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Item No. 12.1.1
Environment & Sustainability Standing Committee
March 4, 2021

TO: Chair and Members of the Environment & Sustainability Standing Committee

SUBMITTED BY: Original Signed
Denise Schofield, Executive Director, Parks & Recreation

Original Signed
Jacques Dubé, Chief Administrative Officer

DATE: February 11, 2020

SUBJECT: **Naturalization Initiatives Update**

ORIGIN

February 21, 2017 Regional Council motion:

MOVED by Councillor Austin, seconded by Councillor Nicoll that Halifax Regional Council requests a staff report on the possibility of an HRM park naturalization strategy and that it be forwarded to the Environment & Sustainability Standing Committee.

MOTION PUT AND PASSED UNANIMOUSLY

January 29, 2019 Regional Council motion:

MOVED by Councillor Zurawski, seconded by Councillor Blackburn THAT Halifax Regional Council direct staff to advance the naturalization initiatives outlined in the Discussion section of the staff report dated December 14, 2018, including:

- a) naturalizing areas within parks and right-of-ways which may be difficult to maintain with lawn cover;
- b) naturalizing parks or areas within parks that are comprised of older and underutilized park features and equipment;
- c) introducing naturalization in new parks or when undertaking park plans for existing parks;
- d) raising public awareness regarding the benefits of naturalization and local projects through HRM's website and on-site signage;
- e) continuing to foster partnerships with stakeholder and community groups to establish naturalization projects;
- f) cataloguing naturalization programs and projects over a 2-year period for monitoring purposes towards consideration of a future naturalization guideline/policy; and
- g) That staff to return with an update on the identified naturalization initiatives in two years' time.

AMENDED MOTION PUT AND PASSED UNANIMOUSLY

RECOMMENDATION ON PAGE 2

LEGISLATIVE AUTHORITY

Halifax Regional Municipality Charter

Section 70(1) The Municipality may, (a) beautify, improve and maintain property owned or leased by the Municipality;

Section 79A(1) Subject to subsections (2) to (4), the Municipality may only spend money for municipal purposes if (a) the expenditure is included in the Municipality's operating budget or capital budget or is otherwise authorized by the Municipality;...

RECOMMENDATION

It is recommended that the Environment & Sustainability Standing Committee (ESSC) recommend to Halifax Regional Council that the naturalization initiative review period be extended by one year to December 31, 2021, to fully include the pilot projects that were to have occurred in 2020 for monitoring towards a future naturalization guideline/policy.

BACKGROUND

On January 29, 2019, Regional Council approved the *HRM Park Naturalization Strategy Recommendation Report*¹ that outlined directions for proceeding with a two-year naturalization pilot project. Naturalization is an ecologically-based approach to landscape management that seeks to enhance biodiversity and ecological resilience in the urban landscape using native or non-invasive-adapted plant species. The 2019 report outlined the numerous ecological, environmental, educational, recreational and economic benefits of naturalization; naturalization methods; naturalization strategies from other municipalities; and the local context.

Prior to the 2019 report, there had been several one-off naturalization projects in the municipality, but no coordinated approach. To properly assess past and forthcoming projects, which could then be reviewed before development of a formalized naturalization strategy, the 2019 report recommended to proceed with the following initiatives:

- the continuation of naturalizing areas within parks and right-of-ways that may be difficult to maintain with lawn cover;
- naturalizing parks or areas within parks that are comprised of older and underutilized park features and equipment;
- introducing naturalization in new parks or when undertaking park plans for existing parks;
- raising public awareness regarding the benefits of naturalization and local projects through the municipality's website and on-site signage;
- continuing to foster partnerships with stakeholder and community groups to establish naturalization projects; and
- cataloguing naturalization programs and projects over a 2-year period for monitoring purposes toward consideration of a future naturalization guideline/policy.

In addition to these initiatives, Regional Council requested an update in two years' time. Numerous advances have been made, however, the COVID-19 pandemic has delayed or altered the planned approaches for core pilot projects which rely on volunteers. Discussed below are the initiatives which have occurred, and the knowledge gained since December 2019, including:

¹ 2019 HRM Park Naturalization Strategy Recommendation Report:
<https://www.halifax.ca/sites/default/files/documents/city-hall/regional-council/190129rc1441.pdf>

- park plans that contain naturalization;
- the status of the three pilot projects;
- other naturalization-related initiatives happening in the municipality;
- findings to date; and
- next steps.

