



STONY ISLAND AVENUE STREETScape MASTER PLAN

III. CORRIDOR DESIGN GUIDELINES

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III. CORRIDOR DESIGN GUIDELINES

DESIGN GUIDELINES DEVELOPMENT DIRECTIVES

Near Term and Long Term Improvements

In developing design guidelines for Stony Island Avenue it was evident that there were several improvements that must occur and that can be implemented with ease, while there were some exciting ultimate visions that will take much more time to implement along the corridor.

Improvements that can be accomplished without major modifications to the existing infrastructure are referred to as Near Term Improvements. More visionary improvements that require additional resources to implement are identified as Long Term Improvements. As the individual guidelines are discussed in the Master Plan, their association with Near Term and Long Term Improvements are identified.

Sustainability

In its effort to become the "Greatest City in America," the City of Chicago has become a national leader in sustainable infrastructure design. Through the Streetscape and Sustainable Design Program, the fundamental elements

of accessibility and ecological design are integrated into infrastructure design, allowing for a sustainable environment in which large populations can efficiently share resources and reduce their impact on the environment. Accessibility is defined through fundamentals of "Complete Streets" policies. Complete Streets are designed and maintained to enable safe access for all users. Pedestrians, bicyclists, motorists, and public transportation users of all ages and abilities are able to safely move along and across a complete street.

The second element of the Streetscape and Sustainable Design Program is designing streetscapes that improve the environment through concepts such as:

- Urban Heat Island Reduction
- Local and Recycled Materials
- Construction Waste
- Community Education
- Stormwater Management
- Water Efficiency
- Alternative Transportation
- Beauty and Community
- Energy Efficiency

An example of Chicago's environmental sustainable streets practices is the Green Alley program. Permeable pavers, asphalt and concrete are used in lieu of traditional concrete or asphalt paving. The permeable pavements allow storm water to infiltrate in the ground instead of entering the burdened combined sewer system, thereby helping to prevent sewer overflow into local waterways. Permeable pavements do not withstand the wear and tear of heavy traffic, like that found on most city streets, including Stony Island Avenue. However on busy streets, permeable pavements could be incorporated in sidewalk areas, in bike lanes, in the buffer areas between bike and parking lanes, or even in parking lanes.

Near term improvements to Stony Island Avenue that enhance sustainability in this Master Plan include:

- Providing accessibility for pedestrians and cyclists throughout the focus area;
- Designing intersections for pedestrians;
- Rehabilitating sidewalks;
- Installing bicycle lanes;
- Increasing the number of trees along Stony Island Avenue to provide shade and reduce urban heat island effect;
- Installing permeable pavers along sidewalks to allow for stormwater infiltration; and

- Moving traffic efficiently through the corridor by recommending a coordinated traffic signal system and connection of that signal system to the City's traffic management center to minimize emissions.



Green Alley Conversion, Source: CDOT

Many of the Complete Streets improvements oriented towards bicycle and pedestrian improvements also minimize emissions by encouraging non-motorized modes of transportation which reduces the demand for fossil fuels and resultant greenhouse gas emissions. In addition, these improvements allow for increased density and development around transit facilities, further increasing the shared resources common for urban areas.

Long term sustainability related improvements could include water quality initiatives implemented in a reconstructed median. These could include incorporating a bioswale in the median, construction of infiltration trenches, rain gardens and possibly bioretention cells. Electrical consumption could be reduced by using high efficiency lighting when the new street light are installed, and the use of high efficiency (Light Emitting Diode-LED) signals when traffic signal installations are modernized.

GREEN CONSTRUCTION

Sustainability can also be addressed during construction by recycling demolition materials and construction waste within or outside the project instead of sending demolition items to a landfill. Construction materials produced with recycled materials may also be used, in addition to sourcing locally made materials.

ACTIVE MEANS OF TRANSPORTATION

Pedestrians and bicycles are the two primary means of active transportation along Stony Island Avenue. Improvements evaluated for the Master Plan include enhancing the existing facilities and introducing new improvements that will improve safety, aesthetics and amenities for pedestrians and bicyclists.

Pedestrian

Currently the primary pedestrian generators are associated with the CTA bus stops dotted along Stony Island Avenue and the METRA commuter rail station on E. 71st. Street. There are also some destinations scattered along Stony Island Avenue that attract pedestrians such as the Moo & Oink, Maryam Mosque and Jackson Park, see Figure III-1. Recommended elements to be incorporated in future enhancements that improve pedestrian activity include:

NEAR TERM IMPROVEMENTS

Sidewalk Infrastructure

The sidewalk pavement shall be a smooth walking surface. Curb ramps shall be constructed at all intersections to meet the American Disabilities Act (ADA) requirements. Sidewalk widths shall be maximized with the preferred minimum sidewalk width no less than 10 feet (10').

Crosswalks

Enhancing crosswalks to make them more visible to pedestrians and motorists improves the safety of pedestrians. Crosswalks can be enhanced with decorative pavement such as stamped colored asphalt or pavement stenciling.



Crosswalk with Stamped Colored Asphalt - Source: CDOT

Curb Extensions on Side Streets (Curb Bump outs)

A curb extension extends the sidewalk beyond the existing curbline, which then reduces the length of the crosswalk that a person must walk to cross the street. A shorter crosswalk minimizes the conflicts between pedestrians and motorists. Curb extensions are recommended along several one-way side streets approaching Stony Island Avenue for Near Term improvements. The curb extension can be paved or include an optional planter. Curb extensions could also be considered as a viable option for Long Term improvements along Stony Island Avenue.



Curb Extension - Source: CDOT



Curb Extension with Flush Planter - Source: CDOT

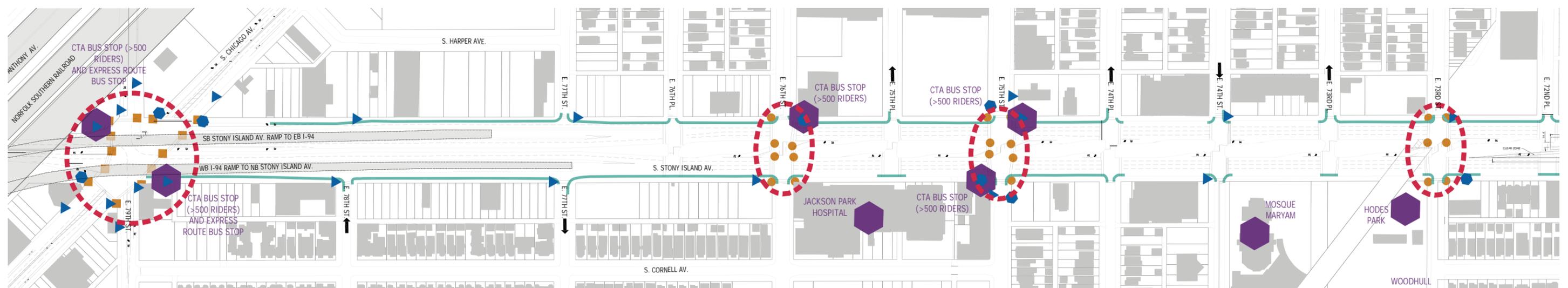
Minimize Disruptions within the Sidewalk

Eliminating or minimizing obstacles within the walking area of the sidewalk will improve pedestrian safety.

- Driveway/Access Management Improvements - Several driveways along Stony Island Avenue are wider than the City standards (some drives extend the full width of the property). Driveway widths should be reduced to meet the City standards and/or their permitted width. Properties with multiple driveways should be evaluated to determine if some of the driveways could be consolidated. There also are some driveways located too close to an intersection (per the City Standards) that should be relocated or removed with future improvements.
- Remove all elements that are not approved streetscape elements. There are two small sheds that are located in the sidewalks that partially obstruct pedestrian access that should be removed.

Pedestrian Signal Improvements

Though all signalized intersections have pedestrian signals the existing pedestrian signals should be updated with countdown clocks. In addition, pedestrian actuated buttons should be added at the pedestrian landings within landscape medians and unique crossing locations so that a pedestrian can activate a crosswalk light once they arrive in the middle of the road. Installation of High-intensity Activated crossWalk signals HAWK or rapid flash beacons at high volume unsignalized intersections can also be considered.



See Page 23 for Legend



HAWK Crosswalk Signal- Source: Ada County Highway District



Countdown Signal, Source: CDOT

LONG TERM IMPROVEMENTS

Curb Extensions on Stony Island Avenue (Curb Bump outs)

The advantages of implementing curb extensions along Stony Island Avenue include allocation of additional space for sidewalks or landscaped parkways, shadowing of on-street parking and creating shorter crossing distances for pedestrians at crosswalks. Curb extensions are implemented at street corners, however Stony Island Avenue has a unique opportunity in select locations to “extend” the

curb extension further along the block face which would result in a wider sidewalk. The locations for widening long sections of sidewalks with curb extensions would be locations where on street parking is under-utilized. Such an example would be the west side of Stony Island Avenue between E. 75th St. and E. 76th St. The expansive parking lot in the front of the Jewel-Osco stores is used by their patrons. Individuals do not park on the street and walk to either store. Therefore this could be a location that the sidewalk could be widened, beyond a typical curb extension, and the loss of on-street parking would minimally affect the community. The additional sidewalk width may also allow for landscape parkways to be installed in some areas where the appropriate maintenance can be provided. However the choice to implement curb extensions along Stony Island Avenue is controlled by the long term consideration of providing dedicated bike lanes along Stony Island Avenue that are buffered from the travel lanes (See Bicycles, Long Term Improvements). Since the landscape buffered bike lane concept would place the bike lane along the existing curb, extensions of those curbs would disrupt the continuity of the proposed bike lanes. The Near Term bike lane configuration, where the bike lanes are between the through travel lane and the parking lane, would allow curb extensions to be provided without interrupting the bike lane.

It may also be possible to improve traffic flow along Stony Island Avenue with the construction of curb extensions since the time allocated to the pedestrian phase of the traffic signals could be shortened to account for the decreased crossing distance and be reallocated for use by bicyclists or motorist.

Community Pedestrian Connectivity

In addition to the improvements to sidewalks along Stony Island Avenue to improve pedestrian movement, pedestrian connections to the surrounding neighborhoods should be improved. Primary linkages should consider connections

from community schools, parks and green space to and from Stony Island Avenue, see Figure III-2. The existing E. 68th Street pedestrian mall is an example of connectivity into the community from Stony Island Avenue.

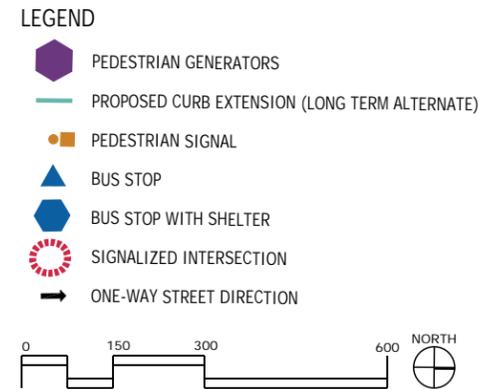


Figure III-2: Greenway Linkages

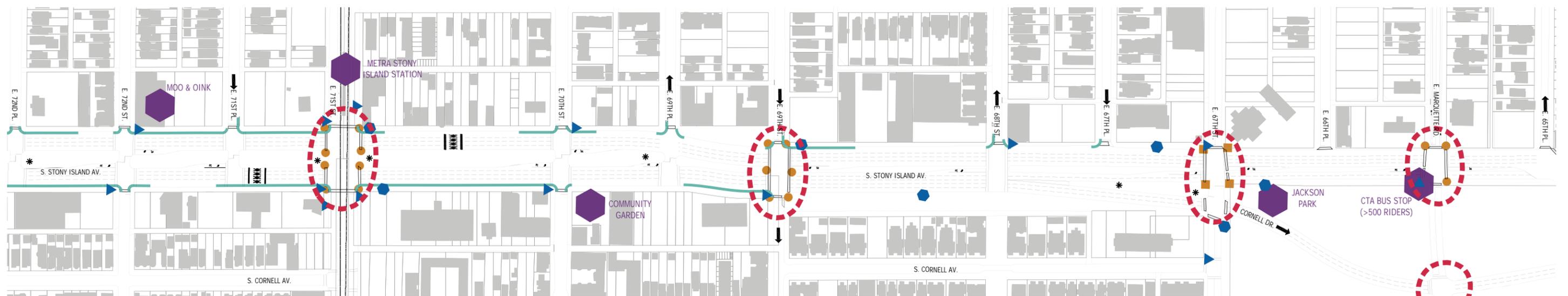


Figure III-1: Pedestrian Circulation Improvements

Bicycles

There are several existing and proposed bicycle facilities that cross Stony Island Avenue. The Stony Island Avenue provides an opportunity to expand on the existing bicycle network by providing a north-south link to these bicycle facilities, see Figure III-6.

