

have a negative impact on area residents, as they would have to pay new or additional insurance premiums.

2. Replacing the Clipper Cove culvert will result in significant increases in downstream peak flows and increased flood elevations. This scenario may be rejected by the ODNR, which would require upstream mitigation through additional flood storage. Any culvert replacement design should include a study of regional detention to offset the impacts of increased downstream flows. Obtaining a permit may depend on this additional detention volume. Alternatively, downstream channel improvements may need to be considered to further reduce the flood profile and increase flow capacity.
3. Increasing peak flows to downstream areas introduces additional legal exposure related to increased potential for property damage downstream of the culvert. This can be mitigated by identifying additional detention storage upstream of the Clipper Cove culvert, as stated in Item 2 above.
4. The proposed culvert replacement will decrease, but not eliminate, the potential for area flooding. Due to culvert size constraints and area topography, the proposed solution will decrease flood risk upstream of Clipper Cove, but low-lying homes will still be within the 100-year floodplain and will remain at risk under extreme rainfall events. This benefit may be offset by potential floodplain remapping requirements (as stated in Item 1 above) that could add numerous properties to the official floodplain boundary. Replacing the Clipper Cove culvert may reduce maintenance requirements, but this benefit would be independent of addressing the flooding problem.
5. A single hydraulic improvement, like replacing a culvert, regrading a section of channel, or installing a pump station will not eliminate flooding in the area with the most consistent and significant flooding problems. Implementing hydraulic improvements that only marginally reduce flooding, such as replacing the Clipper Cove culvert, re-grading the Pond Brook downstream, or installing a pump station, carries the risk of spending funding resources without eliminating the flooding of low-lying homes.
6. Since replacing the Clipper Cove culvert is insufficient to fully address the flooding problem, a larger redesign and reconstruction of the entire drainage system would likely be required to meet the desired level of service. Buying the properties in the most flood-prone areas and re-grading these areas to be natural floodplain storage may be a more cost-effective approach to mitigating flooding impacts.
7. This study considered a comprehensive set of alternatives to help eliminate alternatives that are not cost-effective. In addition, this study provides modeled flood levels of proposed projects to help avoid pursuing a project that would fail to achieve the desired outcome.

Appendix A

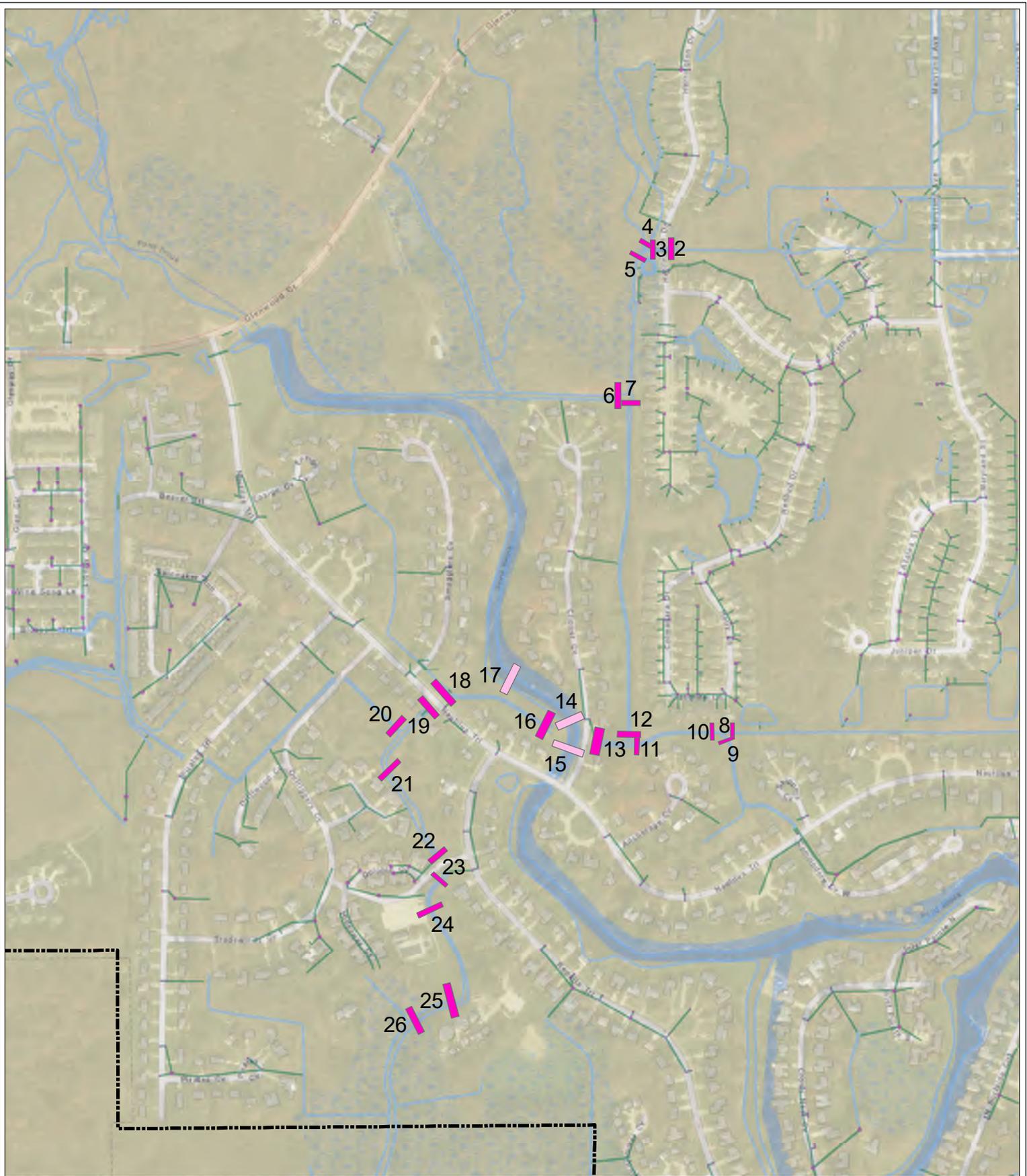
Maps

Figure A-1 Cross Sections

Figure A-2 Subcatchments

Figure A-3 Observed Flood Elevation, Reminderville

Figure A-4 Observed Flood Elevation, Clipper Cove



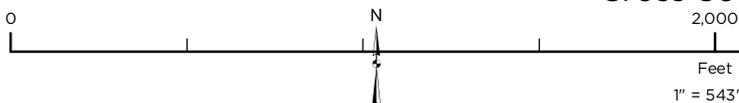
- Legend**
- Reminderville_Boundary
 - Storm Sewer Appurtenances
 - Not used in model
 - Other Storm Infrastructure
 - Storm Sewer
 - Used in model
 - Hydrologic Features

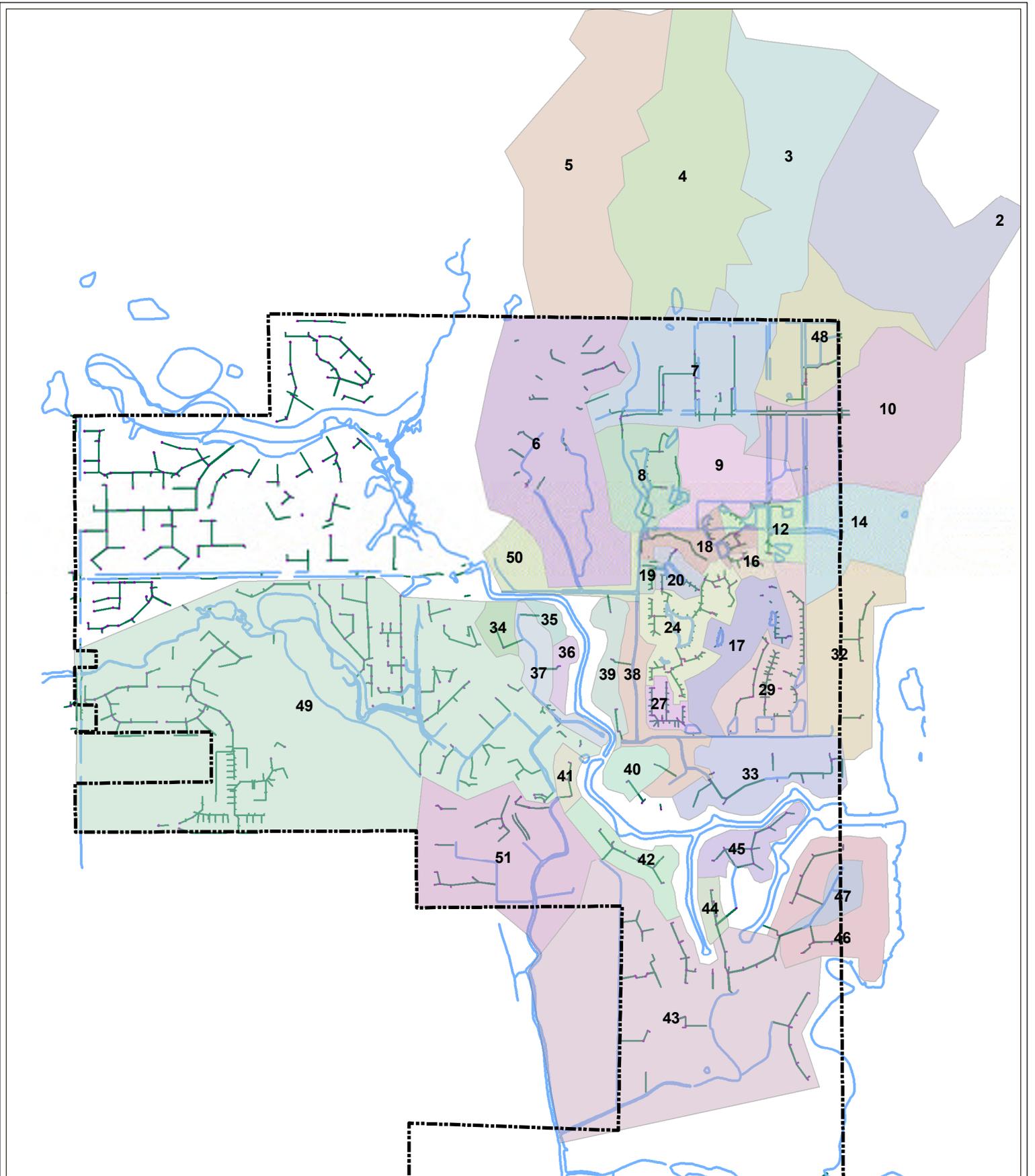
Appendix A: Figure A-1 Reminderville Cross Sections

Source: Data provided by /INSERT DATA SOURCE/. OHM Advisors does not warrant the accuracy of the data and/or the map. This document is intended to depict the approximate spatial location of the mapped features within the Community and all use is strictly at the user's own risk.

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet

Map Published: June 22, 2021

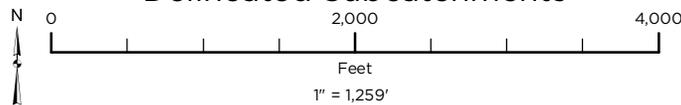




Legend

-  Reminderville_Boundary
-  Other Storm Infrastructure
-  Hydrologic Features
-  Storm Sewer Appurtenances
-  Storm Sewer

**Appendix A: Figure A-2
Reminderville
Delineated Subcatchments**

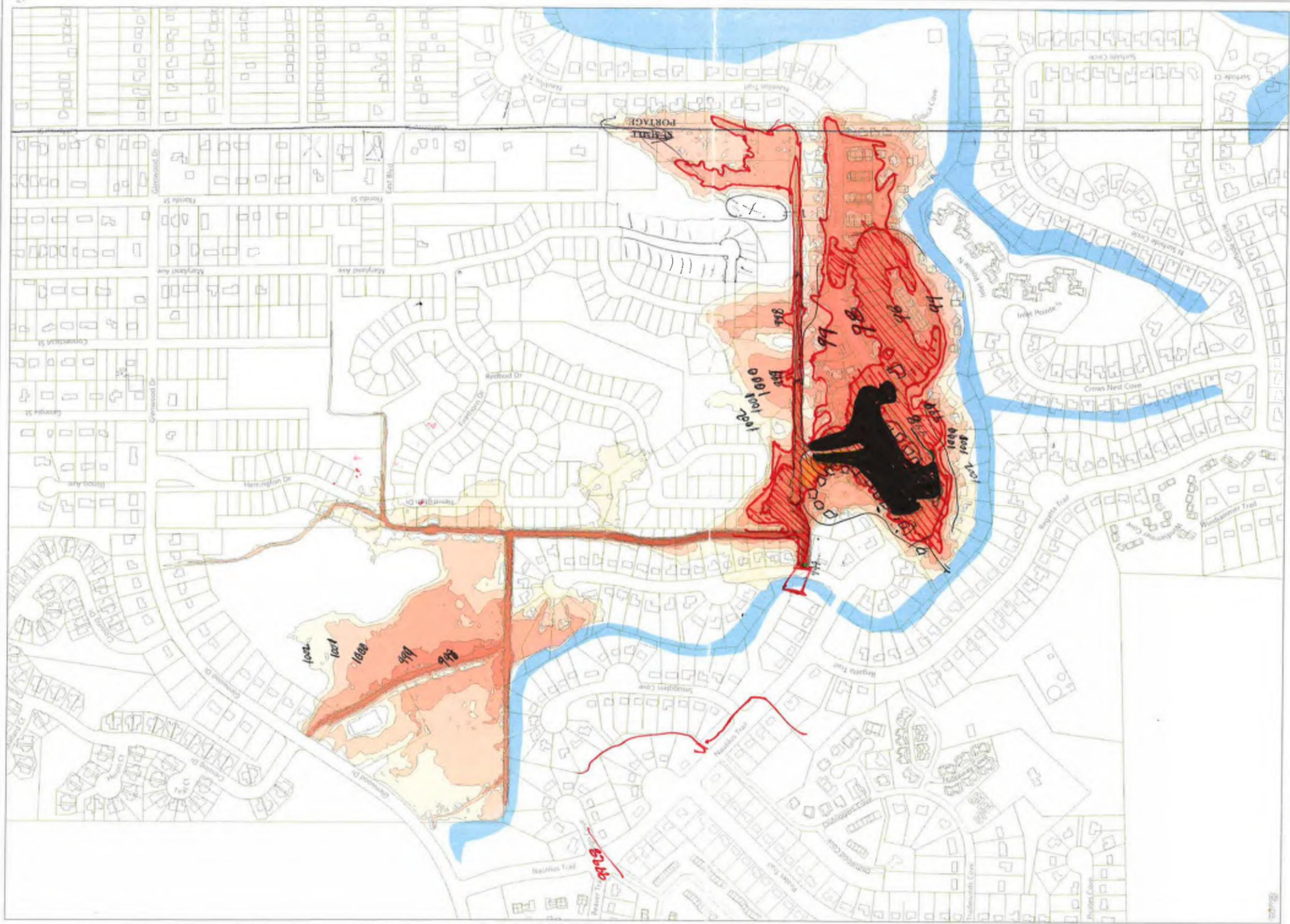


Source: Data provided by /INSERT DATA SOURCE/. OHM Advisors does not warrant the accuracy of the data and/or the map. This document is intended to depict the approximate spatial location of the mapped features within the Community and all use is strictly at the user's own risk.

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet

Map Published: June 22, 2021





Source: This project is based on the Florida State Plane NAD 83 datum. The horizontal accuracy of the data used in this map is approximately ± 1 foot. The vertical accuracy of the data used in this map is approximately ± 1 foot. The map is not intended for use in any other project.

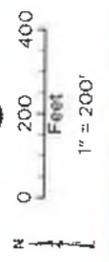
Coordinate System: NAD 83, North Carolina State Plane (NAD 83) Feet

Map Publisher: Stormark, 2017



Appendix A
Figure A-3

Clipper Cove Culvert Drainage Area



- Elevation (feet AMSL)
 - 1,002
 - 1,001
 - 1,000
 - 999
 - 998
 - 997
 - 996
 - 995
 - 994
 - Culvert inlet Point
 - Building Footprint
 - Parcel Boundary
- START OF FLOODING IN HOMES**

HIGH WATER FLOOD ELEVATIONS - OBSERVED 09/18/2020
STATE OF OHIO, COUNTY OF SUMMIT, VILLAGE OF REMINDERVILLE

W:\2020\3007190050\Reminderville\Reminderville_Summit\GIS\2020\Fig01.dwg Plot: 09/27/2020 4:35pm



Appendix A
Figure A-4



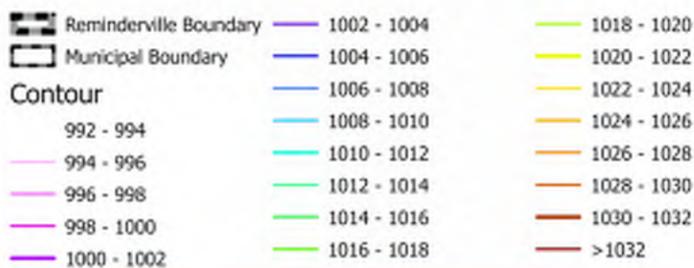
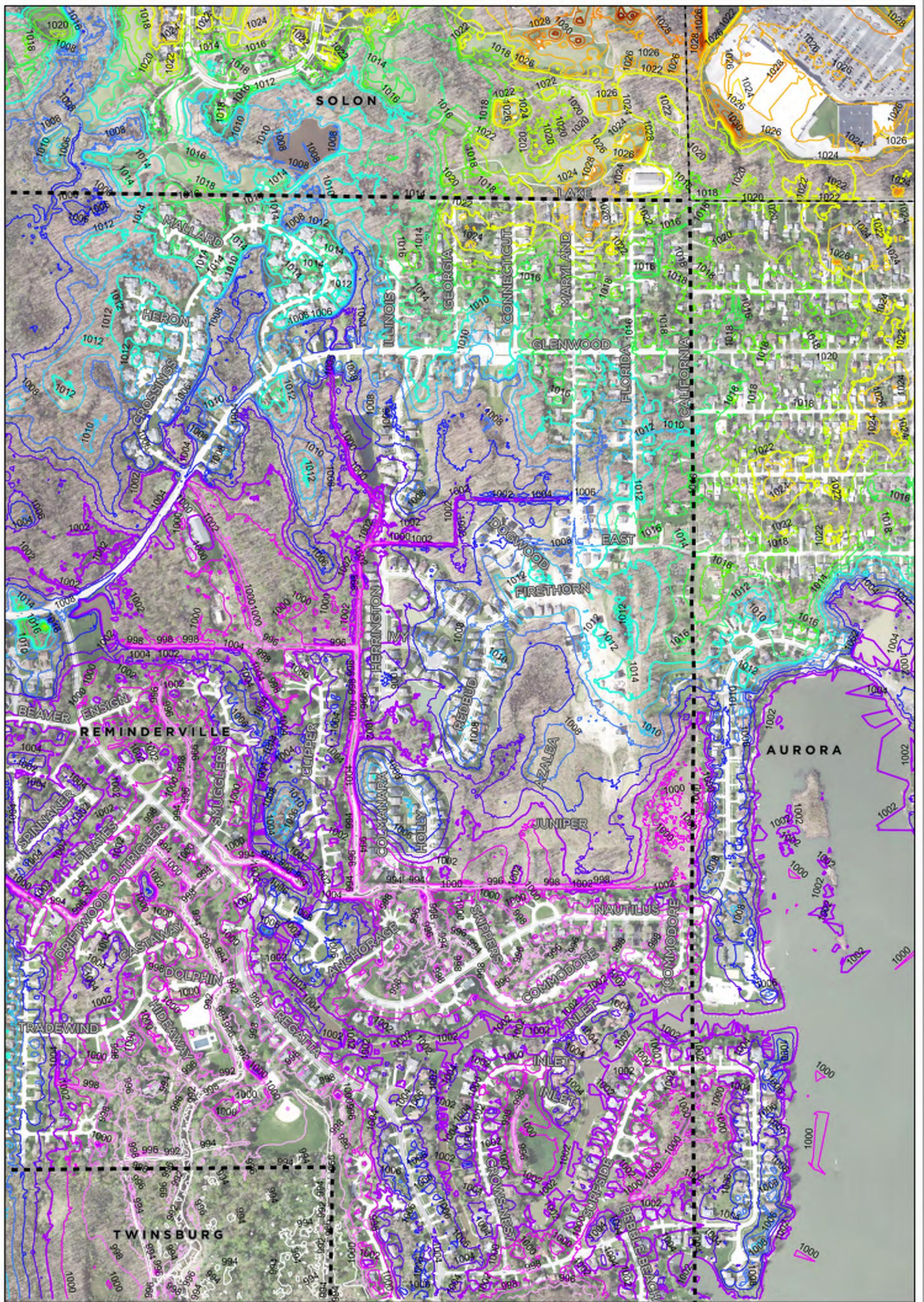
OHM
OHIO HYDROLOGICAL MODELING
1985 WARD ST. STE. 250
MARIETTA, OH 44757
330.923.1000
www.ohmusa.com

DESIGNER	BVB
REVIEWER	BVB
PROJECT ID	08-04-20
PROJECT ID	3007190050
SHEET	TOTAL
P.0	0

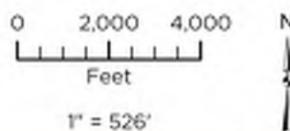
Appendix B

Topographical Map

Figure B-1 Reminderville Topography



Reminderville Topography



Source: Data provided by Reminderville, State of Ohio, OGRIP, and Summit County. OHM Advisors does not warrant the accuracy of the data and/or the map. This document is intended to depict the approximate spatial location of the mapped features within the Community and all use is strictly at the user's own risk.