DISCUSSION

Progress has been made on several of the initiatives outlined above, as follows:

- A Naturalization Working Group (Working Group) with members from three business units (Parks & Recreation, Transportation and Public Works (TPW) and Planning & Development) was formed.
- A webpage was created describing what naturalization is, how it is beneficial, and what naturalization sites can look like.²
- On-site signage has been created and posted at the pilot sites.
- Together with the Naturalization Working Group, a Dalhousie University Environmental Studies student compiled a map which catalogues naturalization initiatives that have occurred in parks and right-of-way areas within the municipality.
- In collaboration with the Naturalization Working Group, a Dalhousie University Environmental Studies student completed a study, The Implications of the Emerald Ash Borer (*Agrilus planipennis*) on Riparian Canopy Cover in Three Halifax Regional Municipality Parks, which will help staff with management decisions in these parks.³
- The Working Group, together with suggestions from community members, have compiled a list of over 30 sites within parks and right-of-way areas that could be suitable for naturalization.
- Four park plans that include naturalized areas have been approved by Regional Council (details below).
- Three naturalization pilot sites have been planned, one of which proceeded (details below).

Park Plans

Since January of 2019, four park plans that have included landscape naturalization elements were approved by Regional Council. Lake Echo District Park, Gorsebrook Park, the Eastern Passage Common and Viscount Run Park plans all include strategic naturalization for a variety of reasons such as: slope stabilization; food source for pollinators; wildlife habitat; and educational purposes. The project details for these parks will be refined as phases of implementation are brought forward for consideration in successive business plans and budgets.

Pilot Sites

Three naturalization pilot sites have been planned and were scheduled to begin this past spring: Dartmouth Common (Leighton Dillman Park); a right-of-way area along Sime Court in South Kingswood; and Merv Sullivan Park. As outlined in the 2019 staff report, one of the most important aspects of successful municipal naturalization programs is strong community involvement and this is a key component of the municipality's pilot initiatives. As a result of COVID-19 health measures, the projects were not able to proceed as anticipated.

Dartmouth Common (Leighton Dillman Park) – The area selected for naturalization in the Dartmouth Common is one that was formerly dominated by turfgrass. With mixed success, the turf grass was removed and replaced with wildflower seeds in 2018 for the purpose of establishing a pollinator meadow. The updated naturalization plan for this location includes the addition of flowering shrubs, small trees, and on-

² Link to HRM's Naturalization webpage: <https://www.halifax.ca/naturalization>

³ Link to Haughn J. 2020: <http://hdl.handle.net/10222/79237>

going wildflower seeding and weeding (Attachment A). Over the fall and winter, staff had reached out to the local community and received interest from numerous residents, however, this initiative was impacted by COVID-19. Volunteers are prepared to become involved in the project when it is safe to do so. As an interim measure, a scaled-back version of the full plan was implemented which involved re-seeding the wildflower species.

Sime Court Right-of-way (South Kingswood) – In the summer of 2019, a community member approached the municipality with plans to convert a large right-of-way area into a pollinator garden. After consideration by the Working Group, this project was deemed to fit the criteria for a pilot project. Beginning in March 2020, the resident began collecting large numbers of perennial transplants donated from fellow gardeners and from their own extensive garden. The project proceeded as a pilot with a small number of dedicated volunteers. Site work by staff included tilling and adding soil and a berm between the planted area and the drainage ditch (Attachment B). The volunteers placed plants close together in order to minimize space for unwanted vegetation and the expectation is that within a few years the garden will be self-sustaining. There has been support and interest in this project from the local residents and the broader gardening community. This first pilot project has resulted in positive outcomes as well as valuable lessons learned (see “Findings to Date”).

Merv Sullivan Park – The Merv Sullivan Park naturalization plan involves converting a prominent but underutilized grassed area into a naturalized one that will contain flowering perennials, shrubs and trees (Attachment C). With the addition of large logs, which have been collected throughout the municipality, the project also includes a placemaking component. Extensive community interest for this pilot project has been generated within the following groups:

- the NSCC Adult Learning Program Geography class;
- the YMCA newcomers to Canada;
- the Young Naturalist Club; and
- numerous nearby residents.

