLM/DS)
 EPA Method 600/R-93/116

Lab Job No.: PLM-02671
 Report Date: 3/4/2009
 Sample Date: 3/2/2009

Page 2 of 3

On 3/3/2009, twenty-four (24) bulk samples were submitted by Mr. Pete MacKay of MACTEC Engineering & Consulting, Inc. for asbestos analysis by PLM/DS. Copies of the lab data sheets are attached; additional information may be found therein. The results are summarized below:

Lab Sample No.	Client Field I.D.	Sample Description/Location	Asbestos Content
CL127925	23	Asphalt Patch - Expressway (W. Bound) and S. Morgan St.	None Detected
CL127926	24	Asphalt Patch - Expressway (W. Bound) and S. Morgan St.	None Detected

These samples were analyzed by layers. The overall percent asbestos for the sample is reported when relevant. The EPA considers a material to be asbestos containing only if it contains greater than one percent asbestos by Calibrated Visual Area Estimation (CVAE). EPA regulations also indicate that Regulated Asbestos Containing Materials (RACM) – materials that are friable or may become friable – be further analyzed by point counting when the results indicate less than ten percent asbestos by CVAE. CatesLab utilizes CVAE on a routine basis and does not include point counting unless specifically requested by the client. The results may not be reproduced except in full.

CT

PLM REPORT SUMMARY



Cates Laboratories

613 S. Bois D'Arc

Forney, Texas 75126 (972) 564-4723

NVLAP Lab No. 200569-0

TDH License No. 30-0287

Client: MACTEC Engineering & Consulting, Inc.

Project: Crosstown Bridge NESHAP, Tampa, FL

Project No: 6520-09-0149.01

Identification: Asbestos, Bulk Sample Analysis

Test Method: Polarized Light Microscopy/Dispersion Staining (PLM/DS)

EPA Method 600/R-93/116

Lab Job No.: PLM-02671

Report Date: 3/4/2009

Sample Date: 3/2/2009

Page 3 of 3

On 3/3/2009, twenty-four (24) bulk samples were submitted by Mr. Pete MacKay of MACTEC Engineering & Consulting, Inc. for asbestos analysis by PLM/DS. Copies of the lab data sheets are attached; additional information may be found therein.

STATEMENT OF LABORATORY ACCREDITATION

The samples were analyzed in general accordance with the procedures outlined in the Method for the Determination of Asbestos in Bulk Building Materials, EPA/600/R-93/116 or the U.S. Environmental Protection Agency method, under AHERA, for the analysis of asbestos in building materials by polarized light microscopy. The results of each bulk sample relate only to the material tested and the results shall not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

Specific questions concerning bulk sample results shall be directed to the Laboratory Director.

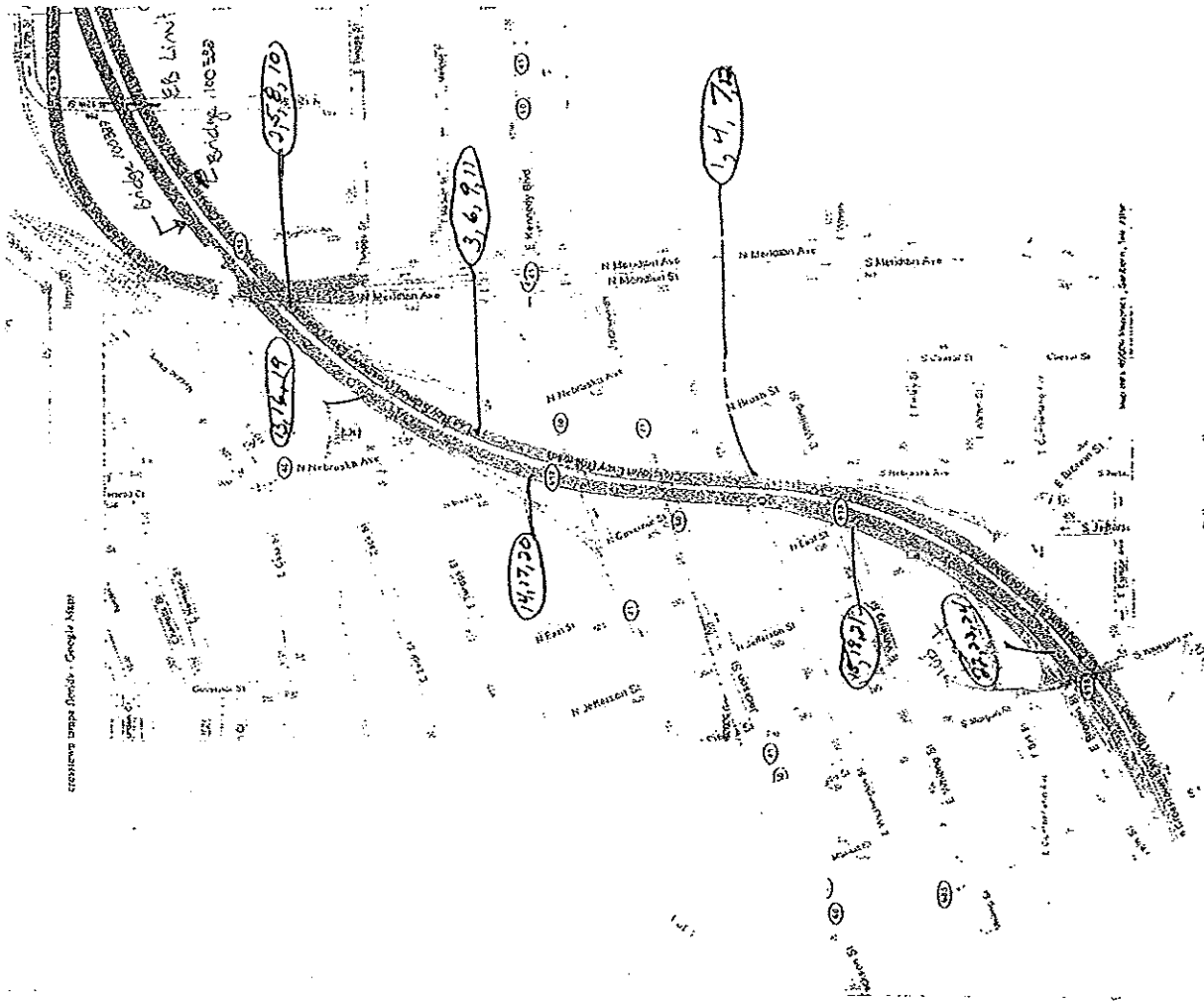
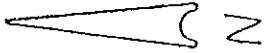
Analyst: Kathy Schosek

Laboratory Director: John R. Cates, P.G.

Approved Signatory:

APPENDIX B

SITE PLANS AND SAMPLE LOCATIONS



Checked/Date: CT 3/9/09

SAMPLE LOCATIONS

MACTEC 6520-09-0149



NTS

CROSSTOWN BRIDGES
100332 AND 100333

APPENDIX C
LICENSES AND CERTIFICATIONS



STATE OF FLORIDA
 DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
 ASBESTOS LICENSING UNIT
 1940 NORTH MONROE STREET
 TALLAHASSEE FL 32399-0783

(850) 487-1395

MACTEC ENGINEERING AND CONSULTING, INC.
 BRIAN DUCHENE
 1105 SANCTUARY PKWY STE 300
 ALPHARETTA GA 30004

STATE OF FLORIDA AC# 3431196
 DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
 ASBESTOS LICENSING UNIT

ZA0000116 09/20/07 070153760

ASBESTOS BUSINESS ORGANIZATION
 MACTEC ENGINEERING AND CONSULTING
 BRIAN DUCHENE

IS LICENSED under the provisions of Ch. 469 FS.
 Expiration date: NOV 30, 2009 (070153760)

DETACH HERE

AC# 3431196

STATE OF FLORIDA
 DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
 ASBESTOS LICENSING UNIT SEQ#L07022003170

DATE	SEARCH NUMBER	LICENSE NBR
09/20/2007	070153760	ZA0000116

The ASBESTOS BUSINESS ORGANIZATION
 Named below IS LICENSED
 Under the provisions of Chapter 469 FS.
 Expiration date: NOV 30, 2009

MACTEC ENGINEERING AND CONSULTING, INC.
 BRIAN DUCHENE
 4150 N JOHN YOUNG PKWY
 ORLANDO FL 32804

CHARLIE CRIST
 GOVERNOR

ISSUED BY ASBESTOS LICENSING UNIT

HOLLY BENSON
 SECRETARY

AC# 4164844

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
ASBESTOS LICENSING UNIT

SEQ# L08120202295

DATE BATCH NUMBER LICENSE NBR

12/02/2008 088117001 EA00000016

The ASBESTOS CONSULTANT - ENGINEER

Named below IS LICENSED

Under the provisions of Chapter 469 FS.

Expiration date: NOV 30, 2010

STAUFFER, RUSSELL E
1898 SETON CT
CLEARWATER

FL 33763-4434

CHARLIE CRIST
GOVERNOR

CHARLES W. DRAGO
SECRETARY

DISPLAY AS REQUIRED BY LAW



MACTEC ENGINEERING AND CONSULTING, INC.

4150 North John Young Parkway, Orlando, Florida 32804 (407) 522.7570
FL CE Provider No. FL49-0001220

This is to certify that

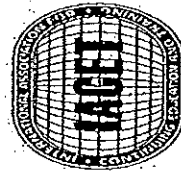
Peter MacKay - 20332

4919 W. Laurel St., Tampa, FL 33607

Has completed the requisite 4 Hour training course for Asbestos Accreditation Under TSCA Title II for the "Asbestos Abatement: Inspector Refresher" Course

FL CE Course No. FL49-0002835

October 11, 2008 October 11, 2009 4919 W. Laurel St., Tampa, FL 33607
Examination Date Completion Date Expiration Date Course Location



Brian J. DuChene, Course Director
Sponsor Member Number 203003
CEU Awarded: 0.4

Principal Instructor: Russell Stauffer

APPENDIX D
REPRESENTATIVE PHOTOGRAPHS

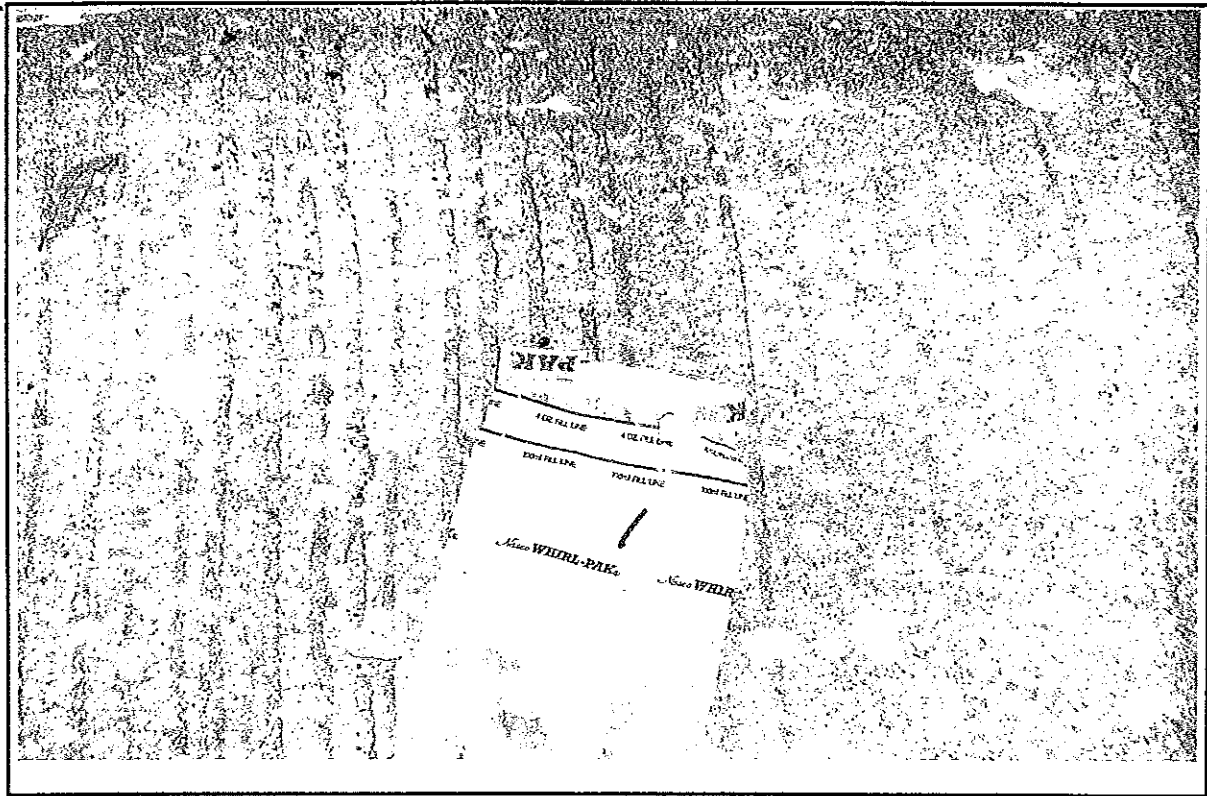


Photo #1 – Asphalt Paving Eastbound near East Washington Street

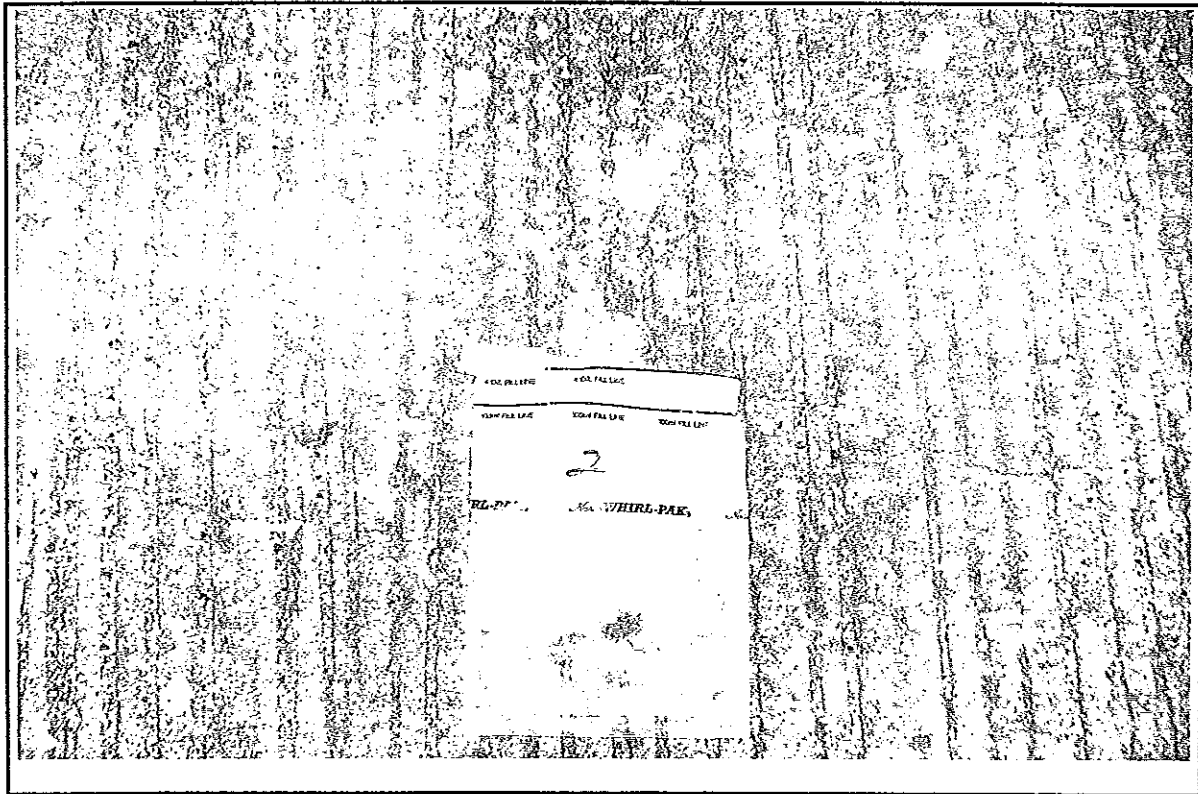


Photo #2 – Asphalt Paving Eastbound near Meridian Avenue

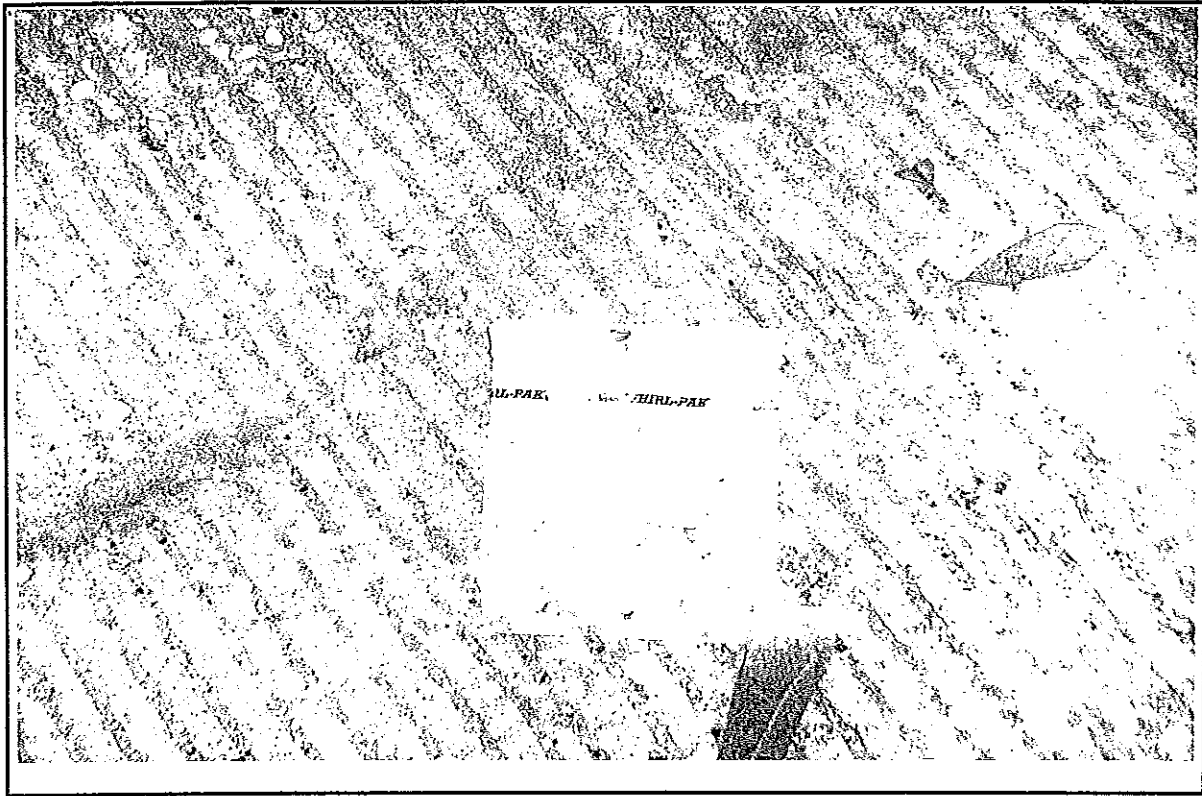
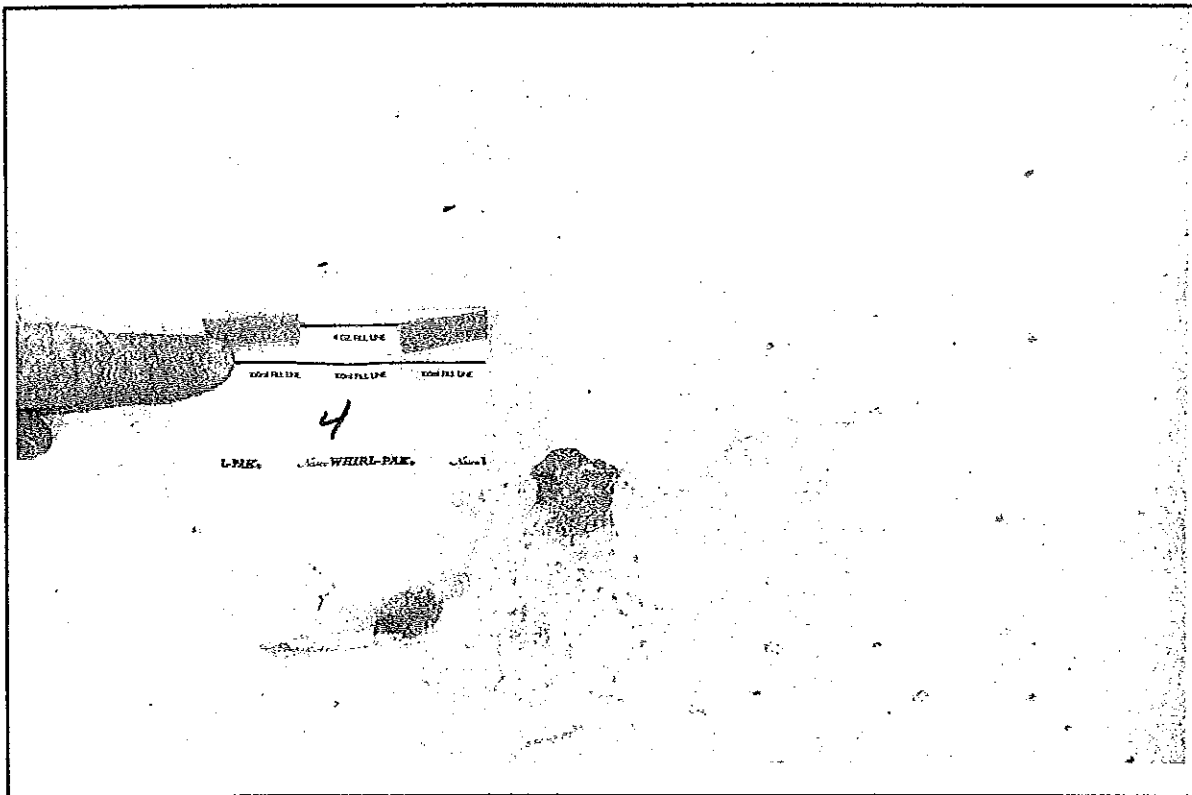


