The meeting was called to order at 7:18pm and roll was called.

Committee Members present: Lisa Brooks, Chair/Vice President
Stefanie Boron, Commissioner
Steve Gaines, Commissioner

Commissioners present: Josh Lutton, Treasurer

Members of the Public in attendance who signed in or spoke: Dan Dorfman, John McManus, Brent Sumner, Ed Torrez

Introduction of Bluff Beach Evaluation Team and an Overview of Scope of Project: John McManus of Altamanu, Brent Sumner of Baird, and Ed Torrez of Bauer Latoza Studio gave the presentation attached to these minutes. Discussion ensued.

Chair Brooks took an informal vote and the Board decided to move the Bluff Beach Project forward for approval at the October Regular Board meeting.

Other Business: Executive Director Sheppard announced that Astor Park officially opened. West Park temporary lights were reviewed along with a shed for the football program. Play equipment concepts were discussed for Woodlawn, Jefferson and Vernon, and Old Elm parks.

Matters from the Public: There were no matters from the public.

Adjourn: Commissioner Gaines moved to adjourn the meeting at 8:45pm Commissioner Boron seconded the motion, which passed by unanimous voice vote.

Respectfully submitted,

Lisa M. Sheppard
Secretary
First a reminder

West Park in January 2017
West Park in September 2017
Glencoe Beach and Bluff Stabilization

Presentation to the Finance Committee of the Whole
Glencoe Park District
October 3rd 2017
Project Rationale:
Why it has to be done
Existing Conditions
Lakefront Park January 2017: Storm Water & Drainage

Water Flows Across Paths in Park and Along Hazel Ave
Lakefront Park: Storm Water & Drainage

Water Flows Across Paths and Down Bluff
Lakefront Park: Storm Water & Drainage

Stairs and Half Way House Inundated after rainfall
Movement in the Bluff and Structural Failure July 7th 2017

Movement in Roadway

Edging/retaining wall giving way
Cribbing Failure – Bluff is pressing down on Beach House
EXISTING CONDITIONS
1. GLENCOE BOAT HOUSE (NOT IN SCOPE)
2. NORTH BEACH
3. GLENCOE VILLAGE WATER PLANT (NOT IN SCOPE)
4. OVERLOOK
5. PRECAST CONCRETE CRIB RETAINING WALL
6. ROADWAY CURB
7. NORTH ROADWAY (WITH STONE RETAINING WALL)
8. HALFWAY HOUSE
9. SOUTH BEACH
10. LAKEFRONT PARK
11. STAIRWAY WITH STONE RETAINING WALL
12. SOUTH ROADWAY (WITH STONE RETAINING WALL)
13. BEACH HOUSE
Direction from Chris Leiner
“Find the best, Glencoe deserves the best”
Altamanu and Baird working together on the future design of N. Lake Shore Drive and seven and a half miles of Chicago’s northern lakeshore.
Lars Barber, P.L.A., who is working on NLSD will be the principal in charge for Baird
"a global coastal engineering company that boasts offices in Canada, Chile, the United Arab Emirates, Barbados, and Australia…….Baird has now been in business for 25 years, but their work spans – and in a small but significant way, remakes – the globe”.

In Business Magazine
Lars Barber, P.L.A.
Principal in charge and will be reviewing deliverables.

Caleb Barth, P.E. Marine Engineer
Project Manager, data acquisition and structural reviews.

Richard Christensen, P.E., Ph.D.,
Technical lead for bluff stability

Mohammad Dibajnia, P.E., Ph.D.,
Technical lead for coastal processes
(nearshore hydrodynamics, sediment transport,
erosion control and beach protection.)
Brent T. Sumner, P.E.
Senior Marine Engineer

Domestic and International Projects
Projects ranging in size from $300,000 to $350 Million

• Chicago Shoreline Diversey to Fullerton
• Port Hedland, Western Australia
• Oman
• Brazil
• Barbados
• Benin West Africa
• Ghana
Glencoe Beach and Bluff Restoration
Finance Committee of the Whole & Special Projects and Facilities Committee
Glencoe Park District
October 3, 2017
Baird Overview