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet

Map Published: September 9, 2021



Appendix C

Subcatchments

Figure C-1 Walmart

Figure C-2 Solon Lake

Figure C-3 Solon Ph1 Storm

Figure C-4 Solon Ph2 Storm

Figure C-5 Sycamore

Figure C-6 Reminderville Drainage Map

THE MARKETPLACE AT FOUR CORNERS

BAINBRIDGE TOWNSHIP COUNTY OF GEAUGA STATE OF OHIO

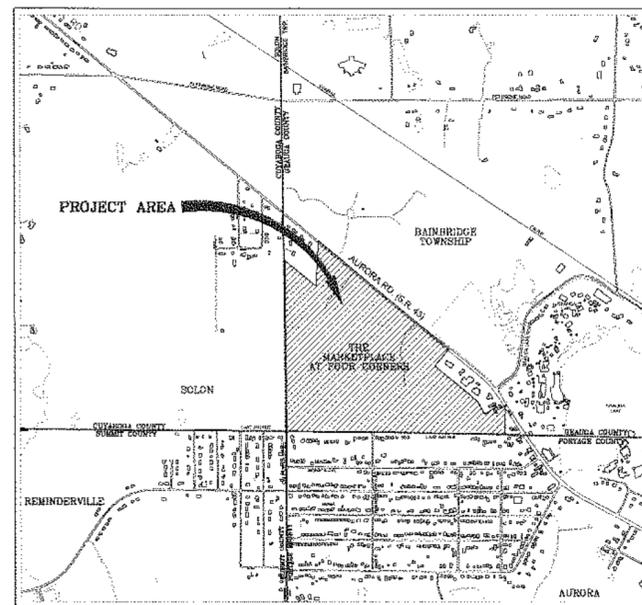
PROPOSED COMMERCIAL DEVELOPMENT

SEPTEMBER, 2001

REVISED NOVEMBER, 2001

INDEX OF SHEETS

SHT. NO.	DESCRIPTION
C000	TITLE SHEET
C100	EXISTING CONDITIONS
C101	EXISTING WETLANDS
C102	SITE CLEARING AND DEMOLITION PLAN
C200	LAYOUT AND DIMENSION PLAN
C200a	LAYOUT AND DIMENSION PLAN "a"
C200b	LAYOUT AND DIMENSION PLAN "b"
C200c	LAYOUT AND DIMENSION PLAN "c"
C200d	LAYOUT AND DIMENSION PLAN "d"
C201	PARKING ISLAND DETAILS
C300	GRADING PLAN
C300a	GRADING PLAN "a"
C300b	GRADING PLAN "b"
C300c	GRADING PLAN "c"
C300d	GRADING PLAN "d"
C400	STORMWATER DETENTION POND SOUTH
C401	STORMWATER DETENTION POND EAST
C402	STORMWATER DETENTION POND WEST
C500	SEDIMENT/EROSION CONTROL PLAN
C500a	SEDIMENT/EROSION CONTROL PLAN "a"
C500b	SEDIMENT/EROSION CONTROL PLAN "b"
C500c	SEDIMENT/EROSION CONTROL PLAN "c"
C500d	SEDIMENT/EROSION CONTROL PLAN "d"
C500e	SEDIMENT/EROSION CONTROL PLAN "e"
C501	SEDIMENT/EROSION CONTROL DETAILS
C600	STORM PLAN
C600a	STORM PLAN "a"
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C800	UTILITY PLAN
C800a	UTILITY PLAN "a"
C800b	UTILITY PLAN "b"
C800c	UTILITY PLAN "c"
C800d	UTILITY PLAN "d"
C801	SANITARY SEWER PROFILE (WEST)
C802	SANITARY SEWER PROFILE (EAST)
C900	TRAFFIC CONTROL PLAN
C1000	PAVEMENT, CURB, AND WALK DETAILS
C1001	STORM SEWER DETAILS
C1002	WATER/UTILITY DETAILS
C1003	WATER/UTILITY DETAILS
C1004	SANITARY SEWER DETAILS
WM100	MISCELLANEOUS DETAILS
WM101	MISCELLANEOUS DETAILS



SCALE: 0 1000 2000 3000

Heritage Development Company

34555 Chagrin Blvd., P.O. Box 8022, Moreland Hills, Ohio 44022-8022
 (440) 914-4300 Fax: (440) 247-9767

URS

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 CLEVELAND, OHIO 44113-2312
 (216) 622-2400

WAL-MART STORE #3250-00
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 SHALL MEET OR EXCEED THE WAL-MART
 STANDARD SITE WORK SPECIFICATIONS.

GOVERNING AGENCIES

GEAUGA SOIL AND WATER CONSERVATION DISTRICT
 14269 CLARIDON-TROY ROAD
 P.O. BOX 410
 BURTON, OHIO 44021
 CONTACT: CARMELLA SHALE, P.E.
 DISTRICT ENGINEER/ADMINISTRATOR
 TEL: (440) 634-1122

CITY OF AURORA
 158 WEST PIONEER TRAIL
 AURORA, OHIO 44202
 CONTACT: MR. JEFFREY L. OELTJEN, P.E.
 DIRECTOR OF ENGINEERING

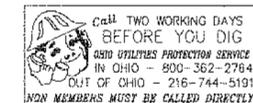
UTILITY COMPANIES

ALLTELL COMMUNICATIONS
 50 EXECUTIVE PARKWAY
 HUDSON, OHIO 44236
 CONTACT: MR. DICK KREJCI
 TEL: (330) 650-7654

DHD EDISON
 1910 WEST MARKET STREET
 FAIRLAWN BUILDING 1
 AKRON, OHIO 44313
 CONTACT: MR. RODNEY THOMAS
 TEL: (330) 384-4733

EAST OHIO GAS COMPANY
 1201 EAST 55TH STREET
 CLEVELAND, OHIO 44103-1028
 CONTACT: MR. MARTY FLYNN
 TEL: (216) 736-6736

RONALD B. SHAW, JR., P.E. DATE
 OHIO REGISTRATION NO. E-59489



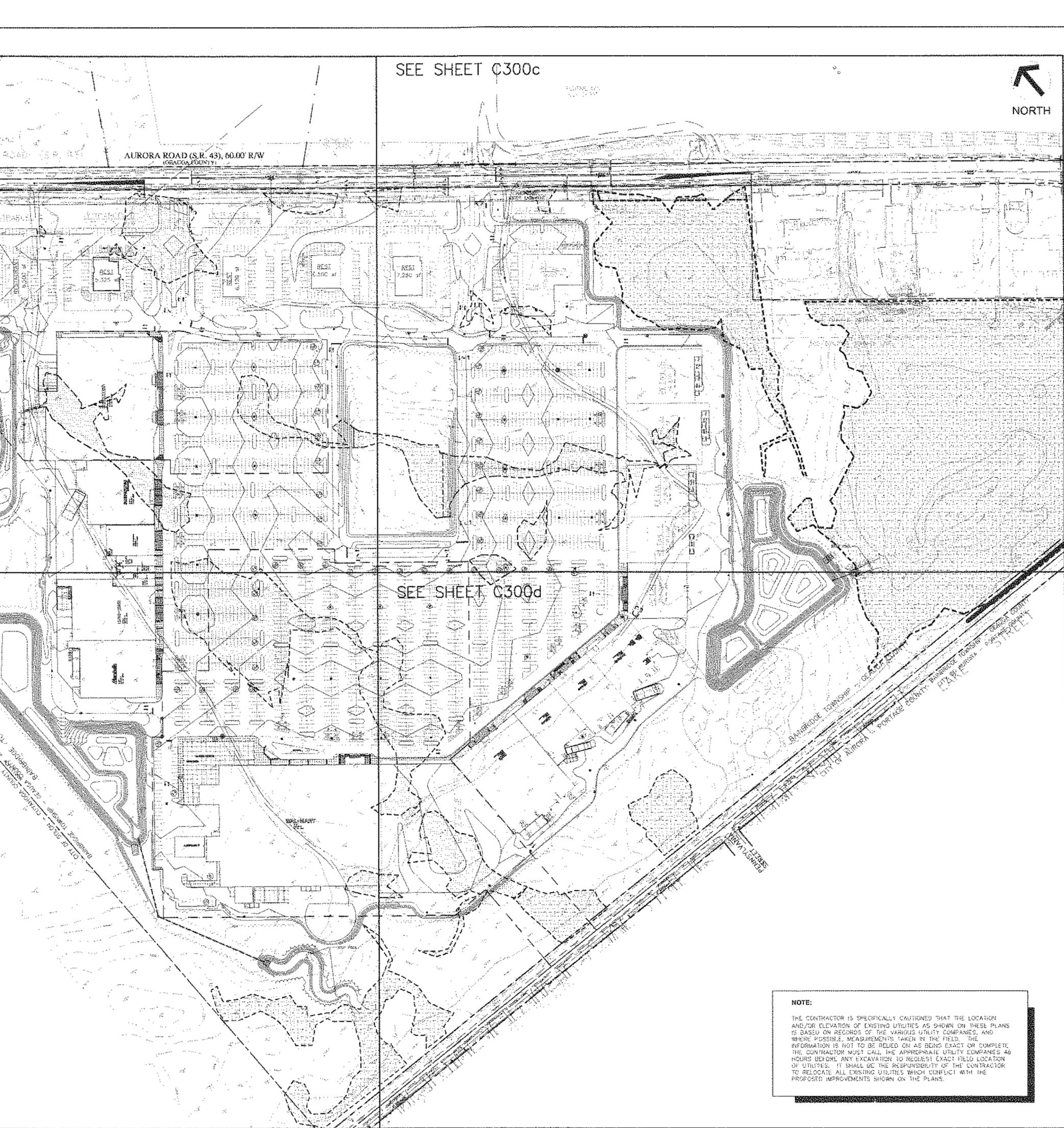
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SEE SHEET C300c

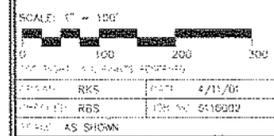


AURORA ROAD (S.R. 43), 60.00' R/W
(GEAUGA COUNTY)

SEE SHEET C300d



REVISIONS	
NO.	DATE
1	GENERAL 6/26/01
2	GENERAL 7/10/01
3	GENERAL 8/24/01
4	GENERAL 9/12/01
5	GENERAL 9/25/01
6	REMOVED DITCH 2/28/02
7	GENERAL REVISION 4/12/02
8	GENERAL REVISIONS 5/06/02



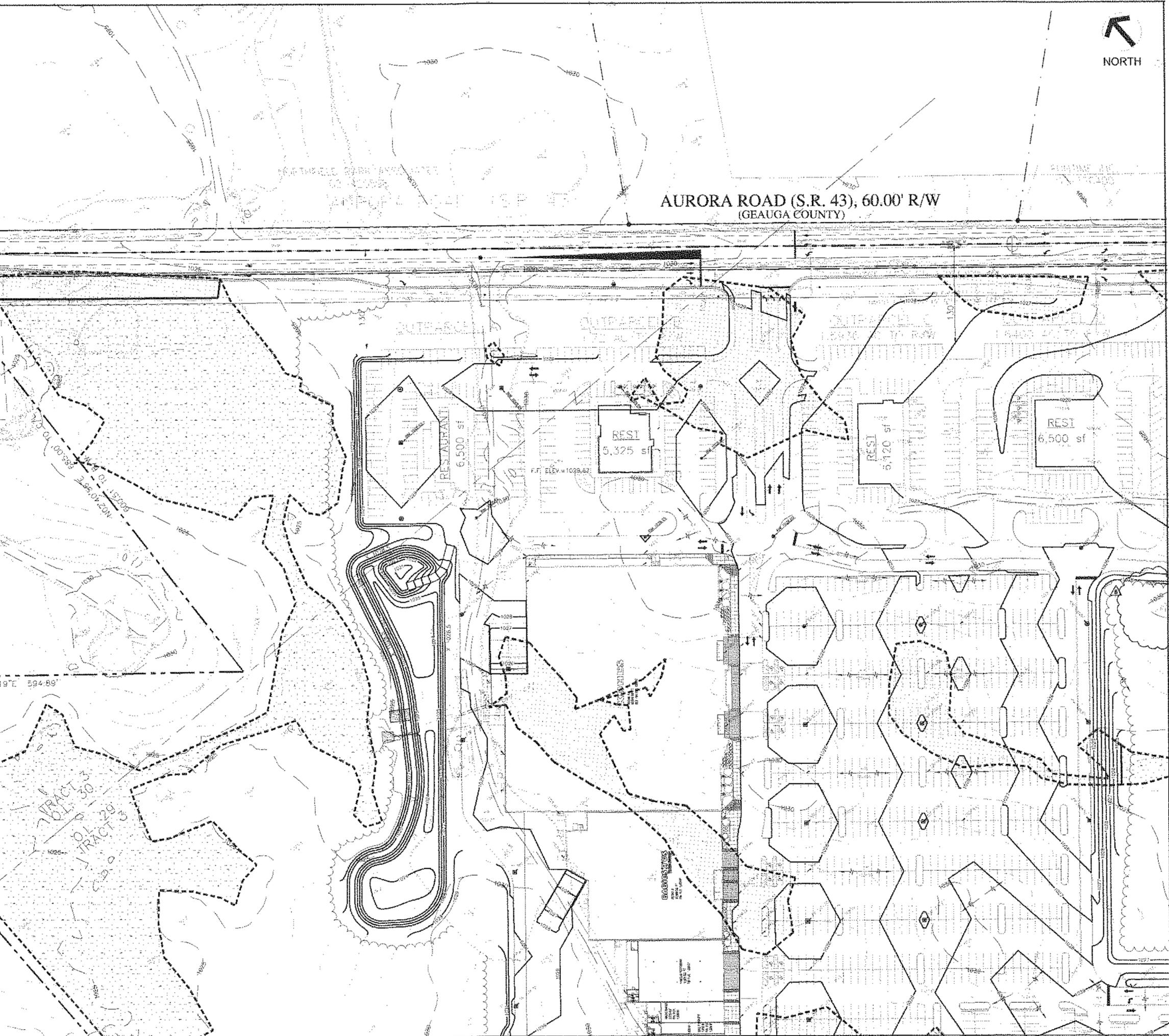
NOTE:

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

GRADING PLAN

THE MARKETPLACE AT FOUR CORNERS
BAINBRIDGE TOWNSHIP
GEAUGA COUNTY, OHIO

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C300



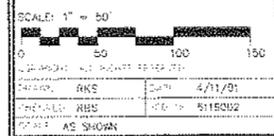
AURORA ROAD (S.R. 43), 60.00' R/W
(GEAUGA COUNTY)



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4	GENERAL	9/12/01
5	GENERAL	9/25/01
6	REMOVED DITCH	2/28/02
7	KUHLS REVISIONS	4/8/02
8	GENERAL REVISIONS	4/8/02
9	GENERAL REVISIONS	5/08/02



**GRADING
PLAN "a"**

THE MARKETPLACE AT
FOUR CORNERS
BAINBRIDGE TOWNSHIP
GEAUGA COUNTY, OHIO

**URS
C300a**

CONTINUED - SHEET C300b



CONTINUED - SHEET C300d

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5	GENERAL 9/25/01
6	GENERAL REVISIONS 4/26/02
7	GENERAL REVISIONS 5/08/02

NOTE:
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PREPARATION PROCEDURE SEE
WAL-MART STRUCTURAL PLANS
SHEET 54



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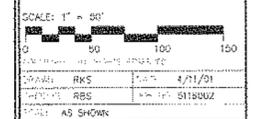
THE MARKETPLACE AT
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GEAUGA COUNTY, OHIO



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4	GENERAL 6/12/01
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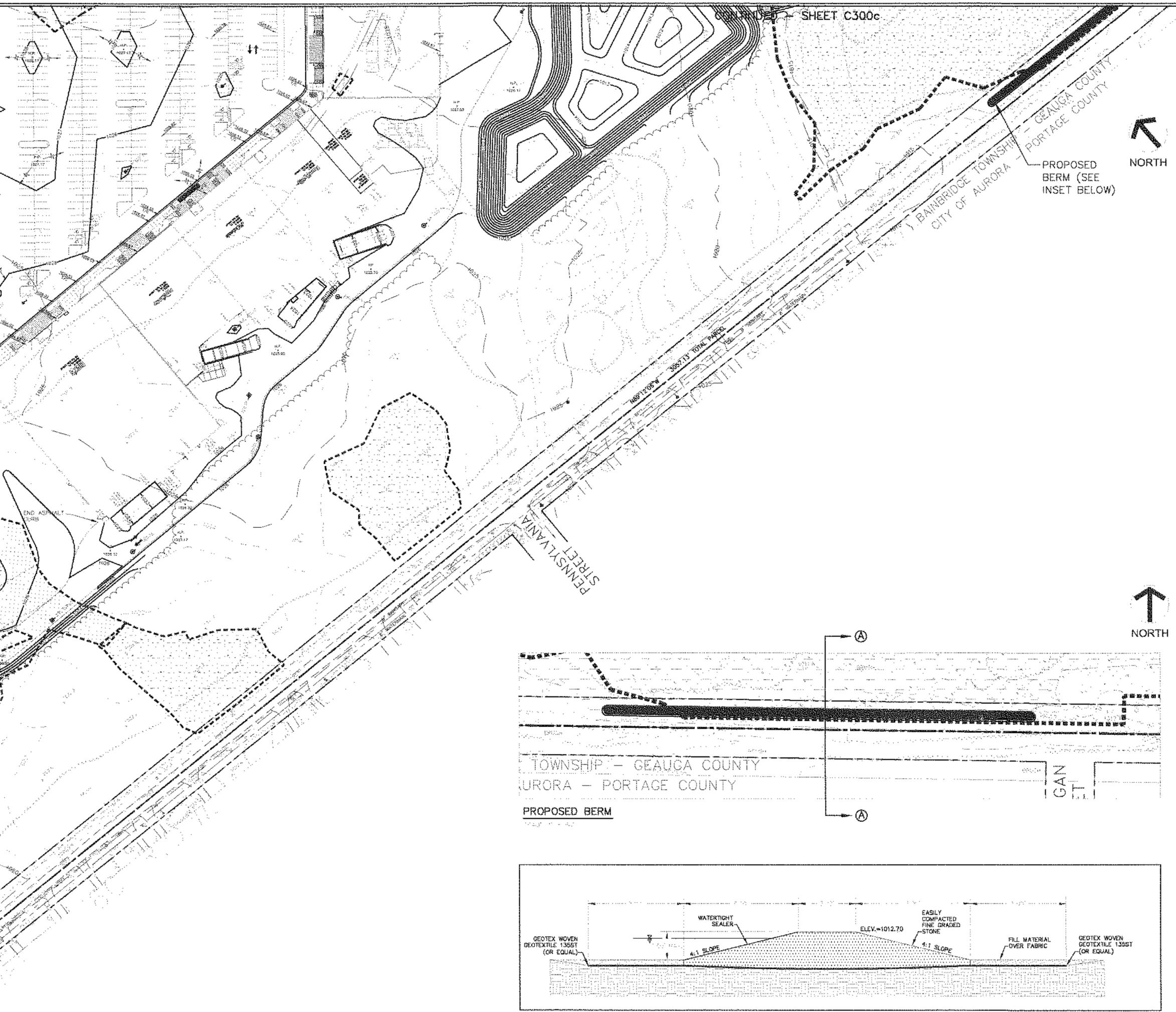


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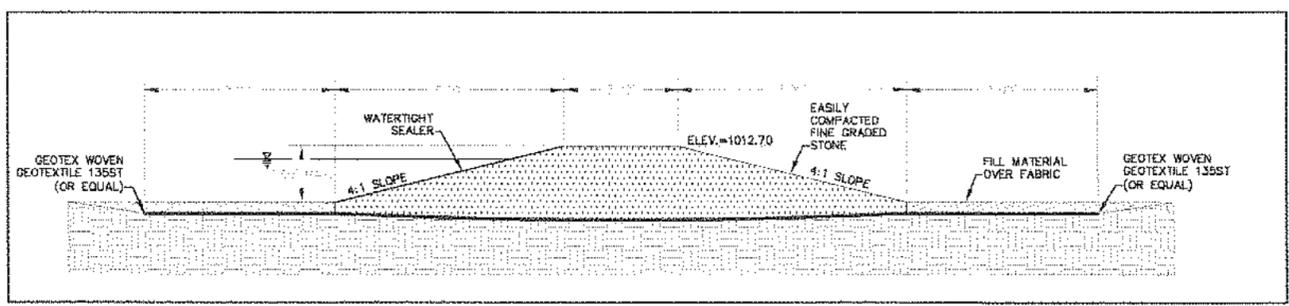
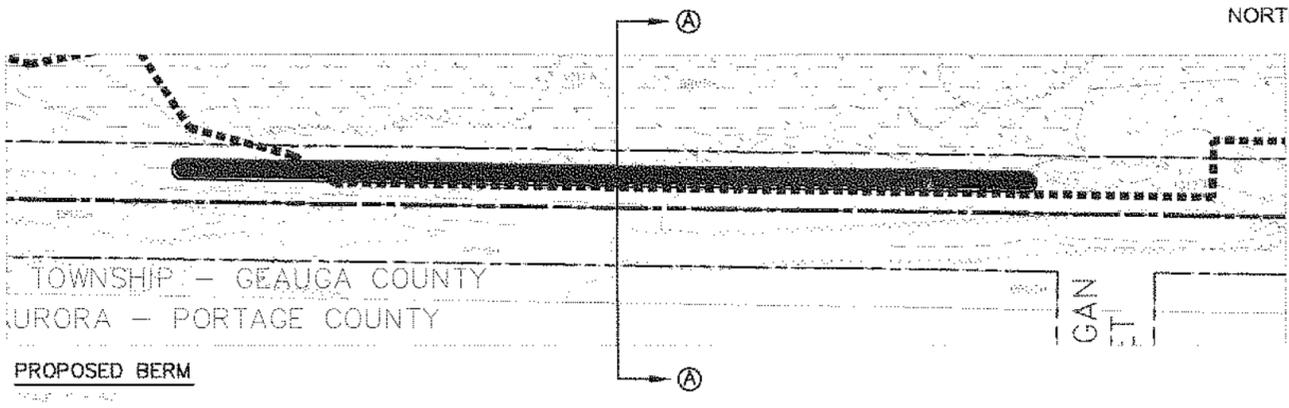
THE MARKETPLACE AT
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GEAUGA COUNTY, OHIO

