

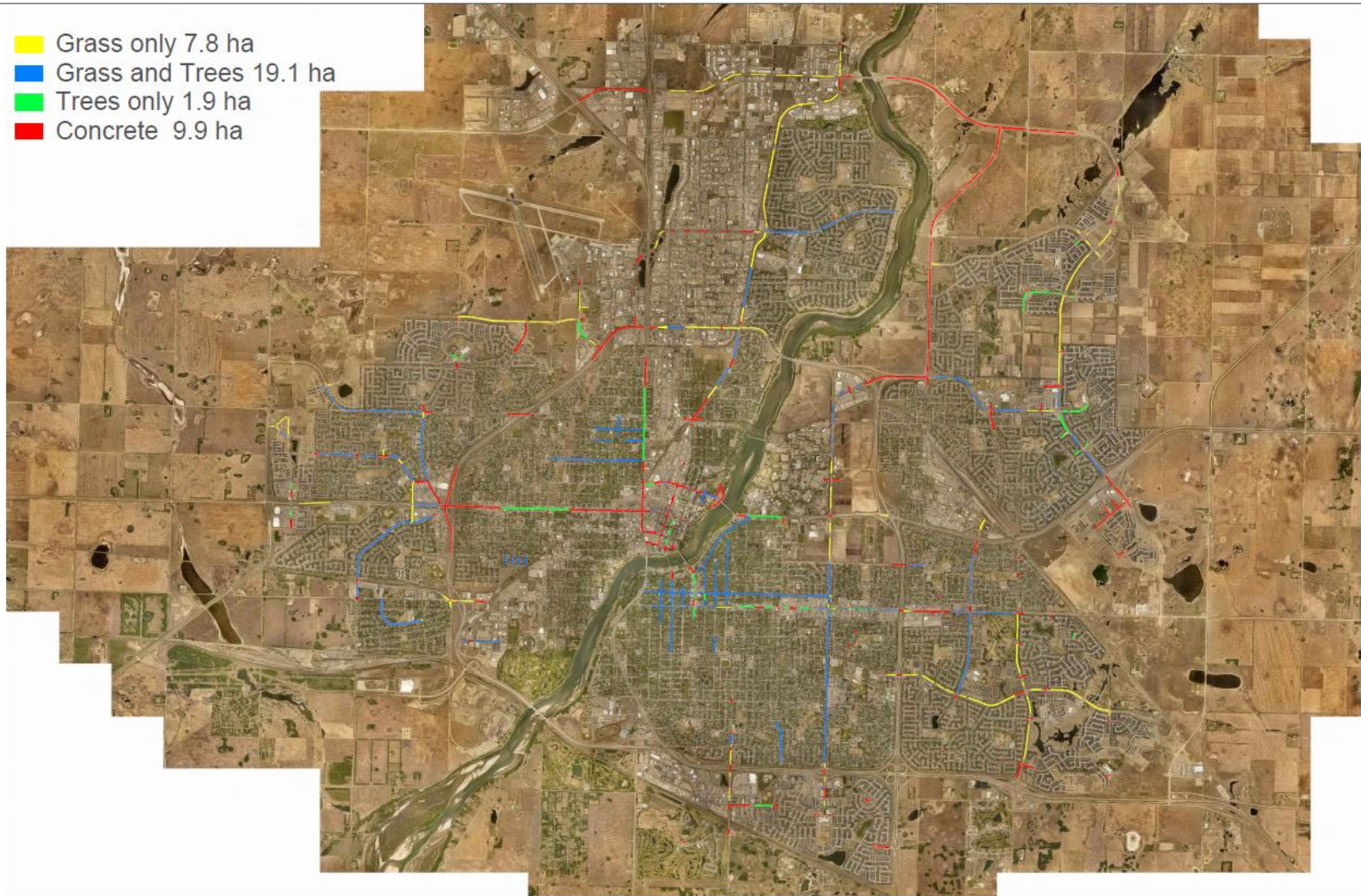
Summary of Median Report Changes

Changes to Admin Report:

- 19.3 acres (7.8 hectares) of medians with grass only; previously 18.3 acres (7.4 hectares)
- 47.2 acres (19.1 hectares) of medians with grass and trees; previously 40.0 acres (16.2 hectares)
- 4.7 acres (1.9 hectares) of medians with trees only; previously 13.8 acres (5.6 hectares) and
- 24.5 acres (9.9 hectares) of medians that are concrete only previously 38.8 acres (15.7 hectares)

Changes to Appendix 2 (Replace Map):

- Grass only 7.8 ha
- Grass and Trees 19.1 ha
- Trees only 1.9 ha
- Concrete 9.9 ha



Centre Medians

September 2019

Changes to Appendix 4 – Median Surfacing Options and Costs

Various options for median surfaces have been examined; advantages and disadvantages of each and their estimated costs are outlined below. Of note, the total costs shown are for comparison purposes and to demonstrate what the maximum total cost would be if all medians received the service, recognizing there are some medians that would not require the full area to be treated.

