

PLANNING COMMISSION AGENDA



**Planning Commission Meeting
6:00 PM Tuesday, June 25, 2024**

**South Lebanon Municipal Building
10 N. High Street
South Lebanon, Ohio 45065**

	Agenda Item
1.	Call to Order
2.	Pledge of Allegiance
3.	Roll Call
4.	Review and Approval of Minutes A. Minutes of April 10, 2024
5.	Public Hearing – none
6.	Old Business A. None
7.	New Business A. Case 24-04P: Review of Final Development Plan for the Arbor's at Grandin Pond (aka Irwin PUD) submitted by Grandin Road Development LLC
8.	Communications
9.	Adjournment

Members of the public may address the Planning Commission during the Open Forum segment of the agenda and shall be limited to five minutes each. After the speaker concludes remarks, the Planning Commission may comment or ask questions at that time. The Chairperson may at his or her discretion restrict duplicate testimony on a particular subject.



City of South Lebanon
10 N. High St. South Lebanon, Ohio 45065
Ph:(513)494-2296 Fax:(513)494-1656

www.southlebanonohio.org

Planning Commission Meeting

MEETING MINUTES

Wednesday April 10, 2024 @ 6:00pm

Members Present:

Clyde Adkins
Linda Allen
Darrick Zucco

Members Absent:

Mayor Burke
Ms. Mason

Staff:

Jerry Haddix
Administrator
Karen Woodward
Clerk

1. Call to Order by Mr. Zucco, at 6:00 p.m.
2. Pledge of Allegiance
3. Roll Call: Mayor Burke-Absent, Mr. Zucco-Present, Mr. Adkins-Present, Ms. Allen-Present, Ms. Mason-Absent.
4. Review and Approval of Minutes for March 14, 2024. Motion to approve by Ms. Allen, Seconded by Mr. Zucco. Votes were taken, all yeas.
5. Public Hearing-None
6. Old Business-None
7. New Business
 - A. Case -24-02P Review of Final Plat for the Highmeadow Section 1, Block "B" subdivision submitted by Abercrombie & Associates on behalf of the Drees Company.

Mr. Haddix stated that this is the 3rd section that Drees has come in for a plat. Sections 1 and 2 of the total development of 110 lots. The first was 33 lots, the second was 32, this is just 3 lots along Zoar Rd., 1.9 acres. There are still 30 some lots to go. The next phase Section One, Block "B".

The staff recommends the Commission adopt to approve the final plat.

Motion to approve was made by Mr. Adkins, seconded by Ms. Allen. Vote was taken, all yeas.

- B. Case 24-03P Review of replat of Lot 80A, Vista Pointe at Rivers Bend Section 6 submitted by McGill Smith Punshon on behalf of Patrick & Sara Lyman.

Mr. Haddix stated that this was 2 lots originally, in 2021 they were approved to combine the lots. They are now seeking to go back to the original plat. Mr. Haddix recommends approval of this.

They had gotten approval from the BZA last year to build a gymnasium type facility, but the HOA denied it. They have decided to split it back up and keep it or sell it.

Motion to approve made by Ms. Allen, seconded by Mr. Adkins. Vote was taken, all yeas.

8. Communications-None at this time.

9. Adjournment-Motion presented by Ms. Allen, seconded by Mr. Adkins. Votes were taken, all yeas.

Darrick Zucco – Chairman

Karen Woodward - Clerk

**CITY OF SOUTH LEBANON
MEMORANDUM**

TO: Planning Commission

FROM: Jerry Haddix, City Administrator

RE: Case 24-04P, Review of Final Development Plan for 36.14 acres of the Irwin PUD, 727 Grandin Road (The Arbors at Grandin Pond)

DATE: June 21, 2024

On the agenda for the June 25th meeting is the review of the final development plan (FDP) for Irwin PUD at 727 Grandin Road. The application was submitted by Grandin Road Development LLC. The current property owner is the Irwin Family Living Trust who also signed the application.

Background

Previously, the Planning Commission and then-Village Council approved the rezoning and preliminary development plan (PDP) for the Irwin Farm at 727 Grandin, consisting of 64.57 acres and 173 single family lots on the property.

Last year, the Applicant (then named Beaver Creek Site Management LLC) submitted a revision to the approved Preliminary Development Plan (PDP) for the property at 727 Grandin Road (Parcel# 16-05-100-001-1 & 16-05-100-001-2). The Applicant proposed to 1) increase the total number of lots from 173 to 182 lots; 2) increase the open space area from 12.9 ac. To 13.4 ac.; and 3) create a street connection directly to Striker Road and thereby eliminating the connection from Willow Pond to Grandin Road. The City Planning Commission determined that these modifications were not a major departure from the original preliminary development plan.

The Applicant has now submitted an application for a final development plan for 36.14 acres of the 64.57 acres PUD, including 63 lots in Phase 1 and 55 lots in Phase 2, totaling 118 lots. Access for these phases will be on Striker Road.

Code Analysis

Pursuant to Article 14, Planned Unit Development (PUD) Districts, the requirements for the Final Development Plan are outlined in Sec. 15.14.18 and 15.14.19.

Zoning Process

The Planning Commission shall approve, approve with conditions or disapprove the Final Development Plan (FDP) within sixty (60) days after the submission of the application and plan.

Staff Review

The Applicant has submitted a Final Development Plan for the Irwin PUDs development, being named "The Arbors at Grandin Pond" with the following comments:

1. All water and sanitary sewer services for this PUD will be provided by the Warren County Water & Sewer Department; and
2. An access permit for Striker Road will need to be obtained from the Warren County Engineer's Office; and
3. As part of an agreement with the Hamilton Township Trustees, the Applicant will be installing ballards on the Township side of Honeysuckle Lane, thereby eliminating this connection for the general public.

Recommendation

Staff recommends that the approval of the final development plan with the following PUD conditions:

1. Address the comments of the City Engineer to the satisfaction of the City Administrator;
2. Approval of a stormwater pollution prevention program (SWPPP) by the Warren County Soil & Water Conservation District;
3. Address any questions/comments of the Hamilton Township Fire Department; and
4. Obtain access permit from the Warren County Engineer's Office and make any improvements to Striker Road as required.

Attachments

Planning Commission Application023

The Arbors at Grandin Pond Final Development Plan-Phases 1 & 2

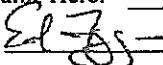
**CITY OF SOUTH LEBANON
PLANNING COMMISSION APPLICATION**

1. Application Type: (check the appropriate box) (all plans must be folded when submitted)

<input type="checkbox"/>	Draft Plan-Discussion Only	<input type="checkbox"/>	Preliminary PUD
<input type="checkbox"/>	Site Plan	<input checked="" type="checkbox"/>	Final PUD
<input type="checkbox"/>	Landscape Plan	<input type="checkbox"/>	Rezoning
<input checked="" type="checkbox"/>	Construction Drawings. (Please complete Fee Schedule form on Page 2)	<input type="checkbox"/>	Lot Split
<input type="checkbox"/>	Preliminary Plat (Please complete Fee Schedule form on Page 2)	<input type="checkbox"/>	Conditional Use
<input type="checkbox"/>	Final Plat or Replat	<input type="checkbox"/>	Special Meeting
<input type="checkbox"/>	Right-of-Way Dedication Plat	<input type="checkbox"/>	Other:

(See Page 3 for complete Fee Schedule and Submittal Requirement Information)

2. Development Information:

Development/Business Name: THE ARBORS AT GRANDIN POND	
Type of Business/Project Description: SINGLE FAMILY SUBDIVISION	
Location: STRIKER ROAD SOUTH OF GRANDIN	Size of Building: N/A
Current Zoning: PUD	Rezone to:
Total Acreage: 36.14	Acres to be Rezoned:
Number of Employees: N/A	Number of Fleet Vehicles: N/A
Current Owner of the Property Name: IRWIN FAMILY LIVING TRUST	Project Contact (Architect, Engineer, Planner) Name: MCGILL SMITH PUNSHON
Address: PO BOX 109	Address: 3700 PARK 42 DRIVE SUITE 190B
City: KANAB State: UT Zip: 84741	City: CINCINNATI State: OH Zip: 45241
Telephone: Fax:	Telephone: 513-759-0004 Fax:
Applicant(s): GRANDIN ROAD DEVELOPMENT, LLC	
Address: 7861 E. KEMPER ROAD	
City: CINCINNATI	State: OHIO Zip: 45249
Telephone: 513-702-9419	Fax:
Please Print Applicant's Name Here: EDWIN FARRUGGIA	
* Applicant's Signature: 	
* Applicant is responsible for payment of all fees (See Fee Schedule and Footnotes on Pages 3 and 4 respectively.)	

TO BE COMPLETED BY THE CITY OF SOUTH LEBANON

Application Number: _____	Date of Planning Commission Meeting: _____
Fee Paid: _____	Drawn: _____
Check #: _____	Date: _____
Initial: _____	
Legal Notices Advertised: _____	Mailed to Surrounding Property Owners: _____

3. Rezoning and Preliminary PUD Plan Requests

Surrounding Property Owners: Please list the names and addresses of all Owners of Real Property within 300 feet of any part of the property as such names and addresses appear on the most recent tax duplicate on 2 sets of mailing labels. (See submittal requirements on page 3).

4. Signatures Required

By signing this application, I attest under penalty of law that all the information given above is correct to the best of my knowledge.

Please Print Applicant's Name: EDWIN FARAWAY, JR. "GRANDIN ROAD DEVELOPMENT, LLC"

Applicant's Signature: [Signature] Date: MAY 17, 2024

Property Owner's Signature: Terry L. Inwin, Trustee Lea F. Inwin, Trustee Date: MAY 17, 2024

5. Fee Determination for Construction Drawings and Preliminary Plat Submittals

Please create a detailed breakdown of the estimated infrastructure breakdown cost for the project and attach it to this application. For Construction Drawings complete Item 1 and for Preliminary Plats complete Item 2.

	Total Infrastructure Cost	\$ <u>1,608,903.04</u>	(A)
1 -- Construction Drawing Fee Breakdown			
1.25% of Total Infrastructure Cost* (Line A x 0.0125)		\$ <u>20,111.30</u>	(B)
1.50% of Total Infrastructure Cost** (Line A x 0.015)		+ \$ <u>24,133.56</u>	(C)
Application Fee		+ \$ <u>150.00</u>	(D)
Total Construction Drawing Fee (Line B + C + D)		\$ <u>44,394.86</u>	(E)
2 -- Preliminary Plat Fee Breakdown:			
0.25% of Total Infrastructure Cost* (Line A x 0.0025)		\$ <u>4,022.26</u>	(F)
Application Fee		+ \$ <u>150.00</u>	(G)
Total Preliminary Plat Fee (Line F + G)		\$ <u>4,172.26</u>	(H)
Total Paid with Application/Submittals (Line E+H)		\$ <u>48,567.12</u>	

* Due upon submittal

** Due prior to construction

6. Fee Schedule and Submittal Requirements

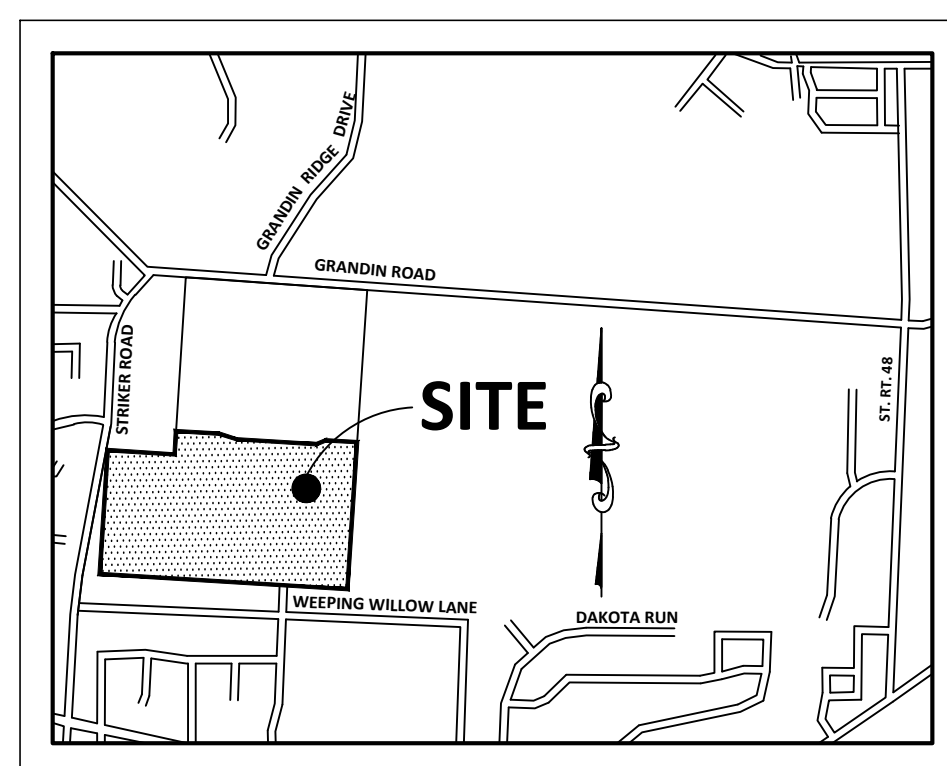
Article/Ord. Reference	Item	Fees ⁽³⁾⁽⁴⁾	Submittal Requirements
Article 20 Article 14	Preliminary Plats Final PUDs	\$150 + 0.25% of estimated infrastructure construction costs ⁽¹⁾	12 Copies ⁽⁵⁾ + 1 Copy (Ledger Paper)
Article 20	Construction Drawings	\$150 + 2.75% of estimated infrastructure construction costs ⁽¹⁾ (Include estimate with application) (1.25% due at time of submittal and 1.5% due before construction begins) ⁽²⁾	4 Copies ⁽⁵⁾ 2 Drainage Calculations 2 Detailed Spreadsheet of the Estimated Infrastructure Costs
Article 20	Final / Dedication Plats	\$350	10 Copies ⁽⁵⁾ + 1 Copy (Ledger Paper)
Article 20	Lot Split / Minor Subdivision / Replats	\$75 per lot	3 Survey Plats ⁽⁵⁾ & Legal Descriptions 1 New Deed + 1 Original Deed
Article 18	Site Plans	\$400 + \$5 per unit Multi-family \$400 + \$20 per acre Commercial/ Office/Industrial/Institutional	12 Copies ⁽⁵⁾ + 1 Copy (Ledger Paper)
Article 17	Landscape Plans	\$150 + \$10 per acre	12 Copies ⁽⁵⁾ + 1 Copy (Ledger Paper)
Article 7	Zoning District Map Change Zoning Text Change	\$400 + \$10 per acre	20 Copies ⁽⁵⁾ + 1 Copy (Ledger Paper) 1 List of Surrounding Property Owners + 2 Sets of Mailing Labels
Article 5	Variances / Appeals	\$400	8 Copies + 1 Copy (Ledger Paper) 1 List of Surrounding Property Owners + 1 Set of Mailing Labels
Article 14	Preliminary PUD Plans	\$2,500 + \$20 per acre	12 Copies ⁽⁵⁾ + 1 Copy (Ledger Paper) 1 List of Surrounding Property Owners + 2 Sets of Mailing Labels
Article 14	Final PUD Plans	Site Plan Review Fees Apply	Site Plan Review Submittal Requirements Apply
Article 6	Conditional Use / Similar Use	\$250 + applicable site plan fee	15 Copies + 1 Copy Ledger Paper ⁽⁵⁾
Article 3	Zoning Permit	\$250 + \$0.03 per square foot of building area (City water tap and inspection fee required if utilizing City Water [proof of payment of County tap fee if utilizing County Water]; City sewer tap and inspection fee also required)	5 Copies
Article 3	Temporary Use Permit	\$50	5 Copies
Article 3	Certificate of Occupancy	\$50	3 Copies
Ord. No: 2008-14; Permit App.	Flood Hazard Area Development Permit	\$50	3 Copies of Permit Application w/ applicable submittal requirements (stated on Page 2 of 2 of Permit Application + Engineering "No Rise" Certification (if applicable))
	Special Meeting	\$500 + Application Fee, if any ⁽⁶⁾	Depends Upon Type of Application or Meeting Requested

Issue/Revision	No.	Date
UPDATES		04/29/24
WCWS COMMENTS		05/03/24
WCCE COMMENTS		06/04/24
REV PER OEPA		06/04/24
REV PER CITY		06/06/24

THE ARBORS AT GRANDIN POND

PHASES 1 & 2

MILITARY SURVEY NO. 1547 & 1548 CITY OF SOUTH LEBANON HAMILTON TOWNSHIP WARREN COUNTY, OHIO



VICINITY MAP
 NOT TO SCALE

DEVELOPER

BEAVER CREEK SITE MANAGEMENT, LLC
 7861 E. KEMPER ROAD
 CINCINNATI, OHIO 45249

GENERAL NOTES:

WATER MAIN AND SANITARY SEWER PLANS AND CONSTRUCTION SHALL COMPLY WITH RULES, SPECIFICATIONS AND INSPECTION OF THE OFFICE OF THE WARREN COUNTY SANITARY SEWER ENGINEER. ALL OTHER PLANS AND CONSTRUCTION SHALL COMPLY WITH THE RULES, SPECIFICATIONS AND INSPECTION OF THE CITY OF SOUTH LEBANON.

ALL MATERIALS AND CONSTRUCTION PROCEDURES SHALL BE IN ACCORDANCE WITH "CONSTRUCTION AND MATERIAL SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION." DATED: JANUARY 15, 2016.

UNLESS OTHERWISE NOTED, ALL CONSTRUCTION DETAILS SHALL CONFORM WITH THE "STANDARD CONSTRUCTION DRAWINGS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION".

UNLESS OTHERWISE SPECIFIED, ALL STORM SEWER MATERIAL SHALL BE HDPE (ADS) PIPE PER ODOT ITEM 707.33.

BED AND BACKFILL STORM PIPE PER ODOT ITEM 611 TO 12" ABOVE TOP OF PIPE. BACKFILL REMAINDER OF TRENCH WITHIN NATIVE MATERIALS PER ODOT ITEM 203.

NO STRUCTURE OF ANY KIND WHICH CAN INTERFERE WITH ACCESS TO SANITARY SEWER, WATER MAIN, OR STORM SEWER SHALL BE PLACED IN OR UPON A PERMANENT EASEMENT, EXCEPT ITEMS SUCH AS RECREATIONAL SURFACES, PAVED, AREAS FOR PARKING LOT, DRIVEWAYS OR OTHER SURFACES USED FOR INGRESS AND EGRESS, PLANTS, TREES, SHRUBBERY, FENCES, LANDSCAPING OR SIMILAR ITEMS BEING NATURAL OR ARTIFICIAL.

8" SANITARY SEWER SHALL BE PVC TRUSS PIPE OR PVC SDR 26 PIPE.

ROOF DRAINS, FOUNDATION DRAINS, STORM WATER CONNECTIONS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.

ALL STRUCTURES ARE TO BE WARREN COUNTY DESIGN STANDARDS UNLESS NOTED OTHERWISE.

ALL STORM DRAINAGE PIPE UNDER STREETS SHALL BE ODOT SPECIFICATION 706.02 CONCRETE PIPE, 707.65 SAND/STONE FOR 24" DIAMETER OR SMALLER OR 707.69 POLYPROPYLENE TRIPLE WALL PIPE FOR 30" DIAMETER OR LARGER. ALL STORM DRAINAGE PIPE OUTSIDE OF STREET MAY BE ODOT SPECIFICATION 707.33 CORRUGATED POLYETHYLENE PIPE. BEDDING TO BE ODOT SPECIFICATION 603.04, TYPE "2". BACKFILL TO BE ODOT SPECIFICATION 603.08.

ALL TRENCHES UNDER THE PAVEMENT, CURB AND GUTTERS SHALL BE BACKFILLED WITH EITHER COMPACTED NATIVE MATERIAL, COMPACTED GRANULAR MATERIAL, OR CONTROLLED DENSITY FILL. IF SETTLEMENT OCCURS, THE TRENCH SHALL BE EXCAVATED BACK TO THE CONDUIT'S BEDDING AND CONTROLLED DENSITY FILL USED TO BACKFILL THE TRENCH. THE CONTROLLED DENSITY FILL SHALL BE APPLIED FROM BACK OF CURB TO BACK OF CURB.

EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION AND ELEVATIONS BY FIELD INVESTIGATION. ANY ADJUSTMENTS OR REPAIRS TO EXISTING UTILITIES AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE MADE AT THE CONTRACTOR'S EXPENSE.

PUBLIC RIGHT OF WAY WIDTH IS FIFTY (50) FEET.

SEDIMENT CONTROL MEASURES, INCLUDING SILT FENCE, SEDIMENT BASIN AND STAND PIPE SHOULD BE PLACED PRIOR TO SUBSTANTIAL EARTH MOVEMENT.

THE MAINTENANCE, REPAIR, AND REPLACEMENT OF ALL STORM SEWER/PIPING LOCATED BETWEEN THE CATCH BASIN TO THE BACK OF THE STREET CURB AND THE R/W LINE, AS WELL AS THE STORM SEWER/PIPING LOCATED WITHIN THE "PRIVATE STORM SEWER EASEMENTS", SHALL BE THE RESPONSIBILITY OF THE HOMEOWNERS' ASSOCIATION.

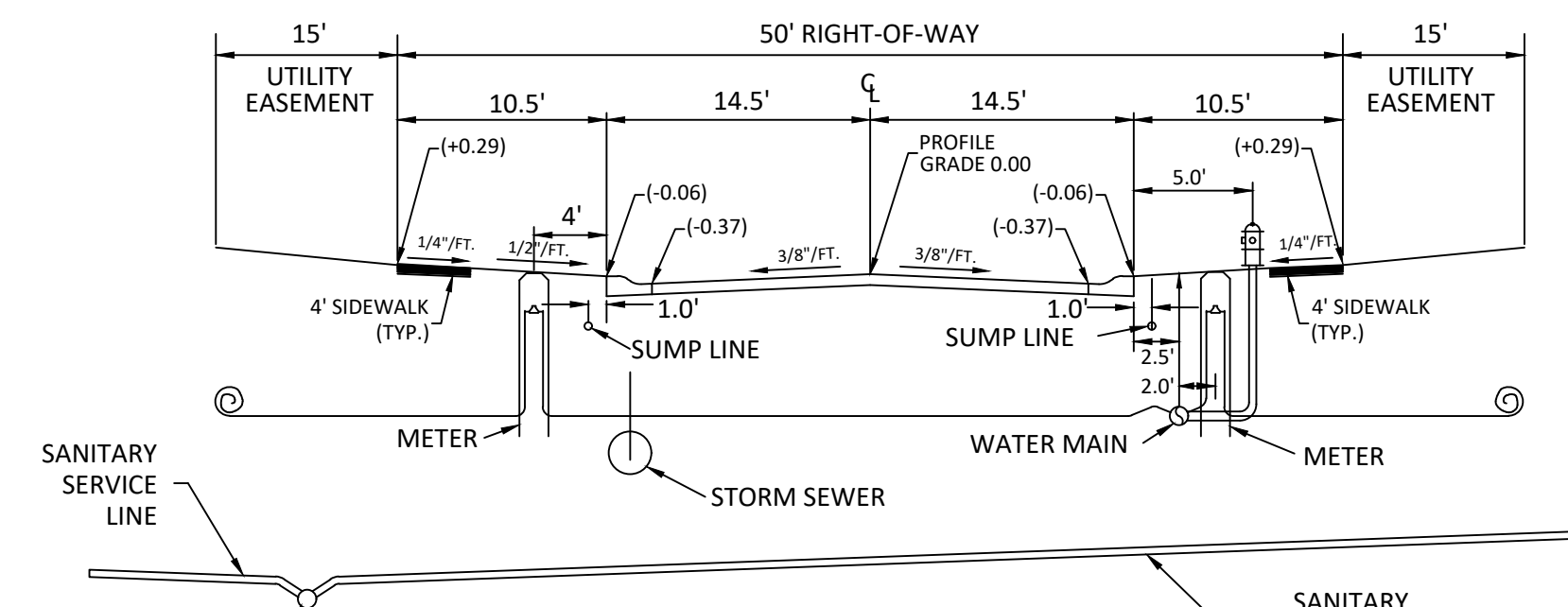
THE OWNER OF THE SANITARY SEWER SYSTEM UPON ACCEPTANCE WILL BE WARREN COUNTY.



OVERALL PROJECT MAP
 1"=200'

INDEX OF SHEETS

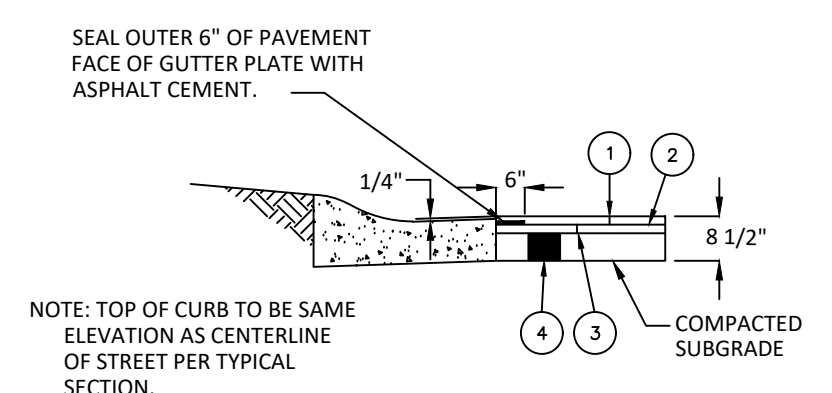
SHEET	DESCRIPTION
1	COVER SHEET
2-3	IMPROVEMENT PLAN
4	SANITARY SEWER PLAN & PROFILE
5-6	GRADING & SWP3
7-10	PROFILES & DETAILS
11	SANITARY SEWER NOTES & DETAILS
12	WATER SYSTEM NOTES & DETAILS
13	EROSION CONTROL NOTES & DETAILS



ITEM	DEPTH TOP OF PIPE
CABLE T.V.	24"-36"
ELECTRIC	30"-36"
GAS	24"-42"
SUMP LINES	24"-30"
TELEPHONE	30"-36"
WATER	54"

TYPICAL CROSS SECTION
 WARREN COUNTY

N.T.S.



- FLEXIBLE PAVEMENT LEGEND**
- ① 1-1/2" THICKNESS OF ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1
 - ② TACK COAT MS-2, RS-1 OR RC 250
 - ③ 2" THICKNESS OF ITEM 448 ASPHALT CONCRETE LEVELING COURSE, TYPE 1
 - ④ 5" THICKNESS OF ITEM 301, BITUMINOUS BASE COURSE

NOTE
 ALL LETTER - NUMBER DESIGNATIONS REFER THE CURRENT EDITION OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATION.