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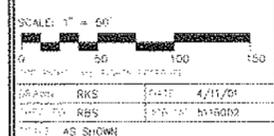


PROPOSED BERM (SEE INSET BELOW)



SECTION A-A

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3	GENERAL
4	GENERAL
5	GENERAL
6	GENERAL REVISIONS
7	REVISED GRADING
8	GENERAL REVISIONS



GRADING PLAN "d"

THE MARKETPLACE AT FOUR CORNERS
 BAINBRIDGE TOWNSHIP
 GEauga COUNTY, OHIO

URS
C300d



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NO.	REVISION	DATE

ISSUED FOR CONSTRUCTION		
NO.	REVISION	DATE

REVISIONS		
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3	GENERAL	8/24/01
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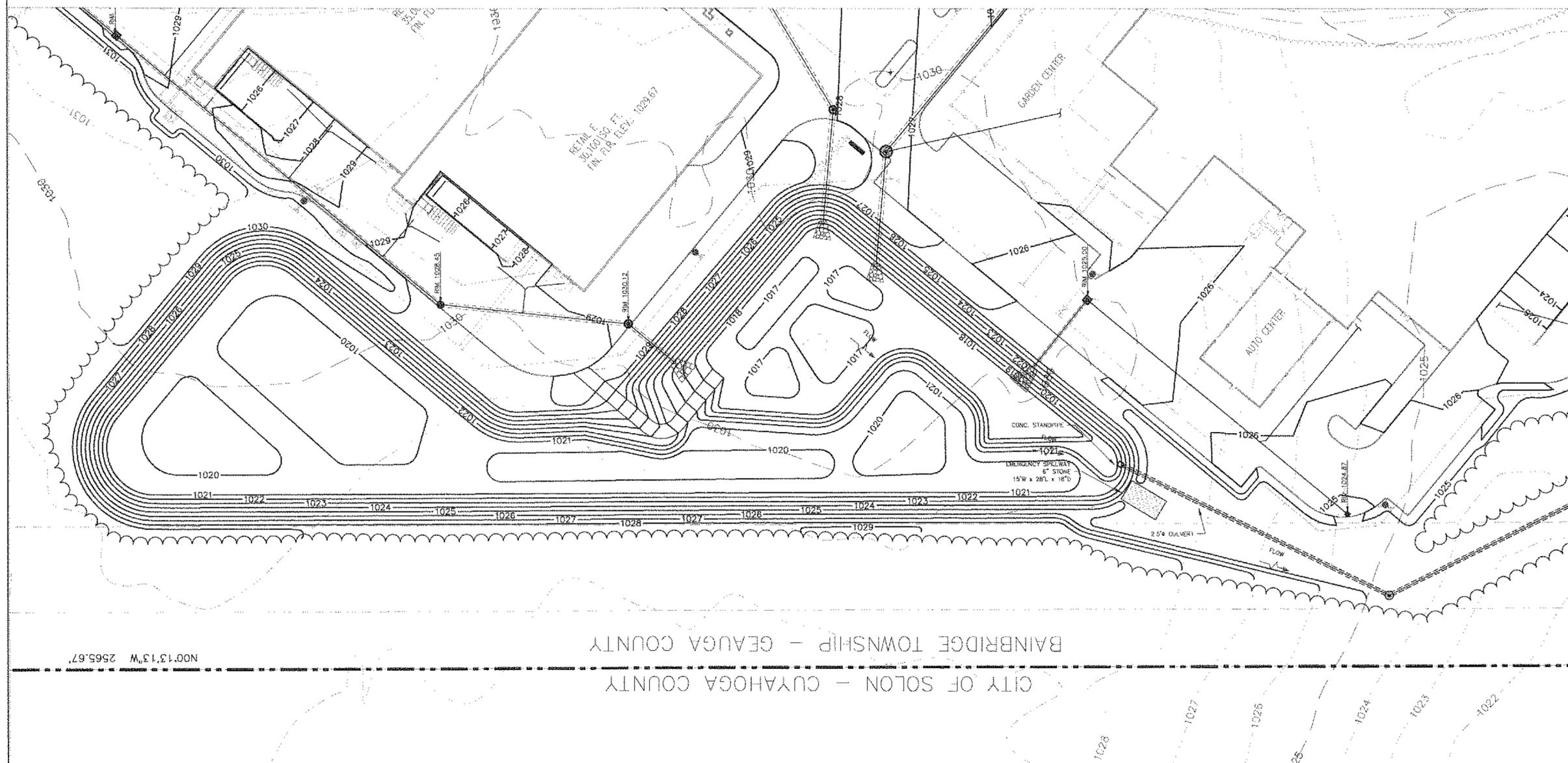
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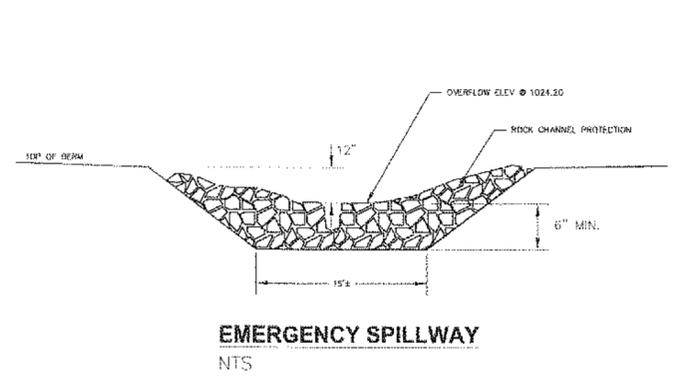
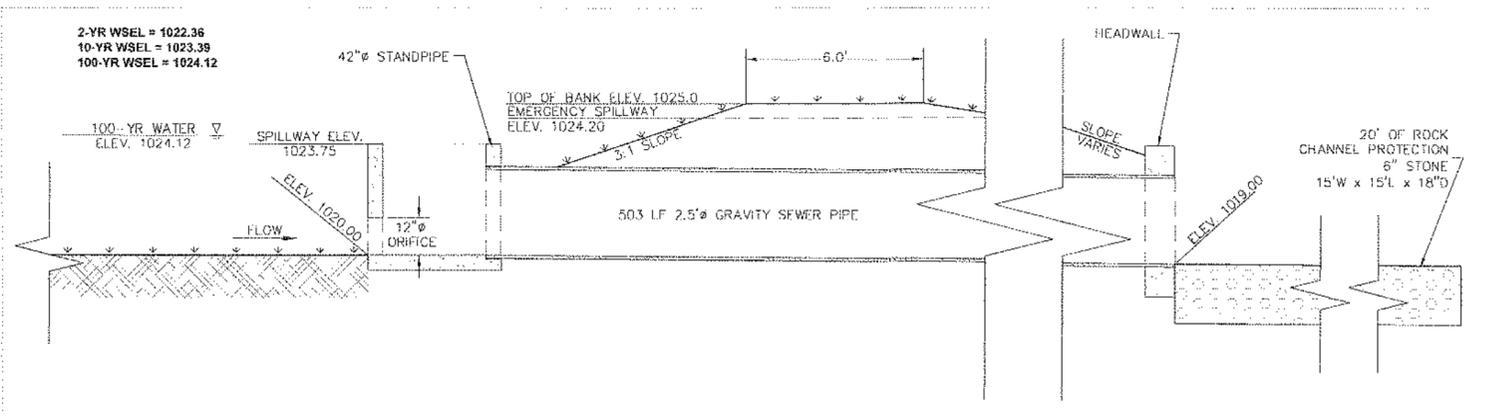
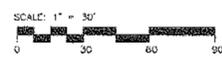
**STORMWATER
DETENTION POND
SOUTH**

THE MARKETPLACE AT
FOUR CORNERS
BAINBRIDGE TOWNSHIP
GEAUGA COUNTY, OHIO

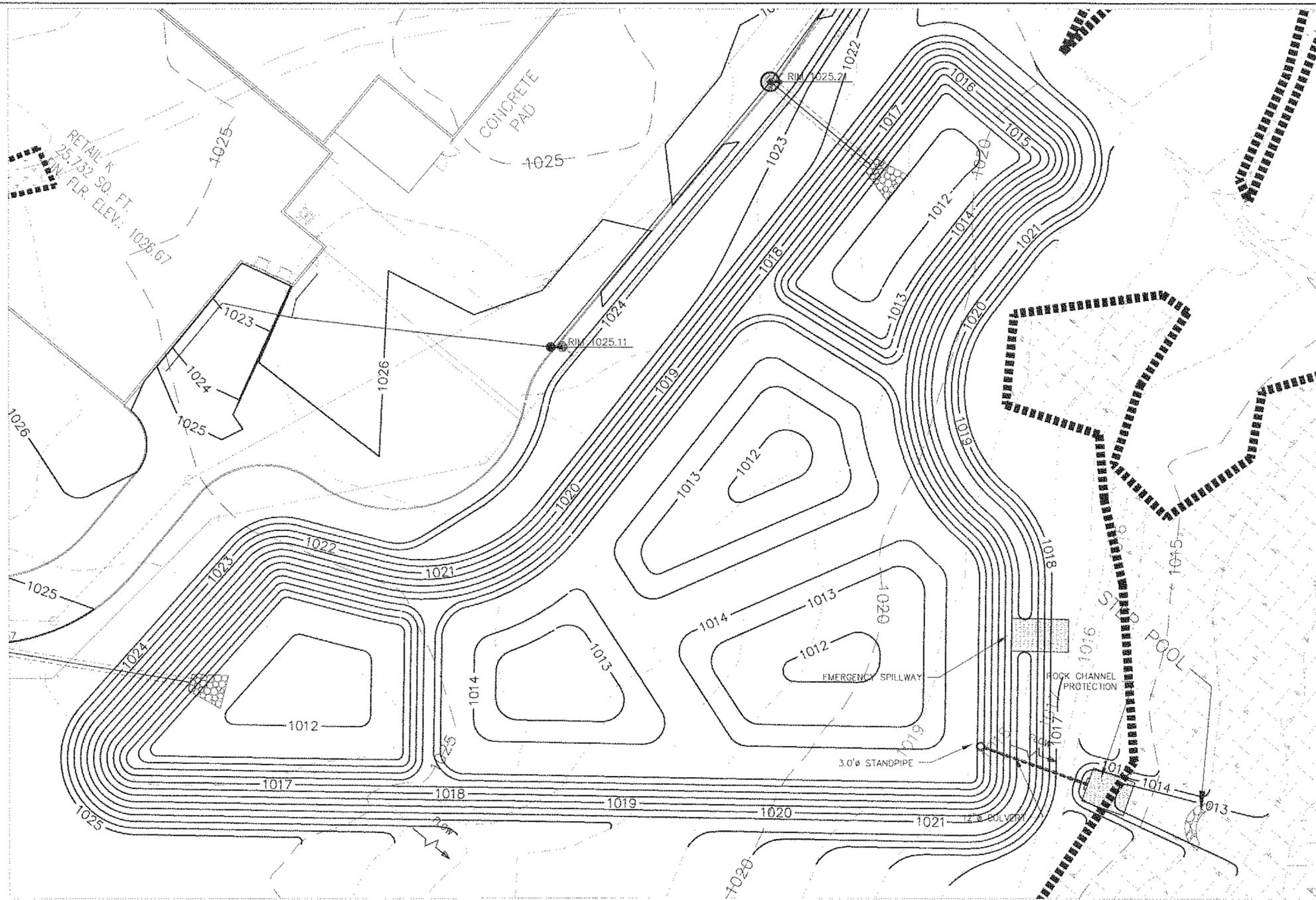
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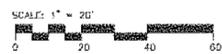
PLAN VIEW



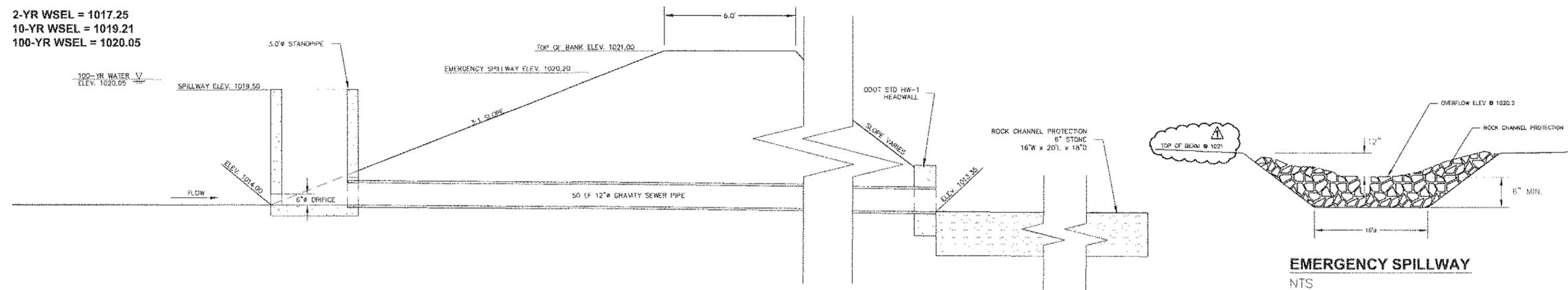
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PLAN VIEW



2-YR WSEL = 1017.25
 10-YR WSEL = 1019.21
 100-YR WSEL = 1020.05



EMERGENCY SPILLWAY
 NTS

REVISIONS FOR DESIGN	
NO.	DESCRIPTION

REVISIONS FOR CONSTRUCTION

REVISIONS		
NO.	DESCRIPTION	DATE
1	GENERAL	6/28/01
2	GENERAL	7/10/01
3	GENERAL	8/24/01
4	GENERAL	9/12/01
5	GENERAL	9/25/01

REVISIONS PER GEALGA SOIL AND WATER OBSERVATION DISTRICT COMMISSION DATED NOVEMBER 16, 2000

RECORD DRAWINGS

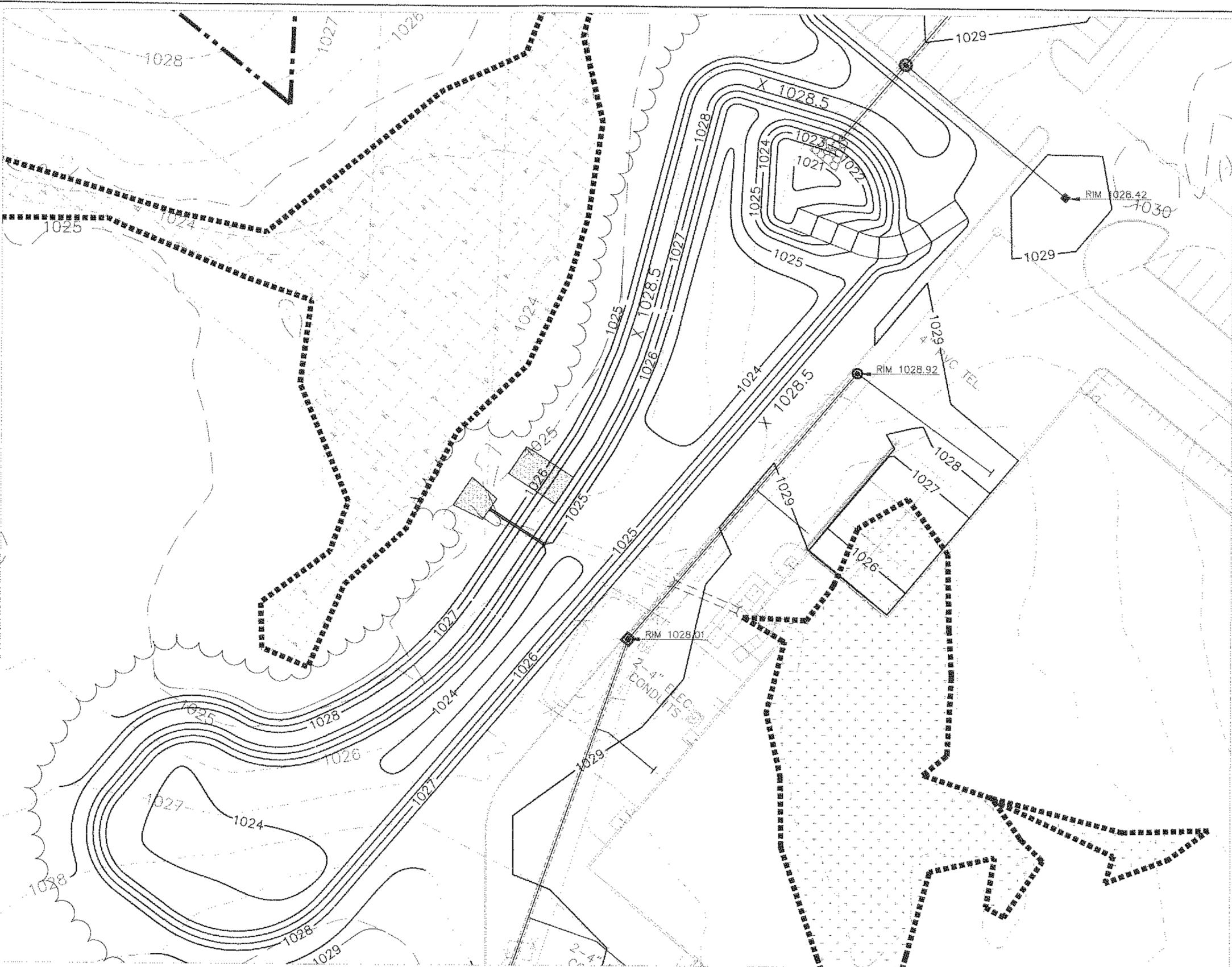
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SCALE: AS SHOWN	

**STORMWATER
 DETENTION POND
 EAST**

THE MARKETPLACE AT
 FOUR CORNERS
 BAINBRIDGE TOWNSHIP
 GEauga COUNTY, OHIO

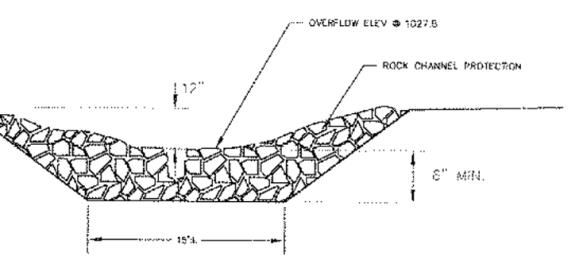
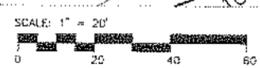
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11/15/01 10:00 AM 11/15/01 10:00 AM 11/15/01 10:00 AM

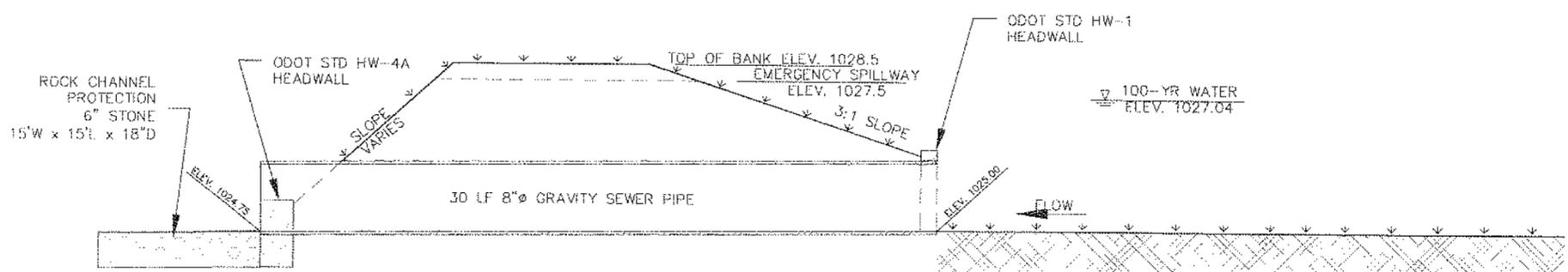


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 10-YR WSEL = 1026.61
 100-YR WSEL = 1027.04

PLAN VIEW



EMERGENCY SPILLWAY
 NTS



WEST POND OUTLET
 NTS

ISSUED FOR	DATE
ADDITIONAL REVISIONS	
REVISION NO.	DATE
DESCRIPTION	

REVISIONS		
NO.	DESCRIPTION	DATE
1	REVISIONS PER GEALDA SOIL AND WATER CONSERVATION CENTER COMMENTS DATED SEPTEMBER 16, 2000	7/10
2	GENERAL	8/24
3	GENERAL	9/12
4	GENERAL	9/25

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**STORMWATER
 DETENTION POND
 WEST**

