

SPECIAL MEETING
PUBLIC NOTICE

In accordance with the Statutes of the State of Illinois and the Ordinances of the City of Highland Park, the next special meeting of the Natural Resources Commission of the City of Highland Park is scheduled to be held at the hour of 5:00 p.m. on Monday, October 10, 2012 at Rosewood Beach, Lower Parking Lot, 45 Roger Williams Avenue/883 Sheridan Road, Highland Park, Illinois, during which it is anticipated there will be a discussion of the following:

CITY OF HIGHLAND PARK
NATURAL RESOURCES COMMISSION
WEDNESDAY, OCTOBER 10, 2012
ROSEWOOD PARK BEACH, LOWER PARKING LOT
45 ROGER WILLIAMS/883 SHERIDAN ROAD
HIGHLAND PARK, ILLINOIS
5:00 P.M.

MEETING AGENDA

I. Call to Order

II. Roll Call

III. New Business

A. Site Visit to Observe the Location of Proposed Beach Improvements to be Considered by the Natural Resources Commission During the Regular Commission Meeting on October 10, 2012 at 6:30 p.m.

IV. Adjournment

PUBLIC NOTICE

In accordance with the Statutes of the State of Illinois and the Ordinances of the City of Highland Park, the next meeting of the Natural Resources Commission of the City of Highland Park is scheduled to be held at the hour of 6:30 p.m. on Wednesday, October 10, 2012 at the City of Highland Park Police Station, 1677 Old Deerfield Road, Highland Park, Illinois, during which it is anticipated there will be a discussion of the following:

CITY OF HIGHLAND PARK
NATURAL RESOURCES COMMISSION
WEDNESDAY, OCTOBER 10, 2012
HIGHLAND PARK POLICE STATION
1677 OLD DEERFIELD ROAD
HIGHLAND PARK, ILLINOIS
6:30 P.M.

MEETING AGENDA

I. Call to Order

II. Roll Call

III. Approval of Minutes: Special Meeting on September 12, 2012 and Regular Meeting on September 12, 2012

IV. Business from the Public

V. New Business

- A. Consideration of a Proposed Beach Structure Permit Application for Regulated Activities in the Lake Michigan Protection Zone at 337 N. Deere Park Drive East
- B. Consideration of a Proposed Beach Structure Permit Application for Regulated Activities in the Lake Michigan Protection Zone at 353 N. Deere Park Drive East
- C. Consideration and Approval of Staff-Drafted Findings of Fact Recommending City Council Approval of a Beach Structure Permit Application for Regulated Activities in the Lake Michigan Protection Zone at 337 N. Deere Park Drive East
- D. Consideration and Approval of Staff-Drafted Findings of Fact Recommending City Council Approval of a Beach Structure Permit Application for Regulated Activities in the Lake Michigan Protection Zone at 353 N. Deere Park Drive East
- E. Consideration of a Proposed Beach Structure Permit Application for Regulated Activities in the Lake Michigan Protection Zone at Rosewood Beach, located at 45 Roger Williams Road and 883 Sheridan Road

VI. Old Business

- A. Status Report on the Adopt-A-Beach Event on September 15, 2012
- B. Status Report on the GreenTown Event on October 19, 2012
- C. Status Report on Educational Movie Series Screening on October 22, 2012
- D. Status Report on the Green Team
- E. Status Report on the Residential Composting Pilot Program
- F. Status Report on the Polystyrene Recycling Pilot Program

Posted in City Hall on October 3, 2012

VII. Other Business

- A. Commissioner Comments
- B. Administrative Items

VIII. Adjournment

**MINUTES OF A SPECIAL MEETING OF
THE NATURAL RESOURCES COMMISSION OF THE CITY OF HIGHLAND
PARK, ILLINOIS**

MEETING DATE: September 12, 2012

MEETING LOCATION: Private Residences, 337 and 353 N. Deere Park Drive East,
Highland Park, IL

CALL TO ORDER

At 5:35 p.m., Chairman Bogot called the meeting to order and the Staff Liaison called the roll.

ROLL CALL

Members Present: Bogot, Compher, Hill, Himmelfarb, Matthews (5:50 p.m.) and Sultan (5:45 p.m.)

Members Absent: Dennison, Naftzger, Meyer and Beck

The Staff Liaison declared that there was a quorum of the Commission present.

Staff Present: Staff Liaison Barbara Cates

NEW BUSINESS

A. Tour of Private Residences Located at 337 and 353 N. Deere Park Drive East Regarding Requests for Pre-Application Discussions of Proposed Beach Structure Permit Applications for Regulated Activities within the Lake Michigan Protection Zone at Each Property

The Commission walked down the bluff staircase to the beach. Staff Liaison Cates pointed out the extent of the proposed improvements. The Commission walked the length of the existing revetment and observed the existing conditions in preparation for a discussion of the application at the regular meeting to follow.

ADJOURNMENT

Chairman Bogot adjourned the meeting at 5:55 p.m.

Respectfully Submitted,

Barbara E. Cates, Secretary

MINUTES APPROVED BY THE NATURAL RESOURCES COMMISSION ON _____, 2012

- WITH NO CORRECTIONS _____

- WITH CORRECTIONS _____
(SEE MINUTES OF [_____] MEETING FOR CORRECTIONS)

**MINUTES OF A REGULAR MEETING OF
THE NATURAL RESOURCES COMMISSION OF THE CITY OF HIGHLAND
PARK, ILLINOIS**

MEETING DATE: September 12, 2012

MEETING LOCATION: Pre-Session Room, City Hall, 1707 St. Johns Avenue, Highland Park, IL

CALL TO ORDER

At 6:38 p.m., Chairman Bogot called the meeting to order and the Staff Liaison called the roll.

ROLL CALL

Members Present: Bogot, Compher, Dennison, Hill, Matthews, Sultan and Meyer

Members Absent: Himmelfarb, Naftzger and Beck

The Staff Liaison declared that there was a quorum of the Commission present.

Staff Present: Staff Liaison Barbara Cates

Also Present: None

MINUTES

A. Regular Meeting of the Natural Resources Commission— July 11, 2012

Commissioner Sultan moved for approval of the minutes of the regular meeting of the Natural Resources Commission held on Wednesday, July 11, 2012 as presented. Commissioner Hill seconded the motion.

On a voice vote, Chairman Bogot declared that the motion passed 5-0-1, with Commissioner Dennison abstaining due to absence at the July 11th meeting.

BUSINESS FROM THE PUBLIC

Marjie Ettliger of 91 Sycamore Place noted her observation that the regulations regarding backpack-style leaf blowers are not being appropriately enforced. Staff Liaison Cates noted that she would forward the comment to the City's Building Division Manager and Code Enforcement Officer so that they are aware of the issue. Cates also implored Ettliger to call the City's Building Division if she witnesses a violation of the regulations so that the City can investigate the report in a timely manner.

NEW BUSINESS

A and B. Pre-Application Discussion of a Beach Structure Permit Application for Regulated Activities in the Lake Michigan Protection Zone at 337 and 353 N. Deere Park Drive East

Staff Liaison Cates delivered a brief presentation outlining the applicants' request. Jon Shabica, the applicants' representative, discussed the existing conditions of the site and the need for basic improvements in order to strengthen the existing revetment. Shabica reported on recent trends in wave activity and lake levels, and noted that the proposed improvements were preventative in nature, and that the project did not require any earth moving or sand deposition. Commissioner Hill noted that he observed cracks in the existing quarrystone when he visited the site, and he expressed support for the project. The Commission noted that the proposal was a nice example of neighbors working together to achieve a healthy beach and bluff.

Staff Liaison Cates noted that the discussion concerned a pre-application, and that the next step in the review process would be Commission consideration of the Beach Structure Permit Application at the October meeting. Cates confirmed that the Commission would not need any additional information for the Commission's consideration of the Beach Structure Permit Application. The Commission directed Cates to draft Findings of Fact recommending City Council approval of the applications for the Commission's consideration in October.

C. Discussion of Proposed 2013 Work Program and Budget Request

Staff Liaison Cates reviewed the Commission's 2012 achievements and outlined the proposed work plan and budget request for 2013. Cates noted that, under the proposal, many of the Commission's existing work plan projects, including special events, movie screenings, the Award for Meritorious Service, and kiosk display updates, would continue into 2013. Cates noted that the Commission is also being asked to consider several new projects including: overseeing the creation of Steep Slope maintenance standards and education, reviewing and commenting on the City's composting program and recycling facility hours, and providing input on the preparation of an Illinois Green Infrastructure Grant Application.

The Commission discussed the need for steep slope maintenance guidelines and standards. Cates noted that the Alliance for the Great Lakes is currently developing ravine rapid assessment protocols, which the Commission could use to accomplish the goal of increasing resident awareness of healthy ravine-bluff ecosystems. Cates noted that the Alliance would be invited to a future Commission meeting to provide more details regarding their work. The Commission observed that the proposed work plan project was an essential component of the Commission's overarching mission of environmental education, and could be completed with a budget of \$5,000. The Commission noted that consideration should be given to funding the project with revenue generated by Steep Slope Code violations.

Commissioner Hill motioned to approve a total Commission budget request of \$8,600. Commissioner Sultan seconded the motion. On a voice vote, Chairman Bogot declared that the motion unanimously passed 6-0. Staff Liaison Cates indicated that the request would be submitted for City Council consideration during the budgeting process.

OLD BUSINESS

A. Status Report on the Adopt-A-Beach Event on September 15, 2012

Chairman Bogot reported that the Commission has registered to be a Captain at the Adopt-A-Beach event and invited Commissioners to participate in the cleanup efforts.

B. Status Report on the GreenTown Event on October 19, 2012

Staff Liaison Cates reviewed the GreenTown promotional materials included within the meeting packet and invited Commissioners to participate in the upcoming events.

C. Status Report on Educational Movie Series Screening on October 21, 2012

Commissioner Dennison reported that the movie *Just Do It* is scheduled to be screened on Sunday, October 21st at 2:00 p.m. at the Highland Park Library, and invited Commissioners to attend. Dennison noted that the movie *My Own Two Wheels* will be screened at the Library on December 2nd, and that more information would be provided at a future meeting.

D. Status Report on the Green Team

Chairman Bogot noted that Commissioner Himmelfarb is absent and will provide a status report on the item at the October meeting.

E. Status Report on the Residential Composting Pilot Program

Staff Liaison Cates reported that Councilman Mandel is scheduled to meet with Veolia at the end of September to discuss various aspects of the program, and it is anticipated that a status report will be provided to the Commission in October.

F. Status Report on the Polystyrene Recycling Pilot Program

Staff Liaison Cates noted that the next report on the program will be available at the beginning of the fourth quarter, and it will be made available to the Commission as soon as possible.

OTHER BUSINESS

Staff Liaison Cates noted that Chairman Bogot had asked about the possibility of including a water conservation reminder on City water bills, and it had been determined that a reminder could be inserted directly on water bills at no cost during one month of the year, as long as the message was under 580 characters. The Commission indicated an interest in helping to craft a message, and Cates noted that the item would be placed on a future agenda.

Staff Liaison Cates noted that the Steep Slope variation request at 251 Cary Avenue has been approved by the Zoning Board of Appeals, per the Commission's recommendation.

Staff Liaison Cates reported that the City Council recently expressed support for the installation of recycling bins in the Central Business District, and the Facilities Maintenance Manager has been charged with completing the project.

Staff Liaison Cates noted that she is working to create a uniform system to monitor compliance with the plastic bag and film recycling requirements, and she will continue to update the Commission on the project.

ADJOURNMENT

Chairman Bogot adjourned the meeting at 8:05 p.m.

Respectfully Submitted,

Barbara E. Cates, Secretary

MINUTES APPROVED BY THE NATURAL RESOURCES COMMISSION ON _____, 2012

- WITH NO CORRECTIONS _____
- WITH CORRECTIONS _____
(SEE MINUTES OF [_____] MEETING FOR CORRECTIONS)



Memorandum

To: Members of the Natural Resources Commission

From: Barbara E. Cates, Planner II

Date: October 3, 2012

Re: Agenda Items for the October 10th Meeting of the Natural Resources Commission

NEW BUSINESS:

A and B. Consideration of Proposed Beach Structure Permit Applications for Regulated Activities in the Lake Michigan Protection Zone at 337 and 353 N. Deere Park Drive East

In September, the Commission conducted pre-application discussions of proposed Beach Structure Permits for regulated activities in the Lake Michigan Protection Zone at 337 and 353 N. Deere Park Drive E. and indicated that no additional information was needed for Commission consideration of the proposed Beach Structure Permit Applications. The Commission directed Staff to return with draft Findings of Fact recommending City Council Approval of the proposed Beach Structure Permit Applications. The draft Findings of Fact are attached for the Commission's consideration and approval.

Background & Summary

Although the applications have been filed separately, the proposals concern a single improvement that spans across both properties. The applicants note that the existing revetment was installed in 1985, before the property was subdivided into two separate lots. The applicants, Peter and Linda Karmin at 337 N. Deere Park Drive E., and Peter Rose at 353 N. Deere Park Drive E., are jointly proposing to perform maintenance on an existing stone revetment located at the toe of the bluff. The proposed work consists of reinforcing the existing revetment with additional stone, which will be placed on clay lakebed and/or existing cobble at the base of the existing revetment on the lakeward (eastern) side.

Means and Methods of Construction

The applicants note that proposed improvement has been designed to function during various lake levels, and earth moving and grading will not be necessary for the project. All materials

will be brought to the site via barge on Lake Michigan, and a backhoe and/or crane will be used as necessary. Because the work is classified as a “Regulated Activity” under Section 150.703.1(E)(1) of the Zoning Code, the applicants must pursue Beach Structure Permits.

Agency Approvals

Section 150.703.1(E)(4)(a)viii of the Zoning Code requires the applicant to obtain and submit “copies of any and all permits required by the federal, state, and county governments” before the Natural Resources Commission can consider the request for a Beach Structure Permit. Per this requirement, the applicant previously submitted the proposed plans to the U.S. Army Corps of Engineers, the Illinois Environmental Protection Agency, the Illinois Department of Natural Resources, Illinois Historic Preservation Agency and Lake County Stormwater Management Commission. The applicants have secured the attached approvals; please note that although the Illinois Department of Natural Resources has expressed its approval within the attached email, a formal permit from the Illinois Department of Natural Resources is required to be submitted as soon as it is received.

Engineering Division Review

The Engineering Division has reviewed the application materials and submitted the attached memorandum, dated September 7, 2012, which the Commission considered during its Pre-Application discussion of the matters. The Engineering Division does not object to the proposed improvements, but it should be noted that if the project is approved, certification of the completed work will be required to verify that it meets the approved plan specifications.

Beach Structure Ordinance Policy & Standards

The applicants have met the public notification requirements, which require written notice of the Commission meeting to be provided to the first ten properties located “upwater” and the first ten properties located “downwater” from the subject property.

The Beach Structure Ordinance regulates and requires permits for all activity in the City’s “Lake Michigan Protection Zone,” an area comprised of all land between Lake Michigan and the toe of the bluff. Prior to the City’s issuance of a permit for any activity in the Lake Michigan Protection Zone, the Natural Resources Commission must consider the matter under the following standards and *forward Findings of Fact to the City Council for final approval.*

<p><u>Standards:</u></p> <p>No permit for a Regulated Activity in the Lake Michigan Protection Zone shall be approved unless all of the following standards have been met or satisfied:</p> <p>(a) The proposed Regulated Activity and/or Structure shall not unreasonably impede access to or pedestrian movement along the beach or to Lake Michigan;</p>
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(b) The proposed Regulated Activity and/or Structure shall not unnecessarily impede navigability within Lake Michigan;

(c) The proposed Regulated Activity and/or Structure shall not unreasonably impact the Subject Property or the Adjacent Properties;

(d) The Applicant has proposed appropriate long-term maintenance requirements and plans, as necessary, for the proposed Regulated Activity and/or Structure;

(e) The proposed means and methods of undertaking the Regulated Activity and/or Structure are consistent with appropriate design and aesthetics principles;

(f) The proposed Regulated Activity and/or Structure shall not create new nor amplify existing erosion problems on the Subject Property and on Adjacent Properties;

(g) The proposed Regulated Activity and/or Structure shall be for the purposes of erosion control, water gathering, and/or public access only;

(h) There will not be an unnecessary adverse environmental or ecological impact on the Subject Property or on any of the Adjacent Properties as a result of the proposed Structure and/or the Regulated Activity;

(i) The proposed Structure and/or the Regulated Activity is the least environmentally and ecologically intrusive means of achieving the stated purpose of the Structure; and

(j) The Applicant has properly obtained any and all permits required by the federal, state, and county governments for the Regulated Activity and/or the Structure.

Feel free to contact me if you have any questions regarding this matter, or if you would like to further discuss the Beach Structure Ordinance prior to the meeting. Per the Commission's direction, I will be prepared to deliver a brief presentation summarizing the proposed project. As usual, the above list of Beach Structure Ordinance standards will also be available on the table for the Commission's reference and discussion.

C and D. Consideration and Approval of Staff-Drafted Findings of Fact Recommending City Council Approval of Beach Structure Permits for Regulated Activities in the Lake Michigan Protection Zone at 337 and 353 N. Deere Park Drive East

At the September meeting, the Commission directed Staff to draft Findings of Fact recommending City Council approval of the requested Beach Structure Permit Applications for 337 and 353 N. Deere Park Drive E. The draft Findings of Fact are attached for the

Commission's consideration. It is recommended that the Commission consider the draft Findings and vote to forward them to the City Council for final determination.

E. Consideration of a Proposed Beach Structure Permit Application for Regulated Activities in the Lake Michigan Protection Zone at 45 Roger Williams Road and 883 Sheridan Road

Property Address: Rosewood Park Beach (45 Roger Williams Avenue)

Property Owner: Park District of Highland Park

Zoning District: R4 Low to Moderate Density Single-Family Residential, Lakefront Density and Character Overlay Zone (LFOZ)

Review

Processes: Beach Structure Permit Application
Design Review

Background & Summary

In 2006, the Park District of Highland Park demolished an aging 1,900 sq. ft. bath and restroom facility at Rosewood Park Beach after a structural engineering study determined that the facility was beyond repair. Since that time, the area has been served by a portable restroom trailer situated in the existing adjacent parking lot.

The Park District is now proposing to construct the following in the Lake Michigan Protection Overlay Zone at Rosewood Park Beach: four permanent structures (a guard house, concession stand, restrooms, and an interpretative shelter), a boardwalk and lookout, a replacement beach playground, a seasonal handicapped-accessible beach roll-out mat, picnic areas, interpretative signage, lighting, benches, and trash receptacles. In addition, the Park District intends to reconstruct the existing ravine path to improve the connectivity between the beach and the upper park area; this element of the proposal is the only component of the project located within the Steep Slope Zone, and it does not need relief because the Park District intends to comply with the stipulations in Article 19 of the Zoning Code.

Geotechnical Analysis

Soil Material Consultants, Inc. has prepared the attached geotechnical investigation of the site for the Commission's review. The report recommends the evaluation of suitability prior to the placement of structural fill, and the testing of soils and aggregates placed as structural fill as work progresses to verify that minimum compaction requirements are met. Furthermore, the study recommends the testing of soil conditions at foundation elevations prior to concrete placement to verify the presence of design soil strength.

Anticipated Structural Success

The improvements are proposed at the base of the bluff at the site. Within the attached submittal, the Park District has included a memorandum from David Woodhouse Architects which notes that the proposed structures are proposed at an elevation of 589.00, which is above the Ordinary High Water Mark (581.50), the Historic High Water Mark (582.35), and the 100 year Floodplain Elevation (585.01). The memorandum references a wave run-up analysis performed for the site by JJR Architects in 2010, the results of which have factored into the proposed design of the project.

Means and Methods of Construction

Within the attached submittal, it is noted that the proposed structures have been designed to feature natural materials known for their durability. The proposed improvements will not be located within the Steep Slope Zone; therefore, no special construction means and methods are proposed. Appropriate fencing will be installed along the toe of the slope to protect the nearby bluff and existing trees from construction.

Native grasses, wildflowers, trees and shrubs will be installed at the foundation of the improvements and extend from the base of the Steep Slope Zone to the west edge of the building. The Design Review Commission will be charged with reviewing the proposed landscaping plan. The existing four steel groins on site will not be impacted by the proposed project.

Agency Review

The Park District submitted the proposal to the Illinois Department of Natural Resources (IDNR) for review via the Cultural Resources, Endangered Species and Wetlands Review Report (CERP) process; the CERP process was required because the proposal would be partially funded through the Open Space Land Acquisition and Development Grant and the Illinois Public Museum Grant from the Illinois Department of Natural Resources. The City has received notification that the proposal has been approved by the IDNR. The Park District also submitted the proposal to the Lake County Stormwater Management Commission (SMC), and SMC has indicated that they will not need to issue a permit for the project.

Traffic Impacts

The Park District has submitted a traffic study for the City's review. The information is currently being reviewed by a third party consultant and, when the findings are finalized, they will be presented for the City Council's consideration along with the recommendations of the Natural Resources Commission and Design Review Commission.

Anticipated Future Beach Improvements

Within the attached application, the Park District notes an intention to pursue a future project in partnership with the Army Corps of Engineers to stabilize the beach and restore the

foredunes, lake bluff and ravines within Rosewood Beach Park. This application will be filed separately, and will appear before the Commission as required by City Code, based on the scope of the proposed work.

Design Review Commission Review

The proposed improvements also require Design Review Commission consideration. On October 1st, the Design Review Commission conducted a Pre-Application Discussion of the proposal and gave preliminary feedback. The Design Review Commission is tentatively scheduled to next discuss the matter on November 5th.

DEPARTMENTAL REVIEW COMMENTS:

The proposal has been reviewed by the Departments of Community Development, Public Works, Police and Fire. The Engineering Division has submitted the attached memorandum stating that there are no Code-related objections to the proposed development.

POLICY:

Beach Structure Ordinance Policy & Standards

The Beach Structure Ordinance regulates and requires permits for all activity in the City’s “Lake Michigan Protection Zone,” an area comprised of all land between Lake Michigan and the toe of the bluff. Prior to the City’s issuance of a permit for any activity in the Lake Michigan Protection Zone, the Natural Resources Commission must consider the matter under the aforementioned standards and *forward Findings of Fact to the City Council for final approval*. Within the attached submittal, the Park District has addressed these standards.

The Park District has met the public notification requirements, which require written notice of the Commission meeting to be provided to the first ten properties located “upwater” and the first ten properties located “downwater” from the subject property.

PRIOR RESEARCH ON REGIONAL BEACH IMPROVEMENTS:

When the Lakefront Commission (since combined with the Environmental Commission to form the Natural Resources Commission) considered a different proposal for Rosewood Park Beach in 2010, Staff was directed to research the beach conditions of the four lakefront municipalities nearest to Highland Park—Lake Bluff, Lake Forest, Glencoe and Winnetka—to determine the prevalence of public beach facilities in nearby North Shore communities. All four surveyed municipalities had public facilities on the lakefront, as indicated below, although the scale and degree of available amenities differed.

Lake Bluff

There are two permanent public pavilions which bookend Sunrise Beach in Lake Bluff. Amenities include covered picnic areas which can be rented by residents, fireplaces, barbeque

grills, restrooms/changing areas, and classroom space for sailing instruction. Sunrise Beach is accessible by pedestrian ramps, and parking is available on nearby residential streets at the top of the bluff.

Lake Forest

There are three permanent public pavilions at Forest Park Beach. Amenities include restrooms/changing areas, rentable covered picnic areas, fireplaces, barbeque grills, a fishing pier, boat launching ramp, sailboat and kayak rentals, sand volleyball courts, fire circle, storage area, walking path and engineered beach cells. The beach may be accessed by a large set of stairs located on the bluff, or a parking lot is available on the beach frontage adjacent to the north pavilion. A parking lot for non-residents is also available.

Glencoe

There is a permanent public facility at Lakefront Park which includes restrooms/changing areas, concessions and a covered picnic area. A concrete fishing pier with seating, playground equipment, water features and permanent sunshades are also located on the beach. Lakefront Park is accessible by pedestrian ramps, and parking is available in marked spaces located at the top of the bluff.

Winnetka

Winnetka has five lakefront beaches, four of which have permanent public facilities. Beach house-style restrooms are provided at two of the lakefront beaches, Elder Lane and Maple Street Beaches. There is a pavilion at Tower Road Park Beach which is equipped with restrooms, showers, concessions and offices. Tower Road Park Beach is also improved with sand volleyball courts, a playground, water features, foot baths and a boardwalk and has two nearby parking lots. The Winnetka Boating and Sailing Center is located at Lloyd Park and features a boat launch, storage, restrooms and a classroom for sailing instruction.

SITE MEETING AND PREPARATION:

Please feel free to contact me if you have any questions regarding this matter, or if you would like to further discuss the Beach Structure Ordinance prior to the meeting. Per the Commission's direction, I will be prepared to deliver a brief presentation summarizing the proposed project. As usual, the above list of Beach Structure Ordinance standards will also be available on the table for the Commission's reference and discussion.

Please note that a special meeting will be held at the property at 5:00 p.m. prior to the Commission meeting on October 10th to give the Commission the opportunity to inspect the property as a group. Applicant representatives will be on hand, and I urge you to drop by if you are available.

OLD BUSINESS:

A. Status Report on the Adopt-A-Beach Event on September 15, 2012

Chairman Bogot will provide the Commission with a brief recap of the recent Adopt-A-Beach event.

B. Status Report on the GreenTown Event on October 17- 19, 2012

Councilman Mandel will provide a status report on the upcoming GreenTown events.

C. Status Report on Educational Movie Series Screening on October 21, 2012

Commissioner Dennison has arranged for the movie *Just Do It* to be screened at the Highland Park Library on Sunday, October 21st at 2:00 p.m. Commissioners are invited to attend and encouraged to help publicize the event.

D. Status Report on the Green Team

Vice Chair Himmelfarb will provide information on this agenda item at the meeting.

E. Status Report on the Residential Composting Pilot Program

Councilman Mandel will provide information on this agenda item at the meeting.

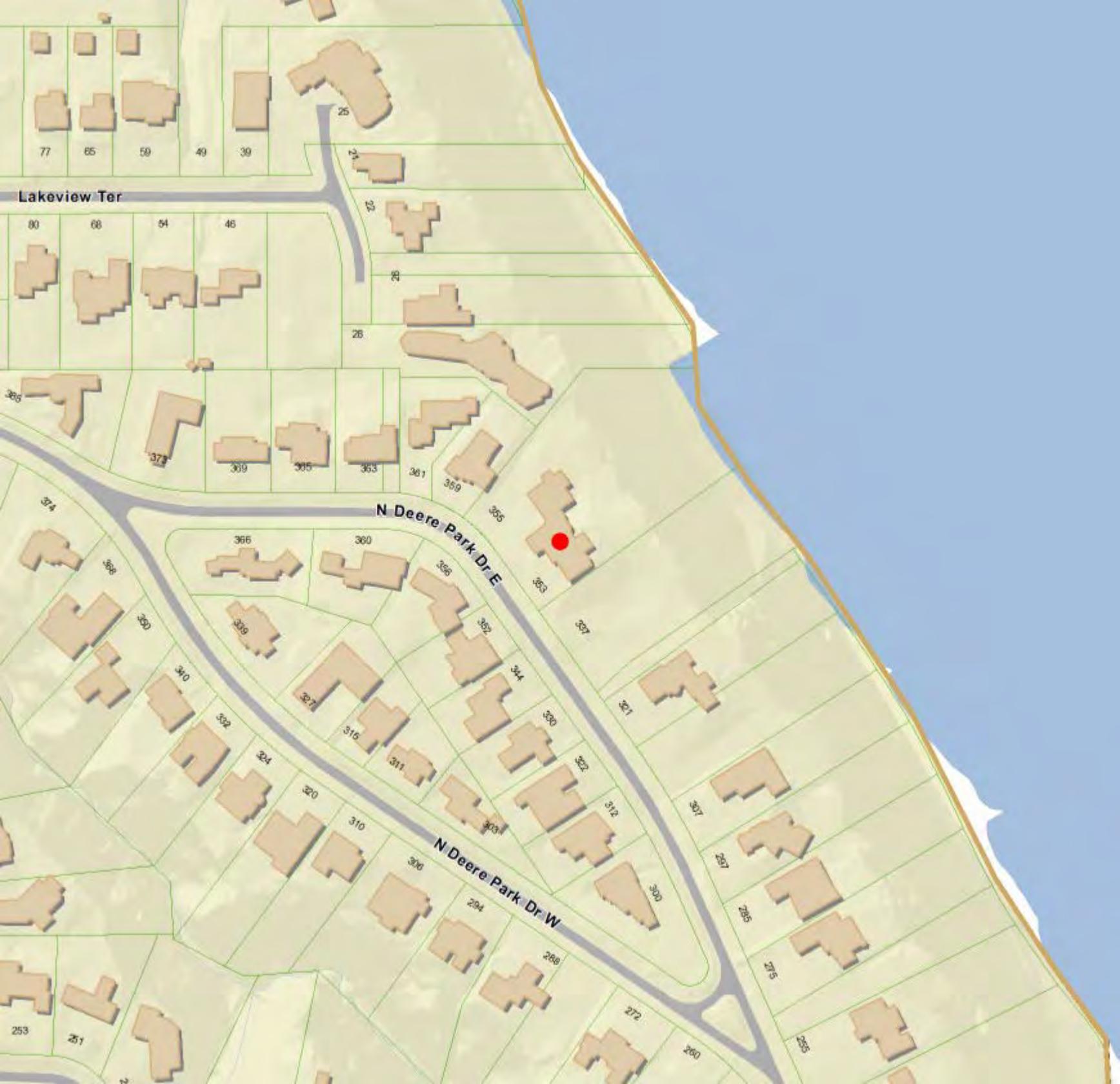
F. Status Report on the Polystyrene Recycling Pilot Program

Councilman Mandel will provide information on this agenda item at the meeting.

ATTACHMENTS:

- 337 and 353 N. Deere Park Drive Beach Structure Permit Application Materials
 - GIS Map
 - Aerial Photograph
 - Memorandum from the Engineering Division, dated September 7, 2012
 - 337 N. Deere Park Drive E. Beach Structure Permit Application
 - 353 N. Deere Park Drive E. Beach Structure Permit Application
- Draft Findings of Fact Recommending City Council Approval of the Requested Beach Structure Permit Application at 337 N. Deere Park Drive East
- Draft Findings of Fact Recommending City Council Approval of the Requested Beach Structure Permit Application at 353 N. Deere Park Drive East
- Rosewood Beach 45 Roger Williams/883 Sheridan Road Beach Structure Permit Application Materials
 - GIS Map
 - Aerial Photograph

- Memorandum from the Engineering Division, dated October 3, 2012
- Rosewood Beach Beach Structure Permit Application

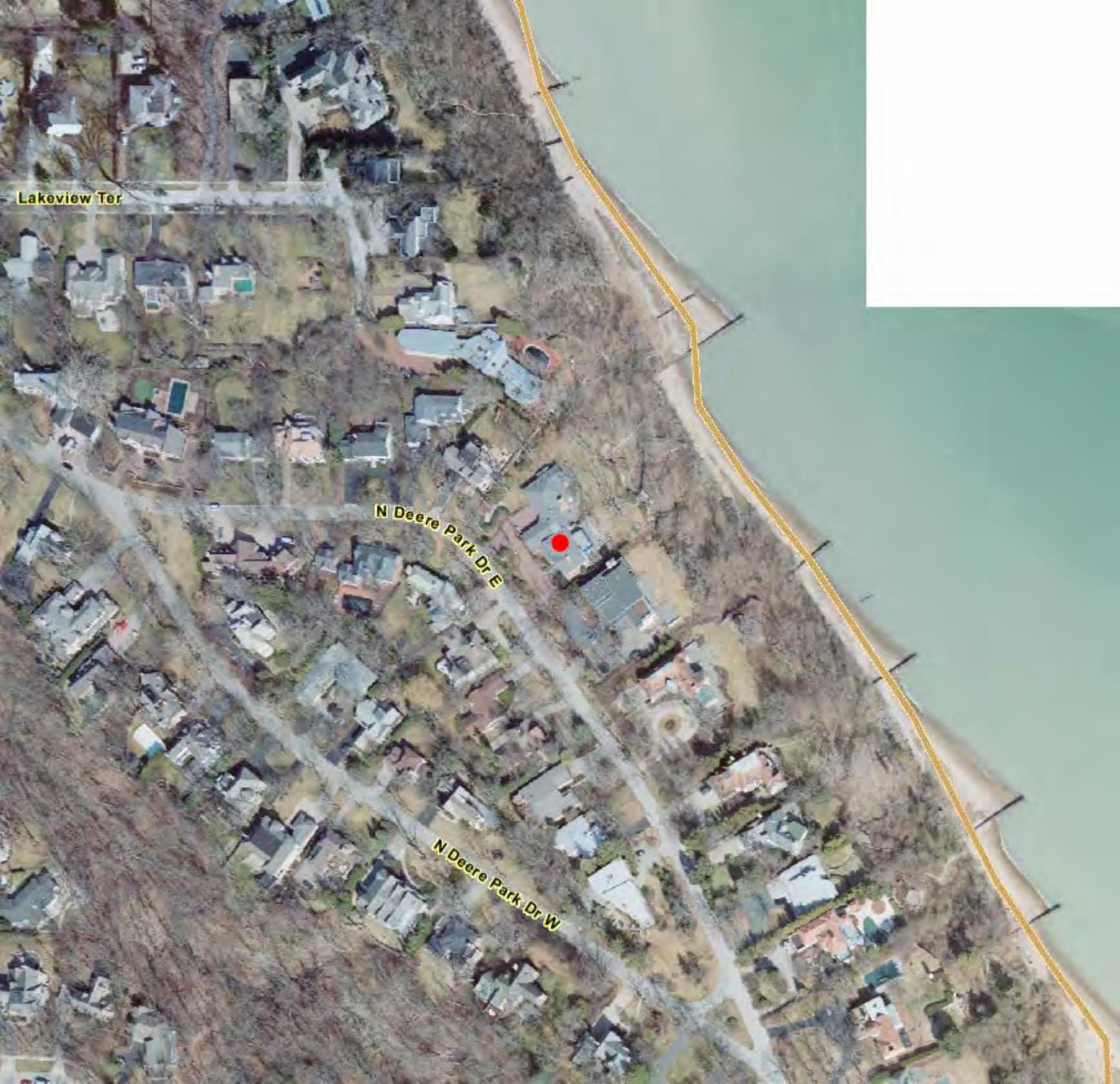


Lakeview Ter

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PUBLIC WORKS MEMORANDUM



DATE: September 7, 2012

TO: Barbara Cates, Planner

FROM: John Welch, City Engineer

SUBJECT: Revetment Maintenance at 337 and 353 North Deere Park Drive

The plan for the proposed revetment augmentation located on the Lake Michigan beach at the above-referenced addresses has been satisfactorily revised in accordance with my comments dated August 22, 2012. The Army Corps of Engineer, Illinois Department of Natural Resources and Lake County Stormwater Management Commission have approved the proposed addition to the existing stone revetment.

The Department of Public Works requires a certification/verification upon completion of the work from the design professional (Shabica and Associates) stating that the work has been satisfactorily completed in accordance with all permit requirements of the various agencies involved, and meets the approved plan and specifications.

The Department of Public Works concludes that the proposed revetment project complies with the requirements specified in the City's Code. Please contact me at extension 1145 if there are any concerns or comments that we should address or clarify.



**337 N. Deere Park Drive E.
Highland Park**

**Submittal to
Community Development Department
August 14, 2012**

Prepared By:

**Shabica & Associates, Inc.
Sustainable Coastal Solutions
550 Frontage Road, Suite 3735
Northfield, Illinois 60093
Tel. 847-446-1436
Fax 847-716-2007**



Shabica & Associates, Inc.
Sustainable Coastal Solutions

Barbara Cates
City of Highland Park
Community Development Department
1150 Half Day Road
Highland Park, Illinois 60035

Dear Ms. Cates:

August 14, 2012

Mr. and Mrs. Peter & Linda Karmin would like to submit this application regarding the proposed revetment toe maintenance at his property located at 337 N. Deere Park Drive E. The revetment was originally built in 1985 when this property and the adjacent property to the north (353 N. Deere Park Drive E., owned by Mr. Peter Rose) were one (the property was subdivided in years since). As the revetment is continuous across both properties, the project is being completed jointly. Additionally, the project was approved by Federal, State and County agencies as a joint project.

Per the guidelines of the City of Highland Park, these two projects are being submitted individually to the City. All Federal, State and County permits have been approved for the proposed work (attached in Appendix).

The City's Standards for Review, as outlined in the "Lake Michigan Protection Regulations" from Section 150.703.1 *Special Regulations for the LFOZ Lakefront Density and Character Overlay Zone*, are outlined below with our responses following:

- a. *The proposed Regulated Activity and/or Structure shall not unreasonably impede access to or pedestrian movement along the beach or to Lake Michigan.***
This project will not impede pedestrian access or movement along the beach or to Lake Michigan.
- b. *The proposed Regulated Activity and/or Structure shall not unnecessarily impede navigability within Lake Michigan***
The project will not have any impact on navigability of Lake Michigan.
- c. *The proposed Regulated Activity and/or Structure shall not unreasonably impact the Subject Property or the Adjacent Properties***
The project will not unreasonably impact any coastal properties.
- d. *The Applicant has proposed appropriate long-term maintenance requirements and plans, as necessary, for the proposed Regulated Activity and/or Structure***
The project is maintenance and part of a long-term maintenance plan.

- e. *The proposed means and methods of undertaking the Regulated Activity and/or Structure are consistent with appropriate design and aesthetics principles***
The means and methods of construction will not impact design and aesthetics; all work will be completed via marine mobilization.
- f. *The proposed Regulated Activity and/or Structure shall not create new nor amplify existing erosion problems on the Subject Property and on Adjacent Properties***
The project will prevent future bluff erosion on the subject properties, and will not affect adjacent properties.
- g. *The proposed Regulated Activity and/or Structure shall be for the purposes of erosion control, water gathering, and/or public access only***
The proposed revetment will prevent future bluff erosion on the subject properties.
- h. *There will not be an unnecessary adverse environmental or ecological impact on the Subject Property or on any of the Adjacent Properties as a result of the proposed Structure and/or the Regulated Activity***
The proposed structure will not cause unnecessary adverse environmental or ecological impact as it is a replacement of an existing revetment toe at the back of a sandy beach.
- i. *The proposed Structure and/or Regulated Activity is the least environmentally and ecologically intrusive means of achieving the stated purpose of the Structure***
The proposed structure is a viable, environmentally-correct means of achieving the stated purpose.
- j. *The Applicant has properly obtained any and all permits required by the federal, state, and county governments for the Regulated Activity and/or the Structure***
All Federal, State and County permits have been approved and are attached.

A Permit Application has been filed with the Department of Public Works for the proposed project. In conformance to the City's Application Guidelines, the following documents and information are included:

- i. *A statement of the purpose and planning objectives to be achieved by the proposed Regulated Activity***
The proposed revetment project will provide necessary maintenance to the base of the existing revetment that stretches across both 337 and 353 N. Deere Park Drive.
- ii. *A plat of survey of the Subject Property***
A Plat of Survey is attached.
- iii. *A conceptual plan showing the Subject Property and the Adjacent Properties, including any and all existing Structures in the portion of the Lake Michigan Protection Zone abutting those properties***
A Plan View is attached.
- iv. *Development and site plans showing the proposed Structure, if applicable***
Same as Conceptual Plan in Item iii.
- v. *A demolition plan, if applicable***
Demolition is noted on the attached Plan View.
- vi. *An elevation plan, which shall include sectional views of the proposed Structure, if applicable***
Cross-sectional drawings are attached.
- vii. *Copies of any and all permits required by the federal, state, and county governments for the Regulated Activity and/or the Structure***
Federal, State and County permit approvals are attached.