Photo #3 – Asphalt Paving Eastbound near Nebraska



Building #4 – Guard Rail Eastbound near East Washington Street

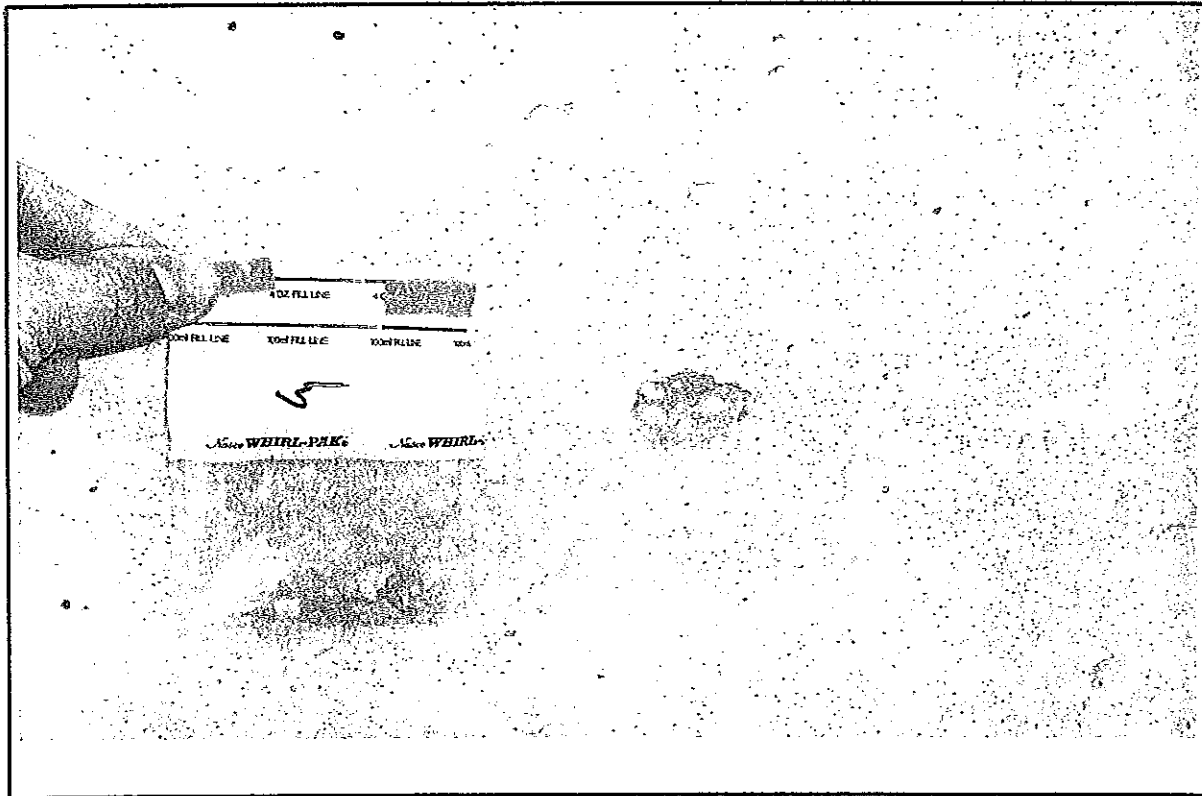


Photo #5 - Guard Rail Eastbound near Meridian Street

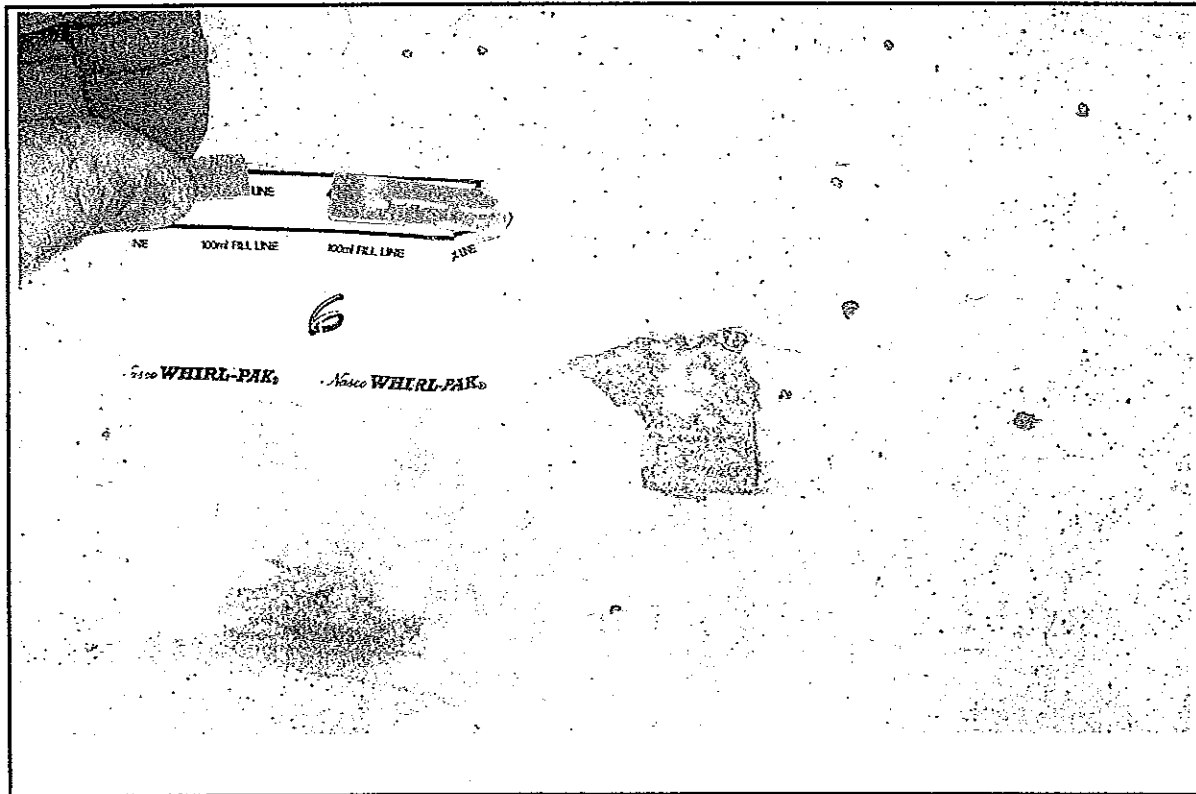


Photo #6 - Guard Rail Eastbound near Nebraska

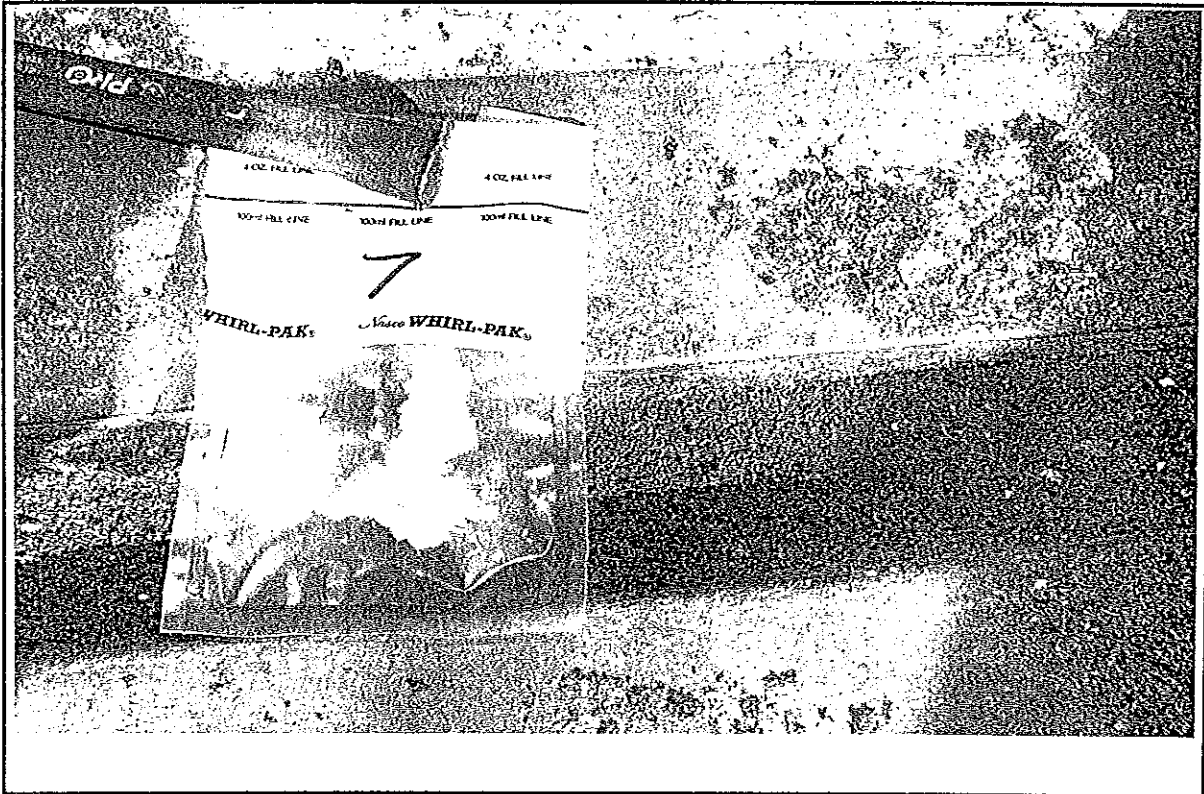


Photo # 7 – Expansion Joint Eastbound near East Washington Street

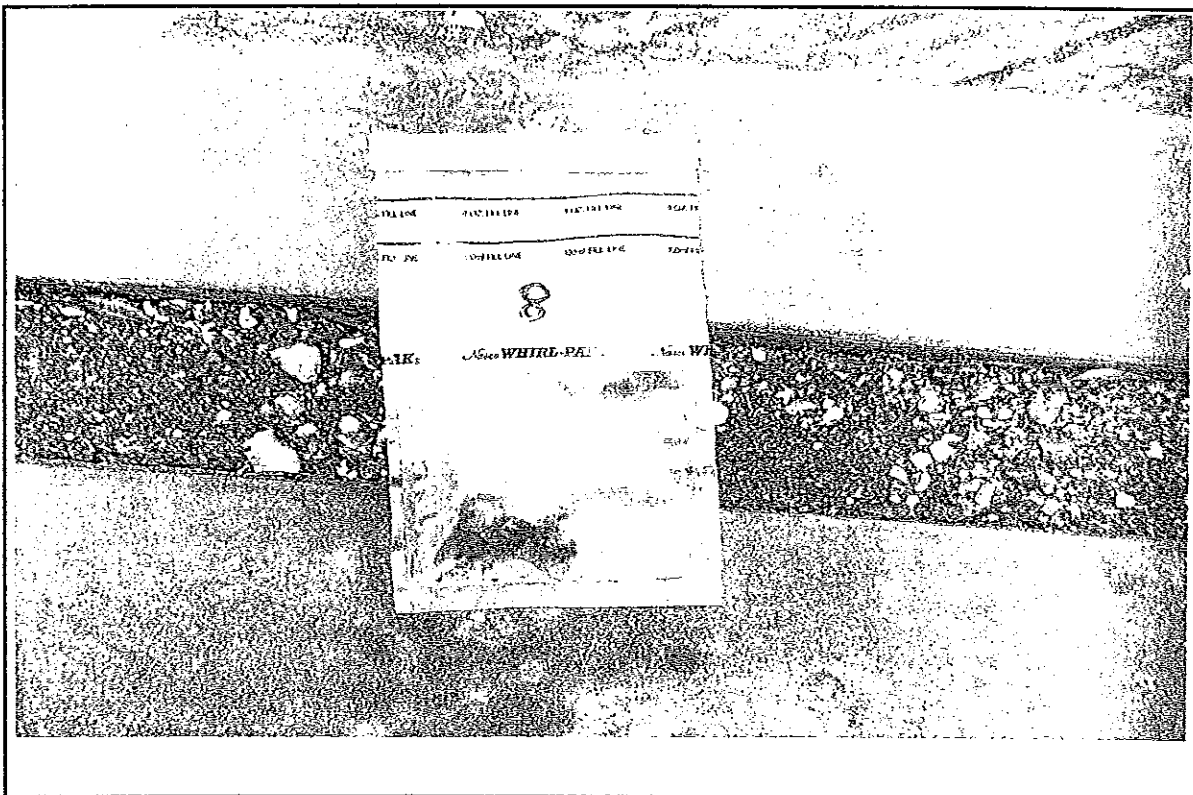


Photo # 8 – Expansion Joint Eastbound near Meridian Avenue

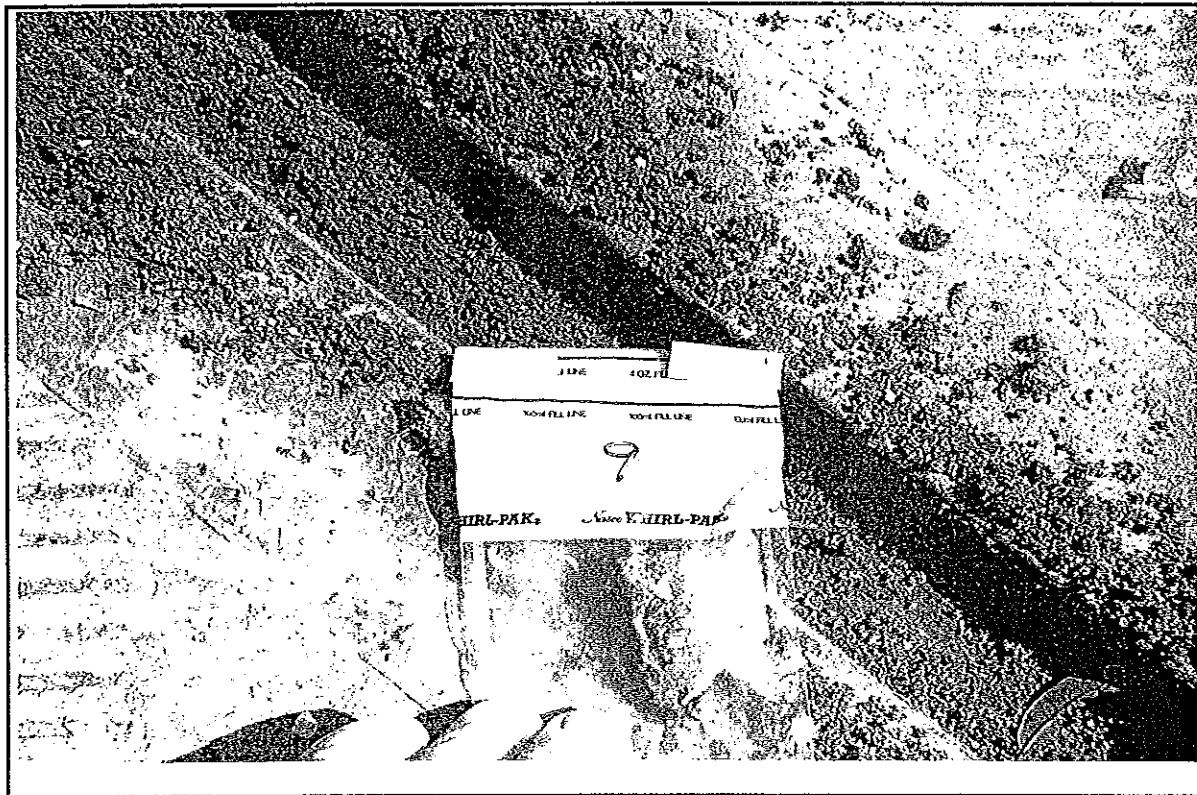


Photo # 9 – Expansion Joint Eastbound near Nebraska

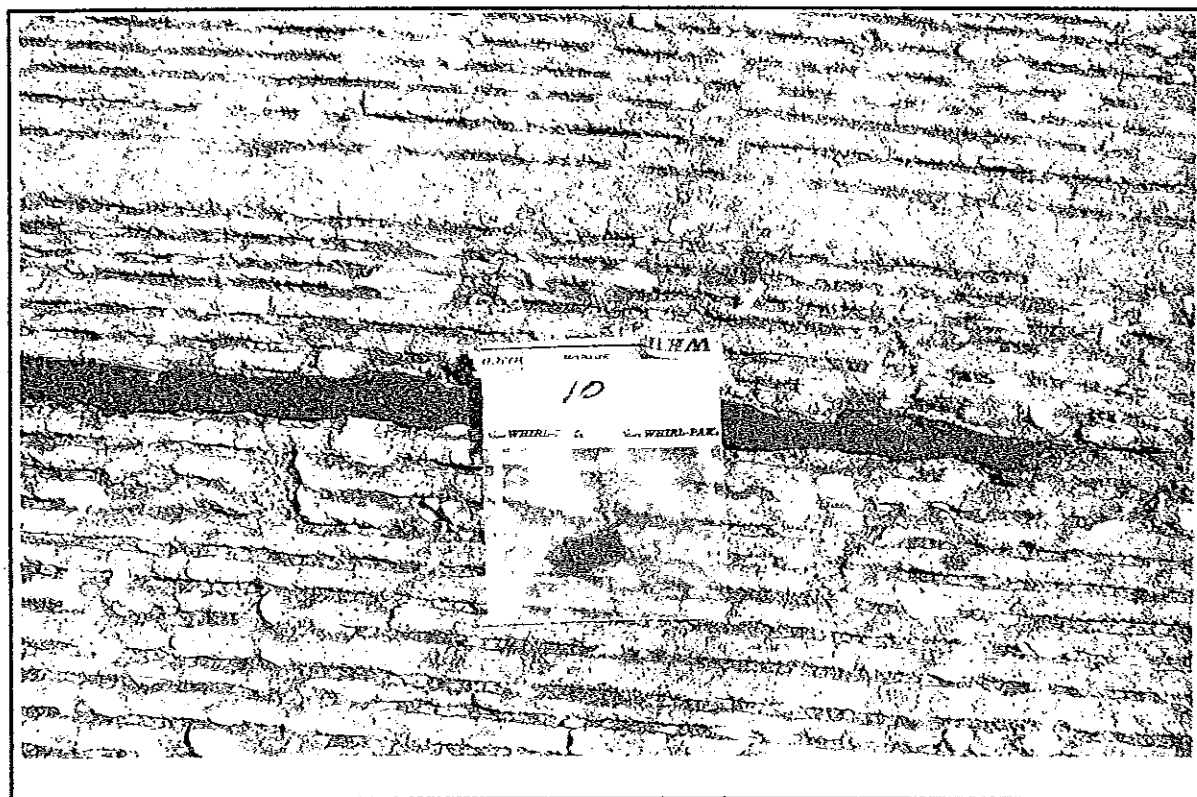


Photo # 10 – Joint Tar Eastbound near Meridian Avenue

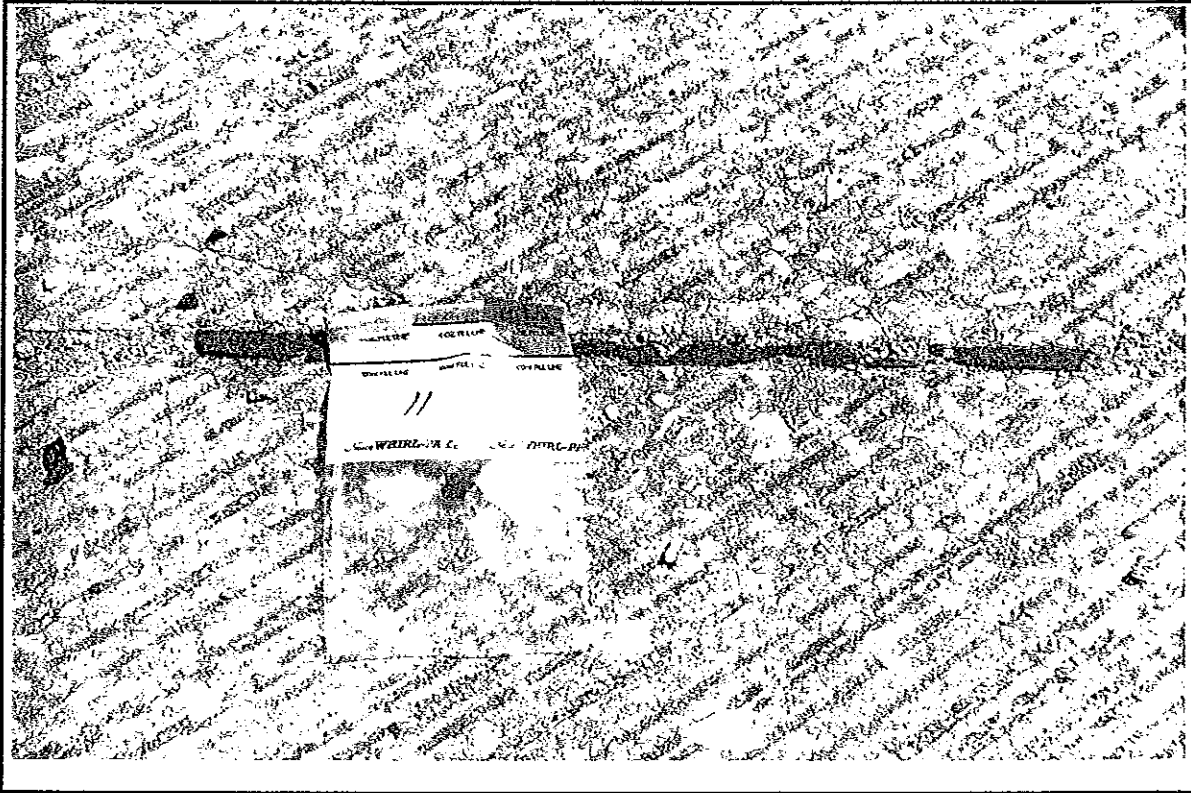


Photo # 11 – Joint Tar Eastbound near Nebraska

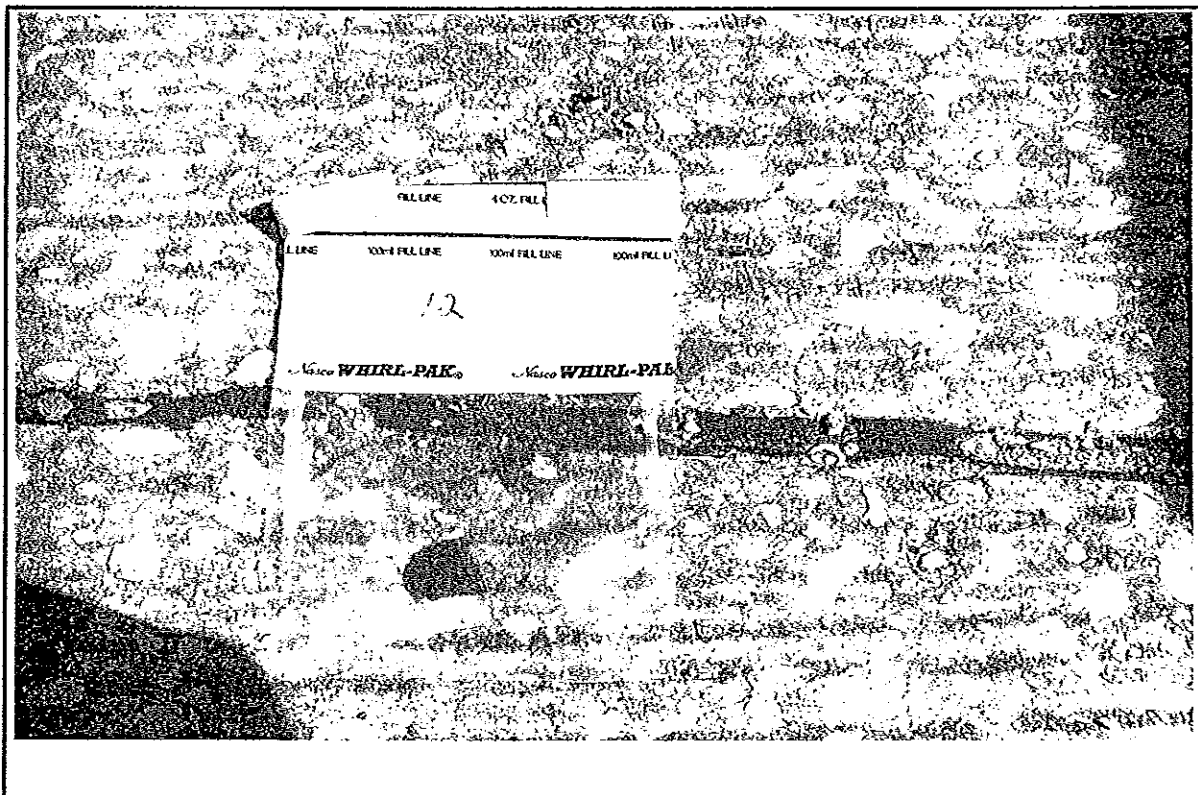


Photo # 12 – Joint Tar Eastbound near East Washington Street

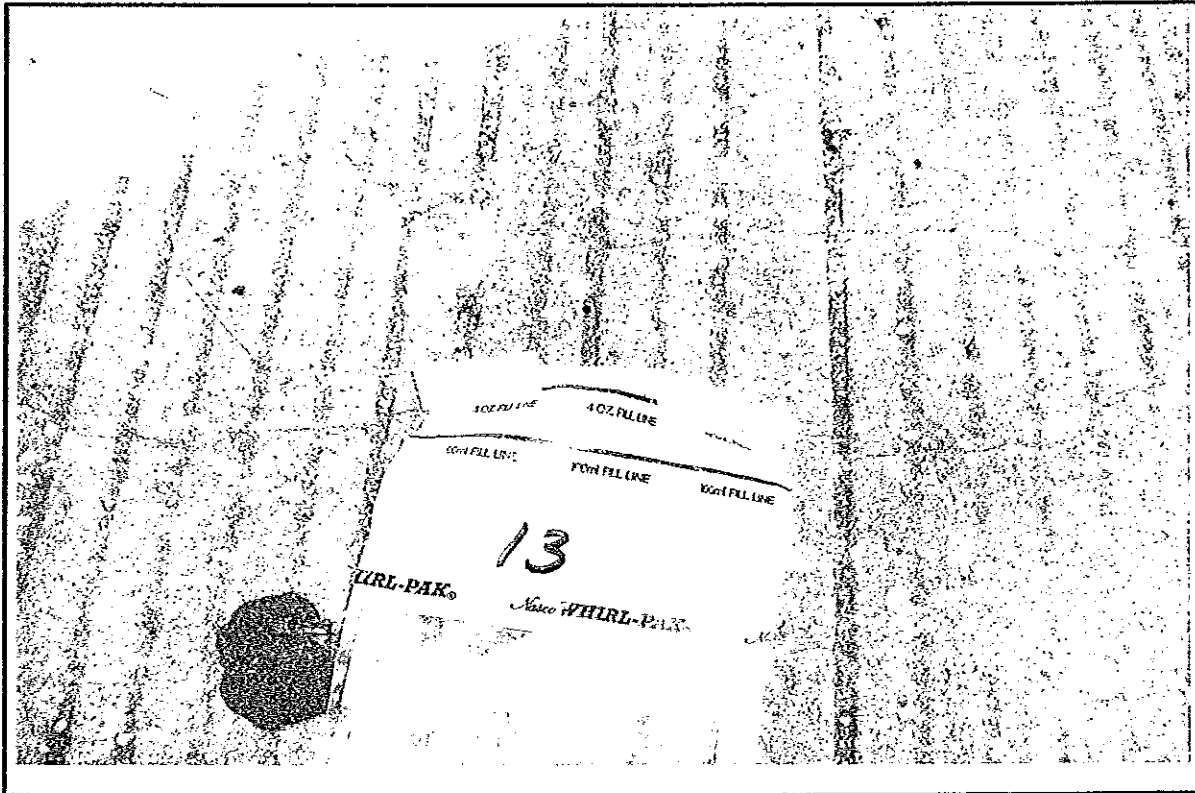


Photo # 13 – Asphalt Paving Westbound near North Maxwell Street

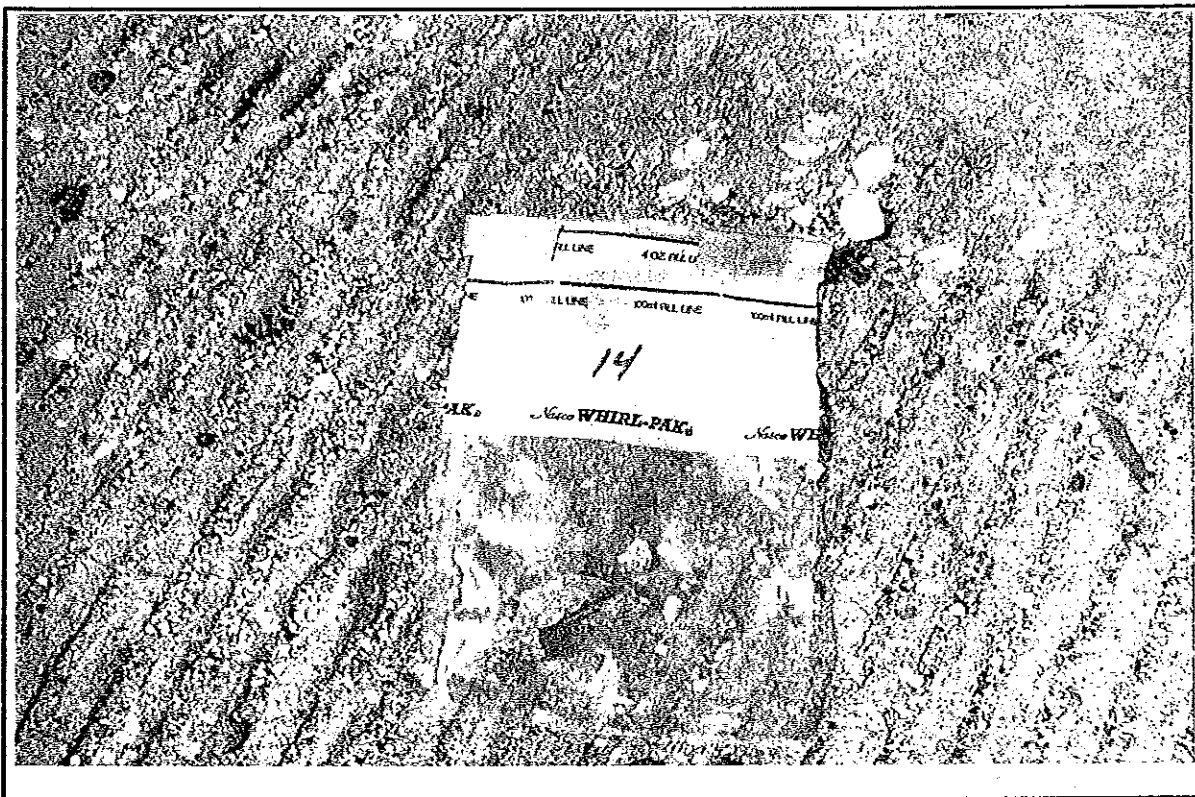


Photo # 14 – Asphalt Paving Westbound near North Brush Street

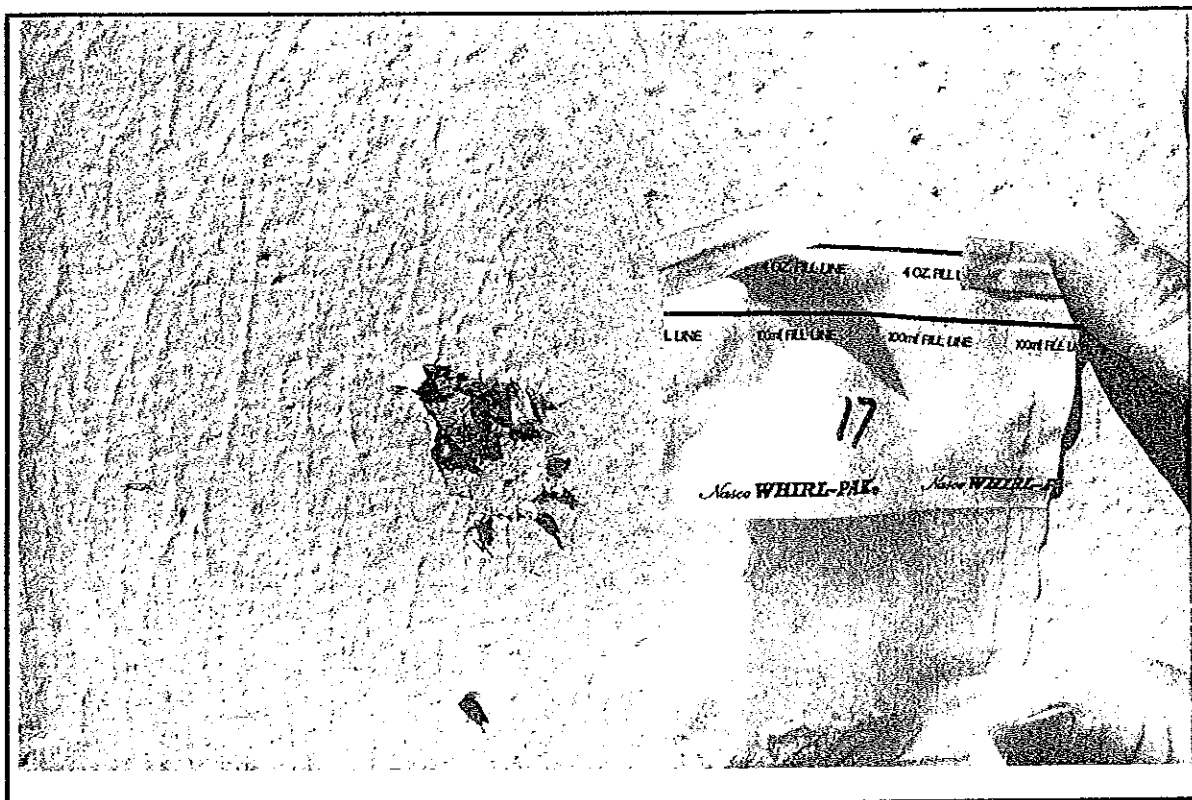


Photo # 17 – Guard Rail Westbound near North Brush Street

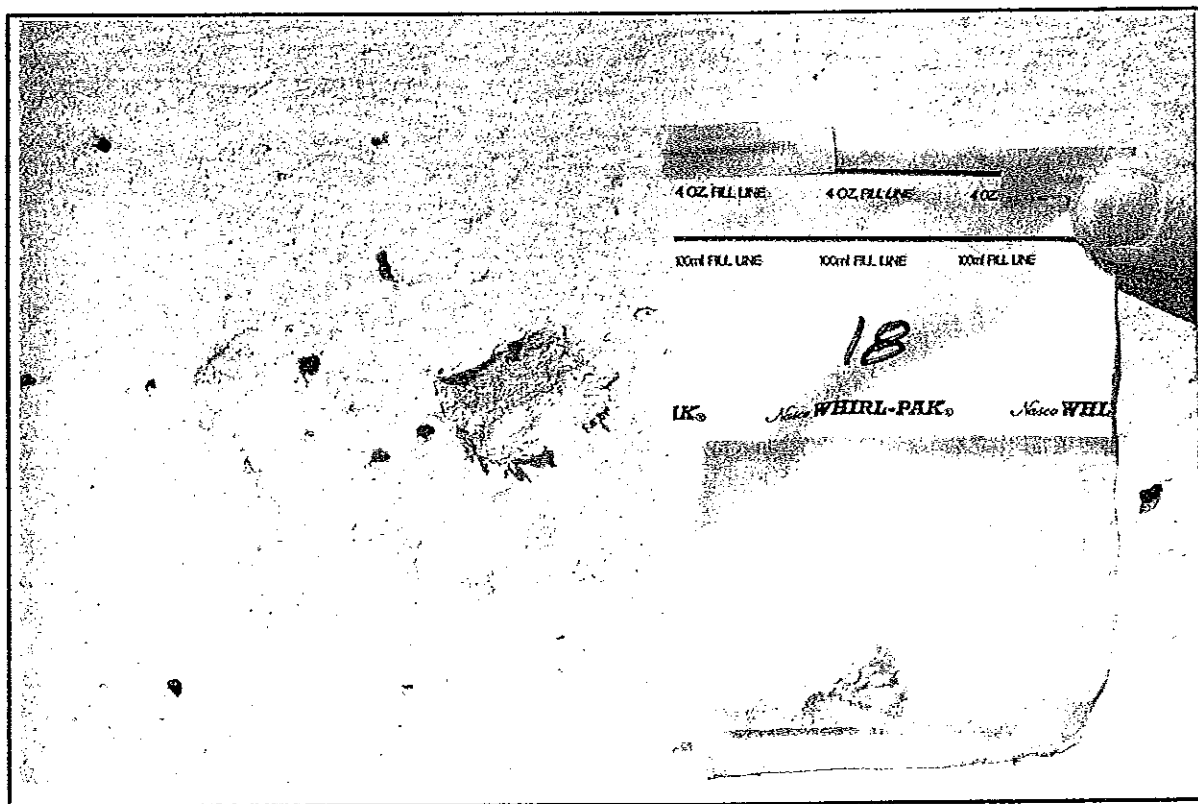


Photo # 18 – Guard Rail Westbound near North East Street

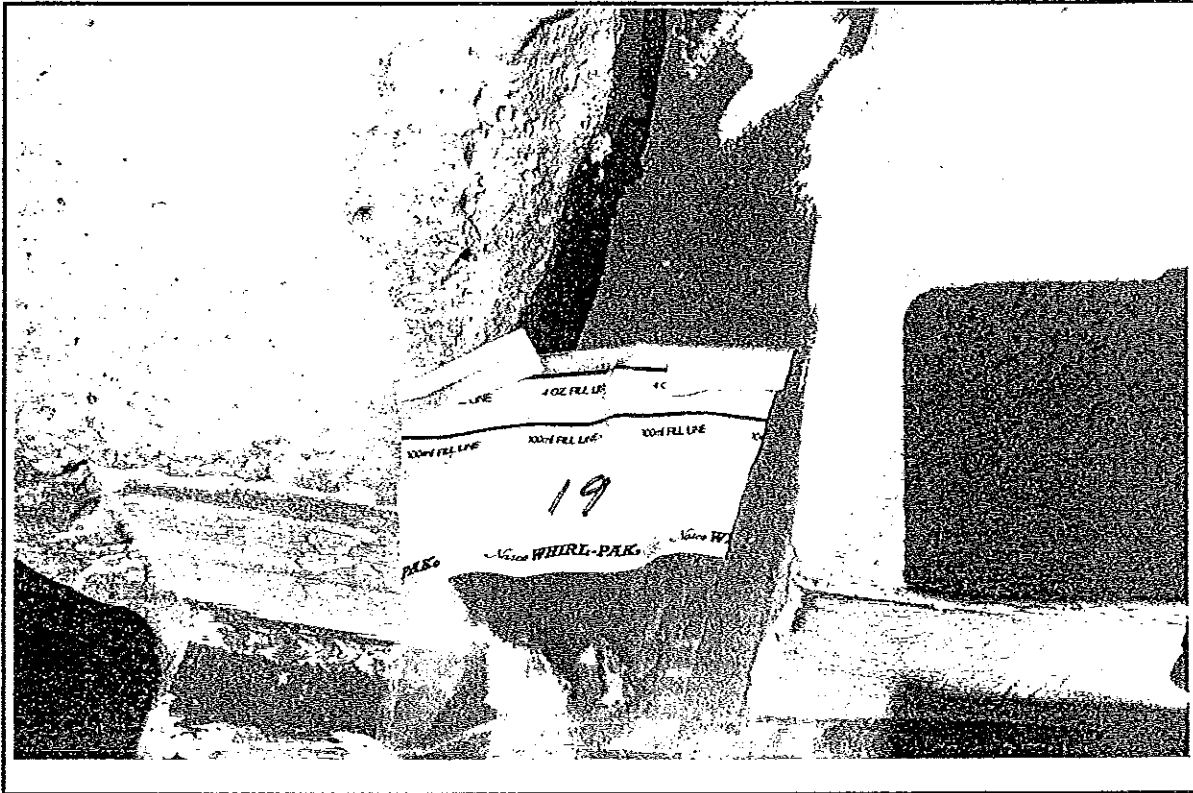


Photo # 19 – Expansion Joint Westbound near North Maxwell Street

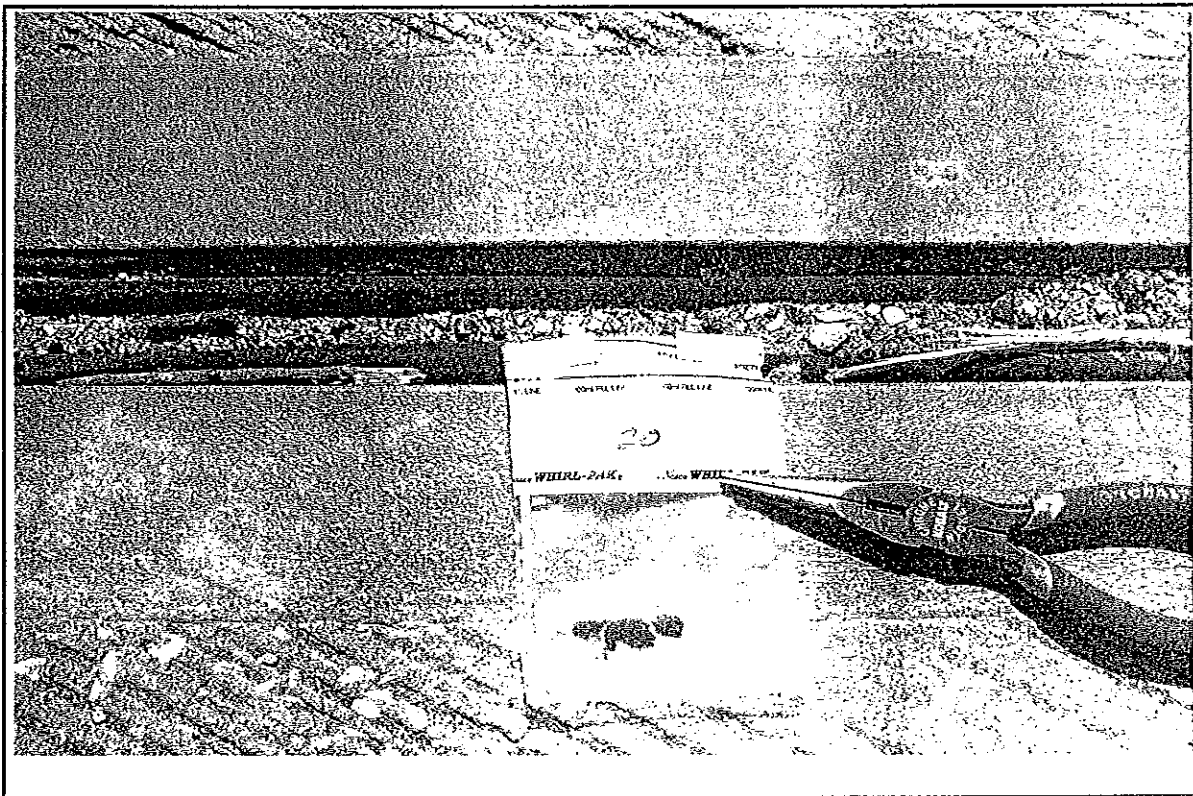


Photo # 20 – Expansion Joint Westbound near North Brush Street

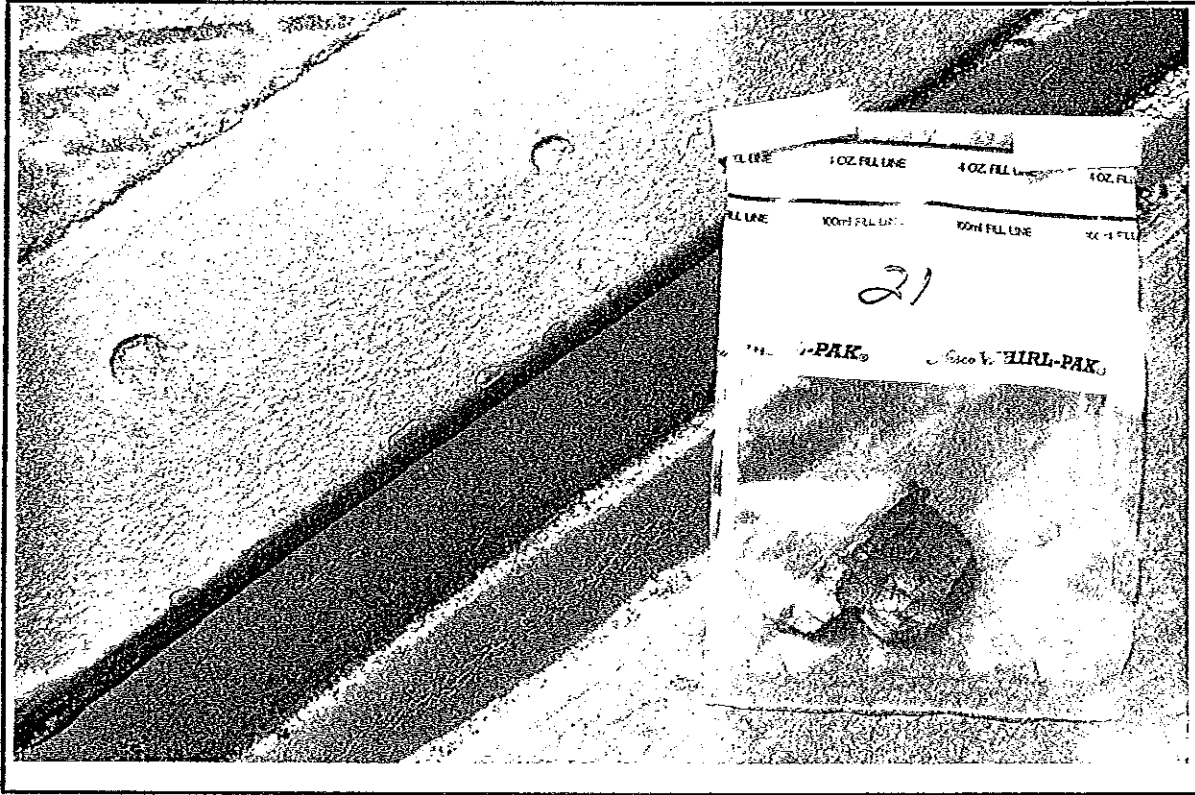


Photo # 21 – Expansion Joint Westbound near North East Street

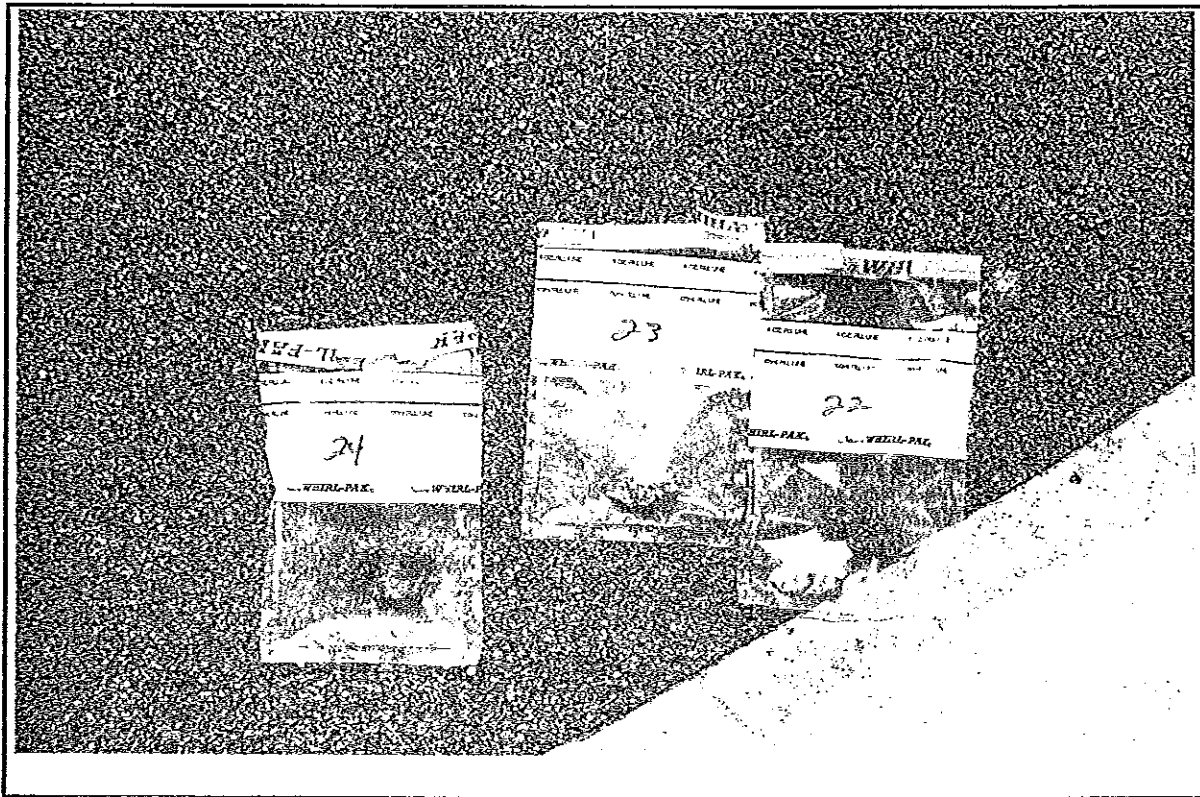


Photo # 22 – Asphalt Patch Westbound near South Morgan Street

A large yellow triangle pointing to the left, positioned on the right side of the page. The text 'APPENDIX G' is centered within the triangle.

