



Cornerstone Park Improvements

Preliminary Investigations Report

PREPARED BY MCCORD SNYDER LANDSCAPE ARCHITECTURE, PLLC
 NOVEMBER, 2013



MSLA

McCord Snyder Landscape Architecture, PLLC
 2129 Five Mile Line Road
 Penfield, NY 14526



700 West Metro Park
 Rochester, NY 14623



134 South Fitzhugh Street
 Rochester, NY 14608



335 Colfax Street
 Rochester, NY 14606



This project is funded in part by a Water Quality Improvement Program grant through the New York State Department of Environmental Conservation.

Introduction

The City of Rochester currently holds 13,003 SF, or 0.299 acres of park land at the Cornerstone Park site. This space is contiguous and adjacent to right-of-way owned by the City on 2 sides, Broad Street (road width varies), and Stone Street (24 ft. road width). The South Avenue Garage (SAG), its south (Broad Street) entrance and the SAG Pocket Park are located directly to the west, are also owned and operated by the City of Rochester. Directly north of the site and forming an imposing wall / boundary to the site is 63 Stone Street, a four-story building owned by Frontier Communications Inc. (formerly Rochester Telephone, Inc.). The site is across the street from or kitty corner to: 1) the Bausch & Lomb corporate office building, Rundel Library, the Broad Street garage, and Clinton Square office building. It is within 3 blocks from the Rochester Convention Center, East Main Street, Washington Square Park, Excellus Blue Cross corporate offices, Frontier Telephone corporate offices, the Hyatt Regency hotel, the Chase Lincoln Tower, the new Midtown Plaza development currently under construction, and the Xerox Tower office building.



Figure 1 - View of Cornerstone Park from the west looking east

General Description of the Park

The park was originally constructed in 1976 as a gift to the City of Rochester by Rochester Telephone Inc., the descendant company of which, Frontier Communications, Inc., still owns and operates facilities in the neighboring building to the north, 63 Stone Street. This building, 4 stories in height, stuccoed and covered with vines on the south side facing the park, serves as a backdrop for the park.

Context

Cornerstone Park is located in the very heart of the City of Rochester - located within 2 block of many of the city's most prominent buildings, natural resources, and public open spaces. It is very close by for a large number of employers in the region including Bausch & Lomb, Xerox, Home Properties, Inc., Excellus Blue Cross, Windstream, Monroe County, Frontier, Chase Lincoln, and numerous other smaller organizations.

Cornerstone Park is located directly adjacent to a recently completed small public open space at the south end of the South Avenue Garage, west of the Park. This space, its design and components are considered directly relevant to the direction to be taken with regard to re-design of the Park. The space is notable for its curvilinear walkways, attractive light poles, steel ribbon benches, and colorful landscaping. Sidewalks include a mix of standard and exposed aggregate concrete.

Further to the west is Rundel Library which fronts on the Genesee River. The library building features a well landscaped formal front entrance space and open, paved courtyards on each side. The library backs up to the Genesee River and, although there is no direct trail link on the east side of the river, there are connections to open spaces across the river at the Blue Cross Arena and Aqueduct Park (on Main Street), and a direct link to the Genesee Riverway trail from Court Street south. Two block to the southwest is the Dinosaur Barbeque which lies directly adjacent to City-owned open space that, over the next few years will be developed into a riverfront promenade connecting Court Street to the river trail further to the south. In short, Cornerstone Park will be quite accessible to bicyclists and walkers using these trails adjacent to the river.

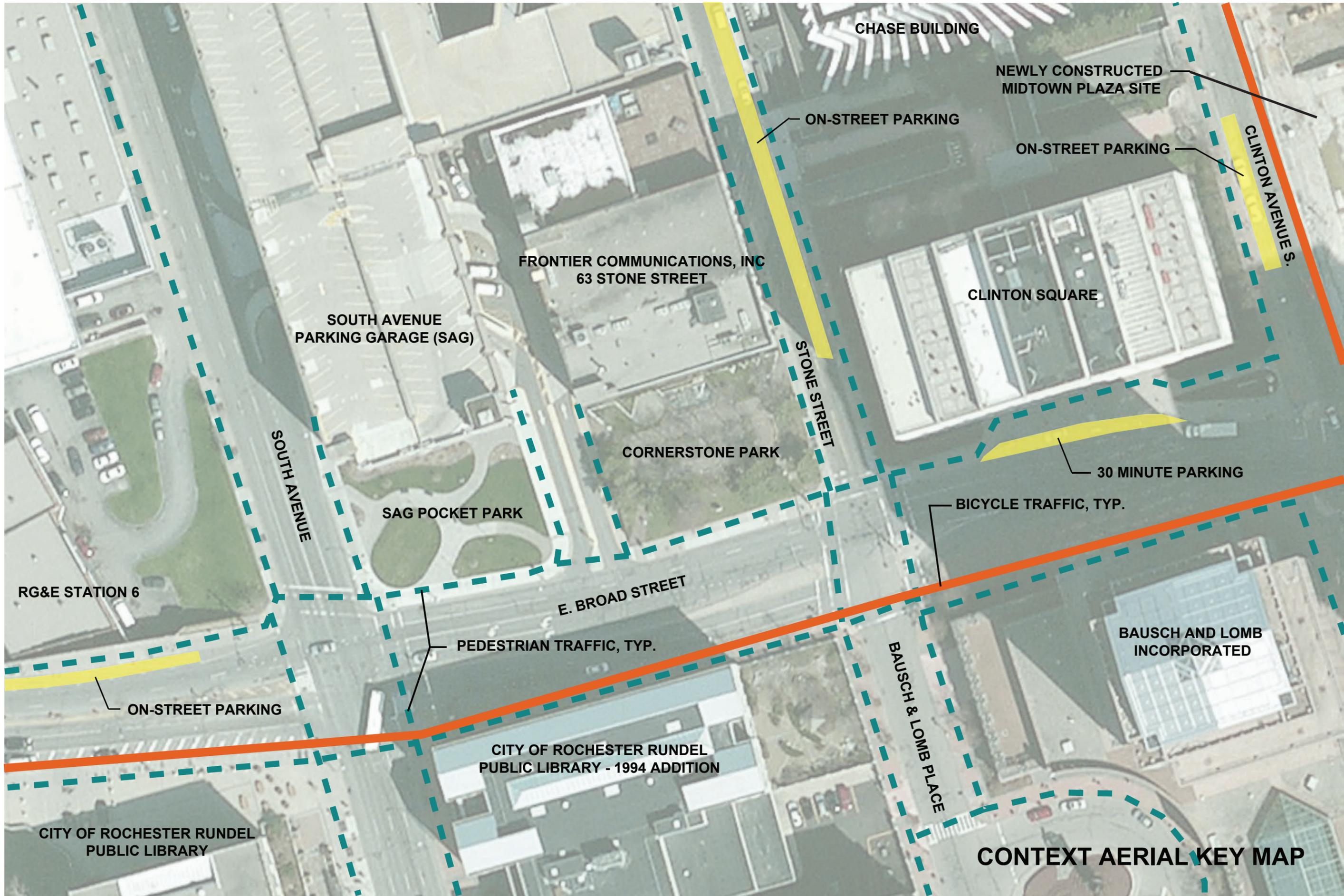
Directly across the street from the Park is a small outdoor garden known as the 'Reading Garden' on the east end of the newer Rundell Library building. It was completed in 1995 and has aged gracefully for the past 18 years. Landscaping there is maintained primarily by a small number of volunteers.

