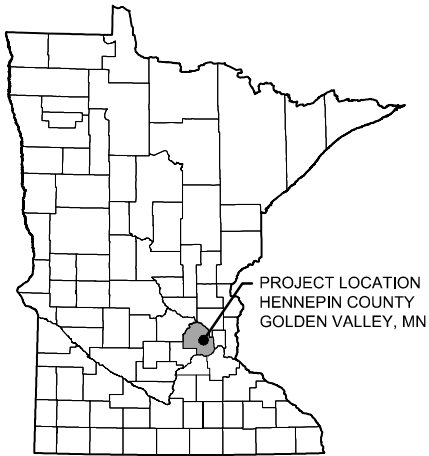


# BASSETT CREEK MAIN STEM RESTORATION - PHASE 2

## BASSETT CREEK WATERSHED MANAGEMENT COMMISSION



### MINNESOTA COUNTY MAP

CONTACTS:

**ENGINEER CONTACT:**  
Jessica Olson  
Barr Engineering Co.  
325 South Lake Avenue  
Duluth, MN 55802  
218-259-7118  
jolson@barr.com

**OWNER'S REPRESENTATIVE CONTACT:**  
Laura Jester  
Bassett Creek Watershed Management Commission  
P.O. Box 270825  
Golden Valley, MN 55427  
952-270-1990  
laura.jester@keystonewaters.com

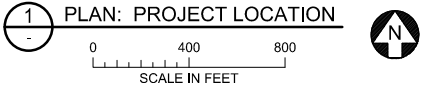
**PROPERTY OWNER'S REPRESENTATIVE:**  
Emma Rakestraw  
City of Golden Valley  
7800 Golden Valley Road  
Golden Valley, MN 55427  
763-593-8084  
erakestraw@goldenvalleymn.gov

GENERAL NOTES:

- 1. CONTOUR DATA SHOWN IN THIS PLAN SET IS BASED ON SURVEY PERFORMED BY BARR ENGINEERING IN MARCH 2025 (LIDAR DRONE) AND APRIL 2025 (SURVEY-GRADE GPS).
- 2. IMAGERY: NEARMAP PICTOMETRY LTD, AUGUST 2024.
- 3. HORIZONTAL DATUM AND COORDINATE SYSTEM: HENNEPIN COUNTY COORDINATES, NAD83, US SURVEY FEET.
- 4. VERTICAL DATUM: NAVD88.



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R-09 . . . . VEGETATION RESTORATION DETAILS  
R-10 . . . . VEGETATION RESTORATION DETAILS

ORIGINAL DRAWING SIZE: ANSI FULL BLEED B (11.00 X 17.00 INCHES) PLOT SCALE: 1/2" = 100' DATE: 11/13/2025 1:23 PM  
CADD USER: DILLON R. MARTIN FILE: MDESIGN23272114\_0023272114\_Ph2\_G01.DWG

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 PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.	-	-	-	-	-	-
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SIGNATURE: _____	A	DRM3	BHD	JCO	06/20/2025	ISSUED FOR REVIEW
DATE: _____ LICENSE # _____	#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION



BARR ENGINEERING CO.  
4300 MARKETPOINTE DRIVE  
SUITE 200  
MINNEAPOLIS, MN 55435

PH: 1-800-632-2277  
WWW.BARR.COM  
MINNESOTA ENGINEERING FIRM  
NUMBER 10104111545

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION  
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE 2  
GOLDEN VALLEY, MINNESOTA

TITLE SHEET, PROJECT LOCATION,  
AND SHEET INDEX

BARR PROJECT #  
23272114.00

DWG #  
G-01

REV #  
A

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NOT FOR CONSTRUCTION



GENERAL NOTES:

TOPO AND CONTROL GROUND SURVEY CONDUCTED BY BARR ENGINEERING IN MARCH 2025 IN HENNEPIN COUNTY FEET PROJECTION.

IMAGERY: NEARMAP PICTOMETRY LTD, 2024.

1. CONTRACTOR IS RESPONSIBLE TO LOCATE AND FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO WORK.
2. MINIMIZE DISTURBANCE OF EXISTING VEGETATION, WITH THE EXCEPTION OF AREAS OF VEGETATION REMOVAL AS INDICATED ON THE DRAWINGS.
3. DO NOT DISTURB TREES AND SHRUBS NOT MARKED FOR REMOVAL, INCLUDING MINIMIZING DISTURBANCE OF SOILS WITHIN THE TREE DRIPLINE. DO NOT STOCKPILE MATERIALS OR DRIVE VEHICLES/EQUIPMENT WITHIN TREE DRIPLINE(S) UNLESS APPROVED BY ENGINEER.
4. ALL EXISTING ROADS, PARKING LOTS, TRAILS, FENCES, SIGNS, OR SIMILAR SHALL BE PROTECTED DURING CONSTRUCTION, EXCEPT WHERE SHOWN ON PLANS FOR REMOVAL. CONTRACTOR RESPONSIBLE TO COORDINATE SURVEYS WITH THE CITY AND/OR OWNER TO DOCUMENT PRE-CONSTRUCTION EXISTING CONDITION ISSUES.
5. CONTRACTOR SHALL INSTALL AND MAINTAIN ALL EROSION CONTROL BMPS PRIOR TO COMMENCEMENT OF GRADING FOR EACH LOCATION DURING CONSTRUCTION. EROSION CONTROL PLANS ARE PROVIDED INSIDE THE PROJECT STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
6. ALL GROUND DISTURBANCE GENERATED FROM GRADING ACTIVITIES SHALL BE STABILIZED AND RESTORED WITH TOPSOIL, SEED W/COVER CROP AND EROSION CONTROL BLANKET OR STRAW MULCH.
7. CONTRACTOR TO MAINTAIN EXISTING STREAM BOTTOM WIDTH SO NOT TO DECREASE CREEK CROSS SECTIONAL AREA DURING RIPRAP INSTALLATION.
8. CONSTRUCTION LIMITS AS SHOWN ARE APPROXIMATE. FINAL CONSTRUCTION LIMITS TO BE COORDINATED WITH THE OWNER AND/OR ENGINEER AND STAKED IN THE FIELD.
9. STREAM FEATURE LOCATIONS MAY BE FIELD FIT AS DIRECTED BY ENGINEER.
10. SWEEP PAVEMENT DAILY, OR AS REQUIRED TO KEEP FROM TRACKING MATERIALS OFFSITE.
11. REPAIR OR REMOVE ITEMS THAT ARE DAMAGED, REPAIR AND REPLACE DAMAGED ITEMS TO A CONDITION AT LEAST EQUAL TO THAT WHICH EXIST PRIOR TO THE START OF WORK.
12. OBTAIN ANY REQUIRED PERMITS, NOT PROVIDED BY THE ENGINEER, BEFORE PERFORMING WORK.
13. CONTRACTOR TO COORDINATE WITH LANDOWNERS THAT DESIRE TURF RESTORATION INSTEAD OF NATIVE RESTORATION FOR REPAIRING ACCESS ROUTES.

EROSION & SEDIMENT CONTROL NOTES:

1. INSTALL PERIMETER EROSION CONTROL AT THE LOCATIONS SHOWN ON THE PLANS PRIOR TO THE COMMENCEMENT OF ANY UPSLOPE LAND DISTURBANCE OR CONSTRUCTION ACTIVITIES.
2. BEFORE BEGINNING CONSTRUCTION, INSTALL A TEMPORARY ROCK CONSTRUCTION ENTRANCE AT EACH POINT WHERE VEHICLES ENTER OR EXIT THE CONSTRUCTION SITE.
3. INSTALL INLET PROTECTION AT ALL PUBLIC AND PRIVATE CATCH BASIN INLETS WHICH RECEIVE RUNOFF FROM THE DISTURBED AREAS. CONTRACTOR SHALL CLEAN, REMOVE SEDIMENT, OR REPLACE STORM DRAIN INLET PROTECTION DEVICES ON A ROUTINE BASIS SUCH THAT THE DEVICES ARE FULLY FUNCTIONAL FOR THE NEXT RAIN EVENT. SEDIMENT DEPOSITED IN AND/OR PLUGGING DRAINAGE SYSTEMS IS THE RESPONSIBILITY OF THE CONTRACTOR. HAY BALES OR FILTER FABRIC WRAPPED GRATES ARE NOT ALLOWED FOR INLET PROTECTION.
4. LOCATE SOIL OR DIRT STOCKPILES NO LESS THAN 25 FEET FROM ANY PUBLIC OR PRIVATE ROADWAY OR DRAINAGE CHANNEL. IF REMAINING FOR MORE THAN SEVEN DAYS, STABILIZE THE STOCKPILES BY MULCHING, VEGETATIVE COVER, TARPS, OR OTHER MEANS. CONTROL EROSION FROM ALL STOCKPILES BY PLACING SILT BARRIERS AROUND THE PILES. TEMPORARY STOCKPILES LOCATED ON PAVED SURFACES MUST BE NO LESS THAN TWO FEET FROM THE DRAINAGE/GUTTER LINE AND SHALL BE COVERED IF LEFT MORE THAN 24 HOURS.
5. NATURAL TOPOGRAPHY AND SOIL CONDITIONS MUST BE PROTECTED, INCLUDING RETENTION ONSITE OF NATIVE TOPSOIL TO THE GREATEST EXTENT POSSIBLE.
6. ADDITIONAL MEASURES, SUCH AS HYDRAULIC MULCHING AND OTHER PRACTICES AS SPECIFIED BY THE COMMISSION MUST BE USED ON SLOPES OF 3:1 (H:V) OR STEEPER TO PROVIDE ADEQUATE STABILIZATION.
7. CONSTRUCTION SITE WASTE SUCH AS DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASHOUT, CHEMICALS, LITTER AND SANITARY WASTE MUST BE PROPERLY MANAGED.
8. ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMPS MUST BE MAINTAINED UNTIL COMPLETION OF CONSTRUCTION AND VEGETATION IS ESTABLISHED SUFFICIENTLY TO ENSURE STABILITY OF THE SITE, AS DETERMINED BY THE COMMISSION, AND ALL FINAL STABILIZATION REQUIREMENTS ARE ACHIEVED.
9. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN 7 CALENDAR DAYS AFTER LAND-DISTURBING WORK HAS TEMPORARILY OR PERMANENTLY CEASED ON A PROPERTY THAT DRAINS TO AN IMPAIRED WATER, WITHIN 14 DAYS ELSEWHERE.
10. THE PERMITTEE MUST, AT A MINIMUM, INSPECT, MAINTAIN AND REPAIR ALL DISTURBED SURFACES AND ALL EROSION AND SEDIMENT CONTROL FACILITIES AND SOIL STABILIZATION MEASURES EVERY DAY WORK IS PERFORMED ON THE SITE AND AT LEAST WEEKLY UNTIL LAND-DISTURBING ACTIVITY HAS CEASED. THEREAFTER, THE PERMITTEE MUST PERFORM THESE RESPONSIBILITIES AT LEAST WEEKLY UNTIL VEGETATIVE COVER IS ESTABLISHED. THE PERMITTEE WILL MAINTAIN A LOG OF ACTIVITIES UNDER THIS SECTION FOR INSPECTION BY THE DISTRICT ON REQUEST.
11. CHANGES TO APPROVED EROSION CONTROL PLAN MUST BE APPROVED BY THE EROSION CONTROL INSPECTOR PRIOR TO IMPLEMENTATION. CONTRACTOR TO PROVIDE INSTALLATION AND DETAILS FOR ALL PROPOSED ALTERNATE TYPE DEVICES.
12. IF DEWATERING OR PUMPING OF WATER IS NECESSARY, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND/OR APPROVALS PRIOR TO DISCHARGE OF ANY WATER FROM THE SITE. IF THE DISCHARGE FROM THE DEWATERING OR PUMPING PROCESS IS TURBID OR CONTAINS SEDIMENT LADEN WATER, IT MUST BE TREATED THROUGH THE USE OF SEDIMENT TRAPS, VEGETATIVE FILTER STRIPS, OR OTHER SEDIMENT REDUCING MEASURES SUCH THAT THE DISCHARGE IS NOT VISIBLY DIFFERENT FROM THE RECEIVING WATER. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AT THE DISCHARGE POINT TO PREVENT SCOUR EROSION.
13. ACTIVITIES MUST BE CONDUCTED SO AS TO MINIMIZE THE POTENTIAL TRANSFER OF AQUATIC INVASIVE SPECIES (E.G., ZEBRA MUSSELS, EURASIAN WATERMILFOIL, ETC.) TO THE MAXIMUM EXTENT POSSIBLE. SEE SECTION 4.6 OF THE SWPPP (SHEET G-03) FOR FURTHER DETAIL.
14. WHEREVER CONSTRUCTION ACCESS ROUTE CROSSES EXISTING TRAILS, PROTECT WITH MATTING OR ENGINEER-APPROVED ALTERNATIVE.

