

MAPLE GROVE
ARBOR COMMITTEE
REGULAR MEETING
JUNE 9, 2016
7:00 PM – ROOM 183
MAYOR'S CONFERENCE ROOM



1. CALL TO ORDER

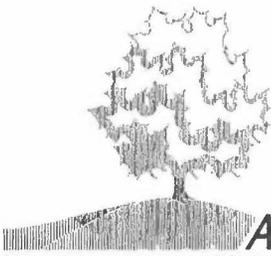
2. APPROVAL OF AGENDA AND MINUTES
 - A. APPROVAL OF AGENDA
 - B. APPROVAL OF MINUTES – MAY 12, 2016 REGULAR MEETING

3. OLD BUSINESS
 - A. FINAL EAB MANAGEMENT PLAN
 - B. LCCMR GRANT UPDATE
 - C. ADOPT-A-STREET
 - D. MN/DOT PARTNERSHIP LANDSCAPE PLAN

4. NEW BUSINESS
 - A. FIREFLY FEDERAL CREDIT UNION LANDSCAPE PLAN
 - B. PIERRE BOTTINEAU PARADE

5. AREA REPORTS

6. ADJOURNMENT



MAPLE GROVE
ARBOR COMMITTEE

REQUEST FOR COMMITTEE ACTION

Item Number: 2 A & B

Meeting Date: June 9, 2016

Agenda Heading: Approval of Agenda and Minutes

Agenda Item: Approval of Agenda and Minutes

Recommended Committee Action:

Call by Chairperson _____ for any additions or revisions to the agenda.

Motion by Committee member _____, seconded by Committee member _____ to approve as proposed or approve as amended the agenda for the June 9, 2016 regular meeting.

Motion by Committee member _____, seconded by Committee member _____ to approve the minutes of the May 12, 2016 regular meeting as presented or as amended.

Discussion:

Committee Comments:

attended an Arbor Day Event before and was very impressed by all of the things that went on during the event.

Committee Member Howell stated that the face painter did a great job with the paintings. Staff Liaison Matzke stated that there was a steady flow of people at the face painting booth from 1pm-3pm. Committee Member Arnlund added that the painting was wonderful; however, initial communication was the understanding that a special board with nature pictures would be the only options available for kids.

Committee Member Gamber stated that after the initial rush, there was a time between 1pm-3pm that seemed slow. Committee Member Courtney stated that the Committee could look into shortening the event from 12pm-3pm, or possibly “front loading” the big events to eliminate the lull in the middle of the session. Staff Liaison Matzke responded by saying the City can look into those options for the event in 2017.

Committee Member Kampel stated that there was a great variety of trees for people to look at, and asked if anyone was watching the “how to plant a tree video”. Committee Member Arnlund stated that the Tree Care Advisor representative said that there were many people that stopped to watch the video.

Committee Member Gamber stated that it would be nice if the DNR would be able to provide a live show similar to the Reptile and Amphibian Zoo and the University of Minnesota Raptor Center. Staff Liaison Matzke stated that he would look into the option for next year.

EAB Management Plan

Staff Liaison Matzke introduced this item, and stated that changes have been made to the EAB Management Plan based on the recommendation of the Arbor Committee. Staff Liaison Matzke stated that the City will not replace boulevard trees that are removed along residential streets due to cost and maintenance.

Chair Parenteau stated that the City making discretionary decisions for the replacement of boulevard

trees along street corridors of major collectors and arterials needs to be stronger. Committee Member Kampel stated using the words “will replace” would assure replacement of trees along corridors would be done. Staff Liaison Matzke stated he would bring that revision request to the EAB Management Plan Committee.

Committee Member Arnlund stated that the budget section of the EAB Management Plan should be rewritten to include the Maple Grove Park Board and City Council together rather than keeping them separate. Committee Member Courtney stated the Maple Grove Park Board and City Council will evaluate budgets related to City wide expenditures would be a good way to include both the Park Board and Council. Staff Liaison Matzke stated he would bring the revision request to the EAB Management Plan Committee.

Committee Member Kampel made a motion to recommend that Council adopt the EAB Management Plan for the City of Maple Grove. The motion was seconded by Committee Member Courtney and passed unanimously by a voice vote.

LCCMR Grant

Committee Member Arnlund introduced this item, and stated that the City of Maple Grove will be looking for volunteers to help manage the community forest and boulevard trees as a part of a grant sponsored by the Minnesota DNR. Committee Member Arnlund stated that the community will be providing the following tree care activities: tree plantings, tree watering, tree pruning, and tree steward program. Chairperson Parenteau thanked Committee Member Arnlund for taking the lead in the volunteer portion of the grant. Committee Member Arnlund stated that she would be providing monthly updates on the grant situation in the upcoming months.

Prestige School Landscape Plan

Staff Liaison Matzke introduced the landscape plan, and asked the Committee to comment on the plan.

Committee Member Arnlund stated that the plan does not meet City Code because it has too many Red Maple

trees and Black Hills Spruce.

Committee Member Sanford stated that the Red Maple tree is not a very hearty tree. Committee Member Sanford stated that a Northwoods Maple or Fall Fiesta Sugar Maple would be a better option. Committee Member Sanford stated that the Ponderosa Pine and Scotch Pine would be good alternatives for the Black Hills Spruce.

Bottineau Ridge
Landscape Plan

Committee Member Arnlund stated that the amount of Skyline Honeylocust (17) and Black Hills Spruce (21) exceeds the amount allowed by City Code.

Committee Member Sanford stated that the trees included in the plan are of great variety. Committee Member Courtney agreed and stated that the landscape architect revise the quantity of trees on the plan in order to meet City Code.

Auto Zone
Landscape Plan

Staff Liaison Matzke introduced the landscape plan of Auto Zone, and explained that Auto Zone would be located in the area west of Menard's, and north of Walmart.

Committee Member Gamber stated that the Japanese Lilac Tree is not considered an overstory tree.

Committee Member Arnlund stated that the maximum tree allowed of one species is 5, therefore, the number of River Birch would have to be reduced by 1 to meet City Code.

Committee Member Courtney stated that the landscape plan needs to include 4 overstory trees to meet City code.

Staff Liaison Matzke stated that he will submit the recommendations to Community Development on behalf of the Arbor Committee.

Area Reports

Committee Member Sanford stated that many of the landscape plans that were approved years ago no longer meet City Code due to trees being removed without

being replaced. Committee Member Arnlund stated that this has been a problem for many years. Staff Liaison Matzke stated that he will talk with the people in Community Development, and report back to the Arbor Committee next month.

Adjournment

Committee Member Howell made a motion to adjourn the meeting at 8:35 p.m. The motion was seconded by Committee Member Courtney and passed unanimously on a voice vote.

Respectfully submitted,
Kelly Matzke, City Staff Liaison
City of Maple Grove Arbor Committee

REQUEST FOR COMMITTEE ACTION

Item Number: 3A



Meeting Date: June 9, 2016

Agenda Heading: Old Business

Agenda Item: Final EAB Management Plan

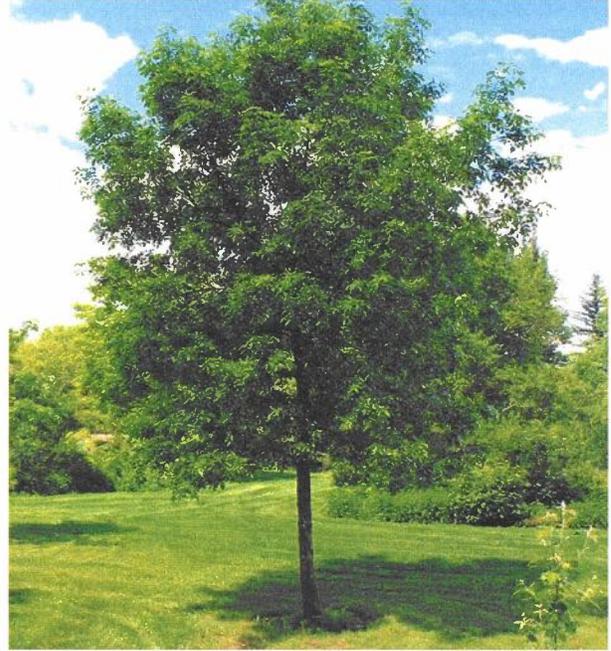
Recommended Committee Action:

None.

Discussion:

The final draft of the EAB Management Plan is complete. Revisions have been made based on the recommendations of the Arbor Committee. The Park Board reviewed and approved for recommendation the EAB Management Plan to the City Council at their May 19, 2016 meeting. The EAB Management Plan is on the Council Agenda for the Council meeting on June 6, 2016.

Committee Comments:



EMERALD ASH BORER MANAGEMENT PLAN

Maple Grove, Minnesota

Draft: 5/3/16

Arbor Committee Approval: 5/12/16

Park and Recreation Board Approval: 5/19/16

City Council Approval:

Purpose

The purpose of this document is to establish guidelines for the City of Maple Grove in its management of Emerald Ash Borer. The goal of this plan is to minimize the effects of EAB by removing trees infested with EAB, and implementing the management plan so the impact on residents is kept to a minimum.

Introduction

Emerald Ash Borer (EAB) is a beetle native to eastern Asia that feeds on ash species. It was discovered in southeastern Michigan in 2002, and has continued to move around the country. In September of 2015 EAB was discovered in Plymouth, MN. EAB has killed hundreds of millions of ash trees in North America, and has the potential to decimate large areas as the insect continues to move throughout the region.

Determining when the exotic beetle will be discovered in Maple Grove is unknown. Some professionals say that it is already in Maple Grove, but yet to be found. Ash trees typically do not show signs of EAB until 3-5 years after they have been infested. Studies show that once found in your area, it takes approximately 5-10 years to infest and kill the majority of the ash trees in the infected area.

The City of Maple Grove has an evolving tree inventory that when complete, and amended over time, monitors the number of trees and their condition. As of this writing, it is estimated that there are approximately 12,000 ash trees of various species within the City of Maple Grove. Of those, approximately 5,000 are within public right of way. Additionally, there are approximately 600-700 ash trees within the maintained areas of the City park system (2009). No count was taken in the unmaintained "natural" areas.

This plan is subject to change should state or federal policies dictate. It is recommended that the current EAB management plan be reviewed annually by City staff and the Arbor Committee, and changes that are necessary be made as more information and research about EAB becomes available.

Administration

The Street Department Supervisor, and the Superintendent of Parks and Planning will be responsible for implementing the management plan for each of their respective departments. The Right of Way Technician and the Park Supervisor, assisted by a consulted forester, will be available for resident response and communication. Focus will be on stressed, poor structured, diseased, dying, or dead ash trees on public land throughout the city. The Street Department staff will monitor ash trees located along streets within the City right of way. The Parks Department staff will monitor trees within the park system. Private trees will be identified by complaints only, and will be handled on an individual basis by the Public Works Department.

Boulevard Trees

The following basic guidelines will govern the City's ongoing efforts to manage its boulevard trees:

- The Street Department will work with the Minnesota Department of Agriculture and the Department of Natural Resources to develop detection and control measures to be implemented within the Maple Gove park system.
- Street Department staff will be trained to identify symptoms of EAB.
- The City will remove ash trees that are considered to be stressed, poor structured, dead, dying, or diseased.
- The City will not remove healthy ash trees, and has no intentions of removing mass amounts of ash trees that are not diseased within neighborhoods heavily populated with ash trees.
- The City will not replace boulevard trees that are removed along residential streets.
- The City will replace boulevard trees along street corridors of major collectors and arterials.
- Trees partially in City right of way are considered a City tree.

Tree Preservation Area

It is the intent of this management plan to manage diseased trees within the tree preservation areas. The City's efforts will be directed at control of trees that are diseased and clearly cause a safety concern for its residents using the tree preservation area.

Park Trees

With the implementation of this management plan, the Parks and Recreation Department will take a "detect and respond" approach applying these guidelines:

- The Park Department will work with the Minnesota Department of Agriculture and the Department of Natural Resources to develop detection and control measures to be implemented within the Maple Gove park system.
- Park Maintenance staff will be trained to identify symptoms of EAB.
- Ash trees within the maintained areas of the parks showing symptoms of EAB will be removed promptly to slow the spread of the disease to the community.
- Ash trees outside the maintained areas of the parks, showing symptoms of EAB will be dealt with on a case-by-case basis. Those that are considered a hazard or public safety concern will be removed promptly.
- It is not the intent of the Park Board to remove healthy ash trees to manage the spread of Emerald Ash Borer, without special circumstance.
- Trees removed from the park system as a result of EAB will be considered for replacement as part of the annual tree replacement and reforestation programs.
- Some ash trees may be removed and replaced at the Community Center each year as a proactive measure.
- The Superintendent of Parks and Planning will be responsible for implementation of this plan.
- The Parks and Recreation Board and Director will receive regular updates.