THE MARKETPLACE AT
 FOUR CORNERS
 BAINBRIDGE TOWNSHIP
 GEauga COUNTY, OHIO

URS
C402

SEE SHEET C500d

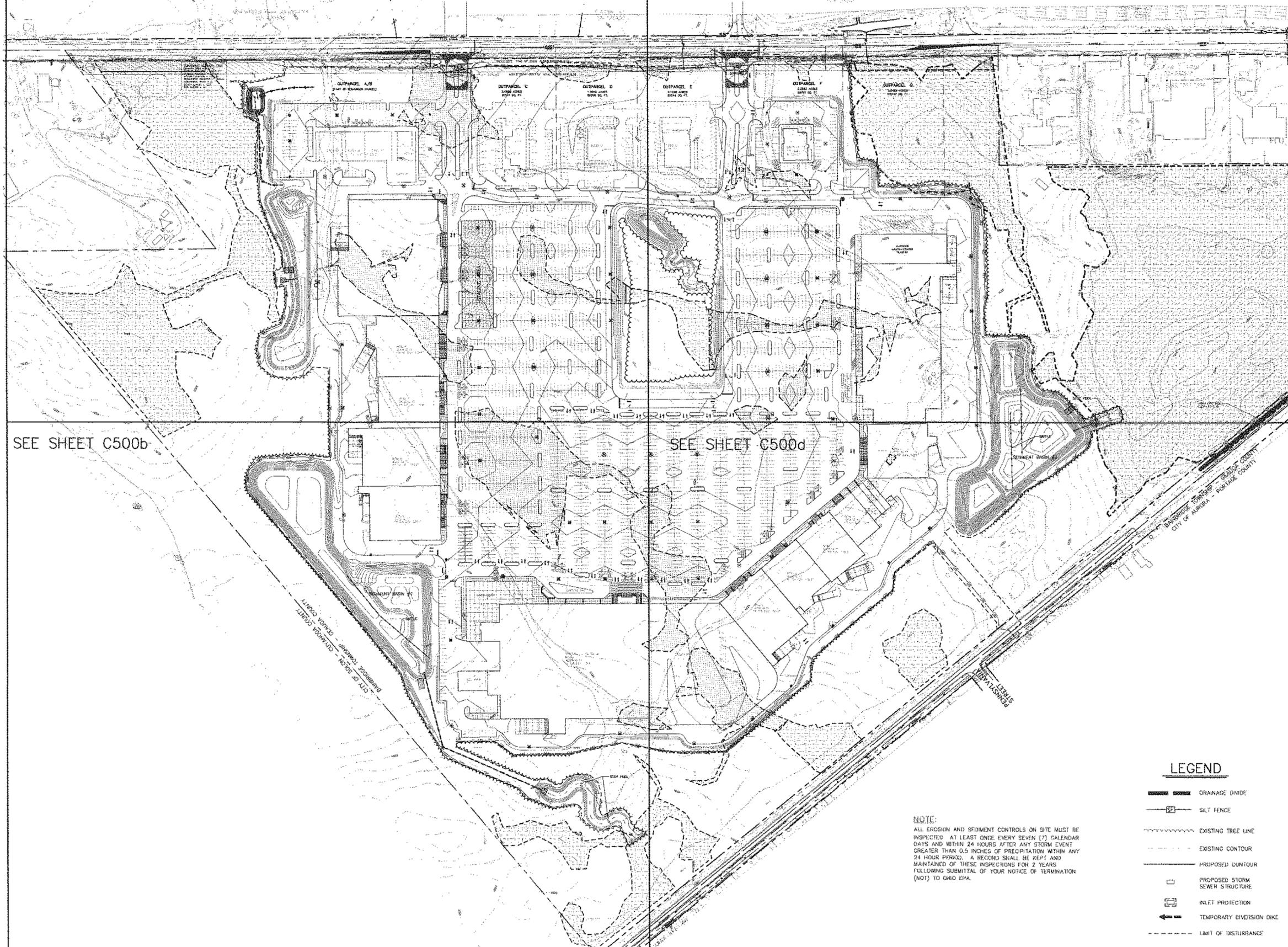
SEE SHEET C500c



NORTH

SEE SHEET C500b

SEE SHEET C500d



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SUBMITTAL NO.			
DATE			
BY			
ISSUED FOR CONSTRUCTION			
SUBMITTAL NO.			
DATE			
BY			
REVISIONS			
NO.	DESCRIPTION	DATE	BY
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2	GENERAL	7/10/01	
3	GENERAL	8/24/01	
4	GENERAL	9/12/01	
5	GENERAL	9/25/01	

REVISIONS

SCALE: 1" = 100'

0 100 200 300

DATE: 4/11/01

CHECKED: RBS

SCALE: AS SHOWN

LEGEND

- DRAINAGE DIVIDE
- SILT FENCE
- EXISTING TREE LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED STORM SEWER STRUCTURE
- INLET PROTECTION
- TEMPORARY DIVERSION DIKE
- LIMIT OF DISTURBANCE

NOTE:
 ALL EROSION AND SEDIMENT CONTROLS ON SITE MUST BE INSPECTED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCHES OF PRECIPITATION WITHIN ANY 24 HOUR PERIOD. A RECORD SHALL BE KEPT AND MAINTAINED OF THESE INSPECTIONS FOR 2 YEARS FOLLOWING SUBMITTAL OF YOUR NOTICE OF TERMINATION (NOT) TO GHD EPA.

SEDIMENT AND EROSION CONTROL PLAN

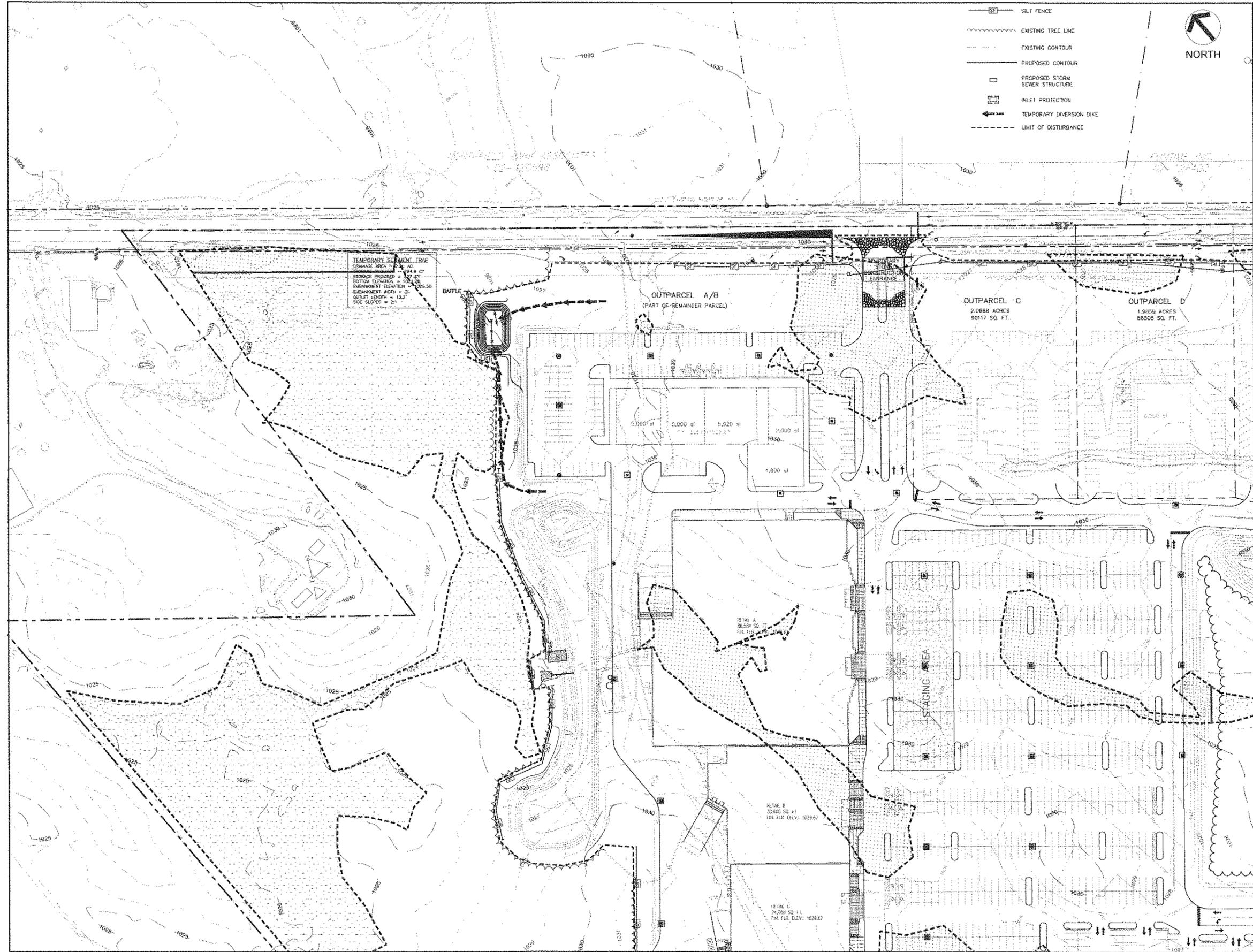
THE MARKETPLACE AT FOUR CORNERS
 BAINBRIDGE TOWNSHIP
 GEauga COUNTY, OHIO

URS
C500

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LEGEND

- DRAINAGE DIVIDE
- SILT FENCE
- EXISTING TREE LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED STORM SEWER STRUCTURE
- INLET PROTECTION
- TEMPORARY DIVERSION DIKE
- LIMIT OF DISTURBANCE



TEMPORARY SEDIMENT TRAP
 DRAINAGE AREA = 2.46 AC
 STORAGE PROVIDED = 137.47 CU YD
 BOTTOM ELEVATION = 1024.00
 EMBANKMENT ELEVATION = 1026.50
 OUTLET LENGTH = 118.2'
 SIDE SLOPES = 2:1

CONTINUED - SHEET C500c

ISSUED FOR RECORD		
APPROVED BY		
DATE	BY	BY

REVISIONS		
NO.	DESCRIPTION	DATE
1	GENERAL	6/26/01
2	GENERAL	7/10/01
3	GENERAL	8/24/01
4	GENERAL	9/12/01
5	GENERAL	9/25/01

RECORD DRAWINGS	
DATE	BY

SCALE: 1" = 50'

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 DRAWN: RKS DATE: 4/11/01
 CHECKED: RBS JOB NO: 3116002
 SCALE: AS SHOWN

SEDIMENT AND EROSION CONTROL PLAN "a"

THE MARKETPLACE AT FOUR CORNERS
 BAINBRIDGE TOWNSHIP
 GAUGA COUNTY, OHIO

URS
C500a

CONTINUED - SHEET C500a



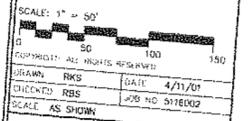
NORTH

LEGEND

- DRAINAGE DIVIDE
- SILT FENCE
- EXISTING TREE LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED STORM SEWER STRUCTURE
- INLET PROTECTION
- TEMPORARY DIVERSION DIKE
- LIMIT OF DISTURBANCE

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	GENERAL	8/25/01	
2	GENERAL	7/10/01	
3	GENERAL	8/24/01	
4	GENERAL	9/12/01	
5	GENERAL	9/25/01	

CONTINUED - SHEET C600



SEDIMENT AND EROSION CONTROL PLAN "b"

THE MARKETPLACE AT FOUR CORNERS
 BAINBRIDGE TOWNSHIP
 GEauga COUNTY, OHIO

CITY OF SOLON - GUYAROCK COUNTY
 BAINBRIDGE TOWNSHIP - GEauga COUNTY

SEDIMENT BASIN #1

BAFFLE

STEP POOL

PROPOSED L. 8'-12" x 20' x 24'
 HEIGHT 30 FT.
 IN ALL DIRECTIONS

WATER CENTER

LANDSCAPE AREA

REMARK: SEE PT. IN PLAN FOR ELEVATION

REMARK: SEE PT. IN PLAN FOR ELEVATION

S. MUEB, INC. ENGINEERS, 10000 WILSON ROAD, CLEVELAND, OHIO 44130

LEGEND

-  DRAINAGE DIVIDE
-  SILT FENCE
-  EXISTING TREE LINE
-  EXISTING CONTOUR
-  PROPOSED CONTOUR
-  PROPOSED STORM SEWER STRUCTURE
-  INLET PROTECTION
-  TEMPORARY DIVERSION DIKE
-  LIMIT OF DISTURBANCE



CONTINUED - SHEET C500g

CONTINUED - SHEET C500d

REVISIONS		
NO.	DESCRIPTION	DATE
1	GENERAL	6/26/01
2	GENERAL	7/10/01
3	GENERAL	8/24/01
4	GENERAL	9/12/01
5	GENERAL	9/25/01

REVISIONS		
NO.	DESCRIPTION	DATE

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NO.	DESCRIPTION	DATE

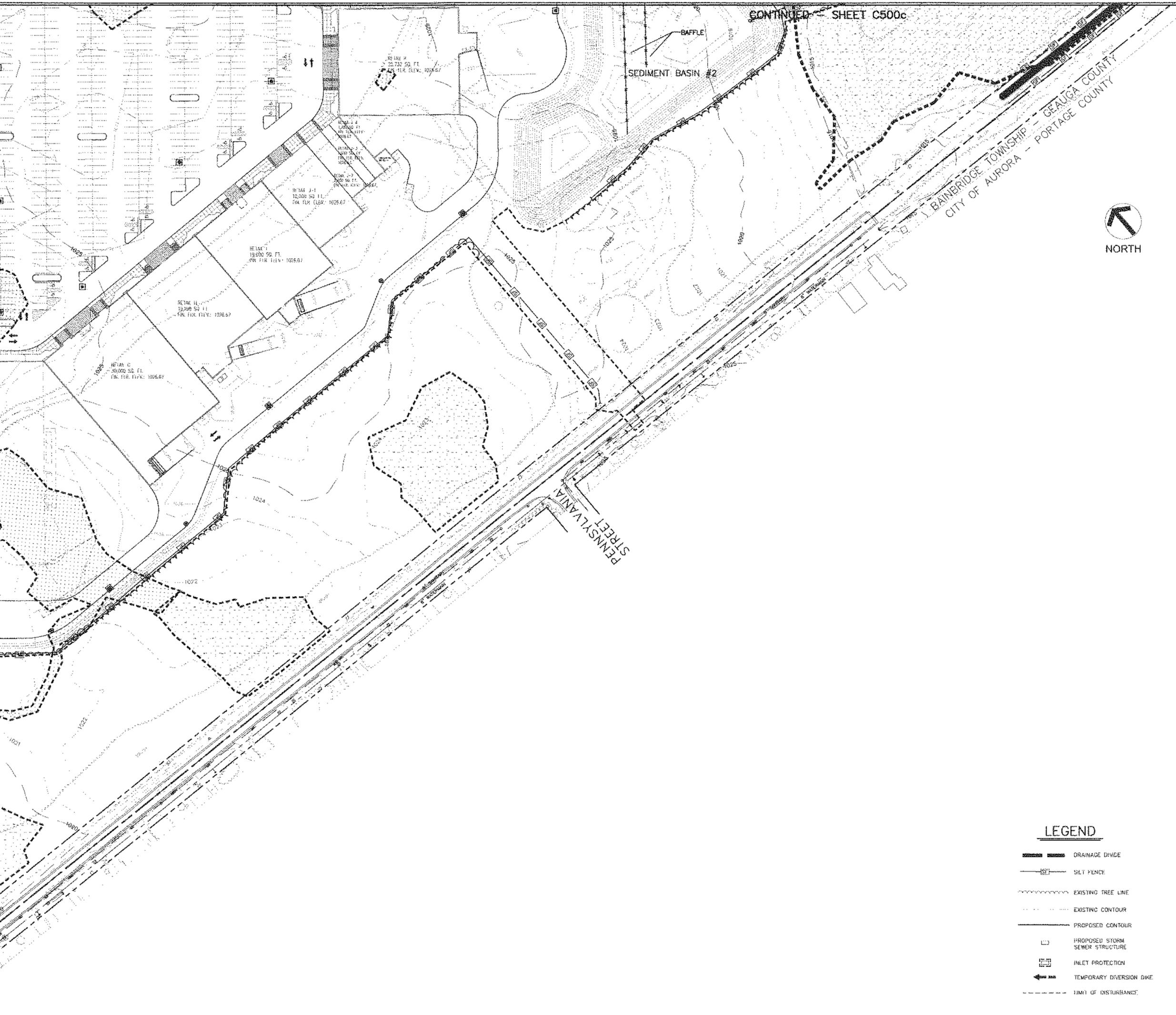
SCALE: 1" = 50'

SEDIMENT AND EROSION CONTROL PLAN "c"

THE MARKETPLACE AT FOUR CORNERS
BAINBRIDGE TOWNSHIP
GAUGA COUNTY, OHIO

URS
C500c

CONTINUED SHEET C500c



BAFFLE
SEDIMENT BASIN #2

BAINBRIDGE TOWNSHIP
CITY OF AURORA
GEAUGA COUNTY
PORTAGE COUNTY



ISSUED FOR PERMITTING		
NO.	DATE	BY

ISSUED FOR CONSTRUCTION		
NO.	DATE	BY

REVISIONS		
NO.	DESCRIPTION	DATE
1	GENERAL	6/26/01
2	GENERAL	7/10/01
3	GENERAL	8/24/01
4	GENERAL	9/12/01
5	GENERAL	9/25/01

RECORD DRAWINGS

LEGEND

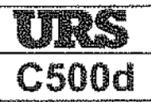
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- SILT FENCE
- EXISTING TREE LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED STORM SEWER STRUCTURE
- INLET PROTECTION
- TEMPORARY DIVERSION DIKE
- LIMIT OF DISTURBANCE

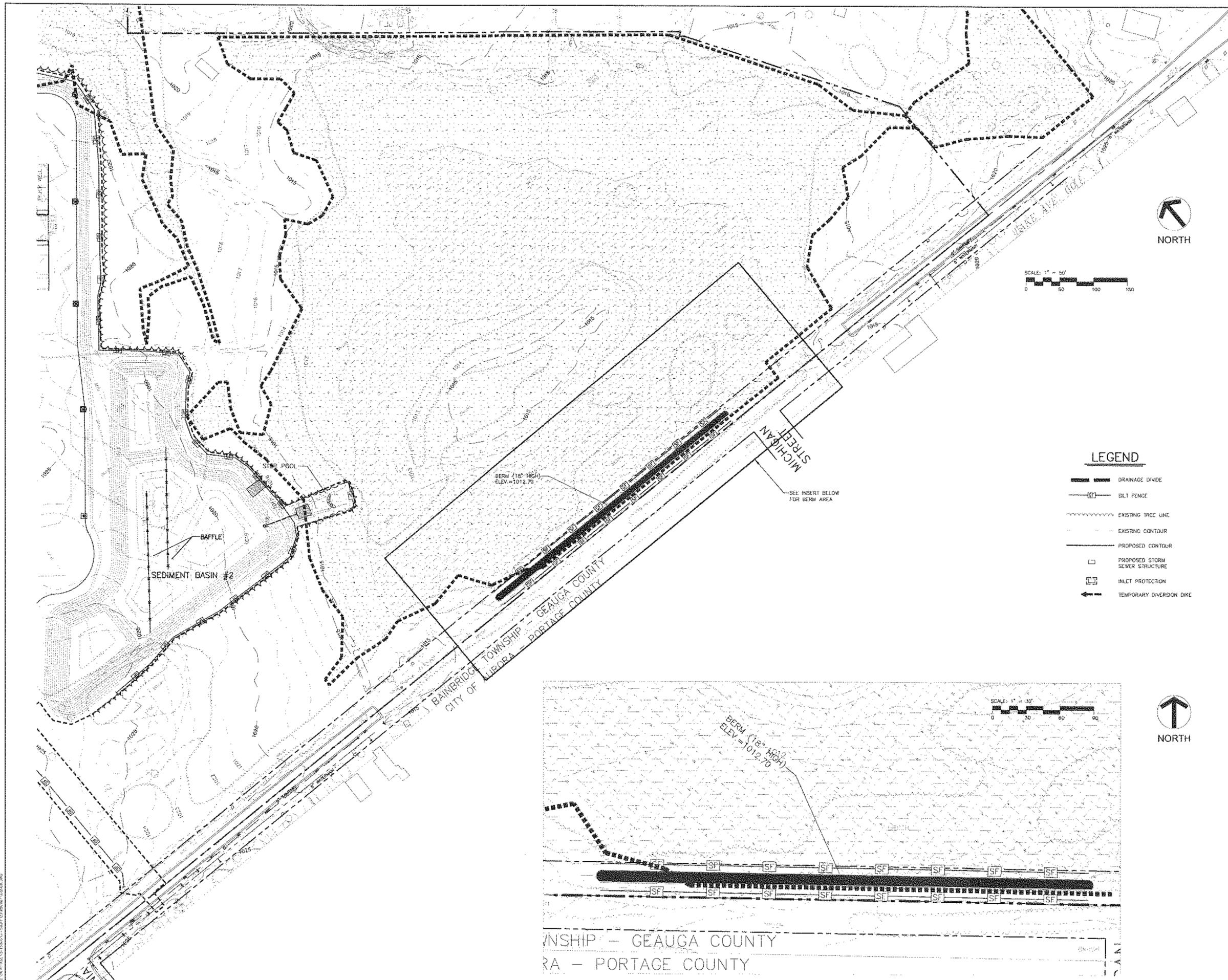
SCALE: 1" = 50'

DATE: 9/11/01
JOB NO: 5116002
SCALE: AS SHOWN

SEDIMENT AND EROSION CONTROL PLAN "d"

THE MARKETPLACE AT FOUR CORNERS
BAINBRIDGE TOWNSHIP
GEAUGA COUNTY, OHIO





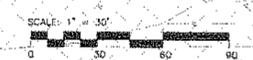
REVISIONS		
NO.	DESCRIPTION	DATE
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2	GENERAL	7/10/01
3	GENERAL	8/24/01
4	GENERAL	9/12/01
5	GENERAL	9/25/01

REVISIONS		
NO.	DESCRIPTION	DATE
1	GENERAL	6/26/01
2	GENERAL	7/10/01
3	GENERAL	8/24/01
4	GENERAL	9/12/01
5	GENERAL	9/25/01



LEGEND

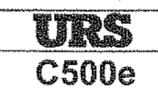
- DRAINAGE DIVIDE
- SILT FENCE
- EXISTING TREE LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED STORM SEWER STRUCTURE
- INLET PROTECTION
- TEMPORARY DIVERSION DIKE



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DRAWN	DATE	SCALE
RKS	4/11/01	AS SHOWN
CHECKED	RBS	JOB NO. 5116002

SEDIMENT AND EROSION CONTROL PLAN "e"

THE MARKETPLACE AT FOUR CORNERS
 BAINBRIDGE TOWNSHIP
 GEauga COUNTY, OHIO



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EROSION CONTROL NOTES

1. SEDIMENT PONDS AND PERIMETER SEDIMENT CONTROLS SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF GRUBBING. THESE SHALL CONTINUE TO FUNCTION UNTIL DISTURBED AREAS ARE RE-STABILIZED.
2. DISTURBED AREAS THAT WILL REMAIN UNWORKED FOR A PERIOD OF 45 DAYS OR LONGER SHALL BE STABILIZED WITH SEEDING AND MULCHING, OR OTHER APPROPRIATE MEANS, WITHIN 7 DAYS AFTER EARTH-MOVING CEASES.
3. SEEDING MIXTURES AND RATES, LIME AND FERTILIZER APPLICATION RATES, KIND AND QUANTITY OF MULCHING FOR BOTH TEMPORARY AND PERMANENT VEGETATIVE CONTROL MEASURES SHALL MEET THE LATEST ODOT CONSTRUCTION AND MATERIAL SPECIFICATION ITEM 859 - SEEDING AND MULCHING.
4. THE GEAGA SWCD SHALL BE NOTIFIED 48 HOURS PRIOR TO COMMENCEMENT OF EARTH-DISTURBING ACTIVITIES FOR ALL APPROVED COMMERCIAL, INDUSTRIAL, OR RESIDENTIAL DEVELOPMENT, REGARDLESS OF SITE ACREAGE. THE GEAGA SWCD SHALL ALSO BE NOTIFIED UPON PROJECT COMPLETION.
5. ALL STORM INLETS/CATCH BASINS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LOADED WATER WILL NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
- 6.