TREE REMOVAL/PROTECTION NOTES:

1. ADDITIONAL TREE REMOVALS MAY BE REQUESTED AND APPROVED AT TIME OF CONSTRUCTION.
2. ASH TREES MUST BE REMOVED BETWEEN OCTOBER 1ST AND APRIL 30TH AND TAKEN TO AN APPROVED SITE FOR DISPOSAL. CONTRACTOR MUST PROVIDE ASSURANCE THAT ASH TREES DO NOT LEAVE QUARANTINED AREA.
3. CONTRACTOR SHALL FOLLOW ALL ROAD RESTRICTION REGULATIONS WHEN REMOVING TREES.
4. LANDSCAPE ARCHITECT SHALL MARK ALL TREES FOR REMOVAL PRIOR TO ANY CONSTRUCTION ACTIVITY. COORDINATE WITH LANDSCAPE ARCHITECT TWO (2) WEEKS PRIOR TO CONSTRUCTION.
5. REMOVE AND DISPOSE OF ALL WOOD AND DEBRIS IN ACCORDANCE WITH ALL LOCAL RULES AND REGULATIONS.
6. CONTRACTOR TO VERIFY AND RECORD QUANTITY OF TREES REMOVED WITH DIAMETER GREATER THAN 6".
7. ALL TREES NOT MARKED FOR REMOVAL SHALL BE AVOIDED AND ANY GRADING OR COMPACTION WITHIN THE DRIPLINE SHALL BE MINIMIZED.
8. CONSTRUCTION MATERIALS, STOCKPILES, EQUIPMENT, AND TEMPORARY FACILITIES SHALL NOT BE STORED OR OPERATED WITHIN THE TREE PROTECTION ZONE (EQUAL TO DRIPLINE).
9. ROOTS OUTSIDE OF THE TREE PROTECTION ZONE EXPOSED OR DAMAGED DURING EXCAVATION OR OTHER CONSTRUCTION ACTIVITY SHALL BE CLEANLY CUT AS DIRECTED BY THE CITY FORESTER.
10. ADDITIONAL TREE PROTECTION MEASURES MAY BE REQUIRED.

TREE REPLACEMENT SCHEDULE

Common Name	Scientific Name	Size	Quantity
American Basswood	Tilia americana	10 G CONT.	3
Sugar Maple	Acer saccharum	10 G CONT.	3
Black Cherry	Prunus serotina	10 G CONT.	3
Hackberry	Celtis occidentalis	10 G CONT.	3
Musclewood	Carpinus caroliniana	10 G CONT.	3
		Total:	15

NOTES

1. DISTRIBUTE SPECIES EVENLY IN THE FIELD

RIPARIAN EDGE SEED MIX

Common Name	Scientific Name	PLS Rate (lb/ac)	% of Mix (by weight)
Hairy Wood Chess	Bromus pubescens	1	6.65%
Canada Blue Joint Grass	Calamagrostis canadensis	0.05	0.33%
Riverbank Wild Rye	Elymus riparius	2	13.31%
Virginia Wild Rye	Elymus virginicus	2	13.31%
Rattlesnake Grass	Glyceria canadensis	0.5	3.33%
Reed Manna Grass	Glyceria grandis	0.3	2.00%
Fowl Manna Grass	Glyceria striata	0.35	2.33%
Rice Cut Grass	Leersia oryzoides	0.5	3.33%
Fowl Bluegrass	Poa palustris	0.2	1.33%
	Grasses Subtotal	6.90	46%
Plains Oval Sedge	Carex brevior	0.75	4.99%
Field Oval Sedge	Carex molesta	0.3	2.00%
Awl-fruit Sedge	Carex stipata	0.75	4.99%
Tussock Sedge	Carex stricta	0.05	0.33%
	Sedges Subtotal	1.85	12%
Wild Garlic	Allium canadense	0.5	3.33%
Tall Thimbleweed	Anemone virginiana	0.05	0.33%
Wood Anemone	Anemone quinquefolia	0.2	1.33%
Columbine	Aquilegia canadensis	0.07	0.47%
Jack-In-The-Pulpit	Arisaema triphyllum	1	6.65%
False Aster	Boltonia asteroides	0.02	0.13%
Blue Cohosh	Caulophyllum thalictroides	0.5	3.33%
Big-leaved Aster	Eurybia macrophylla	0.1	0.67%
Sweet Joe-Pye Weed	Eutrochium purpureum	0.05	0.33%
Wild Geranium	Geranium maculatum	0.5	3.33%
False Lily of the Valley	Maianthemum canadense	0.3	4.78%
Virginia Waterleaf	Hydrophyllum virginianum	1	6.65%
Solomon's Plume	Maianthemum racemosa	0.5	3.33%
Woodland Phlox	Phlox divaricata	0.2	1.33%
Jacob's Ladder	Polemonium reptans	0.2	1.33%
Solomon's Seal	Polygonatum biflorum	0.5	3.33%
Cutleaf Coneflower	Rudbeckia laciniata	0.2	1.33%
Zig Zag Goldenrod	Solidago flexicaulis	0.03	0.20%
Elm-leaved Goldenrod	Solidago ulmifolia	0.02	0.13%
Heath Aster	Symphotrichum ericoides	0.01	0.07%
Calico Aster	Symphotrichum lateriflorus	0.03	0.20%
Early Meadow Rue	Thalictrum dioicum	0.3	2.00%
	Forbs Subtotal	6.28	42%
	Natives Subtotal	15.03	100.00%

WOODLAND SEED MIX

Common Name	Scientific Name	PLS Rate (lb/ac)	% of Mix (by weight)
Blue Grama	Bouteloua gracilis	0.60	4.60%
Hairy Wood Chess	Bromus pubescens	1.25	9.57%
Bottlebrush Grass	Elymus hystrix	1.3	9.96%
Riverbank Wild Rye	Elymus riparius	2	15.32%
Little Bluestem	Schizachyrium scoparium	1	7.66%
	Grasses Subtotal	4.55	35%
Plains Oval Sedge	Carex brevior	0.2	1.53%
Field Oval Sedge	Carex molesta	0.15	1.15%
Awl-fruit Sedge	Carex stipata	0.3	2.30%
Palm Sedge	Carex muskingumensis	0.3	2.30%
Common Wood Sedge	Carex blanda	0.05	0.38%
	Sedges Subtotal	1.00	8%
Red Baneberry	Actaea rubra	0.15	1.15%
Wild Garlic	Allium canadense	0.25	1.91%
Canada Anemone	Anemone canadensis	0.3	2.30%
Tall Thimbleweed	Anemone virginiana	0.1	0.77%
Rue Anemone	Aneomella thalictroides	0.1	0.77%
Columbine	Aquilegia canadensis	0.075	0.57%
Jack-In-The-Pulpit	Arisaema triphyllum	0.3	2.30%
Wild Ginger	Asarum canadense	0.575	4.40%
Poke Milkweed	Asclepias exaltata	0.125	0.96%
False Aster	Boltonia asteroides	0.02	0.15%
Blue Cohosh	Caulophyllum thalictroides	0.3	2.30%
Spring Beauty	Claytonia virginica	0.075	0.57%
Point-Leaf Tick Trefoil	Desmodium glutinosum	0.8	6.13%
Trout Lily	Erythronium albidum	0.25	1.91%
Big-leaved Aster	Eurybia macrophylla	0.1	0.77%
Bottle Gentain	Gentiana andrewsii	0.03	0.23%
Wild Geranium	Geranium maculatum	0.5	3.83%
Woodland Sunflower	Helianthus divaricatus	0.5	3.83%
Spotted Touch Me Not	Impatiens capensis	0.4	3.06%
False Lily of the Valley	Maianthemum canadense	0.3	2.30%
Solomon's Plume	Maianthemum racemosa	0.5	3.83%
Sweet Cicely	Osmorhiza claytonii	0.75	5.74%
Woodland Phlox	Phlox divaricata	0.2	1.53%
Solomon's Seal	Polygonatum biflorum	0.3	2.30%
Cutleaf Coneflower	Rudbeckia laciniata	0.35	2.68%
Zig Zag Goldenrod	Solidago flexicaulis	0.05	0.38%
Elm-leaved Goldenrod	Solidago ulmifolia	0.02	0.15%
Heath Aster	Symphotrichum ericoides	0.01	0.08%
Calico Aster	Symphotrichum lateriflorus	0.075	0.57%
	Forbs Subtotal	7.51	57%
	Natives Subtotal	13.06	100.00%