- The following elements of the Park Department's EAB Management Plan are subject to change or revision as new information about EAB becomes available.

Trees on Private Property

Article III of the City code entitled; Shade Tree Diseases and Pests has been updated to include Emerald Ash Borer. That code will govern enforcement actions of the City, as to:

- Ordinance complaints for diseased trees on private property will be handled on an individual basis.
- Special Assessments when City removes or contracts removal of tree on private property
- It would be sensible for residents to establish a relationship with an International Society of Arboriculture (ISA) Certified Arborist now in the event that removal is requested by city staff per City Ordinance.
- The City encourages residents to replace trees lost with species appropriate for the site. Planting new trees in advance of the discovery of EAB is a way to lessen the economic hardship and environmental impact of Emerald Ash Borer. The City conducts a spring tree sale in an effort to make tree replacement an affordable option for Maple Grove residents.

Communication

The City Administrator, City Council, Park and Recreation Board, , Arbor Committee, Director of Parks and Recreation, and Director of Public Works will receive periodic updates through normal channels. All media relations will follow normal city protocol.

Education

The City will educate and provide information about EAB through City newsletters, flyers, brochures, door hangers, social media, and the City website.

Disposal

Wood will be disposed of at sites certified to accept wood that is infested with EAB. The City will look into the cost savings of companies willing to take wood for their own recycling purposes.

Budget

Annually, the Maple Grove Park Board and City Council will evaluate budgets related to City wide expenditures devoted to EAB control and authorize appropriate expenditures through the budget approval process.

REQUEST FOR COMMITTEE ACTION

Item Number: 3B



Meeting Date: June 9, 2016

Agenda Heading: Old Business

Agenda Item: LCCMR Grant Update

Recommended Committee Action:

None.

Discussion:

The gravel bed discussed at the May meeting was completed at the Public Works site during the week of May 16-20. Bare root trees were planted the following week. Gary Johnson, Representative from the University of Minnesota, came out to provide guidance in the maintenance of gravel bed trees. Anticipated plantings of the bare root trees will be in the fall of 2016.

Committee Comments:

REQUEST FOR COMMITTEE ACTION

Item Number: 3C



Meeting Date: June 9, 2016

Agenda Heading: Old Business

Agenda Item: Adopt-a-Street

Recommended Committee Action:

Determine a day and time to work on clean-up of Vicksburg Lane.

Discussion:

The Adopt-a-Street event on Vicksburg Lane was cancelled due to the amount of volunteers that showed up to participate. The Arbor Committee typically does the Adopt-a-Street two times a year (Spring and Fall). A new day and time in June should be established to complete the spring Adopt-a-Street clean-up.

Committee Comments:

REQUEST FOR COMMITTEE ACTION

Item Number: 3D



Meeting Date: June 9, 2016
Agenda Heading: Old Business
Agenda Item: Mn/DOT Partnership Landscape Plan

Recommended Committee Action:

Arbor Committee review and comment on the attached plans is requested.

Discussion:

The City of Maple Grove is partnering with Mn/DOT to landscape the interchange located at Highway 94 and Hemlock Lane. The plans attached include the general layout, estimated quantities, the landscape plan, and the standard planting details.

Committee Comments:

MINNESOTA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLAN FOR MAPLE GROVE LANDSCAPE PARTNERSHIP

LOCATED ON T.H.94 FROM HEMLOCK LANE N. TO 2000' EAST OF HEMLOCK LANE N.

STATE PROJ. NO. **2786-969**
 MINN. PROJ. NO. _____
 GROSS LENGTH _____ FEET _____ MILES
 BRIDGES-LENGTH _____ FEET _____ MILES
 EXCEPTIONS-LENGTH _____ FEET _____ MILES
 NET LENGTH _____ FEET _____ MILES
 REF. POINT _____ TO REF. POINT

FED. PROJ. NO. _____ STATE FUNDS

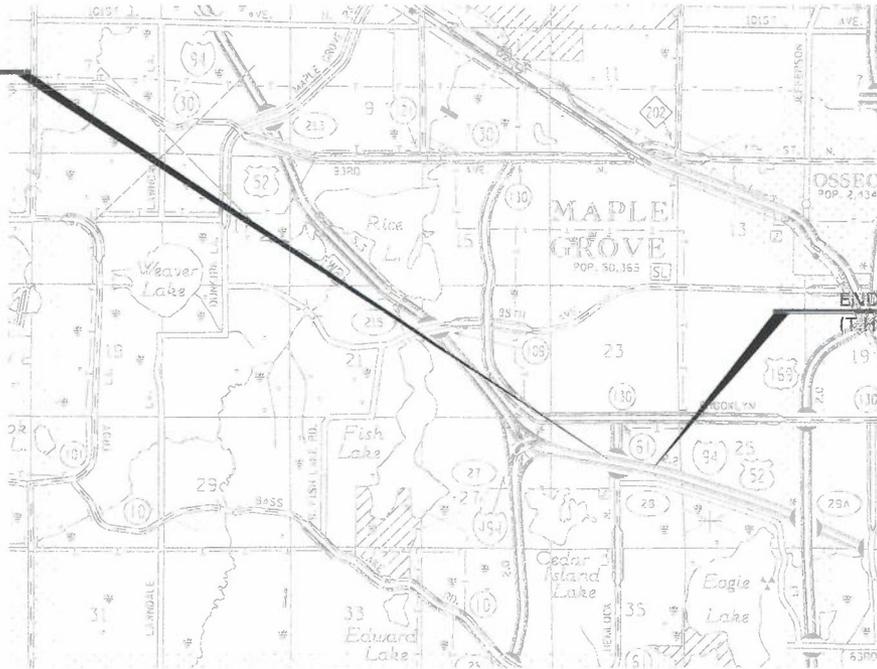
GOVERNING SPECIFICATIONS
 THE 2016 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION
 "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

INDEX

TITLE SHEET	1
GENERAL LAYOUT	2
ESTIMATED QUANTITIES	3
LANDSCAPE PLAN	4-7
STANDARD PLANTING DETAILS (A-C)	8-10

THIS PLAN CONTAINS 10 SHEETS

BEGIN S.P. 2786-969
 (T.H. 94) STA.



END S.P. 2786-969
 (T.H. 94) STA.

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE 05-19-2016 LIC. NO. 26591 LA _____
 PROJECT LA Todd Carroll, LANDSCAPE ARCHITECT
 PROJECT DESIGNERS TODD CARROLL
 RECOMMENDED FOR APPROVAL BY: _____ 20____
 LANDSCAPE PARTNERSHIP COORDINATOR
 RECOMMENDED FOR APPROVAL BY: _____ 20____
 DISTRICT LANDSCAPE PARTNERSHIP COORDINATOR
 APPROVED _____ 20____
 DISTRICT ENGINEER



PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY

DESIGN DESIGNATION - TIER NO. _____

PROJECT LOCATION
 COUNTY: HENNEPIN
 DISTRICT: Metro

FOR PLANS & UTILITIES SYMBOLS SEE TECHNICAL MANUAL

PROJ. NO 2786-969 CHARGE IDENTIFIER _____

I HEREBY CERTIFY THAT THE FINAL FIELD REVISIONS, IF ANY, OF THIS PLAN WERE MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 PRINT NAME: _____ LIC. NO.: _____
 DATE: _____ SIGNATURE: _____

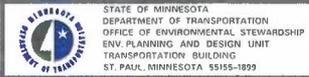
DATE PRINTED: 5/19/2016
 TIME PRINTED: 4:05:33 PM

INDEX MAP
 GENERAL LAYOUT
 PLAN

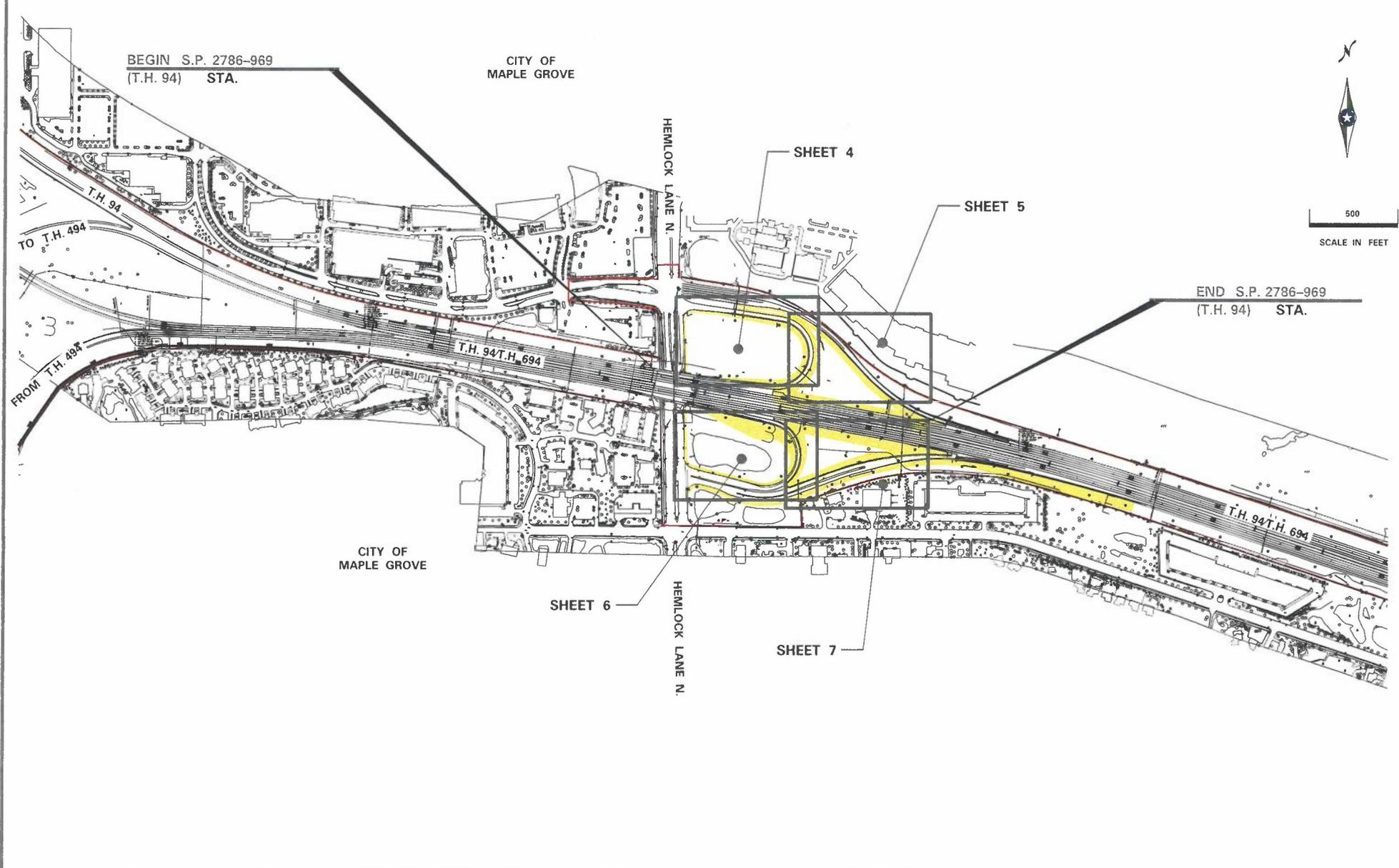
NO SCALE
 0 500
 0 50

SCALES
 IN
 FEET

ADT (Current Year) _____ = 2014
 Design Speed 70 MPH



TITLE SHEET
 STATE PROJECT 2786-969 (T.H. 94=392) SHEET NO. 1 OF 10 SHEETS



DATE PRINTED: 5/18/2016	TIME PRINTED: 4:05:34 PM	PROJECT MANAGER TODD CARROLL	DRAWN BY TODD CARROLL	DATE 05-18-2016 LIC. NO. 26551	 STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION OFFICE OF ENVIRONMENTAL STEWARDSHIP ENV. PLANNING AND DESIGN UNIT TRANSPORTATION BUILDING ST. PAUL, MINNESOTA 55155-1899	GENERAL LAYOUT STATE PROJECT 2786-969 (T.H. 94) SHEET NO. 2 OF 10 SHEETS
		CHECKED BY TODD CARROLL	SIGNATURE _____ <small>LICENCED PROFESSIONAL LANDSCAPE ARCHITECT</small>			