STANDARD PAVEMENT COMPOSITION

NOT TO SCALE

**WARREN COUNTY ENGINEER
 STANDARD DETAILS**

PLATES 2,3,4,12,18,19,20,21,22,23,26,27,28,29,30,31,33,34,35,36

**WARREN COUNTY
 WATER AND SEWER DEPARTMENT
 STANDARD DETAILS**

PLATES WG-1A,WG-1B,WG-2,W-1,W-2,W-3,W-8,W-9,W-10A, PLATES W-11,W-12,W-18,W-19,W-20,SG-1,SG-2A,SG-2B, S-1,S-5,S-6,S-7,S-11,S-14,S-15A,S-15B,S-18

ENGINEER OF RECORD: _____ DATE _____
 JOSH REXHAUSEN, P.E. REG. No. 68164

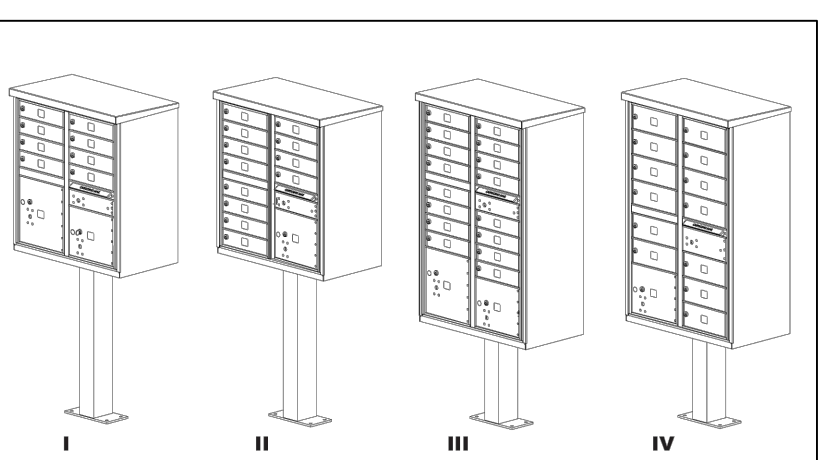
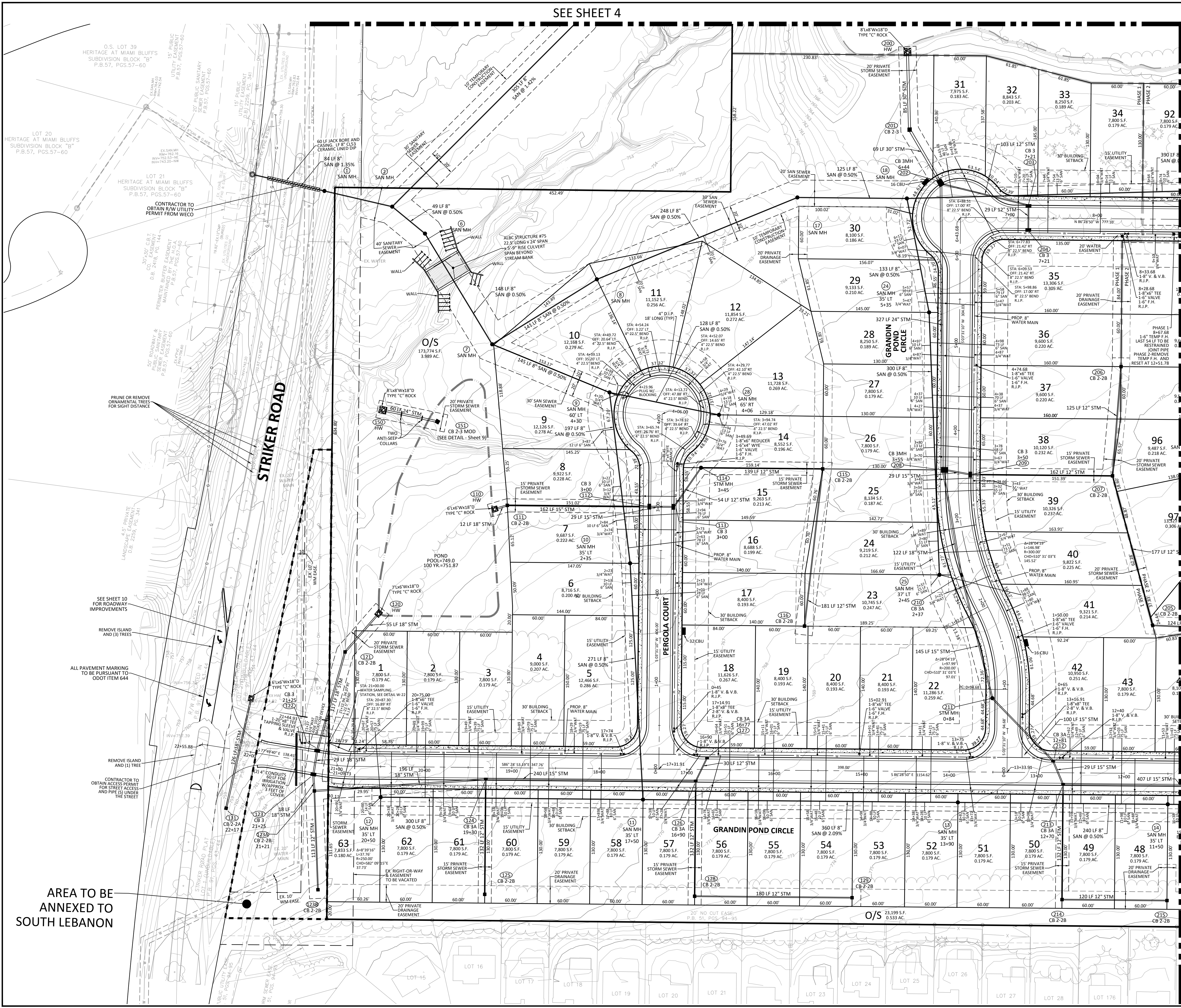
APPROVED: _____ DATE _____
 WARREN COUNTY SANITARY ENGINEER

APPROVED: _____ DATE _____
 WARREN COUNTY ENGINEER

**THE ARBORS AT GRANDIN POND
 PHASES 1 & 2**
 MILITARY SURVEY NO. 1547 & 1548
 CITY OF SOUTH LEBANON
 HAMILTON TOWNSHIP
 WARREN COUNTY, OHIO

OHIO
 Utilities Protection
 SERVICE
 Call Before You Dig
 1-800-362-2764
 CALL TWO WORKING DAYS BEFORE YOU DIG
 (NON MEMBERS MUST BE CALLED DIRECTLY)

SEE SHEET 4



INSTALLED HEIGHT	TYPE I	TYPE II	TYPE III	TYPE IV
DEPTH	17'-2 1/8"	17'-2 1/8"	17'-2 1/8"	17'-2 1/8"
WIDTH	30'-1 1/2"	30'-1 1/2"	30'-1 1/2"	30'-1 1/2"
WEIGHT (WITHOUT PEDESTAL)	107 LBS	113 LBS	147 LBS	157 LBS
WEIGHT (WITH PEDESTAL)	125 LBS	129 LBS	162 LBS	152 LBS
QTY OF STANDARD COMPARTMENTS	8	12	16	13
QTY OF PARCEL COMPARTMENTS	2	1	2	1
PARCEL COMPARTMENT HEIGHT	10", 13"	10"	10", 13"	10"

METAL CBU TYPES DETAIL
N.T.S.

MSP
DESIGN
McGill Smith Punshon

3700 Park 42 Drive
Suite 1908
Cincinnati OH 45241
Phone 513.759.0004
www.mspsdesign.com

Project Manager RA
 Drawn By NAK
 DWG 16448024-IMP-01
 X-Ref(s) 16448023-BA5-00

Issue/Revision	No.	Date
UPDATES		04/29/24
WCWS COMMENTS		05/03/24
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REV PER OEPA		06/04/24
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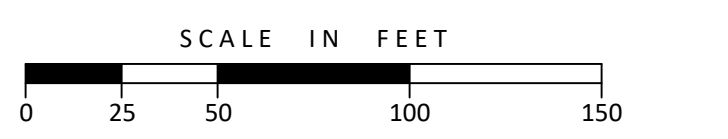
Copyright 2024, McGILL SMITH PUNSHON, INC.

**THE ARBORS AT GRANDIN POND
PHASE 1**

MILITARY SURVEY NO. 1547 & 1548
 CITY OF SOUTH LEBANON
 HAMILTON TOWNSHIP
 WARREN COUNTY, OHIO

ALL SANITARY MANHOLES, WATER VALVES AND HYDRANTS TO BE A MINIMUM 3' FROM EDGE OF PAVEMENT.

SEE SHEET 2



AREA TO BE ANNEXED TO SOUTH LEBANON

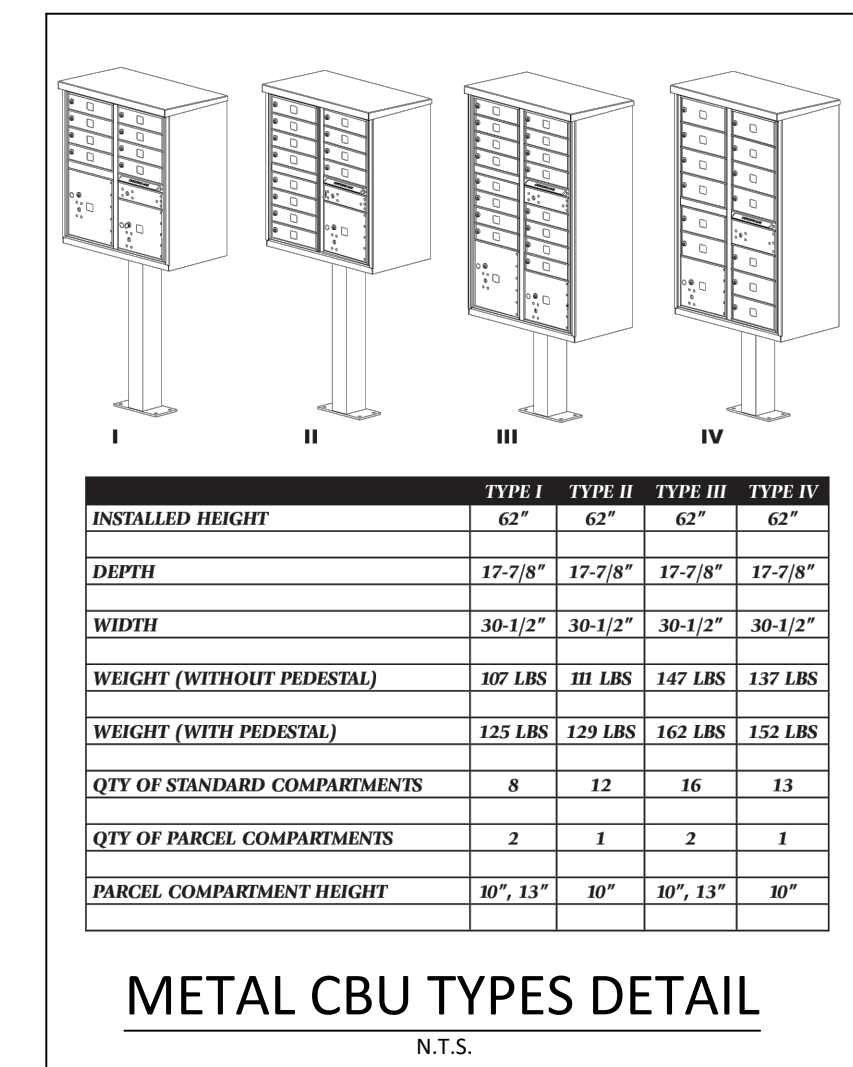
Sheet Title

IMPROVEMENT PLAN

Project Number 16448.01
 Drawing Scale 1" = 50'
 Sheet Number 2/13
 File Number 16448

OHIO811.org
 Before You Dig
 811 OR 1-800-362-2764
 CALL TWO WORKING DAYS BEFORE YOU DIG
 (NON MEMBERS MUST BE CALLED DIRECTLY)

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REV PER OEPA		06/04/24
REV PER CITY		06/06/24



ALL SANITARY MANHOLES, WATER VALVES AND HYDRANTS TO BE A MINIMUM 3' FROM EDGE OF PAVEMENT.



THE ARBORS AT GRANDIN POND PHASE 1

MILITARY SURVEY NO. 1547 & 1548
CITY OF SOUTH LEBANON
HAMILTON TOWNSHIP
WARREN COUNTY, OHIO

Sheet Title

IMPROVEMENT PLAN

Project Number 16448.01
Drawing Scale 1" = 50'
Sheet Number 3/13
File Number 16448

OHIO811.org
Before You Dig
811 OR 1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)



SEE SHEET 2

Project Manager RA
Drawn By NAK
DWG 16448024-IMP-01
X-Ref(s) 16448003-BA5-00

Issue/Revision	No.	Date
UPDATES		04/29/24
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REV PER OEPA		06/04/24
REV PER CITY		06/06/24

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THE ARBORS AT GRANDIN POND PHASE 2

MILITARY SURVEY NO. 1547 & 1548
CITY OF SOUTH LEBANON
HAMILTON TOWNSHIP
WARREN COUNTY, OHIO

Sheet Title

IMPROVEMENT PLAN

Project Number 16448.01
Drawing Scale 1" = 50'
Sheet Number 3A/13
File Number 16448



ALL SANITARY MANHOLES, WATER VALVES AND HYDRANTS TO BE A MINIMUM 3' FROM EDGE OF PAVEMENT.

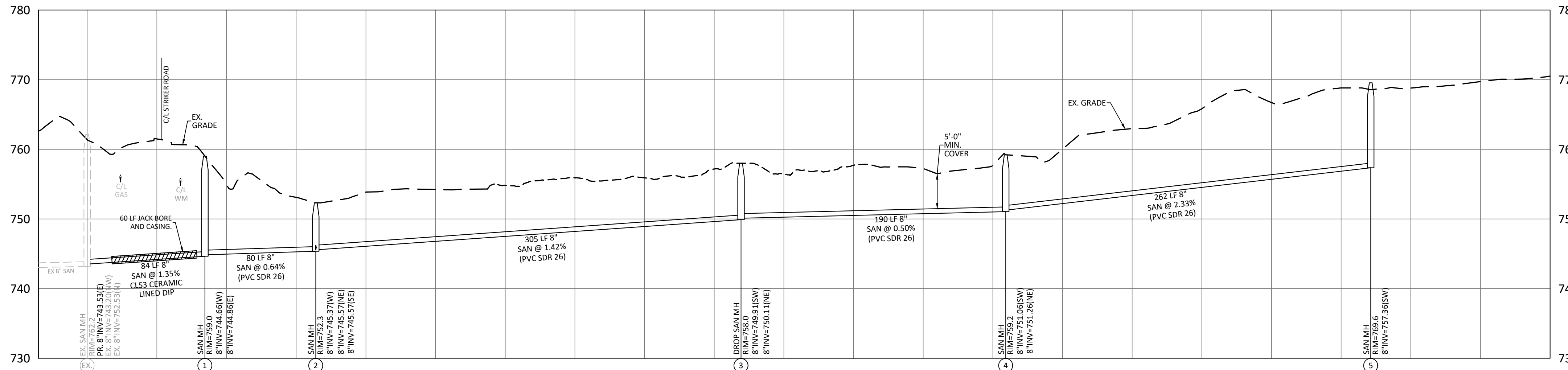


SCALE IN FEET
0 25 50 100 150

OHIO811.org
Before You Dig
811 OR 1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

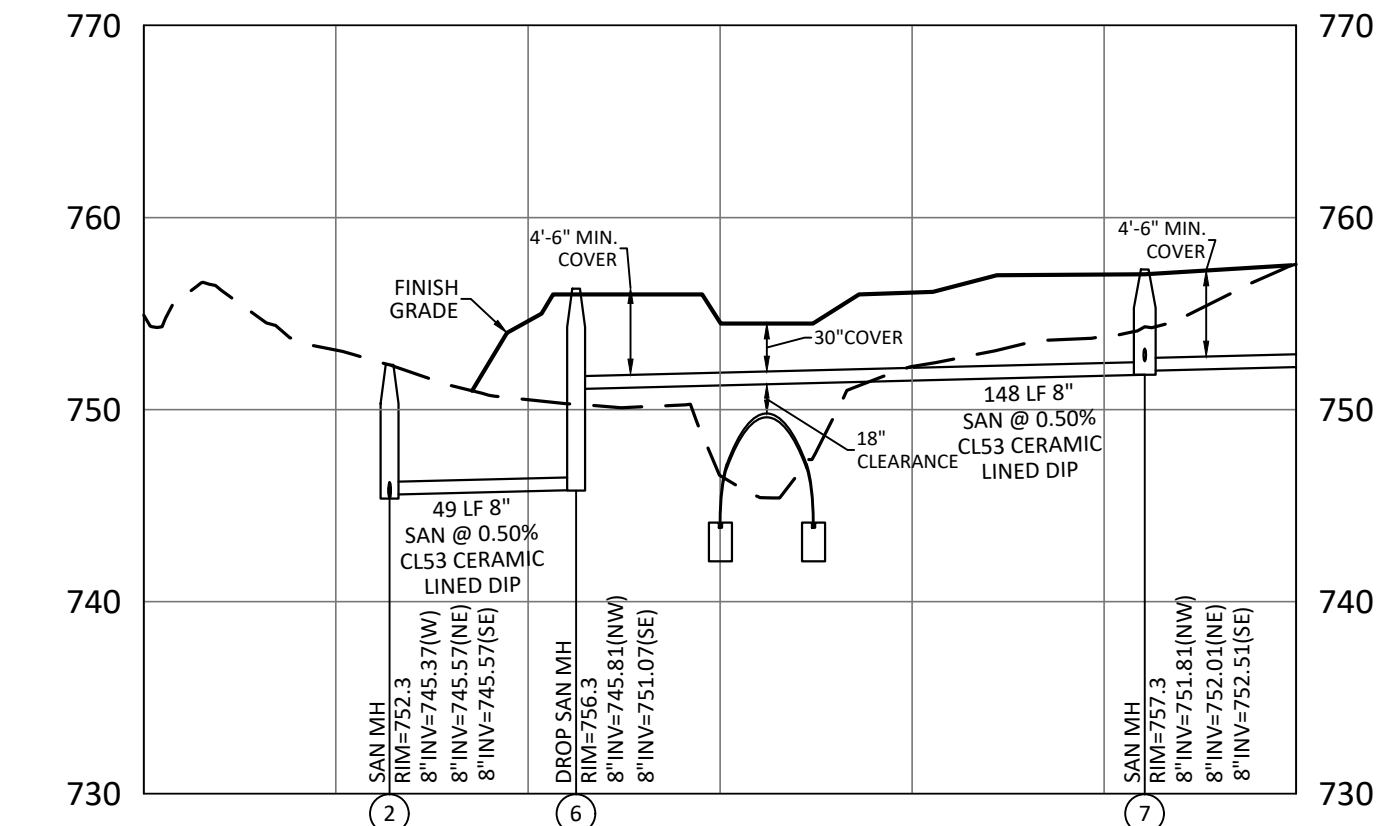
N:\land projects\16000\16448\dwg\16448024-IMP-01.dwg, 03a-imp, 6/11/2024 11:49:25 AM, nak huon

Issue/Revision	No.	Date
WCWS COMMENTS		05/03/24
WCEO COMMENTS		06/04/24
REV PER OEPA		06/04/24
REV PER CITY		06/06/24



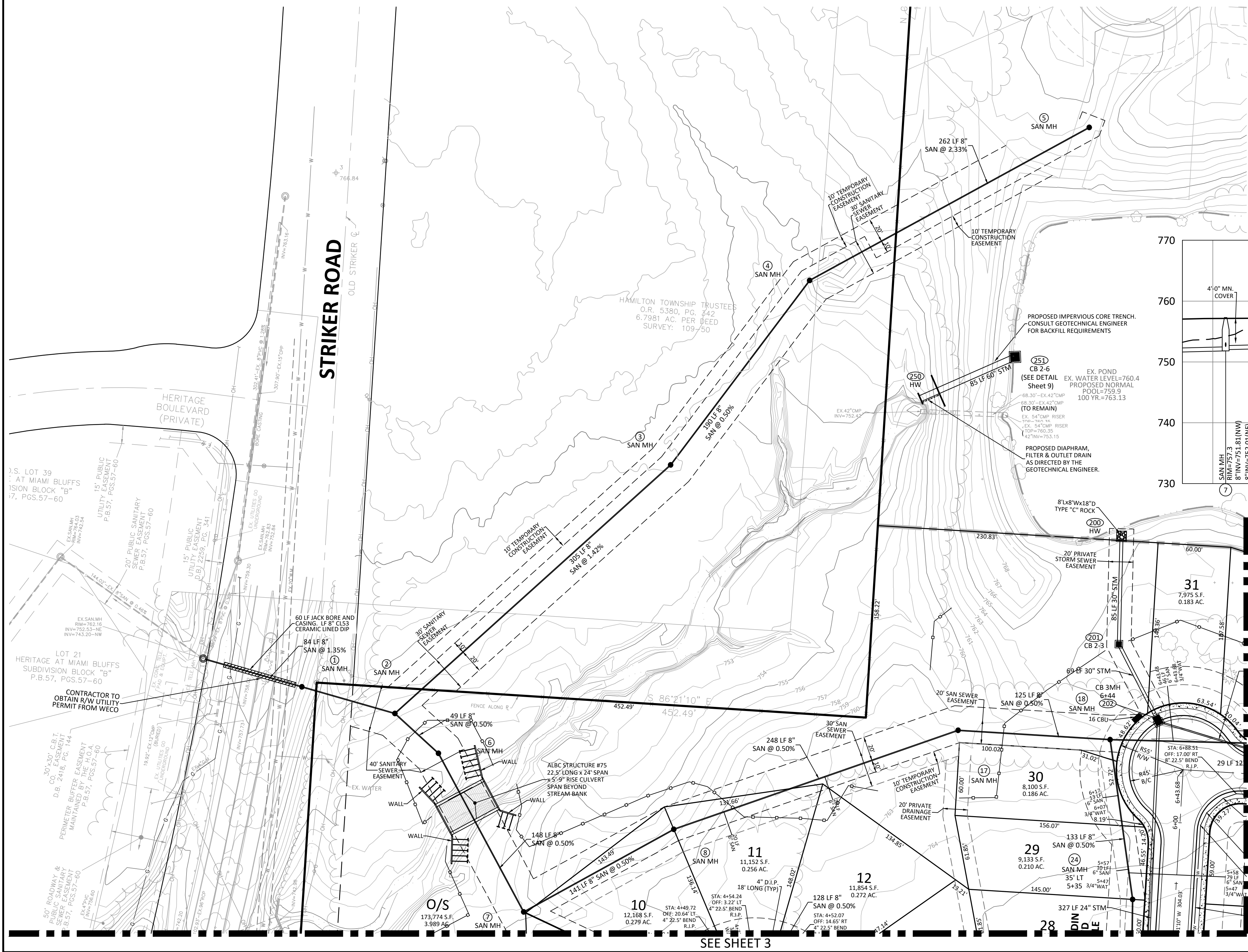
SANITARY SEWER 1-5 & EX

1"=50' HOR. / 1"=10' VERT.

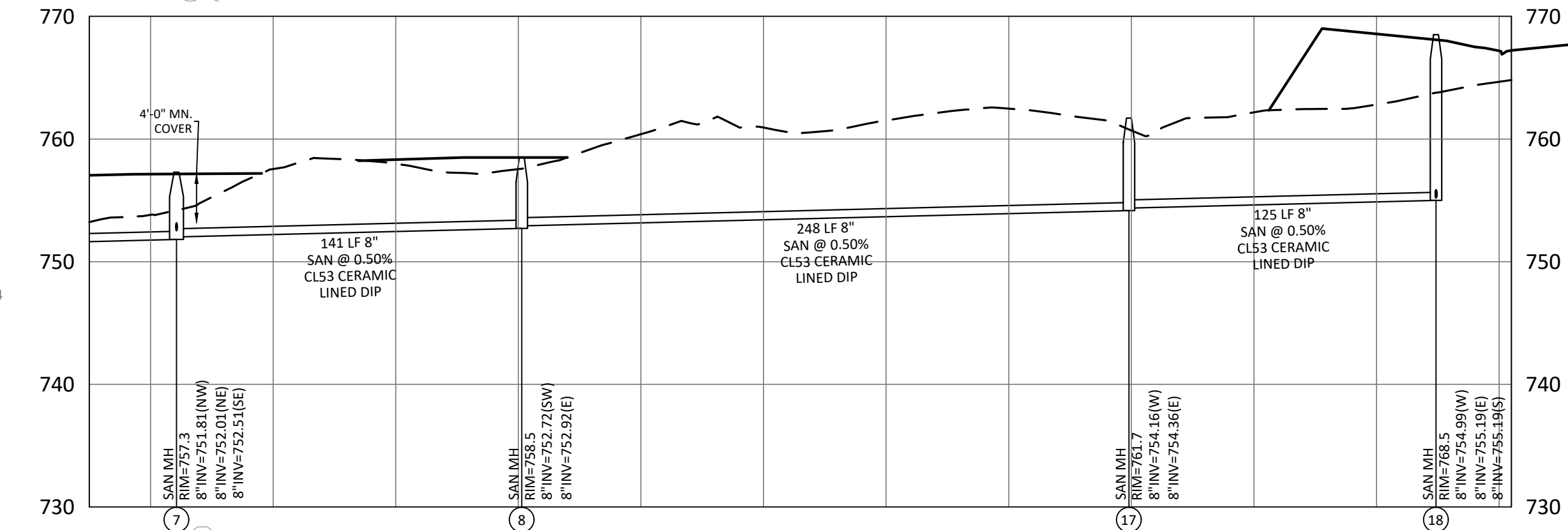


SANITARY SEWER 2 & 6-7

1"=50' HOR. / 1"=10' VERT.

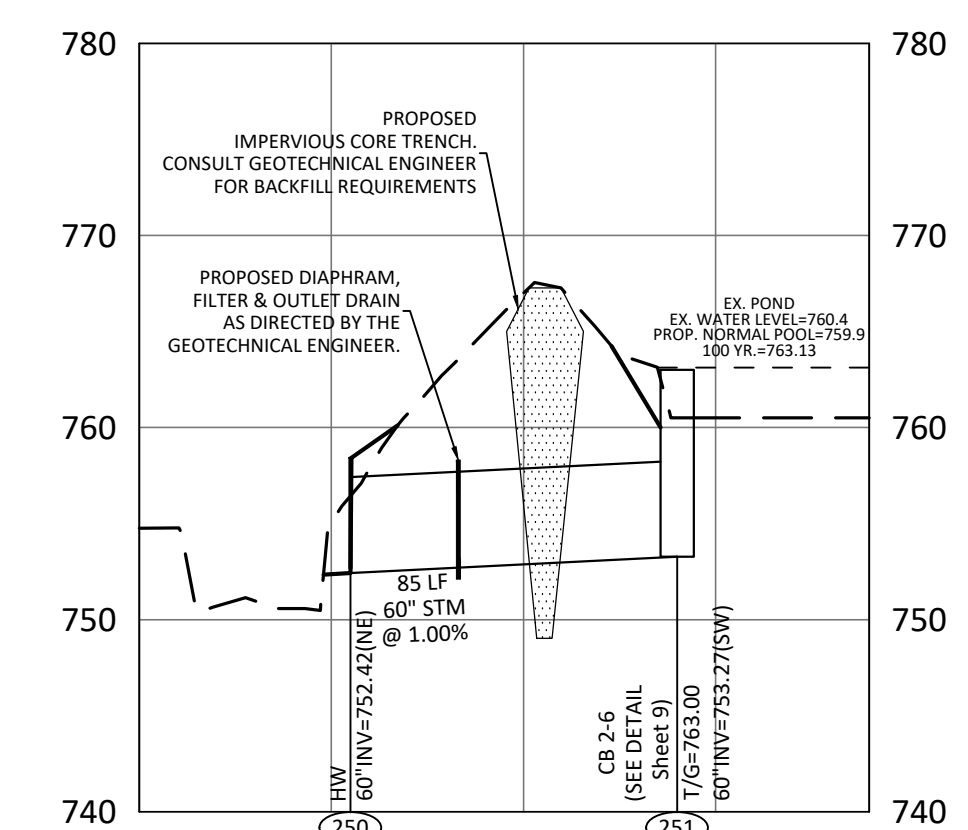


SEE SHEET 3



SANITARY SEWER 7-8 & 17-18

1"=50' HOR. / 1"=10' VERT.