- viii. Engineering details of the proposed Structure and/or the Regulated Activity, which shall include, if applicable:**
- A. Structure height, length and width**
Not applicable. The proposed work is simply maintenance of an existing structure. The new toe stone will be placed on clay lakebed or existing cobble, whichever is higher. The new stone will extend approximately 6' east of the existing revetment. This will maintain stability of the newly placed stone and the existing structure.
- B. The spacing between the proposed Structure and other Structures in the Lake Michigan Protection Zone abutting any of the Adjacent Properties**
This structure runs along the bluff toe; no spacing is applicable. The structure already exists.
- C. The materials of which the proposed Structure will be composed**
The revetment maintenance stone will be quarried quartzite.
- ix. A geo-technical investigation report of the site**
As there will be no major earthmoving or grading of the bluff, in-depth geotechnical investigation is not required according to Joe Pasquesi, Engineer.
- x. A statement outlining structure success in various water levels**
The revetment is designed to function during varying lake levels. The toe of the structure will protect the property during low lake levels. The crest will provide the property during higher lake levels.
- xi. A statement describing the long-term maintenance requirements and plan for the proposed Structure**
The proposed revetment toe maintenance is simply maintenance to an existing structure. The stone that will be used will last thousands of years. After the maintenance work is complete, if and when the revetment begins to settle, it has been designed to remain functional. Periodic maintenance is recommended as necessary based on visual inspections. Typically, at the time of recommended maintenance, additional stone will be brought in and placed over the existing revetment to bring it back to the original specification.
- xii. A written description of the proposed means and methods of undertaking the Regulated Activity**
All materials and equipment will be delivered to and removed from the site via barge on Lake Michigan. The work will be completed using a backhoe and crane as needed.
- xiii. An explanation, in narrative form, of the following:**
- A. Any and all erosion problems on the Subject Property for which the Structure and/or Regulated Activity is designed to correct or remedy**
As stated previously, this is a maintenance project. However, this system is designed to protect the Subject Properties from future bluff erosion due to stormwave damage.
- B. The environmental and ecological impact on the Property and the Adjacent Properties that are expected to result from the Structure and/or Regulated Activity**
The structure already exists. There will be no impacts resulting from the maintenance to the structure.
- C. How the proposed Structure and/or Regulated Activity is the least environmentally and ecologically intrusive means of achieving the stated purpose**
No new structure is being built. However, a quarystone revetment is least intrusive to the environment. The natural character of the bluff is glacial clay till containing rocks.

As the bluff erodes, these rocks remain at the bluff toe. The revetment is an engineered free-form structure that moves with nature and doesn't trap water.

D. The nature and composition of existing protections, including existing Structures, of the shoreline in that portion of the Lake Michigan Protection Zone abutting either the Subject Property or the Adjacent Properties, and the impact and effectiveness of those protections on the shoreline, the lakebed, and on erosion of the Subject Property and Adjacent Properties

The existing form of shore protection at the Subject Properties is a deflated quarystone revetment that will be maintained.

xiv. A non-refundable application fee, in the amount set forth in the City's Annual Fee Resolution

The application fee is attached.

An appendix of attachments is included with this letter.

This information addresses the application requirements for submission. Please let us know if you require any further information.

Sincerely,



Jon Shabica
Vice President



Appendix



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
CHICAGO DISTRICT, CORPS OF ENGINEERS
111 NORTH CANAL STREET
CHICAGO, ILLINOIS 60606-7206

April 9, 2012

Technical Services Division
Regulatory Branch
LRC-2011-00727

SUBJECT: Installation of New Revetment via barge in Lake Michigan Located at 337 and 353
N. Deere Park Drive East, Highland Park, Lake County, Illinois

Peter Karmin
337 N. Deere Park Drive E.
Highland Park, Illinois 60035

Peter Rose
353 N. Deere Park Drive E.
Highland Park, Illinois 60035

Dear Mr. Karmin and Mr. Rose:

The U.S. Army Corps of Engineers, Chicago District, has completed its review of your notification for authorization under the Regional Permit Program (RPP), submitted on your behalf by Shabica & Associates, Inc. This office has verified that your proposed activity complies with the terms and conditions of Regional Permit 11 and the overall RPP under Category I of the Regional Permit Program dated April 1, 2012. The activity may be performed without further authorization from this office provided the activity is conducted in compliance with the terms and conditions of the RPP.

This verification expires three (3) years from the date of this letter and covers only your activity as described in the plans titled KARMIN & ROSE REVETMENT TOE STONE MAINTENANCE dated 10/5/2011 as prepared by Shabica & Associates. Caution must be taken to prevent construction materials and activities from impacting waters of the United States beyond the scope of this authorization. If you anticipate changing the design or location of the activity, you should contact this office to determine the need for further authorization.

This authorization is contingent upon implementing and maintaining soil erosion and sediment controls in a serviceable condition throughout the duration of the project. You shall comply with the Lake County Stormwater Management Commission (LCSMC)'s written and verbal recommendations regarding the soil erosion and sediment control (SESC) plan and the installation and maintenance requirements of the SESC practices on-site. You shall notify this office and the SMC of any changes or modifications to the approved plan set. Please be aware that field conditions during project construction may require the implementation of additional SESC measures for further protection of aquatic resources. If you fail to implement corrective measures, this office may require more frequent site inspections to ensure the installed SESC

measures are acceptable.

You shall complete the following requirements:

1. You shall schedule a preconstruction meeting with LCSMC to discuss the SESC plan and the installation and maintenance requirements of the SESC practices on the site.
2. You shall notify the LCSMC of any changes or modifications to the approved plan set. Field conditions during project construction may require the implementation of additional SESC measures. If you fail to implement corrective measures, this office may require more frequent site inspections to ensure the installed SESC measures are acceptable.

In addition, the permittee understands and agrees that, if future operations by the United States require removal, relocation, or other alteration of the structure or work authorized herein, or if, in the opinion of the Secretary of the Army or his authorized representative said structure or work shall cause unreasonable obstruction to the free navigation of the navigable water, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

This verification does not obviate the need to obtain all other required Federal, state, or local approvals before starting work. Please note that Section 401 Water Quality Certification has been issued by IEPA for this RP. Enclosed are the IEPA Section 401 Water Quality Certification conditions. If you have any questions regarding Section 401 certification, please contact Mr. Dan Heacock at IEPA Division of Water Pollution Control, Permit Section #15, by telephone at (217) 782-3362.

For a complete copy of the RPP program or any additional information on the RPP program, please access our website: www.lrc.usace.army.mil/co-r. Once you have completed the authorized activity, please sign and return the enclosed compliance certification. If you have any questions, please contact Kate M. Bliss of my staff by telephone at 312-846-5542, or email at Kate.M.Bliss@usace.army.mil.

Sincerely,



Kathleen G. Chernich
Chief, East Section
Regulatory Branch



PERMIT NO. LM2012011
DATE: August 7, 2012

State of Illinois
Department of Natural Resources, Office of Water Resources
and
Illinois Environmental Protection Agency

Permission is hereby granted to: **Mr. Peter Karmin** **Mr. Peter Rose**
337 N. Deere Park Drive E 353 N. Deere Park Drive E
Highland Park, Illinois 60035 Highland Park, Illinois 60035

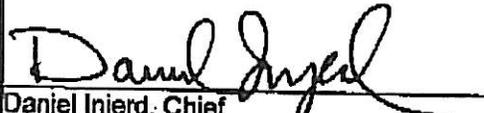
To construct a quarystone toe revetment in Lake Michigan at 337 and 353 N. Deere Park Drive E, Highland Park, Illinois 60035. The project is located in the Southwest Quarter of Section 31, Township 43 North, Range 13 East, of the 3rd Principal Meridian in Cook County.

In accordance with an application dated October 10, 2011, and the plans and specifications entitled:

REVETMENT TOE STONE MAINTENANCE, ONE SHEET, UNDATED, RECEIVED OCTOBER 17, 2011.

KARMIN & ROSE REVETMENT TOE STONE MAINTENANCE, DRAWING NUMBERS 1 AND 2, DATED OCTOBER 5, 2011, RECEIVED OCTOBER 17, 2011.

Examined and Recommended:


Daniel Injerd, Chief
Lake Michigan Management Section

Approval Recommended:


Arian R. Juhl, P.E., Director
Office of Water Resources

Approved:


Marc Miller, Director
Department of Natural Resources

This PERMIT is subject to the terms and special conditions contained herein and in the attached NOTICE OF FINAL DETERMINATION of the Illinois Environmental Protection Agency. This PERMIT is not valid unless a NOTICE OF FINAL DETERMINATION of the Illinois Environmental Protection Agency as required by Section 39(a) of the Environmental Protection Act is attached.

PERMIT NO. LM2012011**THIS PERMIT IS SUBJECT TO THE FOLLOWING CONDITIONS:**

- 1) This permit is granted in accordance with the Rivers, Lakes and Streams Act, "615 ILCS 5," and the Environmental Protection Act "415 ILCS 5/1."
- 2) This permit does not convey title to the permittee or recognize title of the permittee to any submerged or other lands, and furthermore, does not convey, lease or provide any right or rights of occupancy or use of the public or private property on which the activity or any part thereof will be located, or otherwise grant to the permittee any right or interest in or to the property, whether the property is owned or possessed by the State of Illinois or by any private or public party or parties.
- 3) This permit does not release the permittee from liability for damage to persons or property resulting from the work covered by this permit, and does not authorize any injury to private property or invasion of private rights.
- 4) This permit does not relieve the permittee of the responsibility to obtain other federal, state or local authorizations required for the construction of the permitted activity; and if the permittee is required by law to obtain approvals from any federal or other state agency to do the work, this permit is not effective until the federal and state approvals are obtained.
- 5) The permittee shall, at the permittee's own expense, remove all temporary piling, cofferdams, false work, and material incidental to the construction of the project from Lake Michigan. If the permittee fails to remove such structures or materials, the Department may have removal made at the expense of the permittee.
- 6) In public waters, if future need for public navigation or other public interest by the state or federal government necessitates changes in any part of the structure or structures, such changes shall be made by and at the expense of the permittee or the permittee's successors as required by the Department or other properly constituted agency, within sixty (60) days from receipt of written notice of the necessity from the Department or other agency, unless a longer period of time is specifically authorized.
- 7) The execution and details of the work authorized shall be subject to the review and approval of the Department and/or the Agency. Department and Agency personnel shall have the right of access to accomplish this purpose.
- 8) Starting work on the activity authorized will be considered full acceptance by the permittee of the terms and conditions of the permit.
- 9) The Department and Agency in issuing this permit have relied upon the statements and representations made by the permittee; if any substantive statement or representation made by the permittee is found to be false, this permit will be revoked and when revoked, all rights of the permittee under the permit are voided.
- 10) The permittee and the permittee's successors shall make no claim whatsoever to any interest in any accretions caused by the activity.
- 11) In issuing this permit, the Department and Agency do not ensure the adequacy of the design or structural strength of the structure or improvement.
- 12) Noncompliance with the conditions of this permit will be considered grounds for revocation.
- 13) If the construction activity here permitted is not completed on or before **December 31, 2015**, this permit shall cease and be null and void. When all work is constructed, the permittee shall notify the Department so that a final inspection can be completed.

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS:

- A. Special Conditions 1-4 of the Illinois Environmental Protection Agency's August 3, 2012 Final Determination Letter.



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

PAT QUINN, GOVERNOR

JOHN J. KIM, INTERIM DIRECTOR

217/782-3362

AUG 03 2012

Illinois Department of Natural Resources
Lake Michigan Management Section
Michael A. Bilandic Building
160 N. LaSalle Street, Suite S-700
Chicago, IL 60601

Re: Mr. Peter Karmin and Mr. Peter Rose - Stone Toe Revetment on Lake Michigan
Permit # 2012-LM-0017
Log # LM 0017-2012

Gentlemen:

This Agency received a request on October 14, 2011 from Mr. Peter Karmin and Mr. Peter Rose requesting necessary comments concerning the construction on a stone toe revetment in Lake Michigan. We offer the following comments.

Based on the information included in this submittal, it is our engineering judgment that the proposed project may be completed without causing water pollution as defined in the Illinois Environmental Protection Act, provided the project is carefully planned and supervised.

These comments are directed at the effect on water quality of the construction procedures involved in the above described project and are not an approval of any discharge resulting from the completed facility, nor an approval of the design of the facility. These comments do not supplant any permit responsibilities of the applicant toward the Agency.

This Agency hereby issues final determination under Section 39 of the Illinois Environmental Protection Act, subject to the applicant's compliance with the following conditions:

1. The applicant shall not cause:
 - a. violation of applicable water quality standards of the Illinois Pollution Control Board, Title 35, Subtitle C: Water Pollution Rules and Regulations;
 - b. water pollution defined and prohibited by the Illinois Environmental Protection Act;
 - c. violation of applicable provisions of the Illinois Environmental Protection Act; or
 - d. interference with water use practices near public recreation areas or water supply intakes.
2. The applicant shall provide adequate planning and supervision during the project construction period for implementing construction methods, processes and cleanup procedures necessary to prevent water pollution and control erosion.

4302 N. Main St., Rockford, IL 61103 (815)987-7760
595 S. State, Elgin, IL 60123 (847)608-3131
2125 S. First St., Champaign, IL 61820 (217)278-5800
2009 Mall St., Collinsville, IL 62234 (618)346-5120

9511 Harrison St., Des Plaines, IL 60016 (847)294-4000
5407 N. University St., Arbor 113, Peoria, IL 61614 (309)693-5462
2309 W. Main St., Suite 116, Marion, IL 62959 (618)993-7300
100 W. Randolph, Suite 11-300, Chicago, IL 60601 (312)614-6026

PLEASE PRINT ON RECYCLED PAPER

Page No. 2
Log No. LM 0017-12

3. The applicant shall implement erosion control measures consistent with the "Illinois Urban Manual" (IEPA/USDA, NRCS; 2011).
4. This final determination is not a Section 401 water quality certification that may be required for your project in conjunction with a Section 404 permit issued by the U.S. Army Corps of Engineers.

This final determination becomes effective when the Illinois Department of Natural Resources, Office of Water Resources, includes the above conditions # 1 through # 4 as conditions of the requested permit issued pursuant to Section 39 of the Illinois Environmental Protection Act (415 ILCS 5/39) and Section 18 of the Rivers, Lakes, and Streams Act (615 ILCS 5/18).

This final determination does not grant immunity from any enforcement action found necessary by this Agency to meet its responsibilities in prevention, abatement, and control of water pollution.

Sincerely,



Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

SAK:DLH:TJF:0017-12.docx

cc: IEPA, Records Unit
IEPA, DWPC, FOS, Des Plaines
CoE, Chicago District
USEPA, Region 5
Binds
Mr. Peter Karmin
Mr. Peter Rose
✓ Mr. John Shabica, Shabica & Associates

According to James Casey (Illinois Department of Natural Resources), this permit has been approved. He is waiting to receive the final signed copy of the permit from the IDNR Springfield Office and will forward it immediately. See email:

From: Casey, James [mailto:James.Casey@illinois.gov]
Sent: Tuesday, August 14, 2012 12:54 PM
To: Melissa Bach
Subject: RE: Karmin-Rose Project: 337 & 353 N Deere Park Drive E, Highland Park

Nope

From: Melissa Bach [mailto:melissa@shabica.com]
Sent: Tuesday, August 14, 2012 12:51 PM
To: Casey, James
Subject: RE: Karmin-Rose Project: 337 & 353 N Deere Park Drive E, Highland Park

Hi Jim,

No word yet from Springfield regarding the Karmin-Rose permit?

Thanks,
Melissa Bach
Office Manager

Shabica & Associates, Inc.

550 Frontage Road, Suite 3735
Northfield, IL 60093
Tel: 847-446-1436
Fax: 847-716-2007
melissa@shabica.com
www.shabica.com

From: Casey, James [mailto:James.Casey@illinois.gov]
Sent: Friday, August 10, 2012 10:11 AM
To: Melissa Bach
Subject: RE: Karmin-Rose Project: 337 & 353 N Deere Park Drive E, Highland Park

The permit went down to Springfield this week, I won't get a signed copy back until hopefully next week. If I get it by Tuesday I will fax it to you.

Jim Casey

From: Melissa Bach [mailto:melissa@shabica.com]
Sent: Friday, August 10, 2012 9:57 AM
To: Casey, James
Cc: jon@shabica.com
Subject: Karmin-Rose Project: 337 & 353 N Deere Park Drive E, Highland Park

Good Morning Jim,

You may have already received a copy of the IEPA's approval of the Karmin-Rose Revetment in Highland Park, but I have also attached it to this email as a PDF file. Do you have any ETA on when the IDNR will be able to issue its approval of this project?

All Highland Park projects need to be approved by the City's Community Development Department (as you may recall from the Frank Revetment). We need to submit the City's application by Tuesday in order to be reviewed at the September Board Meeting.

Is there any possibility that the IDNR might have its approval ready before Tuesday so that we can include the approval letter in the City's application?

Thanks so much Jim. We always appreciate your help!

Sincerely,
Melissa Bach
Office Manager

Shabica & Associates, Inc.

550 Frontage Road, Suite 3735

Northfield, IL 60093

Tel: 847-446-1436

Fax: 847-716-2007

melissa@shabica.com

www.shabica.com



**Illinois Historic
Preservation Agency**

1 Old State Capitol Plaza • Springfield, Illinois 62701-1512 • www.illinois-history.gov

Lake County PLEASE REFER TO: IHPA LOG #001101411
Highland Park
337 & 353 North Deere Park Drive E.
Mobilization & Shore protection, Lake Michigan

October 18, 2011

Jon Shabica
Shabica & Associates, Inc.
550 Frontage Road, Suite 3735
Northfield, IL 60093

Dear Mr. Shabica:

We have reviewed the documentation submitted for the referenced project(s) in accordance with 36 CFR Part 800.4. Based upon the information provided, no historic properties are affected. We, therefore, have no objection to the undertaking proceeding as planned.

Please retain this letter in your files as evidence of compliance with section 106 of the National Historic Preservation Act of 1966, as amended. This clearance remains in effect for two (2) years from date of issuance. It does not pertain to any discovery during construction, nor is it a clearance for purposes of the Illinois Human Skeletal Remains Protection Act (20 ILCS 3440).

If you are an applicant, please submit a copy of this letter to the state or federal agency from which you obtain any permit, license, grant, or other assistance.

Sincerely,

Anne E. Haaker

Anne E. Haaker
Deputy State Historic
Preservation Officer



STORMWATER MANAGEMENT COMMISSION

WATERSHED DEVELOPMENT PERMIT HAS BEEN SECURED WD PERMIT NUMBER C11-16-082

Project: 353 & 337 N. Deere Park Drive Revetment

Address: 353 & 337 N. Deere Park Drive PIN No.: N/A
Highland Park, IL

Date Issued: 3/6/2012

Issued By: Brian Cook, CPESC, CFM, CWS
Sr. Civil Engineer

Kurt A. Woolford, PE, CFM, LEED AP
Chief Engineer

CONDITIONS:

- Prior notification of construction start to Tim Cook of the SMC, to enable SMC inspection, at (847) 377-7703 or tcook@lakecountyil.gov
- Installing and maintaining all soil erosion/sedimentation control measures as determined by the SMC Inspector. Specific SE/SC measures will be discussed and determined at the time of the preconstruction meeting, and will be required as directed by the SMC Inspector.

NOTICE

TO CONTRACTORS AND OWNERS

POST THIS CARD AT THE SITE, VISIBLE FROM THE STREET AND SO LOCATED AS TO PERMIT THE INSPECTOR TO RECORD THE INDICATED INSPECTIONS ON THE PLACARD. DO NOT POST IN THE INTERIOR OF A BUILDING.

INSPECTORS AND SHERIFF'S DEPUTIES ARE INSTRUCTED TO STOP ALL WORK WHERE THIS PERMIT CARD IS NOT DISPLAYED.

ALWAYS MENTION THE WATERSHED DEVELOPMENT PERMIT NUMBER WHEN REFERRING TO THIS PROJECT. IF THIS CARD BECOMES MISLAID OR LOST PLEASE CONTACT LAKE COUNTY STORMWATER MANAGEMENT COMMISSION FOR A REPLACEMENT.

Lake County Stormwater Management Commission (847) 377-7705

PROFESSIONALS ASSOCIATED SURVEY, INC.
 PROFESSIONAL DESIGN FIRM REGISTRATION NO. 00111281-04
 PROPERTY - ALTA - TOPO - CONDO - MORTGAGE SURVEY
 7100 N. TRIPP AVE., LINCOLNWOOD, ILLINOIS 60712
 TEL: (847) 675-3000 FAX: (847) 675-2167

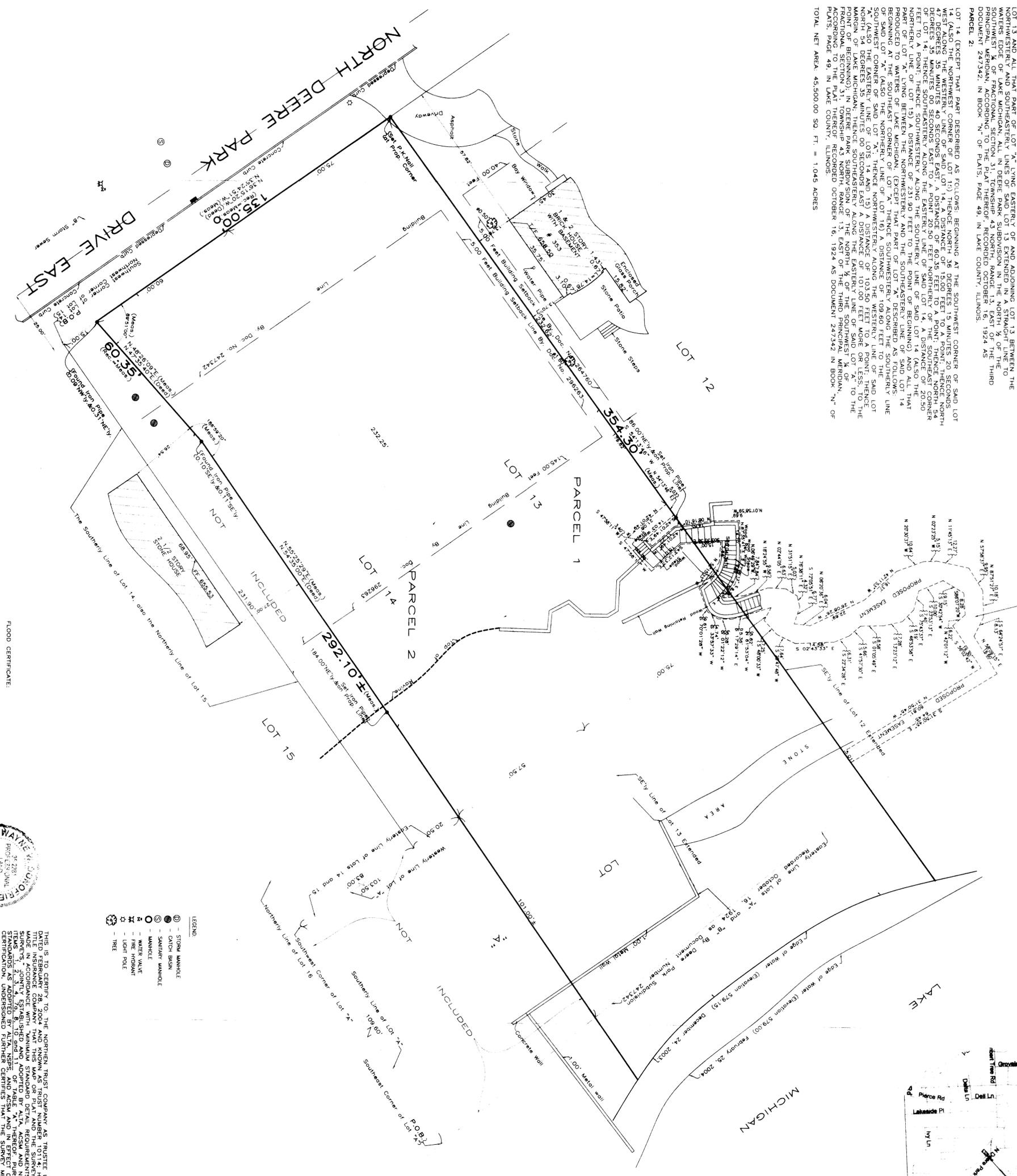
ALTA/ACSM LAND TITLE SURVEY
 OF

PARCEL 1:

LOT 13 AND ALL THAT PART OF LOT "A" LYING EASTERLY OF AND ADJOINING LOT 13 BETWEEN THE NORTHERN CORNER OF SAID LOT 13 EXTENDED IN A STRAIGHT LINE TO THE WATERS EDGE OF LAKE MICHIGAN, IN DEER PARK SUBDIVISION, TOWNSHIP 43 NORTH, RANGE 13, EAST 96° THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF, RECORDED OCTOBER 16, 1924 AS DOCUMENT 247342, IN BOOK "N" OF PLATS, PAGE 49, IN LAKE COUNTY, ILLINOIS.



PARCEL 2:
 LOT 14 (EXCEPT THAT PART DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHWEST CORNER OF SAID LOT 14 (ALSO THE NORTHWEST CORNER OF LOT 15) THENCE NORTH 36 DEGREES 15 MINUTES 20 SECONDS 47 DEGREES 35 MINUTES 00 SECONDS EAST TO A POINT 15.00 FEET TO A POINT, THENCE NORTH 47 DEGREES 35 MINUTES 00 SECONDS EAST TO A POINT 20.50 FEET NORTHERLY OF THE SOUTHEAST CORNER FEET TO A POINT, THENCE SOUTHWESTERLY ALONG THE EASTERLY LINE OF SAID LOT 14, A DISTANCE OF 20.50 FEET TO A POINT, THENCE SOUTHWESTERLY ALONG THE SOUTHWESTERLY LINE OF SAID LOT 14, A DISTANCE OF 231.90 FEET TO THE POINT OF BEGINNING ALSO THAT PART OF LOT "A" LYING BETWEEN THE NORTHERLY AND THE SOUTHWESTERLY LINE OF SAID LOT 14 PRODUCED TO WATERS OF LAKE MICHIGAN, (EXCEPT THAT PART OF LOT "A" DESCRIBED AS FOLLOWS: SOUTHWEST CORNER OF SAID LOT "A"; THENCE SOUTHWESTERLY ALONG THE SOUTHWESTERLY LINE OF SAID LOT "A" (ALSO THE NORTHERLY LINE OF LOT 14 AND 15) A DISTANCE OF 103.50 FEET MORE OR LESS, TO THE POINT OF BEGINNING); IN DEER PARK SUBDIVISION OF THE NORTH 1/2 OF THE SOUTHWEST 1/4 OF FRACTIONAL SECTION 31, TOWNSHIP 43 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, PLATS PAGE 49, IN LAKE COUNTY, ILLINOIS
 TOTAL NET AREA: 45,500.00 SQ. FT. = 1.045 ACRES



THE LEGAL DESCRIPTION SHOWN ON THE PLAT HEREON DRAWN IS A COPY OF THE ORDER AND THE TITLE OR DEED.
 DIMENSIONS ARE NOT TO BE ASSUMED FROM SCALING.
 ORDER NO.: 04-08841
 SCALE: 1 INCH = 20 FEET
 DATE: March 11, 2004.
 ORDERED BY: BECKER & GURIAN
 Attorneys at Law

FLOOD CERTIFICATE:
 ACCORDING TO FLOOD INSURANCE RATE MAP OF ILLINOIS DATED SEPTEMBER 3, 1997, THE AREA IS DESIGNATED AS ZONE "X" WHICH FLOOD AREA AND

- LEGEND
- ⊙ - STORM MANHOLE
 - ⊕ - CATCH BASIN
 - ⊙ - SANITARY MANHOLE
 - ⊙ - MANHOLE
 - ⊙ - WATER VALVE
 - ⊙ - FIRE HYDRANT
 - ⊙ - LIGHT POLE
 - ⊙ - TREE

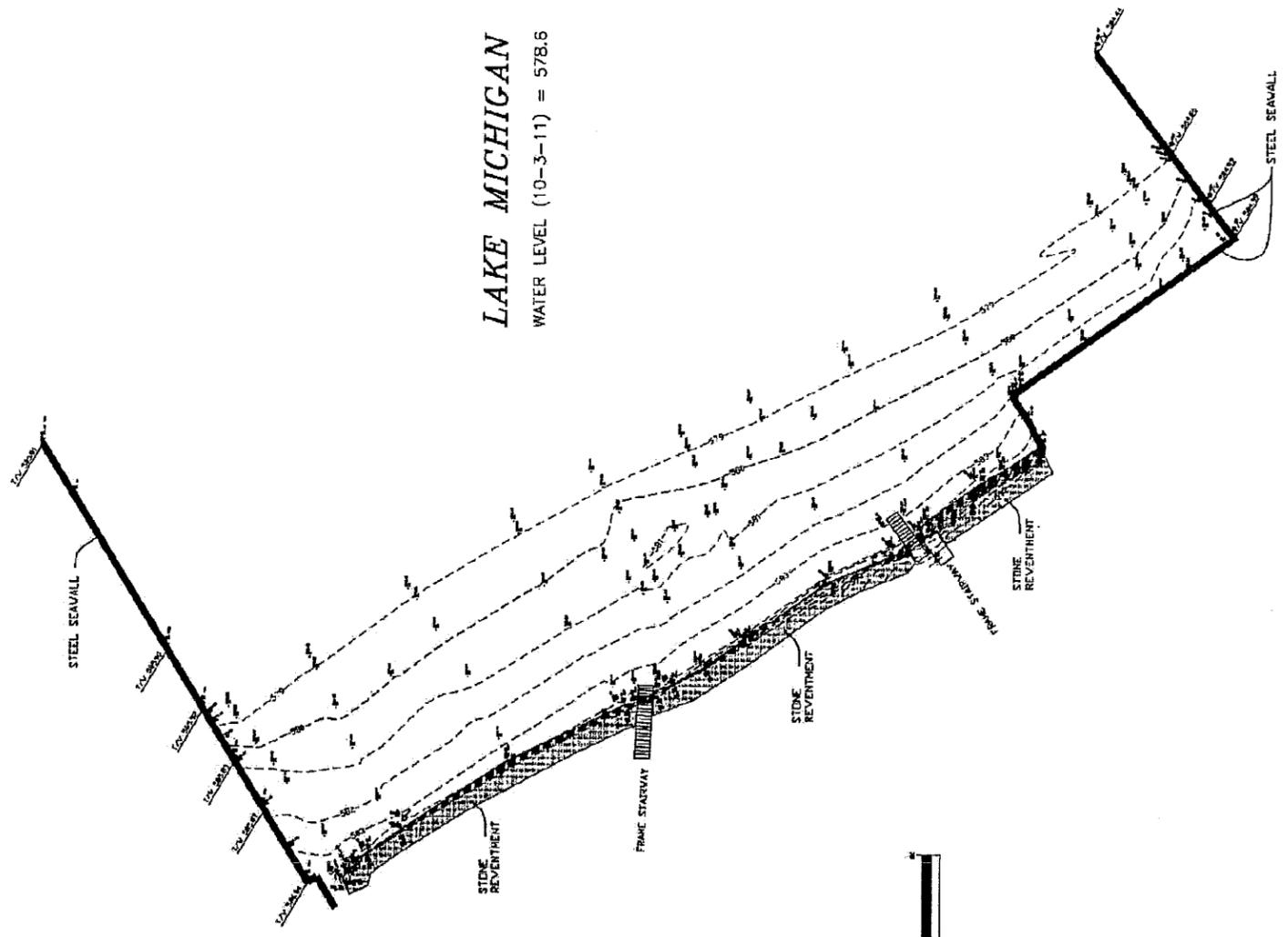


THIS IS TO CERTIFY TO THE NORTHERN TRUST COMPANY AS TRUSTEE UNDER TRUST AGREEMENT DATED FEBRUARY 28, 2004 AND KNOWN AS TRUST NUMBER 10114 "JAMES WALKER" AND CHICAGO TITLE INSURANCE COMPANY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A LICENSED SURVEYOR IN THE STATE OF ILLINOIS AND THAT THE SURVEY WAS MADE IN ACCORDANCE WITH THE MINIMUM ANGLE, DISTANCE AND CLOSURE REQUIREMENTS FOR SURVEY MEASUREMENTS WHICH CONTROL LAND BOUNDARIES FOR ALTA/ACSM LAND TITLE SURVEYS.
 DATED: March 11, 2004.
 (SIGNED) [Signature]
 ILLINOIS PROFESSIONAL LAND SURVEYOR
 LICENSE EXPIRATION DATE NOVEMBER 30, 2004.

TOPOGRAPHIC SURVEY

337 DEERE PARK DRIVE EAST
HIGHLAND PARK, ILLINOIS
P.I.N. 17-31-302-176

353 DEERE PARK DRIVE EAST
HIGHLAND PARK, ILLINOIS
P.I.N. 17-31-302-175



STATE OF ILLINOIS
NO. 003895
11/20/2012
PROFESSIONAL ENGINEER

1. Make Professional Land Survey No. 2012
Survey Name: Site 11/20/2012

SCALE: 1" = 20'

REVISED: 07/04/11 LALKE

- 1. These data were collected with total and level and used in accordance with the provisions of the Illinois Surveying Act.
- 2. The accuracy of these data is based on the accuracy of the equipment used and the skill of the surveyor.
- 3. The surveyor is not responsible for the accuracy of the data used in the design of the project.
- 4. The surveyor is not responsible for the accuracy of the data used in the design of the project.
- 5. The surveyor is not responsible for the accuracy of the data used in the design of the project.

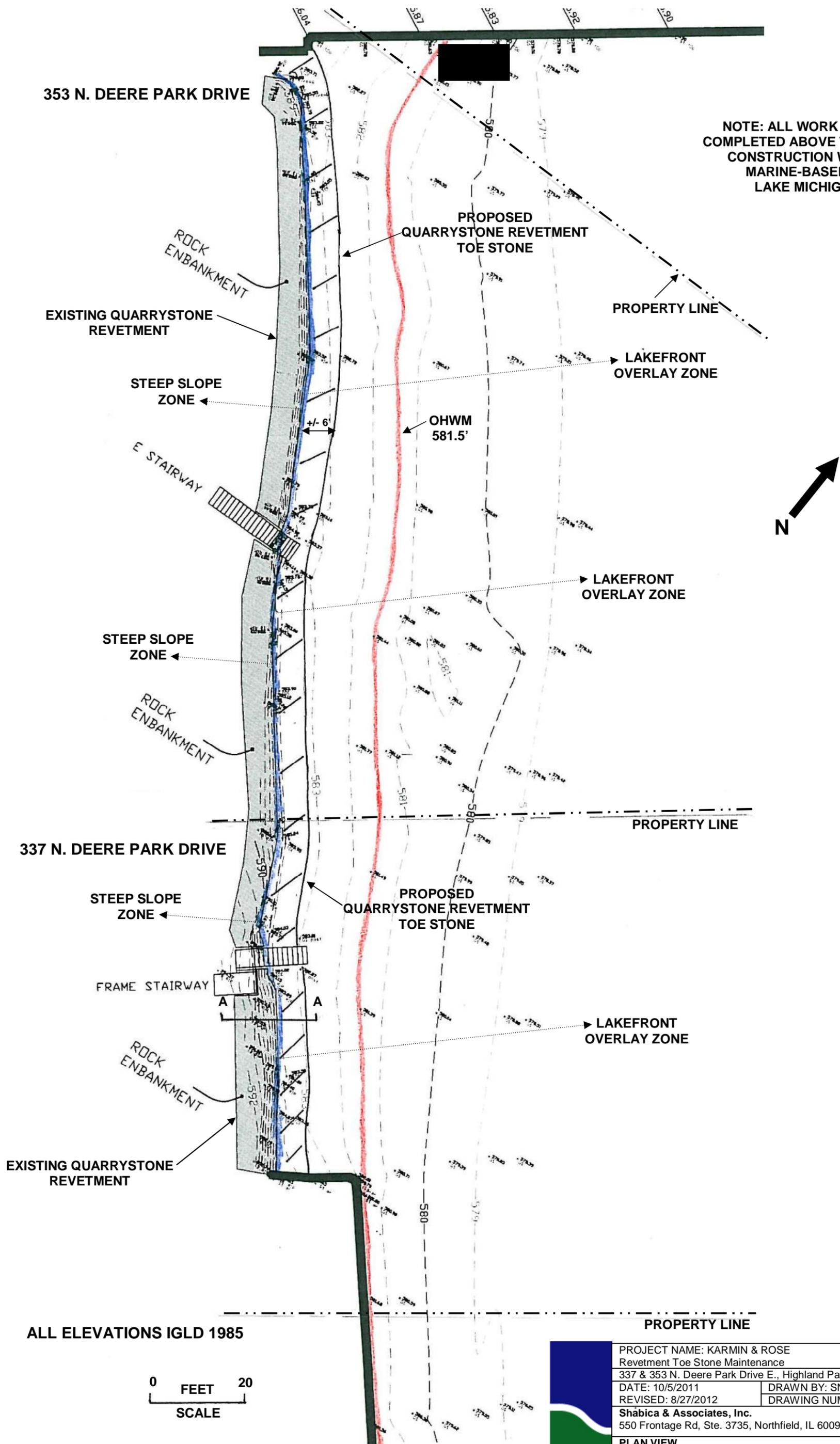
SITE BENCHMARK WAS ESTABLISHED USING GPS EQUIPMENT TIED TO TRIMBLE VRS NOW NETWORK. ELEVATIONS WERE COLLECTED IN NAVD83 DATUM.