APPENDIX G

Paint Sampling Surveys

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November 11, 2009

Project 122177

Dale M. Hanson
Hazardous Materials Project Manager
Florida Department of Transportation, District 7
11201 N. McKinley Drive, MS 7-500
Tampa, Florida 33612

Re: District Wide Environmental Contract BDJ73
Financial Project No. 416361-2-C2-01
Bridge No. 100332 Paint Coating Sampling
Lee Roy Selmon Crosstown Expressway Westbound From Exit 9 to Exit 5
Tampa , Hillsborough County, Florida

Dear Ms. Hanson:

Shaw Environmental & Infrastructure, Inc. (Shaw) is pleased to present this letter report summarizing the field coordination, field sampling methodology, and laboratory analytical results for paint sampling activities conducted on Bridge No. 100332, Lee Roy Selmon Crosstown Expressway Westbound from Exit 9 to Exit 5 in Tampa , Hillsborough County, Florida (**Figure 1**).

INTRODUCTION

Shaw was retained by the Florida Department of Transportation (FDOT), District 7, to collect representative samples of the paint coating system from Bridge No. 100332. Paint from graffiti was not included in this sampling effort.

Shaw collected 10 samples of the paint coatings from the bridge structural components in general accordance with the sampling procedures developed by the State Materials Office, Florida Method of Test for Sampling of Structural Steel Existing Coating Systems Designation 5-564. The samples were obtained by William Zukauskas of Shaw on October 2, 2009, and were labeled, packaged, manifested, and transported to EMSL Analytical, Inc., located in Westmont, New Jersey, and tested for the eight Resource Conservation and Recovery Act (RCRA) metals by United States Environmental Protection Agency (EPA) Method 6010B/7471A.