60 INCH STORM SEWER

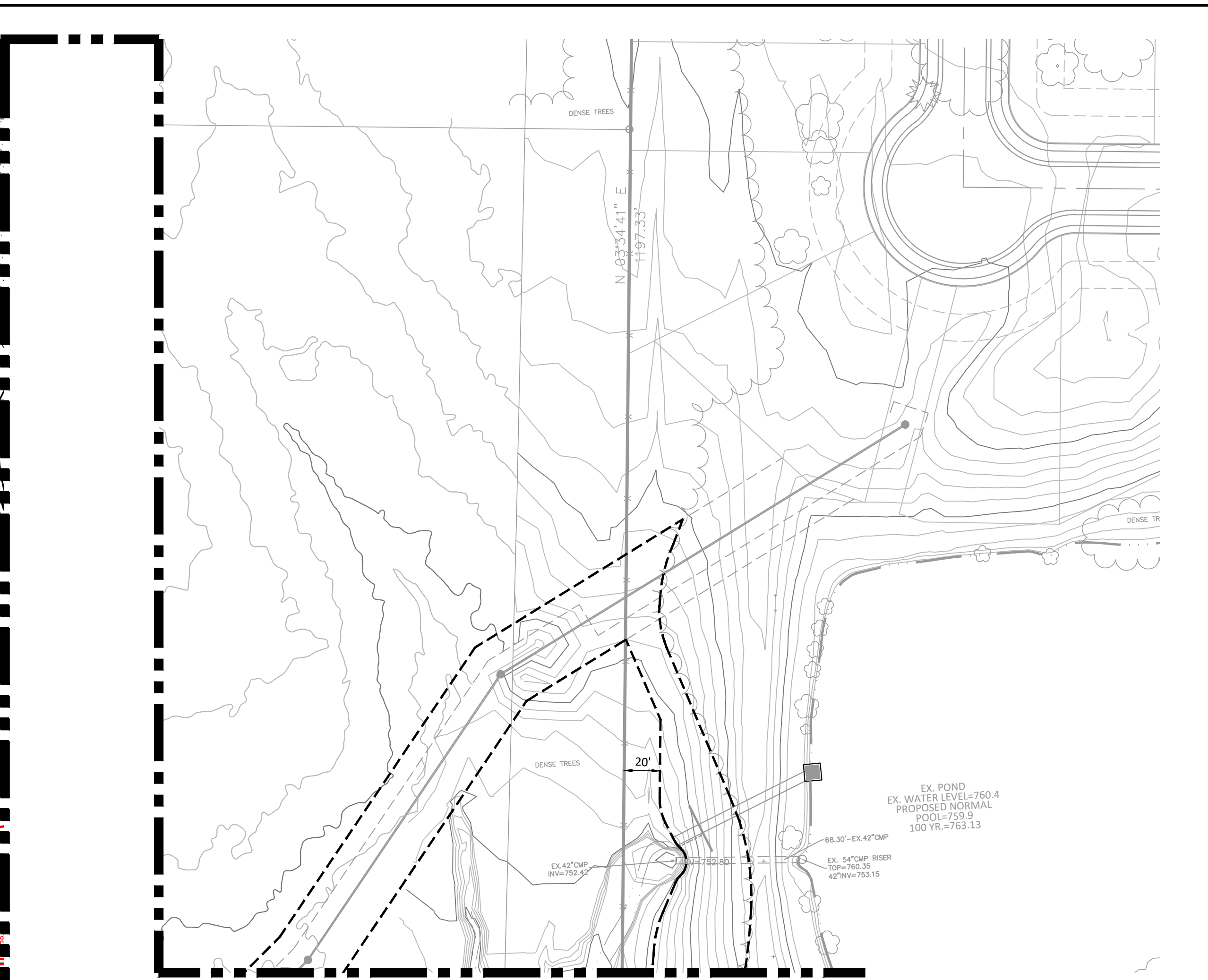
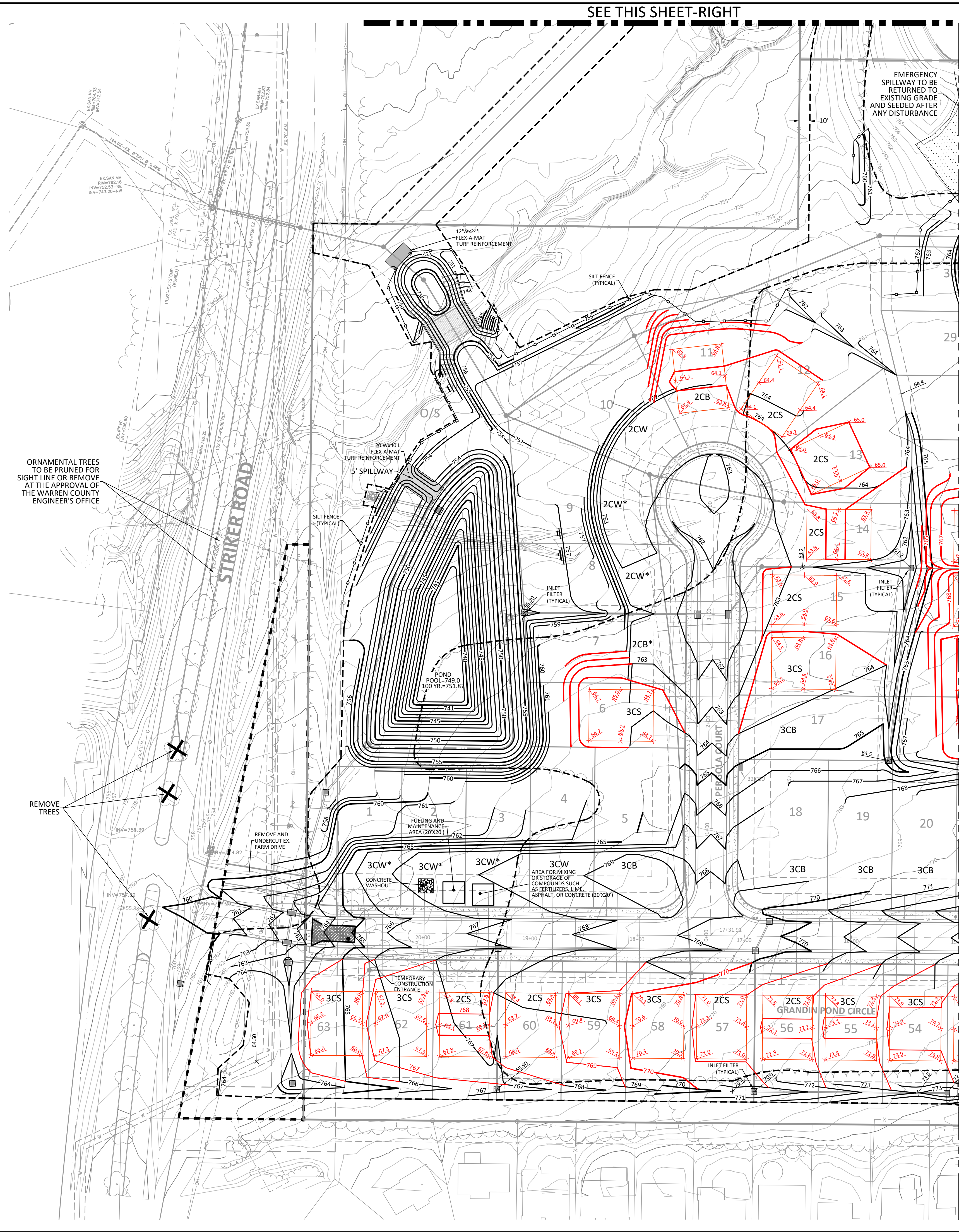
1"=50' HOR. / 1"=10' VERT.

NOTE: T/CURB = TOP OF CURB
T/G = TOP OF GRATE



**THE ARBORS AT GRANDIN POND
PHASE 1**
MILITARY SURVEY NO. 1547 & 1548
CITY OF SOUTH LEBANON
HAMILTON TOWNSHIP
WARREN COUNTY, OHIO

Issue/Revision	No.	Date
WCEO COMMENTS		06/04/24
WCEO COMMENTS		06/04/24
REV PER OEPA		06/04/24
REV PER CITY		06/06/24



SEE THIS SHEET-LEFT

MAINTENANCE OF CONTROLS:

- SILT FENCE AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND DAILY DURING A PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- SHOULD THE FABRIC ON A FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
- SEDIMENT DEPOSITS SHALL BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
- ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE AND PREPARED FOR SEEDING.

GENERAL NPDES NOTES:

- PROJECT INVOLVES THE CONSTRUCTION OF ROADS AND INFRASTRUCTURE FOR A SINGLE FAMILY SUBDIVISION.
- AREA TO BE DISTURBED IS APPROXIMATELY 19 ACRES.
- PRE-CONSTRUCTION RUNOFF COEFFICIENT IS 0.30. POST-CONSTRUCTION RUNOFF COEFFICIENT IS 0.55.
- APPROXIMATELY 8.4 ACRES OF IMPERVIOUS SURFACE IS PROPOSED RESULTING IN 42 PERCENT OF IMPERVIOUSNESS.
- THE PREDOMINATE SOIL TYPES ARE JONESBORO-ROSSMOYNE AND WESTBORO-SCHAEPPER SILT LOAMS.
- THE PRIOR LANDUSE IS LANDSCAPE NURSERY FARM.
- LITTLE MIAMI RIVER IS THE FIRST NAMED STREAM RECEIVING RUNOFF FROM THIS SITE.
- NPDES STORM WATER GENERAL PERMIT NUMBER: TBD
- PROJECT DURATION: THRU 2025
- SITE OPERATOR:
BEAVER CREEK SITE MANAGEMENT, LLC
7861 E. KEMPER ROAD
CINCINNATI, OHIO 45249
- SWPPP CONTACT:
BEAVER CREEK SITE MANAGEMENT, LLC
7861 E. KEMPER ROAD
CINCINNATI, OHIO 45249
- UNLESS OTHERWISE NOTED, STANDARDS AND SPECIFICATIONS ESTABLISHED IN THE LATEST EDITION OF THE OHIO DEPARTMENT OF NATURAL RESOURCES "RAINWATER AND LAND DEVELOPMENT" MANUAL, CURRENT EDITION, SHALL GOVERN THE EROSION AND SEDIMENT CONTROL INSTALLATIONS SPECIFIED ON THIS PLAN.
- THE DEVELOPER AND CONTRACTOR SHALL ABIDE BY THE RULES AND REGULATIONS SET FORTH IN THE OHIO EPA PERMIT NO. OH000006 "AUTHORIZATION FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY" UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES).
- PRIOR TO COMMENCEMENT OF CONSTRUCTION OPERATIONS, ALL SEDIMENTATION AND EROSION CONTROL FEATURES SHALL BE IN PLACE.
- SEDIMENT CONTROL STRUCTURES SHALL BE FUNCTIONAL THROUGHOUT THE COURSE OF EARTH DISTURBING ACTIVITY, AND SHALL CONTINUE TO FUNCTION UNTIL THE UP-SLOPE DEVELOPMENT AREA IS REESTABLISHED. AS CONSTRUCTION PROGRESSES AND THE TOPOGRAPHY IS ALTERED, APPROPRIATE CONTROLS MUST BE CONSTRUCTED OR EXISTING CONTROLS ALTERED TO ADDRESS THE CHANGING DRAINAGE PATTERNS.
- ALL GROUND SURFACE AREAS THAT HAVE BEEN EXPOSED OR LEFT BARE AS A RESULT OF DEMOLITION AND ARE TO FINAL GRADE AND TO REMAIN SO, SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL IN ACCORDANCE WITH STATE OF OHIO SPECIFICATION ITEM 659, AND IN ACCORDANCE WITH THE CONDITIONS OF THE NPDES STORM WATER GENERAL PERMIT.

HOME TYPE LEGEND

2CS	2 CAR SLAB
2CB	2 CAR BASEMENT
2CW	2 CAR WALKOUT
3CS	3 CAR SLAB
3CB	3 CAR BASEMENT
3CW	3 CAR WALKOUT

* EJECTOR PUMP REQUIRED FOR BASEMENT SERVICE

TYPICAL SECTION EMERGENCY FLOOD ROUTE
N.T.S.

A DETAILED MAINTENANCE PLAN THAT DESCRIBES PROCEDURES (E.G. INSPECTIONS SEE SECTION 2.18 INSPECTION OF STORM WATER CONTROLS/INTERNAL INSPECTIONS) NEEDED TO ENSURE THE CONTINUED PERFORMANCE OF CONTROL PRACTICES SHALL BE LOCATED AT THE ENTRANCE OF THE DEVELOPMENT AREA OR AT THE JOB TRAILER IN A WELL-MARKED CONTAINER ACCESSIBLE AT ALL TIMES. SUCH PLANS MUST ENSURE THAT POLLUTANTS COLLECTED WITHIN STRUCTURAL POST-CONSTRUCTION PRACTICES, BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

NOTES:
EARTHMOVING ACTIVITIES SHALL BE CARRIED OUT AS DIRECTED BY CONSULTING SERVICES INCORPORATED AND IN ACCORDANCE WITH THEIR GEOTECHNICAL REPORT ISSUED OCTOBER 14, 2016.

ESTABLISH VEGETATION ON ALL BARE AREAS AS PER O.E.P.A. N.P.D.E.S. REGULATIONS.
CONTRACTOR IS RESPONSIBLE FOR N.P.D.E.S. INSPECTIONS DURING CONSTRUCTION PERIOD.

OHIO811.org
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811 OR 1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

SCALE IN FEET
0 25 50 100 150

**THE ARBORS AT GRANDIN POND
PHASES 1 & 2**
MILITARY SURVEY NO. 1547 & 1548
CITY OF SOUTH LEBANON
HAMILTON TOWNSHIP
WARREN COUNTY, OHIO

Sheet Title

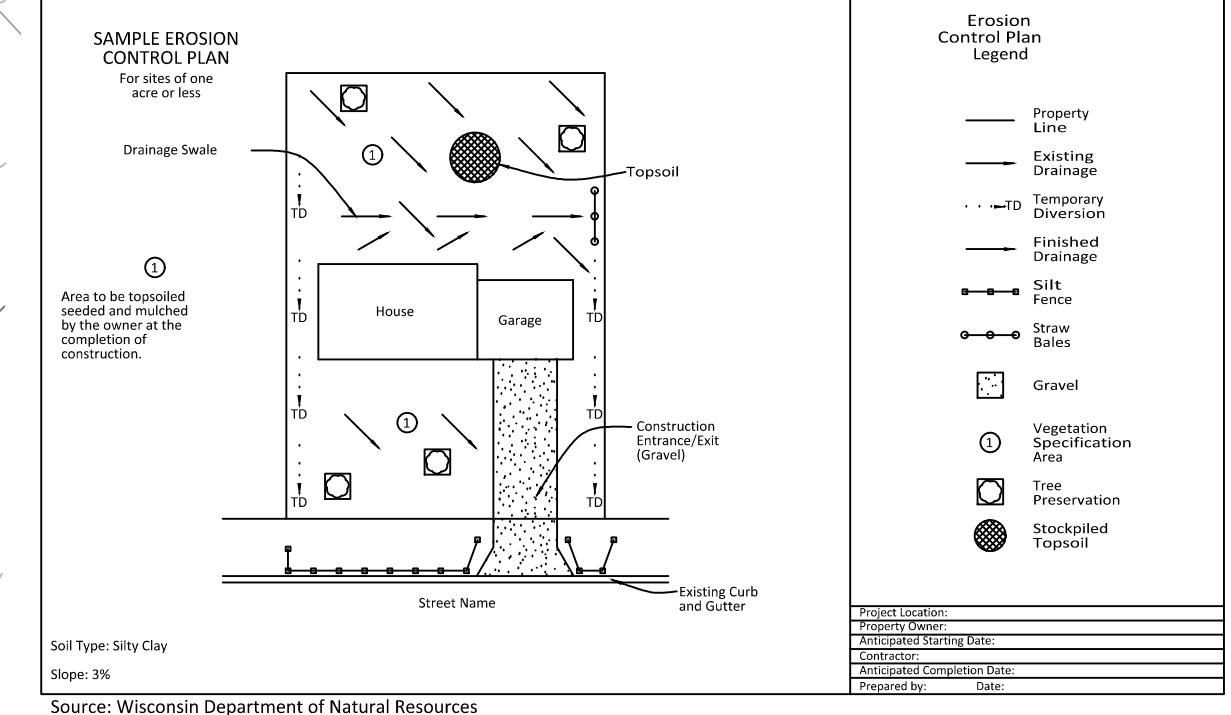
GRADING & SWP3 PLAN
Project Number 16448.01
Drawing Scale 1" = 50'
Sheet Number 5/13
File Number 16448

Issue/Revision	No.	Date
UPDATES		04/29/24
WCWS COMMENTS		05/03/24
REV PER OEPA		06/04/24
REV PER CITY		06/06/24

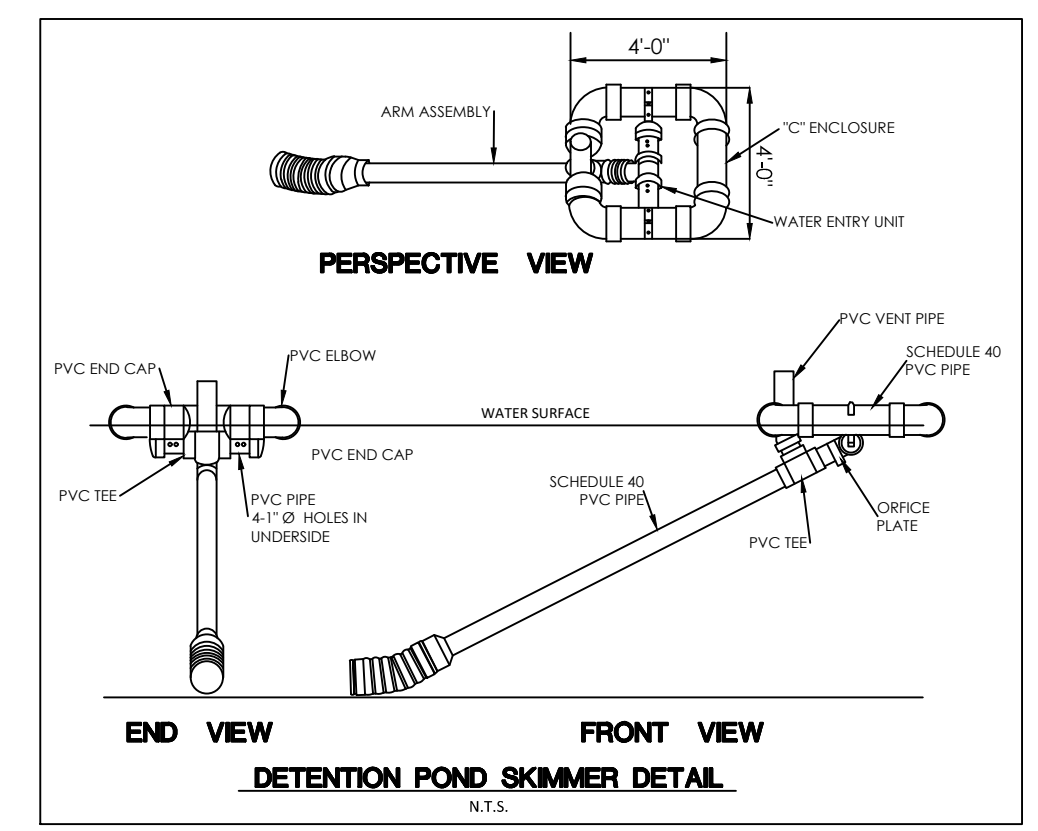
- CONSTRUCTION SEQUENCE**
- INSTALL EROSION AND SEDIMENT CONTROL MEASURES BEFORE UPSLOPE CLEARING AND GRADING.
 - INSTALL STORMWATER MANAGEMENT QUALITY AND QUANTITY CONTROL SYSTEM.
 - GRADING AND STRIPPING OF THE REMAINING AREAS OF THE DEVELOPMENT SITE OR PROJECT AREA.
 - TEMPORARY VEGETATIVE STABILIZATION OF EROSION AND SEDIMENT CONTROL MEASURES.
 - GRADING OF SUBDIVISION STREET.
 - INSTALLATION OF ALL UTILITIES.
 - SITE CONSTRUCTION.
 - FINAL GRADING, STABILIZATION, AND LANDSCAPING.
 - REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES.

- DUE TO THE DYNAMICS AND STAGING OF EARTH MOVEMENT, CONTRACTOR MAY NEED TO ALTER THE EROSION CONTROL MEASURES AS SHOWN HEREON. CONTRACTOR TO APPLY (E.M.P.) BEST MANAGEMENT PRACTICES IN ORDER TO CONTROL THE RUNOFF OF SILT AND SEDIMENT.
- ADDITIONAL SILT FENCE MAY BE REQUIRED AS SITE CONDITIONS DETERMINE.
- IF A TEMPORARY STOCKPILE IS CREATED, SILT FENCE SHALL BE PLACED AT THE TOE OF SLOPE.

EROSION CONTROL PRACTICES FOR RESIDENTIAL SITES

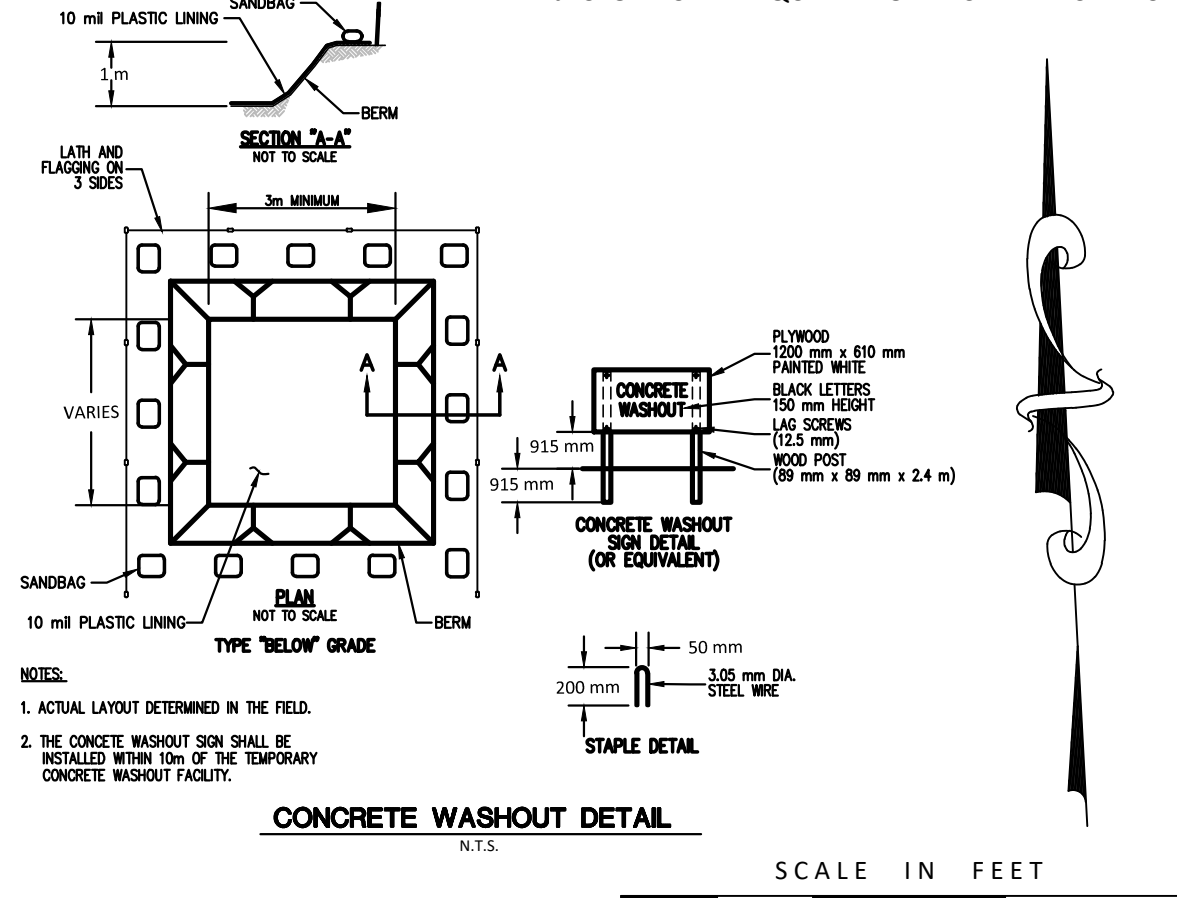


WARNING! Extra measures may be needed if your site:
 -is within 300 feet of a stream or wetland
 -is within 1000 feet of a lake
 -is steep (slopes of 2% or more)
 -Receives runoff from 10,000 sq. ft. or more of adjacent land
 -Has more than an acre of undisturbed ground
 For information on appropriate measures for these sites, contact Warren County Engineer's office.



A DETAILED MAINTENANCE PLAN THAT DESCRIBES PROCEDURES (E.G. INSPECTIONS SEE SECTION 2.18 INSPECTION OF STORM WATER CONTROLS/INTERNAL INSPECTIONS) NEEDED TO ENSURE THE CONTINUED PERFORMANCE OF CONTROL PRACTICES SHALL BE LOCATED AT THE ENTRANCE OF THE DEVELOPMENT AREA OR AT THE JOB TRAILER IN A WELL-MARKED CONTAINER ACCESSIBLE AT ALL TIMES. SUCH PLANS MUST ENSURE THAT POLLUTANTS COLLECTED WITHIN STRUCTURAL POST-CONSTRUCTION PRACTICES, BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

- HOME TYPE LEGEND**
- 2CS 2 CAR SLAB
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NOTES:
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ESTABLISH VEGETATION ON ALL BARE AREAS AS PER O.E.P.A. N.P.D.E.S. REGULATIONS.
 CONTRACTOR IS RESPONSIBLE FOR N.P.D.E.S. INSPECTIONS DURING CONSTRUCTION PERIOD.

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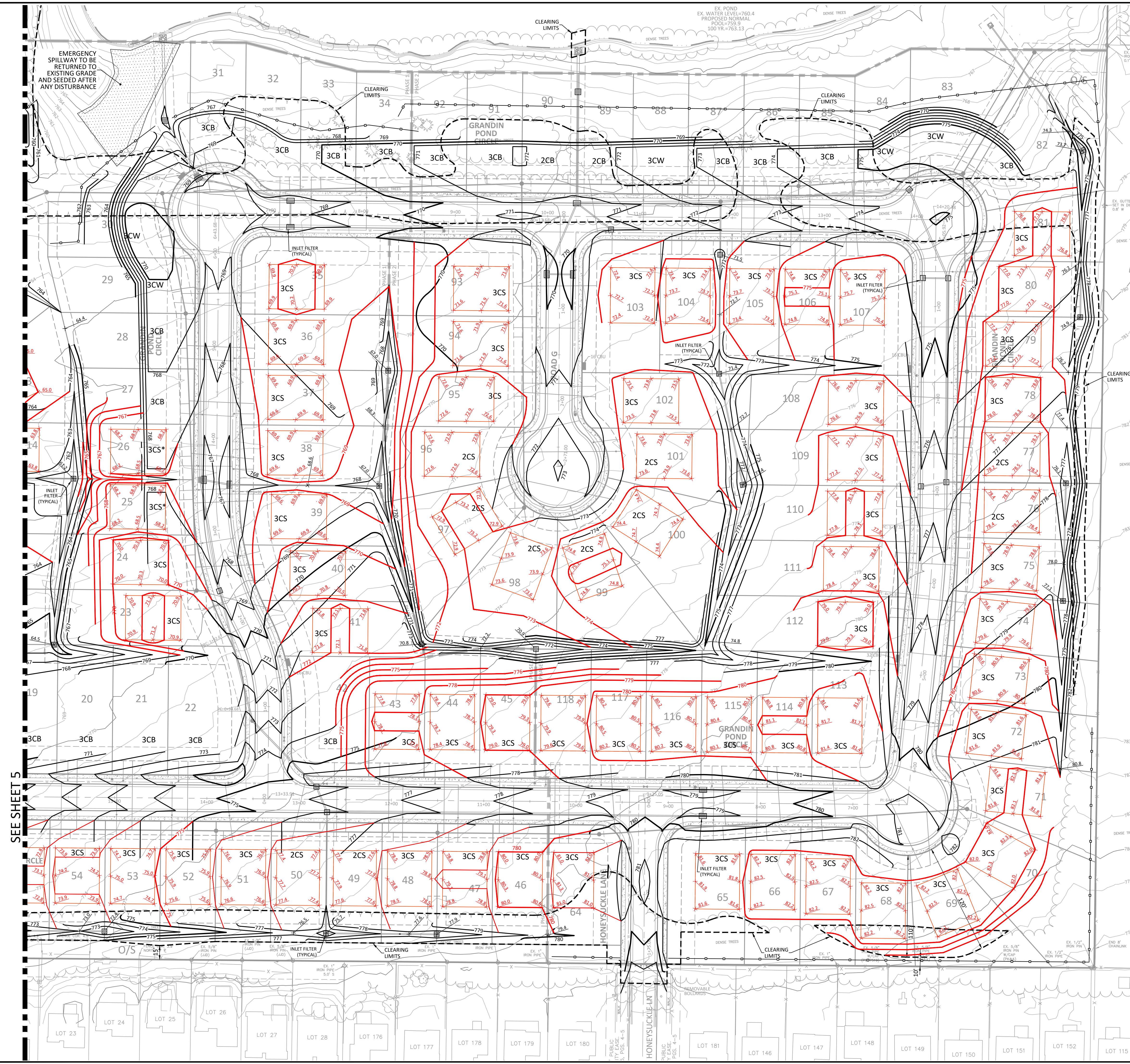
**THE ARBORS AT GRANDIN POND
 PHASES 1 & 2**