PLANT STOCK TABULATION S.P. 2786-969

KEY	SPECIES	Minimum Acceptable Dimensions	Units	TOTAL QUANTIT
	CONIFEROUS TREE 4' HT CONT	45" Ht., 27" Spread, No. 15 Cont.	TOTAL	36
AUP	PINE, AUSTRIAN <i>Pinus nigra</i>		TREE	10
SCP	PINE, SCOTCH <i>Pinus sylvestris</i>		TREE	3
BHS	SPRUCE, BLACK HILLS <i>Picea glauca densata</i>		TREE	23
	DECIDUOUS TREE 1" CAL BR	0.85" Cal., 5.5' Ht., 18" root spread	TOTAL	24
CHB	HACKBERRY, COMMON <i>Celtis occidentalis</i>		TREE	9
GNB	GINKGO <i>Ginkgo biloba</i>		TREE	4
RVB	BIRCH, RIVER <i>Betula nigra</i>		TREE	6
AML	LINDEN, AMERICAN (BASSWOOD) <i>Tilia americana</i>		TREE	3
AHH	HOPHORNBEAM, AMERICAN <i>Ostrya virginiana</i>		TREE	2
	DECIDUOUS TREE 1.5" CAL CONT	1.35" Cal., 6.5' Ht., No. 20 Cont.	TOTAL	48
RDL	LINDEN, REDMOND <i>Tilia americana (Redmond)</i>		TREE	3
KCT	COFFEETREE, KENTUCKY <i>Gymnocladus dioica</i>		TREE	11
SMH	HONEYLOCUST, SHADEMASTER <i>Gleditsia triacanthos inermis (Shademaster)</i>		TREE	16
NPO	OAK NORTHERN PIN <i>Quercus ellipsoidalis</i>		TREE	2
NRM	MAPLE, NORTHWOOD RED <i>Acer rubrum (Northwood)</i>		TREE	1
SWO	OAK, SWAMP WHITE <i>Quercus bicolor</i>		TREE	15
	ORNAMENTAL TREE 5' HT CONT	5.5' Ht., No. 10 Cont.	TOTAL	25
ABS	SERVICEBERRY, AUTUMN BRILLIANCE <i>Amelanchier x grandiflora (Autumn Brilliance)</i>		TREE	6
PRC	CRABAPPLE, PRAIRIEFIRE <i>Malus (Prairiefire)</i>		TREE	11
SMA	MOUNTAIN-ASH, SHOWY <i>Sorbus decora</i>		TREE	8
	DECIDUOUS SHRUB 12" HT CONT	10.5" Ht., No. 2 Cont.	TOTAL	51
GBC	CHOKEBERRY, GLOSSY BLACK <i>Aronia melanocarpa</i>		Shrub	51
	DECIDUOUS SHRUB 15" HT CONT	13.5" Ht., No. 3 Cont.	TOTAL	371
CRD	DOGWOOD, CARDINAL RED OSIER <i>Cornus sericea (Cardinal)</i>		Shrub	94
MSM	MOCKORANGE, MINNESOTA SNOWFLAKE <i>Philadelphus x virginialis (Minnesota Snowflake)</i>		Shrub	9
WGE	EUONYMUS, WINGED <i>Euonymus alatus</i>		Shrub	32
STS	SUMAC, STAGHORN <i>Rhus typhina</i>		Shrub	82
AWV	VIBURNUM, ARROWWOOD <i>Viburnum dentatum</i>		Shrub	116
AMC	CRANBERRYBUSH, AMERICAN <i>Viburnum trilobum</i>		Shrub	38
	PERENNIAL NO 1 CONT	6" spread	TOTAL	136

PLANT STOCK TABULATION S.P. 2786-969

KEY	SPECIES	Minimum Acceptable Dimensions	Units	TOTAL QUANTIT
FARD	DAYLILY, AUTUMN RED <i>Hemerocallis (Autumn Red)</i>		PLANT	96
FBES	BLACK EYED SUSAN <i>Rudbeckia hirta</i>		PLANT	40
	ORNAMENTAL GRASS NO 1 CONT	6" spread	TOTAL	24
GBBL	GRASS, BIG BLUESTEM <i>ANDROPOGON GERARDII</i>		PLANT	24

UTILITY NOTES:

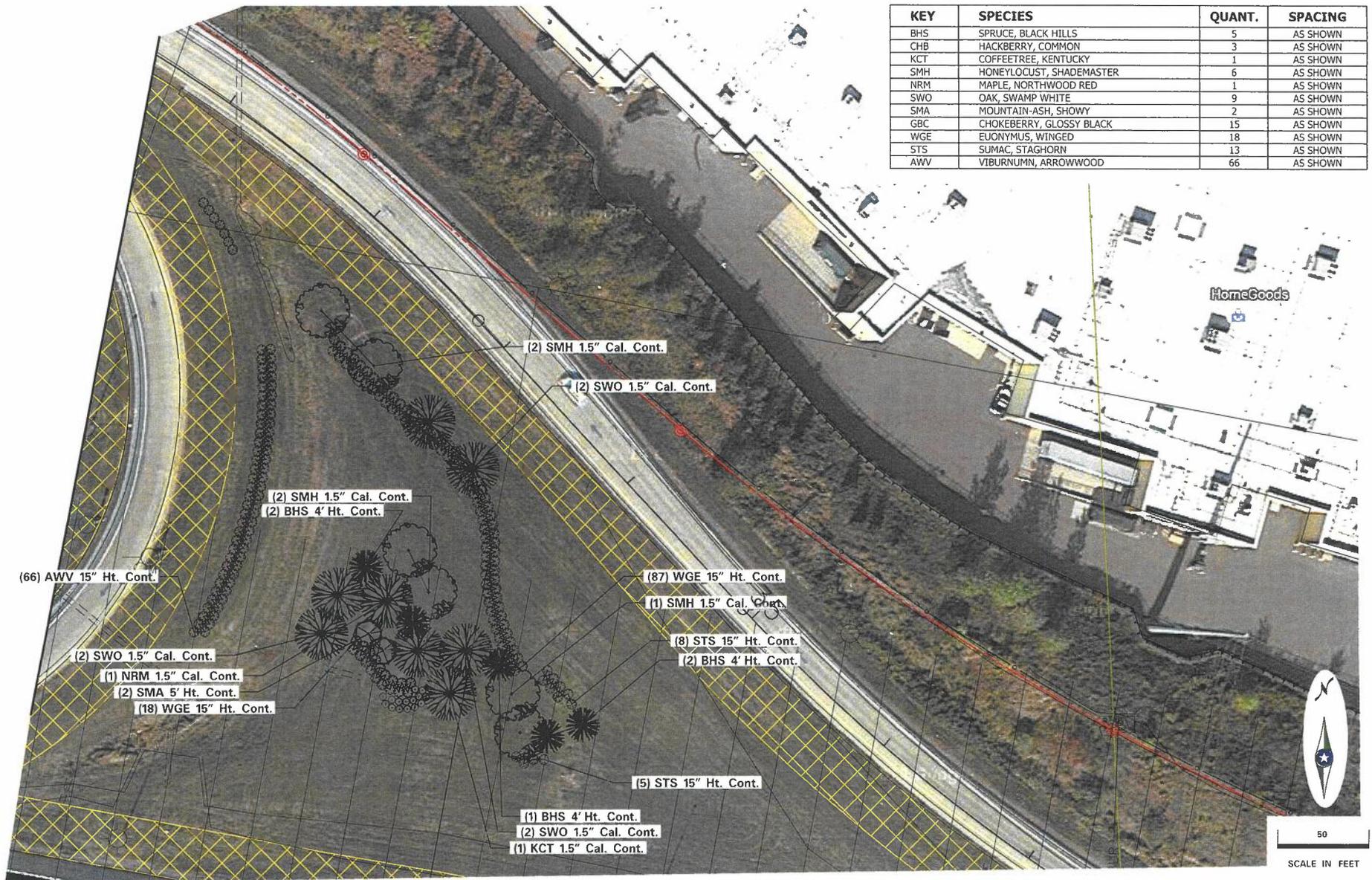
- NO UTILITIES WILL BE AFFECTED BY THIS PROJECT.
- THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF C/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA".

GENERAL NOTES:

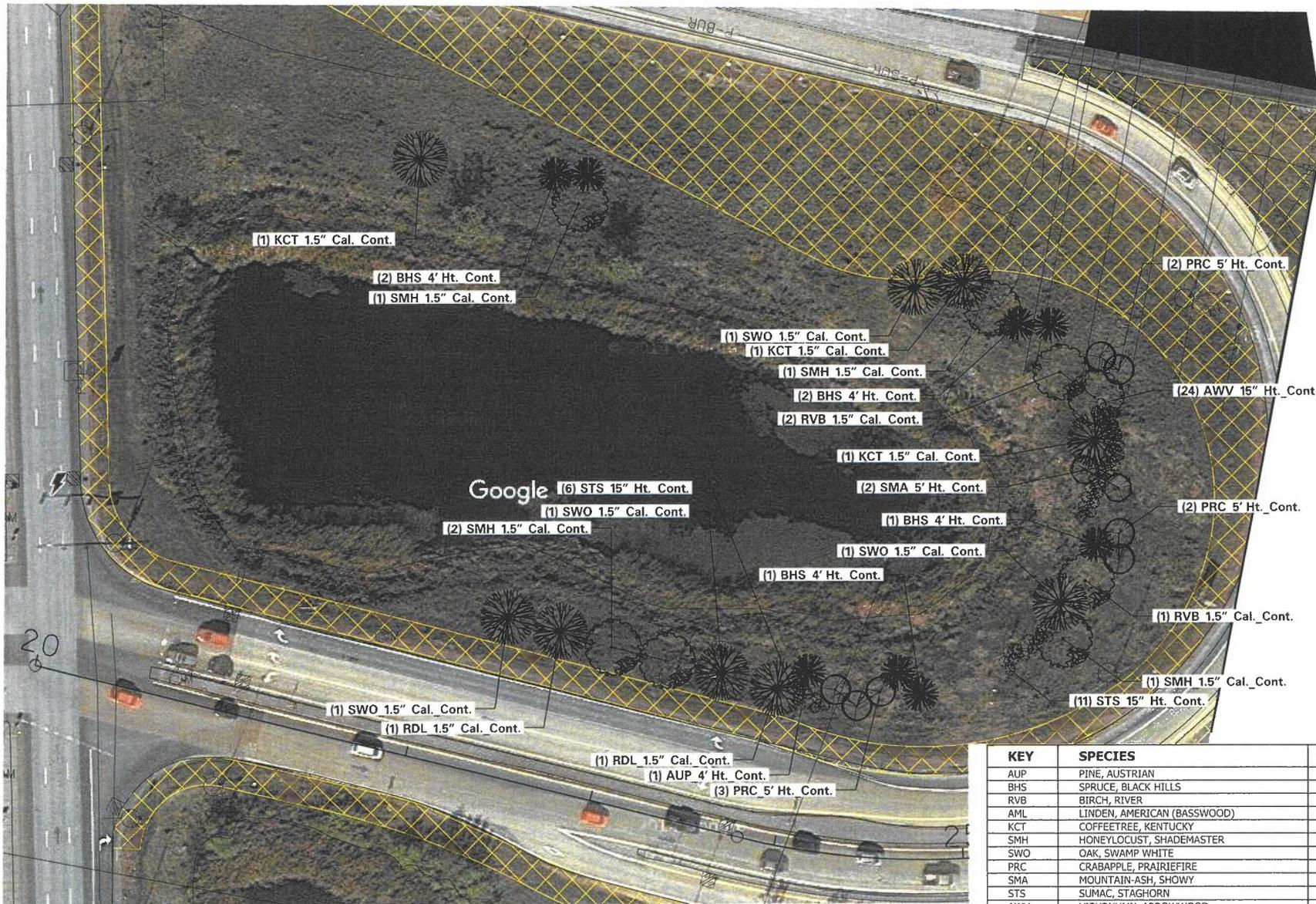
- LOCATE TREES AT LEAST 6' FROM FENCE WHEN NOT PLANTED WITHIN A MULCHED SHRUB BED, AND A MINIMUM OF 10' FROM NOISE WALLS.
- LOCATE SHRUBS, EXCEPT FOR VINES, A MINIMUM OF 5' FROM NOISE WALLS.
- OPERATE TILLING EQUIPMENT A MINIMUM OF 10' CLEAR OF EXISTING TREES, UNLESS AUTHORIZED BY THE ENGINEERLANDSCAPE ARCHITECT.
- COMPLETE ALL TILLING USING A SPADE TYPE TILLER.
- SEE THE PLANT STOCK TABULATION TABLE FOR INDIVIDUAL PLANT QUANTITIES.
- RESTORE ALL DAMAGED TURF AT THE CONTRACTORS EXPENSE, TO PRE-LANDSCAPE INSTALLATION CONDITIONS.
- FOR PLANT TO BE PLACED ADJACENT TO PONDS, MEASURE PLANT LOCATIONS FROM POND EDGE, USING TYPICAL HIGH WATER LEVEL ELEVATION AS START POINT. FINAL LOCATIONS MUST BE APPROVED BY ENGINEERLANDSCAPE ARCHITECT.

