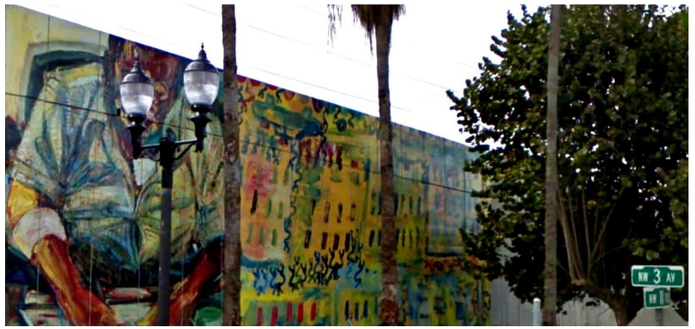
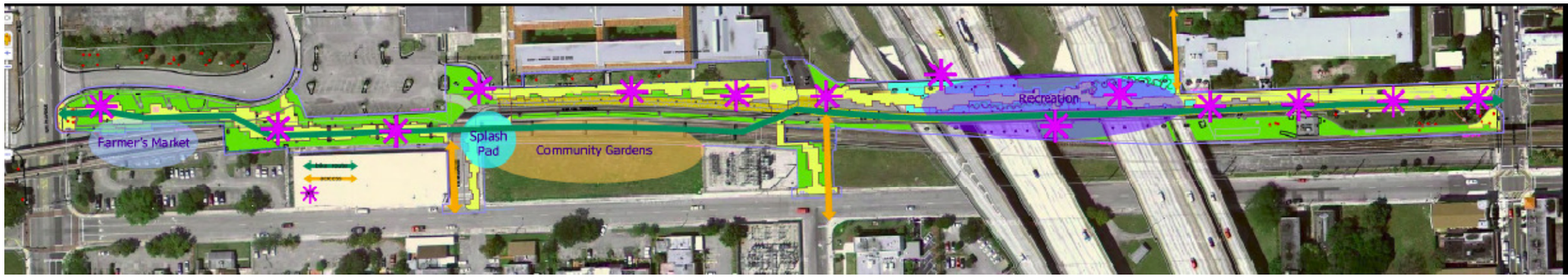
OVERTOWN GREENWAY:

11TH STREET TERRACE - NW 7TH AVENUE TO NW 3RD AVENUE





November 10, 2010

CITY OF MIAMI CAPITAL IMPROVEMENTS PROGRAM, MIAMI, FLORIDA

T·Y·LIN INTERNATIONAL

Review and analysis of existing Design Development Documents,
Value Engineering Analysis and Proposed Project Approach for Re-design

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INTRODUCTION

In 2002 the Trust for Public Land partnered with the City of Miami Overtown Community Redevelopment Agency (CRA) to study the feasibility of creating a Greenway through the heart of Overtown from the Miami River to Biscayne Bay. The Greenway proposal was a component of a Greenprint Plan for Overtown. Those studies, diagrams, and documents were presented to the public in 2002. Wallace Roberts and Todd (WRT), a consulting planning and design firm, was hired to develop a demonstration piece - *the 9th Street Mall*- and further develop Design Development Drawings and Preliminary Cost Estimates for implementation of the first segment of the Greenway on 11th Street Terrace. The 9th Street Mall was constructed and the Design Development Drawings for the 11th Street Terrace portion were completed in 2007. The construction cost estimate for the Design Development Drawings was priced at $4 million dollars. In 2007 there was no available funding for implementation and the project stalled.

Today, there is approximately $2 million dollars available for implementation from a combination of Local Agency Partnering (LAP) funds granted through the Florida Department of Transportation (FDOT) District 6 and local funding to be provided through the CRA. In order to secure the $1 million in LAP funds, the Construction Documents must be submitted to FDOT by December 2011.

Since the available funds are half of what construction costs were estimated in 2007, the first task was to re-evaluate the existing design in terms of cost and determine where cuts could be made to bring the project in line with the available budget. A new cost estimate was done using current pricing and includes items that were implicit, but not included in the original estimate. An analysis of the existing design and estimate were done to determine which items are most costly and cost/benefit criteria were used to determine which of these can be retained in the re-design process. Additionally, an examination of the 9th Street Mall Project provided valuable "Lessons Learned" to determine which elements present maintenance challenges to be avoided.

Overtown History

The Overtown community came into existence in the 1890's when Henry Flagler railroad workers were housed on land to the west of the railroad tracks that was designated as "Colored Town". Black residents were kept apart from white settlers with Jim Crow segregation laws. One of South Florida's oldest communities, Overtown had a robust entertainment district and its residents enjoyed a rich social and cultural life. Among its many establishments were the historic Lyric Theater and the Mary Elizabeth Hotel, which regularly hosted celebrity performances by those such as Josephine Baker, Ella Fitzgerald, Count Basie, Billy Holiday, Nat King Cole and Cab Calloway. The historic economy had over 100 black-owned businesses including the Miami Sun Newspaper, the Cola Nip Bottling Company, the Sir John Henry Hotel and numerous eateries. Greater Bethel A. M. E. Church is one of the oldest churches in South Florida, and has included some of the area's most prominent African-American citizens among its congregation.

Overtown Today

While remnants of historic Overtown still survive, its glory days are long past. The construction of I-95 divided the community and displaced many local businesses. Memories of a vibrant community with a lively social and cultural life are tarnished by numerous social and economic challenges. Although the area has benefited from the City's efforts to provide affordable housing and lower crime rates; contemporary Overtown is still suffering from high crime rates and economic depression. Its population of 11,266 has a median income of just $14,367 per year. Nevertheless, there are numerous active community groups, business and leaders who are interested in preserving the history and reviving the community.

PROJECT APPROACH

As the first segment of the Greenway to be implemented, this project will set the template for future phases. It is vital to identify the factors critical for successful planning, implementation, operations and maintenance. These factors will guide the re-design process. This section provides an outline for programming the Greenway to include environmental, sociological and economic considerations. This inclusive approach to design is known as Context Sensitive Solutions.

Context Sensitive Solutions (CSS) use community involvement to guide the design process so that the design responds effectively to the needs of the community it serves. Alignment of the Greenway design with community needs will be critical to ensure a vibrant setting for social interaction that activates the space and determines its success.

Design Goals: Factors for Success

- **Provide a Design Within the Given Budget**
- **Provide a Safe Place for People to Gather**
- **Provide Activities that match needs to encourage use by Constituents**
- **Provide CSS That Respond to Historical, Cultural, Social and Economic Conditions**
- **Provide Opportunities for Community Involvement and Improvement**
- **Provide Opportunities for Economic Re-Development**
- **Provide Opportunities to Improve Health, Safety, and Wellbeing of Residents**
- **Provide Durable, Low Maintenance Components that will withstand use over time and the South Florida Climate**

Objectives: Steps to Achieve Goals

Community Improvement and Redevelopment: The primary objective

The primary objective of the design is to transform the space from its current state as an urban wasteland into a place that is filled with people engaged in safe, healthy and positive activities. In order to achieve these results, the programming must draw out local residents and businesses and draw in outsiders to populate a space that is secure and offers sufficient activities to make it a viable destination.

- Increase safety and security
- Increase Pedestrian, Bike, Transit activity
- Increase opportunities for positive social interaction
- Increase opportunities for education/culture

Safety: Address Safety as an integral part of design

The design solution must address safety concerns on a number of levels, including governmental commitment, community involvement/support and the incorporation of safety features into the design program. Each of the possible features listed below requires an effort of coordination and commitment from multiple agencies. For example, if a playground is to be part of the final program, City and/or County Parks Departments must be brought in during the design phases to determine their level of interest and support for these items. The agencies will then determine the final size of the space to be allocated, the budget, and specify play equipment. Can we include a small structure in the program to house staff and store equipment, such as basketballs, jump ropes, sidewalk chalk, chess/checkers sets, and the like? Can we get a commitment to use the space for after-school activities and supervised play? If so, commitments and agreements for maintenance and staffing must be reached.

- Control Access with appropriate fencing and gating; coordinate fence location and hours with community
- Involve local Police Department with scheduled on-site security during hours of operation and off-hour patrols
- Involve Parks Department in coordinating children's play and other recreational activities
- Involve local groups with established, active memberships to use space for community events
- Consider the Circulation needs of Pedestrian, Bike, Transit, Vehicular, Maintenance and Safety Patrols

Multi-Generational Program: maximize use of space by programming activities for all ages and times.

The design solution must program activities to generate use of the space. The more activity is generated, the more successful the design will be. So, during a week-day morning, potential users might include any of the following: a high-school class using an open-air class room, an elementary class involved in a hands-on-lesson in the Community Garden, an exercise class conducted by Parks for older people. An afternoon could include an after-school program of supervised play for school children, or a spontaneous "pick-up" game of basket-ball for high school kids. Evening activities may include a group of musicians meeting for a weekly jam session, or Church activities. Weekends might see a transformation, allowing reservation of pre-marked stalls for use during designated hours for an impromptu "market" where people can come to buy fresh fruit and veggies, or sell used house-hold items. Kiosks may be allowed by permit to sell food and other services, providing the potential for economic development and a vibrant exchange of goods and services. A splash pad and dog park would provide a lively destination for families.

- **YOUTH ACTIVITIES: Provide out-door class spaces to provide opportunities for children from the adjacent schools to utilize the space and support education. Provide afterschool activities and supervised play to encourage physical activity- playground, basketball, jump rope, play field, and Exploratorium.**
- **ADULT ACTIVITIES: Provide a range of adult oriented activities including Music, Food, Garden, "Swap Market", and Educational events**
- **ELDERLY ACTIVITIES: Provide a safe gathering space for social activities, such as chess/checkers, and a safe route for strolling**
- **FAMILY ACTIVITIES: Provide family-friendly activities including playground, dog park, splash pad to create an exciting destination where all are comfortable**
- **COMMUNITY ACTIVITIES: Involve local groups with established, active memberships to use create appropriate programming**

Economic Development

The Design should Program in opportunities for exchange of goods and services to support and encourage small business enterprises. These might include designated spaces that can be reserved for a minimal fee for regularly scheduled "Flea Market Days," "Farmer's Market Days," or Festival Days, in addition to allowing long-term use permits for kiosk concessions – such as those found at Bayside and similar locales- for food vendors, sales of hand-made arts and crafts, or services, such as hair braiding. Performing artists should also be encouraged; a permit process can be used to control the types of activities allowed and to monitor safety of those activities for both participants and on-lookers. The goal is to create a "Malory Square" atmosphere in the space- one where both residents and outsiders come to expect a lively ritual that takes place on a regular basis.

- **Provide a space that has marked stalls for rent that can be used for a weekly Farmers Market/Flea Market, etc.**
- **Provide Food Kiosks for sale of food, focusing on Healthy alternatives - Baked Goods, BBQ, Soul Food, Ice Cream, Ice Pops, Yogurt, Frozen Fruit**
- **Provide Small Kiosks for sale of merchandise, such as Hand Crafts and services, such as hair braiding to support local artisans**
- **Encourage street musicians and local performers**

Health and Wellbeing

One of the serious concerns within Overtown, as in all economically depressed urban areas of our country, the resident population suffers from a number of unique health challenges. This is a complicated issue with many contributing factors, a few of which can be addressed through programming and design. This project can support and encourage healthy life-style choices by providing a place and programs for healthy physical activity and exercise, and by providing a place to buy or grow fruits and vegetables and learn about a healthy diet. Both of these issues are supported by National Programs, some with grant funds available. For exercise, there are the "Let's Move" Campaign headed by First-Lady Michelle Obama (http://www.letsmove.gov) and the "No Child Left Inside" initiative (http://www.cbf.org). There are a number of local groups already active in the area that might be drawn into the mix to develop and support the healthy diet elements of the program: Roots in the City, created and lead by Marvin Dunn, is already an active program in Overtown; his support and involvement in this effort will be vital if this project is to incorporate a Community Garden component. Additionally, there is an Overtown Market (contact is Maggie Pons) and there is the Miami-Dade Urban Oasis Project (http://www.urbanoasisproject.org).

EXERCISE

- Provide Opportunities For Exercise Activities
- Provide Playground For Children, By Age Tots/Kids
- Provide Water Play/Splash Pad
- Provide Multi-Purpose Play Field (HUD Property)
- Provide Walking, Biking, Skateboard, Freestyle Bikes, Jump Rope, Hop Scotch, Basketball ½ Courts

DIET:

- Provide Nutritional Education Component Though Community Gardens
- Support Urban Agriculture - Provide Community Garden Plots For Growing Fruits And Veggies
- Famers Market: Increase Opportunities For Access To Healthy Local Food
- Food Vendors- Outlet For Healthy Food Alternatives
- Provide Classes/Demos "How To" At Home

Historical and Cultural Elements: a Context Sensitive Solution for the Overtown Greenway will incorporate both Historical and Cultural elements within the Design

These elements add layers of richness and may help to re-create the distinctive "Sense of Place" which historical Overtown had in abundance. Marvin Dunn has been the Historical Consultant since the beginning of the project; his continued involvement will be beneficial on many levels. In addition, public meetings will elicit community input to ensure that the elements used are appropriate and valuable to the community.

