



475 Unwin Avenue- Outer Harbour Rowing Facility

Schematic Design

February 26th, 2020

Project Description & Background

- A new single storey Rowing Facility for Upper Canada College, located at the Outer Harbour Marina owned by Ports Toronto.
- Project size has been reduced to **876 m²**, from the previous 1069m².
- Second and final DRP appearance pending approval from Panel.

Project Background

- The use was approved at the **Committee of Adjustment** earlier this year.
- As a condition of approval, Ports Toronto (a Federal Enterprise not bound to Provincial and Municipal planning laws) agreed to enter into a **voluntary Site Plan Approval** process with the City of Toronto.
- As part of the Minor Variance application, Waterfront Toronto provided a letter to the Committee in support of the project and requesting the project to attend the WDRP when the design of the project proceeded.

Key Dates

- First SPA submitted Feb. 14th, 2020
- SPA comments to be provided in April, 2020
- Late spring or summer 2020 construction.

Project Description & Background

Design Team

- SvN Architects and Planners are acting as the planning agents.
- The design of the facility is being led by VJAA architects from Minneapolis in collaboration with RDHA architects here in Toronto.
- The landscape design is led by NAK Design Strategies.

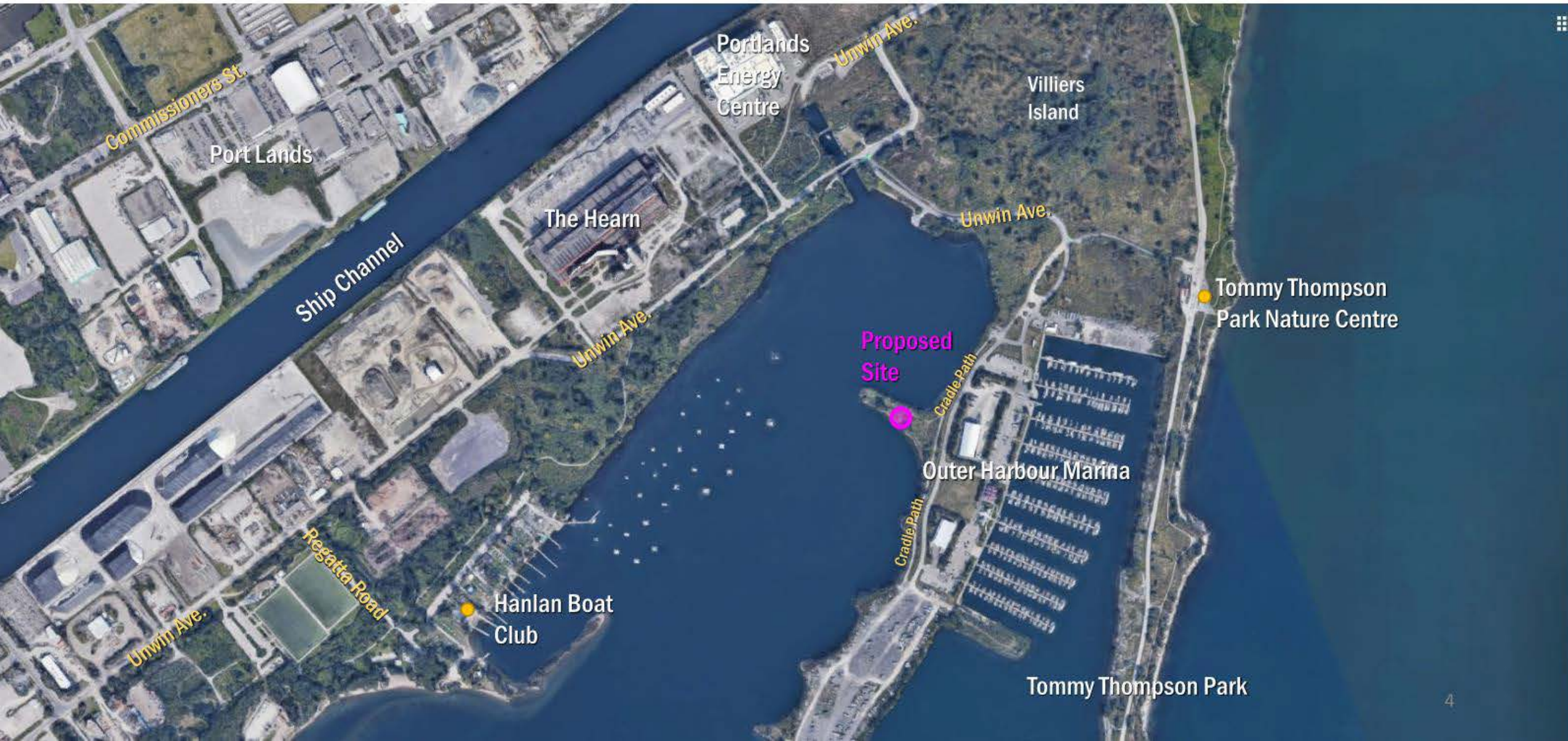
Site Context

Outer Harbour Rowing Facility

Proponent: Ports Toronto, Upper Canada College

Design Team: VJAA, RDHA, SvN, NAK

Review Stage: Schematic Design



Ownership Policy Context

Outer Harbour Rowing Facility

Proponent: Ports Toronto, Upper Canada College

Design Team: VJAA, RDHA, SvN, NAK

Review Stage: Schematic Design



Source: CreateTO (2015)



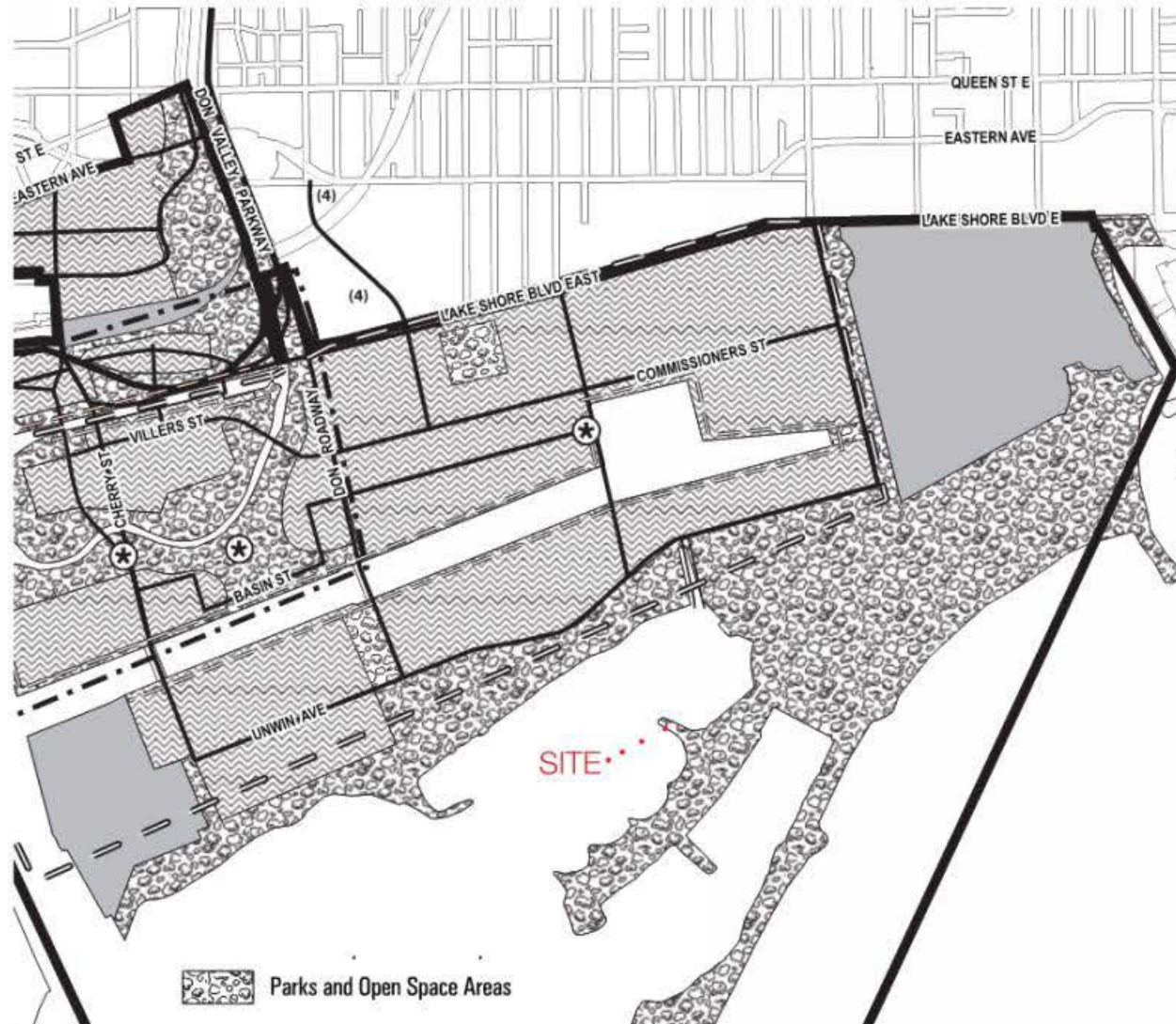
Central Waterfront Secondary Plan Policy Context

Outer Harbour Rowing Facility

Proponent: Ports Toronto, Upper Canada College

Design Team: VJAA, RDHA, SvN, NAK

Review Stage: Schematic Design



- Site is designated Parks and Open Space Areas
- Parks and Open Space Areas are areas for use as parks, open spaces, natural areas and plazas, and can include compatible community, recreation, cultural, restaurant and entertainment facilities

Lake Ontario Park Master Plan Policy Context

Outer Harbour Rowing Facility

Proponent: Ports Toronto, Upper Canada College

Design Team: VJAA, RDHA, SvN, NAK

Review Stage: Schematic Design

Proposed LOP Master Plan contemplated:

- A boat club at the location (19)
- Hanlan Boat Club (13) was a consideration but chosen to stay at their current location



Zoning By-law

Outer Harbour Rowing Facility

Proponent: Ports Toronto, Upper Canada College

Design Team: VJAA, RDHA, SvN, NAK

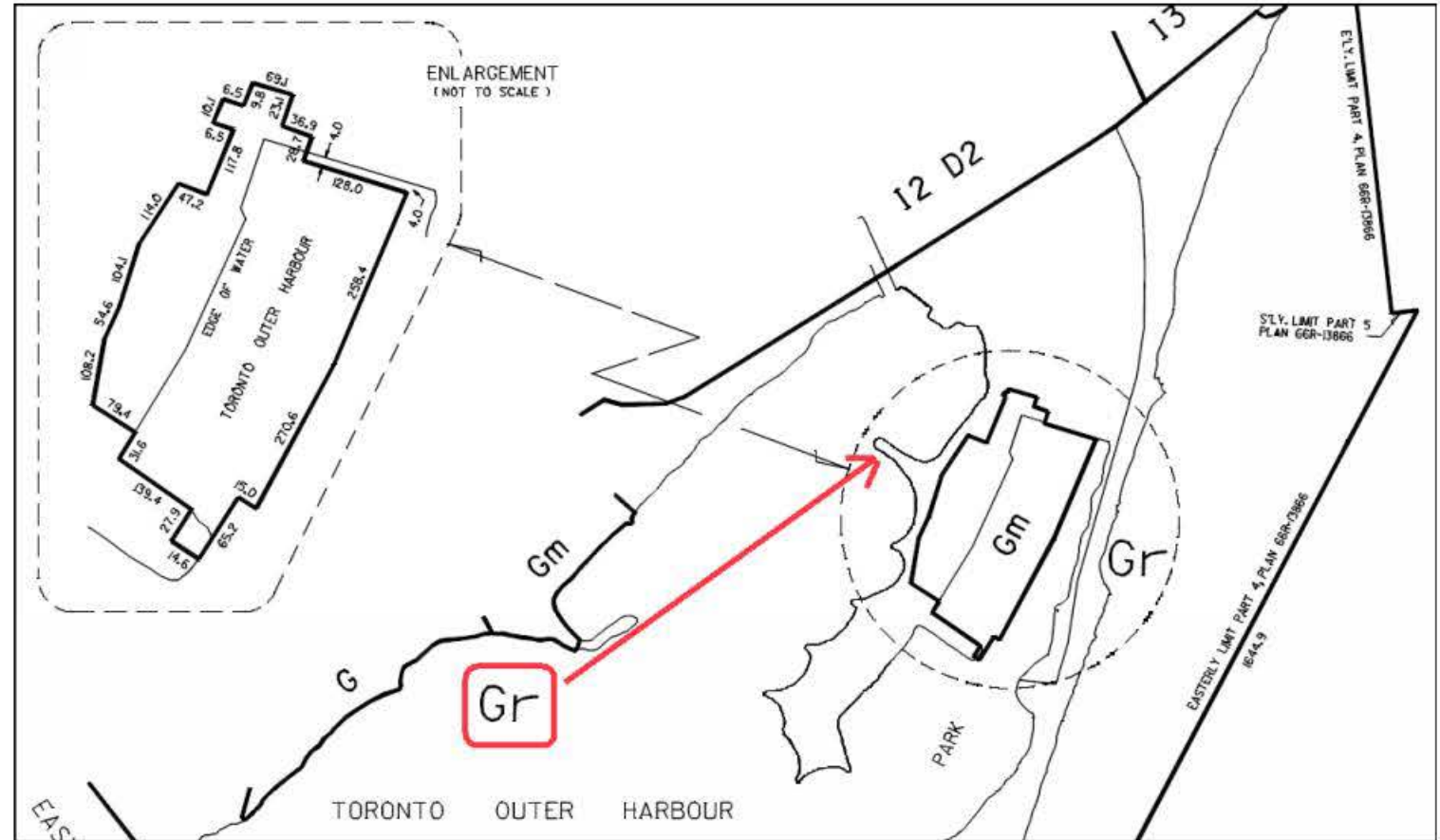
Review Stage: Schematic Design

- The subject site is zoned **Gr** in Zoning By-law 438-86.
- The remainder of the Outer Harbour is zoned **Gm**.

The **Gr** zone permits conservation lands and bathing station uses. **Gm** permits recreational boating, marina and related uses in addition to conservation lands and bathing station uses.

Exception 277 under Section 12(2) of by the Zoning By-law delineates these zones, as well as provides a series of performance standards for the marina use.

On April 17, 2019, CofA approved the proposed rowing facility use in the **Gr** zone, subject to condition that site plan MOU be entered into.