DATE PRINTED: 5/18/2016	TIME PRINTED: 4:05:35 PM	PROJECT MANAGER TODD CARROLL	DRAWN BY TODD CARROLL	DATE 05-18-2016 LIC. NO. 26551	 STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION OFFICE OF ENVIRONMENTAL STEWARDSHIP ENV. PLANNING AND DESIGN UNIT TRANSPORTATION BUILDING ST. PAUL, MINNESOTA 55155-1899	ESTIMATED QUANTITIES		
		CHECKED BY TODD CARROLL	SIGNATURE <small>REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT</small>			STATE PROJECT 2786-969 (T.H. 94)	SHEET NO. 3	OF 10

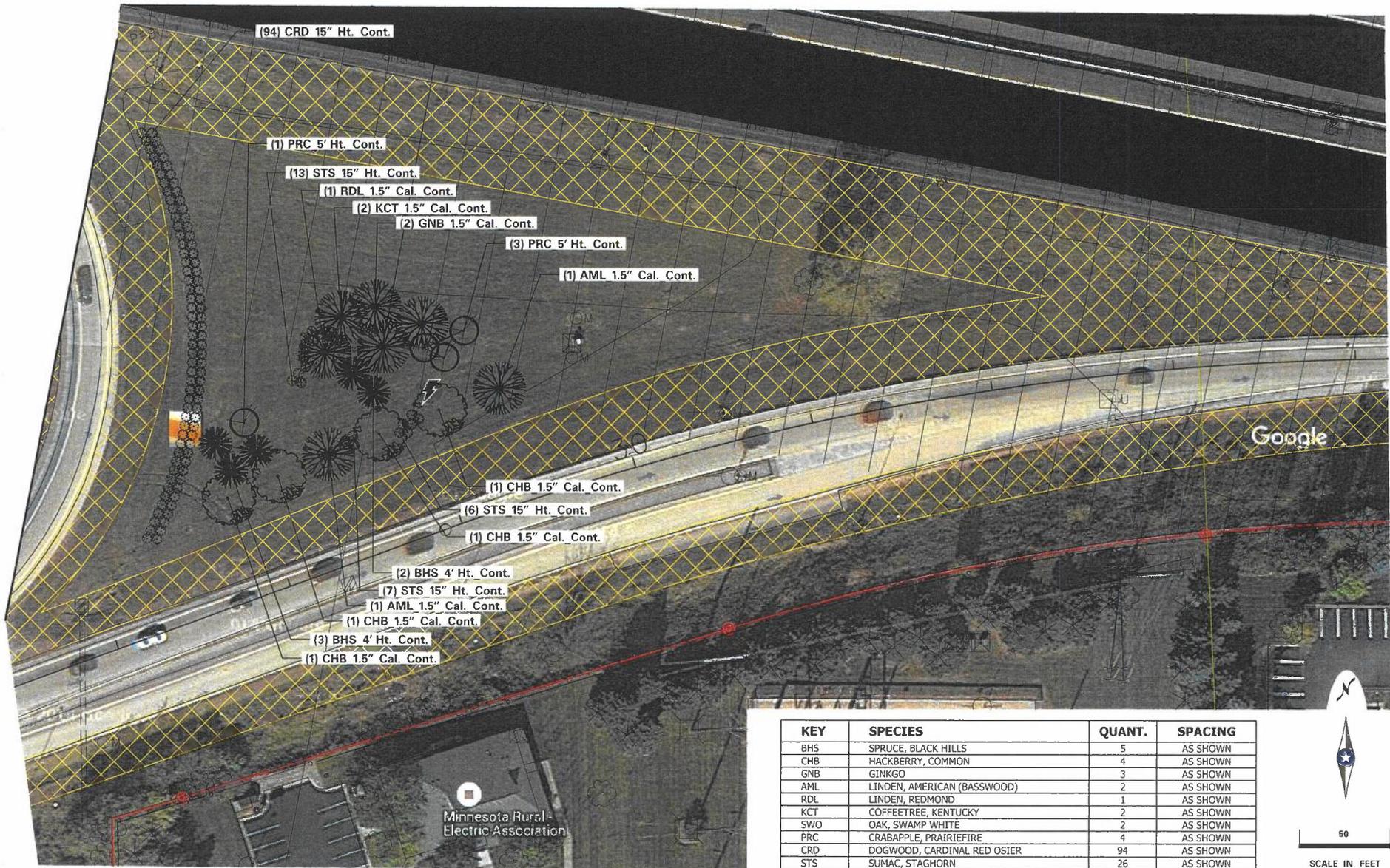
KEY	SPECIES	QUANT.	SPACING
BHS	SPRUCE, BLACK HILLS	5	AS SHOWN
CHB	HACKBERRY, COMMON	3	AS SHOWN
KCT	COFFEETREE, KENTUCKY	1	AS SHOWN
SMH	HONEYLOCUST, SHADEMASTER	6	AS SHOWN
NRM	MAPLE, NORTHWOOD RED	1	AS SHOWN
SWO	OAK, SWAMP WHITE	9	AS SHOWN
SMA	MOUNTAIN-ASH, SHOWY	2	AS SHOWN
GBC	CHOKEBERRY, GLOSSY BLACK	15	AS SHOWN
WGE	EUONYMUS, WINGED	18	AS SHOWN
STS	SUMAC, STAGHORN	13	AS SHOWN
AWV	VIBURNUM, ARROWWOOD	66	AS SHOWN



DATE PRINTED: 5/18/2016	TIME PRINTED: 4:05:38 PM	PROJECT MANAGER TODD CARROLL	DRAWN BY TODD CARROLL	DATE 05-18-2016 LIC NO. 26551	 STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION OFFICE OF ENVIRONMENTAL STEWARDSHIP ENV PLANNING AND DESIGN UNIT TRANSPORTATION BUILDING ST. PAUL, MINNESOTA 55155-1899	LANDSCAPE PLAN	
CHECKED BY TODD CARROLL		SIGNATURE REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT		STATE PROJECT 2786-969 (T.H. 94)		SHEET NO. 5 OF 10 SHEETS	



KEY	SPECIES	QUANT.	SPACING
AUP	PINE, AUSTRIAN	2	AS SHOWN
BHS	SPRUCE, BLACK HILLS	6	AS SHOWN
RVB	BIRCH, RIVER	3	AS SHOWN
AML	LINDEN, AMERICAN (BASSWOOD)	2	AS SHOWN
KCT	COFFEETREE, KENTUCKY	3	AS SHOWN
SMH	HONEYLOCUST, SHADEMASTER	5	AS SHOWN
SWO	OAK, SWAMP WHITE	4	AS SHOWN
PRC	CRABAPPLE, PRAIRIEFIRE	7	AS SHOWN
SMA	MOUNTAIN-ASH, SHOWY	2	AS SHOWN
STS	SUMAC, STAGHORN	17	AS SHOWN
AWV	VIBURNUM, ARROWWOOD	24	AS SHOWN



(94) CRD 15" Ht. Cont.

(1) PRC 5' Ht. Cont.

(13) STS 15" Ht. Cont.

(1) RDL 1.5" Cal. Cont.

(2) KCT 1.5" Cal. Cont.

(2) GNB 1.5" Cal. Cont.

(3) PRC 5' Ht. Cont.

(1) AML 1.5" Cal. Cont.

(1) CHB 1.5" Cal. Cont.

(6) STS 15" Ht. Cont.

(1) CHB 1.5" Cal. Cont.

(2) BHS 4' Ht. Cont.

(7) STS 15" Ht. Cont.

(1) AML 1.5" Cal. Cont.

(1) CHB 1.5" Cal. Cont.

(3) BHS 4' Ht. Cont.

(1) CHB 1.5" Cal. Cont.

Minnesota Rural
Electric Association

KEY	SPECIES	QUANT.	SPACING
BHS	SPRUCE, BLACK HILLS	5	AS SHOWN
CHB	HACKBERRY, COMMON	4	AS SHOWN
GNB	GINKGO	3	AS SHOWN
AML	LINDEN, AMERICAN (BASSWOOD)	2	AS SHOWN
RDL	LINDEN, REDMOND	1	AS SHOWN
KCT	COFFEETREE, KENTUCKY	2	AS SHOWN
SWO	OAK, SWAMP WHITE	2	AS SHOWN
PRC	CRABAPPLE, PRAIRIEFIRE	4	AS SHOWN
CRD	DOGWOOD, CARDINAL RED OSIER	94	AS SHOWN
STS	SUMAC, STAGHORN	26	AS SHOWN



DATE PRINTED: 5/19/2016	TIME PRINTED: 4:05:42 PM	PROJECT MANAGER TODD CARROLL	DRAWN BY TODD CARROLL	DATE 05-18-2016 LIC. NO. 26551	 STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION OFFICE OF ENVIRONMENTAL STEWARDSHIP ENV. PLANNING AND DESIGN UNIT TRANSPORTATION BUILDING ST. PAUL, MINNESOTA 55155-1899	LANDSCAPE PLAN	
			CHECKED BY TODD CARROLL	SIGNATURE <small>LICENSED PROFESSIONAL LANDSCAPE ARCHITECT</small>		STATE PROJECT 2786-969 (T.H. 94)	SHEET NO. 7 OF 10 SHEETS

GENERAL NOTES

SEE SPECIAL PROVISIONS FOR SPECIFIC PROJECT REQUIREMENTS.

REFER TO MnDOT SPECIFICATIONS 2571, 3861, AND THE COMMENT "INSPECTION AND CONTRACT ADMINISTRATION MANUAL FOR MnDOT LANDSCAPE PROJECTS," FOR GENERAL REQUIREMENTS.

COMPLETE PREPARATORY WORK BEFORE STARTING INITIAL PLANTING OPERATIONS.

ACCEPT ALL PLANT STOCK IN ACCORDANCE WITH (MnDOT 3861) PRIOR TO PLANTING.

THE CONTRACTOR WILL DEMONSTRATE COMPETENCY FOR SOIL CULTIVATION OPERATIONS IN ACCORDANCE WITH (MnDOT 2571.3D.2)

THE CONTRACTOR WILL DEMONSTRATE COMPETENCY FOR ALL PLANT INSTALLATION OPERATIONS IN ACCORDANCE WITH (MnDOT 2571.3F1)

RODENT PROTECTION SEE SPECIAL PROVISIONS AND STANDARD PLANTING DETAILS (3 OF 3)

FERTILIZER SEE SPECIAL PROVISIONS

COMPOST MnDOT 3890 GRADE 2 UNLESS OTHERWISE SPECIFIED.

MULCH MATERIAL MnDOT 3882 TYPE 6 UNLESS OTHERWISE SPECIFIED.

MASS PLANTING BEDS PREPARE MASS PLANTING BEDS FOR PLANTS PLACED AT 15' OR LESS, UNLESS OTHERWISE SPECIFIED ON SHEETS. PLANT BEDS IN STAGGERED ROWS ON THE PERIMETER FIRST, THEN UNIFORMLY FILL IN WITH REMAINING PLANTS. USE TRIANGULAR SPACING, UNLESS SPECIFIED OTHERWISE. PROVIDE 5' RADIUS CLEAR OF SHRUBS AROUND EACH DECIDUOUS TREE AND 8' CLEAR RADIUS AROUND EACH CONIFER TREE. RADIUS WILL BE MEASURED FROM THE CENTER OF THE TREE TO THE CENTER OF THE SHRUB. NOTIFY ENGINEER OF GROSS PLANT QUANTITY SURPLUS OR DEFICIENCY IMMEDIATELY. MULCH ENTIRE MASS PLANTING BED. SEE STANDARD PLANTING DETAILS (3 OF 3)

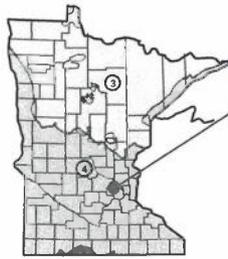
TREE PAINTING (FROST CRACK PREVENTION) PAINT OAK, LINDEN, LOCUST, MAPLE, CRABAPPLE AND MOUNTAIN ASH. ONLY UNDILUTED EXTERIOR WHITE LATEX PAINT IS ACCEPTABLE. PAINT TREE CIRCUMFERENCE FROM GROUND LINE TO FIRST MAJOR BRANCH.