**TERRA TECHNOLOGY
LAND SURVEYING, INC.**
24198 ROSE AVE. LAKE ZURICH, ILLINOIS 60047
PH:(847) 540-8606 F-MAIL:TTLS.TERRATECH@AOL.NET

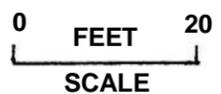
JOB NO. : 11-0059 SURVEY DATE : 10/3/11
DRAWING FILE : DATA/11/0059/SITE.DWG

**PLAN VIEW –
REVETMENT TOE STONE MAINTENANCE**

**NOTE: ALL WORK WILL BE
COMPLETED ABOVE THE OHWM.
CONSTRUCTION WILL BE
MARINE-BASED VIA
LAKE MICHIGAN.**

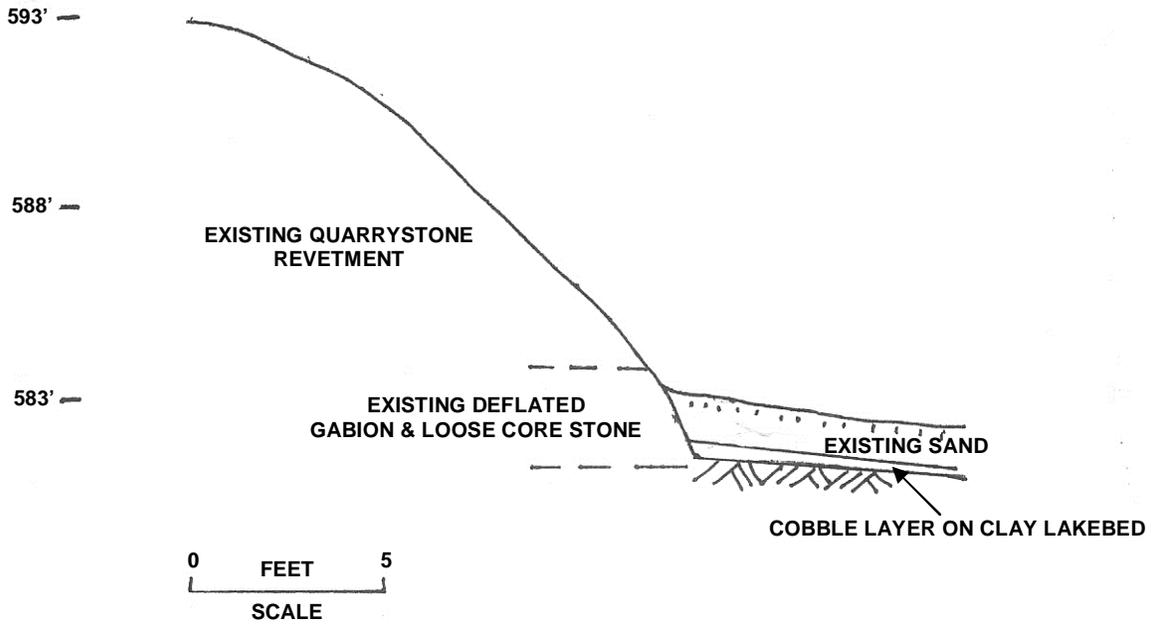


ALL ELEVATIONS IGLD 1985

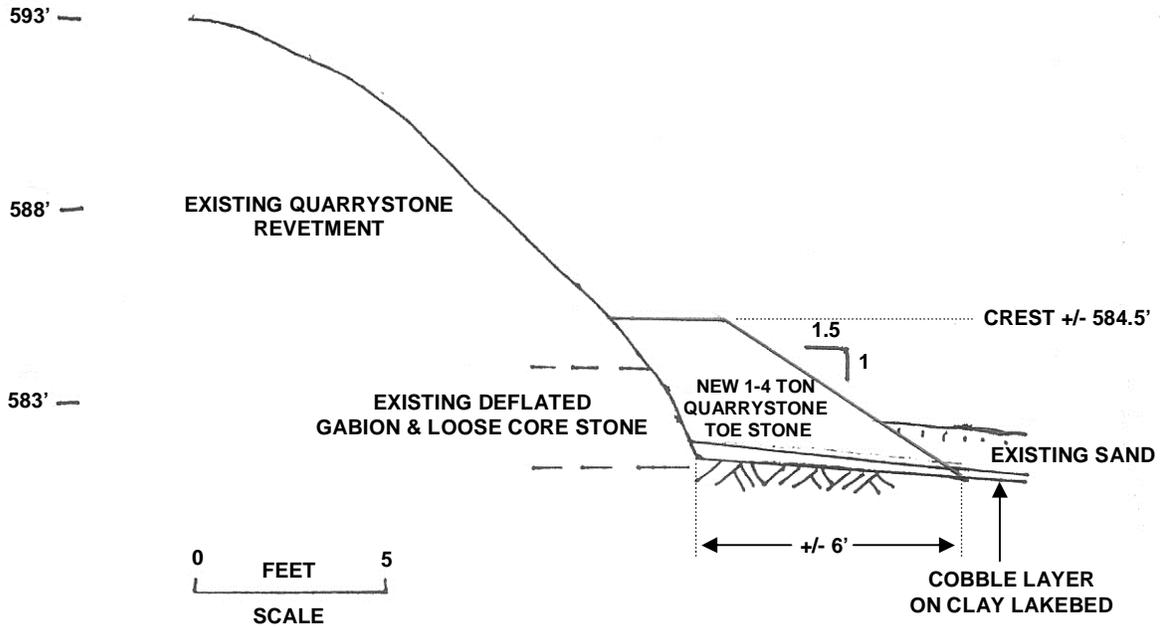


PROJECT NAME: KARMIN & ROSE	
Revetment Toe Stone Maintenance	
337 & 353 N. Deere Park Drive E., Highland Park, IL 60035	
DATE: 10/5/2011	DRAWN BY: SN
REVISED: 8/27/2012	DRAWING NUMBER: 1
Shabica & Associates, Inc.	
550 Frontage Rd, Ste. 3735, Northfield, IL 60093	
PLAN VIEW	

**CROSS SECTION A-A – TYPICAL
EXISTING REVETMENT**



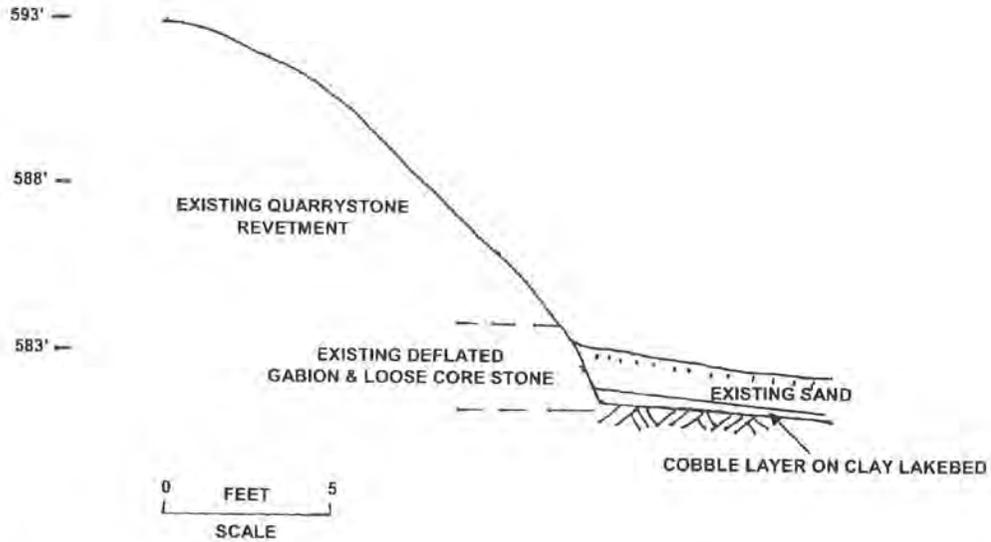
**CROSS SECTION A-A – TYPICAL
PROPOSED REVETMENT TOE STONE MAINTENANCE**



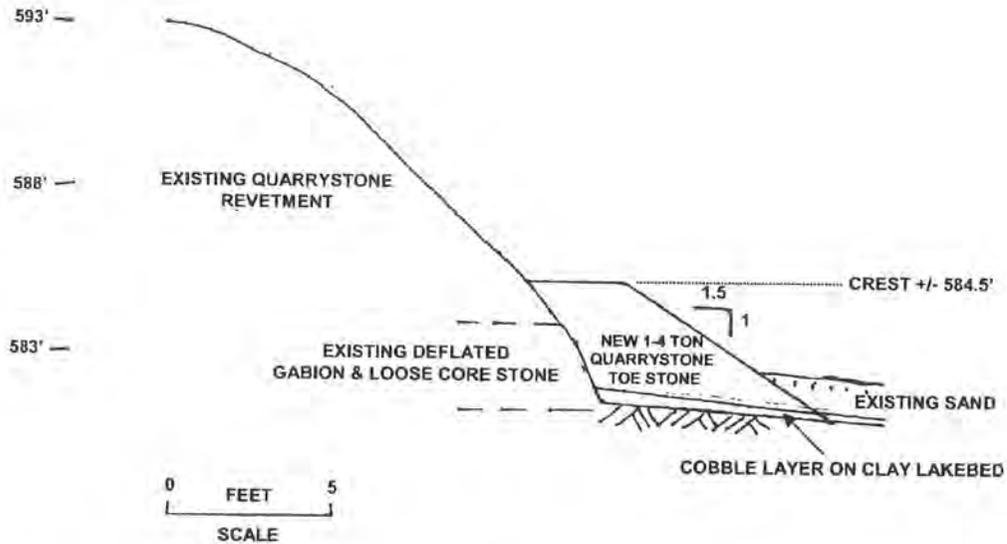
ALL ELEVATIONS IGLD 1985

	PROJECT NAME: KARMIN & ROSE	
	Revetment Toe Stone Maintenance	
	337 & 353 N. Deere Park Drive E., Highland Park, IL 60035	
	DATE: 10/5/2011	DRAWN BY: SN
REVISED: 8/27/2012	DRAWING NUMBER: 2	
Shabica & Associates, Inc. 550 Frontage Rd, Ste. 3735, Northfield, IL 60093		
CROSS SECTION A-A TYPICAL		

**CROSS SECTION A-A – TYPICAL
EXISTING REVETMENT**



**CROSS SECTION A-A – TYPICAL
PROPOSED REVETMENT TOE STONE MAINTENANCE**



ALL ELEVATIONS IGLD 1985

PROJECT NAME: KARMIN & ROSE Revetment Toe Stone Maintenance	
337 & 353 N. Deere Park Drive E., Highland Park, IL 60035	
DATE: 10/5/2011	DRAWN BY: SN
REVISED:	DRAWING NUMBER: 2
Shabica & Associates, Inc. 550 Frontage Rd, Ste. 3735, Northfield, IL 60093	
CROSS SECTION A-A TYPICAL	



**353 N. Deere Park Drive E.
Highland Park**

**Submittal to
Community Development Department
August 14, 2012**

Prepared By:

**Shabica & Associates, Inc.
Sustainable Coastal Solutions
550 Frontage Road, Suite 3735
Northfield, Illinois 60093
Tel. 847-446-1436
Fax 847-716-2007**



Shabica & Associates, Inc.
Sustainable Coastal Solutions

Barbara Cates
City of Highland Park
Community Development Department
1150 Half Day Road
Highland Park, Illinois 60035

Dear Ms. Cates:

August 14, 2012

Mr. Peter Rose would like to submit this application regarding the proposed revetment toe maintenance at his property located at 353 N. Deere Park Drive E. The revetment was originally built in 1985 when this property and the adjacent property to the south (337 N. Deere Park Drive E., owned by Peter & Linda Karmin) were one (the property was subdivided in years since). As the revetment is continuous across both properties, the project is being completed jointly. Additionally, the project was approved by Federal, State and County agencies as a joint project.

Per the guidelines of the City of Highland Park, these two projects are being submitted individually to the City. All Federal, State and County permits have been approved for the proposed work (attached in Appendix).

The City's Standards for Review, as outlined in the "Lake Michigan Protection Regulations" from Section 150.703.1 *Special Regulations for the LFOZ Lakefront Density and Character Overlay Zone*, are outlined below with our responses following:

a. *The proposed Regulated Activity and/or Structure shall not unreasonably impede access to or pedestrian movement along the beach or to Lake Michigan.*

This project will not impede pedestrian access or movement along the beach or to Lake Michigan.

b. *The proposed Regulated Activity and/or Structure shall not unnecessarily impede navigability within Lake Michigan*

The project will not have any impact on navigability of Lake Michigan.

c. *The proposed Regulated Activity and/or Structure shall not unreasonably impact the Subject Property or the Adjacent Properties*

The project will not unreasonably impact any coastal properties.

d. *The Applicant has proposed appropriate long-term maintenance requirements and plans, as necessary, for the proposed Regulated Activity and/or Structure*

The project is maintenance and part of a long-term maintenance plan.

- e. The proposed means and methods of undertaking the Regulated Activity and/or Structure are consistent with appropriate design and aesthetics principles**
The means and methods of construction will not impact design and aesthetics; all work will be completed via marine mobilization.
- f. The proposed Regulated Activity and/or Structure shall not create new nor amplify existing erosion problems on the Subject Property and on Adjacent Properties**
The project will prevent future bluff erosion on the subject properties, and will not affect adjacent properties.
- g. The proposed Regulated Activity and/or Structure shall be for the purposes of erosion control, water gathering, and/or public access only**
The proposed revetment will prevent future bluff erosion on the subject properties.
- h. There will not be an unnecessary adverse environmental or ecological impact on the Subject Property or on any of the Adjacent Properties as a result of the proposed Structure and/or the Regulated Activity**
The proposed structure will not cause unnecessary adverse environmental or ecological impact as it is a replacement of an existing revetment toe at the back of a sandy beach.
- i. The proposed Structure and/or Regulated Activity is the least environmentally and ecologically intrusive means of achieving the stated purpose of the Structure**
The proposed structure is a viable, environmentally-correct means of achieving the stated purpose.
- j. The Applicant has properly obtained any and all permits required by the federal, state, and county governments for the Regulated Activity and/or the Structure**
All Federal, State and County permits have been approved and are attached.

A Permit Application has been filed with the Department of Public Works for the proposed project. In conformance to the City's Application Guidelines, the following documents and information are included:

- i. A statement of the purpose and planning objectives to be achieved by the proposed Regulated Activity**
The proposed revetment project will provide necessary maintenance to the base of the existing revetment that stretches across both 337 and 353 N. Deere Park Drive.
- ii. A plat of survey of the Subject Property**
A Plat of Survey is attached.
- iii. A conceptual plan showing the Subject Property and the Adjacent Properties, including any and all existing Structures in the portion of the Lake Michigan Protection Zone abutting those properties**
A Plan View is attached.
- iv. Development and site plans showing the proposed Structure, if applicable**
Same as Conceptual Plan in Item iii.
- v. A demolition plan, if applicable**
Demolition is noted on the attached Plan View.
- vi. An elevation plan, which shall include sectional views of the proposed Structure, if applicable**
Cross-sectional drawings are attached.
- vii. Copies of any and all permits required by the federal, state, and county governments for the Regulated Activity and/or the Structure**
Federal, State and County permit approvals are attached.

viii. Engineering details of the proposed Structure and/or the Regulated Activity, which shall include, if applicable:

A. Structure height, length and width

Not applicable. The proposed work is simply maintenance of an existing structure. The new toe stone will be placed on clay lakebed or existing cobble, whichever is higher. The new stone will extend approximately 6' east of the existing revetment. This will maintain stability of the newly placed stone and the existing structure.

B. The spacing between the proposed Structure and other Structures in the Lake Michigan Protection Zone abutting any of the Adjacent Properties

This structure runs along the bluff toe; no spacing is applicable. The structure already exists.

C. The materials of which the proposed Structure will be composed

The revetment maintenance stone will be quarried quartzite.

ix. A geo-technical investigation report of the site

As there will be no major earthmoving or grading of the bluff, in-depth geotechnical investigation is not required according to Joe Pasquesi, Engineer.

x. A statement outlining structure success in various water levels

The revetment is designed to function during varying lake levels. The toe of the structure will protect the property during low lake levels. The crest will provide the property during higher lake levels.

xi. A statement describing the long-term maintenance requirements and plan for the proposed Structure

The proposed revetment toe maintenance is simply maintenance to an existing structure. The stone that will be used will last thousands of years. After the maintenance work is complete, if and when the revetment begins to settle, it has been designed to remain functional. Periodic maintenance is recommended as necessary based on visual inspections. Typically, at the time of recommended maintenance, additional stone will be brought in and placed over the existing revetment to bring it back to the original specification.

xii. A written description of the proposed means and methods of undertaking the Regulated Activity

All materials and equipment will be delivered to and removed from the site via barge on Lake Michigan. The work will be completed using a backhoe and crane as needed.

xiii. An explanation, in narrative form, of the following:

A. Any and all erosion problems on the Subject Property for which the Structure and/or Regulated Activity is designed to correct or remedy

As stated previously, this is a maintenance project. However, this system is designed to protect the Subject Properties from future bluff erosion due to stormwave damage.

B. The environmental and ecological impact on the Property and the Adjacent Properties that are expected to result from the Structure and/or Regulated Activity

The structure already exists. There will be no impacts resulting from the maintenance to the structure.

C. How the proposed Structure and/or Regulated Activity is the least environmentally and ecologically intrusive means of achieving the stated purpose

No new structure is being built. However, a quarystone revetment is least intrusive to the environment. The natural character of the bluff is glacial clay till containing rocks.

As the bluff erodes, these rocks remain at the bluff toe. The revetment is an engineered free-form structure that moves with nature and doesn't trap water.

D. The nature and composition of existing protections, including existing Structures, of the shoreline in that portion of the Lake Michigan Protection Zone abutting either the Subject Property or the Adjacent Properties, and the impact and effectiveness of those protections on the shoreline, the lakebed, and on erosion of the Subject Property and Adjacent Properties

The existing form of shore protection at the Subject Properties is a deflated quarystone revetment that will be maintained.

xiv. A non-refundable application fee, in the amount set forth in the City's Annual Fee Resolution

The application fee is attached.

An appendix of attachments is included with this letter.

This information addresses the application requirements for submission. Please let us know if you require any further information.

Sincerely,



Jon Shabica
Vice President



Appendix



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
CHICAGO DISTRICT, CORPS OF ENGINEERS
111 NORTH CANAL STREET
CHICAGO, ILLINOIS 60606-7206

April 9, 2012

Technical Services Division
Regulatory Branch
LRC-2011-00727

SUBJECT: Installation of New Revetment via barge in Lake Michigan Located at 337 and 353
N. Deere Park Drive East, Highland Park, Lake County, Illinois

Peter Karmin
337 N. Deere Park Drive E.
Highland Park, Illinois 60035

Peter Rose
353 N. Deere Park Drive E.
Highland Park, Illinois 60035

Dear Mr. Karmin and Mr. Rose:

The U.S. Army Corps of Engineers, Chicago District, has completed its review of your notification for authorization under the Regional Permit Program (RPP), submitted on your behalf by Shabica & Associates, Inc. This office has verified that your proposed activity complies with the terms and conditions of Regional Permit 11 and the overall RPP under Category I of the Regional Permit Program dated April 1, 2012. The activity may be performed without further authorization from this office provided the activity is conducted in compliance with the terms and conditions of the RPP.

This verification expires three (3) years from the date of this letter and covers only your activity as described in the plans titled KARMIN & ROSE REVETMENT TOE STONE MAINTENANCE dated 10/5/2011 as prepared by Shabica & Associates. Caution must be taken to prevent construction materials and activities from impacting waters of the United States beyond the scope of this authorization. If you anticipate changing the design or location of the activity, you should contact this office to determine the need for further authorization.

This authorization is contingent upon implementing and maintaining soil erosion and sediment controls in a serviceable condition throughout the duration of the project. You shall comply with the Lake County Stormwater Management Commission (LCSMC)'s written and verbal recommendations regarding the soil erosion and sediment control (SESC) plan and the installation and maintenance requirements of the SESC practices on-site. You shall notify this office and the SMC of any changes or modifications to the approved plan set. Please be aware that field conditions during project construction may require the implementation of additional SESC measures for further protection of aquatic resources. If you fail to implement corrective measures, this office may require more frequent site inspections to ensure the installed SESC

measures are acceptable.

You shall complete the following requirements:

1. You shall schedule a preconstruction meeting with LCSMC to discuss the SESC plan and the installation and maintenance requirements of the SESC practices on the site.
2. You shall notify the LCSMC of any changes or modifications to the approved plan set. Field conditions during project construction may require the implementation of additional SESC measures. If you fail to implement corrective measures, this office may require more frequent site inspections to ensure the installed SESC measures are acceptable.

In addition, the permittee understands and agrees that, if future operations by the United States require removal, relocation, or other alteration of the structure or work authorized herein, or if, in the opinion of the Secretary of the Army or his authorized representative said structure or work shall cause unreasonable obstruction to the free navigation of the navigable water, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

This verification does not obviate the need to obtain all other required Federal, state, or local approvals before starting work. Please note that Section 401 Water Quality Certification has been issued by IEPA for this RP. Enclosed are the IEPA Section 401 Water Quality Certification conditions. If you have any questions regarding Section 401 certification, please contact Mr. Dan Heacock at IEPA Division of Water Pollution Control, Permit Section #15, by telephone at (217) 782-3362.

For a complete copy of the RPP program or any additional information on the RPP program, please access our website: www.lrc.usace.army.mil/co-r. Once you have completed the authorized activity, please sign and return the enclosed compliance certification. If you have any questions, please contact Kate M. Bliss of my staff by telephone at 312-846-5542, or email at Kate.M.Bliss@usace.army.mil.

Sincerely,



Kathleen G. Chernich
Chief, East Section
Regulatory Branch



PERMIT NO. LM2012011
DATE: August 7, 2012

State of Illinois
Department of Natural Resources, Office of Water Resources
and
Illinois Environmental Protection Agency

Permission is hereby granted to: **Mr. Peter Karmin**
337 N. Deere Park Drive E
Highland Park, Illinois 60035

Mr. Peter Rose
353 N. Deere Park Drive E
Highland Park, Illinois 60035

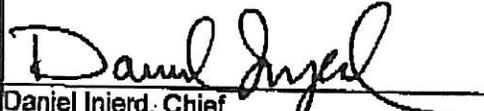
To construct a quarystone toe revetment in Lake Michigan at 337 and 353 N. Deere Park Drive E, Highland Park, Illinois 60035. The project is located in the Southwest Quarter of Section 31, Township 43 North, Range 13 East, of the 3rd Principal Meridian in Cook County.

In accordance with an application dated October 10, 2011, and the plans and specifications entitled:

REVETMENT TOE STONE MAINTENANCE, ONE SHEET, UNDATED, RECEIVED OCTOBER 17, 2011.

KARMIN & ROSE REVETMENT TOE STONE MAINTENANCE, DRAWING NUMBERS 1 AND 2, DATED OCTOBER 5, 2011, RECEIVED OCTOBER 17, 2011.

Examined and Recommended:


Daniel Injerd, Chief
Lake Michigan Management Section

Approval Recommended:


Arian R. Juhl, P.E., Director
Office of Water Resources

Approved:


Marc Miller, Director
Department of Natural Resources

This PERMIT is subject to the terms and special conditions contained herein and in the attached NOTICE OF FINAL DETERMINATION of the Illinois Environmental Protection Agency. This PERMIT is not valid unless a NOTICE OF FINAL DETERMINATION of the Illinois Environmental Protection Agency as required by Section 39(a) of the Environmental Protection Act is attached.

PERMIT NO. LM2012011**THIS PERMIT IS SUBJECT TO THE FOLLOWING CONDITIONS:**

- 1) This permit is granted in accordance with the Rivers, Lakes and Streams Act, "615 ILCS 5," and the Environmental Protection Act "415 ILCS 5/1."
- 2) This permit does not convey title to the permittee or recognize title of the permittee to any submerged or other lands, and furthermore, does not convey, lease or provide any right or rights of occupancy or use of the public or private property on which the activity or any part thereof will be located, or otherwise grant to the permittee any right or interest in or to the property, whether the property is owned or possessed by the State of Illinois or by any private or public party or parties.
- 3) This permit does not release the permittee from liability for damage to persons or property resulting from the work covered by this permit, and does not authorize any injury to private property or invasion of private rights.
- 4) This permit does not relieve the permittee of the responsibility to obtain other federal, state or local authorizations required for the construction of the permitted activity; and if the permittee is required by law to obtain approvals from any federal or other state agency to do the work, this permit is not effective until the federal and state approvals are obtained.
- 5) The permittee shall, at the permittee's own expense, remove all temporary piling, cofferdams, false work, and material incidental to the construction of the project from Lake Michigan. If the permittee fails to remove such structures or materials, the Department may have removal made at the expense of the permittee.
- 6) In public waters, if future need for public navigation or other public interest by the state or federal government necessitates changes in any part of the structure or structures, such changes shall be made by and at the expense of the permittee or the permittee's successors as required by the Department or other properly constituted agency, within sixty (60) days from receipt of written notice of the necessity from the Department or other agency, unless a longer period of time is specifically authorized.
- 7) The execution and details of the work authorized shall be subject to the review and approval of the Department and/or the Agency. Department and Agency personnel shall have the right of access to accomplish this purpose.
- 8) Starting work on the activity authorized will be considered full acceptance by the permittee of the terms and conditions of the permit.
- 9) The Department and Agency in issuing this permit have relied upon the statements and representations made by the permittee; if any substantive statement or representation made by the permittee is found to be false, this permit will be revoked and when revoked, all rights of the permittee under the permit are voided.
- 10) The permittee and the permittee's successors shall make no claim whatsoever to any interest in any accretions caused by the activity.
- 11) In issuing this permit, the Department and Agency do not ensure the adequacy of the design or structural strength of the structure or improvement.
- 12) Noncompliance with the conditions of this permit will be considered grounds for revocation.
- 13) If the construction activity here permitted is not completed on or before **December 31, 2015**, this permit shall cease and be null and void. When all work is constructed, the permittee shall notify the Department so that a final inspection can be completed.

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS:

- A. Special Conditions 1-4 of the Illinois Environmental Protection Agency's August 3, 2012 Final Determination Letter.



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

PAT QUINN, GOVERNOR

JOHN J. KIM, INTERIM DIRECTOR

217/782-3362

AUG 03 2012

Illinois Department of Natural Resources
Lake Michigan Management Section
Michael A. Bilandic Building
160 N. LaSalle Street, Suite S-700
Chicago, IL 60601

Re: Mr. Peter Karmin and Mr. Peter Rose – Stone Toe Revetment on Lake Michigan
Permit # 2012-LM-0017
Log # LM 0017-2012

Gentlemen:

This Agency received a request on October 14, 2011 from Mr. Peter Karmin and Mr. Peter Rose requesting necessary comments concerning the construction on a stone toe revetment in Lake Michigan. We offer the following comments.

Based on the information included in this submittal, it is our engineering judgment that the proposed project may be completed without causing water pollution as defined in the Illinois Environmental Protection Act, provided the project is carefully planned and supervised.

These comments are directed at the effect on water quality of the construction procedures involved in the above described project and are not an approval of any discharge resulting from the completed facility, nor an approval of the design of the facility. These comments do not supplant any permit responsibilities of the applicant toward the Agency.

This Agency hereby issues final determination under Section 39 of the Illinois Environmental Protection Act, subject to the applicant's compliance with the following conditions:

1. The applicant shall not cause:
 - a. violation of applicable water quality standards of the Illinois Pollution Control Board, Title 35, Subtitle C: Water Pollution Rules and Regulations;
 - b. water pollution defined and prohibited by the Illinois Environmental Protection Act;
 - c. violation of applicable provisions of the Illinois Environmental Protection Act; or
 - d. interference with water use practices near public recreation areas or water supply intakes.
2. The applicant shall provide adequate planning and supervision during the project construction period for implementing construction methods, processes and cleanup procedures necessary to prevent water pollution and control erosion.

4302 N. Main St., Rockford, IL 61103 (815)987-7760
595 S. State, Elgin, IL 60123 (847)608-3131
2125 S. First St., Champaign, IL 61820 (217)278-5800
2009 Mill St., Collinsville, IL 62234 (618)346-5120

9511 Harrison St., Des Plaines, IL 60016 (847)294-4000
5407 N. University St., Arbor 113, Peoria, IL 61614 (309)693-5462
2309 W. Main St., Suite 116, Marion, IL 62959 (618)993-7200
100 W. Randolph, Suite 11-300, Chicago, IL 60601 (312)814-6026

PLEASE PRINT ON RECYCLED PAPER

Page No. 2
Log No. LM 0017-12

3. The applicant shall implement erosion control measures consistent with the "Illinois Urban Manual" (IEPA/USDA, NRCS; 2011).
4. This final determination is not a Section 401 water quality certification that may be required for your project in conjunction with a Section 404 permit issued by the U.S. Army Corps of Engineers.

This final determination becomes effective when the Illinois Department of Natural Resources, Office of Water Resources, includes the above conditions # 1 through # 4 as conditions of the requested permit issued pursuant to Section 39 of the Illinois Environmental Protection Act (415 ILCS 5/39) and Section 18 of the Rivers, Lakes, and Streams Act (615 ILCS 5/18).

This final determination does not grant immunity from any enforcement action found necessary by this Agency to meet its responsibilities in prevention, abatement, and control of water pollution.

Sincerely,



Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

SAK:DLH:TJF:0017-12.docx

cc: IEPA, Records Unit
IEPA, DWPC, FOS, Des Plaines
CoE, Chicago District
USEPA, Region 5
Binds
Mr. Peter Karmin
Mr. Peter Rose
✓ Mr. John Shabica, Shabica & Associates

According to James Casey (Illinois Department of Natural Resources), this permit has been approved. He is waiting to receive the final signed copy of the permit from the IDNR Springfield Office and will forward it immediately. See email:

From: Casey, James [mailto:James.Casey@illinois.gov]
Sent: Tuesday, August 14, 2012 12:54 PM
To: Melissa Bach
Subject: RE: Karmin-Rose Project: 337 & 353 N Deere Park Drive E, Highland Park

Nope

From: Melissa Bach [mailto:melissa@shabica.com]
Sent: Tuesday, August 14, 2012 12:51 PM
To: Casey, James
Subject: RE: Karmin-Rose Project: 337 & 353 N Deere Park Drive E, Highland Park

Hi Jim,

No word yet from Springfield regarding the Karmin-Rose permit?

Thanks,
Melissa Bach
Office Manager

Shabica & Associates, Inc.

550 Frontage Road, Suite 3735

Northfield, IL 60093

Tel: 847-446-1436

Fax: 847-716-2007

melissa@shabica.com

www.shabica.com

From: Casey, James [mailto:James.Casey@illinois.gov]
Sent: Friday, August 10, 2012 10:11 AM
To: Melissa Bach
Subject: RE: Karmin-Rose Project: 337 & 353 N Deere Park Drive E, Highland Park

The permit went down to Springfield this week, I won't get a signed copy back until hopefully next week. If I get it by Tuesday I will fax it to you.

Jim Casey

From: Melissa Bach [mailto:melissa@shabica.com]
Sent: Friday, August 10, 2012 9:57 AM
To: Casey, James
Cc: jon@shabica.com
Subject: Karmin-Rose Project: 337 & 353 N Deere Park Drive E, Highland Park

Good Morning Jim,

You may have already received a copy of the IEPA's approval of the Karmin-Rose Revetment in Highland Park, but I have also attached it to this email as a PDF file. Do you have any ETA on when the IDNR will be able to issue its approval of this project?

All Highland Park projects need to be approved by the City's Community Development Department (as you may recall from the Frank Revetment). We need to submit the City's application by Tuesday in order to be reviewed at the September Board Meeting.

Is there any possibility that the IDNR might have its approval ready before Tuesday so that we can include the approval letter in the City's application?

Thanks so much Jim. We always appreciate your help!

Sincerely,
Melissa Bach
Office Manager

Shabica & Associates, Inc.

550 Frontage Road, Suite 3735

Northfield, IL 60093

Tel: 847-446-1436

Fax: 847-716-2007

melissa@shabica.com

www.shabica.com



1 Old State Capitol Plaza • Springfield, Illinois 62701-1512 • www.illinois-history.gov

Lake County
Highland Park

PLEASE REFER TO: IHPA LOG #001101411

337 & 353 North Deere Park Drive E.
Mobilization & Shore protection, Lake Michigan

October 18, 2011

Jon Shabica
Shabica & Associates, Inc.
550 Frontage Road, Suite 3735
Northfield, IL 60093

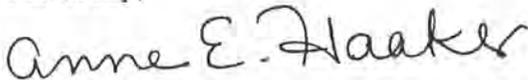
Dear Mr. Shabica:

We have reviewed the documentation submitted for the referenced project(s) in accordance with 36 CFR Part 800.4. Based upon the information provided, no historic properties are affected. We, therefore, have no objection to the undertaking proceeding as planned.

Please retain this letter in your files as evidence of compliance with section 106 of the National Historic Preservation Act of 1966, as amended. This clearance remains in effect for two (2) years from date of issuance. It does not pertain to any discovery during construction, nor is it a clearance for purposes of the Illinois Human Skeletal Remains Protection Act (20 ILCS 3440).

If you are an applicant, please submit a copy of this letter to the state or federal agency from which you obtain any permit, license, grant, or other assistance.

Sincerely,



Anne E. Haaker
Deputy State Historic
Preservation Officer



STORMWATER MANAGEMENT COMMISSION

WATERSHED DEVELOPMENT PERMIT HAS BEEN SECURED WD PERMIT NUMBER C11-16-082

Project: 353 & 337 N. Deere Park Drive Revetment

Address: 353 & 337 N. Deere Park Drive PIN No.: N/A
Highland Park, IL

Date Issued: 3/6/2012

Issued By: Brian Cook, CPESC, CFM, CWS
Sr. Civil Engineer

Kurt A. Woolford, PE, CFM, LEED AP
Chief Engineer

CONDITIONS:

- Prior notification of construction start to Tim Cook of the SMC, to enable SMC inspection, at (847) 377-7703 or tcook@lakecounty.il.gov
- Installing and maintaining all soil erosion/sedimentation control measures as determined by the SMC Inspector. Specific SE/SC measures will be discussed and determined at the time of the preconstruction meeting, and will be required as directed by the SMC Inspector.

NOTICE

TO CONTRACTORS AND OWNERS

POST THIS CARD AT THE SITE, VISIBLE FROM THE STREET AND SO LOCATED AS TO PERMIT THE INSPECTOR TO RECORD THE INDICATED INSPECTIONS ON THE PLACARD. DO NOT POST IN THE INTERIOR OF A BUILDING.

INSPECTORS AND SHERIFF'S DEPUTIES ARE INSTRUCTED TO STOP ALL WORK WHERE THIS PERMIT CARD IS NOT DISPLAYED.

ALWAYS MENTION THE WATERSHED DEVELOPMENT PERMIT NUMBER WHEN REFERRING TO THIS PROJECT. IF THIS CARD BECOMES MISLAID OR LOST PLEASE CONTACT LAKE COUNTY STORMWATER MANAGEMENT COMMISSION FOR A REPLACEMENT.

Lake County Stormwater Management Commission (847) 377-7705

PROFESSIONALS ASSOCIATED SURVEY, INC.
PROFESSIONAL DESIGN FIRM REGISTRATION NO. 001129145

PROPERTY - ALTA - TOPO - CONDO - MORTGAGE SURVEY
7100 N. TRIPP AVE., LINCOLNWOOD, ILLINOIS 60712
TEL.: (847) 675-3000, FAX: (847) 675-2167

ALTA/ACSM LAND TITLE SURVEY

OF

PARCEL 1:

LOT 12 AND THAT PART OF LOT "B" LYING SOUTHEASTERLY OF THE NORTHWESTERLY LINE OF LOT 12 EXTENDED NORTHEASTERLY ALONG A STRAIGHT LINE TO THE WATERS OF LAKE MICHIGAN AND THAT PART OF LOT "A" LYING NORTHWESTERLY OF THE SOUTHEASTERLY LINE OF SAID LOT 12, EXTENDED ALONG A STRAIGHT LINE TO THE WATERS OF LAKE MICHIGAN, ALL IN DEERE PARK SUBDIVISION IN THE NORTH 1/4 OF THE SOUTHWEST 1/4 OF FRACTIONAL SECTION 31, TOWNSHIP 43 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF, RECORDED OCTOBER 16, 1924 AS DOCUMENT 247342, IN BOOK "N" OF PLATS, PAGE 49, IN LAKE COUNTY, ILLINOIS.

PARCEL 2:

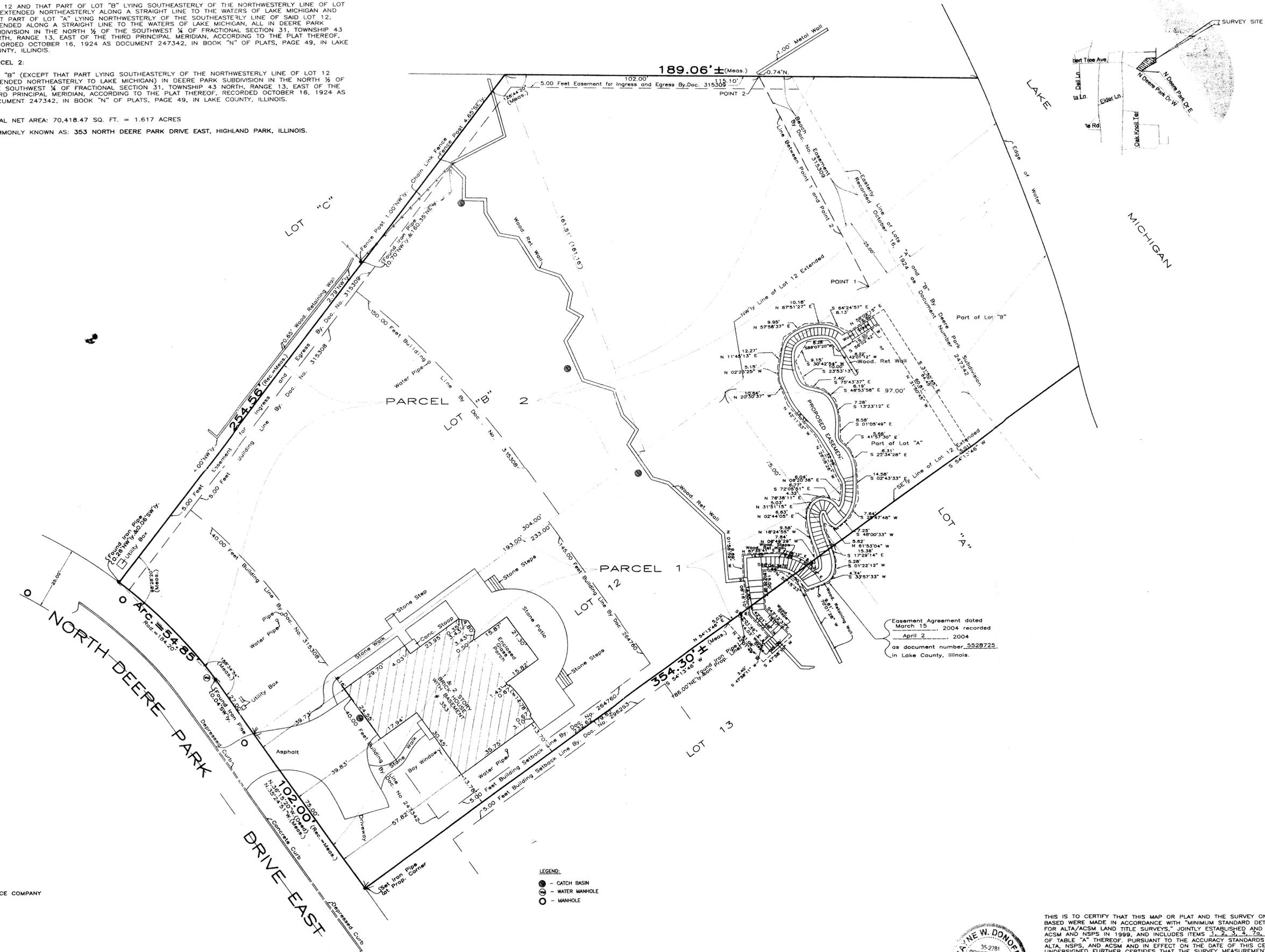
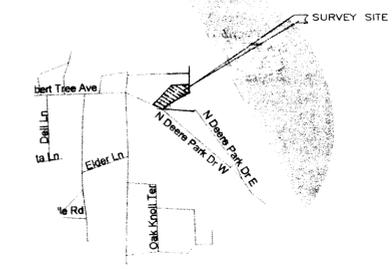
LOT "B" (EXCEPT THAT PART LYING SOUTHEASTERLY OF THE NORTHWESTERLY LINE OF LOT 12 EXTENDED NORTHEASTERLY TO LAKE MICHIGAN) IN DEERE PARK SUBDIVISION IN THE NORTH 1/4 OF THE SOUTHWEST 1/4 OF FRACTIONAL SECTION 31, TOWNSHIP 43 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF, RECORDED OCTOBER 16, 1924 AS DOCUMENT 247342, IN BOOK "N" OF PLATS, PAGE 49, IN LAKE COUNTY, ILLINOIS.

