MEMORANDUM

TO:	CSCC Committee
FROM:	James M. Hogue, Village Planner
DATE:	1.25.21
RE:	Native Landscaping of Medians – 1st Draft - CSCC Review & Comment

The August 25, 2020 Village Board meeting included a discussion of the possibility of utilizing native plantings to improve the appearance of medians along major thoroughfares in the village.

The direction of the Board at that meeting was to explore the possibilities on a preliminary basis with emphasis on;

- Providing preliminary suggestions for natural plantings in landscape islands;
- A suggested plant list for natural plantings in medians;
- Fiscal Impacts\Financial Costs associated with these improvements,

GENERAL INFORMATION

Roadways with median islands are often the most heavily traveled corridors through a community. Such medians offer unique opportunities for the village to showcase native plant materials and leave a lasting impression on both citizens and visitors. Well planned and maintained medians can generate a tremendous amount of interest and enthusiasm from the public and beautify key entrances and roadways within the village.

The introduction of showier native plant species into medians can make a more welcoming environment to residents and visitors. Such plantings can also provide ecological benefits, such as attracting pollinators and feeding birds.

Median islands can also be very effective at lowering traffic speeds as the landscaping provides a visual speed reference for drivers. Without the islands, there is no visual reference for a driver to gage speed; traffic speeds typically tend to increase as a result.

Sight lines are a major concern at intersections, especially at non-signalized intersections. Plants should be arranged in such a way that lower ones are situated along the edges with higher ones toward the middle. Except for trees, nothing should grow higher than 3-4 feet to maintain sight lines.

Challenges of using native plantings for the beautification of medians are many. The biggest challenge for any landscaping program (medians or otherwise) is to fund ongoing maintenance. Foregoing landscape improvement unless maintenance can be funded needs to be considered. While well planned and maintained medians can generate a tremendous amount of interest and enthusiasm from the public; unsightly and unkempt medians have the opposite effect.

Plantings & Plant Selection Information

Landscape plantings are a living component of roadway design and, through the use of native materials (and/or non-native materials), provide the means to fully integrate the roadway and surrounding environment. Landscape plantings may serve as functional elements (e.g., erosion control, screening, sound abatement, snow control) in a roadway environment.

Herbaceous plants (perennial flowers and grasses) should be planted in drifts; multiples of 7 or more to make the strong visual impact for the median (most people will see the plants only while driving by). Ideally, the median should be planted in the last two weeks of April to the first two weeks of May to capture the moisture of spring rains. For survivability and reduced future maintenance consideration of fertilizing and mulching all plantings is suggested. Mulch should go down when planting takes place. The mulch layer should be no more than 1 inch thick and perhaps a little less.

The size at which a plant matures will determine the number of plants that will be required in a group planting. The plants selected generally should be characteristic, native, or indigenous to the specific locality.

The following guidelines are suggested:

1. Younger Plants. Younger plants generally establish themselves faster than older plants. As a general practice, select the smallest size of plants that is consistent with the requirements of the environment.

2. Native Plants. Native plants are effective in perpetuating a self-sustaining roadside landscape. They are adapted to regional environmental conditions and can survive extreme temperatures, wind, and rainfall with little additional irrigation or fertilizer.

3. Prairie Forbs and Grasses. Prairie forbs and prairie grasses can be planted as root plugs or as seed. The minimum size plug should be 1.25 in (30 mm) in diameter by 4.25 in (110 mm) deep.

4. Non-Native Plants. Non-native plants may be selected to achieve special effects (e.g., color, texture, growth habit) for emphasis. For example, non-native plants may be used to accentuate the roadway environment year round.

5. Perennial Plants. Perennial plants can be planted as bulbs, tubers, or container plants. Bulbs and tubers should be of a size large enough to produce a healthy plant and to flower the first year. Container plants should be well rooted in the container. A quart sized container is typically the smallest size that should be planted on median projects.

6. Plant Maintenance. Maintenance is a major consideration in landscape plant selection. Those plants that require a minimum of maintenance should be chosen for medians.

Sustainability in Median Plantings

- Utilize a low maintenance plant composition. Simplistic designs utilizing perennials, shrubs, (e.g. natives) and which limit annual plantings can reduce overall maintenance costs.

- Consider fewer, but larger landscape beds. The strategic placement of larger signature beds near key intersections, commerce centers, landmarks, and gateways to the village will enable the beds to be serviced more efficiently than the smaller widely scattered beds.

- Consider water-conserving automated irrigation. Automation of the irrigation system can represent a significant savings in labor/maintenance costs.

- Where practical, use the existing soil in the planting operation. In cases where roadway construction has made the condition of the existing soil unsuitable, consider the use of soil amendments or new topsoil.

- Consider raised beds to provide an adequate volume of quality topsoil and optimal viewing for passing motorists.

- Bulbs, such as daffodils, may be planted at key points along medians, and seasonal species selection (native and/or non-native) of flowers and shrubs, can allow the medians to achieve distinct seasonal and floral effects while retaining green foliage year-round.