Areas to be Reviewed City Planning

Through the Site Plan Control process, City Planning and other agencies and divisions will be reviewing the following:

- Public realm/public access
- The building location, design and materials
- Site circulation, parking, and transportation impacts
- Stormwater management/Functional servicing
- Emergency services
- Environmental impacts
- Sustainability and adherence to Toronto Green Standard

Project Approval Stage

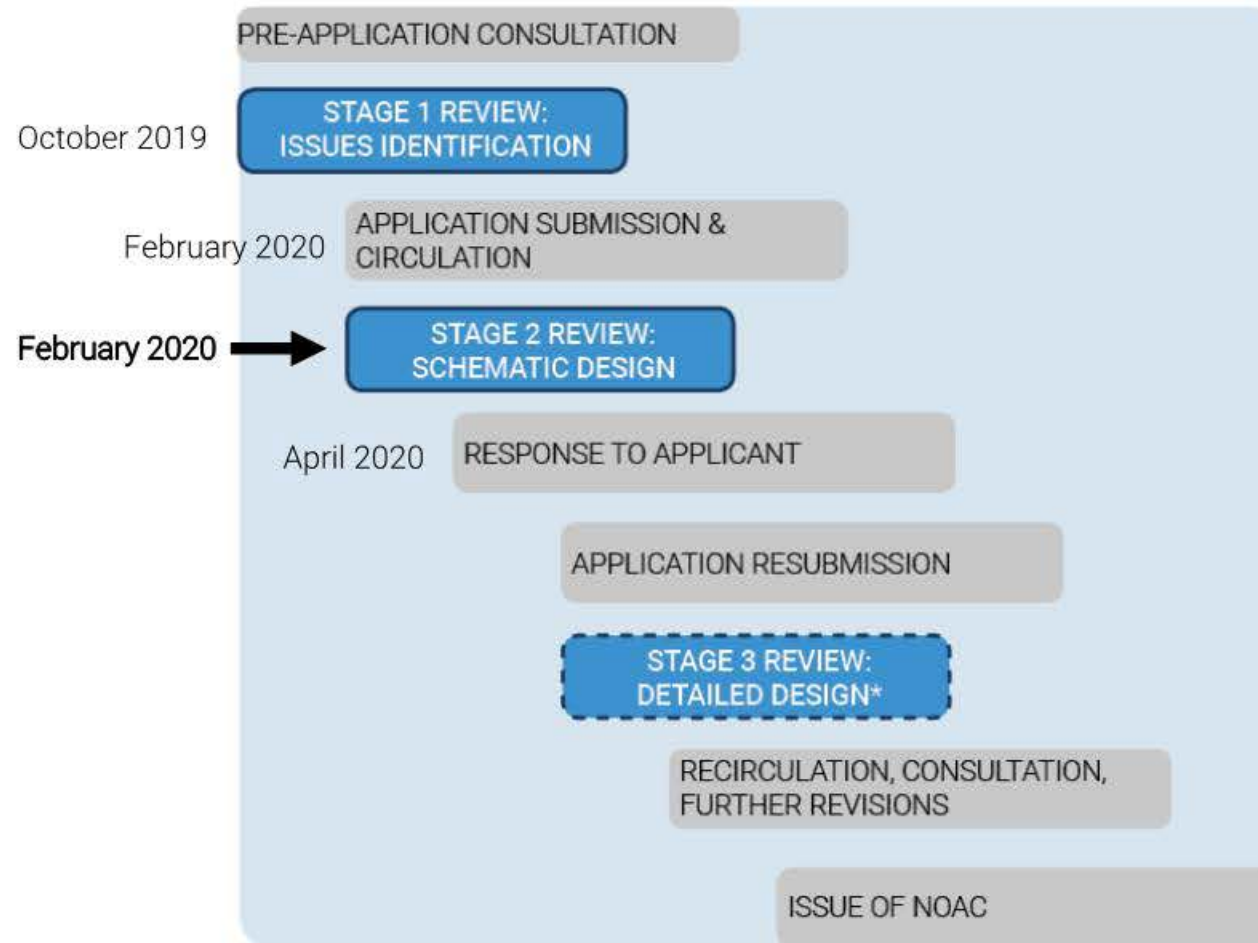
DRP Stream 1: Private Land – Site Plan Approval

Outer Harbour Rowing Facility

Proponent: Ports Toronto, Upper Canada College

Design Team: VJAA, RDHA, SvN, NAK

Review Stage: Schematic Design



Recap from October 2019

Issues Identification Review Consensus Comments

Outer Harbour Rowing Facility

Proponent: Ports Toronto, Upper Canada College

Design Team: VJAA, RDHA, SvN, NAK

Review Stage: Schematic Design

General

- Consider **security** and upkeep of project during off-season when the facility is not in use and the site is less publicly frequented.
- The Spit has other areas that are paved and have **access to water**, provide rationale and commentary on the team's decision not to use other possible sites.
- Provide a **habitat/bird-friendly lighting strategy** for the building and landscape.
- Provide an overall **parking strategy** for the Marina.

Public Realm

- **Public access** to the site should be preserved and directly related to the siting of the building, providing uninterrupted public access that does not conflict with the operations of the facility.
- Strong support for Ports Toronto to ensure **continuous pedestrian and bicycle access** to the tip of the site.
- Recommendation to use this opportunity to consider the **larger question of access** of the Marina and plans for future growth.

Building

- As a 3-season facility, cooling is the building's primary need - consider reversing the orientation of the sawtooth ceiling to **reduce solar gain in summer** and provide optimal roof angle for solar PVs.
- Provide **servicing and storage strategy** for the facility that will discourage on-site parking.
- Consider **reducing the footprint** of the building by consolidating some of the required program, such as the fitness area, into a two-storey building.
- Consider **pulling the building away from the edge of water** to provide space for continuous pedestrian access.

Landscape + Sustainability

- Lead with a **strong landscape design** that recognizes the uniqueness of the site.
- Consider further enhancing the **landscape and natural features** of the site.
- Emphasize the use of **plantings and vegetation** in the design.
- Consider a "hairy" green roof with **wild vegetation** other than just sedum.

Areas for Panel Consideration Waterfront Toronto

Public Realm

- Does the revised design adequately maintain an **uninterrupted public pedestrian access**? And address servicing, drop-offs and storage?

Building

- Does the Panel support the **siting of the building**? and the massing's **relationship with water and landscape**?
- Does the proposed **material palette** meet or exceed WT's objectives of design excellence?

Landscape

- Does the landscape design **recognize the uniqueness** and **further enhance the natural features** of the site? i.e. the use of vegetation.

Sustainability

- Does the Panel support the project's **sustainability mandate** and **proposed strategies**? i.e. bioswales and stormwater management, green roofs, low energy and water requirements, timber roof and wall assemblies, etc.

DRAFT

YOUTH ROWING FACILITY

Waterfront Toronto Design Review Panel #2

26 February 2020



1.3 - WTDRP MATERIAL | SUMMARY OF CHANGES



Project: Upper Canada College Outer Harbour Rowing Facility
Date: 17 February 2020
Purpose: WDRP Consensus Comments Responses

The following document is in response to the Consensus Comments received from the Waterfront Design Review Panel on 23 October 2019 and is intended to clarify questions and identify relevant changes to the design resulting from those comments.

GENERAL

- Appreciated the opportunity for input at an early stage of design.
Response: Because it was very early in the design process, the project team was able to take into consideration suggested approaches identified in the consensus comments during the subsequent development of the rowing facility.
- Consider security and upkeep of project during off-season when the facility is not in use and the site is less publicly frequented.
Response: The Marina has 24-hour security surveillance and limited vehicular access due to security gate at main entrance. The storage program of the facility has limited access, via boat-sized doors for various boats and rowing equipment, and the training portion of the facility is accessed via locked doors. In the off-season, the UCC will bring the training ergs back to campus for winter training.
- The Spit has other areas that are paved and have access to water, provide rationale and commentary on the team's consideration of other possible sites
Response: Upper Canada College has, for many years, been exploring options for a permanent home for its rowing program. While they currently row from the Hanlan Boat Club, their access to the site is limited to certain hours and they do not have the flexibility to offer a youth rowing program (for participants beyond their own student body) at that location. Further, the College would not commit to a capital investment in the new facilities at Hanlan given the nature of the governance arrangements with that Club.

As alternatives, the College has explored a number of options. Some years ago they held discussions with the Boulevard Club about the possibility of partnering in a rowing program at their waterfront location. No mutually agreeable solution was reached. They have also considered the Argonaut Rowing Club, but understand that they already have some issues with overcrowding. Finally, the College held confidential discussions about a possible future location on the Ontario Place site but the nature and status of the development of that site have still to be resolved.

The opportunity presented through discussions with PortsToronto was both fortuitous and timely and, hence, they proceeded with discussions regarding a location at the Outer Harbour Marina site.

The specific location selected at the Outer Harbour Marina was selected for both program-specific and broader site planning considerations. In terms of specific program-specific considerations, the specific site provides access to calm waters, with water access sheltered from the prevailing wind. This is particularly important for a learn-to-row program geared to

young people who have never experienced rowing before. It is also further removed from the significant large motor and sailboat traffic on the opposite side of the Marina site.

In terms of site planning considerations, only a limited portion of the broader Outer Harbour Marina lands are zoned for marina uses, with the balance zoned for limited parks and open space uses. This is based on the original site's rezoning which was intended to concentrate people-intensive marina uses to a limited area. Early conversations between PortsToronto, SvN, City of Toronto Community Planning, and the City of Toronto Waterfront Secretariat determined the location of the proposed facility, immediately opposite the Marina, was good planning based on proximity to these facilities and would maintain the original objective of a concentration of marina uses.

- Provide a habitat/bird-friendly lighting strategy for the building and landscape.
Response: The project includes minimal exterior building and landscape lighting for the purpose of facilitating safety and access. This includes pedestrian friendly bollard lighting at the main entry path and wall luminaires at the building's entries and northeast façade. All fixtures are dark sky compliant.
- Provide an overall parking strategy for the Marina.
Response: While an overall parking strategy for the Outer Harbour Marina is not within the scope of this exercise, the parking impacts of the proposal were considered by City of Toronto Transportation Staff as part of the 2019 Committee of Adjustment approval, and further detailed in the Transportation Study (prepared by BA Group) as part of the submitted Site Plan Approval application. The report indicates that the rowing facility is expected to have minimal parking needs as the majority of students using the facility are bused to the location via a shuttle bus from the College, with a minimal amount of users driving themselves. The existing parking supply at the Marina (463 spaces, which was approved at the Committee of Adjustment in 2019) is deemed adequate to serve the existing Outer Harbour Marina and any minimal new parking requirements generated by the Rowing Facility.

PUBLIC REALM

- Public access to the site should be preserved and directly related to the siting of the building, provide uninterrupted public access that does not conflict with the operations of the facility.
- Strong support for Ports Toronto to ensure continuous pedestrians and bicycle access to the tip of the site and rest of the Marina.
Response: Subsequent adjustments to the building footprint (from four "bars" to three "bars") resulted in an area reduction from 1,069 m² to 876 m². This has allowed us to site the building in a manner that allows us to maintain significant uninterrupted access around the peninsula for future Marina trails, etc.
- Recommended Ports Toronto to use this opportunity to consider the larger question of access of the Marina and any plans for future growth.
Response: PortsToronto is considering the future of the Outer Harbour Marina. This exercise is intended to identify a new vision for the site that could include formalized public trails and improved open spaces. The implementation of the Rowing Facility in advance of this broader site exercise was due to the immediate need for the facility. It is PortsToronto's objective to implement improvements, such as the public trails, in coordination with a rezoning exercise for the entire Marina that will implement the visions, which will occur over a broader timeline.

Following feedback from the first Design Review Panel meeting, PortsToronto is now intending to implement some improvements along the northern portions of the trail and PortsToronto has initiated preliminary costing to understand the scope of these improvements. These improvements will be initiated over a 3-plus year period and will soon embark on a landscape design exercise with exact timing yet to be determined. Due to the immediate needs of the Rowing Facility, space has been provided for future trail implantation around the promontory.

BUILDING

- As a 3-season facility, cooling is the building's primary need - consider reversing the orientation of the sawtooth ceiling to capture northern light and provide optimal roof angle for solar PVs.
Response: The sawtooth roof form has been re-oriented to capture northern light, allow passive ventilation through the higher clerestory windows, and provide for an optimal roof angle for the green (landscaped) roof – which has been prioritized by the client over solar PV, as the need for electricity in the building is minimal.
- Provide servicing and storage strategy for the facility that will discourage on-site parking at the next review.
Response: There is no onsite parking provided. Access to the site is for boat drop-off and pick-up only. For the most part, even this will be limited to only a few off-site regattas.
- Consider reducing the footprint of the building by consolidating some of the required program, such as the fitness area, into a two storey building.
Response: Subsequent adjustments to the building footprint (from four “bars” to three “bars”) resulted in an area reduction from 1,069 m² to 876 m². The design team and the UCC did review options for a two-story building strategy, but out of concern for the impact of the height and scale of a two-story building on that site – in addition to concerns over universal, barrier-free access – the one-story option was determined to be the better approach.
- Consider pulling the building away from the edge of water to provide space for continuous pedestrian access.
Response: Subsequent adjustments to the building footprint has allowed us to site the building away from the water's edge.

LANDSCAPE

- Lead with a strong landscape design that recognizes the uniqueness of the site.
- Consider further enhancing the landscape and natural features of the site.
- Emphasize the use of plantings and vegetation in the design.
Response: The site landscape design includes a variety of native tree and plant species. The design necessitates the removal of seven (7) trees and preserves nineteen (19) trees. Twelve (12) new deciduous trees are proposed to be planted, along with a variety of shrubs and herbaceous plants. It is the design intent to limit the impact of the site construction and existing vegetation removal, in general, and instead organize the site in a manner to avoid preventing future design and site improvements associated with any future Marina projects.
- Appreciated the green roof, consider a “hairy” green roof with wild vegetation.
Response: The vegetated roof has been revised to include a deeper growing depth (soil) to

provide for a “hairy” roof to include a variety of native plantings ranging in height from 12”-36”, in addition to sedum beds.

SUSTAINABILITY

- Appreciated the objective of an energy net zero project - consider shifting the mandate to net carbon zero through incorporation of PVs for example.
- Strong support for the project to be at the leading edge of green/sustainable design and minimize impact on the landscape.
- Consider the environmental quality of the project, from landscape to interior.
Response: The energy and water use requirements of the facility are minimal, with zero showers, all LED lights, and minimal heating/cooling systems. Daylighting and natural ventilation are inherent to the design of the interior. The use of nail-laminated timber (NLT) roof decking and cross-laminated timber (CLT) for wall assemblies are a sustainable material selection over other potential alternatives.

The goal of the project is to keep the site “natural”, minimizing its disruption to the existing landscape. Alterations to the existing landscape are minimized by the use of native, draught resistant, and pollinator plant species. The landscape quality has also been improved by the use of enhanced grass swales to improve the quality of the stormwater runoff before it hits the Lake.