CONSTRUCTION SCHEDULE

RETIREMENT & SR 45 RETAIL COMMERCIAL DEVELOPMENT

Activity	Start Date	End Date	Notes
Site Preparation	08/01/2024	08/15/2024	Clearing, grubbing, and site prep.
Foundation Work	08/15/2024	09/01/2024	Excavation and foundation for buildings.
Structural Framing	09/01/2024	09/15/2024	Steel framing for main building.
Roofing	09/15/2024	10/01/2024	Installation of roof panels.
Interior Finishes	10/01/2024	10/15/2024	Partitions, drywall, and paint.
Exterior Finishes	10/15/2024	10/30/2024	Landscaping and site grading.
Final Inspection	10/30/2024	11/05/2024	Final walk-through and punch list.

CONTRACTOR: C. J. NATALE, INC. - JOB NO. 0000
CLIENT: HERITAGE DEVELOPMENT, INC.

TEMPORARY SEDIMENT BASIN #1 DESIGN DATA SHEET

PROJECT: HERITAGE COMMERCIAL DEVELOPMENT - BAINBRIDGE
BASIN #1
LOCATION: WEST SIDE OF SITE
TOTAL AREA DRAINING TO BASIN: 29.44 ACRES

WET STORAGE:

1. MINIMUM REQUIRED VOLUME = 67 CU. YDS. x TOTAL DRAINAGE AREA (ACRES)
67 CU. YDS. x 29.44 ACRES = 1,973 CU. YDS.
2. AVAILABLE BASIN VOLUME = 121.80 CU. YDS. AT ELEVATION 1023 (FROM STORAGE ELEVATION CURVE)
3. EXCAVATE 1,973 CU. YDS. TO OBTAIN REQUIRED VOLUME*
*ELEVATION CORRESPONDING TO REQUIRED VOLUME = INVERT OF THE DEWATERING ORIFICE (1020.40 ACTUAL, NEED 1 FT. ABOVE CLEANOUT → 1021.40)
4. AVAILABLE VOLUME BEFORE CLEANOUT REQUIRED = 23 CU. YDS. x 29.44 ACRES = 677 CU. YDS.
5. ELEVATION CORRESPONDING TO CLEANOUT LEVEL = 1020.41 (FROM STORAGE ELEVATION CURVE)
6. DISTANCE FROM INVERT OF THE DEWATERING ORIFICE TO CLEANOUT LEVEL = 1.0 FT. (MINIMUM = 1.0 FT.)

DRY STORAGE:

7. MINIMUM REQUIRED VOLUME = 67 CU. YDS. x TOTAL DRAINAGE AREA (ACRES)
67 CU. YDS. x 29.44 ACRES = 1,973 CU. YDS.
8. TOTAL AVAILABLE BASIN VOLUME AT CREST OF RISER = 4,519 CU. YDS. AT ELEVATION 1023 (FROM STORAGE ELEVATION CURVE)
* MINIMUM = 134 CU. YDS. / ACRE OF TOTAL DRAINAGE AREA (4.93 CU. YDS.)
9. DIAMETER OF DEWATERING ORIFICE = 3 IN.
10. DIAMETER OF FLEXIBLE TUBING = 5 IN. (DIAMETER OF DEWATERING ORIFICE PLUS 2 INCHES)

PRELIMINARY DESIGN ELEVATIONS:

11. CREST OF RISER = 1023.76
TOP OF DAM = 1024.76
DESIGN HIGH WATER = 1022.76
UPSTREAM TOE OF DAM = 1020

Basin Shape:

12. LENGTH OF FLOW EFFECTIVE WIDTH (L.W.) = 40 FEET - 2
IF 2 RAFFLES ARE NOT REQUIRED
IF 2 RAFFLES ARE REQUIRED

Runoff:

13. $Q_p = N/A$ CFS
14. $Q_u = 53.33$ CFS

Principal Spillway Design:

15. WITH EMERGENCY SPILLWAY, REQUIRED SPILLWAY CAPACITY $Q_1 = Q_p - N/A$ CFS (RISER AND BARREL)
16. WITHOUT EMERGENCY SPILLWAY, REQUIRED SPILLWAY CAPACITY $Q_2 = Q_u = 53.33$ CFS (RISER AND BARREL)
17. WITH EMERGENCY SPILLWAY:
ASSUMED AVAILABLE HEAD (h) = N/A FT. (USING Q₁)
h = (DESIGN HIGH WATER ELEVATION - CREST OF RISER ELEVATION)
RISER DIAMETER (D) = 48 IN. ACTUAL HEAD (h) = 1.3 FT. (FROM PLATE 5.13-4)
18. BARREL LENGTH (l) = 100 FT.
HEAD (h) ON BARREL THROUGH EMBANKMENT = 3.76 FT. (FROM PLATE 5.13-7)
19. BARREL DIAMETER = 42 IN. (FROM PLATE 5.13-B) (CONCRETE PIPE) OR PLATE 5.13-A (CORRUGATED PIPE)
20. TRASH RACK AND ANTI-VORTEX DEVICE
DIAMETER = 60 INCHES
HEIGHT = 19 INCHES (FROM TABLE 5.13-3)

Emergency Spillway Design:

21. REQUIRED SPILLWAY CAPACITY $Q_1 = Q_2 = N/A$ CFS
22. BOTTOM WIDTH (b) = N/A FT., THE SLOPE OF THE EXIST CHANNEL (s) = N/A FT./FT., AND THE MINIMUM LENGTH OF THE EXIST CHANNEL (L) = N/A FT. (FROM TABLE 5.13-1)

Anti-Slip Collar Design:

23. DEPTH OF WATER AT PRINCIPAL SPILLWAY CREST (Y) = 1.76 FT.
SLOPE OF UPSTREAM FACE OF EMBANKMENT (Z) = 3:1
SLOPE OF PRINCIPAL SPILLWAY BARREL (S) = 1:80 %
LENGTH OF BARREL IN SATURATED ZONE (L) = 15 FT.
24. NUMBER OF COLLARS REQUIRED = 3 DIMENSIONS = 3.5' x 3.5' (FROM PLATE 5.13-12)

Final Design Elevations:

25. TOP OF DAM = 1025.06
DESIGN HIGH WATER = 1023.66
EMERGENCY SPILLWAY CREST = 1023.76
PRINCIPAL SPILLWAY CREST = 1021.76
DEWATERING ORIFICE INVERT = 1021.44
CLEANOUT ELEVATION = 1020.44
ELEVATION OF UPSTREAM TOE OF DAM OR EXCAVATED BOTTOM OF "WET STORAGE AREA" IF EXCAVATION WAS PERFORMED = 1020

TEMPORARY SEDIMENT BASIN #2 DESIGN DATA SHEET

PROJECT: HERITAGE COMMERCIAL DEVELOPMENT - BAINBRIDGE
BASIN #2
LOCATION: SOUTHEAST SIDE OF SITE
TOTAL AREA DRAINING TO BASIN: 36.77 ACRES

WET STORAGE:

1. MINIMUM REQUIRED VOLUME = 67 CU. YDS. x TOTAL DRAINAGE AREA (ACRES)
67 CU. YDS. x 36.77 ACRES = 2,464 CU. YDS.
2. AVAILABLE BASIN VOLUME = 117.54 CU. YDS. AT ELEVATION 1021 (FROM STORAGE ELEVATION CURVE)
3. EXCAVATE 2,464 CU. YDS. TO OBTAIN REQUIRED VOLUME*
*ELEVATION CORRESPONDING TO REQUIRED VOLUME = INVERT OF THE DEWATERING ORIFICE (1015.46 ACTUAL, NEED 1 FT. ABOVE CLEANOUT → 1016.46)
4. AVAILABLE VOLUME BEFORE CLEANOUT REQUIRED = 33 CU. YDS. x 36.77 ACRES = 1,213 CU. YDS.
5. ELEVATION CORRESPONDING TO CLEANOUT LEVEL = 1014.73 (FROM STORAGE ELEVATION CURVE)
6. DISTANCE FROM INVERT OF THE DEWATERING ORIFICE TO CLEANOUT LEVEL = 1.0 FT. (MINIMUM = 1.0 FT.)

DRY STORAGE:

7. MINIMUM REQUIRED VOLUME = 67 CU. YDS. x TOTAL DRAINAGE AREA (ACRES)
67 CU. YDS. x 36.77 ACRES = 2,464 CU. YDS.
8. TOTAL AVAILABLE BASIN VOLUME AT CREST OF RISER = 5,276 CU. YDS. AT ELEVATION 1021 (FROM STORAGE ELEVATION CURVE)
* MINIMUM = 134 CU. YDS. / ACRE OF TOTAL DRAINAGE AREA (4.93 CU. YDS.)
9. DIAMETER OF DEWATERING ORIFICE = 3 IN.
10. DIAMETER OF FLEXIBLE TUBING = 5 IN. (DIAMETER OF DEWATERING ORIFICE PLUS 2 INCHES)

PRELIMINARY DESIGN ELEVATIONS:

11. CREST OF RISER = 1016.81
TOP OF DAM = 1017.81
DESIGN HIGH WATER = 1015.81
UPSTREAM TOE OF DAM = 1014

Basin Shape:

12. LENGTH OF FLOW EFFECTIVE WIDTH (L.W.) = 19.71 FT. - 1
IF 2 RAFFLES ARE NOT REQUIRED
IF 2 RAFFLES ARE REQUIRED

Runoff:

13. $Q_p = N/A$ CFS
14. $Q_u = N/A$ CFS

Principal Spillway Design:

15. WITH EMERGENCY SPILLWAY, REQUIRED SPILLWAY CAPACITY $Q_1 = Q_p - N/A$ CFS (RISER AND BARREL)
16. WITHOUT EMERGENCY SPILLWAY, REQUIRED SPILLWAY CAPACITY $Q_2 = Q_u = N/A$ CFS (RISER AND BARREL)
17. WITH EMERGENCY SPILLWAY:
ASSUMED AVAILABLE HEAD (h) = N/A FT. (USING Q₁)
h = (DESIGN HIGH WATER ELEVATION - CREST OF RISER ELEVATION)
RISER DIAMETER (D) = 48 IN. ACTUAL HEAD (h) = 1.7 FT. (FROM PLATE 5.13-4)
18. BARREL LENGTH (l) = 100 FT.
HEAD (h) ON BARREL THROUGH EMBANKMENT = 4.81 FT. (FROM PLATE 5.13-7)
19. BARREL DIAMETER = 42 IN. (FROM PLATE 5.13-B) (CONCRETE PIPE) OR PLATE 5.13-A (CORRUGATED PIPE)
20. TRASH RACK AND ANTI-VORTEX DEVICE
DIAMETER = 60 INCHES
HEIGHT = 19 INCHES (FROM TABLE 5.13-3)

Emergency Spillway Design:

21. REQUIRED SPILLWAY CAPACITY $Q_1 = Q_2 = N/A$ CFS
22. BOTTOM WIDTH (b) = N/A FT., THE SLOPE OF THE EXIST CHANNEL (s) = N/A FT./FT., AND THE MINIMUM LENGTH OF THE EXIST CHANNEL (L) = N/A FT. (FROM TABLE 5.13-1)

Anti-Slip Collar Design:

23. DEPTH OF WATER AT PRINCIPAL SPILLWAY CREST (Y) = 2.81 FT.
SLOPE OF UPSTREAM FACE OF EMBANKMENT (Z) = 3:1
SLOPE OF PRINCIPAL SPILLWAY BARREL (S) = 1:80 %
LENGTH OF BARREL IN SATURATED ZONE (L) = 22 FT.
24. NUMBER OF COLLARS REQUIRED = 3 DIMENSIONS = 3' x 3' (FROM PLATE 5.13-12)

Final Design Elevations:

25. TOP OF DAM = 1017.81
DESIGN HIGH WATER = 1015.81
EMERGENCY SPILLWAY CREST = 1016.81
PRINCIPAL SPILLWAY CREST = 1014.81
DEWATERING ORIFICE INVERT = 1014.73
CLEANOUT ELEVATION = 1013.73
ELEVATION OF UPSTREAM TOE OF DAM OR EXCAVATED BOTTOM OF "WET STORAGE AREA" IF EXCAVATION WAS PERFORMED = 1014

MISCELLANEOUS EROSION CONTROL DETAILS

STONE CONSTRUCTION ENTRANCE

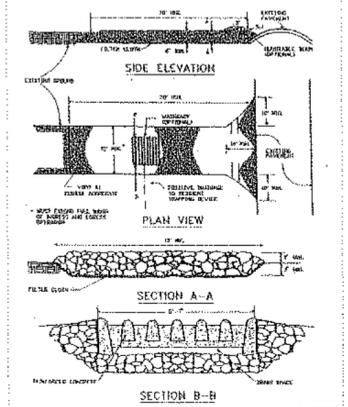


TABLE 5.01 - A
CONSTRUCTION SPECIFICATIONS FOR FILTER CLOTH UNDERLIER

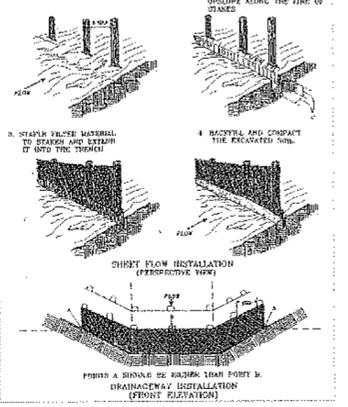
Fabric Properties	Light Duty Entrance (Graded Subgrade)	Heavy Duty Entrance (Rough Gravel)	Test Method
Crack Tensile Strength (lbs)	200	250	ASTM D1682
Elongation at Failure (%)	50	220	ASTM D1682
Mullen Burst Strength (lbs)	199	430	ASTM D3786
Tensile Strength (lbs)	40	125	ASTM D751 (modified)
Aperture Opening Size (mm)	40-80	40-80	U.S. Standard Sieve CW-2273

1. Fabric not meeting these specifications may be used only when design procedure and supporting documentation are supplied to determine aggregate depth and fabric strength.

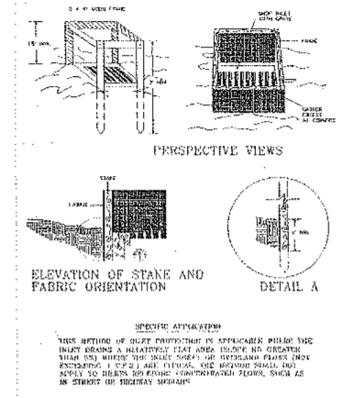
2. Light Duty Entrance: Sites that have been graded to subgrade and where most travel would be small size vehicles. Examples of fabrics which can be used are: Tevira Spunbond 1135, Mitrak 6000, Tigar 3401, or equivalent.

3. Heavy Duty Entrance: Sites with only rough grading and where most travel would be small size vehicles. Examples of fabrics which can be used are: Tevira Spunbond 1135, Mitrak 6000, or equivalent.

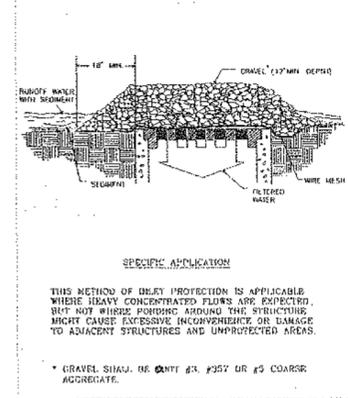
CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT)



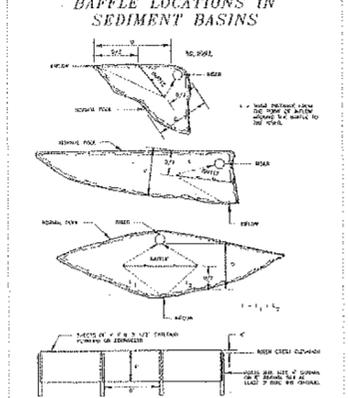
SILT FENCE DROP INLET PROTECTION



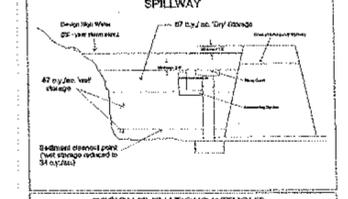
GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER



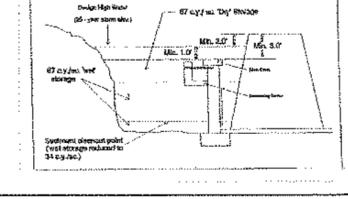
EXAMPLE PLAN VIEWS OF BAFFLE LOCATIONS IN SEDIMENT BASINS



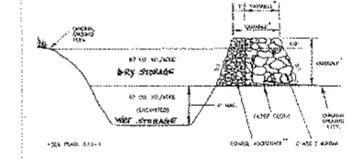
SEDIMENT BASIN SCHEMATICS DESIGN ELEVATIONS WITH EMERGENCY SPILLWAY



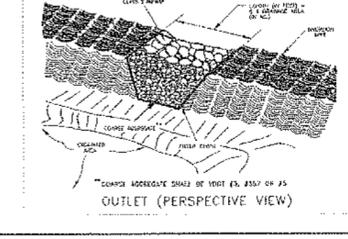
DESIGN ELEVATIONS WITHOUT EMERGENCY SPILLWAY



TEMPORARY SEDIMENT TRAP



CROSS SECTION OF OUTLET



STORAGE - ELEVATION CURVE SEDIMENT BASIN #1

Elevation	Area	Average	Difference	Volume	Total Vol. (Cu. Ft.)	Total Vol. (Cu. Yd.)
1015	43,504				0	0
1016	48,128	44,816	1	44,816	44,816	1,860
1017	48,900	47,456	1	47,456	92,272	3,418
1018	51,641	50,174	1	50,174	142,446	5,276
1019	54,333	52,937	1	52,937	195,383	7,237
1020	57,182	55,758	1	55,758	251,141	9,302
1021	60,087	58,653	1	58,653	309,794	11,479
1022	63,048	61,569	1	61,569	371,363	13,754

STORAGE - ELEVATION CURVE SEDIMENT BASIN #2

Elevation	Area	Average	Difference	Volume	Total Vol. (Cu. Ft.)	Total Vol. (Cu. Yd.)
1015	43,504				0	0
1016	48,128	44,816	1	44,816	44,816	1,860
1017	48,900	47,456	1	47,456	92,272	3,418
1018	51,641	50,174	1	50,174	142,446	5,276
1019	54,333	52,937	1	52,937	195,383	7,237
1020	57,182	55,758	1	55,758	251,141	9,302
1021	60,087	58,653	1	58,653	309,794	11,479
1022	63,048	61,569	1	61,569	371,363	13,754

REVISIONS

NO.	DESCRIPTION	DATE	BY
1	GENERAL	6/26/01	
2	GENERAL	7/10/01	
3	GENERAL	8/24/01	
4	GENERAL	9/12/01	
5	GENERAL	9/25/01	

DESIGNED BY: RKS
CHECKED BY: RKS
DATE: 4/11/01
JOB NO: 5116002
SCALE: AS SHOWN

SEDIMENT AND EROSION CONTROL DETAILS

THE MARKETPLACE AT FOUR CORNERS
BAINBRIDGE TOWNSHIP
GEAUGA COUNTY, OHIO

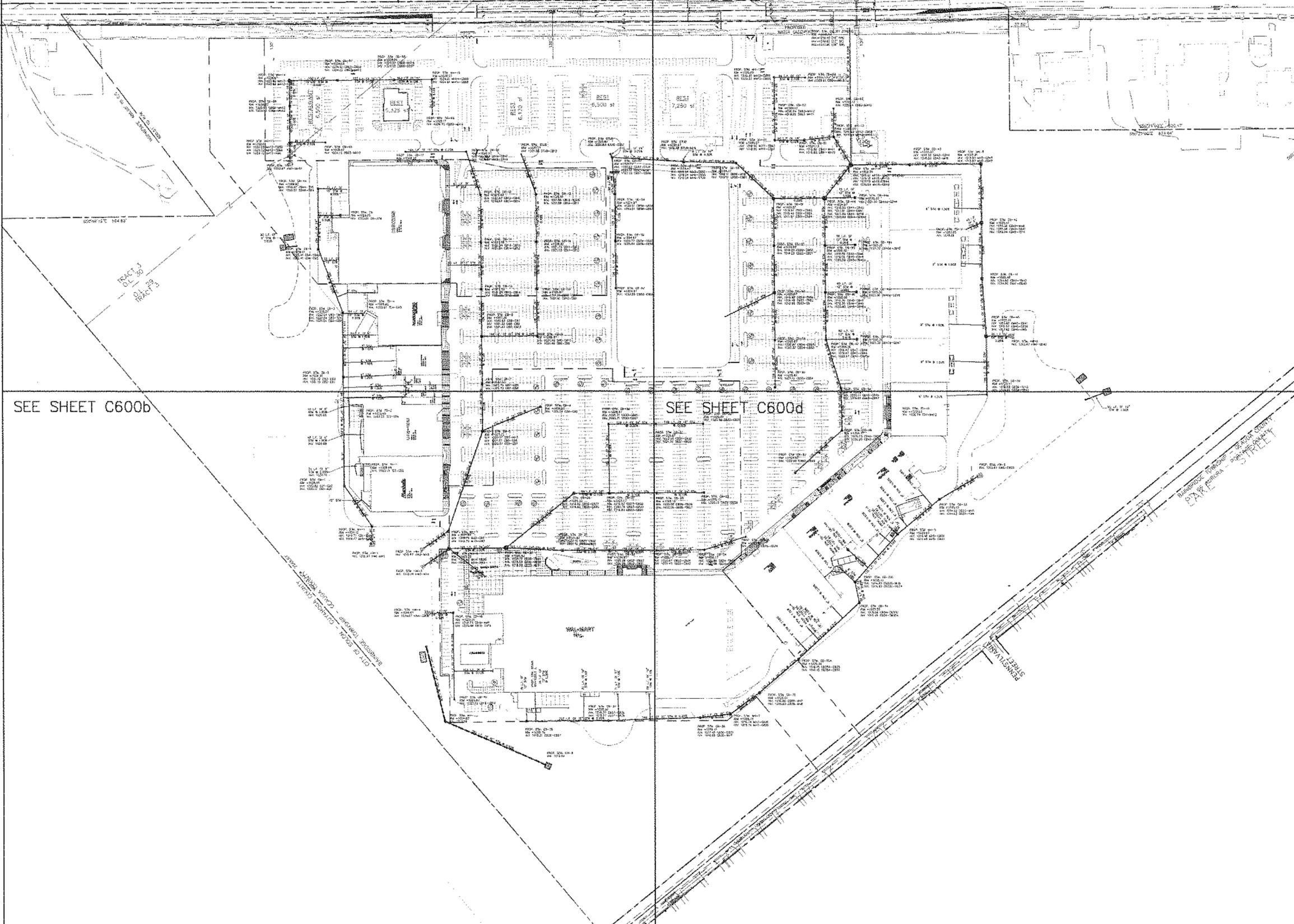
URS
C501

SEE SHEET C600a

SEE SHEET C600c



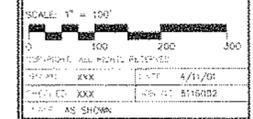
AURORA ROAD (S.R. 43), 60.00' R/W
(GAUGA COUNTY)