Possible elements might include: Imagery of noteworthy people, places and events within the community, references to Overtown's historic Jazz Scene, musical elements and thematic components. Contemporary culture may be reflected by incorporating art work by local school children, commissioning art work by Purvis Young, or having a "Call to Artists" through Art in Public Places for pieces to be incorporated within the design. If additional funding can be found for cultural elements, through Miami-Dade Art in Public Places, one of our local Universities, the Knight Foundation or another Cultural Foundation, there may be possibilities of incorporating regularly the performing arts.

VISUAL ARTS:

- Involve Art In Public Places: Call to Artists or Commissioned Work by Local Artists for Site-Specific Pieces
- Honor Historical Overtown by Incorporating Portraits of Historical Figures into Pavement, Seating, Fencing Elements.
- Commemorate Contemporary Overtown by Incorporating Work by Local Artists in Design
- Celebrate Overtown's Future by Incorporating Work by Local Youth in Design

MUSICAL ELEMENTS:

- Musical elements into design to reference Overtown's Jazz history
- Incorporate Provide Dance Steps In Paving
- Incorporate Musical Scores into Fencing/Paving
- Incorporate Interactive Musical Pieces, Artworks, Toys Or Other Musical Elements
- Incorporate Jazz History Trail To Describe Overtown Jazz Culture And Participants
- Accommodate Special Events -Jazz Fest or Monthly Concerts by Overtown Music Project, or by Students (FIU or UM)

Sustainability

The issue of Sustainability has become an important element since the inception of this design. Sustainable design includes elements in the design, construction and operation of the Greenway. A partial list of considerations is as follows:

INFRASTRUCTURE:

- **Limit the amount of site disturbance**
- **Use local materials, recycle demolition materials, use recycled products**
- **Improve water quality via the storm drainage system**

HARDSCAPE

- **Consider embodied energy in materials, processes and operation**
- **Select materials that are durable/ Low maintenance Vandal/Graffiti resistant**
- **Investigate more efficient lamps for light fixtures**
- **Consider life cycle costs**

LANDSCAPE

- **Provide Shade to reduce urban heat island**
- **Increase the number of trees planted to take advantage of the environmental services they provide.**
- **Use plants adaptive to the site**
- **Add organic materials to soils to reduce water consumption for irrigation**

PHOTO INVENTORY

This section documents the existing conditions with photographs. Exhibit 1 shows the project limits. Photographs are keyed to an enlarged aerial image of the site in Exhibits 2-6. Larger photos with captions follow in Exhibits 2-6.

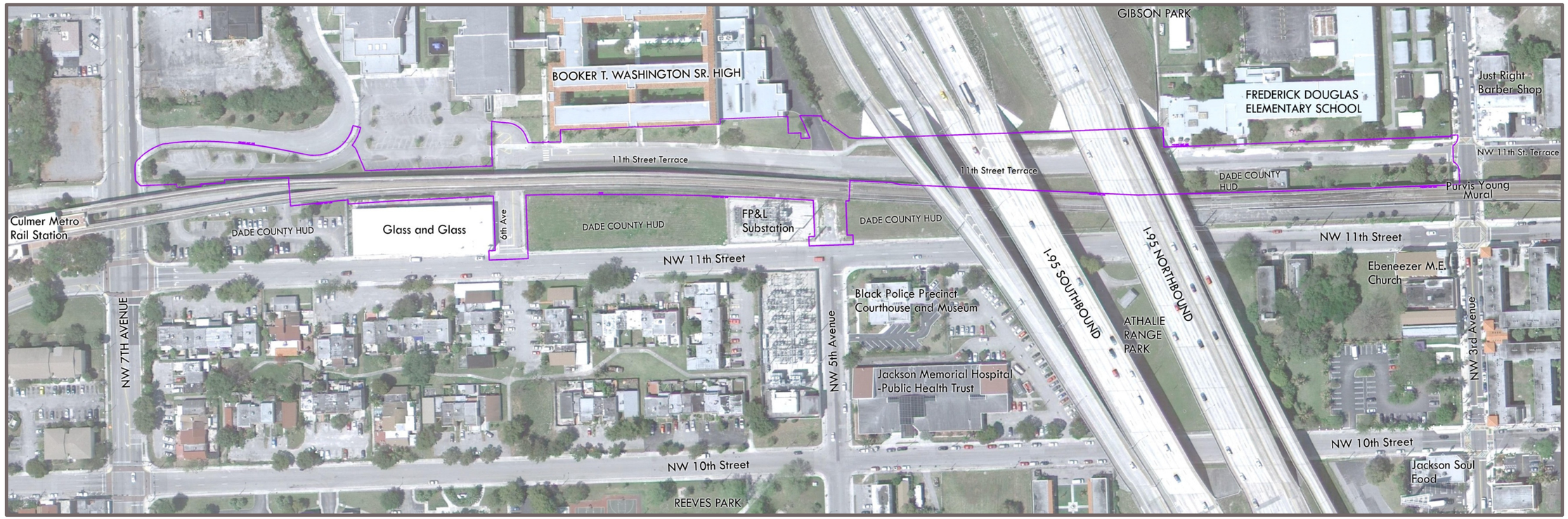


EXHIBIT 1-AERIAL PHOTO OF AREA WITH PROJECT LIMITS OUTLINED IN PURPLE

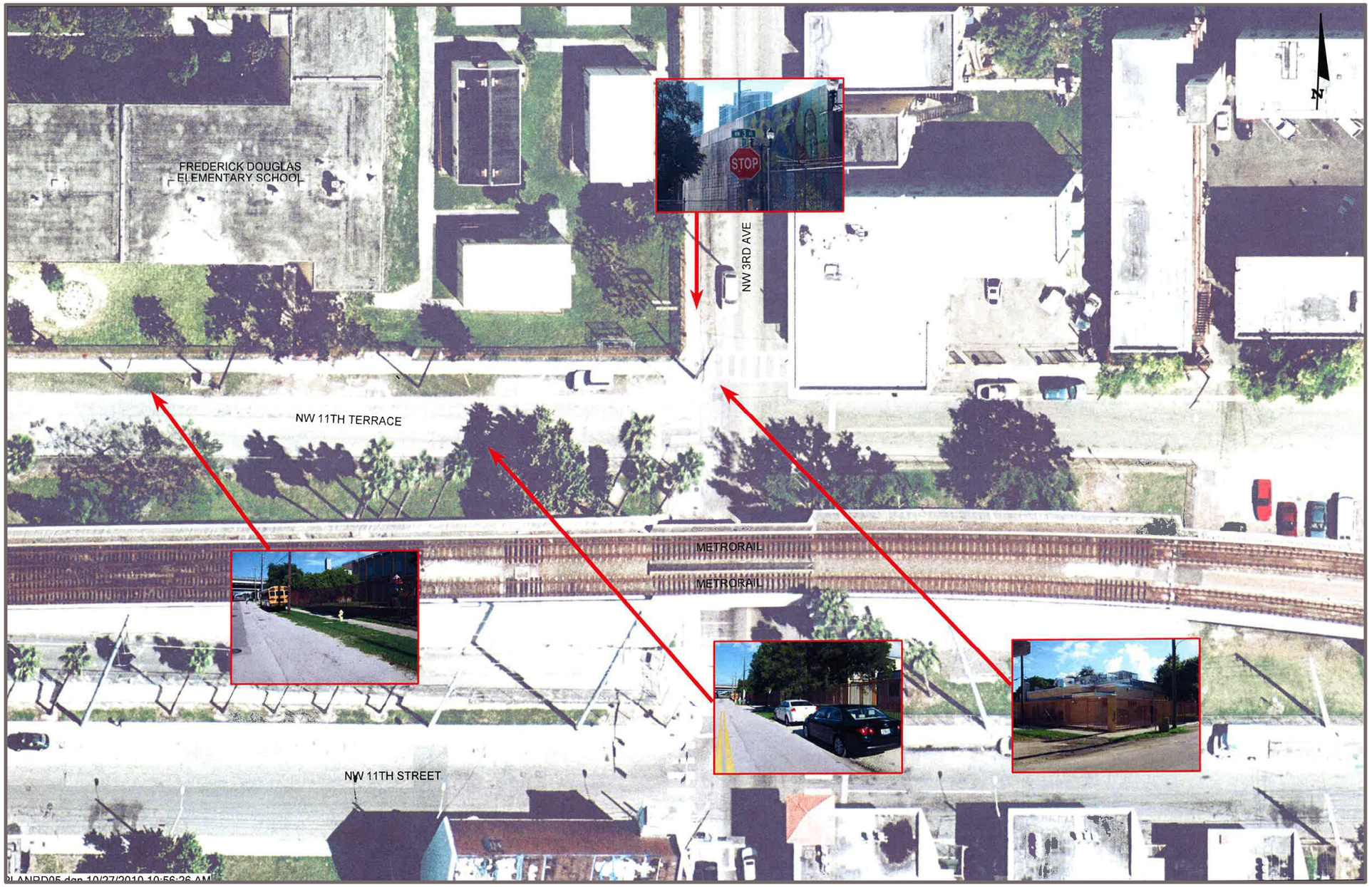


EXHIBIT 2: AERIAL PHOTO WITH SITE PHOTO LOCATIONS-3RD AVE

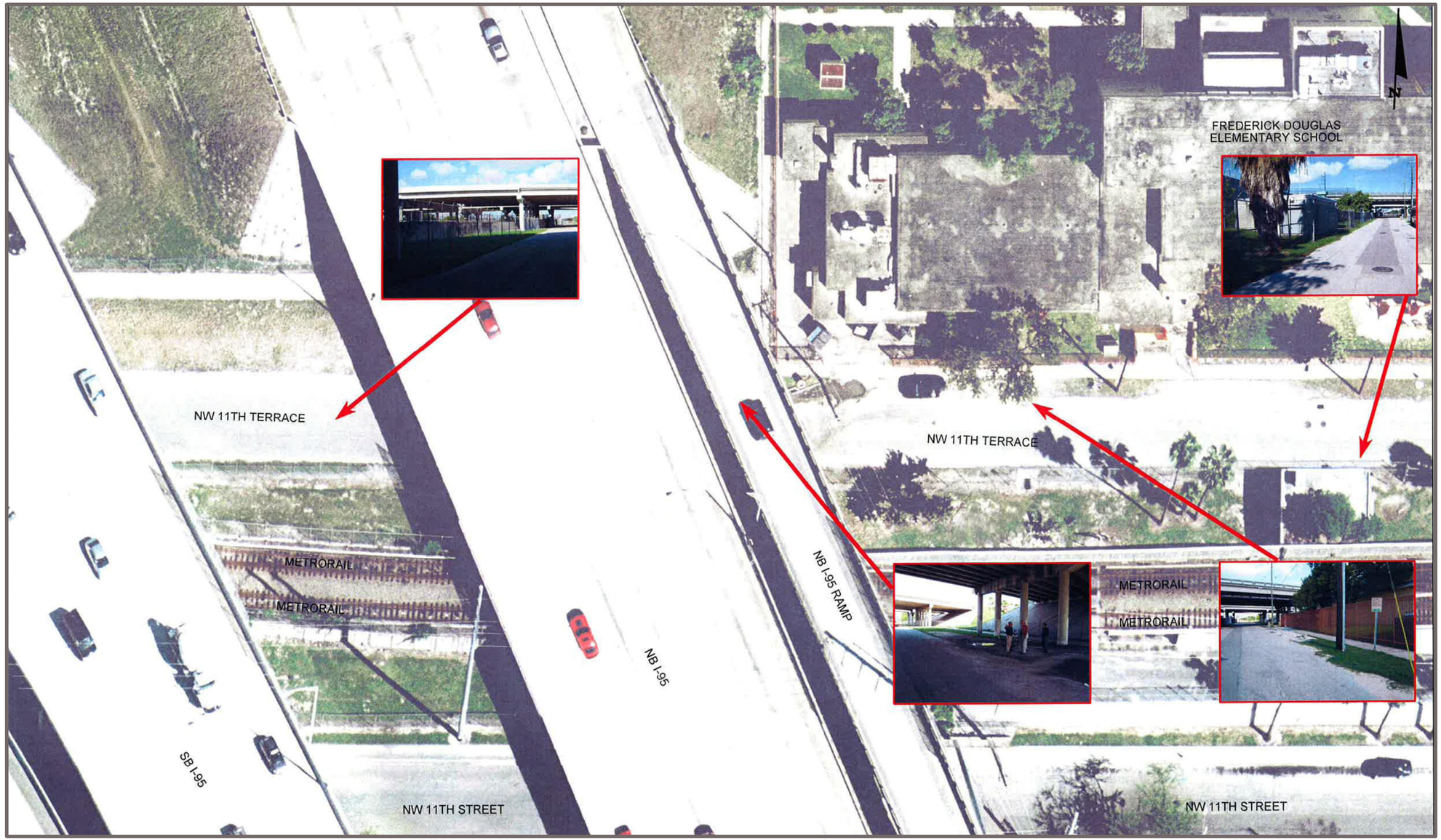


EXHIBIT 3: AERIAL PHOTO WITH SITE PHOTO LOCATIONS-1-95

EXHIBIT 4: AERIAL PHOTO WITH SITE PHOTO LOCATIONS-5TH AVE.