End of Responses

DRAFT

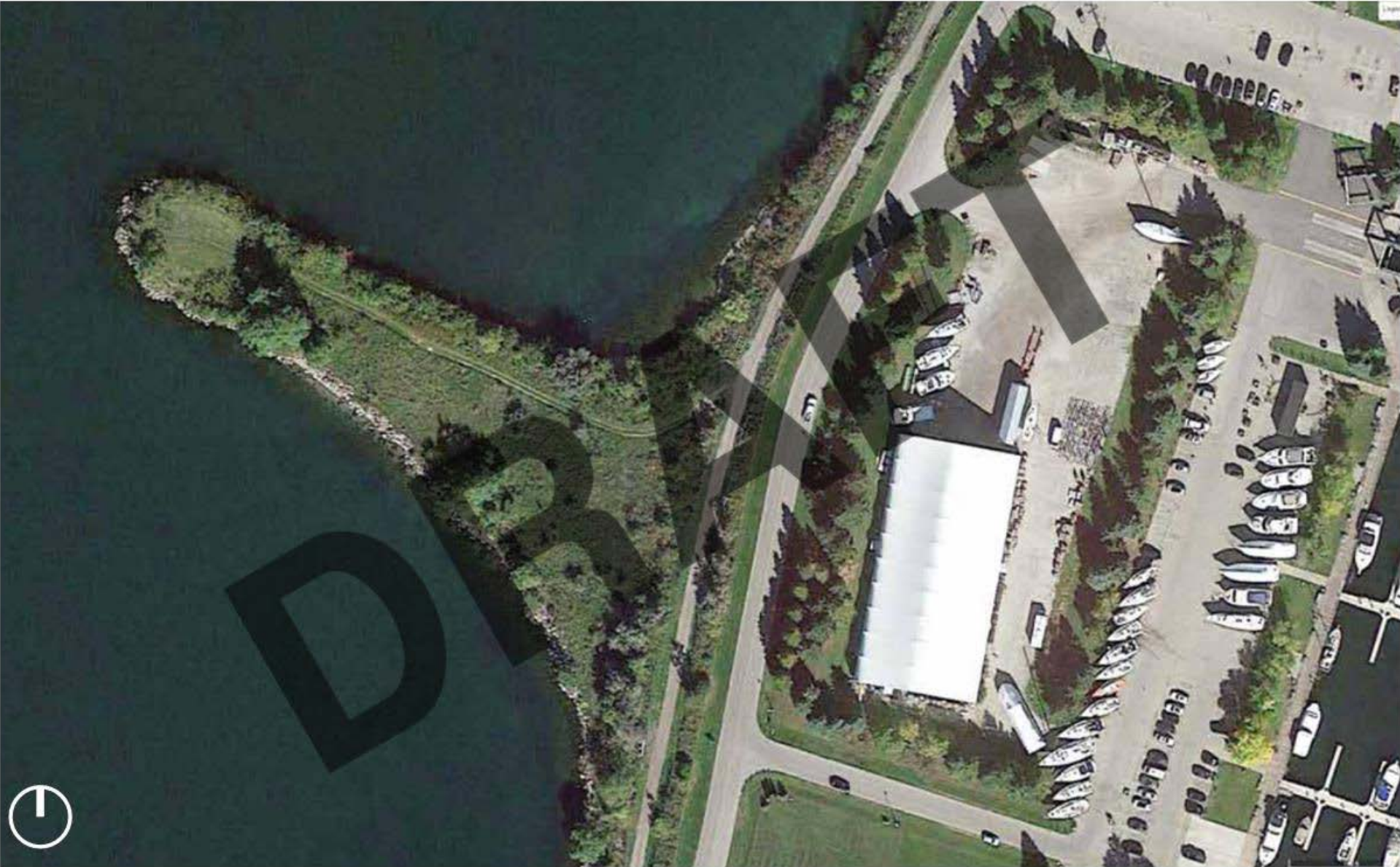
2.1 - CONTEXT | CITY CONTEXT PLAN



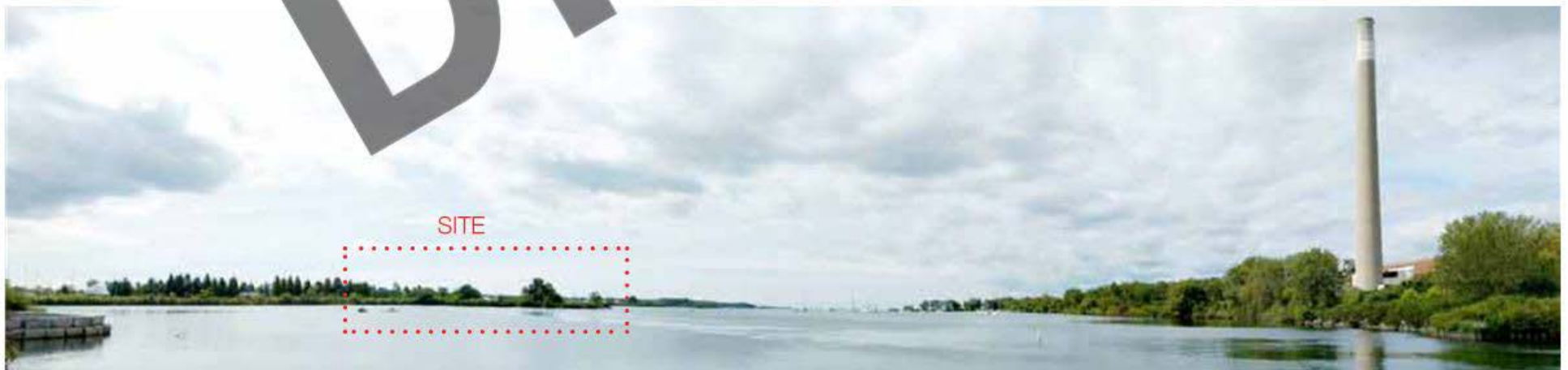
OUTER HARBOUR: CURRENT AND POTENTIAL FUTURE USES



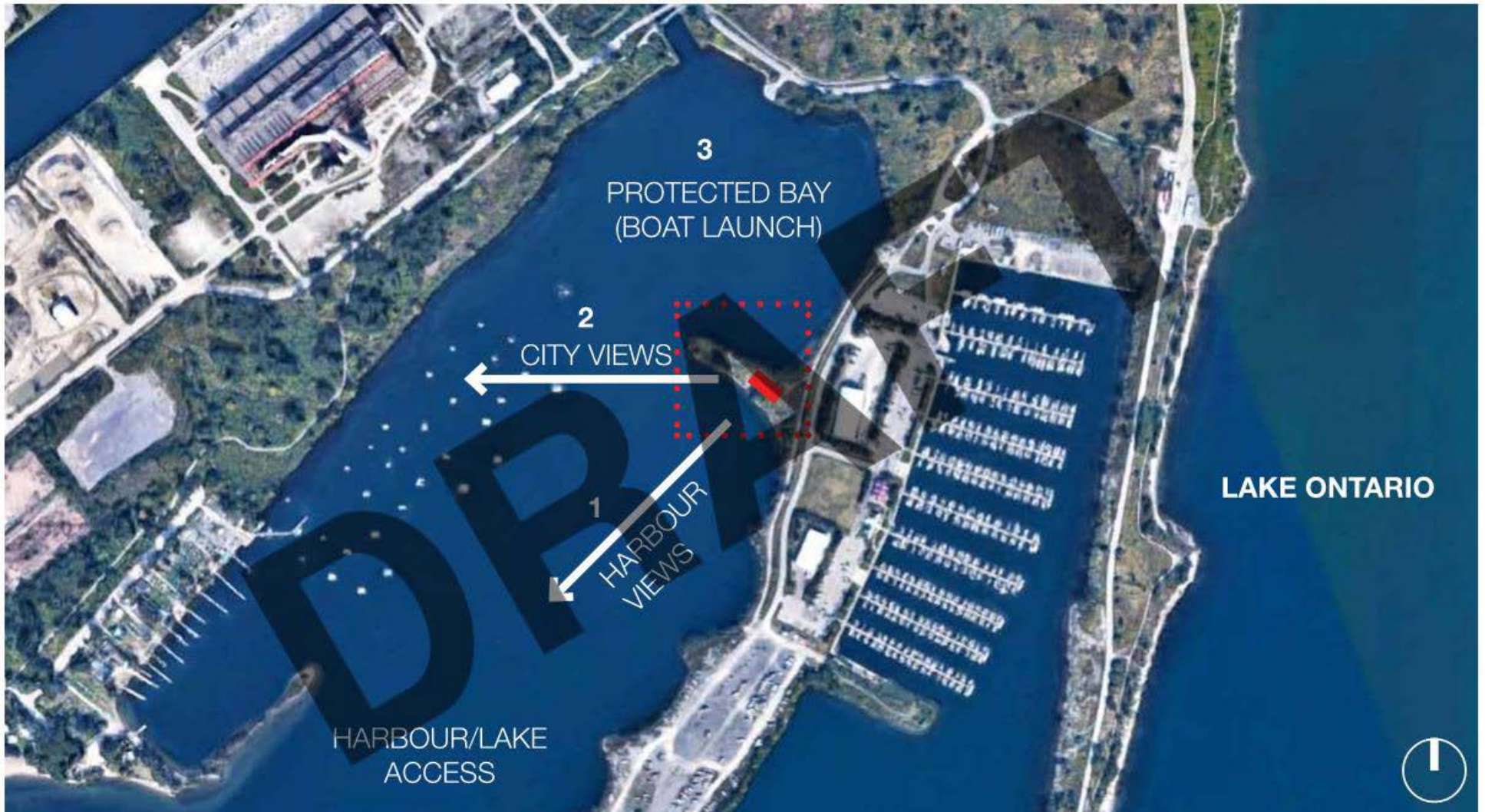
2.5 - CONTEXT | EXISTING SITE



2.7 - CONTEXT | SITE PHOTOS - OVERALL



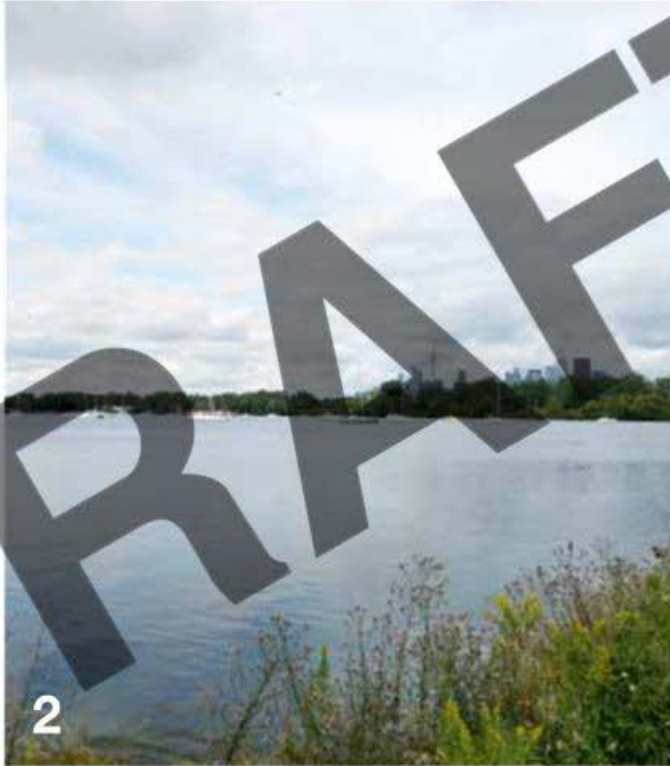
2.8 - CONTEXT | SITE PHOTOS - VIEWS



2.8 - CONTEXT | SITE PHOTOS - VIEWS



HARBOUR VIEW



DOWNTOWN CITY VIEWS



PROTECTED BAY

2.8 - CONTEXT | SITE PHOTOS - VIEWS



2.8 - CONTEXT | SITE PHOTOS - VIEWS



SITE ENTRY VIEW LOOKING SOUTHWEST

2.8 - CONTEXT | SITE PHOTOS - VIEWS



2

HARBOUR VIEW FROM CENTER OF SITE



3

CITY VIEW FROM SITE

2.9 - CONTEXT | SITE PHOTOS - ADJACENCIES



1

MARINA



2

INDOOR BOAT STORAGE

2.9 - CONTEXT | SITE PHOTOS - ADJACENCIES



3

CRADLE PATH



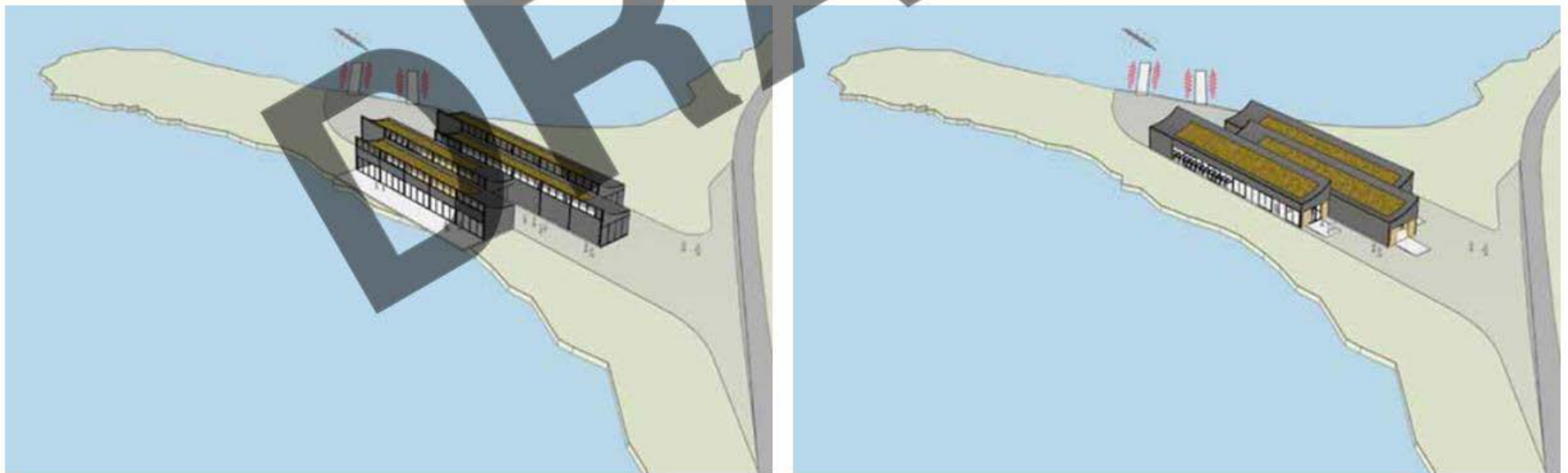
4

THE HEARN

3.0 - DESIGN STRATEGY | DEVELOPMENT FROM PRESENTATION #1

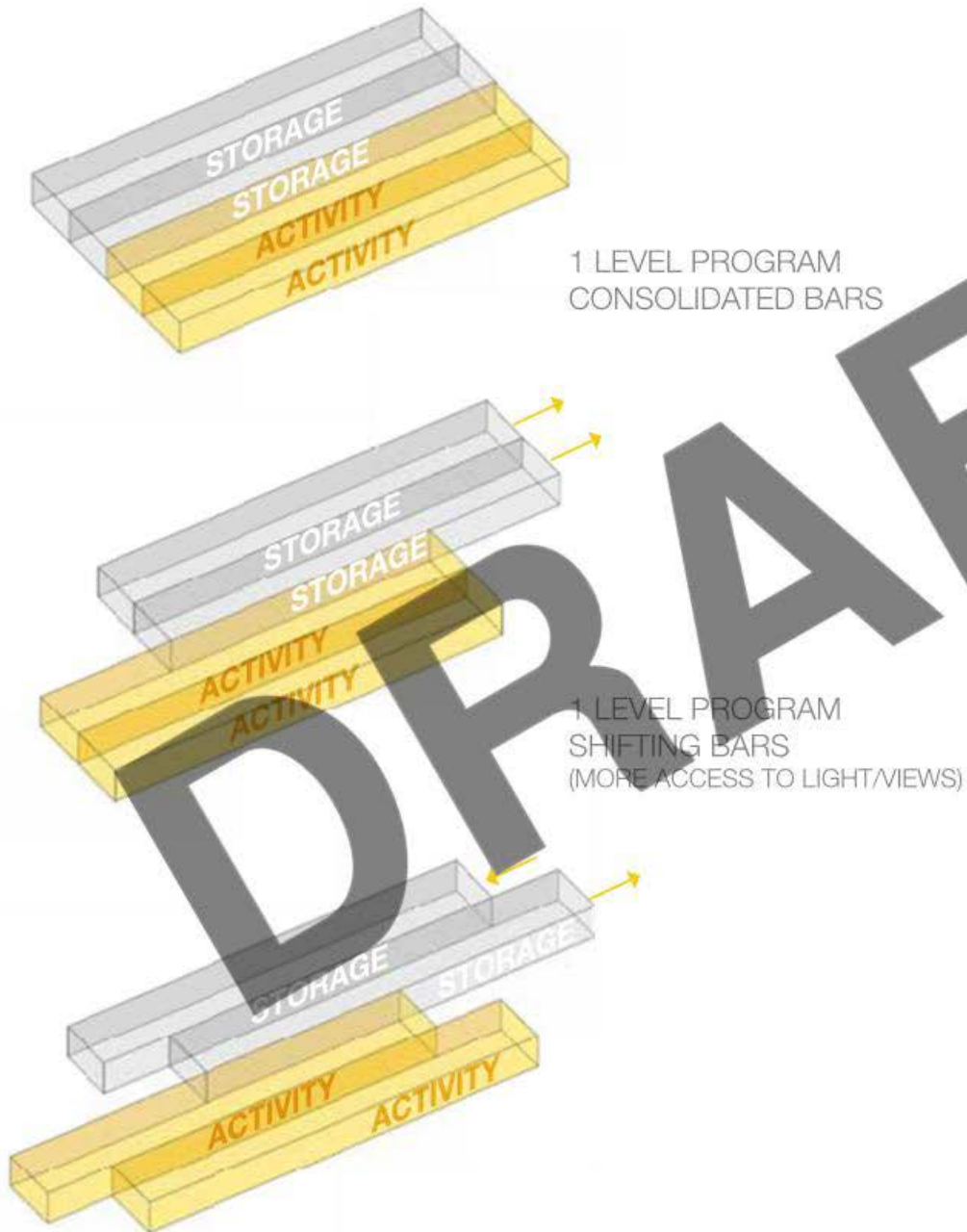


- SCALE/MASSING - 25% REDUCTION IN BUILDING FOOTPRINT (4 BARS - 1069 SQ.M. TO 3 BARS - 876 SQ.M.)