Southeast of the Park is one of the iconic spaces of downtown Rochester, the Bausch & Lomb World Headquarters entrance plaza featuring a large Albert Paley sculpture. Farther to the southeast and 2 blocks from Cornerstone Park is Washington Park, a formal, Olmsted-designed space that remains one of the premier urban parks in Western New York. The tall mature oaks, the Soldiers and Sailors Monument, memorials and cannons and radial sidewalk pattern create a very unique space not found elsewhere in downtown Rochester.

To the east, 2 blocks away is the recently completed Midtown Plaza open space, a large, expansive space that will feature a self-contained stormwater management system, large areas of pavement, and a relatively large public performance space.

There are many generators of park users very close by. They include 3 hotels, the Hyatt Regency, Radisson Inn, and the Hilton Garden Inn being constructed now and due to be completed in 2014; office buildings including the Bausch & Lomb building, Xerox Square, the Chase Tower, Clinton Square, Windstream Building, Excellus Blue Cross, Frontier Center, ESL Headquarters, and numerous others; the Rundel Library, and the Rochester Convention Center. Midtown Plaza, upon completion will feature additional multi-story office and residential space.

The following is a Context Aerial Map.



CHASE BUILDING

NEWLY CONSTRUCTED
MIDTOWN PLAZA SITE

ON-STREET PARKING

ON-STREET PARKING

CLINTON AVENUE S.

FRONTIER COMMUNICATIONS, INC
63 STONE STREET

CLINTON SQUARE

SOUTH AVENUE
PARKING GARAGE (SAG)

STONE STREET

CORNERSTONE PARK

30 MINUTE PARKING

SOUTH AVENUE

SAG POCKET PARK

BICYCLE TRAFFIC, TYP.

RG&E STATION 6

E. BROAD STREET

PEDESTRIAN TRAFFIC, TYP.

BAUSCH AND LOMB
INCORPORATED

ON-STREET PARKING

BAUSCH & LOMB PLACE

CITY OF ROCHESTER RUNDEL
PUBLIC LIBRARY - 1994 ADDITION

CITY OF ROCHESTER RUNDEL
PUBLIC LIBRARY

CONTEXT AERIAL KEY MAP



Figure 2 - The one table located on site is popular at lunchtime with groups or workers from the neighboring offices.



Figure 3 - Existing fired brick hexagonal pavers.

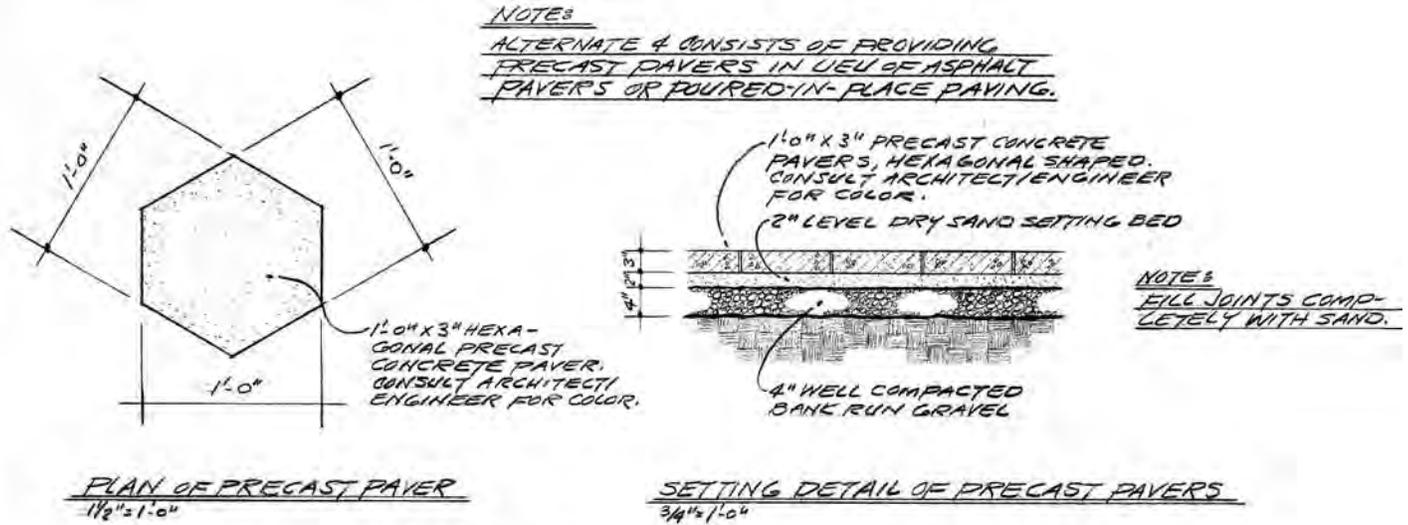


Figure 4 - Hexagonal brick pavers have heaved and become unsafe or are missing in many locations.