TOTAL NET AREA: 70,418.47 SQ. FT. = 1.617 ACRES

COMMONLY KNOWN AS: 353 NORTH DEERE PARK DRIVE EAST, HIGHLAND PARK, ILLINOIS.



VICINITY MAP



Easement Agreement dated
March 15, 2004 recorded
April 2, 2004
as document number 5528725
in Lake County, Illinois.

CERTIFY TO:
- HARVEY WALKEN
- ZOFIA AND PETE ROSE
- CHICAGO TITLE INSURANCE COMPANY

UPDATE: April 9, 2004.
DIMENSIONS ARE NOT TO BE ASSUMED FROM SCALING.
ORDER NO.: 04-67123
SCALE: 1 INCH = 20 FEET.
DATE: March 29, 2004.
ORDERED BY: THE WALKEN COMPANY

LEGEND:
● - CATCH BASIN
○ - WATER MANHOLE
○ - MANHOLE

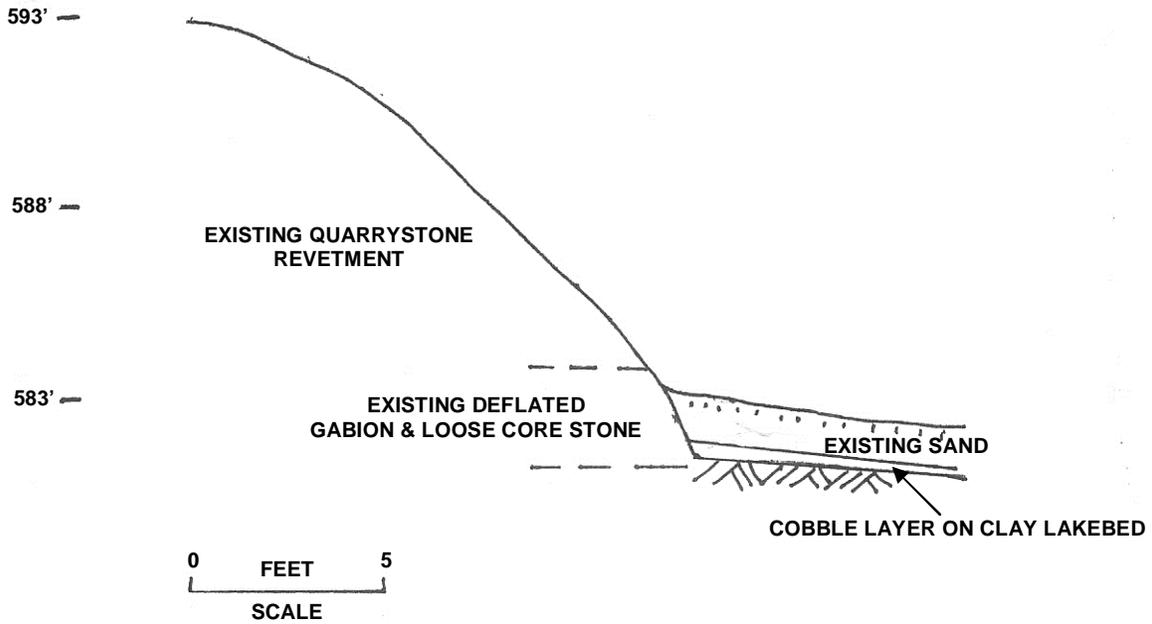
FLOOD CERTIFICATE:
ACCORDING TO FLOOD INSURANCE RATE MAP OF CITY OF HIGHLAND PARK ILLINOIS DATED SEPTEMBER 3, 1997 COMMUNITY PANEL NUMBER 170367 0295 F THIS PROPERTY IS IN A MINIMUM FLOOD AREA AND IS DESIGNATED AS ZONE "X"



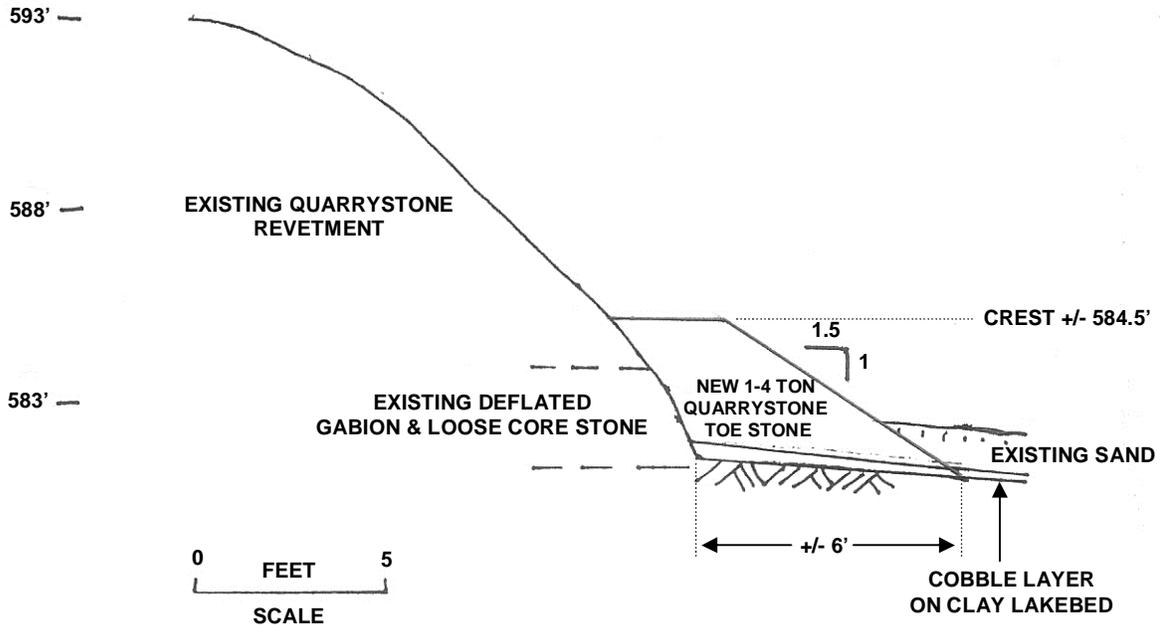
THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH "MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS," JOINTLY ESTABLISHED AND ADOPTED BY ALTA, ACSM AND NSPS IN 1999, AND INCLUDES ITEMS 1, 2, 3, 4, 7, 8, 10, and 11 OF TABLE "A" THEREOF, PURSUANT TO THE ACCURACY STANDARDS AS ADOPTED BY ALTA, NSPS, AND ACSM AND IN EFFECT ON THE DATE OF THIS CERTIFICATION. UNDERSIGNED FURTHER CERTIFIES THAT THE SURVEY MEASUREMENTS WERE MADE IN ACCORDANCE WITH THE "MINIMUM ANGLE, DISTANCE, AND CLOSURE REQUIREMENTS FOR SURVEY MEASUREMENTS WHICH CONTROL LAND BOUNDARIES FOR ALTA/ACSM LAND TITLE SURVEYS."

DATED: March 29, 2004.
(SIGNED) _____
ILLINOIS PROFESSIONAL LAND SURVEYOR
LICENSE EXPIRATION DATE NOVEMBER 30, 2004
Drawn By: ZZ

**CROSS SECTION A-A – TYPICAL
EXISTING REVETMENT**



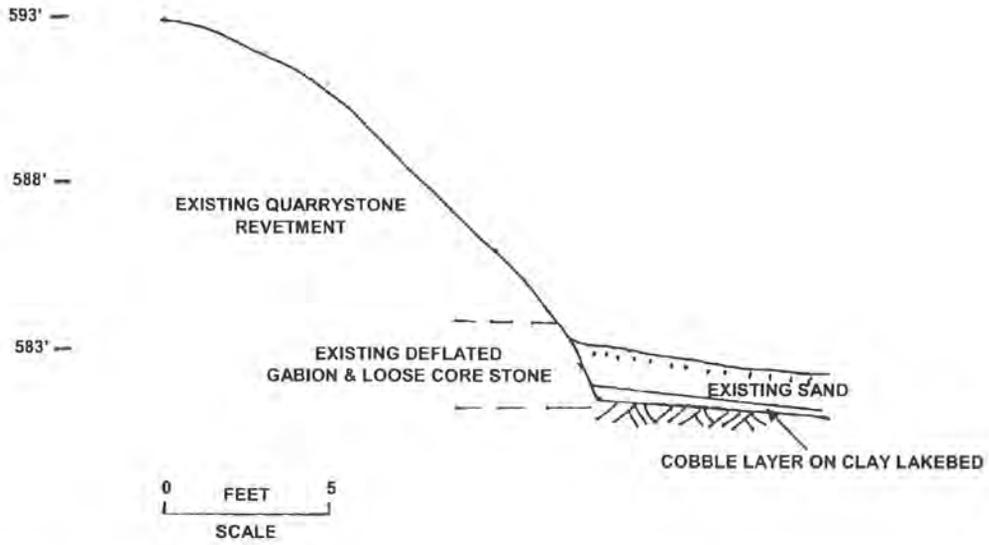
**CROSS SECTION A-A – TYPICAL
PROPOSED REVETMENT TOE STONE MAINTENANCE**



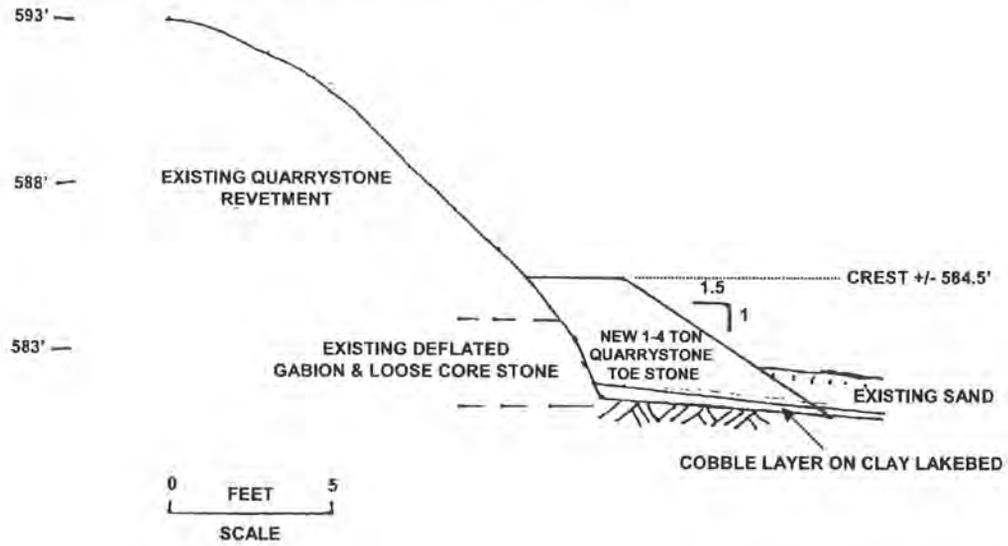
ALL ELEVATIONS IGLD 1985

	PROJECT NAME: KARMIN & ROSE	
	Revetment Toe Stone Maintenance	
	337 & 353 N. Deere Park Drive E., Highland Park, IL 60035	
	DATE: 10/5/2011	DRAWN BY: SN
REVISED: 8/27/2012	DRAWING NUMBER: 2	
Shabica & Associates, Inc. 550 Frontage Rd, Ste. 3735, Northfield, IL 60093		
CROSS SECTION A-A TYPICAL		

**CROSS SECTION A-A – TYPICAL
EXISTING REVETMENT**



**CROSS SECTION A-A – TYPICAL
PROPOSED REVETMENT TOE STONE MAINTENANCE**



ALL ELEVATIONS IGLD 1985

PROJECT NAME: KARMIN & ROSE	
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REVISED:	DRAWING NUMBER: 2
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550 Frontage Rd, Ste. 3735, Northfield, IL 60093	
CROSS SECTION A-A TYPICAL	

FINDINGS OF FACT

For the Natural Resources Commission on October 10, 2012

Findings of Fact in Support of City Council Approval of a Beach Structure Permit for Regulated Activities in the Lake Michigan Protection Zone at 337 N. Deere Park Drive East

Sec. 150.703.1(E)(3) Standards .

No permit for a Regulated Activity in the Lake Michigan Protection Zone shall be approved unless all of the following standards have been met or satisfied:

(a) The proposed Regulated Activity and/or Structure shall not unreasonably impede access to or pedestrian movement along the beach or to Lake Michigan;

The Natural Resources Commission finds that the proposed Regulated Activity and Structure, a project which consists of the re-armoring of an existing deflated quarrystone revetment at 337 and 353 N. Deere Park Drive East, will not impede access to or pedestrian movement along the beach or to Lake Michigan because the improvement is proposed at the toe of the bluff and will not extend into Lake Michigan.

(b) The proposed Regulated Activity and/or Structure shall not unnecessarily impede navigability within Lake Michigan;

The Natural Resources Commission finds that the proposed improvements to the existing quarrystone revetment at 337 and 353 N. Deere Park Drive East will not unnecessarily impede navigability within Lake Michigan because the structure is located at the toe of a privately-owned bluff and does not extend into the waters of Lake Michigan.

(c) The proposed Regulated Activity and/or Structure shall not unreasonably impact the Subject Property or the Adjacent Properties;

The Natural Resources Commission finds that the proposed Regulated Activities will not unreasonably impact the Subject Property or Adjacent Properties because the proposed improvements are designed to reduce erosion, improve the long-term stability of the site, and refortify an existing deflated quarrystone revetment that runs along the bluff of the neighboring properties located at 337 and 353 N. Deere Park Drive East.

(d) The Applicant has proposed appropriate long-term maintenance requirements and plans, as necessary, for the proposed Regulated Activity and/or Structure;

The Natural Resources Commission finds that proposed quarrystone revetment is a free-form, natural structure that has been engineered to adapt to changing environmental conditions and fluctuating lake levels. The proposed structure will have a long life-span, and the applicant has noted that visual inspections will be periodically performed to ensure that it remains functional.

(e) The proposed means and methods of undertaking the Regulated Activity and/or Structure are consistent with appropriate design and aesthetics principles;

The Natural Resources Commission finds that proposed means and methods of undertaking the proposed improvements are consistent with appropriate design and aesthetics principles. The Commission notes that there will be no major earth moving or grading of the site, and the necessary construction materials and equipment will be brought in via a barge on Lake Michigan so as to not disrupt the Steep Slope or Lake Michigan Protection Zones.

(f) The proposed Regulated Activity and/or Structure shall not create new nor amplify existing erosion problems on the Subject Property and on Adjacent Properties;

The Natural Resources Commission finds that the proposed project will not create new nor amplify existing erosion problems on the subject property or adjacent properties because the proposed re-armoring of the existing quarystone revetment has been designed to minimize erosion, allow water to freely flow through, and prevent disturbance of the glacial clay bluff at the two neighboring properties located at 337 and 353 N. Deere Park Drive East.

(g) The proposed Regulated Activity and/or Structure shall be for the purposes of erosion control, water gathering, and/or public access only;

The Natural Resources Commission finds that the proposed Regulated Activity is intended to control erosion and address the deflated condition of the existing quarystone revetment at 337 and 353 N. Deere Park Drive East.

(h) There will not be an unnecessary adverse environmental or ecological impact on the Subject Property or on any of the Adjacent Properties as a result of the proposed Structure and/or the Regulated Activity;

The Natural Resources Commission finds that the proposed Regulated Activity is intended to control erosion and refortify an existing deflated quarystone revetment in a manner that will not have any adverse environmental or ecological impacts on the subject property or adjacent properties. The Commission notes that the property owners at 337 and 353 N. Deere Park Drive East have elected to jointly pursue Beach Structure Permits in order to accomplish the proposed improvement in a manner that is beneficial to both properties.

(i) The proposed Structure and/or the Regulated Activity is the least environmentally and ecologically intrusive means of achieving the stated purpose of the Structure; and

The Natural Resources Commission finds that proposed improvement to the existing quarystone revetment is the least environmentally and ecologically intrusive means to address wave action and prevent future beach and bluff deterioration. The proposed improvements have been designed to reduce erosion and improve the long-term stability of the site.

(j) The Applicant has properly obtained any and all permits required by the federal, state, and county governments for the Regulated Activity and/or the Structure.

The Natural Resources Commission finds that the applicant has submitted the appropriate documentation from the U.S. Army Corps of Engineers, the Illinois Environmental Protection Agency, the Illinois Department of Natural Resources, Illinois Historic Preservation Agency and Lake County Stormwater Management Commission. The Commission notes that the Illinois Department of Natural Resources has indicated its approval in the form of an email, and that proof of a formal approval will be required to be submitted for the City's records as soon as it is received by the applicant.

CONCLUSION

Based on the forgoing, the Natural Resources Commission concludes that the Beach Structure Permit Application submitted for proposed improvements in the Lake Michigan Protection Zone at 337 N. Deere Park Drive East is consistent with the Beach Structure Ordinance standards and recommends City Council approval of the Permit Application.

FINDINGS OF FACT

For the Natural Resources Commission on October 10, 2012

Findings of Fact in Support of City Council Approval of a Beach Structure Permit for Regulated Activities in the Lake Michigan Protection Zone at 353 N. Deere Park Drive East

Sec. 150.703.1(E)(3) Standards .

No permit for a Regulated Activity in the Lake Michigan Protection Zone shall be approved unless all of the following standards have been met or satisfied:

(a) The proposed Regulated Activity and/or Structure shall not unreasonably impede access to or pedestrian movement along the beach or to Lake Michigan;

The Natural Resources Commission finds that the proposed Regulated Activity and Structure, a project which consists of the re-armoring of an existing deflated quarrystone revetment at 337 and 353 N. Deere Park Drive East, will not impede access to or pedestrian movement along the beach or to Lake Michigan because the improvement is proposed at the toe of the bluff and will not extend into Lake Michigan.

(b) The proposed Regulated Activity and/or Structure shall not unnecessarily impede navigability within Lake Michigan;

The Natural Resources Commission finds that the proposed improvements to the existing quarrystone revetment at 337 and 353 N. Deere Park Drive East will not unnecessarily impede navigability within Lake Michigan because the structure is located at the toe of a privately-owned bluff and does not extend into the waters of Lake Michigan.

(c) The proposed Regulated Activity and/or Structure shall not unreasonably impact the Subject Property or the Adjacent Properties;

The Natural Resources Commission finds that the proposed Regulated Activities will not unreasonably impact the Subject Property or Adjacent Properties because the proposed improvements are designed to reduce erosion, improve the long-term stability of the site, and refortify an existing deflated quarrystone revetment that runs along the bluff of the neighboring properties located at 337 and 353 N. Deere Park Drive East.

(d) The Applicant has proposed appropriate long-term maintenance requirements and plans, as necessary, for the proposed Regulated Activity and/or Structure;

The Natural Resources Commission finds that proposed quarrystone revetment is a free-form, natural structure that has been engineered to adapt to changing environmental conditions and fluctuating lake levels. The proposed structure will have a long life-span, and the applicant has noted that visual inspections will be periodically performed to ensure that it remains functional.

(e) The proposed means and methods of undertaking the Regulated Activity and/or Structure are consistent with appropriate design and aesthetics principles;

The Natural Resources Commission finds that proposed means and methods of undertaking the proposed improvements are consistent with appropriate design and aesthetics principles. The Commission notes that there will be no major earth moving or grading of the site, and the necessary construction materials and equipment will be brought in via a barge on Lake Michigan so as to not disrupt the Steep Slope or Lake Michigan Protection Zones.

(f) The proposed Regulated Activity and/or Structure shall not create new nor amplify existing erosion problems on the Subject Property and on Adjacent Properties;

The Natural Resources Commission finds that the proposed project will not create new nor amplify existing erosion problems on the subject property or adjacent properties because the proposed re-armoring of the existing quarystone revetment has been designed to minimize erosion, allow water to freely flow through, and prevent disturbance of the glacial clay bluff at the two neighboring properties located at 337 and 353 N. Deere Park Drive East.

(g) The proposed Regulated Activity and/or Structure shall be for the purposes of erosion control, water gathering, and/or public access only;

The Natural Resources Commission finds that the proposed Regulated Activity is intended to control erosion and address the deflated condition of the existing quarystone revetment at 337 and 353 N. Deere Park Drive East.

(h) There will not be an unnecessary adverse environmental or ecological impact on the Subject Property or on any of the Adjacent Properties as a result of the proposed Structure and/or the Regulated Activity;

The Natural Resources Commission finds that the proposed Regulated Activity is intended to control erosion and refortify an existing deflated quarystone revetment in a manner that will not have any adverse environmental or ecological impacts on the subject property or adjacent properties. The Commission notes that the property owners at 337 and 353 N. Deere Park Drive East have elected to jointly pursue Beach Structure Permits in order to accomplish the proposed improvement in a manner that is beneficial to both properties.

(i) The proposed Structure and/or the Regulated Activity is the least environmentally and ecologically intrusive means of achieving the stated purpose of the Structure; and

The Natural Resources Commission finds that proposed improvement to the existing quarystone revetment is the least environmentally and ecologically intrusive means to address wave action and prevent future beach and bluff deterioration. The proposed improvements have been designed to reduce erosion and improve the long-term stability of the site.

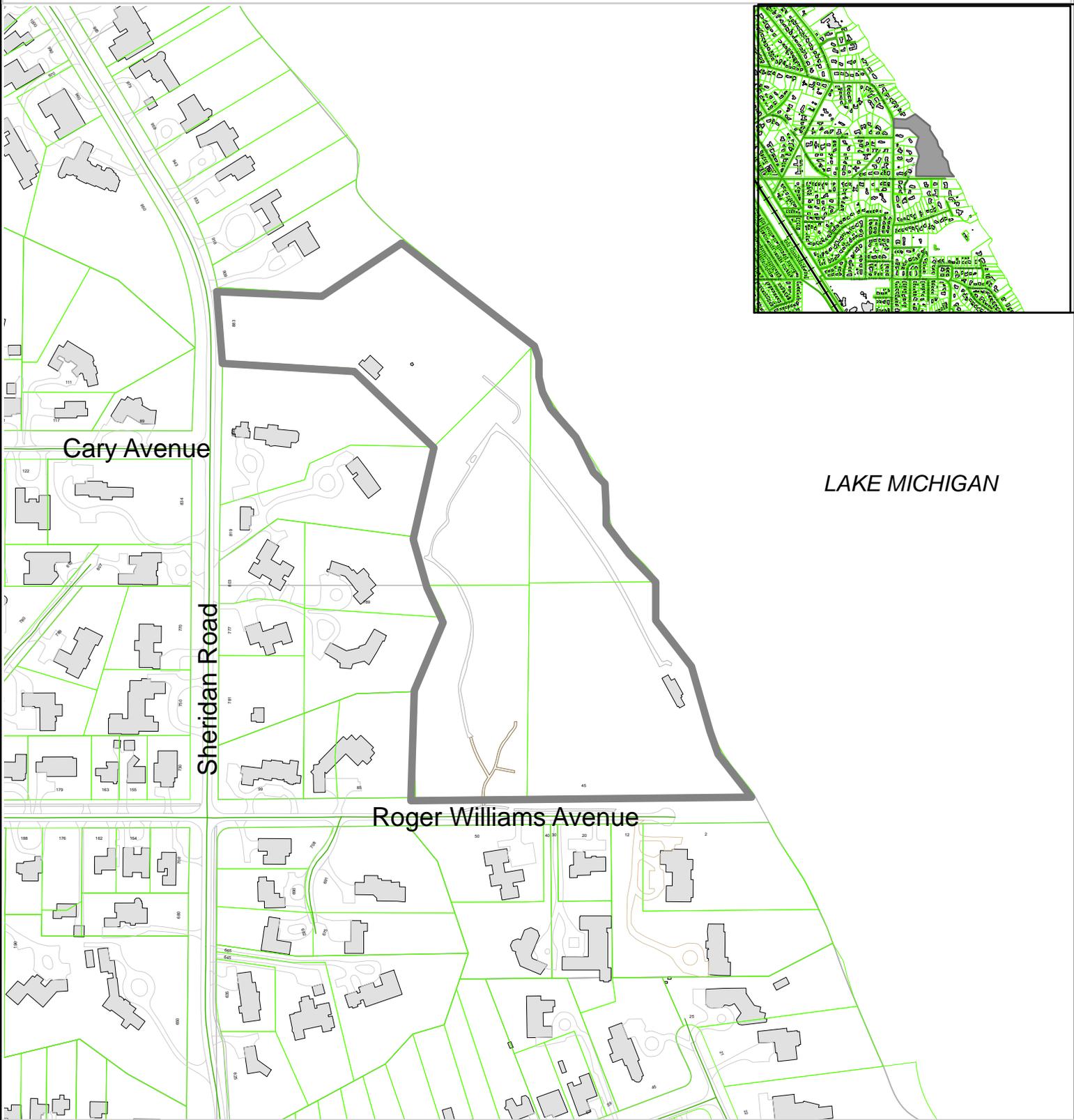
(j) The Applicant has properly obtained any and all permits required by the federal, state, and county governments for the Regulated Activity and/or the Structure.

The Natural Resources Commission finds that the applicant has submitted the appropriate documentation from the U.S. Army Corps of Engineers, the Illinois Environmental Protection Agency, the Illinois Department of Natural Resources, Illinois Historic Preservation Agency and Lake County Stormwater Management Commission. The Commission notes that the Illinois Department of Natural Resources has indicated its approval in the form of an email, and that proof of a formal approval will be required to be submitted for the City's records as soon as it is received by the applicant.

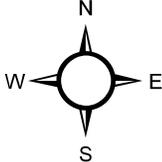
CONCLUSION

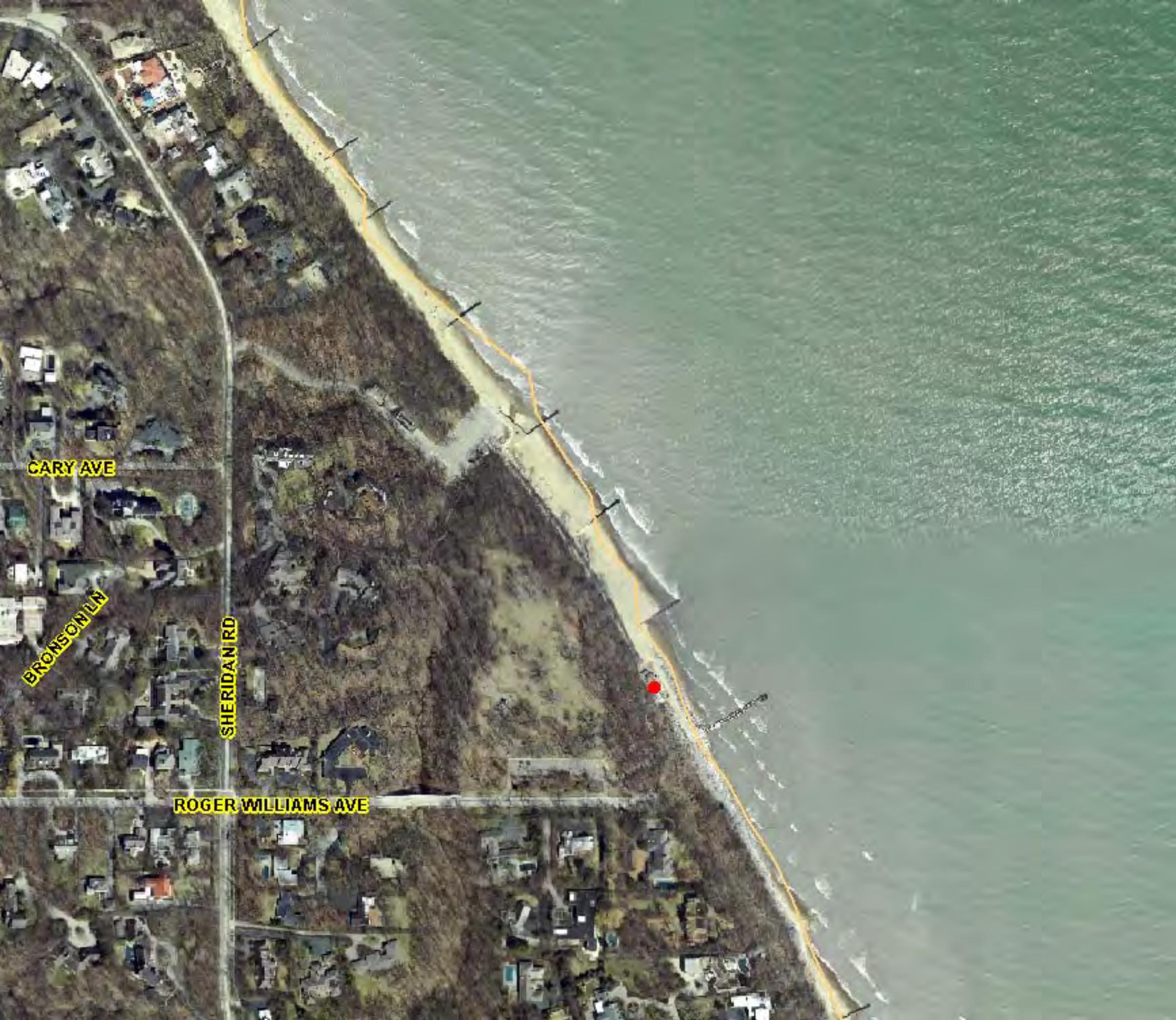
Based on the forgoing, the Natural Resources Commission concludes that the Beach Structure Permit Application submitted for proposed improvements in the Lake Michigan Protection Zone at 353 N. Deere Park Drive East is consistent with the Beach Structure Ordinance standards and recommends City Council approval of the Permit Application.

Rosewood Park



LAKE MICHIGAN





CARY AVE

BRONSON LN

SHERIDAN RD

ROGER WILLIAMS AVE



PUBLIC WORKS MEMORANDUM



DATE: October 3, 2012
TO: Barbara Cates, Planner
FROM: John Welch, City Engineer *JW*
SUBJECT: Rosewood Beach Development

Sheridan Road is under the jurisdiction of the State of Illinois Department of Transportation. A continuous public sidewalk does not exist along Sheridan Road between Lambert Tree and Dean Avenue. The Rosewood Beach Development should address safe access for pedestrians and cyclists wanting to use Sheridan Road.

The traffic plan for the proposed development is currently being reviewed by Civiltech Engineering. Comments regarding the traffic analysis will be shared with Community Development as soon as they are received by the Department of Public Works.

The various elements of the proposed development do not encroach into the Steep Slope Zone, therefore the Engineering Division does not have any Code-related objections to the proposed development.

Please contact me with any comments regarding this matter.

PARK DISTRICT OF HIGHLAND PARK

Rosewood Beach Improvements Project

Submittal for City of Highland Park Review – Natural Resources Commission

Park District of Highland Park
Rosewood Improvements Project

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Statement of Purpose: Proposed Improvements



Rosewood Beach Improvements Project

Rosewood Beach has been the community's favorite Lake Michigan swimming beach for over 50 years and is now Highland Park's only guarded swimming beach. Due to a number of factors including changing environmental conditions, user preferences, and outdated infrastructure, Rosewood has not adequately met public needs for many years. The project will bring long-needed attention to the site by vastly improving the functional, risk management, and recreational components of Rosewood Beach.

In 2006, the Park District of Highland Park demolished the existing beach house at Rosewood after a structural engineering study determined that the facility was beyond repair. Since that time, beach goers have been served by a portable restroom trailer situated in the existing adjacent parking lot. At that time the Park District embarked on a lakefront planning process which included major public meetings, direct mailings and an interactive website. Over 300 public comments were received via mail or the web. A Highland Park Lakefront Plan was created.

Two statistically valid community surveys were conducted. In the 2008 survey, 57% of respondents were more likely to support the lakefront plan if it included the construction of a lakefront educational/interpretive center, concession and bathhouse at Rosewood Park. 80% of respondents in the Park District's 2009 Community Attitude and Interest Survey were supportive of improving the lakefront, Rosewood Beach specifically, topping the list of desired community improvements. Rosewood Park and Beach is the most used of Highland Park lakefront parks but almost half of the respondents rated the park's condition fair or lower.

In 2011, the Park District of Highland Park formed the Rosewood Beach Task Force. This volunteer Task Force included members of the Lakefront Advisory Committee, community members at large representing different geographical areas of the District, a past member of the Design Review Commission, and a member of the Ravinia Neighbors Association. The Task Force spent a year selecting an architect and worked with the architect to design a community inspired plan for Rosewood Beach.

Four modest structures gently spread across the toe of the bluff above the beach will address public needs long-term while allowing the lake to be the focus of attention. These facilities will provide restrooms, showers and changing areas, a light food concession, a lifeguard house and a multi use educational structure which will provide

ecological and restoration information while offering beach guests immediate shelter from severe storms and lightning. The facility will be open to the public year round.

Also proposed are several additional improvements including: a boardwalk and lookout, a replacement beach playground, a seasonal handicapped accessible beach route, defined picnic areas, a reconstructed ravine path to improve connectivity between the beach and the upper park area, entrance and ecological interpretive signage, and basic amenities such as lighting, benches and trash receptacles.

Foremost to this project is a foundation of environmental and aesthetic respect. The soft footprint and diminutive stature of the physical structures and the natural materials selection all work in harmony to create a sense of belonging within the environment. The interpretive shelter will provide a unique, year-round opportunity for casual environmental interpretation while significantly enhancing the Park District's successful environmental education programs for both children and adults. Highland Park's fragile bluffs, ravines and lake shore should be understood, appreciated and protected by this generation and those to come.

The budgeted cost for currently planned improvements is \$4.6 million of which \$400,000 will be paid by an Open Space Land Acquisition and Development (OSLAD) grant and a \$200,000 Museum Capital grant both from the Illinois Department of Natural Resources. An additional \$250,000 will be paid by the Illinois Department of Commerce and Economic Opportunity. The remaining funding will come from Park District capital reserves.

Further enhancing these improvements, the Park District is partnering with the US Army Corps of Engineers (USACE) to stabilize the beach and carry out a complete and comprehensive environmental restoration of the beach, foredunes, lake bluff and ravines within the Rosewood Park property, with work tentatively planned to begin concurrently with the Recreation Development project we bring to you within this packet. This USACE Great Lakes Fisheries and Ecosystem Restoration project, which meshes so well with our improvements project, will be brought to the Natural Resources Commission as soon as plans are finalized.

David Woodhouse Architects, designers of the plan, also designed the Rainbow Beach Park Beach Houses and DuSable Harbor Building for the Chicago Park District as well as the Lake County Forest Preserves' Independence Grove and Morton Arboretum's Visitors Center.

Rosewood Beach Improvements

LFOZ Overlay Zone Standards



Rosewood Beach Improvement Project Application Discussion Regarding Lake Michigan Protection Zone Standards

(3) Standards

No permit for a Regulated Activity in the Lake Michigan Protection Zone shall be approved unless all of the following standards have been met or satisfied:

- (a) The proposed Regulated Activity and/or Structure shall not unreasonably impede access to or pedestrian movement along the beach or to Lake Michigan; **Residents will be permitted movement along the beach similar to existing conditions as no work is proposed along the waters edge.**
- (b) The proposed Regulated Activity and/or Structure shall not necessarily impede navigability within Lake Michigan; **This project will have no impact**
- (c) The proposed Regulated Activity and/or Structure shall not unreasonably impact the Subject Property or the Adjacent Properties; **All development will occur along or nearer the bluff and above the normal high water mark. Improvements will be visible from limited points on the beaches of adjacent properties. This project will have no physical impact on adjacent properties.**
- (d) The Applicant has proposed appropriate long-term maintenance requirements and plans, as necessary, for the proposed Regulated Activity and/or Structure; **Attached**
- (e) The proposed means and methods of undertaking the Regulated Activity and/or Structure are consistent with appropriate design and aesthetics principles; **Attached**
- (f) The proposed Regulated Activity and/or Structure shall not create new nor amplify existing erosion problems on the Subject Property and on Adjacent Properties; **No structures will be constructed within the Steep Slope Zone where bluff erosion may occur. All completed development will take place above the 100 year flood demarcation and will not compound wave erosion.**
- (g) The proposed Regulated Activity and/or Structure shall be for the purposes of erosion control, water gathering, and/or public access only; **Public access only**
- (h) There will not be an unnecessary adverse environmental or ecological impact on the Subject Property or on any of the Adjacent Properties as a

result of the proposed Structure and/or the Regulated Activity; **See attached statement.**

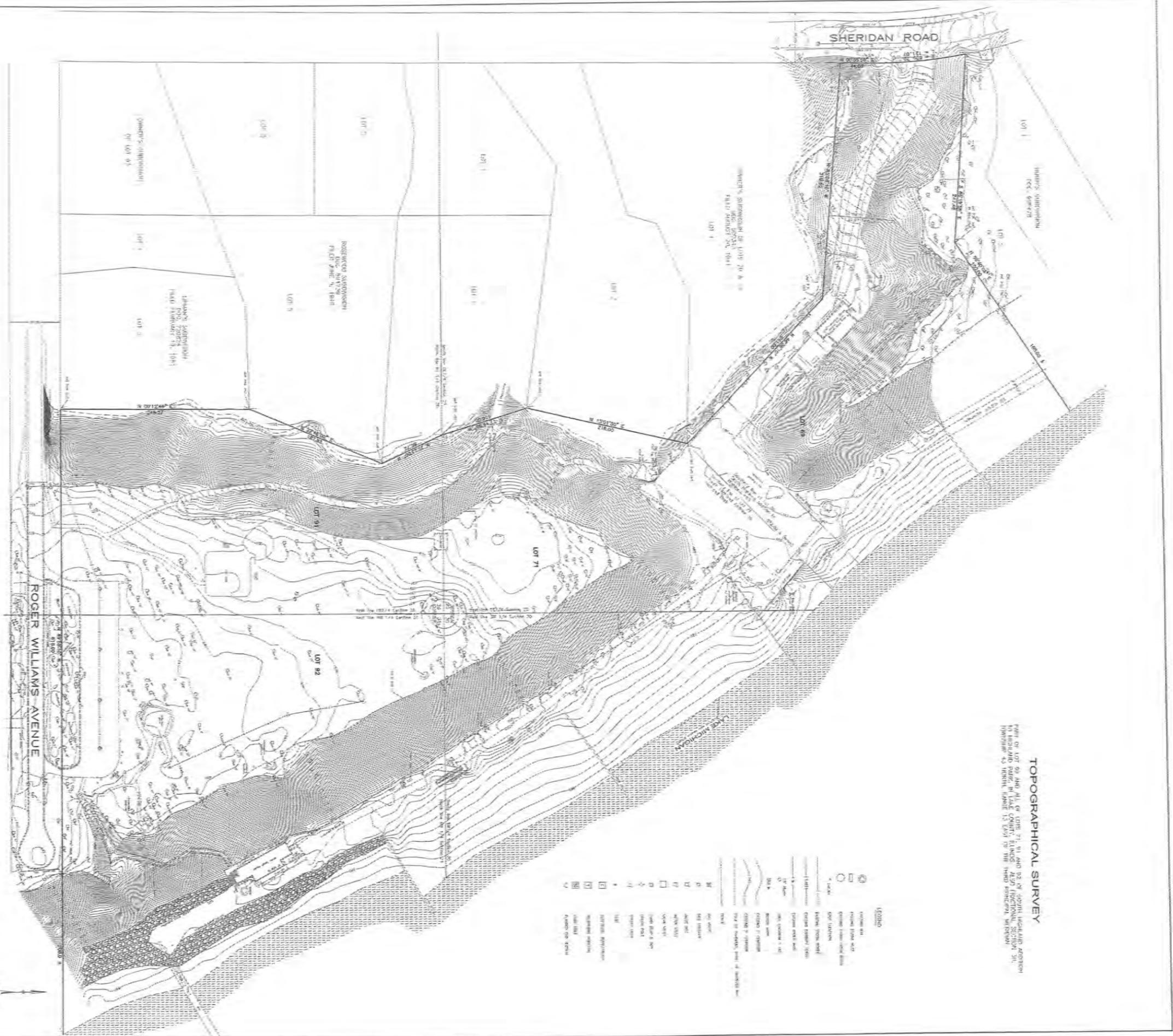
- (i) The proposed Structure and/or the Regulated Activity is the least environmentally and ecologically intrusive means of achieving the stated purpose of the Structure; **See attached statement** and
- (j) The Applicant has properly obtained any and all permits required by the federal, state, and county governments for the Regulated Activity and/or the Structure. **See attached memorandum**

Rosewood Beach Improvements

Plat of Topography

Plat of Survey

Legal Description



TOPOGRAPHICAL SURVEY
 PART OF LOT 69 AND 71, AND PARTS OF LOTS 71, 73 AND 75 OF 50TH HIGHLAND ADDITION
 TO HIGHLAND PARK, IN LAKE COUNTY, ILLINOIS. ALSO PORTION, SECTION 30,
 TOWNSHIP 43 NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN.