As with the Dartmouth Common project, this pilot project has community interest, but community participation was postponed because of the pandemic. Wildflower seed was added to one area of Merv Sullivan Park in the Fall of 2020 to advance a small part the of initiative. The full project, including community involvement, is expected to occur in 2021.

Synergy with Other Initiatives

Three recent initiatives within the municipality dovetail with the current naturalization approaches; HalifACT, the Pollution Source Control Study for Lake Banook & Lake Micmac and a forthcoming administrative order for boulevard gardening. These three initiatives are described below.

- **HalifACT**
HalifACT is Halifax’s plan to address climate change for the next 30 years and includes an action item calling for development and implementation of a region-wide naturalization program to enhance biodiversity and ecological resilience on both municipally-owned and private property.
- **The Pollution Source Control Study for Lake Banook & Lake Micmac**
This Study was approved by Regional Council in September 2020 and recommends considering naturalization initiatives to help mitigate stormwater runoff into these lakes as one of its short-term goals.⁴

⁴ Link to Pollution Control at Lake Banook and Lake Micmac staff report and study:
<https://www.halifax.ca/sites/default/files/documents/city-hall/regional-council/200929rc1114.pdf>

- **Administrative Order for Boulevard Gardens**
In May of this year, Regional Council gave direction for amendments to the Streets By-Law and development of an administrative order permitting the placement of boulevard gardens in municipal right-of-ways. The changes, once considered by Regional Council, would allow abutting property owners to plant species other than turf grass.

In addition to the initiatives above, during the summer of 2020 two community groups expressed interest in planting within parks and street right-of-way areas, as described below.

- **The Mersey Tobeatic Research Institute**
The Mersey Tobeatic Research Institute has a program which aims to plant swamp milkweed across the province to provide habitat and recover the Monarch butterfly population. An individual from this organization worked with the municipality to do test planting in Flynn Park and is poised to expand into other suitable areas.
- **Nova Scotia Lupin Society**
The Nova Scotia Lupin Society requested to plant lupins on the peninsula for their aesthetic qualities and benefit to pollinators, which will be considered in 2021.

These new initiatives highlight the importance of and growing interest in diversifying plantings to increase biodiversity, create more ecologically robust landscapes, and improve aesthetics. In addition to acknowledging the growing interest, these projects have also led to important lessons and items for consideration as the municipality continues to shape naturalization initiatives.

Findings to Date

The following list outlines the key findings to date.

- There is an appreciation and interest in naturalization initiatives across municipal business units and in the broader community.
- The resources required for naturalization initiatives should continue to be evaluated, including upfront site preparation, plant material costs and staff time to organize projects. This includes coordination with staff across business units, with community members and groups and researchers, developing site plans, ordering plant material as well as organizing and overseeing planting events.
- It is important that technical staff be available for on-site reviews and design discussions as it relates to drainage and other physical design elements.
- Integration of related municipal-led initiatives such as stormwater runoff mitigation and programming for private land owners need to be considered.
- Some requests, as highlighted in the partnership with the Mersey Tobeatic Research Institute and the Nova Scotia Lupin Society, indicate that while not all initiatives are naturalization in its strictest sense, they do represent biodiverse landscapes and align with the overarching objective of increasing ecological resilience. These types of requests require further consideration in consideration of a future naturalization guideline/policy.

Next Steps

As outlined in this report, the full extent of naturalization initiatives that were planned for 2020 were unable to be undertaken. Consequently, an extension of the pilot project for an additional year is recommended. During this period the following tasks would be completed:

- Resume the plans for Dillman Park and Merv Sullivan Park in Spring 2021. If social distancing rules are still in place at that time, protocols will be reviewed and considered for the purpose of coordinating volunteer involvement in a safe manner.
- Create an online interactive map displaying the catalogue of naturalization project sites.

- Explore the inclusion of stormwater runoff mitigation, programming for private land owners and other related initiatives.
- Produce a staff report outlining the overall successes and challenges of the initiative, the required resources and make recommendations on future implementation of a naturalization strategy.