PLANTING PLAN DIMENSIONS STATED DIMENSIONS SUPERCEDE SCALING FROM PLAN.

WATERING GUIDELINES (MnDOT 2571.3G)

PLANT TYPE	AVERAGE GALLONS OF WATER PER APPLICATION
MACHINE TRANSPLANTED TREES	50-100
BALLED AND BURLAPPED TREES	20
BARE ROOT AND CONTAINER TREES	15
BALLED AND BURLAPPED SHRUBS	10
BARE ROOT AND CONTAINER SHRUBS	7
WOODY SEEDLINGS	4
PERENNIALS AND VINES	3

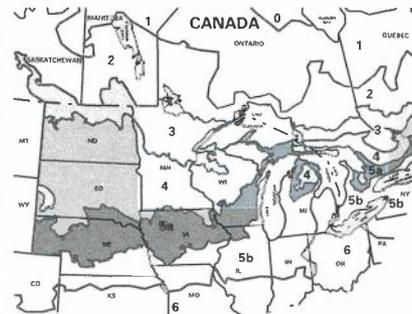
IT IS THE CONTRACTOR'S RESPONSIBILITY TO MONITOR AND MAINTAIN SOIL MOISTURE AT ADEQUATE BUT NOT EXCESSIVE LEVELS. THE AMOUNTS LISTED ABOVE ARE GUIDELINES, NOT REQUIREMENTS.



PROJECT LOCATION

- BARE ROOT PERENNIALS MUST BE PLACED IN THE SPRING NO LATER THAN JUNE 1ST OR FOLLOW THE FALL DECIDUOUS PLANTING DATES.
- ACTUAL DATES MAY CHANGE DEPENDING UPON SEASONAL CONDITIONS, AS DETERMINED BY THE ENGINEER.
- FALL PLANTING IS NOT ALLOWED FOR BARE ROOT FORM OF THE FOLLOWING SPECIES: HAWTHORN, DOGWOOD, POPLAR, HACKBERRY, LINDEN, IRONWOOD, HONEYLOCUST, BIRCH, MOUNTAIN ASH, MAPLE, WILLOW, CRABAPPLE, PLUMCHERRY, OAKS, AND SUMAC.
- ALL REPLACEMENT PLANTS MUST BE PLACED DURING THE MONTH OF MAY (SPRING PLANTING) AND SEPTEMBER (FALL PLANTING) DURING THE FIRST YEAR OF THE PLANT ESTABLISHMENT PERIOD.
- MACHINED MOVED PLANTING DATES WILL BE SPECIFIED IN THE SPECIAL PROVISIONS.

PLANT INSTALLATION PERIOD



ZONES	LEGEND	MIN. TEMP.
3		-34.4° TO -40° F
4		-28.9° TO -34.4° F
5a		-26.1° TO -28.9° F

ZONES	LEGEND
0, 1, 2, 5b and 6	

FOR ALL PLANT STOCK, DOCUMENT ACCEPTABILITY FOR HARDINESS IN THE MINNESOTA ZONE WHERE THE PROJECT SITE IS LOCATED, AS FOLLOWS:

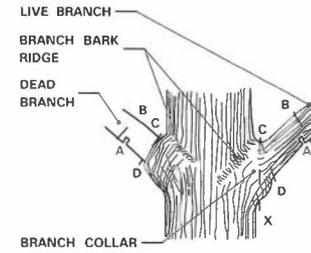
- PLANT STOCK CONTINUOUSLY GROWN FOR AT LEAST THE LAST TWO YEARS WITHIN THE ACCEPTABLE LIMITS SHOWN.
- OR
- PLANT STOCK, GROWN OUTSIDE THE ACCEPTABLE GROWING RANGE LIMITS, HAVING SEED SOURCE OR ROOT AND GRAFT STOCK ORIGINATING FROM THE ACCEPTABLE LIMITS SHOWN.

ACCEPTABLE PLANT STOCK GROWING RANGE LIMITS

SOURCE: USDA PLANT HARDINESS ZONE MAP (MnDOT 3861.2C)

PLANTING DATES BY ZONE

		③	④
SPRING	DECIDUOUS BARE ROOT	APRIL 21 TO JUNE 1	APRIL 7 TO JUNE 1
	CONTAINER B&B	APRIL 21 TO JUNE 30	APRIL 7 TO JUNE 30
	CONIFEROUS	APRIL 21 TO JUNE 1	APRIL 7 TO MAY 17
	PERENNIALS	MAY 1 TO JUNE 30	MAY 1 TO JUNE 30
FALL	DECIDUOUS BARE ROOT	OCT. 1 TO NOV. 1	OCT. 10 TO NOV. 15
	CONTAINER B&B	AUG. 25 TO OCT. 15	AUG. 25 TO NOV. 1
	CONIFEROUS	APRIL 21 TO SEPT. 15	APRIL 7 TO SEPT. 15
	PERENNIALS	AUG. 25 TO SEPT. 15	AUG. 25 TO SEPT. 15



STEPS TO PRUNING WITH PRUNING SAW:

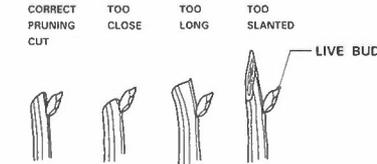
- CUT PART WAY THROUGH THE BRANCH AT POINT A.
- CUT COMPLETELY THROUGH BRANCH FROM POINT B TO A.
- AT BRANCH COLLAR CUT FROM POINT C TO D.

INCORRECT CUT FROM POINT C TO X (TOO CLOSE) WILL RESULT IN DISCONTINUOUS CALLUS FORMATION AFTER ONE SEASON OF GROWTH.

CORRECT CUT FROM POINT C TO D (LEAVING BRANCH COLLAR BUT NOT THE STUB FROM POINT B TO A) WILL RESULT IN CONTINUOUS DOUGHNUT SHAPED CALLUS FORMATION AFTER ONE SEASON OF GROWTH.

BRANCHES PRUNED AT TRUNK

(STIENO METHOD)



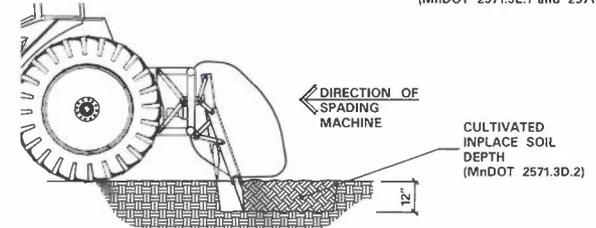
PRUNING NOTES:

- PRUNE USING CLEAN AND SHARP SCISSOR-TYPE PRUNER OR PRUNING SAW.
- THE BEST TIME TO PRUNE IS LATE DORMANT SEASON OR EARLY SPRING.
- AVOID PRUNING OAKS IN APRIL, MAY, JUNE OR JULY.
- IF PRUNING IS NECESSARY OR IF WOUNDS OCCUR TO OAK TREES IN APRIL, MAY, JUNE OR JULY, IMMEDIATELY PAINT CUT SURFACE OR WOUND WITH LATEX PAINT OR SHELLAC.

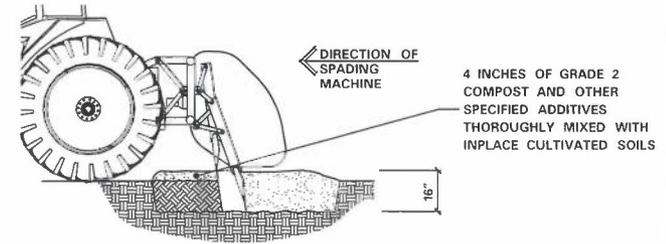
BRANCHES PRUNED TO LIVE BUD

PRUNING

(MnDOT 2571.3E.1 and 2571.3K.2.a(9))



PRIMARY TILLAGE - PASS 1



INCORPORATION TILLAGE - PASS 2

PLANTING SOIL

(MnDOT 2571.3D)

DATE PRINTED
REVISED - JANUARY / 01 / 2014

PROJECT MANAGER
DAVID LARSON

DRAWN BY
OFFICE OF ENVIRONMENTAL STEWARDSHIP



STATE OF MINNESOTA
DEPARTMENT OF TRANSPORTATION
OFFICE OF ENVIRONMENTAL STEWARDSHIP
ENV. PLANNING AND DESIGN UNIT
TRANSPORTATION BUILDING
ST. PAUL, MINNESOTA 55155-1899

STANDARD PLANTING DETAILS (A)

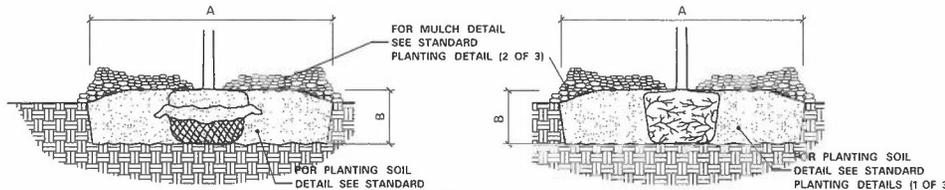
STATE PROJECT 2786-969 (T.H. 94) SHEET NO. 8 OF 10 SHEETS

PLANTING HOLE DIMENSIONS

HOLE DEPTH FOR B&B AND CONTAINER PLANTS SHALL NOT EXCEED MEASUREMENT FROM ROOT FLAR TO BOTTOM OF SOIL BALL.

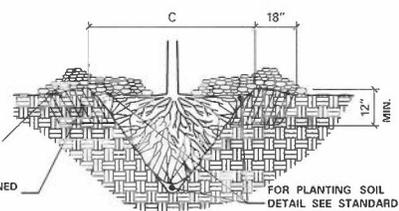
PLANT TYPE	PLANT SIZE UP TO AND INCLUDING	(A) MINIMUM HOLE WIDTH	(B) APPROXIMATE HOLE DEPTH
DECIDUOUS & ORNAMENTAL TREES	3" B.R.	46"	19"
	4" B.R.	46"	19"
	5" B.R.	48"	14"
	6" B.R.	54"	15"
	7" B.R.	60"	16"
	8" B.R.	66"	17"
	0.25" B.R.	48"	12"
	1" B.R.	54"	14"
	1.25" B.R.	60"	14"
	1.5" B.R.	66"	15"
	1.75" B.R.	72"	16"
	2" B.R.	84"	19"
	4" B.B.	42"	11"
	5" B.B.	48"	12"
	6" B.B.	52"	14"
	8" B.B.	66"	16"
	10" B.B.	66"	16"
	12" B.B.	48"	12"
	1" B.R.	54"	14"
	1.25" B.B.	54"	15"
1.5" B.B.	61"	15"	
1.75" B.B.	68"	16"	
2" B.B.	72"	16"	
2.5" B.B.	84"	19"	
3" B.B.	96"	20"	
3.5" B.B.	104"	23"	
4" B.B.	126"	26"	
12" B.R.	24"	7"	
15" B.R.	28"	8"	
18" B.R.	30"	8"	
2" B.R.	37"	9"	
3" B.R.	42"	11"	
4" B.B.	48"	12"	
5" B.R.	54"	14"	
6" B.B.	60"	14"	
8" B.B.	72"	16"	
10" B.B.	72"	16"	
12" B.B.	27"	7"	
2" B.B.	30"	8"	
3" B.B.	36"	9"	
4" B.B.	42"	11"	
5" B.B.	48"	12"	
6" B.B.	54"	14"	

PERENNIAL HOLE DEPTH AND WIDTH SHALL BE BASED UPON ON-CENTER SPACING IN A CONTINUOUS TRENCH.



1. SCARIFY SIDES AND BOTTOM OF HOLE.
2. PROCEED WITH CORRECTIVE PRUNING OF TOP AND ROOT.
3. REMOVE CONTAINER AND SCORE OUTSIDE OF SOIL MASS TO REDIRECT AND PREVENT CIRCLING FIBROUS ROOTS. REMOVE OR CORRECT STEM GIRDLING ROOTS.
4. SET PLANT ON UNDISTURBED NATIVE SOIL OR THOROUGHLY COMPACTED PLANTING SOIL. INSTALL PLANT SO THE TOP OF THE ROOT FLARE IS AT OR UP TO 2" ABOVE THE FINISHED GRADE.
5. PLUMB AND BACKFILL WITH PLANTING SOIL.
6. WATER THOROUGHLY WITHIN 2 HOURS TO SETTLE PLANT AND FILL VOIDS.
7. BACK FILL VOIDS AND WATER A SECOND TIME.
8. PLACE MULCH WITHIN 48 HOURS OF THE SECOND WATERING UNLESS SOIL MOISTURE IS EXCESSIVE.