As outlined in Appendix 2, total current inventory of medians is:

- 7.8 hectares (78,000 sq m) of medians with grass only; **previously 7.4 hectares (74,000 sq m)**
- 19.1 hectares (191,000 sq m) of medians with grass and trees; **previously 16.2 hectares (162,000 sq m)**
- 1.9 hectares (19,000 sq m) of medians with trees only; **previously 5.6 hectares (56,000 sq m)**
- 9.9 hectares (99,000 sq m) of medians that are concrete only; **previously 15.7 ha concrete only (157,000 sq m)**

1. Increased Seeding/Over-seeding

The option exists to require additional seeding/over-seeding of deteriorated median areas, using a grass seed mix specific to dryland conditions. Dryland grass will tolerate drought, going largely dormant. While lower cost, this option will likely not lead to significantly better results in the non-irrigated conditions of medians and initial competition from weeds.

Cost (including application): \$1.50 per square metre

Approximate total cost for all grass only and grass and tree medians:
(269,000 sq m) = \$403,500. **Previously (236,000 sq m) = \$354,000.**

2. Increased Hydromulching

Hydromulching uses a binding agent to assist in grass seed germination and establishment. Application of dryland seed mix and hydromulch in deteriorated areas will lead to improved germination; however, it should be noted that watering and weeding must still occur. As such, deteriorated areas may require annual applications until re-established to a mandated level (such as +85% germination rate).

Cost (including application): \$2.50 per square metre

Approximate total cost for all grass only and grass and tree medians:
(269,000 sq m) = \$672,500. **Previously (236,000 sq m) = \$590,000.**

3. Sodding

In deteriorated areas, sod can be installed to return the area to a grassed state very quickly. In addition to its higher cost, sod also needs watering until established.

Cost (including installation): +\$10.00 per square metre, including establishment watering

Approximate total cost for all grass only and grass and tree medians:
(269,000 sq m) = \$2,690,000. **Previously (236,000 sq m) = \$2,360,000.**

4. Gravel/Cobblestone/Boulders

Gravel is already used around trees in some Saskatoon medians. Using rock has some disadvantages, such as cost, potential damage to vehicles, and use of pesticides for

weed control. Increasing the amount of rock used in medians is also not in line with the City's environmental and sustainability goals.

Cost: Pea Gravel - \$2.32/sq m; Cobblestone (75-150mm diameter) - \$9.29/sq m; Boulders - \$50-100/each

Approximate total cost for all grass only and grass and tree medians:

(269,000 sq m) = \$624,080 for pea gravel and \$2,499,010 for cobblestone. **Previously (236,000 sq m) = \$547,520 for pea gravel and \$2,192,000 for cobblestone.**

5. Synthetic Grass

Some municipalities in Ontario and British Columbia have installed synthetic grass in locations such as medians. The high initial cost of artificial turf is countered by the lower maintenance cost; however, it should be noted that care and maintenance (such as sweeping) is still required. In addition, future curb restoration and/or utility work will destroy the synthetic grass. Some cities in Canada have reclaimed turf from soccer fields when it is being replaced.

Cost (including installation): +\$100 per square metre

Approximate total cost for all grass only and grass and tree medians:

(269,000 sq m) = \$26,900,000. **Previously (236,000 sq m) = \$23,600,000.**

6. Convert Existing Grassed Medians to Hard Surfaced

The option exists to convert medians away from grass and install hard surfaces, such as splash aprons or complete hard surfacing. Converting medians to hard surface would improve safety and reduce operating costs associated with median mowing and sweeping; however, costs of conversion would be expensive and may result in added costs associated with future utility work, as many utilities are located under medians. In addition, if hard surfacing is constructed in medians with trees, these trees can be subject to severe stress and a higher chance of death if not properly protected.

Cost: Situation specific; +\$550 per square metre

Approximate total cost for all grass only and grass and tree medians:

(269,000 sq m) = \$147,950,000. **Previously (236,000 sq m) = \$129,800,000.**

Due to their high cost and disadvantages, sodding, synthetic grass, and increased hard surfacing on existing medians are not recommended in most situations. To increase clarity and expectations, it is recommended that the Administration develop a Median and Boulevard Treatment Policy, similar to other municipalities, such as Melbourne, Australia (Appendix 5).