

Madison, Wisconsin

CITY OF MADISON

CITY ENGINEERING DIVISION

DEPARTMENT OF PUBLIC WORKS

PLAN OF PROPOSED IMPROVEMENT

INDEX OF SHEETS

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REILAND GROVE PHASE 1

STORMWATER MANAGEMENT

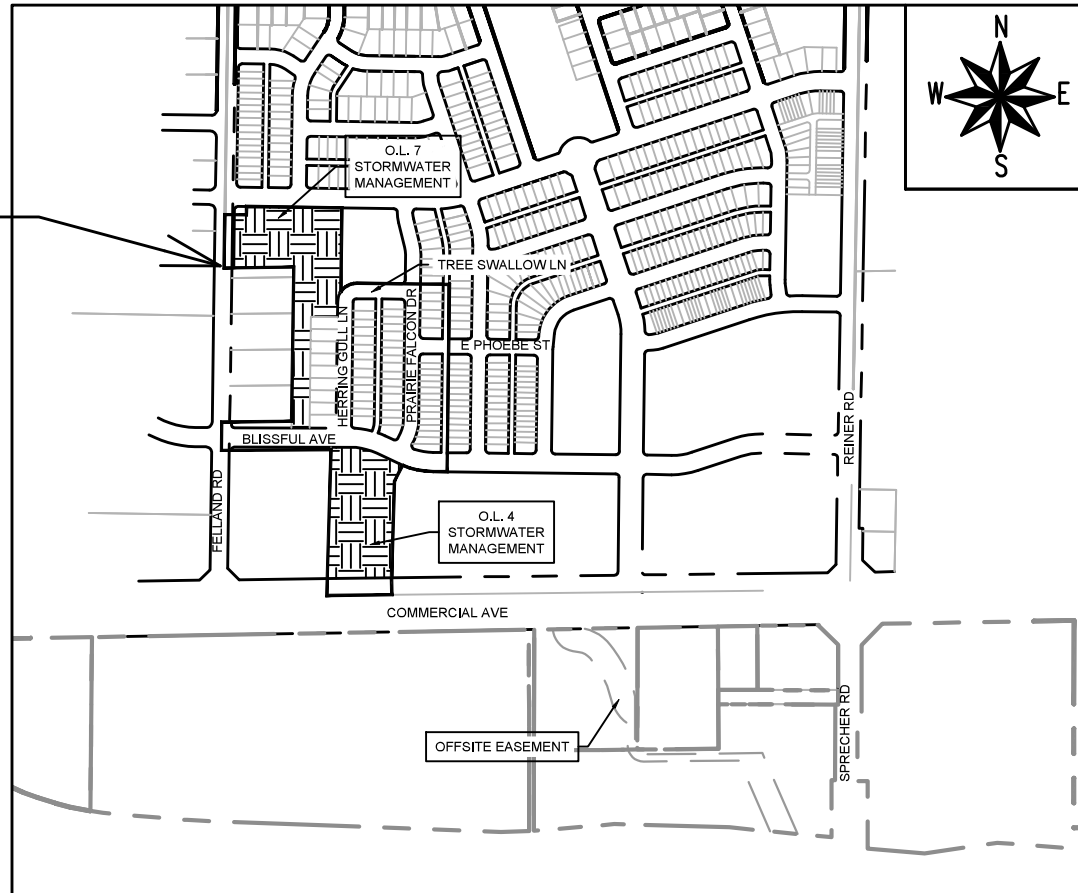
CITY PROJECT NO. 16089

CONTRACT NO. 9722

PHASE LIMITS
SEE PROJECT NO. 16088

REV1 - 8/18/2026
SHEETS REVISED: GI2

REV2 - 9/8/2026
SHEETS REVISED: GI1,
GI2, GI4, GI5



PUBLIC IMPROVEMENT PROJECT
APPROVED

MARCH 24, 2026

BY THE COMMON COUNCIL
OF MADISON, WISCONSIN

PUBLIC IMPROVEMENT DESIGN
APPROVED BY:

07/24/2026

City Engineer

Date

STORMWATER MANAGEMENT AND
FEATURES DESIGNED BY:

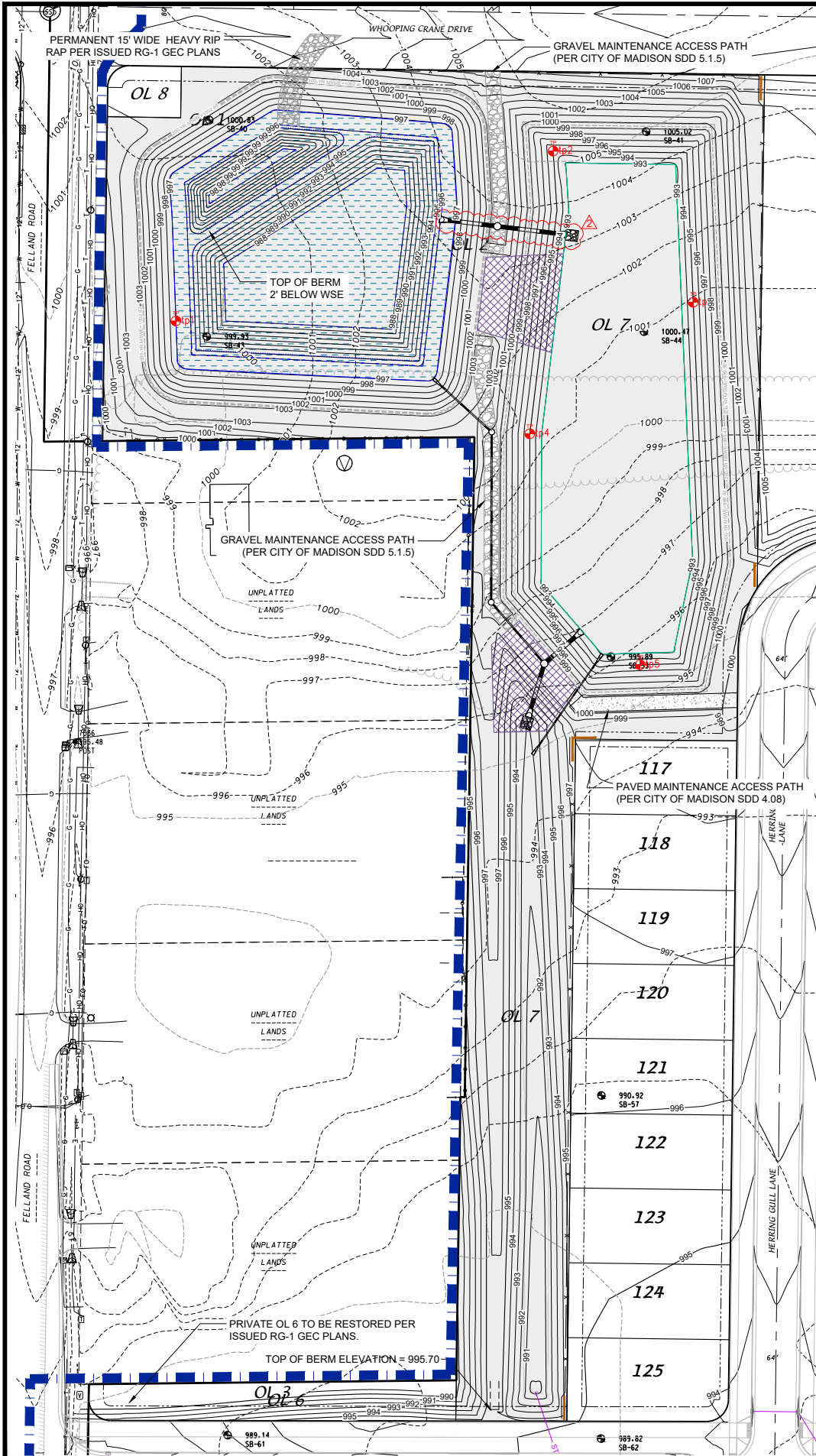


07/24/2026

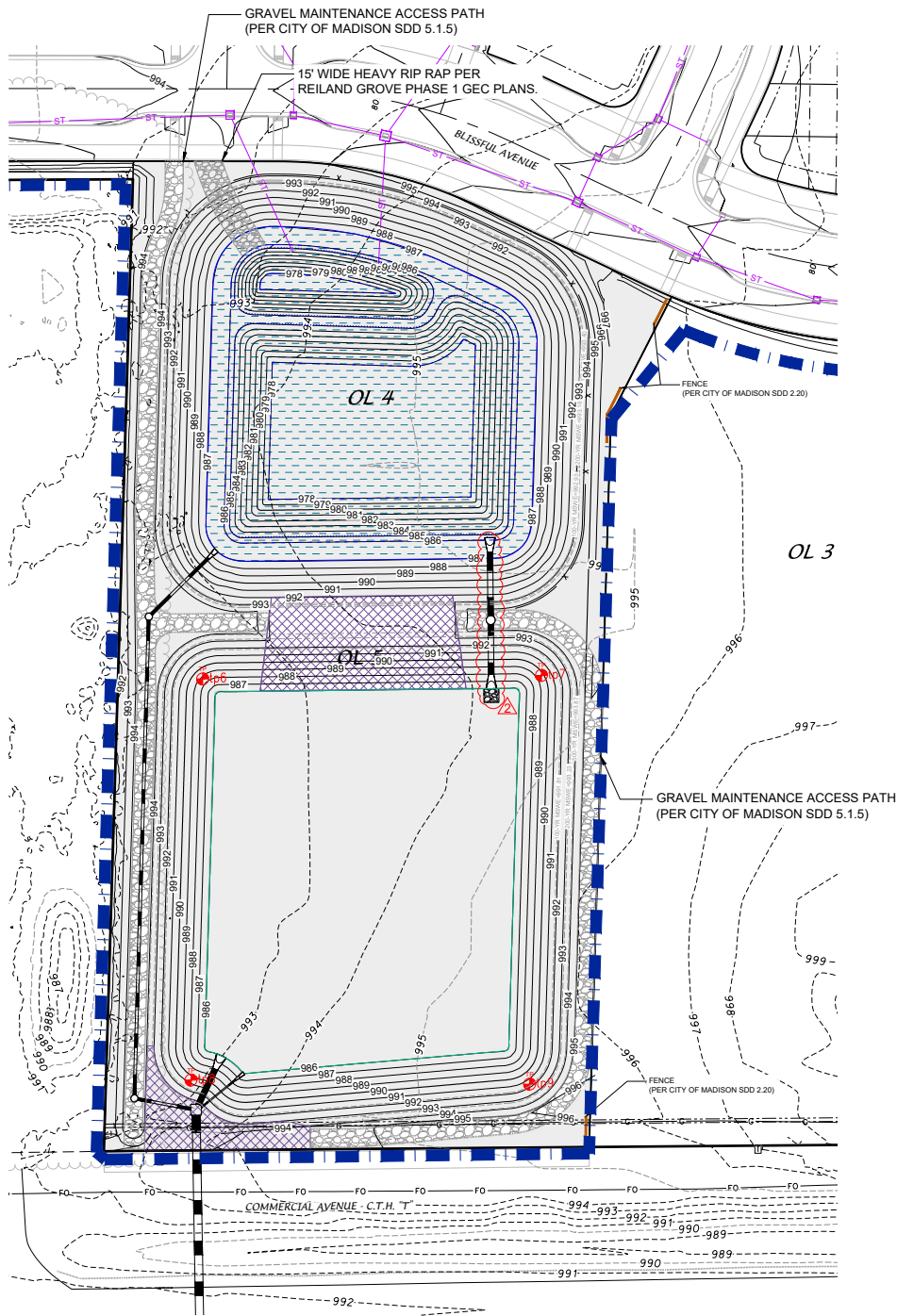
STORM SEWER
DESIGNED BY:



07/24/2026



OL 7 NORTHWEST BASINS & DRAINAGE DITCH - PLAN VIEW



OL 4 SOUTHWEST BASINS - PLAN VIEW

GENERAL NOTES:

1. ALL SITE WORK AND MATERIALS SHALL BE PER THE CITY OF MADISON STANDARD SPECIFICATIONS.
2. EROSION CONTROL MEASURES SHALL BE PLACED PER THE APPROVED EROSION CONTROL PLAN.
3. LENGTHS OF CULVERTS INCLUDE ENDWALLS.
4. CULVERT LENGTHS SHALL BE FIELD VERIFIED DURING CONSTRUCTION TO ENSURE THAT THEY ARE LONG ENOUGH TO CONFORM TO TYPICAL CROSS SECTION.
5. ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 6" OF TOPSOIL, SEED AND EROSION MATTING. SEED MIXTURE SHALL BE PER THE CITY OF MADISON REQUIREMENTS.
6. ANY AREAS WITHIN STORMWATER OUTLOT THAT ARE NOT BEING GRADED, INVASIVE HERBACEOUS VEGETATION SHOULD BE REMOVED AND RESEEDED WITH NATIVE SEED AS SHOWN ON SHEET GI-6.
7. SEE REILAND GROVE PHASE 1, PROJECT NO. 16088, FOR PROPOSED STREET AND UTILITY IMPROVEMENTS.
8. EROSION CONTROL MATTING SHALL BE CLASS I, TYPE B URBAN EROSION MATTING.

LEGEND

- CLASS I, TYPE B URBAN EROSION MATTING
- STORMWATER OVERFLOWS. RESTORED WITH PROPEX PYRAMAT 25.
- WATER SURFACE
- GRAVEL MAINTENANCE ACCESS PATH (PER CITY OF MADISON SDD 5.1.5)
- PAVED MAINTENANCE ACCESS PATH (PER CITY OF MADISON SDD 4.08)

CITY OF MADISON EROSION MATTING SPECIFICATIONS:

EROSION MATTING PROVIDED SHALL BE OF THE CLASS AND TYPE SPECIFIED, MEETING THE REQUIREMENTS AND SPECIFICATIONS OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION EROSION CONTROL AND STORM WATER PRODUCT ACCEPTABILITY LISTS (PAL). THE CLASS AND TYPE REQUIREMENTS LISTED BELOW MATCH THOSE OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION NOMENCLATURE. ONLY PRODUCTS LISTED IN THE PAL THAT ARE CONSTRUCTED WITH 100 PERCENT BIODEGRADABLE MATERIAL WILL BE PERMITTED ON CITY OF MADISON PROJECTS, WITH THE EXCEPTION OF CLASS III MATERIALS.

CLASS I TYPE A, CLASS I TYPE B, AND CLASS II TYPE B SHALL BE DESIGNATED ORGANIC TO ENSURE PROVISION OF A PRODUCT WITH 100 PERCENT BIODEGRADABLE MATTING, NETTING, AND STITCHING. PHOTODEGRADABLE IS NOT EQUIVALENT TO BIODEGRADABLE. ONLY ONE CLASS I TYPE A MAT AND FOUR CLASS I TYPE B MATS ARE CURRENTLY DESIGNATED ORGANIC (2025). PRODUCTS LISTED IN THE PAL AS URBAN CLASS I TYPE A AND URBAN CLASS I TYPE B ARE ALL 100 PERCENT BIODEGRADABLE, AND THEREFORE DO NOT NEED TO BE DESIGNATED ORGANIC. CLASS III ECRM IS NOT REQUIRED TO BE CONSTRUCTED OF BIODEGRADABLE MATERIAL. WHEN BIODEGRADABLE MATTING IS REQUIRED, ANCHORING DEVICES SHALL BE 100 PERCENT BIODEGRADABLE. CLASS III EROSION CONTROL REVEGETATION MATS SHALL INCLUDE FIRE RETARDANT, SHALL HAVE A ZERO-BURN RATE AND BE SELF-EXTINGUISHING.

REVISION 2: 09/02/2026
- REVISED LOCATION OF SP-2, EW-1 AND EW-2
- REVISED LOCATION OF SP-12, EW-11 AND EW-12

EROSION CONTROL MATTING PLAN
OUTLOT 4 & OUTLOT 7

REILAND GROVE - PHASE 1

CITY OF MADISON, DANE COUNTY, WISCONSIN



SCALE: 1" = 100'
(PAGE SIZE: 11x17)

0 50

DATE: 07-24-2026
REVISED: 09/02/2026

DRAWN BY: TAM

FN: 25-05-141

Sheet Number:

GI-1

GENERAL NOTES:

1. ALL SITE WORK AND MATERIALS SHALL BE PER THE CITY OF MADISON STANDARD SPECIFICATIONS.
2. EROSION CONTROL MEASURES SHALL BE PLACED PER THE APPROVED EROSION CONTROL PLAN.
3. LENGTHS OF CULVERTS INCLUDE ENDWALLS.
4. CULVERT LENGTHS SHALL BE FIELD VERIFIED DURING CONSTRUCTION TO ENSURE THAT THEY ARE LONG ENOUGH TO CONFORM TO TYPICAL CROSS SECTION.
5. ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 6" OF TOPSOIL, SEED AND EROSION MATTING. SEED MIXTURE SHALL BE PER THE CITY OF MADISON REQUIREMENTS.
6. ANY AREAS WITHIN STORMWATER OUTLOT THAT ARE NOT BEING GRADED, INVASIVE HERBACEOUS VEGETATION SHOULD BE REMOVED AND RESEEDED WITH NATIVE SEED IN ACCORDANCE WITH THE PROFESSIONAL ECOSYSTEM ESTABLISHMENT PLAN AS SHOWN ON SHEET GI-7.
7. EROSION CONTROL MATTING SHALL BE CLASS I, TYPE B ORGANIC URBAN EROSION MATTING (NO PLASTIC). REFER TO SHEET GI-1 FOR LIMITS.