CONTAINER STOCK



1. SCARIFY SIDES AND BOTTOM OF HOLE.
2. PROCEED WITH CORRECTIVE PRUNING.
3. SET PLANT ON NATIVE SOIL AT SAME DEPTH AS IT WAS PREVIOUSLY GROWN.
4. PLUMB AND BACKFILL WITH PLANTING SOIL.
5. AFTER PLANTING, LOOSEN THE SOIL IMMEDIATELY ADJACENT TO THE ROOT BALL TO A MINIMUM DISTANCE OF 18" AND A MINIMUM DEPTH OF 12".
6. WATER THOROUGHLY WITHIN 2 HOURS TO SETTLE PLANT AND FILL VOIDS.
7. BACK FILL VOIDS AND WATER A SECOND TIME.
8. PLACE MULCH WITHIN 48 HOURS OF THE SECOND WATERING UNLESS SOIL MOISTURE IS EXCESSIVE.

MINIMUM TREE SPADE SIZE REQUIREMENTS			
(C) SPADE DIAMETER SIZE	OAK TREE CALIPER	DECIDUOUS / ORNAMENTAL TREE CALIPER	CONIFEROUS TREE, HEIGHT
42"	1" to 1.5"	2" to 3"	5' to 7'
60"	1.5" to 2.5"	3" to 4"	7' to 9'
78"	2.5" to 3.5"	4" to 6"	9' to 14'
85"	3.5" to 5"	6" to 8"	14' to 18'

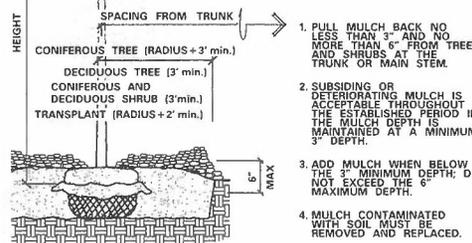
MACHINE MOVED STOCK

HOLE DEPTH FOR B&B AND CONTAINER PLANTS SHALL NOT EXCEED MEASUREMENT FROM ROOT FLAR TO BOTTOM OF SOIL BALL.

PLANT TYPE	PLANT SIZE UP TO AND INCLUDING	(A) MINIMUM HOLE WIDTH	(B) APPROXIMATE HOLE DEPTH
CONIFEROUS TREES	2" B.B.	36"	10"
	3" B.B.	42"	11"
	4" B.B.	51"	13"
	5" B.B.	60"	13"
	6" B.B.	66"	15"
	7" B.B.	72"	16"
	8" B.B.	81"	18"
	9" B.B.	80"	20"
	10" B.B.	102"	21"
	12" B.B.	114"	24"
CONIFEROUS SHRUBS (UPRIGHT)	18" SPR B.B.	30"	3"
	2" SPR B.B.	36"	3"
	3" SPR B.B.	48"	3"
CONTAINER GROWN PLANTS	CELLPACKS / PLUGS	6"	2.5"
	2.25" CONT.	7"	3"
	3.15" CONT.	10"	3"
	4" CONT.	11"	4"
	4.5" CONT.	13"	4"
	6.75" CONT.	22"	5.5"
	7.5" CONT.	18"	6"
	2" CONT.	23"	7.5"
	3" CONT.	29"	8.5"
	5" CONT.	30"	11"
SEEDLINGS	7.5" CONT.	37"	11"
	15" CONT.	44"	14"
	10" CONT.	45"	15"
	20" CONT.	60"	16"
	35" CONT.	72"	17"
	8" SEEDLING	15"	14"
	9" SEEDLING	18"	14"
	12" SEEDLING	23"	16"
	18" SEEDLING	30"	16"
	2" SEEDLING	36"	18"
VINES	1 YR. MED. B.R.	15"	11"
	2 YR. NO. 1 B.R.	17"	12"
	2 YR. MED. B.R.	32"	12"
	2 YR. NO. 1 B.R.	42"	15"

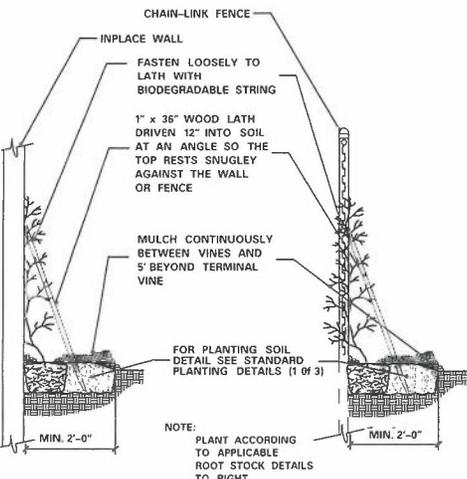
MULCH AREA CALCULATOR

TYPE OF PLANT	SQ. FT. PER PLANT
CONIFEROUS TREES	$\left(\frac{3}{2} \times \text{HEIGHT}\right) + 3 \times \pi$
DECIDUOUS AND ORNAMENTAL TREES	$3' \times \pi$
CONIFEROUS AND DECIDUOUS SHRUBS, ROSE BUSHES, PERENNIALS, ORNAMENTAL GRASS	SPACING x SPACING
VINES	SPACING x 2
MACHINE-MOVED TREES OR SHRUBS	$\left(\frac{\text{SPADE DIAMETER}}{2}\right)^2 \times \pi$ $\pi = 3.1416$



MULCH

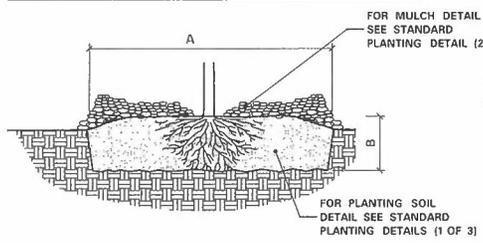
1. PULL MULCH BACK NO LESS THAN 3" AND NO MORE THAN 6" FROM TREES AND SHRUBS AT THE TRUNK OR MAIN STEM.
2. SUBSIDING OR DETERIORATING MULCH IS ACCEPTABLE THROUGHOUT THE ESTABLISHED PERIOD IF THE MULCH DEPTH IS MAINTAINED AT A MINIMUM 3" DEPTH.
3. ADD MULCH WHEN BELOW THE 3" MINIMUM DEPTH; DO NOT EXCEED THE 6" MAXIMUM DEPTH.
4. MULCH CONTAMINATED WITH SOIL MUST BE REMOVED AND REPLACED.



WALL INSTALLATION FENCE INSTALLATION

INSTALLATION OF VINES

BALLED & BURLAPPED STOCK



1. SOAK ROOTS IN WATER FOR AT LEAST ONE HOUR BUT NOT MORE THAN 24 HOURS PRIOR TO PLANTING.
2. SCARIFY SIDES AND BOTTOM OF HOLE.
3. PROCEED WITH CORRECTIVE PRUNING OF THE TOP AND ROOTS.
4. TRANSFER PLANT DIRECTLY FROM WATER TO HOLE. SET PLANT SO THE ROOT FLARE IS AT THE FINISHED SOIL ELEVATION. SPREAD ROOTS OUT EVENLY. PLUMB AND IMMEDIATELY BACKFILL WITH PLANTING SOIL.
5. WATER THOROUGHLY WITHIN 2 HOURS TO SETTLE PLANTS AND FILL VOIDS.
6. BACK FILL VOIDS AND WATER A SECOND TIME.
7. PLACE MULCH WITHIN 48 HOURS OF THE SECOND WATERING UNLESS SOIL MOISTURE IS EXCESSIVE.

BARE ROOT STOCK

INSTALLATION OF PLANTS

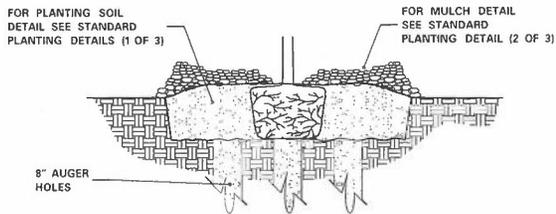


STATE OF MINNESOTA
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STANDARD PLANTING DETAILS (B)

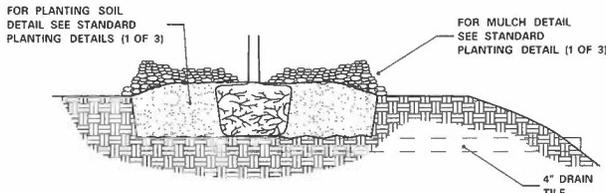
(MnDOT 2571.3F)

(MnDOT 2571.3H)



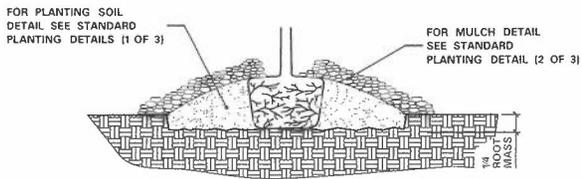
1. EXCAVATE HOLE OR BED TO ALLOW PLACING THE TOP OF ROOT MASS 1"-3" HIGHER THAN FINISHED GRADE.
2. AUGER 8" DIAMETER HOLES ENTIRELY THROUGH IMPERVIOUS OR POORLY DRAINED HARD PAN SOIL LAYER TO ADEQUATELY DRAIN SUBSOIL.
3. TEST FOR POSITIVE DRAINAGE. RE-AUGER AN ADDITIONAL 8" IF NECESSARY FOR POSITIVE DRAINAGE.
4. THOROUGHLY BACKFILL AUGER HOLES WITH A UNIFORM INCORPORATED MIXTURE OF 50% SAND AND 50% INPLACE SOIL.
5. COMPLETE PLANTING ACCORDING TO ROOT TYPE. SEE STANDARD PLANTING DETAILS (2 OF 3).

GRANULAR FILTER



1. EXCAVATE HOLE OR BED TO ALLOW PLACING THE TOP OF THE ROOT MASS 1"-3" HIGHER THAN FINISHED GRADE.
2. INSTALL 4" MINIMUM DIAMETER DRAIN TILE DAYLIGHTING AT A LOWER GRADE.
3. COMPLETE PLANTING ACCORDING TO ROOT TYPE. SEE STANDARD PLANTING DETAILS (2 OF 3).

TILE DRAINAGE



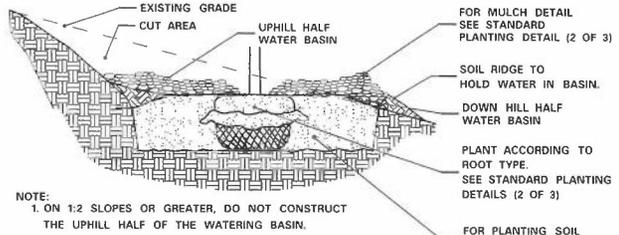
1. EXCAVATE HOLE OR BED 1/4 THE DEPTH OF THE ROOT MASS.
2. SET ROOT MASS IN HOLE.
3. CONSTRUCT BERM WITH PLANTING SOIL. EXTEND THE BERM BASE TO A WIDTH OF 3 TIMES THE BERM HEIGHT.
4. COMPLETE PLANTING ACCORDING TO ROOT TYPE. SEE STANDARD PLANTING DETAILS (2 OF 3).

MINI-BERM

- NOTE:
1. THE NEED FOR USING PLANTING DETAILS FOR POORLY DRAINED SOILS AND WHICH TYPE TO USE ARE DETERMINED BY THE CONTRACTOR, SUBJECT TO ENGINEER APPROVAL.

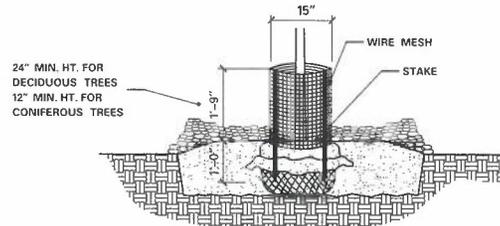
PLANTING DETAIL FOR POORLY DRAINED SOILS

(MnDOT 2571.3D.2(8))



- NOTE:
1. ON 1:2 SLOPES OR GREATER, DO NOT CONSTRUCT THE UPHILL HALF OF THE WATERING BASIN.