SEE SHEET C600b

SEE SHEET C600d

REVISIONS	
NO.	DESCRIPTION
1	GENERAL 5/28/01
2	GENERAL 7/10/01
3	GENERAL 8/24/01
4	GENERAL 8/24/01
5	GENERAL 9/25/01
6	REVISED STORM SEWER 2/28/02
7	GENERAL REVISION 4/10/02
8	GENERAL REVISIONS 5/08/02



STORM PLAN

THE MARKETPLACE AT
FOUR CORNERS
BAINBRIDGE TOWNSHIP
GAUGA COUNTY, OHIO





CITY OF SOLON - CUYAHOGA COUNTY
 BANBRIDGE TOWNSHIP - GAUGA COUNTY

CONTINUED - SHEET C600a

NO.	DESCRIPTION	DATE
1	GENERAL	9/28/01
2	GENERAL	7/10/01
3	GENERAL	8/24/01
4	GENERAL	8/12/01
5	GENERAL	3/23/01
6	GENERAL REVISIONS	4/8/00
7	GENERAL REVISIONS	5/09/00

NO.	DESCRIPTION	DATE
1	GENERAL	9/28/01
2	GENERAL	7/10/01
3	GENERAL	8/24/01
4	GENERAL	8/12/01
5	GENERAL	3/23/01
6	GENERAL REVISIONS	4/8/00
7	GENERAL REVISIONS	5/09/00

NO.	DESCRIPTION	DATE
1	GENERAL	9/28/01
2	GENERAL	7/10/01
3	GENERAL	8/24/01
4	GENERAL	8/12/01
5	GENERAL	3/23/01
6	GENERAL REVISIONS	4/8/00
7	GENERAL REVISIONS	5/09/00

NO.	DESCRIPTION	DATE
1	GENERAL	9/28/01
2	GENERAL	7/10/01
3	GENERAL	8/24/01
4	GENERAL	8/12/01
5	GENERAL	3/23/01
6	GENERAL REVISIONS	4/8/00
7	GENERAL REVISIONS	5/09/00

NO.	DESCRIPTION	DATE
1	GENERAL	9/28/01
2	GENERAL	7/10/01
3	GENERAL	8/24/01
4	GENERAL	8/12/01
5	GENERAL	3/23/01
6	GENERAL REVISIONS	4/8/00
7	GENERAL REVISIONS	5/09/00

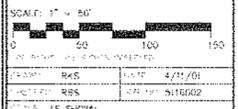
NO.	DESCRIPTION	DATE
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2	GENERAL	7/10/01
3	GENERAL	8/24/01
4	GENERAL	8/12/01
5	GENERAL	3/23/01
6	GENERAL REVISIONS	4/8/00
7	GENERAL REVISIONS	5/09/00

NO.	DESCRIPTION	DATE
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2	GENERAL	7/10/01
3	GENERAL	8/24/01
4	GENERAL	8/12/01
5	GENERAL	3/23/01
6	GENERAL REVISIONS	4/8/00
7	GENERAL REVISIONS	5/09/00

NO.	DESCRIPTION	DATE
1	GENERAL	9/28/01
2	GENERAL	7/10/01
3	GENERAL	8/24/01
4	GENERAL	8/12/01
5	GENERAL	3/23/01
6	GENERAL REVISIONS	4/8/00
7	GENERAL REVISIONS	5/09/00

NO.	DESCRIPTION	DATE
1	GENERAL	9/28/01
2	GENERAL	7/10/01
3	GENERAL	8/24/01
4	GENERAL	8/12/01
5	GENERAL	3/23/01
6	GENERAL REVISIONS	4/8/00
7	GENERAL REVISIONS	5/09/00

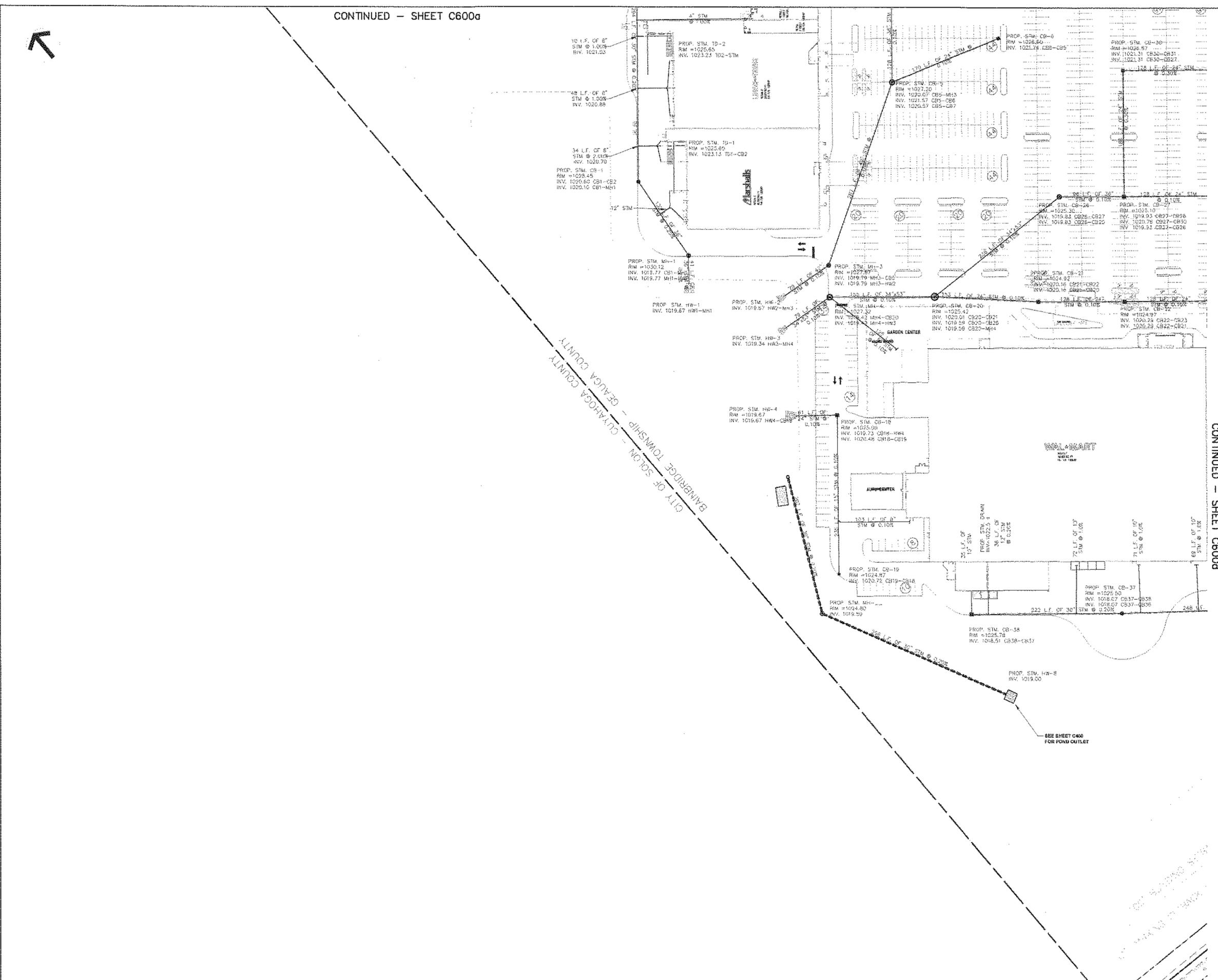
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5	GENERAL	3/23/01
6	GENERAL REVISIONS	4/8/00
7	GENERAL REVISIONS	5/09/00

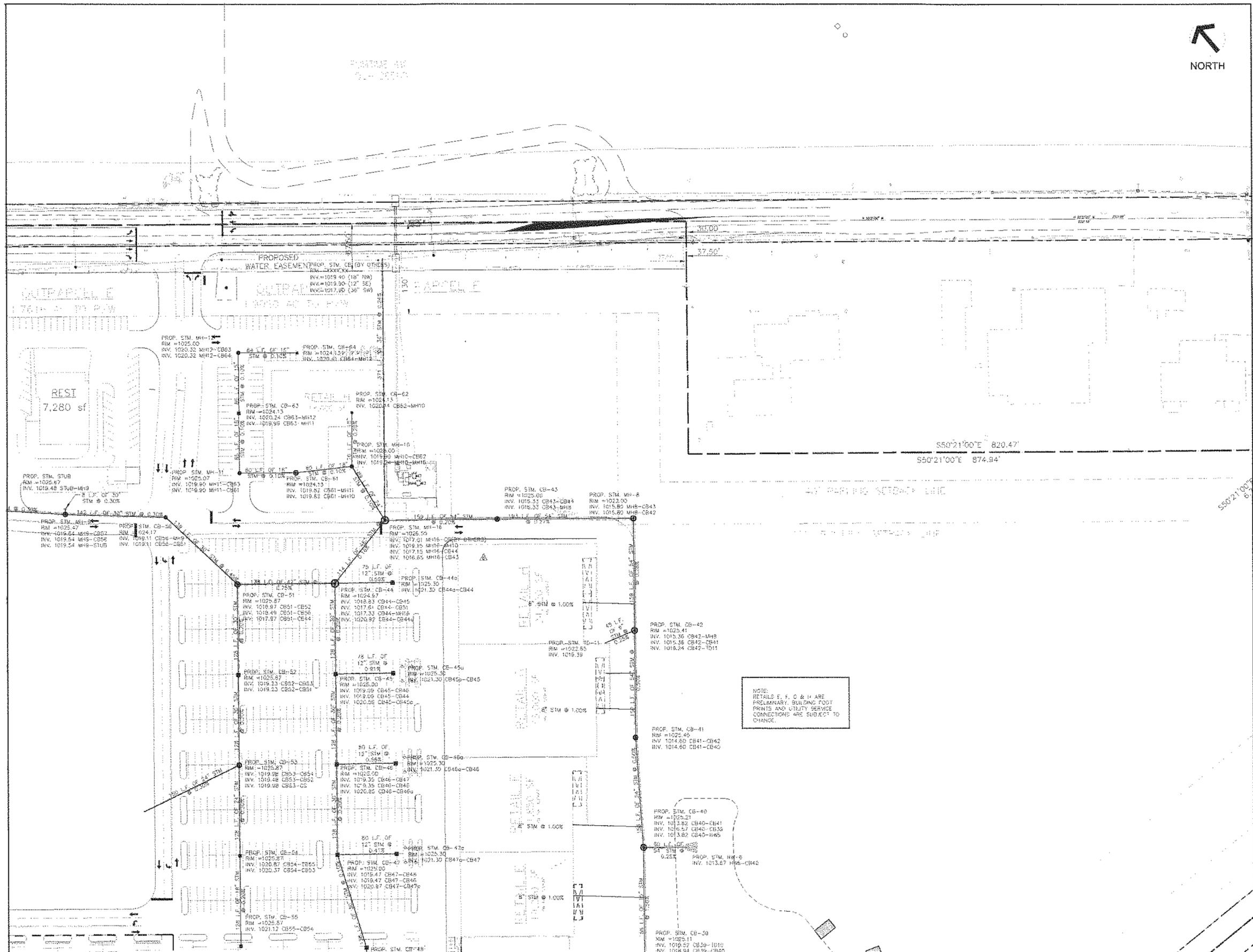


STORM PLAN "b"

 THE MARKETPLACE AT FOUR CORNERS
 BANBRIDGE TOWNSHIP
 GAUGA COUNTY, OHIO

URS
C600b





CONTINUED - SHEET C600g

NOTE:
REVISIONS F, G, H & I ARE
PRELIMINARY. BUILDING FOOT
PRINTS AND UTILITY SERVICE
CONNECTORS ARE SUBJECT TO
CHANGE.

NO.	DESCRIPTION	DATE
1	GENERAL	8/25/01
2	GENERAL	7/10/02
3	GENERAL	8/24/01
4	GENERAL	9/12/01
5	GENERAL	9/25/01
6	REVISION STORM SEWER	2/28/02
7	GENERAL REVISION	4/9/02
8	REVISION WATER AND STW	4/18/02
9	GENERAL REVISIONS	5/06/02



**STORM
PLAN "c"**

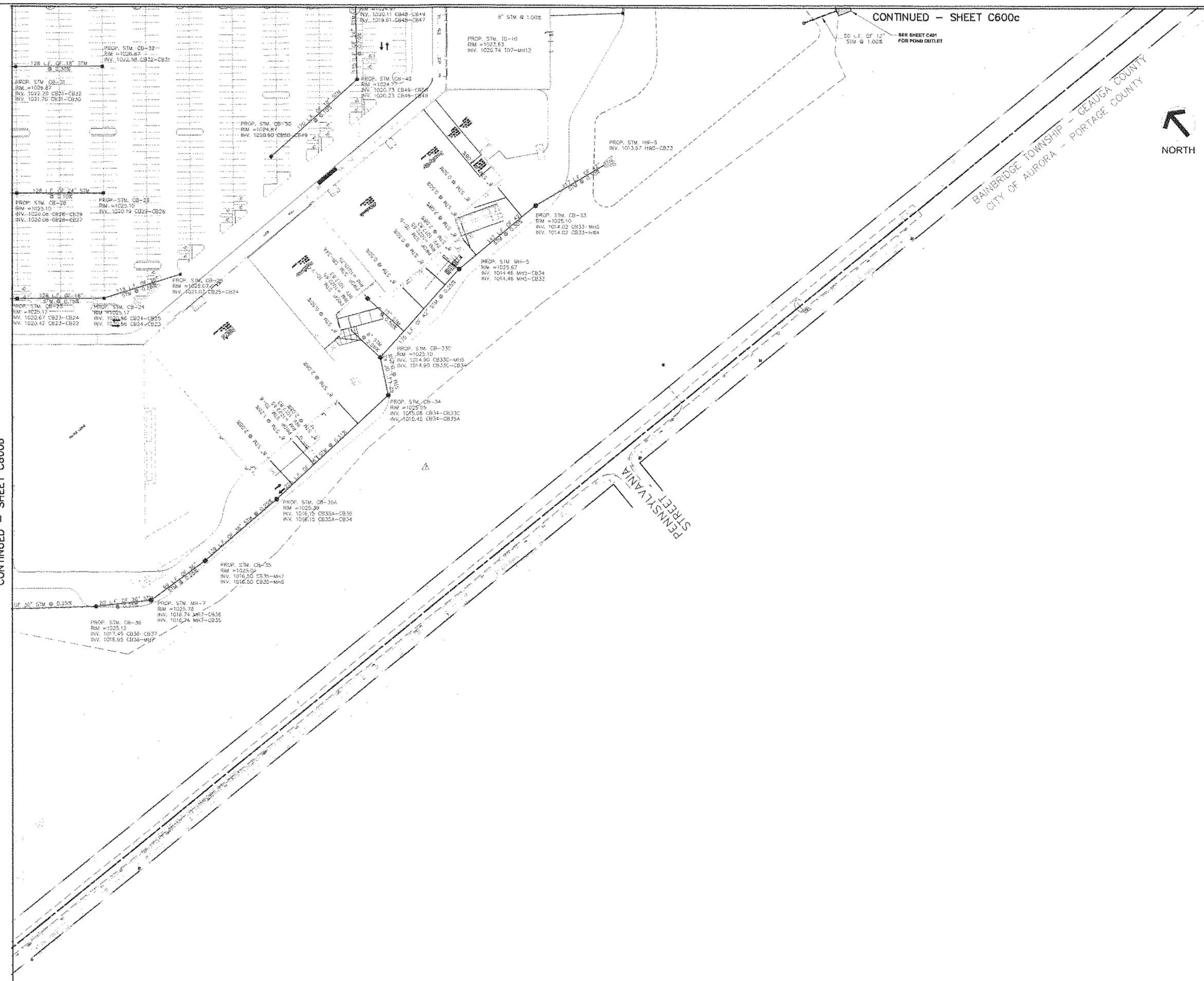
THE MARKETPLACE AT
FOUR CORNERS
BAINBRIDGE TOWNSHIP
GAUGA COUNTY, OHIO

URS
C600c

CONTINUED - SHEET C600d

CONTINUED - SHEET C600b

CONTINUED - SHEET C600c



NO.	DATE	BY	CHKD.

PROJECT: MARKETPLACE AT FOUR CORNERS
 SHEET: C600d
 DATE: 4/11/05
 SCALE: AS SHOWN

NO.	DESCRIPTION	DATE
1	GENERAL	6/26/01
2	GENERAL	7/10/01
3	GENERAL	8/24/01
4	GENERAL	9/12/01
5	GENERAL	9/25/01
6	GENERAL REVISION	4/8/02
7	REVISED SAN AND STM	4/16/02
8	REVISED STM	4/20/02
9	GENERAL REVISIONS	5/08/02



STORM PLAN "d"

