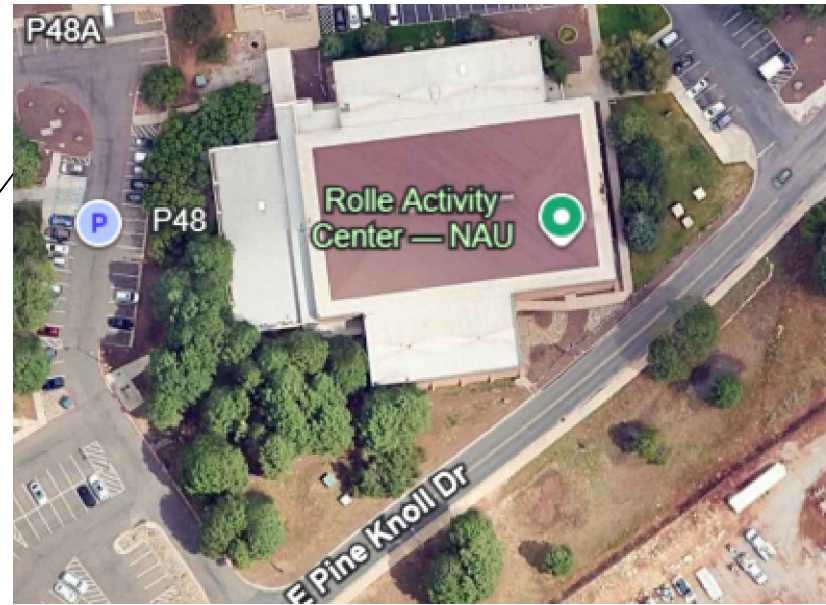
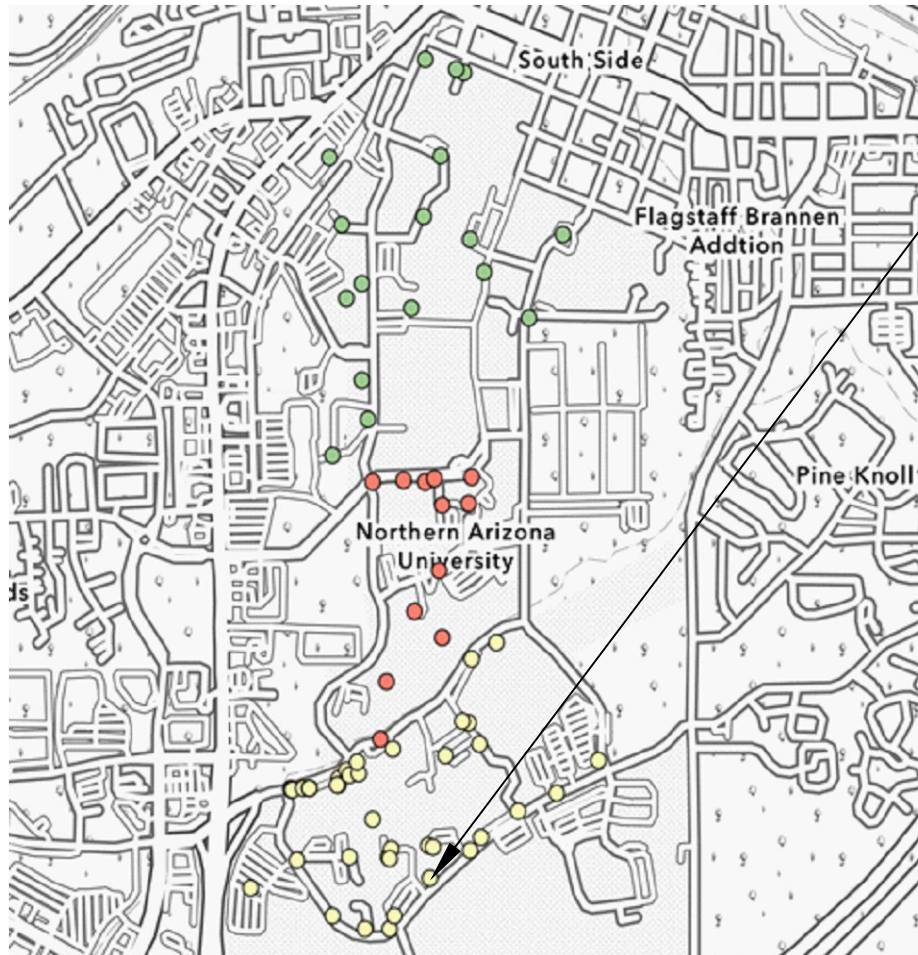


NAU Stormwater Quality and Quantity Mitigation



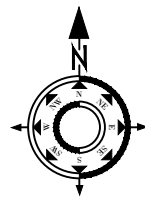
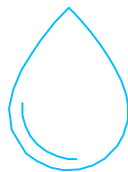
Index of Sheets

- 01 Cover & Index Sheet
- 02 General Notes
- 03 Topographic Map
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- 05 Proposed Cross Sections
- 06 Design Details
- 07 Design Recommendations

Project Staff

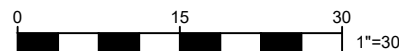
- Ethan Board
- Faith Fortin
- Chayton Powell
- Araceli Romero

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Cover Sheet

05/05/2026



REVISIONS

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01		02/10/2026	Capstone 30% Submittal
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Contact: RainRoots Consulting
 Phone: (480)-980-2831
 Email: fgf9@nau.edu

CITY OF FLAGSTAFF GENERAL NOTES

The latest version of Coconino County's General Notes can be found on the Coconino County Public Works website. The County may periodically update these notes. At the time of the publication of these Standards, they were as follows:

1. Approval of these plans by the County Engineer is for two years after the date of approval. If construction work is not started within two years or has been discontinued for any reason for longer than two years, the plans shall be resubmitted for review and re-approval by the Arizona Technical Board of Registration.
2. The County's plan review does not extend to material quantities shown on the plans.
3. An encroachment permit issued by the Community Development Department is required for all work in County rights-of-way or easements.
4. The County shall be notified forty-eight (48) hours before commencing each construction phase to schedule the County Inspector.
5. For construction purposes, the following precedence of standards will prevail: Current Coconino County Public Works Engineering Department Standards; current MAG Standards, IBC, project-specific plans and specifications, ADOT Standards — or other specifications approved by the County Engineer and with generally accepted good construction practice. All work and materials that do not conform to the standards and specifications are subject to removal and replacement at the Contractor's expense.
6. Any work performed without the knowledge and approval of the County Engineer is subject to removal and replacement at the Contractor's expense.
7. The County Engineer may suspend the work by written notice when, in their judgment, progress is unsatisfactory, work being done is unauthorized or defective, weather conditions are unsuitable, or there is danger to the public health or safety.
8. The County Engineer may order all materials used in the work to be tested according to MAG or ADOT Material Testing Requirements, American Association of State Highway and Transportation Officials (AASHTO), and the American Society for Testing and Materials (ASTM) Standards. At their expense, the Contractor shall hire a qualified testing laboratory to perform Quality Control (QC) during all construction phases, as stated in Coconino County Standards or as directed in the Special Provisions.
9. The Local Fire Department, the County Engineer, and other emergency responders must approve obstruction of access or water system shutdown, and traffic control plans must be submitted.
10. The Contractor shall be responsible for maintaining the streets and partially completed portions of the work until final acceptance of the work. Any roads requiring closure for the construction activity shall be reopened within a reasonable time or upon order of the County Engineer. The County Engineer shall regulate and control this traffic.
11. Approval of a portion of the work in progress does not guarantee its final acceptance. Testing and evaluation may continue until written final acceptance of a complete workable unit. Any defects that appear in the work within one year from the date of acceptance and are due to improper workmanship or inferior materials supplied shall be corrected by or at the expense of the owner/developer or the Contractor.
12. Completed public improvements will only be accepted once defective or unauthorized work is removed and the final clean-up is complete.

13. Location of underground utilities before work is begun is to be accomplished by ARS 40-360.22.
14. If work is done on private property abuts a project constructed under these standards, the Contractor will provide the County with written authorization from the property owner.
15. The establishment and use of temporary construction yards require written authorization from the County Engineer.
16. County approval of these plans is for concept only. The permittee and/or his consultants and employees are responsible for all liability resulting from errors or omissions. Coconino County does not verify or guarantee the accuracy of the measurements, calculations, ownership, or conclusions presented in these plans.
17. All construction staking shall be the responsibility of the contractor/developer and performed under the direct supervision of a registered land surveyor or civil engineer.
18. All traffic sign sheeting shall be Type VIII as designed by ASTM D4956-07e1 Standard Specifications for Retroreflective Sheeting for Traffic Control, unless specified otherwise on the construction plans.
19. When the construction plans specify graffiti control on bridges or other structures, the contractor shall seal the structure first using Monochem Aquaseal ME 12 and then apply Monochem Permeshield, Sacrificial Graffiti Control System (or approved equal).
20. All areas disturbed during construction shall be stabilized and reseeded in accordance with Chapter 13-17. In the event that the construction activity disturbs more than one (1) acre, a stormwater pollution prevention plan (SWPPP) shall be prepared in order to obtain a construction general permit from ADEQ.
21. All survey monuments within or around the construction area shall be protected in place. Any monuments that are disturbed or displaced by construction shall be reset by the RLS at the contractor's expense in accordance with City of Flagstaff Engineering Standards Section 13-03-005-0004 and A.R.S. Section 33-103.
22. The use of trench plating shall be prohibited from November 1st to April 1st unless specifically allowed by the City Engineer. (Ord. 2017-22, Rep&ReEn, 07/05/2017; Ord. 2024-13, Amended, 04/16/2024 (Res. 2024-15))

GRADING AND DRAINAGE STATEMENT

Adequate drainage, erosion and sediment control measures, best management practices, and/or other stormwater management facilities shall be provided and maintained at all times during construction. Damages to adjacent property and/or the construction site caused by the contractor's or property owner's failure to provide and maintain adequate drainage and erosion/sediment control for the construction area shall be the responsibility of the contractor and/or property owner.

CITY OF FLAGSTAFF PAVING NOTES

- A. Exact point of matching termination and overlay, if necessary, shall be determined in the field by the City Engineer or his authorized representative. When a longitudinal joint associated with a trench path, pavement matchup or other occurs on a street that includes a bike lane, the joint shall be located outside the bike lane.
- B. No job will be considered complete until:
 1. All curbs, pavements, sidewalks, catch basins, storm drains, and manholes have been cleaned of all dirt and debris;
 2. Survey monuments are installed and stamped; and
 3. All frames, covers, and valve boxes are adjusted to grade.

- C. No paving construction shall be started until all utility lines are completed and approved under proposed paved areas.
 - D. Base course will not be placed until subgrade has been approved by the City Engineer or his authorized representative.
 - E. The location of all water valves, fire hydrants, and manholes must at all times during construction be referenced and made accessible to the City.
 - F. Utility facilities in conflict with this work will be relocated by the permittee or the utility owner. This activity shall be coordinated with the owner of the utility to prevent any unnecessary interruption of service to existing customers.
 - G. Existing street name signs, traffic signs and devices associated with the project shall be maintained during construction and relocated by the contractor as shown on the approved plans.
 - I. Any changes or additions to pavement markings caused by pavement overlay, chip seal, or installation of underground facilities shall be shown on the approved plans.
 - J. On projects where the contractor causes excessive damage to an existing paved street or there are multiple street cuts (maximum of four (4) in five hundred (500) feet) an asphalt overlay shall be required.
 - K. A prime coat is not required unless so specified in the soils and pavement report and/or shown on the plans.
 - L. All curb and gutter, sidewalk, driveways, and sidewalk ramps shall be constructed on a minimum three (3) inches of aggregate base course (ABC). The ABC shall be constructed in accordance with MAG Section 310, and shall be compacted to ninety-five percent (95%) relative density. All precast structures such as manhole bases, catch basins, and box culverts shall be constructed on a minimum of three (3) inches of ABC.
 - M. Permanent Pavement Markings.
 1. Longitudinal pavement markings shall be installed in accordance with Section 13-16-006-0001.
 2. Transverse pavement markings such as stop bars, crosswalks, arrows, and legends shall be installed in accordance with Section 13-16-006-0002.
 - M. Temporary Pavement Markings.
 1. Temporary pavement markings, when approved, shall be installed in accordance with Sections 13-16-006-0001 and 13-16-006-0002.
- NOTES:
1. The use of temporary markings is strongly discouraged and may only be used with prior approval. When it is used, the contractor must be available to restripe as needed until the permanent markings can be installed.
 2. When it is impracticable for the contractor to provide permanent markings, the City Public Works Department may install the markings on behalf of the contract provided the fee for the work is agreed upon and paid for in advance.
- N. The maximum thickness of a single lift of pavement shall be four (4) inches. (Ord. 2017-22, Rep&ReEn, 07/05/2017)

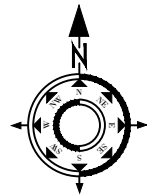
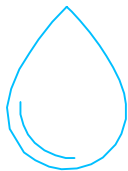
CITY OF FLAGSTAFF LANDSCAPING NOTES

Adjacent site improvements, pavement construction, irrigation installation and finish grading shall be completed prior to planting work. Do not plant when conditions are not suitable for digging, mixing, raking and/or grading. Planting needs to occur during the months that irrigation systems are in operation. Therefore, planting may occur between April 1st and September 30th.

- A. Tree and Shrub Installation.

1. Soil excavated from the planting pit shall be typically considered acceptable as backfill material for planting.
2. All containers shall be removed prior to plant installation in a manner that does not disturb the potted soil or root ball.
3. Set the root ball on six (6) inches of firm planting soil, plumb and in the center of the pit with the root ball crown slightly above the same elevation as adjacent finished landscape grades. Remove any wire, twine, burlap, or other material from the upper one-third (1/3) of the root ball of balled and burlapped Wire baskets and synthetic burlap shall be completely removed after the root ball has been placed in its final location.
4. Once plant is set, place backfill material around base and sides of root ball and work each layer to settle backfill and eliminate voids. When backfilling is two-thirds (2/3) complete, water thoroughly. Place the remainder of the backfill and repeat watering until no more is absorbed. Place the final layer of backfill and water.
5. All deciduous trees shall be wrapped from the ground line up to and including the first primary crotch formed by the first major branch. Wrapping shall be done after the plant has been installed.
6. Two (2) to three (3) inches of specified mulch shall be placed in the area disturbed by excavation of the planting well.
 - B. Ground Cover Installation.
 1. Prior to planting activities, completely remove existing weeds, including roots. Immediately prior to installation, cultivate ground cover areas to a depth of six (6) inches and grade smoothly and uniformly. Plant ground cover so the root crown is at or slightly above the bed's finish grade. After planting of ground cover and prior to mulching, spread pre-emergent weed control over planting bed soil surface in accordance with manufacturer's written directions. Install the specified mulch to a depth of two (2) inches over the entire ground cover bed.
 - C. Landscape Completion.
 1. Prune dead or damaged branches, making all cuts at branch collar. Maintain the natural habit, shape and specified size. Remove all tags, labels, and other material. (Ord. 2017-22, Rep&ReEn, 07/05/2017)

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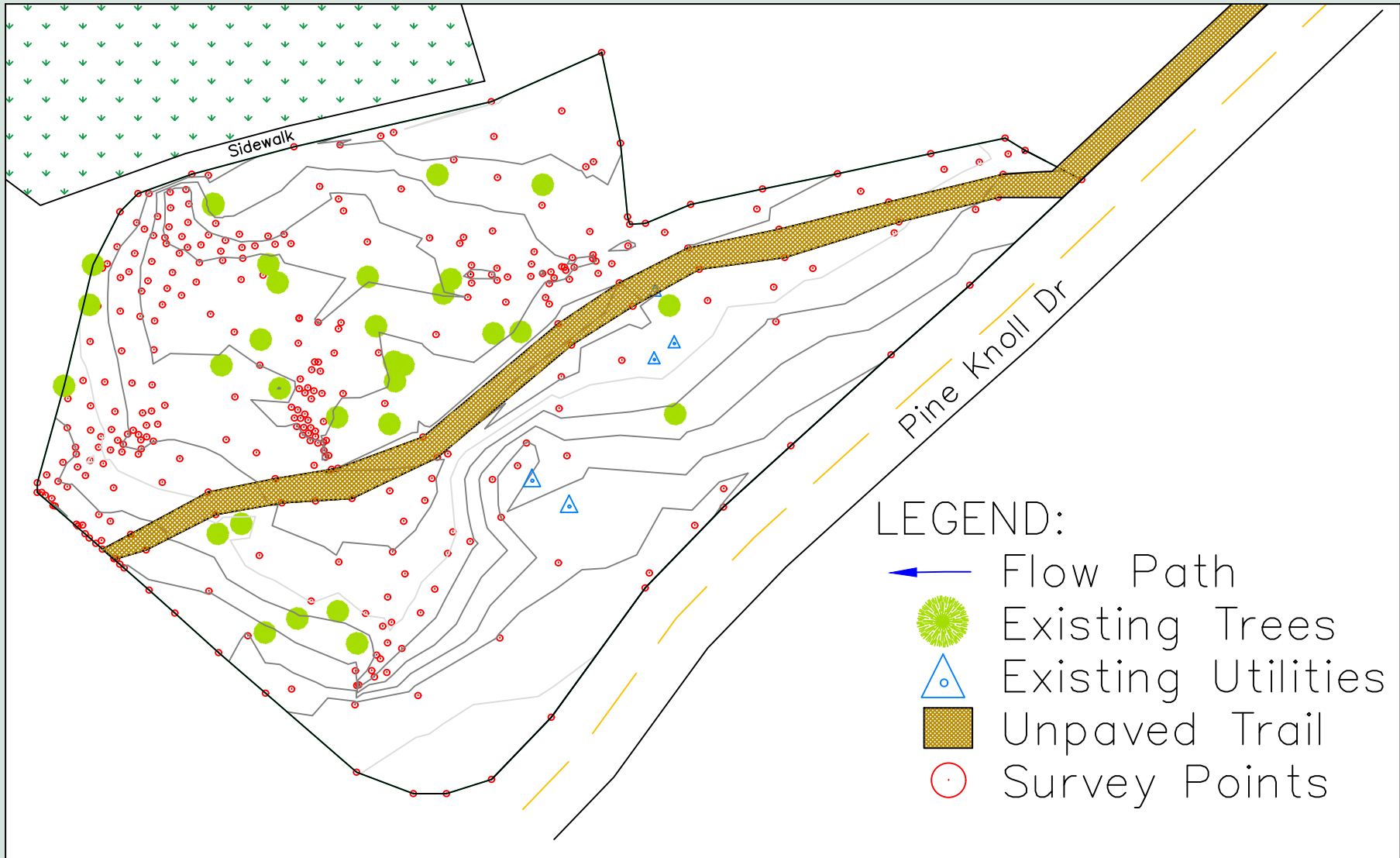
General Notes

05/05/2026






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01		02/10/2026	Capstone 30% Submittal
02		03/20/2026	Capstone 60% Submittal
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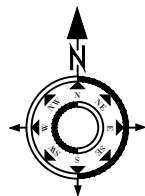
Contact: NAU Stormwater Team
 Phone: (480)-980-2831
 Email: fgf9@nau.edu



LEGEND:

-  Flow Path
-  Existing Trees
-  Existing Utilities
-  Unpaved Trail
-  Survey Points

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Topographic Map

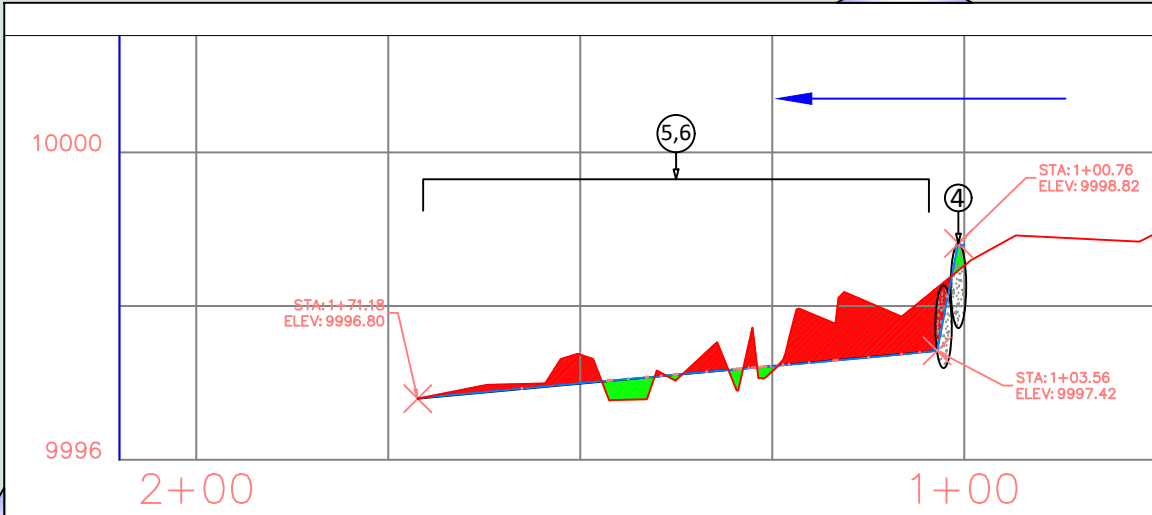
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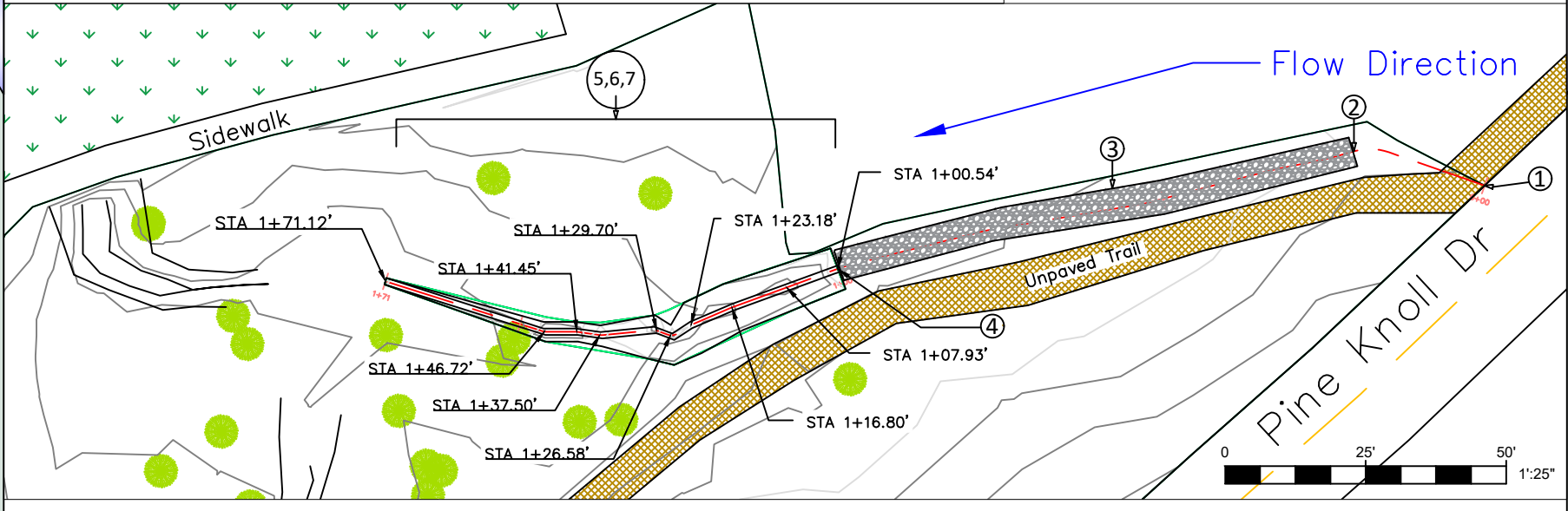
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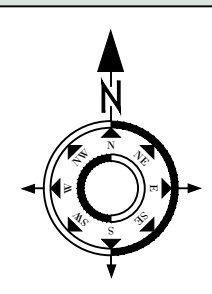


Notes

- 1) Existing Pine Knoll Curb Cut and start of existing concrete channel
- 2) End of existing concrete channel
- 3) 4" gravel riprap, 2' wide following existing flow path (3.29 cy)
- 4) Rock drop structure (see details)
- 5) Vegetated swale (see details)
- 6) Cut=3.78cu yd and Fill=0.29cu yd
- 7) Proposed cross sections. Left and right side of channel is defined facing upstream.



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LID Plan Design
05/05/2026

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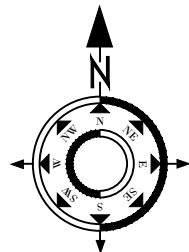
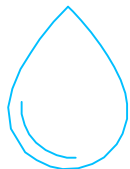
Contact:	NAU Stormwater Team
Phone:	(480)-980-2831
Email:	fgf9@nau.edu

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Proposed Cross Sections

Station	Left Top of Bank		Left Bottom of Bank		Right Bottom of Bank		Right Top of Bank	
	Elev (ft)	Offset (ft)	Elev (ft)	Offset (ft)	Elev (ft)	Offset (ft)	Elev (ft)	Offset (ft)
1+00.54'	9998.8600	3.2500	9998.8000	0.5000	9998.8000	-0.5000	9998.5500	-3.2500
1+07.93'	9998.2500	3.5000	9997.3800	0.5000	9997.3800	-0.5000	9998.3000	-3.5000
1+16.80'	9998.0000	3.7500	9997.3000	0.5000	9997.3000	-0.5000	9998.0900	-3.7500
1+23.18'	9997.9500	3.5000	9997.2300	0.5000	9997.2300	-0.5000	9998.4000	-4.2500
1+26.58'	9997.4500	1.2500	9997.2100	0.5000	9997.2100	-0.5000	9998.1200	-4.5000
1+29.70'	9997.6000	1.2500	9997.1800	0.5000	9997.1900	-0.5000	9998.0400	-4.2500
1+37.50'	9997.2700	1.5000	9997.1100	0.5000	9997.1100	-0.5000	9997.2700	-1.7000
1+41.45'	9997.2700	1.5000	9997.0800	0.5000	9997.0800	-0.5000	9997.1100	-1.5000
1+46.72'	9997.1900	1.4000	9997.0300	0.5000	9997.0300	-0.5000	9997.2400	-1.4500
1+71.12'	9996.8100	0.5000	9996.8100	0.5000	9996.8000	-0.5000	9996.8000	-0.5000

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LID Plan Design

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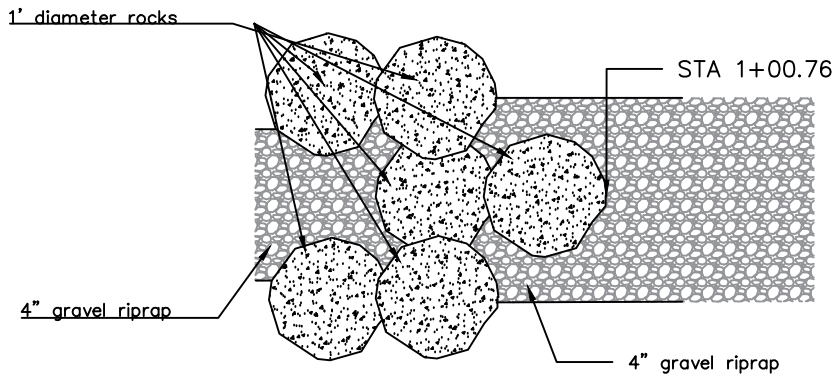
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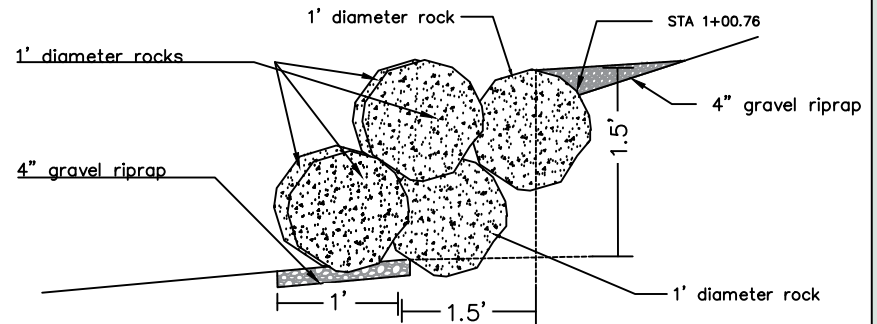
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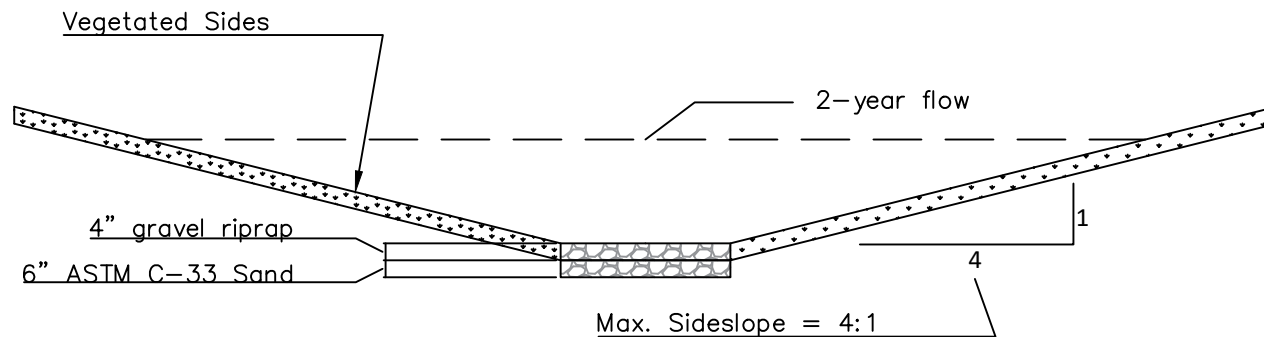
Rock Drop Structure Detail – Plan



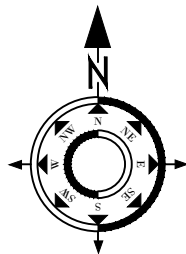
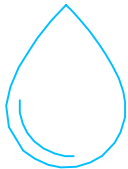
Rock Drop Structure Detail – Profile



Vegetated Swale Detail – Cross Section



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Design Details

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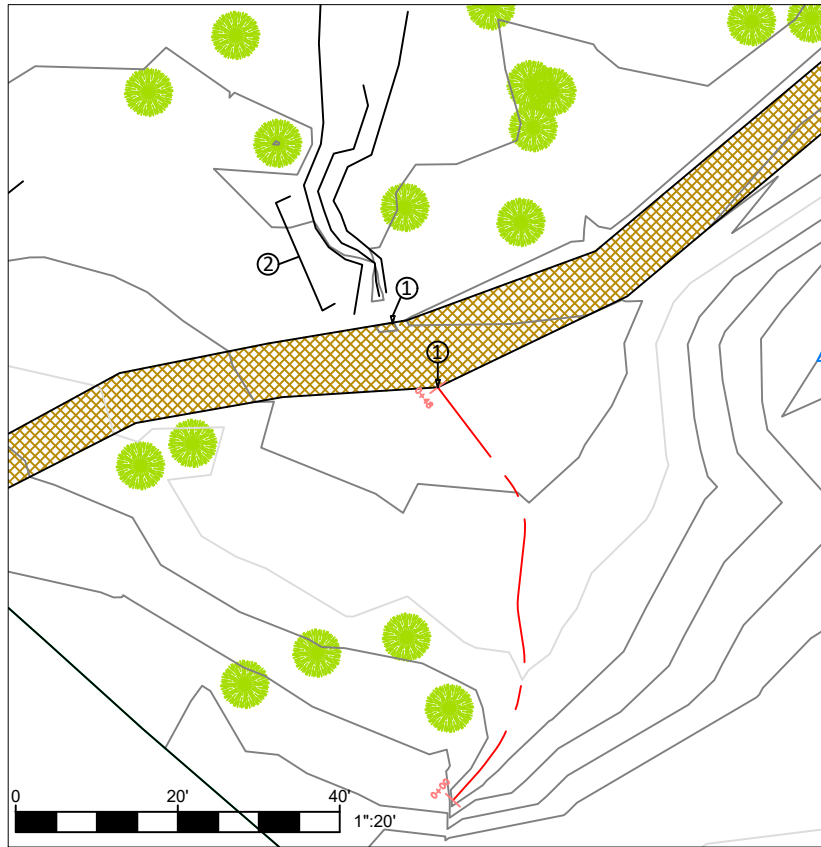
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Culvert Inlet and Channel

Notes

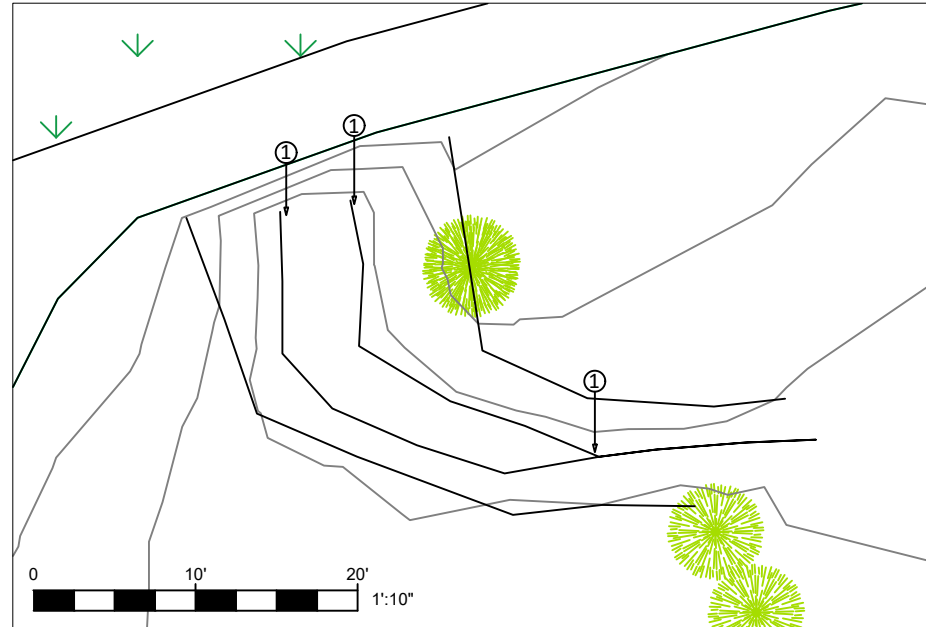
- 1) Clear 6" culvert of pine needles
- 2) Line flow path with 4" gravel (1.18 cy)



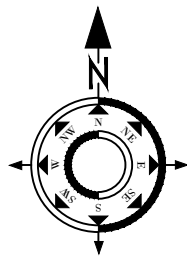
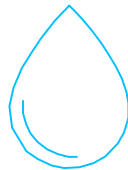
Parking Lot Curb Cuts

Notes

- 1) Line flow path with 4" gravel (0.79 cy)



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Design Rec.

05/05/2026

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