MILITARY SURVEY NO. 1547 & 1548
 CITY OF SOUTH LEBANON
 HAMILTON TOWNSHIP
 WARREN COUNTY, OHIO

Sheet Title

GRADING & SWP3 PLAN

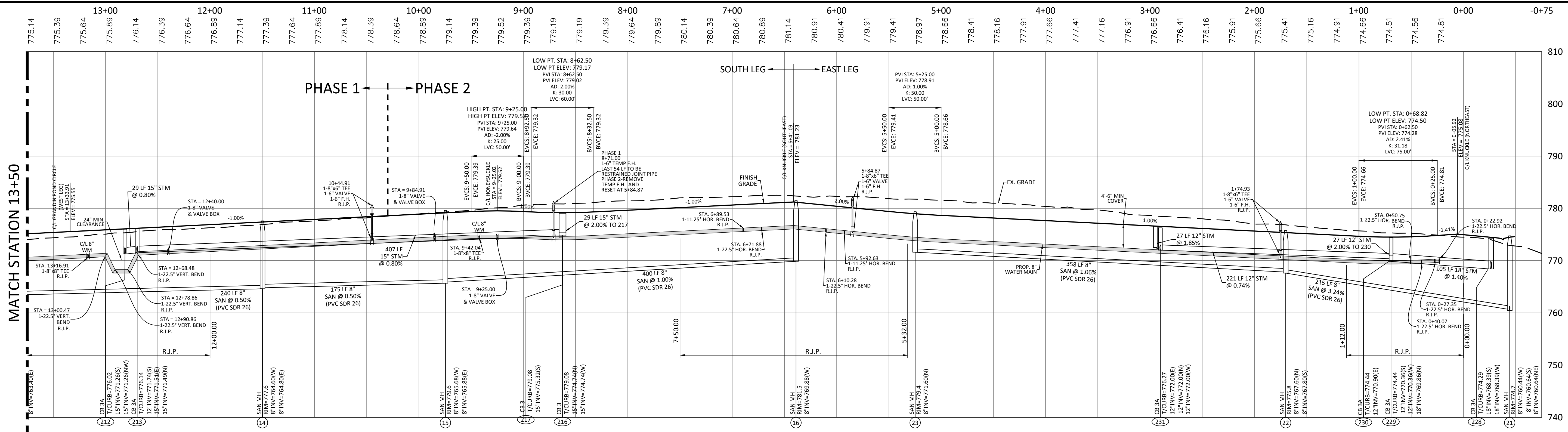
Project Number 16448.01
 Drawing Scale 1" = 50'
 Sheet Number 6/13
 File Number 16448



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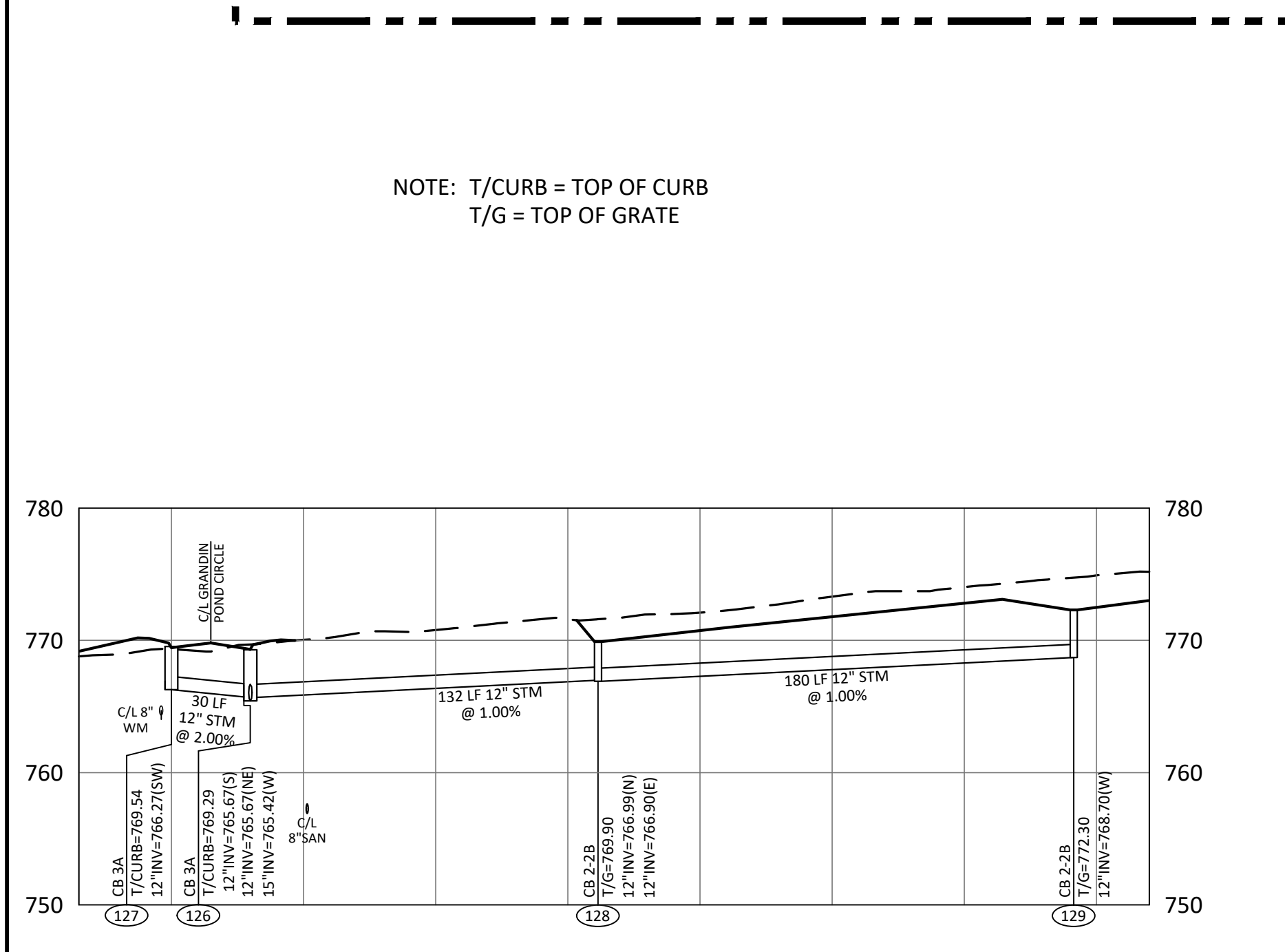
Issue/Revision	No.	Date
UPDATES		04/29/24
WCWS COMMENTS		05/03/24
REV PER OEPA		06/04/24
REV PER CITY		06/06/24

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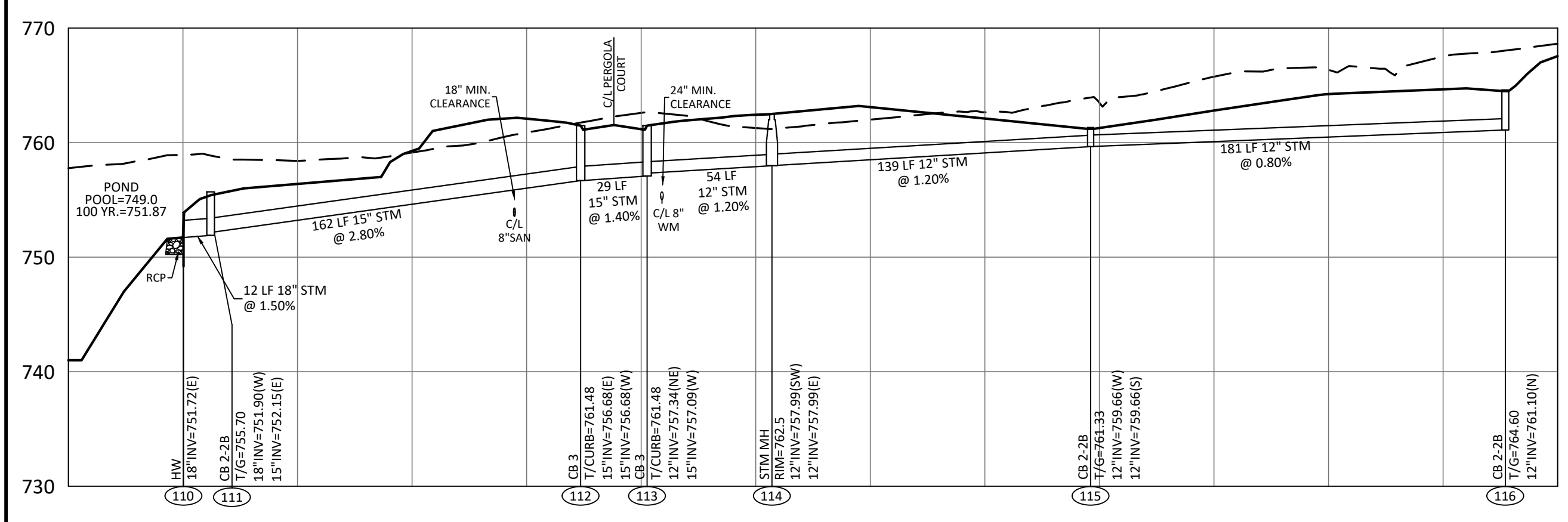


GRANDIN POND CIRCLE
1"=50' HOR. / 1"=10' VERT.

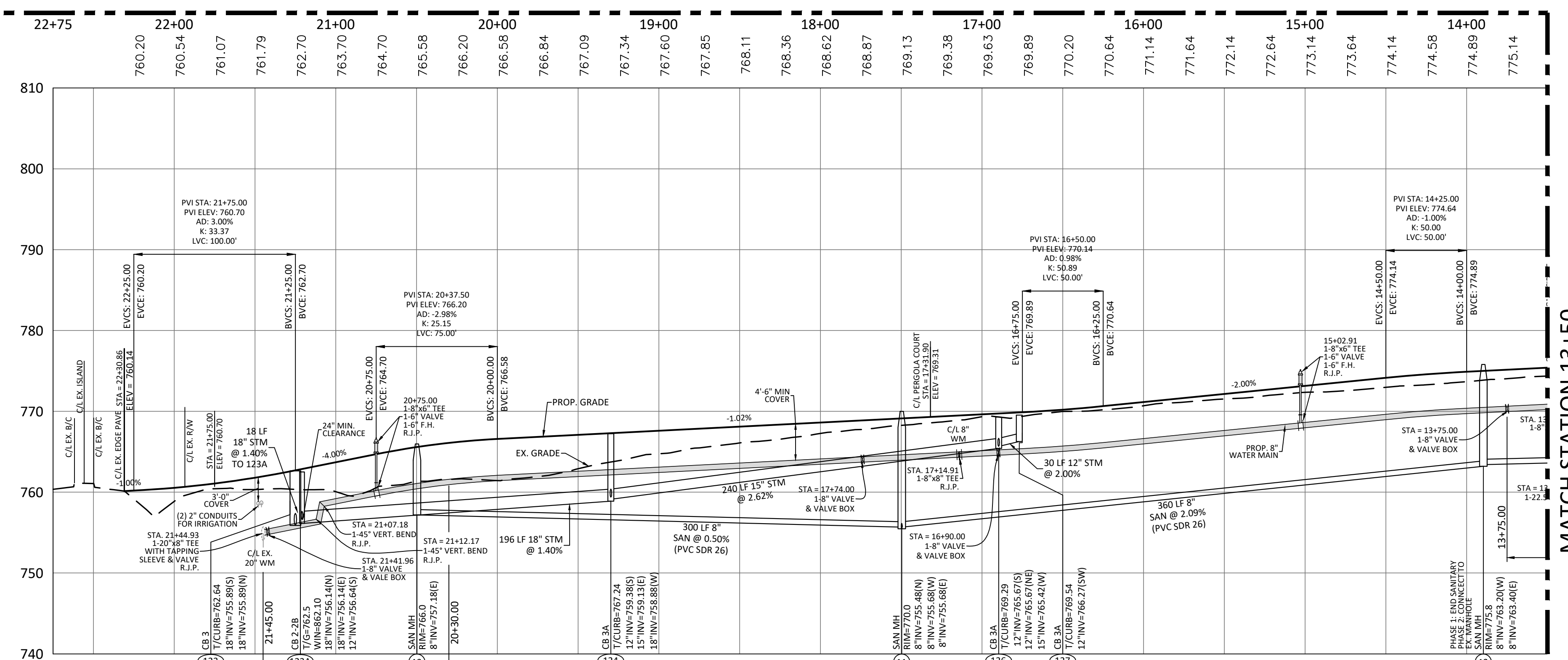
NOTE: T/CURB = TOP OF CURB
T/G = TOP OF GRATE



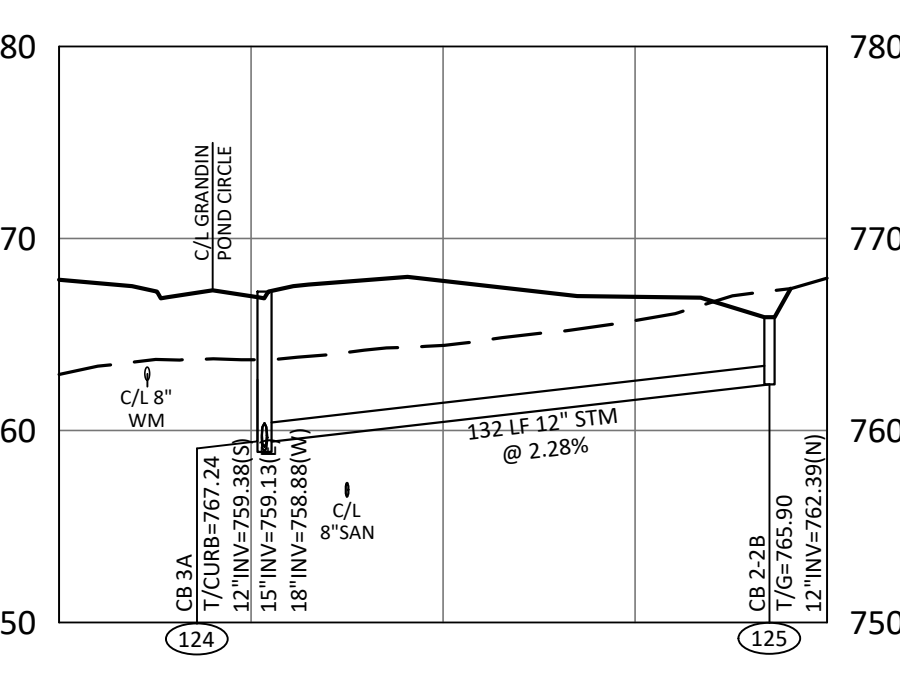
STORM SEWER 126-129
1"=50' HOR. / 1"=10' VERT.



STORM SEWER 110-115
1"=50' HOR. / 1"=10' VERT.



GRANDIN POND CIRCLE
1"=50' HOR. / 1"=10' VERT.



STORM SEWER 124-125
1"=50' HOR. / 1"=10' VERT.

THE ARBORS AT GRANDIN POND
PHASES 1 & 2

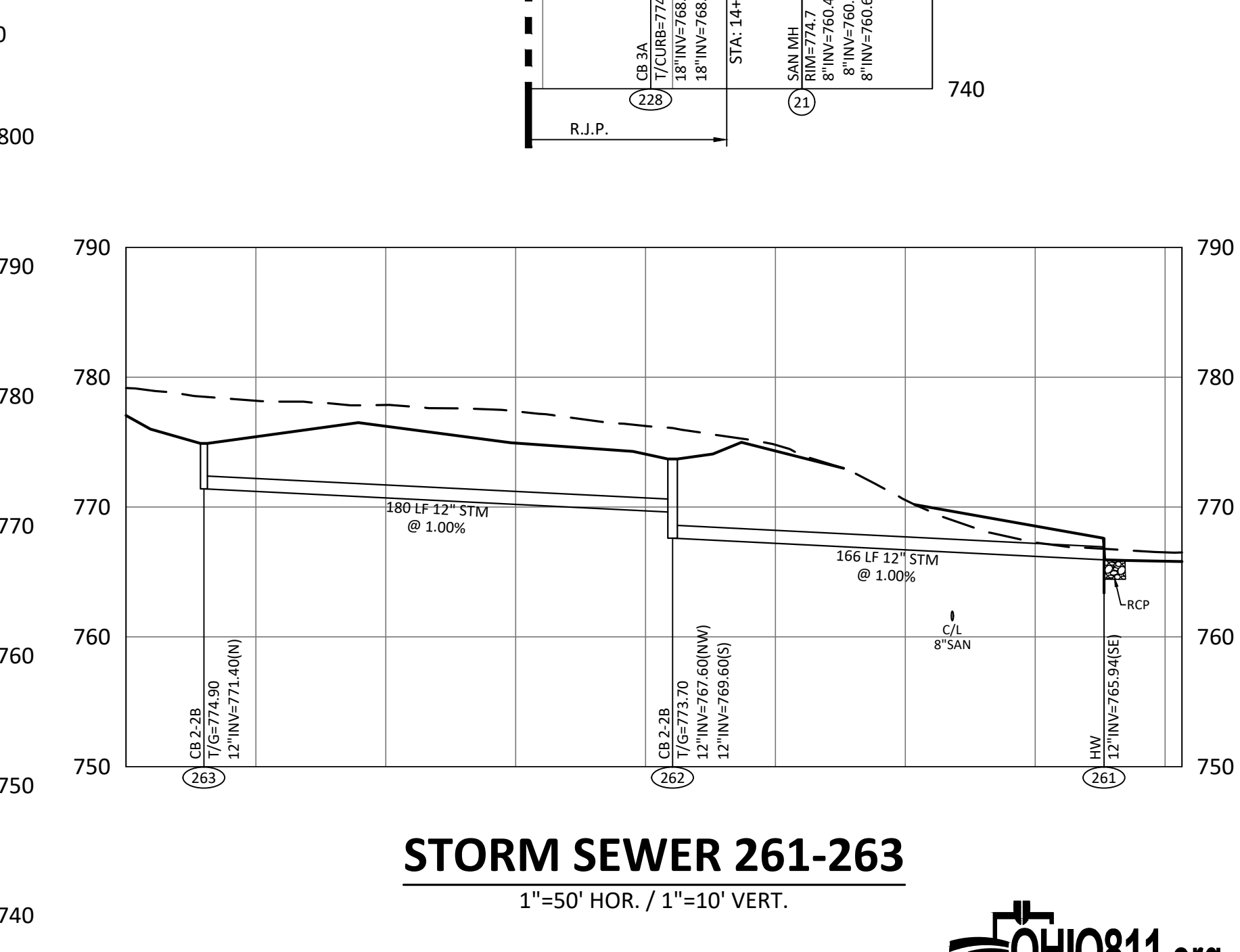
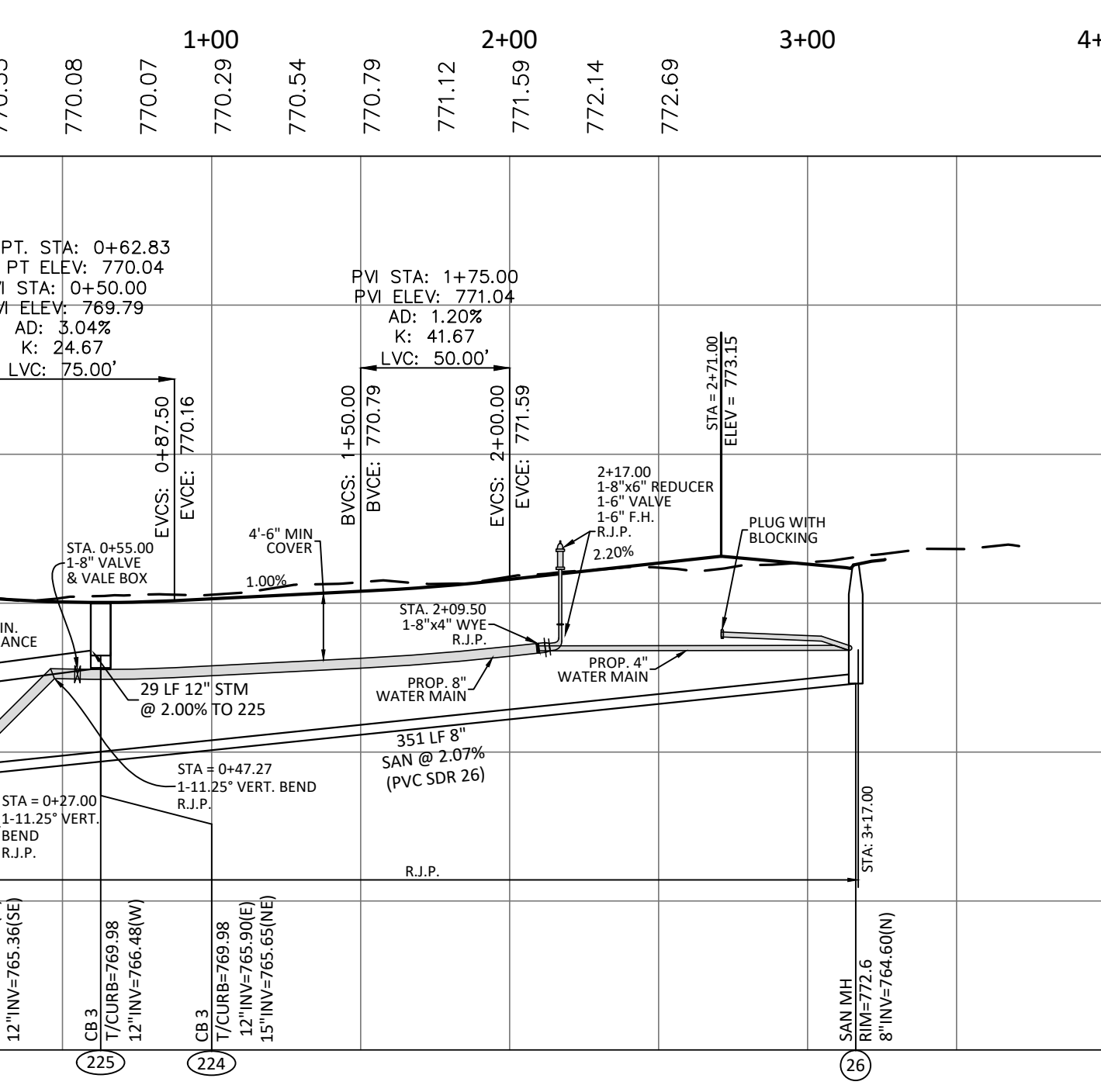
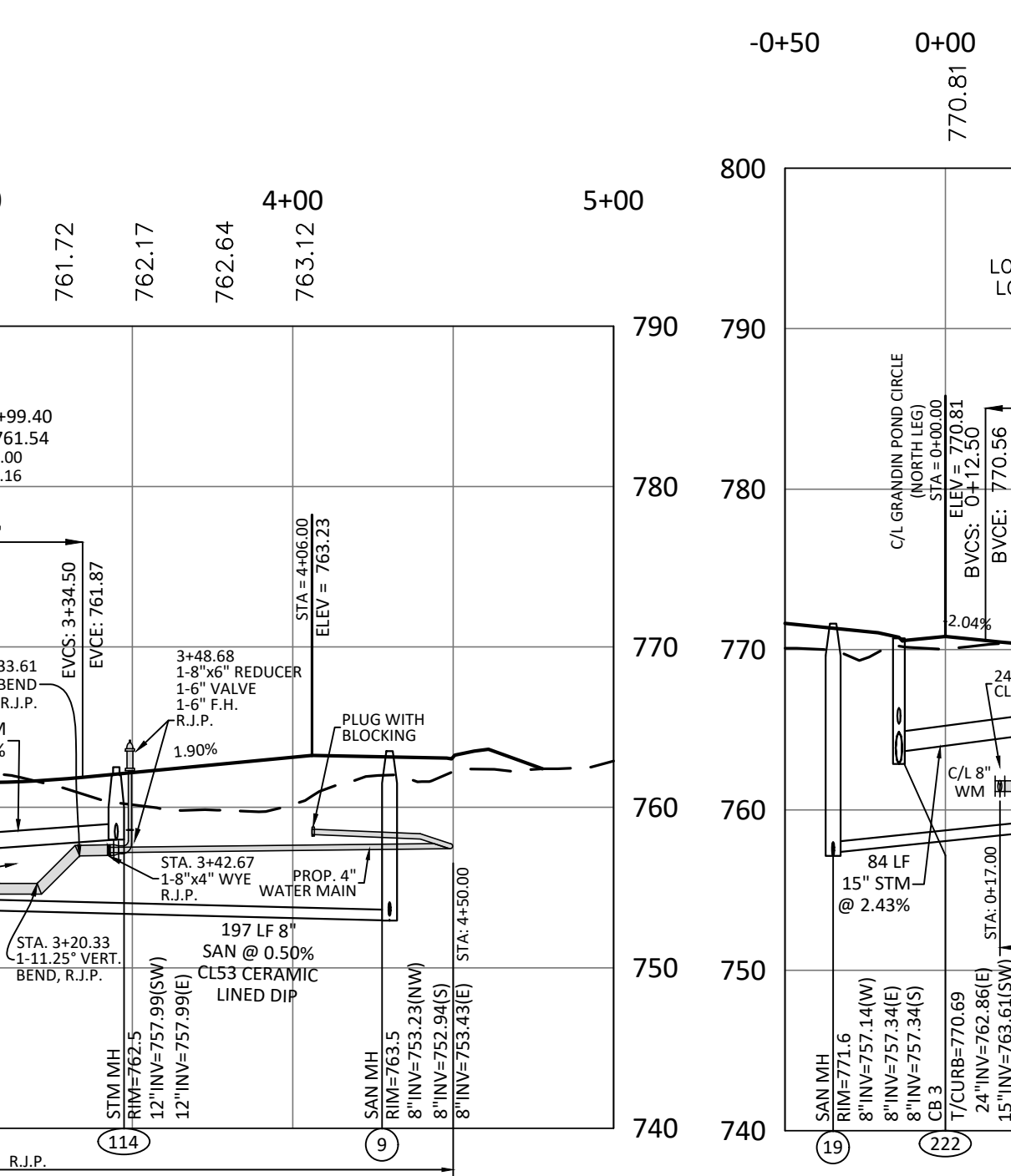
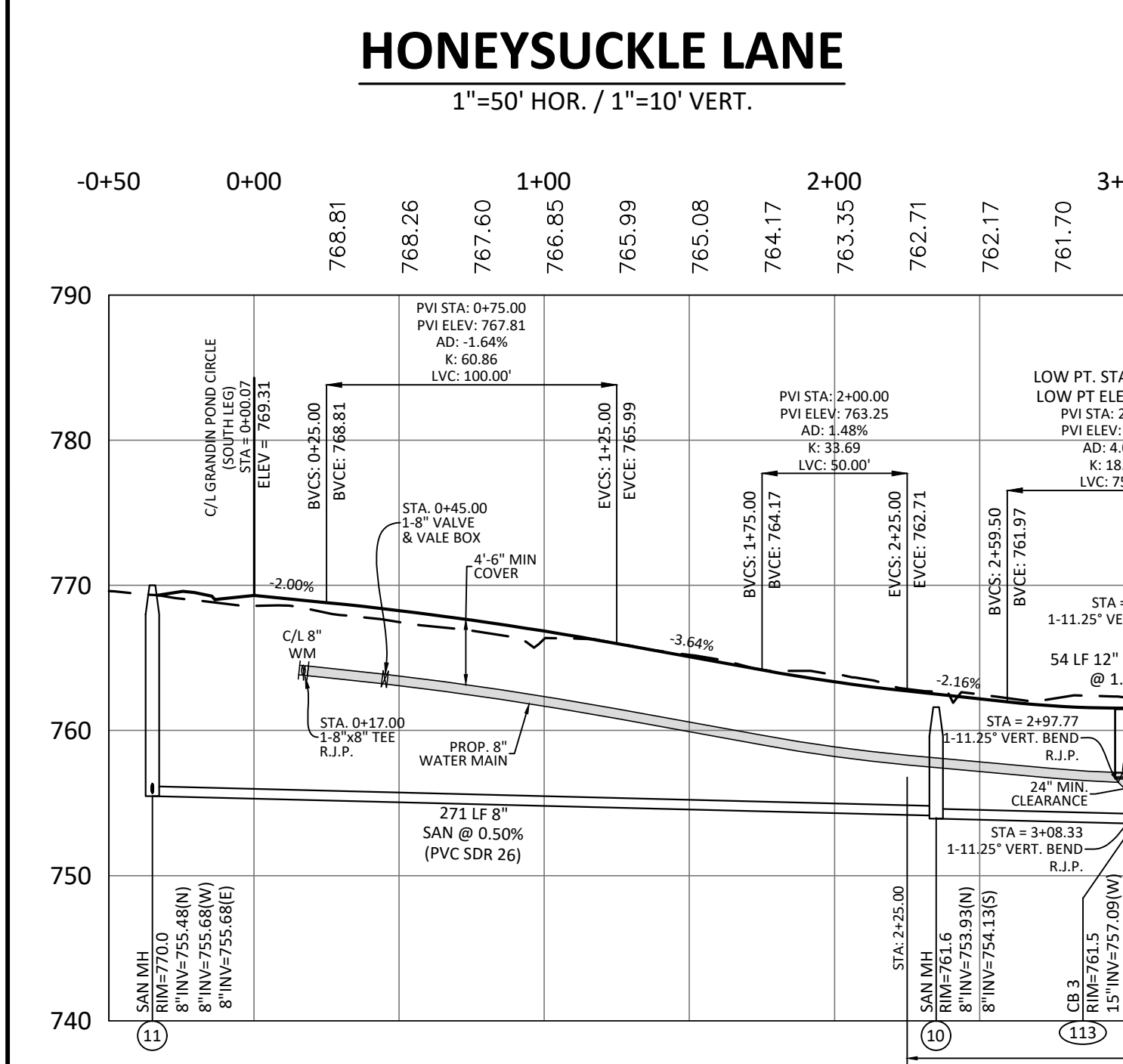
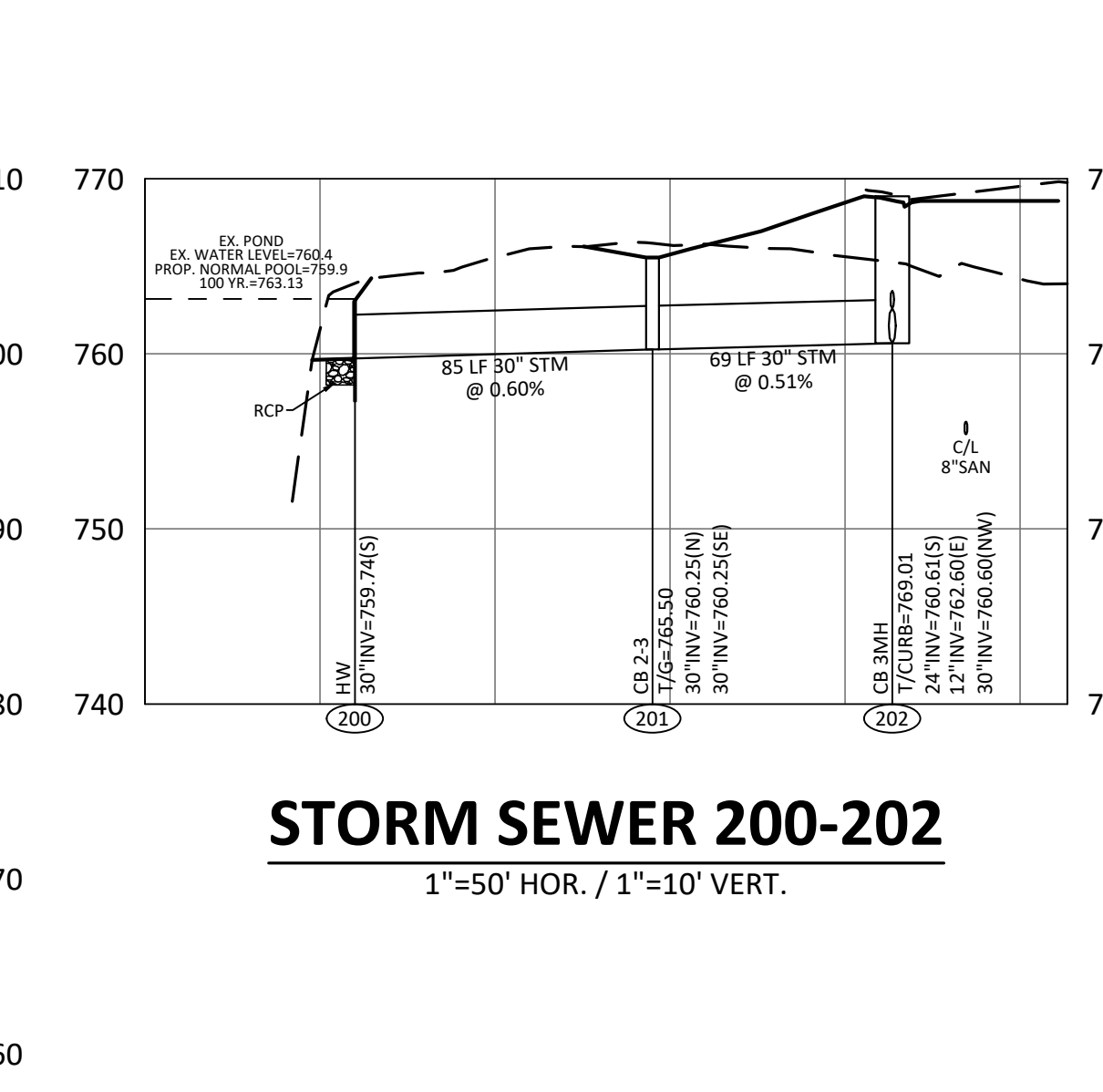
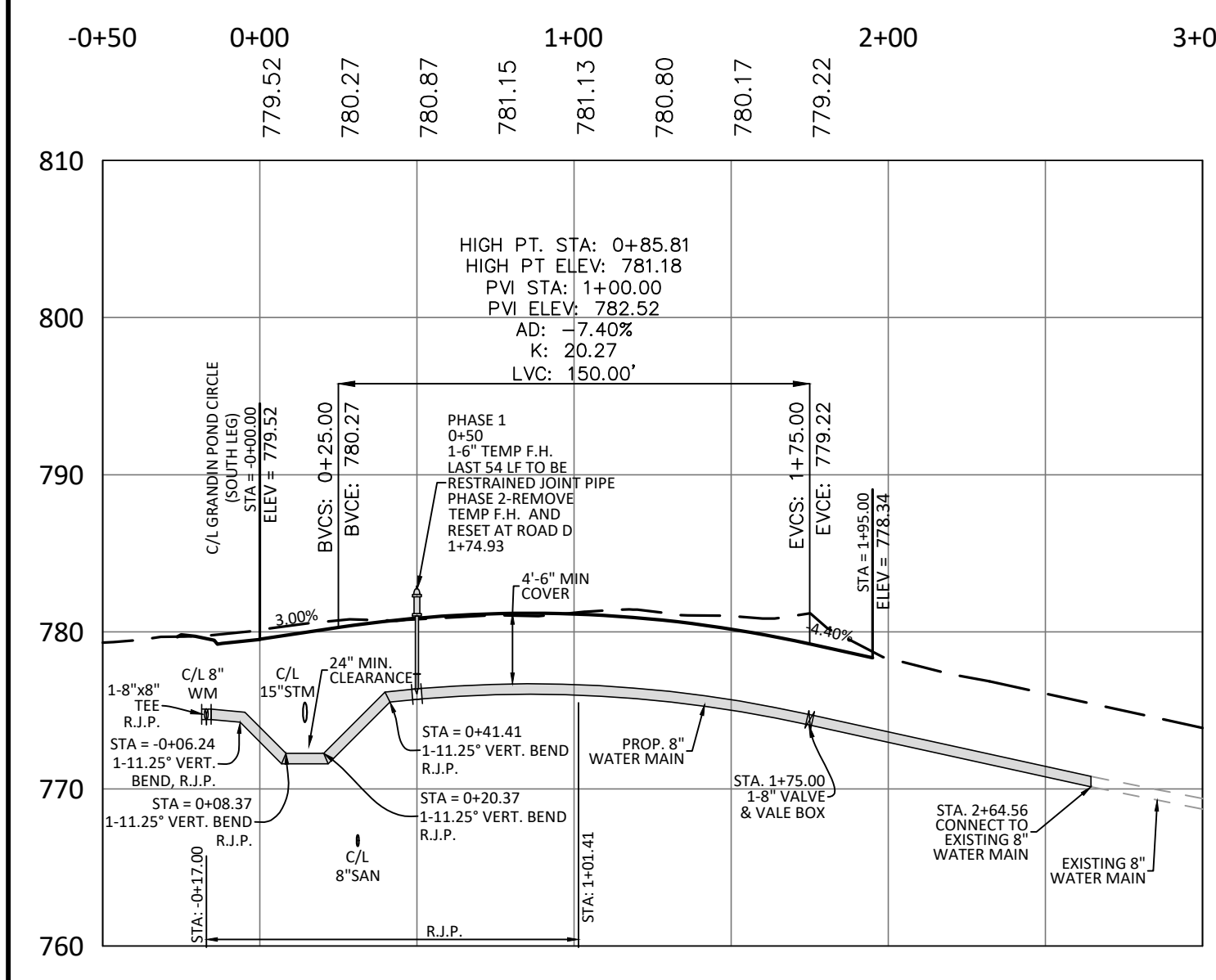
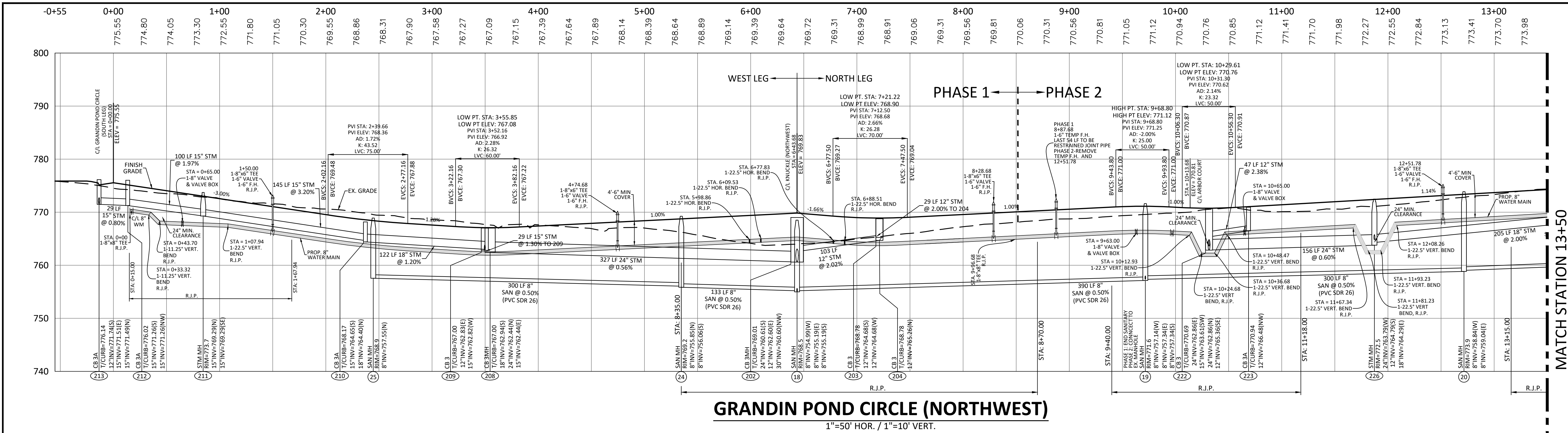
MILITARY SURVEY NO. 1547 & 1548
CITY OF SOUTH LEBANON
HAMILTON TOWNSHIP
WARREN COUNTY, OHIO