TURF SEED MIX

Common Name	Scientific Name	PLS Rate (lb/ac)	% of Mix (by weight)
Hard Fescue	Festuca trachyphylla	1	19.0%
Red Fescue	Festuca rubra	1.5	28.6%
Hard Fescue	Festuca ovina	1	19.0%
Sheep Fescue	Festuca ovina ssp. Hirtula	1	19.0%
	Grasses Subtotal	4.50	15%
Cream Violet	Viola striata	0.25	4.8%
Wild Strawberry	Fragaria Virginiana	0.25	4.8%
Self-heal	Prunella vulgaris	0.25	4.8%
	Forbs Subtotal	0.75	2%
	Natives Subtotal	5.25	17.36%
Oats	Avena sativa	25.00	83%
	Cover Crop Subtotal	25.00	83%
	Total	30.25	100%

MASTER LEGEND

- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING GAS LINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING WATERMAIN
- EXISTING UNDERGROUND FIBER OPTIC
- EXISTING FENCE
- EXISTING WETLAND DELINEATION
- OHWL
- 100-YEAR HWL
- AVERAGE WETLAND BUFFER
- MINIMUM WETLAND BUFFER
- RESTORATION LIMITS
- DELINEATED WETLAND
- ENHANCE AND/OR ESTABLISH NATIVE VEGETATION BUFFER
- REMOVE INVASIVE SPECIES AND ESTABLISH NATIVE VEGETATION BUFFER
- TURF SEED MIX
- PROPOSED REPLACEMENT TREE
- EXISTING LIGHT POLE
- EXISTING UTILITY POLE
- EXISTING HYDRANT
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING STORM MANHOLE
- EXISTING TREE

PHASE 1 PROJECT LEGEND

- EXISTING TREE REMOVAL
- PROPOSED 5' CONTOUR
- PROPOSED 1' CONTOUR
- PROPOSED EASEMENT
- PROPOSED TREE PROTECTION FENCING
- TREE IDENTIFICATION NUMBER, SEE TABLE FOR TREE SURVEY AND TREE REMOVAL SUMMARY
- PROPOSED STORM SEWER
- CONSTRUCTION ACCESS
- RIPRAP
- TOE WOOD
- VRSS
- GRADING AREA
- GRADING WITH LIVE STAKES/PLANTINGS
- ROOT WAD
- BOULDER CROSS VANE
- J-HOOK BOULDER VANE
- COIR LOGS
- FASCINES
- SILT FENCE
- SEDIMENT CONTROL LOGS

STATEMENT OF ESTIMATED QUANTITIES

SEQ TO BE PROVIDED

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PRINTED NAME: -

SIGNATURE: \_\_\_\_\_

DATE: - LICENSE #: -

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# BY CHK APP DATE RELEASE/REVISION DESCRIPTION

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4300 MARKETPOINTE DRIVE  
SUITE 200  
MINNEAPOLIS, MN 55435

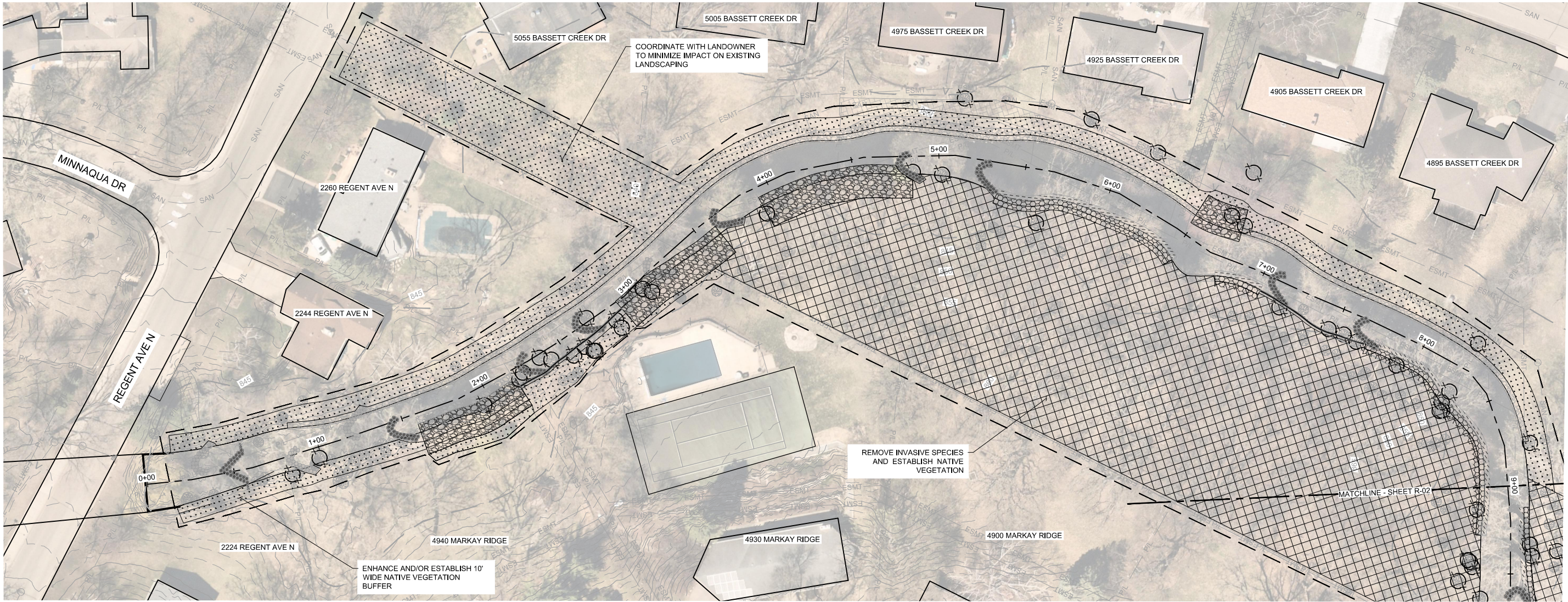
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WWW.BARR.COM  
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NUMBER 10104111545

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION  
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE 2  
GOLDEN VALLEY, MINNESOTA  
ESTIMATED QUANTITIES, GENERAL NOTES, AND LEGEND

BARR PROJECT #	23272114.00
DWG #	G-02
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**BARR**

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4300 MARKETPOINTE DRIVE  
SUITE 200  
MINNEAPOLIS, MN 55435

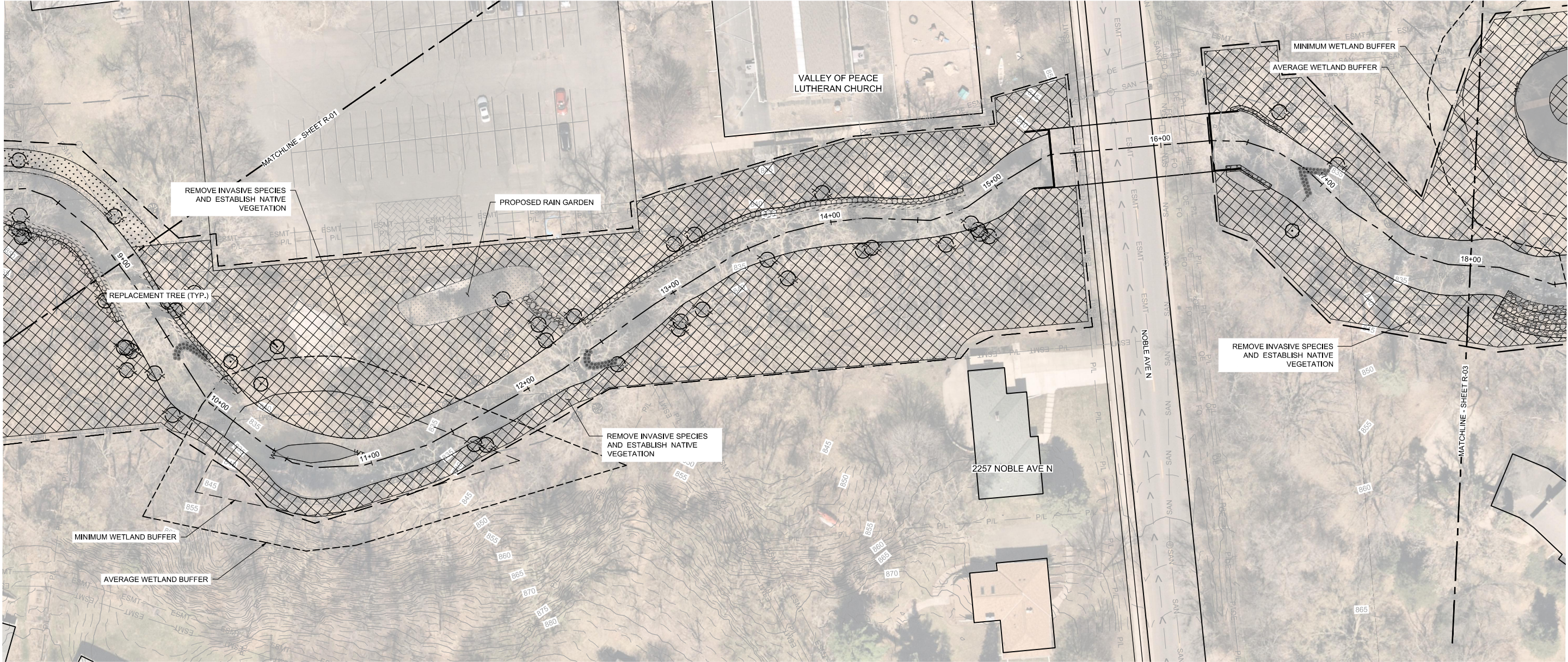
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BASSETT CREEK WATERSHED MANAGEMENT COMMISSION  
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE 2  
GOLDEN VALLEY, MINNESOTA  
VEGETATION RESTORATION PLAN  
(STA. 0+00 TO 9+00)