THE MARKETPLACE AT
 FOUR CORNERS
 BAINBRIDGE TOWNSHIP
 GEauga COUNTY, OHIO

URS
C600d

STORM SEWER STRUCTURE SCHEDULE

STRUCTURE	TYPE	RIM ELEV.	INVERT IN	INVERT OUT
CB-1	48" DIAMETER CATCH BASIN	1028.07	1029.60 (30')	1029.10 (30')
CB-2	4.0' x 4.0' CATCH BASIN	1028.35	1021.19 (30')	1021.18 (30')
CB-3	4.0' x 4.0' CATCH BASIN	1028.07	1022.04 (24')	1021.54 (30')
CB-4	4.0' x 4.0' CATCH BASIN	1028.07	1022.41 (24')	1021.41 (24')
CB-5	60" DIAMETER CATCH BASIN	1027.20	1021.67 (24')	1020.07 (42')
CB-6	3.0' x 3.0' CATCH BASIN	1028.00	-	1021.74 (24')
CB-7	4.0' x 4.0' CATCH BASIN	1027.20	1020.70 (30')	1020.70 (30')
CB-8	3.0' x 3.0' CATCH BASIN	1027.20	1021.33 (30')	1020.85 (30')
CB-9	4.0' x 4.0' CATCH BASIN	1026.07	1021.48 (30')	1021.48 (30')
CB-10	4.0' x 4.0' CATCH BASIN	1026.07	1021.61 (30')	1021.01 (30')
CB-11	4.0' x 4.0' CATCH BASIN	1026.07	1021.73 (30')	1021.73 (30')
CB-12	48" DIAMETER CATCH BASIN	1026.07	1021.86 (30')	1021.86 (30')
CB-13	4.0' x 4.0' CATCH BASIN	1027.03	1021.99 (30')	1021.69 (30')
CB-14	4.0' x 4.0' CATCH BASIN	1027.03	1022.34 (24')	-
CB-15	42" DIAMETER CATCH BASIN	1027.03	1022.47 (24')	1022.47 (24')
CB-16	42" DIAMETER CATCH BASIN	1028.00	1023.32 (15')	1022.78 (24')
CB-17	2.0' x 2.0' CATCH BASIN	1028.49	-	1023.94 (15')
CB-18	4.0' x 4.0' CATCH BASIN	1023.00	1021.43 (18')	1021.08 (19'x30')
CB-19	2.0' x 2.0' CATCH BASIN	1024.07	-	1021.66 (15')
CB-20	100" DIAMETER CATCH BASIN	1025.42	1020.01 (24')	1018.58 (34'x53')
CB-21	4.0' x 4.0' CATCH BASIN	1024.02	1020.18 (24')	1020.16 (24')
CB-22	4.0' x 4.0' CATCH BASIN	1024.07	1020.28 (24')	1020.29 (24')
CB-23	3.0' x 3.0' CATCH BASIN	1025.17	1020.67 (18')	1020.42 (24')
CB-24	36" DIAMETER CATCH BASIN	1025.17	1020.86 (15')	1020.86 (15')
CB-25	2.0' x 2.0' CATCH BASIN	1025.12	-	1021.07 (15')
CB-26	72" DIAMETER CATCH BASIN	1025.30	1019.83 (30')	1019.83 (34'x53')
CB-27	4.0' x 4.0' CATCH BASIN	1025.10	1020.76 (24')	1019.83 (30')
CB-28	3.0' x 3.0' CATCH BASIN	1025.10	1020.06 (24')	1020.06 (24')
CB-29	3.0' x 3.0' CATCH BASIN	1025.10	-	1020.19 (24')
CB-30	3.0' x 3.0' CATCH BASIN	1025.87	1021.31 (24')	1021.31 (24')
CB-31	3.0' x 3.0' CATCH BASIN	1026.07	1022.00 (18')	1021.70 (24')
CB-32	3.0' x 3.0' CATCH BASIN	1026.07	-	1022.58 (18')
CB-33	60" DIAMETER CATCH BASIN	1023.87	1014.02 (42')	1014.02 (42')
CB-34	60" DIAMETER CATCH BASIN	1024.82	1015.54 (36')	1015.04 (42')
CB-35	4.0' x 4.0' CATCH BASIN	1025.01	1016.50 (30')	1016.50 (30')
CB-36	48" DIAMETER CATCH BASIN	1025.12	1017.46 (30')	1016.95 (30')
CB-37	48" DIAMETER CATCH BASIN	1025.36	1017.96 (30')	1017.96 (30')
CB-38	4.0' x 4.0' CATCH BASIN	1025.35	-	1018.47 (30')
CB-39	36" DIAMETER CATCH BASIN	1025.11	1018.62 (8')	1018.24 (15')
CB-40	60" DIAMETER CATCH BASIN	1025.21	1013.82 (54')	1013.82 (54')
CB-41	72" DIAMETER CATCH BASIN	1025.45	1014.60 (54')	1014.60 (54')
CB-42	90" DIAMETER CATCH BASIN	1025.41	1015.74 (64')	1015.74 (64')
CB-43	72" DIAMETER CATCH BASIN	1025.00	1016.33 (54')	1016.33 (54')
CB-44	120" DIAMETER CATCH BASIN	1024.07	1018.83 (30')	1017.83 (42')
CB-45	4.0' x 4.0' CATCH BASIN	1025.00	1018.08 (30')	1018.08 (30')
CB-46	4.0' x 4.0' CATCH BASIN	1025.00	1019.36 (30')	1019.36 (30')
CB-47	4.0' x 4.0' CATCH BASIN	1025.00	1018.47 (30')	1018.47 (30')
CB-48	4.0' x 4.0' CATCH BASIN	1024.07	1020.11 (24')	1019.61 (30')
CB-49	42" DIAMETER CATCH BASIN	1024.77	1020.73 (18')	1020.23 (24')
CB-50	3.0' x 3.0' CATCH BASIN	1024.87	-	1020.00 (18')
CB-51	84" DIAMETER CATCH BASIN	1025.87	1016.97 (30')	1017.97 (40')
CB-52	4.0' x 4.0' CATCH BASIN	1025.87	1019.22 (30')	1019.22 (30')
CB-53	72" DIAMETER CATCH BASIN	1025.87	1019.98 (24')	1019.48 (30')
CB-54	3.0' x 3.0' CATCH BASIN	1025.87	1020.87 (18')	1020.37 (24')
CB-55	3.0' x 3.0' CATCH BASIN	1025.87	-	1021.12 (18')
CB-56	48" DIAMETER CATCH BASIN	1024.17	1019.11 (30')	1019.11 (30')
CB-57	48" DIAMETER CATCH BASIN	1026.17	1020.62 (24')	1020.12 (30')
CB-58	60" DIAMETER CATCH BASIN	1024.07	1020.51 (19'x30')	1020.51 (19'x30')
CB-59	4.0' x 4.0' CATCH BASIN	1024.07	1020.72 (18')	1020.64 (19'x30')
CB-60	3.0' x 3.0' CATCH BASIN	1024.07	-	1020.85 (18')
CB-61	72" DIAMETER CATCH BASIN	1024.13	1019.82 (18')	1019.82 (18')
CB-62	2.0' x 2.0' CATCH BASIN	1024.13	-	1020.14 (15')
CB-63	3.0' x 3.0' CATCH BASIN	1024.13	1020.24 (15')	1019.80 (18')
CB-64	2.0' x 2.0' CATCH BASIN	1024.13	-	1020.41 (15')
CB-65	2.0' x 2.0' CATCH BASIN	1024.42	-	1024.16 (15')
CB-66	4.0' x 4.0' CATCH BASIN	1028.07	1023.82 (19'x30')	1023.82 (19'x30')
CB-67	4.0' x 4.0' CATCH BASIN	1028.04	1024.30 (18')	1024.02 (19'x30')
CB-68	3.0' x 3.0' CATCH BASIN	1028.04	1024.50 (15')	1024.25 (18')
CB-69	2.0' x 2.0' CATCH BASIN	1028.17	-	1024.70 (15')

STRUCTURE	TYPE	RIM ELEV.	INVERT IN	INVERT OUT
MH-1	TYPE MANHOLE - 60" DIAMETER	1030.12	1019.77 (38')	1018.77 (38')
MH-2	TYPE MANHOLE - 48" DIAMETER	1028.07	1023.67 (15')	1023.57 (24')
MH-3	TYPE MANHOLE - 60" DIAMETER	1027.87	1019.78 (42')	1019.78 (42')
MH-4	TYPE MANHOLE - 60" DIAMETER	1027.32	1019.42 (34'x53')	1019.42 (34'x53')
MH-5	TYPE MANHOLE - 60" DIAMETER	1026.87	1014.46 (42')	1014.46 (42')
MH-6	TYPE MANHOLE - 60" DIAMETER	1026.07	1016.16 (30')	1016.16 (30')
MH-7	TYPE MANHOLE - 60" DIAMETER	1026.07	1016.74 (30')	1016.74 (30')
MH-8	TYPE MANHOLE - 64" DIAMETER	1025.67	1016.08 (54')	1016.08 (54')
MH-9	TYPE MANHOLE - 72" DIAMETER	1025.47	1019.54 (30')	1019.54 (30')
MH-10	TYPE MANHOLE - 48" DIAMETER	1025.00	1016.89 (15')	1016.89 (15')
MH-11	TYPE MANHOLE - 48" DIAMETER	1025.07	1019.80 (18')	1019.80 (18')
MH-12	TYPE MANHOLE - 48" DIAMETER	1025.00	1020.32 (15')	1020.32 (15')
MH-13	TYPE MANHOLE - 60" DIAMETER	1028.07	1024.05 (15')	1023.72 (19'x30')
MH-14	TYPE MANHOLE - 72" DIAMETER	1028.07	1023.89 (19'x30')	1023.89 (19'x30')
MH-15	TYPE MANHOLE - 48" DIAMETER	1028.07	1024.61 (15')	1024.61 (15')
MH-16	TYPE MANHOLE - 48" DIAMETER	1028.55	1017.01 (38')	1016.65 (54')
TD-1	TYPE TRENCH DRAIN	1025.65	-	1023.13 (8')
TD-2	TYPE TRENCH DRAIN	1025.65	-	1023.23 (8')
TD-3	TYPE TRENCH DRAIN	1025.65	-	1023.35 (8')
TD-4	TYPE TRENCH DRAIN	1025.65	-	1023.67 (8')
TD-5	TYPE TRENCH DRAIN	1025.65	-	1023.61 (8')
TD-6	TYPE TRENCH DRAIN	1023.63	-	1017.85 (12')
TD-7	TYPE TRENCH DRAIN	1022.65	-	1017.62 (12')
TD-8	TYPE TRENCH DRAIN	1022.65	-	1018.00 (12')
TD-9	TYPE TRENCH DRAIN	1023.87	-	1020.43 (12')
TD-10	TYPE TRENCH DRAIN	1023.63	-	1020.74 (8')
TD-11	TYPE TRENCH DRAIN	1022.65	-	1018.38 (8')

NOTE: ALL STRUCTURES SHALL MEET OR EXCEED H-20 LOADING.

ISSUED FOR PERMIT	DATE	BY

ISSUED FOR CONSTRUCTION	DATE	BY

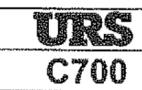
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2	GENERAL	7/10/01	
3	GENERAL	8/24/01	
4	GENERAL	8/12/01	
5	GENERAL	9/25/01	

RECORD DRAWINGS	DATE	BY

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DRAWN	GDC	DATE	4/11/01
CHECKED	RBS	JOB NO	5116002
SCALE: AS SHOWN			

STORM SEWER SUMMARY

THE MARKETPLACE AT
FOUR CORNERS
BAINBRIDGE TOWNSHIP
GEAUGA COUNTY, OHIO

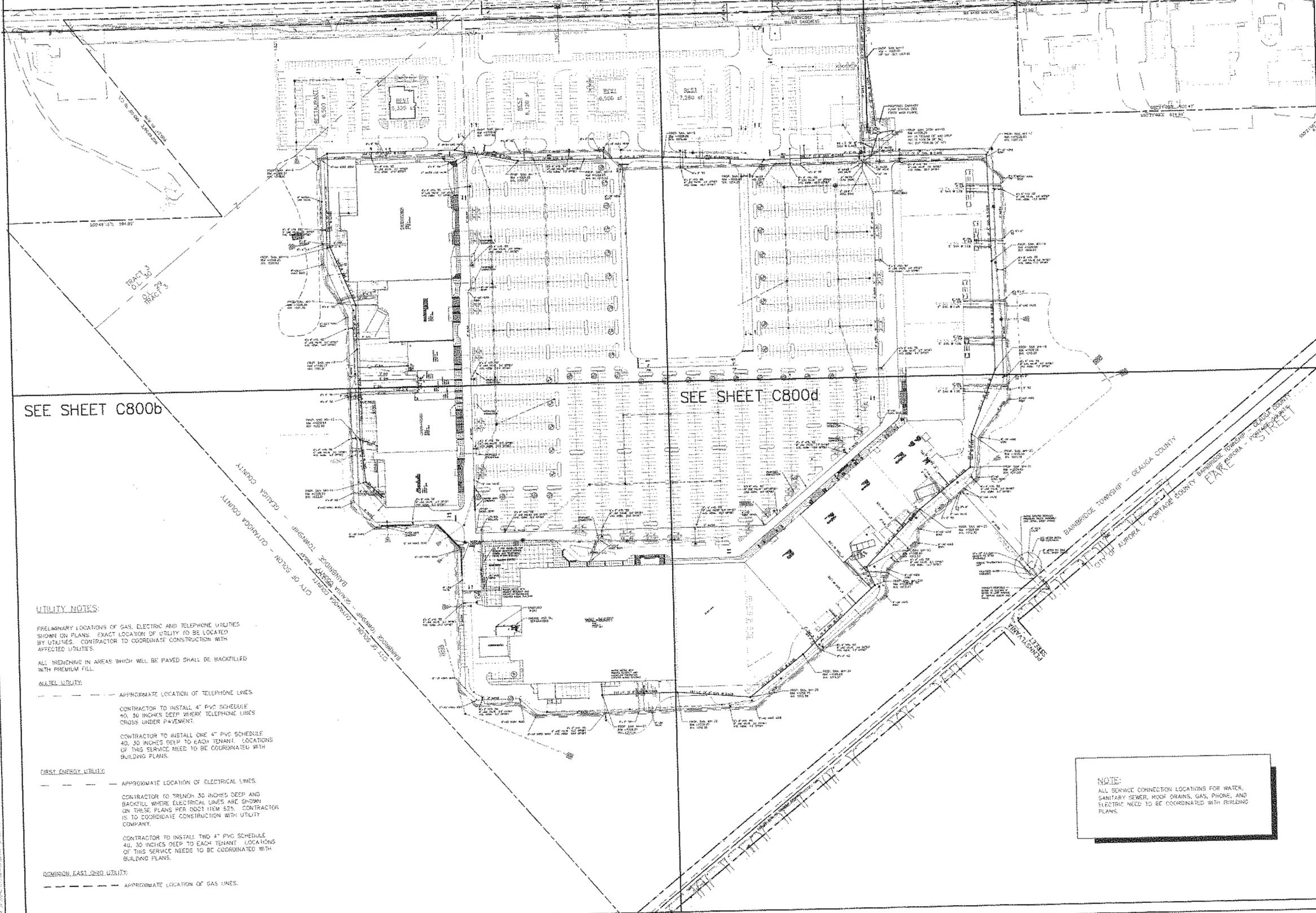


SEE SHEET C800a

SEE SHEET C800c



AURORA ROAD (S.R. 43), 60.00' R/W
(GEAUGA COUNTY)



SEE SHEET C800b

SEE SHEET C800d

UTILITY NOTES:

PRELIMINARY LOCATIONS OF GAS, ELECTRIC AND TELEPHONE UTILITIES SHOWN ON PLANS. EXACT LOCATION OF UTILITY TO BE LOCATED BY UTILITIES. CONTRACTOR TO COORDINATE CONSTRUCTION WITH AFFECTED UTILITIES.

ALL TRENCHING IN AREAS WHICH WILL BE PAVED SHALL BE BACKFILLED WITH PREMIUM FILL.

APPROXIMATE TELEPHONE:

--- APPROXIMATE LOCATION OF TELEPHONE LINES.

CONTRACTOR TO INSTALL 4" PVC SCHEDULE 40, 30 INCHES DEEP WHERE TELEPHONE LINES CROSS UNDER PAVEMENT.

CONTRACTOR TO INSTALL ONE 4" PVC SCHEDULE 40, 30 INCHES DEEP TO EACH TENANT. LOCATIONS OF THIS SERVICE NEED TO BE COORDINATED WITH BUILDING PLANS.

DIST. ENERGY UTILITIES:

--- APPROXIMATE LOCATION OF ELECTRICAL LINES.

CONTRACTOR TO TRENCH 30 INCHES DEEP AND BACKFILL WHERE ELECTRICAL LINES ARE SHOWN ON THESE PLANS PER GOOD ITEM 529. CONTRACTOR IS TO COORDINATE CONSTRUCTION WITH UTILITY COMPANY.

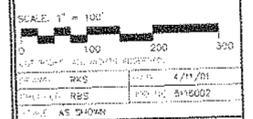
DOMESTIC GAS UTILITY:

--- APPROXIMATE LOCATION OF GAS LINES.

CONTRACTOR TO INSTALL TWO 4" PVC SCHEDULE 40, 30 INCHES DEEP TO EACH TENANT. LOCATIONS OF THIS SERVICE NEED TO BE COORDINATED WITH BUILDING PLANS.

NOTE:
ALL SERVICE CONNECTION LOCATIONS FOR WATER, SANITARY SEWER, ROOF DRAINS, GAS, PHONE, AND ELECTRIC NEED TO BE COORDINATED WITH BUILDING PLANS.

NO.	DATE	REVISION
1	6/26/01	GENERAL
2	7/10/01	GENERAL
3	8/24/01	GENERAL
4	9/12/01	GENERAL
5	9/25/01	GENERAL
6	2/28/02	REVISED TELEPHONE AND ELECTRICAL LINE LOCATIONS
7	2/28/02	REVISED DOMESTIC AND FIRE WATER LINE LOCATIONS
8	4/10/02	GENERAL REVISION
9	5/08/02	GENERAL REVISIONS



UTILITY PLAN

THE MARKETPLACE AT
FOUR CORNERS
BAINBRIDGE TOWNSHIP
GEAUGA COUNTY, OHIO

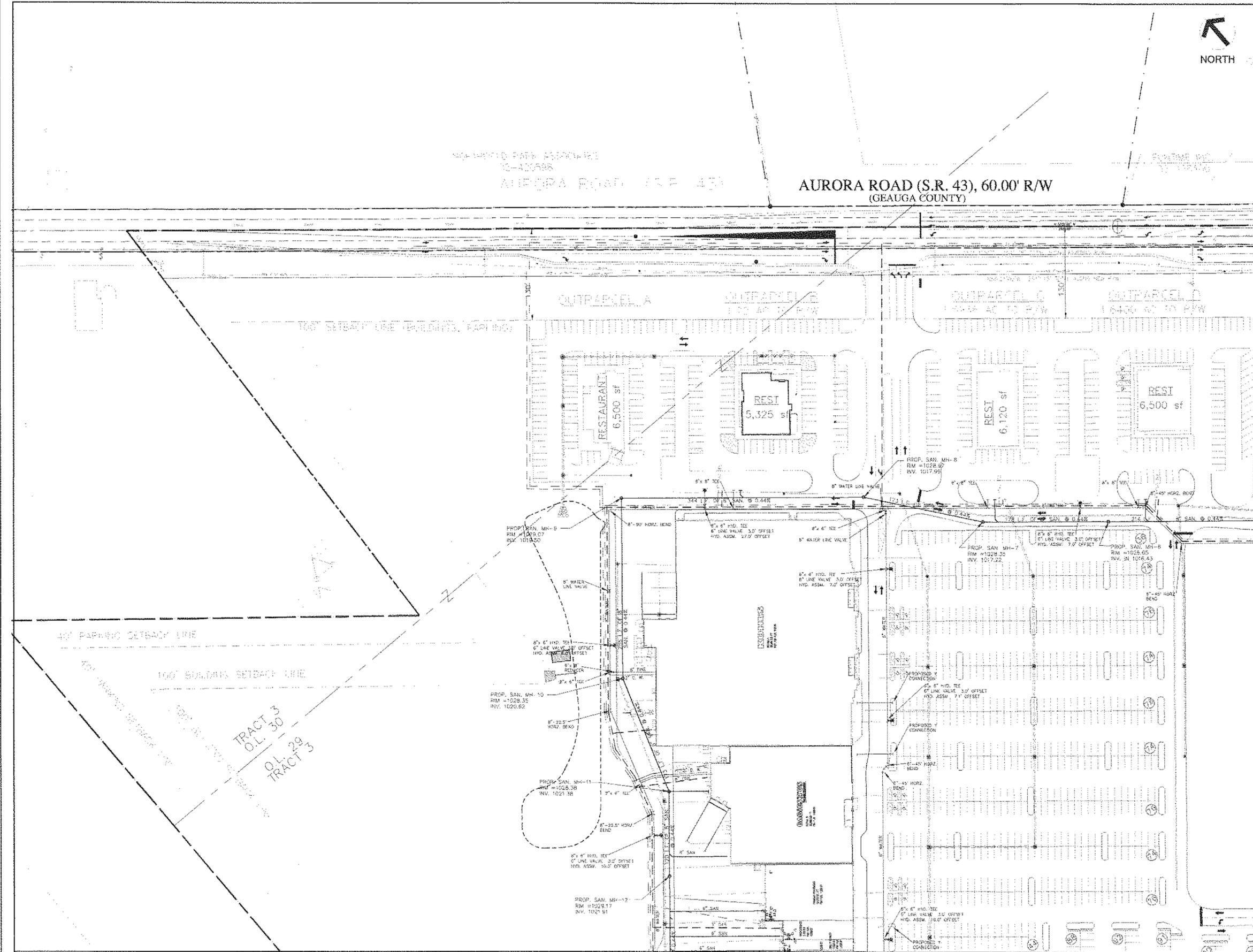
URS
C800



NORTH

NON-PAVED PATH ASSOCIATION
10-400688
AURORA ROAD (S.R. 43)

AURORA ROAD (S.R. 43), 60.00' R/W
(GEAUGA COUNTY)



CONTINUED - SHEET C800C



SCALE: 1" = 30'
DATE: 4/11/01
PROJECT: BAINBRIDGE TOWNSHIP
SHEET: C800C

SCALE AS SHOWN

UTILITY
PLAN "a"

THE MARKETPLACE AT
FOUR CORNERS
BAINBRIDGE TOWNSHIP
GEAUGA COUNTY, OHIO

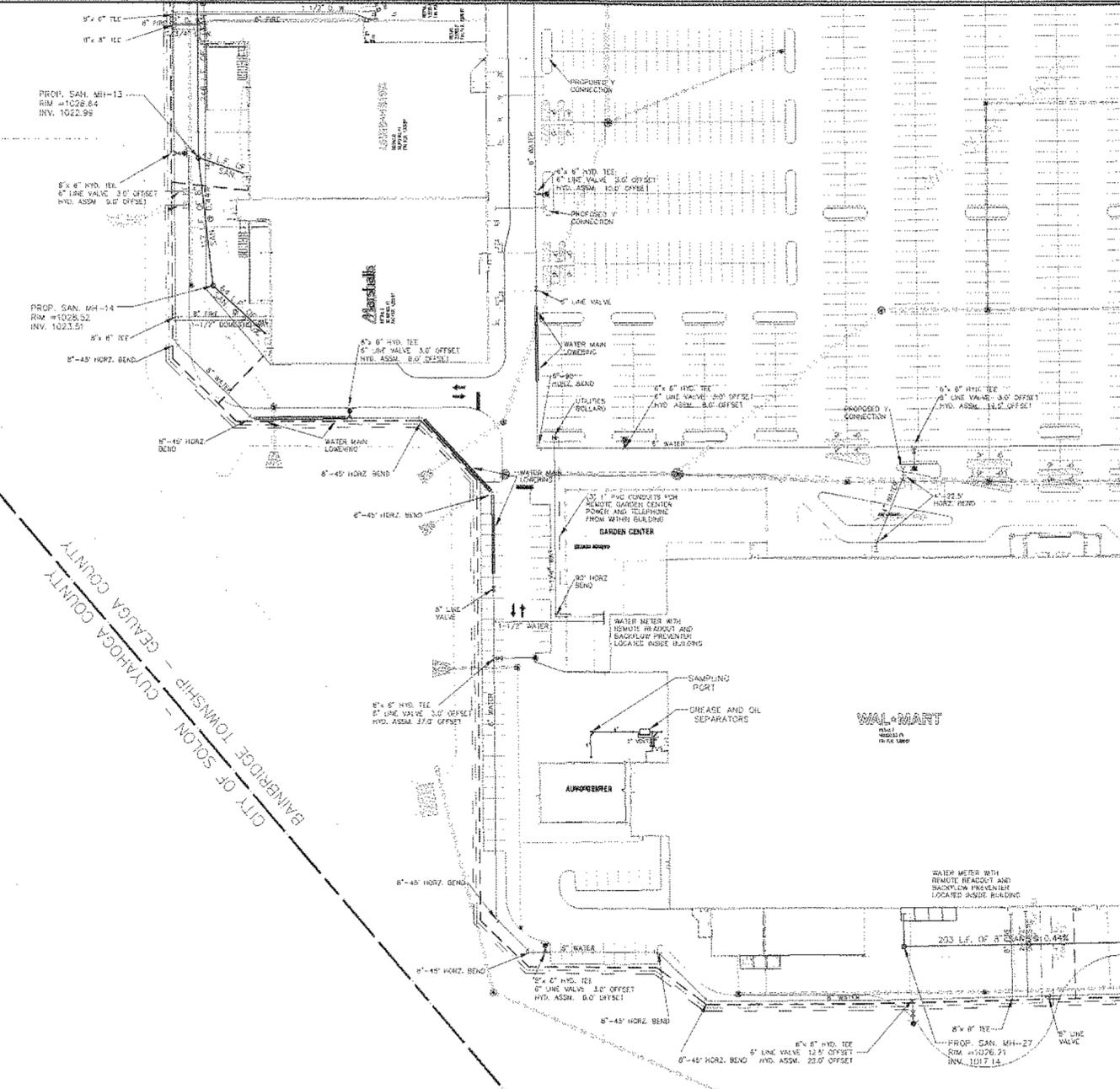
URS
C800a

NO.	DATE	BY	CHKD.
1	6/29/01		
2	7/10/01		
3	8/21/01		
4	9/12/01		
5	9/25/01		
6	4/6/02		
7	4/6/02		
8	5/08/02		

CONTINUED - SHEET C800B



CITY OF SOLON - CUYAHOGA COUNTY
 BAINBRIDGE TOWNSHIP - GEauga COUNTY



UTILITY NOTES:

PRELIMINARY LOCATIONS OF GAS, ELECTRIC AND TELEPHONE UTILITIES SHOWN ON PLANS. EXACT LOCATION OF UTILITY TO BE LOCATED BY UTILITIES. CONTRACTOR TO COORDINATE CONSTRUCTION WITH AFFECTED UTILITIES.