Sheet Title

PROFILES	
Project Number	16448.01
Drawing Scale	AS NOTED
Sheet Number	7/13
File Number	16448

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THE ARBORS AT GRANDIN POND
PHASES 1 & 2
MILITARY SURVEY NO. 1547 & 1548
CITY OF SOUTH LEBANON
HAMILTON TOWNSHIP
WARREN COUNTY, OHIO

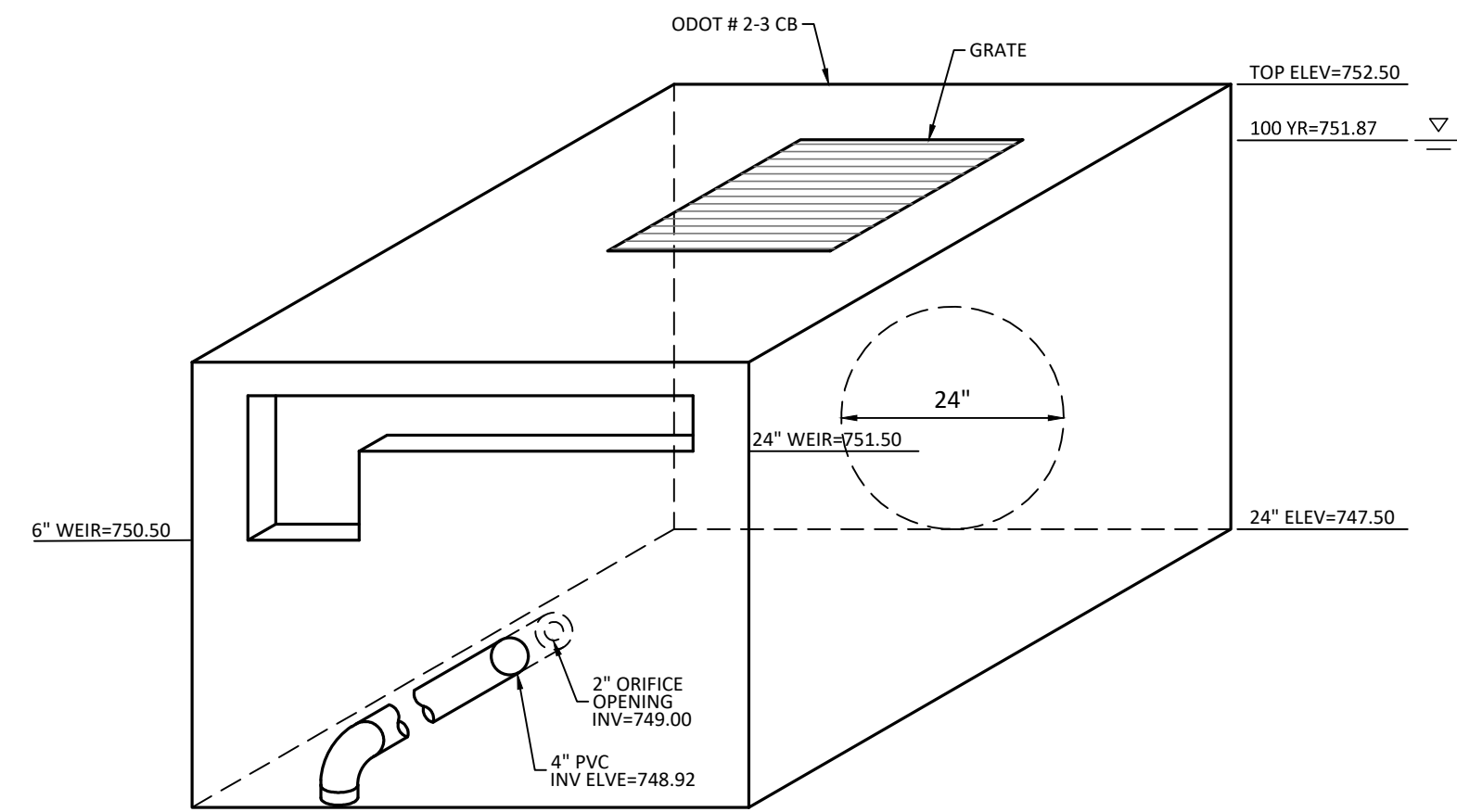
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Drawing Scale	AS NOTED	
Sheet Number	8/13	
File Number	16448	

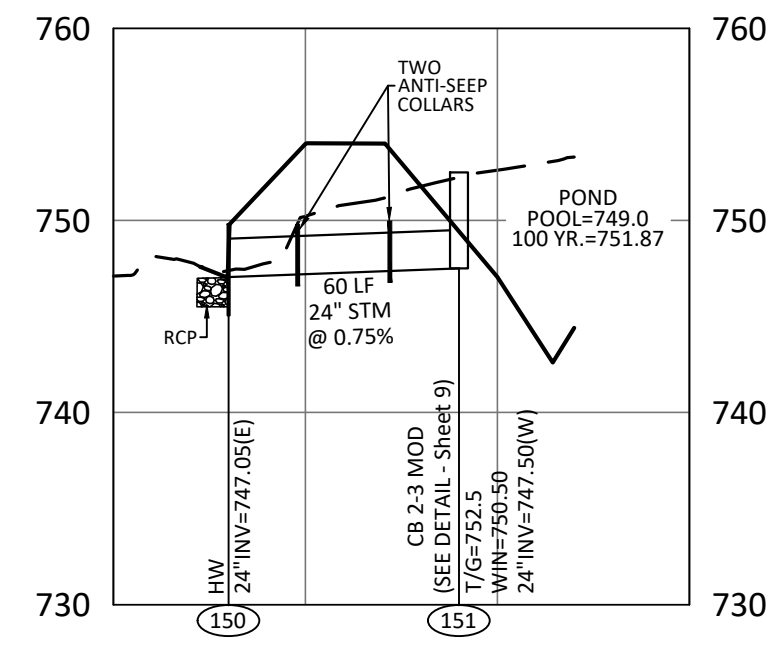
NOTE: T/CURB = TOP OF CURB
T/G = TOP OF GRATE

Issue/Revision	No.	Date
UPDATES		04/29/24
REV PER CITY		06/06/24

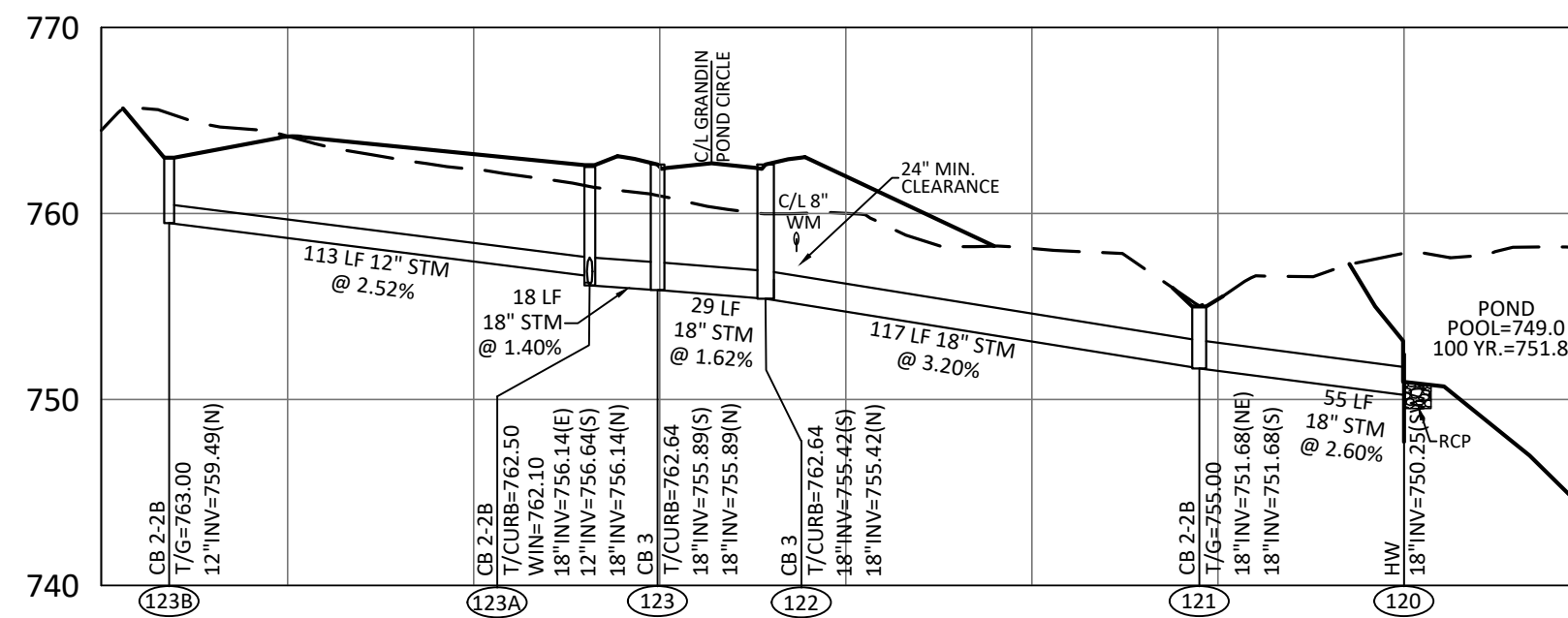
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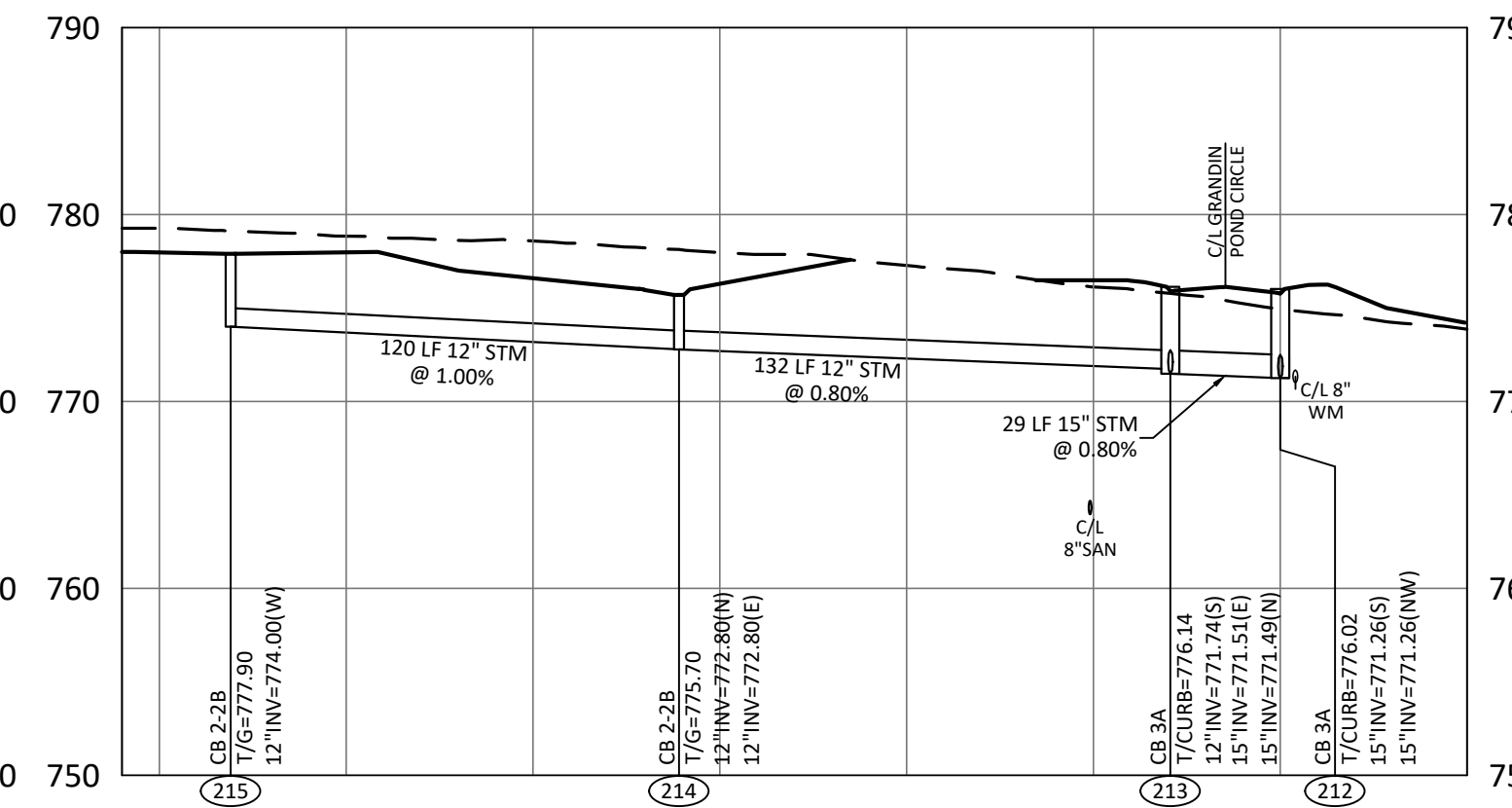
**DETENTION BASIN
RELEASE STRUCTURE 151**
N.T.S.



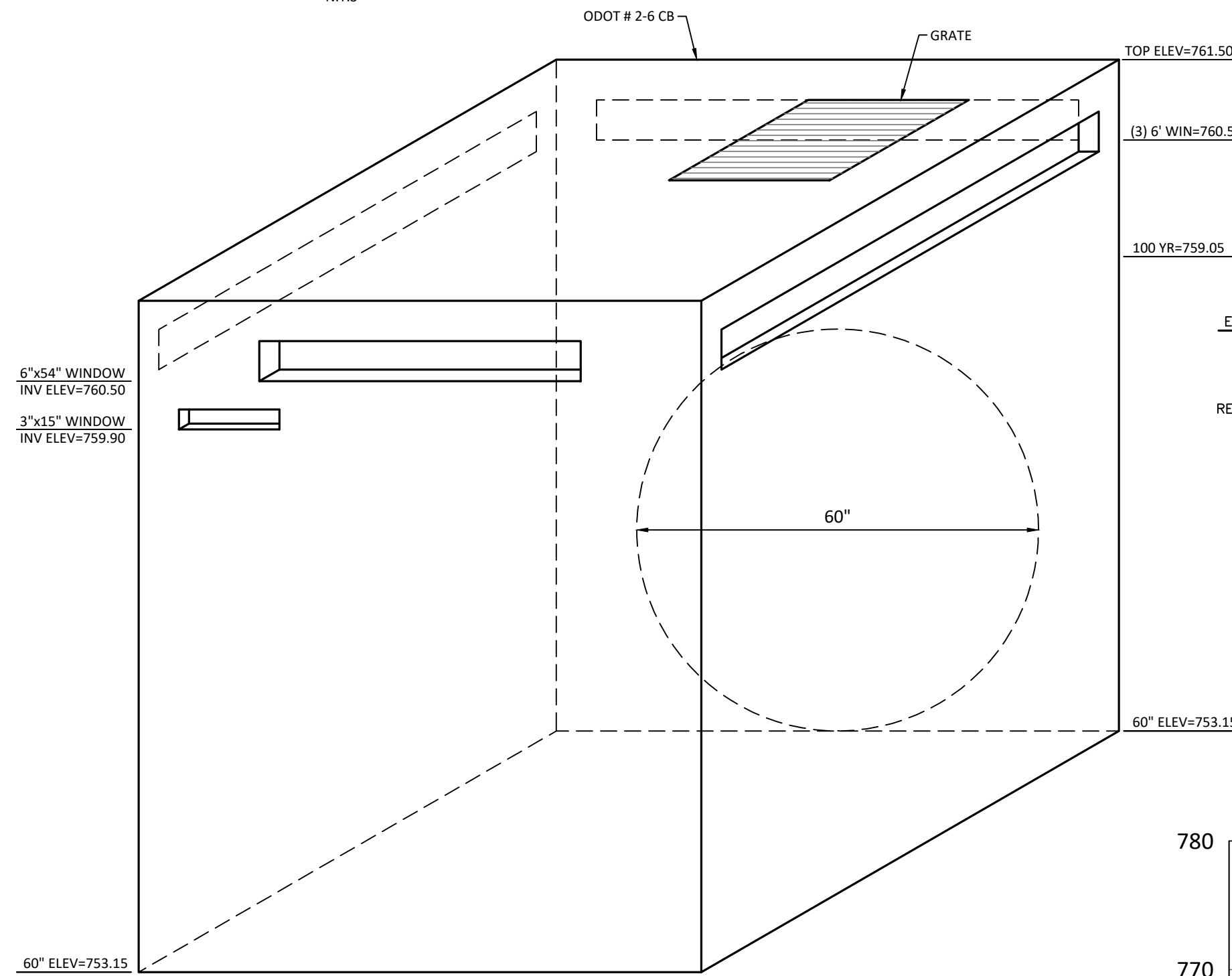
STORM SEWER 150-151
1"=50' HOR. / 1"=10' VERT.



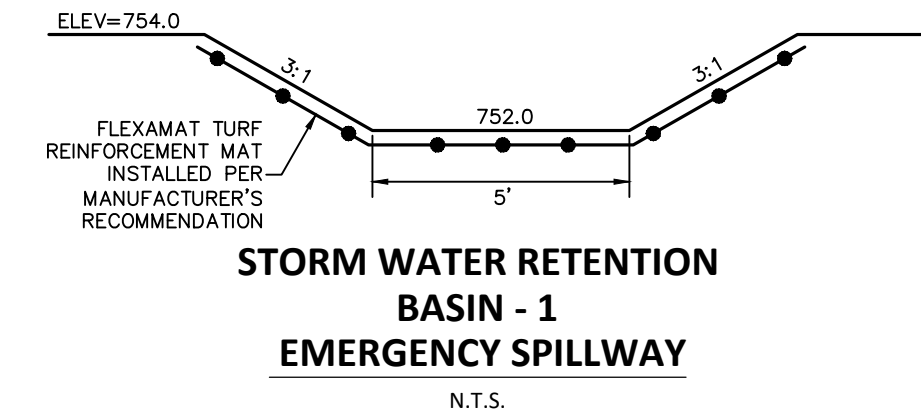
STORM SEWER 120-123
1"=50' HOR. / 1"=10' VERT.



