

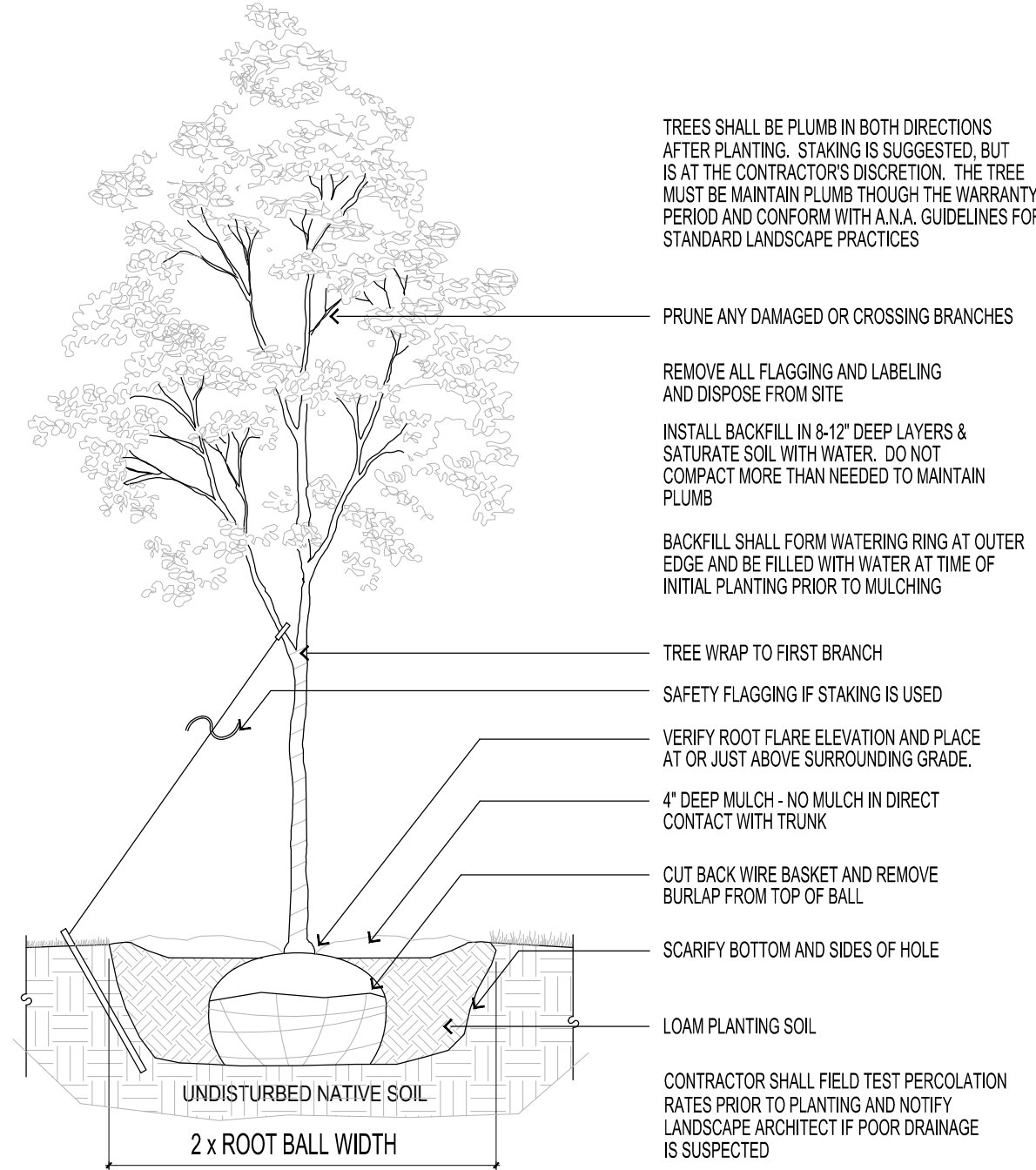
PER THE CITY OF RAMSEY LANDSCAPE ORDINANCE, REQUIRED LANDSCAPE QUANTITIES FOR THIS PROJECT ARE BASED ON RATIOS BASED ON BUILDING AREA OR SITE PERIMETER, WHICHEVER IS GREATER. FOR THIS PROJECT, SITE PERIMETER IS BEING USED FOR BOTH TREE AND SHRUB CALCULATIONS AND ARE CALCULATED AS FOLLOWS:

1. SITE PERIMETER = 2,484 LINEAL FEET
2. DIVIDED BY 50 = 49.68 = 50 TREES REQUIRED
3. DIVIDED BY 30 = 82.80 = 83 SHRUBS REQUIRED