BARR PROJECT #	23272114.00
DWG #	R-01
REV #	A





1 PLAN: BASSETT CREEK VEGETATION RESTORATION (STA. 9+00 TO 18+00)

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SCALE IN FEET

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ORIGINAL DRAWING SIZE: ANSI FULL BLEED B (11.00 X 17.00 INCHES) PLOT SCALE: 1/2" = 1' PLOT DATE: 11/13/2025 12:43 PM  
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B	DRM3	BHD	JCO	11/13/2025	ISSUED FOR REVIEW	
A	DRM3	BHD	JCO	06/20/2025	ISSUED FOR REVIEW	
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SUITE 200  
MINNEAPOLIS, MN 55435

PH: 1-800-632-2277  
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MINNESOTA ENGINEERING FIRM  
NUMBER 10104111545

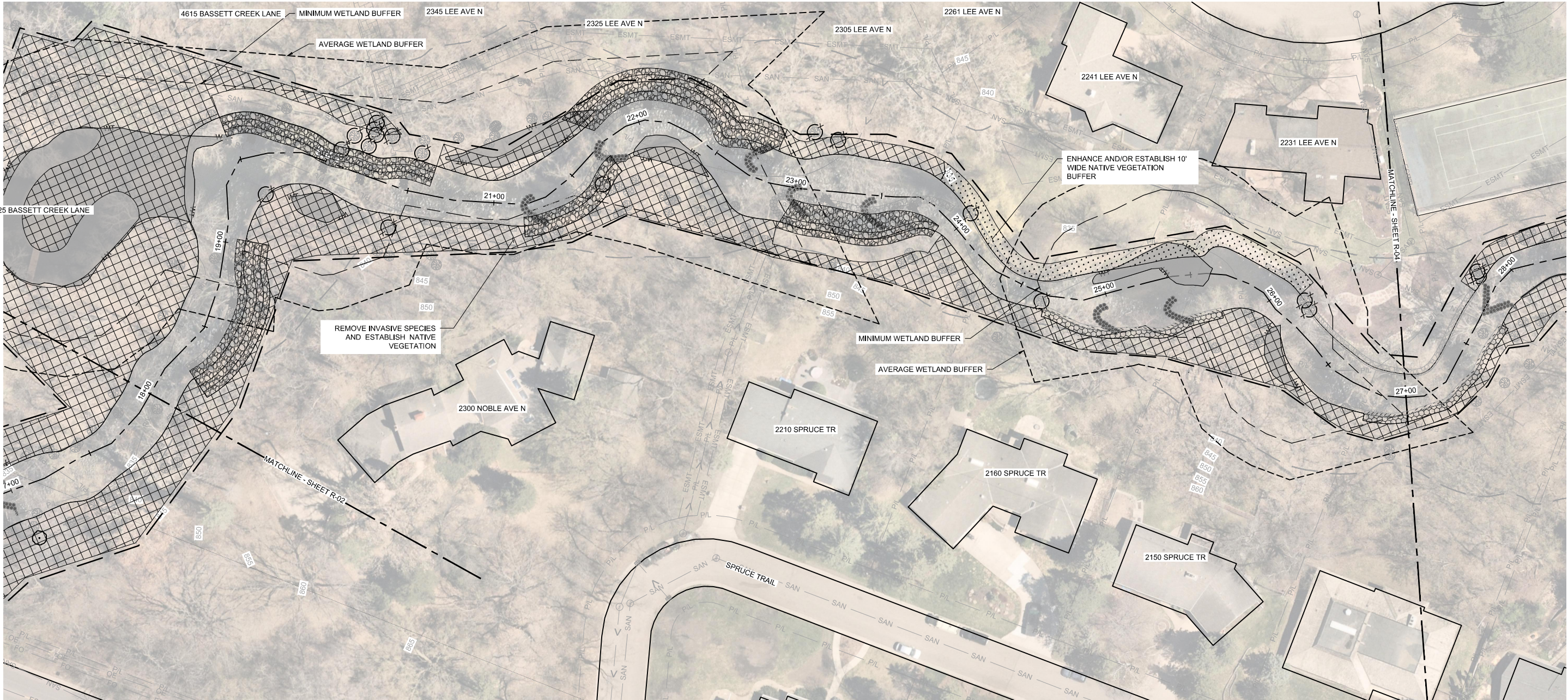
BASSETT CREEK WATERSHED MANAGEMENT COMMISSION  
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE 2  
GOLDEN VALLEY, MINNESOTA  
VEGETATION RESTORATION PLAN  
(STA. 9+00 TO 18+00)

BARR PROJECT #	23272114.00
DWG #	R-02
REV #	A

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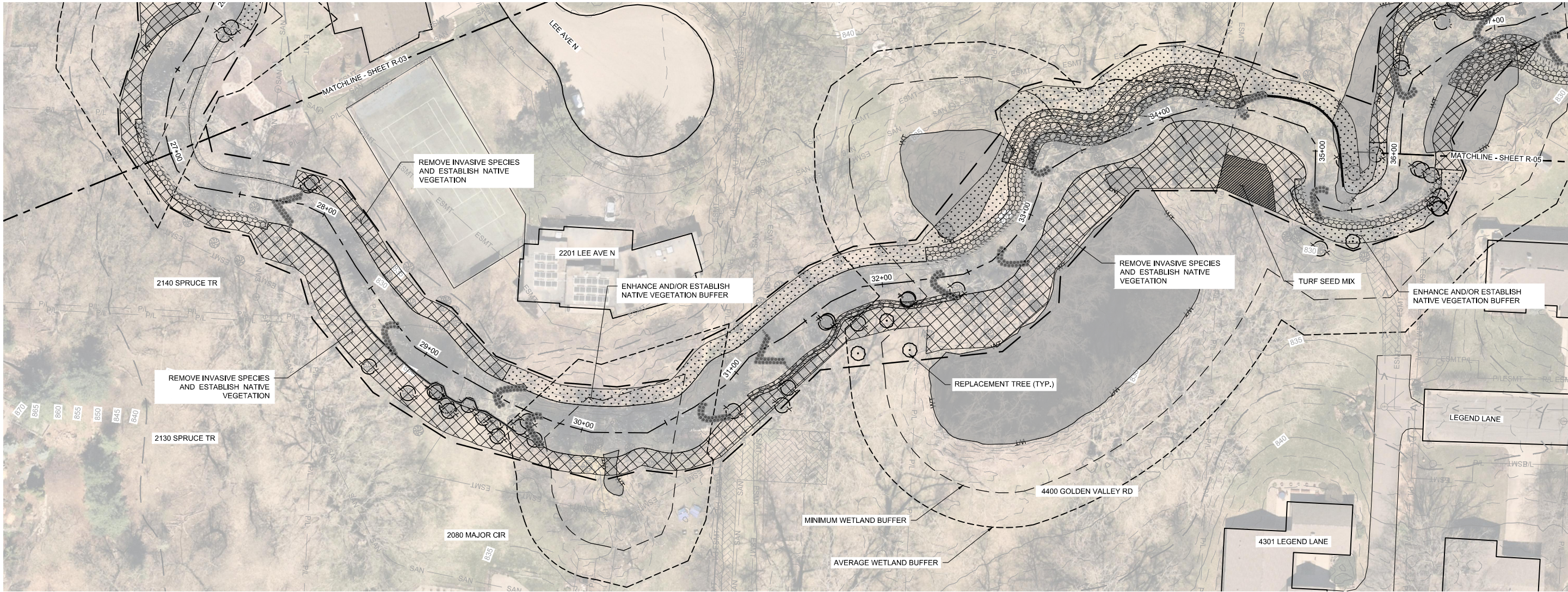
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BASSETT CREEK WATERSHED MANAGEMENT COMMISSION  
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE 2  
GOLDEN VALLEY, MINNESOTA  
VEGETATION RESTORATION PLAN  
(STA. 18+00 TO 27+00)