Existing Facilities

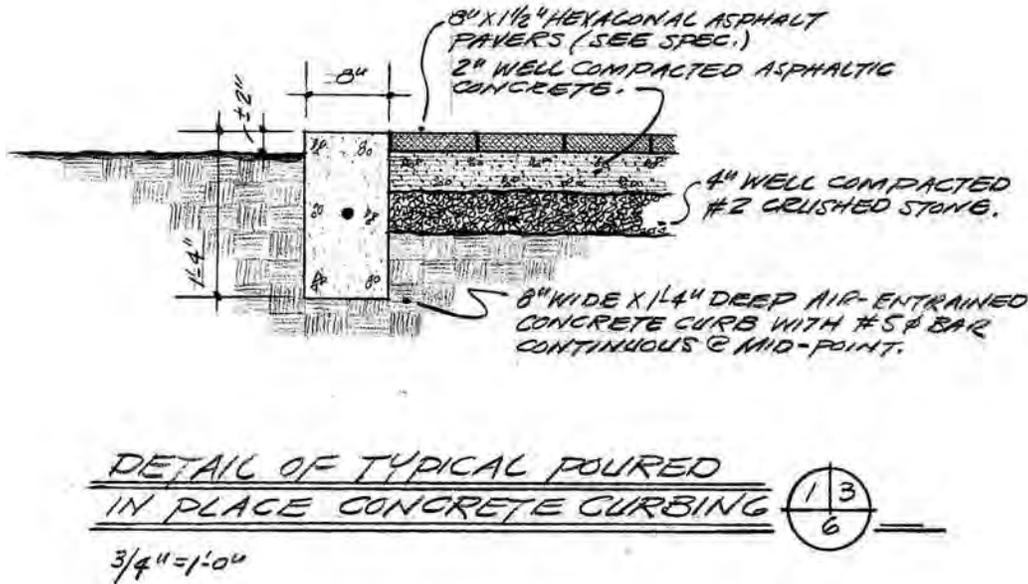
Pavement. Sidewalks surrounding the park on 3 sides and within the right-of way and along the entrance to the South Avenue Garage, are standard concrete in generally good condition and have been well-maintained. Sidewalks within the site are primarily paved with hexagonal, fired brick pavers (Figure 3) that have heaved in many locations to an unacceptable extent either individually or in larger groups of pavers, due to frost heave, roots, and other factors (Figure 4). These pavers are only 1.25" thick and, as such, are more like tiles and they cannot function to interlock as can more modern, thicker pavers and bricks. It is suggested these pavers be completely removed and disposed of. The broken areas of sidewalk are an impediment to access by the disabled.

The following paver details from the 1976 drawings depict: A.) potential paver installation, and B.) actual paver installation.



PLAN & DETAIL OF PRECAST PAVERS ALTERNATE 4

A.) Potential hexagonal brick paver installation detail from 1976 drawings.



B.) Actual hexagonal brick paver installation detail from 1976 drawings.

Other surfaces on site are 1) stone dust in the area between the honeylocust grove planters and 2) an area of concrete pavement that is believed to have functioned as a stage / performance area at one time but has not been used for this purpose in the recent past.

Water Feature: Two steps down to presumably the water level of the existing, non-functional waterfall feature, are in good condition (Figure 5). The bottom of the pool area was once painted blue but is now more grey concrete as it has not been re-painted in quite a while. The waterfall features including the wide falls, and the tower, both about 8 ft. ht. above the pool elevation, appear to be in good condition. The water has not been turned on for this feature for a number of years and was not functioning for this investigation. Various controls, wiring, outlets, piping, etc. appear to be in severely deteriorated condition.



Figure 5 - Existing concrete water feature no longer functions



Figure 6 - Existing timber retaining walls and benches.

Timber Retaining Walls and Curbing: All timber retaining walls (8x8 timbers bolted and spiked) appear to be nearing the end of their useful life. Although there is no evidence of structural failure in any respect, there is evidence of rot at ends of various components of the wall (Figure 8) as well as evidence of damage due to being struck by vehicles and broken (Figure 7). The walls have been painted white along the building wall (north) side of the park and dark brown stained elsewhere in the park. The 1992 maintenance memos say that the timbers were nearing the end of their useful life 20+ years ago and no significant improvements appear to have been made in the interim. Any effort to save these walls would be costly and involve numerous timber replacements and applications of preservative, stain, and or paint and would extend the life of this feature for some length of time.



Figure 7 - Timber curbs are rotting and broken in numerous locations.



Figure 8 - Timber retaining walls are rotted and deteriorating in many areas.



Figure 9 - Damaged and rotting timber benches are at the end of their useful life.

Site Amenities

Long, continuous wood benches bolted to the timber retaining walls have been maintained reasonably well over the years and would continue to function adequately for a time to come given that same level of maintenance. They are, however, higher maintenance than other types of benches that are available in that they need to be painted or stained periodically to keep them from rotting and splintering. They are nonetheless nearing the end of their practical use life. The underlying galvanized steel or cast aluminum supports appear to be in good condition and could be salvaged for some other use.

Two portable exposed aggregate concrete trash containers and one large metal drum container are located at the site at the time of this writing. They can be relocated to another site easily to make way for a new site design that will utilize a more cohesive set of furniture and amenity features.

An aluminum flagpole (Figure 10), estimated to be 20 ft. in height is located centrally along the Broad Street frontage and next to the bus stop shelter. It has not been observed in use throughout the investigative phase of this project. We surmise it has not been used for quite some time.

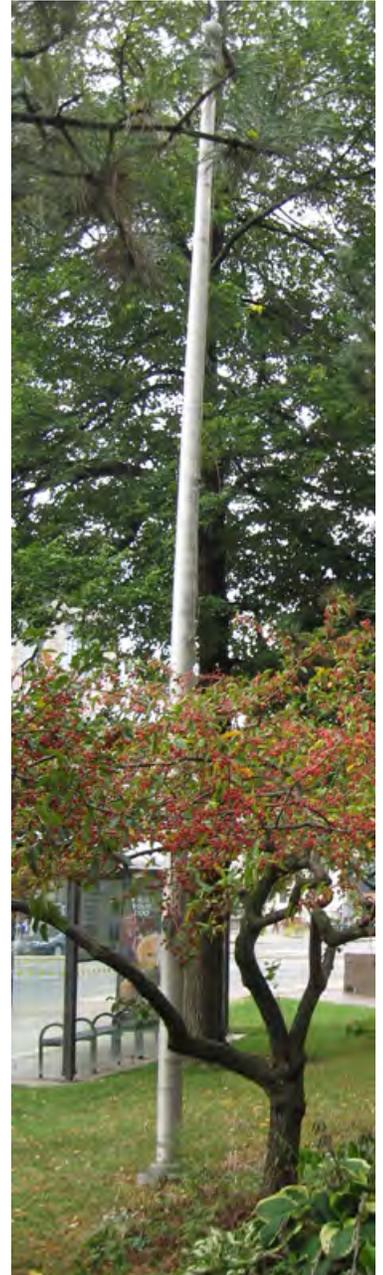


Figure 10 - Existing flagpole.

Irrigation System

An irrigation system (Figure 11) was installed and presumably functional at some point but has since fallen into disrepair and is no longer used. There are numerous pieces of the system still visible in landscape areas including spray heads, drip pipes, black pipe, and connectors. The entire system should be removed and disposed of.



Figure 11 - An extensive irrigation system is in disrepair and no longer functions.



Figure 12 - An existing irrigation system valve box and check-valve hand-hole are located along the north wall behind the retaining wall.

Vegetation

A formal grove of twelve (12) honeylocust trees (Figure 13), all in good condition is located in the central portion of the site adjacent to the former waterfall feature. They are each surrounded with a small 6'x6' planter, about 8" high. Any effort to save these trees as part of a new park design will need to consider the elevation of earth in proximity to the trunks of these trees and special efforts that will be required for root protection.