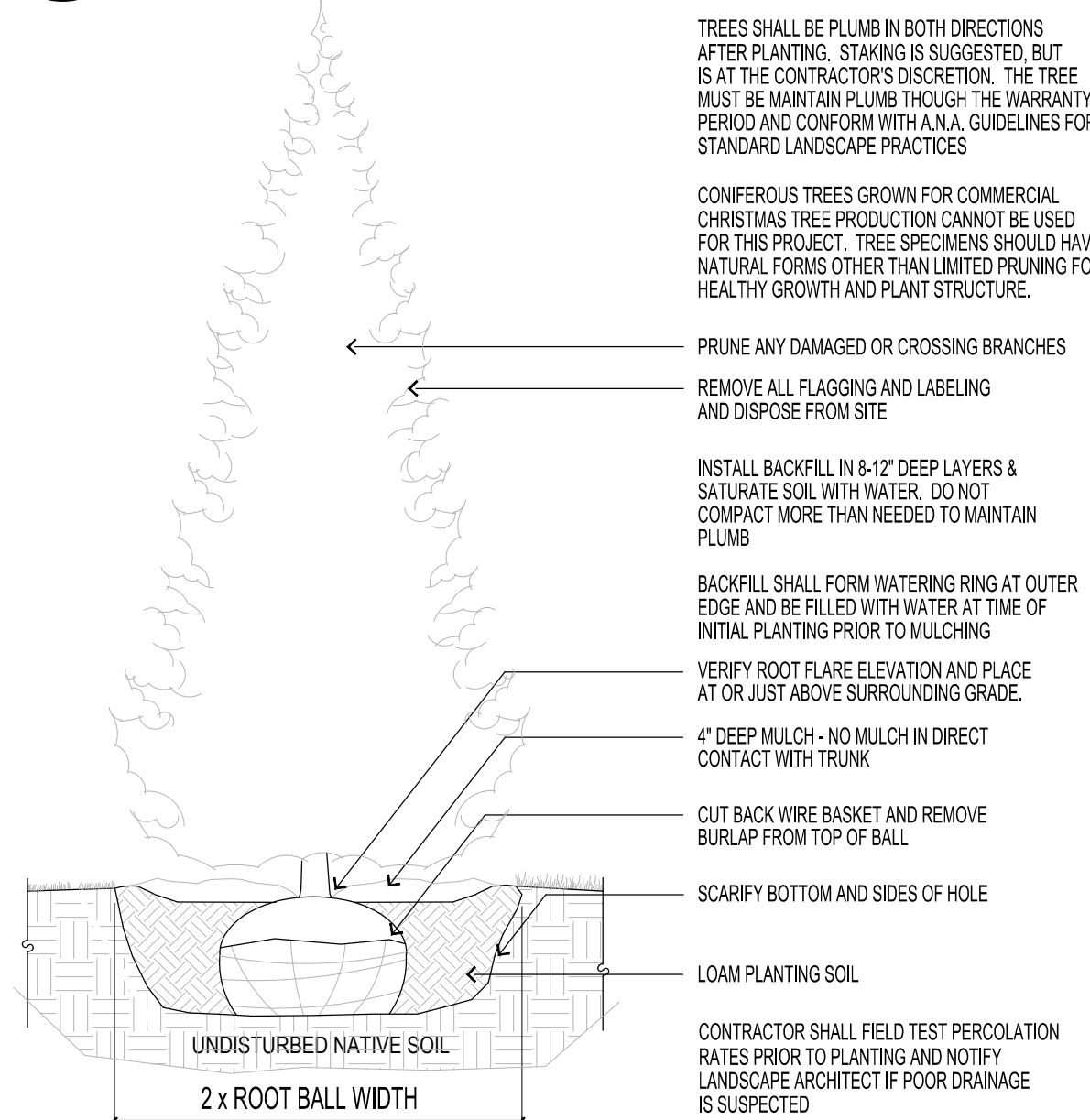
ROAD FRONTAGE PLANTINGS:  
THE LANDSCAPE ORDINANCE REQUIRES ONE OVERSTORY TREE BE PLANTED FOR EVERY 35 LINEAL FEET OF PUBLIC ROAD FRONTAGE. FOR THIS PROJECT, ONLY THE EAST SIDE IS ADJACENT A PUBLIC ROAD AND IS CALCULATED AS FOLLOWS:

1. ARMSTRONG BOULEVARD FRONTAGE = 595 LINEAL FEET
2. DIVIDED BY 35 = 17 TREES REQUIRED
3. MANY EXISTING TREES (15+ QUALITY SPECIES) ARE BEING PRESERVED ON THE SOUTHEAST CORNER OF THE SITE AND ARE COUNTED TOWARD ROAD FRONTAGE SCREENING.
4. FIVE TREES ARE ADDED TO THE NORTH TO COMPLETE THE SCREENING REQUIREMENT.

**LANDSCAPE CALCULATIONS:**



**1 DECIDUOUS TREE PLANTING DETAIL**  
SCALE: 1/2" = 1'-0"



**2 CONIFEROUS TREE PLANTING DETAIL**  
SCALE: 1/2" = 1'-0"

TREE PLANTING DETAILS:

**PARKING LOT TREE PLANTINGS:**  
THE LANDSCAPE ORDINANCE REQUIRES ONE OVERSTORY TREE BE PLANTED FOR EVERY 10 SURFACE PARKING STALLS.

1. TOTAL PARKING COUNT = 261 SPACES
2. DIVIDED BY 10 = 26 TREES REQUIRED
3. 26 TREES PROVIDED

- 114+ TREES INCLUDE:**
1. 8 OVERSTORY TREES - GENERAL LANDSCAPE REQUIREMENT
  2. 75+ QUALITY EXISTING TREES RETAINED
  3. 26 OVERSTORY TREES - PARKING LOT REQUIREMENT
  4. 5 OVERSTORY TREES - ARMSTRONG BLVD FRONTAGE REQUIREMENT

**120 SHRUBS/PERENNIALS INCLUDE:**

1. 48 DECIDUOUS SHRUBS
2. 18 CONIFEROUS SHRUBS
3. 18 ORNAMENTAL GRASSES
4. 36 PERENNIALS

TREES WILL BE PLANTED AT THE MINIMUM SIZES AS SHOWN ON THE PLANT SCHEDULE. PROPOSED MINIMUM SIZES ARE:

1. 2.0" CAL. FOR DECIDUOUS TREES
2. 1.5" CAL. FOR ORNAMENTAL TREES
3. 6' HEIGHT FOR CONIFEROUS TREES

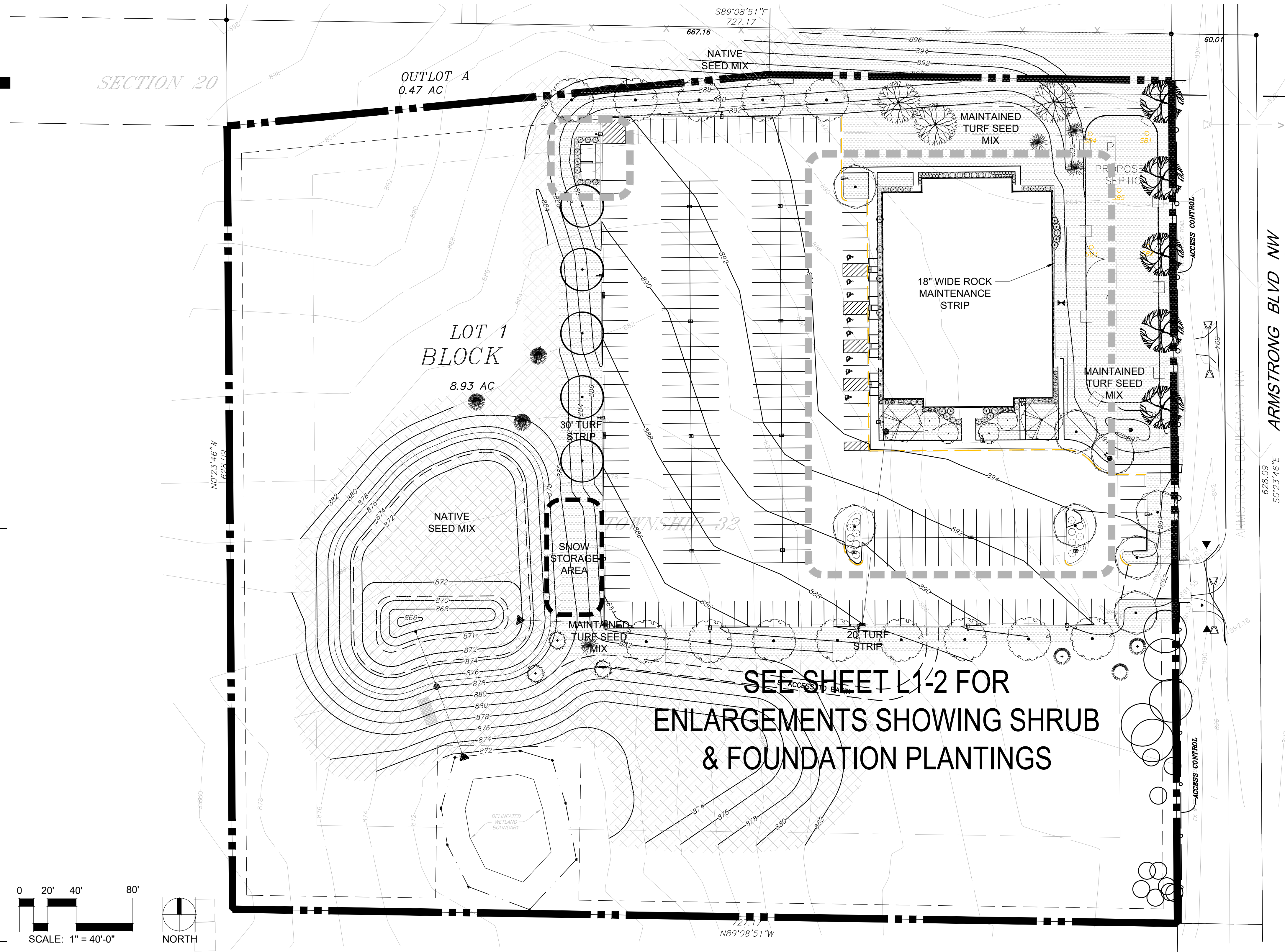
**DECIDUOUS OVERSTORY TREES:**

	SWAMP WHITE OAK Quercus bicolor 13 = Quantity @ 2" Caliper		CLUMP RIVER BIRCH Betula nigra 'Clump' 3 = Quantity @ 12" Height
	PRINCETON ELM Ulmus americana 'Princeton' 5 = Quantity @ 2" Caliper		BOULEVARD LINDEN Tilia americana 'Boulevard' 5 = Quantity @ 2" Caliper
	FALL FIESTA MAPLE Acer sacharum 'Bailista' 2 = Quantity @ 2" Caliper		HACKBERRY Celtis occidentalis 8 = Quantity @ 2" Caliper

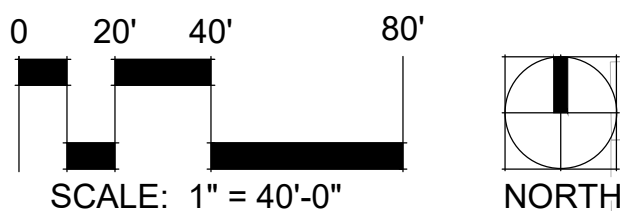
**CONIFEROUS TREES:**

	BLACK HILLS SPRUCE 3 = Quantity @ 6' Height
	COLORADO SPRUCE 3 = Quantity @ 6' Height
	AUSTRIAN PINE 3 = Quantity @ 6' Height
	SCOTCH PINE 3 = Quantity @ 6' Height