LEGEND

	Building
	Fence
	Tree
	Road
	Stream
	Contour line
	Spot elevation
	Benchmark
	Utility pole
	Iron pipe
	Iron nail
	Iron spike
	Iron pin
	Iron screw
	Iron nail
	Iron spike
	Iron pin
	Iron screw

BLICK
 Surveyors
 100 N. 1st St.
 Chicago, Ill.

Rosewood Beach Improvements

Development / Site Plan

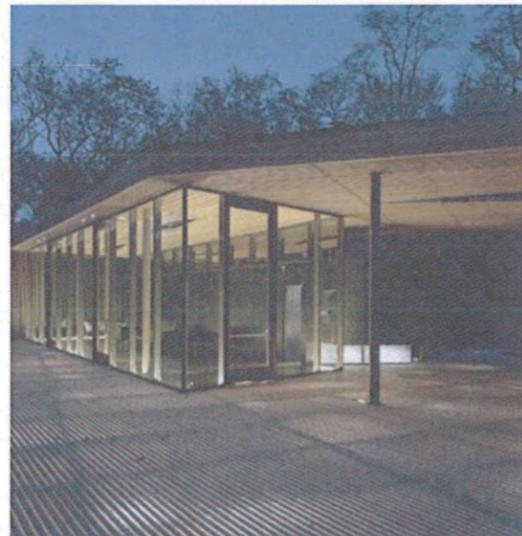




SITE LIGHTING, AMENITIES, AND EQUIPMENT



1. RIBBON LIGHTING UNDER BENCHES AND AT WALK EDGES



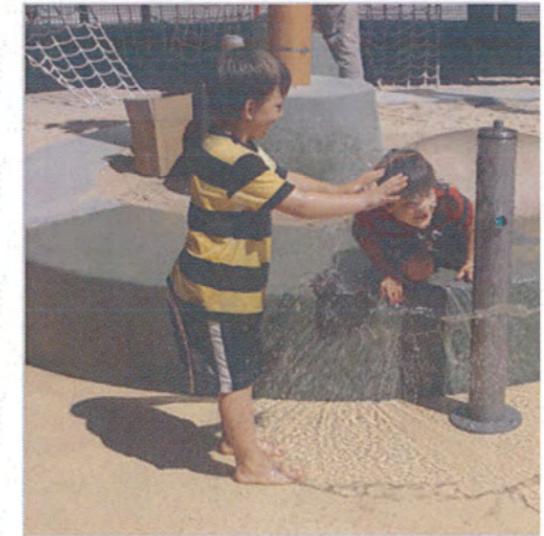
2. BUILDING ILLUMINATION OF ROOF OVERHANGS ONLY



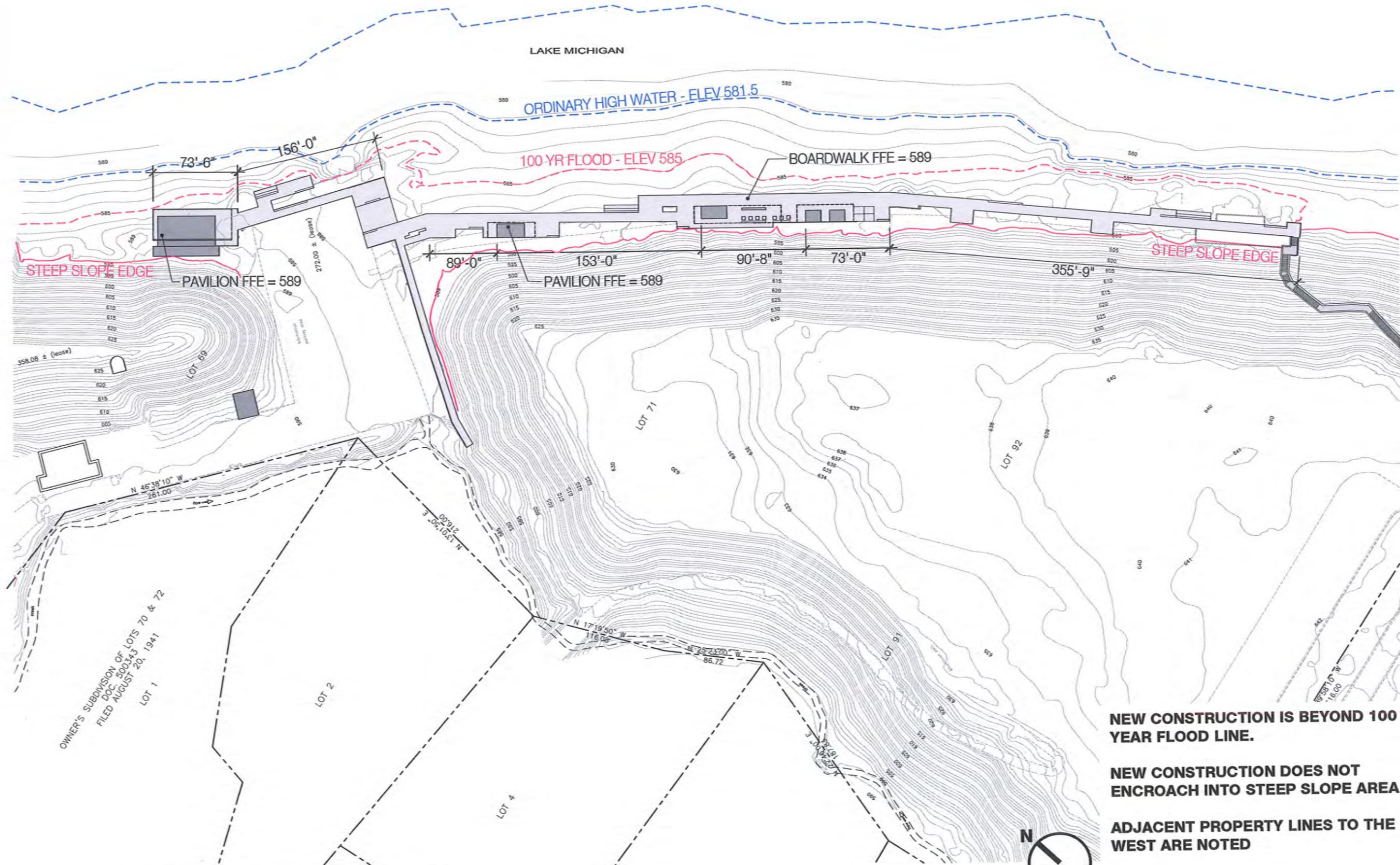
3. ORGANIC LIGHT POLES AT PERMEABLE PAVEMENT PARKING LOT



4. BIKE RACKS AT PARKING LOT DROP OFF AREA



5. NEW BEACH PLAYGROUND



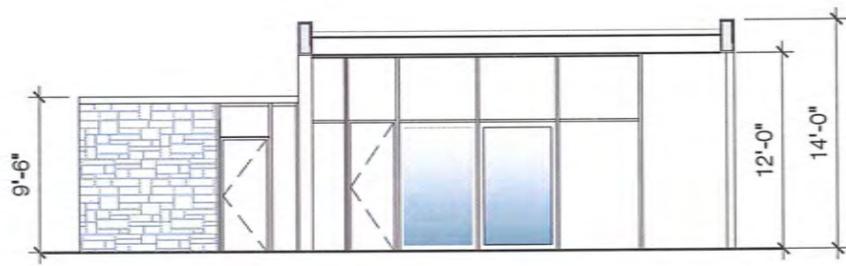
PROPOSED CONSTRUCTION OVER EXISTING SURVEY INFORMATION

- NEW CONSTRUCTION IS BEYOND 100 YEAR FLOOD LINE.**
- NEW CONSTRUCTION DOES NOT ENCROACH INTO STEEP SLOPE AREA**
- ADJACENT PROPERTY LINES TO THE WEST ARE NOTED**

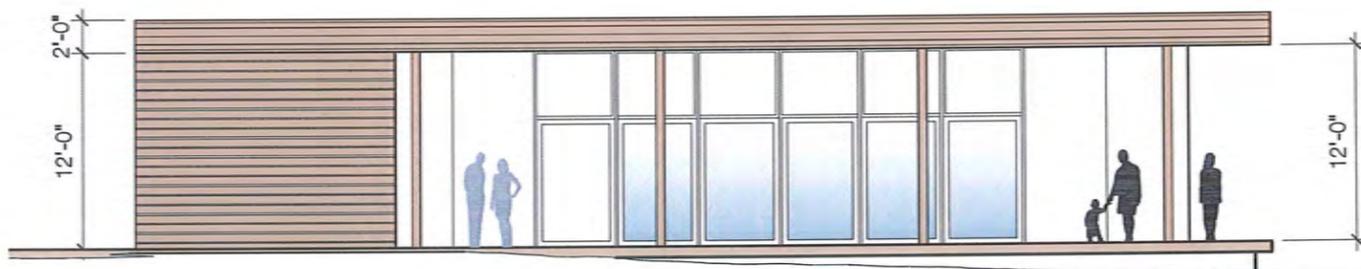
Rosewood Beach Improvements

Elevation Plan

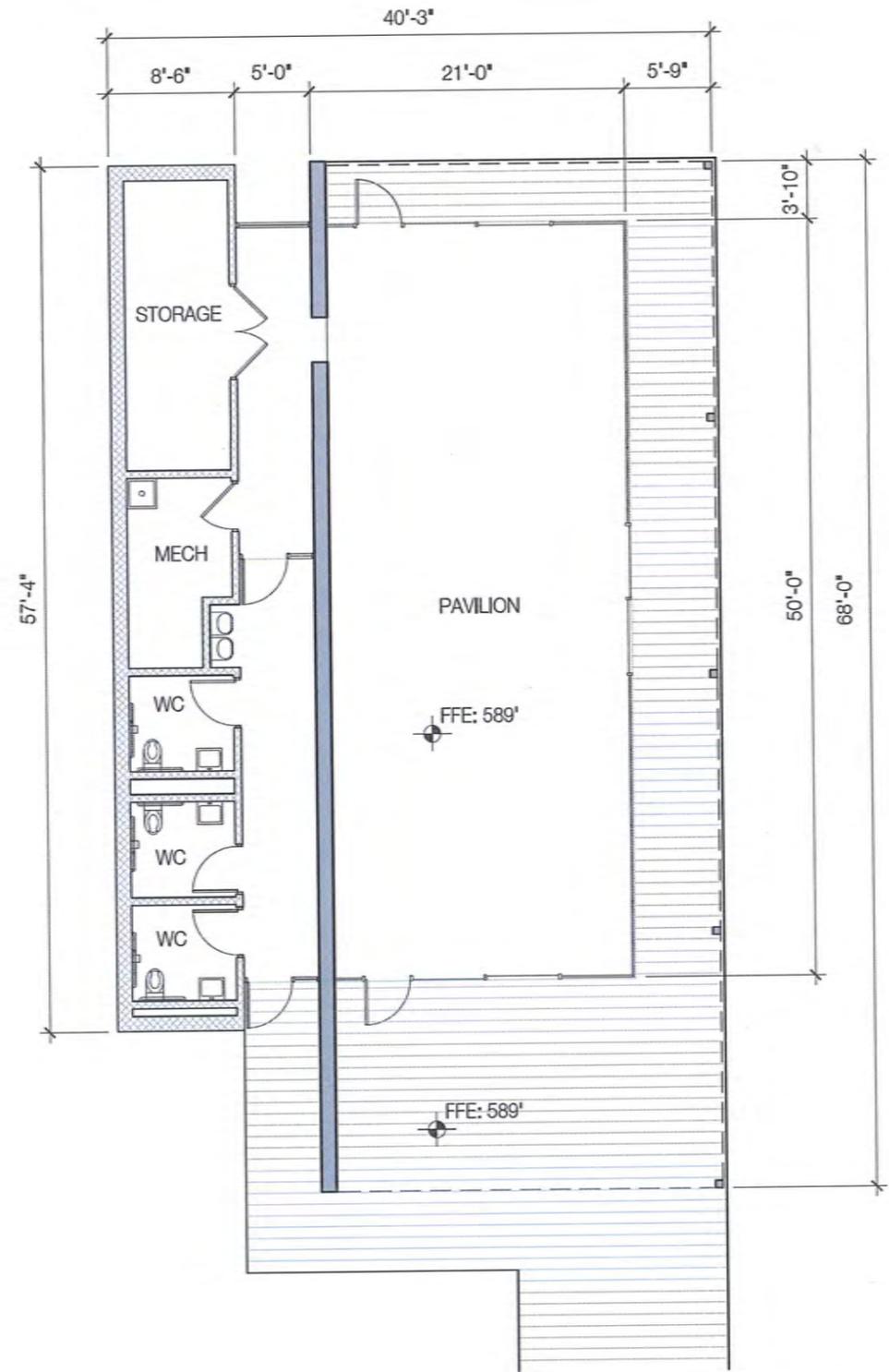
Engineering Details



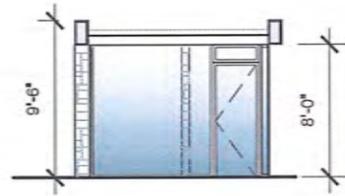
BEACH SHELTER SOUTH ELEVATION



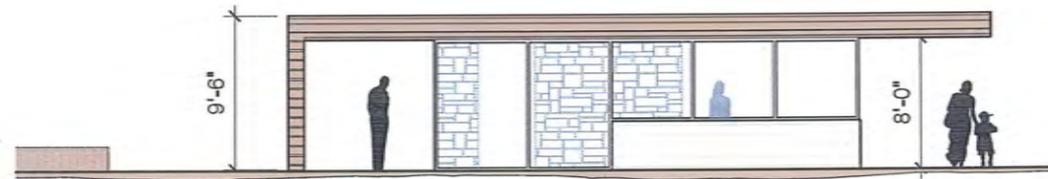
BEACH SHELTER EAST ELEVATION



BEACH SHELTER PLAN



GUARD HOUSE SOUTH ELEVATION

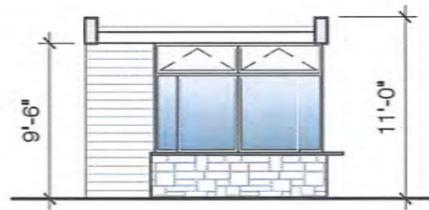


GUARD HOUSE EAST ELEVATION

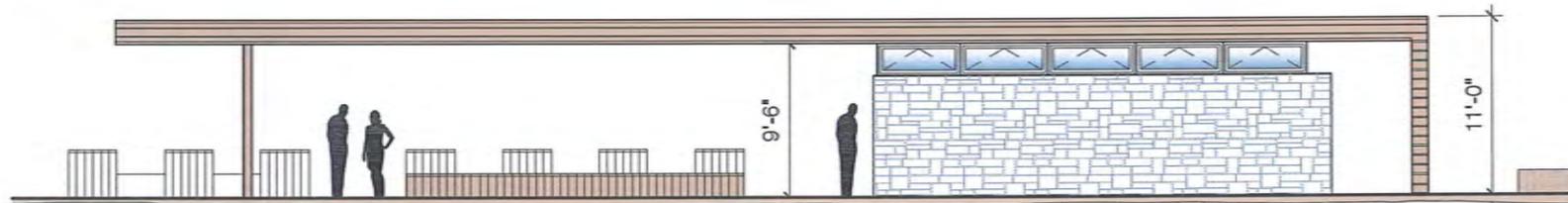


GUARD HOUSE PLAN

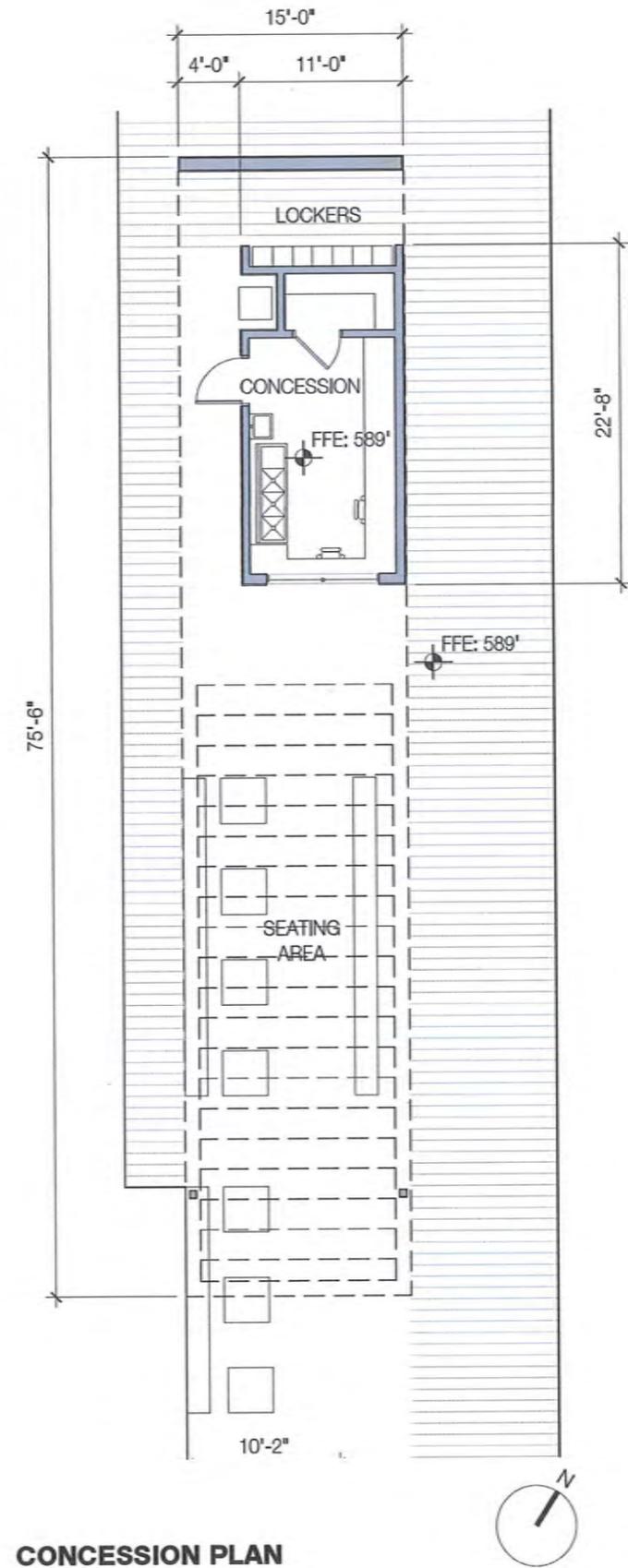




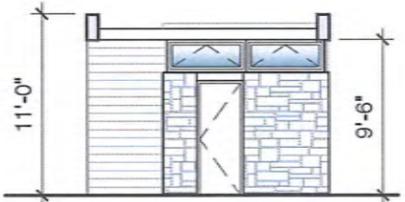
CONCESSION SOUTH ELEVATION



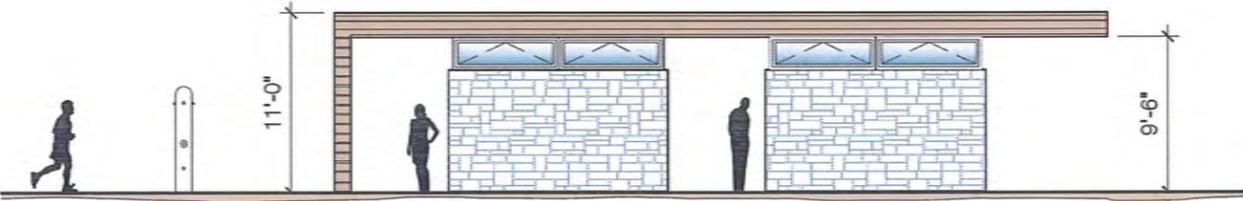
CONCESSION EAST ELEVATION



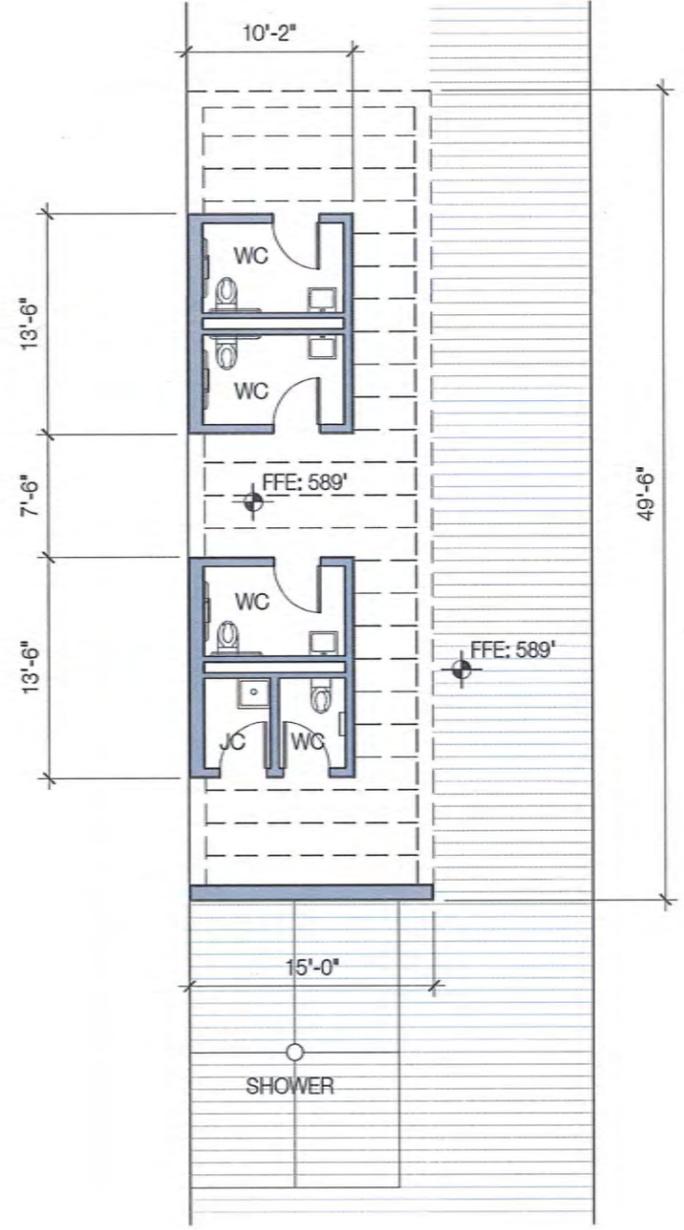
CONCESSION PLAN



RESTROOMS SOUTH ELEVATION



RESTROOMS EAST ELEVATION

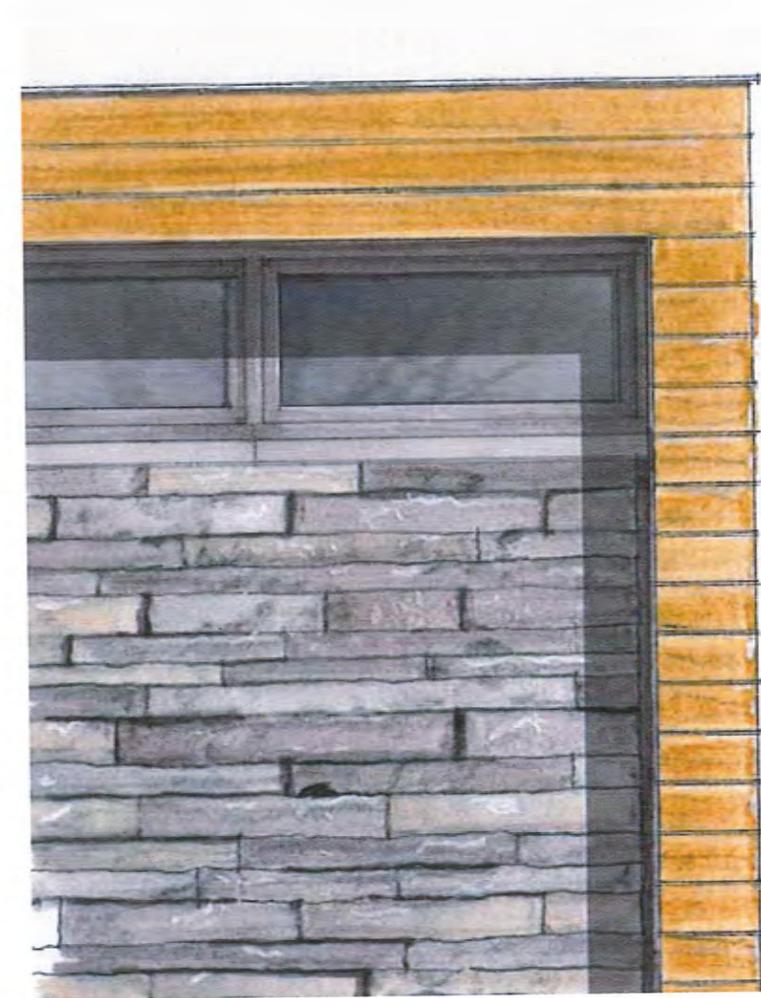


RESTROOMS PLAN

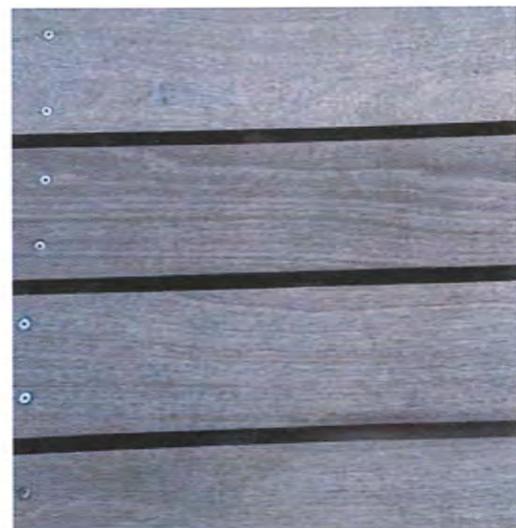




TYPICAL BUILDING AND BOARDWALK



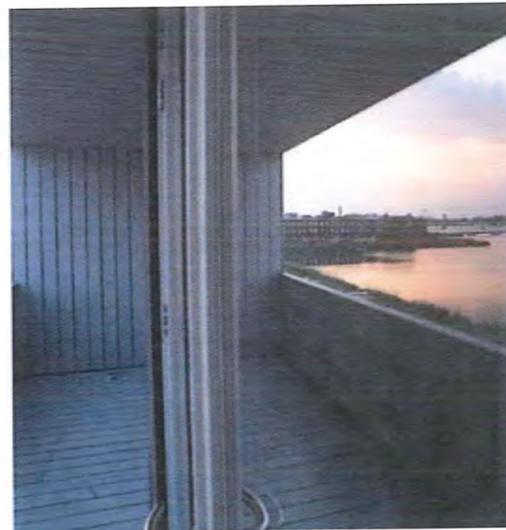
TYPICAL BUILDING MATERIAL PALETTE



1. IPE WOOD DECKING AT SITE FEATURES



2. RECTILINEAR SPLIT-FACED STACKED STONE WALL CLADDING



3. BIRD SAFE CLEAR GLASS IN PAINTED ALUMINUM FRAMES



4. HORIZONTAL WOOD SIDING AND CEILING/ROOF CLADDING



5. IPE WOOD BOARDWALK ON CONCRETE FOUNDATION

LAKE MICHIGAN



ADJACENT PROPERTIES AND STRUCTURES SURVEY INFORMATION

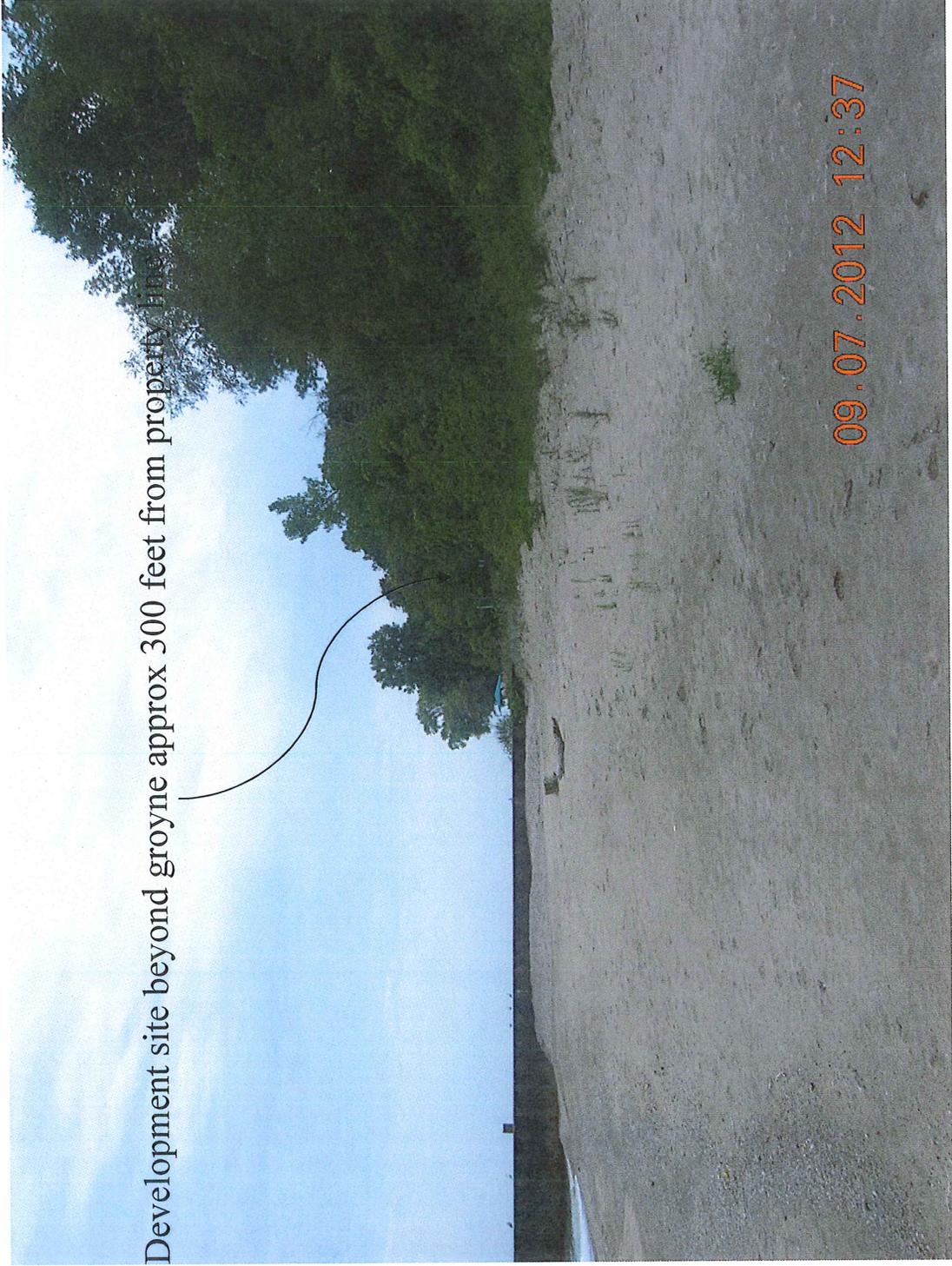


Rosewood Beach Improvements

Subject and Adjacent Properties



Rosewood Beach Site from North Abutting Property Line



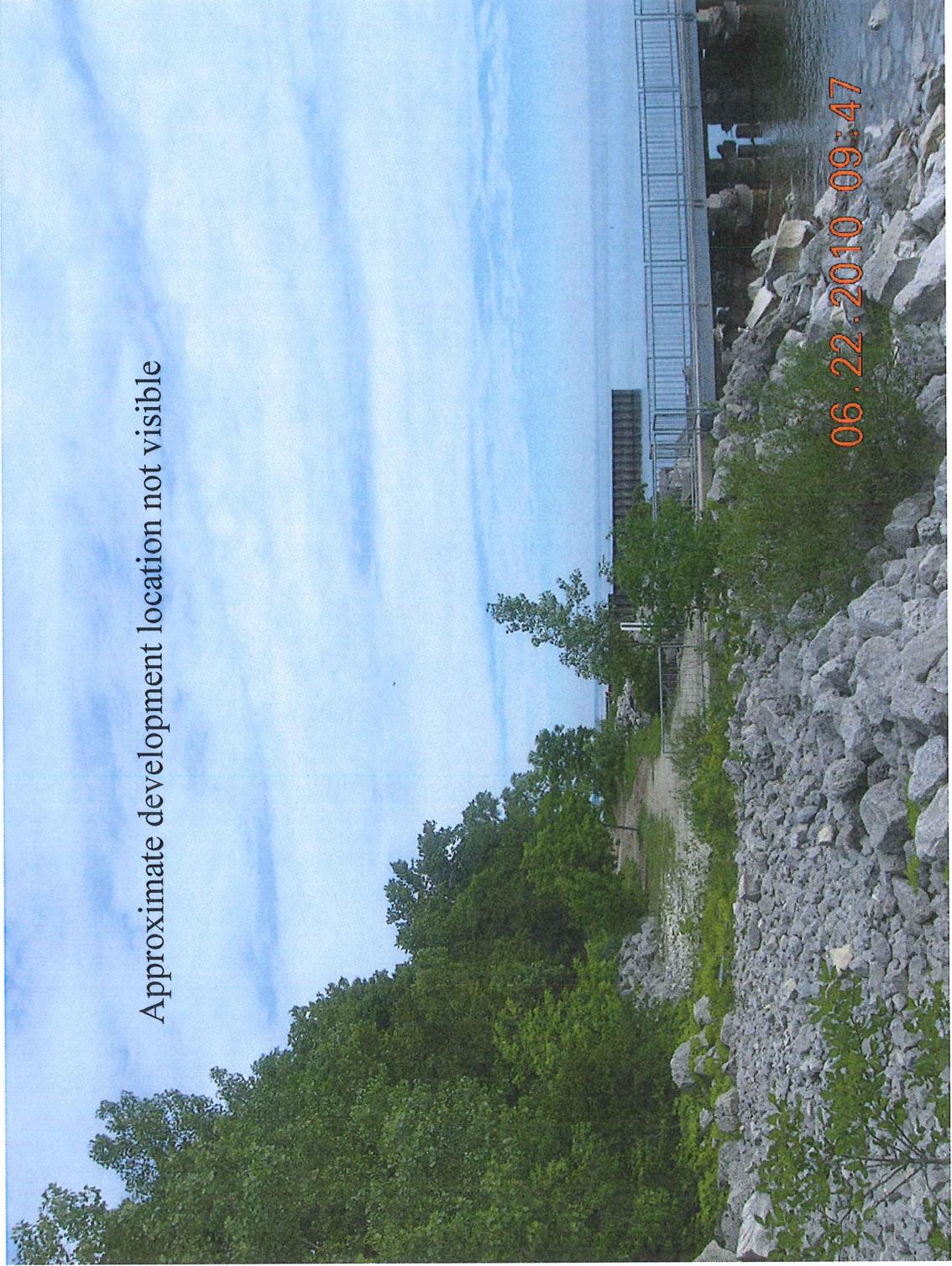
Development site beyond groyne approx 300 feet from property line

09.07.2012 12:37



Rosewood Beach Site from South Abutting Property Line

Approximate development location not visible

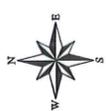


Rosewood Beach Improvement Project



Adjacent Properties

September 13, 2012



500 Feet



1625402031

1625402011

1625402012

1625402013

1625402014

1625402015

1625402016

1625405001

1625405017

1625405004

1625405005

1625405006

1625405007

1625405008

1625405009

1625405010

1625405011

1625405016

1730300001

1636204003

1731101001

1731102007

1731102008

1731102009

1731102010

1731102070

1731102013

1731102058

1731102069

1731102043

1731102044

1731102045

1731102046

1731102054

1731102047

1731302171

1731302006

1731302008

1731302172

1731302009

1731302175

1731302176

Rosewood Beach Improvements

Agency Permit Requirements



MEMORANDUM

To: City of Highland Park

From: Richard Stumpf, Director of Planning and Projects

Date: September 12, 2012

Re: **FEDERAL AND STATE REGULATORY AGENCY REVIEW – ROSEWOOD DEVELOPMENT PROJECT**

C:

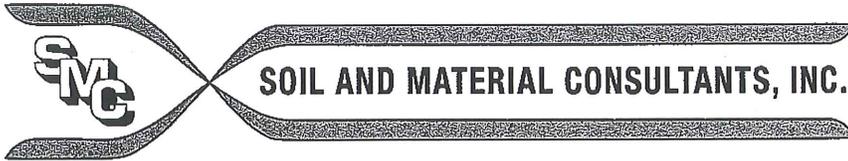
The Park District of Highland Park has received an Open Space Land Acquisition and Development Grant and Illinois Public Museum Grant from the Illinois Department of Natural Resources for this project. Part of the formal agreement between the District and IDNR requires completion of a Comprehensive Environmental Review Process (CERP) which includes review and sign off from the Illinois Department of Natural Resources, Illinois Historic Preservation Commission, Corps of Engineers and Environmental Protection Agency.

Our Rosewood Development Plan was submitted to IDNR in July. IDNR has indicated to us that no permits are required by either agency and we have now received full sign-off on the project. No further action is required.

A Watershed Development Ordinance permit is expected to be required according to the Lake County Stormwater Management Commission and will be applied for through the City of Highland Park which is a certified community by the Stormwater Management Commission.