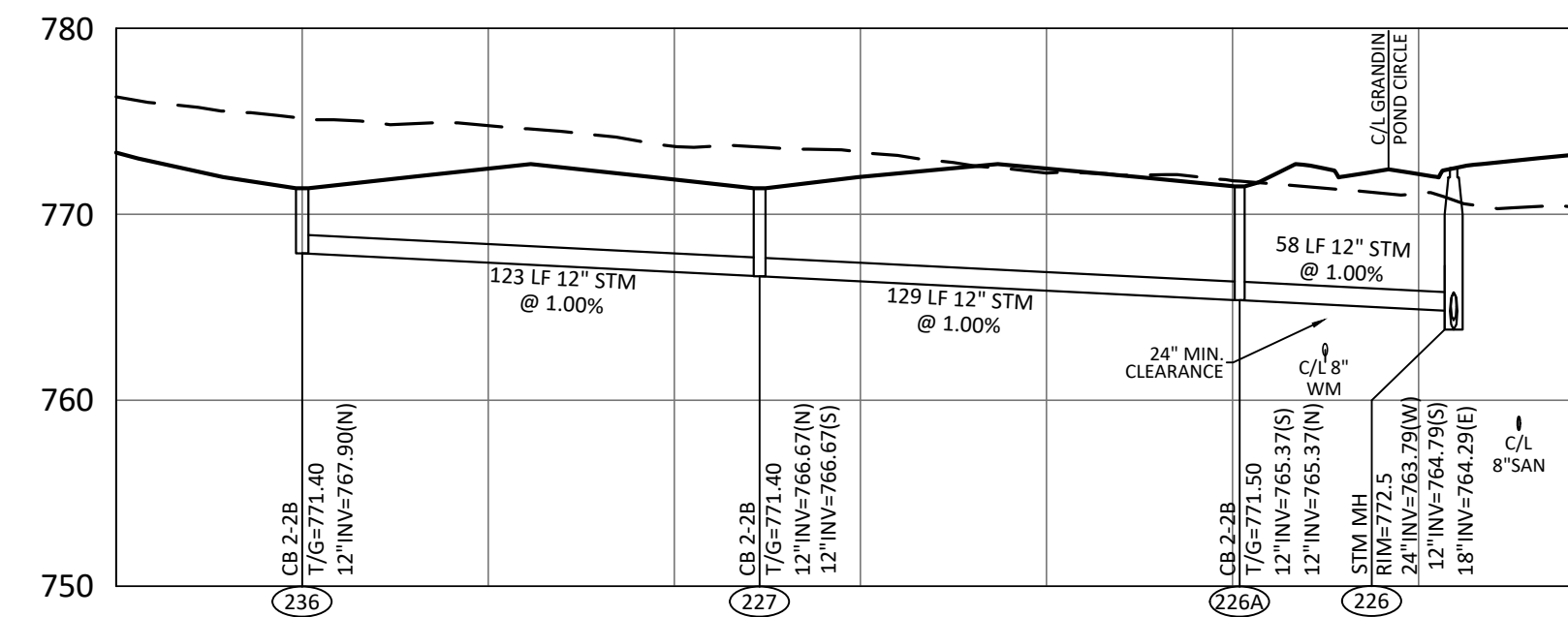
STORM SEWER 212-215
1"=50' HOR. / 1"=10' VERT.



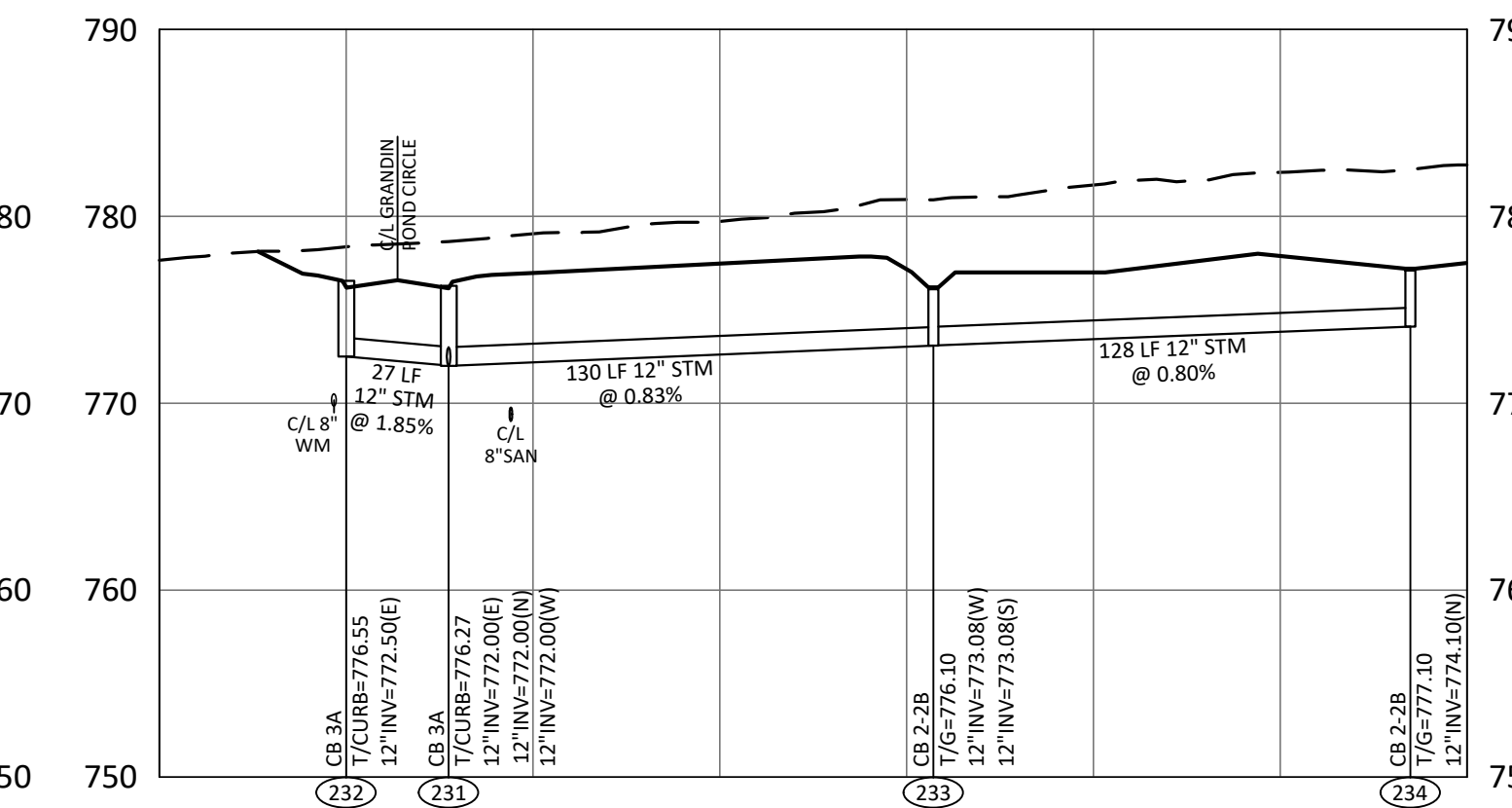
**DETENTION BASIN
RELEASE STRUCTURE 251**
N.T.S.



**STORM WATER RETENTION
BASIN - 1
EMERGENCY SPILLWAY**
N.T.S.

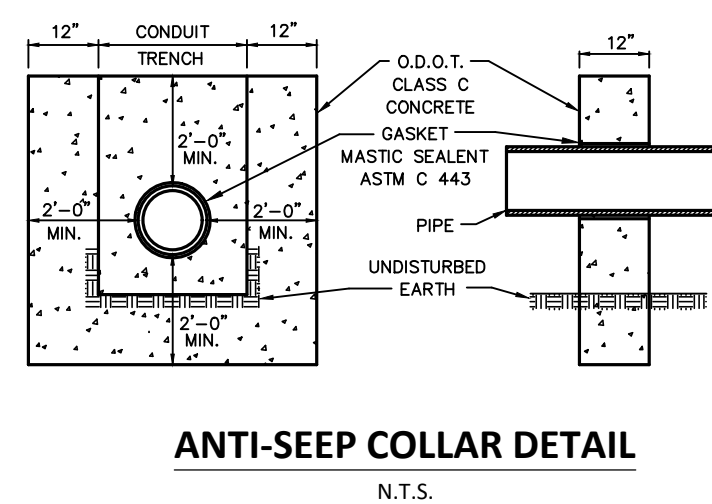


STORM SEWER 226-227 & 236
1"=50' HOR. / 1"=10' VERT.

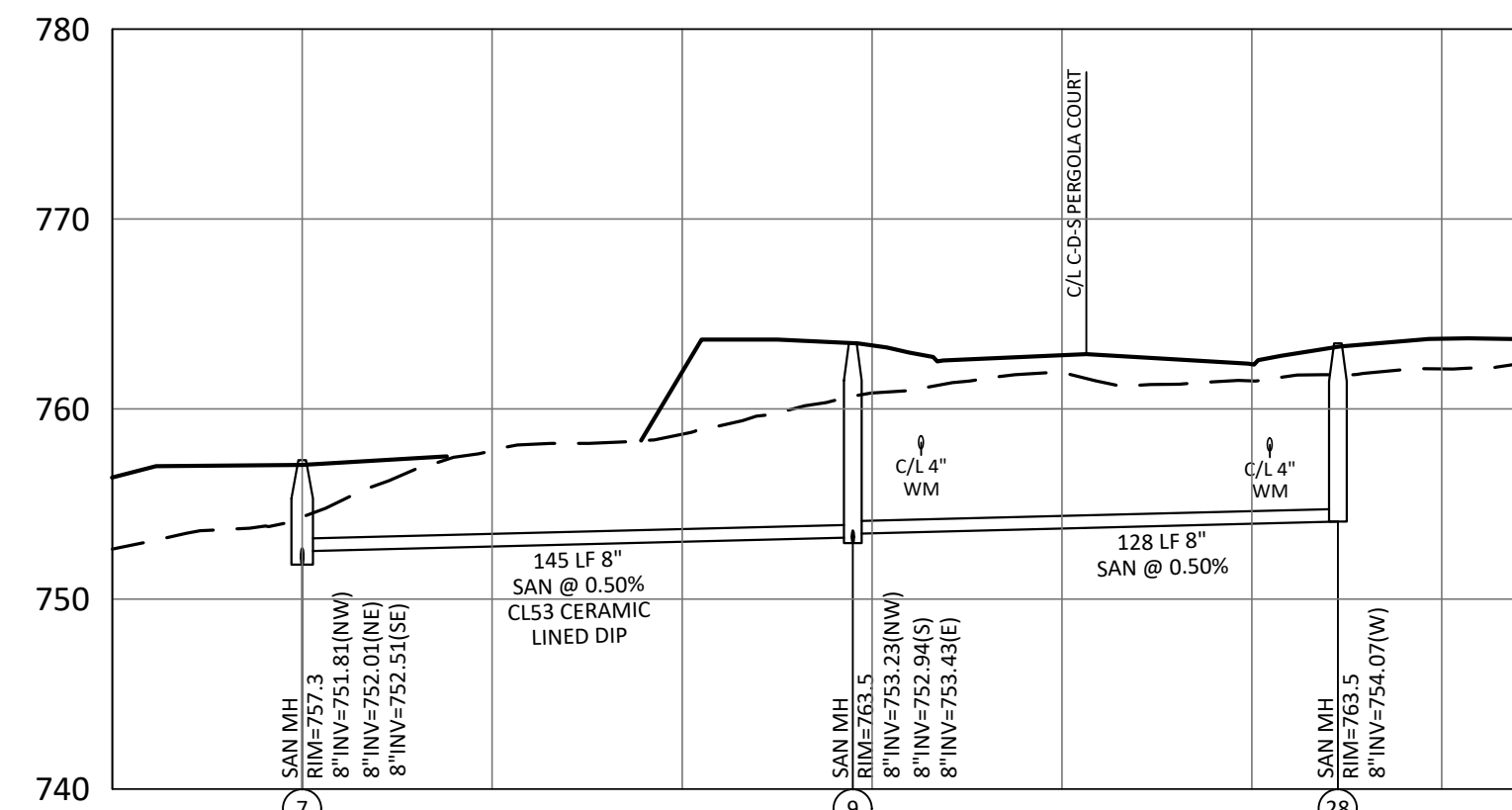


STORM SEWER 231-234
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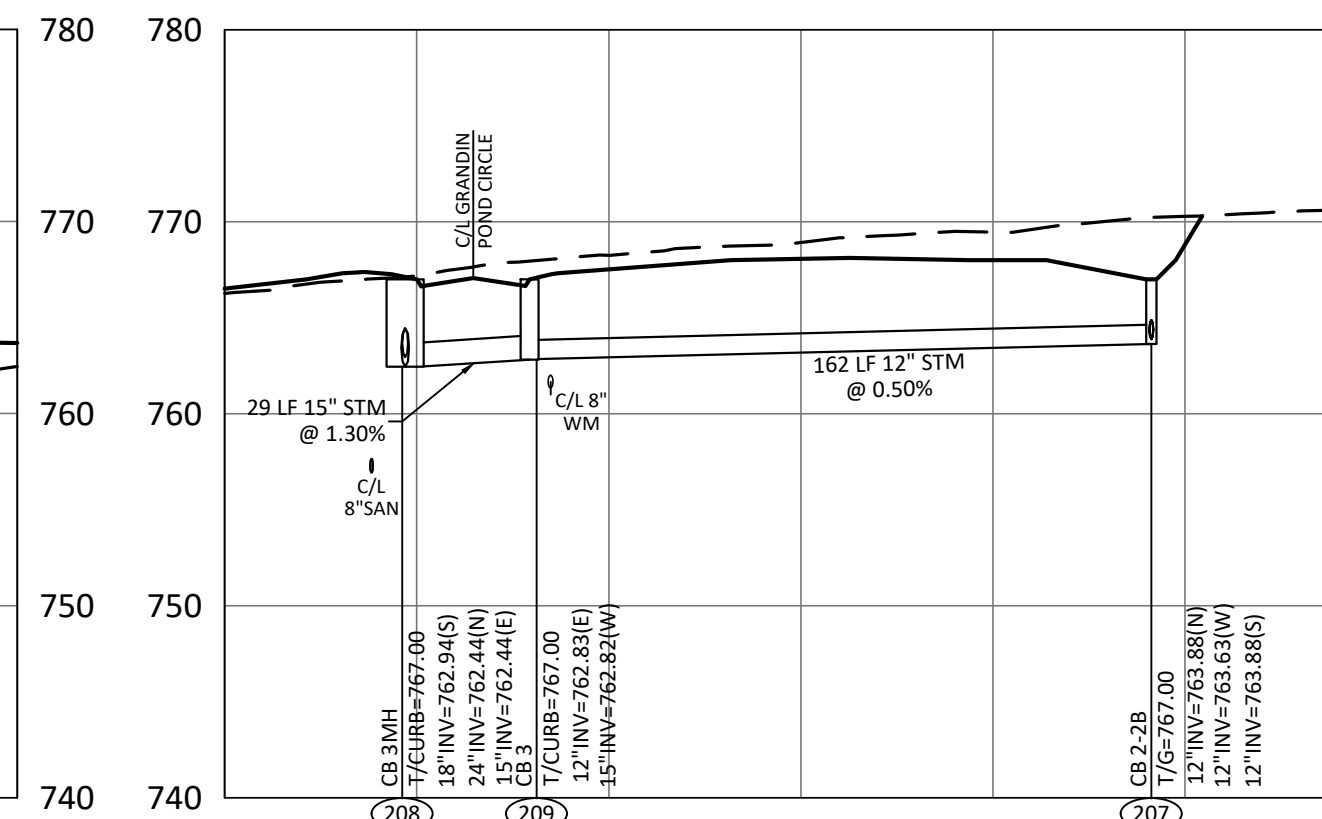
NOTE: T/CURB = TOP OF CURB
T/G = TOP OF GRATE



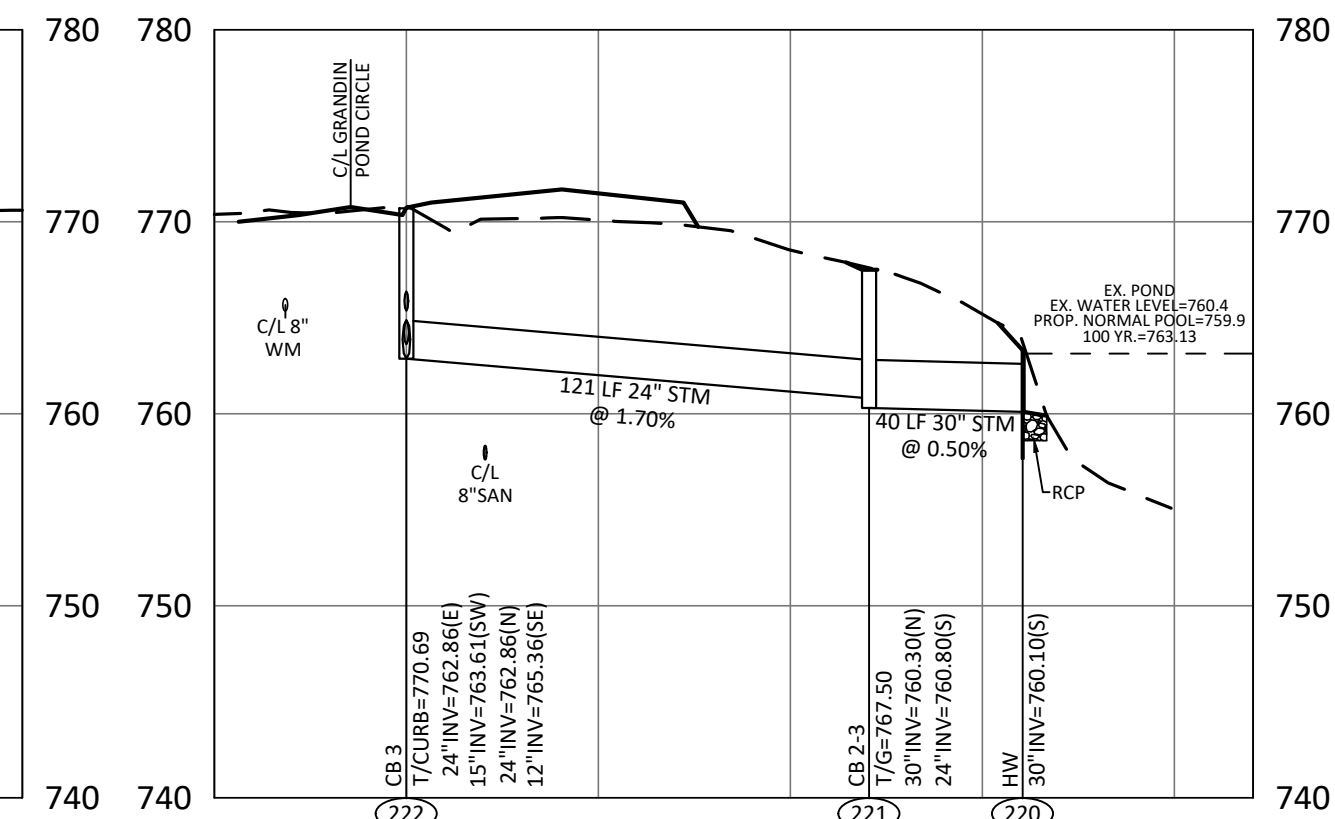
ANTI-SEEP COLLAR DETAIL
N.T.S.



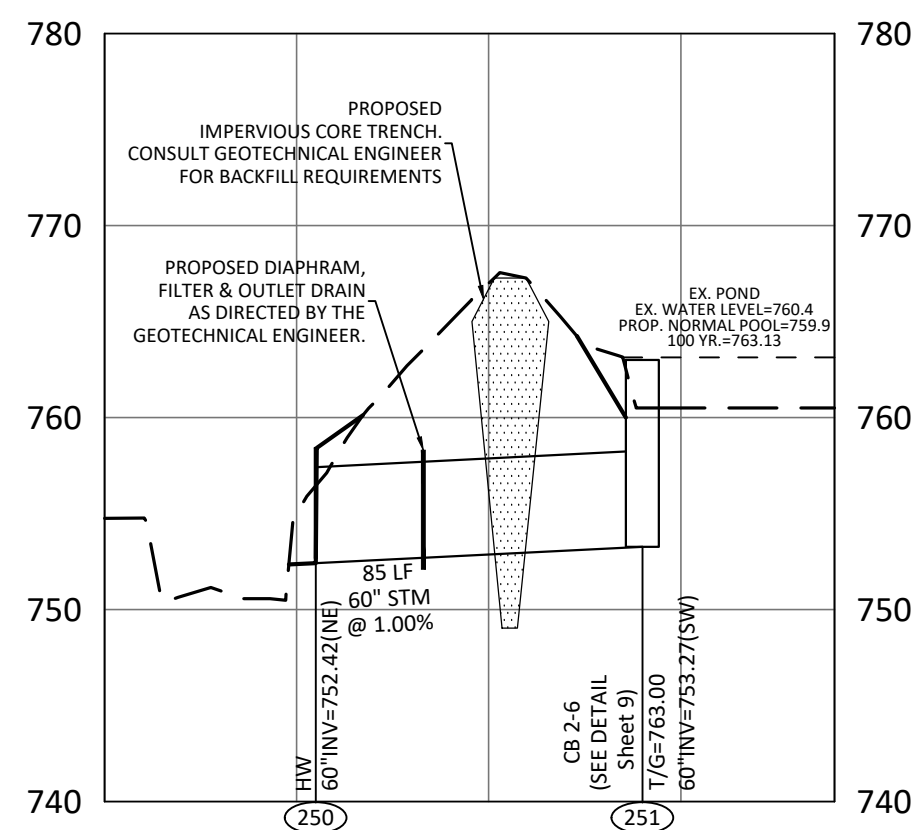
SANITARY SEWER 7-9 & 28
1"=50' HOR. / 1"=10' VERT.



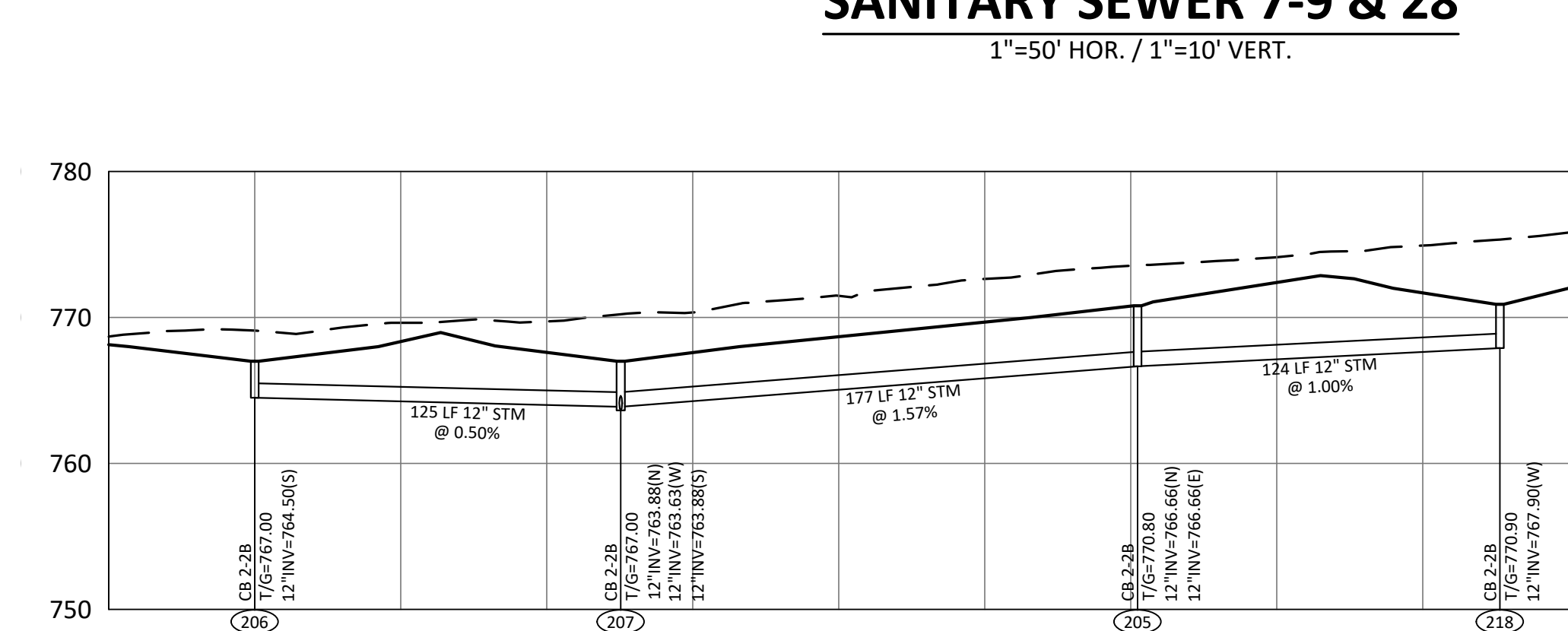
STORM SEWER 207-209
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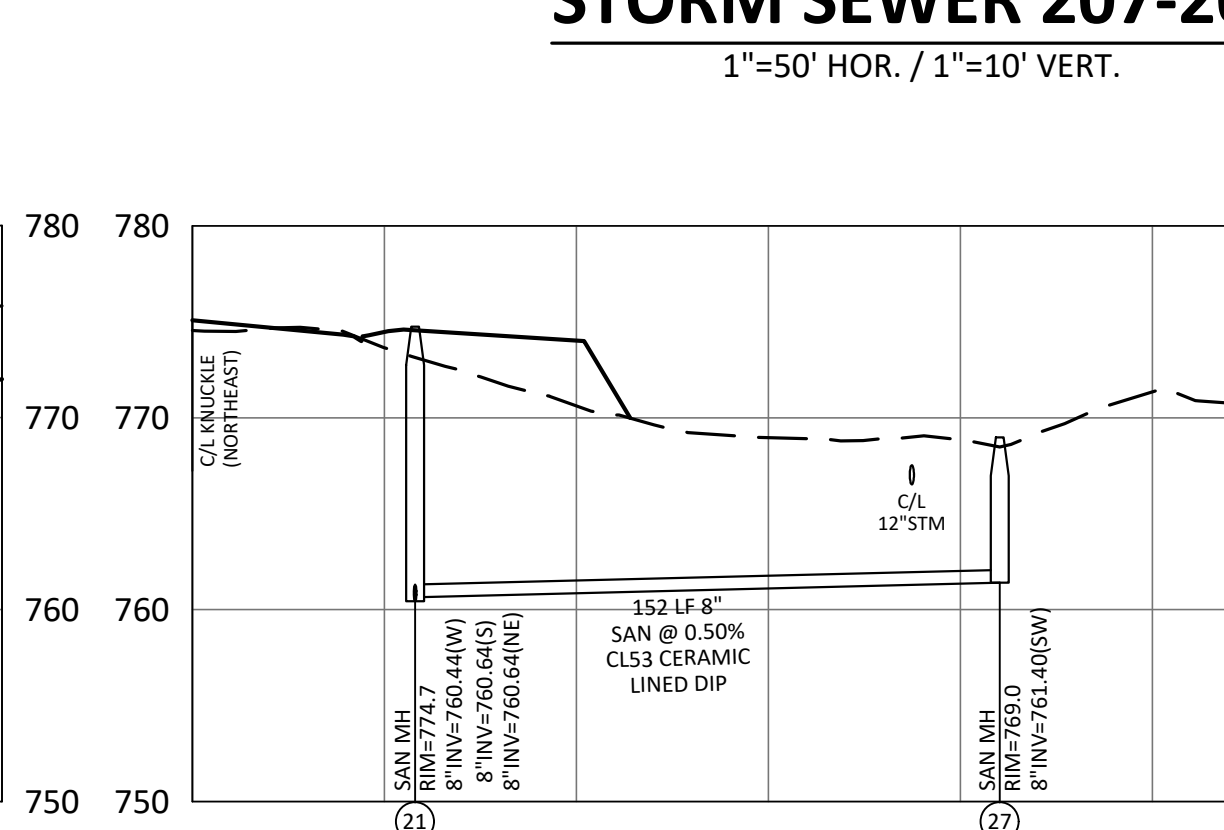
STORM SEWER 220-222
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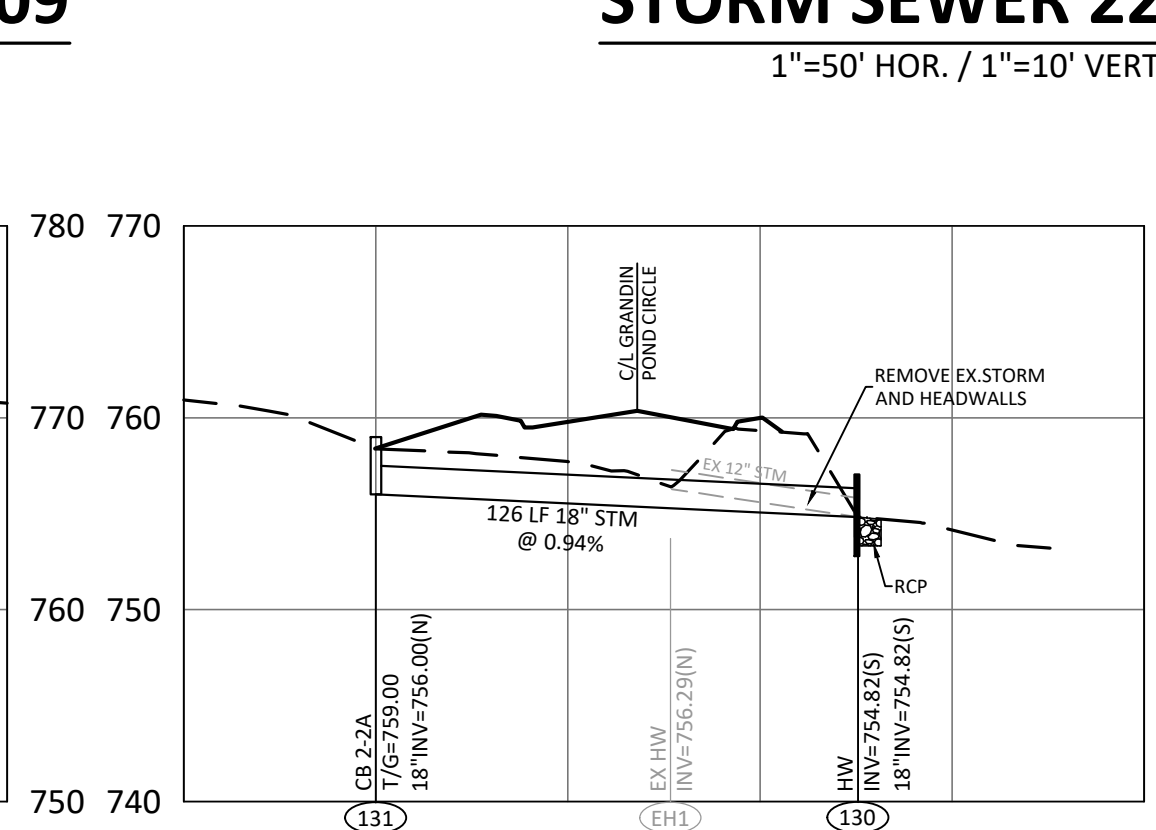
60 INCH STORM SEWER
1"=50' HOR. / 1"=10' VERT.