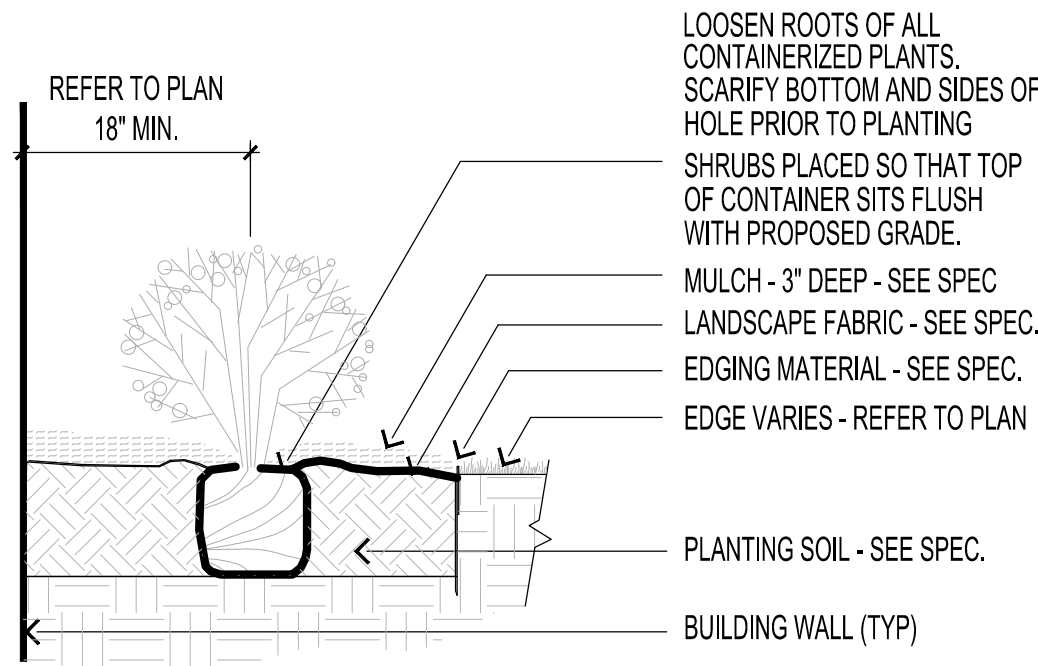
**TREE PLANTING KEY:**



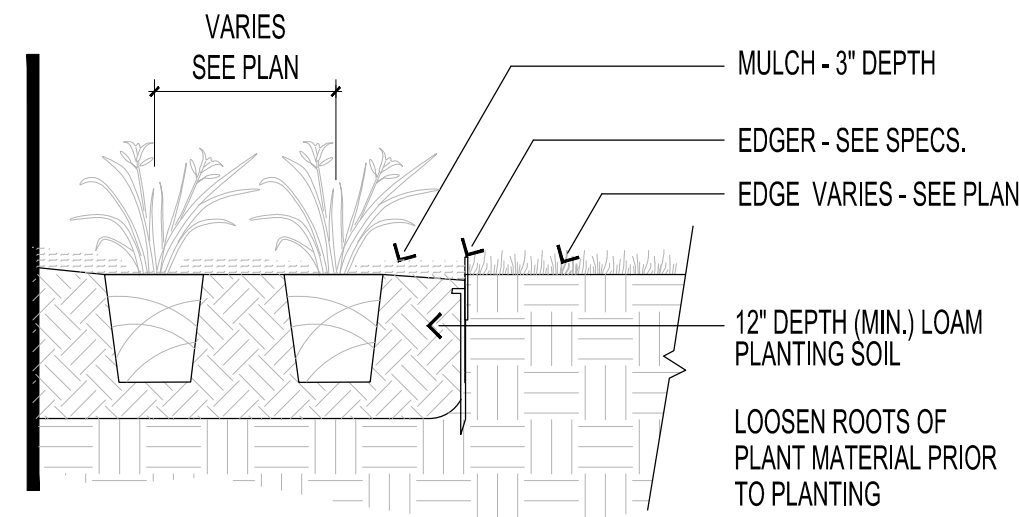
**SEE SHEET L1-2 FOR ENLARGEMENTS SHOWING SHRUB & FOUNDATION PLANTINGS**



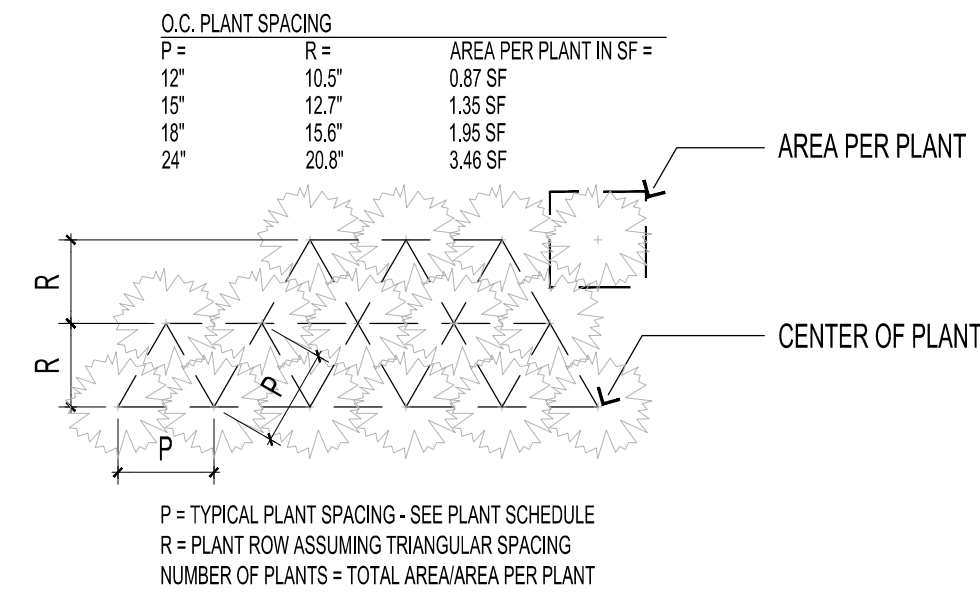
TREE PLANTING PLAN:



**1** SHRUB PLANTING DETAIL  
L1-2 SCALE: 3/4" = 1'-0"



**2** PERENNIAL PLANTING  
L1-2 SCALE: 3/4" = 1'-0"



**3** PERENNIAL SPACING GUIDELINES  
L1-2 SCALE: 3/4" = 1'-0"

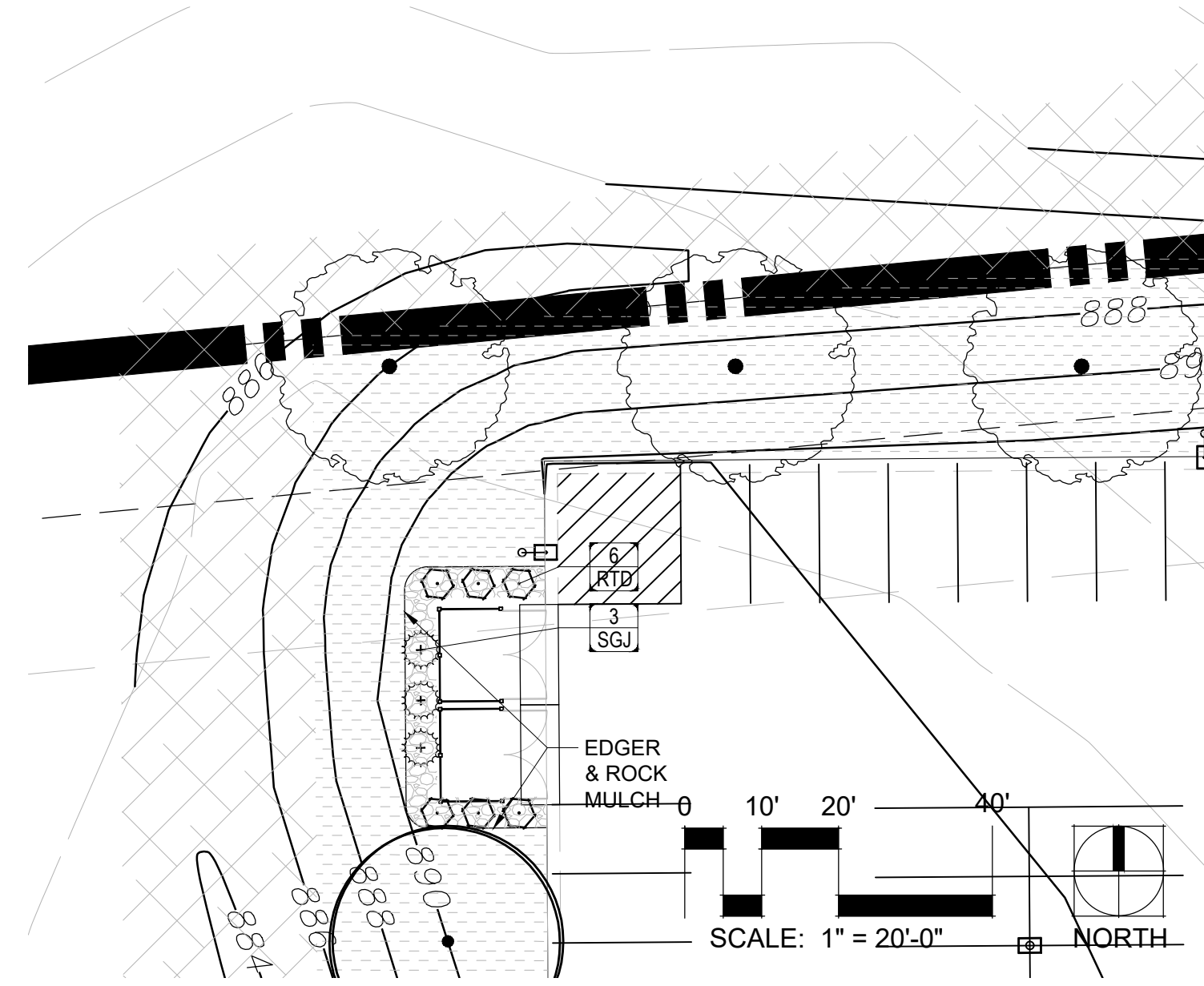
SYM	QTY	COMMON NAME	SCIENTIFIC NAME	SIZE	CONT	COMMENTS
<b>DECIDUOUS SHRUBS</b>						
ALP	7	ALPINE CURRANT	Ribes alpinum	24" HGT.	POT	5' O.C.
ANH	8	ANNABELLE HYDRANGEA	Hydrangea arborescens 'Annabelle'	24" HGT.	POT	5' O.C.
AWS	4	ANTHONY WATERER SPIREA	Spiraea x bumalda 'Anthony Waterer'	24" HGT.	POT	5' O.C.
DBH	14	DWARF BUSH-HONEYSUCKLE	Diervilla lonicera	24" HGT.	POT	5' O.C.
MKL	8	MISS KIM LILAC	Syring patula 'Miss Kim'	24" HGT.	POT	5' O.C.
RTD	6	ARCTIC FIRE RED DOGWOOD	Cornus stolonifera 'Farrow'	24" HGT.	POT	5' O.C.
<b>CONIFEROUS SHRUBS</b>						
DFJ	4	DAUB'S FROSTED JUNIPER	Juniperus chinensis 'Daub's Frosted'	24" HGT.	POT	5' O.C.
SGJ	3	SEA GREEN JUNIPER	Juniperus chinensis 'SeaGreen'	24" HGT.	POT	5' O.C.
TYE	5	TAUNTON YEW	Taxus x media 'Taunton'	24" HGT.	POT	5' O.C.
<b>ORNAMENTAL GRASSES</b>						
KFG	18	KARL FOERSTER GRASS	Calamagrostis x acutiflora 'Karl Foerster'	1 GAL	POT	3' O.C.
<b>PERENNIALS</b>						
OST	36	OSTRICH FERN	Matteuccia struthiopteris	1 GAL	POT	3' O.C.