FINANCIAL IMPLICATIONS

There are no financial implications to this report. The projects that have been listed and that are anticipated for next year, can be funded from existing operating budgets. A full review of staff and financial resources required to support an ongoing naturalization program will be considered at the conclusion of the recommended one-year extension period.

RISK CONSIDERATION

The risks associated with this reports recommendations rate low. To determine this rating, consideration was given to financial and operational risks.

COMMUNITY ENGAGEMENT

No community engagement was conducted in conjunction with the preparation of this report.

ENVIRONMENTAL IMPLICATIONS

There are environmental benefits to the naturalization initiatives outlined within this report. Should these initiatives succeed, they would increase resilience to climate impacts such as flooding and increase ecosystem health and biodiversity. These outcomes would in turn support both the Green Network Plan and HalifACT.

ALTERNATIVE

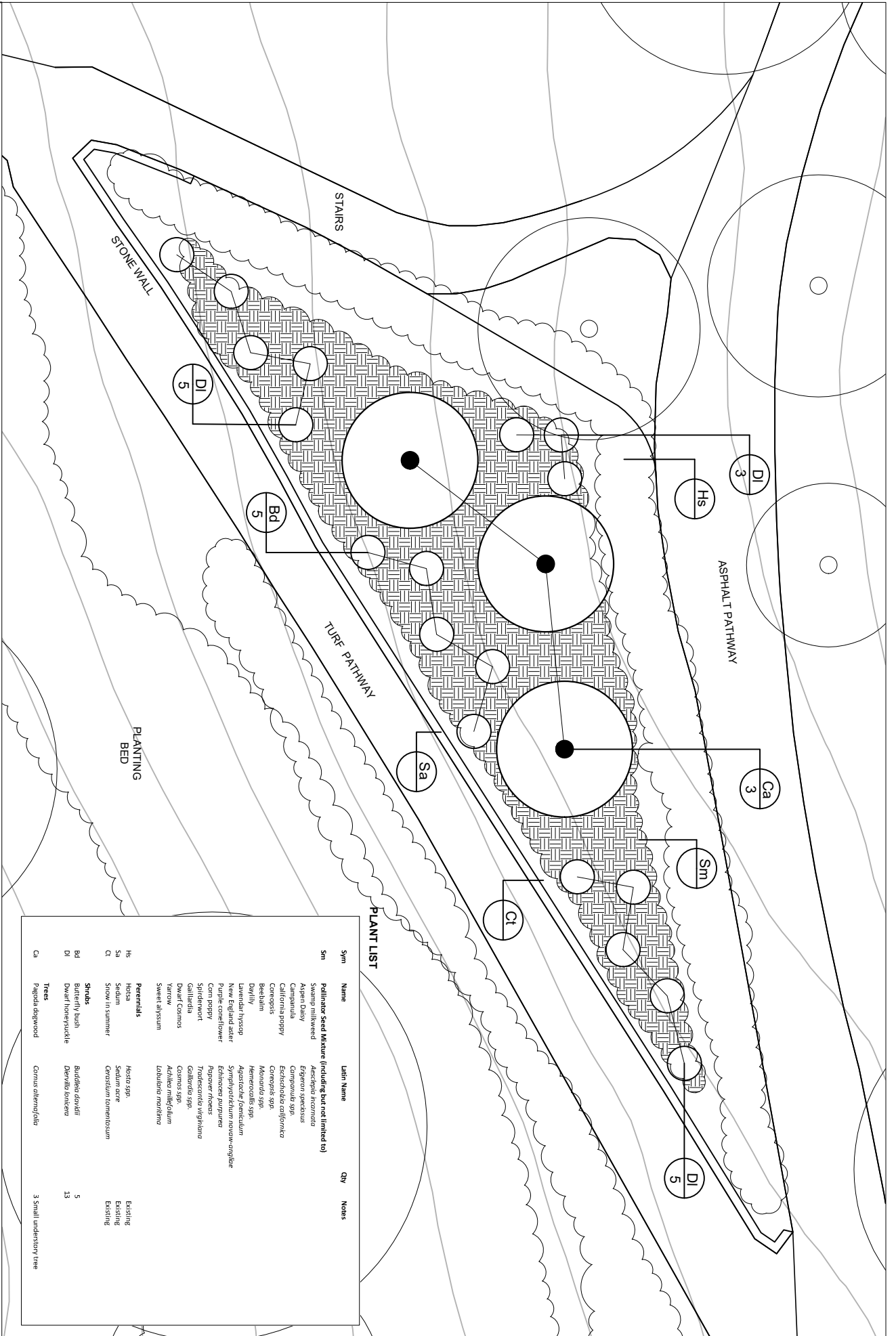
Environment & Sustainability Standing Committee could recommend that Regional Council not extend the naturalization initiative review period by one year to December 31, 2021 and direct the immediate implementation of a Naturalization Strategy. This would require a supplemental report on resourcing and process for implementation.