Rosewood Beach Improvements

Subsoil / Geotechnical Investigation Report



office: 1-847-870-0544

fax: 1-847-870-0661

www.soilandmaterialconsultants.com

us@soilandmaterialconsultants.com

May 6, 2010

File No 19918

Mr. Rick Stumpf
Park District of Highland Park
636 Ridge Road
Highland Park, IL 60035

Re: Geotechnical Investigation
Rosewood Beach
Highland Park, Illinois

Dear Mr. Stumpf:

The following is our report of findings for the geotechnical investigation completed along portions of the existing paths, the top of the bluff near the new beach house and north parking lot at Rosewood Beach located in the City of Highland Park, Illinois

The investigation was requested to determine current subsurface soil and water conditions at select boring locations. The findings of the field investigation and the results of laboratory testing are intended to assist in the planning, design and construction of proposed site improvements.

PROPOSED IMPROVEMENTS

We understand that it is proposed to construct a 1-story beach house supported on a shallow depth foundation. The interior is expected to have the floor slabs supported on prepared subgrade soils. Additional improvements are expected to include new bike paths, pavement areas, sidewalks and related underground improvements.

SCOPE OF THE INVESTIGATION

The field investigation included obtaining 10 borings at the approximate locations requested and as indicated on the enclosed sketch. The boring locations were established using field taping methods. The surface elevations were determined using data presented on the topographic survey.

We auger drilled 8 borings to depths of 5.0 feet to 50.0 feet below existing surface elevations. Soil samples were obtained using a split barrel sampler advanced utilizing an automatic SPT hammer. Borings 8 and 9 were completed by hand auger methods due to limited equipment access. Soil profiles were determined in the field and soil samples returned to our laboratory for additional testing including determination of moisture content. Cohesive soils obtained by split barrel sampling were tested further to determine dry unit weight and unconfined compressive strength. The results of all field determinations and laboratory testing are included in summary with this report.

8 WEST COLLEGE DRIVE • ARLINGTON HEIGHTS, IL 60004

SOIL BORINGS • SITE INVESTIGATIONS • PAVEMENT INVESTIGATIONS • GEOTECHNICAL ENGINEERING
TESTING OF • SOIL • ASPHALT • CONCRETE • MORTAR • STEEL

RESULTS OF THE INVESTIGATION

Enclosed are boring logs indicating the soil conditions encountered at each location. The site surface conditions include bituminous concrete pavement, crushed gravel, vegetation, topsoil and fill soil conditions. The topsoil is classified as a dark brown silt/sand/clay mixture with traces of roots present.

The fill soil conditions were encountered at borings 3, 4, 6, 7, 8 and 10. The composition of the fill includes the presence of silt/clay, clay/silt, silt/sand/limestone/asphalt, sand/gravel/cinders and sand/gravel mixtures extending to depths of 1.5 feet to 3.5 feet at these boring locations. The limits of fill placement were not determined within the scope of this investigation.

The underlying soil conditions include the presence of non-cohesive soils. These include very loose to medium dense silt/clay, sand and sand/gravel mixtures. The non-cohesive granular soils are often in a damp to very damp. Cobbles and boulders may be present within the site soils at any elevation, although none were encountered while drilling.

Cohesive soils were also encountered as indicated on the logs. These are classified as stiff to very hard clay/silt mixtures with lesser portions of sand and gravel. The upper portions of these soils are sometimes high in moisture content with values in excess of 20.0 % determined.

Low-strength soil conditions were indicated at borings 1 and 3. These conditions are likely present in other areas of the site but were not discovered within the scope of this investigation.

The following table summarizes depth ranges below existing grade, the magnitude of soil strength within these ranges and other information:

Boring	Surface Elevation (feet)	Depth Range Below Existing Surface (feet)	Soil Strength (lbs./sq.ft.)	Recorded Water Levels, W.D./A.D. (feet)
1	588.0	0.0 to 4.5	*500	10.0/10.0
		4.5 to 10.5	3,000	
		10.5 to 12.0	4,000	
2	631.5	1.0 to 3.5	2,000	22.0/28.0
		3.5 to 5.5	4,000	
		5.5 to 16.0	6,000	
		16.0 to 29.0	4,000	
		29.0 to 32.5	3,000	
		32.5 to 47.0	4,000	

* Not recommended for support of foundations. Deeper foundation depths will be needed to reduce the magnitude of long-term total and differential settlement.

SUBSURFACE WATER

The boring logs and the above table indicate the depth at which subsurface water was encountered in the bore holes at the time of the drilling operations and during the period of these readings. It is expected that fluctuations from the water levels recorded will occur over a period of time due to variations in rainfall, temperature, subsurface soil conditions, soil permeability and other factors not evident at the time of the water level measurements.

FOUNDATIONS – BEACH HOUSE

Based on the results of this investigation it is our opinion that continuous and isolated footing foundations may be considered for support of building loads. Weak soil conditions should be anticipated at design foundation elevations requiring extending the foundation to a deeper elevation (approximate elevation 583.5 feet). These foundations can be supported on undisturbed natural soils located below all topsoil, low strength soils and other unsuitable conditions which may be encountered. Soil strength values and the depths at which they are expected to be encountered at these boring locations are indicated in the above table. An allowable bearing value of 2,000 lbs./sq. ft. is available for foundation design. Increased bearing values may be available at some locations and elevations.

All exterior building foundations should extend at least 42.0 inches below exposed surface elevations to provide adequate protection against uplift due to freezing of the supporting soils. Foundations for unprotected improvements should extend at least 48.0 inches below exposed surface elevations. We recommend providing adequate reinforcing steel in foundation walls and piers to minimize the effects of long-term differential settlement.

The proposed floor slab for the new beach house planned for support on the existing soil conditions should be expected to undergo some degree of long-term settlement as the soils consolidate under loading and as they shrink due to desiccation. We would recommend that the subgrade preparation for the floor slab include the removal of any unsuitable surface conditions including vegetation, topsoil, unsuitable fill soils, significant debris, weak or unstable soils, and other deleterious conditions which may be encountered. The above grade areas should then be cut to the design subgrade elevation for the floor slab subbase. The exposed subgrade soils should then be leveled and compacted to a minimum of 95% compaction based on the modified Proctor test, ASTM D-1557. We would recommend that there be a minimum of 5.0 inches of a crushed granular subbase placed for the floor slab.

NEW BIKE PATHS & PAVEMENT AREAS

Normal subgrade preparation is anticipated for the new paths and pavement areas. The procedure should include the removal of any unsuitable surface conditions including vegetation, topsoil, unsuitable fill soils, significant debris, weak or unstable soils, and other deleterious conditions which may be encountered. Above grade areas should be cut to design subgrade elevations. Exposed subgrade soils should be leveled, compacted and proof-rolled in the presence of the Soil Engineer.

Proof-rolling may reveal areas of unstable soil conditions. Discing and aeration of high moisture content soils can be effective to depths of up to 1.0 foot, depending upon the equipment utilized. Removal of unstable soils may be necessary if high moisture content conditions extend to depths greater than the effective depth of discing.

Soft or unstable soil conditions in pavement areas can often be bridged by use of an effective depth of crushed granular material. The placement of the crushed granular bridging material, possibly in conjunction with the use of an appropriate geotextile fabric, should only proceed after review of the proof-roll conditions by the Soil Engineer. Long-term settlement of pavement surfaces may occur locally as the bridged soils desiccate.

Structural fill can be placed on soils prepared to the satisfaction of the Soil Engineer. The fill should be placed in lifts not to exceed 8.0 inches when uncompacted. Each lift should exceed minimum compaction requirements prior to placement of the next lift. We recommend a minimum of 90% compaction should be achieved beneath exterior improvements such as pavements and sidewalks. Compaction requirements also apply to backfill placement within trench excavations located below subgrade supported improvements.

The following pavement sections can be considered by the design firm when the subgrade soils have been prepared in accordance with our subgrade soil preparation procedures:

<u>Pavement Type</u>	<u>Bituminous Concrete Surface N/50 Mix C</u>	<u>Bituminous Concrete Binder N/50</u>	<u>Aggregate Base</u>
Parking Lot & Drives	2.0 in.	2.25 in.	10.0 in.
Bike Paths	1.5 in.		6.0 in.

Final pavement design should address traffic load requirements and meet or exceed minimum pavement material thicknesses required by the local building code.

DEWATERING

Excavations may require dewatering due to subsurface water seepage and/or surface precipitation. This water can be removed by standard sump and pump operations. Soils exposed at foundation, slab or undercut elevations should not be permitted to become saturated. Loss of bearing strength and stability may occur thus requiring additional soil excavation.

Aggressive dewatering efforts may be necessary for deep excavations extending to sand and sand/gravel soils. Well-points or deep sumps can be utilized to collect the water for pumping in an effort to lower the water level below the bottom elevation of proposed excavations. The dewatering should be accomplished prior to soil excavation when possible.

Organic soils, non-cohesive soils and others can be unstable when saturated. These soils tend to cave or run when submerged or disturbed. The stability of exposed embankments is minimal to non-existent as confining soil pressures are removed. Proper drainage within excavations is necessary at all times, particularly when excavations extend below anticipated water levels and below saturated soils.

FILL SOURCES

The onsite non-organic soils are generally suitable for reuse as fill. Offsite sources may also be used provided they are approved in advance by the Soil Engineer. Aeration may be necessary to reduce soil moisture content prior to compaction. Soil borrowed from near the surface where seasonal fluctuations in soil moisture content occur may require particular attention. The moisture content of fill soils should be within approximately 3.0% of optimum moisture content as determined by the modified Proctor test for the soils to meet or exceed minimum compaction requirements.

DESIGN

Where applicable, the following values can be utilized for design of the proposed improvements in the area of borings 1 and 2:

Boring	Surface Elevation (feet)	Depth Below Existing Surface (feet)	Cohesion (psf)	Φ (deg)	Soil Unit Weight (Wet) (pcf)	Earth Pressure Coefficients	
						K _a	K _p
1	588.0	0.0 – 4.5	0	32	90	.39	2.56
		4.5 – 6.5	1,000	28	132	.36	2.76
		6.5 – 10.5	0	34	130	.28	3.53
		10.5 – 15.0	2,000	28	146	.36	2.76
2	631.5	0.5 – 3.5	500	26	120	.39	2.56
		3.5 – 5.5	2,000	28	133	.36	2.76
		5.5 – 18.0	3,000	28	137	.36	2.76
		18.0 – 29.5	0	34	130	.28	3.53
		29.5 – 33.0	1,000	28	143	.36	2.76
		33.0 – 50.0	2,000	28	140	.36	2.76

Note: The coefficient of friction for concrete against the soils would be 0.33. The Phi values given for the cohesive soils are for the long term conditions, they should be assumed to be zero for the short term, undrained condition.

Passive pressure values are not available for the design within 4.0 feet of the exposed surfaces due to the seasonal considerations.

CONCLUSION

The information within this report is intended to provide initial information concerning subsurface soil and water conditions on the site. Variations in subsurface conditions are expected to be present between boring locations due to naturally changing and filled soil conditions.

Our understanding of the proposed improvements is based on limited information available to us at the writing of this report. The findings of the investigation and the recommendations presented are not considered applicable to significant changes in the scope of the improvements or applicable to alternate site uses. We recommend that proposed foundation, pavement and grading plans be reviewed by our office to determine if additional considerations are necessary to address anticipated subsurface conditions.

The soils exposed in soil undercut areas should be evaluated for suitability prior to placement of structural fill, as previously indicated in this report. Soils and aggregates placed as structural fill should be tested as the work progresses to verify that minimum compaction requirements have been met. We recommend that soil conditions encountered at foundation elevations be tested to verify the presence of design soil strength prior to concrete placement.

If you have any questions concerning the findings or recommendations presented in this report, please let me know.

Very truly yours,

SOIL AND MATERIAL CONSULTANTS, INC



Joseph A. Klawitter, P.E.
Project Engineer

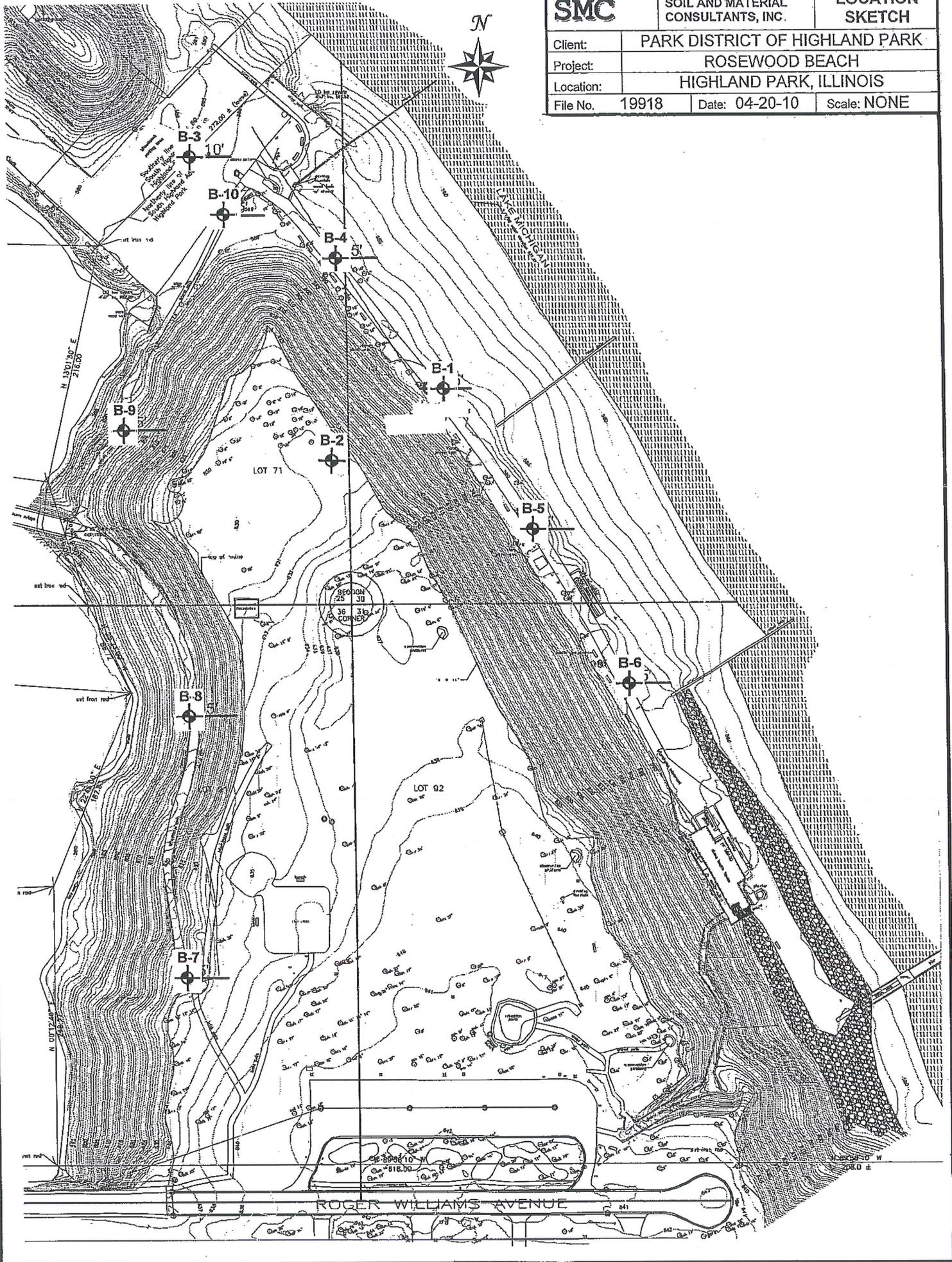
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SMC

SOIL AND MATERIAL
CONSULTANTS, INC.

LOCATION
SKETCH

Client:	PARK DISTRICT OF HIGHLAND PARK		
Project:	ROSEWOOD BEACH		
Location:	HIGHLAND PARK, ILLINOIS		
File No.	19918	Date:	04-20-10
		Scale:	NONE



SOIL BORING LOG 1

Logged By: DA

Page: 1 of 1

Client: Park District of Highland Park

File No. 19918

Date Drilled: 4/20/10

Reference: Rosewood Beach
Highland Park, IL

Comments:

Equipment: CME 45B CME 55 Hand Auger Other

CLASSIFICATION

Elevation 588.0' Existing Surface

depth, ft.	Equipment	CLASSIFICATION	standard penetration	moisture content	dry unit weight lbs./cu.ft.	unconfined compressive strength	unconfined compressive strength, tons/sq ft							
							1.0	2.0	3.0	4.0				
			X	Δ	⊗	○								
		Brown fine sand, trace roots, damp, very loose	1	3.6										
5		Brown clay, some silt, trace sand & gravel, damp, very tough	7	8.2 15.9										
		Brown fine sand, damp-very damp, saturated, medium dense	16	14.9 6.5	115.6	3.6								
10			15	14.4										
		Gray clay, some silt, trace sand & gravel, damp, hard to tough	12	14.7	128.4	4.5								4.5
15		End of Boring	13	16.1	124.8	1.9								
20														
25														
30														
35														
40														

Water encountered at 10.0 feet during drilling operations (WD).
Water recorded at 10.0 feet on completion of drilling operations (AD)
Water recorded at _____ feet _____ hours after completion of drilling operations (AD)

Client: Park District of Highland Park

File No. 19918

Date Drilled: 4/19/10

Reference: Rosewood Beach
Highland Park, IL

Comments:

Equipment: CME 45B CME 55 Hand Auger Other

CLASSIFICATION

Elevation 631.5' Existing Surface
(a) see page 2 of 2
(b) see page 2 of 2

5 Brown clay & silt, trace sand & gravel, damp-very damp, tough

5 Brown-gray clay, some silt, trace sand & gravel, damp, very tough

10 Brown clay, some silt, trace sand & gravel, damp, hard

10-15 Brown-gray clay, some silt, trace sand & gravel, damp, very tough

15 Gray clay, some silt, trace sand & gravel, damp

20 Gray fine sand, trace medium-coarse sand & silt, damp, medium dense

25 Gray fine sand, trace medium-coarse sand & gravel, very damp-saturated, medium dense

25 Gray fine-medium sand, some coarse sand & gravel, very damp-saturated, medium dense

30 Gray clay, some silt, trace sand & gravel, damp, tough to very tough

35

40

depth, ft.	standard penetration	moisture content	dry unit weight lbs./cu.ft.	unconfined compressive strength	
	X	Δ	⋈	○	
					○ unconfined compressive strength, tons/sq ft. ● penetrometer reading, tons/sq ft. 1.0 2.0 3.0 4.0 X standard penetration "N", blows/ft Δ moisture content, % 10 20 30 40
		42.7			
		17.7			
	5	20.2	103.9	1.0	X ○ ● Δ
5	9	19.3	111.1	2.2	X Δ ○ ●
	15	15.4	118.6	4.4	X Δ ○
10	14	16.4	119.1	4.0	X Δ ○
	16	15.9	119.9	6.7	X Δ ○
15	14	16.2	119.4	2.9	X Δ ○ ●
		17.3			Δ
20	21	10.1			Δ X
					Δ
25	15	12.8			X Δ
		14.4			X Δ ●
30	11	17.5	121.3	1.4	X Δ ●
					X Δ ●
35	14	17.6	120.6	2.5	X Δ ● ○
					X Δ ● ○
40	13	16.7	119.4	2.5	X Δ ● ○

Water encountered at 22.0 feet during drilling operations (WD).
Water recorded at 28.0 feet on completion of drilling operations (AD).
Water recorded at _____ feet _____ hours after completion of drilling operations (AD)



SOIL AND MATERIAL CONSULTANTS, INC.

Arlington Heights, Illinois (847) 870-0544

SOIL BORING LOG 2

Logged By: DA

Page: 2 of 2

Client: Park District of Highland Park

File No. 19918

Date Drilled: 4/19/10

Reference: Rosewood Beach
Highland Park, IL

Comments:

Equipment: CME 45B CME 55 Hand Auger Other

CLASSIFICATION

Elevation

depth, ft.	standard penetration	moisture content	dry unit weight, lbs./cu.ft.	unconfined comp. strength	
	X	Δ	⊗	○	
					○ unconfined compressive strength, tons/sq ft ● penetrometer reading, tons/sq ft. 1.0 2.0 3.0 4.0
					X standard penetration "N", blows/ft Δ moisture content, % 10 20 30 40
45	14	15.4	119.1	3.3	X Δ ● ○
50	22	16.1	123.3	4.8	Δ X ○
55					
60					
65					
70					
75					
80					

Gray clay, some silt, trace sand & gravel, damp, very tough to hard

End of Boring

- (a) Dark brown silt, some fine sand, trace clay & roots, damp (topsoil) - 6.0"
- (b) Brown silt, some clay, trace sand, damp-very damp, loose

Water encountered at 22.0 feet during drilling operations (W.D).
 Water recorded at 28.0 feet on completion of drilling operations (A.D)
 Water recorded at _____ feet _____ hours after completion of drilling operations (A.D)

Logged By: DA

Page: 1 of 1

Client: Park District of Highland Park

File No. 19918

Date Drilled: 4/20/10

Reference: Rosewood Beach
Highland Park, IL

Comments:

depth, ft.	Equipment: <input checked="" type="checkbox"/> CME 45B <input type="checkbox"/> CME 55 <input type="checkbox"/> Hand Auger <input type="checkbox"/> Other
	CLASSIFICATION
	Elevation 589.8' Existing Surface
	Bituminous concrete - 5.0"
	Limestone - 7.0"
1	Black-dark gray silt, some clay, trace sand & gravel, damp, medium dense - Fill
2	Gray fine sand, trace gravel, damp, medium dense
3	
4	Gray silt, some fine sand, damp-very damp, very loose
5	Gray fine sand, trace medium-coarse sand & silt, damp
6	Gray silt, some clay, trace sand, damp-very damp, very loose
7	Gray clay & silt, trace sand, very damp, stiff
8	
9	Gray silt, some clay, trace fine sand & organic matter, very damp, very loose
10	End of Boring

standard penetration	moisture content	dry unit weight lbs./cu.ft.	unconfined compressive strength	unconfined compressive strength, tons/sq ft			
				1.0	2.0	3.0	4.0
X	Δ	⊗	○				
	12.8						
13	5.6						
	6.1						
3	19.9						
	9.5						
	24.3						
2	23.5	107.3	0.7				
1	40.9						

Water encountered at 8.5 feet during drilling operations (WD)
 Water recorded at 7.5 feet on completion of drilling operations (AD)
 Water recorded at _____ feet _____ hours after completion of drilling operations (AD).



SOIL AND MATERIAL CONSULTANTS, INC.

Arlington Heights, Illinois (847) 870-0544

SOIL BORING LOG 5

Logged By: DA

Page: 1 of 1

Client: Park District of Highland Park

File No. 19918

Date Drilled: 4/20/10

Reference: Rosewood Beach Highland Park, IL

Comments:

Equipment: [X] CME 45B [] CME 55 [] Hand Auger [] Other

CLASSIFICATION

Elevation 590.0' Existing Surface

Bituminous concrete - 4.5"
Dark brown-black silt & gravel, damp - 3.5"
Brown clay & silt, trace sand, damp

Brown fine sand, damp, medium dense

Brown fine sand, damp, loose

End of Boring

Table with columns: depth, ft., standard penetration, moisture content, dry unit weight, unconfined compressive strength, and soil description. Includes handwritten data points like '10.8' and '3.3'.

Water encountered at dry feet during drilling operations (W.D.)
Water recorded at dry feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)



SOIL AND MATERIAL CONSULTANTS, INC.

Arlington Heights, Illinois (847) 870-0544

SOIL BORING LOG 6

Logged By: DA

Page: 1 of 1

Client: Park District of Highland Park

File No. 19918

Date Drilled: 4/20/10

Reference: Rosewood Beach
Highland Park, IL

Comments:

Equipment: CME 45B CME 55 Hand Auger Other

CLASSIFICATION

Elevation 589.2' Existing Surface

depth, ft.	Bituminous concrete - 4.5"				
	Limestone, damp - 7.5"				
1					
	Brown-dark brown-black clay & silt, some sand & gravel, damp, medium dense - Fill				
2					
3					
	Brown fine sand, damp, medium dense				
4					
5	End of Boring				
6					
7					
8					
9					
10					

standard penetration	moisture content	dry unit weight lbs./cu.ft.	unconfined compressive strength	unconfined compressive strength, tons/sq ft			
				1.0	2.0	3.0	4.0
X	Δ	γ	○				
11	19.4			X	Δ		
13	4.3			Δ	X		

○ unconfined compressive strength, tons/sq ft
 ● penetrometer reading, tons/sq ft
 1.0 2.0 3.0 4.0
 X standard penetration "N", blows/ft
 Δ moisture content, %
 10 20 30 40

Water encountered at dry feet during drilling operations (WD).
 Water recorded at dry feet on completion of drilling operations (A.D.)
 Water recorded at feet hours after completion of drilling operations (A D)



SOIL AND MATERIAL CONSULTANTS, INC.

Arlington Heights, Illinois (847) 870-0544

SOIL BORING LOG

7

Logged By: DA

Page: 1 of 1

Client: Park District of Highland Park

File No. 19918

Date Drilled: 4/19/10

Reference: Rosewood Beach
Highland Park, IL

Comments:

Equipment: CME 45B CME 55 Hand Auger Other

CLASSIFICATION

Elevation 630.7' Existing Surface
(a) see below

Dark brown sand, some gravel, cinders & large limestone, damp - Fill

Brown clay, some silt, trace sand & gravel, damp, very tough to hard

End of Boring

(a) Bituminous concrete - 1.0"

depth, ft.	standard penetration	moisture content	dry unit weight lbs./cu.ft.	unconfined compressive strength				
	X	Δ	γ	○	○	○	○	○
					X	Δ	○	●
1-								
2-		10.3				Δ		
3-	8	17.5	109.7	2.4	X	Δ	○	●
4-								
5-	17	15.6	111.0	7.2		Δ		○
6-								
7-								
8-								
9-								
10-								

- unconfined compressive strength, tons/sq ft
- penetrometer reading, tons/sq ft
- 1.0 2.0 3.0 4.0
- X standard penetration "N", blows/ft
- Δ moisture content, %
- 10 20 30 40

Water encountered at dry feet during drilling operations (WD).
 Water recorded at dry feet on completion of drilling operations (AD)
 Water recorded at feet hours after completion of drilling operations (AD)



SOIL AND MATERIAL CONSULTANTS, INC.

Arlington Heights, Illinois (847) 870-0544

SOIL BORING LOG 8

Logged By: DA

Page: 1 of 1

Client: Park District of Highland Park

File No. 19918

Date Drilled: 4/20/10

Reference: Rosewood Beach
Highland Park, IL

Comments:

Equipment: CME 45B CME 55 Hand Auger Other

CLASSIFICATION

Elevation 610.1' Existing Surface

depth, ft.	standard penetration	moisture content	dry unit weight lbs./cu.ft.	unconfined compressive strength	
	X	Δ	γ	○	○ unconfined compressive strength, tons/sq.ft. ● penetrometer reading, tons/sq ft 10 2.0 3.0 4.0 X standard penetration "N", blows/ft Δ moisture content, % 10 20 30 40
1-		13.0			Δ
2-					
3-		20.8			Δ
4-					
5-		23.3			Δ
6-					
7-					
8-					
9-					
10-					

Dark brown silt, some sand, gravel, large limestone & asphalt, damp - Fill

Brown clay, some silt, trace sand & gravel, damp, very tough

End of Boring

Water encountered at dry feet during drilling operations (W.D).
Water recorded at dry feet on completion of drilling operations (A.D).
Water recorded at feet hours after completion of drilling operations (A.D)

Client: Park District of Highland Park

File No. 19918

Date Drilled: 4/20/10

Reference: Rosewood Beach
Highland Park, IL

Comments:

Equipment: CME 45B CME 55 Hand Auger Other

CLASSIFICATION

Elevation 589.3' Existing Surface

depth, ft.	soil description	standard penetration	moisture content	dry unit weight	unconfined compressive strength
		X	Δ	⊗	○
0-1	Brown fine-medium sand, some coarse sand & gravel, damp - Fill		5.9		Δ
1-2	Brown-dark brown-black silt, some clay, trace sand & gravel, damp, loose - Fill				
2-3		5	17.1		X Δ
3-4					
4-5	Brown clay, some silt, trace sand & gravel, damp, hard				
5-10	End of Boring	11	16.4	116.4	4.4 X Δ ⊗

○ unconfined compressive strength, tons/sq ft.
● penetrometer reading, tons/sq ft.
10 2.0 3.0 4.0
X standard penetration "N", blows/ft
Δ moisture content, %
10 20 30 40

Water encountered at dry feet during drilling operations (W.D)
Water recorded at dry feet on completion of drilling operations (A.D).
Water recorded at feet hours after completion of drilling operations (A.D.)



General Notes

SAMPLE CLASSIFICATION

Soil sample classification is based on the Unified Soil Classification System, the Standard Practice for Description and Identification of Soils (Visual-Manual Procedure), ASTM D-2488, the Standard Test Method for Classification of Soils for Engineering Purposes, ASTM D-2487 (when applicable), and the modifiers noted below.

CONSISTENCY OF COHESIVE SOILS

Term	Qu -tons/sq. ft.	N (unreliable)
Very Soft	0.00 - 0.25	0 - 2
Soft	0.26 - 0.49	3 - 4
Stiff	0.50 - 0.99	5 - 8
Tough	1.00 - 1.99	9 - 15
Very Tough	2.00 - 3.99	16 - 30
Hard	4.00 - 7.99	30 +
Very Hard	8.00 +	

RELATIVE DENSITY OF GRANULAR SOILS

Term	N - blows/foot
Very Loose	0 - 4
Loose	5 - 9
Medium Dense	10 - 29
Dense	30 - 49
Very Dense	50 +

IDENTIFICATION AND TERMINOLOGY

Term	Size Range
Boulder	over 8 in.
Cobble	3 in. to 8 in.
Gravel	-coarse 1 in. to 3 in.
	-medium 3/8 in. to 1 in.
	-fine #4 sieve to 3/8 in.
Sand	-coarse #10 sieve to #4 sieve
	-medium #40 sieve to #10 sieve
	-fine #200 sieve to #40 sieve
Silt	0.002 mm to #200 sieve
Clay	smaller than 0.002 mm

Modifying Term Percent by Weight

Trace	1 - 10
Little	11 - 20
Some	21 - 35
And	36 - 50

Moisture Condition

Dry
Damp
Very Damp
Saturated

DRILLING, SAMPLING & SOIL PROPERTY SYMBOLS

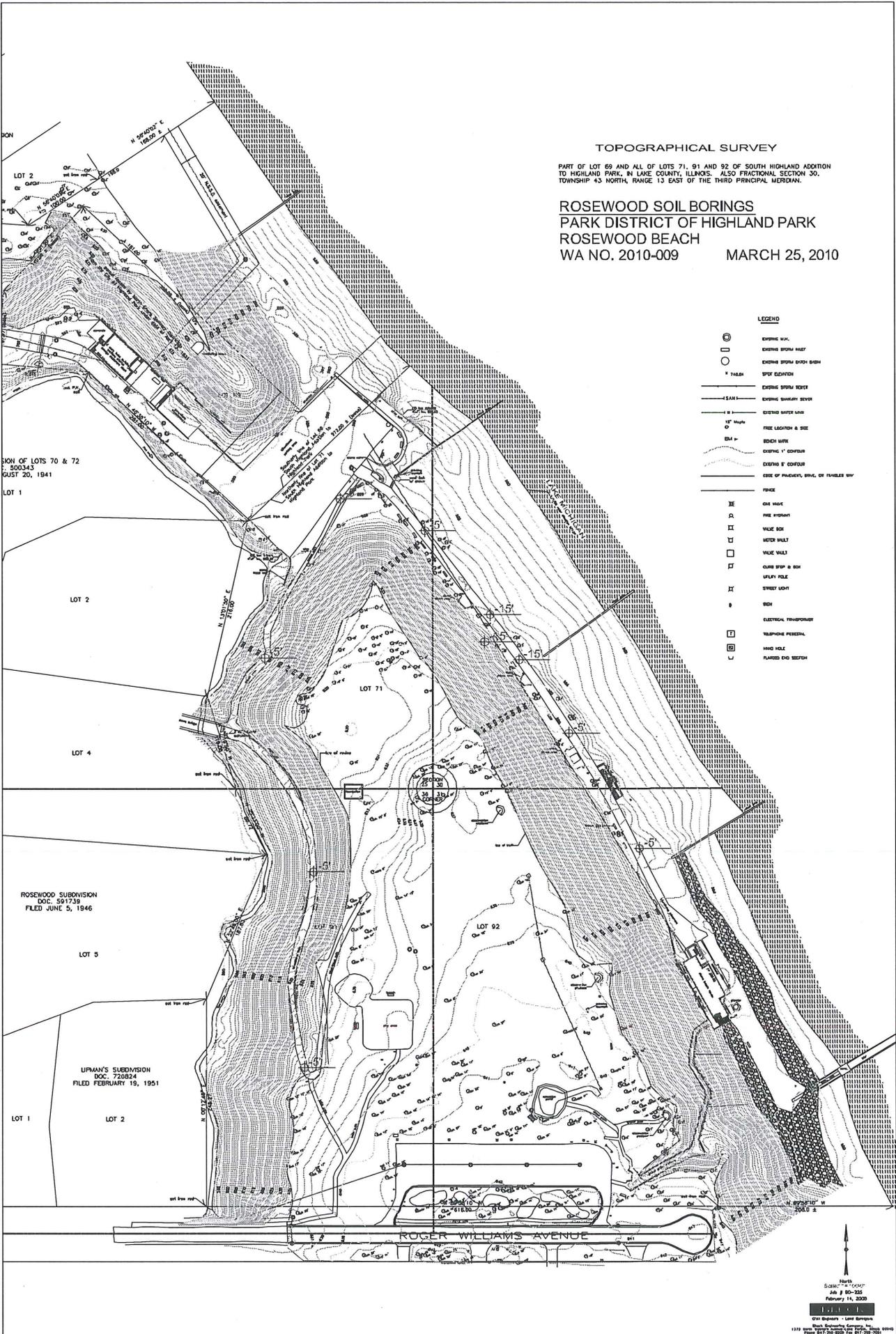
CF	- Continuous Flight Auger
HS	- Hollow Stem Auger
HA	- Hand Auger
RD	- Rotary Drilling
AX	- Rock Core, 1-3/16 in. diameter
BX	- Rock Core, 1-5/8 in. diameter
NX	- Rock Core, 2-1/8 in. diameter
S	- Sample Number
T	- Type of Sample
J	- Jar
AS	- Auger Sample
SS	- Split-spoon (2 in. O.D. with 1-3/8 in. I.D.)
ST	- Shelby Tube (2 in. O.D. with 1-7/8 in. I.D.)
R	- Recovery Length, in.
B	- Blows/ 6 in. interval, Standard Penetration Test (SPT)
N	- Blows/ foot to drive 2 in. O.D. split-spoon sampler with 140 lb. hammer falling 30 in., (STP)
Pen.	- Pocket Penetrometer reading, tons/ sq ft.
W	- Water Content, % of dry weight
Uw	- Dry Unit Weight of soil, lbs./ cu. ft.
Qu	- Unconfined Compressive Strength, tons/ sq. ft.
Str	- % Strain at Qu.
WL	- Water Level
WD	- While Drilling
AD	- After Drilling
DCI	- Dry Cave-in
WCI	- Wet Cave-in
LL	- Liquid Limit, %
PL	- Plastic limit, %
PI	- Plasticity Index (LL-PL)
LI	- Liquidity Index [(W-PL)/PI]

TOPOGRAPHICAL SURVEY

PART OF LOT 69 AND ALL OF LOTS 71, 91 AND 92 OF SOUTH HIGHLAND ADDITION TO HIGHLAND PARK, IN LAKE COUNTY, ILLINOIS. ALSO FRACTIONAL SECTION 30, TOWNSHIP 43 NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN.

ROSEWOOD SOIL BORINGS
 PARK DISTRICT OF HIGHLAND PARK
 ROSEWOOD BEACH
 WA NO. 2010-009

MARCH 25, 2010



- LEGEND
- EXISTING MAN.
 - EXISTING BURNING INLET
 - EXISTING BURNING BURN BURN
 - ▽ TABLE
 - EXISTING BURNING KEEPER
 - EXISTING BURNING BURN
 - EXISTING WATER MAIN
 - OF Depth
 - FIRE LOCATION & SIZE
 - BENCH MARK
 - EXISTING 1" CONTOUR
 - EXISTING 5' CONTOUR
 - EXISTING 10' CONTOUR
 - EXISTING 20' CONTOUR
 - EXISTING 30' CONTOUR
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 - EXISTING 980' CONTOUR
 - EXISTING 990' CONTOUR
 - EXISTING 1000' CONTOUR

North
 Scale: 1" = 100'
 Job # 80-235
 February 14, 2010
 078
 1313 North Broadway, Chicago, IL 60610
 Phone: 312.742.8000 Fax: 312.742.7000

Rosewood Beach Improvements

Structure Success

David Woodhouse Architects LLC
230 W Superior 6th Floor Chicago IL 60654
Telephone 312 943 3120 Fax 312 943 3432
www.davidwoodhouse.com

TO

Rick Stumpf
Park District of Highland Park
Director of Planning and Projects
636 Ridge Road
Highland Park, IL 60035

MEMORANDUM

DATE

10.10.2012

PROJECT

Rosewood Beach Improvements

SUBJECT

**Highland Park Natural Resources Commission Application
Rosewood Beach Improvement
Structure Success in Various Water Levels**

The Rosewood Beach Improvement structures, including the Interpretive Shelter, Lifeguard Station, Concessions and Restrooms, are being proposed with a floor elevation of 589.00 IGLD.

Historic water level elevations for Lake Michigan have been recorded as:

Historic Low Water Elevation (Monthly Average) = 576.05 (1965)
Ordinary High Water Mark – 581.50
Historic High Water Mark (Monthly Average) = 582.35 (1986)
100 Year Floodplain Elevation = 585.01

With the structures floor elevation proposed at an elevation of 589.00, the structures are well above the OHW elevation, the Historic High Water Mark Elevation, and the 100 Year Floodplain Elevation. Therefore, the structures will not be exposed to normal water level fluctuations of Lake Michigan.

Additionally, in 2010 JJR performed a wave run-up analysis in order to approximate the wave run-up elevations that could be experienced during various storm events. The wave run-up analysis is a conservative estimate using waves approaching normal to the shoreline vs. Slightly to the northeast which would be expected.

Results of the analysis indicated that the previous structure, situated at 590, would not be subject to wave run-up during storm events at low water, average water, and OHW lake elevations. At times of Design High Water Elevation, the structure could experience wave run-up during some storm events, and the same will be expected of these structures at 589.00. Design precautions are in place to further prevent this occurrence.

End of Memo.

PREPARED BY

Andy Tinucci

Rosewood Beach Improvements

Long-Term Maintenance Requirements

Proposed Means and Methods

David Woodhouse Architects LLC
230 W Superior 6th Floor Chicago IL 60654
Telephone 312 943 3120 Fax 312 943 3432
www.davidwoodhouse.com

TO

Rick Stumpf
Park District of Highland Park
Director of Planning and Projects
636 Ridge Road
Highland Park, IL 60035

MEMORANDUM

DATE

10.10.2012

PROJECT

Rosewood Beach Improvements

SUBJECT

**Highland Park Natural Resources Commission Application
Rosewood Beach Improvement
Long Term Maintenance Requirements for Structures**

EXTERIOR

The Rosewood Beach Improvement structures, including the Interpretive Shelter, Lifeguard Station, Concessions and Restrooms, are being proposed to require minimal maintenance. Primary building materials include natural stone, natural wood, windows of glass and aluminium. These materials are naturally durable, and other than periodic cleaning and sealing, they will require minimal up keep.