Several existing red pine (*Pinus resinosa*) remain of what was originally 14 trees surrounding the central seating area / water feature of the site. They are well overgrown and no longer satisfy their presumed original intent of visually screening the outside / street side from the interior of the park. With branches being trimmed to well above eye height, they no longer screen the park but do offer shade to seating areas to some degree. Almost all red pines have been infected with the pine bark beetles (Figure 14) and should be removed.

Six (6) crabapple trees are in good condition and are of a size and shape that could be saved and prove useful to a proposed site design. Several yews along the ivy-covered wall are in good condition and have been well maintained. All-new shrubs have been planted along the outside retaining wall facing the SAG pocket park that are all in excellent condition.



Figure 12b - Irrigation System



Figure 13 - Grove of 12 honeylocusts 6" to 12" DBH

MSLA

Cornerstone Park Improvements



Figure 14 - Red Pines are infested with pine bark beetles.



Figure 15 - The north wall (63 Stone Street) is nearly completely covered with vines.

One Littleleaf Linden tree, 16" dbh is located adjacent to the bus shelter. It is in good condition and again, could be saved if it can be useful to a proposed site design for the park.

Four (4) Callery Pear trees are located 3 in the northeast corner of the site (10", 10", & 16") and one in the northwest corner (8"). They are in generally good condition although well overgrown and so leaning different directions in their effort to find sunlight.

Wall vines are primarily Boston (Japanese) Creeper (*Parthenocissus tricuspidata*), with some wild vines (Poison Ivy, Wild Grape), one invasive species (Oriental Bittersweet, *Celastrus orbiculatus*) and other landscape varieties intermixed all growing up onto the light grey stucco-style wall. cursory examination of the wall reveals that the wall and stucco material appear to be holding up very well (i.e. no cracking or missing pieces noted). Vines have spread, perhaps undesirably, to the east and west sides of the Frontier building, partially covering windows and doorways. The original agreement with Frontier places maintenance of wall vines as their responsibility.

Weed tree and shrub species have taken over in some areas of the wall-side planter and including the pooling chamber above the large waterfall (sumac, red alder, etc.).



Figure 16 -The textured (stucco) south wall of 63 Stone Street appears to be in good condition.



Figure 17 -Poison Ivy growing on the north wall.



Figure 18 -Vines have spread to the front (east) and rear (west) sides of the Frontier Building (63 Stone Street).

Miscellaneous

Signage: A site park designation sign is located centrally along the Broad Street frontage, facing Broad street. It is in good condition. It appears to have at one time been internally lit, however it is not know at this point whether any lighting is still functional.

There are a handful of miscellaneous signs scattered around the park some of which will likely need to be salvaged for re-use and others that we make note of only to remind us that some new signage to take their place will likely be desirable as we move forward with design for the project. They include: a "No Alcoholic Beverages" sign, a bronze "Cornerstone Park" dedication plaque, on granite, a bronze "Pioneer Tree" plaque (recently removed and now missing), and a sign indicating the "Rochester Downtown Host Lions Club" maintains the park. We need to determine which tree is known as the "Pioneer Tree" if it still exists and to what degree it needs to be preserved and protected.



Figure 19 -Park identification sign, facing Broad Street. Sign is in good condition. Appears to have been internally lit at one point. It is not known if lighting still is operational.



Figure 20 -Bronze "Pioneer Tree" plaque - has since been removed.



Figure 21 -"No Alcoholic Beverages" sign posted on the retaining wall at the southwest entrance.



Figure 22 -Cornerstone Park bronze dedication plaque dated 1977. Plaque measures 24"x15". Granite measures 28"x20".

Telephone Booth: The free-standing, Frontier telephone booth near the southeast entrance to the park appears to be in good condition. It is still functional, however given the prevalence of cell phones these days, it is recommended it just be removed and returned to the owner (Frontier Telephone)

Transportation and Access

Bus Transportation

A bus stop operated by RGRTA is located on site with a typical covered shelter structure in place. The shelter is in good condition and appears to be maintained on a regular basis, advertisement signs are present that are up to date. The shelter can stay or be replaced depending on the needs that arise from design schemes for the park and on the desires of RGRTA, the presumed owner of the shelter. The Broad & Stone bus shelter location averages 100 customers per day (80 boarding, 20 alighting).



Figure 23 - Existing Public Telephone Located At The Southeast Entrance To The Park.



Figure 24 - Existing RGRTA Bus Stop Shelter.



Figure 24b - Existing RGRTA Bus Stop Shelter.

MSLA

Parking

There is ample parking available at either the South Avenue Garage located next door to the park, or the Court Street Garage located less than a block away to the south. There is also on-street parking available on Stone Street, Clinton Avenue S. and E. Broad Street. (Refer to Context Map).

Walking and Biking

The site is served very well by the existing city sidewalk system, connecting in all directions to all important venues and destinations.

Bicyclists can navigate either on those sidewalks or on the streets. Those using the Genesee Riverway Trail will be able to proceed east from Exchange Street, cross the river at the Broad Street bridge and enter the park from the west, one block from the river edge. There are currently no bicycle rack(s) located on site. Any new designs for the park should include provision for bicycle parking, especially given the proximity to the Riverway Trail and numerous other downtown destinations.

The Broad Street conversion will have 14' outside lanes that will include sharrows. This will complete the on-street bike facilities on the full length of Broad. None are planned for the South Avenue conversion.

Utilities

Storm Drainage

Cornerstone Park encompasses approximately 0.30+ acres of land at the northwest corner of Broad Street and Stone Street in the City of Rochester. Approximately 50% of the site is covered by impervious surfaces in the form of brick pavers, concrete sidewalks, and concrete structures that once contained a moving water feature. The other 50% of the site is covered with grass or is contained within wooden planters at various locations.

Grading of the park is such that it directs stormwater runoff from the outer grassy areas towards the concrete sidewalks that surround the park and into the street, where it is picked up by the street storm sewer system. The remaining interior areas of the Park, as well as the entrance walks into the Park from the NW, SW and SE are graded to drain to the center area, towards the grove of locust trees. The entrance walk at the NE corner is graded to drain towards Stone Street.

The existing storm drainage system in the Park is minimal, and includes 8"x12" surface drains located in the paver area between the two rows of locust trees and planters. Although construction plans of the Park indicate four (4) of these units, we could only locate two (2). These inlets were clogged full of leaves and debris at the time of our topographic survey, and the grates were not able to be removed to clean them out or verify the size and inverts of the outlets. Original drawings show area drains located throughout the park, however this area no longer has pavers and has been covered in crushed stone, so it is unknown if the drains and/or the piping leading to the utility main have been removed.