Additionally, four composite samples were tested by the toxicity characteristic leaching procedure (TCLP) (EPA Method 1311/6010B/7470A). Composite sample TCLP-01 was taken from the homogeneous material of the light gray/white paint on concrete. Composite sample TCLP-02 was taken from the homogeneous material of the beige paint on concrete. Composite sample TCLP-03 was taken from the homogeneous material of the blue paint on metal (over Brorein Street). Composite sample

TCLP-04 was taken from the homogeneous material of the blue paint on metal (over Channelside Drive). Sample locations are shown in **Figure 2**.

SAMPLE RESULTS

Following is a list of the RCRA metals samples and any parameters which exceeded the respective maximum contaminant levels (MCLs), as indicated by laboratory analysis.

Sample Number	Sample Description	RCRA Parameters Which Exceeded Respective MCLs per 40 CFR 261.21
RCRA-1.1	Light gray/white paint on stucco on concrete rails	None
RCRA-2.1	Beige paint on concrete beams and abutments	None
RCRA-3.1	Blue paint on metal span 10	Lead
RCRA-3.2	Blue paint on metal span 10	Lead
RCRA-3.3	Blue paint on metal span 10	Lead
RCRA-3.4	Blue paint on metal span 10	Lead
RCRA-4.1	Blue paint on metal span 5	Chromium, Lead
RCRA-4.2	Blue paint on metal span 5	Chromium, Lead
RCRA-4.3	Blue paint on metal span 5	Chromium, Lead
RCRA-4.4	Blue paint on metal span 5	Chromium, Lead

The laboratory results of the paint samples for RCRA metals analysis are summarized in **Table 1**. A copy of the laboratory analytical report is provided in **Appendix A**. Photos are provided in **Appendix B**.

TCLP samples were analyzed to determine whether the painted surfaces would exceed the EPA leachability limits established in 40 CFR 261.24. The analytical results of the TCLP samples are summarized in **Table 2**. A copy of the laboratory analytical report is provided in **Appendix A**.

Following is a list of the TCLP samples and any parameters which exceeded the respective MCLs, as indicated by laboratory analysis.

Sample Number	Sample Description	TCLP Parameters Which Exceeded Respective MCLs per 40 CFR 261.24
TCLP-01	Light gray/white paint on concrete	None
TCLP-02	Beige paint on concrete	None
TCLP-03	Blue paint on metal span 10 (over Brorein Street)	None
TCLP-04	Blue paint on metal span 5 (over Channelside Drive)	None

Based on the TCLP analysis, the paint waste generated from renovation or demolition of the bridge is not required to be handled as hazardous waste.

RECOMMENDATIONS FOR PERSONNEL HEALTH AND SAFETY

The contractor selected to perform the renovation or demolition of the bridge should be familiar with and comply with all parts of the Occupational Safety and Health Administration (OSHA) Construction Standard contained in 29 CFR 1926.

Since sample analysis indicates that the paint coatings present on the bridge at the time of the assessment are above the regulated concentration levels, worker exposure to significant metals is likely. Contractors should perform renovation or demolition activities in such a way as to continue to ensure that workers on the project are not exposed to levels above the OSHA permissible exposure limits in accordance with 29 CFR Subpart Z, and to ensure that any regulated metals are not spread to uncontrolled areas.

RECOMMENDATIONS FOR MATERIAL/WASTE HANDLING, TRANSPORTATION, AND DISPOSAL

During the removal and handling activities, the work area should be sufficiently protected from loose or falling paint chips and residue. All paint related waste should be containerized in United States Department of Transportation (DOT) approved containers, labeled, and properly stored. Due to the varying concentrations of heavy metals found in the paint coatings, it is possible that higher concentrations exist. As a conservative measure, Shaw recommends that a representative sample of the containerized waste should be collected by the contractor and analyzed at a Florida Department of Environmental Protection (FDEP) approved laboratory for the eight RCRA metals for TCLP parameters by EPA test method 1311/6010/7470A prior to disposal.

If blast media or chemicals are used during the paint removal operations, additional testing may be required. This could change the waste classification and disposal options.

In addition to the above requirements, all personnel who handle paint chips which have been removed from the bridge shall comply with all of the requirements in 40 CFR Parts 260 through 370. This includes, but is not limited to, waste handling, container labeling, transportation, and disposal.

If you have any questions or need additional information, please call me at (904) 367-6033.

Sincerely,

Shaw Environmental & Infrastructure, Inc.



William Zukauskas
Industrial Hygiene Manager

Attachments: Disclaimer
Tables 1 - 2
Figures 1 - 2
Appendices A - B



David Mosher, PE
Project Manager

DISCLAIMER

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

Tables

Table 1

Bridge Paint Coating RCRA Laboratory Report Summary

FDOT Bridge No. 100332

Lee Roy Selmon Crosstown Expressway Westbound From Exit 9 to Exit 5

Tampa, Hillsborough County, Florida

Sampling Date: October 2, 2009

RCRA Metals		EPA Test Method	RCRA MCL (mg/kg)	RCRA-1.1 220,000 sf - Light gray/white paint on stucco on concrete rails	RCRA-2.1 22,000 sf - Beige paint on concrete	RCRA-3.1 10,800 sf - Blue paint on metal span 10	RCRA-3.2 10,800 sf - Blue paint on metal span 10	RCRA-3.3 10,800 sf - Blue paint on metal span 10
RCRA Metals	EPA Test Method	RCRA MCL (mg/kg)	Concentration (mg/kg)	Concentration (mg/kg)	Concentration (mg/kg)	Concentration (mg/kg)	Concentration (mg/kg)	Concentration (mg/kg)
Arsenic	6010B	500	7.6	8.7	9.2	10	10	10
Barium	6010B	10,000	37	32	120	150	190	190
Cadmium	6010B	100	0.55	<0.38	2.8	2.8	3.2	3.2
Chromium	6010B	2,500	43	18	2,200	1,400	910	910
Lead	6010B	1,000	8.3	2.4	12,000	7,500	5,300	5,300
Selenium	6010B	100	<20	<19	<18	<19	<19	<19
Silver	6010B	500	<0.98	<0.95	<0.92	<0.97	<0.94	<0.94
Mercury	7471A	20	0.030	<0.020	0.039	0.048	0.063	0.063

RCRA Metals		EPA Test Method	RCRA MCL (mg/kg)	RCRA-3.4 10,800 sf - Blue paint on metal span 10	RCRA-4.1 12,400 sf - Blue paint on metal span 5	RCRA-4.2 12,400 sf - Blue paint on metal span 5	RCRA-4.3 12,400 sf - Blue paint on metal span 5	RCRA-4.4 12,400 sf - Blue paint on metal span 5
RCRA Metals	EPA Test Method	RCRA MCL (mg/kg)	Concentration (mg/kg)	Concentration (mg/kg)	Concentration (mg/kg)	Concentration (mg/kg)	Concentration (mg/kg)	Concentration (mg/kg)
Arsenic	6010B	500	9.6	13	12	12	12	12
Barium	6010B	10,000	130	31	32	25	60	60
Cadmium	6010B	100	3.0	2.7	3.2	2.2	2.9	2.9
Chromium	6010B	2,500	2,000	4,100	4,000	4,700	3,100	3,100
Lead	6010B	1,000	12,000	20,000	20,000	22,000	16,000	16,000
Selenium	6010B	100	<20	<20	<20	<19	<20	<20
Silver	6010B	500	<0.99	<0.98	<0.98	<0.97	<1.0	<1.0
Mercury	7471A	20	0.034	0.15	0.069	0.072	0.079	0.079

Bold indicates analysis results which exceed the parameter MCL.

MCL- maximum contaminant level

mg/kg - milligrams per kilogram

sf - square feet

U - undetected

Table 2
Bridge Paint Coating TCLP Laboratory Report Summary
FDOT Bridge No. 100332
Lee Roy Selmon Crosstown Expressway Westbound From Exit 9 to Exit 5
Tampa , Hillsborough County, Florida
Sampling Date: October 2, 2009

TCLP Metals	EPA Test Method	TCLP MCL (mg/L)	TCLP-01 Light gray/white paint on concrete (mg/L)	TCLP-02 Beige paint on concrete (mg/L)	TCLP-03 Blue paint on metal span 10 (over Brorein Street) (mg/L)	TCLP-04 Blue paint on metal span 5 (over Channelside Drive) (mg/L)
Arsenic	1311/6010B	5.0	<0.080	<0.080	<0.080	<0.080
Barium	1311/6010B	100.0	<1.0	<1.0	<1.0	<1.0
Cadmium	1311/6010B	1.0	<0.040	<0.040	<0.040	<0.040
Chromium	1311/6010B	5.0	<0.10	<0.10	<0.10	<0.10
Lead	1311/6010B	5.0	<0.10	<0.10	0.57	1.0
Selenium	1311/6010B	1.0	<0.20	<0.20	<0.20	<0.20
Silver	1311/6010B	5.0	<0.10	<0.10	<0.10	<0.10
Mercury	1311/7470A	0.2	<0.0020	<0.0020	<0.0020	<0.0020

Bold indicates analysis results which exceed the parameter MCL.

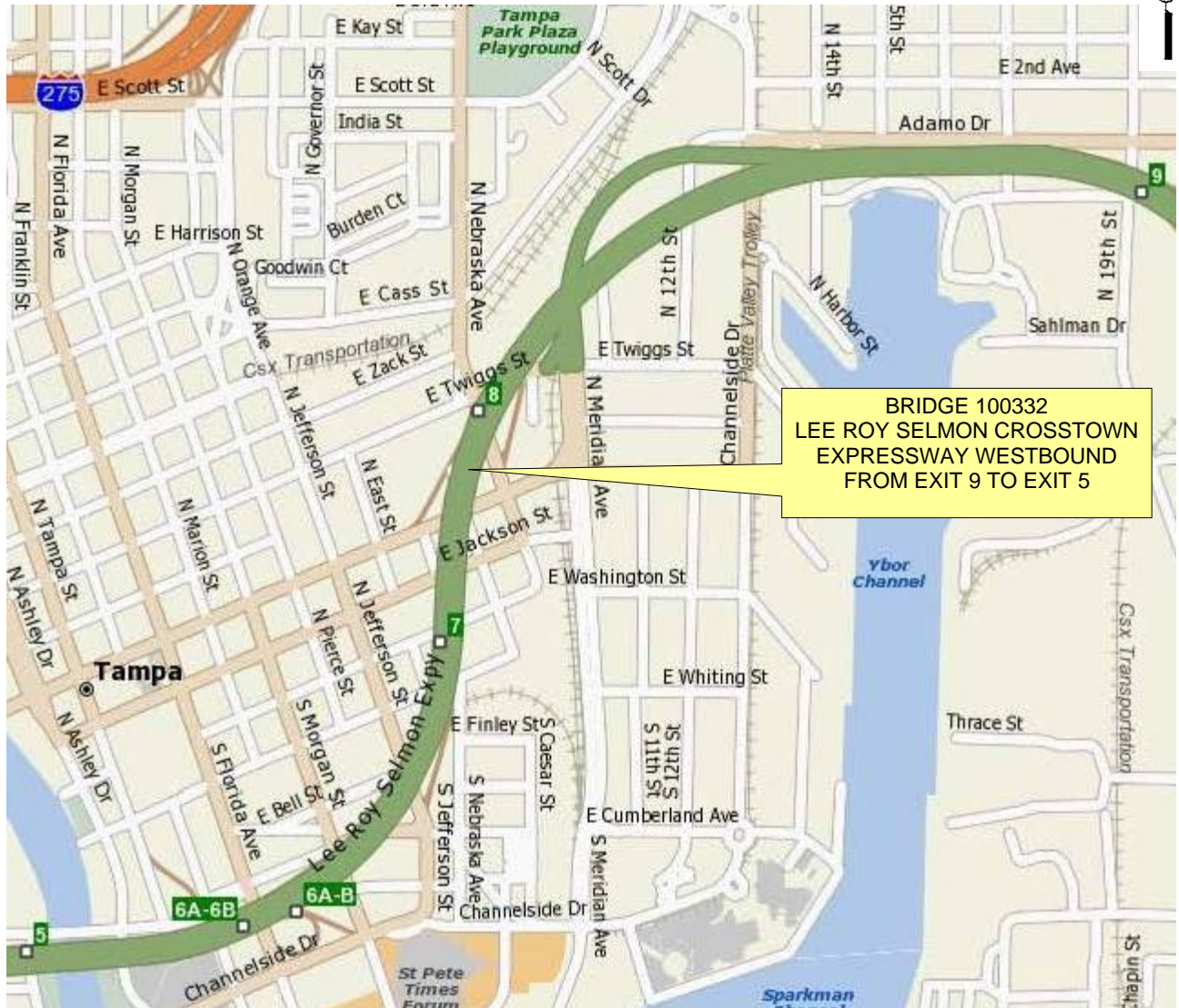
MCL- maximum contaminant level

mg/L - milligrams per liter

TCLP - toxicity characteristic leaching procedure

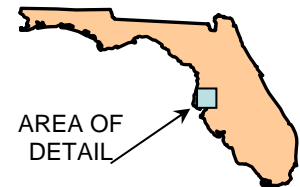
U - undetected

Figures



Legend

Not To Scale



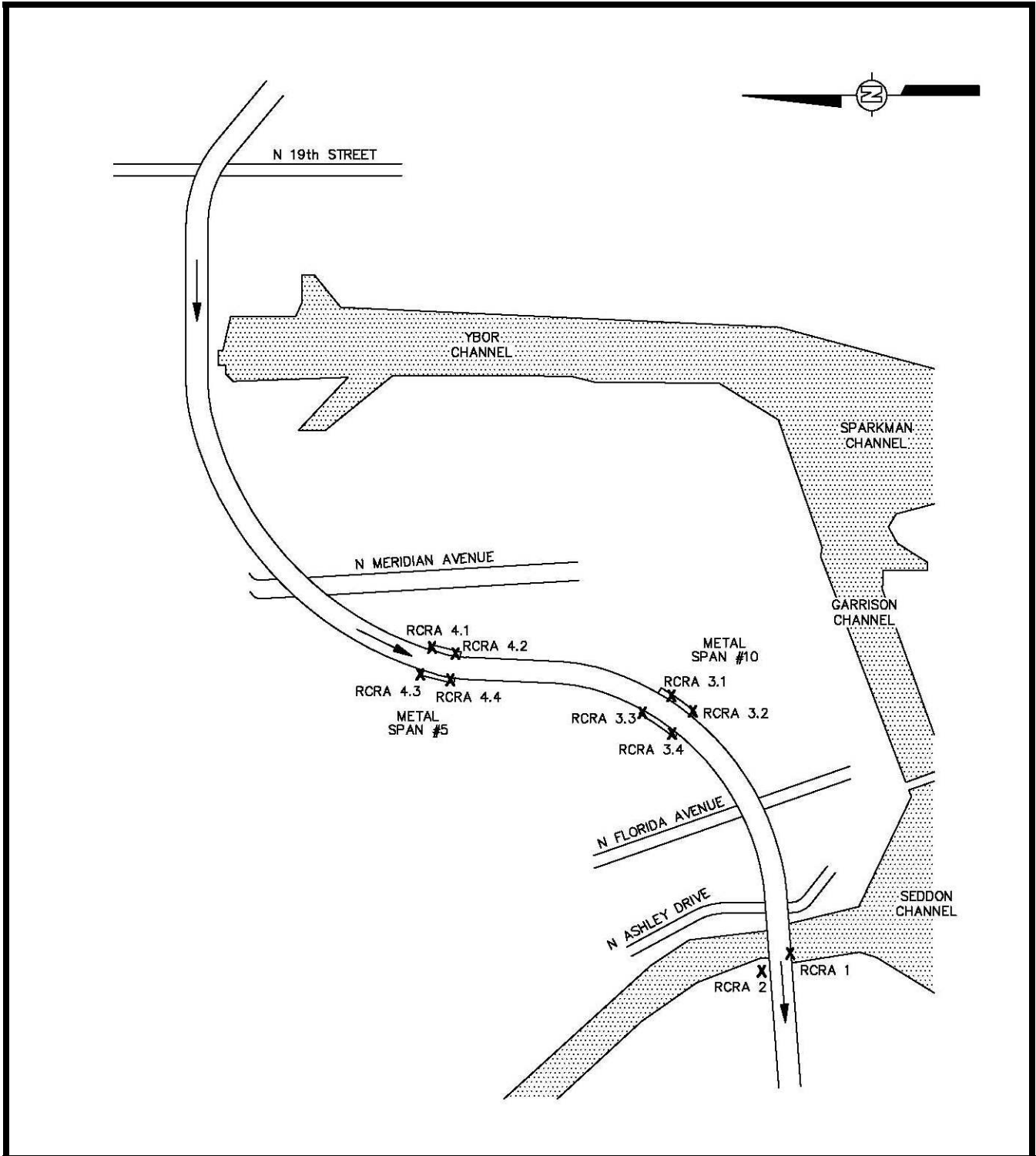
AREA OF
DETAIL

Prepared by
Shaw Environmental & Infrastructure, Inc.

Survey Date
October 2, 2009
Project 122177

Bridge 100332
Lee Roy Selmon Crosstown
Expressway Westbound
From Exit 9 to Exit 5
Tampa , Hillsborough County, FL

Figure 1
Site Location Map



Legend
Not To Scale

X Sampling Location

Prepared by
Shaw Environmental & Infrastructure, Inc.

Survey Date
 October 2, 2009
 Project 122177

Bridge 100332
 Lee Roy Selmon Crosstown
 Expressway Westbound
 From Exit 9 to Exit 5
 Tampa , Hillsborough County, FL

Figure 2
Sample Location Map

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Appendix A
Laboratory Analytical Reports
and Chain of Custodies

**EMSL Analytical, Inc.**

3 Cooper St., Westmont, NJ 08108

Phone: (856) 858-4800 Fax: (856) 858-4571 Email: jsmith@emsl.com



SM

Attn: **Bill Zukauskas**
Shaw Environmental, Inc.
9143 Phillips Highway
Suite 400
Jacksonville, FL 32256

Customer ID: SHAE77
 Customer PO:
 Received: 10/12/09 11:00 AM
 EMSL Order: 010905180

Fax: (904) 636-9356 Phone: (904) 636-9360

EMSL Proj: 122177.01 Bridge 100332

Test Report

Client Sample Description 100333 RCRA- 1.1
 lt. gray/white paint on cement *Collected:* 10/8/2009 *Lab ID:* 0001

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
6010B	Arsenic	7.6	0.79	mg/Kg	10/15/2009	rferrer
6010B	Barium	37	9.8	mg/Kg	10/15/2009	rferrer
6010B	Cadmium	0.55	0.39	mg/Kg	10/15/2009	rferrer
6010B	Chromium	43	0.98	mg/Kg	10/15/2009	rferrer
6010B	Lead	8.3	0.98	mg/Kg	10/15/2009	rferrer
6010B	Selenium	<20	20	mg/Kg	10/15/2009	rferrer
6010B	Silver	<0.98	0.98	mg/Kg	10/15/2009	rferrer
7471A	Mercury	0.030	0.019	mg/Kg	10/15/2009	ltrout

Client Sample Description 100333 RCRA- 2.1
 beige paint on cement *Collected:* 10/8/2009 *Lab ID:* 0002

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
6010B	Arsenic	8.7	0.76	mg/Kg	10/15/2009	rferrer
6010B	Barium	32	9.5	mg/Kg	10/15/2009	rferrer
6010B	Cadmium	<0.38	0.38	mg/Kg	10/15/2009	rferrer
6010B	Chromium	18	0.95	mg/Kg	10/15/2009	rferrer
6010B	Lead	2.4	0.95	mg/Kg	10/15/2009	rferrer
6010B	Selenium	<19	19	mg/Kg	10/15/2009	rferrer
6010B	Silver	<0.95	0.95	mg/Kg	10/15/2009	rferrer
7471A	Mercury	<0.020	0.020	mg/Kg	10/15/2009	ltrout

Client Sample Description 100333 RCRA- 3.1
 blue paint on steel NE *Collected:* 10/8/2009 *Lab ID:* 0003

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
6010B	Arsenic	9.2	0.74	mg/Kg	10/15/2009	rferrer
6010B	Barium	120	9.2	mg/Kg	10/15/2009	rferrer
6010B	Cadmium	2.8	0.37	mg/Kg	10/15/2009	rferrer
6010B	Chromium	2200	9.2	mg/Kg	10/15/2009	rferrer

Samples analyzed by EMSL Analytical, Inc. Westmont 3 Cooper St., Westmont NJ



EMSL Analytical, Inc.

3 Cooper St., Westmont, NJ 08108

Phone: (856) 858-4800 Fax: (856) 858-4571 Email: jsmith@emsl.com



SM

Attn: **Bill Zukauskas**
Shaw Environmental, Inc.
9143 Phillips Highway
Suite 400
Jacksonville, FL 32256

Customer ID: SHAE77
Customer PO:
Received: 10/12/09 11:00 AM
EMSL Order: 010905180

Fax: (904) 636-9356 Phone: (904) 636-9360

EMSL Proj: 122177.01 Bridge 100332

Test Report

Client Sample Description 100333 RCRA- 3.1
blue paint on steel NE *Collected:* 10/8/2009 *Lab ID:* 0003

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
6010B	Lead	12000	9.2	mg/Kg	10/15/2009	rferrer
6010B	Selenium	<18	18	mg/Kg	10/15/2009	rferrer
6010B	Silver	<0.92	0.92	mg/Kg	10/15/2009	rferrer
7471A	Mercury	0.039	0.019	mg/Kg	10/15/2009	kt trout

Client Sample Description 100333 RCRA- 3.2
blue paint on steel NW *Collected:* 10/8/2009 *Lab ID:* 0004

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
6010B	Arsenic	10	0.78	mg/Kg	10/15/2009	rferrer
6010B	Barium	150	9.7	mg/Kg	10/15/2009	rferrer
6010B	Cadmium	2.8	0.39	mg/Kg	10/15/2009	rferrer
6010B	Chromium	1400	9.7	mg/Kg	10/15/2009	rferrer
6010B	Lead	7500	9.7	mg/Kg	10/15/2009	rferrer
6010B	Selenium	<19	19	mg/Kg	10/15/2009	rferrer
6010B	Silver	<0.97	0.97	mg/Kg	10/15/2009	rferrer
7471A	Mercury	0.048	0.019	mg/Kg	10/15/2009	kt trout

Client Sample Description 100333 RCRA- 3.3
blue paint on steel SE *Collected:* 10/8/2009 *Lab ID:* 0005

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
6010B	Arsenic	10	0.75	mg/Kg	10/15/2009	rferrer
6010B	Barium	190	9.4	mg/Kg	10/15/2009	rferrer
6010B	Cadmium	3.2	0.38	mg/Kg	10/15/2009	rferrer
6010B	Chromium	910	9.4	mg/Kg	10/15/2009	rferrer
6010B	Lead	5300	9.4	mg/Kg	10/15/2009	rferrer
6010B	Selenium	<19	19	mg/Kg	10/15/2009	rferrer
6010B	Silver	<0.94	0.94	mg/Kg	10/15/2009	rferrer
7471A	Mercury	0.063	0.018	mg/Kg	10/15/2009	kt trout

Samples analyzed by EMSL Analytical, Inc. Westmont 3 Cooper St., Westmont NJ



EMSL Analytical, Inc.

3 Cooper St., Westmont, NJ 08108

Phone: (856) 858-4800 Fax: (856) 858-4571 Email: jsmith@emsl.com



SM

Attn: **Bill Zukauskas**
Shaw Environmental, Inc.
9143 Phillips Highway
Suite 400
Jacksonville, FL 32256

Customer ID: SHAE77
Customer PO:
Received: 10/12/09 11:00 AM
EMSL Order: 010905180

Fax: (904) 636-9356 Phone: (904) 636-9360

EMSL Proj: 122177.01 Bridge 100332

Test Report

Client Sample Description 100333 RCRA- 3.4
blue paint on steel SW *Collected:* 10/8/2009 *Lab ID:* 0006

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
6010B	Arsenic	9.6	0.79	mg/Kg	10/15/2009	rferrer
6010B	Barium	130	9.9	mg/Kg	10/15/2009	rferrer
6010B	Cadmium	3.0	0.40	mg/Kg	10/15/2009	rferrer
6010B	Chromium	2000	9.9	mg/Kg	10/15/2009	rferrer
6010B	Lead	12000	9.9	mg/Kg	10/15/2009	rferrer
6010B	Selenium	<20	20	mg/Kg	10/15/2009	rferrer
6010B	Silver	<0.99	0.99	mg/Kg	10/15/2009	rferrer
7471A	Mercury	0.034	0.020	mg/Kg	10/15/2009	kt trout

Client Sample Description 100333 RCRA- 4.1
blue paint on steel NE *Collected:* 10/8/2009 *Lab ID:* 0007

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
6010B	Arsenic	13	0.78	mg/Kg	10/15/2009	rferrer
6010B	Barium	31	9.8	mg/Kg	10/15/2009	rferrer
6010B	Cadmium	2.7	0.39	mg/Kg	10/15/2009	rferrer
6010B	Chromium	4100	9.8	mg/Kg	10/15/2009	rferrer
6010B	Lead	20000	9.8	mg/Kg	10/15/2009	rferrer
6010B	Selenium	<20	20	mg/Kg	10/15/2009	rferrer
6010B	Silver	<0.98	0.98	mg/Kg	10/15/2009	rferrer
7471A	Mercury	0.15	0.020	mg/Kg	10/15/2009	kt trout

Client Sample Description 100333 RCRA- 4.2
blue paint on steel NW *Collected:* 10/8/2009 *Lab ID:* 0008

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
6010B	Arsenic	12	0.78	mg/Kg	10/15/2009	rferrer
6010B	Barium	32	9.8	mg/Kg	10/15/2009	rferrer
6010B	Cadmium	3.2	0.39	mg/Kg	10/15/2009	rferrer
6010B	Chromium	4000	9.8	mg/Kg	10/15/2009	rferrer

Samples analyzed by EMSL Analytical, Inc. Westmont 3 Cooper St., Westmont NJ



EMSL Analytical, Inc.