- Consider the impacts of salt. Due to the adverse effect of salt upon plants, special consideration to the type and location of plants and their proximity to the roadway is necessary where snow and ice control is required.

- Maintenance must be carefully considered in median designs to avoid debris and road-salt damage to plants and provide a safe work environment for maintenance personnel.

Plant List: Herbacious Plants for Traffic Medians (w/notes from Commissioner Burger)

The plant list is organized by plant height and within height category it is organized roughly in succession of bloom. The rule is to put short plants in front of the garden bed and tall ones in back, medium ones in the middle.

Legend

^LC: not native to Lake County per Flora of the Chicago Region
^CR: not native to Chicagoland Region per Flora of the Chicago Region
C=#: Coefficient of Conservation (also, native to Lake County) per Flora of the Chicago Region
(Abc def): Genus species

Bloom time as follows: Sp=Spring through May, S=Summer, LS=Late summer (August to mid-September), F=Fall (after mid-September).

An asterix (*) means the flower stalk of that plant should be cut back by half in late May or early June to control its height. None of these plants need fertilizer, with the possible exception of garden phlox which will produce a second and third bloom with a fertilizer application in mid-summer.

1.) Plants below 1 ft. high for edges and along pavement

^LC: Creeping phlox, Sp, drought tolerant
Creeping thyme, S, drought tolerant**, not native.**
All oreganos and marjorams, S, drought tolerant, **not native.**

2.) Plants 1 – 2 ft. high

^LC: Monarda bradburiana, Sp (Native to LC Monarda: didyma, fistulosa, punctata)
C=9: Small's beardtongue, Sp. (Penstemon pallidus)
^LC: Hairy beardtongue, Sp to S
^CR: Eared coreopsis, Sp
C=8: Lanceleaf coreopsis, Sp to S, drought tolerant (Coreopsos lanceolate
^LC: Meadow phlox, Sp to S, needs moisture
C=8: Downy phlox, S, drought tolerant (Phlox piles)
C=8: Butterfly milkweed, S, drought tolerant, needs full sun Asclepias tuberosa)
^LC: Threadleaf coreopsis, S, drought tolerant
^LC: Mistflower, LS, needs moisture, benefits from some shade
Sedum 'Autumn Joy', LS, drought tolerant, full sun, **not native** (Sedum ternatum is native, C=8)

3.) Plants 2 ½ to 4 ft. high

^CR: Arkansas bluestar, Sp, drought tolerant
^CR: Eastern bluestar, Sp, drought tolerant
^LC: Smooth beardtongue, Sp to S (Native to LC Penstemon digitalis, pallidus)
^CR: Indian physic, Sp to S, drought tolerant
C=3: Swamp milkweed, S, needs full sun and moisture (Asclepias incarnate)
C=10: Purple coneflower, S (Echinacea purpurea)
C=8: Wild quinine, S (Parthenium integrifolium)
^LC: Slender mountain mint, S
C=?: Bergamot, S, drought tolerant (Native to LC Monarda: didyma, fistulosa, punctata)
C=1: Garden phlox, S to LS, needs moisture (Phlox paniculata)
^LC: Short-toothed mountain mint, S to LS, **tiny flowers but pretty plant, great for pollinators!**
C=5: Elm-leaf goldenrod*, LS (Solidago ulmifolia)
^CR: Scented goldenrod, LS
^CR: Erect goldenrod, F, drought tolerant
^LC: Aromatic aster*, F
C=4: Calico aster, F, needs moisture (Symphyotrichum lateriflorum)
^LC: Royal Catchfly

COST ESTIMATES

I have not been able to find or create estimates on projected costs for such a project.

Ideally, I think it would be good to have cost broken down into three catagories as follows;

A). Installation costs (soil/bed preparation; seed/ bulb/plug/other plant costs; water/fertilizer/labor costs).
B). Maintenance costs (weeding, water/fertilizer/labor costs).
C) Total Costs.

Once cost estimates are established total cost could be calculated on a square foot basis. Then overall project costs could be estimated based on size of the bed or planting area desired.

A fairly extensive plant species list is identified above. As this will have an impact on anticipated costs are all or just some of these species to be considered for median plantings? Are any native (or non-native) desirable trees & shrubs for possible consideration in medians?

RECOMMENDATIONS OF THE CSCC

The information contained within this document is intended serve as "Best Practices Data" for landscape medinas w/ emphasis on natural plantings.

In looking at the potential for such projects the CSCC focused on the Route 83 and Old McHenry Road (OMR) medians; two main roadways in the village. These two "Gateway's" are situated at key entry points to the village and within the corporate limits of the village although situated in state and county right-of-ways respectively.

The OMR medians have been determined to be the best starting point for beautification; the Route 83 medians are too large to consider at this time. There are 3 medians situated in the OMR right of way with approximate size and area as follows;

Median 1; is irregular in shape and the planting area measures 95' x 6' (appx. 570 sq. ft.)