BARR PROJECT #	23272114.00
DWG #	R-03
REV #	A





1 PLAN: BASSETT CREEK VEGETATION RESTORATION (STA. 27+00 TO 36+00)

0 30 60  
SCALE IN FEET

N

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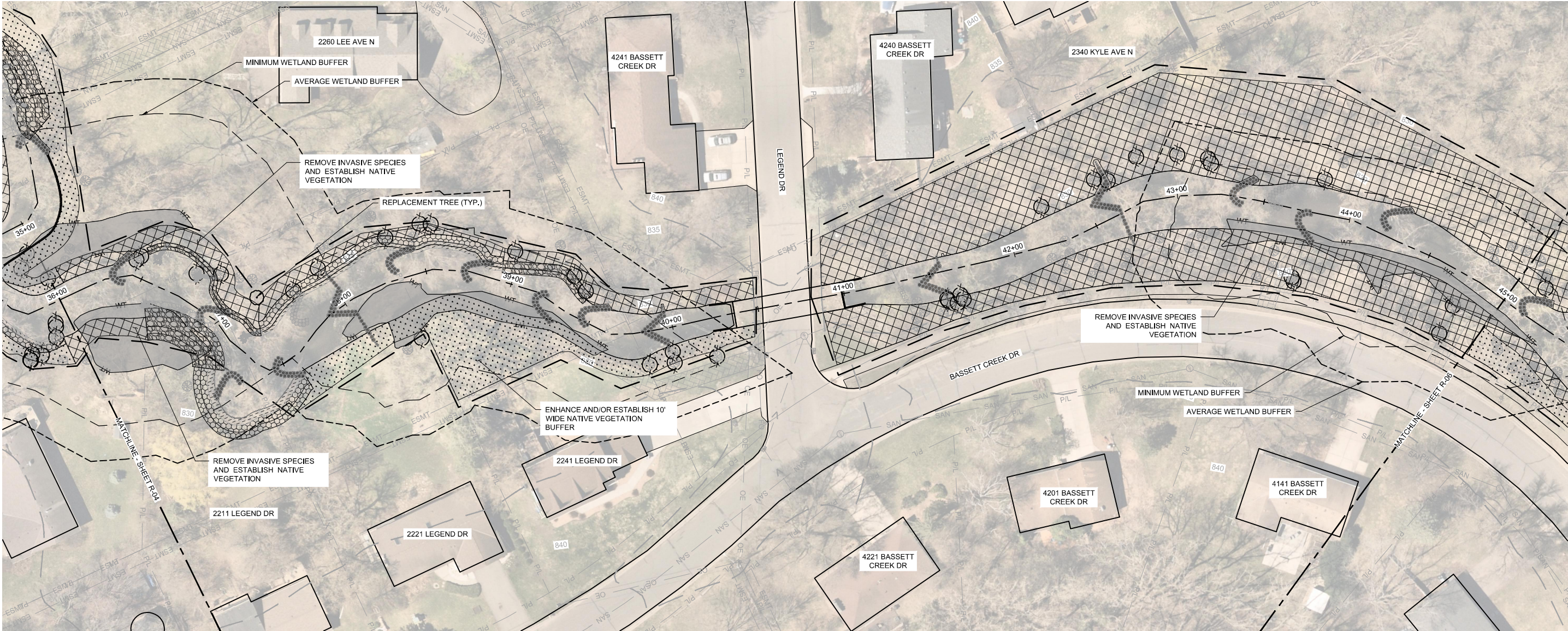
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GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE 2  
GOLDEN VALLEY, MINNESOTA  
VEGETATION RESTORATION PLAN  
(STA. 27+00 TO 36+00)

BARR PROJECT #	23272114.00
DWG #	R-04
REV #	A





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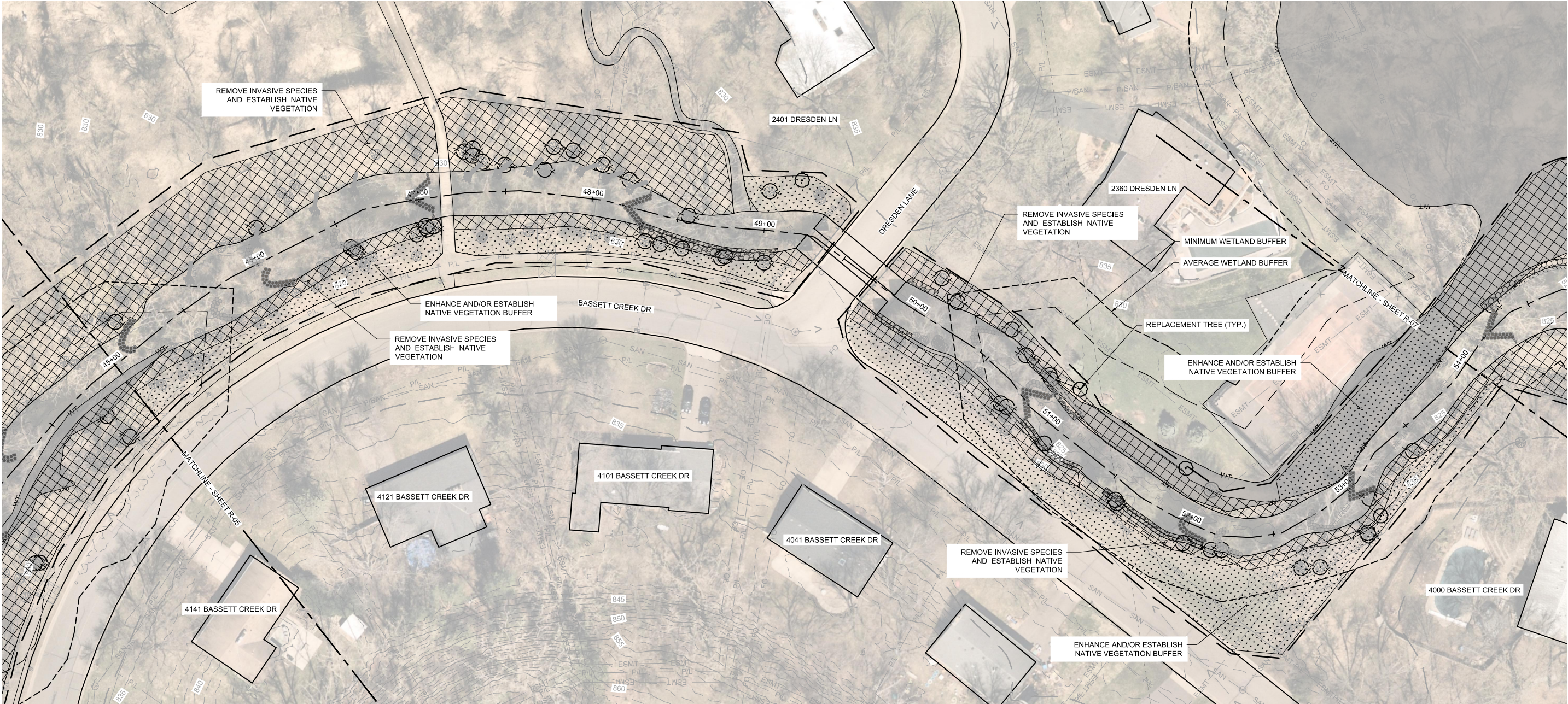
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BASSETT CREEK WATERSHED MANAGEMENT COMMISSION  
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE 2  
GOLDEN VALLEY, MINNESOTA  
VEGETATION RESTORATION PLAN  
(STA. 36+00 TO 45+00)

BARR PROJECT #	23272114.00
DWG #	R-05
REV #	A





1 PLAN: BASSETT CREEK VEGETATION RESTORATION (STA. 45+00 TO 54+00)

0 30 60  
SCALE IN FEET

N

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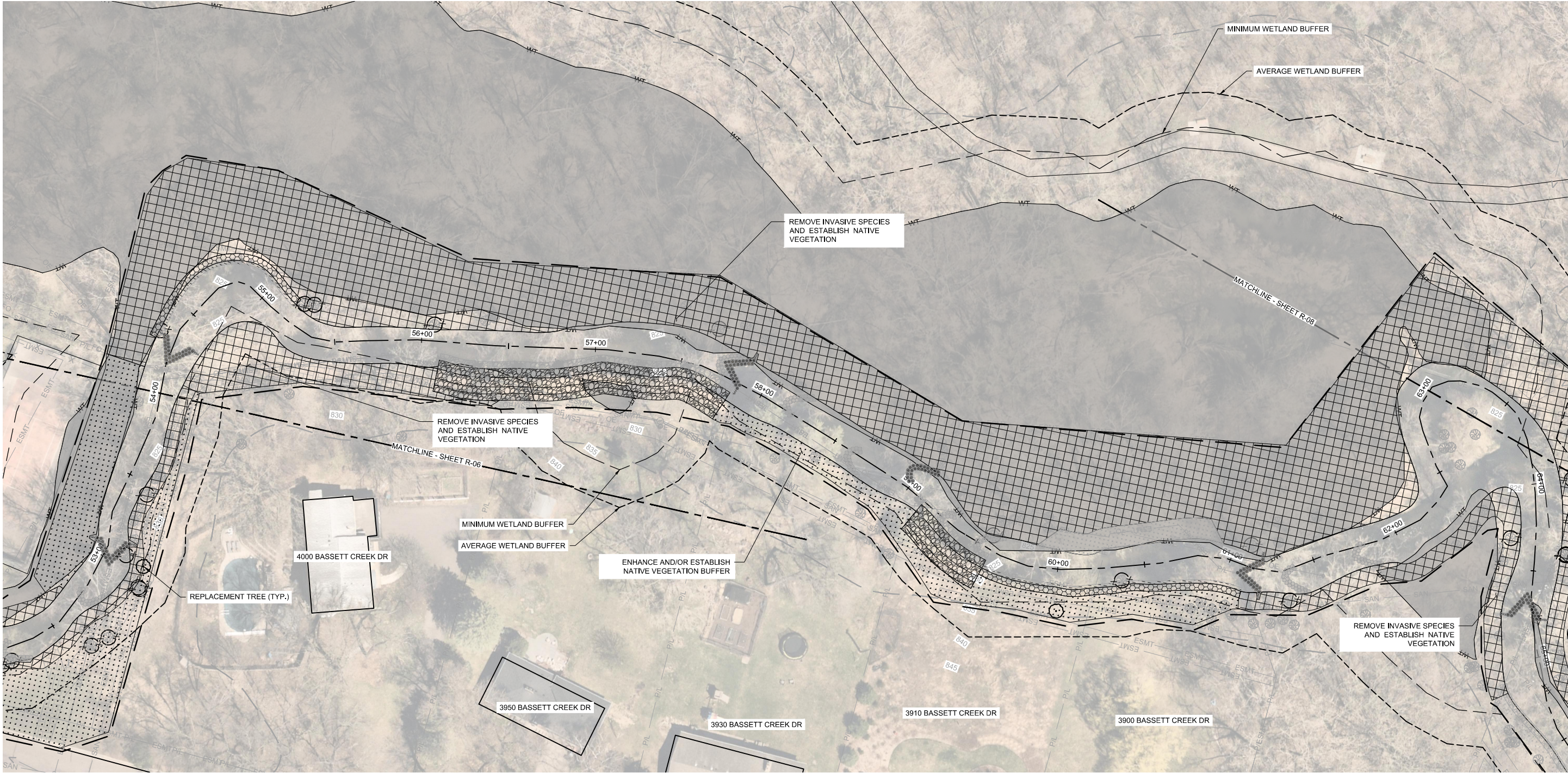
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BASSETT CREEK MAIN STEM RESTORATION - PHASE 2  
GOLDEN VALLEY, MINNESOTA  
VEGETATION RESTORATION PLAN  
(STA. 45+00 TO 54+00)