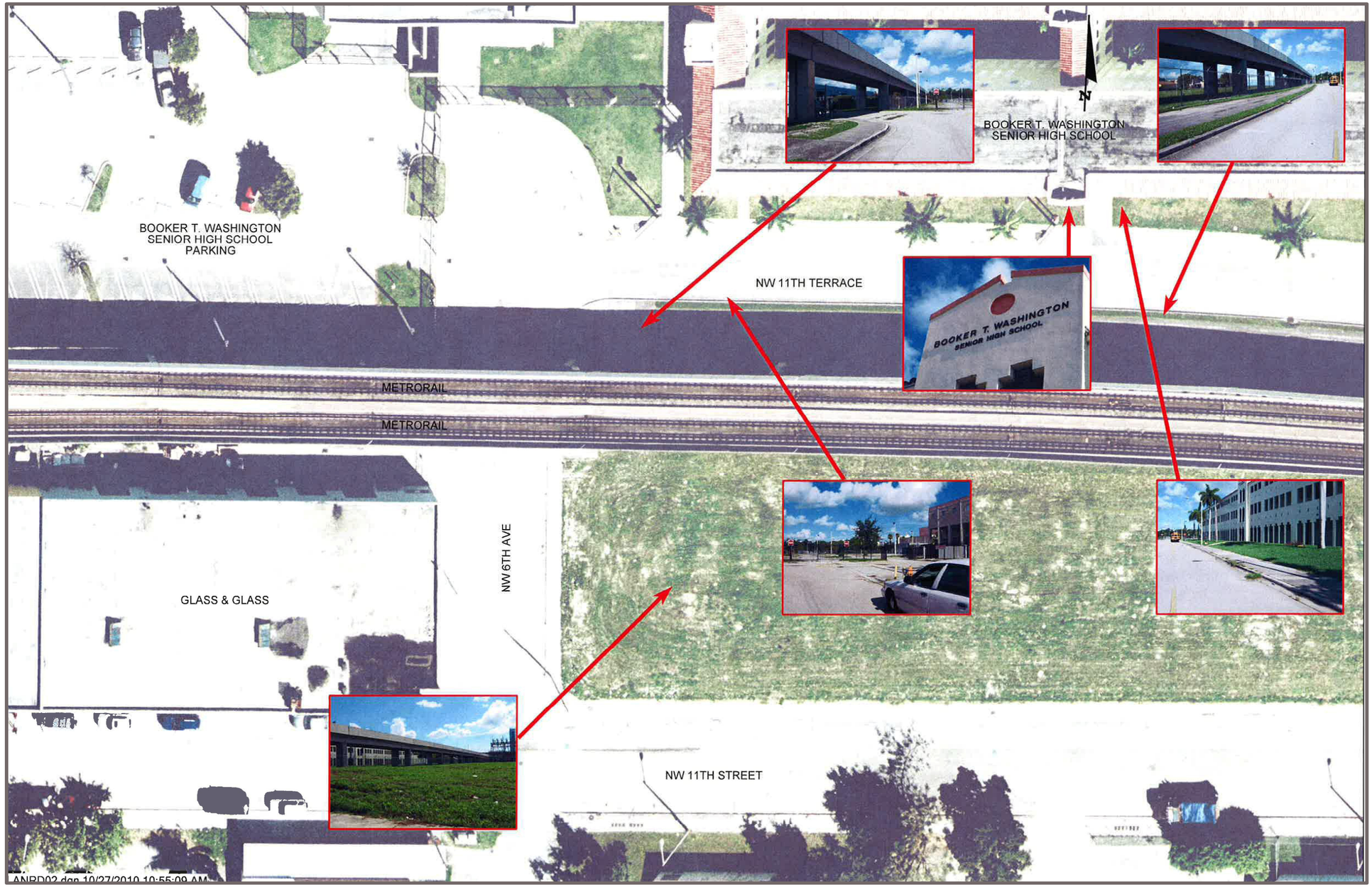


EXHIBIT 5: AERIAL PHOTO WITH SITE PHOTO LOCATIONS-6TH AVE.

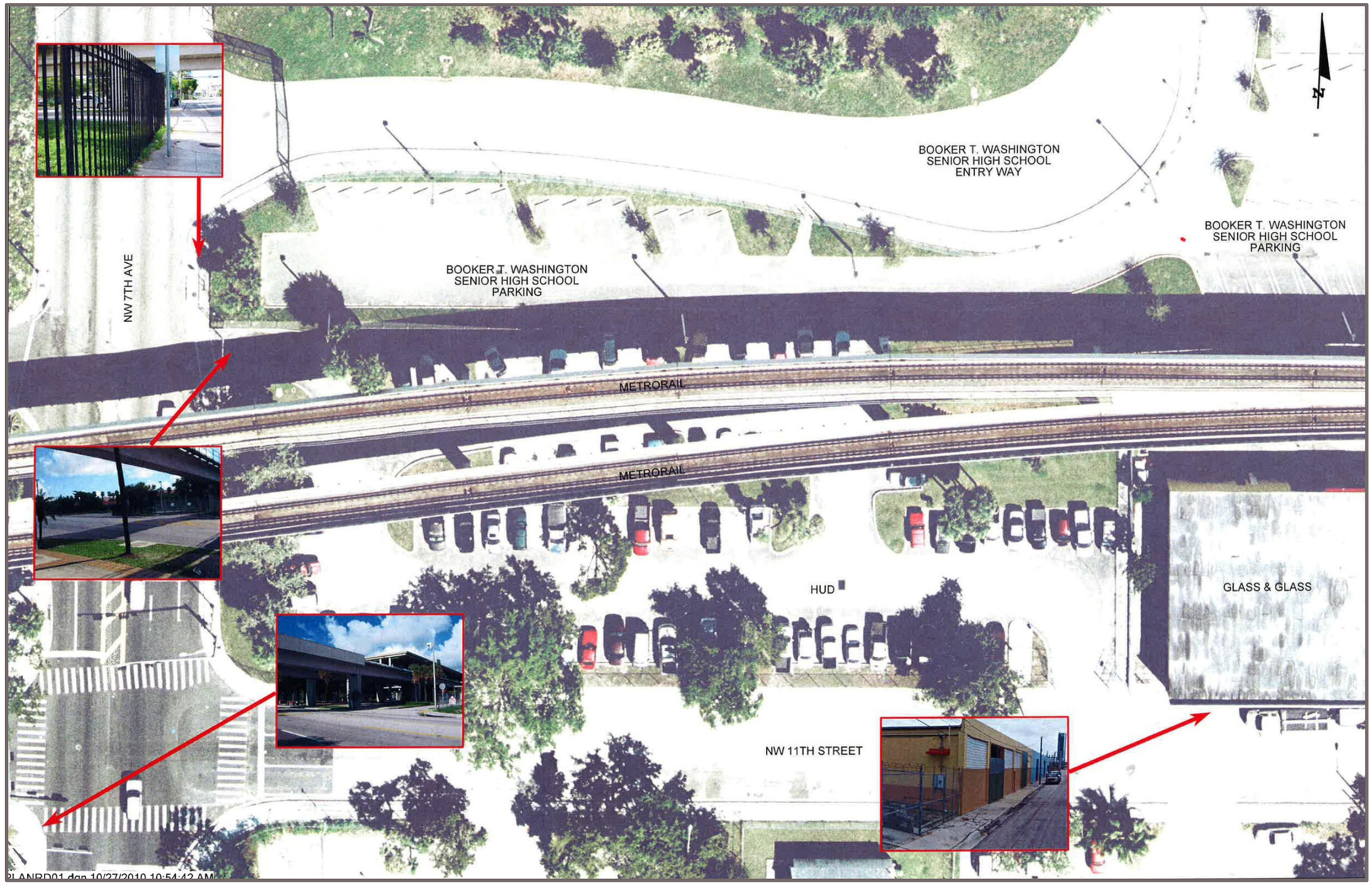


EXHIBIT 6: AERIAL PHOTO WITH SITE PHOTO LOCATIONS-7TH AVE

PURVIS YOUNG MURAL AT NW 3RD AVE./ NW 11TH PL.

FREDRICK DOUGLASS ELEMENTARY

SERVICE FOR FREDRICK DOUGLASS ELEMENTARY

FREDERICK DOUGLASS ELEMENTARY

SMALL FPL BUILDING

NORTHBOUND 195 UNDERPASS

VIEW WEST TO SMALL FPL BUILDING AND METRORAIL

VIEW WEST TO TOWARDS I95 NORTHBOUND

VIEW WEST TOWARDS 195 NORTHBOUND

VIEW TO THE N.W. 5TH STREET PEDESTRIAN PASSAGE

SOUTH FACADE OF BOOKER T. WASHINGTON HIGH SCHOOL

METRORAIL ELEVATED RAILS

VIEW TO THE WEST BELOW I-95

AREA PROPOSED FOR BOOKER T. WASHINGTON GARDENS

TEACHER PARKING ENTRY FOR BOOKER T. WASHINGTON

SERVICE ENTRY FOR BOOKER T. WASHINGTON HIGH SCHOOL

BOOKER T. WASHINGTON HIGH SCHOOL

N.W. 6TH AVE. INTERSECTION WITH N.W. 11TH PLACE

VIEW TO HUD EMPTY LOT AT N.W. 6TH AVE.

VIEW TO HUD EMPTY LOT AT N.W. 6TH AVE.

VIEW SOUTH AT PROJECT START AT 7TH AVE.

VIEW TO HUD EMPTY LOT AT N.W. 6TH AVE.

VIEW INTO HUD PARKING LOT AT N.W. 7TH AVE.

VIEW OF 'ROOTS IN CITY' COMMUNITY GARDEN

VIEW FROM H.S. ENTRY ROAD INTO SITE

VIEW FROM CULMER METRORAIL STATION TO SITE

VIEW OF 'ROOTS IN CITY' COMMUNITY GARDEN

INVENTORY

Project team members and City staff visited the site, made observations and discussed the project program elements and current design. This section documents those observations and the subsequent analysis. Included are descriptions of site character, physical features, circulation and security issues. Refer to Exhibit 25.2a for this section.

Site Character

The site generally has a utilitarian appearance. The parking lot at the west end of the site is in poor condition and appears abandoned. The portion of the site within the I-95 ROW has the lowest level of maintenance. The south side of the site is dominated by the Metrorail Guideway which runs overhead: Metrorail runs along raised columns for about half the site while the other half runs on an elevated retaining wall. Chain link fencing is used the length of Metrorail. The north side of the site is fronted by the Booker T. Washington High School and Frederick Douglass Elementary School. The High School facade is sparse but attractive and the Elementary School is obscured behind mature shade trees and a heavy metal fence. Other landscape includes two shade trees and four palm trees along the High School frontage and a few shrubs along the fence at Third Avenue. The I-95 ROW has no plant material. Grass, where it exists, is mown and in reasonable condition. Due to there being few trees, there is little shade. Shade is offered primarily below the Metrorail Guideway (mostly fenced off) and I-95. Narrow concrete sidewalks are in moderate condition in front of the schools. Sidewalks in the 1-95 ROW are dilapidated. Paving below I-95 has no curb and gutter and is poorly defined. East to Third Avenue the road has only grass shoulders; the remainder of 11th street has curb and gutter. Roadway lighting is provided on the north side of the street. The school frontages are lit with pole mounted area lights. Overhead utility wires are located on the north side of 11th Street Terrace between I-95 and Third Avenue.

Circulation

Most of the site is fenced or contained by the Metrorail embankment and façade of the High School. Access therefore is from ROW of 11th Street Terrace at Third Avenue, 6th Ave., and the Booker T. Washington High School service drive that connects from a parking lot on the north side of the school to 11th Street Terrace at the FP&L substation at 5th Avenue. 5th Avenue was apparently closed at 11th with the construction of Metrorail due to the limited clearance of this bridge portion. A pedestrian link below this bridge portion skirts the FP&L site and connects to 5th and 11th Streets. The clearance issue forces the link to be offset from 5th Avenue alignment. 5th Avenue connects to Reeves Park one block south of the site and to Lummus Park eight blocks south via 4th St. and River Drive. The parking lot at the east end of the site is fenced off and is accessed from the main parking lot in front of the school. This lot has vehicular and pedestrian gates onto 11th Street Terrace. The school frontages have pedestrian gates at various locations. A pedestrian linkage to Gibson Park between Frederick Douglas Elementary School and the I-95 ROW is narrow and uninviting with a utility pole and guy wires obstructing the entry. The schools' heavy metal fence and I-95 retaining wall create the narrow condition.

Security

Factors contributing to security concerns include a lack of circulation, connectivity and the presence of homeless persons. Debris below I-95 evidences illicit activity. The schools do not have a constant population and while unoccupied their long uninterrupted building elevations combine with the Metrorail and I-95 embankments to limit visibility. Fencing allows visibility but blocks an escape route. No lighting is provided below I-95. This area of the project is a dangerous no man's land due lack of access created by the design of the Metrorail and I-95 embankments.

Existing Landscape

In general, there is very little tree canopy on the site. In the eastern part near NW 3rd Avenue, there are some scattered Washington Palms, and a couple specimen trees. These include a large Seagrape and a very large Royal Poinciana. At the east end of the High School, there is a very large and beautiful Gumbo Limbo tree. All of these healthy specimen trees could be saved or relocated on the site. Finally, in the west parking lot, there are some Live Oaks in very poor condition that should be replaced along with some Sabal Palms in good condition that could be relocated.