STORM SEWER 205-207 & 218
1"=50' HOR. / 1"=10' VERT.



SANITARY SEWER 21 & 27
1"=50' HOR. / 1"=10' VERT.



EX STORM SEWER @ ENTRANCE
1"=50' HOR. / 1"=10' VERT.

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**THE ARBORS AT GRANDIN POND
PHASES 1 & 2**
MILITARY SURVEY NO. 1547 & 1548
CITY OF SOUTH LEBANON
HAMILTON TOWNSHIP
WARREN COUNTY, OHIO

Sheet Title

PROFILES	Project Number	16448.01
Drawing Scale	AS NOTED	
Sheet Number	9/13	
File Number	16448	

Issue/Revision	No.	Date
WCCE COMMENTS		06/04/24
REV PER CITY		06/06/24

**THE ARBORS AT GRANDIN POND
PHASES 1 & 2**
MILITARY SURVEY NO. 1547 & 1548
CITY OF SOUTH LEBANON
HAMILTON TOWNSHIP
WARREN COUNTY, OHIO

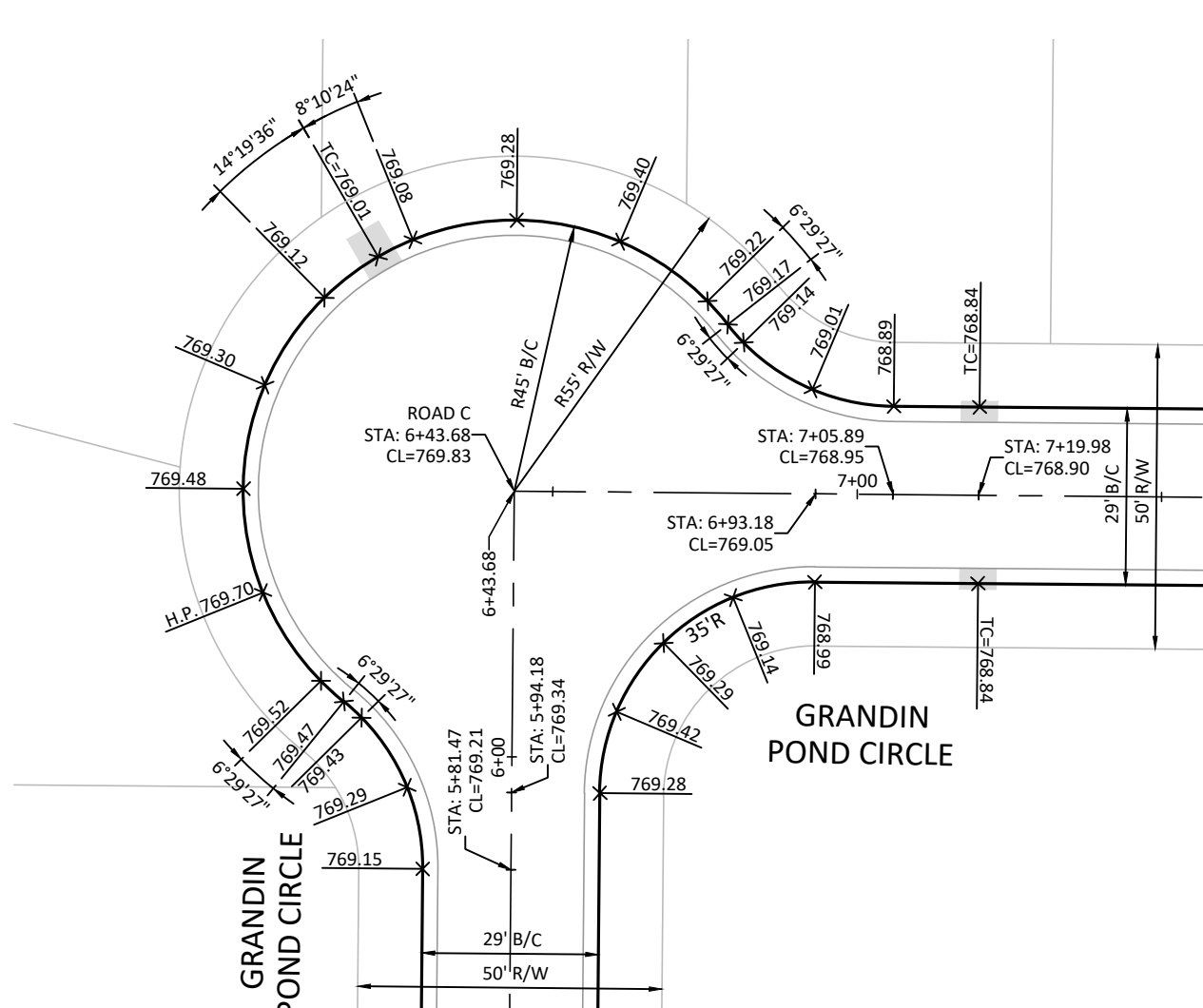
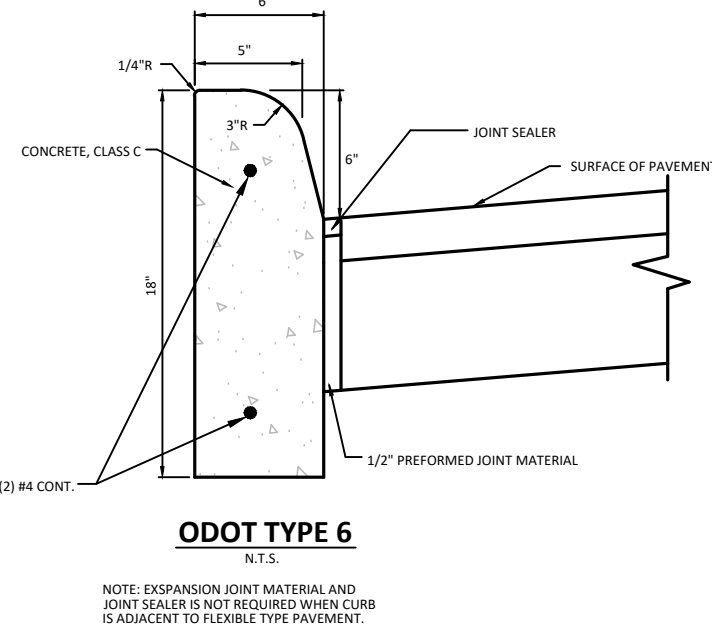
NOTE: TOP OF CURB TO BE SAME ELEVATION AS CENTERLINE OF STREET PER TYPICAL SECTION.

FLEXIBLE PAVEMENT LEGEND FOR STRIKER ROAD

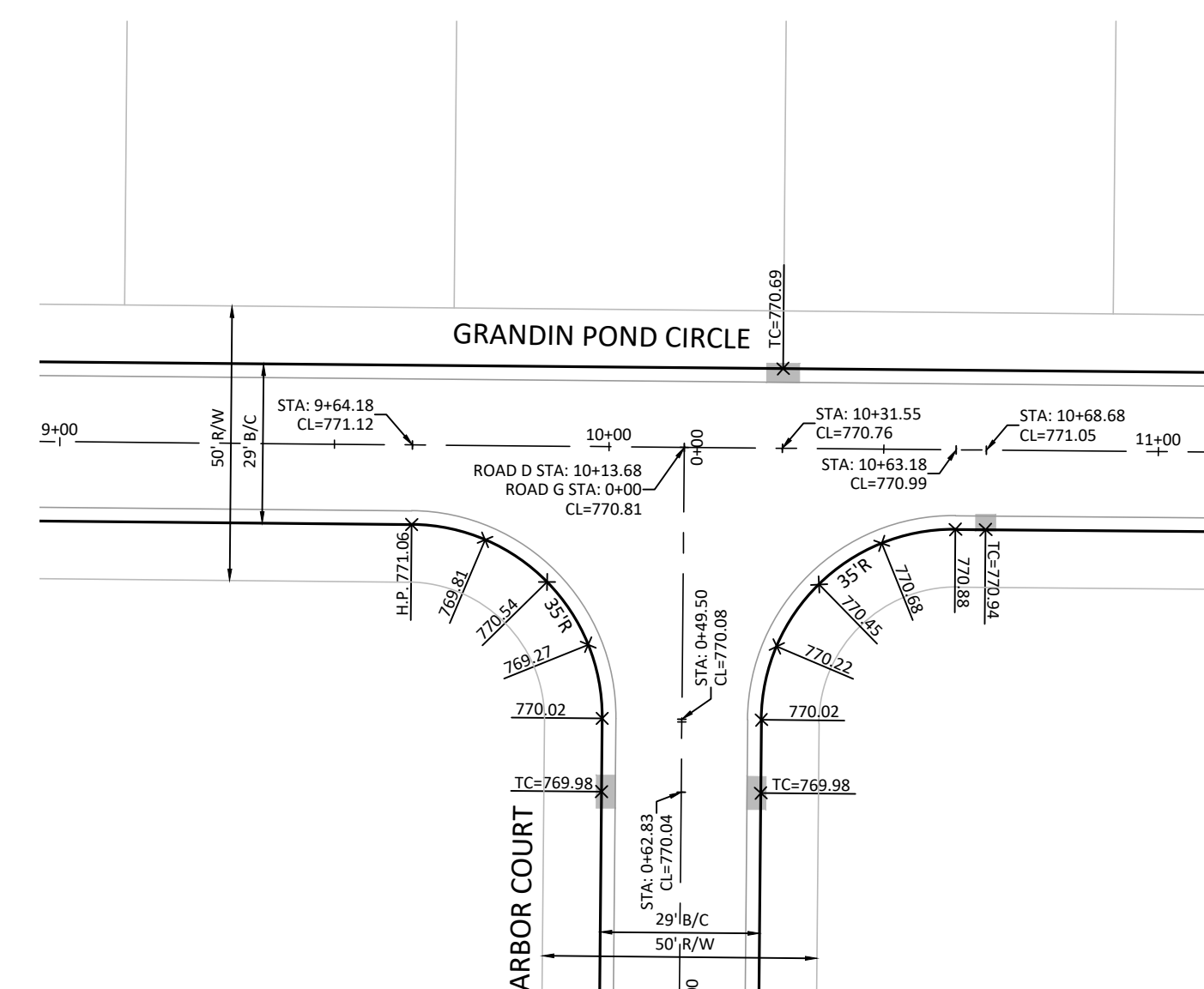
- 1.5" SURFACE COURSE
- TACK COAT MS-2, RS-1 OR RC 250
- 1" MINIMUM LEVELING COURSE
- 8" ITEM 301 (TWO LIFTS)
- 6" ITEM 304 AGGREGATE BASE*

*ODOT ITEM 304 AGGREGATE IS REQUIRED IN ORDER TO TIE INTO THE EXISTING AGGREGATE DRAINS THAT OUTLET TO THE DITCH.

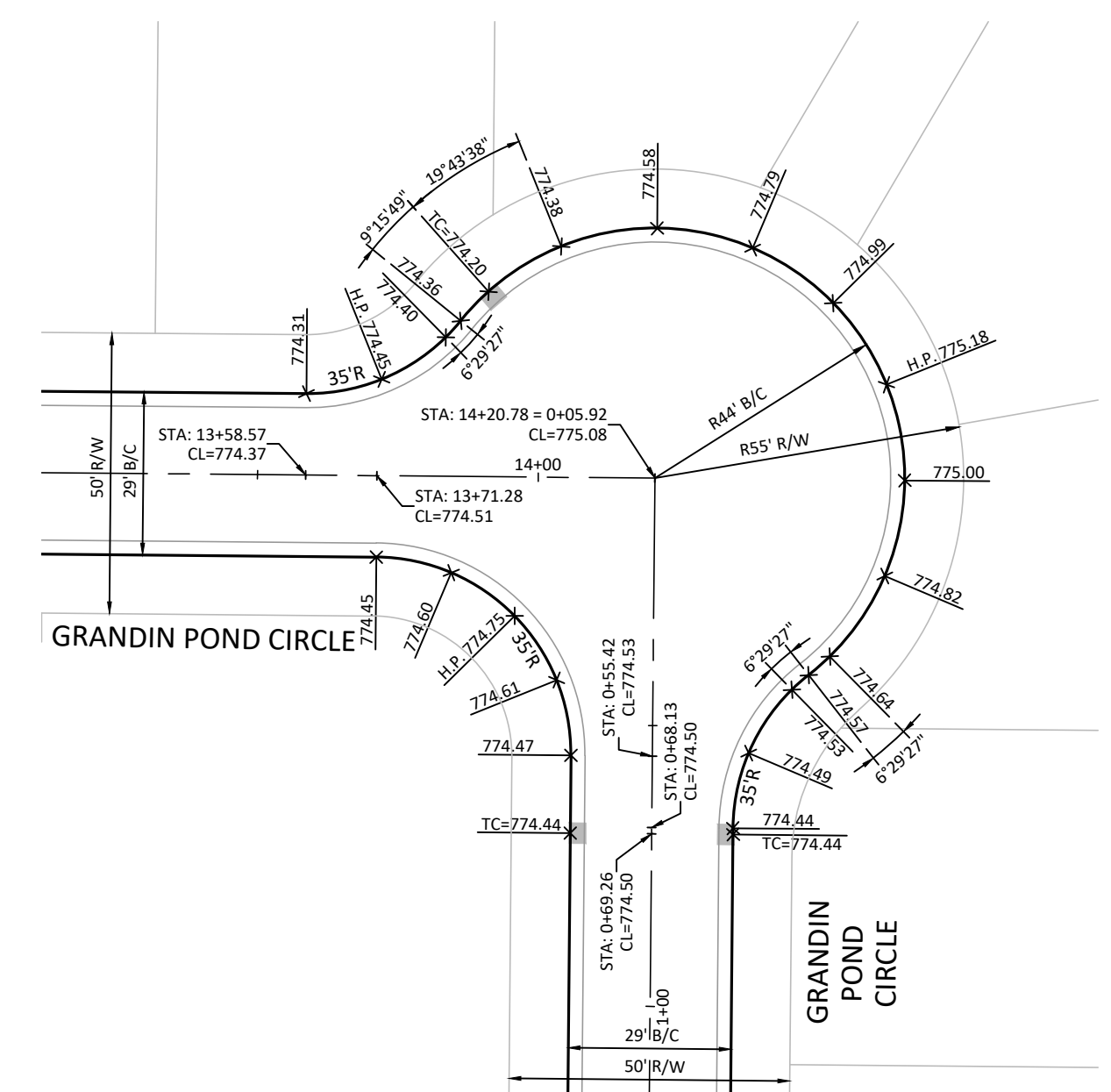
NOTE
ALL LETTER - NUMBER DESIGNATIONS REFER THE CURRENT EDITION OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATION.



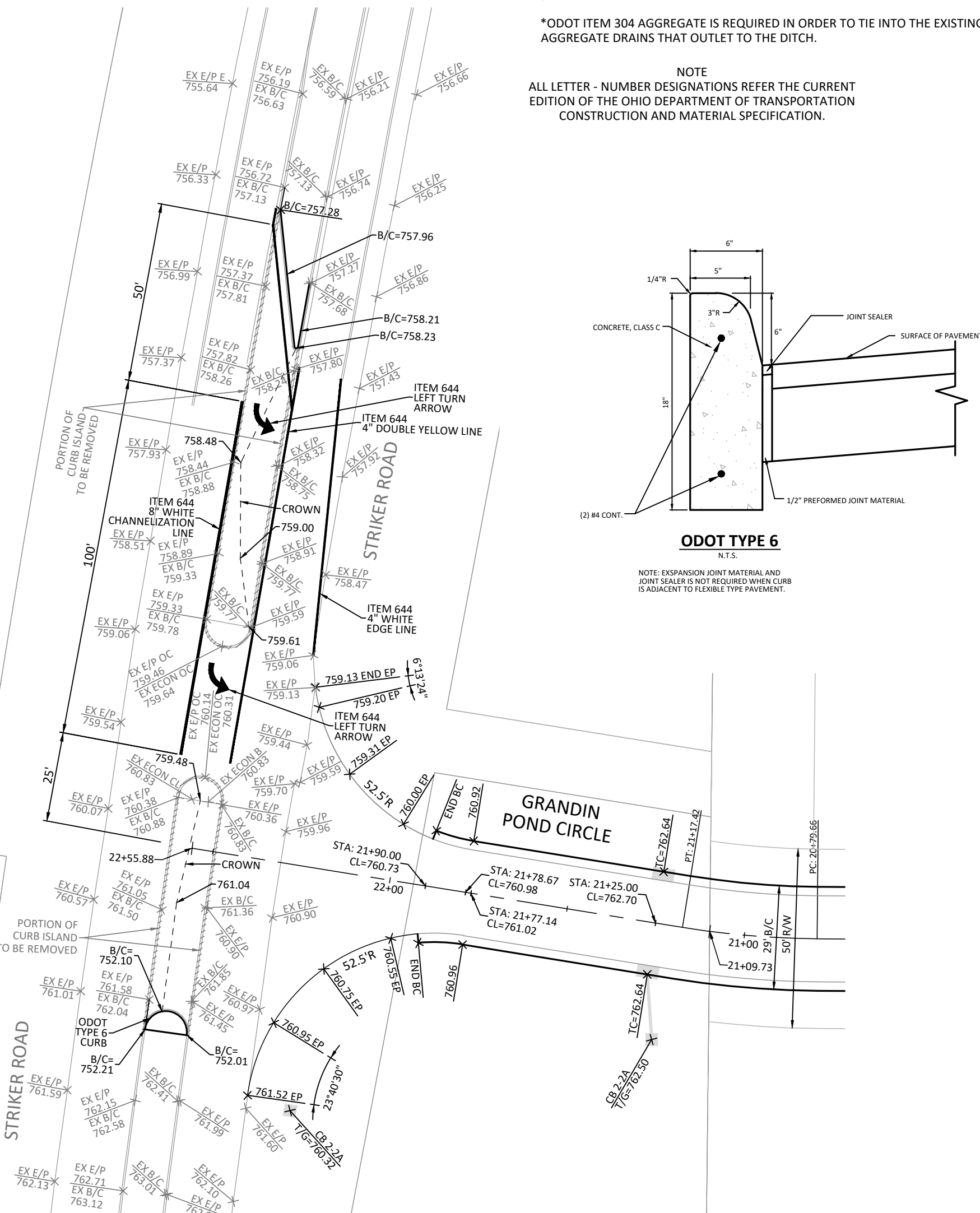
**KNUCKLE DETAIL
GRANDIN POND CIRCLE (WEST LEG)**
SCALE: 1"=30'
ANGLES SHOWN ARE 22.5° UNLESS NOTED OTHERWISE
ELEVATIONS SHOWN TOP OF CURB UNLESS NOTED OTHERWISE



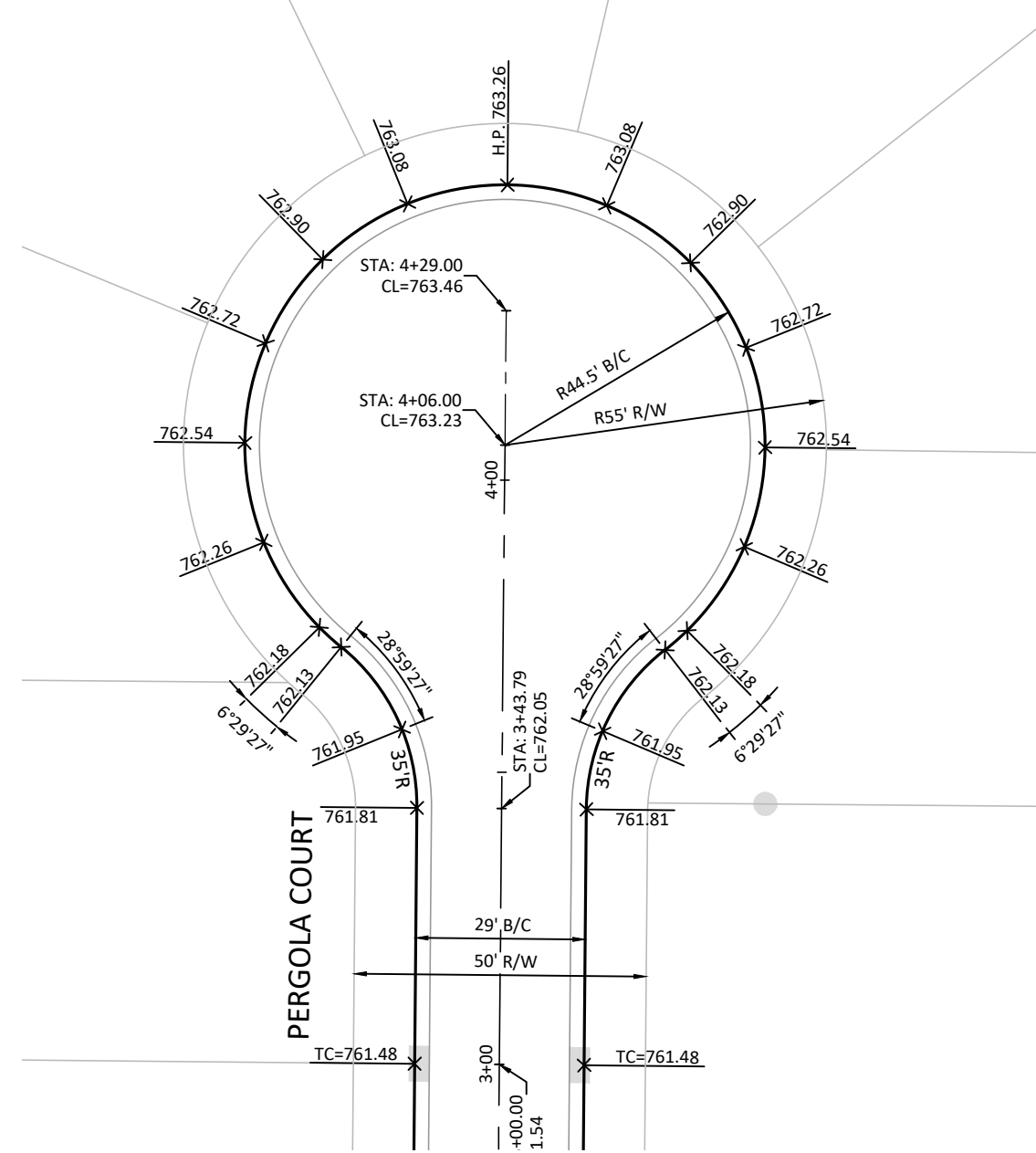
**INTERSECTION DETAIL
GRANDIN POND CIRCLE & ARBOR COURT**
SCALE: 1"=30'
ANGLES SHOWN ARE 22.5° UNLESS NOTED OTHERWISE
ELEVATIONS SHOWN TOP OF CURB UNLESS NOTED OTHERWISE



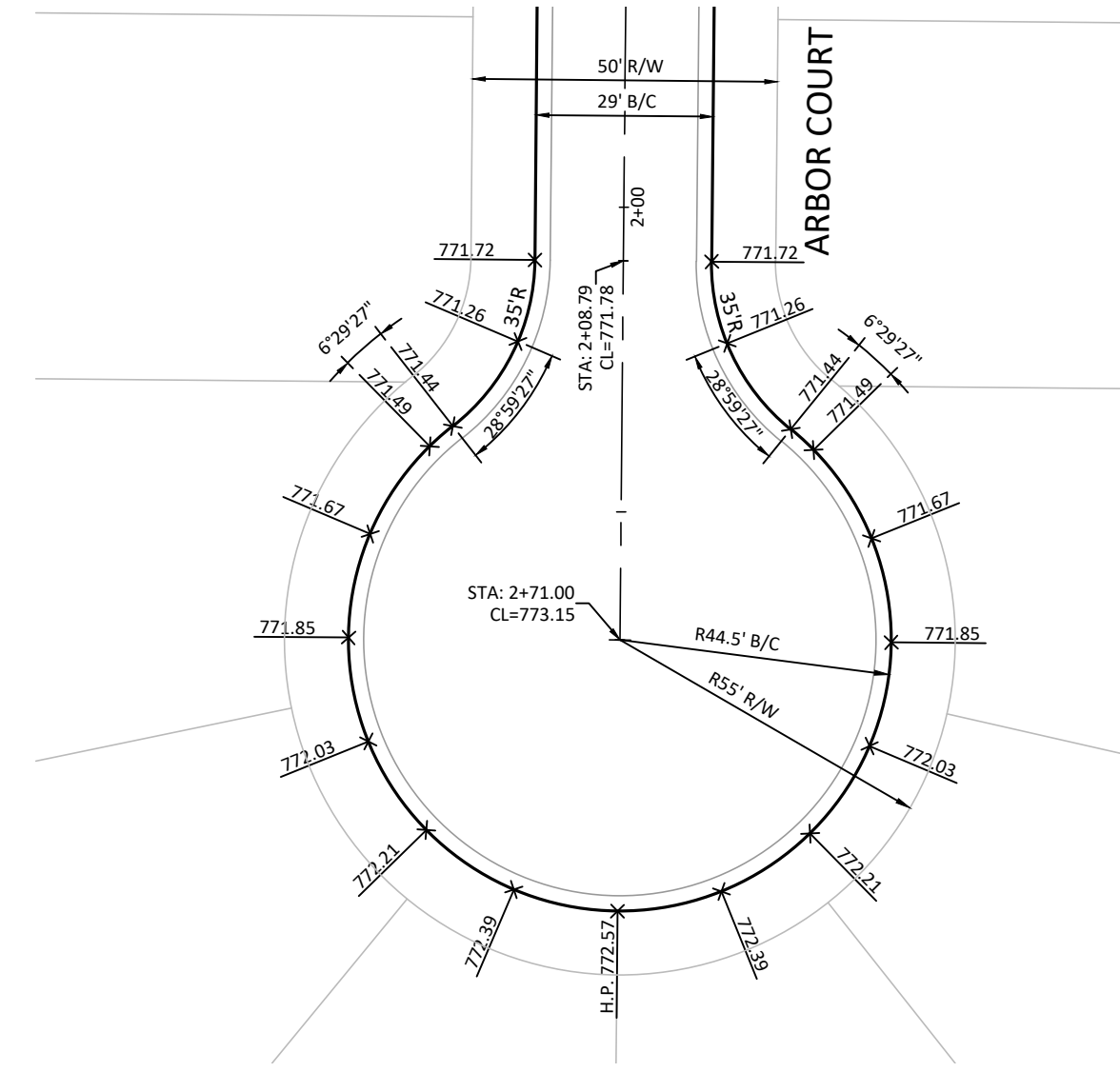
**KNUCKLE DETAIL
GRANDIN POND CIRCLE (NORTHEAST)**
SCALE: 1"=30'
ANGLES SHOWN ARE 22.5° UNLESS NOTED OTHERWISE
ELEVATIONS SHOWN TOP OF CURB UNLESS NOTED OTHERWISE