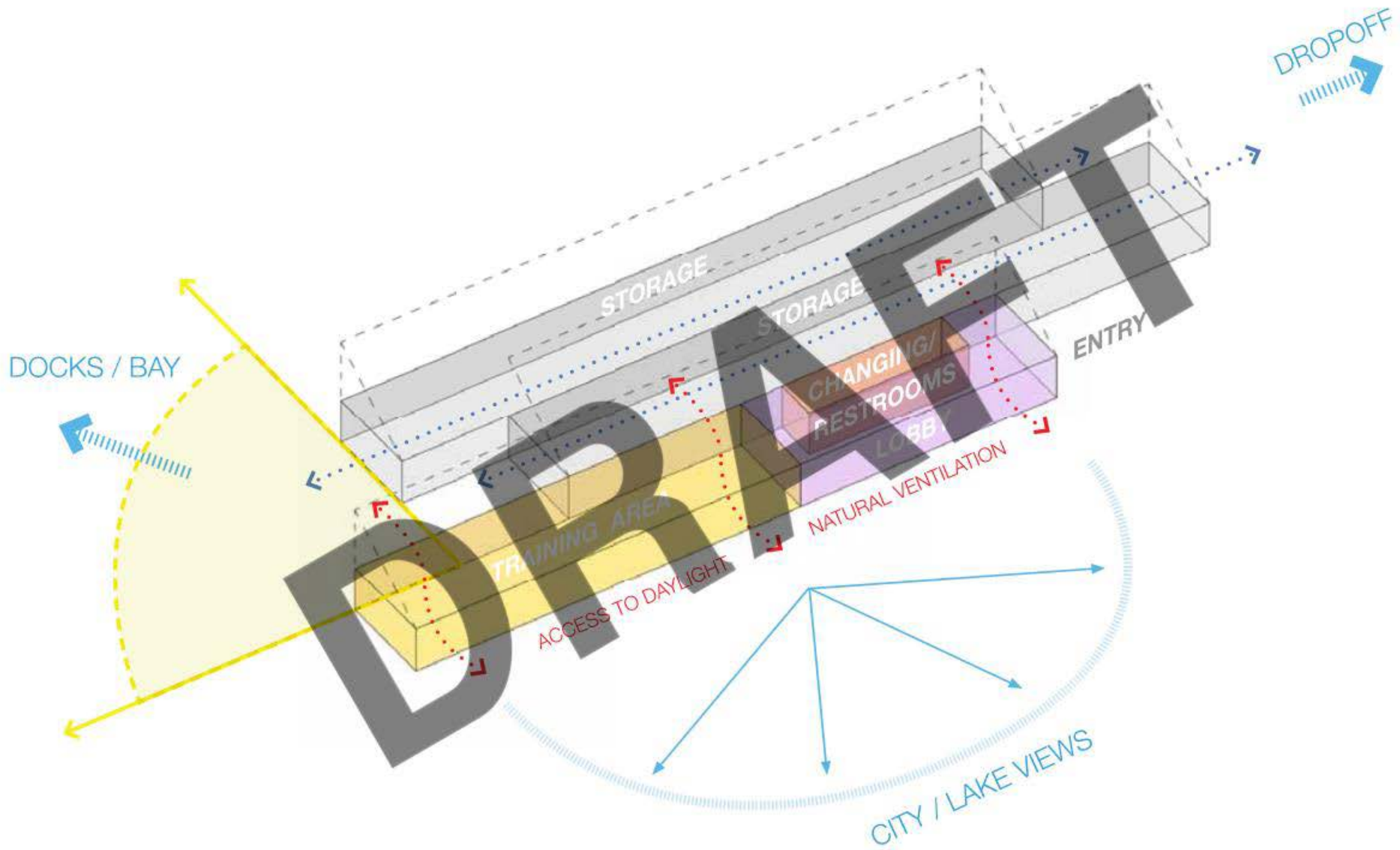


- FORM - CHANGE IN ROOF ORIENTATION - ACCESS TO NORTHERN LIGHT - SOUTHERN EXPOSURE FOR GREEN ROOF

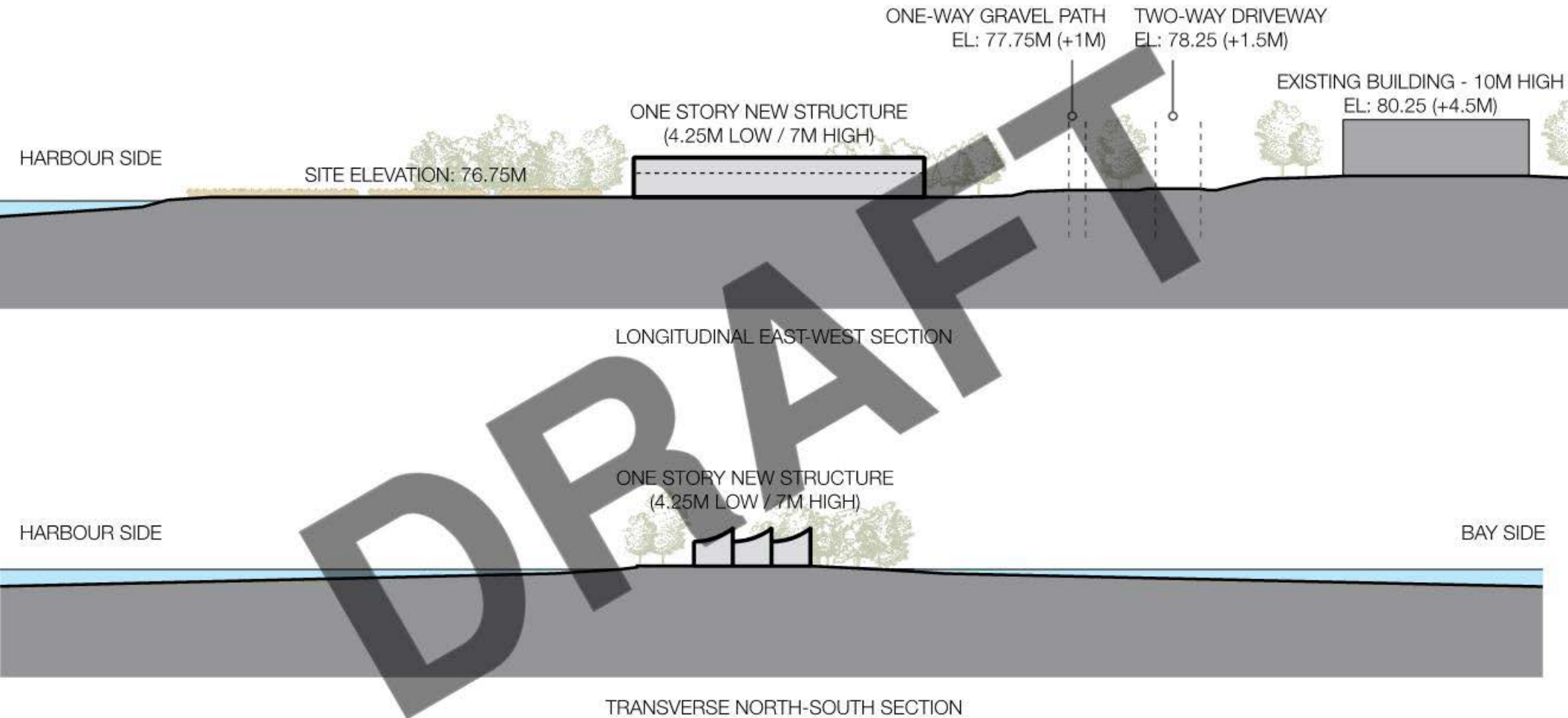
3.1 - DESIGN STRATEGY | PROJECT PARTI DIAGRAM



3.2 - DESIGN STRATEGY | MASSING DIAGRAM

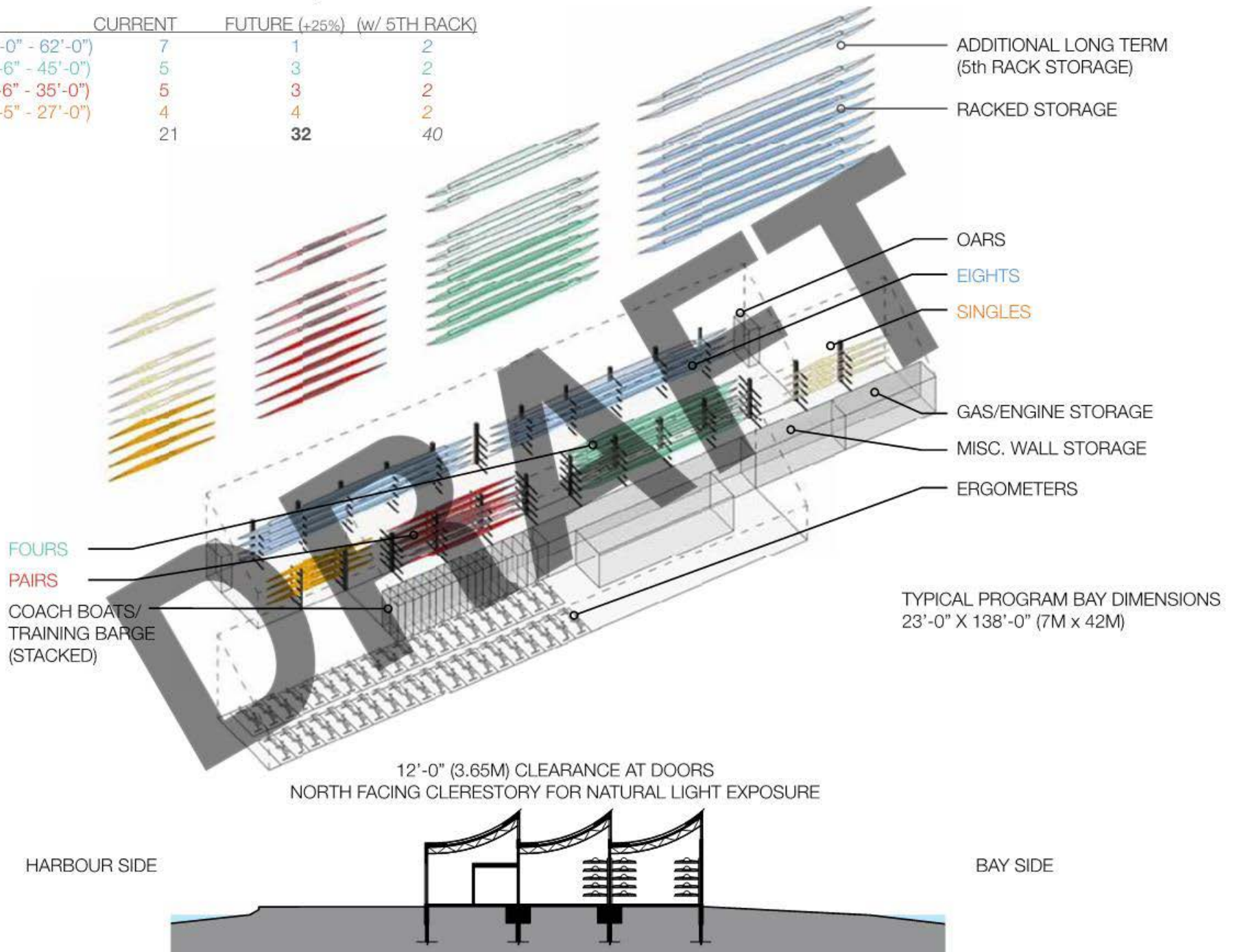


3.4 - DESIGN STRATEGY | HEIGHT DIAGRAM



3.6 - DESIGN STRATEGY | PROGRAM / HEIGHT DIAGRAM

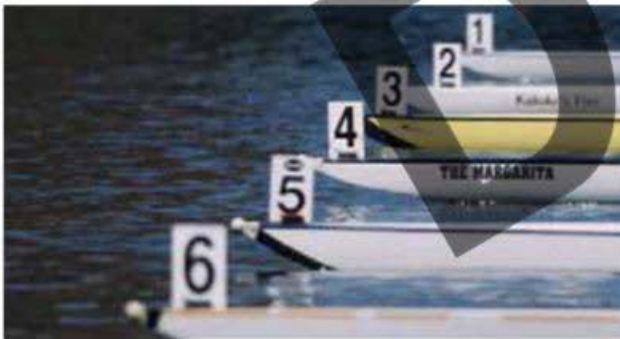
MAKE	CURRENT	FUTURE (+25%)	(w/ 5TH RACK)
EIGHTS (57'-0" - 62'-0")	7	1	2
FOURS (40'-6" - 45'-0")	5	3	2
PAIRS (29'-6" - 35'-0")	5	3	2
SINGLE (24'-5" - 27'-0")	4	4	2
TOTAL	21	32	40



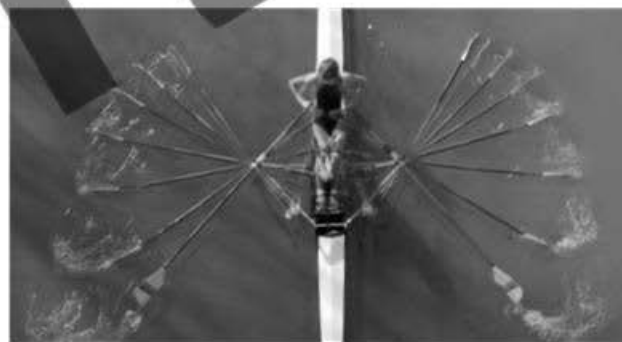
3.7 - DESIGN STRATEGY | CIRCULATION DIAGRAM



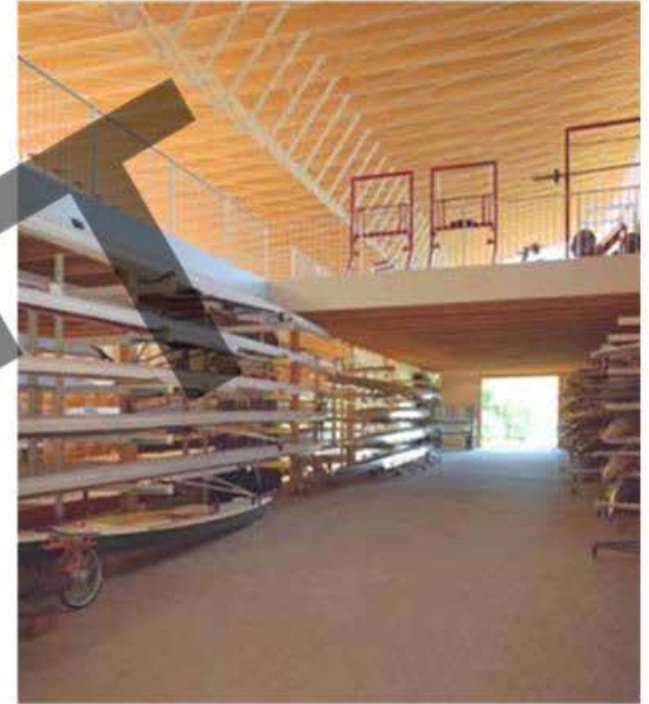
3.8 - DESIGN STRATEGY | PRECEDENT IMAGES | CONCEPT IMAGES - FORM / MASSING



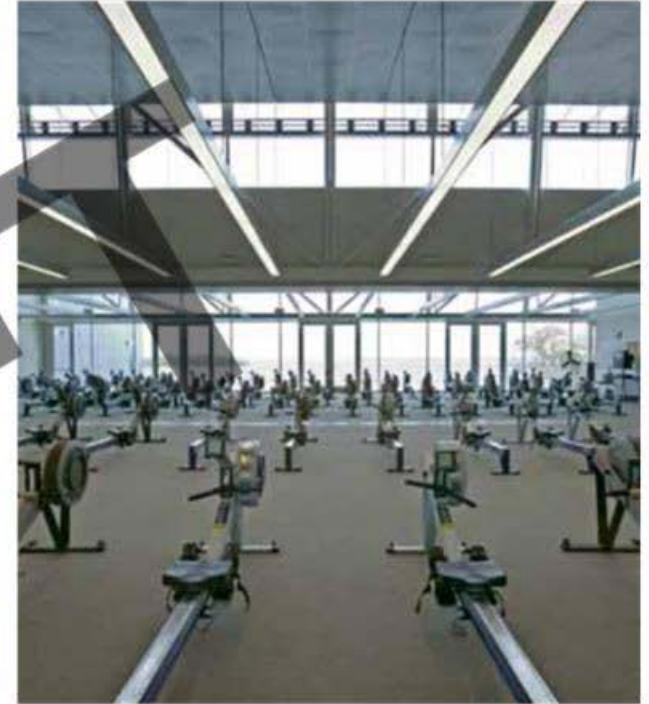
3.8 - DESIGN STRATEGY | PRECEDENT IMAGES | CONCEPT IMAGES - STRUCTURE / DETAIL



3.8 - DESIGN STRATEGY | PRECEDENT IMAGES | MINNEAPOLIS ROWING CLUB BOATHOUSE - VJAA



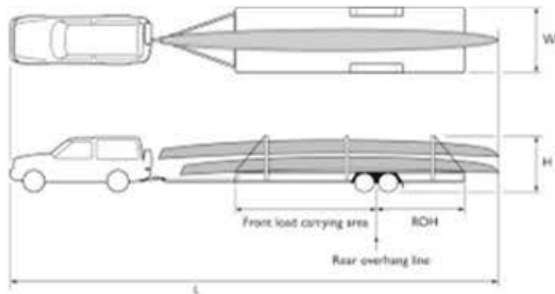
3.8 - DESIGN STRATEGY | PRECEDENT IMAGES | UNIVERSITY OF WISCONSIN - PORTER BOATHOUSE - VJAA



3.8 - DESIGN STRATEGY | PRECEDENT IMAGES | WELLAND INTERNATIONAL FLATWATER CENTRE - VJAA | RDHA

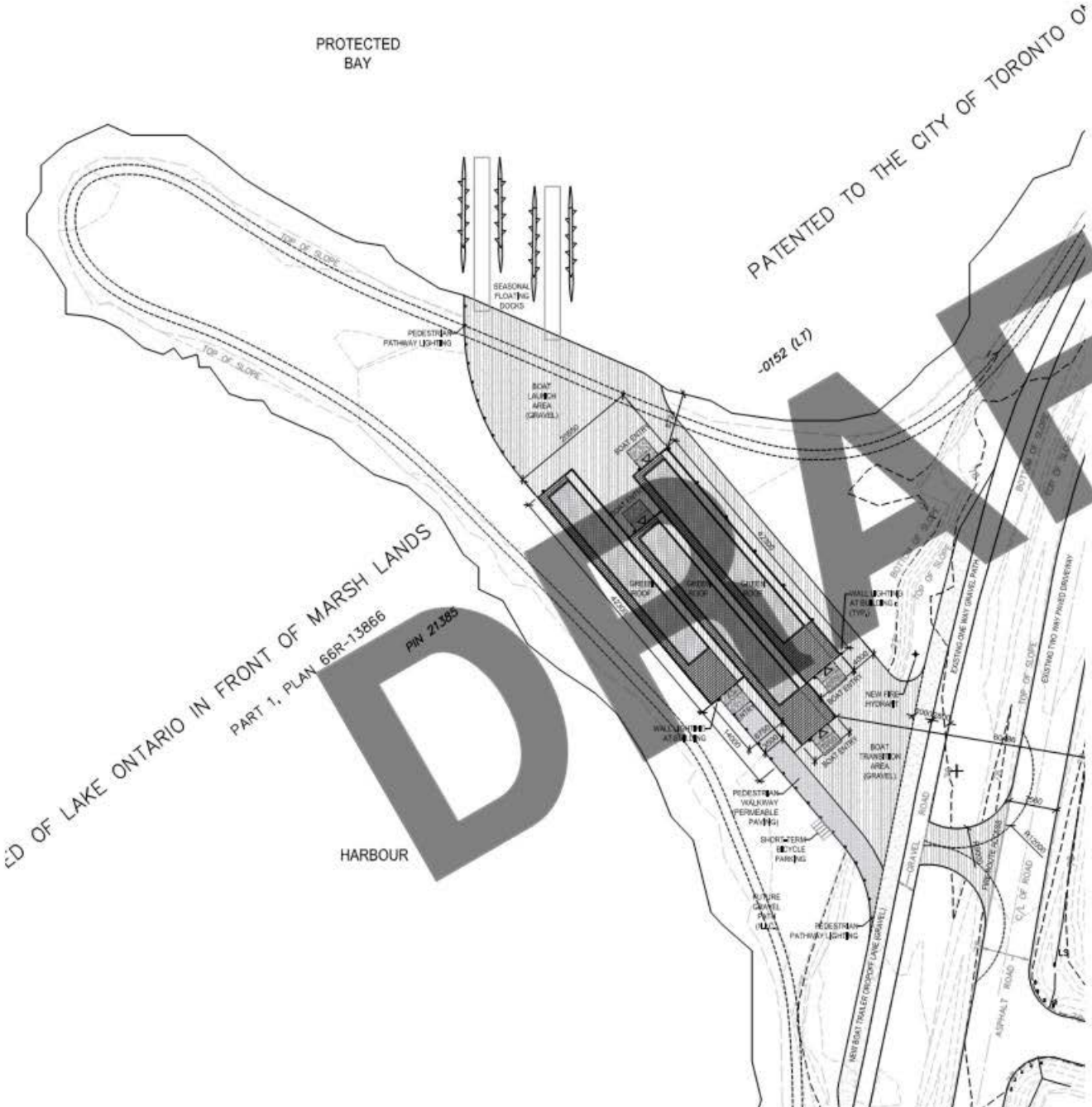


3.9 - DESIGN STRATEGY | TYPICAL ISSUES SUMMARY



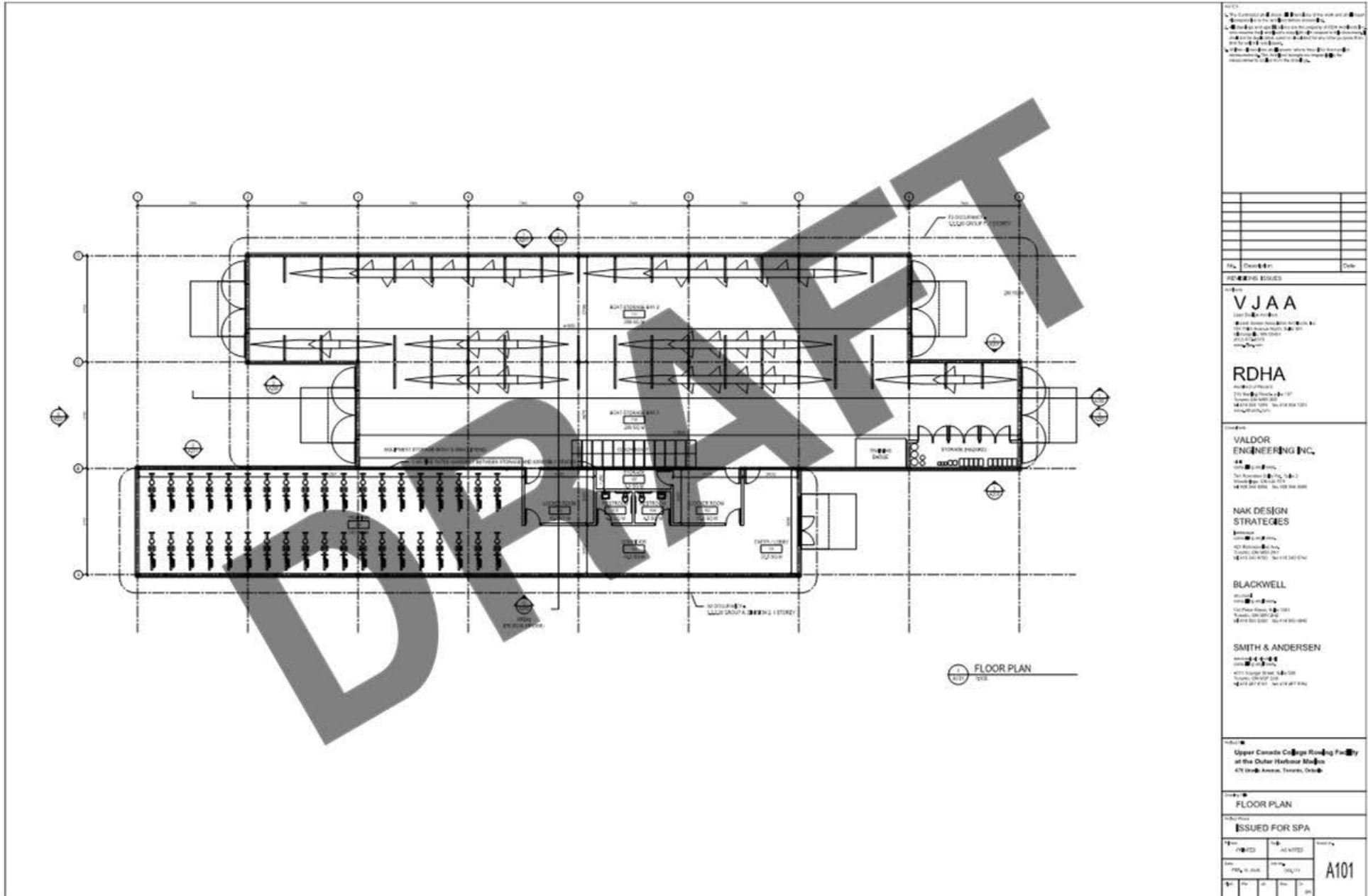
- PROVIDING FOUNDATION SYSTEM SOLUTIONS GIVEN EXISTING SITE FILL MATERIAL
- PROGRAM: BOAT CIRCULATION, STORAGE, ACCESS TO WATER
- ACCOMMODATING CURRENT ROWING INVENTORY AND PROJECTED EXPANSION
- DESIGNING FOR A SEASONAL FACILITY
- IMPROVE EXISTING VEGETATION TO CONTINUE TO SUPPORT THE NATURAL HABITAT

4.1 - DESIGN DOCUMENTATION | SITE PLAN

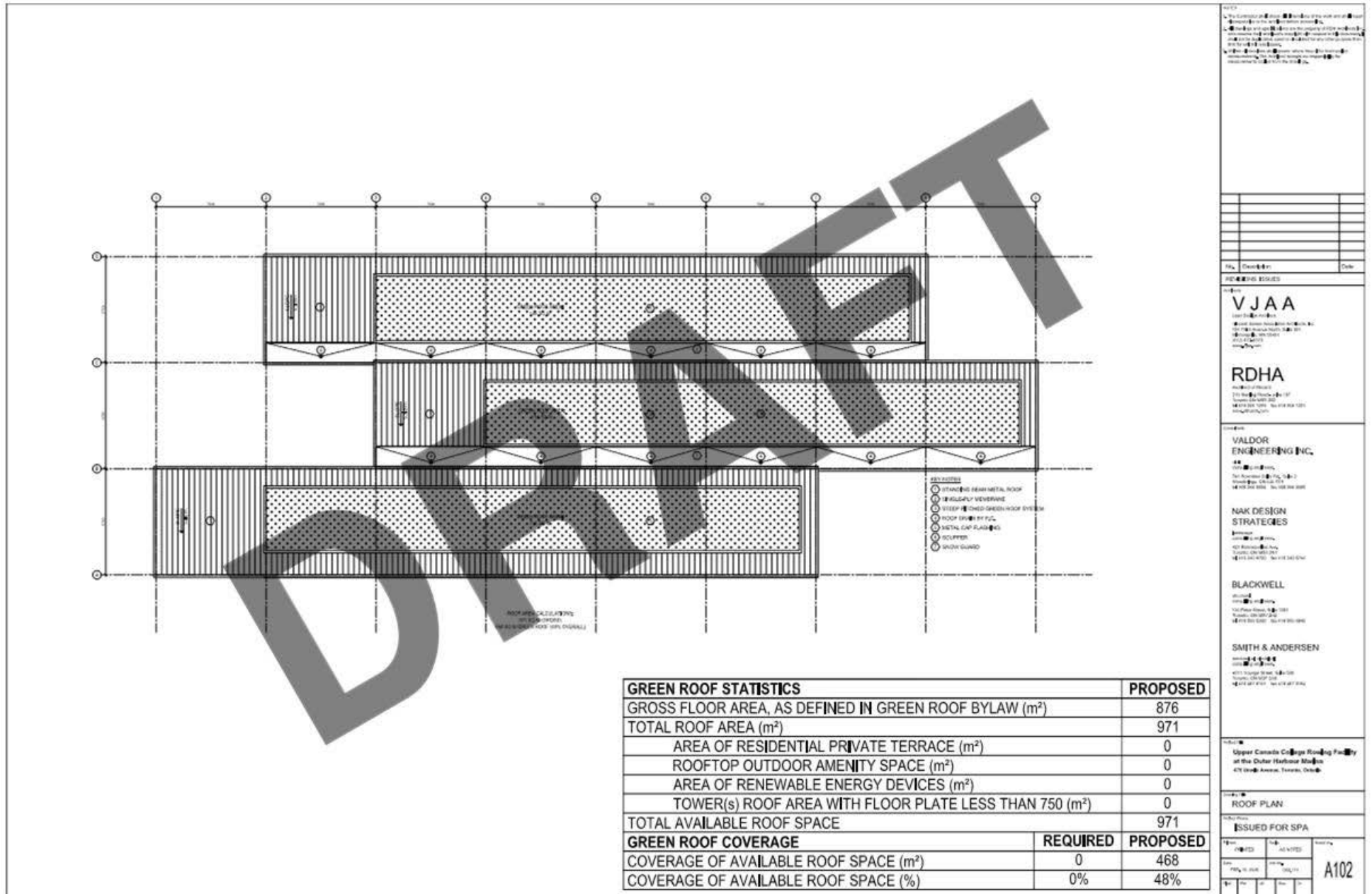


GENERAL PROJECT STATISTICS		
TORONTO GREEN STANDARDS V3 STATISTICS - NON RESIDENTIAL		
ZONING OR (BY-LAW) 31-26, AS AMENDED		
TOTAL SITE AREA (m ²) (PER ZONING STATS SUBMITTED WITH MINOR VARIANCE)		1,781,795
PROJECT AREA (m ²)		3535
TOTAL GROSS FLOOR AREA (m ²)		876
MAX BUILDING HEIGHT (m)		7
CYCLING INFRASTRUCTURE		
NUMBER OF SHORT TERM CYCLE PARKING SPACES (ALL USES)	REQUIRED	PROPOSED
AT-GRADE OR ON FIRST LEVEL BELOW GRADE	4	5
AUTOMOBILE INFRASTRUCTURE		
NUMBER OF PARKING SPACES	0	0
NON-ROOF HARDSCAPE		
TOTAL NON-ROOF HARDSCAPE (m ²)		1740
TOTAL NON-ROOF HARDSCAPE (CREATED FOR URBAN HEAT ISLAND (MIN. 50%)) (m ²)	808	1740
AREA OF NON-ROOF HARDSCAPE TREATED WITH:		
HIGH ALBEDO SURFACE MATERIAL (m ²)		1612
OPEN GRID PAVEMENT (m ²)		128
SHADE FROM TREE CANOPY (m ²)		0
SHADE FROM HIGH ALBEDO STRUCTURES		0
SHADE FROM ENERGY GENERATION STRUCTURES		0
PERCENTAGE OF REQUIRED CAR PARKING SPACES UNDER COVER (MIN. 75%)		N/A
GREEN & COOL ROOFS		
AVAILABLE ROOF SPACE (m ²)		971
AVAILABLE ROOF SPACE PROVIDED AS GREEN ROOF (m ²)		468
AVAILABLE ROOF SPACE PROVIDED AS COOL ROOF (m ²)		0
AVAILABLE ROOF SPACE PROVIDED AS SOLAR PANELS (m ²)		0
WATER EFFICIENCY		
TOTAL LANDSCAPED SITE AREA (m ²)	128	256
LANDSCAPED SITE AREA PLANTED WITH DROUGHT-TOLERANT PLANTS (MIN. 50%) (m ²)	128	256
TREE PLANTING AREAS & SOIL VOLUME		
TOTAL SITE AREA (m ²)		3535
TOTAL SOIL VOLUME (40% OF THE SITE AREA / 66 m ² X 30m ³)	642	648
TOTAL NUMBER OF PLANTING AREAS (MIN. OF 30m ² SOIL)		12
TOTAL NUMBER OF TREES PLANTED		12
NATIVE AND POLLINATOR SUPPORTING SPECIES		
TOTAL NUMBER OF PLANTS	616	1232
TOTAL NUMBER OF NATIVE PLANTS AND % OF TOTAL PLANTS (MIN. 50%)	616	1232
BIRD FRIENDLY GLAZING		
TOTAL AREA OF GLAZING OF ALL ELEVATIONS WITHIN 12 m ABOVE GRADE		367
TOTAL AREA OF TREATED GLAZING (MIN. 85% OF TOTAL AREA OF GLAZING) (m ²)		312
PERCENTAGE OF GLAZING WITHIN 12 m ABOVE GRADE TREATED WITH:		
LOW REFLECTANCE OPAQUE MATERIALS		-
VISUAL MARKERS		-
SHADING		85%

4.2 - DESIGN DOCUMENTATION | FLOOR PLANS



4.2 - DESIGN DOCUMENTATION | ROOF PLAN



NOTES

1. THE PROPOSED GREEN ROOF SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE GREEN ROOF BYLAW AND THE GREEN ROOF DESIGN GUIDE.
2. THE GREEN ROOF SHALL BE CONSTRUCTED ON A MINIMUM OF 150mm OF INSULATION.
3. THE GREEN ROOF SHALL BE CONSTRUCTED ON A MINIMUM OF 150mm OF INSULATION.
4. THE GREEN ROOF SHALL BE CONSTRUCTED ON A MINIMUM OF 150mm OF INSULATION.
5. THE GREEN ROOF SHALL BE CONSTRUCTED ON A MINIMUM OF 150mm OF INSULATION.

REVISIONS

No.	Description	Date

ISSUED FOR

VJAA
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 www.blackwell.com

SMITH & ANDERSEN
 1000 Bay Street, Suite 1000
 Toronto, Ontario M5G 1A7
 Tel: (416) 593-8888
 Fax: (416) 593-8889
 www.smithandersen.com

ROOF PLAN

ISSUED FOR SPA

NO.	DATE	BY	CHKD.	APP'D.

A102

3.5 - DESIGN STRATEGY | SITE & CIRCULATION DIAGRAM



- 1 GRAVEL DRIVEWAY & LAUNCH AREA
- 2 PERMEABLE PAVING -PEDESTRIAN WALKWAY
- 3 GREEN ROOF

- 4 ACCENT PLANTING
- 5 EXISTING VEGETATION TO REMAIN
- 6 SEASONAL FLOATING DOCKS

- 7 FIRE ACCESS ROUTE

4.7 DESIGN DOCUMENTATION | MATERIALS



CONCRETE FLOORING



PLYWOOD PANELING



METAL SIDING

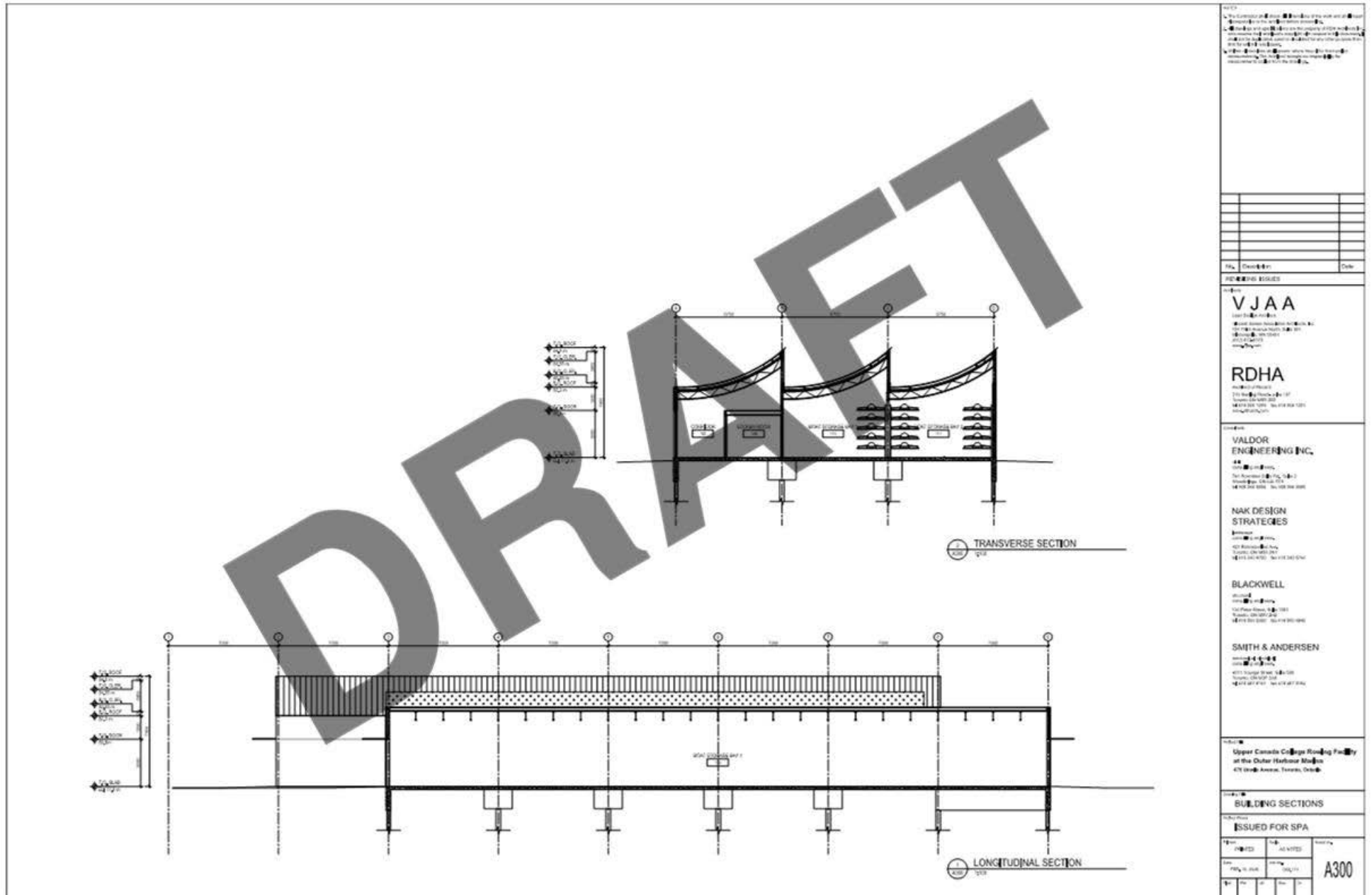


STANDING SEAM METAL ROOF



VEGETATED GREEN ROOF

4.9 - DESIGN DOCUMENTATION | BUILDING SECTIONS



4.10 DESIGN DOCUMENTATION | STRUCTURAL STRATEGIES



ENGINEERED STEEL
TRUSS
ROOF STRUCTURE



NAIL-LAMINATED
TIMBER (NLT)
ROOF DECKING



CROSS-LAMINATED
TIMBER (CLT)
WALL FRAMING



EFFICIENT,
SUSTAINABLE,
BUILDING SYSTEMS

4.14 - DESIGN DOCUMENTATION | 3D RENDERINGS - PROJECT



VIEW TOWARD ENTRY

4.14 - DESIGN DOCUMENTATION | 3D RENDERINGS - PROJECT



VIEW FROM PROTECTED BAY/SEASONAL FLOATING DOCKS

4.14 - DESIGN DOCUMENTATION | 3D RENDERINGS - PROJECT



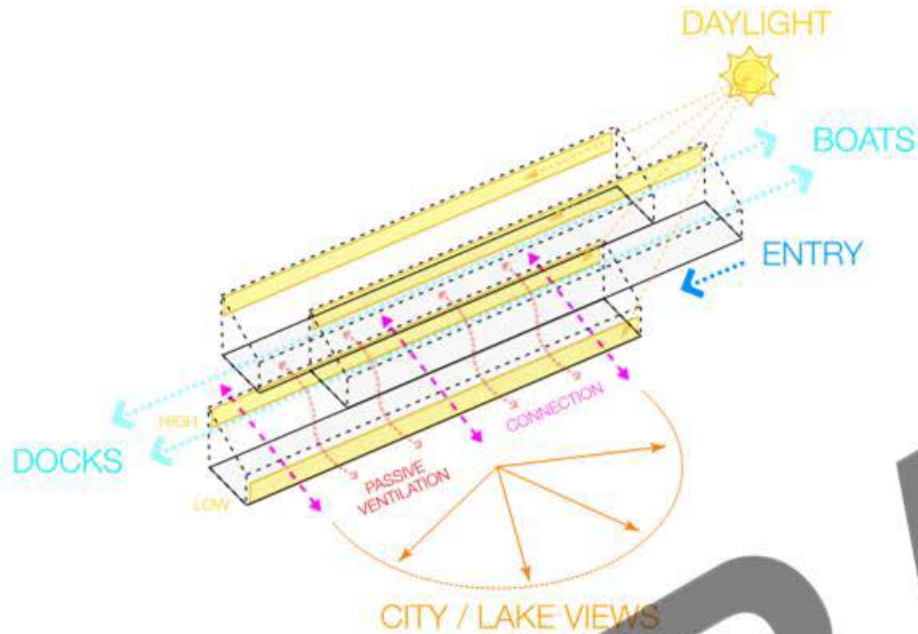
VIEW FROM TRAINING AREA TOWARDS CITY CENTER

4.14 - DESIGN DOCUMENTATION | 3D RENDERINGS - PROJECT



VIEW FROM BOAT STORAGE BAY TO SEASONAL FLOATING DOCKS

5.1 - ECOLOGY, ENERGY & SUSTAINABILITY | SUSTAINABILITY VISION



- VEGETATED GREEN ROOF
- PASSIVE VENTILATION - LOW / HIGH
- ACCESS TO DAYLIGHT
- BIRD-FRIENDLY DESIGN - GLAZING / PLANTINGS
- MINIMAL ENERGY CONSUMPTION FOR SEASONAL USE
- SITE WATER MANAGEMENT



Steeply Pitched Roof 30-45°



Green roofs are a perfect solution to create green spaces on any type of surface. In addition to green roofs on flat surfaces, a green roof on a curved or sloping surface can be a real eyecatcher. Sempergreen has the perfect solution for sloping roofs. Read below about our green roof system for sloping roofs to transform your roof into a sustainable green roof.

Steeply Pitched Green Roof 30-45° Specifications

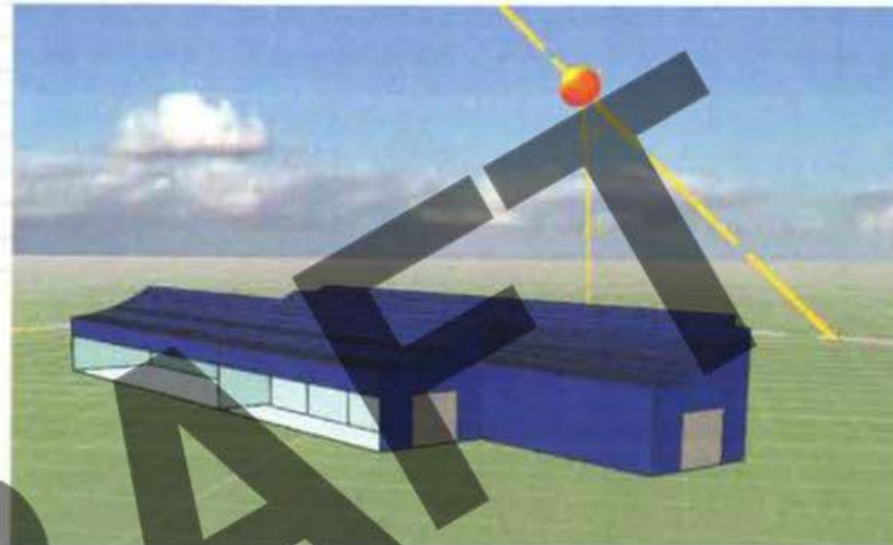
- ✓ Pitch: 30-45°
- ✓ System structure thickness including Sedum: 5-8"
- ✓ Saturated weight: 30-50 lbs / sq. ft.



5.3 - ECOLOGY, ENERGY & SUSTAINABILITY | ENERGY MODELING

Model Input Summary

Project Title	UCC Rowing Facility
Project Number	13594-002
Date	2/13/2020
Location	Toronto, ON
Climate Zone	CZ 5A
Purpose of Model	SPA
Compliance Path	SB-10 + ASHRAE 90.1 2013
Software	IES VE 2019



Building Modeled GFA

Gross Modelled Area (m ²)	850
Above Grade Floors	3
Below Grade Floors	0
Total Number of Floors	3
Window-to-Wall Ratio	39%

	EUI (kWH/m ²)	TEDI (kWh/m ²)	GHGI (kgCO ₂ /m ²)	GHG (kgCO ₂)
PROPOSED	6.2	0.0008	0.31	263.5
REFERENCE	7.3		0.37	314.5

Water demand: 24 USgpm [1.5 L/s] for domestic water and 43 USgpm [2.7 L/s] for sanitary.

5.4 - ECOLOGY, ENERGY & SUSTAINABILITY | GREEN ROOF DESIGN



FESTUCA GLAUCA
(0.75' - 1')



SELSERIA
CAERLULUA
(1' - 1.5')



SCHIZACHYRIUM
SCOPARIUM
(2' - 4')

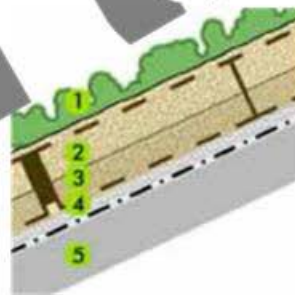


BOUTELOUA
GRACILIS
(1' - 3')



ALIUMS/CHIVES
(1' - 1.5')

- NATIVE SPECIES
- DRAUGHT RESISTANT
- BIRD-FRIENDLY
- POLLINATOR SPECIES
- WATER MANAGEMENT



STEEP PITCHED
GREEN ROOF
SYSTEM

1. Plant Material
2. Growing Medium ZinCoblend-E
Depth: 110 mm
3. ZinCo Georaster ® FS75
4. ZinCo Moisture Mat WSM150
5. Roof Construction with root protected Waterproofing Membrane

VAN DUSEN BOTANICAL GARDEN, VANCOUVER



5.7 - ECOLOGY, ENERGY & SUSTAINABILITY | LANDSCAPE STRATEGY

LANDSCAPE ZONES

MEADOW



Black-eyed Susan
(*Rudbeckia hirta*)

THICKET



Red Osier Dogwood
(*Cornus stolonifera*)

GRASSLAND



Canada Wild Rye
(*Elymus canadensis*)



Prairie Dropseed
(*Sporobolus heterolepis*)



Trembling Aspen
(*Populus tremuloides*)



Indian Grass
(*Sorghastrum nutans*)



PRECEDENTS: LESLIE STREET SPIT

- VEGETATION COMMUNITIES WITH NATIVE FOCUSED PLANTING WILL CHANGE AS THE SITE MATURES
- BIRD FRIENDLY
- EDUCATIONAL SIGNAGE

THANK YOU



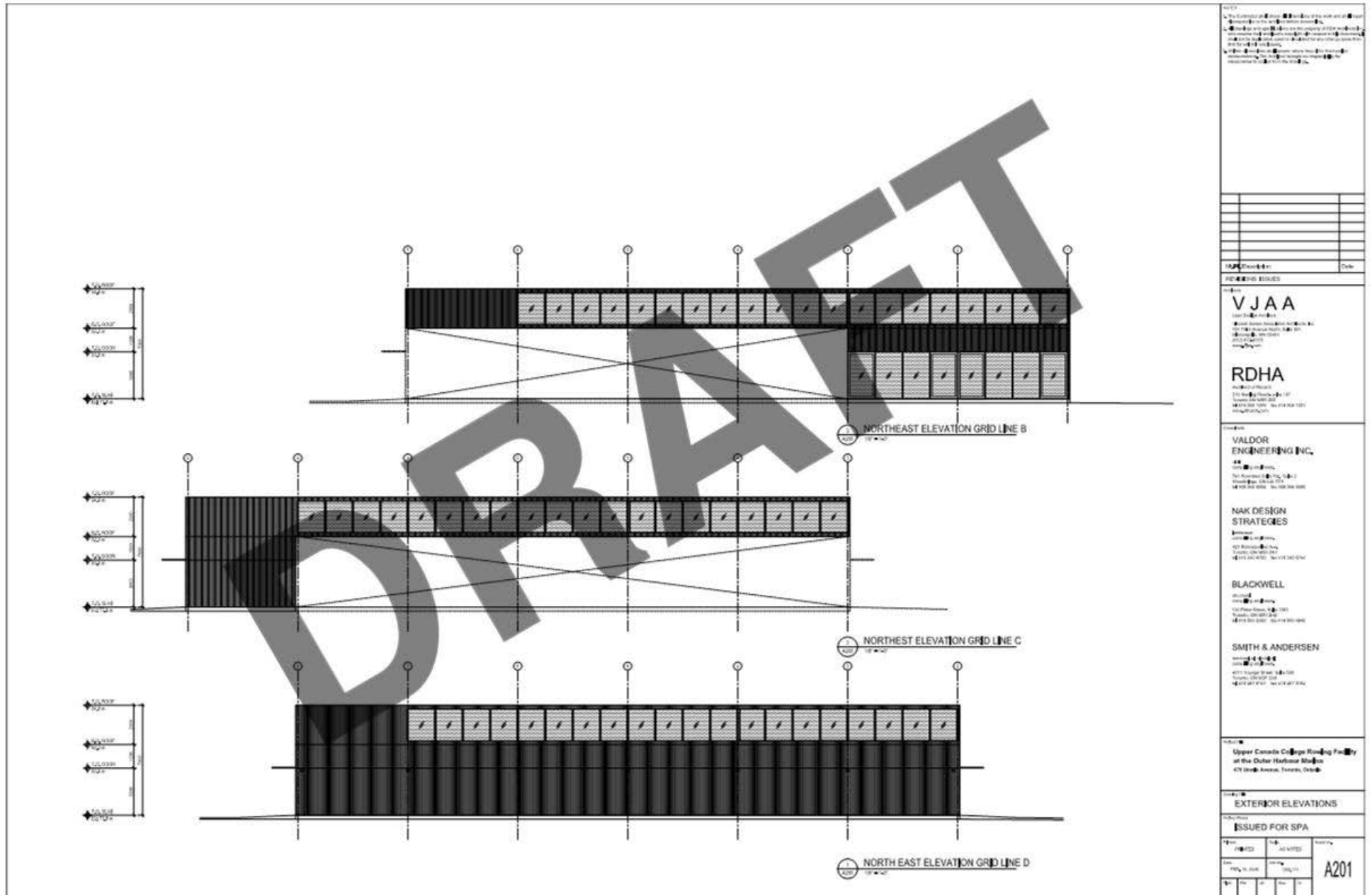
VIEW FROM PROTECTED BAY/SEASONAL FLOATING DOCKS

APPENDIX

- 4.11 - Building Elevations
- 4.16 - Shadow Studies
- 4.17 - Site Plan
- 4.20 - Planting Plan

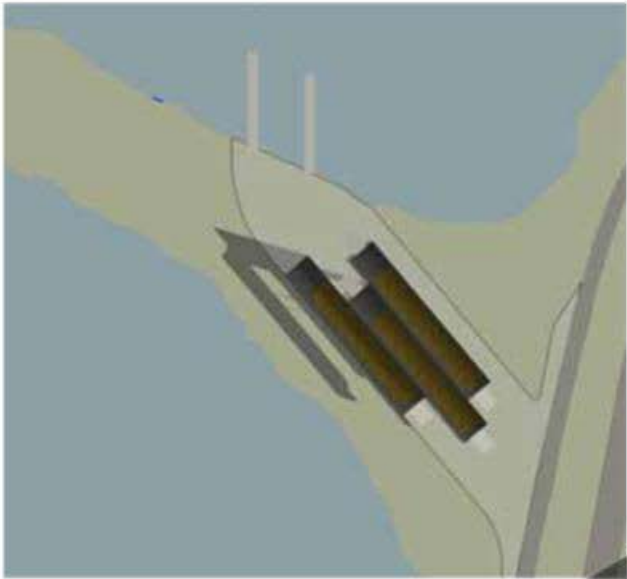
DRAFT

4.11 - DESIGN DOCUMENTATION | BUILDING ELEVATIONS

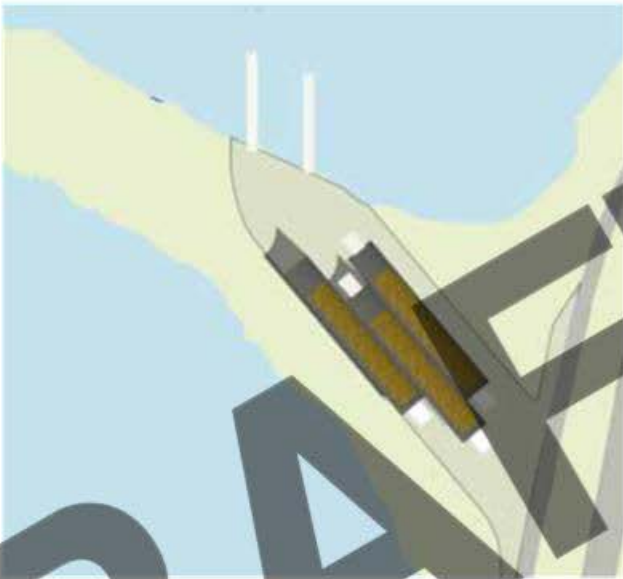


<p>V J A A 1000 ... 400 ... 100 ...</p>	
<p>RDHA 100 ... 100 ... 100 ...</p>	
<p>VALDOR ENGINEERING INC. 100 ... 100 ... 100 ...</p>	
<p>NAK DESIGN STRATEGIES 100 ... 100 ... 100 ...</p>	
<p>BLACKWELL 100 ... 100 ... 100 ...</p>	
<p>SMITH & ANDERSEN 100 ... 100 ... 100 ...</p>	
<p>Upper Canada College Renovation Facility at the Outer Harbour Mall 475</p>	
<p>EXTERIOR ELEVATIONS</p>	
<p>ISSUED FOR SPA</p>	
<p>Rev: 1 Date: 2020.02.26</p>	<p>Rev: 1 Date: 2020.02.26</p>
<p>A201</p>	

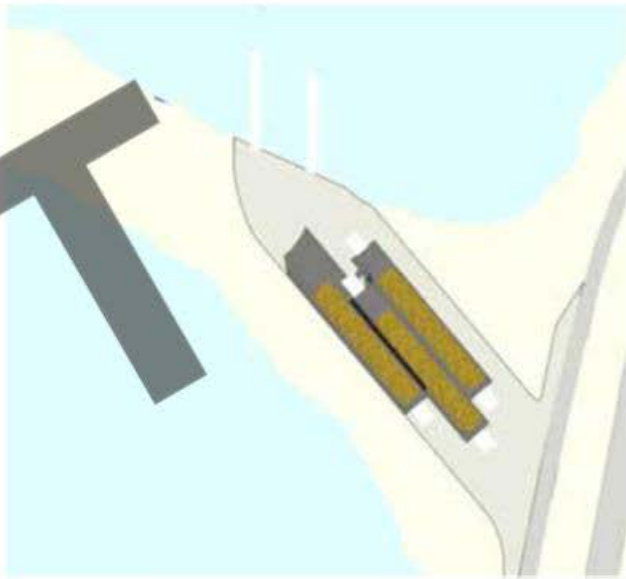
4.16 - DESIGN DOCUMENTATION | SHADOW STUDIES - 3/21, 9/21



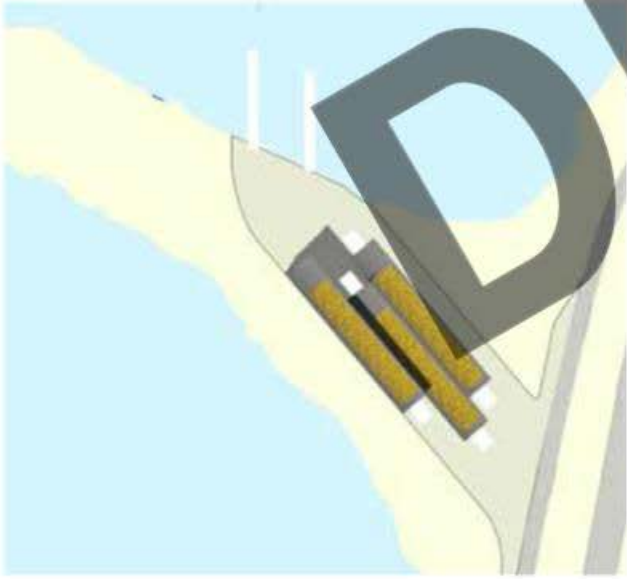
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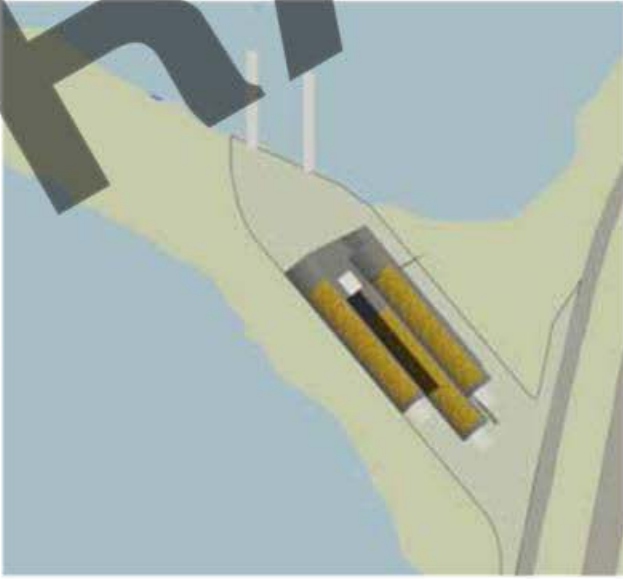
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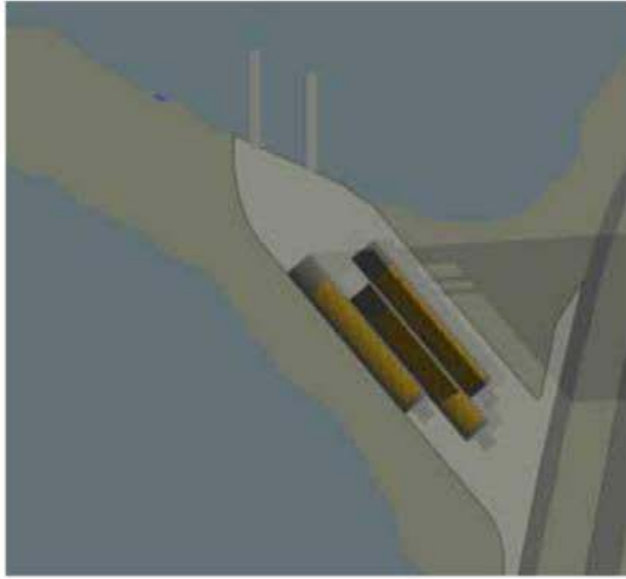
12:00 P.M.



2:00 P.M.



4:00 P.M.



6:00 P.M.

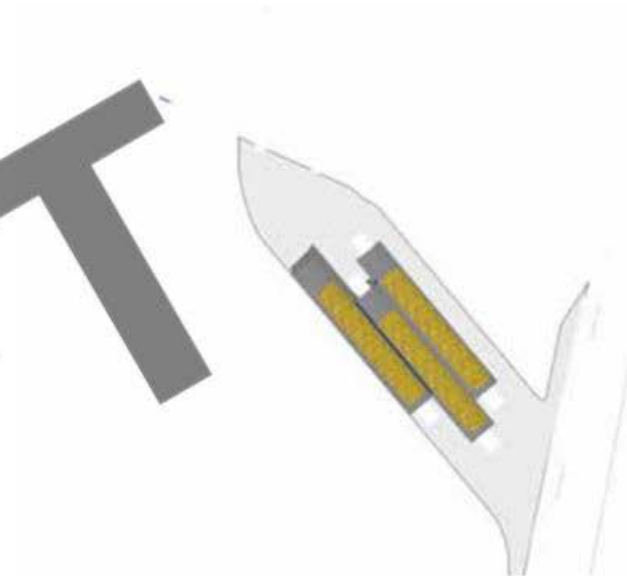
4.16 - DESIGN DOCUMENTATION | SHADOW STUDIES - 6/21



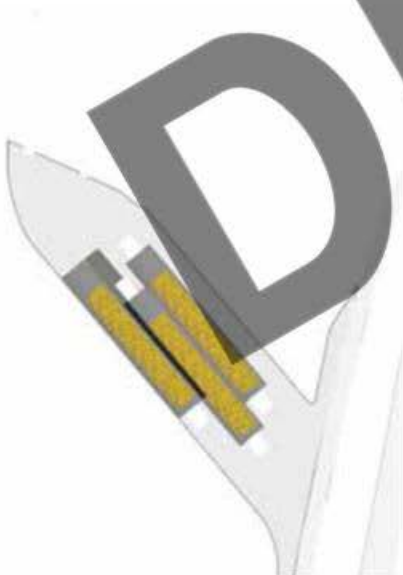
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10:00 A.M.



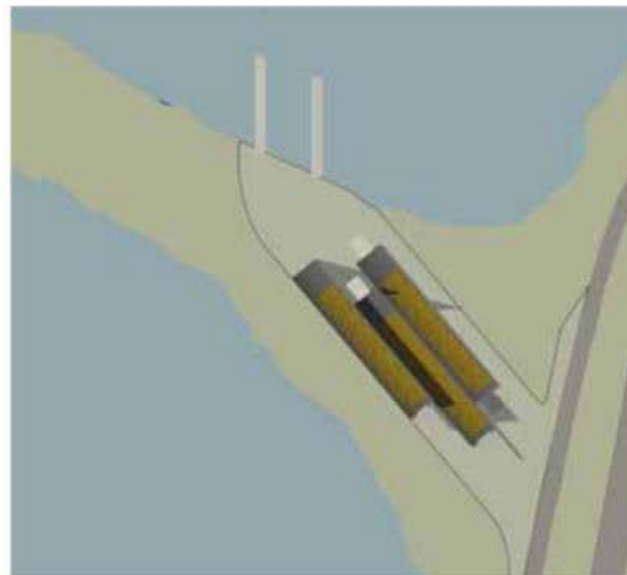
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2:00 P.M.



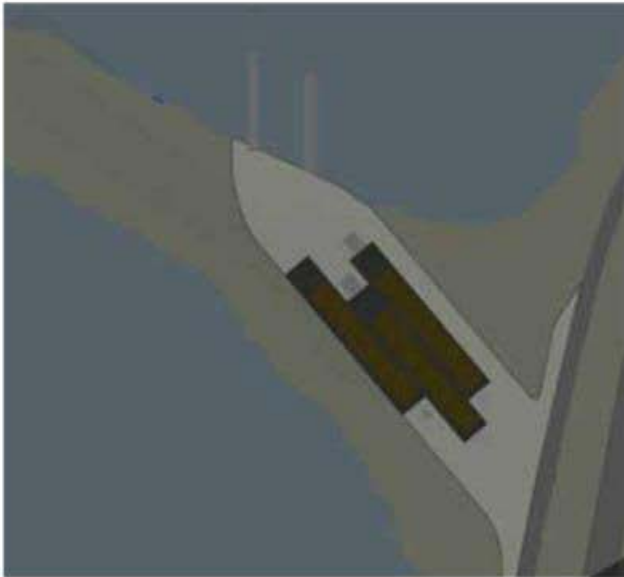
4:00 P.M.



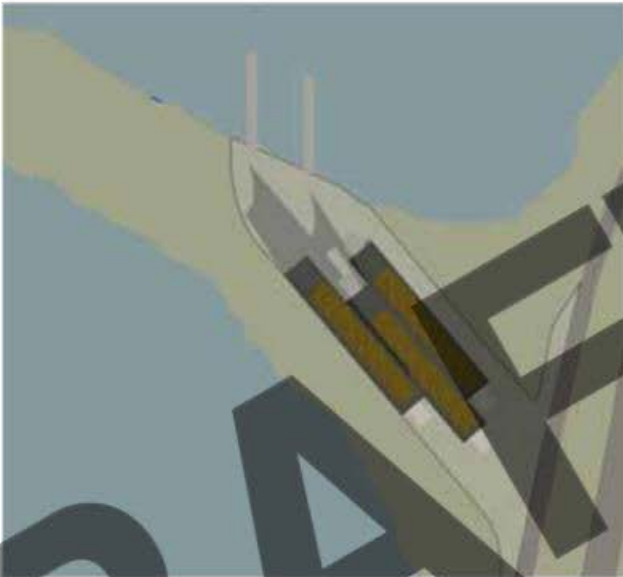
6:00 P.M.

DRAFT

4.16 - DESIGN DOCUMENTATION | SHADOW STUDIES - 12/21



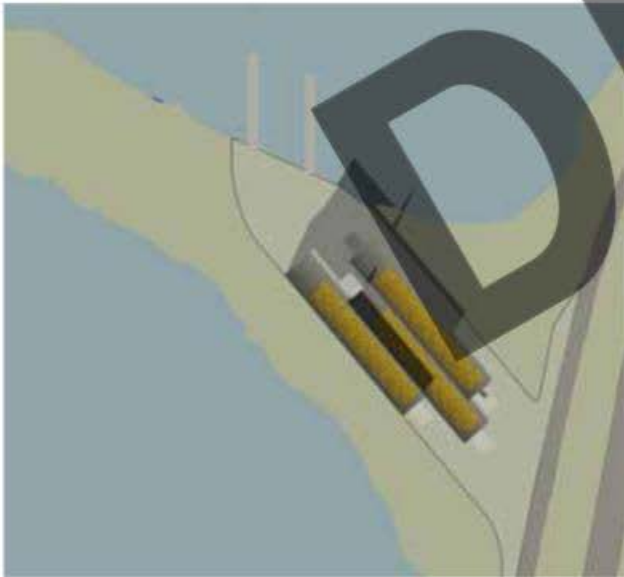
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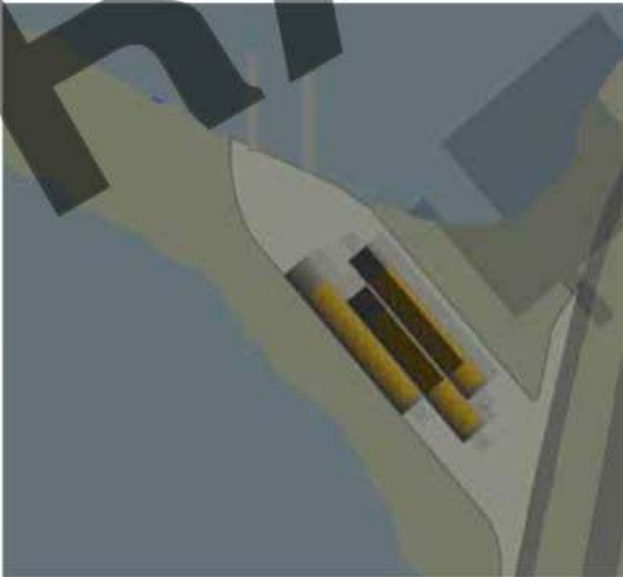
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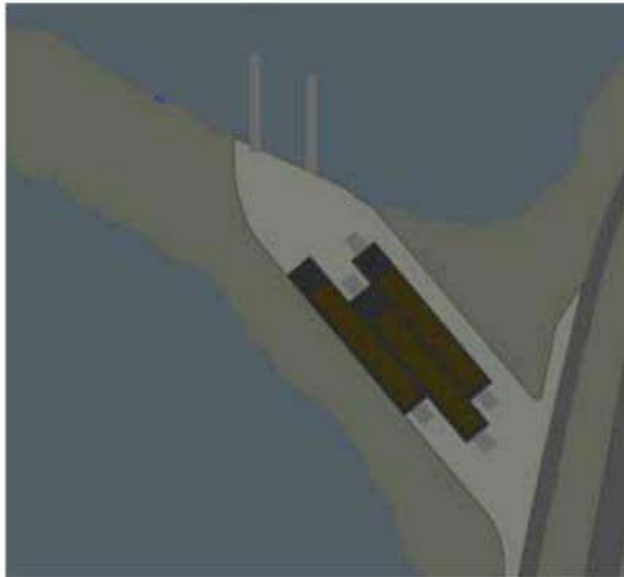
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2:00 P.M.

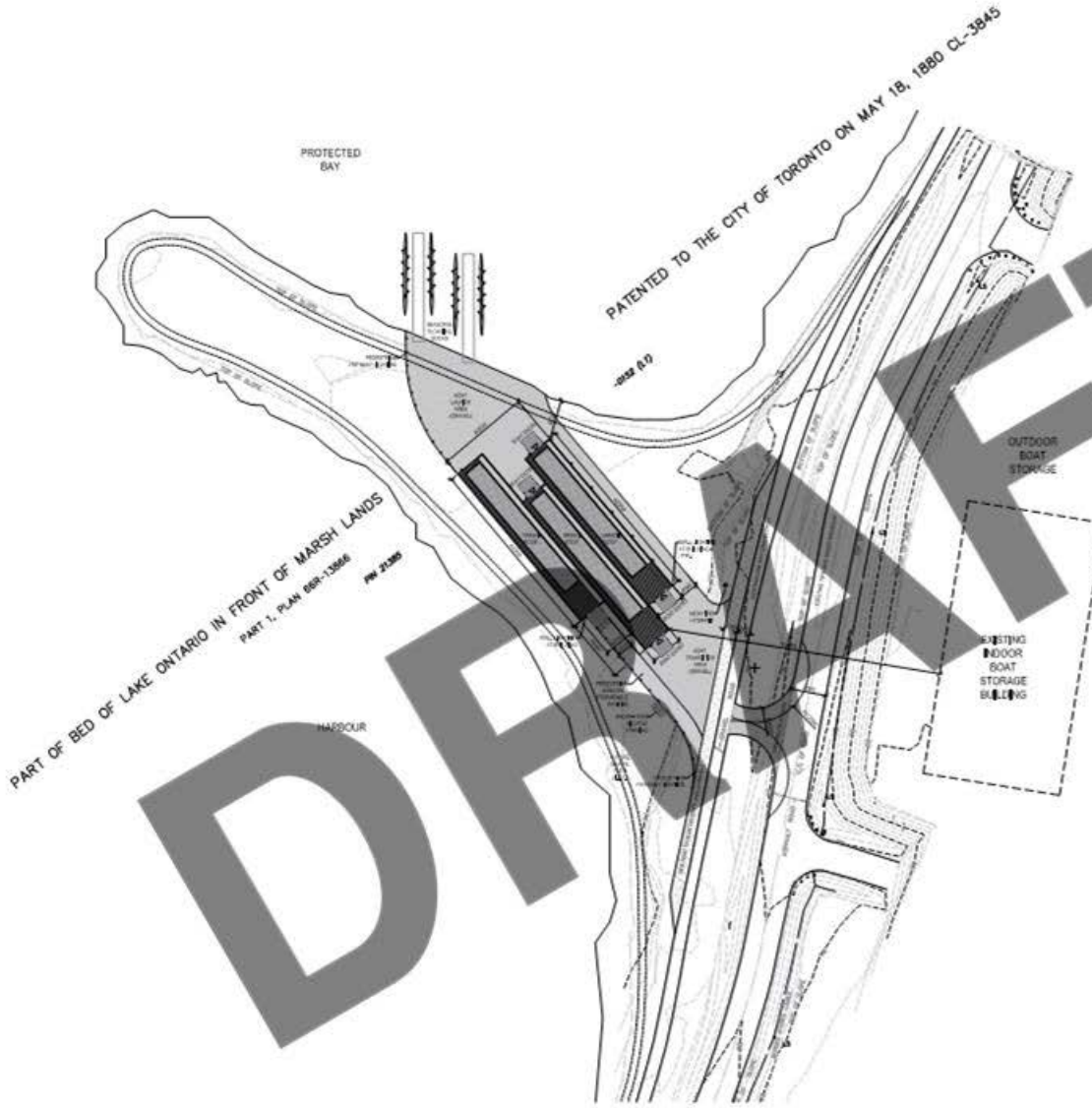


4:00 P.M.



6:00 P.M.

4.17 - DESIGN DOCUMENTATION | SITE PLAN



PLAN OF TOPOGRAPHY OF PART OF CRADLE PATH OUTER HARBOUR HARBOUR CITY OF TORONTO

DATE: 2020-02-26

SCALE: 1:500

NO.	DESCRIPTION	DATE
1	ISSUED FOR SPA	2020-02-26
2	REVISED	2020-02-26
3	REVISED	2020-02-26
4	REVISED	2020-02-26
5	REVISED	2020-02-26
6	REVISED	2020-02-26
7	REVISED	2020-02-26
8	REVISED	2020-02-26
9	REVISED	2020-02-26
10	REVISED	2020-02-26
11	REVISED	2020-02-26
12	REVISED	2020-02-26
13	REVISED	2020-02-26
14	REVISED	2020-02-26
15	REVISED	2020-02-26
16	REVISED	2020-02-26
17	REVISED	2020-02-26
18	REVISED	2020-02-26
19	REVISED	2020-02-26
20	REVISED	2020-02-26
21	REVISED	2020-02-26
22	REVISED	2020-02-26
23	REVISED	2020-02-26
24	REVISED	2020-02-26
25	REVISED	2020-02-26
26	REVISED	2020-02-26
27	REVISED	2020-02-26
28	REVISED	2020-02-26
29	REVISED	2020-02-26
30	REVISED	2020-02-26
31	REVISED	2020-02-26
32	REVISED	2020-02-26
33	REVISED	2020-02-26
34	REVISED	2020-02-26
35	REVISED	2020-02-26
36	REVISED	2020-02-26
37	REVISED	2020-02-26
38	REVISED	2020-02-26
39	REVISED	2020-02-26
40	REVISED	2020-02-26
41	REVISED	2020-02-26
42	REVISED	2020-02-26
43	REVISED	2020-02-26
44	REVISED	2020-02-26
45	REVISED	2020-02-26
46	REVISED	2020-02-26
47	REVISED	2020-02-26
48	REVISED	2020-02-26
49	REVISED	2020-02-26
50	REVISED	2020-02-26

BENCHMARK NOTE
 ALL BENCHMARKS ARE TO BE SET BY THE CONTRACTOR IN ACCORDANCE WITH THE CITY OF TORONTO BENCHMARKING BY-LAW.

METRIC METRIC IS TO BE USED FOR ALL DIMENSIONS UNLESS OTHERWISE NOTED.

SCALE: 1:500

SITE PLAN

VJAA
 ARCHITECTS

RDHA
 ENGINEERS

VALDOR ENGINEERING INC.
 ENGINEERS

NAX DESIGN STRATEGIES
 STRATEGISTS

BLACKWELL
 CONSULTANTS

SMITH & ANDERSEN
 CONSULTANTS

Upper Canada College Rowing Facility
 at the Outer Harbour Marina
 475 King Street West, Toronto, ON

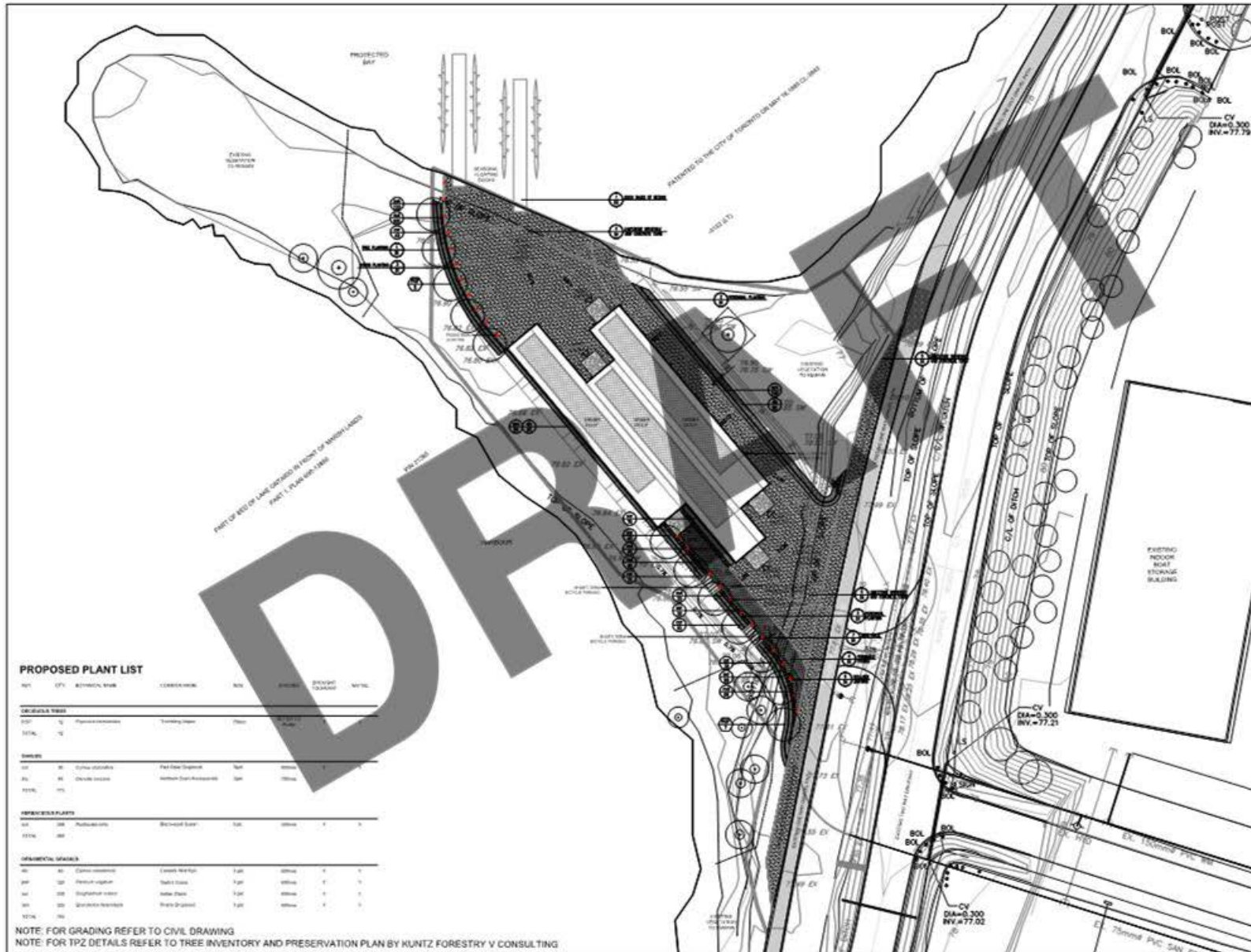
SITE PLAN

ISSUED FOR SPA

NO.	DATE	DESCRIPTION
1	2020-02-26	ISSUED FOR SPA

A001

4.20 - DESIGN DOCUMENTATION | PLANTING PLANS



Contractor shall check all dimensions on the site and report any discrepancy to the architect within 10 working days. All dimensions and locations are to be verified on the ground. The drawings are to be used for construction and shall be subject to the contractor's interpretation.



- LEGEND**
- WE MAKE UP**
- SEWER
 - STORM
 - WATER
 - PROPOSED BOLLARD LIGHTING
 - EXISTING BOLLARD LIGHTING
- DETAILED KEY**
- MINI IN
 - STAY IN
- PLANTING KEY**
- 10' TREE SPACING
 - 15' TREE SPACING

NO.	DESCRIPTION	DATE
1	Issue for Review	18 Feb 2020
2	Issue for Review	19 Feb 2020
3	Issue for Review	20 Feb 2020
4	Issue for Review	21 Feb 2020
5	Issue for Review	22 Feb 2020
6	Issue for Review	23 Feb 2020
7	Issue for Review	24 Feb 2020
8	Issue for Review	25 Feb 2020
9	Issue for Review	26 Feb 2020
10	Issue for Review	27 Feb 2020



NAK
 400 BROADVIEW AVENUE, TORONTO, ON M4M 1B7 CANADA
 TEL: 416 461-7100 FAX: 416 461-7101
 WWW.NAK.COM

Upper Canada College Rowing Facility at the Outer Harbour Marina
 475 Green Avenue, Toronto, Ontario

LANDSCAPE PLAN	
Rev:	01
Date:	18 Feb 2020
Drawn by:	AK
Checked by:	AK
Scale:	1/8" = 1'-0"
Sheet No.:	L1

PROPOSED PLANT LIST

NO.	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	FORM	HEIGHT	SPREAD	WATER	SOIL
ORNAMENTAL TREES									
101	10	Prunella canadensis	Common Plum	Small	Shrub	10'	10'	1	1
102	10	Prunella virginiana	Wild Black Cherry	Small	Shrub	10'	10'	1	1
103	10	Prunella pennsylvanica	Black Cherry	Small	Shrub	10'	10'	1	1
ORNAMENTAL SHRUBS									
104	100	Prunella pennsylvanica	Black Cherry	Small	Shrub	10'	10'	1	1
105	100	Prunella pennsylvanica	Black Cherry	Small	Shrub	10'	10'	1	1
ORNAMENTAL GRASSES									
106	100	Prunella pennsylvanica	Black Cherry	Small	Shrub	10'	10'	1	1
107	100	Prunella pennsylvanica	Black Cherry	Small	Shrub	10'	10'	1	1
108	100	Prunella pennsylvanica	Black Cherry	Small	Shrub	10'	10'	1	1
109	100	Prunella pennsylvanica	Black Cherry	Small	Shrub	10'	10'	1	1
110	100	Prunella pennsylvanica	Black Cherry	Small	Shrub	10'	10'	1	1

NOTE: FOR GRADING REFER TO CIVIL DRAWING
 NOTE: FOR TPZ DETAILS REFER TO TREE INVENTORY AND PRESERVATION PLAN BY KUNTZ FORESTRY V CONSULTING