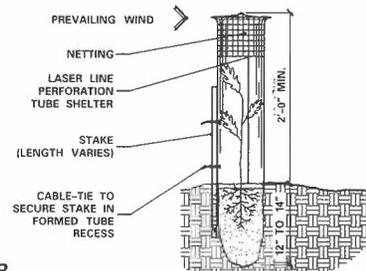
PLANTING ON SLOPES



1. FORM A DOUBLE-LAYERED CYLINDER USING 0.25" GRID GALVANIZED WELDED WIRE MESH (HARDWARE CLOTH) OVERLAP THE CUT END 2".
2. DRIVE TWO 1" x 1" OPPOSING HEARTWOOD WHITE OAK STAKES INTO THE GROUND, 7" FROM THE CENTER OF THE TREE STEM.
3. SECURE THE MESH CYLINDER TO THE OUTSIDE OF THE STAKES USING EITHER, SCREWS AND WASHERS OR CABLE-TIES ALONG THE OVERLAP. SPACE APPROXIMATELY 4" ON CENTER ALONG THE OVERLAP.
 - a. SCREWS SHALL BE ROUND HEAD GALVANIZED 1/8" DIA. x 3/4" LONG WITH WASHERS.
 - OR
 - b. CABLE-TIES SHALL BE NYLON, AT LEAST 8" LONG AND BETWEEN 75LB TO 120LB TENSILE STRENGTH.
4. EMBED THE LOWER EDGE OF THE MESH CYLINDER 1" BELOW THE SOIL SURFACE WITHOUT DISTURBING THE TREE ROOTS.
5. CUT EDGES WILL NOT BE PERMITTED AT THE TOP OF THE CYLINDER. STAKE WILL BE FLUSH WITH THE TOP OF THE CYLINDER.
6. MULCH WITHIN THE CYLINDER SHALL NOT EXCEED 3" DEPTH AND SHALL BE PULLED BACK FROM THE TRUNK AS SPECIFIED IN MULCH PLACEMENT DETAIL.
7. THE BOTTOM WHORL OF PINE AND LARCH BRANCHES MAY HAVE TO BE REMOVED TO PERMIT INSTALLATION OF 12" MIN. HEIGHT RODENT GUARDS.
8. INSTALL ON ALL DECIDUOUS, PINE AND LARCH TREES. DO NOT PLACE ON SPRUCE TREES.

RODENT PROTECTION

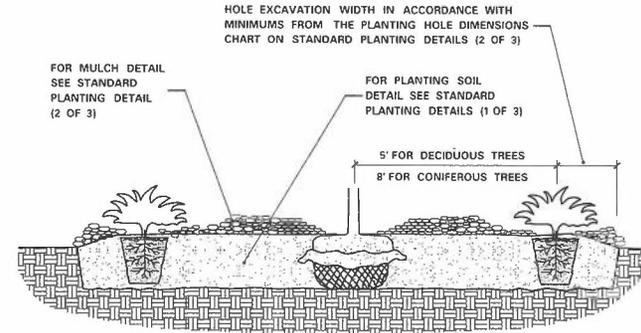
1. USE SEAMLESS, EXTRUDED, TWIN-WALL, RIGID AND SEMI TRANSLUCENT POLYPROPYLENE TUBES WITH A LASER LINE PERFORATION AND AN OUTWARD-FLARED TOP RIM.
2. SECURE SHELTER WITH NYLON CABLE-TIES ATTACHED TO A 1" x 1" WHITE OAK STAKE TO PREVENT DISLODGING OR TWISTING.
3. EMBED THE BOTTOM OF THE TUBE A MINIMUM OF 1" BELOW THE SOIL SURFACE WITHOUT DISTURBING THE TREE ROOTS.
4. PLACE A PLASTIC PHOTODEGRADABLE NETTING COVER AND SLEEVE OVER THE TOP OF THE TUBE. PULL NETTING DOWN AS SHOWN.



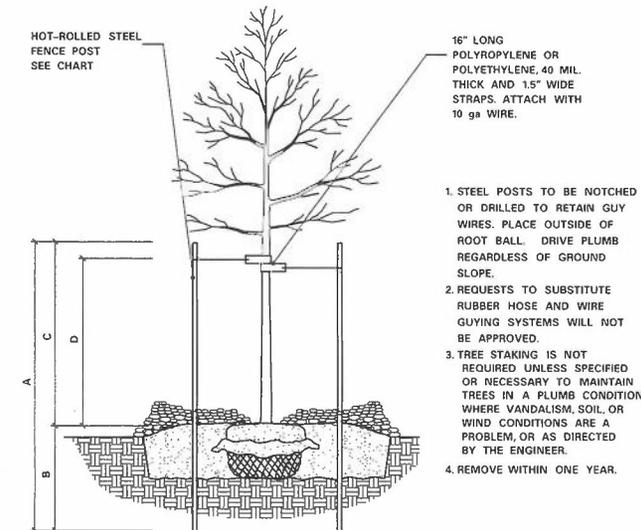
(MnDOT 2571.3I.2)

(MnDOT 2571.3I.4)

SEEDLING TREE SHELTER



PLANT SPACING IN MASS BEDS



1. STEEL POSTS TO BE NOTCHED OR DRILLED TO RETAIN GUY WIRES. PLACE OUTSIDE OF ROOT BALL. DRIVE PLUMB REGARDLESS OF GROUND SLOPE.
2. REQUESTS TO SUBSTITUTE RUBBER HOSE AND WIRE GUYING SYSTEMS WILL NOT BE APPROVED.
3. TREE STAKING IS NOT REQUIRED UNLESS SPECIFIED OR NECESSARY TO MAINTAIN TREES IN A PLUMB CONDITION WHERE VANDALISM, SOIL OR WIND CONDITIONS ARE A PROBLEM, OR AS DIRECTED BY THE ENGINEER.
4. REMOVE WITHIN ONE YEAR.

STEEL POST SIZING

CALIPER	STEEL POST TYPE	A	B	C	D
LESS THAN 4 INCHES	HOT-ROLLED STEEL FENCE POST (MnDOT 3403) OR APPROVED EQUAL	7'-0"	3'-0" MIN.	4'-0"	3'-0"
GREATER THAN 4 INCHES	10\"/>				

STAKING AND GUYING

(MnDOT 2571.3I.1)

DATE PRINTED:
REVISED - JANUARY / 01 / 2014

PROJECT MANAGER
DAVID LARSON

DRAWN BY
OFFICE OF ENVIRONMENTAL STEWARDSHIP



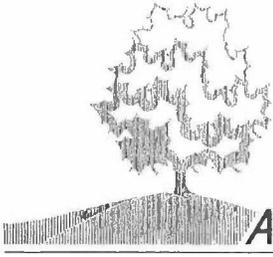
STATE OF MINNESOTA
DEPARTMENT OF TRANSPORTATION
OFFICE OF ENVIRONMENTAL STEWARDSHIP
ENV PLANNING AND DESIGN UNIT
TRANSPORTATION BUILDING
ST PAUL, MINNESOTA 55155-1899

STANDARD PLANTING DETAILS (C)

STATE PROJECT 2796-969 (T.H. 94) SHEET NO. 10 OF 10 SHEETS

REQUEST FOR COMMITTEE ACTION

Item Number: 4A



MAPLE GROVE
ARBOR COMMITTEE

Meeting Date: June 9, 2016
Agenda Heading: New Business
Agenda Item: Firefly Federal Credit Union
Landscape Plan

Recommended Committee Action:

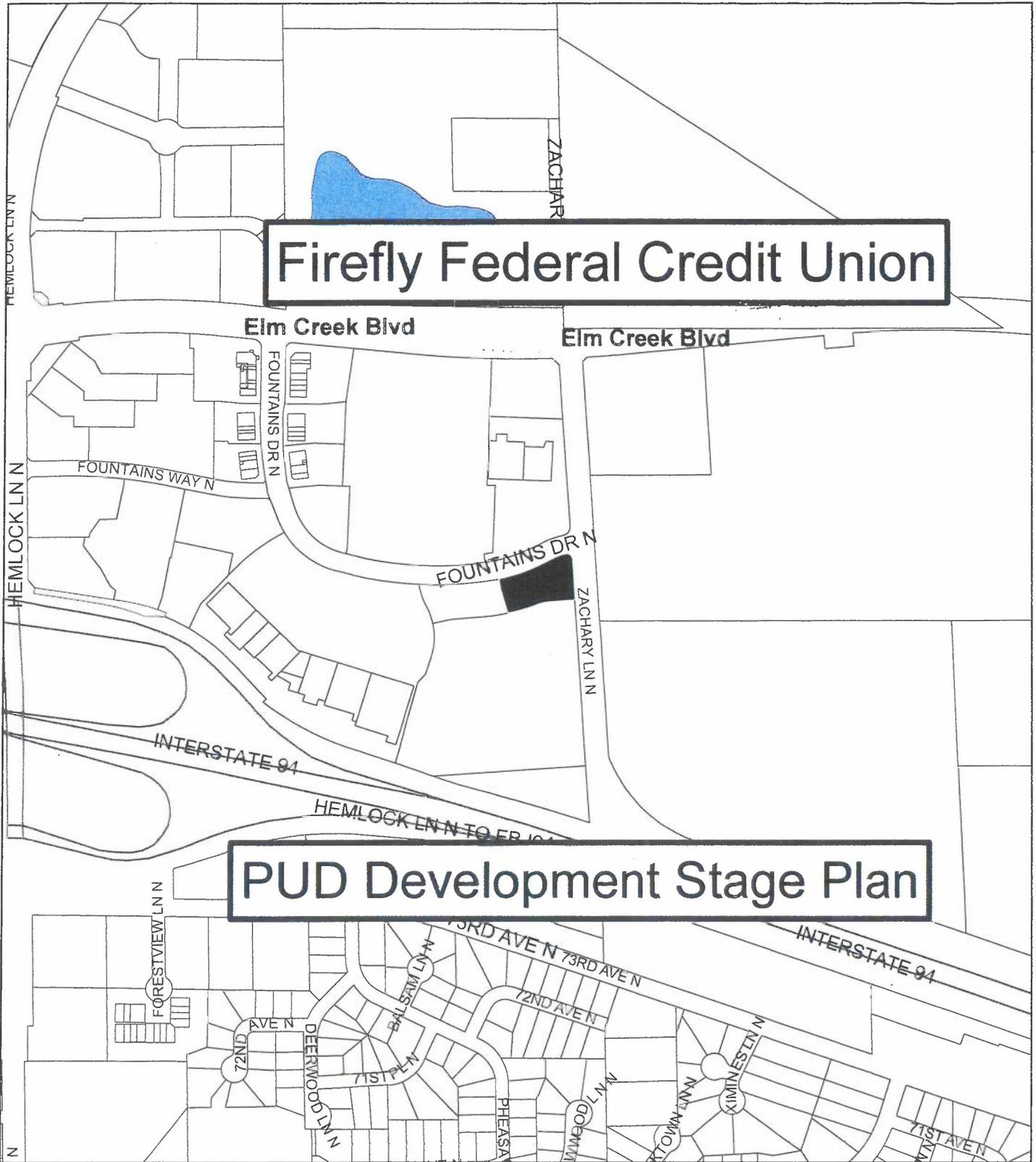
Review and comment on the landscape plan for Firefly Federal Credit Union.

Discussion:

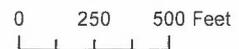
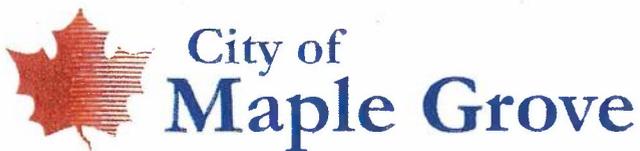
The applicant seeks approval for a planned unit development (PUD) plan for constructing a 3,340 square foot, one story, credit union with associated drive-thru.

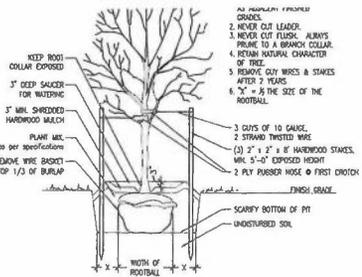
The minimum number of overstory trees required for this site is 25. There are five existing trees along Fountain Drive, three along Lowe's access drive, and four along Zachary Lane. Thirteen new trees are required to be planted on the development.