3 Cooper St., Westmont, NJ 08108

Phone: (856) 858-4800 Fax: (856) 858-4571 Email: jsmith@emsl.com



SM

Attn: **Bill Zukauskas**
Shaw Environmental, Inc.
9143 Phillips Highway
Suite 400
Jacksonville, FL 32256

Customer ID: SHAE77
Customer PO:
Received: 10/12/09 11:00 AM
EMSL Order: 010905180

Fax: (904) 636-9356 Phone: (904) 636-9360

EMSL Proj: 122177.01 Bridge 100332

Test Report

Client Sample Description 100333 RCRA- 4.2
blue paint on steel NW *Collected:* 10/8/2009 *Lab ID:* 0008

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
6010B	Lead	20000	9.8	mg/Kg	10/15/2009	rferrer
6010B	Selenium	<20	20	mg/Kg	10/15/2009	rferrer
6010B	Silver	<0.98	0.98	mg/Kg	10/15/2009	rferrer
7471A	Mercury	0.069	0.019	mg/Kg	10/15/2009	kt trout

Client Sample Description 100333 RCRA- 4.3
blue paint on steel SE *Collected:* 10/8/2009 *Lab ID:* 0009

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
6010B	Arsenic	12	0.77	mg/Kg	10/15/2009	rferrer
6010B	Barium	25	9.7	mg/Kg	10/15/2009	rferrer
6010B	Cadmium	2.2	0.39	mg/Kg	10/15/2009	rferrer
6010B	Chromium	4700	9.7	mg/Kg	10/15/2009	rferrer
6010B	Lead	22000	9.7	mg/Kg	10/15/2009	rferrer
6010B	Selenium	<19	19	mg/Kg	10/15/2009	rferrer
6010B	Silver	<0.97	0.97	mg/Kg	10/15/2009	rferrer
7471A	Mercury	0.072	0.019	mg/Kg	10/15/2009	kt trout

Client Sample Description 100333 RCRA- 4.4
blue paint on steel SW *Collected:* 10/8/2009 *Lab ID:* 0010

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
6010B	Arsenic	12	0.80	mg/Kg	10/15/2009	rferrer
6010B	Barium	60	10	mg/Kg	10/15/2009	rferrer
6010B	Cadmium	2.9	0.40	mg/Kg	10/15/2009	rferrer
6010B	Chromium	3100	10	mg/Kg	10/15/2009	rferrer
6010B	Lead	16000	10	mg/Kg	10/15/2009	rferrer
6010B	Selenium	<20	20	mg/Kg	10/15/2009	rferrer
6010B	Silver	<1.0	1.0	mg/Kg	10/15/2009	rferrer
7471A	Mercury	0.079	0.019	mg/Kg	10/15/2009	kt trout

Samples analyzed by EMSL Analytical, Inc. Westmont 3 Cooper St., Westmont NJ

**EMSL Analytical, Inc.**

3 Cooper St., Westmont, NJ 08108

Phone: (856) 858-4800 Fax: (856) 858-4571 Email: jsmith@emsl.com



SM

Attn: **Bill Zukauskas**
Shaw Environmental, Inc.
9143 Phillips Highway
Suite 400
Jacksonville, FL 32256

Customer ID: SHAE77
 Customer PO:
 Received: 10/12/09 11:00 AM
 EMSL Order: 010905180

Fax: (904) 636-9356 Phone: (904) 636-9360

EMSL Proj: 122177.01 Bridge 100332

Test Report

Client Sample Description 100333 - TCLP-01
 lt. gray/white paint on concrete *Collected:* 10/8/2009 *Lab ID:* 0011

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
TCLP 1311/6010B	Arsenic	<0.080	0.080	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Barium	<1.0	1.0	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Cadmium	<0.040	0.040	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Chromium	<0.10	0.10	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Lead	<0.10	0.10	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Selenium	<0.20	0.20	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Silver	<0.10	0.10	mg/L	10/15/2009	rferrer
TCLP 1311/7470A	Mercury	<0.0020	0.0020	mg/L	10/14/2009	kt trout

Client Sample Description 100333 - TCLP-02
 beige paint on concrete *Collected:* 10/8/2009 *Lab ID:* 0012

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
TCLP 1311/6010B	Arsenic	<0.080	0.080	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Barium	<1.0	1.0	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Cadmium	<0.040	0.040	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Chromium	<0.10	0.10	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Lead	<0.10	0.10	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Selenium	<0.20	0.20	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Silver	<0.10	0.10	mg/L	10/15/2009	rferrer
TCLP 1311/7470A	Mercury	<0.0020	0.0020	mg/L	10/14/2009	kt trout

Client Sample Description 100333 - TCLP-03
 blue paint on steel - brorein *Collected:* 10/8/2009 *Lab ID:* 0013

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
TCLP 1311/6010B	Arsenic	<0.080	0.080	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Barium	<1.0	1.0	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Cadmium	<0.040	0.040	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Chromium	<0.10	0.10	mg/L	10/15/2009	rferrer

Samples analyzed by EMSL Analytical, Inc. Westmont 3 Cooper St., Westmont NJ



EMSL Analytical, Inc.

3 Cooper St., Westmont, NJ 08108

Phone: (856) 858-4800 Fax: (856) 858-4571 Email: jsmith@emsl.com



SM

Attn: **Bill Zukauskas**
Shaw Environmental, Inc.
9143 Phillips Highway
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Customer ID: SHAE77
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Received: 10/12/09 11:00 AM
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Fax: (904) 636-9356 Phone: (904) 636-9360

EMSL Proj: 122177.01 Bridge 100332

Test Report

Client Sample Description 100333 - TCLP-03
blue paint on steel - brorein *Collected:* 10/8/2009 *Lab ID:* 0013

<i>Method</i>	<i>Parameter</i>	<i>Concentration</i>	<i>Reporting Limit Units</i>	<i>Analysis Date</i>	<i>Analyst</i>
TCLP 1311/6010B	Lead	0.57	0.10 mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Selenium	<0.20	0.20 mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Silver	<0.10	0.10 mg/L	10/15/2009	rferrer
TCLP 1311/7470A	Mercury	<0.0020	0.0020 mg/L	10/14/2009	ktroat

Client Sample Description 100333 - TCLP-04
blue paint on steel - channel side *Collected:* 10/8/2009 *Lab ID:* 0014

<i>Method</i>	<i>Parameter</i>	<i>Concentration</i>	<i>Reporting Limit Units</i>	<i>Analysis Date</i>	<i>Analyst</i>
TCLP 1311/6010B	Arsenic	<0.080	0.080 mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Barium	<1.0	1.0 mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Cadmium	<0.040	0.040 mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Chromium	<0.10	0.10 mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Lead	1.0	0.10 mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Selenium	<0.20	0.20 mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Silver	<0.10	0.10 mg/L	10/15/2009	rferrer
TCLP 1311/7470A	Mercury	<0.0020	0.0020 mg/L	10/14/2009	ktroat

Samples analyzed by EMSL Analytical, Inc. Westmont 3 Cooper St., Westmont NJ



107 Haddon Avenue, Westmont, New Jersey 08108

1-800-220-3675

http://www.emsl.com

010905180

EMSL ANALYTICAL, Inc. CHAIN OF CUSTODY

EMSL Rep:

Your Name:

Company:

Street:

Box #:

City/State:

Phone Results to:

Name:

Telephone #:

Project Name/Number:

EMSL-Bill to:

Street:

Box #:

City/State:

Fax Results to:

Name:

Fax #:

Purchase Order #:

Third Party Billing requires written authorization from third party

SAME

Shaw Environmental
2113 Philip Hwy #400
Jax, FL Zip 32256

Bill Zuhler
904-367-6033
122177.01

Bridg 100332

TURNAROUND TIME
 3 Hours 6 Hours 12 Hours 24 Hours 48 Hours 72 Hours 4 Days 5 Days 6-10 Days

SAMPLE MATRIX
 Air Bulk Soil Wipe Micro-Vac Drinking Water Wastewater Chlms Other

ASBESTOS ANALYSIS

PCM - Air
 NIOSH 7400 (A) Issue 2: August 1994
 OSHA w/TWA

TEM AIR
 AHERA 40 CFR, Part 763 Subpart E
 NIOSH 7402 Issue 2
 EPA Level II

PLM - Bulk
 EPA 600/R-93/116
 NY Stratified Point Count
 California Air Resource Board (CARB) 435
 NIOSH 9002
 PLM NOB (Gravimetric) NYS 198.1
 EPA Point Count (400 Points)
 EPA Point Count (1,000 Points)
 Standard Addition Point Count

SOILS
 EPA Protocol Qualitative
 EPA Protocol Quantitative
 EMSL MSD 9000 Method fibers/gram
 Superfund EPA 540-R097-028 (dust generation)

TEM BULK
 Drop Mount (Qualitative)
 Chatfield SOP-1988-02
 TEM NOB (Gravimetric) NY 198.4

TEM MICROVAC
 ASTM D 5755-95 (Quantitative)

TEM WIPE
 ASTM D-6480-99
 Qualitative

TEM WATER
 EPA 100.1
 EPA 100.2
 NYS 198.2

OTHER:

LEAD ANALYSIS

Flame Atomic Absorption
 Wipe, SW846-7420 ASTM non ASTM
 Soil, SW846-7420
 Air, NIOSH 7082
 Chips, SW846-7420 or AOAC 5.009 (974.02)
 Wastewater, SW 846-7420
 TCLP LEAD SW846-1311/7420 - *RLRA B*

Graphite Furnace Atomic Absorption By TLP
 Air, NIOSH 7105
 Wastewater, SW846-7421
 Soil, SW846-7421
 Drinking Water, EPA 239.2

ICP - Inductively Coupled Plasma
 Wipe, SW846-6010 ASTM non ASTM
 Soil, SW846-6010
 Air, NIOSH 7300

MATERIALS ANALYSIS

Part Particle Identification
 Optical Particle Identification
 Dust Mites and Insect Fragments
 Particle Size & Distribution
 Product Comparison
 Paint Characterization *8 RLRA*
 Failure Analysis
 Corrosion Analysis
 Glove Box Containment Study
 Petrographic Examination of Concrete
 Portland Cement in Workplace Atmospheres (OSHA ID-143)
 Man Made Virous Fibers - MMVF's
 Synthetic Fiber Identification
 Other:

MICROBIAL ANALYSIS

Air Samples
 Mold & Fungi by Air O Cell
 Mold & Fungi by Agar Plate count & id
 Bacterial Count and Gram Stain
 Bacterial Count and Identification

Water Samples
 Total Coliforms, Fecal Coliforms
 Escherichia Coli, Fecal Streptococcus
 Legionella
 Salmonella
 Giardia and Cryptosporidium

Wipe and Bulk Samples
 Mold & Fungi - Direct Examination
 Mold & Fungi - (Culture follow up to direct examination if necessary)
 Mold & Fungi - Culture (Count & ID)
 Mold & Fungi - Culture (Count only)
 Bacterial Count & Gram Stain
 Bacterial Count & Identification (3 most prominent types)
 Other:

IAQ ANALYSIS

Nuisance Dust (NIOSH 0500 & 6001)
 Airborne Dust (PM10, TSP) NIOSH 7500
 Silica Analysis by XRF
 HVAC Efficiency
 Carbon Black
 Airborne Oil Mist
 Other:

09 OCT 2 AM 9:23
 RECEIVED
 EMSL

Client Sample # (S) _____ TOTAL SAMPLE # _____

Relinquished: *Red 10* Date: *10/12/09* Time: _____
 Received: _____ Date: _____ Time: _____

Relinquished: _____ Date: _____ Time: _____
 Received: *Red UPS 9AM* Date: _____ Time: _____

LEFT MESSAGE - TLP WEIGHT
 10/12/09 12:40p -EZ
 rec'd for 10/12/09

SAMPLES ACCEPTED FOR ANALYSIS BY
 EMSL ANALYTICAL INC.



010905180

SAMPLE NUMBER	SAMPLE DESCRIPTION/LOCATION	VOLUME Air (L)	Area (Inches sq.)
1) 100333 RCRA- 1.1.	lt. gray/white Point on concrete		
2) 2.1	Beige Point on concrete		
3) 3.1	Blue Point on steel NE		
4) 3.2			
5) 3.3			
6) 3.4			
7) 4.1	Blue Point on steel NE		
8) 4.2			
9) 4.3			
10) 4.4			
11) 100333 - TCLP- 01	lt. gray/white Point on concrete		
12) 02	Beige Point on concrete		
13) 03	Blue Point on steel - Break in		
14) 04	Blue Point on steel - channel side		
SAMPLING DATE 10/8 PER BAGS - E2			
SAMPLES ACCEPTED FOR ANALYSIS BY EMSL ANALYTICAL INC.			

62.8g
30.8g
48.2g

09 OCT 12 AM 9:23

RECEIVED
EMSL
WESTMONT NJ

Relinquished:
Received:
Relinquished:
Received:

[Signature]
[Signature]

Date: 10/9/09 Time: 1:20
Date: 10/12/09 Time: _____
Date: _____ Time: _____
Date: _____ Time: _____

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Appendix B
Photographic Log

BRIDGE 100332
PAINT COATING SAMPLING PHOTO LOG

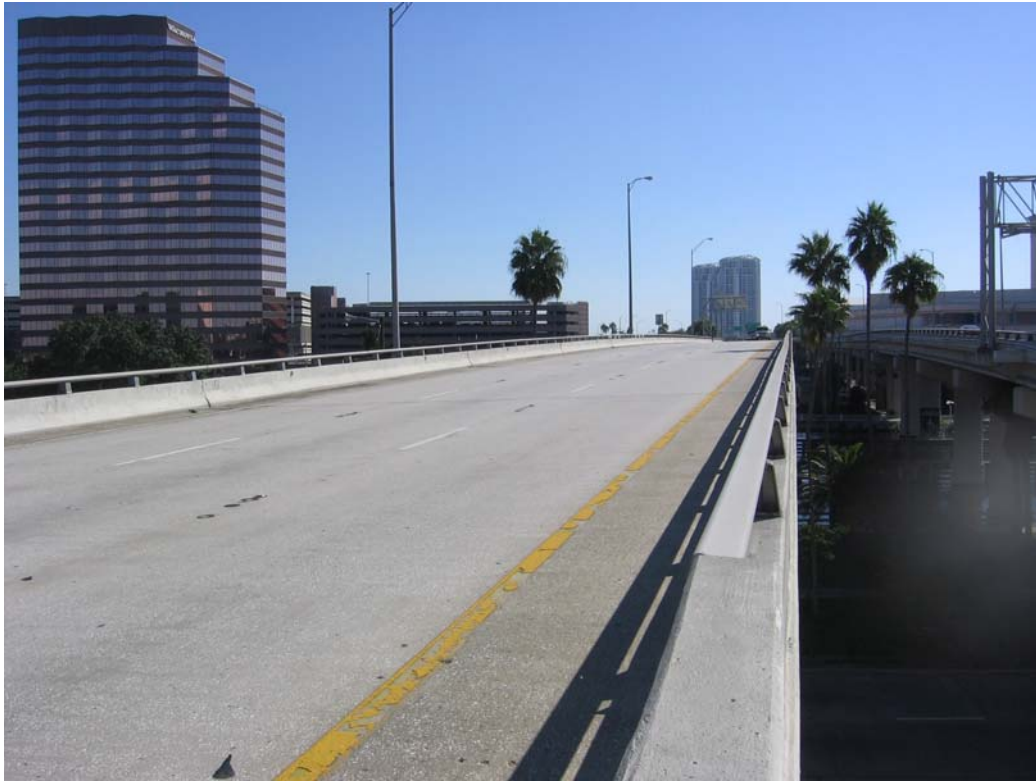


PHOTO 1 – 10/02/09

**BRIDGE 100332 – LEE ROY SELMON CROSSTOWN EXPRESSWAY WESTBOUND FROM EXIT 9 TO EXIT 5
TAMPA , HILLSBOROUGH COUNTY, FL**

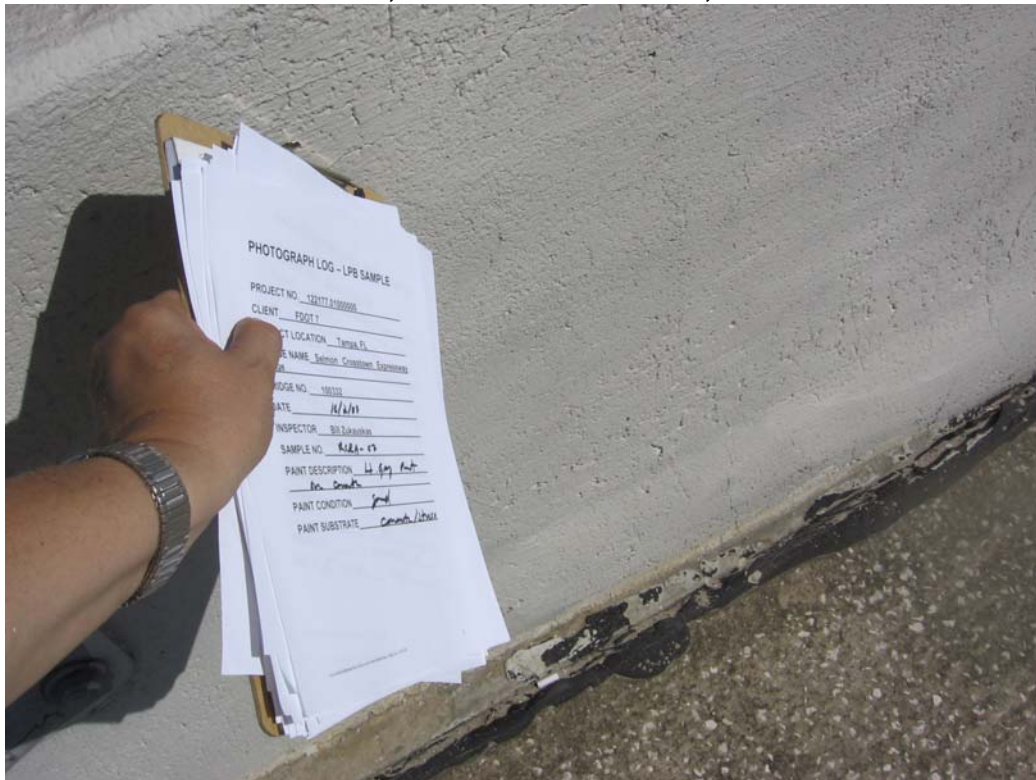


PHOTO 2 – 10/02/09 – SAMPLE RCRA-1.1
LIGHT GRAY/WHITE PAINT
ON STUCCO ON CONCRETE RAILS

BRIDGE 100332
PAINT COATING SAMPLING PHOTO LOG

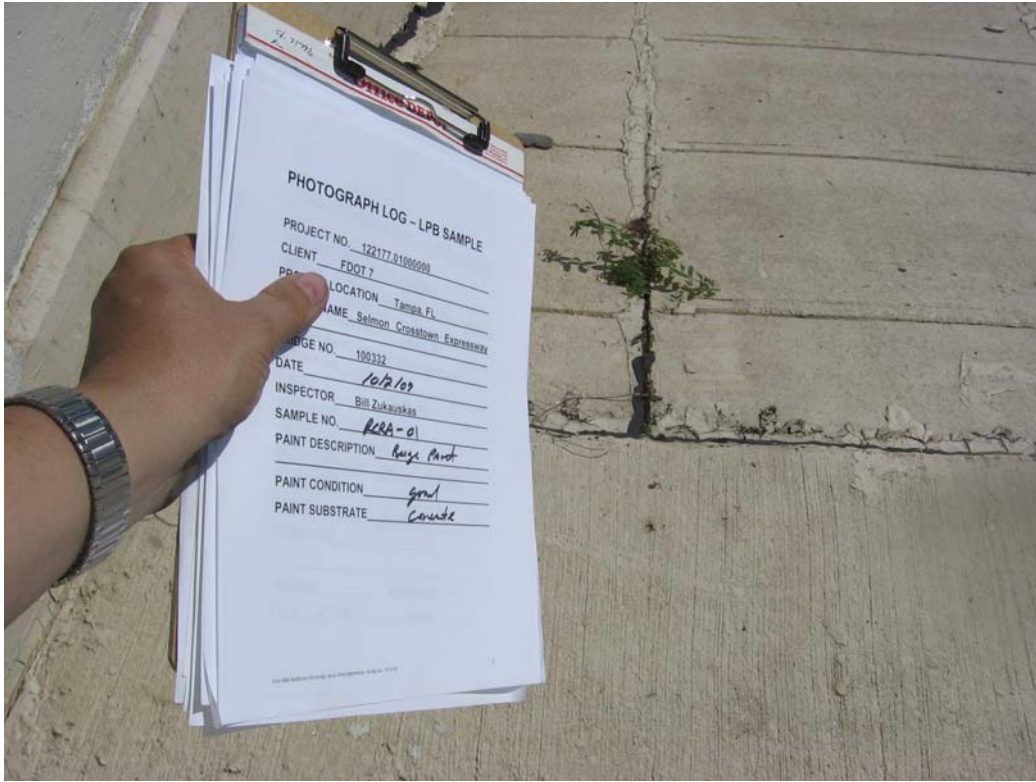


PHOTO 3 - 10/02/09 - SAMPLE RCRA-2.1
BEIGE PAINT
ON CONCRETE

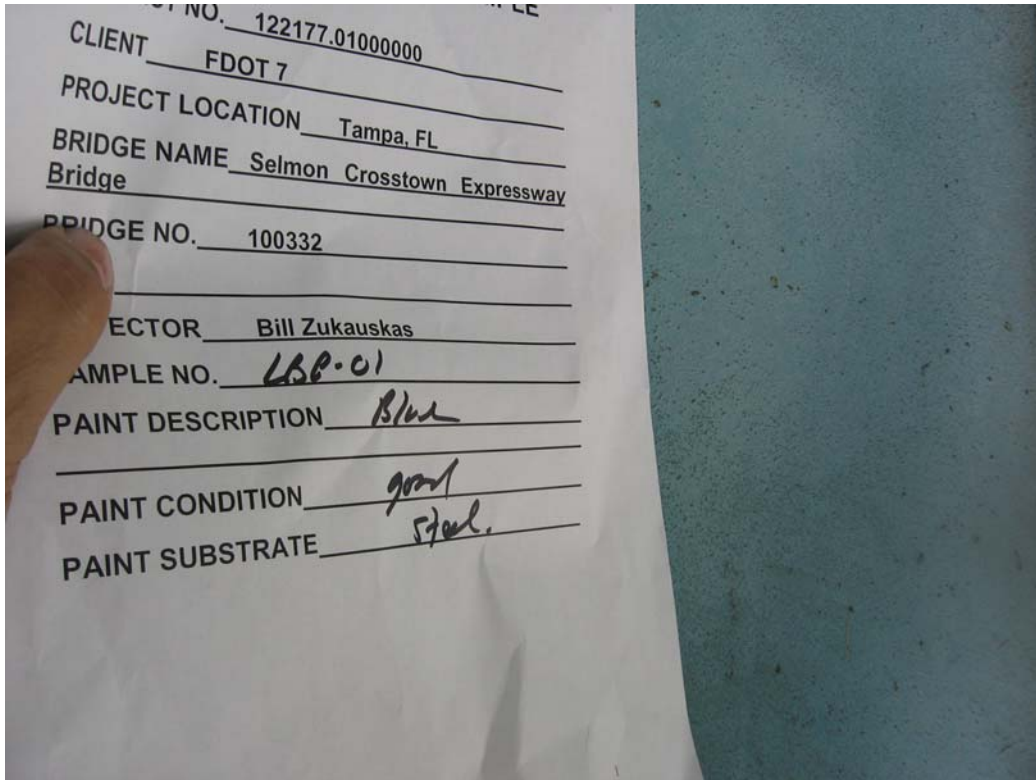


PHOTO 4 - 10/02/09 - SAMPLE RCRA-3.1
BLUE PAINT
ON METAL SPAN 10 (OVER BROREIN STREET)