NEAR TERM IMPROVEMENTS

Dedicated Bicycle Lane

With minor adjustments to the current vehicular travel lanes, 6' directional bike lanes can be constructed for northbound and southbound travel. The bike lanes would typically be buffered from the travel lane with a 3' painted buffer area and would be located adjacent to the current parking lane (on-street parking lanes, 7' wide, would remain where they currently exist).



Northbound Stony Island Avenue in Front of Mosque Maryam

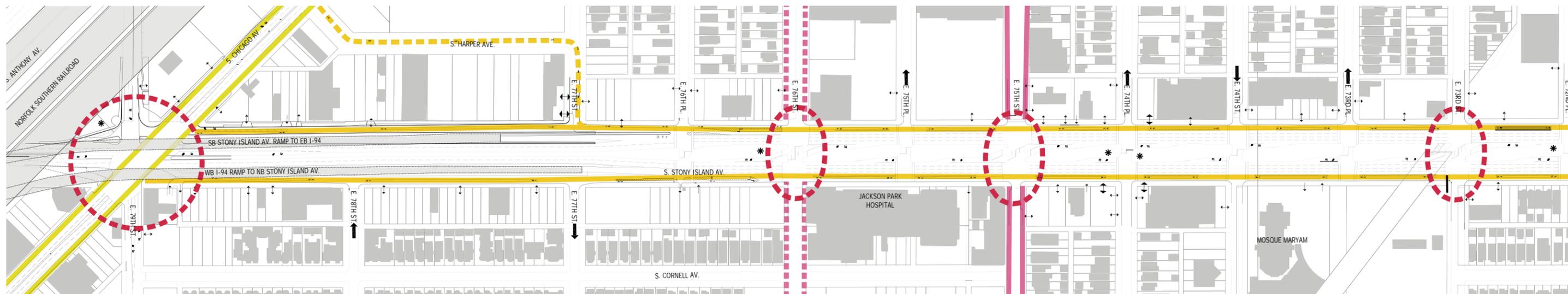


Simulation of Near Term Bicycle Improvements - 3' Bike Lane Buffer, 6' Bike Lane and 7' Parking Lane



Bike Lane with Buffer - Source: NYCDOT

See Page 25 for Legend



Bicycle Lane Safety Features

Though Stony Island Avenue is a logical location for a north-south bicycle corridor, the volume of motorized traffic along Stony Island Avenue, and the number of travel lanes necessitates implementing safety elements along the corridor to enhance the safety factor for cyclists.

Intersections

There are several elements that can be considered to enhance safety at intersections for bicyclists.

- Bicycle lane markings can be extended through intersections to increase road users awareness of potential conflict points such as through movements for bicycles and right turns for motorists.
- Asafe way to aid the bicyclist's ability to cross multiple lanes is to construct a bike box at an intersection that will aid with the preferred bicycle movement. In the situation presented at the northern end of the project on E. 66th Street, for a northbound cyclist, the cyclist is directed along Cornell Road to E. 66th Street. To proceed northbound on Stony Island Avenue it is recommended that bicycle traffic cross over to the west on E. 66th Street to head north on Stony Island Avenue. The bicycle box in this location adds to the visibility of the cyclists movement.

- In addition a bike landing, large paved landing located behind the landing for curb ramps could be considered in the northeast corner of the same intersection to provide a transition to the bike trails that extend through Jackson Park.



Bike Box - Source: City of Portland

Bicycle Lane Delineation

Painted or physical barriers can enhance safety for bicyclists. Painted buffer lanes, flexible bollards, curbed medians are some methods that can be used to define bike lanes.



Separated Bike Lane with On-Street Parking - Source: NYCDOT



Flexible Bollards - Source NYCDOT

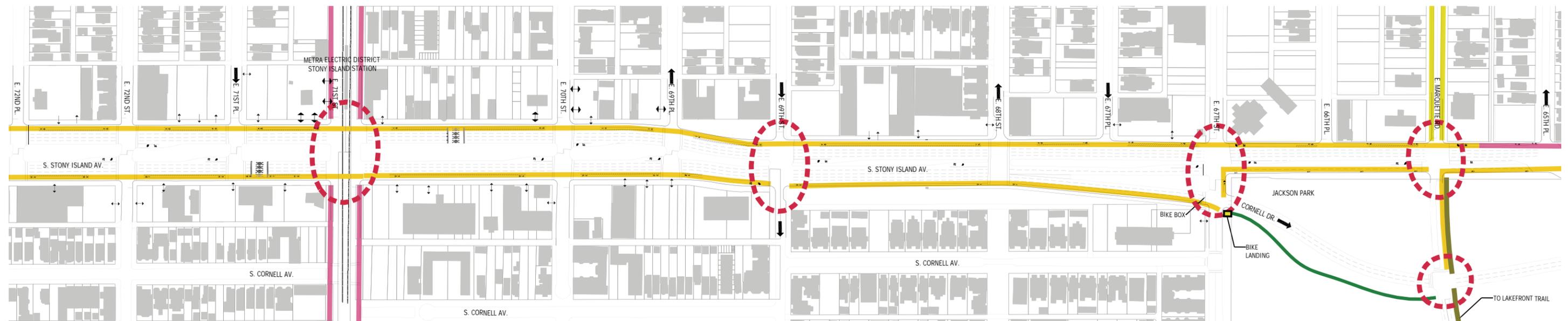
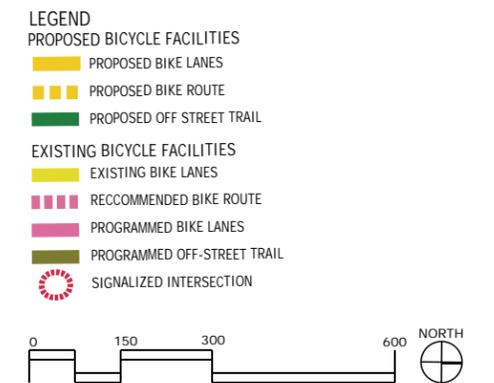


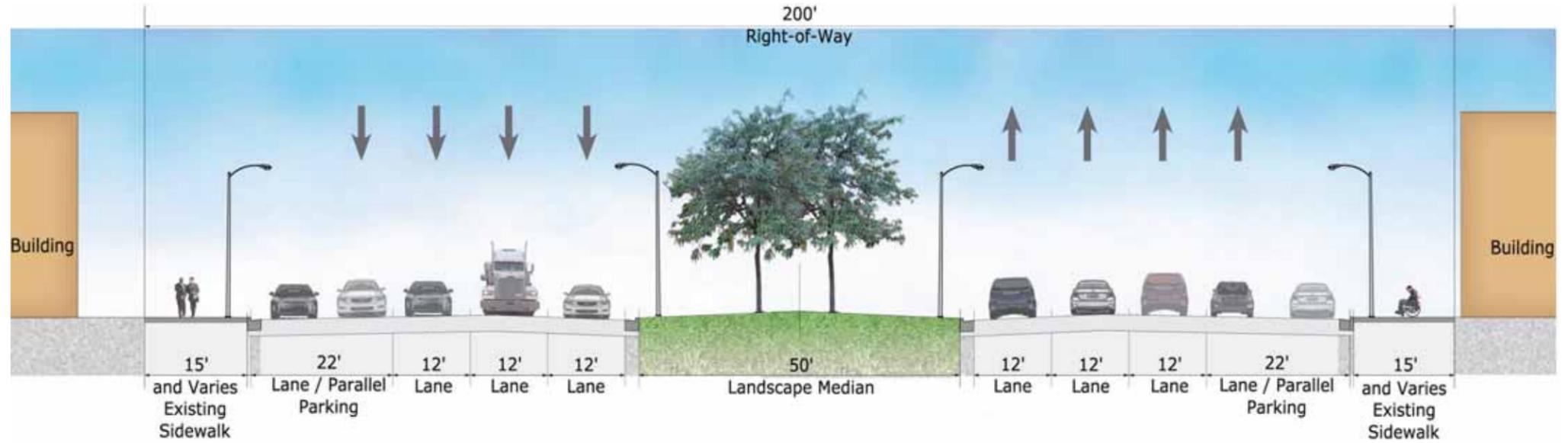
Figure III-3: Bicycle Circulation Improvements

Driveway Delineation

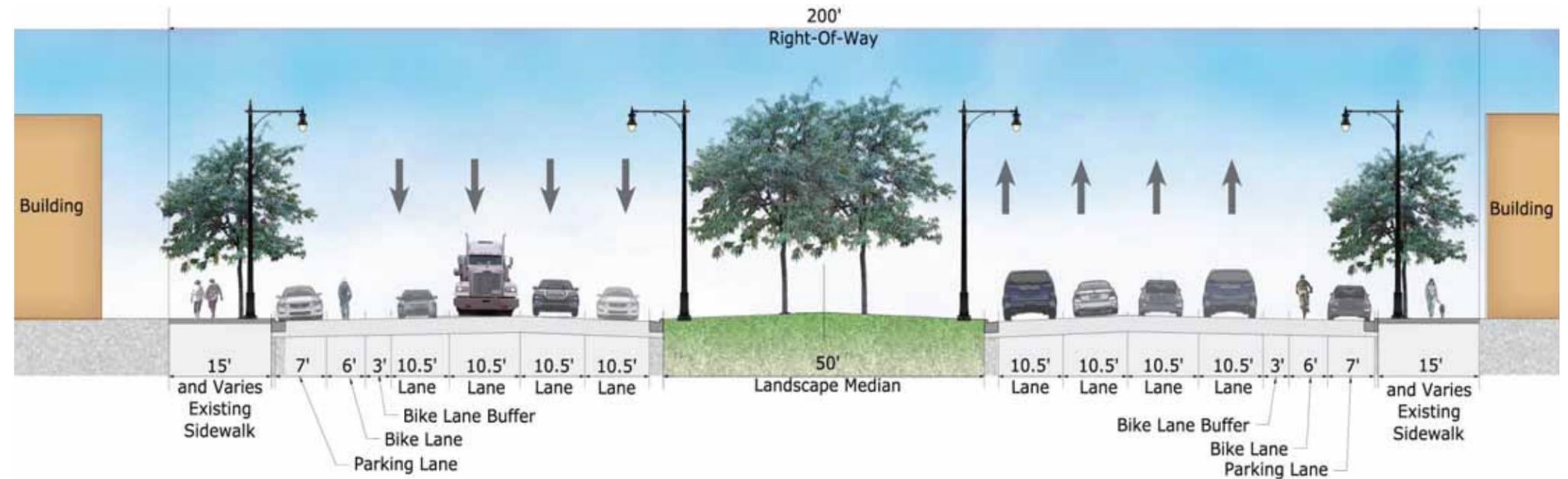
There are numerous driveways along Stony Island Avenue that can cause potential conflict areas between bicycles and motorists. Pavement changes can occur across the bike lanes at driveways as a visual cue to the bicyclist to be aware of vehicles crossing their path.