ALL TRENCHING IN AREAS WHICH WILL BE PAVED SHALL BE BACKFILLED WITH PREMIUM FILL.

TELEPHONE UTILITY:

--- APPROXIMATE LOCATION OF TELEPHONE LINES.

CONTRACTOR TO INSTALL 4" PVC SCHEDULE 40, 30 INCHES DEEP WHERE TELEPHONE LINES CROSS UNDER PAVEMENT.

CONTRACTOR TO INSTALL ONE 4" PVC SCHEDULE 40, 30 INCHES DEEP TO EACH TENANT. LOCATIONS OF THIS SERVICE NEED TO BE COORDINATED WITH BUILDING PLANS.

ELECTRIC UTILITY:

--- APPROXIMATE LOCATION OF ELECTRICAL LINES.

CONTRACTOR TO TRENCH 50 INCHES DEEP AND BACKFILL WHERE ELECTRICAL LINES ARE SHOWN ON THESE PLANS PER OVI 1 ITEM 625. CONTRACTOR IS TO COORDINATE CONSTRUCTION WITH UTILITY COMPANY.

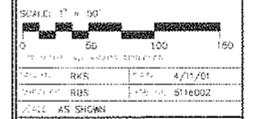
CONTRACTOR TO INSTALL TWO 4" PVC SCHEDULE 40, 30 INCHES DEEP TO EACH TENANT. LOCATIONS OF THIS SERVICE NEEDS TO BE COORDINATED WITH BUILDING PLANS.

DOMESTIC GAS UTILITY:

--- APPROXIMATE LOCATION OF GAS LINES.

CONTINUED - SHEET C800

NO.	DATE	BY	DESCRIPTION
1	8/26/01		GENERAL
2	7/10/01		GENERAL
3	8/24/01		GENERAL
4	5/12/01		GENERAL
5	5/25/01		GENERAL
6	2/28/02		REVISED TELEPHONE AND ELECTRICAL LINE LOCATIONS
7	2/28/02		REVISED DOMESTIC AND FIRE WATER LINE LOCATIONS
8	4/9/02		GENERAL REVISION
9	5/08/02		GENERAL REVISIONS

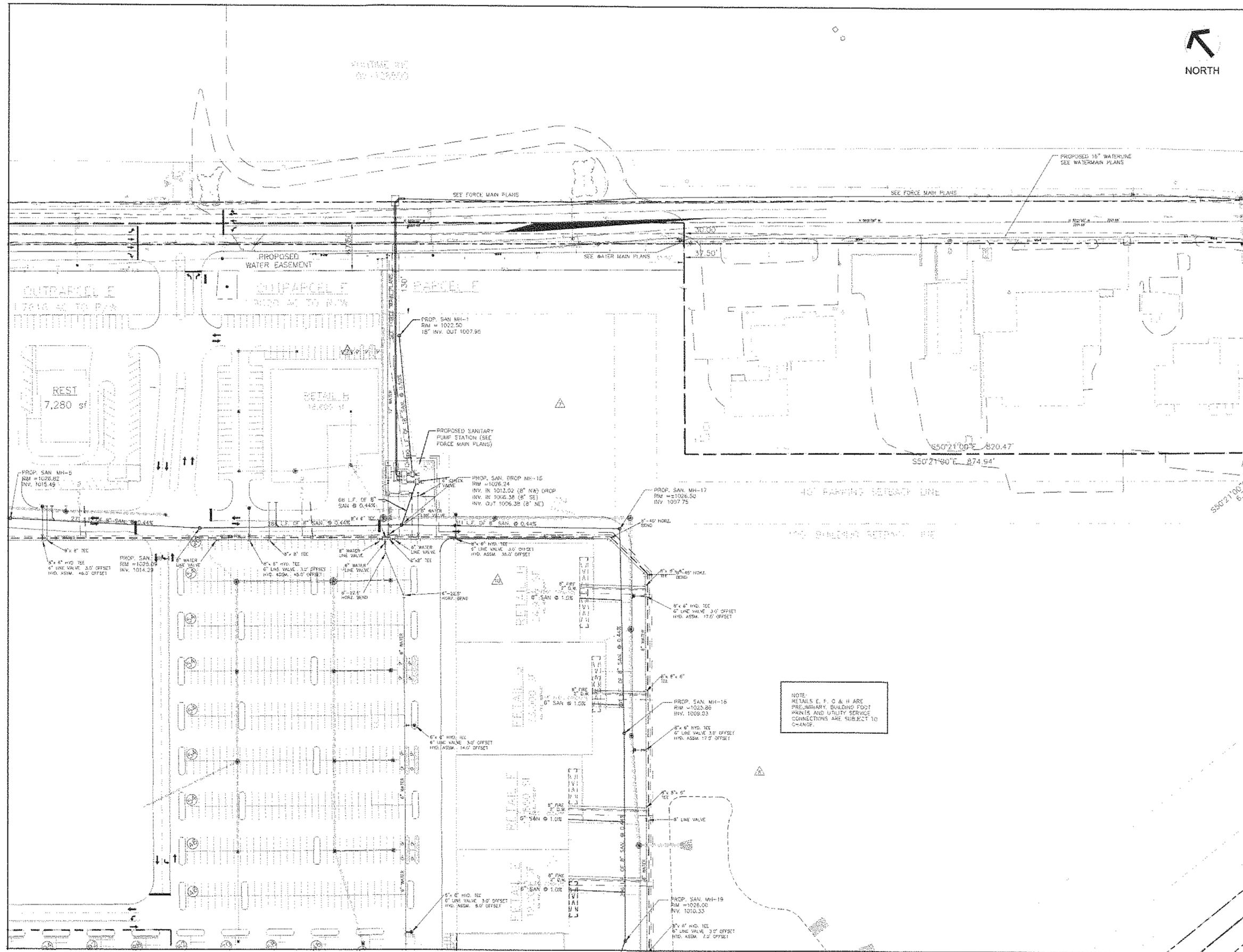


UTILITY PLAN "b"

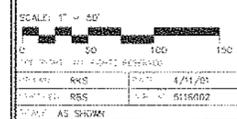
THE MARKETPLACE AT FOUR CORNERS
 BAINBRIDGE TOWNSHIP
 GEauga COUNTY, OHIO

URS
C800b

CONTINUED - SHEET C800a



NO.	DESCRIPTION	DATE
1	GENERAL	6/28/01
2	GENERAL	7/10/01
3	GENERAL	8/24/01
4	GENERAL	8/22/01
5	GENERAL	9/25/01
6	EPA COMMENTS DATED 11/28/01	11/28/01
7	RELOCKED WATER MAIN AND FORCE MAIN	3/13/02
8	CHANGED WATER LINE FROM 12" OR 10" TO 8"	3/20/02
9	GENERAL REVISIONS	4/10/02
10	REVISED WATER AND STM	4/18/02
11	GENERAL REVISIONS	5/08/02

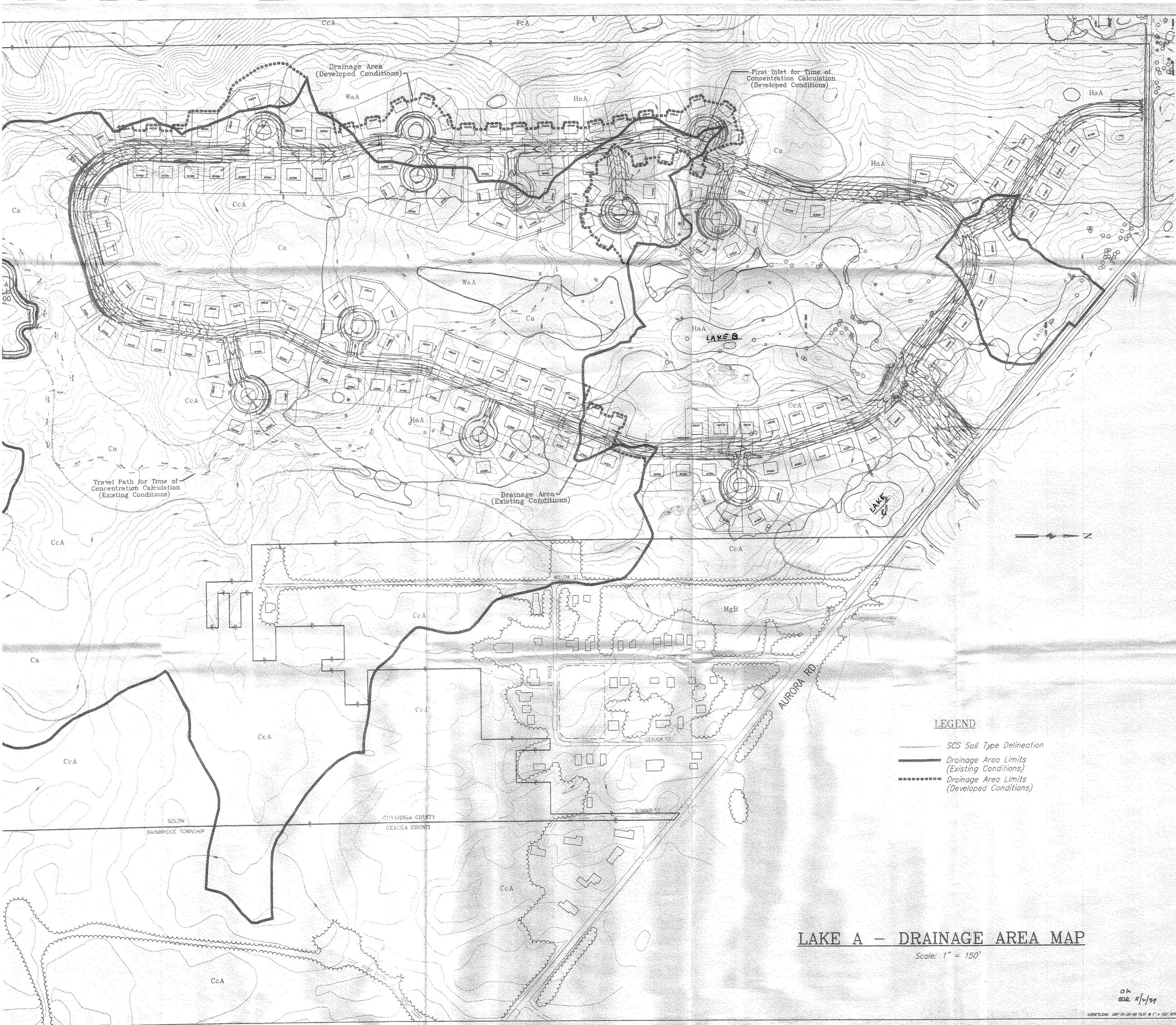


UTILITY PLAN "c"

THE MARKETPLACE AT FOUR CORNERS
 RAINBIDGE TOWNSHIP
 GAUGA COUNTY, OHIO

URS
 C800c

CONTINUED - SHEET C800d



- LEGEND**
- SCS Soil Type Delineation
 - Drainage Area Limits (Existing Conditions)
 - Drainage Area Limits (Developed Conditions)

LAKE A - DRAINAGE AREA MAP

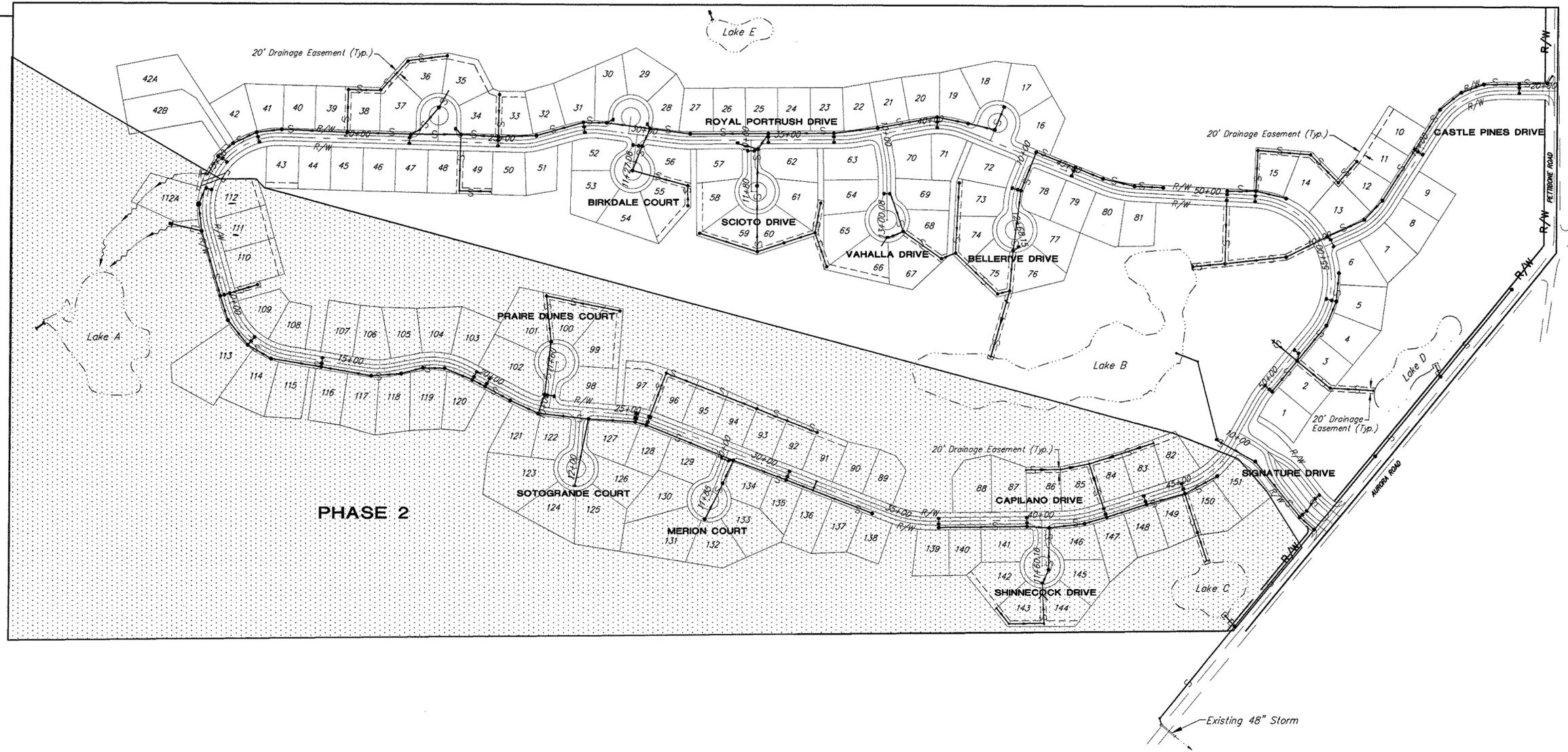
Scale: 1" = 150'

OK
GSE 11/2/24



REVISIONS
9/3/99
11/19/99
02/11/00
03/08/00
12/11/01

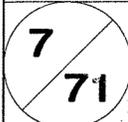
STORM SEWER SCHEMATIC



EUTHENICS INC.
 CONSULTING ENGINEERS
 975 KENNEDY CIRCLE, CLEVELAND, OHIO 44131
 PHONE: (216) 748-1555 - FAX: (216) 748-1755

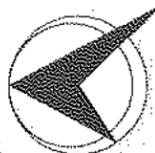
**STORM SEWER SCHEMATIC
 THE SIGNATURE OF SOLON
 COURSE 43, LTD.**

HORIZ. SCALE	1" = 200'
VERT. SCALE	N/A
DESIGNED	ARP
DRAWN	PJK
CHECKED	ERP
DATE	6/18/99
DRAWING NAME	429SSCH1.DWG



C:\29\SCH\429SSCH1.DWG ARP 6/25/02 1-200 USE 429PLANS.PCP AND SSC1 UCS

STORM SEWER AREAS



NORTH

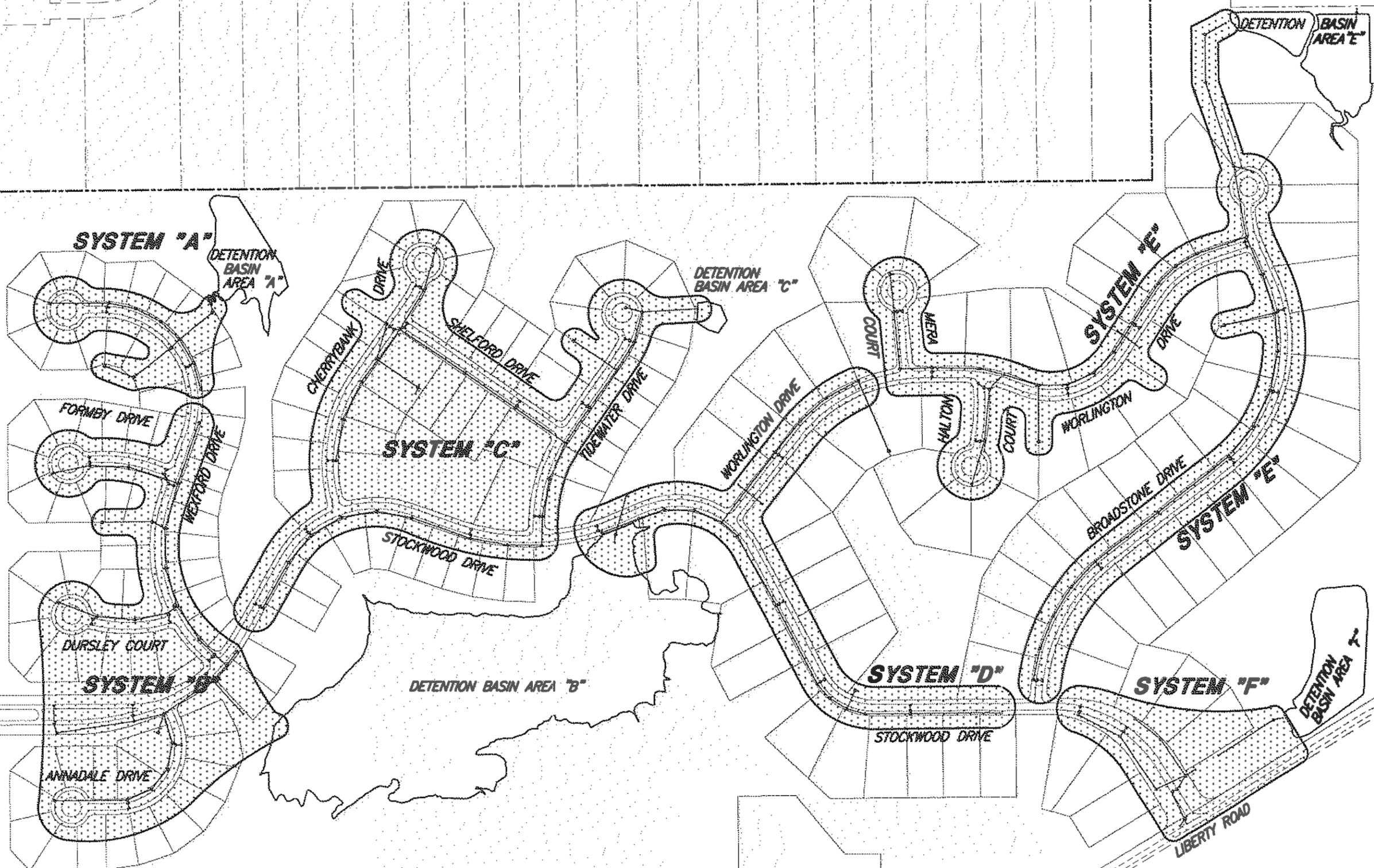
GRAPHIC SCALE
200 0 100 200



1 INCH = 400 FT.

PETIBONE ROAD

ROLLINGBROOK TRAIL



LIBERTY ROAD