BARR PROJECT #	23272114.00
DWG #	R-06
REV #	A





1 PLAN: BASSETT CREEK VEGETATION RESTORATION (STA. 54+00 TO 63+00)

0 30 60  
SCALE IN FEET

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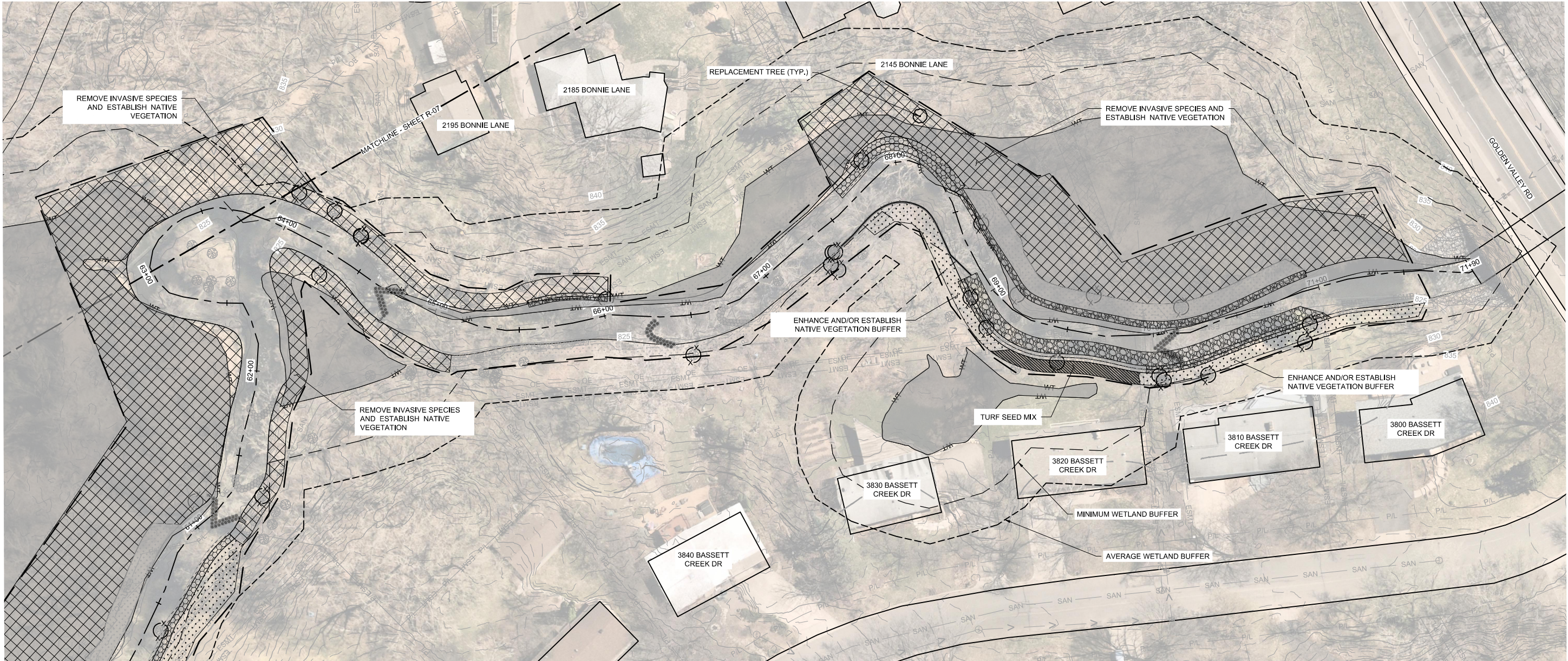
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BASSETT CREEK WATERSHED MANAGEMENT COMMISSION  
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BASSETT CREEK MAIN STEM RESTORATION - PHASE 2  
GOLDEN VALLEY, MINNESOTA  
VEGETATION RESTORATION PLAN  
(STA. 54+00 TO 63+00)

BARR PROJECT #	23272114.00
DWG #	R-07
REV #	A





1 PLAN: BASSETT CREEK VEGETATION RESTORATION (STA. 63+00 TO 72+00)

0 30 60  
SCALE IN FEET

North Arrow

90% DESIGN  
ISSUED FOR REVIEW  
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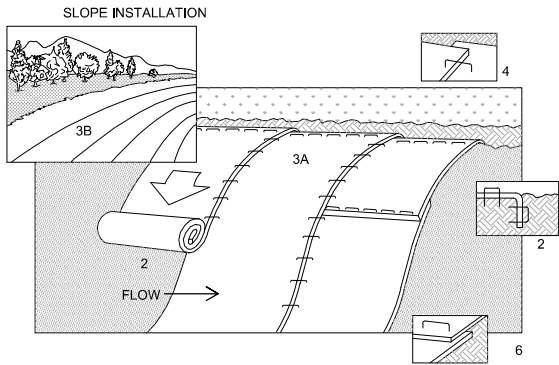
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VEGETATION RESTORATION PLAN  
(STA. 63+00 TO 72+00)

BARR PROJECT #	23272114.00
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REV #	A



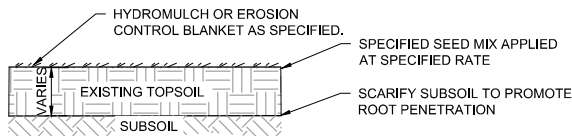
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NOTES:

- REFER TO MANUFACTURER RECOMMENDATIONS FOR STAPLE PATTERNS FOR SLOPE INSTALLATIONS.
- PREPARE SOIL BY LOOSENING TOP 1-2 INCHES AND APPLY SEED (AND FERTILIZER WHERE REQUIRED) PRIOR TO INSTALLING BLANKETS. GROUND SHOULD BE SMOOTH AND FREE OF DEBRIS.
- BEGIN (A) AT THE TOP OF THE SLOPE AND ROLL THE BLANKETS DOWN OR (B) AT ONE END OF THE SLOPE AND ROLL THE BLANKETS HORIZONTALLY ACROSS THE SLOPE.
- THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 6" OVERLAP, WITH THE UPHILL BLANKET ON TOP.
- WHEN BLANKETS MUST BE SPICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 6" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.
- BLANKET MATERIALS SHALL BE AS SPECIFIED OR AS APPROVED BY ENGINEER.

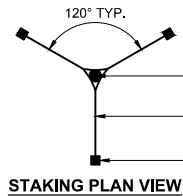
1 - NOT TO SCALE  
DETAIL: EROSION CONTROL BLANKET INSTALLATION



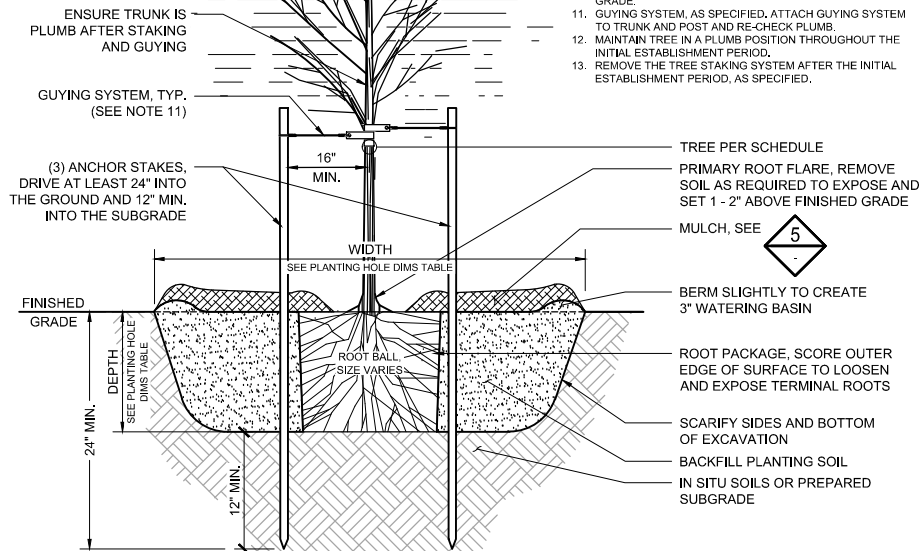
NOTE:

- WHERE REQUIRED, PLANT SHRUBS, TREES, AND HERBACEOUS PLUGS ACCORDING TO PLAN.
- INSTALL EROSION CONTROL BLANKET ON ALL SLOPES GREATER THAN 3:1.

4 - NOT TO SCALE  
DETAIL: TOPSOIL AND SEEDING



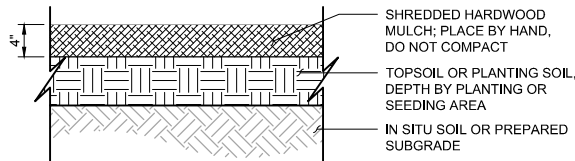
STAKING PLAN VIEW



2 - NOT TO SCALE  
DETAIL: DECIDUOUS TREE PLANTING

NOTE:

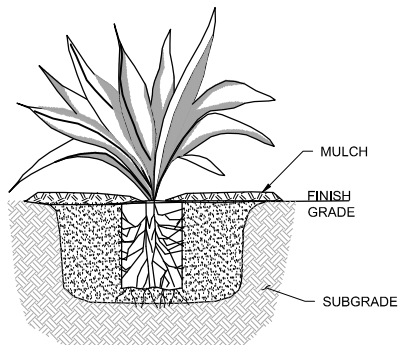
- PREPARE SUBGRADE PER PLAN AND AS SPECIFIED.
- PROVIDE MULCH AS SPECIFIED. ENSURE MULCH IS CERTIFIED TO BE WEED SEED FREE AND IS NOT CONTAMINATED WITH SOILS OR PESTS.
- MULCH CONTAMINATED WITH SOIL MUST BE REMOVED AND REPLACED.