Bicycle Lane Delineation, Source: San Francisco Bicycle Coalition



Typical Cross Section in Sub Area 2 (E. 76th Street to E. 69th Place) - Existing Condition View Looking North



Proposed Cross Section in Sub Area 2 (E. 76th Street to E. 69th Place) - Near Term View Looking North

Figure III-4: Typical Near Term Cross Section - Sub Area 2

LONG TERM IMPROVEMENTS

Stony Island Avenue could be a regional attraction for cyclists by enhancing the bicycle facilities to include a bike lane along the curb which is separated from the travel lanes with a 15' wide landscape planter, see Figure III-5. Where a parking lane would occur it would be between the bike lane and travel lane instead of against the curb. The parking lane would be separated from the bike lane with a painted 5' buffer, that could incorporate flexible bollards. In addition, separate bicycle signals would be installed and programmed into the signal timing.

Implementation of separated bike lanes will require evaluation of several functions of the roadway including: traffic patterns, travel lanes, maintenance, snow removal for the travel lanes and the bike lanes, as well as cost. The separated bike lanes could be constructed by maintaining the current pavement width and eliminating a lane of traffic or by widening the roadway pavement to maintain the current traffic lanes with the construction of the separated bike lanes. A traffic study would have to be performed to fully evaluate the pros and cons of each of these options. Construction of the Near Term bicycle improvements identified in the Master Plan would not preclude implementing separated bike lanes.

Driveway removal off of Stony Island Avenue would increase the safety for cyclists by eliminating some conflict areas for cyclists and vehicles at driveways that would be removed. If existing or future parking lots can be accessed from side streets or alleys then driveways currently on Stony Island Avenue could be considered for removal.

Bike signals are recommended for traffic signal modernization for all the signalized intersections along the corridor. To facilitate bike left turns at intersections from separated bike lanes, a bike left-turn lane with in-street bike detection could be considered, for left turning bikes to operate prior to the side street phase being called.

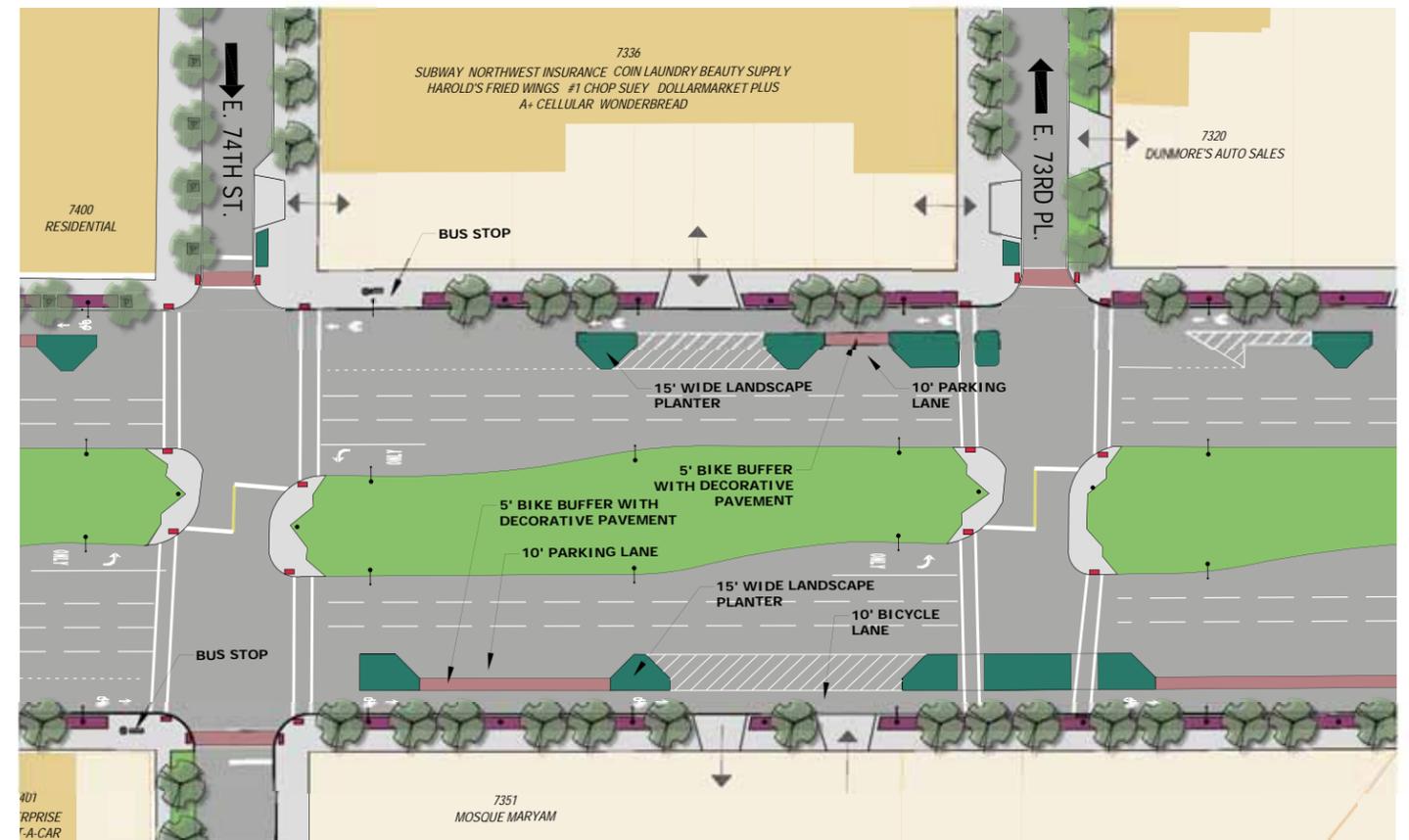


Figure III-5: Separated Bike Lanes with Planters - Long Term Improvement



Simulation of Long Term Bicycle Improvements - Bike Lane Separated from Travel Lanes with Planter

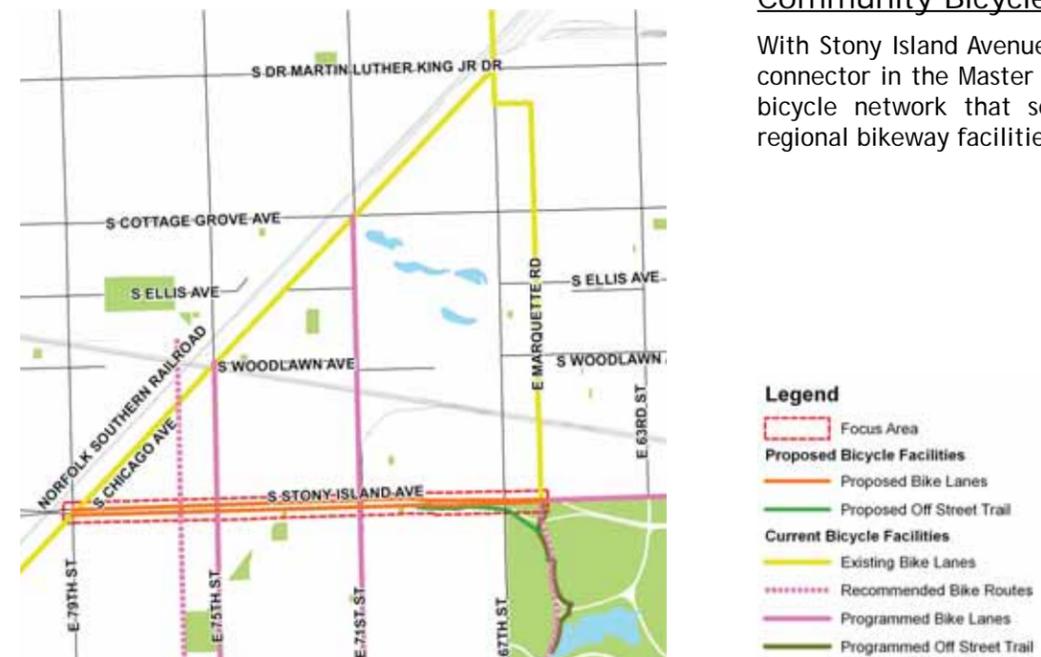


Figure III-6: Bicycle Connections

Community Bicycle Connectivity

With Stony Island Avenue identified as a north-south bike connector in the Master Plan it complements the existing bicycle network that serves the local community and regional bikeway facilities.

SPATIAL RELATIONSHIP OF THE CORRIDOR

As one proceeds along Stony Island Avenue there are very few elements that visually entice an individual to move along the street, or that link the individual blocks or unique architecture to each other. The landscape medians are a positive consistent element along Stony Island Avenue that do visually lead someone along the corridor, however more is needed to enhance the spatial relationship of the corridor due to its width and current limited streetscape enhancements.

Incorporating enhancements consistently along the corridor will create a sense of place and reinforce the experience provided from the constant rhythm created by the medians.

Intersections

There are 19 intersections along Stony Island Avenue in the 1.6 mile project area, see Figure III-9. Differentiating some improvements between intersections will help to define a progression along the corridor. A differentiation can easily be made between Primary intersections and Secondary intersections. Primary intersections are signalized intersections and secondary are non-signalized intersections. Elements included in each intersection type include the following:

PRIMARY INTERSECTIONS (SIGNALIZED INTERSECTIONS)

- Enhanced crosswalks across Stony Island Avenue and side streets
 - ◊ Widen from 6' to 10'
 - ◊ Decorative crosswalk pavement
- ADA curb ramp upgrades
- Upgrade pedestrian signals with countdown clock
- Replace standard luminaires and davit arms on combined traffic signal and street light poles with Gateway 2000 street luminaires.
- Refurbish existing signal support poles and mast arm assemblies. Encourage traffic signal modernization (TSM) in the future as part of other City improvements.
- New concrete sidewalks
- Driveway consolidation for driveways to close to intersections, if possible
- Curb extensions on side streets with optional flush planter
- Evaluate pedestrian actuation in medians as a Long Term improvement. The installation of the actuators in the medians would require CDOT approval
- Evaluate providing bike lane only signals at the major intersections such as E. 79th Street and E. 71st Street