PLANTING SCHEDULE:

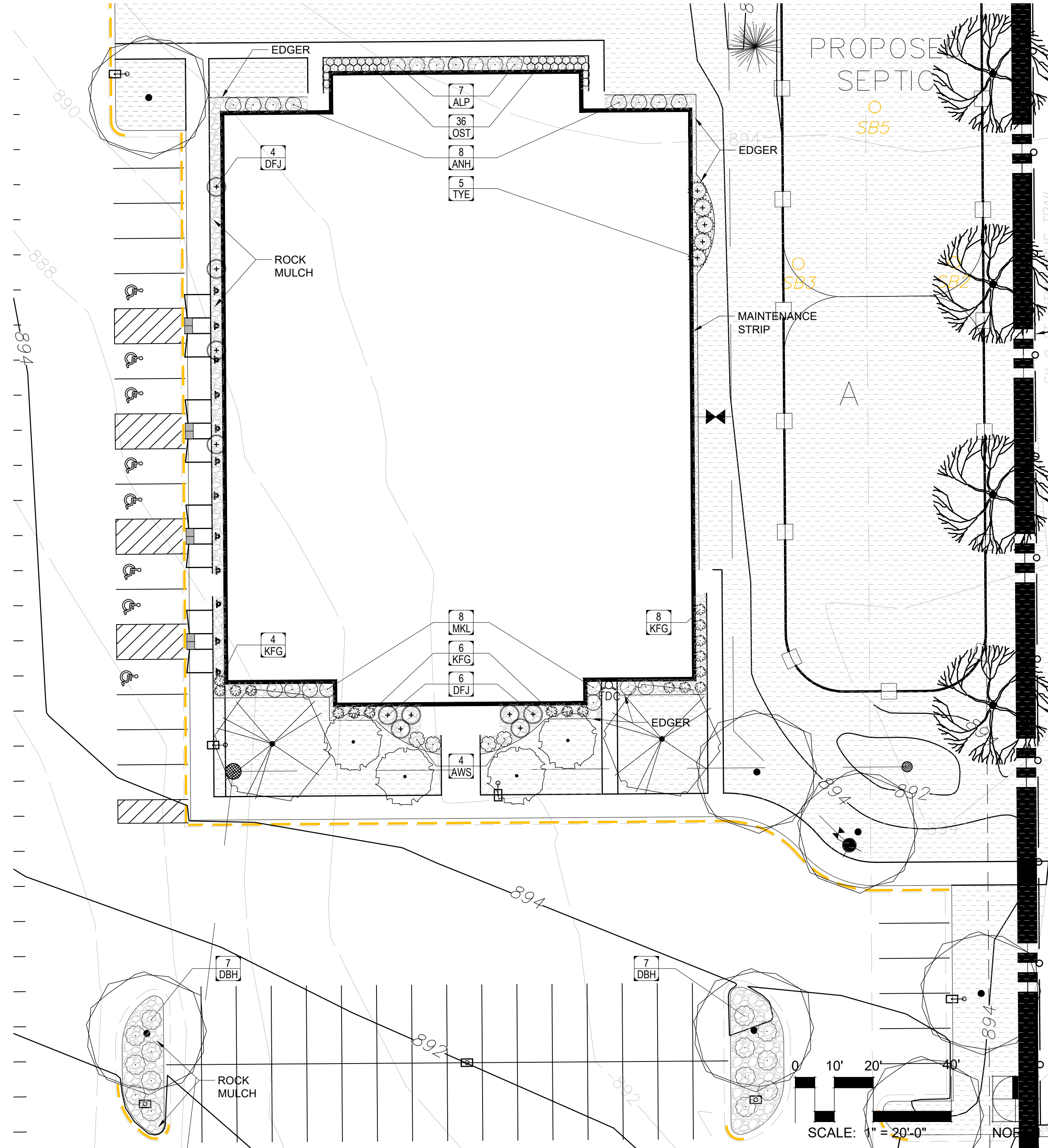
PLANTING DETAILS:

GRAPHIC	MATERIAL	SPECIFICATION	NOTES
[Symbol]	ROCK MULCH	1.5" DIAMETER GRANITE RIVER ROCK MULCH	3" DEPTH
[Symbol]	TURF SEED	MN/DOT SEED MIX #25-121 MAINTAINED TURF FOR SANDY SOILS	61 LBS/ACRE
[Symbol]	NATIVE SEED	MN/DOT SEED MIX #33-261 STORMWATER BASINS	40 LBS/ACRE

GROUND COVER SCHEDULE:



GARBAGE AREA ENLARGEMENT:



ENLARGEMENT AREA 'A' (FOUNDATION PLANTINGS)

**PLANT SELECTIONS:**  
SUBSTITUTIONS WILL BE CONSIDERED ONLY IF REQUESTED PRIOR TO BIDDING OF THE PROJECT. THE CONTRACTOR SHALL VERIFY AVAILABILITY OF THE SPECIFIED MATERIALS AND INFORM THE LANDSCAPE ARCHITECT OF ANY CONCERNS PRIOR TO SUBMITTING A BID.