5 - NOT TO SCALE  
DETAIL: HARDWOOD MULCH

NOTES:

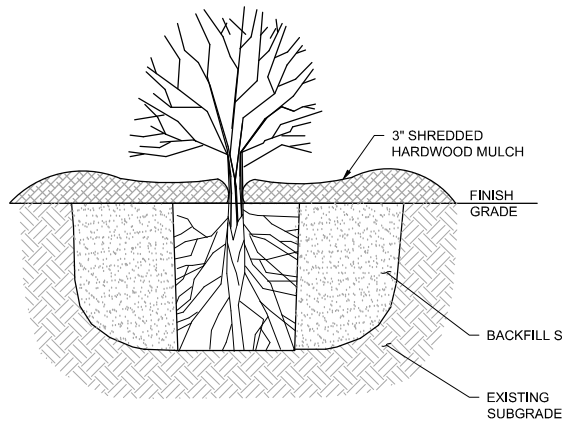
- EXCAVATE SOIL AS REQUIRED. REFER TO TREE PLANTING HOLE DIMENSION REFERENCE TABLE. PLANTING HOLE DEPTH SHOULD NOT EXCEED MEASUREMENT FROM ROOT FLARE TO BOTTOM OF ROOT PACKAGE.
- SCARIFY BOTTOM AND SIDES OF HOLE PRIOR TO PLANTING.
- PREPARE PLANTING SOIL AS SPECIFIED. SOIL MUST BE PRE-MIXED OR MIXED TO A UNIFORM TEXTURE ON SITE PRIOR TO PLACEMENT.
- REMOVE AND DISPOSE OF THE ROOT PACKAGING MATERIAL AS NOTED AND PERFORM ANY CORRECTIVE PRUNING OF TOP AND ROOTS AS SPECIFIED TO PREPARE THE TREE FOR PLANTING.
- DO NOT CUT OR DAMAGE THE CENTRAL LEADER.
- SET TREE ON IN SITU SOIL OR THOROUGHLY-COMPACTED BACKFILL AND PLUMB.
- BACKFILL AROUND PREPARED ROOT PACKAGE WITH PLANTING SOIL WITH 6\"/>
- ENSURE THE STAKING SYSTEM DOES NOT DIRECTLY ANCHOR TO OR PENETRATE THE ROOT BALL UPON INSTALLATION.
- WATER THOROUGHLY WITHIN 2 HOURS AFTER PLANTING TO FILL VOIDS. BACKFILL ANY VOIDS CREATED DURING INITIAL WATERING AND RE-WATER.
- APPLY MULCH OVER SOIL SURFACE AT THE BASE OF THE TREE IMMEDIATELY AFTER PLANTING. ENSURE NO MULCH IS IN CONTACT WITH THE BASE OF TREE AT FINISHED GRADE.
- GUYING SYSTEM, AS SPECIFIED. ATTACH GUYING SYSTEM TO TRUNK AND POST AND RE-CHECK PLUMB.
- MAINTAIN TREE IN A PLUMB POSITION THROUGHOUT THE INITIAL ESTABLISHMENT PERIOD.
- REMOVE THE TREE STAKING SYSTEM AFTER THE INITIAL ESTABLISHMENT PERIOD, AS SPECIFIED.



HERBACEOUS PLUG PLANTING NOTES:

- PREPARE SOIL WITH COMPOST AMENDMENT PER PLAN
- PROVIDE AND INSTALL PLANTS PER SCHEDULE.
- EXCAVATE HOLE: 3 TIMES WIDTH OF ROOTBALL.
- BREAK BOTTOM OF ROOTBALL TO LOOSEN ROOTS.
- PLANT THROUGH MULCH ALIGNING ROOTBALL TOP EVEN WITH SOIL - DO NOT PLANT TOO DEEP OR TOO SHALLOW. FIRM SOIL TO ENSURE GOOD CONTACT WITH ROOTS.
- APPLY 3\"/>
- NO MULCH TO BE IN CONTACT WITH PLANT.
- WATER THOROUGHLY AFTER PLANTING.
- CONTRACTOR TO WATER AS NECESSARY TO MAINTAIN IN A HEALTHY CONDITION. AT THE END OF THIS PERIOD ANY DEAD PLANTS SHALL BE REPLACED AT CONTRACTOR'S EXPENSE.

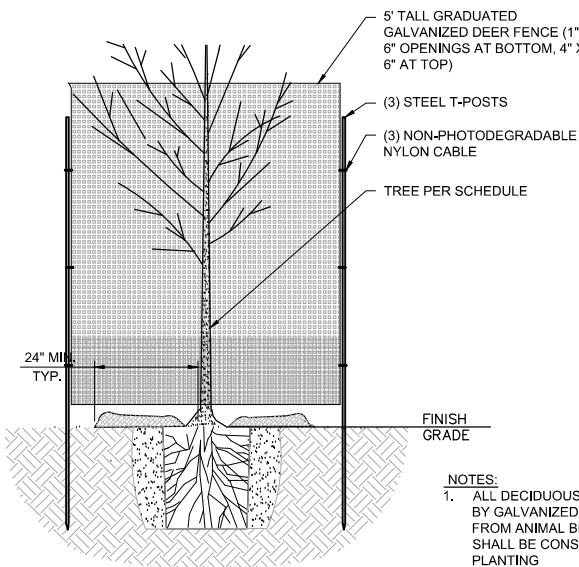
3 - NOT TO SCALE  
DETAIL: HERBACEOUS PLUG



SHRUB PLANTING NOTES:

- PROVIDE AND INSTALL PLANTS PER SCHEDULE.
- REMOVE DEAD OR DAMAGED BRANCHES. RETAIN THE NATURAL FORM OF PLANT.
- IF ROOT FLARE IS NOT EXPOSED WITHIN THE CONTAINER EXCAVATE SURFACE SOIL TO BASE OF ROOT FLARE.
- DIG PLANT HOLES 6\"/>
- SET SHRUB ON LIGHTLY FIRMED BACKFILL SOIL SO ROOT FLARE IS EVEN WITH FINISH GRADE.
- PLACE SHREDDED HARDWOOD MULCH (MNDOT SPEC 3882.2 TYPE 6 - WEED SEED FREE SHREDDED HARDWOOD.) TO A RADIUS OF 24\"/>
- NO MULCH TO BE IN CONTACT WITH PLANT.

4 - NOT TO SCALE  
DETAIL: SHRUB AND VINE PLANTING



NOTES:

- ALL DECIDUOUS TREES SHALL BE ENCLOSED BY GALVANIZED DEER FENCING TO PROTECT FROM ANIMAL BROWSING. TREE PROTECTION SHALL BE CONSIDERED INCIDENTAL TO TREE PLANTING

6 - NOT TO SCALE  
DETAIL: TREE PROTECTION FENCE

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MINNEAPOLIS, MN 55435

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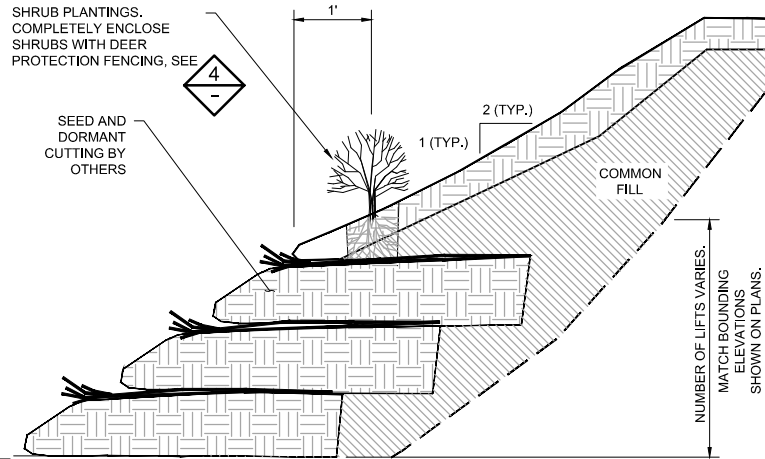
BASSETT CREEK WATERSHED MANAGEMENT COMMISSION  
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE 2  
GOLDEN VALLEY, MINNESOTA  
RESTORATION DETAILS

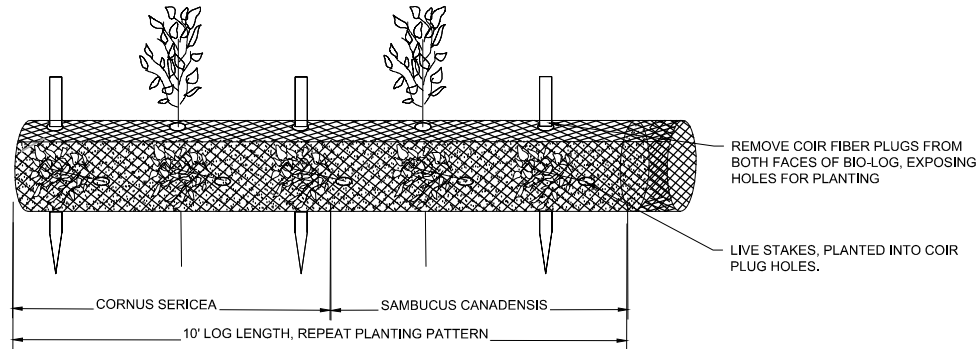
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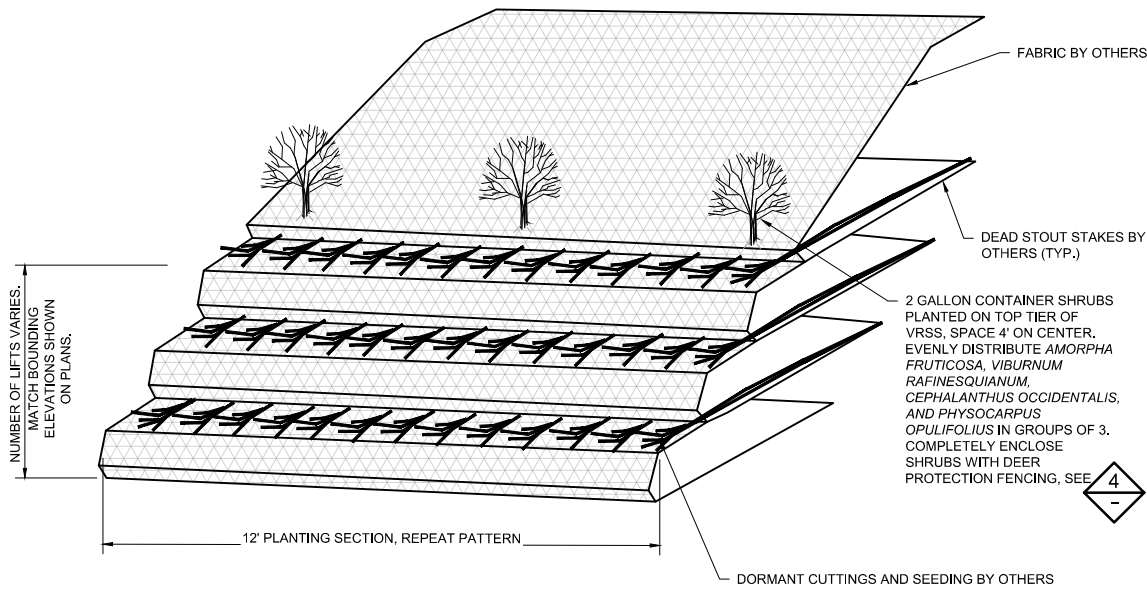
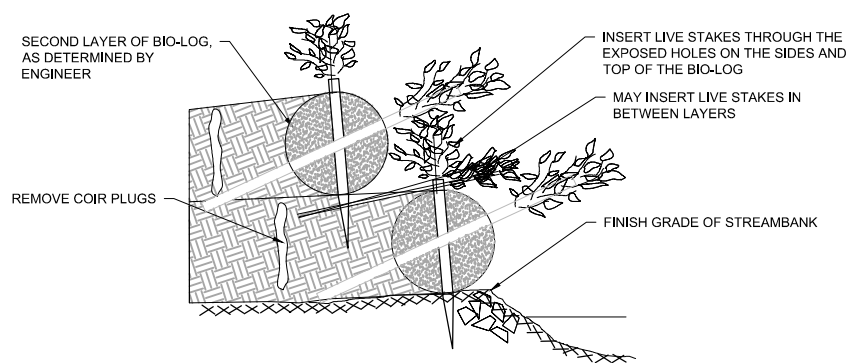