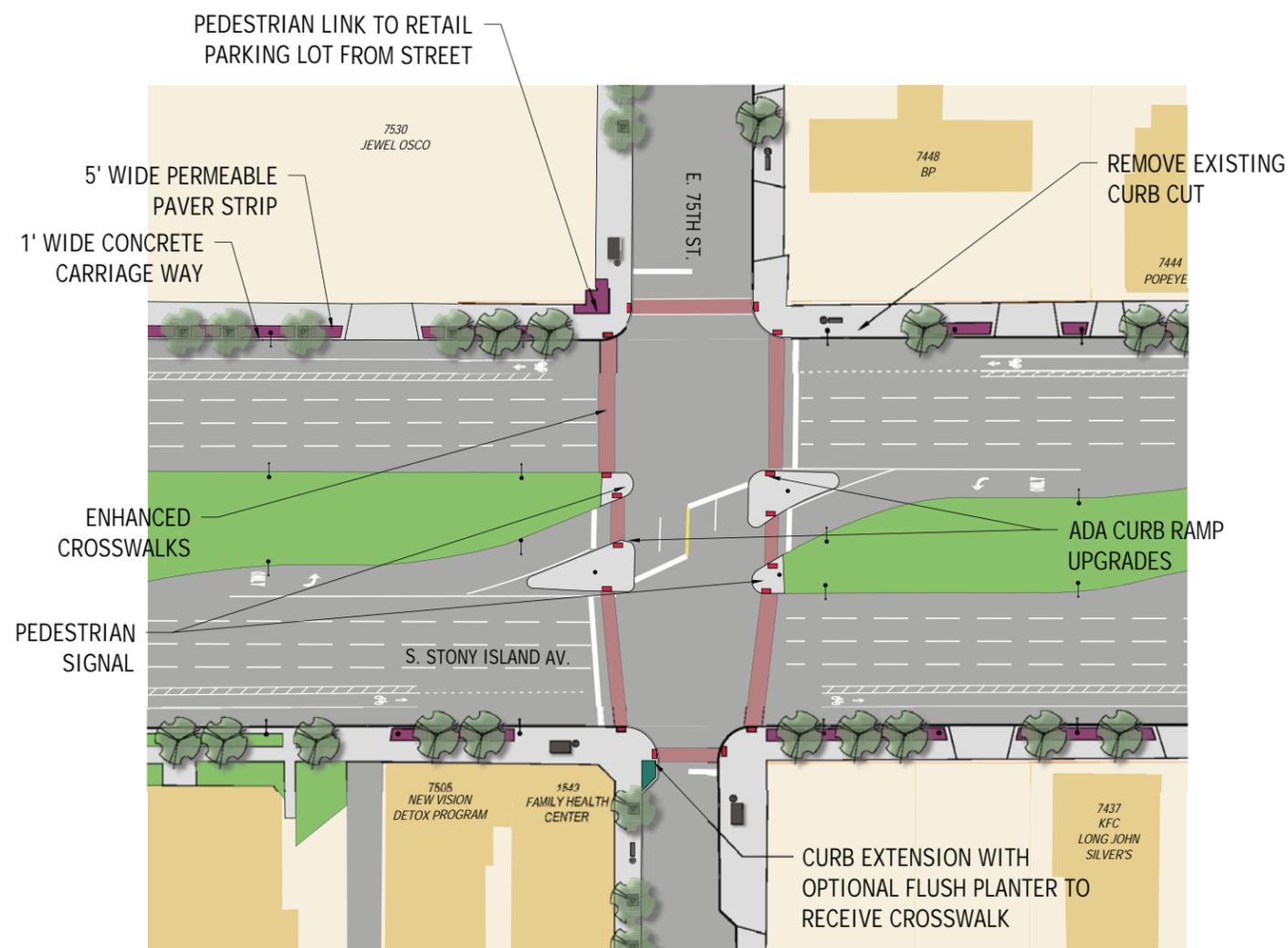
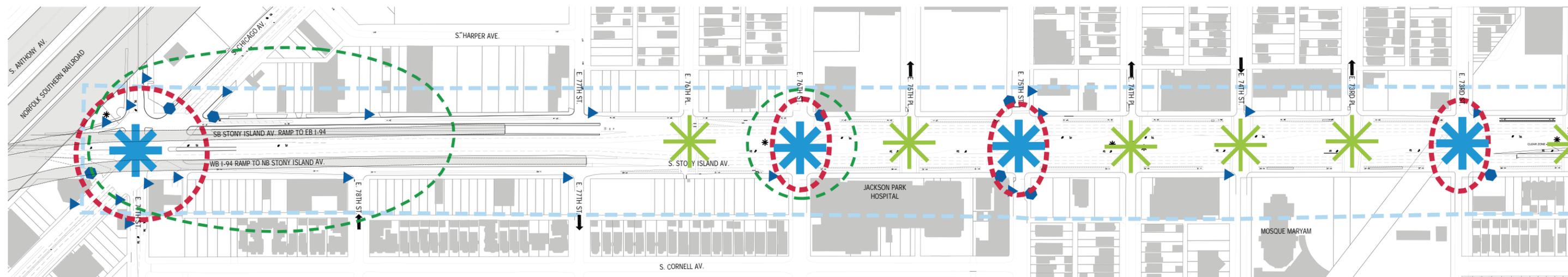


Figure III-7: Primary Intersection Improvements

See Page 29 for Legend



SECONDARY INTERSECTIONS
(UNSIGNALIZED INTERSECTIONS)

- Enhanced crosswalks across side streets
 - ◊ Widen from 6' to 10'
 - ◊ Decorative crosswalk pavement on side streets only
- Maintain existing painted crosswalks across Stony Island Avenue
- ADA curb ramp upgrades
- HAWK or rapid flash beacons at high volume unsignalized intersections, such as E. 74th Street
- New concrete sidewalks
- Curb extensions on select one-way side streets
- Diagonal parking could be considered on side streets with one-way traffic to increase available on street parking
- Driveway consolidation if possible

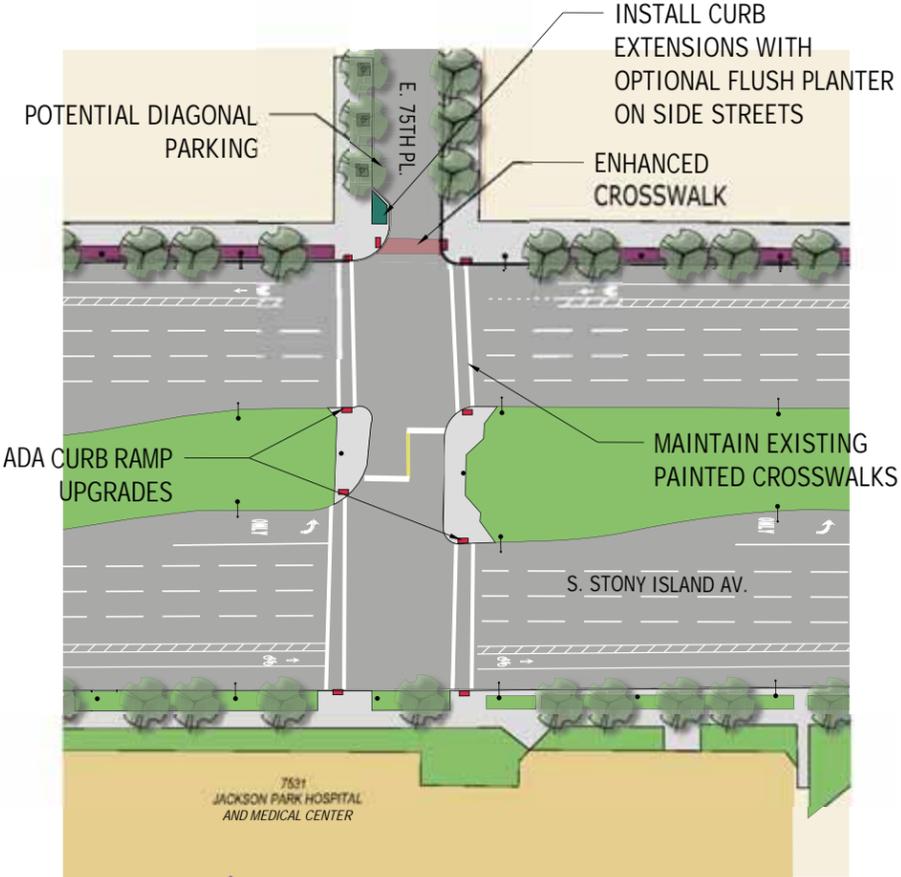
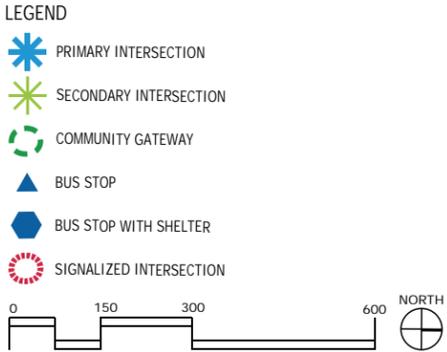


Figure III-8: Secondary Intersection Improvements



Gateways

Gateways to the Stony Island Avenue focus area are easily defined on the north at E. 67th Street, where Jackson Park begins, and on the south at the E. 79th Street/S. Chicago Avenue intersection. The existing physical attributes of both these intersections makes a unique statement as one enters and exits them along the corridor. Both intersections create a unique backdrop for community identity improvements. Gateway improvements at E. 67th Street must respect the historical significance of Jackson Park and Frederick Law Olmsted's design philosophy. Community identity elements or landscape improvements should not be incorporated within Jackson Park. In addition, to the demarcation of north and south gateways along Stony Island Avenue, there are two other gateways identified along the corridor.

E. 71st Street is a noteworthy east-west corridor, that extends from the South Shore Country Club and South Shore community along the lake on the east, past Stony Island Avenue and further west through the City. A Master Plan for E.71st Street has been developed by the City, and is currently being implemented. The intersection of Stony Island Avenue and E. 71st Street is a significant gateway for both corridors. Gateway improvements at E. 71st Street need to address proposed improvements identified in the 71st Street Master Plan while incorporating community identity elements for Stony Island Avenue.

A fourth gateway location along Stony Island Avenue is identified by the change in scale from Stony Island Avenue to the ramps rising up to the Chicago Skyway. Placement of a gateway at E. 76th Street acknowledges the unique change in scale along the corridor.

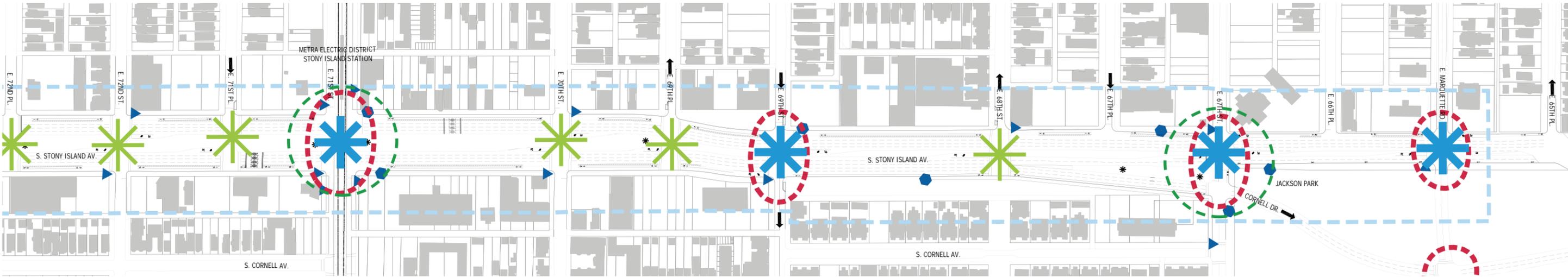


Figure III-9: Intersection and Gateway Improvements

The preferred location for gateway improvements along Stony Island Avenue north of E. 79th Street is in the existing landscape medians because of the available space. Care must be given that placement of improvements in the median must not interfere with sight distance for vehicles. Sight distance analysis defines a clear zone that allows a motorist to see oncoming traffic, unobstructed, to be able to safely maneuver through an intersection. It is typically performed for intersections where there is no signal control. Sight distance must be evaluated for each gateway median location based on the existing 45 mph speed limit.

E. 79TH STREET INTERSECTION

The E. 79th Street/South Chicago Avenue and Stony Island Avenue intersection has one of the highest crash totals in the City. The six leg configuration with both local and express lanes, Skyway ramps and long intersection crossings all contribute to the safety problems at the intersection. Proposed improvements to the intersection are included in the Stony Island Avenue Master Plan because the E. 79th Street/South Chicago Avenue and Stony Island Avenue intersection is a gateway to the community; and as a gateway, this intersection is uninviting because the functional movement through the intersection is challenging for motorists, pedestrians and bicyclists. There is a perceived confusion at the intersection due to the multiple approaches and the intersection is complicated with the visual clutter of the Skyway infrastructure towering above, the Skyway ramps landing and ascending within the outer limits of the intersection and the constriction caused by the narrow railroad viaduct over the south leg.