Figure 25 - Existing Surface Drain

According to the construction plans, these inlets connect to a 4" diameter cast iron drain that flows east and connects to an existing stone box combined sewer in the middle of Stone Street.

A drain line from the non-functioning water feature is also indicated as being connected to this drain, presumably to facilitate draining of the pool for the winter months. We could find no evidence of the drain connection or control valve that is shown on the construction plans.

Utilities on Stone Street include a combined sewer located in the middle of the street which flows south to Broad Street, where it connects to a 24" diameter reinforced concrete combined sewer that flows west along Broad Street. On the south side of Broad Street is a separate 42" diameter reinforced concrete pipe. This pipe collects runoff from the Broad Street pavement and also flows to the west. There were no storm or sanitary sewer facilities identified within the South Avenue Parking Garage Access Drive area.

Water Service and Fountain

A large vault with a 54" dia. x 1/4" heavy steel cover is located next to the waterfall tower. The vault contains automatic pump with back-up pump, piping and auto-fill mechanics. This has obviously not functioned for many years.

Electric Services

Existing System and Conditions - inspection completed on Nov. 1, 2013 with Matt Perkins and Tom Ferreri of Pathfinder Engineers & Architects, LLP, Jeff Mroczek; City of Rochester and John Gilbert; Regional Facilities Mgr., Frontier Communications, Inc.

Power for the electrical equipment and devices located in Cornerstone Park is currently paid for, and supplied by, a dedicated 225 amp, 120/208 volt, 3 phase, 4 wire panelboard located inside the adjacent Frontier building. Along with the panelboard, associated lighting and pump controls, consisting of time clocks, contactors, and pump controllers are located to the left of the Frontier power distribution panel (painted panel in the picture shown). All equipment is in good condition and appears to be well maintained.



Figure 27 - Time Clocks And Contactors

Existing Light Poles

In the park area, landscape and pole lights are installed. For the most part, the landscape lighting fixtures have been removed. However, wiring, junction boxes and outlets remain. Originally, six (6) area lighting poles were installed. Today, the poles remain, with only four (4) operational and having light fixtures in place. The remaining two (2) poles, located along the South Avenue parking ramp garage driveway, have had the light fixtures previously removed. Lighting system components are operational, however, show age and weathering, and are energized continuously.



Figure 26 - Existing Electrical Equipment



Figure 28 - Pump Controllers



Figure 29 - Existing Light Pole



Figure 30 - Area Light Pole With Fixture Area Light



Figure 31 - Pole With Fixture Previously Removed



Figure 32 - Lighting Outlet and Junction Boxes



Spaced around the park are three (3) 120 volt convenience outlets. It does not appear any of the receptacles are currently ground-fault circuit (GFCI) protected. In addition, weatherproof covers are either missing or not functional.



Figure 33 - Receptacle Cover Not Closing Tight



Figure 34 - Receptacle Without Weatherproof Cover

Existing Up-lighting System

There are numerous 8"x12" boxes located throughout the site, some with covers removed and with wiring exposed. They are usually located next to a buried open cylinder with additional wiring inside. These may have been where uplighting lamps were located at one time. None contain fixtures or lamps at this time.



Figure 35 - Remains of existing up-lighting system components

Gas Service

An existing gas service to the neighboring building to the north (63 Stone Street) appears to be at least partially located on City (Cornerstone Park) property. The 1992 maintenance memo (page 4) notes that this is located in an approximate 3'x4' easement.



Figure 36 - Existing gas valve and meter serving 63 Stone Street, at the northeast corner of the park site.

Plumbing

Existing Systems and Conditions

It appears, originally, a 15 HP pump, located in the Frontier building supplied water to the park fountain / water feature. This pump is now totally disconnected. Currently, two (2) submersible pumps for the fountain / water feature are located in a manhole to the east of the fountain / water feature. Actual pump sizes are unknown. Based on the circuit breaker size, the pumps are estimated to be no larger than 5 HP each. Water level in the manhole is maintained by a float switch connected to a solenoid valve in the Frontier building. Equipment appears to be operational.



Figure 37 - Water Level and Pump System

Water for the existing fountain feature and fixtures located in Cornerstone park is currently paid for, and supplied by, a dedicated 1" water line (pool fill) located inside the adjacent Frontier building. Along with the pool fill, there is an 1-1/2" pool drain line, a 3/4" hose bibb supply line, a 1/2" hose bibb drain line and a 3/4" water meter. On the pool fill there is a solenoid that is actuated by level floats in an elevated tank. This tank also has an overflow pipe that goes to drain, located in an exterior sump (approximately 4' round and 5.5' deep).



Figure 38 - Abandoned 15 HP fountain pump



Figure 39 - Fill line with solenoid valve



Figure 40 - Line to hose bibb



Figure 41 - Water Meter



Figure 42 - Level Tank

In the park area there is an abandoned Level Maintenance Sump Pit that used a series of sump pumps to maintain the pool's water depth. There is also an abandoned irrigation system which has an unknown source of water. All fountain feature piping has been disconnected from the indoor pump but still remains. There is a wall hydrant that no longer has a cover and appears to have been neglected over the years. An abandoned filter station is also located on the north side of the fountain.



Figure 43 - Wall Hydrant



Figure 44 - Filter System



Figure 45 - Level Maintenance Sump Pit



Figure 46 - Fountain Piping

South Avenue Garage Pocket Park

The South Avenue Garage (SAG) and South Avenue Garage Pocket Park are located to the west of Cornerstone Park. Linkages between this newly constructed park, the parking garage and Cornestone Park need to be addressed. A 2009 site plan drawing following the site photographs depicts the park layout, proximity to the South Avenue Parking Garage entry and exits, and relation to the Broad Street and South Avenue Right-Of-Ways.