ALL PLANT MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE NURSERY STOCK STANDARDS AS PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION (ANLA).

UNLESS NOTED OTHERWISE, DECIDUOUS SHRUBS SHALL HAVE AT LEAST 5 CANES AT THE SPECIFIED SHRUB HEIGHT. ORNAMENTAL TREES SHALL HAVE NO Y-CROTCHES AND SHALL BEGIN BRANCHING NO LOWER THAN 3' ABOVE THE ROOT FLARE. STREET AND BOULEVARD TREES SHALL BEGIN BRANCHING NO LOWER THAN 6' ABOVE THE ROOT FLARE.

ANY CONIFEROUS TREE PREVIOUSLY PRUNED FOR CHRISTMAS TREE SALES SHALL NOT BE USED. ALL CONIFEROUS TREES SHALL HAVE A FULL, NATURAL FORM CONSISTENT WITH THE SPECIES.

THE LANDSCAPE PLAN TAKES PRECEDENCE OVER THE PLANT SCHEDULE IF ANY DISCREPANCIES IN QUANTITIES EXIST. SPECIFICATIONS TAKE PRECEDENCE OVER NOTES.

**STORAGE OF PLANTS ON CONSTRUCTION SITE:**  
PLANTS SHALL NOT BE STORED ON SITE FOR EXTENDED TIME PERIODS. IF PLANTINGS CANNOT BE PLACED IN THE GROUND, AND WELL WATERED THAT SAME DAY, THE PLANTINGS SHALL HAVE MOIST MULCH COVERING THE ROOTS AT ALL TIMES.

**PLANTING INSTRUCTIONS:**  
ALL PLANTINGS SHALL BE INSTALLED PER THE PLANTING DETAILS AS SHOWN IN THESE CONSTRUCTION DOCUMENTS. PARTICULAR ATTENTION WILL BE PAID TO OVERSIZING THE PLANTING HOLE AND CREATION OF A WATERING WELL TO ALLOW SOAKING OF THE PLANTING BACKFILL FOR EACH PLANTING.

**EDGING AND MAINTENANCE STRIPS:**  
BLACK POWDER COATED STEEL EDGER TO BE USED TO CONTAIN SHRUBS AND MAINTENANCE STRIP AREAS.

MAINTENANCE STRIPS SHALL HAVE EDGER AND MULCH AS SPECIFIED OR AS INDICATED ON DRAWINGS.

**MULCHING:**  
A 3" DEPTH OF RIVER ROCK MULCH SHALL BE CLEAN AND FREE OF ANY SIGNIFICANT DIRT, SOIL, OR ORGANIC MATTER THAT WILL PROMOTE WEED GROWTH. HIGH QUALITY GEOTEXTILE FABRIC, WITH EDGES OVERLAPPED AT LEAST 12", SHALL BE PLACED UNDER ALL ROCK MULCH.

ALL TREES SHALL HAVE A MULCH RING (MINIMUM 48" DIAMETER) OF 4" DEEP SHREDDED HARDWOOD MULCH WITH NONE IN DIRECT CONTACT WITH TREE TRUNK.

**STAKING:**  
STAKING OF THE TREES IS OPTIONAL, BUT THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR CORRECTING ANY TREES THAT FALL OUT OF PLUMB DURING THE WARRANTY PERIOD.

**REMOVAL OF TAGGING:**  
ALL TAGGING AND PLANT LABELS SHALL BE REMOVED AFTER PLANTING. BALLED AND BURLAPPED PLANTINGS SHALL HAVE ANY ROPE REMOVED FROM THE TRUCK AND THE TOP OF THE WIRE CAGE REMOVED FROM THE BALL AFTER PLACEMENT IN THE PLANTING PIT.

**WARRANTY PERIOD:**  
ALL PLANTING SHALL BE COVERED BY A TWO YEAR WARRANTY PERIOD TO COVER REPLACEMENT OF ANY PLANTINGS THAT HAVE DIED OR ARE SHOWING OBVIOUS SIGNS OF STRESS AT THE WARRANTY INSPECTION. REPLACEMENT OF ANY FAILED PLANTINGS INCLUDES RE-ESTABLISHING CLEAN MULCH AROUND ANY REMOVALS AND OFF-SITE DISPOSAL OF ANY MATERIALS.

**IRRIGATION:**  
IRRIGATION IS NOT PROPOSED ON THIS PROPERTY.

**SUPPLEMENTAL WATERING:**  
TURF AND NEW PLANTINGS WILL BE WATERED AS NEEDED BY OWNER DURING THE FIRST TWO YEARS TO ENSURE ESTABLISHMENT OF ANY PLANT MATERIALS AND TURF AREAS.

**WATER NEEDS:**  
TURF AREAS SHOULD RECEIVE APPROXIMATELY 1" WEEKLY TOTAL WATERING. SPRINKLERS WILL BE SET BY OWNER AS NEEDED.