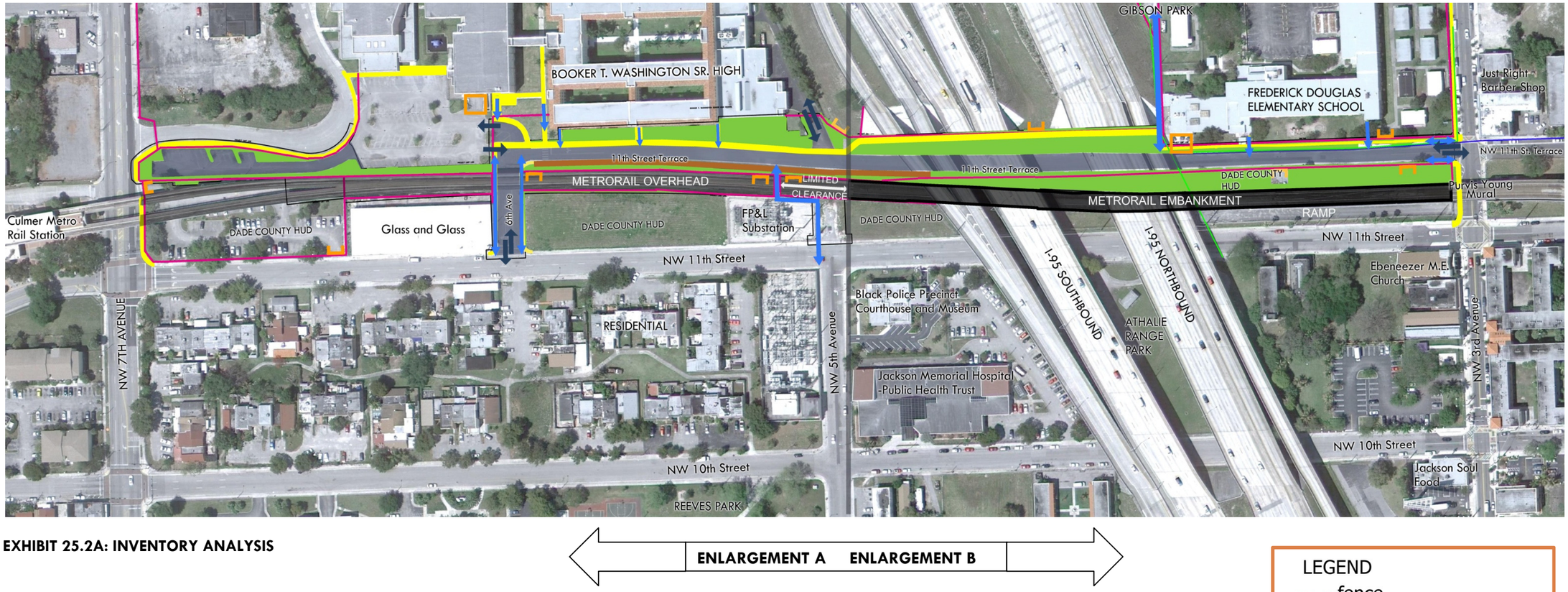


EXHIBIT 25.2A: INVENTORY ANALYSIS

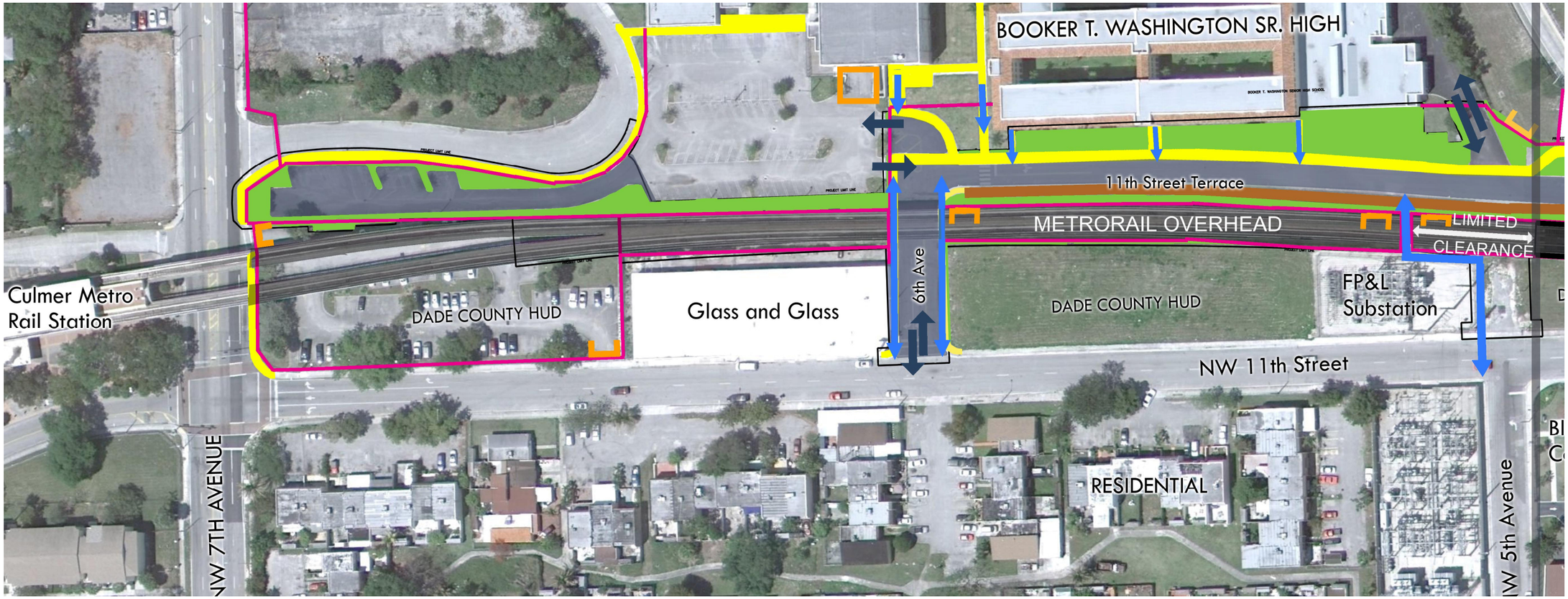


EXHIBIT 25.2A: INVENTORY ANALYSIS ENLARGEMENT A

LEGEND
- fence
- gate
- service area
- walk
- exposed abandoned rails
- existing drive
- pedestrian access
- vehicular access

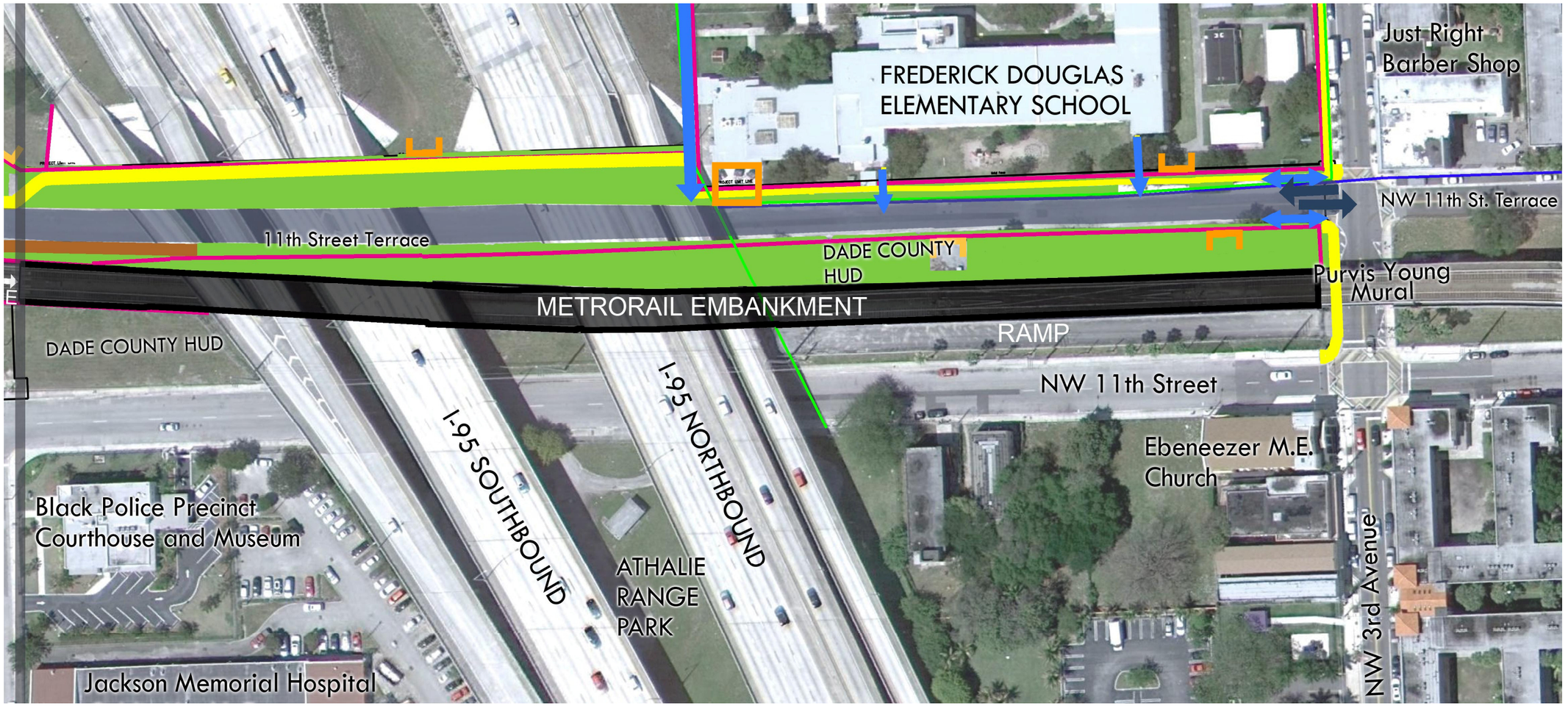


EXHIBIT-25.2A: INVENTORY ANALYSIS ENLARGEMENT B

LEGEND
- fence
- gate
- service area
- walk
- exposed abandoned rails
- existing drive
- pedestrian access
- vehicular access

DESIGN ANALYSIS

The Project Team met with the City to understand the project goals, issues funding levels and mechanisms. The Trust for Public Land (TPL) Overtown Greenprint Plan was used by the Team for contextual background information. The Team reviewed the design development documents for the proposed design with this context and offers insights described in this section. One of the primary objectives of this review is to bring the design within a new proposed budget that is roughly half of the original cost. Refer to Exhibit 25.2b for this section.

Design Character

The proposed design is an outgrowth of the TPL Overtown Greenprint Plan and draws elements from the 9th Street Pedestrian Mall. The design is governed by a grid with a circulation pattern that navigates numerous pavement jogs. This differs from designs in the Greenprint Plan that had walks with flowing curved lines. A significant quantity of intricate paving design and custom site furnishings and amenities are included in the spirit of the 9th Street Pedestrian Mall.

Circulation

Existing pedestrian and vehicular access is maintained by the proposed design. New pedestrian access is provided by the park portion that replaces the eastern portion of the Booker T. Washington High School parking lot. Following are comments on circulation in specific areas.

7th Avenue

This project should include addressing the crosswalk to Metrorail. A crosswalk should be provided directly across the street to the Culmer Rail Station. A painted crosswalk is provided across 7th at 11th Street. The sidewalk between this corner and the Greenway entry could be widened by eliminating the turn lane into the parking lot. Converting the painted median to a landscape island would provide a pedestrian refuge island and traffic calming. An earlier WRT plan illustrated a stronger connection across the existing parking lot on HUD property to the corner of 7th and 11th Street.

6th Avenue

The plan has an elaborate design for the connection at 6th Avenue which is not a through street. The roadway is reduced to two lanes; this involves reconstruction of half of the street. The quantity of hardscape design in the widened sidewalk area seems out of scale with the importance of this connection unless the intent was to also serve as a gathering place for the community garden on the adjacent HUD property. A simpler sidewalk connection with some width added to the east side of the street would be more appropriate here.

5th Avenue

The connection at 5th Avenue has less emphasis than 6th Avenue due to the lack of clearance below Metrorail that requires the route to be offset and skirt the FP&L substation. 5th Avenue is a through street and connects to Reeves Park and deserves greater emphasis. Grading could address the clearance issue provided ADA access and utility issue could be coordinated. Access and visibility improvements here would improve security and encourage use of the Greenway by the neighborhood.

I-95

A pedestrian connection below Metrorail to 11th Street in the I-95 ROW area would provide pedestrian connectivity and security access to this portion of the Greenway. It would create a connection to recreation activity at Athalie Range Park where public restrooms are available. Further investigation as to feasibility and a cost comparison for providing a connection versus providing additional public restrooms on the Greenway should be done in the next phase. Increasing connectivity would help to mitigate the negative impact I-95 has on the neighborhood. This concept would be outside the scope of this project but the design could make allowance for it to be phased in if it becomes feasible. Increasing connectivity would help to mitigate the negative impact I-95 has on the neighborhood. This concept may not be appropriate until security concerns are more fully addressed.

Gibson Park

The pedestrian connection to Gibson Park is not inviting. The seat height Wiggle Wall exacerbates this issue by creating a perceived barrier. It could be shortened or an opening provided to make the pedestrian link entrance more inviting. Signage or a gateway would help here as well. Widening this connection to provide patrol car access would improve security and connectivity.