BRIDGE 100332
PAINT COATING SAMPLING PHOTO LOG

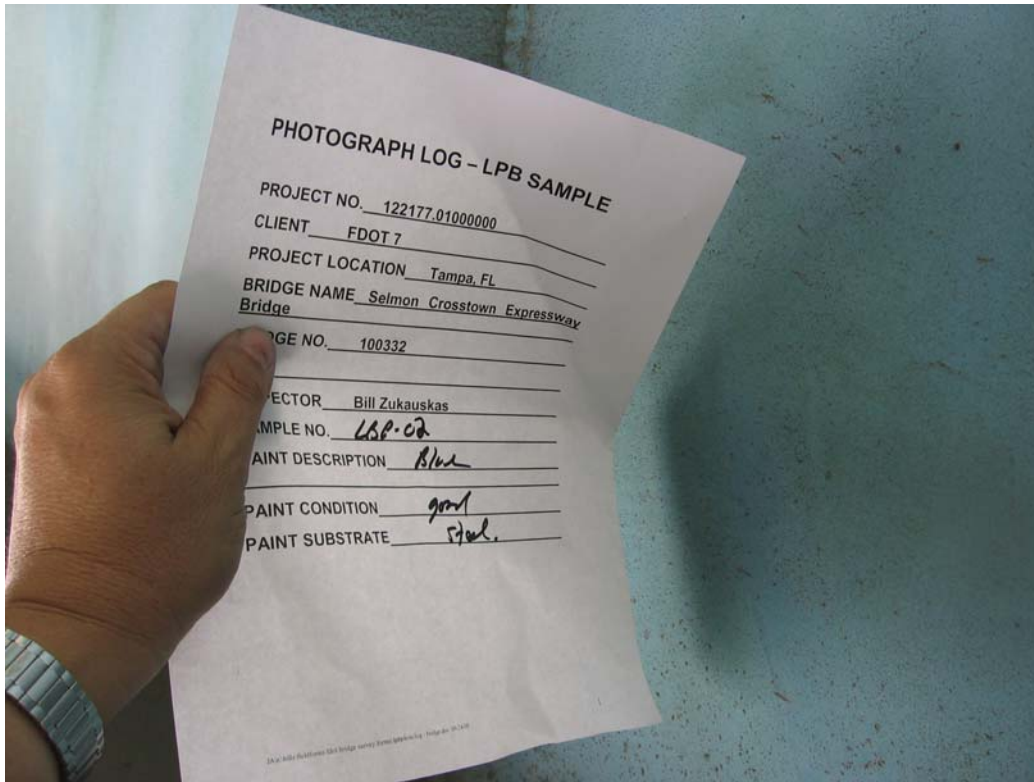


PHOTO 5 – 10/02/09 – SAMPLE RCRA-3.2
BLUE PAINT
ON METAL SPAN 10 (OVER BROREIN STREET)

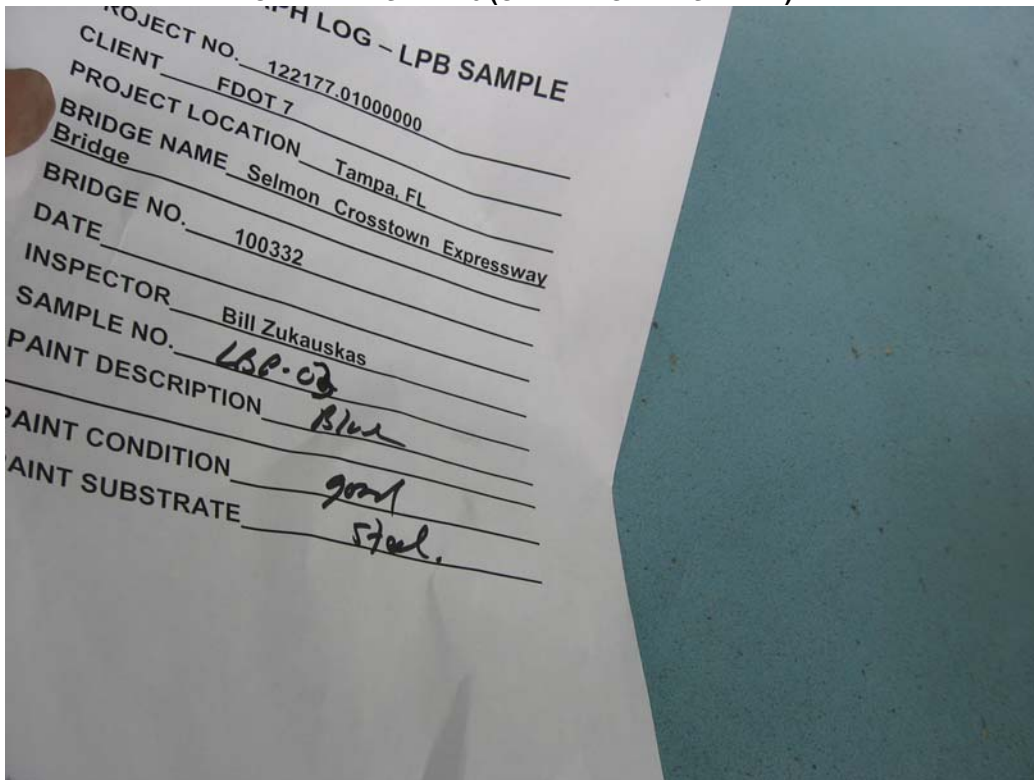


PHOTO 6 – 10/02/09 – SAMPLE RCRA-3.3
BLUE PAINT
ON METAL SPAN 10 (OVER BROREIN STREET)

BRIDGE 100332
PAINT COATING SAMPLING PHOTO LOG



PHOTO 7 – 10/02/09 – SAMPLE RCRA-3.4
BLUE PAINT
ON METAL SPAN 10 (OVER BROREIN STREET)

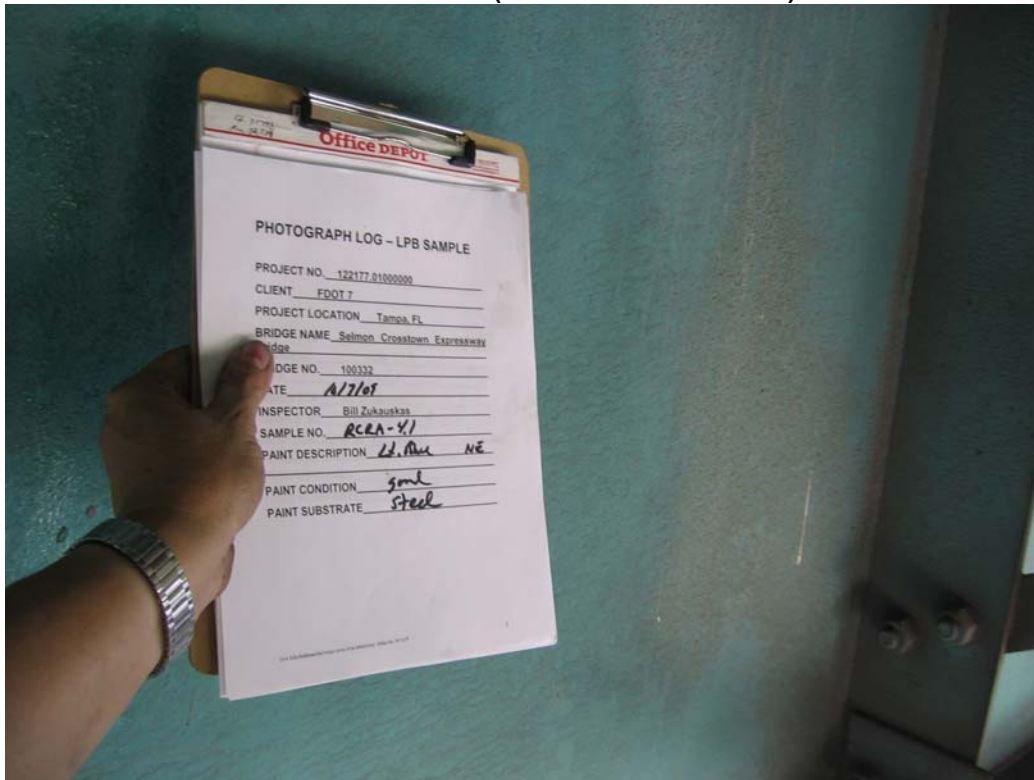


PHOTO 8 – 10/02/09 – SAMPLE RCRA-4.1
BLUE PAINT
ON METAL SPAN 5 (OVER CHANNELSIDE DRIVE)

BRIDGE 100332
PAINT COATING SAMPLING PHOTO LOG

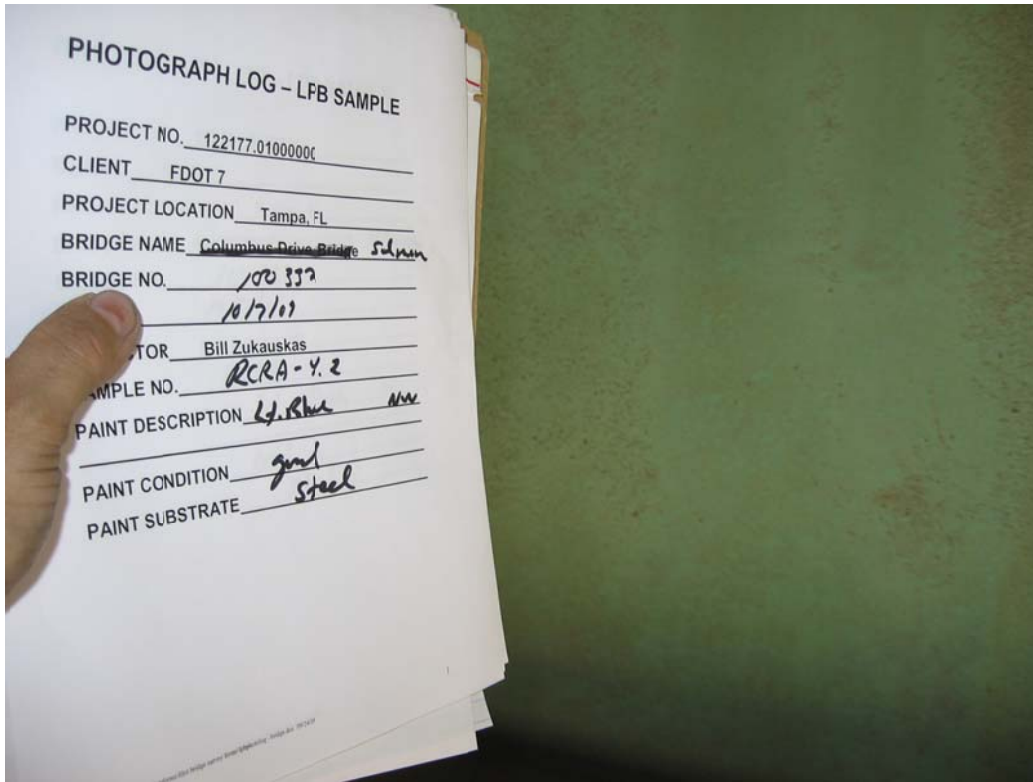


PHOTO 9 - 10/02/09 - SAMPLE RCRA-4.2
BLUE PAINT
ON METAL SPAN 5 (OVER CHANNELSIDE DRIVE)

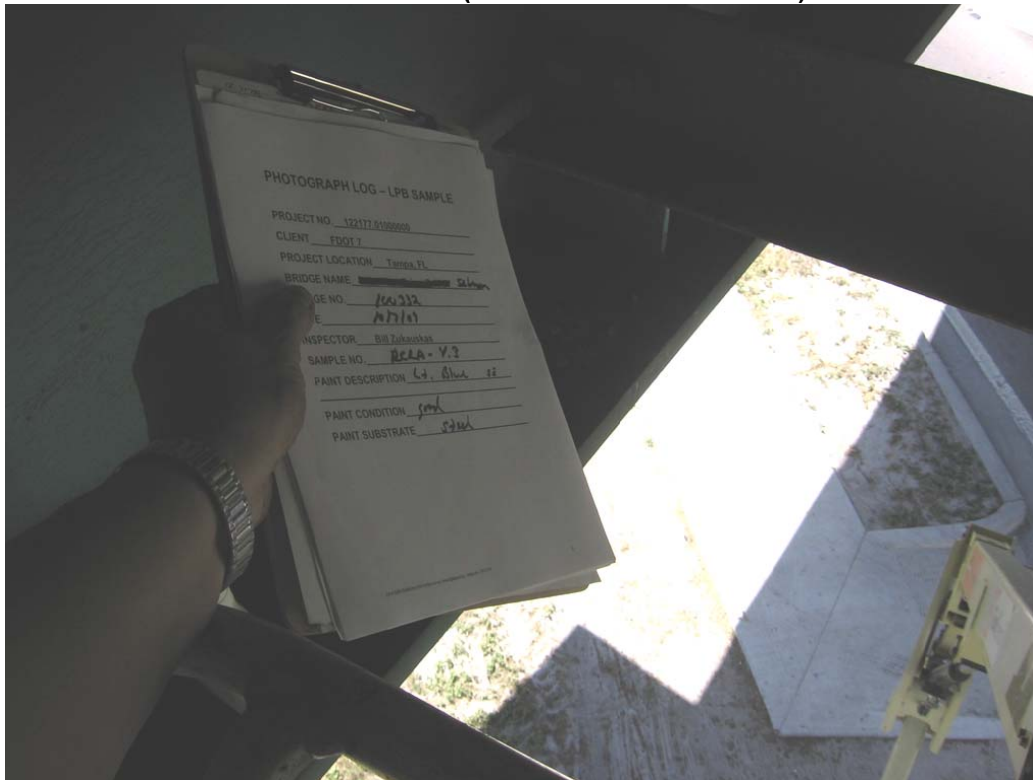


PHOTO 10 - 10/02/09 - SAMPLE RCRA-4.3
BLUE PAINT
ON METAL SPAN 5 (OVER CHANNELSIDE DRIVE)

BRIDGE 100332
PAINT COATING SAMPLING PHOTO LOG

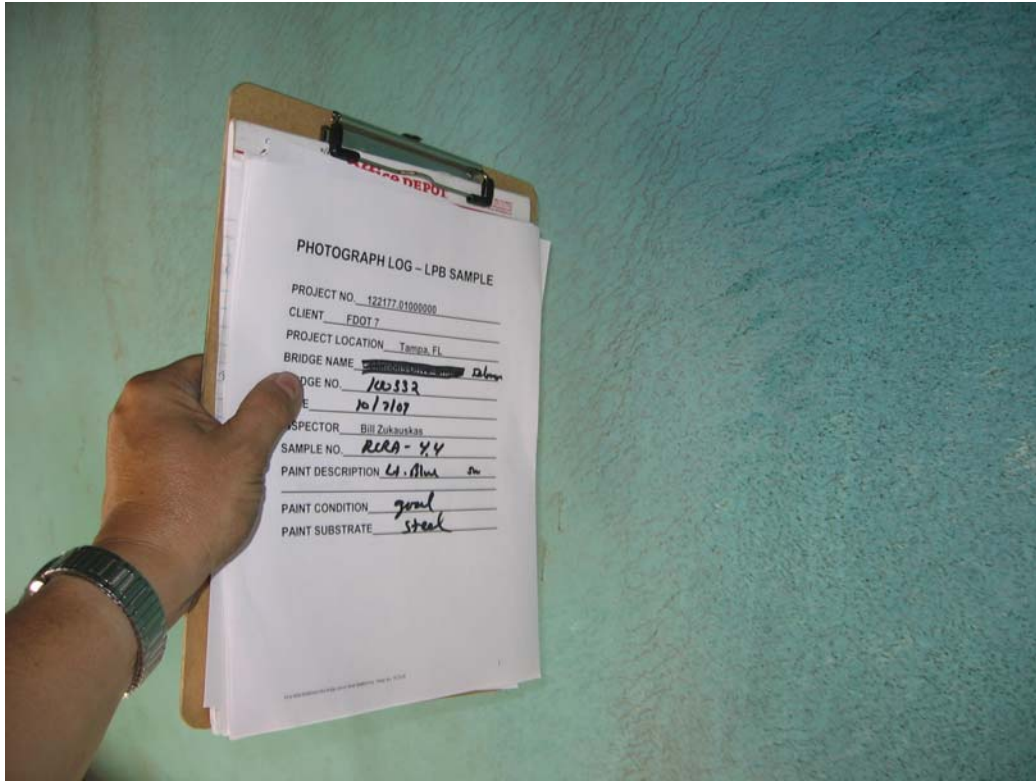


PHOTO 11 – 10/02/09 – SAMPLE RCRA-4.4
BLUE PAINT
ON METAL SPAN 5 (OVER CHANNELSIDE DRIVE)



PHOTO 12 – 10/02/09 – SAMPLE TCLP-01
LIGHT GRAY/WHITE PAINT
ON CONCRETE

BRIDGE 100332
PAINT COATING SAMPLING PHOTO LOG

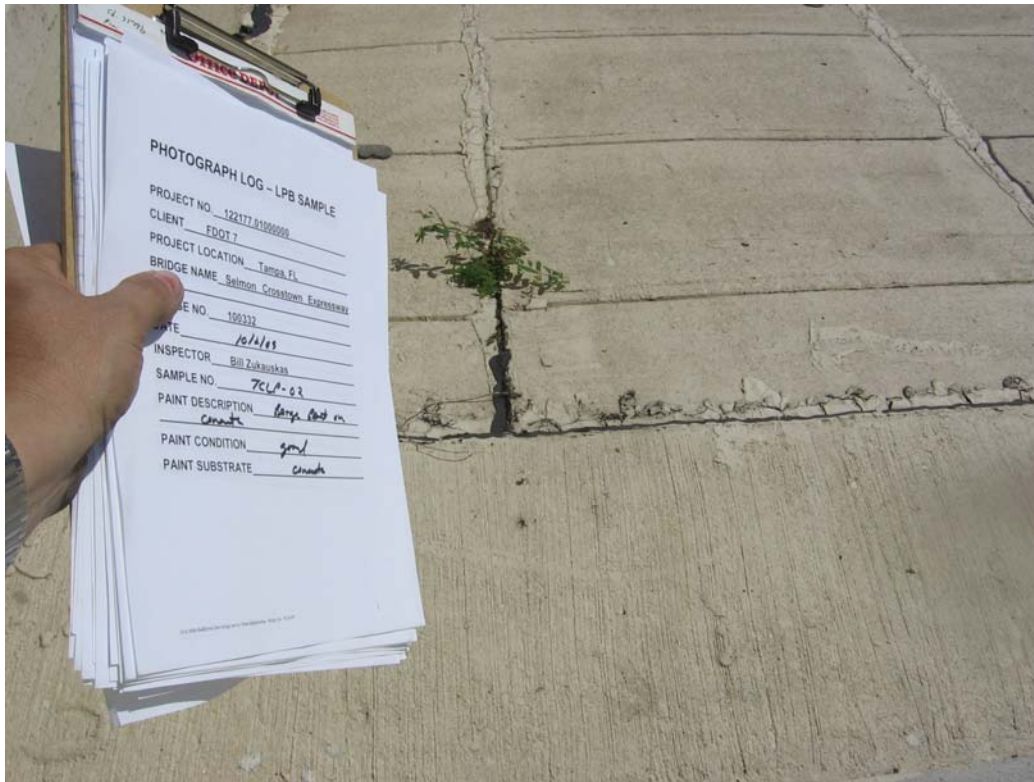


PHOTO 13 – 10/02/09 – SAMPLE TCLP-02
BEIGE PAINT
ON CONCRETE

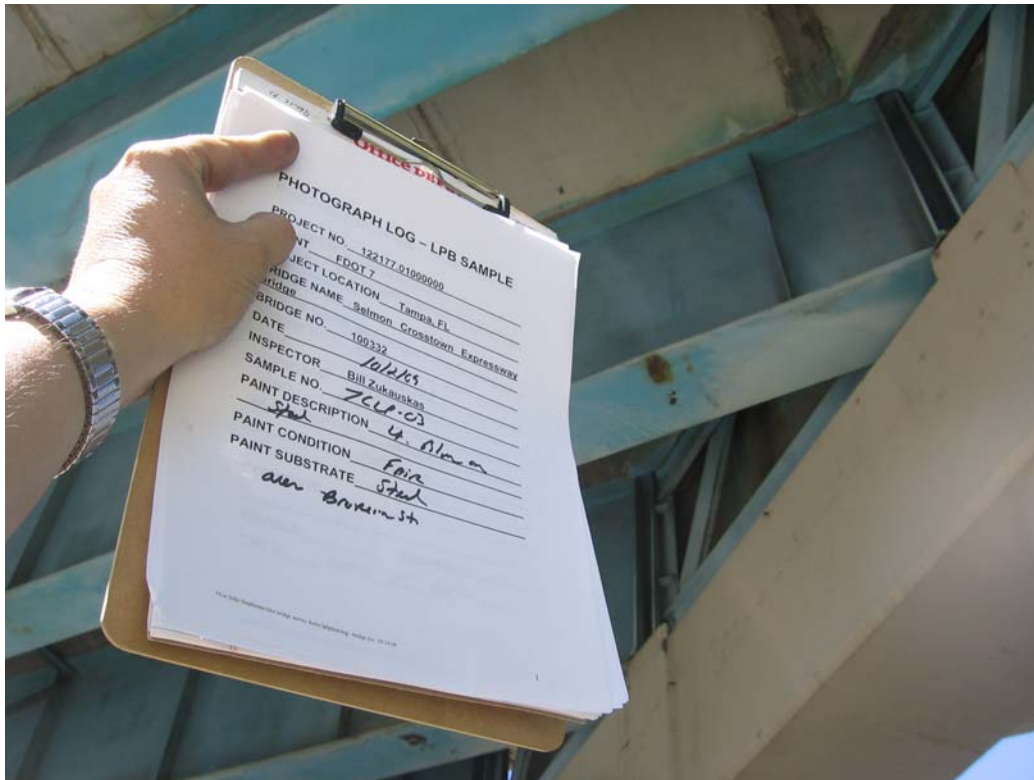


PHOTO 14 – 10/02/09 – SAMPLE TCLP-03
BLUE PAINT
ON METAL SPAN 10 (OVER BROREIN STREET)

BRIDGE 100332
PAINT COATING SAMPLING PHOTO LOG

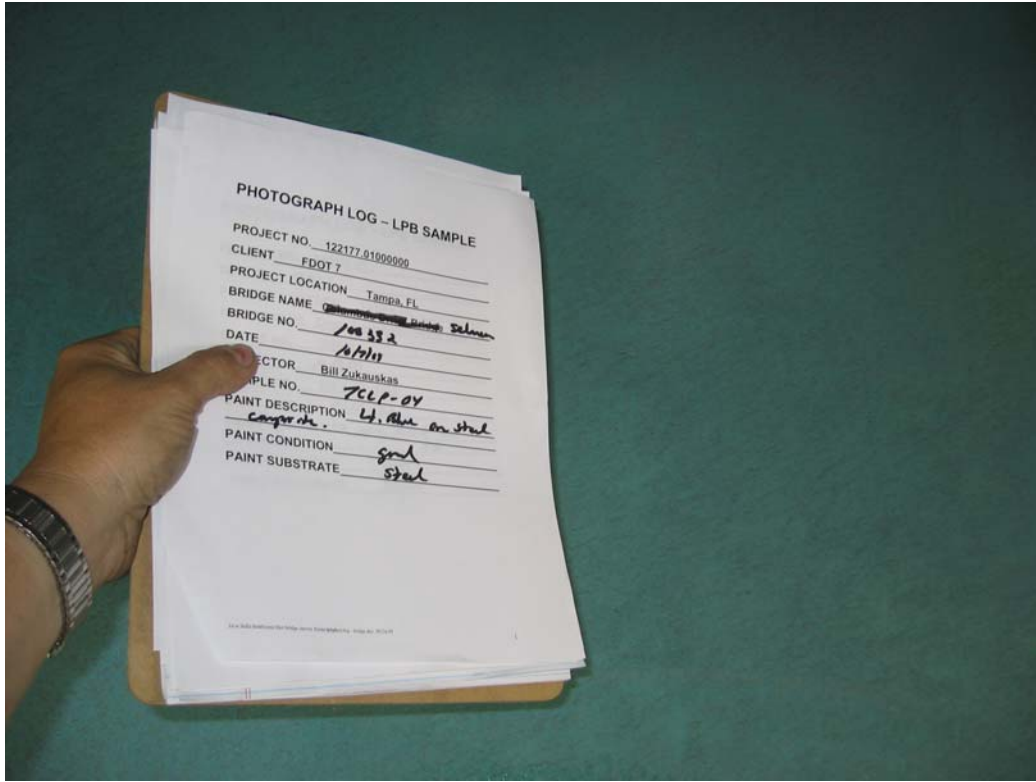


PHOTO 15 – 10/02/09 – SAMPLE TCOP-04
BLUE PAINT
ON METAL SPAN 5 (OVER CHANNELSIDE DRIVE)

November 11, 2009

Project 122177

Dale M. Hanson
Hazardous Materials Project Manager
Florida Department of Transportation, District 7
11201 N. McKinley Drive, MS 7-500
Tampa, Florida 33612

Re: District Wide Environmental Contract BDJ73
Financial Project No. 416361-2-C2-01
Bridge No. 100333 Paint Coating Sampling
Lee Roy Selmon Crosstown Expressway Eastbound From Exit 5 to Exit 9
Tampa, Hillsborough County, Florida

Dear Ms. Hanson:

Shaw Environmental & Infrastructure, Inc. (Shaw) is pleased to present this letter report summarizing the field coordination, field sampling methodology, and laboratory analytical results for paint sampling activities conducted on Bridge No. 100333, Lee Roy Selmon Crosstown Expressway Eastbound from Exit 5 to Exit 9 in Tampa, Hillsborough County, Florida (**Figure 1**).