- Employee owned Small Business
- Established in 1981
- Team of engineers, planners, scientists, and geomorphologists
- Specialists 100% dedicated to water related projects
- Thousands of marine projects and studies worldwide
- Approximately 74 employees
Areas of Expertise

- Coastal Engineering
- Shore Protection Systems, Beaches & Lagoons
- Bluff Stability
- Waterfronts and Marinas
- Habitat Restoration & Development (Rivers, Wetlands & Islands)
- Ports and Marine Terminals

Professional Skills & Services

- Site Analysis & Field Investigations
- Market Analysis
- Conceptual Design & Feasibility Studies
- Numerical & Physical Model Studies
- Regulatory Coordination
- Final Design
- Construction Related Services
Baird Key Differentiators and Local Project History

Key Differentiators

• Specialization has resulted in subject matter expertise

• Highly efficient, talented, and globally experienced staff

• Flexibility and responsiveness (small, efficient group – one team)

• Solving complex problems in the marine environment – globally

• Use of sophisticated tools and expertise to create safe, environmentally responsible, AND operationally optimized marine projects
Beach and Bluff Erosion Projects

Port Vincent Development
*Port Washington, WI, Lake Michigan*

Whitesand First Nation Shoreline Stabilization
*Lake Nipigon, Ontario, Canada*

Forest Park Beach, *Lake Forest, IL, Lake Michigan*

Illinois Interim Shoreline Study, *Northern Illinois, Lake Michigan*

Rosewood Beach, *Highland Park, IL, Lake Michigan*
Bluff Stability Projects - Key Factors

- Bluff slope stability and instability (soil type, soil properties, steepness of bluff, etc.)
- Surface water runoff
- Groundwater seepage through bluff core & face
- Proper toe protection (beach and structure stability, coastal analysis)
1. Investigate Site Conditions
   - Global and local bluff stability evaluation
   - Structural and Geotechnical review
     - Retaining Walls, Halfway House, Beach House Back Wall, Stone Steps, North Bluff Roadway
   - Stormwater System review
   - Coastal Structure and Beach review

2. Review and Analyze Data
   - Global and local bluff stability evaluation
   - Structural and Geotechnical review
     - Retaining Walls, Halfway House, Beach House Back Wall, Stone Steps, North Bluff Roadway
   - Stormwater System review
   - Coastal Structure and Beach review

3. Alternative Analysis
Next Steps

Geotechnical Data Acquisition

Accelerated Schedule

- Pending board approval

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<th>Oct</th>
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<td>Project Kickoff</td>
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<td>Field Data Acquisition</td>
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<td>Preliminary Technical Analysis</td>
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<td>Alternative Analysis</td>
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<td>Delivery of Report</td>
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Bauer Latoza Studio
Architecture - Planning - Historic Preservation

Sustainable Design

Local, national, and international markets

more than 30 design awards

Federal, State, and Local Government

MBE and DBE
Bauer Latoza Studio

- Founded in 1990
- Award-winning Preservation firm
- Architecture, Interiors, Planning, Restoration & Adaptive Reuse
- Masonry Repairs Experience
- Technically Skilled
- Strong Project Management
- Coordination with Stakeholders

Columbus Monument, Chicago, IL
Museum of Science & Industry, Chicago, IL

Grant Monument, Chicago, IL
Humboldt Park Boathouse, Chicago, IL
Management of Project Progress & Quality

Team Project Management
  - Stakeholder Involvement
  - Consultant Team Communication
  - Thoroughness at every level is expected
  - Coordination and communication are fundamental

Team Quality Assurance Management
  - Plan for adequate time and thorough quality control reviews
  - QA/QC process will be required at all phases of the project
Bauer Latoza Studio

Edward Torrez, AIA, LEED AP BD+C

Andrea Terry, RA, LEED AP
- related skills range from technical expertise with exterior envelopes, to research, interior renovation and preservation planning.

Kirk Sippel, AIA, LEED AP
- is responsible for the design and daily administration of BLS and has served as project architect on a number of award-winning projects
Bathing Beach House
Century of Progress District

BEVERLY SHORES
HISTORIC DISTRICT

LAKE MICHIGAN

Beverly Shores - Century of Progress Architectural District

GLENCOE LAKEFRONT PROPERTIES
Glencoe Beach

GLENCOE LAKEFRONT PROPERTIES
Glencoe Beach
1.1 Kickoff Meeting

Coordinate detailed scope, budget, schedule, and administrative requirements PD records
Contact info Village representatives and Glencoe Historical Society.