3rd Avenue

The diagonal drive alignment and gate at this intersection discourage high volumes of traffic and trucks from entering the Greenway. The alignment is awkward for movements other than right turns from traffic southbound on 3rd Avenue. Local traffic through the project can improve security.

Trolley Tracks

A section of the trolley tracks could remain in place with interpretive signage explaining their historical significance. The tracks could be fully or partially exposed in a lawn area, pavement area, or combination of both. This could also be a location to display an example of period rolling stock – ideally a restored or replica trolley - or maintenance equipment.

Road Alignment

A significant portion of the proposed drive is outside the existing road bed location. Locating the drive within the existing roadbed saves demolition cost, as well as having to build new road base, relocate drainage structures, utilities and curbs. It also eliminates the expense of bringing on suitable soil for plantings in the unused portions of old road bed to be converted to landscape areas.

Curbing

Four different types of curbs are shown on the plans. Curbing can be limited to standard curb and gutter along the driveway. The plan details show concrete bands between paving types and at the edge of landscape areas as curbing. This would be eliminated for concrete paving that does not require an edge containment band. The edge of paver areas can be done with a simplified detail. Band between paving can be estimated as part of the concrete walk cost.

Geometry

The orthogonal geometry has a significant number of projections and cutouts in the pavement areas. The most intricate portions could be simplified to reduce construction and long term maintenance costs. Planting these areas would also be simplified.

Paving Materials

Reduction of the quantity of special pavers can substantially reduce costs. Pavers could be used only in special areas with colored concrete paving used between. The quantity of custom colors and special patterns could also be used more selectively. The quantity of soft paving is substantial and can be reduced to only the areas around actual playground equipment. Some of the areas below I-95 could be aggregate paving.

Site Furniture

Off-the- shelf furniture can be substituted for proposed custom pieces. The drum tables and drum seats that could be replaced with options including either standard benches or custom pieces that provide better interpretation and function as musical pieces. A simpler mounting detail could be used for furniture; the selected bench is cantilevered and requires a substantial concrete footing. Substantial footings are shown on the drum tables and seats. Benches and trash receptacles need to remain as high quality items for durability. More trash receptacles should be provided. All tree grates can be eliminated.

Lighting

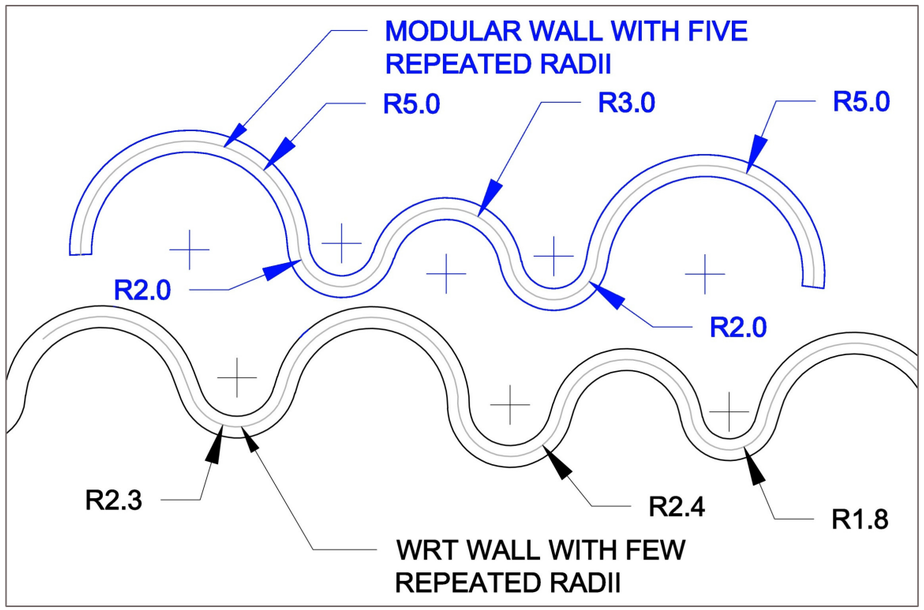
The ornamental pole mounted pedestrian light used in the neighborhood could be substituted for the Gardco fixture shown on the plans to reduce construction cost and simplify maintenance. The standard Overtown light used throughout the neighborhood appears to be holding up well.

Signage

The signage could be simplified by eliminating custom made posts and panels. Custom graphics could be applied to an off the shelf modular signage system. A custom fence rail and picket metal fence is shown as part of the signage system and could be replaced. The driveway entrance gates could be simplified or substituted with bollards or movable barrier.

Wiggle Wall

The wiggle wall can be simplified with a modular geometry and construction method. A modular segment with a limited number of radii can produce the same visual and physical result. Breaks in the wall would make it less of a circulation barrier and reduce the overall quantity of wall. See the exhibit below and Exhibit 25.7A Hardscape Analysis Enlargement A.



MODULAR WIGGLE WALL

Playground Equipment

An area with off-the-shelf playground equipment can serve the neighborhood with a variety of play experiences. Childhood obesity is a major problem in urban areas without convenient access to play. Children using equipment with circuits they run climb and slide through burn calories. Play is an important component of learning for children. Equipment is available that improves problem solving and social interaction skills.

Landscape Shade Trees

The landscape can be modified to create substantially more shade. Today the site is harsh, desolate, and offers little shade from the landscape. Soil evaluations indicate that the site is extremely sandy well drained and has a very high (alkaline) PH with little or no organic matter found in the soil. Tree selection must be re-evaluated to compensate for this situation. Many of the trees and palms selected earlier are not suited for these conditions. Due to current market conditions, there is a window of opportunity to purchase and install very large shade trees at a

discount price. The goal is to have these new trees dominate the site immediately, and transform this nearly treeless environment into a shady oasis. Furthermore, the earlier design specified wetland species for the retention areas. The new design will most probably eliminate many of these retention areas, and will require a modified tree selection. Finally, many trees chosen are not suited to thrive on this site. Careful species selection that takes site constraints into account will ensure planting success and reduce maintenance long term and reduce money substantially.

Landscape-Shrubs and Groundcovers

The original design has large numbers of shrubs and ground cover beds that can be mostly eliminated with the landscape emphasis shifted to using more shade trees. Doing so would considerably reduce the initial project cost and substantially lower maintenance requirements. An alternative yet sustainable landscape can be created, using a limited palette of ornamental native grasses and drought tolerant turf (Bahia). The maintenance of the site would consist mostly of regular mowing cycles for litter removal and would eliminate the constant need for pruning, weeding, fertilizing and mulching of the multitude of proposed beds. Cost savings to the City on a yearly basis would be substantial because of less weeding with quarterly replacement of dead materials and annual tree pruning prior to hurricane season. Another benefit would be increased visibility for crime prevention, as security patrols will have an unobstructed view throughout the site.

Drainage

The team performed a review of the existing drainage system and proposed drainage improvements for the NW 11th Terrace corridor between NW 7th Avenue and NW 3rd Avenue. Based on the as-built drawings provided by the City, the corridor is currently served by two separate gravity storm sewer systems. The first system consists of a 30" storm sewer trunk line between NW 6th Avenue and NW 5th Avenue. The system collects runoff from the East side parking lot of the high school as well as from the intersection of NW 6th Avenue and 11th Street to the South. The 30" trunk line also has a 27" collector storm sewer servicing NW 5th Court to the North. This system ultimately discharges to the south via a 30" storm sewer along NW 5th Avenue. The second system consists of a 12" storm sewer and two catch basins that collect runoff at the mid-block depression between I-95 and NW 3rd Avenue adjacent to the elementary school. This system discharges via gravity to a North-South 66" storm sewer trunk intersecting the site along the I-95 corridor. There are no known drainage issues in the project area, and the existing topography is at a sufficiently high elevation to allow for proper drainage through percolation. The sandy soil conditions also support percolation of storm water on the site

The proposed improvements in the WRT plan included abandonment of the existing drainage system and the construction of drainage swales, or retention areas, throughout the perimeter of the corridor. This method of drainage is adequate considering the existing topography. However, by maintaining a majority of the existing roadway alignment in place, the existing drainage system can be incorporated into the design thereby minimizing the need for so many retention areas. Due to permitting restrictions, retention areas will still be required to address water quality, but their use could be reduced by providing overflow into the existing drainage system to address water quantity. In addition, the cost estimate proposed by WRT of $500,000 for drainage improvements is quite high considering the nature of the improvements. A more realistic yet conservative value for this type and amount of drainage improvements would be approximately $200,000 and can be reduced significantly through our proposed alternative of maintaining the existing roadway alignment.

Utilities

Along the 11th Terrace corridor there a multitude of existing utilities including water mains, sewer lines, sewer manholes, gas lines, telephone, and electrical facilities. By retaining the existing roadway alignment the scope of the proposed the project is limited primarily to surface improvements, which minimize the impact to the existing utility infrastructure. However, adjustments will have to be made to the existing valves, meter boxes, manholes, and drainage catch basins to match the elevations of the proposed improvements. In addition minor relocations of water, telephone, or gas lines may be required to accommodate installation of larger trees, poles, fence posts, or other features with underground footings. A full utility coordination will be performed during final design and such relocations will be addressed at that time with the appropriate agencies. A budget of $100,000 is conservatively estimated for utility adjustments and relocations.

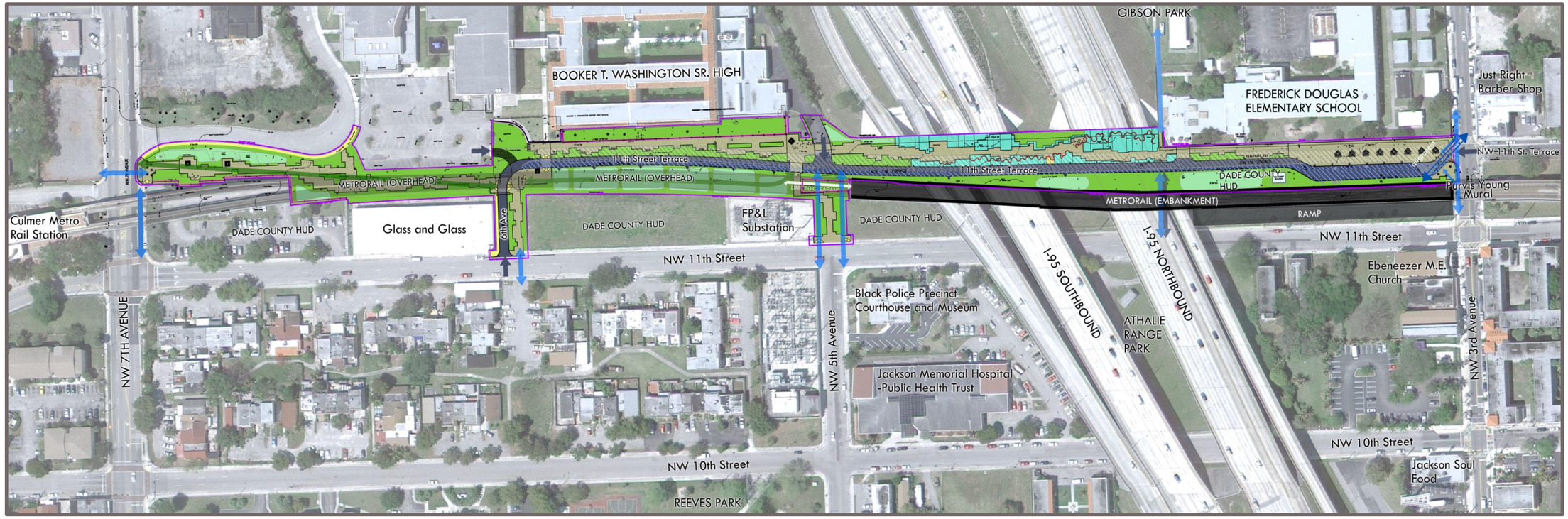


EXHIBIT 25.2B: DESIGN ANALYSIS

ENLARGEMENT A **ENLARGEMENT B**

LEGEND
- concrete walk
- pavers
- soft pave
- wiggle wall
- landscape
- bioswale
- new fence
- pedestrian access
- potential bike/security path
- vehicular access
- existing drive
- new drive paving with base

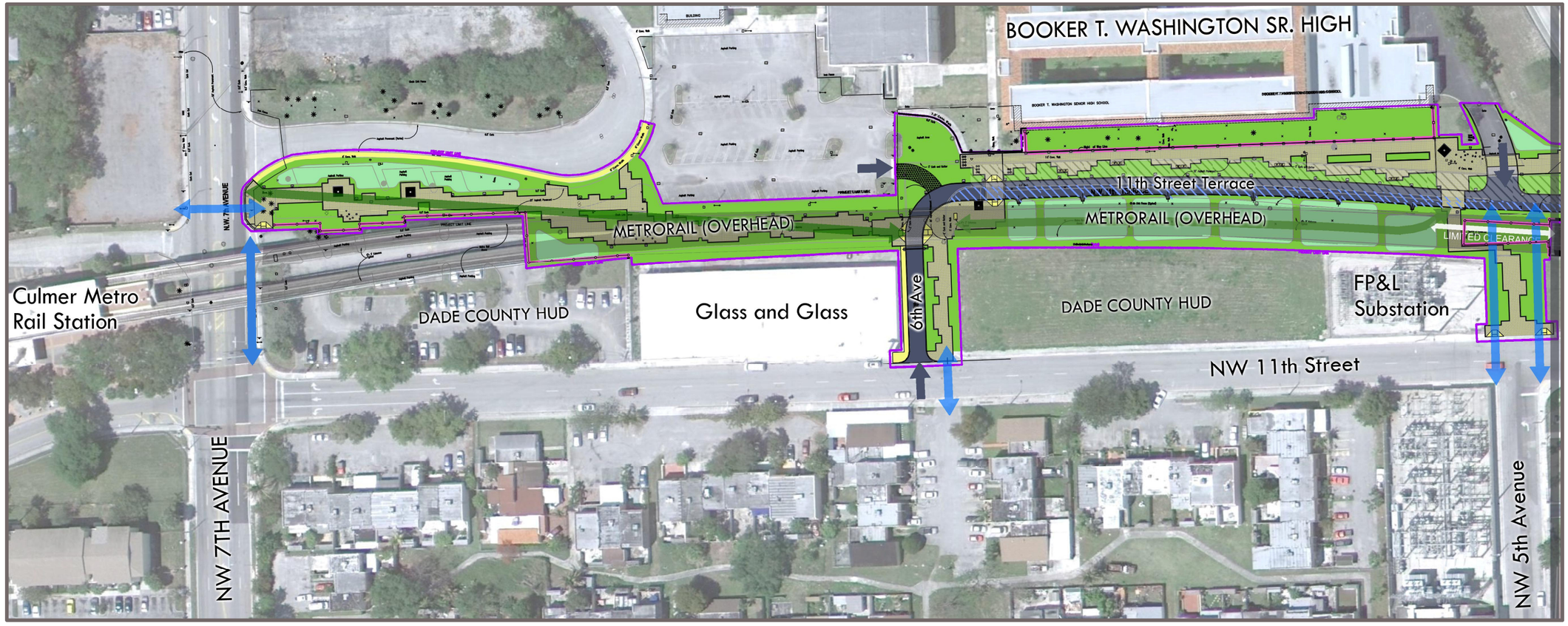


EXHIBIT 25.2.B: DESIGN ANALYSIS ENLARGEMENT A

LEGEND
- concrete walk
- pavers
- soft pave
- wiggle wall
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- existing drive
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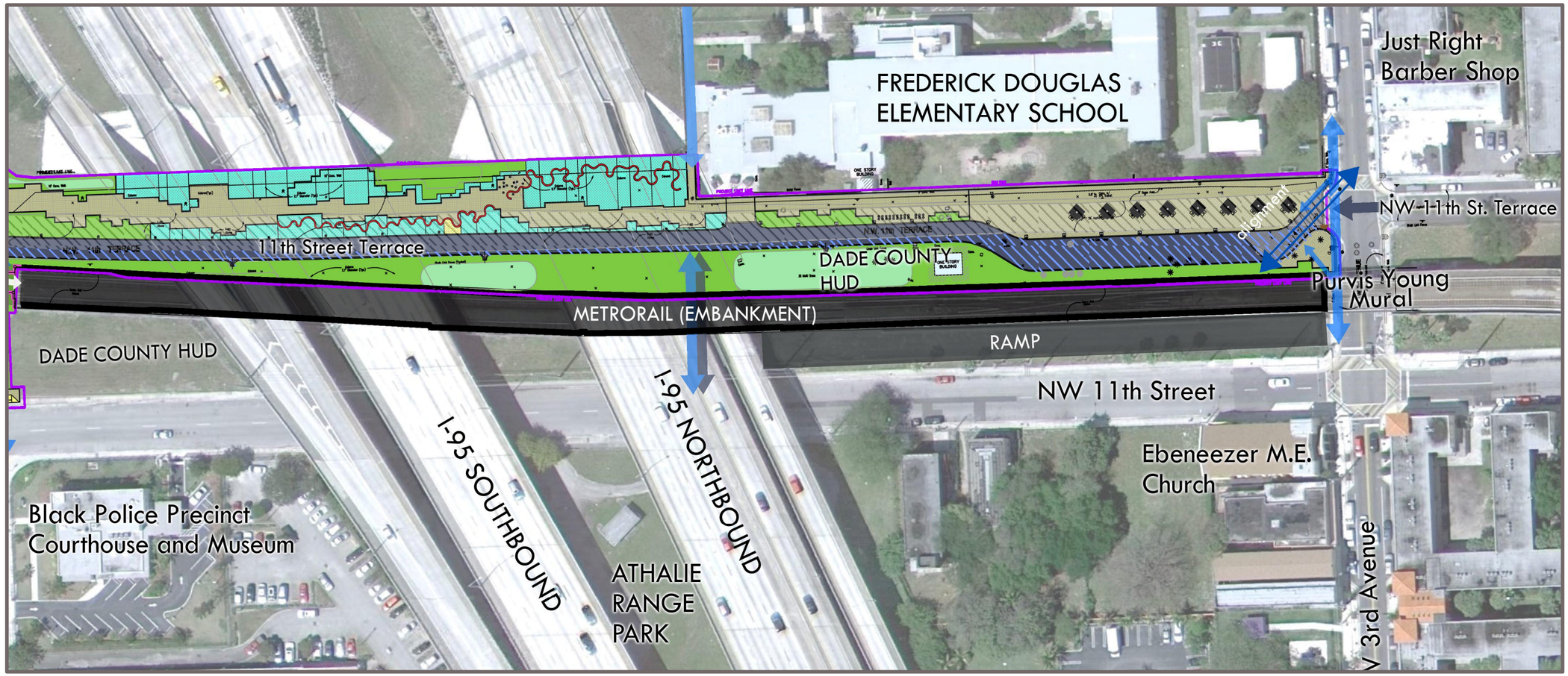


EXHIBIT 25.2.B: DESIGN ANALYSIS ENLARGEMENT B

LEGEND
- concrete walk
- pavers
- soft pave
- wiggle wall
- landscape
- bioswale
- new fence
- pedestrian access
- potential bike/security path
- vehicular access
- existing drive
- new drive paving with base

PROGRAM ANALYSIS

During the kick-off meeting and site visit the Project Team and City discussed providing activities for residents to encourage use of the Greenway beyond its use as a linkage. Some of the items such as community gardens were included in the TPL Greenprint Plan. Exhibit 25.2c of this section illustrates possible locations for these program elements. This section describes the Team's initial concept for locating several additional major activities.

Farmer's Market

A farmer's market below the Metrorail near 7th Avenue could take advantage of existing parking and be readily accessible to Metrorail users to serve a larger market. This location benefits from visibility from 7th Avenue. The Market would activate this narrow transitional space. The market could potentially expand onto the school driveway on weekends.

Splash Pad

A splash pad can offer an exciting multi-generational community focal point that establishes the Greenway as a place. It would give residents access to cooling water. This could be an after school gathering point. Initial cost and operation of the feature could be worth the benefits. A high visibility location should be chosen. The 6th Avenue location could benefit from the adjacent school parking lot and allow parents to tend a garden plot while children use the feature.

Community Gardens

The HUD property south of Metrorail offers an excellent community garden site. This would provide a front door to the project on 11th Street. Garden surplus could be sold on the Greenway or 11th Street. The gardens would activate the large existing vacant area.

Dog Park

Dog parks offer a social gathering place and guaranteed pedestrian activity at least once a day by responsible dog owners.

Recreation/Entertainment

The no-man's land below the I-95 bridge needs activation for the project to be successful. It offers a large area of shade. Many of the elements from the Project Approach section could be located here. The area needs to be multi-generational. The sloped embankments could offer a seating opportunity for entertainment.

Exploratorium

The space in front of Frederick Douglass Elementary School could be programmed with spaces that can be used as outdoor classrooms with educational exhibits. This was a component of the original WRT/TPL plan. Shade needs to be provided. A playground with interactive elements could be adjacent to recreational elements below I-95.

Art

Art work can be integral to the design and used as a theme along the length of this segment of the Greenway. The Purvis Young Mural on 3rd Avenue offers an excellent starting point. Art in Public Places offers guidance in selecting and placing artwork. Local and national work could be procured through juried competitions.

Historical Markers

A goal of the TPL Greenprint Plan was to highlight and support the Overtown Segment of the Black Heritage Trail. This segment of the Greenway could have a series of interpretive displays to tell a portion of the area's Jazz history. Markers could have biographies of famous Jazz personalities that performed or originated in Overtown.

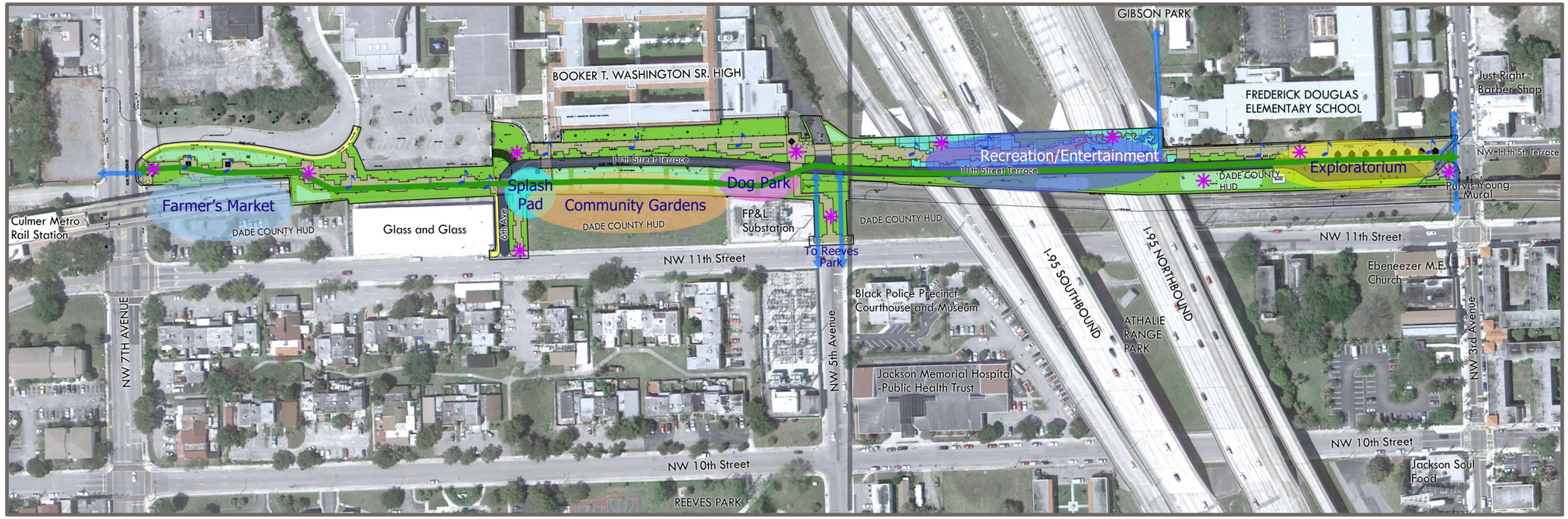
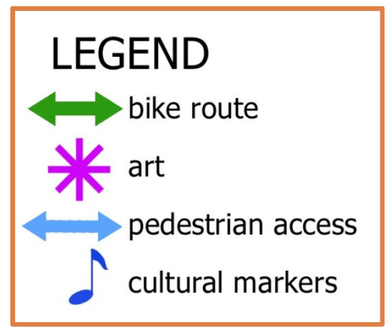