SAG Pocket Park



Existing SAG Pocket Park Landscaping



Existing Concrete Sidewalk at SAG Pocket Park with Exposed Aggregate Strip



Existing SAG Pocket Park Steel Bench



1'-6" Wide Band of Exposed Aggregate Concrete Between Concrete Sidewalk and Curb

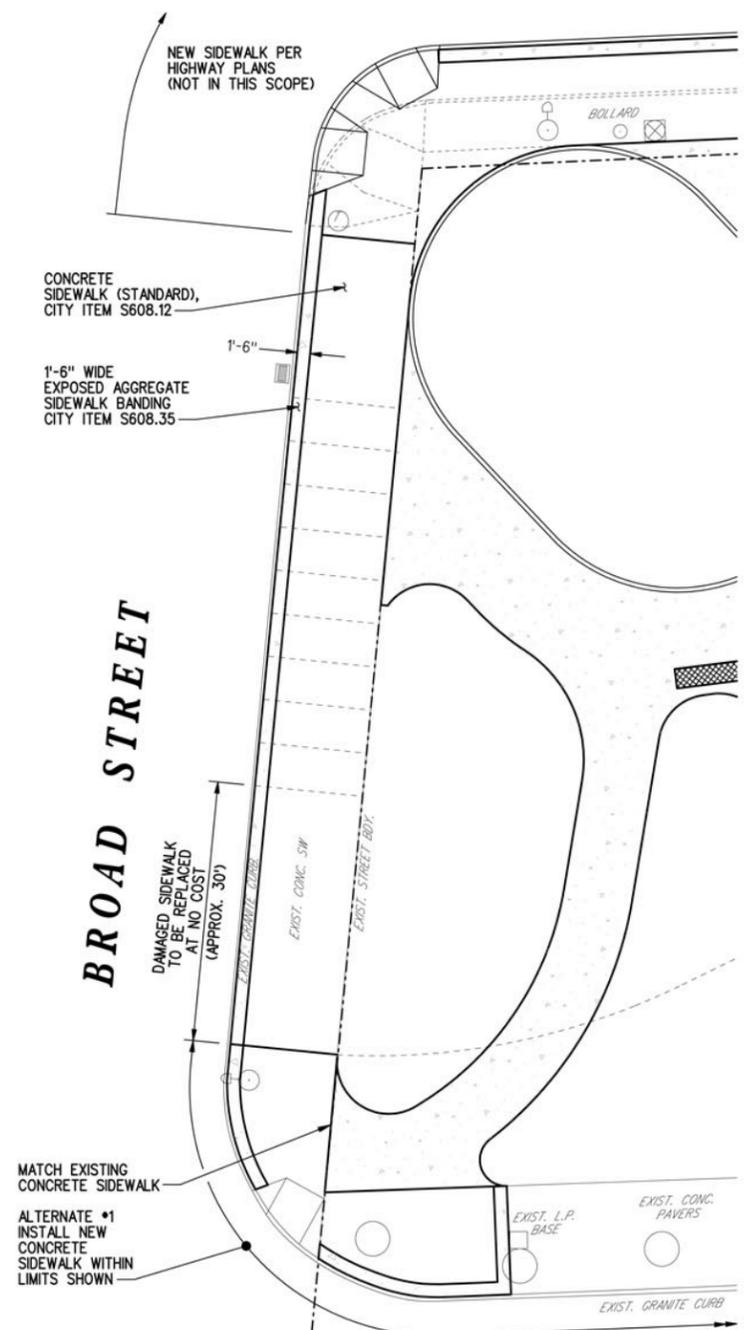
Existing SAG Pocket Park Acorn Style Light