* Team assumes that coordination with the Village will be primarily the task of the PD

1.2 Historic Data Review

• Historical reports, drawings, other relevant information for the site and structures
• Storm water and other site utility reports and drawings and
• Landownership
• BLS will also carry out additional research into the history of the Architectural Structures.

The available topographic data will only be applicable for the feasibility study level
Available Lidar data for the nearshore bathymetry should be adequate for the feasibility study.
1.3 **Field Data Acquisition**
On-site assessment observe the existing conditions.
A geotechnical program will provide:
- Data to analyze the stability of the bluff
- Groundwater seepage issues

4 to 5 soil borings and Test pits will be dug

**Test Pit Soils**
- Visual assessment for characterizing and classifying soil
- Test in-place soil properties of soil
- Presence of ground water

**Concrete Foundation**
- Concrete weakness - identify exposed rebar or spalled concrete
- Bond between concrete foundation and stacked stone wall
- Horizontal, vertical, or diagonal cracks and bulging or curvature of the walls
- Differential settlement

**Stacked Stone Walls and Columns**
- Identify stair-step, horizontal, or vertical cracks (larger than hairline)
- Identify bulging walls
1.4 Preliminary Technical Analysis

A preliminary technical analysis will be performed to support the development of conceptual alternatives for areas requiring restoration.

1.5 Bluff Global Stability

The global stability of the bluff will be evaluated using the soil borings and a visual assessment of the bluff. The analysis will focus on identifying over-steepened sections of the bluff and/or potential groundwater seepage concerns. Cross sections will be analyzed to estimate the existing factor of safety of the bluff.

1.6 Bluff/Structure Local Stability

The Team understands the Park District prefers a structural solution. Team will provide a structural and geotechnical review of the structures. Make recommendations for restoration.
1.7 Storm Water Management
Team will review the existing conditions and general performance of storm water system. The analysis will look at the following components:

Top of Bluff
Regrading or rerouting surface water in the park with an emphasis protect the mature trees

Down Bluff
Collecting, conveying, and/or redirecting the surface water to existing storm water system, Propose new storm water infrastructure if required

Outfall
Review the existing outfalls and proposal of new or updated outfalls if required

1.8 Coastal Review
PD is required to nourish/fill the beach with sand periodically to maintain the desired beach Baird will perform a cursory coastal review of the beach, groins, and jetty to provide the PD with preliminary concepts to improve the beach system. The review will employ Baird’s in- house data library of similar projects in the region.
1.9 Alternative Analysis
Baird will perform an alternative analysis for areas requiring restoration identified during the data acquisition and preliminary technical analysis phase.
• 2 alternatives will be developed and costed.
  Conceptual drawings, consisting of plans and sections.
• The alternative analysis will include a summary of benefits and challenges and recommendations for priority of implementation.

2.1 Preliminary Opinion of Construction Costs
A Preliminary Opinion of Construction Costs will be prepared for each of the conceptual design alternatives for engineering and architectural services.

2.2 Deliverable and Presentation to Staff
The results of the alternative analysis, conceptual drawings and opinion of probable costs will be submitted in a draft report.
The Team will present to PD staff and respond to the comments received during the presentation and incorporate revisions accordingly.
2.3 Final Deliverables and Presentation

The results of the study will be compiled into a brief report and a PowerPoint presentation. Altamanu will review the presentation and report with PD staff and make revisions according to their input.

The Team will make a final presentation to the Board of Commissioners.

The following schedule is for discussion purposes only.

<table>
<thead>
<tr>
<th>Task</th>
<th>Duration</th>
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<tbody>
<tr>
<td>1 – Project Kickoff</td>
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<tr>
<td>2 – Field Data Acquisition</td>
<td>6 weeks*</td>
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<tr>
<td>3 – Preliminary Technical Analysis</td>
<td>4 weeks</td>
</tr>
<tr>
<td>4 – Alternative Analysis</td>
<td>4 weeks</td>
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*Depending on geotechnical contractor’s schedule, contract approval through the PD