INTRODUCTION

Shaw was retained by the Florida Department of Transportation (FDOT), District 7, to collect representative samples of the paint coating system from Bridge No. 100333. Paint from graffiti was not included in this sampling effort.

Shaw collected six samples of the paint coatings from the bridge structural components in general accordance with the sampling procedures developed by the State Materials Office, Florida Method of Test for Sampling of Structural Steel Existing Coating Systems Designation 5-564. The samples were obtained by William Zukauskas of Shaw on October 7, 2009, and were labeled, packaged, manifested, and transported to EMSL Analytical, Inc., located in Westmont, New Jersey, and tested for the eight Resource Conservation and Recovery Act (RCRA) metals by United States Environmental Protection Agency (EPA) Method 6010B/7471A.

Additionally, three composite samples were tested by the toxicity characteristic leaching procedure (TCLP) (EPA Method 1311/6010B/7470A). Composite sample TCLP-01 was taken from the homogeneous material of the gray paint on metal span 35. Composite sample TCLP-02 was taken from the homogeneous material of the beige paint on concrete. Composite sample TCLP-03 was taken from the homogeneous material of the gray paint on stucco on concrete. Sample locations are shown in **Figure 2**.

SAMPLE RESULTS

Following is a list of the RCRA metals samples and any parameters which exceeded the respective maximum contaminant levels (MCLs), as indicated by laboratory analysis.

Sample Number	Sample Description	RCRA Parameters Which Exceeded Respective MCLs per 40 CFR 261.21
RCRA-1.1	Gray paint on metal span 35	None
RCRA-1.2	Gray paint on metal span 35	None
RCRA-1.3	Gray paint on metal span 35	Lead
RCRA-1.4	Gray paint on metal span 35	None
RCRA-2.1	Beige paint on concrete beams and abutments	None
RCRA-3.1	Gray paint on stucco on concrete	None

The laboratory results of the paint samples for RCRA metals analysis are summarized in **Table 1**. A copy of the laboratory analytical report is provided in **Appendix A**. Photos are provided in **Appendix B**.

TCLP samples were analyzed to determine whether the painted surfaces would exceed the EPA leachability limits established in 40 CFR 261.24. The analytical results of the TCLP samples are summarized in **Table 2**. A copy of the laboratory analytical report is provided in **Appendix A**.

Following is a list of the TCLP samples and any parameters which exceeded the respective MCLs, as indicated by laboratory analysis.

Sample Number	Sample Description	TCLP Parameters Which Exceeded Respective MCLs per 40 CFR 261.24
TCLP-01	Gray paint on metal span 35	None
TCLP-02	Beige paint on concrete	None
TCLP-03	Gray paint on stucco on concrete	None

Based on the TCLP analysis, the paint waste generated from renovation or demolition of the bridge is not required to be handled as hazardous waste.

RECOMMENDATIONS FOR PERSONNEL HEALTH AND SAFETY

The contractor selected to perform the renovation or demolition of the bridge should be familiar with and comply with all parts of the Occupational Safety and Health Administration (OSHA) Construction Standard contained in 29 CFR 1926.

Since sample analysis indicates that the paint coatings present on the bridge at the time of the assessment are above the regulated concentration levels, worker exposure to significant metals is likely. Contractors should perform renovation or demolition activities in such a way as to continue to ensure that workers on the project are not exposed to levels above the OSHA permissible exposure limits in accordance with 29 CFR Subpart Z, and to ensure that any regulated metals are not spread to uncontrolled areas.

RECOMMENDATIONS FOR MATERIAL/WASTE HANDLING, TRANSPORTATION, AND DISPOSAL

During the removal and handling activities, the work area should be sufficiently protected from loose or falling paint chips and residue. All paint related waste should be containerized in United States Department of Transportation (DOT) approved containers, labeled, and properly stored. Due to the varying concentrations of heavy metals found in the paint coatings, it is possible that higher concentrations exist. As a conservative measure, Shaw recommends that a representative sample of the containerized waste should be collected by the contractor and analyzed at a Florida Department of Environmental Protection (FDEP) approved laboratory for the eight RCRA metals for TCLP parameters by EPA test method 1311/6010/7470A prior to disposal.

If blast media or chemicals are used during the paint removal operations, additional testing may be required. This could change the waste classification and disposal options.

In addition to the above requirements, all personnel who handle paint chips which have been removed from the bridge shall comply with all of the requirements in 40 CFR Parts 260 through 370. This includes, but is not limited to, waste handling, container labeling, transportation, and disposal.

If you have any questions or need additional information, please call me at (904) 367-6033.

Sincerely,

Shaw Environmental & Infrastructure, Inc.



William Zukauskas
Industrial Hygiene Manager



David Mosher, PE
Project Manager

Attachments: Disclaimer
Tables 1 - 2
Figures 1 - 2
Appendices A - B

DISCLAIMER

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

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Tables

Table 1

Bridge Paint Coating RCRA Laboratory Report Summary

FDOT Bridge No. 100333

Lee Roy Selmon Crosstown Expressway Eastbound From Exit 5 to Exit 9

Tampa, Hillsborough County, Florida

Sampling Date: October 7, 2009

RCRA Metals	EPA Test Method	RCRA MCL (mg/kg)	RCRA-1.1 8,400 sf - Gray paint on metal span 35	RCRA-1.2 8,400 sf - Gray paint on metal span 35	RCRA-1.3 8,400 sf - Gray paint on metal span 35	RCRA-1.4 8,400 sf - Gray paint on metal span 35	RCRA-2.1 68,000 sf - Beige paint on concrete beams and abutments	RCRA-3.1 140,400 sf - Gray paint on stucco on concrete
			Concentration (mg/kg)	Concentration (mg/kg)	Concentration (mg/kg)	Concentration (mg/kg)	Concentration (mg/kg)	Concentration (mg/kg)
Arsenic	6010B	500	11	2.2	2.7	2.8	3.4	12
Barium	6010B	10,000	42	2,800	3,300	2,300	1,600	18
Cadmium	6010B	100	<0.39	0.53	2.8	1.6	0.62	0.60
Chromium	6010B	2,500	26	37	230	120	29	11
Lead	6010B	1,000	3.7	170	1,100	610	130	3.3
Selenium	6010B	100	<20	<1.9	<1.9	<20	<19	<20
Silver	6010B	500	<0.98	<0.94	<0.97	<1.0	<0.97	<0.99
Mercury	7471A	20	0.066	0.061	0.052	0.043	<0.020	<0.019

Bold indicates analysis results which exceed the parameter MCL.

MCL- maximum contaminant level

mg/kg - milligrams per kilogram

sf - square feet

U - undetected

Table 2
Bridge Paint Coating TCLP Laboratory Report Summary
FDOT Bridge No. 100333
Lee Roy Selmon Crosstown Expressway Eastbound From Exit 5 to Exit 9
Tampa, Hillsborough County, Florida
Sampling Date: October 7, 2009

TCLP Metals	EPA Test Method	TCLP MCL (mg/L)	TCLP-01 Gray paint on metal span 35 (mg/L)	TCLP-02 Beige paint on concrete (mg/L)	TCLP-03 Gray paint on stucco on concrete (mg/L)
Arsenic	1311/6010B	5.0	<0.080	<0.080	<0.080
Barium	1311/6010B	100.0	1.6	<1.0	<1.0
Cadmium	1311/6010B	1.0	<0.040	<0.040	<0.040
Chromium	1311/6010B	5.0	<0.10	<0.10	<0.10
Lead	1311/6010B	5.0	0.29	<0.10	<0.10
Selenium	1311/6010B	1.0	<0.20	<0.20	<0.20
Silver	1311/6010B	5.0	<0.10	<0.10	<0.10
Mercury	1311/7470A	0.2	<0.0020	<0.0020	<0.0020

Bold indicates analysis results which exceed the parameter MCL.

MCL - maximum contaminant level

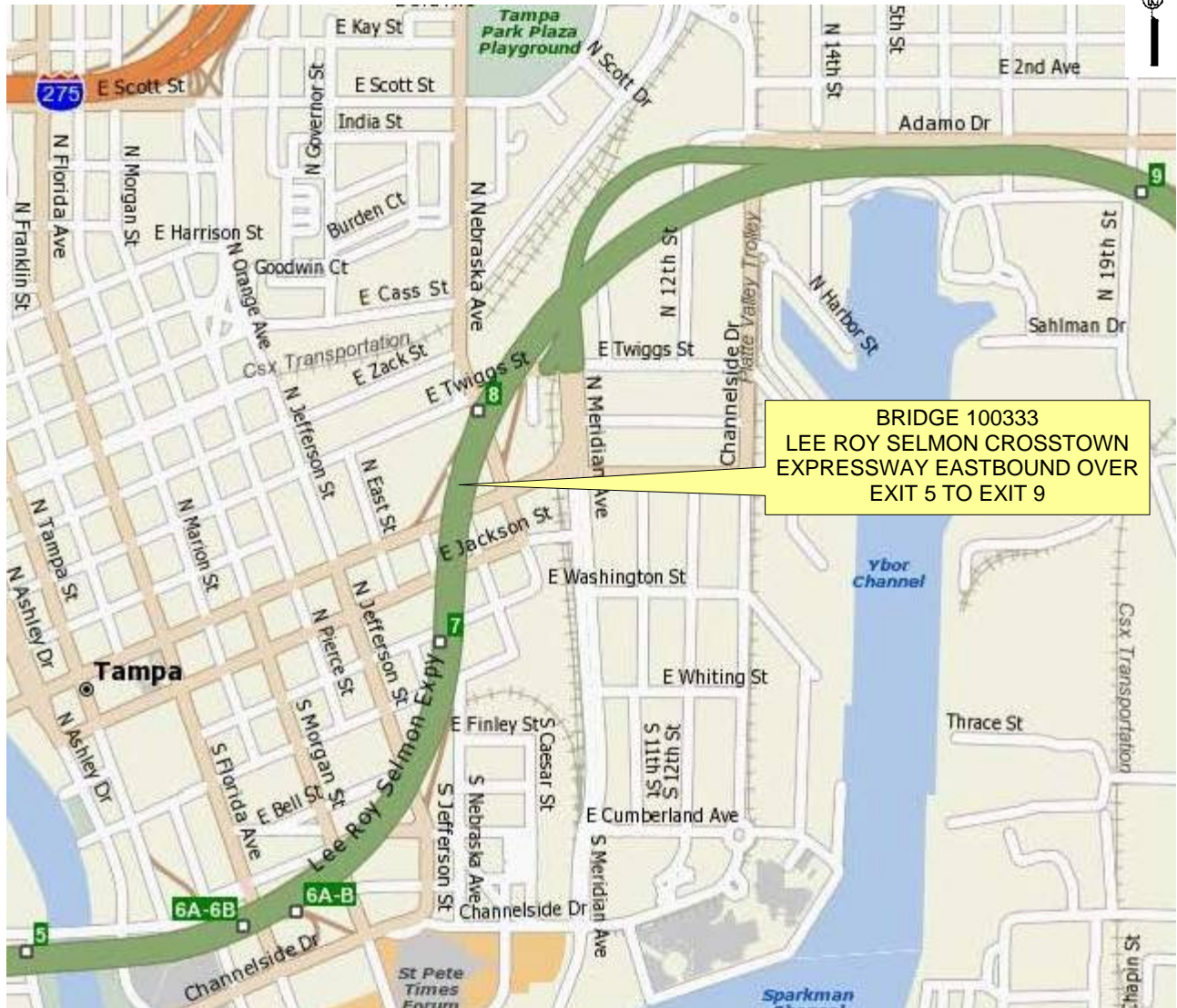
mg/L - milligrams per liter

TCLP - toxicity characteristic leaching procedure

U - undetected

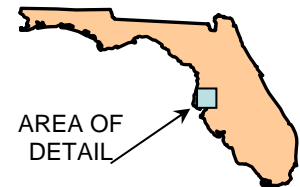
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Figures



Legend

Not To Scale



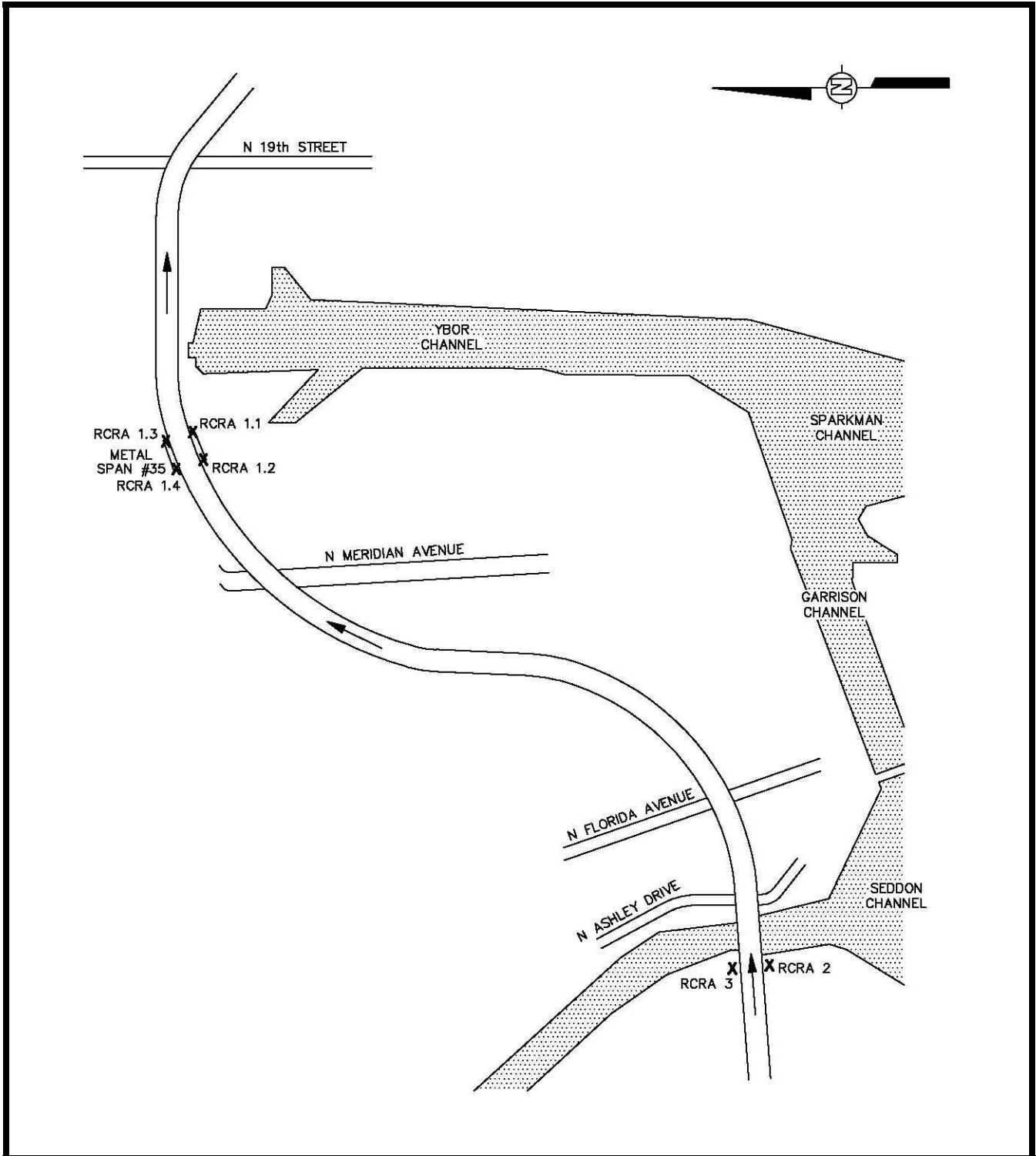
AREA OF
DETAIL

Prepared by
Shaw Environmental & Infrastructure, Inc.

Survey Date
October 7, 2009
Project 122177

Bridge 100333
Lee Roy Selmon Crosstown
Expressway Eastbound
From Exit 5 to Exit 9
Tampa, Hillsborough County, FL

Figure 1
Site Location Map



Legend
Not To Scale X Sampling Location

<p>Prepared by Shaw Environmental & Infrastructure, Inc.</p>	<p>Survey Date October 7, 2009 Project 122177</p>	<p>Bridge 100333 Lee Roy Selmon Crosstown Expressway Eastbound From Exit 5 to Exit 9 Tampa, Hillsborough County, FL</p>	<p>Figure 2 Sample Location Map</p>
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Appendix A
Laboratory Analytical Reports
and Chain of Custodies

**EMSL Analytical, Inc.**

3 Cooper St., Westmont, NJ 08108

Phone: (856) 858-4800 Fax: (856) 858-4571 Email: jsmith@emsl.com



SM

Attn: **Bill Zukauskas**
Shaw Environmental, Inc.
9143 Phillips Highway
Suite 400
Jacksonville, FL 32256

Customer ID: SHAE77
 Customer PO:
 Received: 10/12/09 11:00 AM
 EMSL Order: 010905184

Fax: (904) 636-9356 Phone: (904) 636-9360

EMSL Proj: 122177.01 Bridge 100333

Test Report

Client Sample Description 100333-RCRA- 1.1 *Collected:* 10/7/2009 *Lab ID:* 0001
 gray on white paint on steel

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
6010B	Arsenic	11	0.79	mg/Kg	10/15/2009	rferrer
6010B	Barium	42	9.8	mg/Kg	10/15/2009	rferrer
6010B	Cadmium	<0.39	0.39	mg/Kg	10/15/2009	rferrer
6010B	Chromium	26	0.98	mg/Kg	10/15/2009	rferrer
6010B	Lead	3.7	0.98	mg/Kg	10/15/2009	rferrer
6010B	Selenium	<20	20	mg/Kg	10/15/2009	rferrer
6010B	Silver	<0.98	0.98	mg/Kg	10/15/2009	rferrer
7471A	Mercury	0.066	0.018	mg/Kg	10/15/2009	ktroat

Client Sample Description 100333-RCRA- 1.2 *Collected:* 10/7/2009 *Lab ID:* 0002
 gray on white paint on steel

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
6010B	Arsenic	2.2	0.75	mg/Kg	10/15/2009	rferrer
6010B	Barium	2800	9.4	mg/Kg	10/15/2009	rferrer
6010B	Cadmium	0.53	0.38	mg/Kg	10/15/2009	rferrer
6010B	Chromium	37	0.94	mg/Kg	10/15/2009	rferrer
6010B	Lead	170	0.94	mg/Kg	10/16/2009	rferrer
6010B	Selenium	<1.9	1.9	mg/Kg	10/16/2009	rferrer
6010B	Silver	<0.94	0.94	mg/Kg	10/15/2009	rferrer
7471A	Mercury	0.061	0.019	mg/Kg	10/15/2009	ktroat

Client Sample Description 100333-RCRA- 1.3 *Collected:* 10/7/2009 *Lab ID:* 0003
 gray on white paint on steel

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
6010B	Arsenic	2.7	0.78	mg/Kg	10/15/2009	rferrer
6010B	Barium	3300	9.7	mg/Kg	10/15/2009	rferrer
6010B	Cadmium	2.8	0.39	mg/Kg	10/15/2009	rferrer
6010B	Chromium	230	0.97	mg/Kg	10/15/2009	rferrer

Samples analyzed by EMSL Analytical, Inc. Westmont 3 Cooper St., Westmont NJ

**EMSL Analytical, Inc.**

3 Cooper St., Westmont, NJ 08108

Phone: (856) 858-4800 Fax: (856) 858-4671 Email: jsmith@emsl.com



9M

Attn: **Bill Zukauskas**
Shaw Environmental, Inc.
9143 Phillips Highway
Suite 400
Jacksonville, FL 32256

Customer ID: SHAE77
 Customer PO:
 Received: 10/12/09 11:00 AM
 EMSL Order: 010905184

Fax: (904) 636-9356 Phone: (904) 636-9360

EMSL Proj: 122177.01 Bridge 100333

Test Report

Client Sample Description 100333-RCRA- 1.3 *Collected:* 10/7/2009 *Lab ID:* 0003
 gray on white paint on steel

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
6010B	Lead	1100	0.97	mg/Kg	10/16/2009	rferrer
6010B	Selenium	<1.9	1.9	mg/Kg	10/16/2009	rferrer
6010B	Silver	<0.97	0.97	mg/Kg	10/15/2009	rferrer
7471A	Mercury	0.052	0.019	mg/Kg	10/15/2009	ktroat

Client Sample Description 100333-RCRA- 1.4 *Collected:* 10/7/2009 *Lab ID:* 0004
 gray on white paint on steel

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
6010B	Arsenic	2.8	0.80	mg/Kg	10/15/2009	rferrer
6010B	Barium	2300	10	mg/Kg	10/15/2009	rferrer
6010B	Cadmium	1.6	0.40	mg/Kg	10/15/2009	rferrer
6010B	Chromium	120	1.0	mg/Kg	10/15/2009	rferrer
6010B	Lead	610	1.0	mg/Kg	10/16/2009	rferrer
6010B	Selenium	<20	20	mg/Kg	10/16/2009	rferrer
6010B	Silver	<1.0	1.0	mg/Kg	10/15/2009	rferrer
7471A	Mercury	0.043	0.019	mg/Kg	10/15/2009	ktroat

Client Sample Description 100333-RCRA- 2.1 *Collected:* 10/7/2009 *Lab ID:* 0005
 beige on concrete /stucco

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
6010B	Arsenic	3.4	0.78	mg/Kg	10/15/2009	rferrer
6010B	Barium	1600	9.7	mg/Kg	10/15/2009	rferrer
6010B	Cadmium	0.62	0.39	mg/Kg	10/15/2009	rferrer
6010B	Chromium	29	0.97	mg/Kg	10/15/2009	rferrer
6010B	Lead	130	0.97	mg/Kg	10/16/2009	rferrer
6010B	Selenium	<19	19	mg/Kg	10/16/2009	rferrer
6010B	Silver	<0.97	0.97	mg/Kg	10/15/2009	rferrer
7471A	Mercury	<0.020	0.020	mg/Kg	10/15/2009	ktroat

Samples analyzed by EMSL Analytical, Inc. Westmont 3 Cooper St., Westmont NJ

**EMSL Analytical, Inc.**

3 Cooper St., Westmont, NJ 08108

Phone: (856) 858-4800 Fax: (856) 858-4571 Email: jsm1th@emsl.com



SM

Attn: **Bill Zukauskas**
Shaw Environmental, Inc.
9143 Phillips Highway
Suite 400
Jacksonville, FL 32256

Customer ID: SHAE77
 Customer PO:
 Received: 10/12/09 11:00 AM
 EMSL Order: 010905184

Fax: (904) 636-9356 Phone: (904) 636-9360

EMSL Proj: 122177.01 Bridge 100333

Test Report

Client Sample Description 100333-RCRA- 3.1 *Collected:* 10/7/2009 *Lab ID:* 0006
 gray on concrete/stucco