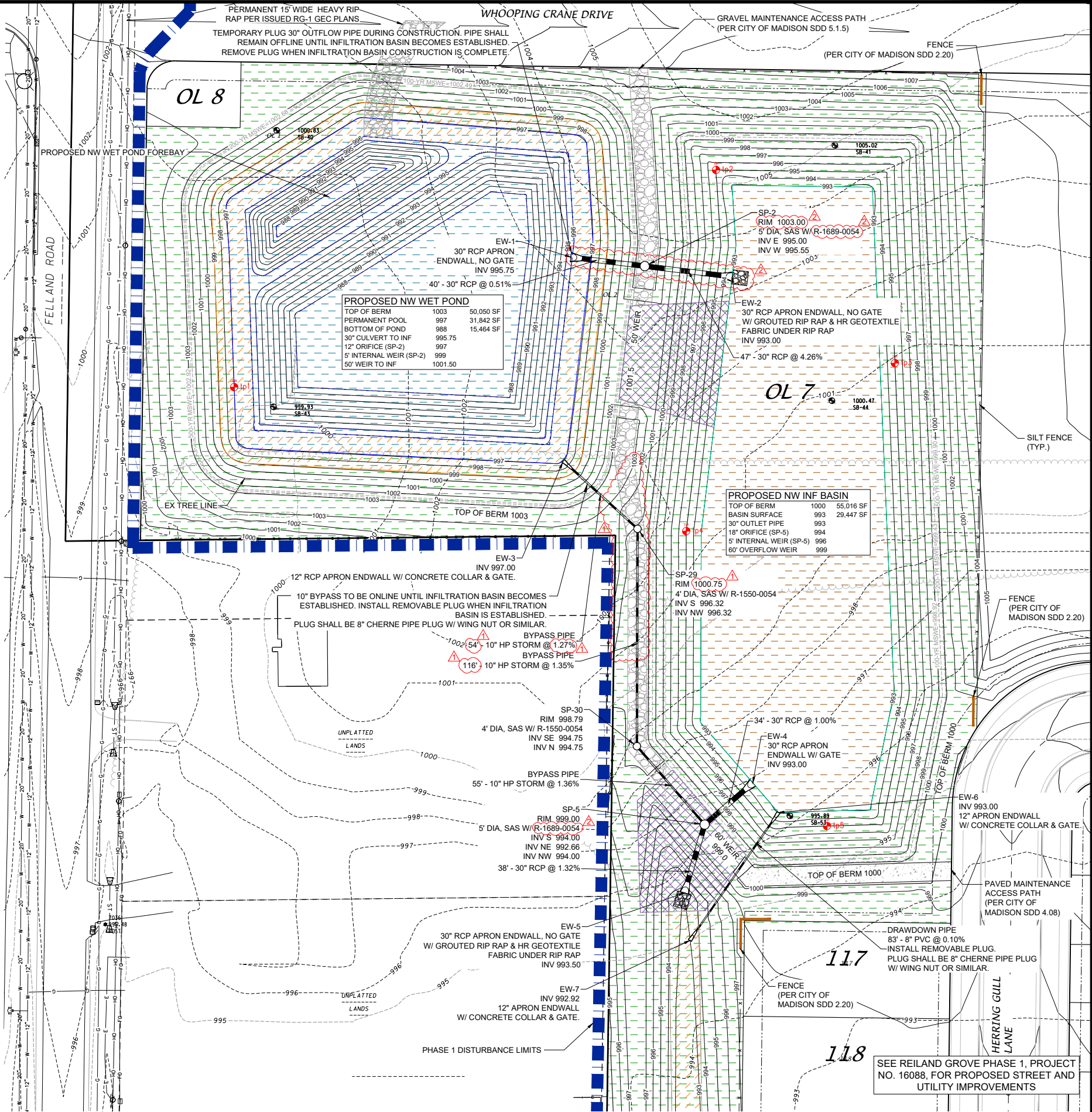
LEGEND

- INFILTRATION BASIN BOTTOM SEED MIX, SEE TABLE 3 ON SHEET GI- 7.
- PRAIRIE SEED MIX, SEE TABLE 1 ON SHEET GI- 7.
- WET POND PERIMETER SEED MIX, SEE TABLE 2 ON SHEET GI- 7.
- SHORTGRASS GRAMINOID SEED MIX, SEE TABLE 4 ON SHEET GI- 7.
- STORMWATER OVERFLOWS. RESTORED WITH PROPEX PYRAMAT 25.
- WATER SURFACE
- RIP RAP (SIZE PER CITY OF MADISON STANDARD DETAIL DRAWING 5.4.4)

TEST PIT

REVISION 1: 08/10/2026
- REVISED GRADING FOR GRAVEL MAINTENANCE PATH
- RELOCATED STRUCTURE SP-29 AND REVISED CONNECTING PIPES

REVISION 2: 09/02/2026
- REVISED LOCATION OF SP-2, EW-1 AND EW-2
- REVISED RIM ELEVATION OF SP-2
- REVISED CASTING ON SP-2 AND SP-5

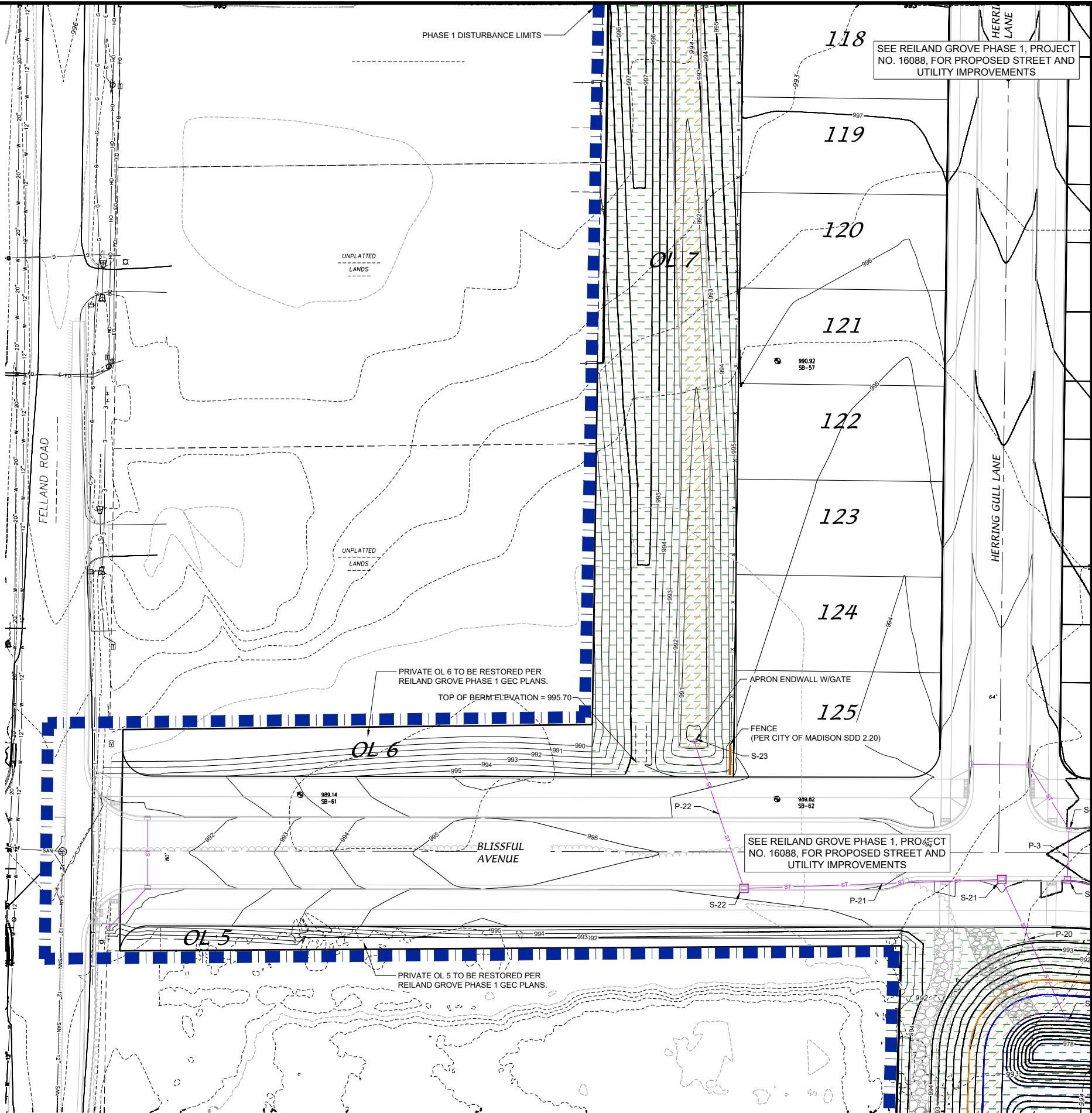


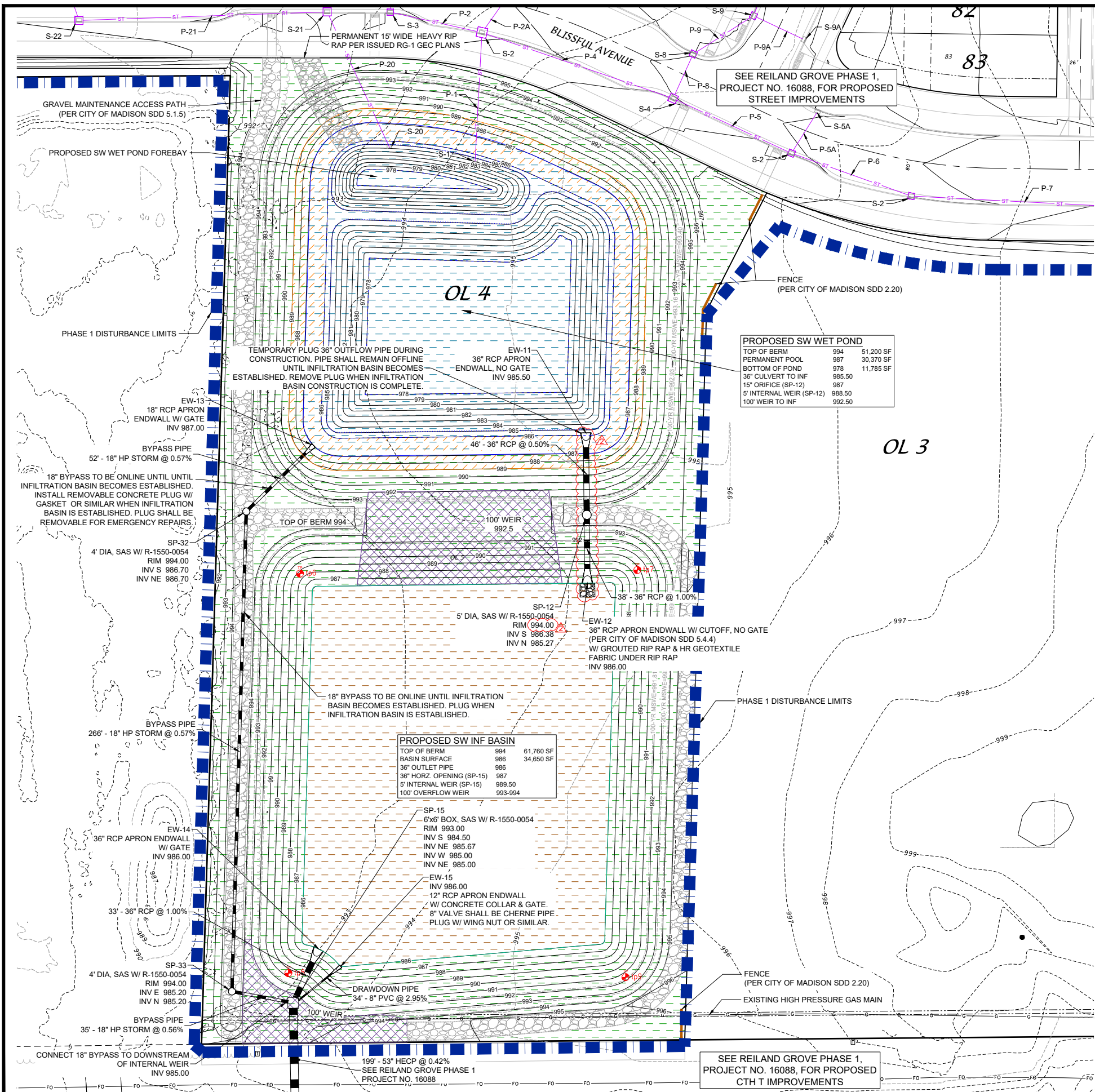
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LEGEND

-  INFILTRATION BASIN BOTTOM SEED MIX, SEE TABLE 3 ON SHEET GI- 7.
-  PRAIRIE SEED MIX, SEE TABLE 1 ON SHEET GI- 7.
-  WET POND PERIMETER SEED MIX, SEE TABLE 2 ON SHEET GI- 7.
-  SHORTGRASS GRAMINOID SEED MIX, SEE TABLE 4 ON SHEET GI- 7.
-  STORMWATER OVERFLOWS. RESTORED WITH PROPEX PYRAMAT 25.
-  WATER SURFACE
-  RIP RAP (SIZE PER CITY OF MADISON STANDARD DETAIL DRAWING 5.4.4)
-  TEST PIT





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- STORMWATER OVERFLOWS. RESTORED WITH PROPEX PYRAMAT 25.
- WATER SURFACE
- RIP RAP (SIZE PER CITY OF MADISON STANDARD DETAIL DRAWING 5.4.4)
- TEST PIT

REVISION 2: 09/02/2026
- REVISED LOCATION OF SP-12, EW-11 AND EW-12
- REVISED RIM ELEVATION OF SP-12

SOUTHWEST DETENTION AND INFILTRATION BASIN PLAN DETAILS
OUTLOT 4

REILAND GROVE - PHASE 1

CITY OF MADISON, DANE COUNTY, WISCONSIN



SCALE: 1" = 60'
(PAGE SIZE: 11x17)

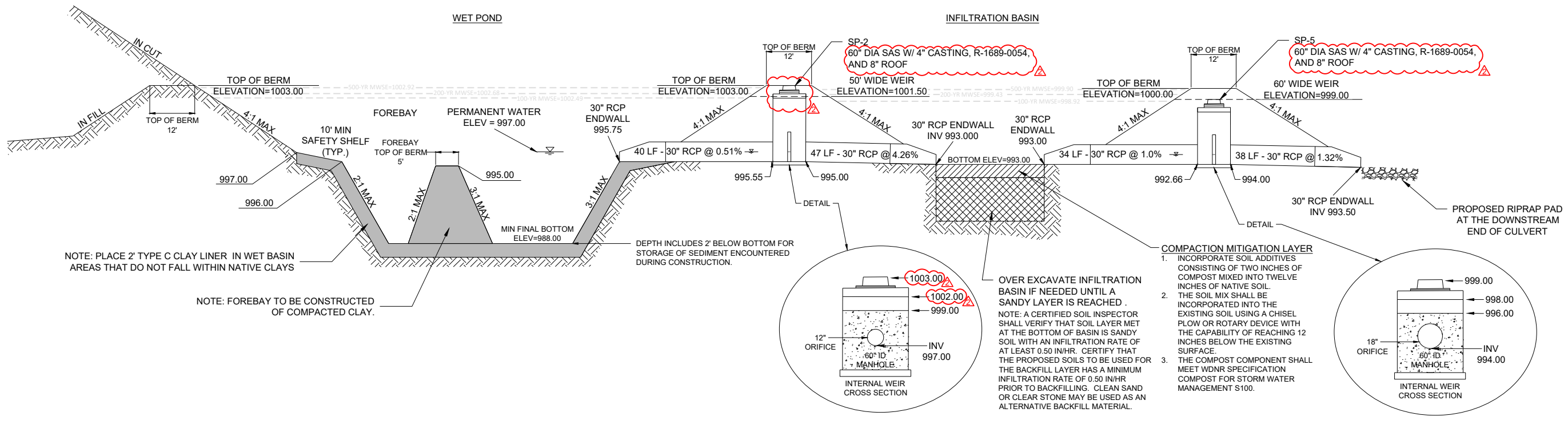
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REVISED: 09/02/2026

DRAWN BY: TAM

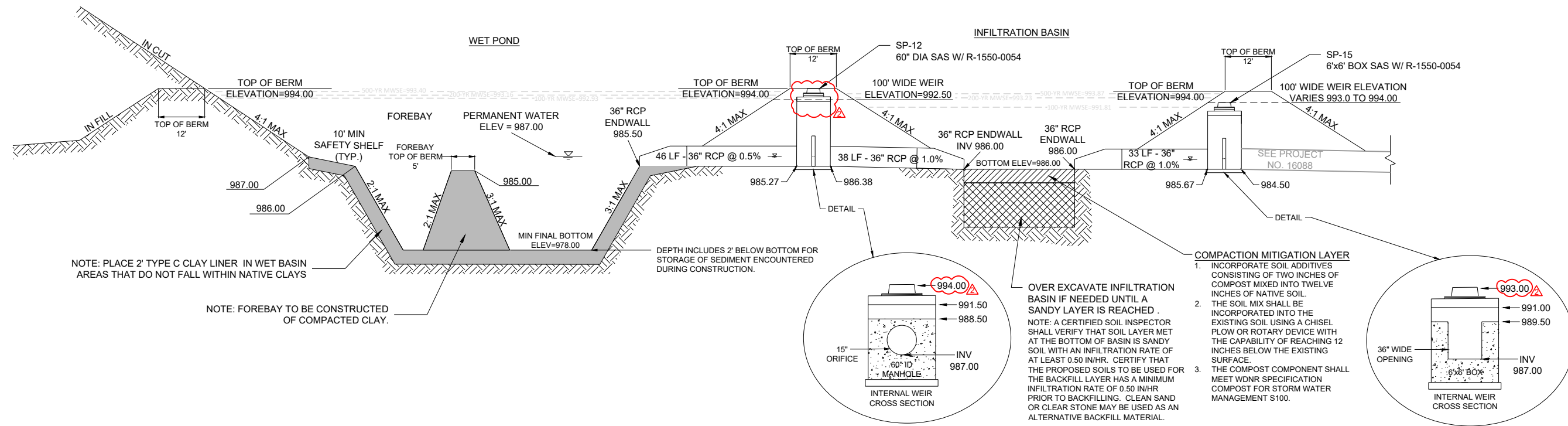
FN: 25-05-141

Sheet Number:

GI-4



NORTHWEST BASINS - PROFILE VIEW
PROPOSED WET DETENTION BASIN AND INFILTRATION BASIN
NOT TO SCALE



SOUTHWEST BASINS - PROFILE VIEW
PROPOSED WET DETENTION BASIN AND INFILTRATION BASIN
NOT TO SCALE

REVISION 2: 09/02/2026
- REVISED STRUCTURES SP-2, SP-12 AND SP-15
- REVISED CASTING ON SP-2 AND SP-5

DETENTION AND INFILTRATION BASIN PROFILE DETAILS

REILAND GROVE - PHASE 1

CITY OF MADISON, DANE COUNTY, WISCONSIN

D'ONOFRIO NOTTKE AND ASSOCIATES, INC.
7530 Westward Way, Madison, WI 53717
Phone: 608.833.7530 • Fax: 608.833.1069
YOUR NATURAL RESOURCE FOR LAND DEVELOPMENT



DATE: 07-24-2026
REVISED: 09/02/2026

DRAWN BY: WAM

FN: 25-05-141

Sheet Number:

GI-5

- Start of Work - Public Outlots and Publicly Maintained Green Infrastructure:**
1. Prior to beginning work on public outlots and publicly maintained green infrastructure a preconstruction meeting shall be held and notice of the start of work shall be provided to the City Engineer with a minimum of fifteen (15) working days prior to starting work. If this land is to be publicly maintained, the Developer's ecosystem/ecological subcontractor shall be required to attend the preconstruction meeting for any work that includes native seeding, planting and professional ecosystem establishment.
 2. Rough grading of the lands to be dedicated to the public may occur prior to the preconstruction meeting provided all required land disturbance permits are in place and any applicable site grading and erosion control plans have been approved.
 3. Final grading shall not occur until the pre-construction meeting has occurred and the final plans are issued by the City Engineer.
 4. Final seeding/planting for any lands to be maintained by the City may not occur until the following has been approved by the City Engineer:
 - i. As-built survey.
 - ii. A site walk-thru.
 - iii. Construction Submittals including, but not limited to seed mix labels, erosion control material submittals, and storm structure shop drawings.
 - iv. Approval of basin infiltration rates, based on submittal requirements.
 5. During establishment of seeding for an infiltration basin, flow shall be routed around the active infiltration area using channels/pipes or other means as approved by City Engineering.
 6. Final grading and seeding for all improvements within the stormwater outlot shall be completed within 30 days. This does not include grading required to bring infiltration basins online at a later date as required by WDNR Technical Standard 1003.
 7. Any seeding/planting that is done at a later date to restore infiltration or bioretention basins that are used as temporary sediment basins shall extend the ecological restoration contract until two (2) growing seasons after completion of that final seeding/planting.
 8. Final grading and seeding/planting for professional ecosystem establishment for stormwater management outlots and other publicly maintained green infrastructure shall be completed as described in this contract. The Developer shall be responsible for ensuring compliance with both the erosion control plan and this contract so that they are not in conflict with each other.
 9. For properties that abut public infiltration basins, silt fence shall be placed along the property line for any uphill private properties. Silt fence shall remain in place until adjacent private properties have been restored.

As-Built Surveys - Public Outlots and Publicly Maintained Green Infrastructure

1. Either the Developer or the City shall be responsible for obtaining as-built surveys prior to the Developer's initial seeding/planting in stormwater outlots and areas of other publicly maintained green infrastructure. The Developer shall inform the City at the pre-construction meeting if they will take on the as-built surveying responsibilities or defer to the City to complete. The as-built surveys shall be for all improvements within the public outlot.
2. The Developer shall provide the City with a schedule of construction and notify the City at least fifteen (15) working days prior to the anticipated final grading work commencing. The Developer shall then notify the City at least five (5) working days prior to the anticipated date of final grading completion and the site being ready for as-built surveying. The Developer shall reimburse the City for any costs sustained by the City.
3. If the City is responsible for completing the as-built survey, and proper notice is provided by the Developer as defined above, and if the City then fails to obtain the as-built survey within five (5) working days of final grading being noticed, the site-grading shall be considered approved.
4. If the Developer is responsible for completing the as-built survey the City shall have two (2) working days to review and approve or reject the as-built survey from the date it is submitted by the Developer. The as-built survey will be considered approved should the City fail to approve or provide response to the Developer's as-built survey submittal within the two (2) working days allowed.

Infiltration Testing Requirements for Bioretention and Infiltration Basins

1. Testing requirements for Subgrade Soils: All native subgrades shall be tested as outlined below. Test results shall be submitted to the City Engineer a minimum of one week prior to adding engineered fill.
 - 1.1. Basins > 50 SF require a minimum of two (2) double ring infiltration test within each basin at the subgrade soils (below the engineered soil planting medium, or other substrate layers) to confirm to the infiltrative capacity of the subgrade soils. These tests shall completed in accordance with ASTM D3385.
 - 1.2. Basins < 50 SF require a minimum of one (1) double ring infiltration test within each basin at the subgrade soils (below the engineered soil planting medium, or other substrate layers) to confirm to the infiltrative capacity of the subgrade soils. These tests shall completed in accordance with ASTM D3385.
 - 1.3. For lined bioretention basins: no double ring infiltrometer test is required at native subgrade.
2. Testing requirements for Engineered Fill: All engineered fill shall be tested as outlined below. Test results shall be submitted to the City Engineer a minimum of one week prior to adding engineered fill.
 - 2.1. For basins > 50 SF: Complete a minimum of two (2) double ring infiltrometer tests within the basin at the finished grade of the engineered soil layer to confirm the infiltrative capacity of the engineered soils or the finished grade of infiltration basin if no engineered soil is being used. Or alternatively, visually inspect and record observations of the constructed infiltration system within 24 hours of a rain event of 0.5 inches or greater. These tests shall be completed in accordance with ASTM D3385.
 - 2.2. For basins < 50 SF: Complete a minimum of one (1) double ring infiltrometer test within each pond basin at the finished grade of the engineered soil layer to confirm the infiltrative capacity of the engineered soils or at the finished grade of the infiltration basin if no engineered soil is being used.
 - 2.3. For lined basins: Complete one (1) double ring infiltrometer test within each basin at the finished grade of the engineered soil layer to confirm the infiltrative capacity of the engineered soils or at the finished grade of the infiltration basin if no engineered soil is being used.
3. Approval of Subgrade: All approvals shall be obtained prior to placing engineered soils. Subgrade soils shall have the infiltrative capacity equal to or greater than the rates assumed in the stormwater management plan/report submitted to and approved by City Engineering.
 - 3.1. If all double ring infiltrometer tests results meet/exceed design rates, the subgrade is approved.
 - 3.2. If all double ring infiltrometer tests results do not meet/exceed design rates, the City Engineer has discretion over additional measures required for approval that may include, but are not limited to the following: The Developer shall complete additional double ring infiltrometer tests, or
 - 3.3. The Developer shall propose a method to improve the infiltration rates of the subgrade soils to meet the design expectations, or
 - 3.4. The Developer shall revise the approved stormwater management report that continues to meet the ordinance but reflects actual condition. The revised report must be stamped by a Professional Engineer and approved by the City Engineer.
4. Approval of Engineered Soil. All approvals shall be obtained prior to seeding/planting. Subgrade soils shall have infiltrative capacity equal to or higher than the rates assumed in the stormwater management plan/report submitted to and approved by City Engineering. Alternatively, basins shall be visually inspected and recorded to show no standing water is present in the basin within 24 hours of a rain event of 0.5 inches or greater. I
 - 4.1. f all double ring infiltrometer test results meet/exceed design rates or meet the visual inspection, the subgrade is approved.
 - 4.2. If all double ring infiltrometer test results do not meet/exceed design rates or visual inspection, the City Engineer has discretion over additional measures required for approval that may include, but are not limited to the following:
 - 4.2.1. The Developer shall complete additional double ring infiltrometer tests, or
 - 4.2.2. The Developer shall propose a method to improve the infiltration rates of the engineered soils layer to meet the design expectations.

Professional Ecosystem Establishment on Public Stormwater Outlots and Other Public Green Infrastructure

1. The Developer shall be required to hire a City of Madison prequalified ecological restoration contractor to seed and/or plant and perform professional ecosystem establishment for two consecutive growing seasons. Such a contractor is prequalified under Category 246 Ecological Restoration of the Prequalified Contractors Qualified for Approval to Bid on Public Works Contracts or Work on Public Works Contracts and/or Private Developments.
2. The Developer shall be responsible for removing existing vegetation as recommended by the City Engineer to prepare the site for native plant seeding and professional ecosystem establishment.
3. After seeding and/or planting, the Developer's ecological restoration contractor shall maintain the newly seeded/planted area with the goal of native seed establishment from the initial native plant seeding/planting for a minimum of two consecutive growing seasons. For all native seeding/planting done after October 14th, the first growing season begins in spring of the following year. For all native planting, planting should be performed at the dates directed by the City Engineer. Additional seeding may be required pending planting dates. The growing season is defined as from the last frost in spring to the first frost in fall.
4. The Developer shall be responsible for seeding/planting with a native species mix that shall be approved by the City of Madison. This mix shall be referenced on the plan sheet provided and sealed by the Developer's Engineer and approved by City Engineering and included in the professional ecosystem establishment plan. Refer to City of Madison Standard Specifications Article 207.2(a) for lists of approved seed mixes by site. Seeding shall be performed as specified in Article 207 of the City of Madison Standard Specifications.
5. Seeding shall be required under erosion control matting, except for overseeding and as required to supplement the non-stratified seed mix.
6. Seeding that occurs between June 15th and October 14th shall require non stratified seed mix, and the entire seeded area shall be overseeded with native seed mix specified in the ecological restoration contract after October 14th. The Developer shall be responsible for submitting the seed mix labels for approval by the City of Madison prior to installation.
7. The Developer shall notify the City Engineer a minimum of five (5) working days prior to seeding. The seeding date will determine the start of the first year growing season.
8. The Developer shall be responsible for all repairs, erosion, etc. during professional ecosystem establishment.
9. Requirements of Professional Ecosystem Establishment Plan:
 - i. The means and methods for removal and any types of vegetation shall be included in the professional ecosystem establishment plan.
 - ii. Overseeding as part of establishment and disturbance shall be included in the contract.
 - iii. All proposed native seed mixes.
 - iv. Acknowledgement that all pesticide applications shall be tracked and in compliance with the City of Madison Policy Regarding Pest Management and submitted annually to the City by December 31st. <https://www.cityofmadison.com/parks/about/documents/pesticidepolicy2004.pdf>
 - v. A schedule of ecosystem establishment activities, including site preparation, seeding, and management.
 - vi. Management means and methods during the first and second growing season for obtaining ecological restoration.
 - vii. An inventory and assessment of existing trees and vegetation that will not be impacted by grading.
10. Ecological Restoration Guarantee Deposit: The Developer shall provide the City with a deposit to guarantee the restoration and two-year maintenance of the ecosystem per plans approved by the City Engineer.
11. The deposit shall be a cash deposit in an amount determined by the City Engineer.



DATE: 07-24-2026
REVISED:

DRAWN BY: TAM

FN: 25-05-141

Sheet Number:

GI-6

Seed Installation Location and Rates:

1. Prairie Seed Mix, Table 1. Prairie Seed Mix, shall be installed along the pond and basin slopes, and over the remainder of the outlot at a rate of 14 lb/acre and approximately 75 seeds/ft². Refer to seed mix .
2. Wet Pond Perimeter Seed Mix, Table 2. Wet Pond Perimeter Seed Mix, shall be installed in a band covering the safety shelf and 2 ft beyond the waters edge, at a rate of 5 lb/acre and approximately 101 seeds/ft².
3. Infiltration Basin Bottom Seed Mix, Table 3. Infiltration Basin Bottom Seed Mix, shall be installed in the bottom of the infiltration basin at a rate of 8 lb/acre and approximately 91 seeds/ft².

Table 1. Prairie Seed Mix

Nomenclature		Seed Metrics		
Scientific Name	Common Name	Oz/Acre	Seeds/ft²	% Mix by No. Seeds
Grasses, Sedges, Rushes				
<i>Andropogon gerardii</i>	Big Bluestem	4.0	0.9	1.23
<i>Bouteloua curtipendula</i>	Side oats Grama	65.0	9.0	12.03
<i>Bromus kalmii</i>	Prairie Brome	6.0	1.1	1.48
<i>Carex bicknellii</i>	Bicknell's Oval Sedge	1.0	0.4	0.52
<i>Carex brevior</i>	Fescue Sedge	1.5	1.0	1.34
<i>Carex molesta</i>	Field Oval Sedge	2.0	1.1	1.54
<i>Elymus canadensis</i>	Canada Wild Rye	40.0	4.8	6.42
<i>Elymus virginicus</i>	Virginia Wild Rye	18.0	1.7	2.33
<i>Panicum virgatum</i>	Switch Grass	2.5	0.8	1.08
<i>Schizachyrium scoparium</i>	Little Bluestem	36.0	12.4	16.66
<i>Sorghastrum nutans</i>	Indian Grass	6.0	1.7	2.22
<i>Sporobolus heterolepis</i>	Prairie Dropseed	1.0	0.4	0.49
Forbs				
<i>Achillea millefolium</i>	Yarrow	1.0	4.1	5.49
<i>Agastache foeniculum</i>	Blue Giant Hyssop	1.0	2.1	2.78
<i>Allium cernuum</i>	Nodding Onion	1.0	0.2	0.23
<i>Amorpha canescens</i>	Lead Plant	1.0	0.4	0.49
<i>Asclepias syriaca</i>	Common Milkweed	1.0	0.1	0.12
<i>Asclepias tuberosa</i>	Butterfly Weed	2.0	0.2	0.27
<i>Astragalus canadensis</i>	Canadian Milk Vetch	1.0	0.4	0.52
<i>Baptisia alba</i>	White Wild Indigo	1.0	<0.1	0.05
<i>Chamaecrista fasciculata</i>	Partridge Pea	8.0	0.5	0.67
<i>Coreopsis palmata</i>	Prairie Coreopsis	1.0	0.2	0.31
<i>Dalea candida</i>	White Prairie Clover	1.0	0.4	0.59
<i>Dalea purpurea</i>	Purple Prairie Clover	4.0	1.4	1.85
<i>Drymocallis arguta</i>	Prairie Cinquefoil	0.5	2.6	3.55
<i>Echinacea pallida</i>	Pale Purple Coneflower	2.0	0.2	0.32
<i>Echinacea purpurea</i>	Purple Coneflower	2.0	0.3	0.41
<i>Eryngium yuccifolium</i>	Rattlesnake Master	2.0	0.3	0.46
<i>Euthamia graminifolia</i>	Grass-leaved Goldenrod	0.5	4.0	5.40
<i>Helopsis helianthoides</i>	False Sunflower	2.5	0.4	0.49
<i>Lespedeza capitata</i>	Round-headed Bush Clover	1.0	0.2	0.25
<i>Liatris aspera</i>	Rough Blazing Star	1.0	0.4	0.49
<i>Monarda fistulosa</i>	Wild Bergamot	0.5	0.8	1.08
<i>Oligoneuron rigidum</i>	Stiff Goldenrod	2.0	1.9	2.53
<i>Penstemon digitalis</i>	Foxglove Beardtongue	0.5	1.5	2.01
<i>Pycnanthemum virginianum</i>	Mountain Mint	0.5	2.5	3.39
<i>Ratibida pinnata</i>	Yellow Coneflower	2.0	1.4	1.85
<i>Rudbeckia hirta</i>	Black-eyed Susan	3.0	6.3	8.51
<i>Rudbeckia subtomentosa</i>	Sweet Black-eyed Susan	0.5	0.5	0.66
<i>Rudbeckia triloba</i>	Brown-eyed Susan	0.2	0.2	0.21
<i>Silphium laciniatum</i>	Compass Plant	2.0	<0.1	0.04
<i>Solidago speciosa</i>	Showy Goldenrod	0.5	1.1	1.47
<i>Symphotrichum laeve</i>	Smooth Blue Aster	1.5	1.9	2.54
<i>Symphotrichum novae-angliae</i>	New England Aster	0.1	0.2	0.20
<i>Tradescantia ohiensis</i>	Ohio Spiderwort	2.0	0.4	0.49
<i>Verbena stricta</i>	Hoary Vervain	2.0	1.3	1.73
<i>Zizia aurea</i>	Golden Alexanders	3.5	0.9	1.19

Diversity and Density Metrics

Plant Type	Species Richness	Total Oz/Acre	Total Seeds/ft2	% Mix by No. Seeds
Grasses and Sedges	12	183	35.2	47.36
Forbs	35	55.3	39.2	52.64
Totals	47	238.3	74.4	100

Table 2. Wet Pond Perimeter Seed Mix

Nomenclature		Seed Metrics		
Scientific Name	Common Name	Oz/Acre	Seeds/ft²	% Mix by No. Seeds
Grasses, Sedges, Rushes				
<i>Calamagrostis canadensis</i>	Blue Joint Grass	1.0	6.4	6.36
<i>Carex comosa</i>	Bottlebrush Sedge	2.0	1.4	1.36
<i>Carex crinita</i>	Fringed Sedge	2.0	1.1	1.04
<i>Carex hystericina</i>	Porcupine Sedge	2.0	1.4	1.36
<i>Carex scoparia</i>	Lance-fruited Oval Sedge	2.0	3.9	3.82
<i>Carex stipata</i>	Common Fox Sedge	3.0	2.3	2.32
<i>Carex vulpinoidea</i>	Brown Fox Sedge	3.0	6.9	6.81
<i>Elymus virginicus</i>	Virginia Wild Rye	32.0	3.1	3.05
<i>Glyceria grandis</i>	American Manna Grass	1.0	1.6	1.59
<i>Glyceria striata</i>	Fowl Manna Grass	1.0	2.1	2.04
<i>Juncus effusus</i>	Common Rush	0.5	11.5	11.36
<i>Schoenoplectus tabernaemontani</i>	Softstem Bulrush	3.5	2.5	2.46
<i>Scirpus atrovirens</i>	Dark-green Bulrush	0.7	7.4	7.31
<i>Scirpus cyperinus</i>	Wool Grass	0.2	7.8	7.72
<i>Spartina pectinata</i>	Prairie Cord Grass	4.0	0.6	0.60
Forbs				
<i>Acorus americanus</i>	Sweet Flag	2.0	0.3	0.30
<i>Alisma subcordatum</i>	American Water Plantain	2.0	2.8	2.73
<i>Asclepias incarnata</i>	Swamp Milkweed	2.0	0.2	0.22
<i>Bidens cernua</i>	Nodding Bur Marigold	1.5	0.7	0.72
<i>Eupatorium perfoliatum</i>	Boneset	1.0	3.7	3.63
<i>Eutrochium maculatum</i>	Joe Pye Weed	1.0	2.2	2.16
<i>Helenium autumnale</i>	Sneezeweed	1.0	3	2.95
<i>Iris virginica</i>	Southern Blue Flag	2.0	<0.1	0.05
<i>Lobelia cardinalis</i>	Cardinal Flower	0.2	1.8	1.82
<i>Lobelia siphilitica</i>	Great Blue Lobelia	0.3	3.4	3.41
<i>Mimulus ringens</i>	Monkey Flower	0.2	10.6	10.45
<i>Sagittaria latifolia</i>	Common Arrowhead	3.0	4.2	4.16
<i>Sparganium eurycarpum</i>	Broad-fruit Bur Reed	3.0	<0.1	0.03
<i>Symphotrichum puniceum</i>	Swamp Aster	1.0	1.8	1.82
<i>Verbena hastata</i>	Blue Vervain	3.0	6.4	6.34

Diversity and Density Metrics

Plant Type	Species Richness	Total Oz/Acre	Total Seeds/ft²	% Mix by No. Seeds
Grasses, Sedges, Rushes	15	57.9	58.9	59.23
Forbs	15	23.2	41.2	40.77
Totals	30	81.1	101.1	100

Table 3. Infiltration Basin Bottom Seed Mix

Nomenclature		Seed Metrics		
Scientific Name	Common Name	Oz/Acre	Seeds/ft²	% Mix by No. Seeds
Grasses, Sedges, Rushes				
<i>Andropogon gerardii</i>	Big Bluestem	5.0	1.1	1.27
<i>Bromus ciliatus</i>	Fringed Brome	2.0	0.5	0.51
<i>Bromus kalmii</i>	Prairie Brome	4.0	0.7	0.81
<i>Calamagrostis canadensis</i>	Blue Joint Grass	0.5	3.2	3.55
<i>Carex bebbii</i>	Bebb's Oval Sedge	2.0	1.6	1.72
<i>Carex brevior</i>	Fescue Sedge	2.0	1.3	1.47
<i>Carex molesta</i>	Field Oval Sedge	2.0	1.1	1.27
<i>Carex vulpinoidea</i>	Brown Fox Sedge	3.0	6.9	7.60
<i>Elymus canadensis</i>	Canada Wild Rye	24.0	2.9	3.16
<i>Elymus virginicus</i>	Virginia Wild Rye	24.0	2.3	2.56
<i>Glyceria striata</i>	Fowl Manna Grass	1.0	2.1	2.28
<i>Juncus dudleyi</i>	Dudley's Rush	0.2	14.7	16.22
<i>Panicum virgatum</i>	Switch Grass	2.5	0.8	0.89
<i>Schizachyrium scoparium</i>	Little Bluestem	8.0	2.8	3.04
<i>Scirpus atrovirens</i>	Dark-green Bulrush	0.5	5.3	5.83
<i>Sorghastrum nutans</i>	Indian Grass	5.0	1.4	1.52
<i>Spartina pectinata</i>	Prairie Cord Grass	4.0	0.6	0.67
Forbs				
<i>Asclepias incarnata</i>	Swamp Milkweed	2.0	0.2	0.24
<i>Asclepias syriaca</i>	Common Milkweed	2.0	0.2	0.20
<i>Astragalus canadensis</i>	Canadian Milk Vetch	1.0	0.4	0.43
<i>Chamaecrista fasciculata</i>	Partridge Pea	4.0	0.2	0.27
<i>Eupatorium perfoliatum</i>	Boneset	0.5	1.8	2.03
<i>Euthamia graminifolia</i>	Grass-leaved Goldenrod	0.5	4.0	4.44
<i>Eutrochium maculatum</i>	Joe Pye Weed	0.5	1.1	1.20
<i>Helenium autumnale</i>	Sneezeweed	0.5	1.5	1.65
<i>Helopsis helianthoides</i>	False Sunflower	2.5	0.4	0.40
<i>Hypericum ascyron ssp. pyramidatum</i>	Great St. John's Wort	0.5	2.2	2.41
<i>Liatris pycnostachya</i>	Prairie Blazing Star	1.0	0.3	0.28
<i>Lobelia siphilitica</i>	Great Blue Lobelia	0.5	5.7	6.34
<i>Monarda fistulosa</i>	Wild Bergamot	1.5	2.4	2.66
<i>Oligoneuron riddellii</i>	Riddell's Goldenrod	0.5	1.1	1.18
<i>Oligoneuron rigidum</i>	Stiff Goldenrod	2.0	1.9	2.08
<i>Parthenium integrifolium</i>	Wild Quinine	1.0	0.2	0.18
<i>Physostegia virginiana</i>	Obedient Plant	1.0	0.3	0.28
<i>Pycnanthemum virginianum</i>	Mountain Mint	0.5	2.5	2.79
<i>Ratibida pinnata</i>	Yellow Coneflower	2.0	1.4	1.52
<i>Rudbeckia hirta</i>	Black-eyed Susan	3.0	6.3	7.00
<i>Rudbeckia subtomentosa</i>	Sweet Black-eyed Susan	0.5	0.5	0.54
<i>Rudbeckia triloba</i>	Brown-eyed Susan	0.5	0.4	0.43
<i>Silphium integrifolium</i>	Rosinweed	2.0	0.1	0.06
<i>Symphotrichum ericoides</i>	Heath Aster	0.1	0.5	0.51
<i>Symphotrichum laeve</i>	Smooth Blue Aster	0.5	0.6	0.70
<i>Symphotrichum novae-angliae</i>	New England Aster	1.0	1.5	1.67
<i>Thalictrum dasycarpum</i>	Purple Meadow Rue	1.0	0.3	0.28
<i>Tradescantia ohiensis</i>	Ohio Spiderwort	1.0	0.2	0.20
<i>Verbena hastata</i>	Blue Vervain	1.0	2.1	2.36
<i>Vernonia fasciculata</i>	Common Ironweed	1.0	0.6	0.61
<i>Zizia aurea</i>	Golden Alexanders	2.5	0.6	0.70

Diversity and Density Metrics

Plant Type	Species Richness	Total Oz/Acre	Total Seeds/ft²	% Mix by No. Seeds
Grasses, Sedges, Rushes	17	89.7	49.2	54.37
Forbs	31	38.1	41.3	45.63
Totals	48	127.8	90.6	100

Table 4. Shortgrass Graminoid Seed Mix

Nomenclature		Seed Metrics		
Scientific Name	Common Name	Oz/Acre	Seeds/ft²	% Mix by No. Seeds
Grasses, Sedges, Rushes				
<i>Bouteloua curtipendula</i>	Side oats Grama	80.0	11.0	14.63
<i>Juncus tenuis</i>	Path Rush	2.0	45.9	60.98
<i>Koeleria macrantha</i>	June Grass	4.0	18.4	24.39

Diversity and Density Metrics

Plant Type	Species Richness	Total Oz/Acre	Total Seeds/ft²	% Mix by No. Seeds
Grasses and Sedges	3	86.0	75.3	100.0
Forbs	0	0.0	0.0	0.0
Totals	3	86.0	75.3	100

DETENTION AND INFILTRATION BASIN PLANTING PLAN

REILAND GROVE - PHASE 1

CITY OF MADISON, DANE COUNTY, WISCONSIN



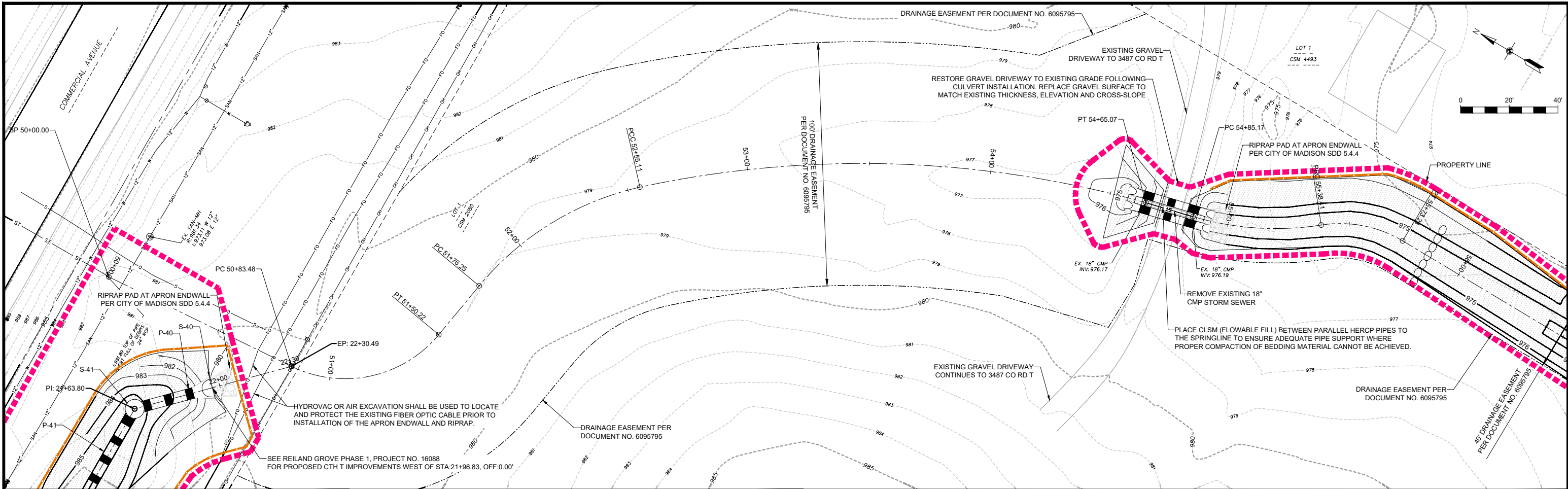
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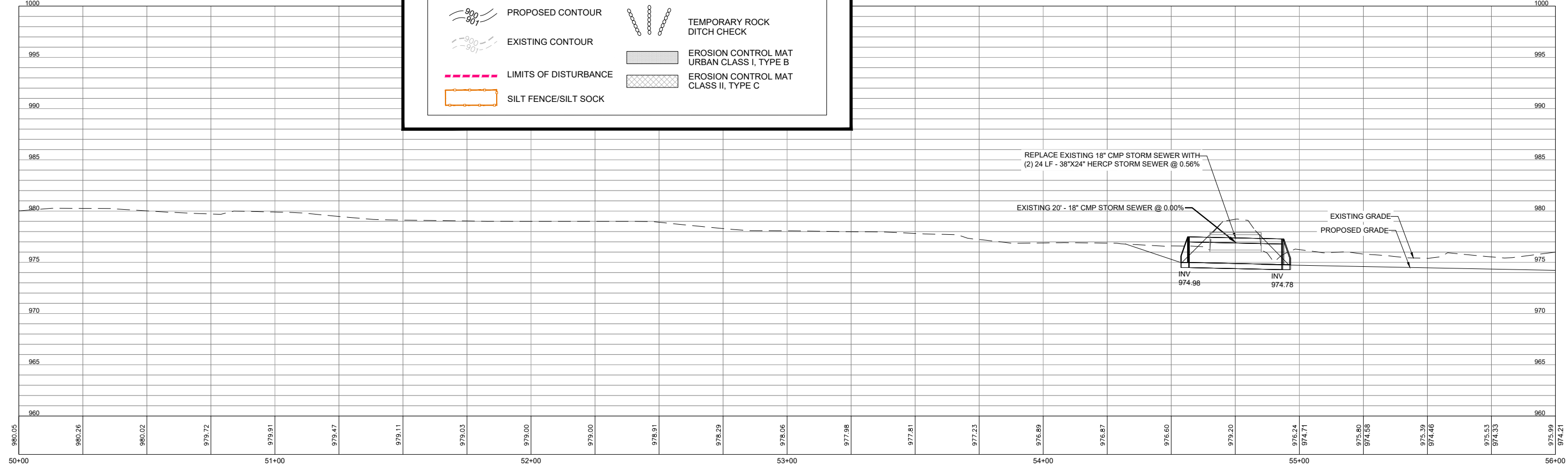
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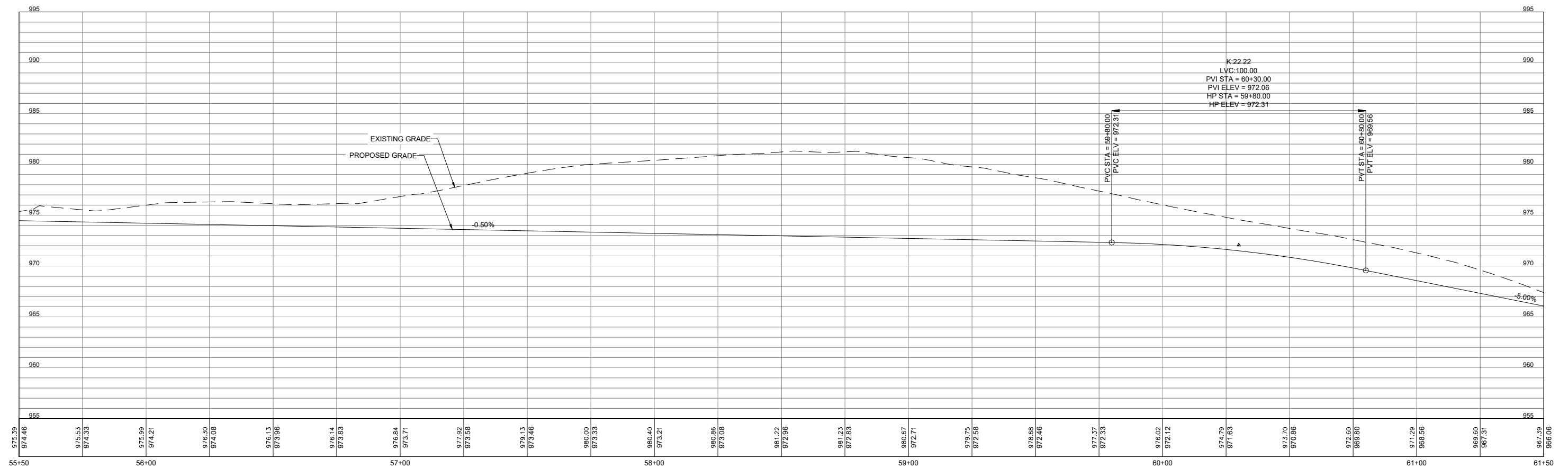
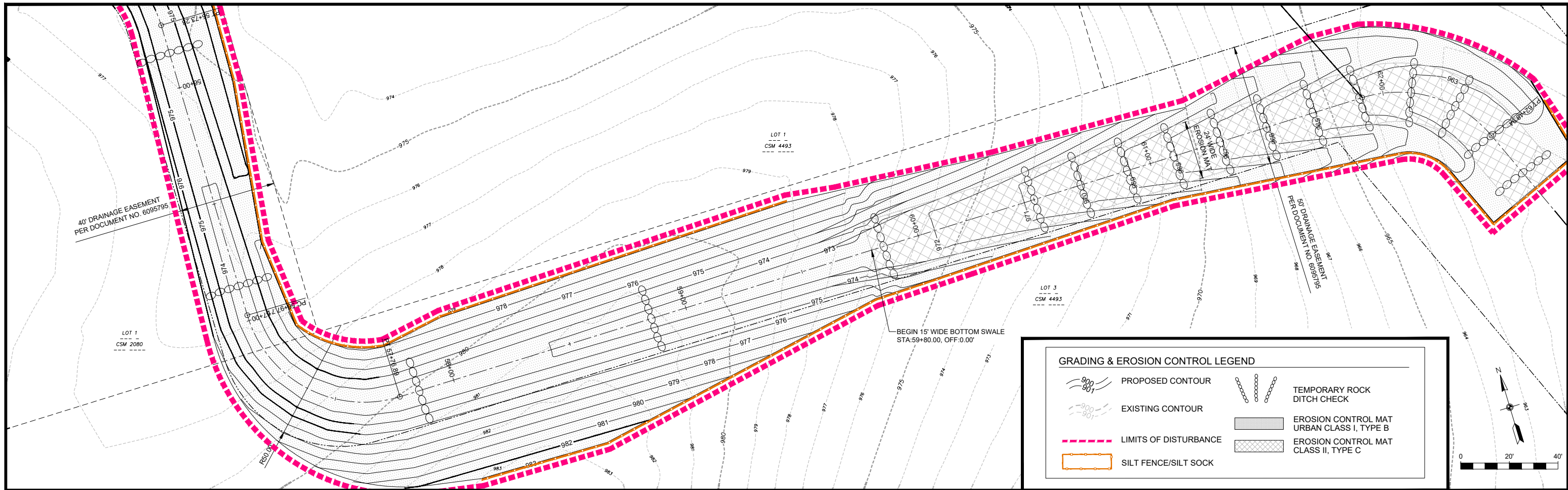
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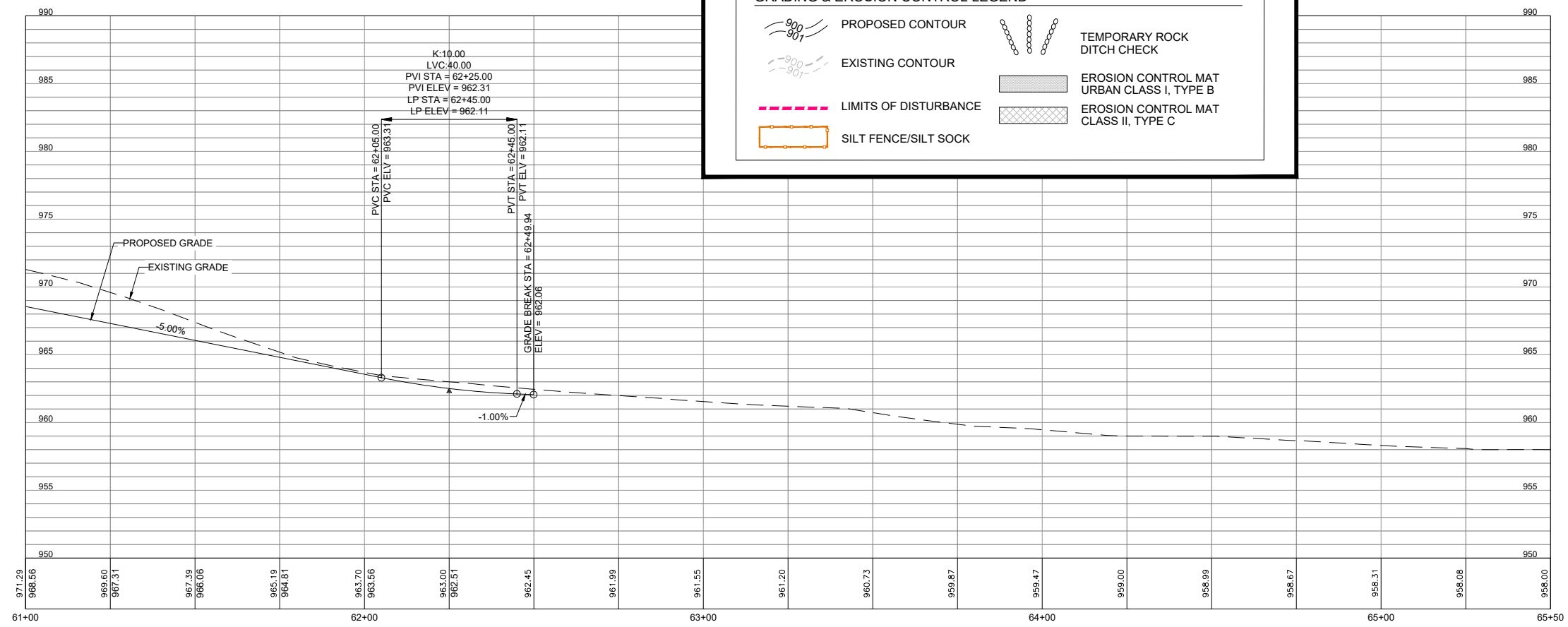
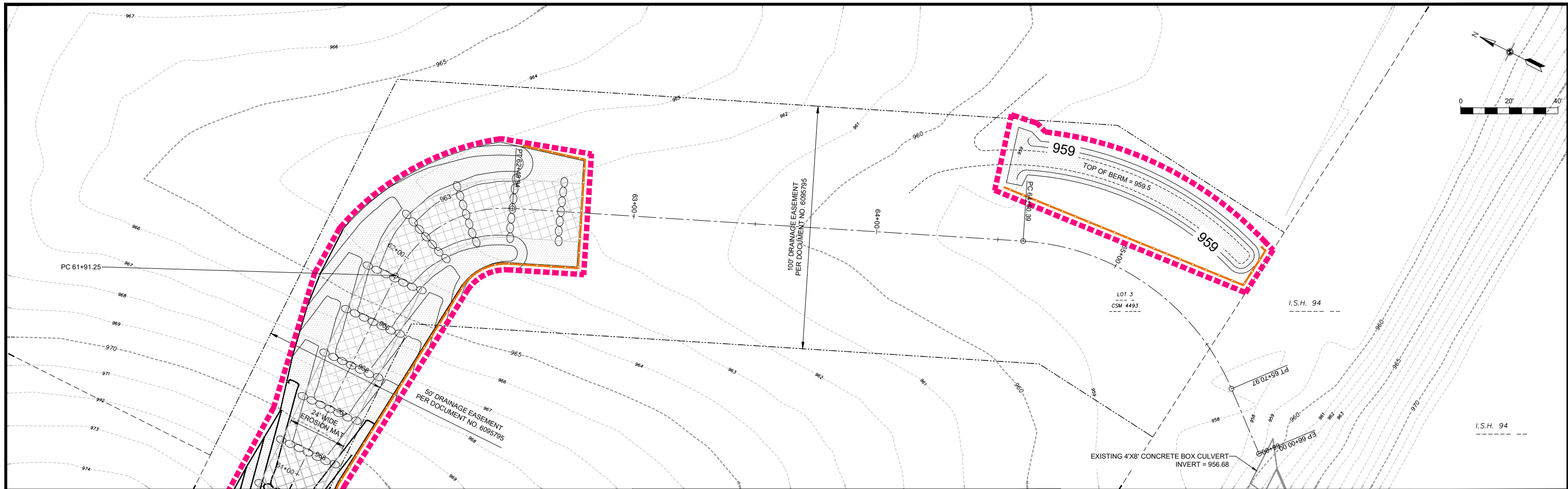


GRADING & EROSION CONTROL LEGEND

- PROPOSED CONTOUR
- EXISTING CONTOUR
- LIMITS OF DISTURBANCE
- SILT FENCE/SILT SOCK
- TEMPORARY ROCK DITCH CHECK
- EROSION CONTROL MAT URBAN CLASS I, TYPE B
- EROSION CONTROL MAT CLASS II, TYPE C







GRADING & EROSION CONTROL LEGEND			
	PROPOSED CONTOUR		TEMPORARY ROCK DITCH CHECK
	EXISTING CONTOUR		EROSION CONTROL MAT URBAN CLASS I, TYPE B
	LIMITS OF DISTURBANCE		EROSION CONTROL MAT CLASS II, TYPE C
	SILT FENCE/SILT SOCK		