TREE, SHRUB, AND PERENNIAL PLANTINGS SHOULD BE THOROUGHLY DRENCHED DURING INITIAL PLANTING EFFORTS AND WATERED AS NEEDED IF SUFFICIENT RAINFALL IS NOT RECEIVED. PLANT SPECIES HAVE BEEN SELECTED TO THRIVE UNDER LOCAL CONDITIONS WITHOUT ADDITIONAL IRRIGATION. EXCEPTIONALLY DRY OR HOT PERIODS MAY REQUIRE SUPPLEMENTAL WATERING DURING THE ESTABLISHMENT PERIOD.

WATERING SCHEDULE:

**MAINTAINED TURF:**  
ALL FUTURE CLOSELY MOWN AREAS SHALL BE SEEDED USING THE SEED MIXES AS NOTED ON THE PLAN. THE SEED MIXES HAVE BEEN SELECTED BASED ON ANTICIPATED SOIL CONDITIONS IN THIS AREA. NOTIFY THE OWNER IF CHANGES ARE RECOMMENDED.

**STARTER FERTILIZER:**  
AT THE TIME OF SEEDING, A STARTER FERTILIZER SHOULD BE APPLIED TO ASSIST IN PROPER GERMINATION AND GROWTH OF NEWLY SEEDED AREAS. A HIGH QUALITY, COMMERCIAL FERTILIZER SHOULD BE USED PER THE MANUFACTURER'S RECOMMENDED APPLICATION RATES BASED ON PROPOSED SEED AND SOIL TYPES.

**ESTABLISHMENT:**  
TURF MUST SHOW AT LEAST 80% TOTAL COVERAGE, WITHIN ANY 100 SF SAMPLE AREA, TO BE CONSIDERED FULLY ESTABLISHED. THE SEEDING CONTRACTOR IS RESPONSIBLE FOR ANY OVERSEEDING UNTIL TURF COVERAGE IS DEEMED SATISFACTORY.

**BROADLEAF CONTROL:**  
THE FUTURE MAINTENANCE FOR TURF AREAS SHALL INCLUDE BROADLEAF WEED CONTROL TO ALLOW TURFGRASS SPECIES AMPLE TIME TO ESTABLISH WITHOUT COMPETITION FROM WEEDS.

TURF ESTABLISHMENT NOTES:

PLANTING NOTES:

## **Voice of Hope Church Native Seed Maintenance Plan Ramsey, MN**

Protocols to be followed are listed below for site preparation/seeding and maintenance of disturbed areas that are designated to be seeded with a native seed mix and managed annually for weedy and invasive species.

### **Site Preparation & Seeding (assuming fall seeding)**

Soils within the disturbed buffer areas will first be decompacted to a depth of 18 inches and organic matter will be incorporated into soils, and then fine graded/smoothed before the seeding work begins (to be done by the general contractor or excavator). The areas will be left/avoided for a minimum of 30 days to allow weeds to germinate and regrow.

A broad-spectrum herbicide treatment will be applied as per manufacturer's directions. Herbicide treatment areas will be left/avoided for a minimum of 30 days before native seeding commences.

The soil will be harrowed or raked to create a smooth seedbed, and a roller or cultipacker will be used to create a firm seedbed. All seed will be applied by broadcasting, drilling or as otherwise recommended by the contracted revegetation specialist.

The proposed seed mix and rate for disturbed buffer areas is State Seed Mix 34-261 or similar at a rate of 6.5 lbs/acre of grasses, sedges, rushes and forbs, and 25.0 lbs/acre of cover crop.

Native seed mix actually used will depend on the hydrologic conditions of the landscape post grading and seed availability. Seed will be purchased from a reputable seed company such as Ramy Turf Products or Shooting Start Native Seeds, and will be of local origin.

### **Erosion Control**

Newly seeded areas will be mulched with clean straw at a rate of 1.5 tons per acres. The straw will be disk anchored, where accessible. Upon completion of seed installation, a site visit will be conducted with the vegetation contractor to confirm seeding was consistent with the approved plan and collect seed tags.

## **Maintenance**

A standard maintenance plan for areas of native seeding is provided below. Revisions to this plan may occur. The intent of the management plan is to: 1) promote the growth of native species, and 2) control noxious and/or invasive species such as Canada thistle. When a noxious or invasive species occurs, the appropriate technique to control or eliminate that species will be implemented.

### **Year 1 (fall dormant seeding)**

- Fall dormant seed as described in the Planting Plan
- Buffer plantings that do not survive will be replaced

### **Year 2 Management**

- Mow 2-3 times with mower deck 6-8 inches off the ground to prevent development of weedy species
- Spot spray perennial weedy species as needed
- Buffer plantings that do not survive will be replaced

### **Year 2 Evaluation**

- Cover crop will be gone unless winter wheat was used in a fall planting
- Grasses forming clumps 1-6 inches apart in drill rows, but still short
- Some flowers should be blooming
- Flush growth of foxtail and other annuals may indicate need for more frequent mowing
- Plan supplemental seeding for Year 3 if needed

### **Year 3/Ongoing Annual Maintenance Plan**

1. Areas of bare ground or dead vegetation of more than 20 square feet shall be reseeded (Year 3 only).
2. Spot spray perennial weeds as necessary.
3. Patches of problem species that represent more than 5% cover of buffer areas should be spot mowed to prevent seed set and treated with herbicide at an appropriate time. Management of weedy species in the buffer shall be conducted on an annual basis.