EXHIBIT 25.2C: PROGRAM ANALYSIS



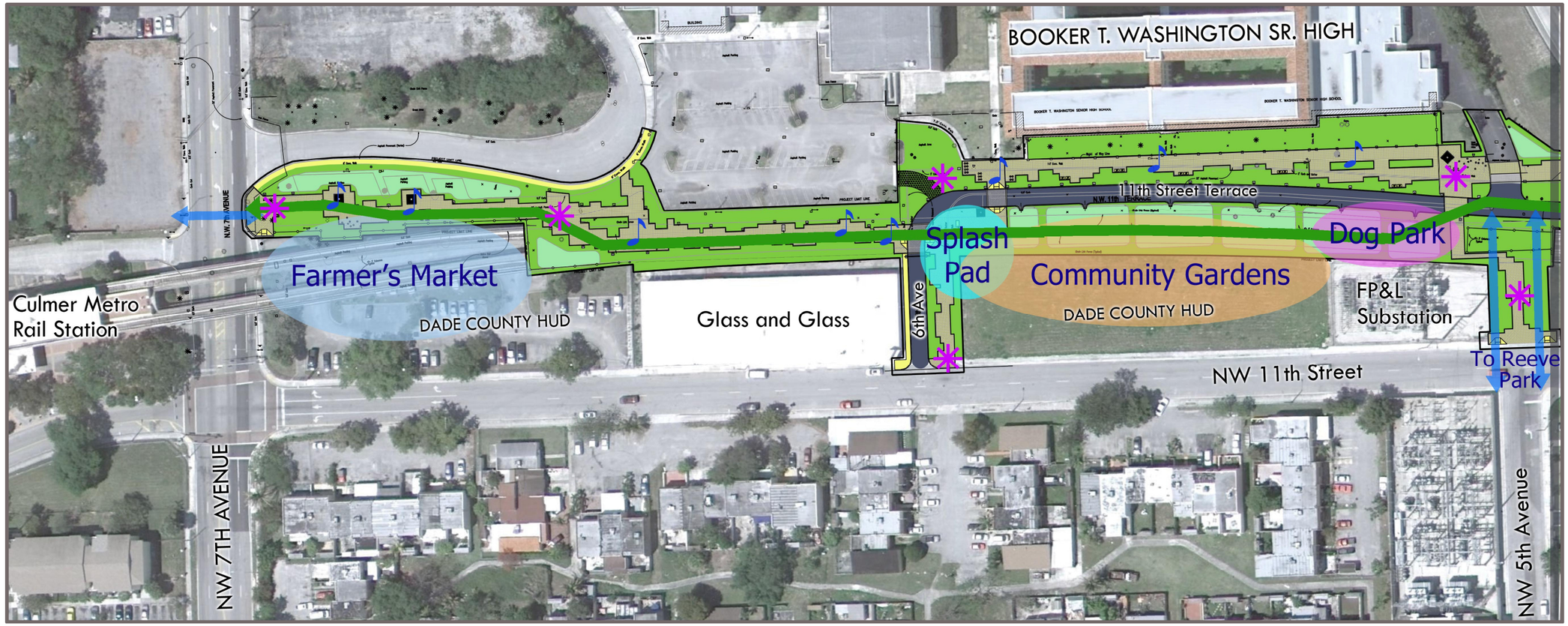


EXHIBIT 25.2C: PROGRAM ANALYSIS ENLARGEMENT A WEST OF I-95

LEGEND
- bike route
- art
- pedestrian access
- cultural markers

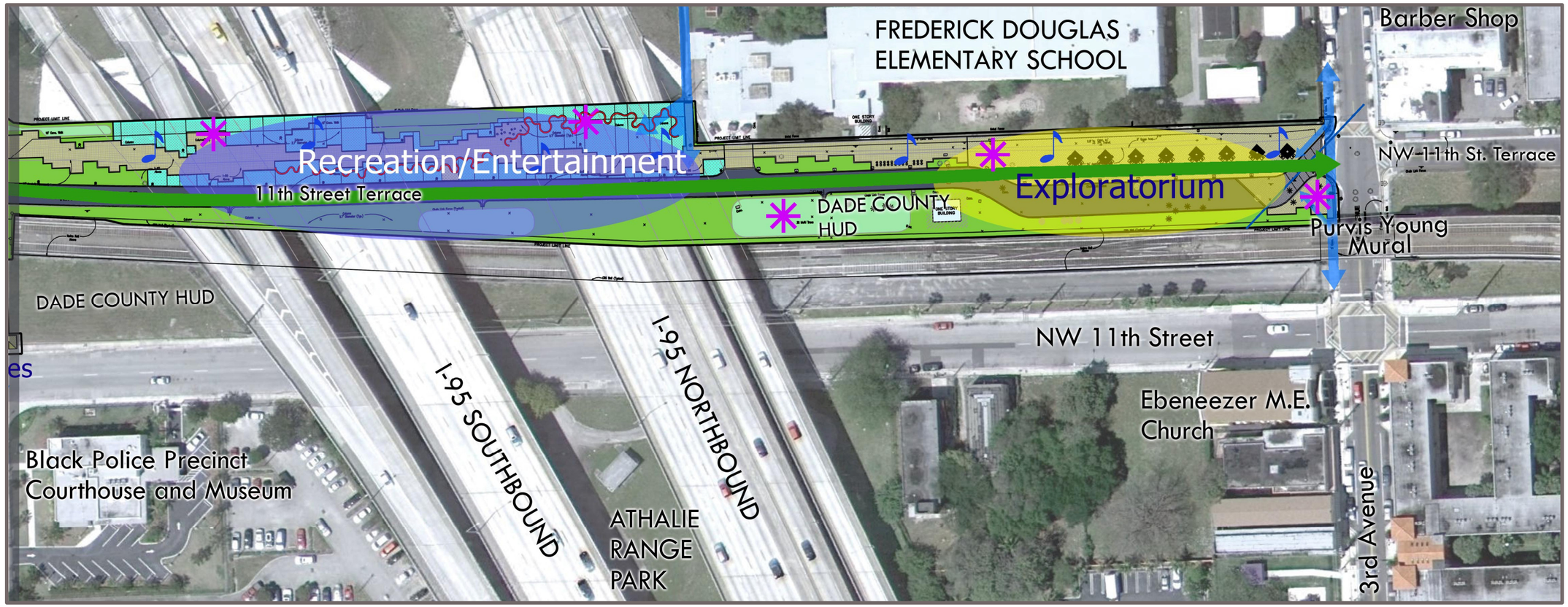


EXHIBIT 25.2C: PROGRAM ANALYSIS ENLARGEMENT B EAST OF I-95

LEGEND
- bike route
- art
- pedestrian access
- cultural markers

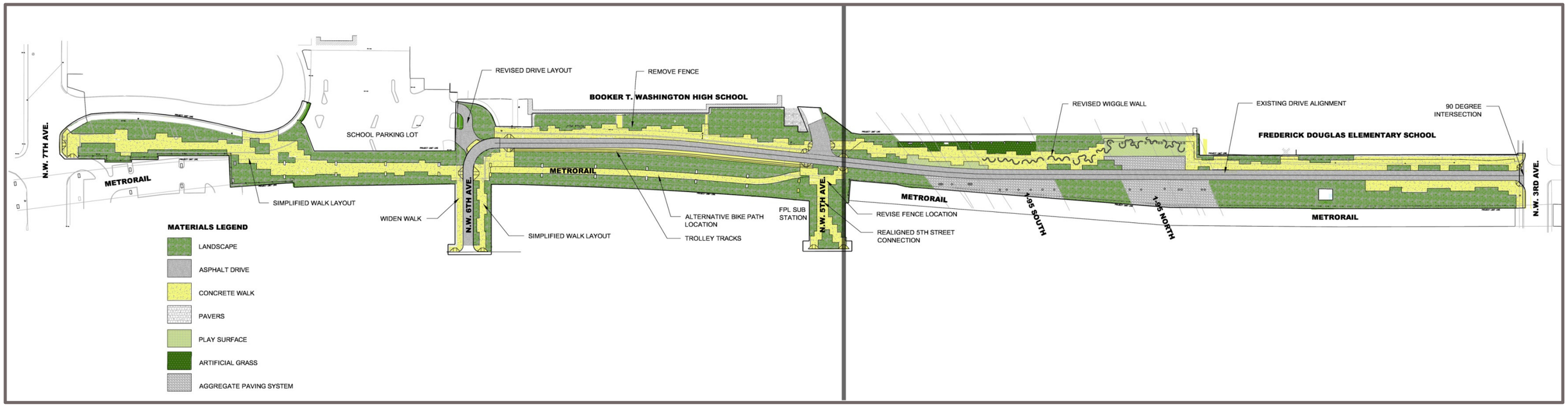


EXHIBIT 25.7A:-HARDSCAPE STUDY

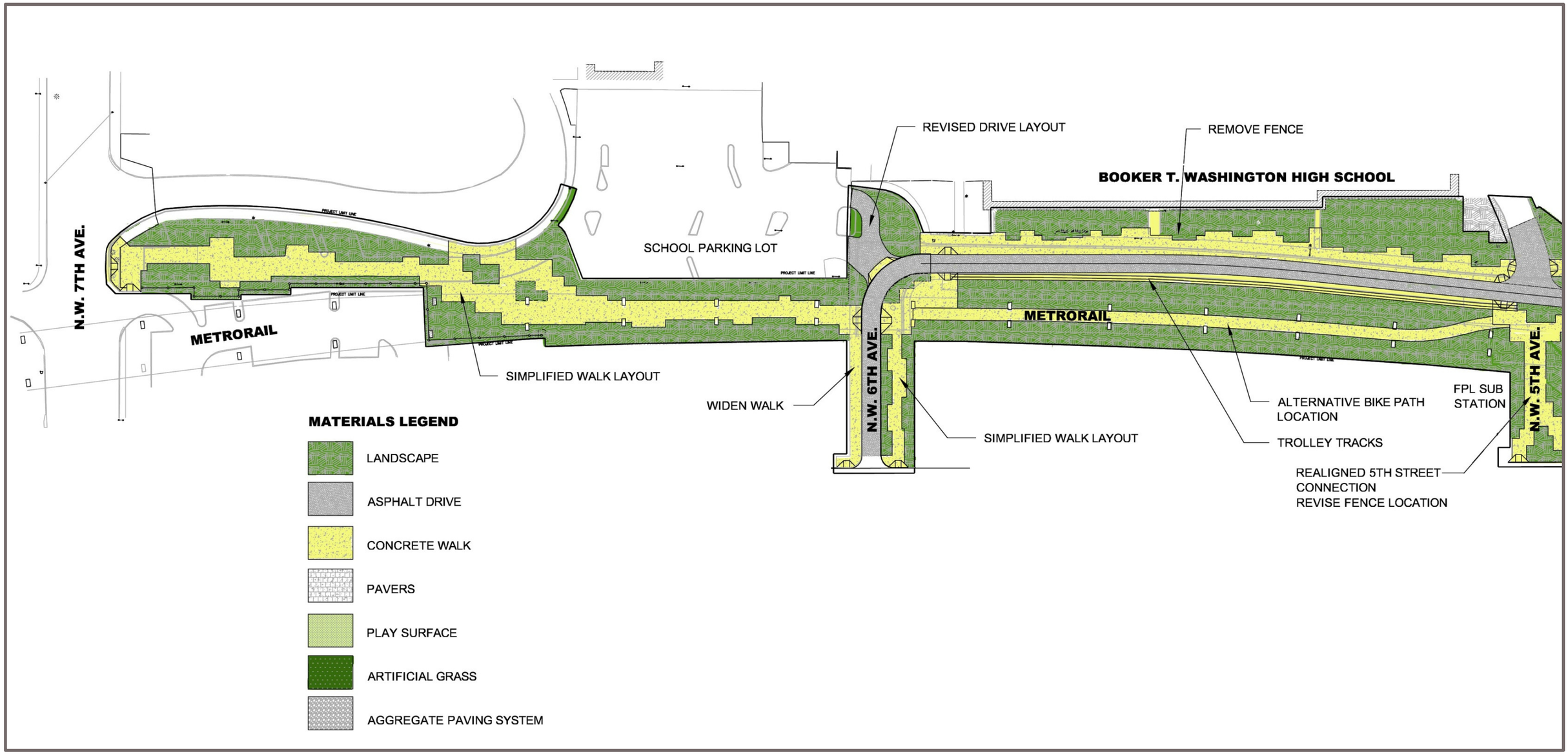


EXHIBIT 25.7A: HARDSCAPE STUDY ENLARGEMENT A

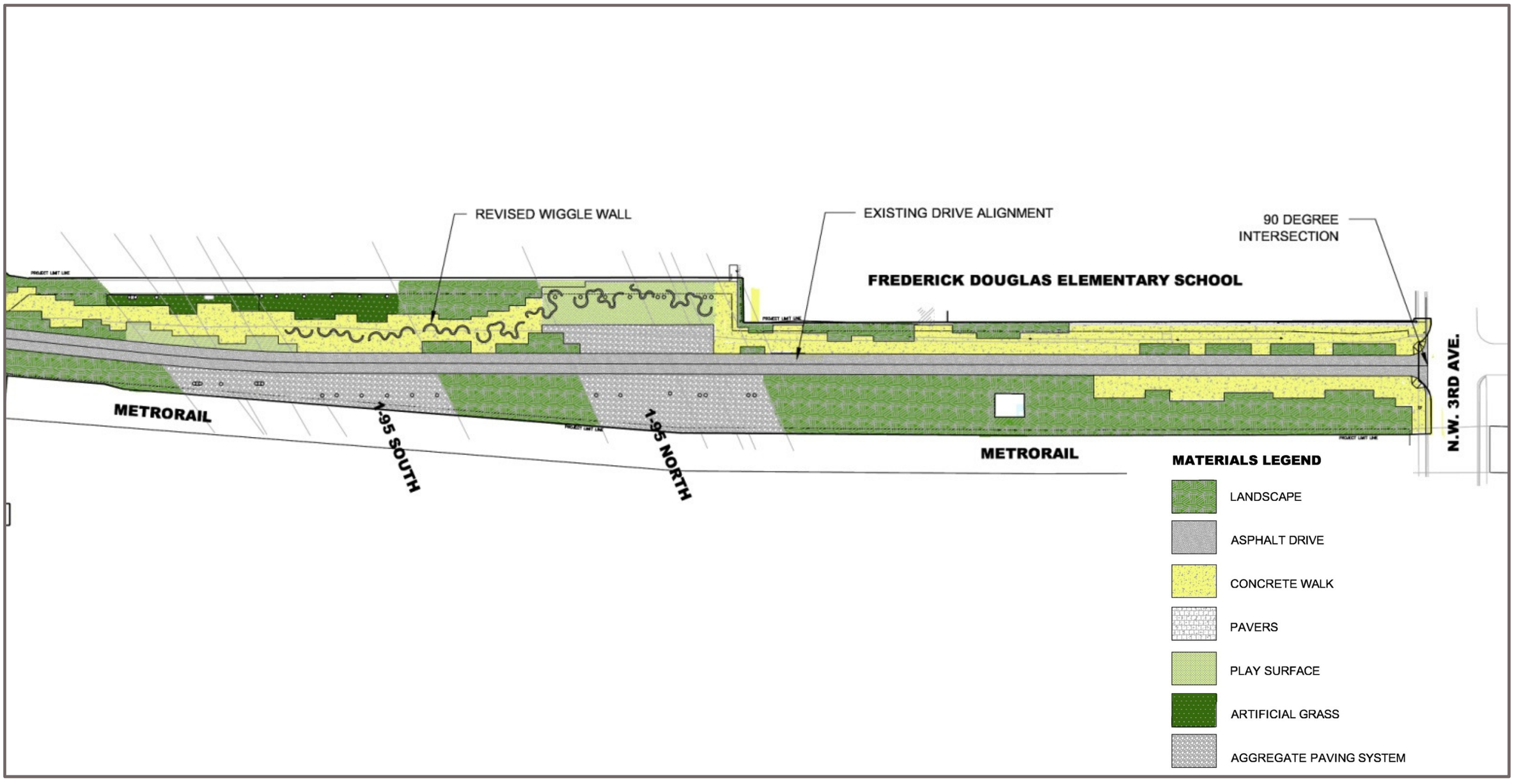


EXHIBIT 25.7A: HARDSCAPE STUDY ENLARGEMENT B

COST ANALYSIS

The goal of the cost analysis was to determine items that could be substituted, modified or replaced to meet the current available funding level of two million dollars. Exhibit 25.7A illustrates the primary revisions to the site plan to realize the potential cost savings. This is not intended as a final design solution. The main revisions to the plans are listed below. Exhibit 25.7b is a spreadsheet comparison of the current WRT and proposed changes by TYLI.