Stony Island Avenue lanes north of this intersection add another layer of confusion to the movements. North and south bound traffic have two sets of lanes approaching, continuing through, and departing from the intersection. Lanes for each direction are located between the Skyway ramps as well as on either side of the ramps; which means as southbound traffic along Stony Island Avenue approaches the intersection it can be on the “local” lanes (west of the Skyway ramps) that allow for right turns and through movement or on the lanes between the ramps that allow for left turns and through traffic. The same configuration exists for northbound traffic.

The railroad viaduct across the south leg adds another level of confusion. The number of through lanes changes from two in each direction under the viaduct to three for southbound traffic and four for northbound traffic. Just south of the intersection drivers in the inside set of southbound lanes are confronted by drivers merging from the outside “local” through lane. Just north of the intersection, northbound drivers are presented with two inside through lanes and two

outside “local” lanes. This configuration may encourage hasty starts and erratic lane selection as anxious drivers departing from the congested conditions under the narrow viaduct enter more free flowing traffic conditions.



View looking east of Skyway Ramps over the Intersection of Stony Island Avenue, E. 79th Street and S. Chicago Avenue

A specific concern to be addressed by the Master Plan is to improve the safety of the intersection. The safety can be addressed by simplifying the lanes and turning movements for motorists and bicycles while minimizing the length of crosswalks for pedestrians. Bus stops are located on the near side and far side of the intersection which is an indication that the intersection is difficult to traverse for pedestrians. The current length of several crosswalks are too long for a pedestrian to cross from one side to the other without stopping at medians, especially across the northern leg of the intersection. A pedestrian traveling along S. Chicago Avenue would cross thirteen (13) lanes of traffic to continue walking along the north side of S. Chicago Avenue. The intersection is supported with countdown pedestrian signals; however it is not enough to make the intersection comfortable for pedestrians.

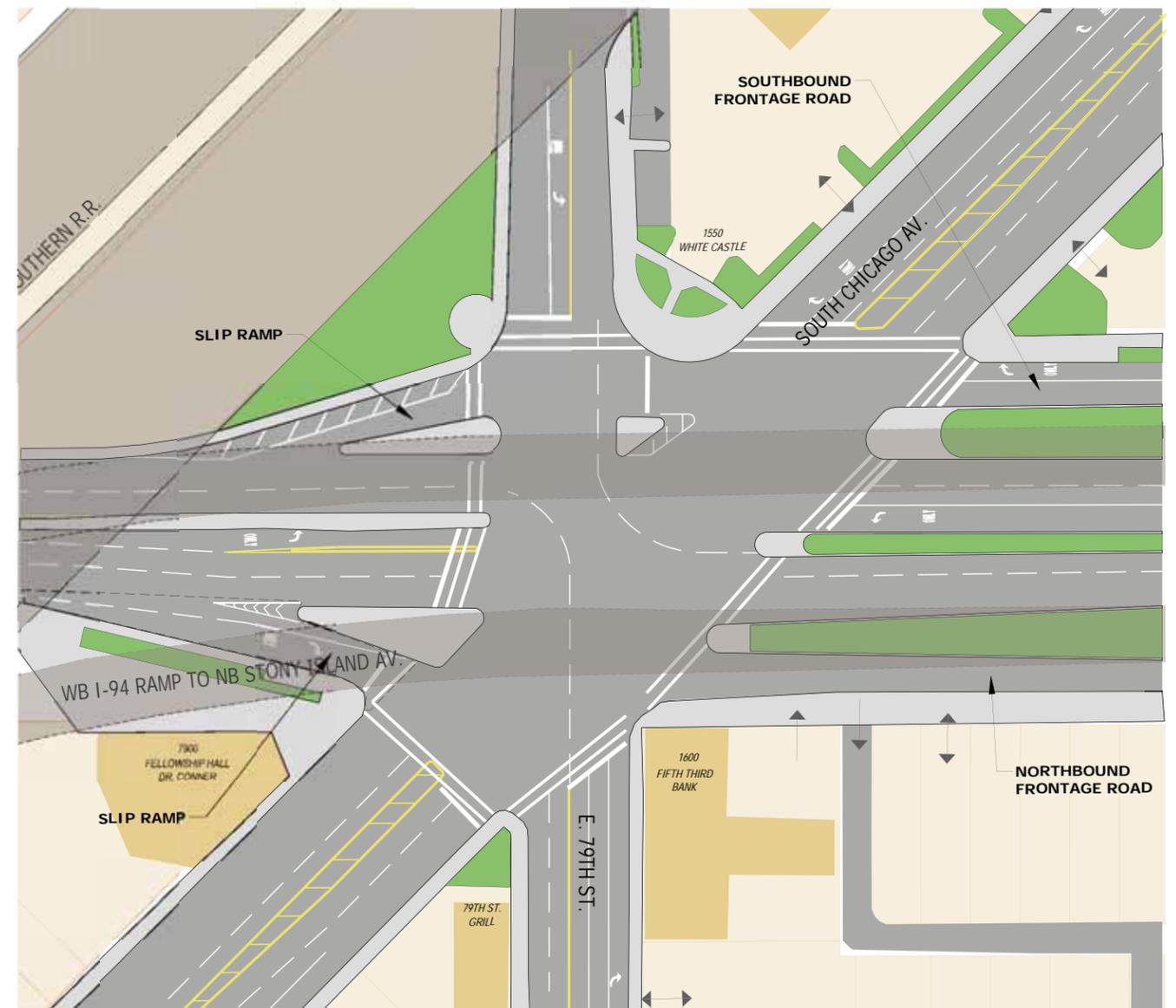


View Looking North Along Stony Island Avenue Between the Skyway Ramps

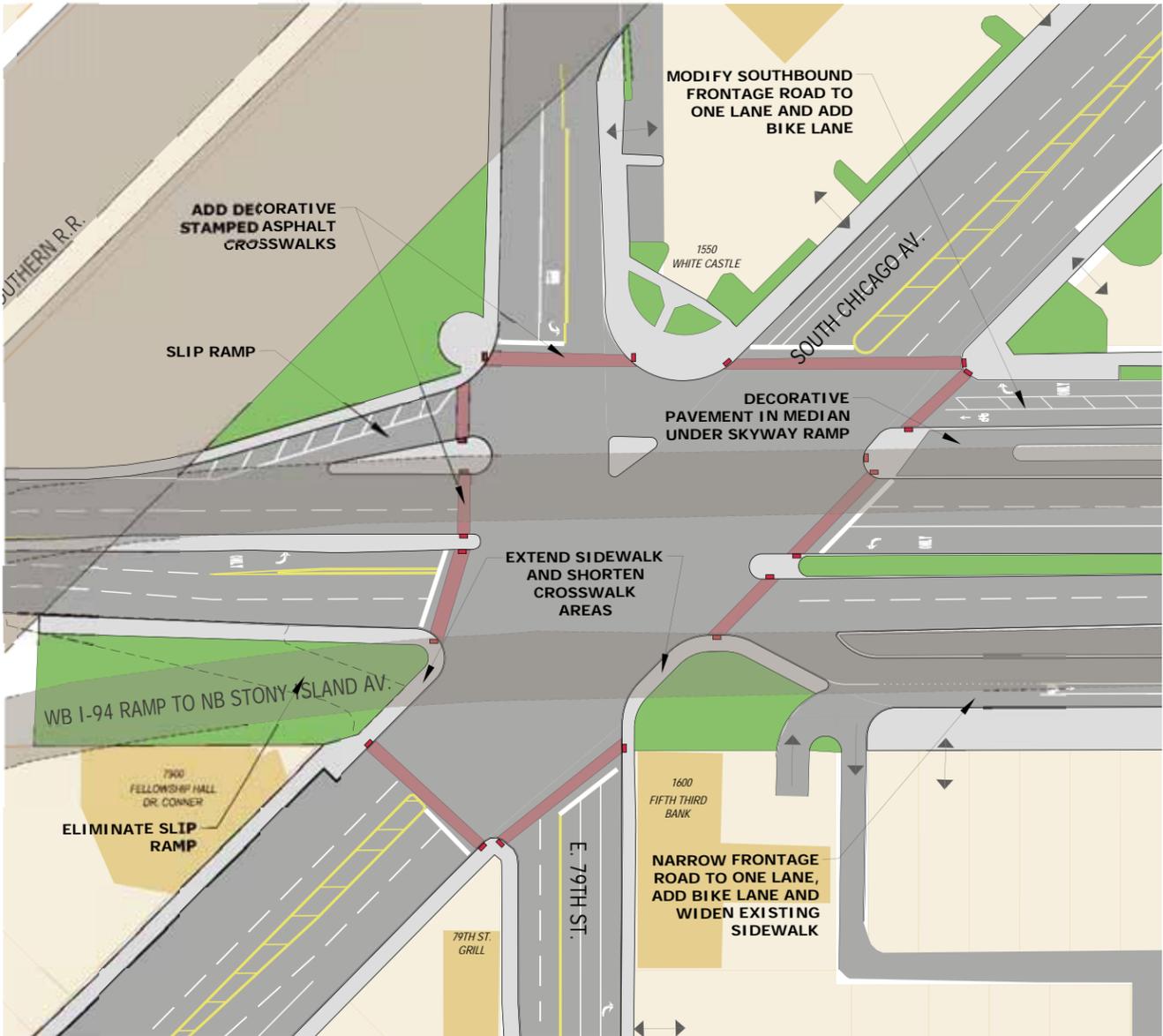
Future improvements to the E. 79th Street intersection should minimize the pedestrian, bicyclist and vehicular conflict areas by reducing the amount of lanes necessary to efficiently carry vehicular traffic through the intersection. Any improvements can only be implemented after a thorough traffic study evaluates the intersection.