Committee Comments:

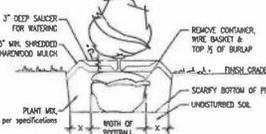


NEIGHBORHOOD LOCATION MAP

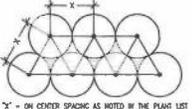




2 TYPICAL DECIDUOUS TREE PLANTING
C105 N.T.S.



3 TYPICAL SHRUB PLANTING
C105 N.T.S.



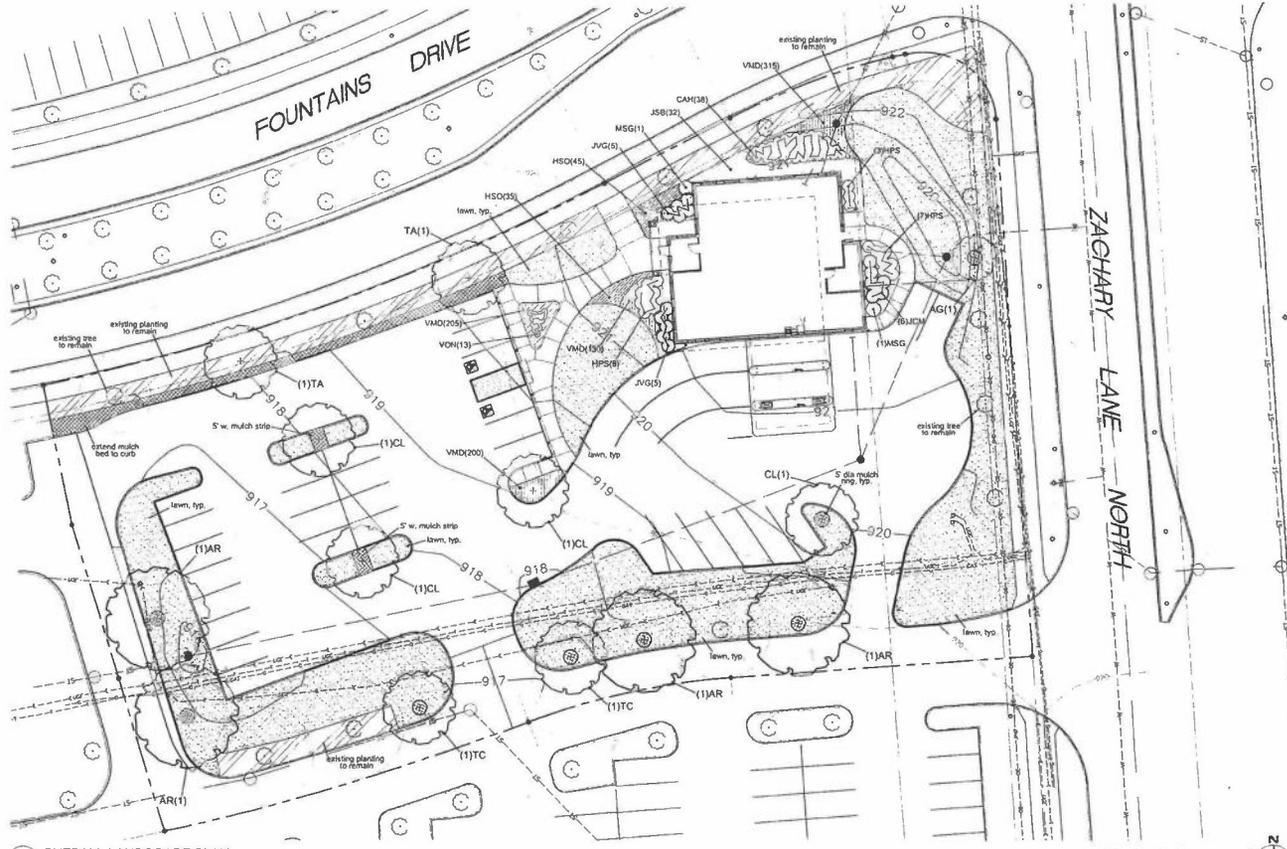
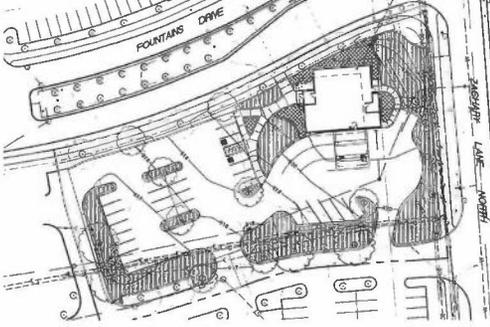
4 TYPICAL PLANT SPACING
C105 N.T.S.

IRRIGATION SYSTEM NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING PROPER COVERAGE OF ALL IRRIGATED AREAS.
2. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADES, LOCATIONS OF WALKS, STRUCTURES, AND UTILITIES.
3. THE CONTRACTOR SHALL REPAIR OR REPLACE ALL ITEMS DAMAGED BY HIS WORK.
4. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE, SLEEVES, AND LATERAL, UNDER ROADWAYS AND PAVED AREAS. SLEEVES INSTALLED AT IMPROPER DEPTHS WILL HAVE TO BE RE-INSTALLED BY BORING METHODS.
5. MAXIMUM TWO (2) VALVES PER JUMBO BOX. INSTALL ONE (1) ISOLATION VALVE PER JUMBO BOX.
6. THE IRRIGATION CONTRACTOR SHALL ADJUST VALVES, FLUSH AND ADJUST IRRIGATION HEADS FOR OPTIMUM COVERAGE WITH MINIMAL OVERSPRAY ONTO WALKS, STREETS, AND WALLS.
7. THE OWNER RESERVES THE RIGHT TO REFUSE MATERIAL OR WORK WHICH DOES NOT CONFORM TO THE SPECIFICATIONS. REJECTED WORK SHALL BE REMOVED OR CORRECTED AS SOON AS POSSIBLE AT THE CONTRACTORS EXPENSE.
8. FOR WORK GUARANTEE SEE THE PROJECT SPECIFICATION MANUAL.
9. IRRIGATION CONTRACTOR IS RESPONSIBLE FOR INSTALLING CONDUITS AND WIRING FROM VALVES TO CONTROLLERS.
10. THIS PLAN IS DRAWN TO SHOW THE LOCATION OF THE TWO DIFFERENT TYPES OR SYSTEMS. THE DRIP IRRIGATION AREAS AND THE SPRINKLER AREAS.

*This Irrigation System to be performed as a Design/Build. The irrigation types and areas, along with the performance specification, are to be adhered to. The Design Builder additionally meet the specifications of the municipality and get the plans approved by the municipality prior to system installation.

IRRIGATION PLAN:



1 OVERALL LANDSCAPE PLAN
1" = 20'

LANDSCAPE NOTES:

1. ALL TREES SHALL BE PLANTED AND MAINTAINED TO GROW UPRIGHT AND PLUMB.
2. FREE STANDING CANOPY TREES (NEW AND EXISTING) TO HAVE A MULCH RING AT A MAX. OF FIVE(5) FT IN DIA.
3. PLANTING SHALL BE IN ACCORDANCE WITH THE RECOMMENDED PRACTICE OF AMERICAN SOCIETY OF HURSTIDEMER. PLANTS SHALL BE MAINTAINED AND GUARANTEED FOR ONE(1) PLANTING SEASON.
4. DEPTH OF TOPSOIL TO BE 4 MIN. SIX(6) INCHES IN PLANTING BEDS. PLACE UNIFORMLY TO PREVENT UNEVEN SETTLEMENT.
5. TOPSOIL SHALL NOT BE PLACED OR WORKED WHILE FROZEN OR WET. PROVIDE A NEED MAT FOR ALL PLANTING BEDS.
6. PLANTING BEDS ARE DEFINED AS ANY AREA WITHIN THE PROJECT THAT IS NOT A HARD PAVING SURFACE, STRUCTURE OR GRAPHICALLY SHOWN AS LAWN.
7. MULCH PLANTING BEDS MIN. THREE(3) INCHES DEEP WITH ORGANIC MULCH FREE OF DELETERIOUS MATERIALS AND SUITABLE FOR TOP DRESSING OF TREES, SHRUBS, OR PLANTS AND CONSISTING OF SHRIMPED HARDWOOD OR GROUND SHRIMPED BARK.
8. FOR ANY LANDSCAPE AREA SO DESIGNATED TO REMAIN MAINTAINED ON OR OFF SITE, REMOVE WEEDS, ROCKS, CONSTRUCTION DEBRIS, ETC., THEN SCARIFY AREA AND INSTALL SOO. R.O.M. CURBS AND GUTTERS ARE TO BE CLEANED OF DEBRIS, FINISHED GRADES IN LANDSCAPE ISLANDS SHALL BE INSTALLED SO THAT THEY ARE 1" LOWER THAN THE TOP OF THE SURROUNDING CURBS AND WALLS.
9. SEE EAS DETAILS FOR TEMPORARY SEEDING REQUIREMENTS.
10. SEE EAS PLAN FOR TYPE AND LOCATION OF EROSION CONTROL, BLANKETS, AND LOCATION OF EROSION CONTROL.
11. COORDINATE INSTALLATION OF TREES AND SHRUBS WITH UNDERGROUND UTILITIES, LOT LIGHTS, UNDERGROUND STORM SYSTEM, ETC.. SEE SITE AND CIVIL PLANS FOR DETAILS. LOCATE PLANTINGS AS REQUIRED.
12. ALL LAWN AREAS TO BE SOO.
13. ALL LAWN & LANDSCAPE BEDS ARE TO BE IRRIGATED. SEE irrigation plan.

PLANT LIST:

QTY	SYMBOL	Botanical Name	Common Name	Size	Type	Install Size	On-Center Spacing (feet)	Notes
TREES								
1	AB	Acer glabrum	Amur Maple	2" cal.	B&B	2" cal.	as shown	
4	AR	Acer rubrum 'Franklin'	Red Summer Red Maple	2" cal.	B&B	2" cal.	as shown	
4	CA	Camptotheca integrifolia	American Yellowwood	2" cal.	B&B	2" cal.	as shown	
2	TA	Tilia americana	American Linden	2" cal.	B&B	2" cal.	as shown	
2	TC	Tilia cordata 'GreenPond'	GreenPond Linden	2" cal.	B&B	2" cal.	as shown	
SHRUBS								
38	CAN	Chaenactis atrofolia 'Nutmegmilkid'	Nutmegmilkid Summersweet	#3	cont.	15-18"	36 in.	3 ft.
18	HPS	Hydrangea paniculata 'SMARPLED'	Little Quick Fire Hardy Hydrangea	#3	cont.	18-24"	48 in.	4 ft.
8	RLM	Rumex crispus 'Robinson's'	Robinson's Red Top	#5	cont.	12-15"	60 in.	5 ft.
12	AVC	Amelanchier canadensis 'Starburst'	Starburst Amelanchier	#5	cont.	12-24"	60 in.	5 ft.
12	VDM	Viburnum dentatum 'Narrowleaf'	Narrowleaf European Cranberrybush	#5	cont.	18-24"	36 in.	3 ft.
GRASS/COVER								
2	BAO	Bouteloua curtipendula 'Grassbliss'	Grassbliss Grass	#3	cont.	18-24"	36 in.	3 ft.
80	HO	Hesperis matronalis 'Sheila O'Dora Daylily'	Sheila O'Dora Daylily	#1.5	cont.	18 in.	1.5 ft.	
32	RB	Rumex crispus 'Robinson's'	Robinson's Red Top	#3	cont.	18 in.	3 ft.	
950	VMS	Viola minor 'Daisy's Blue'	Cresting Violas	2 1/4"	pp.	8x8x50	8 in.	0.7 ft.

MUNICIPAL NOTES:

1. OVER STORY TREES - 1,012 L.F. (Lot Perimeter) / 250 / 25.3 rec'd
- 25
- 25
- 3 - Trees along Fountain Drive
- 3 - Trees along Low's access drive
- 4 - Trees along Zachary Lane in the utility easement
- 13 New Trees req'd

Landscapes@architect
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota.
Signature: [Signature]
Type and Period of Term: [Blank]
Date: 5.15.2016 License Number: 53321

revisions
no. date revised



IT'S THE LAW
TWO WORKING DAYS BEFORE YOU DIG CALL



R. W. LARSON ARCHITECT

31 Fern Colony Drive, Wadena, MN 56482
Phone: 814.753.6810 Fax: 814.752.8812
www.rwlarsonarchitect.com



scale 1" = 20'-0"
date 05.12.2016
project number 05112
drawn by DAS/RSK
sheet number

C105



REQUEST FOR COMMITTEE ACTION

Item Number: 4B



Meeting Date: June 9, 2016

Agenda Heading: New Business

Agenda Item: Pierre Bottineau Parade

Recommended Committee Action:

Determine a time and place to meet for the parade.

Discussion:

The Pierre Bottineau Parade is scheduled for Thursday, July 14, at 6:30 p.m. The parade route is along 89th Avenue N. from Zachary Lane to Elm Creek Boulevard.

Committee Comments:

REQUEST FOR COMMITTEE ACTION

Item Number: 5



Meeting Date: June 9, 2016

Agenda Heading: Area Reports

Agenda Item: Area Reports

Recommended Committee Action:

None.

Discussion:

The Area Reports section of the agenda provides an opportunity for any Committee member to report any item in the City that needs staff attention. The issue will be forwarded to the appropriate staff member with a response provided at the next meeting.

Committee Comments: