

Info Package

Date:



The District of North Vancouver INFORMATION REPORT TO COUNCIL

December 9, 2020

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AUTHOR: Nicola Chevallier, Section Manager, Facilities & Special Projects

SUBJECT: Maplewood Fire & Rescue Centre Update

REASON FOR REPORT:

The purpose of this report is to provide an update on the Maplewood Fire & Rescue Centre (MFRC) project that is scheduled to start building construction in Summer 2021.

SUMMARY:

The MFRC project has progressed significantly since the decision by Council on June 24th, 2019 to undertake a re-design of the site to move the facility closer to Dollarton Highway.

Based on a concept that was approved by Council in October 2019, the project team continues to work closely with Wild Bird Trust (WBT) to re-design the project to meet Council's goals of moving the building to the south and restoring the northern portion of the site. The project team and WBT continue to explore design concepts with the intent of improving the the flow of clean water through existing wetlands to downstream ecosystems.

Site remediation and excavation of the debris pile left from the District landfill operation is moving forward independently and is expected to start in early 2021.

The construction tender for the new facility is expected to be issued in early 2021 with project completion anticipated for Summer 2023.

The project website will be updated this month with the updated site layout, renderings and schedule information.

BACKGROUND:

Council approved proceeding with a consolidated facility that would accommodate existing fire training, a fire hall, and administrative functions at the Maplewood site in 2015.

Subsequently, on June 24th, 2019, Council directed staff to develop a revised site plan, moving the MFRC forward (south) toward Dollarton Highway, work closely with WBT and other stakeholders to ensure recommended ecological improvements were achieved, and undertake additional energy analysis for their consideration. Council also indicated their

support for proceeding with remediation of the site independently of construction of the MFRC.



Figure 1: Previous and Revised site plans

At their closed meeting on October 16th, 2019, Council authorized staff to complete the design of the MFRC based on a revised site concept (see Figure 1) and the results of the energy analysis and work with WBT and other environmental experts.

The Council resolutions from June 24th 2019 and October 16th 2019, are in Appendix 1.

ANALYSIS:

Pursuant to Council’s direction, revised detailed design and permit drawings have been prepared, including detailed plans for restoration of the northern portion of the site. New site plans and renderings are ready to be posted to the project website and are included in Appendix 2.

The revised site plan achieves key goals expressed by Council including rehabilitation of a portion of Old Dollarton Road near the entrance to the MFRC as riparian area, establishment of a much more prominent street presence on both Old Dollarton Road and Dollarton Highway, and better pedestrian and cyclist connections to Maplewood Village and transit.

The training yard has been made as efficient as possible while providing space for “best practice” training props.

The design has taken into account Council's goals for improved ecological, environmental and wildlife interests wherever possible.

A detailed soil remediation plan and permit application has been submitted to the Ministry of Environment (MoE) for site remediation. The site remediation work is proceeding independently of the MFRC project pursuant to Council direction. The tender for site remediation and excavation of the fill pile work was issued in August 2020 and site work is expected to proceed in early 2021 (prior to bird nesting season).

Restoration work on the northern portion of the site is being designed in collaboration with the project team and their QP's, DNV Environment as well as the WBT detailed plans are currently under review. The restoration work is to begin during the site excavation and remediation early phase work and include: contaminated soil remediation, removal of invasive species, protection of sensitive and valuable areas and riparian areas, creation of an enhanced top soil layer from soils on site augmented with organic material from the site, creation of wildlife habitat with woody debris, wildlife trees etc. and replanting with native species.

Best practices for rainwater management have been incorporated into the design in order to ensure that the flow of surface water to downstream ecosystems and ultimately the Maplewood Conservation area meets the applicable criteria for water quality and quantity.

A number of other collaboration opportunities are also being discussed with WBT, such as salvaging plants from the MFRC to assist their efforts in propagating native plant species and consideration of using plant material from WBT for riparian restoration and restoration of the northern portion of the project site.

Timing/Approval Process:

Site remediation and excavation work on site is anticipated to begin in mid January.

Concurrence:

The Fire Services, Engineering, Communications, Planning and Environmental Sustainability departments concur with the project.

In addition, the Wild Bird Trust has expressed concurrence by way of letter presented in Appendix 3.

Financial Impacts:

The overall project cost is estimated at \$50.9M based on a recent cost estimate and the results of the excavation tender. Approximately \$8M of this budget is allocated to preparing the site by remediating and properly disposing of the old landfill material, while \$42.9M is allocated to the construction of the MFRC and restoration of the northern part of the site and other environmentally sensitive areas.

The 2021 – 2025 Financial Plan will reflect the latest costs estimates, including site remediation costs associated with the new site which will be funded by borrowing. An update on project costs and funding will be provided prior to construction contract award.

Actual spend to date is \$3.3M of design fees and site investigations.

Liability/Risk:

Efficient and effective fire protective services requires fire stations to be located so as to minimize response times, as well as regular training of staff to meet regulatory requirements and mitigate risk.

Environmental Impact:

From about 1960 to the late 1980's, the subject site was used as a dump site for road construction material. The area contains a contaminated 8m deep fill pile over the entire developable area, which includes unsorted concrete, asphalt, aggregate material, coiled wires, old telephone poles and other debris. Vegetation has since overgrown the previously cleared area, but is infested with invasive species.

This project has been designed to remediate the site, remove invasive species, and create a defensible space for wildfire protection. It sets out to also improve and protect the environmentally sensitive riparian and wetland areas to the north, west and south of the old landfill which is expected to benefit the downstream wetlands and conservation areas.

Runoff from the training facility will be treated on-site and is required to meet the Aquatic Life Water Quality Criteria per the provincial guidelines. The runoff must also not cause erosion or other downstream issues due to energy and volume. Post construction monitoring is being planned to ensure that these objectives are met.

Other environmental benefits of the new building includes an anticipated 71% reduction in energy use and 92% reduction in greenhouse gas (GHG) emissions compared to the existing buildings. The proposed building exceeds the District's green building policy for corporate buildings. It is being designed to be the most energy efficient and lowest GHG emitting facility of any District-owned building to date.

Any smoke from training activities will be contained and scrubbed, and any emissions will be required to meet Metro Vancouver's Air Discharge Regulation and Bylaw.

Public Input:

The proposed Maplewood Fire and Rescue Centre was included as part of the public consultation process that was undertaken through the Maplewood Village Centre Planning

and Engagement process. In addition, a Public Information Meeting about the project was held on May 15, 2019. Attendees at that public information meeting and neighbourhood residents and businesses received a letter in July 2020 advising them of the project's status, and of the District's intent to proceed with environmental clean-up.

The DNV.org website contains information about both the Maplewood Fire and Rescue Centre (DNV.org/MaplewoodFire) and the site clean-up (DNV.org/MaplewoodCleanUp) and is being updated with the latest drawings and schedule information.

Respectfully submitted,



Nicola Chevallier, P.Eng. M.A.Sc.
Section Manager, Facilities & Special Projects

REVIEWED WITH:					
<input type="checkbox"/> Community Planning	_____	<input type="checkbox"/> Clerk's Office	_____	External Agencies:	
<input checked="" type="checkbox"/> Development Planning	_____	<input checked="" type="checkbox"/> Communications	_____	<input type="checkbox"/> Library Board	_____
<input type="checkbox"/> Development Engineering	_____	<input checked="" type="checkbox"/> Finance	_____	<input type="checkbox"/> NS Health	_____
<input type="checkbox"/> Utilities	_____	<input checked="" type="checkbox"/> Fire Services	_____	<input type="checkbox"/> RCMP	_____
<input checked="" type="checkbox"/> Engineering Operations	_____	<input type="checkbox"/> ITS	_____	<input type="checkbox"/> NVRC	_____
<input type="checkbox"/> Parks	_____	<input type="checkbox"/> Solicitor	_____	<input type="checkbox"/> Museum & Arch.	_____
<input checked="" type="checkbox"/> Environment	_____	<input type="checkbox"/> GIS	_____	<input type="checkbox"/> Other:	_____
<input type="checkbox"/> Facilities	_____	<input type="checkbox"/> Real Estate	_____		
<input type="checkbox"/> Human Resources	_____	<input type="checkbox"/> Bylaw Services	_____		

APPENDIX 1

Council resolution from June 24th 2019:

THAT staff site the Maplewood Fire Training Centre forward, respecting the fifteen metre riparian setback from the Dollarton property line, maintaining the East property line driveway access, and achieving an increased and environmentally improved contiguous wildlife corridor in the rear of the District's property.

AND THAT staff report back to Council the cost up front and return on investment for passive construction of the Maplewood Fire Training Centre, including permeable surfaces and exceeding the current LEED gold approach

AND THAT discussions commence with the Wild Bird Trust to understand the impacts of hydrology of the Maplewood mud flats, Park Street Marsh and improvements that can be made to the hydrology impact of the development and increased inventory of remediated and protected wetland habitat.

Closed Council resolution from October 16th, 2019:

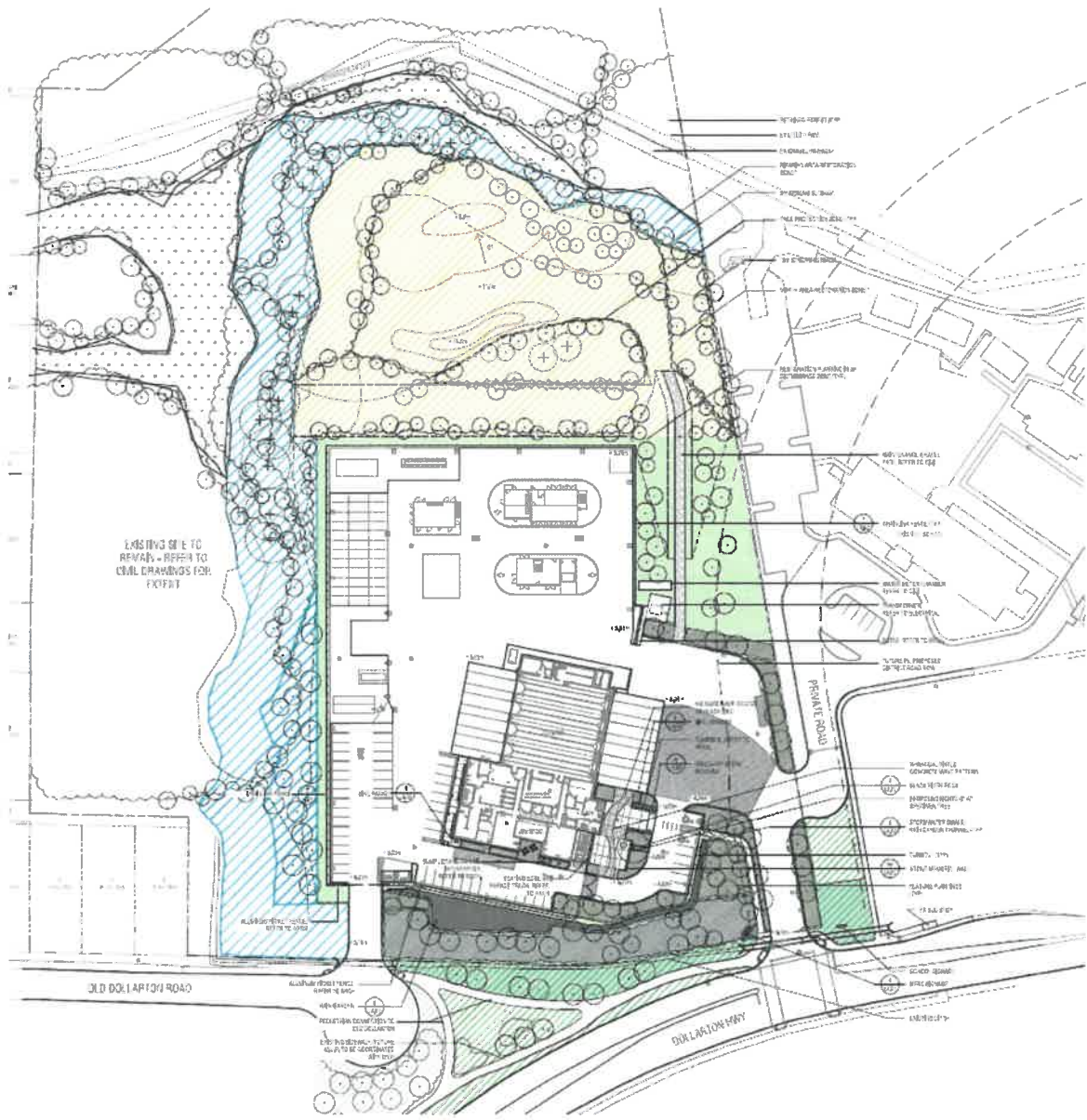
THAT staff are authorized to complete the design of the new Maplewood Fire & Rescue Centre based on the revised site concept presented in the joint report of the General Manager, Engineering, Parks & Facilities and the Fire Chief dated October 16, 2019;

THAT Staff provide Council an updated cost estimate for the Maplewood Fire & Rescue Centre project prior to the awarding of a construction contract;

AND FINALLY THAT this decision be released to the public.

APPENDIX 2
Site Plan & Renderings

Site Plan



View from Southeast, Dollarton Highway



Aerial view from Southeast



View from top of Windridge Escarpment



APPENDIX 3



Richard Boase
Section Manager Environmental Sustainability (Operations)
District of North Vancouver (DNV)
355 West Queens Road
North Vancouver, BC V7N 4N5
rboase@dnv.org

June 15, 2020

Dear Richard,

Re: District of North Vancouver Firehall and Rescue Centre tree removal plans

The Wild Bird Trust (WBT) appreciates the consultation on the Firehall and Rescue Centre planning in the context of tree clearing and impacts on the Maplewood Flats Conservation Area (MCA). The WBT recognises that the DNV staff and council share the goal of protecting the environment.

Thank you for the informative site visit April 22nd where you and engineering staff toured WBT staff and Board members, outlining plans for tree removal, replanting and restoration. We appreciate that the DNV has worked to reduce the footprint of the project and is working to protect the wetlands west of the proposed firehall site as well as working to maintain or improve water resources reaching the Park Street Marsh at Maplewood Flats.

We support the DNV plans to mitigate the effects of habitat alteration at the Firehall and Rescue Centre with replanting and offsetting restoration plans at the Maplewood Flats Conservation Area. The mixed second-growth cottonwood-alder forest that is being removed is valuable and well used by resident and migrating birds and wildlife. We look forward to working with the District on developing restoration plans to maximize the habitat quality at the MCA to compensate for the habitat loss. WBT is happy to hear that tree removal will happen outside of the bird nesting season (March 15 to August 15).

We also support the DNV plans to use native plants for Firehall landscaping. The WBT nursery can provide native plant material for the landscaping, with all profits going towards MCA restoration work.

At the site visit, we discussed potential water flow enhancement work at the Park Street Railway Embankment as well as the need for improvements along the Northern boundary of the MCA on Dollarton Highway. We look forward to ongoing consultation and discussion of these issues.

Regards,

Irwin Oostindie, President

The Conservation Area at Maplewood Flats Operated by WBT Wild Bird Trust of British Columbia
2649 Dollarton Highway, North Vancouver, BC, V7H 1B1
facebook/Instagram/twitter: [@MaplewoodFlats](#)
wildbirdtrust.org