The Master Plan identifies a progression of improvements to the intersection. The improvements make minimal impact on vehicular accessibility while significantly enhancing pedestrian and cyclists’ facilities. The Near Term improvements that modify the roadway are located primarily along the east side of the northbound lanes and can be implemented with minor adjustments to accessing

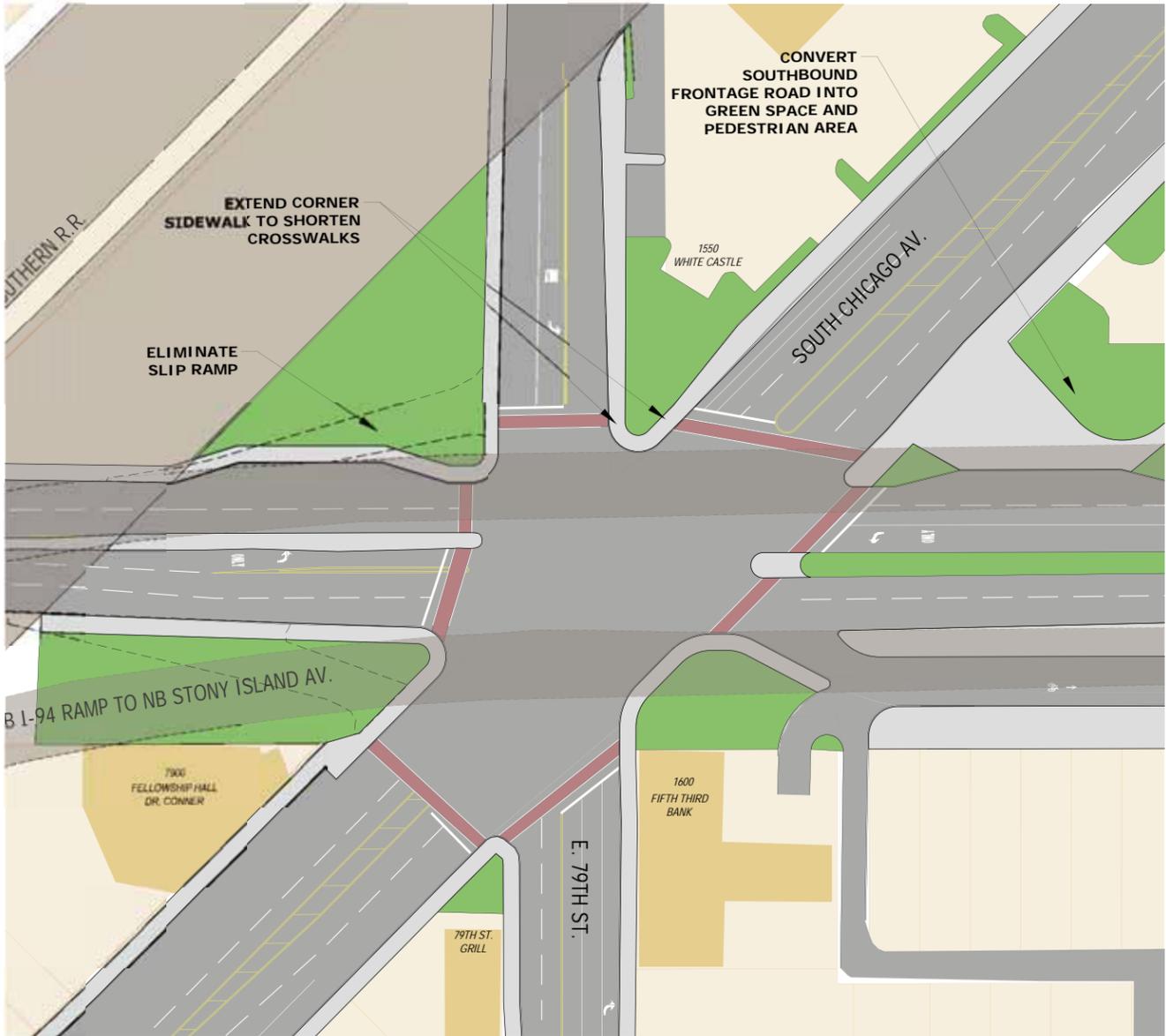
existing businesses. The Long Term roadway improvements are focused on the southbound lanes and would primarily be implemented through redevelopment of the contiguous property. Figure III-10 illustrates the evolution of improvements for the E. 79th Street intersection from existing conditions to Long Term.



EXISTING CONDITION

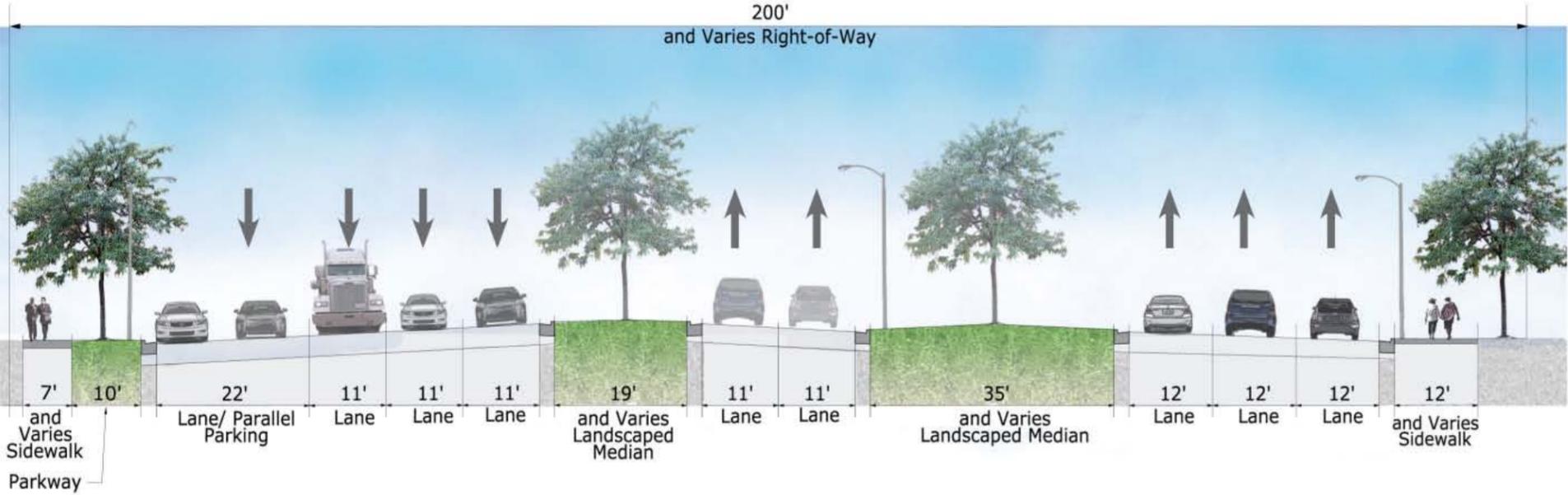


NEAR TERM IMPROVEMENTS

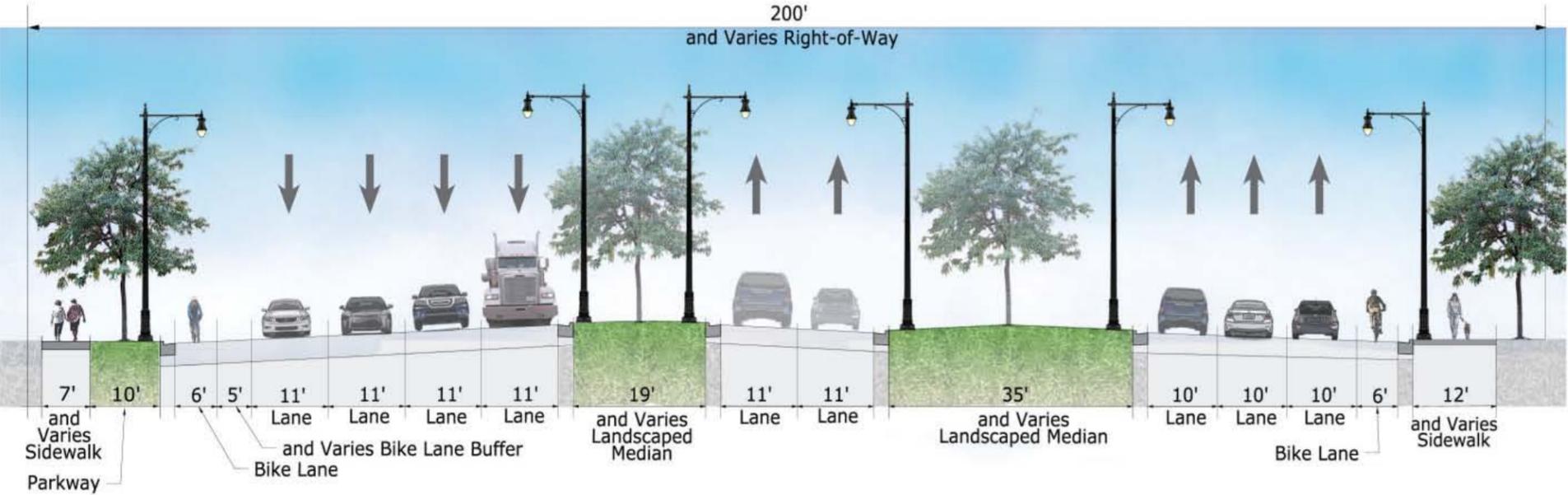


LONG TERM IMPROVEMENTS

Figure III-10: E. 79th Street Intersection Phased Improvements



Typical Cross Section in Sub Area 1 (E. 79th Street to E. 76th Street) - Existing Condition View Looking North



Proposed Cross Section in Sub Area 1 (E. 79th Street to E. 76th Street) - Near Term View Looking North

Figure III-12: Typical Cross Section - Sub Area 1

LONG TERM

Implementation of the ultimate Long Term improvement is based upon the timing of future redevelopment of the parcels at the northwest corner of Stony Island Avenue and South Chicago Avenue.

1. Assuming redevelopment will occur in the mid to long term the southbound frontage road is proposed to be eliminated and replaced with a meandering pedestrian path. The area adjacent to the path could be developed as a linear park which could be designed to include a farmer's market or sculpture garden.
2. The meandering design of the path is intended to discourage use by bicyclists. Southbound bicyclist would be accommodated on a proposed on street bike route along E. 77th Street and through the redeveloped area along S. Harper Avenue.

3. It is assumed that a traffic signal would be installed on S. Chicago Avenue at or near S. Harper Avenue when the parcels are redeveloped. This new signalized intersection should be designed to accommodate southbound bicyclist as they would be turning onto the bike lanes along South Chicago Avenue.



Existing Southbound Frontage Road



Simulation of transforming the Southbound Frontage Road to a Greenspace with a Pedestrian Trail

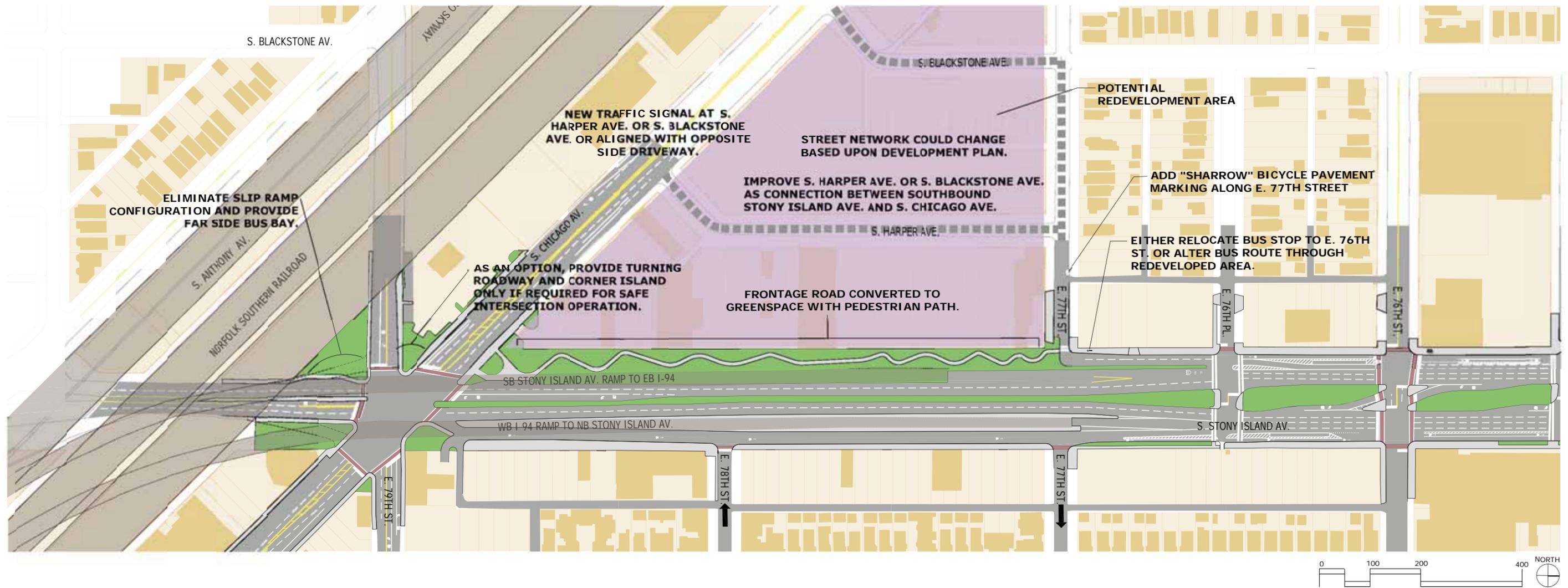


Figure III-13: E. 79th Street Intersection Improvements - Long Term

Community Identifiers

Every community has its own distinct traditions, values, and norms that help make up its collective identity. The more inclusive and stronger that identity becomes the more local citizens will be encouraged to take pride in, and to take part in that community. Therefore, as part of the streetscape master plan, proposals have been made for "Community identifiers" to assist in enhancing the visual identity of the community.