The wood elements of the project will be made from naturally weathering Cedar and Ipe. Both wood species are known for their natural ability to resist decay in exterior environments due to their composition and density. The wood materials used on the beach structures are intended to be oiled on a biannual basis, but otherwise left to naturally weather.

The boardwalk will be made primarily from Ipe, an extremely dense sustainably forested hardwood, known for its natural resistance to decay, weathering, pests, etc. The Ipe decking used will require no routine maintenance beyond the replacement of boards damaged by unforeseen instances.

INTERIOR

The interiors of the beach structures will be of similarly durable materials. The floors are proposed to be polished and sealed concrete, and the where the interior walls and ceilings are continuations of exterior horizontal and vertical planes, at the west wall and ceiling of the Interpretive Structure, for instance, those finishes will the same wood as is found on the exterior. The aluminium and glass window systems will also be exposed to the interior and again, naturally durable. In the most demanding spaces, the public restrooms and concession areas, for example, polished and sealed ground face block will be the primary interior surface. This material, epoxy sealed for resistance to water penetration and vandalism, will provide a naturally durable and easy to maintain interior. Other interior finishes will include stainless steel hardware and stainless steel or porcelain fixtures.

End of Memo.

PREPARED BY

Andy Tinucci

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www.davidwoodhouse.com

TO

Rick Stumpf
Park District of Highland Park
Director of Planning and Projects
636 Ridge Road
Highland Park, IL 60035

MEMORANDUM

DATE

10.10.2012

PROJECT

Rosewood Beach Improvements

SUBJECT

**Highland Park Natural Resources Commission Application
Rosewood Beach Improvement
Sitework Methodology/Means and Methods**

The Rosewood Beach Improvement structures, including the Interpretive Shelter, Lifeguard Station, Concessions and Restrooms, are being proposed and will be constructed in locations outside of the protected Steep Slope zone, and as such, no special construction means and methods will be required to retain the bluff during construction.

Construction and erosion control fencing will be installed along the bottom of the slope to protect the existing bluff from construction activities that will occur nearby. Tree protection fencing will also be installed as necessary.

All foundation excavation along the steep slope zone at the west side of the buildings will be limited in size to minimize any impact to the bluff and habitat beyond. All necessary protection measures, such as the installation of steel or wood sheeting, will be employed so that the excavation and construction work does not encroach onto the steep slope area. Once foundations are complete, the excavated area will be backfilled and new plantings to match the bluff – native grasses, wildflowers, trees, shrubs – and extend from the base of the steep slope to the west edge of the building.

All materials and equipment will be delivered via the Rosewood Beach access road and will not impact the steep slope or natural habitat within.

End of Memo.

PREPARED BY

Andy Tinucci

Rosewood Beach Improvements

Ecological Impacts and Erosion Discussion Items



Rosewood Beach Improvement Project Application
Information Addressing Lake Michigan Protection
Regulations Section (4)(a)(xiii)

(A) Any and all erosion problems on the Subject Property for which the Structure and/or Regulated Activity is designed to correct or remedy;

The project consists of 4 small buildings, a boardwalk, and retaining walls where appropriate. Although not specifically intended to remedy any conceivable erosion problems the structures walls will help to protect the toe of the bluff once completed. All development will occur along or nearer the bluff and above the normal high water mark. Improvements will be visible from limited points on the beaches of adjacent properties. This project will have no physical impact on adjacent properties.

(B) The environmental and ecological impact on the Property and the Adjacent Properties that are expected to result from the Structure and/or Regulated Activity;

Environmental impacts will be negligible. An earlier design of the project was reviewed by the Illinois Department of Natural Resources through the Environmental Assessment Statement – Cultural Resources, Endangered Species & Wetlands Review (E.A.S.-CERP) Report. It was approved July 22, 2010. A revised E.A.S.-CERP form was submitted to the IDNR July 31, 2012 reflecting changes to the project.

The Park District also commissioned an independent environmental review by Conservation Land Stewardship (Appendix A) which confirms very limited and manageable project impact.

The project footprint avoids the steep slope zone where shoring of the bluff and erosion control measures may otherwise be required.

(C) How the proposed Structure and/or Regulated Activity is the least environmentally and ecologically intrusive means of achieving the stated purpose;

The purpose of the improvements is to facilitate public access and use for recreation and education. Each of the buildings will meet a specific need. The buildings are a bathhouse with toilets, showers and changing area for swimmers, a concession serving simple food to beachgoers, a lifeguard station for beach control and first aid, and an interpretive shelter to facilitate study, house educational material and equipment and provide refuge in inclement or dangerous weather. A boardwalk will replace the current paved path at the base of the bluff. This configuration was chosen as the least intrusive from a number of concepts explored by David Woodhouse Architects. It replaces an earlier concept that consolidated the functions into a single, larger building.

(D) The nature and composition of existing protections, including existing Structures, of the shoreline in that portion of the Lake Michigan Protection Zone abutting either the Subject Property or the Adjacent Properties, and the impact and effectiveness of those protections on the shoreline, the lakebed, and on erosion of the Subject Property and Adjacent Properties;

Existing protections consist of four steel groynes projecting into Lake Michigan. The function of these structures is to withstand and dissipate the incoming wave energy rather than allow shoreline or inland damage. They will be unaffected by the current project which will be located above the mean high water mark of the lake.

Rosewood Beach Improvements

Traffic & Parking Study

MEMORANDUM TO: Richard Stumpf
Director of Planning and Projects
Park District of Highland Park

FROM: Eric D. Russell, P.E., PTOE, PTP, LEED AP ND

DATE: August 22, 2012

SUBJECT: Traffic and Parking Study
Rosewood Park Enhancements
Highland Park, Illinois

This memorandum presents the methodologies, findings, and recommendations of a Traffic and Parking Study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for the planned enhancements to Rosewood Park in Highland Park, Illinois. The Park District of Highland Park (PDHP), which operates the park, proposes to develop an enclosed beach shelter with programming/meeting space and restroom areas, an outdoor concession stand, a guard house/first aid station, an indoor restroom facility with family changing rooms, and a boardwalk connecting the south beach to the north beach. The plan also includes picnic areas, a sand volleyball court, outdoor showers, a beach playground, and improvements to the bluff stairs to upper Rosewood Park. The number of parking spaces at the park will be reduced from 107 spaces to 98 spaces and the existing bath house will be removed.

Figure 1 shows the site location and Figure 2 shows an aerial view of the site area.

The purpose of this study was to (1) examine the existing street system serving the park, (2) quantify the traffic generation from the proposed park enhancements, (3) identify potential street improvements necessary to mitigate any traffic impacts from the project, (4) evaluate parking supply and demand, (5) determine the most appropriate traffic routing to and from the park, (6) describe transportation demand management (TDM) measures that the PDHP can implement to manage traffic and parking demand, and (7) evaluate pedestrian and bicycle access to the park.

Existing Conditions

Transportation conditions in the vicinity of Rosewood Park were inventoried to obtain a database for projecting future conditions. Three general components of existing conditions were considered: (1) the geographical location of the park; (2) the characteristics of the area street system, including lane usage, traffic control devices and parking restrictions; and (3) existing traffic volumes.

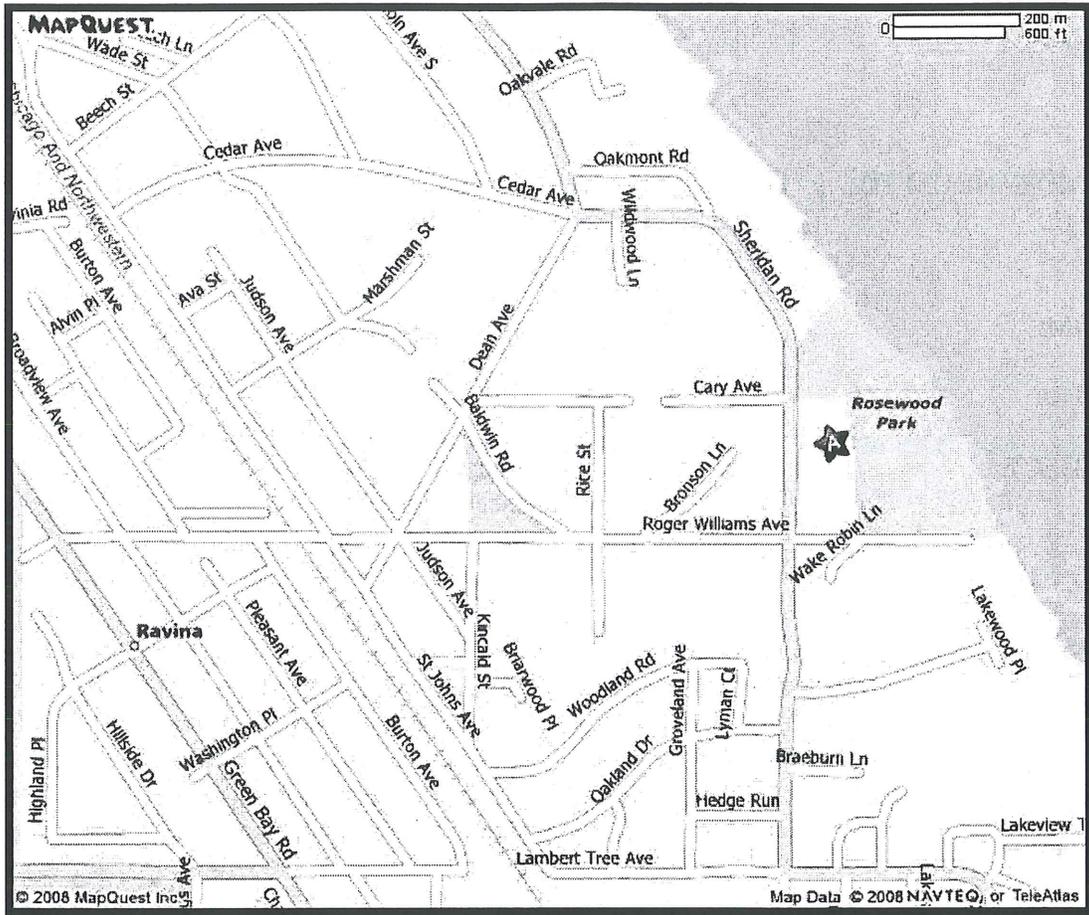


Figure 1
Site Location

Existing Street System Characteristics

Roger Williams Avenue is a two-lane arterial street that extends from Green Bay Road to Lake Michigan and is under the jurisdiction of the City of Highland Park. The posted speed limit on Roger Williams Avenue is 25 miles per hour (mph) in the vicinity of Rosewood Park and parking is prohibited on both sides of the street from May-September. There is a sidewalk along the north side of the street from Kincaid Street east to Rosewood Park.

Sheridan Road is a two-lane arterial state highway that is maintained by the City of Highland Park. Its intersection with Roger Williams Avenue is under stop sign control on Roger Williams Avenue and there are crosswalks on the north leg of Sheridan and east leg of Roger Williams. The posted speed limit on Sheridan Road is 30 mph and parking is prohibited on the street. There are no sidewalks along Sheridan Road in the vicinity of Rosewood Park.

The existing street system characteristics are shown in Figure 3.

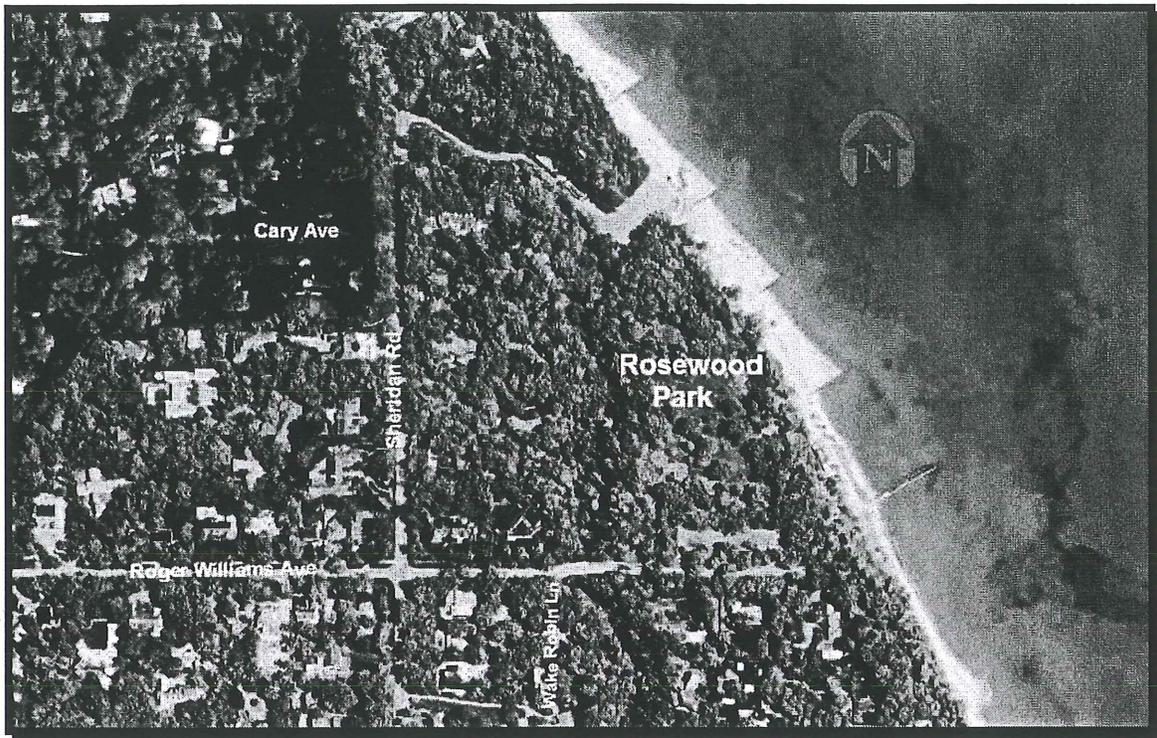


Figure 2
Aerial Photo of Site Area

Existing Traffic Volumes

Traffic counts were conducted at the following intersections on Saturday, July 21, 2012 during the midday hours (Noon.-4:00 P.M):

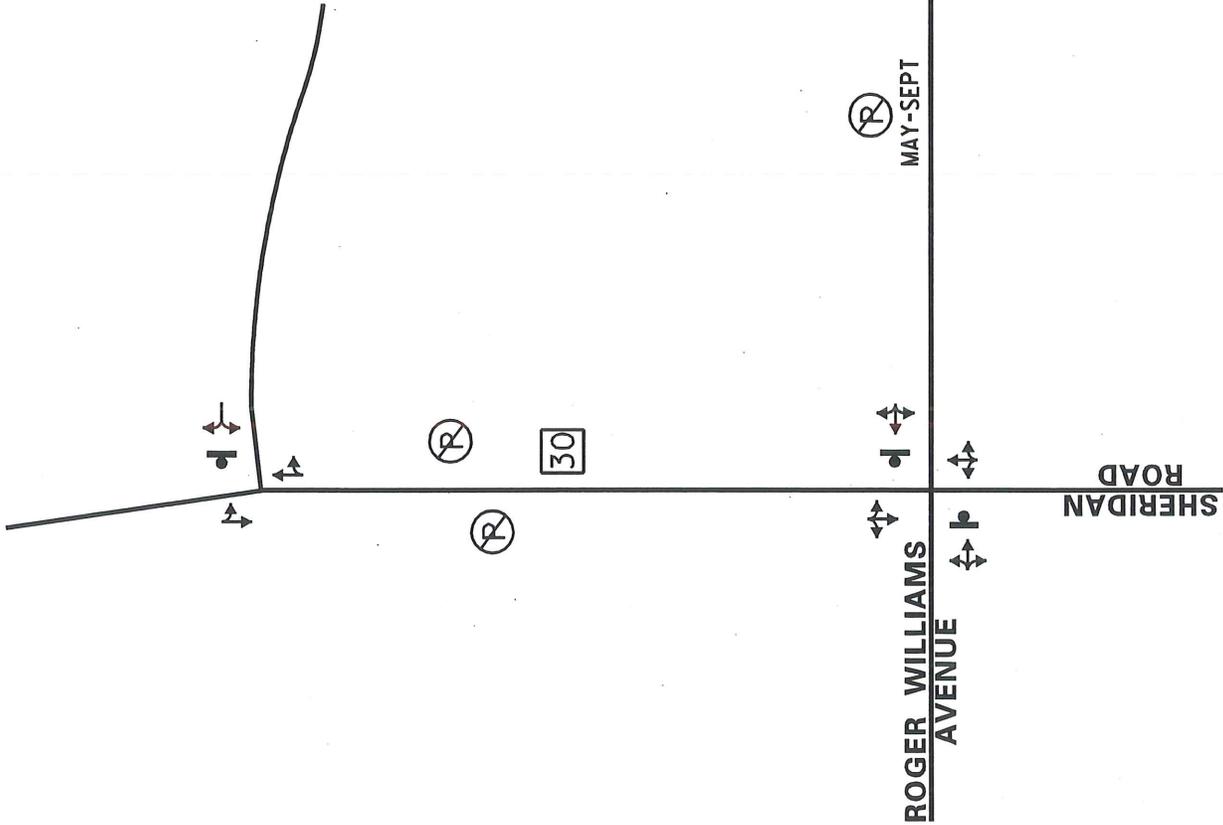
- Sheridan Road / Roger Williams Avenue
- Sheridan Road / Rosewood Park Drive to lower parking lot
- Roger Williams Avenue / Rosewood Park Drive to upper parking lot

The day and time period of the traffic count was selected as representative of the peak period of park usage, which typically occurs during the Saturday midday hours in the summer. Weather conditions on this day were sunny and very warm, ideal conditions for recreational activities in the park and on the beach. There were no scheduled Park District programs at the park on the day of the traffic count. The traffic count data indicates that the single peak hour of traffic activity occurred from 1:15-2:15 P.M. The existing Saturday midday peak hour traffic volumes are shown in Figure 4. Approximately one-half of the vehicles entering the park dropped-off or picked-up beach users and did not park. Summaries of the traffic count data are contained in the Appendix.



NOT TO SCALE

ROSEWOOD PARK



LEGEND

- STOP SIGN
- ONE TRAVEL LANE
- 00 SPEED LIMIT
- (R) NO PARKING

PROJECT:

ROSEWOOD PARK
ENHANCEMENTS
HIGHLAND PARK, ILLINOIS

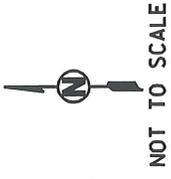
TITLE:

EXISTING ROADWAY SYSTEM

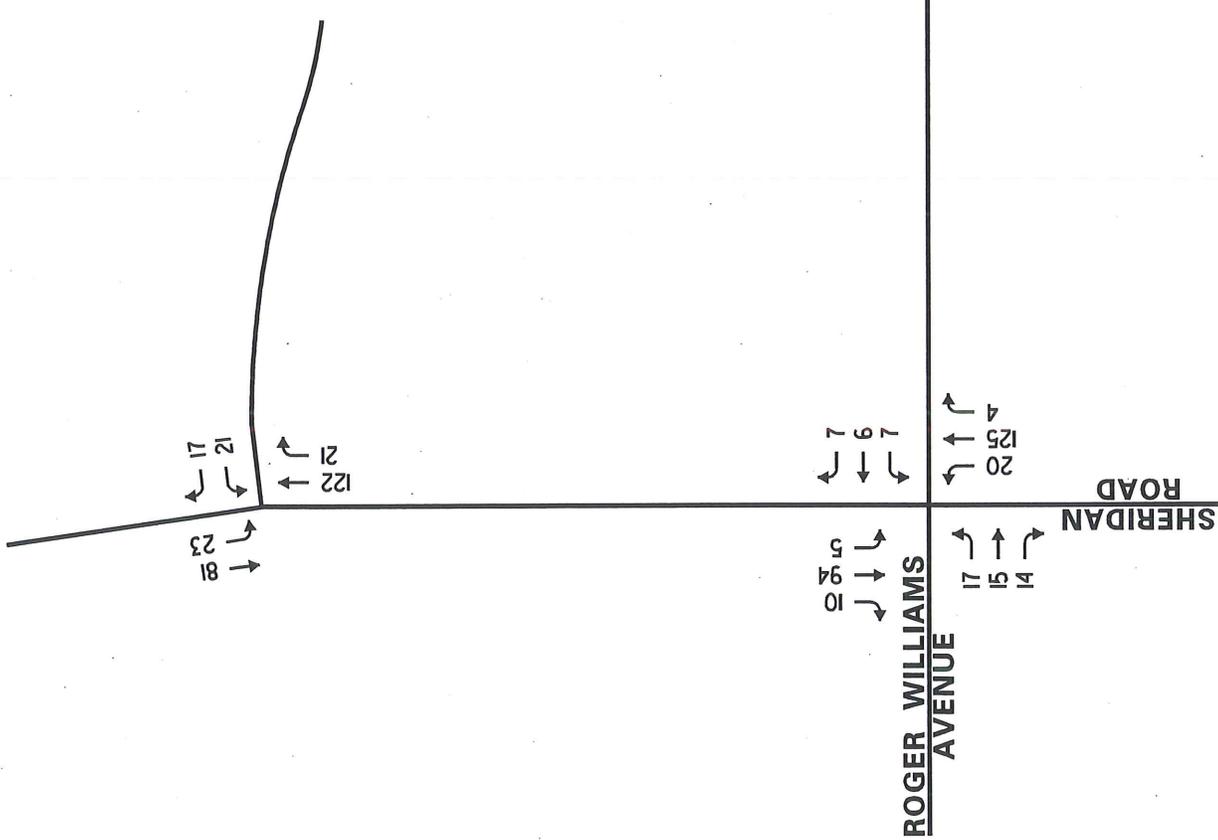
PROJECT NO: 12-109



FIGURE NO: 3



ROSEWOOD PARK



LEGEND
 00 - SATURDAY MIDDAY
 PEAK HOUR
 (1:15 - 2:15 PM)

PROJECT:	TITLE:	PROJECT NO:	12-109
ROSEWOOD PARK ENHANCEMENTS HIGHLAND PARK, ILLINOIS		EXISTING TRAFFIC VOLUMES	
		FIGURE NO: 4	

Rosewood Park Enhancement Plan and Traffic Generation

Park Accessibility, Parking and Circulation

Ingress and egress to and from the lower park area where the beach is located will continue to occur from Sheridan Road. Ingress and egress to the upper park area will continue to occur on Roger Williams Avenue. Parking will remain in the same surface lot locations as exists today but two spaces will be removed from the eastern end of the lower lot to accommodate the boardwalk and entry to the beach shelter. Rosewood Park currently offers 107 parking spaces for automobiles, although four of the spaces in the lower lot are presently blocked by a restroom trailer that will ultimately be removed. The proposed enhancements to the park, in combination with the U.S. Army Corps of Engineers' Great Lakes Ecosystem and Fishery Restoration Project, will decrease the parking supply to 98 spaces, as shown in Table 1 below, for a net reduction of nine spaces.

Table 1
ROSEWOOD PARK PARKING SUPPLY

Parking Location/Type	Existing	Proposed
Upper Lot – Auto spaces off Roger Williams Ave.	44	44
Lower Lot – Auto spaces off Sheridan Rd.	<u>63</u>	<u>54</u>
TOTAL	107	98

Parking occupancy surveys were conducted at Rosewood Park from 10:00 A.M.-8:00 P.M. on the day that the traffic counts were performed (Saturday, July 21, 2012). The survey data, which is included in the Appendix of this report, indicates that the peak parking demand was 36 spaces (32 in lower lot and 4 in upper lot), which represents 33.6 percent utilization of the available parking capacity. The peak parking demand occurred at 2:00 P.M.

Vehicular circulation in the lower parking lot will remain relatively the same. Vehicles will travel in a one-way counter-clockwise loop around the parking lot and past the beach shelter. Circulation through the upper parking lot also will not change and will continue to operate in a one-way counter-clockwise direction with ingress to the lot from the east driveway and egress from the lot from the west driveway. Angled parking will be maintained in both lots.

Rosewood Park Facilities, Programming and Employment

The enhancement plan for Rosewood Park includes the following facilities:

- Beach shelter next to north beach providing 1,950 square feet of indoor space for Park District programs (such as Beach Combers, Sand Trackers, Natural Areas, Heller Nature Center, fitness classes, etc.), community meetings (50-person capacity), rentals and other programs. Shelter will also provide interpretive exhibits, restrooms and storage space.

- Outdoor beach concession stand (400 square feet)
- Guard house/first aid station (150 square feet)
- Bathhouse next to south beach area providing restrooms and changing rooms
- Outdoor showers
- Beach playground
- Sand volleyball court
- Beach boardwalk connecting north beach to south beach
- Picnic areas
- Improved ravine walk and bluff stairs

Peak staffing at the park will occur on weekends in the summer when up to nine people will be on-site, including a manager, four lifeguards, a maintenance crew member, and three concession stand workers. Presently there are four employees that work at the park during the summer, including a manager and three lifeguards. The park will be open to the public seven days a week, 365 days a year, from sunrise to 9:00 P.M. The hours of operation for the specific facilities or activities at the park are shown in Table 2. Access gates to the upper and lower parking lots will be closed nightly by the Highland Park Police Department. Visitation to Rosewood Park is expected to be highest on Saturday afternoons during the summer months.

Table 2
ROSEWOOD PARK PROPOSED HOURS OF OPERATION

Facility / Activity	Hours of Operation		
	Pre-Season (Memorial Day-2 nd Mon Jun)	In-Season (2 nd Mon Jun-3 rd Mon Aug)	Post-Season (3 rd Mon Aug-Labor Day)
Beach Shelter/ Restrooms ¹	7:00 AM-9:00 PM, M-Sun	7:00 AM-9:00 PM, M-Sun	7:00 AM-9:00 PM, M-Sun
Concession Stand	Closed 11:00 AM-7:00 PM, S/S/H	Noon-6:00 PM, M-F 11:00 AM-7:00 PM, S/S/H	Closed 11:00 AM-7:00 PM, S/S/H
South Bathhouse/ Restrooms ¹	7:00 AM-9:00 PM, M-Sun	7:00 AM-9:00 PM, M-Sun	7:00 AM-9:00 PM, M-Sun
Guarded Swimming	Not Guarded, M-F 10:00 AM-7:00 PM, S/S/H	10:00 AM-7:00 PM, M-F 10:00 AM-7:00 PM, S/S/H	Not Guarded, M-F 10:00 AM-7:00 PM, S/S/H
¹ Restrooms will be open 8:00 AM-4:00 PM from Labor Day-October 31. Closed November 1-Memorial Day. M-F Monday through Friday S/S/H Saturdays, Sundays and Holidays			

Directional Distribution of Park Traffic

The direction from which traffic approaches and departs Rosewood Park is a function of several variables, including the distribution of households in the City, the location of the access driveways serving the park, and the accessible needs of the park users. Based on these variables, as well as current traffic patterns in the area, the estimated directional distribution of beach-generated traffic is shown in Table 3.

Table 3
DIRECTIONAL DISTRIBUTION OF PARK-GENERATED TRAFFIC

Approach/Departure Route	Percent of Traffic
North on Sheridan Road	40%
South on Sheridan Road	30%
West on Roger Williams Avenue	<u>30%</u>
Total	100%

Park Traffic Generation

Traffic generation estimates for the enhancements to Rosewood Park were developed for the Saturday midday peak hour during the summer peak season, which is the highest regular daily hour of traffic activity at the park. The park-generated volumes were estimated from anticipated facility programming and employment schedules provided by the Park District, and from existing traffic patterns at the park. Table 4 shows the additional volume of traffic projected to be generated by Rosewood Park during the Saturday midday peak hour upon completion of the park enhancement program. It reflects a conservative estimate that assumes the number of beach users will double during the season.

During the peak summer months there will be no scheduled Park District programs at Rosewood Park on the weekends. Any meetings or rentals of the beach shelter will occur during off-peak hours (i.e., mornings, evenings) or in the off-season. Traffic generated by the additional five employees at the beach will also occur during off-peak hours in the morning before the beach shelter and concession stand opens and in the evening after they close. Any seasonal Park District staff training sessions at the beach will be scheduled so as not to contribute traffic during the Saturday peak hour.

There will be other activities at Rosewood Park that generate additional traffic on a less regular basis, such as picnic area rentals and recreation/sports events (triathlon, beach volleyball, non-motorized regatta, etc.). Information provided by PDHP staff indicates that most picnic area rentals occur on weekday evenings after 5:30 P.M. Traffic generated by any larger periodic events that do occur during the peak hours will be guided to park in off-site locations and make use of the planned courtesy shuttle, as described further on page 16.

Table 4
ADDITIONAL TRAFFIC GENERATED BY ROSEWOOD PARK

Land Use	Saturday Peak Hour		
	Enter	Exit	Total
Park / Beach	60	50	110

Site Traffic Assignment

The additional Saturday midday peak-hour traffic projected to be generated by the enhancements to Rosewood Park was assigned to the street system based on the directional distribution shown in Table 3 and is shown in Figure 5.

Total Projected Traffic Volumes

The additional park-generated Saturday midday peak-hour traffic volumes (Figure 5) were combined with the existing Saturday midday peak hour traffic volumes to obtain the total projected peak-hour traffic volumes upon completion of the Rosewood Park enhancements. The total projected Saturday midday peak hour traffic volumes are shown in Figure 6.

Traffic Analysis

Intersection capacity analyses were performed for the intersections of the Sheridan Road/Roger Williams Avenue, Sheridan Road/Rosewood Park drive, and Roger Williams Avenue/Rosewood Park drive to determine the operation of the existing street system during the Saturday midday peak hour, evaluate the incremental traffic impact of the park enhancement program during this time, and determine the ability of existing street system to accommodate future traffic demands. Analyses were performed for the following Saturday midday peak hour traffic conditions:

1. Existing traffic volumes
2. Total projected traffic volumes (includes enhancements to Rosewood Park)

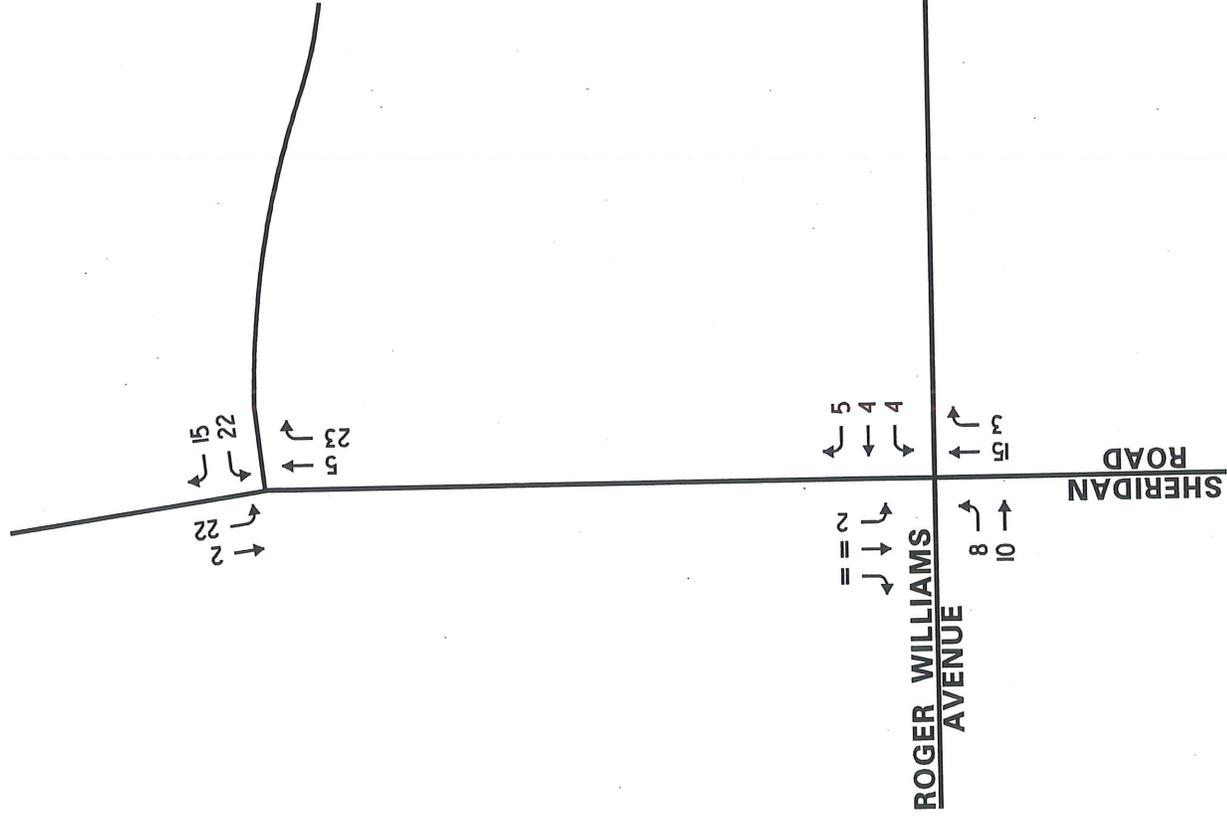
The capacity analyses were performed using HCS+ computer software, which is based on the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM), 2000* for two-way stop-controlled (TWSC) intersections. The methodology analyzes each intersection approach controlled by a stop sign and considers traffic volumes on all approaches and lane geometrics.

The ability of an intersection to accommodate traffic flow is expressed in terms of level of service, which is assigned a letter grade from A to F based on the average control delay experienced by vehicles passing through the intersection. Control delay is that portion of the total delay attributed to a traffic signal or stop sign control operation, and includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Level of Service A is the highest grade (best traffic



NOT TO SCALE

ROSEWOOD PARK



LEGEND

00 - SATURDAY MIDDAY
PEAK HOUR
(1:15 - 2:15 PM)

PROJECT NO:	12-109
PROJECT	ROSEWOOD PARK ENHANCEMENTS HIGHLAND PARK, ILLINOIS
TITLE:	ADDITIONAL PARK GENERATED TRAFFIC VOLUMES
FIGURE NO:	5



flow and least delay), Level of Service E represents saturated or at-capacity conditions, and Level of Service F is the lowest grade (oversaturated conditions, extensive delays). Typically, Level of Service D is the lowest acceptable grade for peak-hour conditions in a suburban environment such as Highland Park.

For TWSC intersections, levels of service are calculated for the approaches controlled by a stop sign. Level of Service F at TWSC intersections occurs when there are not enough suitable gaps in the flow of traffic on the major (uncontrolled) street to allow minor-street traffic to safely enter the major street flow or cross the major street.

The *Highway Capacity Manual* levels of service and the corresponding control delay for unsignalized intersections are shown in Table 5. Summaries of the capacity analysis results are presented in Table 6 for existing and total projected traffic conditions, respectively. All output worksheets from the capacity analyses are contained in the Appendix to this report.

Table 5
LEVEL OF SERVICE CRITERIA – UNSIGNALIZED INTERSECTIONS

Level of Service	Average Control Delay (seconds per vehicle)
A	0 – 10
B	> 10 – 15
C	> 15 – 25
D	> 25 – 35
E	> 35 – 50
F	> 50

Source: *Highway Capacity Manual*, 2000.

Table 6
CAPACITY ANALYSIS – SATURDAY MIDDAY PEAK HOUR TRAFFIC

Intersection	Existing Traffic Conditions		Projected Traffic Conditions	
	LOS	Delay	LOS	Delay
Sheridan Rd / Roger Williams Ave	B ¹	10.5 ¹	B ¹	11.3 ¹
	B ²	10.3 ²	B ²	10.8 ²
Sheridan Rd / Rosewood Park Access Dr ³	A	9.9	B	10.6
Roger Williams Ave / Rosewood Park Access Dr ³	A	8.4	A	8.4

Note: LOS=Level of Service; Delay is measured in seconds.

¹ Represents operation of eastbound Roger Williams Avenue approach under stop control.

² Represents operation of westbound Roger Williams Avenue approach under stop control.

³ Represents operation of Rosewood Park access drive under stop control.

Traffic Evaluation

The capacity analysis results in Table 6 indicate that all of the study intersections and park access driveways presently operate at very good levels of service during the Saturday midday peak hour under the current stop sign controls and will continue to operate at very good levels of service with the proposed park enhancements. As such, there are no changes in traffic control necessary at these intersections and there is no need to widen the street to increase capacity to accommodate the additional traffic generated by the park enhancements.

Parking Analysis

PDHP staff developed parking demand estimates for the Rosewood Park enhancements based on park programming, events, and facility offerings during the peak and off-peak seasons. The estimates include the parking needs of employees and beach/park users, by time of day and day of week, with consideration given to the fact that many of the beach/park users are dropped-off and picked-up and do not require parking. These parking demand estimates were compared with the proposed parking supply to determine if parking surpluses or shortages will result. The parking analysis for Rosewood Park for peak and off-peak season is shown in Tables 7 and 8, respectively.

During the peak season at Rosewood Park, it is anticipated that the future on-site parking supply (98 spaces) will be adequate to accommodate the peak weekday and weekend parking demand of 75 and 90 spaces, respectively, as shown in Table 7. During the off-peak season, the anticipated peak parking demand is 30, which can also be adequately accommodated on-site by the future 98-space parking supply, as shown in Table 8.

Table 7

Parking Supply/Demand Analysis				Peak Season (Memorial Day–Labor Day)			
Day/Time	7-8 AM	8-9 AM	9 AM-Noon	Noon-1 PM	1-4 PM	4-6 PM	6-9 PM
Mon.-Fri.	10	25	40	45	75	60	40
Sat.-Sun.	5	15	60	70	90	60	40

Parking Capacity = 98 auto spaces

Table 8

Parking Supply/Demand Analysis			Off-Peak Season (Labor Day–Memorial Day)		
Day/Time	7-9 AM	9 AM-Noon	Noon-3 PM	3-6 PM	6-9 PM
Mon.-Thu.	25	25	30	25	20
Fri.-Sun.	15	20	15	15	15

Parking Capacity = 98 auto spaces

To maximize parking available for the public during peak season, staff parking will be kept to a minimum. Beach staff presently park in the upper lot and seven parking spaces will be dedicated for staff at the far west end of this lot upon completion of the beach enhancement program.

Existing parking regulations are currently posted on Roger Williams Avenue to discourage parking near Rosewood Park from May through September. Nearby residential streets such as Cary Avenue have permanent No Parking regulations posted. Observations made during the parking surveys indicated that these parking regulations were effective and vehicles were not parked on these streets.