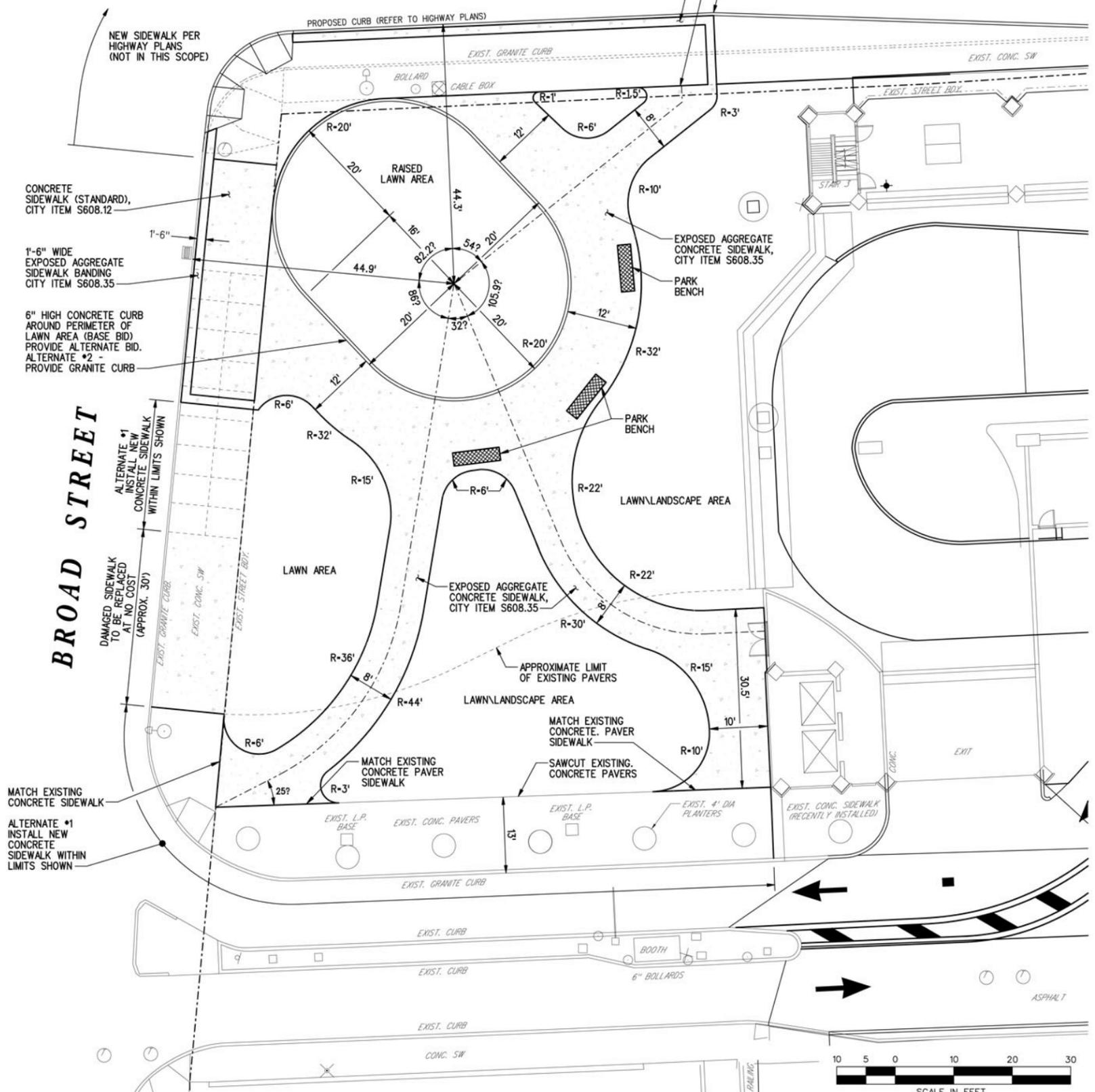
SOUTH AVENUE



SOUTH AVENUE



SIDEWALK BANDING FOR ALTERNATE #1



- SITE NOTES**
1. THE CONTRACTOR SHALL CONDUCT THE WORK IN A MANNER THAT WILL ENSURE, AS FAR AS PRACTICABLE, THE LEAST OBSTRUCTION TO TRAFFIC AND SHALL PROVIDE FOR THE CONVENIENCE AND SAFETY OF THE GENERAL PUBLIC AND RESIDENTS, ALONG AND ADJACENT TO HIGHWAYS IN THE CONSTRUCTION AREA, IN AN ADEQUATE AND SATISFACTORY MANNER.
 2. THE CONTRACTOR SHALL LOCATE, MARK, SAFEGUARD AND PRESERVE ALL SURVEY CONTROL MONUMENTS AND R.O.W. MONUMENTS IN THE AREAS OF CONSTRUCTION
 3. CONCRETE SIDEWALK JOINT LOCATIONS TO BE APPROVED BY ENGINEER PRIOR TO PLACEMENT.
 4. IF ALTERNATE #1 IS SELECTED, USE THE CONCRETE BONDED OVERLAY DETAIL ON DWG. S-B OF THE CIRCULATION IMPROVEMENTS DRAWINGS.

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING IS A VIOLATION OF NEW YORK STATE EDUCATION LAW ARTICLE 140, SECTION 7509

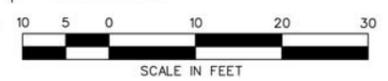
NO.	DATE	DESCRIPTION	REVISIONS
3			
2			
1			

DATE

F|R|A
 Planning | Designing | Building
 255 EAST AVENUE, ROCHESTER, NY 14604, (585)512-2000

POCKET PARK SITE PLAN
 SOUTH AVENUE PARKING GARAGE
 39 STATE STREET
 ROCHESTER, NEW YORK
 CLIENT: CITY OF ROCHESTER, NEW YORK
 DEPARTMENT OF ENVIRONMENTAL SERVICES

PROJECT NO:	06-4120	PROJ. MGR.:	JRK
DATE:	8/10/09	DRWN. BY:	RLB
SCALE:	1"=10'	CHKD. BY:	JRK
DRAWING NO:	C-1		
SHEET NO.	1 of 4		



Program of Development / Design Considerations:

Green Infrastructure Drainage

A green infrastructure drainage system adhering to all the requirements of the NYSDEC Stormwater Quality control regulations (2012 update) is a requirement of the project and a main reason the project has been funded. We will employ creative methods to direct, capture, store, and release stormwater to the extent that the project is demonstrative and sets an example for future, similar projects to follow in the City and elsewhere.

Water Feature

A new water feature is desired that brings both the visible and auditory presence of water to the park. It may be desirable to insure that a portion of the water feature is visible from the Broad Street and/or Stone Street right-of-way to serve as an additional attraction to bring passers-by into the park. One key question to be answered early on in the design phases of the project is the addressing of the NYSDEC regulations on fountains, open water features, disinfection requirements vs. a limited water use feature that operates at designated times and/or perhaps by park users or in a timed manner (similar to the recently developed children's spray-play environments).

Spray Parks are covered under Subpart 6-3 of the NY State Sanitary Code, and swimming pools are covered under Subpart 6-1. According to the Monroe County Department of Health, if the facility is not intended for bathing, then Subpart 6-3 would not apply. Also, if the water is not recirculated; ie, water comes from a potable supply, thru a backflow preventer, through the feature and then drains into a sanitary sewer, then Subpart 6-3 would not apply.

The existing water feature invited the public to walk into the pond at the base of the "falls", and if retained with the recirculation system, would likely be classified by the DOH to fall under Subpart 6-3 regulations, which would require filtration, chlorination and UV disinfection.

If the design of the new water feature includes some sort of barrier to keep people from getting in the water, then DOH regulations would not apply. Some treatment would probably still be beneficial to keep the water clean and keep algae from blooming during the summer.

If it's going to be considered as falling under the spray park regulations, then it will require both types of treatment (UV and chlorination). There is not enough contact time for the chlorine to kill off some of the more resistant bacteria, so the regulations require both a chlorine and a UV disinfection. The UV disinfection unit alone can cost anywhere from \$15K to \$40k, so it can add considerably to the overall cost.

Water Service

The City has expressed a desire to remove the water service and any remaining plumbing piping and equipment related to the park from the Frontier building. Having the plumbing system accessible to City personnel is an important and sensible requirement. There are water mains on both Stone Street (8") and Broad Street (24") to which a new service may be able to connect.

There is an existing 1" copper service into the site - originally used for the irrigation system located at the Northeast corner of the site.

The existing water service in the Frontier building that fed the original waterfall system has been shut off for many years. It will be removed and a new tap will be provided and housed in a suitable location in the park. This will require coordination with, and approval by Rochester Water Works.

A small enclosure or vault will be required to hold the water service, backflow preventer and meter (if required), treatment system, as well as any pumps and valve arrangements that are required for the final design.

Equipment

Equipment and pipe distribution will be coordinated with the needs and requirements of the new water feature and water needs as determined during programming and design.

MSLA

Water Usage

The water usage for the park will be highly dependent upon the final design of the water feature, the number of hose bibbs/ground hydrants required, and the amount of irrigation required, and whether it will be supplied by the City water supply or an on-site, rain catchment system.

Pavement

Sidewalks / Pavement can be brick pavers (standard or porous pavement style), or concrete, exposed aggregate concrete, porous concrete or a combination of the above. Walkways must afford access to the disabled and those less inclined to, or lack desire to negotiate stairs or other more natural surfaces. Walkways should accommodate 'through' traffic (i.e. those just passing through), as well as destination traffic. Stairs may be used to separate spaces and elevation to give further definition to spaces as long as those spaces are accessible in some fashion as well.

Seating and other Amenities

Durable steel bench style seating, similar to or the same as City standard benches at periodic locations throughout the park would be desirable as it is expected that workers from neighboring office buildings and others will be frequent visitors to the park. Seating with tables and perhaps for larger groups of people should be strongly considered based on observations of the use of the single wood/steel picnic table located at the site. Trash receptacles similar in style or design to benches and other furniture / amenities would be highly desirable for the park.



Photo of Cornerstone Park circa 1989. Courtesy of Rochester City Photo Archives



Photo of Cornerstone Park circa 1989. Courtesy of Rochester City Photo Archives

Geotechnical

Foundation Design, P.C. performed testing on November 13th and 14th, 2013 and recommend the following geotechnical construction actions when proceeding with re-development of the park:

1. Remove existing pavement and paving stones.
2. Cut the walkway areas to subgrade elevation. Note that the rubble was up to 2' in size and there were about five such pieces in one test pit. 'Mass' excavation will result in "large" pieces that will have to be handled and disposed of. Proof roll the subgrade with a roller or large plate tamper. Undercut soft areas or organic debris. This completed, we can expect that the rubble fill will reasonably support new walkways. Some long-term settlement is possible without deep excavation and filling of the entire site. It should be noted that no settlement has been observed at any location on site.
3. Backfill utility trenches with crusher run stone,



Photo of Cornerstone Park circa 1989. Courtesy of Rochester City Photo Archives

N.Y.S.D.O.T. Item 304.13. Place the material in lifts and to at least 95% compaction based on ASTM D1557, modified proctor.