Stony Island Avenue already has a strong identity. The Skyway and its ramps and the Stony Island Avenue's expansive width introduce a memorable regional scale into the surrounding city fabric.

The challenge in accentuating this identity is to design enhancements that could represent the community and address the roadway's extensive width, while acknowledging the dramatic change in scale from the towering ramps of the Skyway to the intimate park setting of historic Jackson Park. Figure III-14 illustrates the preferred locations for community identifiers. The community identifiers therefore have to address a hierarchy of scales. After considerable examination two themes emerged for the study of the Avenue and its immediate environment. One was inspired by nature and the history of the area and the second evolved as a response to man-made structures that influence the function and identity of the corridor.

Chicago. The original Stony Island was a rocky outcropping that stretched for over a mile between Stony Island Avenue (1600 east) and Kingston Avenue (2500 east), from E. 91st Street to E. 94th Street. It began as a coral reef on the floor of a great inland sea that was covered by subsequent layers of limestone. It survived the abrasions of the glacial age to stand 20 to 25 feet above the surrounding plain. It appeared to early settlers as an island because it stood out in contrast to the surrounding undulating prairie. Two quarries later reduced its size and the remainder was razed to make way for development.



View of quarry at Stony Island - Source "The 1902 Chicago Folio, U.S. Geological Survey, Geologic Atlas of the United States, Number 81.



Limestone rock formation at Stony Island - Source "The 1902 Chicago Folio, U.S. Geological Survey, Geologic Atlas of the United States, Number 81.

NATURAL REPRESENTATION

The Master Plan commemorates and celebrates this distinguished history by representing it in symbolic form. The existing wide median islands provide a unique canvas for large-scale planters that would be reminiscent of the original rock outcroppings. Care must be taken to interpret this original form for contemporary urban conditions. They should represent quarried stone walls projecting upwards from the ground, balancing both the natural and man-made and vary in scale, reflecting the hierarchy of scales expressed on the Avenue, see Figure III-15. The larger urban

outcroppings should be located adjacent to the Skyway ramps and at the community gateway intersections, with smaller outcroppings elsewhere on the corridor. These features will be planted to complement the existing landscape medians and to add color at the most highly visible locations. They will be sited to minimize disruption to the existing mature plant material and to preserve safe sight-lines for both motorists and pedestrians.

HISTORY OF STONY ISLAND

All communities change over time but this area has an enduring historical importance. Within the name Stony Island there is a reference to an extraordinary ancient geologic history as well as the early history of settlement in



Figure III-14: Gateways and Community Identifiers



Existing Conditions - View Looking Southwest from the Northeast Corner (Jackson Park Hospital) of the E. 76th Street Intersection



Existing Conditions - View Looking North toward E. 71st Street Intersection from Northbound Lanes



Simulation of Large Uprising Stone Planter in Median with Additional Streetscape Elements



Simulation of Small Uprising Stone Planters Located in the Medians on Both Sides of E. 71st Street.

Figure III-15: Symbolic Outcropping Planters - Community Identifiers

Challenges to enhancing the E. 71st Street intersection include the large metal railroad control cabinets located in the middle of the intersection. Relocation of the cabinets out of the intersection is unforeseen in the near or long term future. By improving the hard surface that encompasses the controllers, the railroad gates and the tracks to a clean and consistent pavement the aesthetic of this area would be improved. In addition, adding a new coat of paint on the controller boxes, that is a consistent color will also improve the appearance. As proposed in the E. 71st Street Master Plan, planters could also be considered to be installed along the east-west curbs of the median.



Intersection of Stony Island Avenue and E. 71st Street and Railroad Utility Cabinets in Center median



Northeast Corner of the Intersection of Stony Island Avenue and Cornell Drive, with lawn damage from pedestrian traffic

Additional improvements should be considered at the E. 67th Street intersection to complement the urban outcropping and correct an existing concern at this intersection. The southern end of the median that separates Stony Island Avenue and Cornell Drive is trampled by pedestrian traffic. Paths have been worn in the existing lawn, that have left dirt trails. This particular location is the very southwest corner of Jackson Park and sensitivity to the design philosophy of Jackson Park is of utmost importance. Enhancing this point with acceptable paving improvements that supported the pedestrian movements would enhance an important location in Jackson Park, and eliminate its current negative appearance.

RECOGNITION AND MEDIATION OF REGIONAL INFRASTRUCTURE

In contrast to the history of natural features, the structures of the Skyway and railroad represent a larger context in which to view Stony Island Avenue. They are visual reminders of our connection to a national system of transportation and act as entryways to the city of Chicago as well as the neighborhoods. Their impressive scale however, can overshadow more local activities. Therefore it is necessary to find a balance between the regional and local scales.

The Chicago Skyway ramps extend over the E. 79th Street/S. Chicago Avenue/Stony Island Avenue intersection and swoop down into Stony Island Avenue. This intersection is visually cluttered with multiple lane approaches and dissected by the supporting structure of the ramps overhead. The recommended treatment for the structure and this intersection seeks to reduce confusion, increase safety and make the environment more pedestrian friendly while using the Skyway structure as a supportive backdrop.

The pedestrian experience and safety will be enhanced by providing colored crosswalks, enlarged pedestrian islands and enhanced lighting. Designated bike lanes will reduce the impact and scale of the frontage roads. In addition, the visual impact of the Skyway structure will be mediated by adding colored columns and lights giving it a more cheerful countenance. A transparent LED curtain, hanging independently between the structural supports, will provide a canvas that could be lit with different colors and patterns, see Figure III-16. These transparent screens will not only add interest but also reduce visual clutter while allowing sufficient sight lines for safety. They will allow a clearer visual distinction between the travel lanes that extend through the Skyway ramps and the frontage roads. The planting along the median on Stony Island Avenue will extend further into the intersection from the north and stone pavers will add interest under the ramps.



Existing Conditions - View Looking North at the E. 79th Street Intersection at the Support Infrastructure for the Chicago Skyway Ramps



Simulation of an LED Curtain Supported under the Skyway Ramps. The LED Curtain Helps to Minimize the Visual Clutter of Viewing through to Multiple Travel Lanes under the Ramps.

Figure III-16: LED Curtain under Skyway Ramps - Community Identifiers

Streetscape Elements

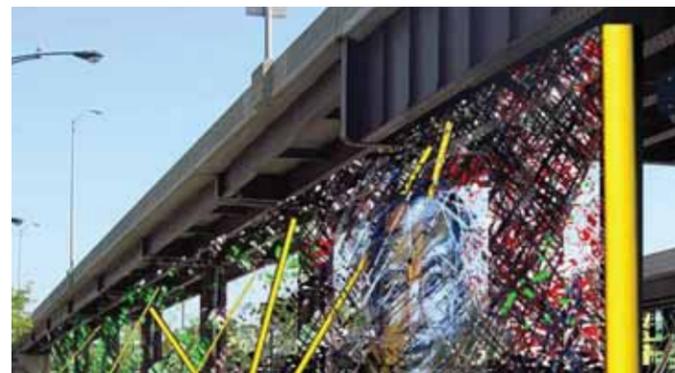
The introduction of street trees, decorative street lights, and other streetscape elements in a logical rhythm along both sides of the corridor along with the siting of the Community Identifiers will provide an overall continuity for the corridor, joining its disparate elements into a coordinated whole.

Public Art

Stony Island Avenue is unusually suited for the outdoor display of public art. The scale of the medians, the cultural heritage of the surrounding communities and the fact that Stony Island Avenue is an important entryway to the City, all suggest it as a location for the display of large-scale public art. The creation of an integrated linear gallery would require a comprehensive framework for incorporating art in the urban environment which is beyond the scope of this plan, but mention of this concept is incorporated here as a reminder of the Avenue's potential as a significant cultural and artistic asset to the communities along its length and to the City itself.



Uprising Stone Planters Could be a "Stage" for the Presentation of Public Art Sculptures



Images Could be Incorporated into the LED Curtain During Events in the Community

SIGHT DISTANCE CLEAR ZONE

As additional amenities such as community identity enhancements are incorporated into the landscape median, it is necessary that the placement of those improvements do not interfere with the ability for motorists, bicyclists and pedestrian to see oncoming traffic around the median.

Sight visibility is important at every intersection. Intersections that have no signal control have an added concern since there is no protection for movement to cross the road.

An intersection sight distance evaluation was conducted to determine the areas in the center median along Stony Island Avenue where landscaping and community identifier enhancements can be placed without blocking sight lines for motorists. The intersection sight distance is the length of roadway required for a vehicle to accelerate from a stop condition and complete a full turn without forcing major roadway travel speeds to decrease by more than 30%.

Clear zones have been defined that provide sufficient sight lines along the corridor. It is within these sight lines that the median plus any enhancements, including plant material, must be less than 3.5 feet in height - the height at which vehicles can recognize other vehicles. Figure III-17 illustrates a typical clear zone for an unsignalized intersection.