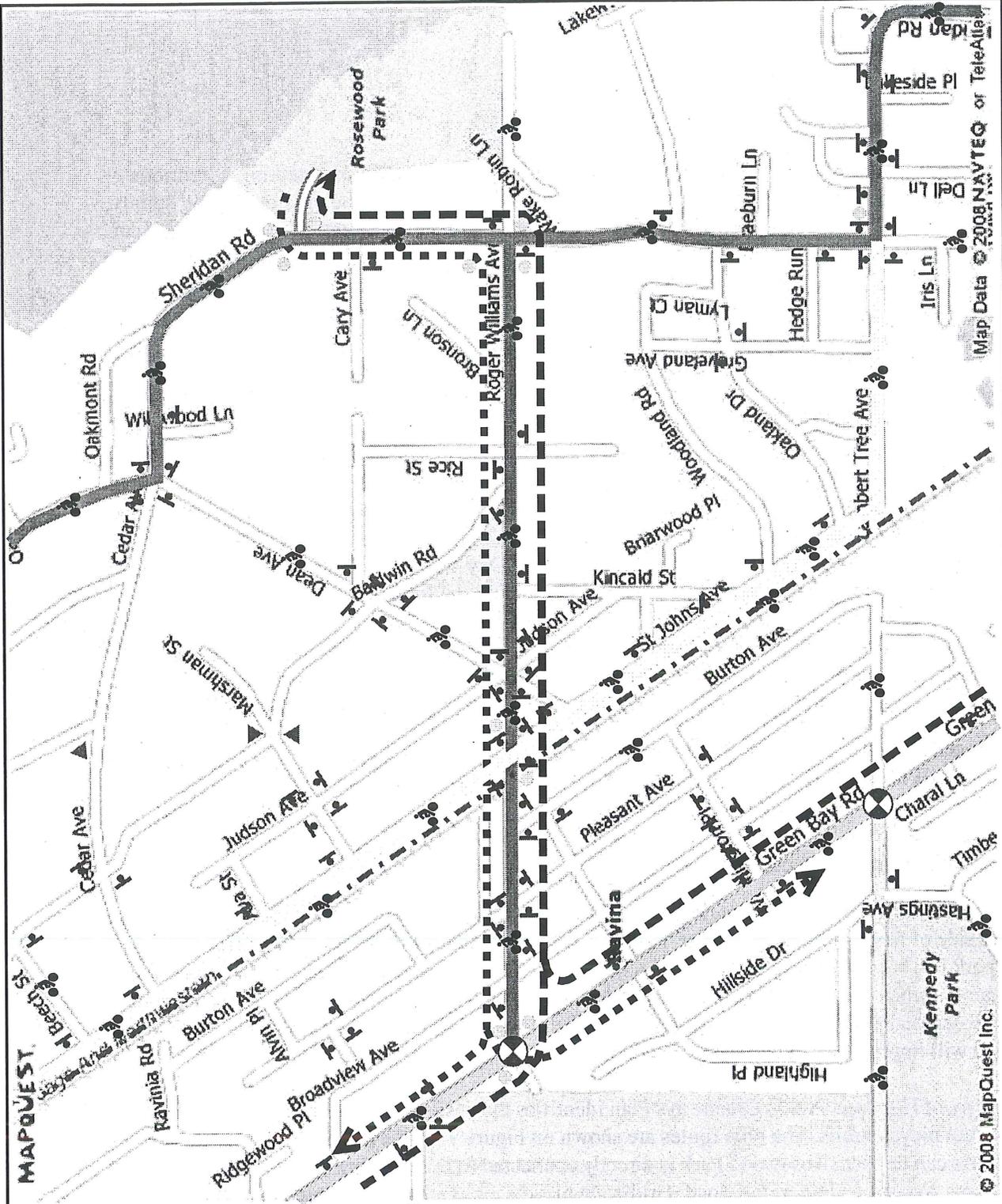
Wayfinding

Because Rosewood Park is located along the lakeshore and is surrounded by residential neighborhoods, it would be desirable to establish a wayfinding system that guides traffic to the park on streets that can best accommodate the traffic with the least adverse impact to the residents. The wayfinding system would consist of a series of small signs that identify Rosewood Park by name with a directional arrow that guides traffic along the established park ingress and egress routes. The signs would be designed and fabricated by a sign specialty firm and then attached to existing or newly installed sign posts at selected locations that lead to and from the nearest regional arterial street, which is Green Bay Road.

The recommended travel route to and from Green Bay Road and Rosewood Park, as well as a sample wayfinding sign concept, is shown in Figure 7. This travel route was based on the consideration of several factors, including:

- Functional classification of streets
- Street width
- Location of railroad crossings (grade-separated and at-grade)
- Street speed limit
- On-street parking regulations
- Intersection radii and angle of turning movements
- Setback of homes
- Directional orientation of streets (i.e., one-way streets)
- Traffic controls

The City of Highland Park's adopted Central District Plan notes that "streets are categorized on the basis of their major traffic carrying function. Typically streets fall into one of four categories: Regional Arterials, Arterials, Collectors and Local Streets. Regional arterial streets are defined as the major traffic carrying streets which carry through traffic over relatively long distances. Arterial streets interconnect and augment the regional system and provide service to trips of moderate length at a somewhat lower level of travel mobility. Collector streets are streets that penetrate neighborhoods and collect traffic from local streets in the neighborhoods and channel it to the arterial street system. Local streets primarily provide direct access to abutting land uses and carry travelers to the higher classification streets." The functional classification of streets in the vicinity of Rosewood Park is shown in Figure 7. The recommended travel route to and from Rosewood Park uses arterial streets only, including Green Bay Road, Roger Williams Avenue, and Sheridan Road.



LEGEND

- REGIONAL ARTERIAL STREET
- ARTERIAL STREET
- COLLECTOR STREETS
- LOCAL STREET
- TRAFFIC SIGNAL
- STOP SIGN
- YIELD SIGN
- GREEN BAY BICYCLE TRAIL
- DESIGNATED ON-STREET BIKE ROUTE
- WAYFINDING SIGN LOCATION
- RECOMMENDED INBOUND TRAVEL ROUTE
- RECOMMENDED OUTBOUND TRAVEL ROUTE



PROJECT NO: 12-109	PROJECT 1
KLOAN	ROSEWOOD PARK ENHANCEMENTS HIGHLAND PARK, ILLINOIS
FIGURE NO: 7	TITLE 1

**FUNCTIONAL CLASSIFICATION OF STREETS
AND RECOMMENDED TRAVEL ROUTE
TO ROSEWOOD PARK**

Travel Demand Management

The PDHP has developed a draft operational plan to manage traffic and parking conditions at Rosewood Park and accommodate group events. The plan addresses the on-site parking supply, suggested parking fees and permits, parking revenue collection procedures, parking enforcement, staff parking, event traffic control, truck loading/unloading, remote parking, and off-site parking shuttle operations. The intent of the operational plan is to accommodate the access needs of all park users and encouraging alternative modes of transportation while mitigating traffic and parking impacts in the adjoining neighborhood.

To accommodate potential parking shortages at Rosewood Park at peak times during the peak season, the PDHP is exploring the establishment of a courtesy shuttle to transfer park users to and from a remote parking lot(s), as needed based on temperature, lake conditions, and beach shelter/picnic area rentals. The PDHP will work with School District 112 to use the Ravinia School parking lot as one of these remote locations. The Ravinia School lot is located off of Baldwin Road and has a capacity for 26 cars. The shuttle would be operated on weekends only, from 9:00 AM to 7:00 PM, between Memorial Day weekend and Labor Day weekend. In addition, the PDHP will provide a people-mover between the upper parking lot and the lower lot.

To intercept motorists destined to Rosewood Park and guide them to the remote parking lot when the on-site parking lots are full and/or when the shuttle bus is operating, portable signs should be used. These signs should be located at key approach points, including the following locations:

1. Roger Williams Avenue at Sheridan Road
2. Roger Williams Avenue at Kincaid Street
3. Sheridan Road at Rosewood Park drive

Pedestrian and Bicycle Access

Pedestrian access to the upper park area of Rosewood Park is available from sidewalks along the north side of Roger Williams Avenue. However, the brick-paved path between Sheridan Road and the park has become overgrown with vegetation (see Figure 8) making it slippery and potentially dangerous when wet. There are no sidewalks along Sheridan Road for access to the lower park area. The Rosewood Park enhancement plan includes improvements to the ravine walk and bluff stairs, which will improve the pedestrian connections between the upper park area and lower park area.

The City of Highland Park's Greenways Plan identifies the designated on-street bicycle routes and off-street bicycle trails. The bike routes are shown on Figure 7 for the area surrounding Rosewood Park. As can be seen, Rosewood Park is directly connected to the bicycle route system from Roger Williams Avenue and Sheridan Road. Grid-style bicycle racks are currently located at the entrance drive to the upper lot on Roger Williams Avenue (see Figure 9) and at the west end of the lower lot. These older model bicycle racks do not support the bicycle frame, just the wheel, which can lead to bent wheels that damage the bicycle.



Figure 8
Existing Pedestrian Path
North Side of Roger Williams Avenue, East of Sheridan Road

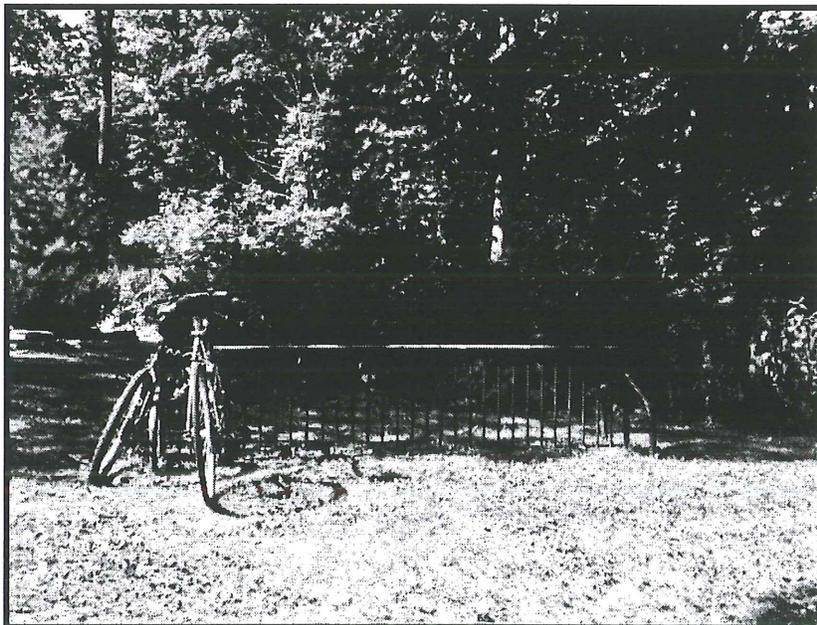


Figure 9
Existing Bicycle Rack
Upper Parking Lot

Conclusions and Recommendations

Based on the proposed Rosewood Park enhancement plan and the preceding traffic and parking study, the following conclusions and recommendations are made:

- Ingress and egress to and from the lower park area will continue to occur from Sheridan Road. Ingress and egress to the upper park area will continue to occur on Roger Williams Avenue.
- With the proposed enhancements to Rosewood Park, the volume of traffic generated by the park during the Saturday midday peak hour during the summer is projected to approximately double over the volume of traffic currently generated by the park.
- Nevertheless, the additional traffic volume can be adequately accommodated on the adjacent street system with minimal impacts to the adjoining neighborhoods as park traffic will continue to utilize the arterial street system (i.e., Sheridan Road and Roger Williams Avenue) to access the park.
- All of the study intersections and park access driveways presently operate at very good levels of service (A or B) during the Saturday midday peak hour under the current stop sign controls and will continue to do so with the proposed park enhancements.
- There are no changes in traffic control or street capacity necessary at these intersections to accommodate the additional traffic generated by the enhanced park.
- To reduce traffic levels at the park, the PDHP should encourage carpooling for Park District programs held at the park.
- Vehicles in the lower park area will continue to circulate in a one-way counter-clockwise loop around the parking lot. Circulation through the parking lot serving the upper park area will also continue to operate in a one-way counter-clockwise direction.
- Emergency vehicles will have direct access to the beach shelter, beach boardwalk, and upper park area.
- A wayfinding system has been recommended to guide Rosewood Park traffic along streets that can best accommodate the traffic with the least adverse impact to the local residents.
- The recommended travel route to and from the park uses arterial streets only, including Green Bay Road, Roger Williams Avenue, and Sheridan Road.
- Small Rosewood Park signs with directional arrows should be installed along the recommended ingress and egress routes to guide traffic to and from the park.
- Daily staff levels at Rosewood Park are projected to increase from 4 people to 9 people during the season upon completion of the beach enhancements.
- Parking will remain in the same surface lot locations as exists today but the number of spaces will be reduced from 107 spaces to 98 spaces, for a net reduction of nine spaces.

- The parking analysis indicates that during peak season, the weekday and weekend parking demand will range from 75-90 vehicles, respectively, which can be adequately accommodated on-site by the future 98-space parking supply.
- To accommodate potential parking shortages at Rosewood Park at peak times during the peak season, the PDHP is exploring the establishment of a courtesy shuttle to transfer park users to and from a remote parking lot(s), as needed.
- The shuttle would be operated on weekends only from 9:00 AM to 7:00 PM, as needed, between Memorial Day weekend and Labor Day weekend.
- The Ravinia School lot is the preferred remote parking location and has a capacity for 26 cars.
- To insure use of the courtesy shuttle when it is needed, it should be operated on headways of 15 minutes or less.
- In the event that the Rosewood Park parking lots are full and/or when the courtesy shuttle is operating, portable signs should be used to intercept motorists destined to Rosewood Park and guide them to the remote parking lot.
- Beach shelter rentals will be scheduled at off-peak times to insure on-site parking is available.
- Beach staff presently park in the upper parking lot and 7 parking spaces will be dedicated for staff at the far west end of this lot upon completion of the beach enhancement program.
- Parking regulations are currently posted on Roger Williams Avenue to discourage parking near Rosewood Park from May through September. Nearby residential streets such as Cary Avenue have permanent No Parking regulations posted. The PDHP should work closely with the Highland Park Police Department and local resident groups to insure that these regulations are enforced well. If necessary, these parking regulations can be extended further into the neighborhood to reduce the potential for park users to park on these streets.
- Pedestrian paths should be shown on the site plan renderings to depict the connectivity of the enhanced park with the adjoining neighborhood.
- Rosewood Park is presently connected to the City of Highland Park's bicycle route system and will continue to be connected with the proposed enhancements to the park.
- To encourage travel by alternate modes, the PDHP should work with the City to improve the overgrown sidewalk along the north side of Roger Williams Avenue between Sheridan Road and the upper parking lot.
- The PDHP should also consider relocating the Rosewood Park bicycle racks so they are accessed from a paved pathway near the beach access in the lower lot and bluff staircase in the upper lot. Furthermore, consideration should be given to upgrading the bicycle racks with Inverted "U", "A", Post and Loop, or Wave-style racks. These racks provide good support to the bicycle and users are able to lock both the wheels and frame of the bicycle to the rack.

APPENDIX

Peak Hour Traffic Counts

Highland Park, IL Weather: Partly Sunny and Hot
 Sheridan Rd and Roger Williams Ave
 Saturday July 21, 2012

07/24/12
 11:14:41

URNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: by Movement

Intersection # 1 sheridan/rogerwilliams

Begin Time	N-Approach			E-Approach			S-Approach			V-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
1200	13	92	3	4	9	6	4	93	17	11	9	13	274
1215	12	96	4	5	10	5	4	99	15	14	10	11	285
1230	11	87	3	7	7	7	4	108	13	13	11	15	286
1245	13	89	2	7	9	6	3	112	19	16	12	16	304
1300	12	84	4	7	7	7	3	120	17	13	14	17	305
1315	10	94	5	7	6	7	4	125	20	14	15	17	324
1330	8	78	6	4	4	5	5	122	21	12	10	18	293
1345	8	75	5	5	6	4	6	111	15	12	8	19	274
1400	10	73	3	5	12	1	4	100	14	12	9	19	262
1415	14	71	2	4	10	1	4	88	8	10	6	17	235
1430	15	84	3	3	14	0	4	86	4	11	11	15	250
1445	15	85	5	2	13	1	3	97	7	9	10	15	262
1500	14	89	6	4	8	1	4	101	11	10	9	12	269
1515	10	63	5	3	8	1	3	79	10	8	9	11	210*
1530	7	42	3	3	4	1	2	56	10	6	4	6	144*
1545	3	22	1	2	1	0	1	26	6	3	2	2	69*

URNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: Appr/Exit Totals

Intersection # 1 sheridan/rogerwilliams

Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
1200	108	19	114	33	110	16	109	39	274
1215	112	20	118	35	115	18	115	37	285
1230	101	21	125	39	130	18	107	31	286
1245	104	22	134	44	135	17	111	41	304
1300	100	21	140	44	144	21	104	36	305
1315	109	20	149	46	149	24	115	36	324
1330	92	13	148	40	144	21	95	33	293
1345	88	15	132	39	135	19	91	29	274
1400	86	18	118	40	124	16	86	36	262
1415	87	15	100	33	109	12	82	32	235
1430	102	17	94	37	104	18	95	33	250
1445	105	16	107	34	114	18	95	35	262
1500	109	13	116	31	117	19	100	33	269
1515	78	12	92	28	93	17	72	28	210*
1530	52	8	68	16	65	9	49	21	144*
1545	26	3	33	7	30	4	25	10	69*

Highland Park, IL Weather: Partly Sunny and Hot
 Sheridan Rd and Rosewood Beach Park Driveway
 Saturday July 21, 2012

07/24/12
 11:17:22

URNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: by Movement

Intersection # 2 sheridan/rosewoodbeach

Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
1200	0	97	9	6	0	9	15	91	0	0	0	0	227
1215	0	90	7	11	0	10	19	87	0	0	0	0	224
1230	0	87	13	15	0	12	24	100	0	0	0	0	251
1245	0	88	15	20	0	16	28	110	0	0	0	0	277
1300	0	76	20	20	0	21	25	114	0	0	0	0	276
1315	0	81	23	17	0	21	21	122	0	0	0	0	285
1330	0	71	19	19	0	17	19	124	0	0	0	0	269
1345	0	62	18	16	0	18	17	111	0	0	0	0	242
1400	0	69	15	15	0	17	17	103	0	0	0	0	236
1415	0	71	20	19	0	18	16	97	0	0	0	0	241
1430	0	83	18	14	0	18	12	89	0	0	0	0	234
1445	0	90	18	11	0	15	10	99	0	0	0	0	243
1500	0	96	15	17	0	11	11	101	0	0	0	0	251
1515	0	72	6	10	0	7	8	78	0	0	0	0	181*
1530	0	48	4	8	0	5	6	55	0	0	0	0	126*
1545	0	25	2	8	0	2	4	27	0	0	0	0	68*

URNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: Appr/Exit Totals

Intersection # 2 sheridan/rosewoodbeach

Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
1200	106	15	106	0	97	24	106	0	227
1215	97	21	106	0	98	26	100	0	224
1230	100	27	124	0	115	37	99	0	251
1245	103	36	138	0	130	43	104	0	277
1300	96	41	139	0	134	45	97	0	276
1315	104	38	143	0	139	44	102	0	285
1330	90	36	143	0	143	38	88	0	269
1345	80	34	128	0	127	35	80	0	242
1400	84	32	120	0	118	32	86	0	236
1415	91	37	113	0	116	36	89	0	241
1430	101	32	101	0	103	30	101	0	234
1445	108	26	109	0	110	28	105	0	243
1500	111	28	112	0	118	26	107	0	251
1515	78	17	86	0	88	14	79	0	181*
1530	52	13	61	0	63	10	53	0	126*
1545	27	10	31	0	35	6	27	0	68*

Parking Occupancy Surveys

Highland Park – Rosewood Park Parking Occupancy Counts

Date Conducted: Saturday – July 21, 2012

Weather Conditions: Partly Sunny, Clear, At Times Overcast, Warm (mid-80's), No Precipitation

Time	Upper Parking Lot	Lower Parking Lot	Total	Percent Utilization
Inventory	44	63*	107	
10:00 A.M.	2	9	11	10.3 %
11:00 A.M.	1	16	17	15.9 %
12:00 P.M. Noon	6	19	25	23.4 %
1:00 P.M.	5	26	31	29.0 %
2:00 P.M.	4	32	36	33.6 %
3:00 P.M.	1	32	33	30.8 %
4:00 P.M.	3	25	28	26.2 %
5:00 P.M.	5	15	20	18.7 %
6:00 P.M.	4	15	19	17.8 %
7:00 P.M.	4	12	16	15.0 %
8:00 P.M.	3	8	11	10.3 %

* Four of the parking spaces are blocked by a restroom trailer and were unavailable for use.

Shaded area represents time period of peak parking utilization

Capacity Analysis
Existing Traffic Conditions

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	WRW	Intersection	Roger Williams/Sheridan
Agency/Co.	KLOA	Jurisdiction	
Date Performed	7/30/2012	Analysis Year	EXISTING
Analysis Time Period	Saturday Midday		

Project Description 12-109; Highland Park, IL	
East/West Street: Roger Williams Ave	North/South Street: Sheridan Rd
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	20	125	4	5	94	10
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	21	131	4	5	98	10
Percent Heavy Vehicles	2	-	-	2	-	-
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	17	15	14	7	6	7
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	17	15	14	7	6	7
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR	LTR			LTR		
v (veh/h)	21	5	20			46		
C (m) (veh/h)	1483	1449	693			697		
v/c	0.01	0.00	0.03			0.07		
95% queue length	0.04	0.01	0.09			0.21		
Control Delay (s/veh)	7.5	7.5	10.3			10.5		
LOS	A	A	B			B		
Approach Delay (s/veh)	--	--	10.3			10.5		
Approach LOS	--	--	B			B		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	WRW	Intersection	Access/Sheridan
Agency/Co.	KLOA	Jurisdiction	
Date Performed	7/30/2012	Analysis Year	Existing
Analysis Time Period	Saturday Midday		
Project Description 12-109; Highland Park, IL			
East/West Street: Access		North/South Street: Sheridan Rd	
Intersection Orientation: North-South		Study Period (hrs): 0.25	

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound			
	Movement	1	2	3	4	5	6
		L	T	R	L	T	R
Volume (veh/h)			122	21	23	81	
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	0	128	22	24	85	0	
Percent Heavy Vehicles	0	--	--	--	2	--	--
Median Type	Undivided						
RT Channelized				0			0
Lanes	0	1	0	0	1	0	
Configuration			TR	LT			
Upstream Signal		0			0		

Minor Street	Eastbound			Westbound			
	Movement	7	8	9	10	11	12
		L	T	R	L	T	R
Volume (veh/h)					21		17
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	0	0	0	22	0	17	
Percent Heavy Vehicles	0	0	0	2	0	2	
Percent Grade (%)		0			0		
Flared Approach		N			N		
Storage		0			0		
RT Channelized				0			0
Lanes	0	0	0	0	0	0	0
Configuration					LR		

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (veh/h)		24		39				
C (m) (veh/h)		1431		781				
v/c		0.02		0.05				
95% queue length		0.05		0.16				
Control Delay (s/veh)		7.6		9.9				
LOS		A		A				
Approach Delay (s/veh)	--	--		9.9				
Approach LOS	--	--		A				

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	WRW	Intersection	Roger Williams/Exit Drive
Agency/Co.	KLOA	Jurisdiction	
Date Performed	7/30/2012	Analysis Year	Existing
Analysis Time Period	Saturday Midday		
Project Description 12-109; Highland Park, IL			
East/West Street: Roger Williams Ave		North/South Street: Exit Drive	
Intersection Orientation: East-West		Study Period (hrs): 0.25	

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound			
	Movement	1	2	3	4	5	6
		L	T	R	L	T	R
Volume (veh/h)			15			0	
Peak-Hour Factor, PHF		0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)		0	15	0	0	0	0
Percent Heavy Vehicles		0	--	--	0	--	--
Median Type	Undivided						
RT Channelized				0			0
Lanes		0	1	0	0	1	0
Configuration			T			T	
Upstream Signal			0			0	

Minor Street	Northbound			Southbound			
	Movement	7	8	9	10	11	12
		L	T	R	L	T	R
Volume (veh/h)					0		14
Peak-Hour Factor, PHF		0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)		0	0	0	0	0	14
Percent Heavy Vehicles		0	0	0	2	0	2
Percent Grade (%)			0			0	
Flared Approach			N			N	
Storage			0			0	
RT Channelized				0			0
Lanes		0	0	0	0	0	0
Configuration						LR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
	1	4	7	8	9	10	11	12
Movement								LR
Lane Configuration								14
v (veh/h)								1085
C (m) (veh/h)								0.01
v/c								0.04
95% queue length								8.4
Control Delay (s/veh)								A
LOS								8.4
Approach Delay (s/veh)	--	--						A
Approach LOS	--	--						A

Capacity Analysis
Total Projected Traffic Conditions

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	WRW	Intersection	Roger Williams/Sheridan
Agency/Co.	KLOA	Jurisdiction	
Date Performed	7/30/2012	Analysis Year	Future
Analysis Time Period	Saturday Midday		

Project Description 12-109; Highland Park, IL	
East/West Street: Roger Williams Ave	North/South Street: Sheridan Rd
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound			
	Movement	1	2	3	4	5	6
		L	T	R	L	T	R
Volume (veh/h)		20	140	7	7	105	21
Peak-Hour Factor, PHF		0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)		21	147	7	7	110	22
Percent Heavy Vehicles		2	--	--	2	--	--
Median Type	Undivided						
RT Channelized				0			0
Lanes		0	1	0	0	1	0
Configuration		LTR			LTR		
Upstream Signal			0			0	

Minor Street	Eastbound			Westbound			
	Movement	7	8	9	10	11	12
		L	T	R	L	T	R
Volume (veh/h)		25	25	14	11	10	12
Peak-Hour Factor, PHF		0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)		26	26	14	11	10	12
Percent Heavy Vehicles		2	2	2	2	2	2
Percent Grade (%)		0			0		
Flared Approach		N			N		
Storage		0			0		
RT Channelized				0			0
Lanes		0	1	0	0	1	0
Configuration		LTR			LTR		

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
	1	4	7	8	9	10	11	12
Movement								
Lane Configuration	LTR	LTR	LTR			LTR		
v (veh/h)	21	7	33			66		
C (m) (veh/h)	1453	1426	656			633		
v/c	0.01	0.00	0.05			0.10		
95% queue length	0.04	0.01	0.16			0.35		
Control Delay (s/veh)	7.5	7.5	10.8			11.3		
LOS	A	A	B			B		
Approach Delay (s/veh)	--	--	10.8			11.3		
Approach LOS	--	--	B			B		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	WRW	Intersection	Access/Sheridan
Agency/Co.	KLOA	Jurisdiction	
Date Performed	7/30/2012	Analysis Year	Future
Analysis Time Period	Saturday Midday		
Project Description 12-109; Highland Park, IL			
East/West Street: Access		North/South Street: Sheridan Rd	
Intersection Orientation: North-South		Study Period (hrs): 0.25	

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound			
	Movement	1	2	3	4	5	6
	L	T	R	L	T	R	
Volume (veh/h)		127	44	45	83		
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	0	133	46	47	87	0	
Percent Heavy Vehicles	0	—	—	2	—	—	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	0	1	0	0	1	0	
Configuration			TR	LT			
Upstream Signal		0			0		

Minor Street	Eastbound			Westbound			
	Movement	7	8	9	10	11	12
	L	T	R	L	T	R	
Volume (veh/h)				43		32	
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	0	0	0	45	0	33	
Percent Heavy Vehicles	0	0	0	2	0	2	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration					LR		

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
			7	8	9	10	11	12
Movement	1	4						
Lane Configuration		LT		LR				
v (veh/h)		47		78				
C (m) (veh/h)		1397		723				
v/c		0.03		0.11				
95% queue length		0.10		0.36				
Control Delay (s/veh)		7.7		10.6				
LOS		A		B				
Approach Delay (s/veh)	--	--		10.6				
Approach LOS	--	--		B				

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	WRW	Intersection	Roger Williams/Exit Drive
Agency/Co.	KLOA	Jurisdiction	
Date Performed	7/30/2012	Analysis Year	Future
Analysis Time Period	Saturday Midday		

Project Description 12-109; Highland Park, IL	
East/West Street: Roger Williams Ave	North/South Street: Exit Drive
Intersection Orientation: East-West	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		30			0	
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	0	31	0	0	0	0
Percent Heavy Vehicles	0	-	-	0	-	-
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		T			T	
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				0		27
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	0	0	0	0	0	28
Percent Heavy Vehicles	0	0	0	2	0	2
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	0
Configuration				LR		

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration							LR	
v (veh/h)							28	
C (m) (veh/h)							1085	
v/c							0.03	
95% queue length							0.08	
Control Delay (s/veh)							8.4	
LOS							A	
Approach Delay (s/veh)	--	--					8.4	
Approach LOS	--	--					A	

Park District of Highland Park

Comprehensive Rosewood Beach Parking Plan

While preparing an operational plan for Rosewood Beach significant time was spent developing a comprehensive plan to ensure beach visitors would have appropriate access. With limited parking on the site, the Park District hopes to encourage less automobile usage and alternate modes of transportation and carpooling. Local community members within walking distance are encouraged to do so.

To aid these efforts, the Park District will institute a courtesy shuttle service during the summer months bringing individuals from downtown Highland Park and several off-site parking lots to the beach. This service will be offered free of charge as will off-site parking. In addition, the Park District will provide a people mover between the upper Rosewood Park parking lot and the beach.

Rosewood Beach Parking Overview

There are to be approximately 54 spaces available for parking in the lower Rosewood Beach parking lot. There are an additional 44 parking spaces available at upper Rosewood Park. Throughout this document, parking spaces in both the lower and upper parking lot will be referred to as on-site parking.

Parking In-Season

The onsite lots at Rosewood Beach will be open and free to cars displaying a City of Highland Park decal or Park District of Highland Park resident decal (for those individuals with company vehicles). Individuals may purchase Park District of Highland Park resident decals at West Ridge Center for \$5 per permit with proof of Highland Park residency.

Non-residents wishing to park at Rosewood Beach will be required to pay a daily fee of \$7 per car. Non-residents may also purchase a season pass decal for \$100. Lakefront parking passes can be purchased at either the West Ridge Center or Hidden Creek AquaPark during regular hours of operation.

Failure to display a City of Highland Park decal, Park District of Highland Park resident decal or daily fee ticket will result in a fine. All fees are valid for 24 hours from the time of purchase. Overnight parking is prohibited.

Enforcement

The Park District of Highland Park will work with the Highland Park Police Department to enforce parking regulations at all on-site parking lots year-round. The Park District anticipates raising the fine currently charged to individuals who park illegally at the beaches to further limit violations. In addition to uniformed officers, the City of Highland Park relies on Community Service Officers during the summer months to assist in parking enforcement and increased outdoor activity within Highland Park.

Staff Parking

With renovations and expanded uses planned for Rosewood Beach, staffing demands will also increase. In order to maximize parking available for the public, staff parking will be kept at a minimum. Seven parking spaces on the far west side of the upper parking lot will be designated a staff parking area. Staff parking available on site will accommodate those working infrequent hours or at times when minimal

staff is on duty. Off-season staff parking will be evaluated on a regular basis to ensure that the public is not displaced.

Courtesy Shuttle Information

The Park District is committed to providing free off-site parking locations with a courtesy shuttle to Rosewood Beach on weekends during the beach season. Planned off-site parking locations include Ravinia School. This location provides easy access to main roads and Rosewood Beach.

The proposed stops are subject to agreement with local governmental agencies that own and operate the lots. The Park District reserves the right to change locations as necessary.

Shuttle service will be available as needed. A determination on shuttle service will be made on Thursday of each week. The factors in determining shuttle service will include temperature, lake conditions, and rentals. Once a decision regarding shuttle service for the weekend has been made, a notice will be put up on the Park District website and our Rosewood Beach Condition Hotline will be updated.

Summer Schedule

A single shuttle will operate on weekends between Memorial Day and Labor Day. The shuttle will run on the route listed on the following page. During the regular season, patrons will be required to wait no longer than 30 minutes for pick up from a shuttle.

Hours of Operation

Memorial Day Weekend – Labor Day Weekend

Monday – Friday

Saturday – Sunday and Holiday

No Shuttle Service Provided

9:00 a.m. – 7:00 p.m.

Park District of Highland Park
Rosewood Improvements Project

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Rosewood Beach Lakefront Interpretive Pavilion

- Excerpts from Park District of Highland Park White Paper -

Purpose

The purpose of the interpretive room in the Rosewood Park Lakefront Pavilion is to educate the public about the Lake, its ecosystem and watershed. Cultivating a public informed about matters related to the Lake and its environs, as well threats to the ecosystem, is a valuable step in preserving the resource.

On July 19, 2010 President Barak Obama signed Executive Order 13547, *Stewardship of the Ocean, Our Coasts and the Great Lakes*

<http://www.whitehouse.gov/files/documents/2010stewardship-eo.pdf>:

“To achieve an America whose stewardship ensures that the ocean, our coasts, and the Great Lakes are healthy and resilient, safe and productive, and understood and treasured so as to promote the well-being, prosperity, and security of present and future generations.”

As one of only 14 Great Lakes communities in Illinois, the Park District of Highland Park recognizes its extraordinary role as a steward of such a significant resource and is poised to make a major contribution to advancing the goals of understanding and preserving Lake Michigan. The District is already established as a leader in environmental matters related to Lake Michigan. Staff played a key role in the development of the *Strategic Sub-Watershed Identification Process (SSIP) Report* for the Lake Michigan Ecosystem Partnership, are engaged in cutting-edge restoration of fish habitat in Ravine 7L (Millard Park/Ravine Drive) funded by the US EPA, and are currently working with the US Army Corps of Engineers as they develop a comprehensive restoration plan for Rosewood Park including its bluff, ravines and upland areas.

Programming

The interpretive room will achieve a goal established in the Lakefront Plan and contribute to policies established in Executive Order 13547. **The room will be used for activities in support of these initiatives:**

Public programming at the lakefront (Science-based educational programs)

Target Audience: All (i.e. adults, families, children)

Group programming (Hands-on learning and community service)

Target Audience: Scouts, Indian Guides, NSSRA, etc (Youth and Adults)

Early childhood classes (such as the popular Beachcombers program)

Target Audience: 4 to 6 year olds

School group programming (Based on K-12 Illinois Learning Standards)

Target Audience; Elementary and Secondary Classes

Lake Michigan stewardship summer camp programs (e.g. Sandtrackers, Coast Guardians)

Target Audience: Third and Fourth Grades

Passive education (e.g. interpretive graphic panels)
Target Audience: All

Lake Michigan Topics include, but are not limited to:

Watershed Issues

- Lake ecology
- Great Lakes hydrology
- Importance of Great Lakes fisheries and man's impact on them
- Use of Lake Michigan parks by migratory and other birds
- Invasive species threatening the Great Lakes
- Stream ecology
- How stormwater impacts ravines and the Lake
- Restoration of ravine and bluff vegetation

Coastal Processes

- Ravine and bluff geology
- Shoreline erosion and stabilization
- Ecological restoration

General Interest

- Star Gazing Programs
- Nature inspired art
- Nature writing

Current and Potential Partners

The Park District has strong relationships, or the opportunity to develop them, with a number of organizations and agencies invested in the stewardship Lake Michigan and the Lake Michigan watershed including:

Alliance for the Great Lakes
Illinois Department of Natural Resources
North Shore School Districts 112 and 113
City of Highland Park
Illinois Natural History Survey
Lake County Stormwater Management Commission
Illinois/Indiana Sea Grant
Lake/Cook Chapter of Illinois Audubon
Shedd Aquarium
Trout Unlimited
US Army Corps of Engineers
US Fish and Wildlife Service

These organizations can partner with, or support, the District in providing interpretation and activities related to the Lake.

Examples of Current Programming

- Heller Nature Center currently offers a science-based, hands-on program, *EcoSystems*, to fourth grade students. The program covers pond, prairie and forest ecosystems. The interpretive room will allow expansion of this program to include a focus on Lake Michigan and its coastline during the school year. School programs have need for indoor space for lab activities, classroom discussion including audio visual presentations, restroom facilities and in case of inclement weather.
- Heller also offers the popular Coast Guardians and Sandtrackers **stewardship summer camps** and will be able to expand these programs to meet public demand using the interpretive room. Children need shelter during hot summer days just as much as they need to “get their feet wet” through hands on experience with stream ecology and beach topography.
- In July 2011, owing to Park District efforts, the Braeside (elementary) School fourth grade team was selected by Trout Unlimited, the national conservation organization, to receive funding for *Trout in the Classroom* (www.troutintheclassroom.org) a program in which students raise Rainbow Trout from eggs supplied by the Illinois Department of Natural Resources through the school year until they are ready for release.

With this initiative as a pilot, we are working on aligning programming and developing new curricula in conjunction with Districts 112 and 113 staff to accommodate **school groups** at the lakefront. The *Great Lakes in My World* curriculum (<http://www.greatlakes.org/Page.aspx?pid=341>) developed by the Alliance for the Great Lakes is another potential program that offers 80 indoor and outdoor activities for kindergarten through eighth-grade students. Again, children need shelter from sun, wind and rain, a secure place to keep personal belongings and possibly a place to eat lunch during these half-day or all-day programs.

- **Teacher workshops**, are an important aspect of outreach to our school community regarding educational programming through the Park District. Heller Nature Center has hosted the Illinois Department of Natural Resources *ENTICE* program with a focus on Lake Michigan. These gatherings are most effective in a comfortable indoor space with ready access to the lake, beach, ravine and stream communities for hands-on activities.

Early Program Schedule Considerations and Guidelines

- Excerpts from Park District of Highland Park Pro Forma -

22 Rosewood Beach

ROSEWOOD BEACH SHELTER PROGRAMS (SUMMER)

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
7:00AM	Fitness Classes - Yoga, Pilates						
8:00AM	Sand Trackers Camp Program						
9:00AM							
10:00AM							
11:00AM							
12:00PM							
1:00PM							
2:00PM							
3:00PM							
4:00PM							
5:00PM							
6:00PM							
7:00PM						Rentals Available	
8:00PM							
9:00PM							
10:00PM							

*There will be no scheduled programs on weekends in the summer season

ROSEWOOD BEACH SHELTER PROGRAMS (FALL)

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
7:00AM	Fitness Classes - Yoga, Pilates						
8:00AM		Big	Big/Little				
9:00AM	Heller School	Beach Combers	Beach Combers	Little Beach Combers		Natural Areas Programs	
10:00AM	Programs						
11:00AM							
12:00PM							
1:00PM							
2:00PM							
3:00PM	Heller After-						
4:00PM	School	Natural Areas After-School Programming					
5:00PM	Programs						
6:00PM							
7:00PM						Rentals Available	
8:00PM							
9:00PM							
10:00PM							

ROSEWOOD BEACH SHELTER PROGRAMS (WINTER)

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
7:00AM	Fitness Classes - Yoga, Pilates						
8:00AM		Big Beach Combers		Little Beach Combers		Natural Areas Programs	
9:00AM							
10:00AM							
11:00AM							
12:00PM			Big/Little Beach Combers				
1:00PM							
2:00PM							
3:00PM	Heller After-School Programs	Natural Areas After-School Programming					
4:00PM							
5:00PM							
6:00PM							
7:00PM		Rentals Available					
8:00PM							
9:00PM							
10:00PM							

ROSEWOOD BEACH SHELTER PROGRAMS (SPRING)

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
7:00AM	Fitness Classes - Yoga, Pilates						
8:00AM		Big Beach Combers	Big/Little Beach Combers	Little Beach Combers		Natural Areas Programs	
9:00AM	Heller After-School Programs						
10:00AM							
11:00AM							
12:00PM							
1:00PM							
2:00PM							
3:00PM	Heller After-School Programs	Natural Areas After-School Programming					
4:00PM							
5:00PM							
6:00PM							
7:00PM		Rentals Available					
8:00PM							
9:00PM							
10:00PM							