ATTACHMENTS

Attachment A – Dartmouth Common Naturalization Concept Plan
Attachment B – Sime Court Right-of-way Naturalization
Attachment C – Merv Sullivan Naturalization Concept Plan

A copy of this report can be obtained online at halifax.ca or by contacting the Office of the Municipal Clerk at 902.490.4210.

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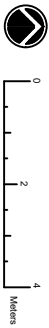
DILLMAN PARK - DRAFT NATURALIZATION CONCEPT

PLANT LIST

Sym	Name	Latin Name	Qty	Notes
Sm	Pollinator Seed Mixture (including but not limited to)			
	Swamp milkweed	<i>Asclepias incarnata</i>		
	Aspen Daisy	<i>Erygon speciosus</i>		
	Campanula	<i>Campanula ssp.</i>		
	California poppy	<i>Eschscholzia californica</i>		
	Coneopsis	<i>Coneopsis ssp.</i>		
	Beetlain	<i>Moroneis ssp.</i>		
	Bayly	<i>Menziesia ssp.</i>		
	Ulex	<i>Ulex ssp.</i>		
	Newer English Sycor	<i>Syrphium perfoliatum</i>		
	Purple coneflower	<i>Echinacea purpurea</i>		
	Corn poppy	<i>Papaver rhoeas</i>		
	Spidertwort	<i>Tradescantia virginiana</i>		
	Gallardia	<i>Gallardia ssp.</i>		
	Dwarf Cosmos	<i>Cosmos ssp.</i>		
	Yarrow	<i>Achillea millefolium</i>		
	Sweet alyssum	<i>Labradoria maritima</i>		
	Perennials			
Hs	Hotsia	<i>Hesperis ssp.</i>		Existing
Sa	Sedum	<i>Sedum acre</i>		Existing
Ca	Snow in summer	<i>Cerastium tomentosum</i>		Existing
	Shrubs			
Bd	Butterfly bush	<i>Buddleia davidii</i>	5	
Dl	Dwarf honeysuckle	<i>Lonicera caerulea</i>	13	
	Trees			
Ca	Pignol dogwood	<i>Cornus alternifolia</i>	3	Small understory tree



Parks & Recreation
Policy & Planning
March 5, 2020



Sime Court Naturalization Pilot Project - Spring 2020 site preparation (a,b) planting (c), and late summer (d).



a)