4. Use a new subbase of at least 12" of clean No. 1 and No. 2 stone. This will help bridge over the fill soil and provide some storage volume for the infiltration work.

5. Recognize that infiltrating storm water into the fill may result in significant consolidation (settlement) of the fill. While we have seen no indication of such sensitivity to date here we have been/are consulting on other redevelopment projects where this has occurred. In that case there was very deep fill that collected water and became soft and settled. We view this as a risk inherent to the project that the City, as an owner, should recognize and accept. One way to better define the potential risk would be to execute "full depth" test pits through the fill when the site is suitably available for an excavator.

Lighting

Both area lighting so the space is usable at night time, and landscape up-lighting of trees and vegetation is desirable. The space should be well lit for safety of users at night and those passing through. Good lighting also increases the use of a space by raising the perceived personal safety of the space. New light fixtures should be LED or similar energy-saving source as the budget permits. Pedestrian level and pole-top lighting should be dark-sky compliant. A well-lit site employing overhead area lights providing in the range of 5-10 footcandles (lumens) average over the surface of the park will be desirable both for safety of those using the park at night and at dusk, and for security / perceived security of visitors. Additionally, walkway bollard lighting might be very desirable to help delineate the walkways. Up-lighting of site landscaping will further enhance the visitor's experience as well as the attractiveness of the site to passers by.

Electrical; General

Existing outdoor electrical systems and equipment are approaching the end of normal, useful service life and should be completely removed. Considering the level of landscape changes, maintaining any part of the electrical systems will hamper and possibly limit landscaping options. Removal and replacement of the outdoor and underground electrical systems, wiring and equipment will allow the area electrical needs to keep pace, and expand with, the park upgrade and revitalized appearance.

Electric Service

The City has expressed a desire to remove the electrical panelboard and associated park control equipment from the Frontier building. Having the electrical equipment accessible to City personnel is an important and sensible requirement.

In review of options to supply power to the park, two choices best fit the requirements of the park rehabilitation.

First, the existing power source in the Frontier building can be extended to a suitable location in the park. During field investigations, the Frontier staff we interviewed had no concern with this approach. If power usage and cost is an issue to Frontier, a kilowatt-hour (kWH) sub-meter can be installed, with the City paying Frontier for the electricity used. This approach has been successfully used by many adjacent property owners with shared usages.

The second option would be to provide a separate, dedicated utility (Rochester Gas & Electric (RG&E)) service. This alternative will require coordination with, and approval by RG&E. Depending on available utility distribution in the area, a new electrical service may be difficult, costly and require equipment that will be a challenge to protect from the weather and vandalism, and build into park features to hide the appearance. Unfortunately, RG&E no longer provides system information without a filed service request.

With the exception of possibly larger equipment required for the RG&E service, the panelboard, pump and lighting controls can be built into, or incorporated in, landscaping features, park sign, or possibly in, or adjacent to the new water feature.

Equipment Connections and Control

Equipment connections and controls will be coordinated with the needs and requirements of the new water feature, lighting (site and/or dedicated accent and event), and power needs as determined during programming and design. Consideration is being given to possible small performances and exhibits.

MSLA

Plumbing; General

Existing plumbing systems and equipment are approaching the end of normal, useful service life and should be completely removed. Considering the level of landscape changes, maintaining any part of the plumbing systems will hamper and possibly limit landscaping options. Removal and replacement of the outdoor and underground plumbing systems and equipment will allow the area plumbing needs to keep pace, and expand with, the park upgrade and revitalized appearance.

Shaded vs. Sunny Areas

Shaded areas are highly desirable for a small park situation given the increased heat and glare prevalent in an intensely urban location. On the other hand, sunny areas are desirable on those Spring and Fall days when it may be somewhat cool and sitting in the sun might bring just the degree of comfort desired. Both should be accommodated in the new park if possible.

Irrigation

Irrigation is desirable in a small urban park situation in that plantings are already under more stress than a typical, larger park condition. Compared to larger, open parks, plants are more confined, subject to higher heat and wind conditions, salt damage and spray, as well as physical damage given the number of users in close proximity. An irrigation system can promote plant growth that can overcome the harmful affects of some of these factors.

Landscaping

It is anticipated a creative mix of existing and new landscaping including plants, stone, and other natural materials will be employed to create an all-new, exciting, and attractive park that can be maintained easily within the City's existing budget and manpower resources. Plantings will be used to define and separate spaces, offer shade to users and bring both evergreen color and flowering color to create an attractive ensemble.

Vender Sales Area

A "hots and sausage" vendor has been located on the sidewalk for lunch time at the southeast corner of the site (the northwest corner of Broad and Stone Streets). The owner of this cart has a permit from the City to operate in that specific area only. Any move would need to be cleared through the proper channels within the City. An alternative location might be at the same corner but just inside the boundary of the park. A paved pad could be installed to accommodate that new location.



Figure 48 - A lunch-time vendor has been located at the southeast corner of the park for many years.

Amenities

Permanent benches, tables with chairs, and seating will be a requirement as will trash receptacles.

Structures

It is not at this time anticipated that a roofed structure such as a gazebo will be part of the program for the park. In case of inclement weather, it is anticipated visitors will stay indoors or find their way to one of the numerous protected locations directly adjacent to the site. Other structures such as a pergola, trellis, or a combination of structures to help define vertical and overhead planes may be useful.

Safety: Policing and Enforcement

It is hoped the City police department could add to their list of frequent destinations, Cornerstone Park. Consideration should be given to provision of security cameras and perhaps CC TV or perhaps a faux or "dummy" camera that will encourage visitors to behave and reduce the incidence of vandalism.

MSLA

Other security measures might include a blue-light phone, and maintenance of clear lines of sight into and through the site.

Maintenance

There will be maintenance work involved with the daily operation of a park including trash removal, trimming of trees and shrubs, walkway and fence repair and upkeep, and perhaps mowing. As has been the case in the past, it is possible with a site of this nature to recruit individuals and groups to assist with that maintenance effort - especially with regards to landscaping and mulch maintenance. The City should pursue such volunteer assistance from garden clubs, neighboring businesses and others with a affinity toward parks and trees and a desire to advance their public involvement.