Value Engineering Items

- USE THE EXISTING DRIVE ALIGNMENT, BASE AND ASSOCIATED DRAINAGE STRUCTURE LOCATIONS. PRICE DIFFERENCE IN ESTIMATE IS INCLUDED IN THE SF COST FOR VEHICULAR ASPHALT PAVING.
- REDUCE THE AMOUNT OF DEMOLITION DUE TO DRIVEWAY RELOCATION.
- SIMPLIFY THE DRAINAGE CONCEPT.
- REDUCE THE QUANTITY OF RUBBER PAVING; SUBSTITUTE PARTIALLY WITH AGGREGATE PAVING BELOW 1-95.
- REDUCE THE QUANTITY AND COMPLEXITY OF PAVERS; SUBSTITUTE COLOR CONCRETE.
- ELIMINATE THE CUSTOM ALUMINUM 4' RAIL FENCE AT BOOKER T. WASHINGTON HIGH SCHOOL. THE SCHOOL IS SECURED BY FENCING BETWEEN ARCADE BUILDING OPENINGS AND AT ENTRANCES. USE A LESS EXPENSIVE FENCE IF NECESSARY TO PREVENT FOOT TRAFFIC IN BOOKER T. WASHINGTON GARDENS.
- ELIMINATE THE "NEMO" LIGHT.
- REPLACE THE GARDCO FIXTURE WITH THE OVERTOWN DECORATIVE FIXTURE USED IN NEIGHBORHOOD.
- INCREASE SPACING OF LIGHTS TO 80'O.C. TO REDUCE THE TOTAL NUMBER OF FIXTURES.
- SIMPLIFY THE LANDSCAPE TO REPLACE SHRUB AREAS WITH SOD, RELY ON MORE AND LARGER TREES AVAILABLE AT LOWER CURRENT COST.
- SIMPLIFY LIMITS OF PAVING TO REDUCE THE NUMBER OF CORNERS. ALL PAVEMENT EDGES ALIGN WITH A TWO FOOT SITE GRID TO SIMPLIFY CONSTRUCTABILITY AND LIMIT MATERIAL CUTTING.
- SUBSTITUTE CUSTOM PLAY PIECES WITH PLAYGROUND EQUIPMENT FROM A NATIONAL SUPPLIER CATALOG.
- USE A MODULAR DESIGN FOR THE WIGGLE WALL AND REDUCE TOTAL QUANTITY OF WALL BY INCLUDING OPENINGS.
- ELIMINATE THE CURBING USED TO CONTAIN THE EDGE OF PAVER AREAS WHERE PAVERS ARE SUBSTITUTED FOR CONCRETE PAVEMENT.
- SIMPLIFY THE EDGE DETAIL FOR AREAS OF PAVERS.

OVERTOWN GREENWAY PROJECT - TYLIN VALUE ENGINEERED ESTIMATE OF PROBABLE COST

Greenway Feature	Elements	Unit	Qty	Unit Cost	Subtotal	Total Cost
Site Preparation						$ 300,000.00
	Demolition	LS	1	100,000	$ 100,000.00	
Not included in WRT Estimate	Relocation of Existing Utilities	LS	1	100,000	$ 100,000.00	
	Drainage (utilize existing drainage)	LS	1	$ 100,000.00	$ 100,000.00	
Vehicular and Pedestrian Paving and Bikeways						$ 545,081.00
	Vehicular Asphalt Areas	SY	3324	$ 22.50	$ 74,790.00	
	Rubber Playground Surface	SF	4000	$ 20.00	$ 80,000.00	
	Artificial Grass	SF	4000	$ 15.00	$ 60,000.00	
CURBS						
	Type A Ped Curb	LF	0	$ 15.00	$ -	
	Type A Vehicular Curb	LF	3669	$ 15.00	$ 55,035.00	
	Type B Vehicular Curb	LF	30	$ 15.00	$ 450.00	
	Type D Vehicular Curb	LF	0	$ 20.00	$ -	
PAVING						
reduced to 20% of walk paving	Type Pedestrian Pavers	SF	10512	$ 7.00	$ 73,584.00	
	Concrete	SF	42048	$ 3.75	$ 157,680.00	
	Aggregate Paving	SF	12771	$ 2.00	$ 25,542.00	
	Curb Cut Ramps	EA	18	$ 1,000.00	$ 18,000.00	
Site Lighting						$ 150,000.00
Not included in WRT Estimate	Electrical Service	EA	1	$ 50,000.00	$ 50,000.00	
	Type B - Nemo Light Fixture	EA	0	$ 8,000.00	$ -	
	Overtown Decorative Fixture	EA	40	$ 2,500.00	$ 100,000.00	
Fencing						$ 105,000.00
		EA	0	$ 1,000.00	$ -	
Not included in WRT Estimate	10' Sch 40 Black Chain Link	LF	1500	$ 70.00	$ 105,000.00	
Watering During Establishment Period (No Irrigation System)						$ 140,000.00
Alternate	Watering Over 6 Month Period	SF	0	$ 0.50	$ -	
Not included in WRT Estimate	Irrigation System for Entire Site	EA	1	$ 140,000.00	$ 140,000.00	
Street Furniture						$ 318,149.50
	Custom Site Furniture	EA	1	$ 29,000.00	$ 29,000.00	
	Drum Table	EA	0	$ 1,000.00	$ -	
	Trash Cans	EA	8	$ 1,100.00	$ 8,800.00	
	Bike Rack	EA	3	$ 1,200.00	$ 3,600.00	
	Benches	EA	26	$ 1,500.00	$ 39,000.00	
	Hose Bibb	EA	4	$ 500.00	$ 2,000.00	
	Directional Signs	EA	2	$ 500.00	$ 1,000.00	
	Wayfinding Kiosk	EA	2	$ 2,000.00	$ 4,000.00	
	"Wiggle Wall"	LF	492	$ 95.00	$ 46,749.50	
	I.D. Pole Sign w/ Banners	EA	0	$ 5,000.00	$ -	
	Wayfinding Signage	EA	5	$ 1,200.00	$ 6,000.00	
	Tree Grates	EA	0	$ 3,000.00	$ -	
	Spaghetti Play Structure	EA	0	$ 6,000.00	$ -	
	Cat-Tail Play Structure	EA	0	$ 5,000.00	$ -	
	Vehicular Gate	EA	2	$ 5,000.00	$ 10,000.00	
	Historical/Interpretive Markers	LF	12	$ 1,500.00	$ 18,000.00	
Not in WRT Estimate	Playground Equipment	EA	1	$ 150,000.00	$ 150,000.00	
Landscaping						$ 258,000.00
	Shade Trees	EA	140	var	$ 85,000.00	
	Small Trees	EA	70	var	$ 20,000.00	
	Palms	EA	200	var	$ 40,000.00	
	Relocated Trees	EA	9	var	$ 2,000.00	
	Shrubs and Gcover Planting areas	EA		var	$ 40,000.00	
	Bahia Sod	SF	70000	0.3	$ 21,000.00	
	Booker T. Washington Gardens	SF	8000	L.S.	$ 50,000.00	
Subtotal						$ 1,816,230.50
Contingency (10%)						$ 181,623.05
	TY LIN VALUE ENGINEERED GRAND TOTAL:					$ 1,997,853.55

OVERTOWN GREENWAY - ESTIMATE OF PROBABLE COST OF WRT PLAN IN 2010 DOLLARS

Greenway Feature	Elements	Unit	Qty	Unit Cost	Subtotal	Total Cost
Site Preparation						$ 800,000.00
	Demolition	EA	1	$ 200,000.00	$ 200,000.00	
Not included in WRT estimate	Relocation of Existing Utilities	EA	1	$ 100,000.00	$ 100,000.00	
	Drainage (includes retention areas)	EA	1	$ 500,000.00	$ 500,000.00	
Vehicular and Pedestrian Paving and Bikeways						$ 883,165.00
	Vehicular Asphalt Areas	SF	29500	$ 2.50	$ 73,750.00	
	Rubber Playground Surface	SF	9500	$ 20.00	$ 190,000.00	
	Artificial Grass	SF	4000	$ 15.00	$ 60,000.00	
CURBS						
	Type A Ped Curb	LF	5900	$ 15.00	$ 88,500.00	
	Type A Vehicular Curb	LF	3750	$ 15.00	$ 56,250.00	
	Type B Vehicular Curb	LF	282	$ 20.00	$ 5,640.00	
	Type D Vehicular Curb	LF	180	$ 20.00	$ 3,600.00	
PAVERS						
	Type Pedestrian	SF	53000	$ 7.00	$ 371,000.00	
	Type Vehicular	SF	3250	$ 8.50	$ 27,625.00	
	Type B Drivable Grass	SF	600	$ 3.00	$ 1,800.00	
	Curb Cut Ramps	EA	5	$ 1,000.00	$ 5,000.00	
Site Lighting						$ 644,800.00
Not included in WRT estimate	Electrical Service	EA	1	$ 50,000.00	$ 50,000.00	
	Type A - Gardco Overhead Light	EA	58	$ 6,000.00	$ 348,000.00	
	Type B - Nemo Light Fixture	EA	20	$ 8,000.00	$ 160,000.00	
	4' Rail Fence	EA	434	$ 200.00	$ 86,800.00	
Fencing						$ 105,000.00
Not included in WRT estimate	10' Sch 40 Black Chain Link	LF	1500	$ 70.00	$ 105,000.00	
	Watering Over 6 Month Period	SF	150000	0.5	$ 75,000.00	
Street Furniture						$ 471,640.00
	Drum Seat	EA	32	$ 800.00	$ 25,600.00	
	Drum Table	EA	6	$ 1,000.00	$ 6,000.00	
	Trash Cans	EA	3	$ 1,100.00	$ 3,300.00	
	Bike Rack	EA	21	$ 400.00	$ 8,400.00	
	Benches	EA	26	$ 1,500.00	$ 39,000.00	
	Hose Bibb	EA	4	$ 500.00	$ 2,000.00	
	Directional Signs	EA	2	$ 6,000.00	$ 12,000.00	
	Wayfinding Kiosk	EA	2	$ 4,000.00	$ 8,000.00	
	"Wiggle Wall"	LF	557	$ 200.00	$ 111,340.00	
	I.D. Pole Sign w/ Banners	EA	6	$ 5,000.00	$ 30,000.00	
	Vehicle Directional Sign	EA	3	$ 7,000.00	$ 21,000.00	
	Tree Grates	EA	12	$ 3,000.00	$ 36,000.00	
	Vehicular Gate	EA	2	$ 20,000.00	$ 40,000.00	
	Historical/Interpretive Markers	EA	1	$ 1,000.00	$ 1,000.00	
	Spaghettini Play Structure	EA	3	$ 6,000.00	$ 18,000.00	
	Cat-Tail Play Structure	EA	22	$ 5,000.00	$ 110,000.00	
Landscaping						$ 387,000.00
	Shade Trees	EA	136	var	$ 100,000.00	
	Small Trees	EA	69	var	$ 47,000.00	
	Palms	EA	257	var	$ 88,000.00	
	Relocated Trees	EA	9	var	$ 2,000.00	
	Shrubs and Gcover Planting areas	EA		var	$ 75,000.00	
	Bahia Sod	SF	50000		$ 15,000.00	
	Booker T. Washington Gardens	SF	8000	L.S.	$ 60,000.00	
Subtotal					**SUBTOTAL:**	$ 3,261,605.00
Contingency (10%)						$ 326,160.50
					WRT PLAN GRAND TOTAL IN 2010 DOLLARS:	$ 3,587,765.50

EXHIBIT 25.7B: COST ANALYSIS SPREADSHEET