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
6010B	Arsenic	.12	0.79	mg/Kg	10/16/2009	iacevedo
6010B	Barium	18	9.9	mg/Kg	10/16/2009	iacevedo
6010B	Cadmium	0.60	0.40	mg/Kg	10/16/2009	iacevedo
6010B	Chromium	11	0.99	mg/Kg	10/16/2009	iacevedo
6010B	Lead	3.3	0.99	mg/Kg	10/16/2009	iacevedo
6010B	Selenium	<20	20	mg/Kg	10/16/2009	iacevedo
6010B	Silver	<0.99	0.99	mg/Kg	10/16/2009	iacevedo
7471A	Mercury	<0.019	0.019	mg/Kg	10/15/2009	kt trout

Client Sample Description 100333-TCLP-01 *Collected:* 10/7/2009 *Lab ID:* 0007
 gray+white paint on steel

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
TCLP 1311/6010B	Arsenic	<0.080	0.080	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Barium	1.6	1.0	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Cadmium	<0.040	0.040	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Chromium	<0.10	0.10	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Lead	0.29	0.10	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Selenium	<0.20	0.20	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Silver	<0.10	0.10	mg/L	10/15/2009	rferrer
TCLP 1311/7470A	Mercury	<0.0020	0.0020	mg/L	10/16/2009	kt trout

Client Sample Description 100333-TCLP-02 *Collected:* 10/7/2009 *Lab ID:* 0008
 beige paint on concrete/stucco

Method	Parameter	Concentration	Reporting		Analysis Date	Analyst
			Limit	Units		
TCLP 1311/6010B	Arsenic	<0.080	0.080	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Barium	<1.0	1.0	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Cadmium	<0.040	0.040	mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Chromium	<0.10	0.10	mg/L	10/15/2009	rferrer

Samples analyzed by EMSL Analytical, Inc. Westmont 3 Cooper St., Westmont NJ

**EMSL Analytical, Inc.**

3 Cooper St., Westmont, NJ 08108

Phone: (856) 858-4800 Fax: (856) 858-4571 Email: jsmith@emsl.com



SM

Attn: **Bill Zukauskas**
Shaw Environmental, Inc.
9143 Phillips Highway
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Jacksonville, FL 32256

Customer ID: SHAE77
 Customer PO:
 Received: 10/12/09 11:00 AM
 EMSL Order: 010905184

Fax: (904) 636-9356 Phone: (904) 636-9360

EMSL Proj: 122177.01 Bridge 100333

Test Report

Client Sample Description 100333-TCLP-02 *Collected:* 10/7/2009 *Lab ID:* 0008
 beige paint on concrete/stucco

<i>Method</i>	<i>Parameter</i>	<i>Concentration</i>	<i>Reporting Limit Units</i>	<i>Analysis Date</i>	<i>Analyst</i>
TCLP 1311/6010B	Lead	<0.10	0.10 mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Selenium	<0.20	0.20 mg/L	10/15/2009	rferrer
TCLP 1311/6010B	Silver	<0.10	0.10 mg/L	10/15/2009	rferrer
TCLP 1311/7470A	Mercury	<0.0020	0.0020 mg/L	10/16/2009	ltrout

Client Sample Description 100333-TCLP-03 *Collected:* 10/7/2009 *Lab ID:* 0009
 gray paint on concrete/stucco

<i>Method</i>	<i>Parameter</i>	<i>Concentration</i>	<i>Reporting Limit Units</i>	<i>Analysis Date</i>	<i>Analyst</i>
TCLP 1311/6010B	Arsenic	<0.080	0.080 mg/L	10/16/2009	iacevedo
TCLP 1311/6010B	Barium	<1.0	1.0 mg/L	10/16/2009	iacevedo
TCLP 1311/6010B	Cadmium	<0.040	0.040 mg/L	10/16/2009	iacevedo
TCLP 1311/6010B	Chromium	<0.10	0.10 mg/L	10/16/2009	iacevedo
TCLP 1311/6010B	Lead	<0.10	0.10 mg/L	10/16/2009	iacevedo
TCLP 1311/6010B	Selenium	<0.20	0.20 mg/L	10/16/2009	iacevedo
TCLP 1311/6010B	Silver	<0.10	0.10 mg/L	10/16/2009	iacevedo
TCLP 1311/7470A	Mercury	<0.0020	0.0020 mg/L	10/16/2009	ltrout

Samples analyzed by EMSL Analytical, Inc. Westmont 3 Cooper St., Westmont NJ



107 Haddon Avenue, Westmont, New Jersey 08108

1-800-220-3675

http://www.emsl.com

010905184

EMSL ANALYTICAL, Inc.

CHAIN OF CUSTODY

EMSL Rep:

Third Party Billing requires written authorization from third party

Your Name: _____
 Company: Shaw Environmental
 Street: 9143 Philips Hwy #900
 Box #: _____
 City/State: Jax, FL Zip: 32256

EMSL-Bill to: _____
 Street: SAME
 Box #: _____
 City/State: _____ Zip: _____

Phone Results to:
 Name: Bill Zuhler
 Telephone #: 904-362-6033
 Project Name/Number: 122177.01

Fax Results to:
 Name: _____
 Fax #: _____
 Purchase Order #: _____

Bridge 100333

TURNAROUND TIME

3 Hours 6 Hours 12 Hours 24 Hours 48 Hours 72 Hours 4 Days 5 Days 6-10 Days

SAMPLE MATRIX

Air Bulk Soil Wipe Micro-Vac Drinking Water Wastewater Chlps Other

ASBESTOS ANALYSIS

- PCM - Air**
 NIOSH 7400 (A) Issue 2: August 1994
 OSHA w/TWA
TEM AIR
 AHERA 40 CFR, Part 763 Subpart E
 NIOSH 7402: Issue 2
 EPA Level II
PLM - Bulk
 EPA 600/R-93/116
 NY Stratified Point Count
 California Air Resource Board (CARB) 435
 NIOSH 9002
 PLM NOB (Gravimetric) NYS 198.1
 EPA Point Count (400 Points)
 EPA Point Count (1,000 Points)
 Standard Addition Point Count

SOILS

- EPA Protocol Qualitative
 EPA Protocol Quantitative
 EMSL MSD 9000 Method fibers/gram
 Superfund EPA 540-R097-028 (dust generation)

TEM BULK

- Drop Mount (Qualitative)
 Chatfield SOP-1988-02
 TEM NOB (Gravimetric) NY 198.4

TEM MICROVAC

- ASTM D 5755-95 (Quantitative)

TEM WIPE

- ASTM D-6486-99
 Qualitative

TEM WATER

- EPA 100.1
 EPA 100.2
 NYS 198.2

OTHER:

LEAD ANALYSIS

Flame Atomic Absorption

- Wipe, SW846-7420 ASTM non ASTM
 Soil, SW846-7420
 Air, NIOSH 7082
 Chips, SW846-7420 or AOAC 5.009 (974.02)
 Wastewater, SW 846-7420

TCLP-LEAD SW846-1311/7420 RCLA 8.

- Graphite Furnace Atomic Absorption BY TEL**
 Air, NIOSH 7105
 Wastewater, SW846-7421
 Soil, SW846-7421
 Drinking Water, EPA 239.2

ICP - Inductively Coupled Plasma

- Wipe, SW846-6010 ASTM non ASTM
 Soil, SW846-6010
 Air, NIOSH 7300

MATERIALS ANALYSIS

- Full Particle Identification
 Optical Particle Identification
 Dust Mites and Insect Fragments
 Particle Size & Distribution
 Product Comparison
 Paint Characterization 8 RCLA
 Failure Analysis metals by ICP also
 Corrosion Analysis
 Glove Box Containment Study
 Petrographic Examination of Concrete
 Portland Cement in Workplace Atmospheres (OSHA ID-143)
 Man Made Vitreous Fibers - MMVF's
 Synthetic Fiber Identification
 Other:

MICROBIAL ANALYSIS

Air Samples

- Mold & Fungi by Air O Cell
 Mold & Fungi by Agar Plate count & id
 Bacterial Count and Gram Stain
 Bacterial Count and Identification

Water Samples

- Total Coliforms, Fecal Coliforms
 Escherichia Coli, Fecal Streptococcus
 Legionella
 Salmonella
 Giardia and Cryptosporidium

Wipe and Bulk Samples

- Mold & Fungi - Direct Examination
 Mold & Fungi - (Culture follow up to direct examination if necessary)
 Mold & Fungi - Culture (Count & ID)
 Mold & Fungi - Culture (Count only)
 Bacterial Count & Gram Stain
 Bacterial Count & Identification (3 most prominent types)
 Other:

IAQ ANALYSIS

- Nuisance Dust (NIOSH 0500 & 0600)
 Airborne Dust (PM10, TSP)
 Silica Analysis by XRD Niosh 7500
 HVAC Efficiency
 Carbon Black
 Airborne Oil Mist
 Other:

Client Sample # (S)

TOTAL SAMPLE #

Relinquished: [Signature] Date: 10/18/09 Time: 1200
 Received: [Signature] Date: 10/12/09 Time: _____
 Relinquished: _____ Date: _____ Time: _____
 Received: _____ Date: _____ Time: _____

LEFT MESS. FOR TCLP WEIGHT
 10/12/09 - EZ

PER BILL, OK TO RUN
 AT REDUCED WEIGHT
 10/12/09 2:40pm -EZ



010905184

SAMPLE NUMBER	SAMPLE DESCRIPTION/LOCATION	VOLUME Air (L)	Area (Inches sq.)
1 100333 - RCRA - 1.1	gray on white paint on steel		
2 1.2	↓		
3 1.3			
4 1.4			
5 2.1		Beige on concrete /stucco	
6 3.1	gray on concrete /stucco		
7 100333 - TCLP - 01	Gray white paint on steel		
42g 8 02	Beige paint on concrete /stucco		
63g 9 03	gray paint on concrete /stucco		
128g			
<p>SAMPLE DATE 10/17/09 PER BAGS - E2</p>			

Relinquished: _____
 Received: _____
 Relinquished: _____
 Received: _____

[Signature]

Date: 10/9/09 Time: 1:30
 Date: 10/12/09 Time: _____
 Date: _____ Time: _____
 Date: _____ Time: _____

Appendix B
Photographic Log

BRIDGE 100333
PAINT COATING SAMPLING PHOTO LOG



PHOTO 1 – 10/07/09
BRIDGE 100333 – LEE ROY SELMON CROSSTOWN EXPRESSWAY EASTBOUND FROM EXIT 5 TO EXIT 9
TAMPA, HILLSBOROUGH COUNTY, FL

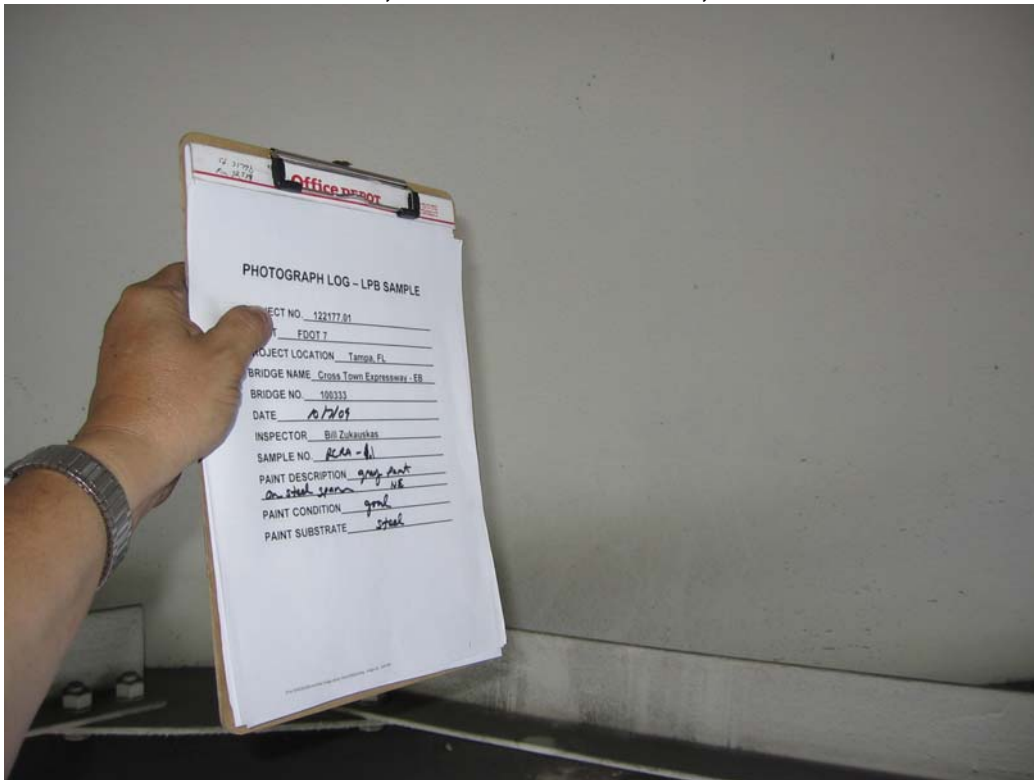


PHOTO 2 – 10/07/09 – SAMPLE RCRA 1.1
GRAY PAINT
ON METAL SPAN 35

BRIDGE 100333
PAINT COATING SAMPLING PHOTO LOG



PHOTO 3 – 10/07/09 – SAMPLE RCRA-1.2
GRAY PAINT
ON METAL SPAN 35

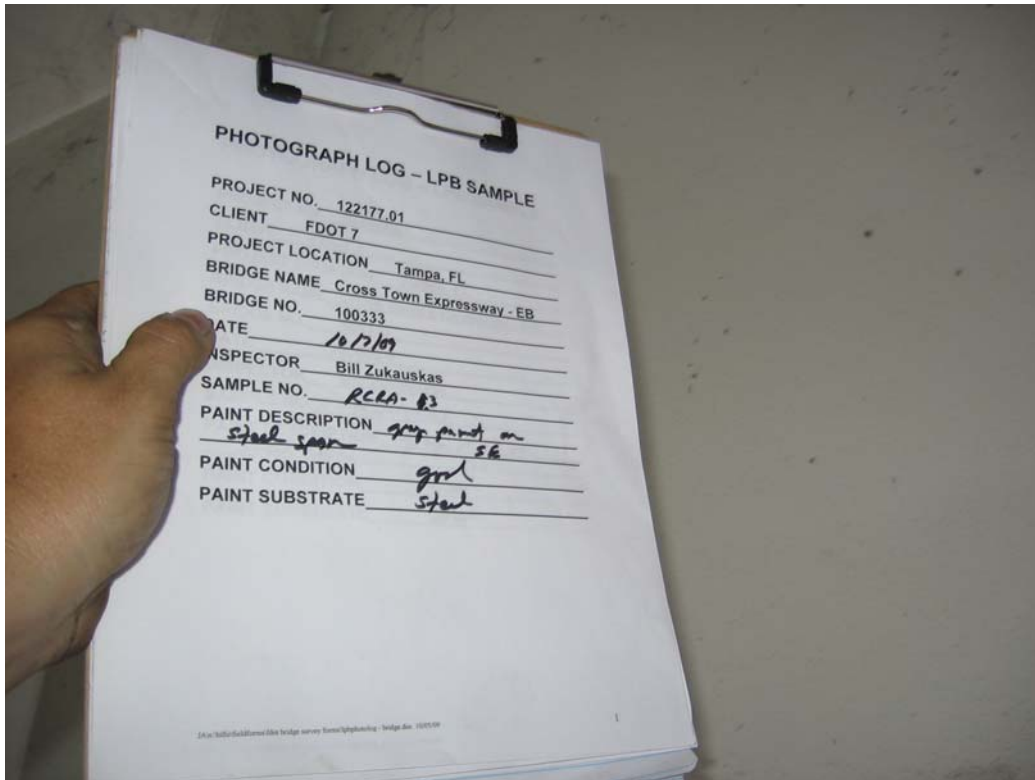


PHOTO 4 – 10/07/09 – SAMPLE RCRA 1.3
GRAY PAINT
ON METAL SPAN 35

BRIDGE 100333
PAINT COATING SAMPLING PHOTO LOG



PHOTO 5 – 10/07/09 – SAMPLE RCRA-1.4
GRAY PAINT
ON METAL SPAN 35

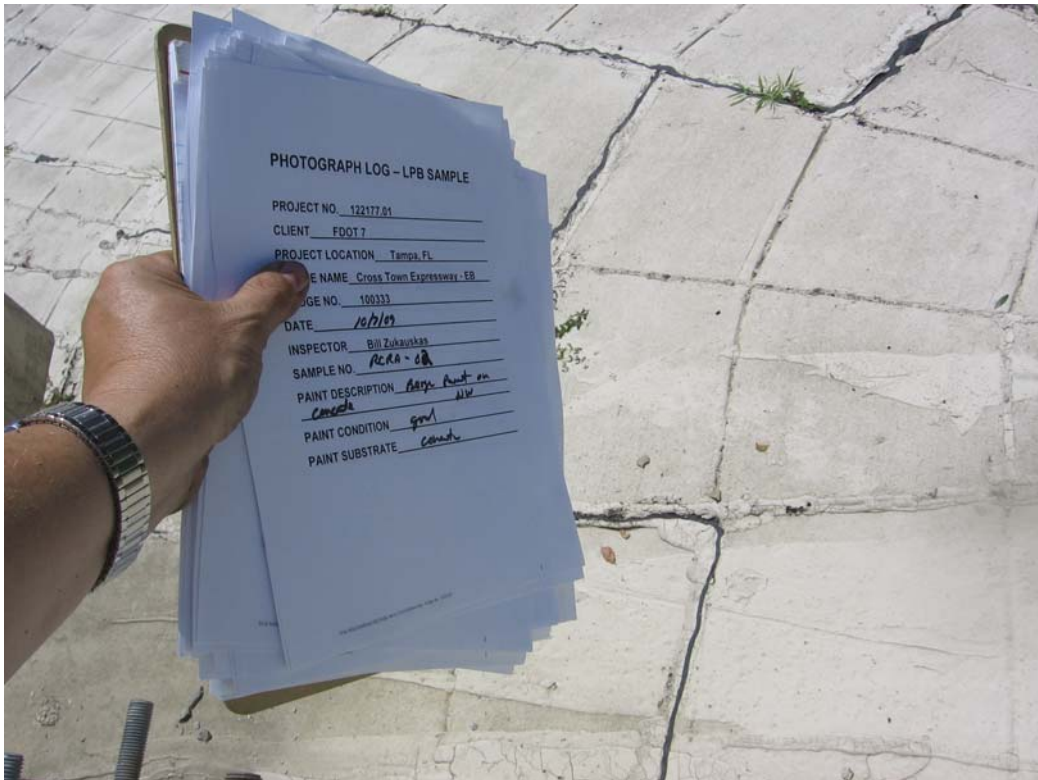


PHOTO 6 – 10/07/09 – SAMPLE RCRA-2.1
BEIGE PAINT
ON CONCRETE BEAMS AND ABUTMENTS

BRIDGE 100333
PAINT COATING SAMPLING PHOTO LOG

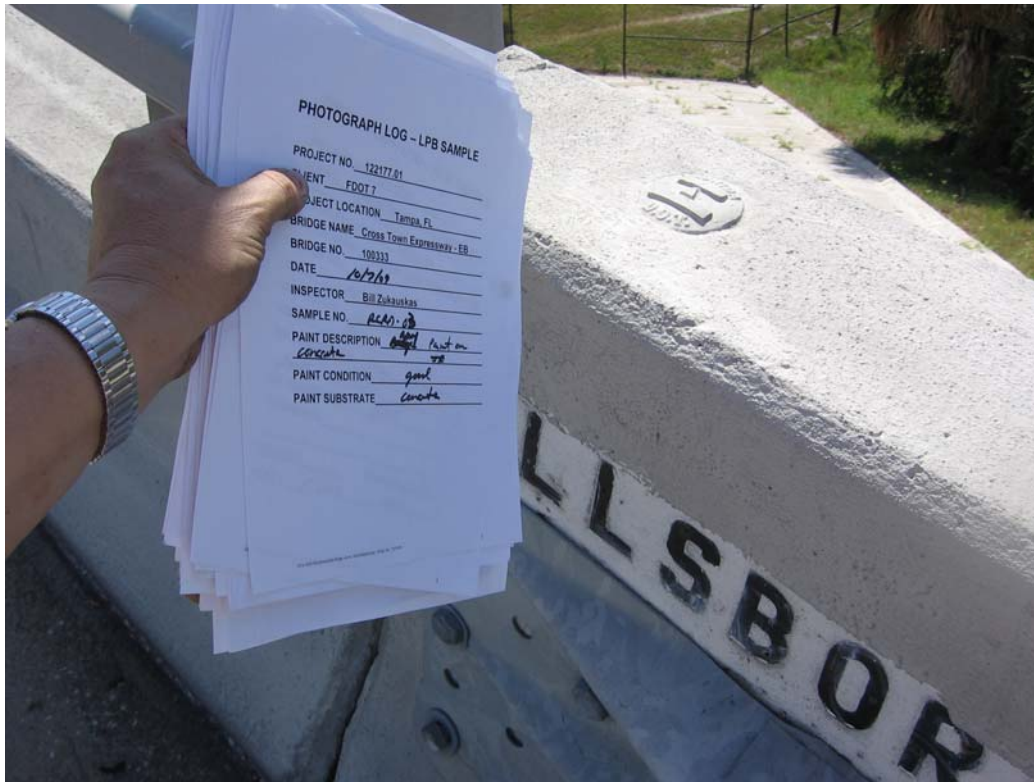


PHOTO 7 – 10/07/09 – SAMPLE RCRA-3.1
GRAY PAINT
ON STUCCO ON CONCRETE

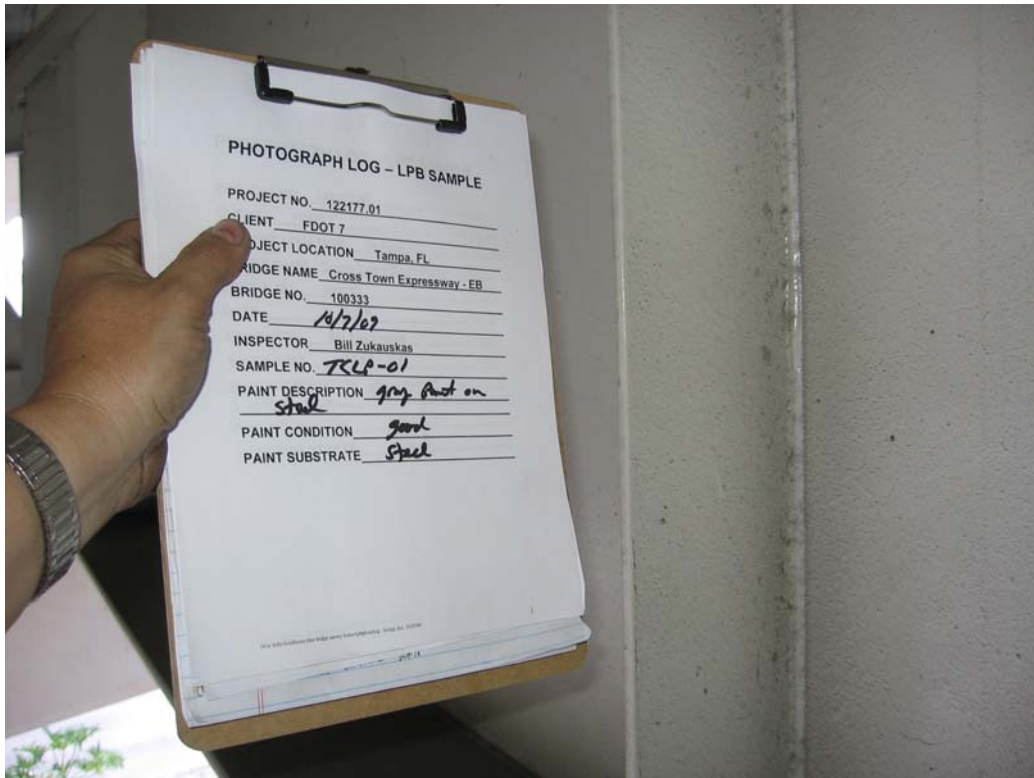


PHOTO 8 – 10/07/09 – SAMPLE TCLP-01
GRAY PAINT
ON METAL SPAN 35

BRIDGE 100333
PAINT COATING SAMPLING PHOTO LOG



PHOTO 9 – 10/07/09 – SAMPLE TCLP-02
BEIGE PAINT
ON CONCRETE



PHOTO 10 – 10/07/09 – SAMPLE TCLP-03
GRAY PAINT
ON STUCCO ON CONCRETE