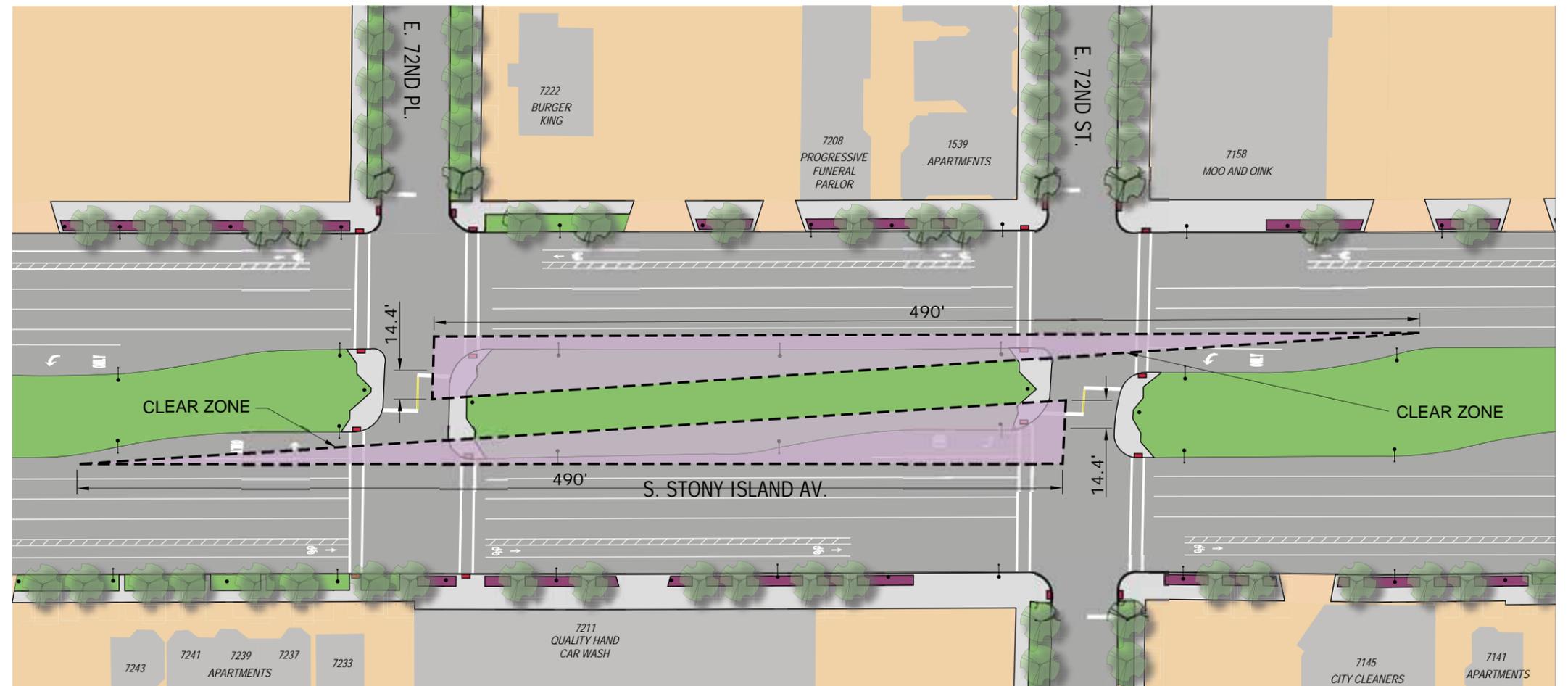


Figure III-17: Sight Distance Evaluation for Community Identifiers

Streetscape Elements

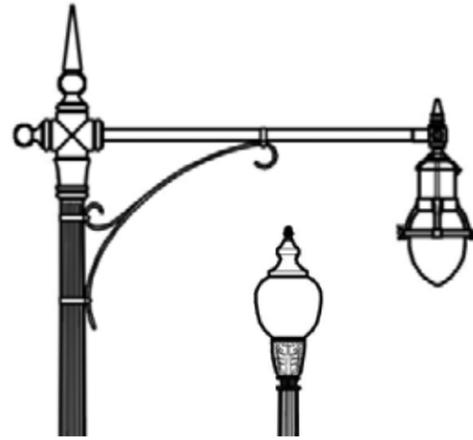
The streetscape elements are what add detail and enhance the character of a streetscape. The details of certain elements may only be perceived by pedestrians, however the combined rhythm of the placement of the streetscape elements, along the corridor, is apparent by everyone that travels along the corridor.

This section identifies the streetscape elements to be incorporated into Stony Island Avenue.

STREET LIGHTS

There are two types of street lights that would be introduced to Stony Island Avenue. One is a decorative roadway street light that provides the lighting that creates a safe roadway for motorists and bicycles, and safe sidewalks for pedestrians. The Chicago Gateway 2000 light fixture is a decorative roadway street light that the City of Chicago has identified in the City of Chicago Street Light Master Plan as the street light to be used when upgrading street lights for streetscape projects. The Chicago Gateway 2000 street lights are high mast lights that provide lighting for the roadway as well as sidewalk areas. The street light poles have a decorative 34' support pole and decorative mast arm with a tear drop luminaire. The finish for the street light is black to complement other streetscape elements. The spacing for the Chicago Gateway 2000

lights can be assumed to be 100' to 150' on center, with the actual spacing to be determined in the detail design of the streetscape. The street lights would be installed on both sides of the travel lanes opposite each other. For Stony Island Avenue the opposite side of the travel lanes would actually be along the median for northbound and southbound traffic. Along the roadway section between the Skyway ramps, where the median narrows, a double mast arm street light assembly would be recommended to provide adequate lighting.



Chicago Gateway 2000 and Single Acorn Street Lights - Source: CDOT

The Chicago Single Acorn street light is the second type of street light that provides ambiance in accentuating the pedestrian scale of the streetscape. The height of the Chicago Single Acorn is approximately 16' and has a decorative support pole. The lower height of the Chicago Single Acorn allows the decorative Acorn luminaire to provide additional light for sidewalk areas; these lights are not used to supplement lighting for the roadway. A single Chicago Single Acorn light would be spaced between the Chicago Gateway 2000 lights along the sidewalks on the east and west side of Stony Island Avenue and not between the Chicago Gateway 2000 lights in the median. However, it is recommended a Single Acorn light is placed at each sidewalk in the median at crosswalks to enhance the pedestrian scale in the middle of the roadway.



Chicago Gateway 2000 Street Light with Double Mast Arm, Source: CDOT

STREET FURNITURE

Street furniture can increase the function and aesthetics of pedestrian areas. Along Stony Island Avenue the scale of the roadway does not lend itself to a random placement of benches and other street furniture to develop public seating areas where pedestrians would stop and sit and enjoy the day watching traffic and people. Stony Island Avenue is however very populated with bus stops. There are approximately 48 bus stops along Stony Island Avenue and immediately along the side streets. The bus shelters have a built-in bench but bus shelters are not located at each stop. Benches and trash receptacles should be located at each bus stop. The City of Chicago Streetscape Guidelines identifies a preferred palette of street furniture.



Standard Streetscape Bench - Source: CDOT



Standard Streetscape Trash Receptacle - Source: CDOT



Chicago Gateway 2000 and Single Acorn Street Lights - Source: CDOT

LANDSCAPE ENHANCEMENTS

The introduction of landscape enhancements, such as street trees, planters and parkway lawns, in a streetscape aids to the sustainability of the streetscape by minimizing the “urban heat island effect”. Adding vegetation to an urban area helps clean and cool the air. The shade from trees lowers the temperature under their canopy along the streets, which in turn helps to provide a more pleasant environment for pedestrians.

Street Trees

The medians are well planted with trees, shrubs and lawn which enhance the sustainability and aesthetics of the corridor, however the street trees that seem to sporadically dot the sidewalks of Stony Island Avenue do not have the same affect. Street trees should be spaced approximately 25’ on center for the entire length of the corridor.



Street Tree in Tree Pit with Tree Grate - Source: CDOT

Currently the street trees along Stony Island Avenue are installed using methods ranging from parkway lawn areas to tree grates. Parkway lawns soften the visual affect of the immense pavement spanning across Stony Island Avenue. Where parkways with street trees are currently being maintained in good condition, the parkways should be maintained and a carriage walk added to protect the parkway adjacent to the curb.

For areas without maintained parkway lawns, the harsh urban conditions and the potential limited maintenance define a tree pit with tree grate as the preferred type of street tree installation. The tree pit opening would be 5’ x 5’ fitted with cast or ductile iron tree grate that has an ADA acceptable walking surface. With the use of a tree

grate there is no additional landscape areas, such as lawn or planters that require maintenance. A concern for the use of tree grates is that the tree root exposure to rain and air is limited to the 5’x5’ grate. To increase the exposure of the tree’s root system as it matures, permeable pavers are proposed to be installed between tree grates.

Permeable pavers are pavers that allow for absorption of rain water through the pavement surface into the subgrade. The absorption of the rainwater adds air and water to the street tree root system while removing a portion of rain water from the existing storm sewer that is over capacity. The permeable pavers should be dark rich pigments that add color to the streetscape.

Additional improvements that can aid in the future health of the street trees is to include structural soils with the reconstruction of the sidewalks around the street trees, under the permeable pavers as well as the concrete sidewalk. Structural soils are engineered to accommodate compaction requirements for paved surfaces while allowing tree root penetration under the pavement.

Curb Extension Planters

An optional landscape enhancement to be introduced to Stony Island Avenue is a planter in the proposed curb extensions. Curbed planters could be constructed in curb extensions if a maintenance agreement is developed with the community to maintain the proposed plant material. Curbed planters offer an opportunity not to just plant street trees but they allow a location that shrubs, perennials, and annuals can color the community. Irrigation is installed in planters by the City to aid in sustaining the plant material.



Curb Extension with Planter - Source: CDOT

Private Streetscape Landscape Improvements

As redevelopment or site improvements occur through the actions of private developers/land owners there are landscape improvements that are identified in the Chicago Landscape Ordinance that will further enhance the Stony Island Streetscape. The Chicago Landscape Ordinance requires that all parking lots located against the public right-of-way provide a landscape buffer to soften the look of the parking field from the street. Some properties such as Starbucks, at the E. 71st Street intersection have installed a landscape buffer when the site was redeveloped. The intent of the Landscape Ordinance is to also have existing non-conforming sites to retrofit the landscape improvements on their site. The original schedule for the retrofits within the City of Chicago was to be completed in 2008.

HARDSCAPE

Sidewalks

The walking surface for pedestrians must be smooth and free of obstructions. Scored concrete sidewalks provide a clean ground plane for a streetscape that do not visually conflict with ADA requirements for curb ramps at corners. Interest can be added to the sidewalk with the introduction of a varied scoring pattern that reflects the placement of streetscape elements such as tree grates and street light poles. In addition, decorative paving materials could be incorporated to add more interest to the sidewalk. The permeable pavers proposed between street tree grates not only aid in the health of the trees and sustainability of the streetscape it also accents the sidewalk with a wide paverband adjacent to the 1’ carriage way and curb.



Permeable Pavers Between Tree Grates with Carriage Way - Source: CDOT

Crosswalks

The Master Plan identifies decorative crosswalks for side streets as well as at signalized (primary) intersections. The City of Chicago primarily uses colored, stamped asphalt to highlight crosswalks within streetscape projects as an approved standard. Alternate materials may be acceptable based upon testing by the City such as decorative thermoplastic pavement markings.



Colored, Stamped Asphalt, approved City Standard for Decorative Crosswalks



Thermoplastic Crosswalk Application, Source: Integrated Paving Concepts

Driveways

The numerous driveways along Stony Island Avenue affect pedestrian safety. Consolidation or elimination of driveways will minimize pedestrian/vehicular and cyclist conflicts. Sidewalks should continue through driveways providing a pedestrian surface and not change the pavement to a vehicular surface such as asphalt.

The numerous driveways also affect the rhythm of the placement of streetscape elements. The placement of the streetscape elements must be responsive to the movement of traffic in a out of the driveways, by providing adequate clearance from the driveway.

SIGNAGE

There are several types of signage along Stony Island Avenue ranging from traffic control to environmental graphics such as banners located on street lights.

Traffic Control Signage

Future improvements along Stony Island Avenue will require traffic control signage to direct the flow of traffic per the Manual of Uniform Traffic Control Devices (MUTCD), additional considerations for traffic control signage include:

- Adequate signage to alert motorists and cyclists to the bicycle facilities and movements along the corridor
- Placement of signage for ease of visibility by the motorists
- Installation of sign supports that complement the aesthetics of the streetscape
- Street name sign blades that are readable to motorists traveling along the corridor
- I-90 Route shield horizontal pavement markings on Stony Island Avenue to delineate lane for southbound I-90

Environmental Graphics

Banners currently are installed along Stony Island Avenue on the existing light poles. Maintaining a banner program for the corridor will enhance the community identity. Providing a program that installs banners on Gateway 2000 street lights at the gateway locations and additional key areas along the corridor will maximize the visibility of the banners while not visually cluttering the corridor with banners on every street light pole.



Chicago Gateway 2000 with Banner - Source: CDOT

WELCOMING PEDESTRIAN STREETScape

With the future development of streetscape improvements along Stony Island the presence of the development to pedestrians on the street must be considered. Recent developments along Stony Island Avenue have installed and maintained streetscape landscape buffers that are required in the City of Chicago Zoning and Landscape Ordinance, but at the detriment to a welcoming presence along Stony Island Avenue. Front doors to establishments should have a welcoming presence and accessibility from the street. Several developments actually inhibit easy access from Stony Island Avenue by pedestrians, and by doing so present an uninviting streetscape presence.



Sidewalk Presence of Business Minimized by Fencing



Uninviting Pedestrian Access to Business

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