**A** SECTION: LIVE PLANT VEGETATED REINFORCED SOIL SLOPE (V.R.S.S.)  
NOT TO SCALE

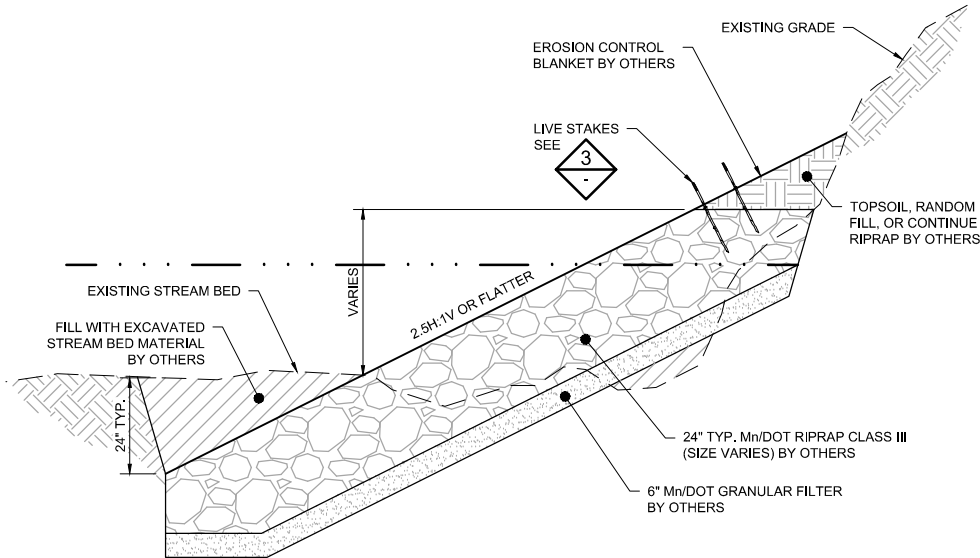


- NOTES:  
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.  
2. COIR LOGS MAY BE USED IN LIEU OF LIVE FASCINES AT DIRECTION OF ENGINEER.

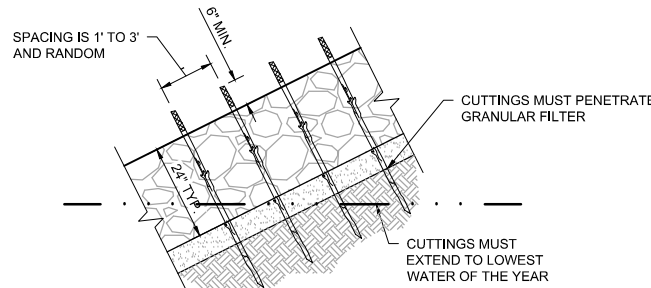
**1** DETAIL: COIR LOG WITH PLANTING HOLES  
NOT TO SCALE



**B** SECTION: LIVE PLANT VEGETATED REINFORCED SOIL SLOPE (V.R.S.S.)  
NOT TO SCALE



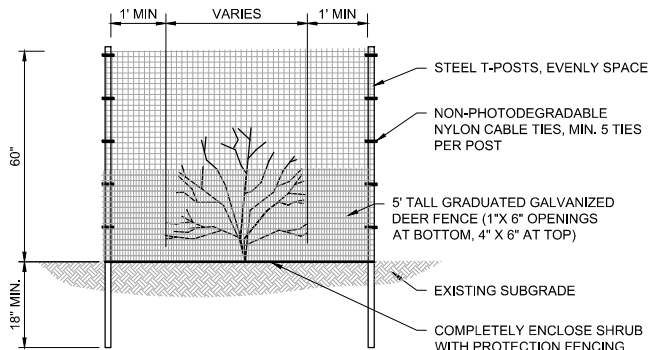
**2** DETAIL: RIPRAP TOE PROTECTION  
NOT TO SCALE



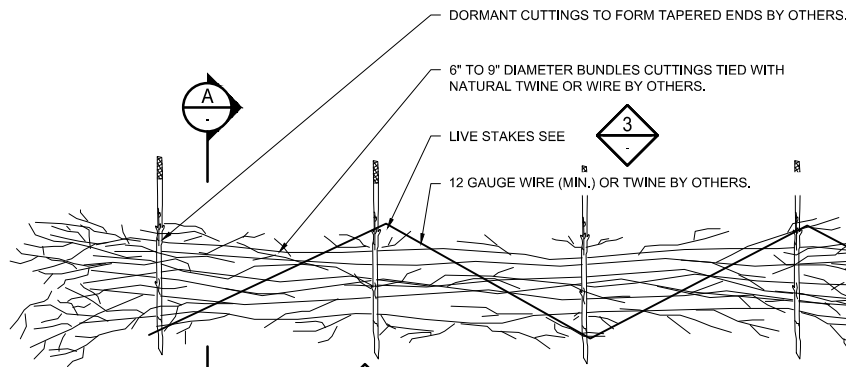
**3** DETAIL: LIVE STAKES  
NOT TO SCALE

**GENERAL NOTES:**

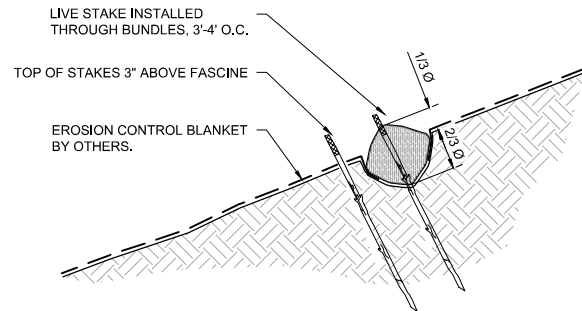
- LIVE STAKES SHALL BE 40% CORNUS SERICEA, 30% ALNUS INCANA, 15% SALIX BEBIANA, AND 15% SAMBUCUS CANADENSIS DISTRIBUTED EVENLY ACROSS THE SITE.
- MATERIAL SHOULD BE FROM AN AREA WITH SIMILAR SOIL, CLIMATE, AND LOCATION RELATIVE TO THE STREAM.
- THE MATERIAL SHALL BE AT LEAST TWO YEARS OLD AND FREE OF DISEASE, ROT, OR INSECT INFESTATION.
- MATERIAL SHALL BE HARVESTED WHILE DORMANT AND SOAKED (1 TO 14 DAYS) BEFORE INSTALLATION.



**4** DETAIL: SHRUB PROTECTION FENCE  
NOT TO SCALE



**5** DETAIL: LIVE FASCINES  
NOT TO SCALE



**A** SECTION: LIVE FASCINES  
NOT TO SCALE

**GENERAL**

- LIVE FASCINES ARE LIVE PLANT MATERIALS, HANDLE WITH CARE. SEE LIVE CUTTINGS DETAIL FOR SIZE, CARE, AND INSTALLATION METHODS.

**PREPARATION**

- SOAK THE LIVE BRANCHES FOR A MINIMUM OF 24 HOURS (IDEALLY 5-7 DAYS) IN FLOWING WATER BEFORE PLANTING.

**PLACEMENT**

- PLACE WOODEN (OR LIVE) STAKES AT A 3'-4' INTERVAL THROUGH THE CENTER OF THE BUNDLE. LEAVE 3 INCHES OF STAKES ABOVE THE BUNDLE.

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 PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINTED NAME: \_\_\_\_\_  
SIGNATURE: \_\_\_\_\_  
DATE: \_\_\_\_\_ LICENSE # \_\_\_\_\_

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B	DRM3	BHD	JCO	11/13/2025	ISSUED FOR REVIEW	
A	DRM3	BHD	JCO	06/20/2025	ISSUED FOR REVIEW	
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION	

**BARR**  
BARR ENGINEERING CO.  
4300 MARKETPOINTE DRIVE  
SUITE 200  
MINNEAPOLIS, MN 55435  
PH: 1-800-632-2277  
WWW.BARR.COM  
MINNESOTA ENGINEERING FIRM  
NUMBER 10104111545

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION  
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE 2  
GOLDEN VALLEY, MINNESOTA  
RESTORATION DETAILS

BARR PROJECT #	23272114.00
DWG #	R-10
REV #	A

50% DESIGN  
ISSUED FOR REVIEW  
NOT FOR CONSTRUCTION