Median 2; is irregular in shape and the planting area measures 320' x 6' (appx. 1900 sq. ft.)

Median 3; is irregular in shape and the planting area measures 36' x 6' (appx. 200 sq. ft.)

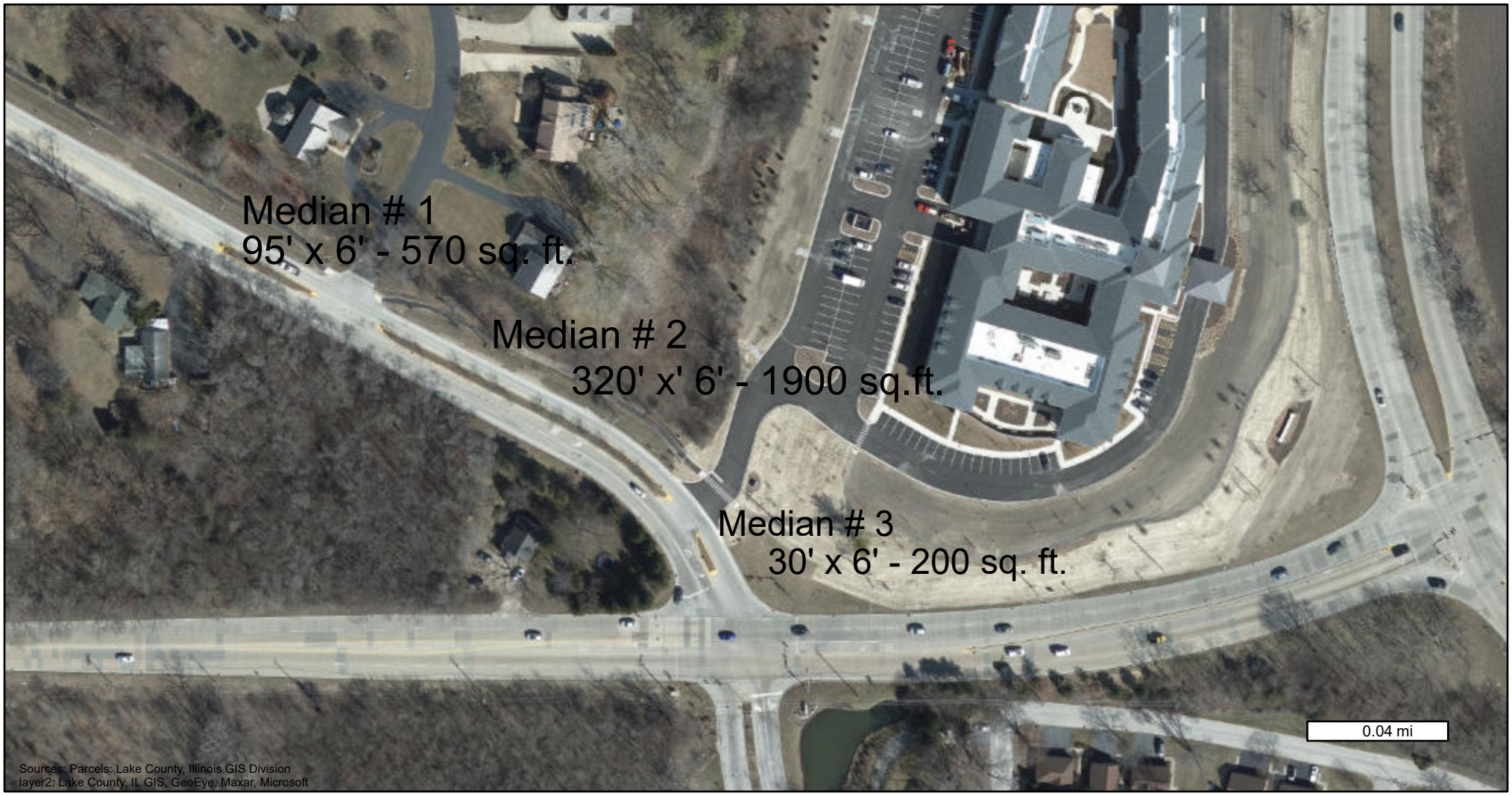
The CSCC suggests the introduction of natural species as "test plots" in the OMR medians.

Per a site visit conducted in early November "Median 2" appears to have the best potential for "test plots".

Approval/coordination with LCDOT will need to occur for the project to move forward.

To be determined - Identify size, location(s), initial and long term costs (soil/bed preparation; seed/ bulb/plug/other plant costs; water/ weeding/fertilizer/labor costs) of "test plots" for the OMR medians & any additional recommendations the CSCC may have.

Lake County, Illinois



Lake County, Illinois

LakeCounty

Map Printed on 10/23/2020

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Tax Parcel Information

Old McHenry Road Medians

Disclaimer: The selected feature may not occur anywhere in the current map extent. A Registered Land Surveyor should be consulted to determine the precise location of property boundaries on the ground. This map does not constitute a regulatory determination and is not a base for engineering design. This map is intended to be viewed and printed in color.