Surface Water Management District

Hinman Ditch (County Ditch No. 52)

Drainage Improvement Project

Public Viewing Presentation

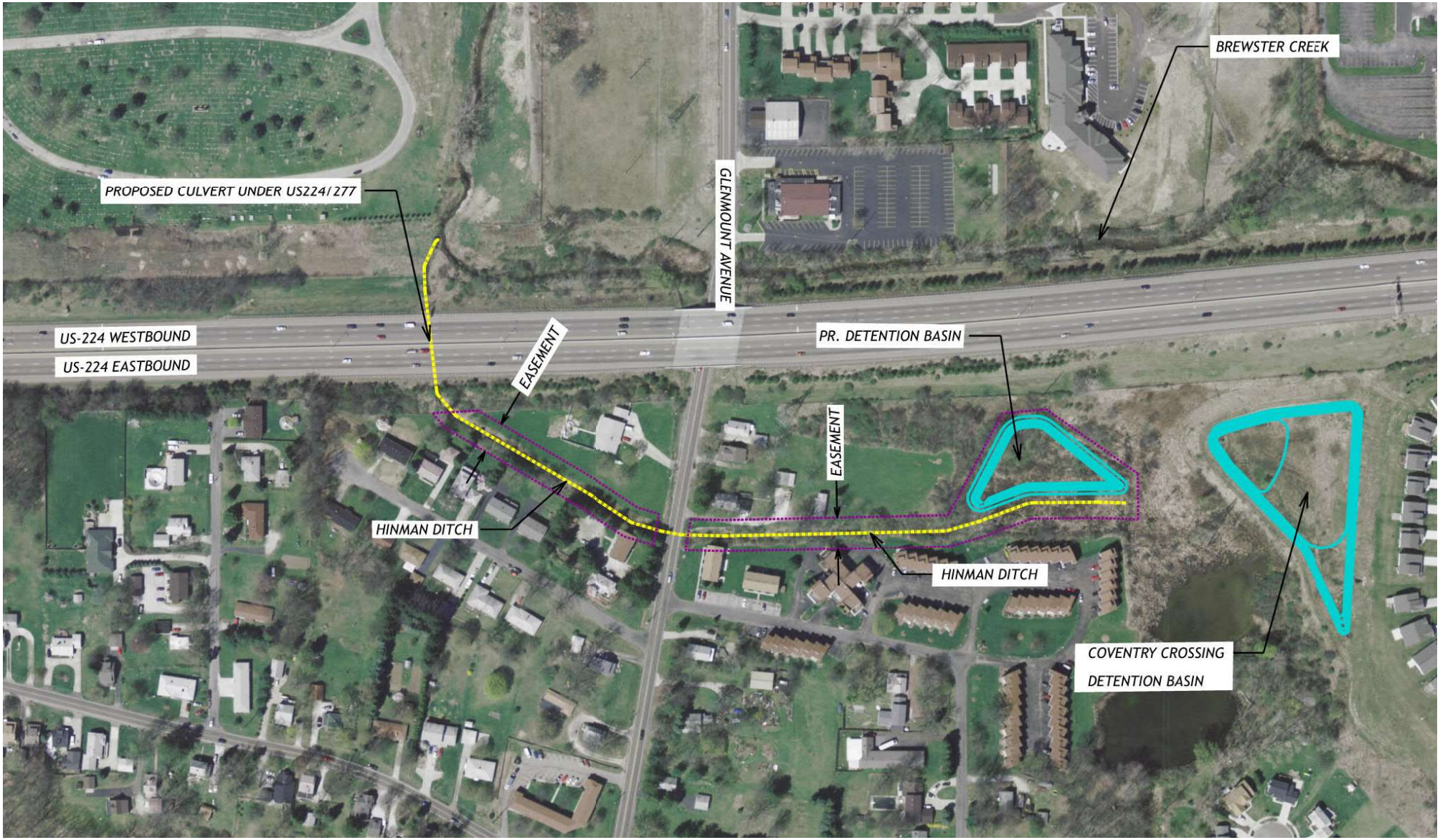
July 28, 2025, 4:30 PM

Coventry Township Community Center

Alan Brubaker, PE, PS - Summit County Engineer
David Koontz, PE, SI - SWMD Coordinator
Charles Hauber, PE, PS, Engineering Project Manager
Stephanie Deibel, Stormwater Specialist

Hinman Ditch

Project Area & Improvements



Hinman Ditch
History and Flooding

- Hinman Ditch, Summit County Ditch #52, was created in the 1930's.
- Complaints of flooding along Hinman Ditch have been documented since the late 1970's.
- The Summit County Engineer's office has received complaints in 1979, 1988, 1994, 1995, 2006 & 2011.
- Flooding in 2011 damaged the foundation of an apartment building, causing it to be condemned and razed.

Hinman Ditch
Description and Benefits

- The channel will be cleaned and obstructions removed, such as trees, debris and sandbars.
- A portion of the channel will be regraded, and channel banks will be rebuilt to restore positive flow and adequate capacity.
- The channel improvements will include measures to stabilize the streambanks and mitigate erosion.
- One SWM basin will be constructed and an existing SWM basin will be modified to reduce peak flow and velocity in the ditch.
- The project will include improved access for more effective long-term maintenance.
- These measures will help to reduce flooding and erosion and will thereby improve stream water quality.

Hinman Ditch
Costs

- The Project Cost is estimated to be approximately $2,500,000 for design and construction.
- ODOT will be responsible for $2,000,000 of this estimate for the Culvert under US-224/I-277.
- SWMD will pay all planning, design, permitting and construction costs of the project.
- SWMD revenues will cover the cost of long-term maintenance of the improvements.
- Coventry Township properties will not be assessed.
- We are following the Petitioned Drainage Improvement process, defined in Ohio Revised Code 6131, but without assessments to the benefitting property owners within the SWMD for construction or maintenance of the project.

Hinman Ditch
Easements

- Easements will be obtained under the ORC 6131, to give Summit County the right & responsibility to maintain this length of improved stream.
- There will be an easement plat instead of individual easement descriptions & exhibits, and owners won't sign.
- Easement widths to be determined along the drainage way will be obtained by ORC 6131 and recorded with a plat. Access easements, not along drainage way, will be negotiated with the property owner and recorded separately.

Hinman Ditch
Petition Steps and Tentative Meeting Dates

- 5/13/25 – Coventry Twp. trustees signed petition for improvements.
- 5/15/25 – Petition filed with Summit County Council.
- 7/28 - 4:00 PM - Public Viewing in Coventry Township Community Center.
- 10/06/25 4:30 PM – First Hearing at Summit County Council. SWMD will present the Preliminary Report stating project's necessity and public benefit.
- Public comments can be made in writing to the council clerk before the meeting or in person at the hearing.
- 10/20/25 - Council vote to either proceed with the design or to dismiss the petition.
- February 2026 – SWMD will submit the Final Report (if authorized in Oct 2025) including final plans, construction cost estimate, easement plat and schedule of estimated damages and compensation for easements and assessments.
- March 2026 – Final Hearing at Summit County Council. SWMD will present the Final Report. Council will vote whether to accept the plans and easement plat and proceed with project bidding, or to dismiss the petition.
- There is a process available to appeal any council action.

Meeting Notices Will Be Mailed to Affected Property Owners and published in the newspaper.
Metting Dates and Times Subject to Change.

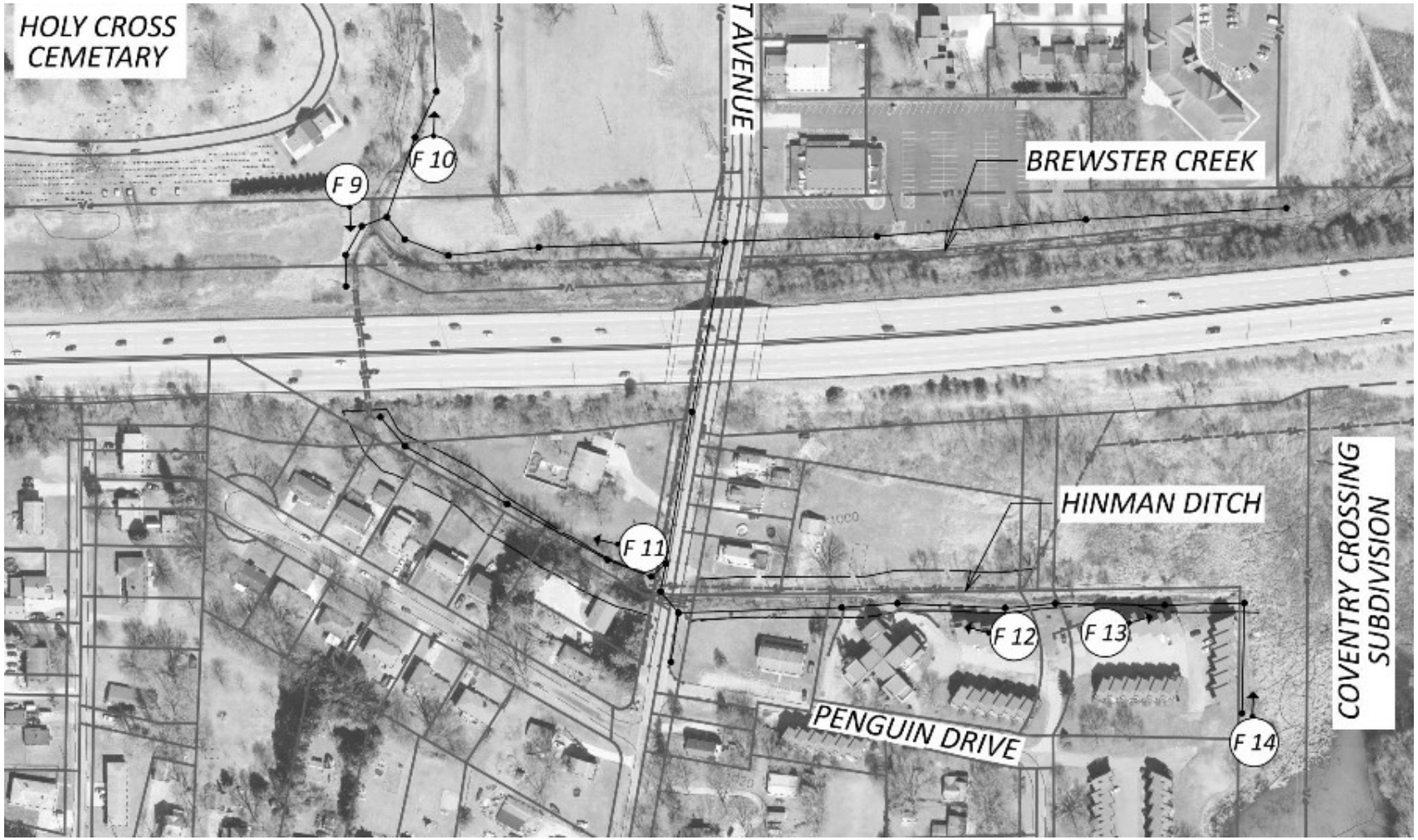
Hinman Ditch
Engineering Timeline

- 2023 – EDG, Inc. hired for the study, engineering permit coordination and plan preparation.
- July, 2023 - started field reconnaissance and hydrologic & hydraulic study
- October, 2023 – Conceptual Plans
- June, 2024 – Draft Preliminary Plan
- January, 2025 – Preliminary Report
- Fall-Winter, 2025 – Final Plans to be completed
- Spring-Summer, 2026 – Final USACE & OEPA Approval

Field Review of the Study Area

- EDG Staff walked portions of Brewster Creek and Hinman Ditch to become familiar with the tributary area.
- July 2023 - started field reconnaissance and hydrologic & hydraulic study.
- Takeaways from the field visit: Hinman Ditch is well defined downstream of Glenmount Avenue but has several trees growing in it. The upstream end above Glenmount is much narrower and has a large amount of silt in it.
- Another observation from the field visit: Coventry Crossing Subdivision appears to have a detention basin area upstream of Hinman Ditch that is overgrown and does not look to be maintained.

Site Photo Locations



Looking South at the Confluence of Hinman and Brewster Creek

Looking North along Brewster Creek, East of the Cemetery

Looking West at Hinman Ditch From Glenmount Avenue

Looking West at Hinman Ditch from behind the Penguin Condominiums

Looking East at Hinman Ditch from behind the Penguin Condominiums

Looking North toward the start of Hinman Ditch from behind the Penguin Condominiums

Sediment buildup inside an Existing 72” Culvert under Glenmount Avneue

Sediment Depth inside the Existing 72” Culverts

Inlet side of the Existing 54” Pipe Under US224/I-277

Outlet side of the Existing 54” Pipe under US224/I-277

Study Considerations

- Does Hinman Ditch have capacity to convey the runoff?
- Do the culverts under Glenmount Avenue have capacity to convey the runoff?
- Does the pipe under US224 have capacity to convey the runoff?
- Is Hinman receiving too much inflow?
- Can we add detention upstream to help mitigate flooding concerns?
- Can we realign Hinman Ditch to help reduce flooding concerns with residents?

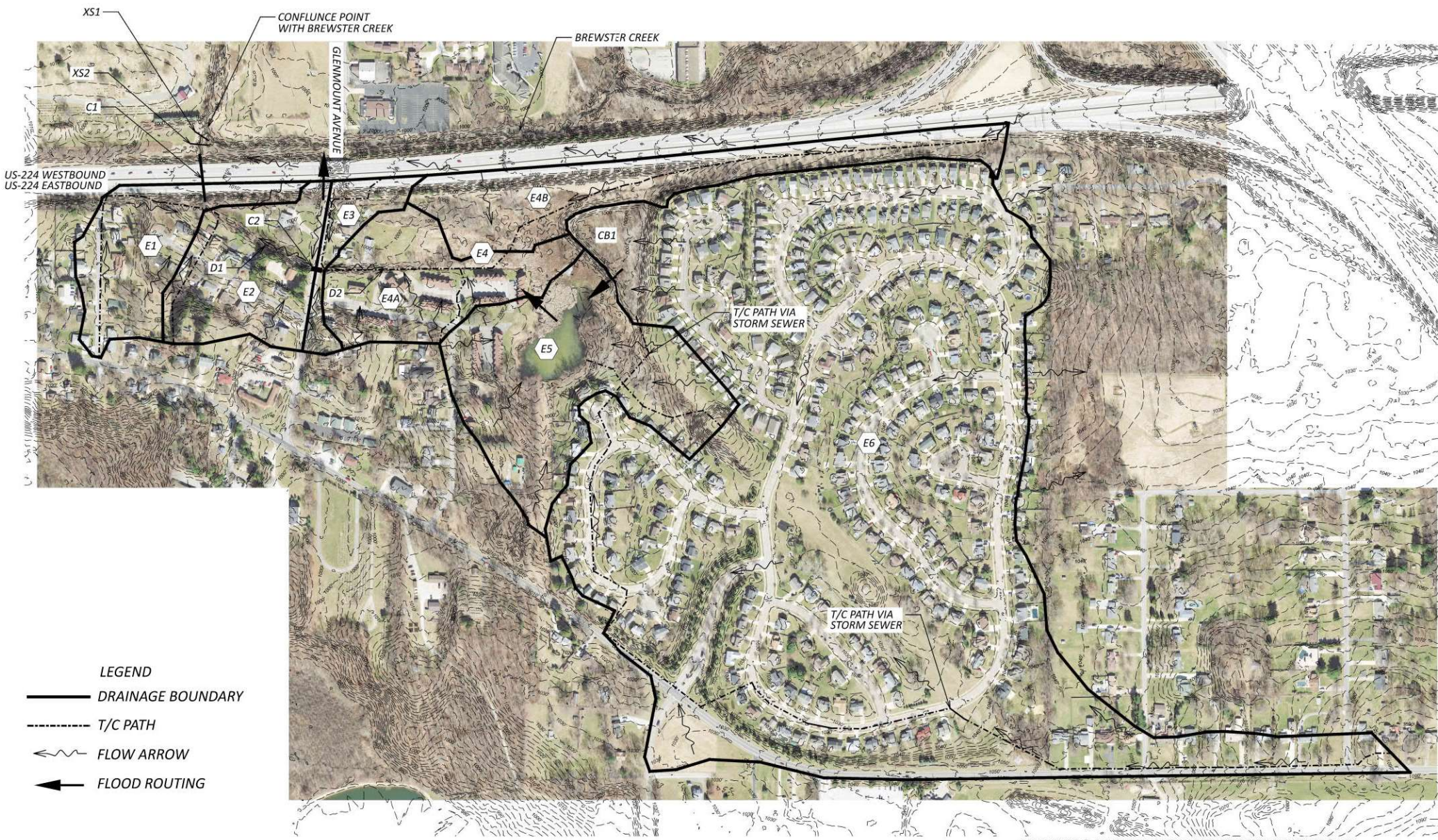
Coventry Crossing Subdivision

- After a meeting to discuss the finding from the field visit, Summit County authorizes a separate study of the Coventry Crossing Subdivision and all areas that are tributary to the detention basin.
- Within this study, EDG would compare performance results of the Basin in its existing form to the basin per the construction plans; “original plan version”.

Looking North inside Coventry Crossing Basin

Looking East inside Coventry Crossing Basin

Looking Southeast with the Existing Outlet Structure in the Foreground



CONCEPTS 3 & 4 REQUIRE E4 TO BE SPLIT INTO SUB-BASINS E4A & E4B

E1 DRAINAGE AREA 6.428 AC. CN = 72 T/C = 8.4 MINUTES	E2 DRAINAGE AREA 7.237 AC. CN = 81 T/C = 17.5 MINUTES	E3 DRAINAGE AREA 2.17 AC. CN = 75 T/C = 8.4 MINUTES	E4 DRAINAGE AREA 17.389 AC. CN = 80 T/C = 46.5 MINUTES	E4A DRAINAGE AREA 7.776 AC. CN = 77 T/C = 5.5 MINUTES
E5 DRAINAGE AREA 14.481 AC. CN = 67 T/C = 26.4 MINUTES	E6 DRAINAGE AREA 97.445 AC. CN = 68 T/C = 30.2 MINUTES			E4B DRAINAGE AREA 9.613 AC. CN = 82 T/C = 41.3 MINUTES

N

0 200

GRAPHIC SCALE IN FEET

Coventry Crossing Basin Conclusion

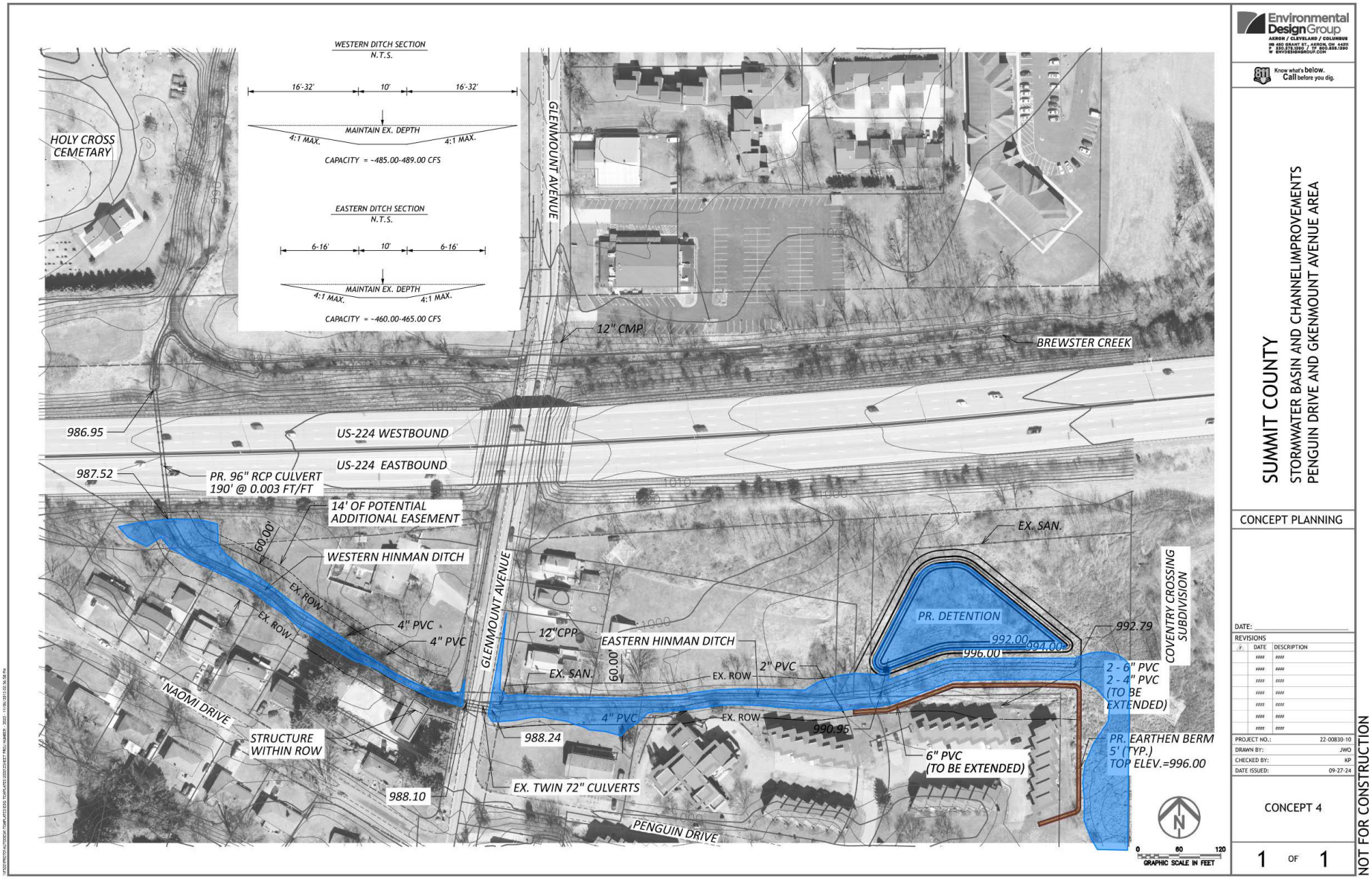
- The original plan version of the basin allowed a larger release in lesser storm events but restricted outflow in greater storm events utilizing increased storage volume, higher window elevations, and a higher emergency weir elevation.
- Conversely, the existing basin restricts outflow from lesser storms with the existing orifice and 36” riser pipe but releases more in greater storms due to a lower overall dam height (less storage), lower window elevations, and a lower emergency weir elevation.
- Neither basin scenario holds the 100-year (1%) storm event volume, and each scenario discharges a percentage of the total outflow through the emergency weir during this storm event.

Concepts Developed

- Concept 1 – Clean out Hinman Ditch
- Concept 2 – Clean out and realign Hinman Ditch
- Concept 3 – Add a detention basin and reconstruct the Coventry Crossing basin
- Concept 4 – Replace the culvert under US224 and Replace the twin 72” Culverts under Glenmount Avenue.

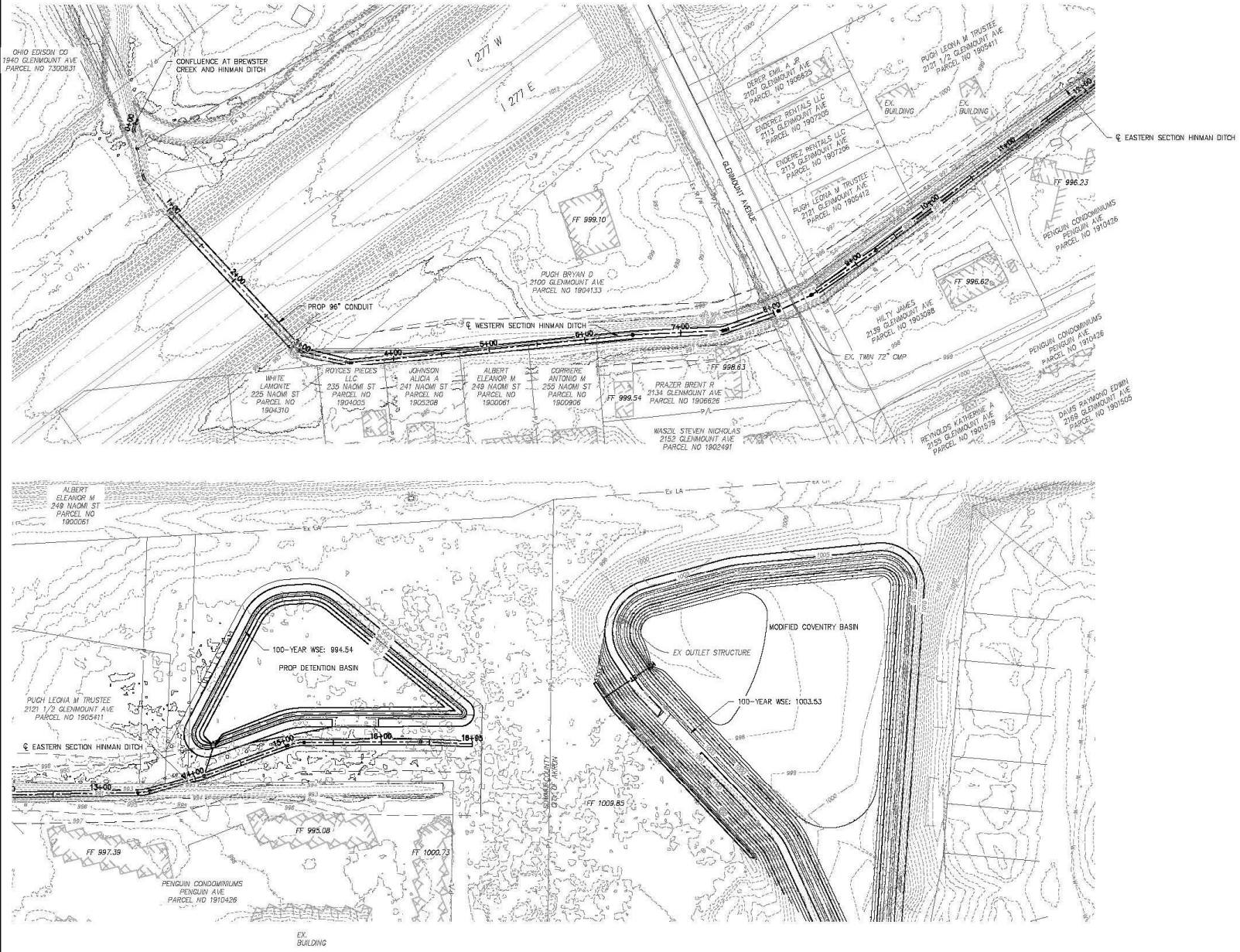
Existing Flooding Extents during the 100-year (1%) Event (5.53”)

Potential Flood Area Reductions with Concept Improvements during the 100-year (1%) Event (5.53”)



Engineering Preliminary Plan

- Recommended Improvements
  - Improve and Realign Hinman Ditch
    - Increase hydraulic capacity for better flow
  - Add Detention Adjacent to Hinman Ditch
    - Add storage to hold excess runoff and release at a slower rate
  - Reconstruct Coventry Crossing Basin to Original Plan
    - Re-establish previous storage to hold excess runoff and release at a slower rate
  - Replace the Culvert Under US224
    - Increase hydraulic capacity for better flow



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Know what's below. Call before you dig.

SW Basin & Channel
Hinman Ditch (Ditch #52)
SUMMIT COUNTY

ALAN BRUBAKER, P.E., P.S.
SUMMIT COUNTY ENGINEER

PRELIMINARY PLAN

DATE: _____

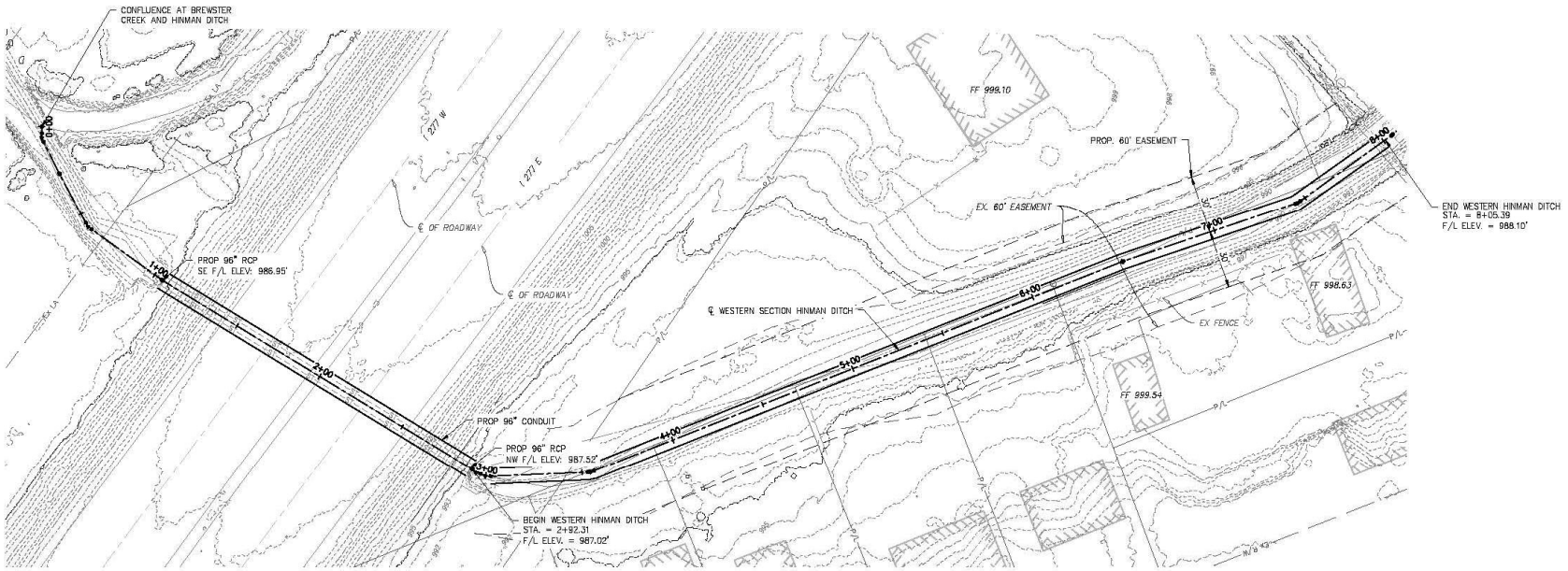
REVISIONS		
⚠	DATE	DESCRIPTION

PROJECT NO.:	22-00830-010
DRAWN BY:	SWA
CHECKED BY:	JO
DATE ISSUED:	MAR 25, 2025

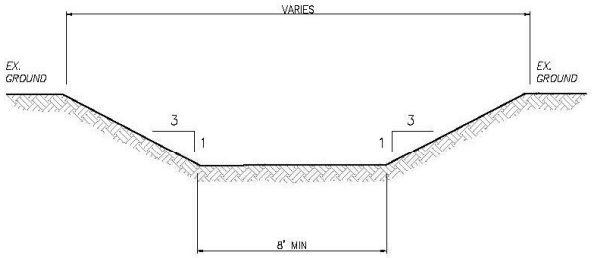
SCHEMATIC PLAN

5 OF 13

NOT FOR CONSTRUCTION

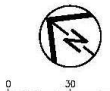


WESTERN HINMAN DITCH F/L DATA	
STATION	F/L ELEV.
2+92.31	987.02
3+00.00	987.04
3+50.00	987.14
4+00.00	987.24
4+50.00	987.34
5+00.00	987.44
5+50.00	987.54
6+00.00	987.64
6+50.00	987.74
7+00.00	987.84
7+50.00	987.94
8+00.00	988.04
8+05.39	988.10



WESTERN HINMAN DITCH SECTION

NOT TO SCALE



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SW Basin & Channel Hinman Ditch (Ditch #52)

SUMMIT COUNTY

ALAN BRUBAKER, P.E., P.S. 1840 SUMMIT COUNTY ENGINEER

PRELIMINARY PLAN

DATE: _____

REVISIONS		
⚠	DATE	DESCRIPTION
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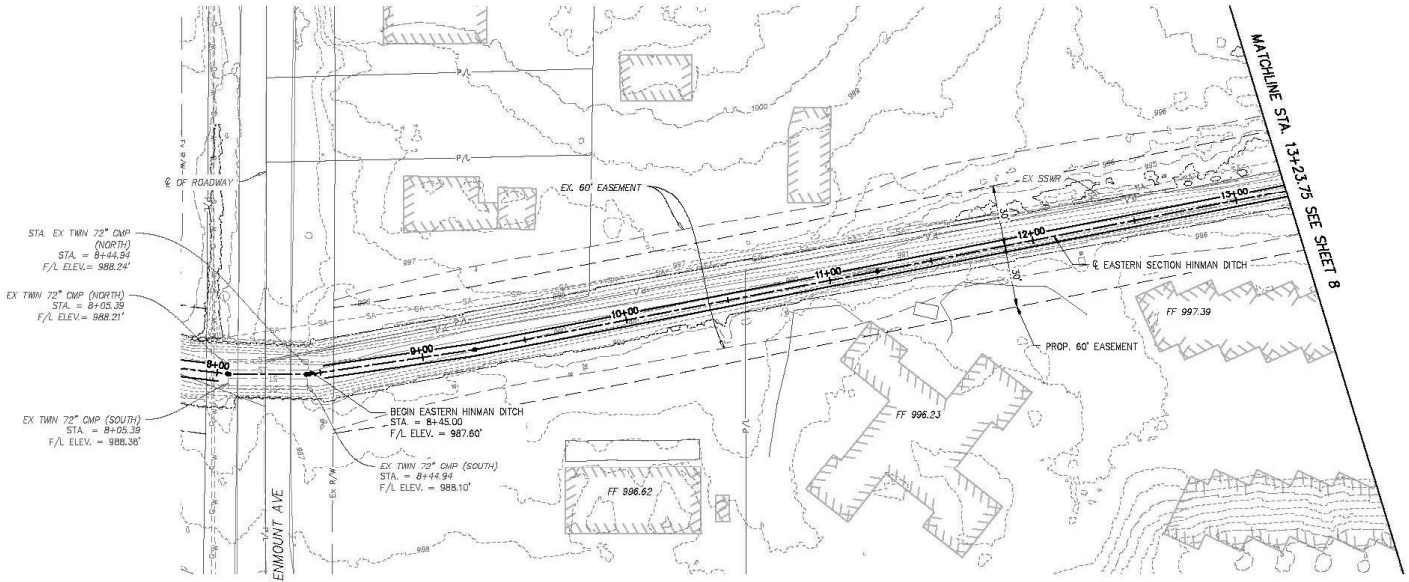
PROJECT NO.:	22-00830-010
DRAWN BY:	SWA
CHECKED BY:	JD
DATE ISSUED:	MAR 25, 2025

SITE PLAN

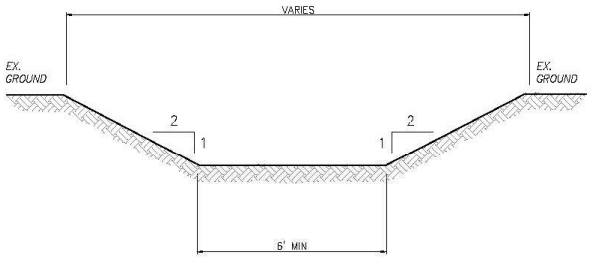
6 OF 13

NOT FOR CONSTRUCTION



EASTERN HINMAN DITCH F/L DATA	
STATION	F/L ELEV.
8+45.00	987.60
8+50.00	987.64
9+00.00	987.93
9+50.00	988.23
10+00.00	988.53
10+50.00	988.89
11+00.00	989.13
11+50.00	989.43
12+00.00	989.73
12+50.00	990.03
13+00.00	990.33

NOTE: CONTRACTOR TO CLEAN A NORTH & SOUTH EX. 72" CMP CONDUITS UNDER GLENMOUNT AVE. ALL SILT AND SEDIMENT SHALL BE REMOVED AND EXISTING FLOWLINES SHALL BE MAINTAINED. NO MODIFICATIONS TO THE EXISTING CONDUITS SHALL BE MADE.



EASTERN HINMAN DITCH SECTION

NOT TO SCALE

0 30 60
GRAPHIC SCALE IN FEET

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SUMMIT COUNTY

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7 OF 13

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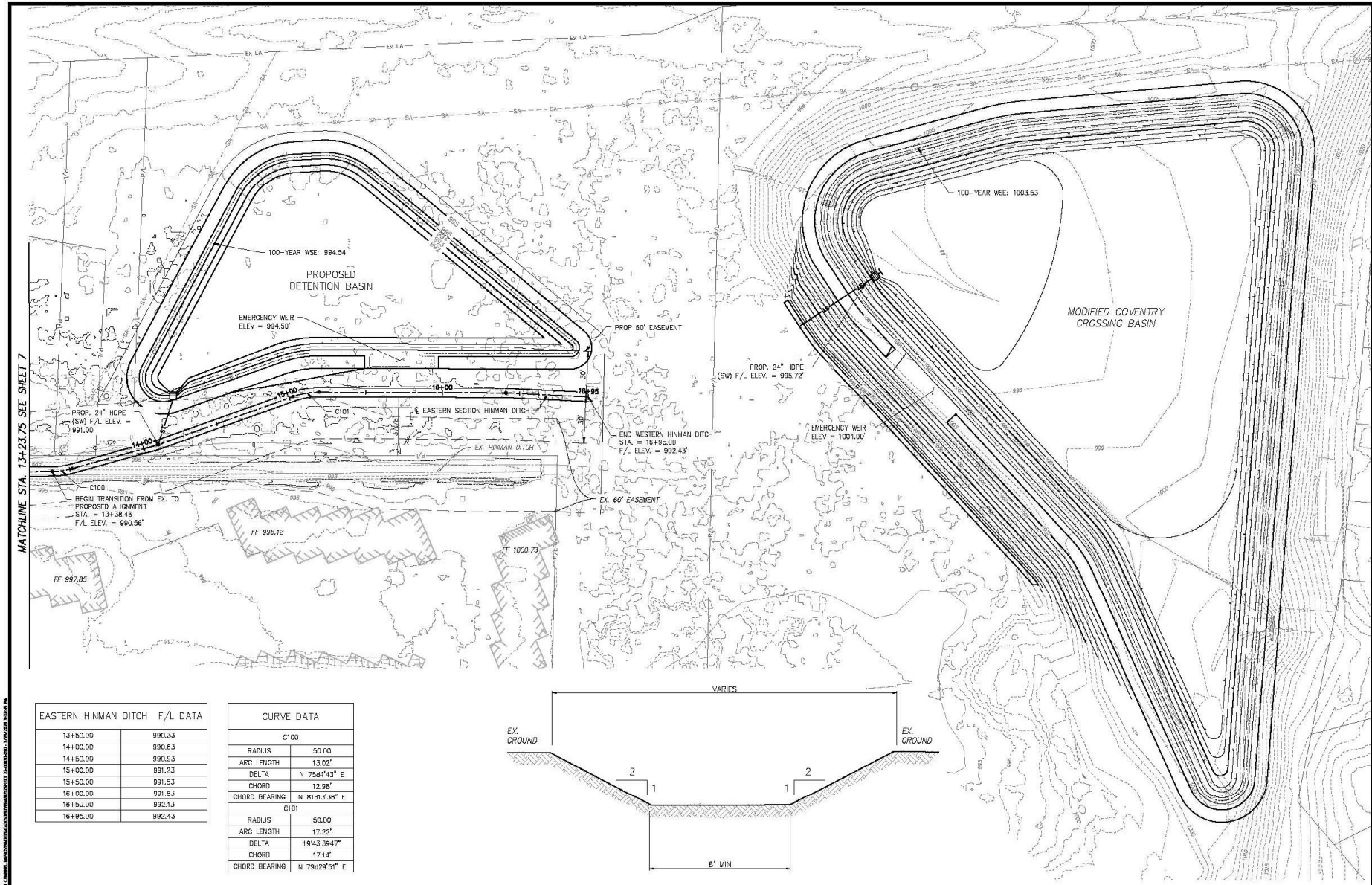

EASTERN HINMAN DITCH F/L DATA	
13+50.00	990.33
14+00.00	990.63
14+50.00	990.93
15+00.00	991.23
15+50.00	991.53
16+00.00	991.83
16+50.00	992.13
16+95.00	992.43

CURVE DATA	
C100	
RADIUS	50.00
ARC LENGTH	13.02'
DELTA	N 75d4'43" E
CHORD	12.98'
CHORD BEARING	N 81d1.5'.38" E
C101	
RADIUS	50.00
ARC LENGTH	17.22'
DELTA	19'43'.3947"
CHORD	17.14'
CHORD BEARING	N 79d29'51" E

NOTE: CONTRACTOR SHALL REMOVE EXISTING OUTLET STRUCTURE AND ALL ASSOCIATED PIPING FROM COVENTRY CROSSING DETENTION BASIN. ALL WORK ASSOCIATED WITH THIS TASK SHALL BE PAID THROUGH ITEM 202 DETENTION BASIN STRUCTURE REMOVAL AS PER PLAN.

EASTERN HINMAN DITCH SECTION

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HINMAN DITCH (DITCH #52)
SUMMIT COUNTY

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PRELIMINARY PLAN

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SITE PLAN

8 OF 13

NOT FOR CONSTRUCTION

Hinman Ditch
Q&A

- Questions?

- For more information, please visit our project webpage at https://www.summitengineer.net/projects/SWMD-Penguin-Area-Improvements.html