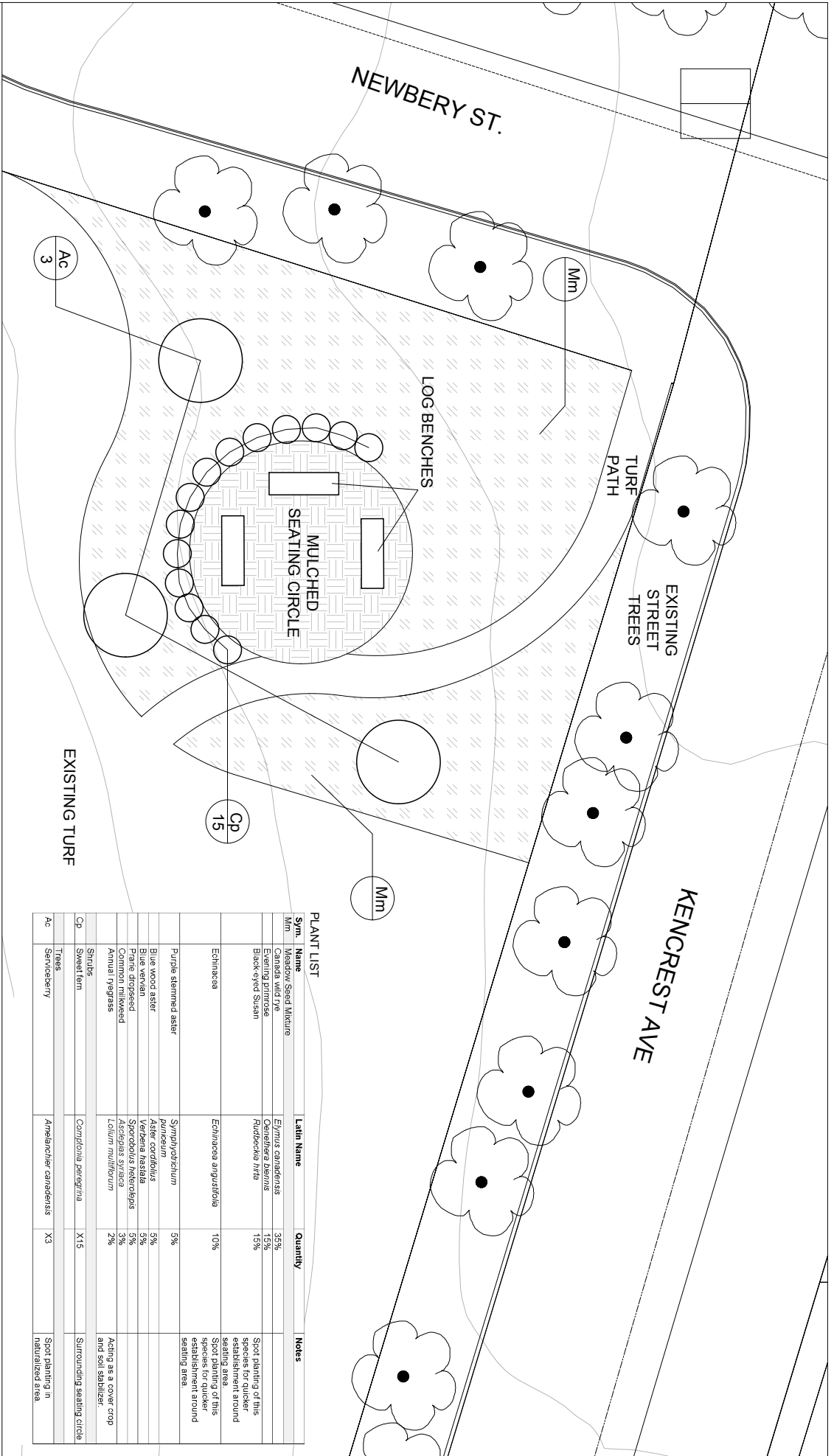
b)



c)



d)



PLANT LIST

Sym.	Name	Latin Name	Quantity	Notes
Mm	Meadow Seed Mixture			
	Grass wild rye	<i>Elymus canadensis</i>	35%	
	Canada blue grass	<i>Poa candensis</i>	35%	Spot planting of this species for quicker establishment around seating area.
	Black eyed Susan	<i>Rudbeckia hirta</i>	15%	Spot planting of this species for quicker establishment around seating area.
	Echinacea	<i>Echinacea angustifolia</i>	10%	Spot planting of this species for quicker establishment around seating area.
	Purple stemmed aster	<i>Symphoricarpos purpureum</i>	5%	Spot planting of this species for quicker establishment around seating area.
	Blue wood aster	<i>Aster cordifolius</i>	5%	
	Blue vervain	<i>Verbena hastata</i>	5%	
	Prarie dropseed	<i>Sporobolus heterodgys</i>	3%	
	Common milkweed	<i>Asclepias syriaca</i>	3%	
	Annual ryegrass	<i>Lolium multiflorum</i>	2%	Acting as a cover crop and soil stabilizer.
Cp	Shrub			
	Sweet fern	<i>Comptonia perovskiana</i>	X15	Surrounding seating circle
Ac	Trees			
	Serviceberry	<i>Amelanchier canadensis</i>	X3	Spot planting in naturalized area

MERV SULLIVAN PARK - DRAFT NATURALIZATION CONCEPT



Parks & Recreation
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December 12, 2019