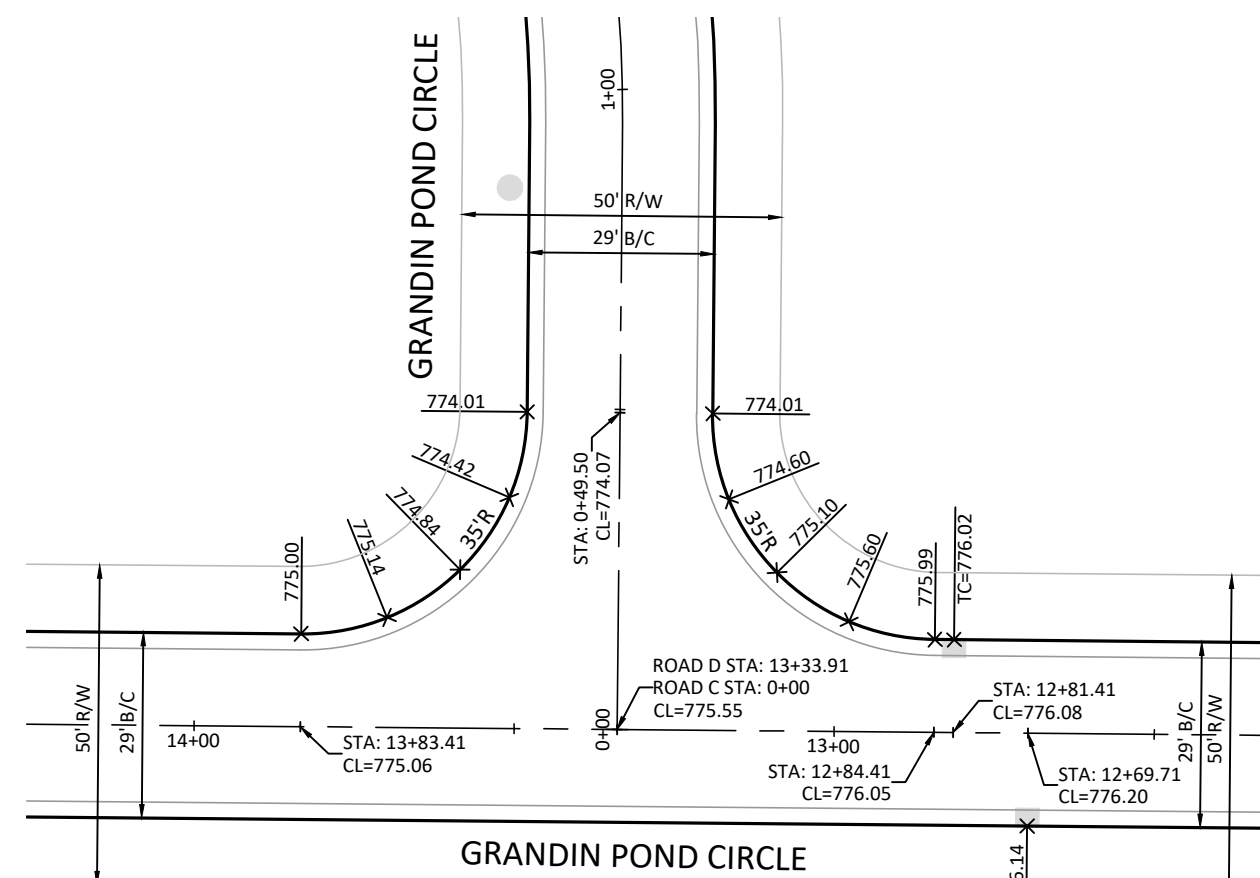
**INTERSECTION DETAIL
GRANDIN POND CIRCLE & STRIKER ROAD**
SCALE: 1"=30'
ANGLES SHOWN ARE 22.5° UNLESS NOTED OTHERWISE
ELEVATIONS SHOWN TOP OF CURB UNLESS NOTED OTHERWISE



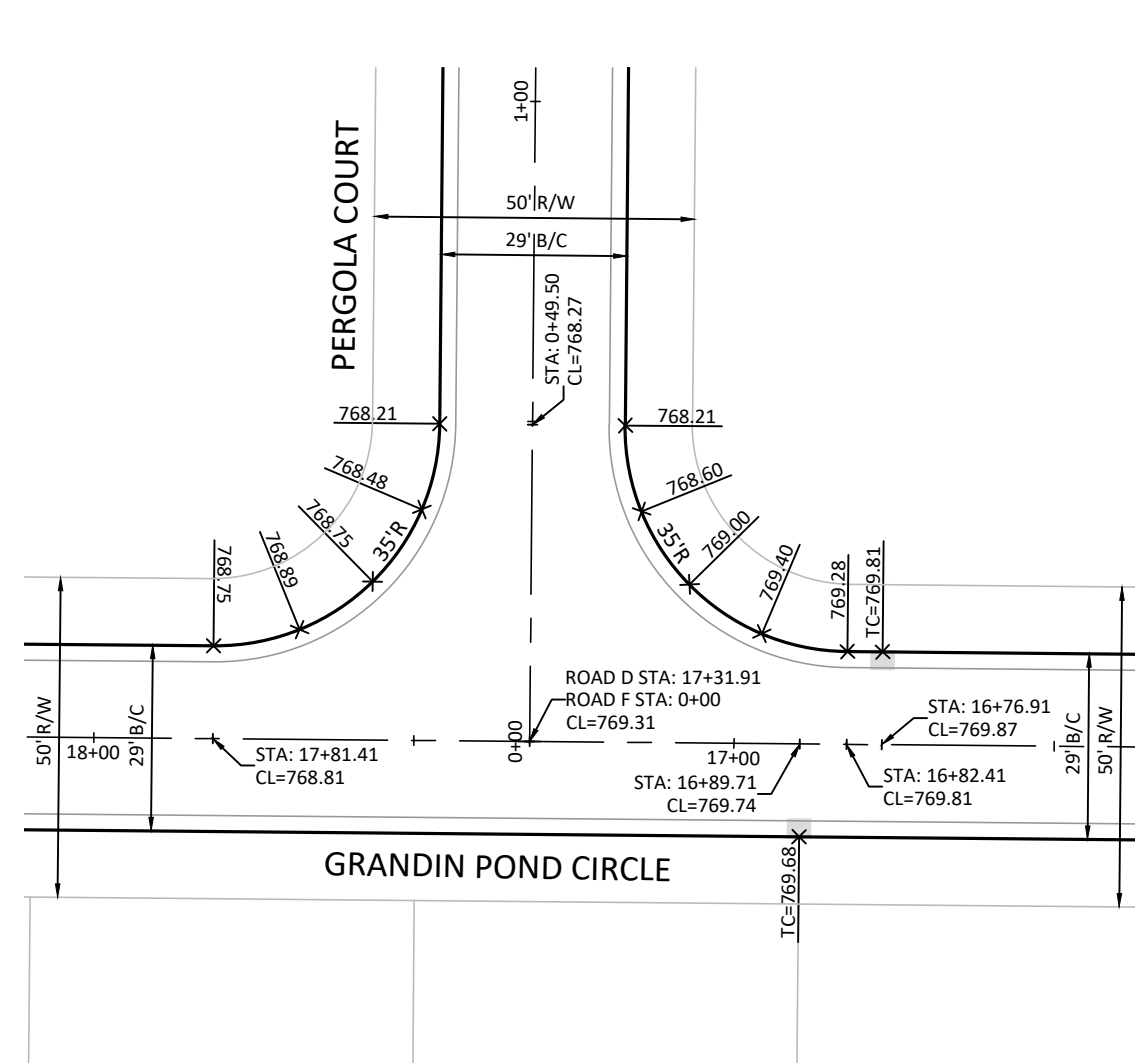
**CUL-DE-SAC DETAIL
PERGOLA COURT**
SCALE: 1"=30'
ANGLES SHOWN ARE 22.5° UNLESS NOTED OTHERWISE
ELEVATIONS SHOWN TOP OF CURB UNLESS NOTED OTHERWISE



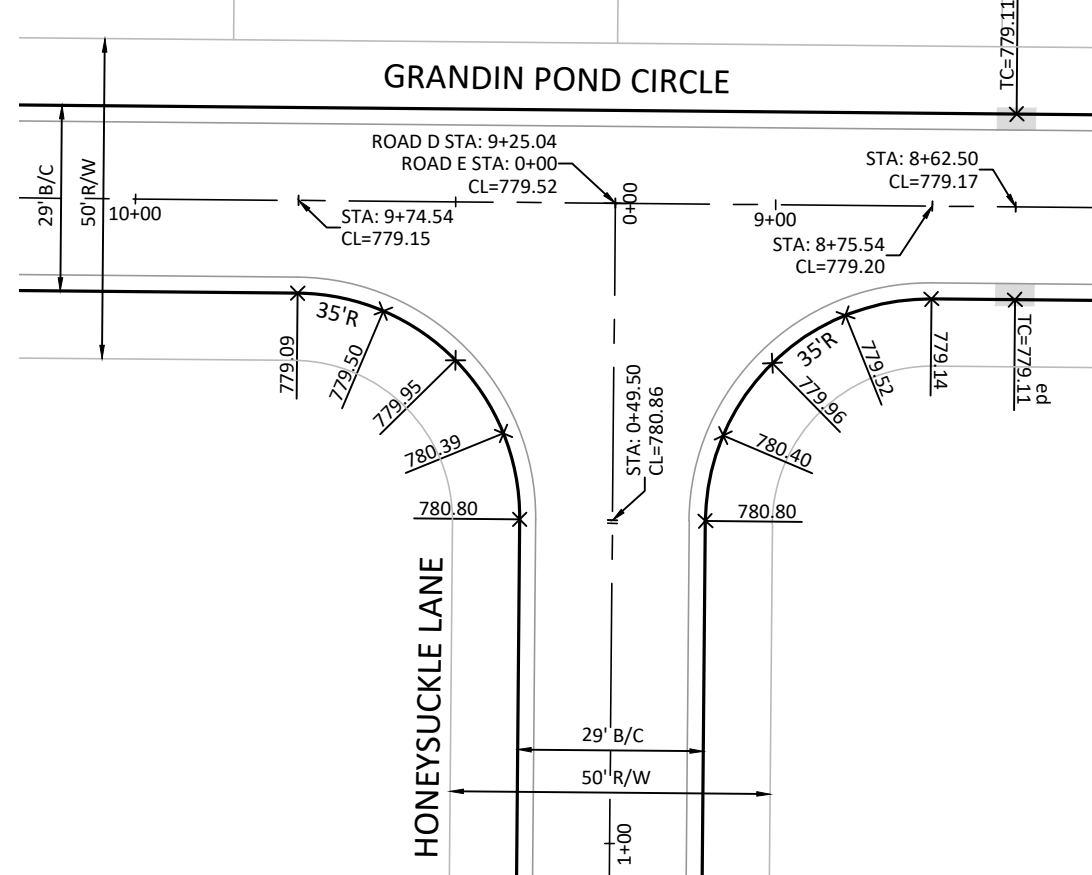
**CUL-DE-SAC DETAIL
ARBOR COURT**
SCALE: 1"=30'
ANGLES SHOWN ARE 22.5° UNLESS NOTED OTHERWISE
ELEVATIONS SHOWN TOP OF CURB UNLESS NOTED OTHERWISE



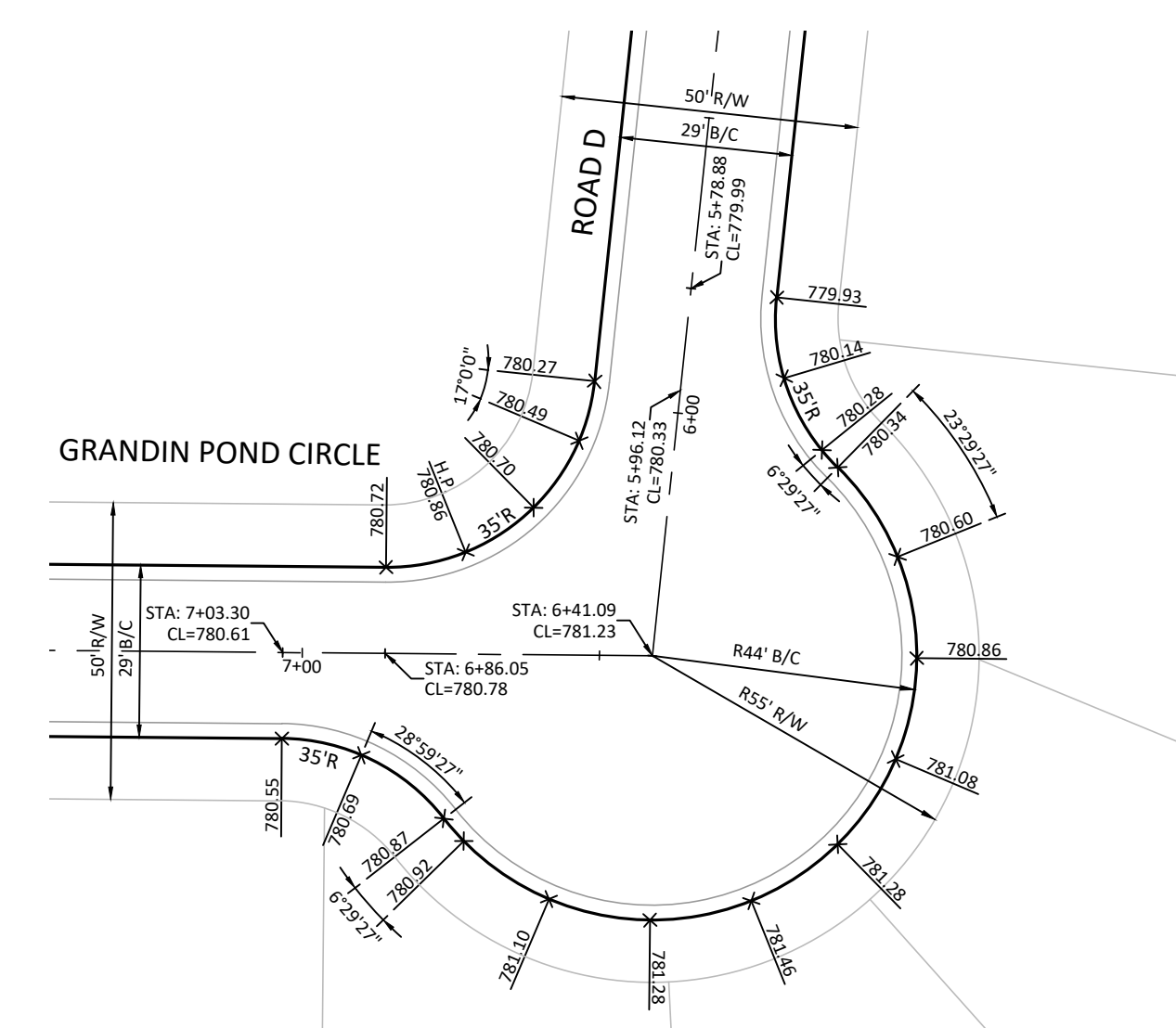
**INTERSECTION DETAIL
GRANDIN POND CIRCLE & PERGOLA COURT (SOUTH LEG)**
SCALE: 1"=30'
ANGLES SHOWN ARE 22.5° UNLESS NOTED OTHERWISE
ELEVATIONS SHOWN TOP OF CURB UNLESS NOTED OTHERWISE



**INTERSECTION DETAIL
GRANDIN POND CIRCLE & PERGOLA COURT**
SCALE: 1"=30'
ANGLES SHOWN ARE 22.5° UNLESS NOTED OTHERWISE
ELEVATIONS SHOWN TOP OF CURB UNLESS NOTED OTHERWISE



**INTERSECTION DETAIL
GRANDIN POND CIRCLE & HONEYSUCKLE LANE**
SCALE: 1"=30'
ANGLES SHOWN ARE 22.5° UNLESS NOTED OTHERWISE
ELEVATIONS SHOWN TOP OF CURB UNLESS NOTED OTHERWISE



**KNUCKLE DETAIL
GRANDIN POND CIRCLE (SOUTHEAST)**
SCALE: 1"=30'
ANGLES SHOWN ARE 22.5° UNLESS NOTED OTHERWISE
ELEVATIONS SHOWN TOP OF CURB UNLESS NOTED OTHERWISE

Project Manager RA
Drawn By NAK
DWG 16448024-IMP-01
X-Ref(s) 16448003-BAS-00

Table with 3 columns: Issue/Revision, No., Date. Row 1: REV PER OEPA, 06/04/24

Table with 3 columns: Issue/Revision, No., Date. Row 1: REV PER OEPA, 06/04/24

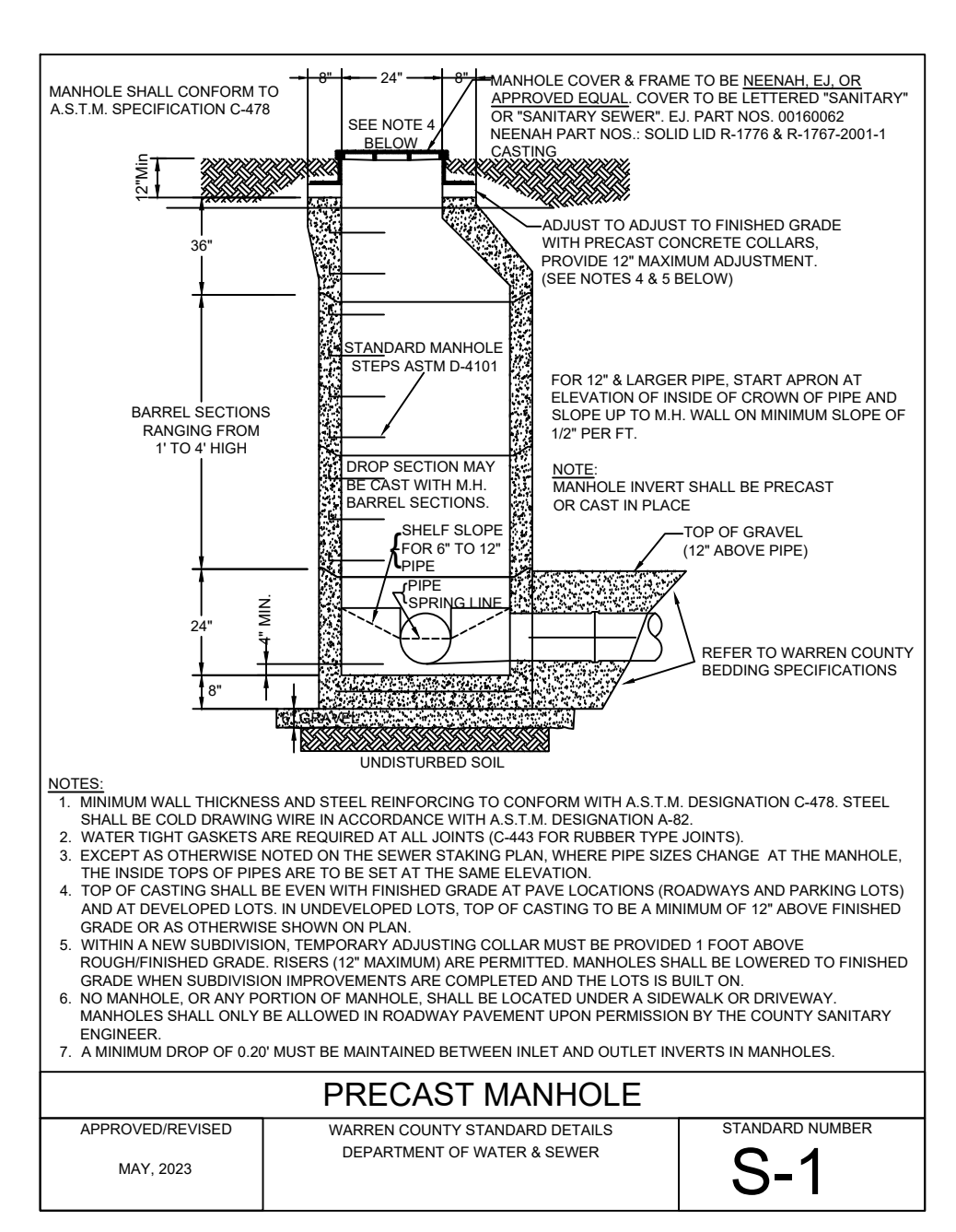


Table with 3 columns: APPROVED/REVISED, WARREN COUNTY STANDARD DETAILS, STANDARD NUMBER. Row 1: MAY, 2023, DEPARTMENT OF WATER & SEWER, S-1

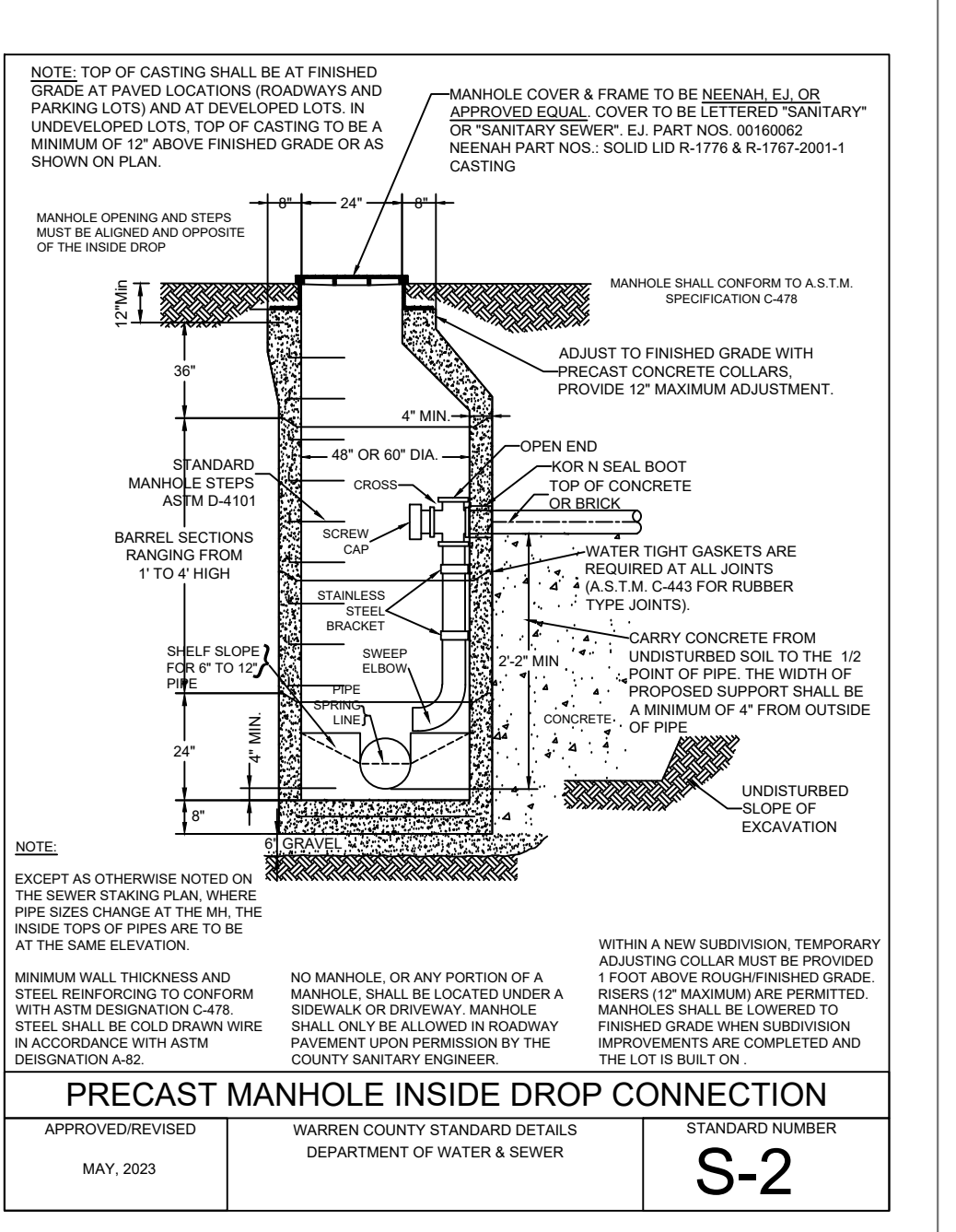


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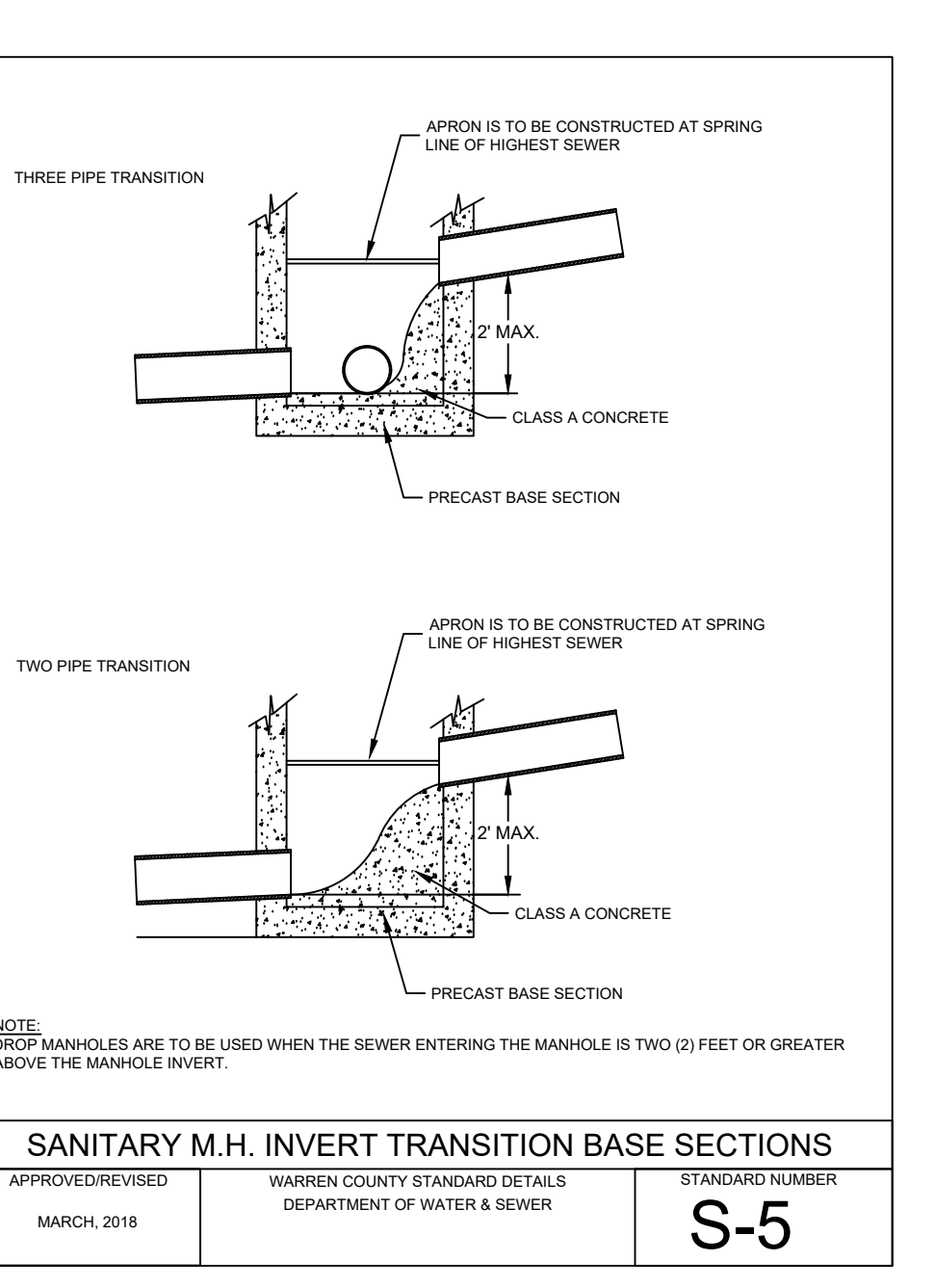


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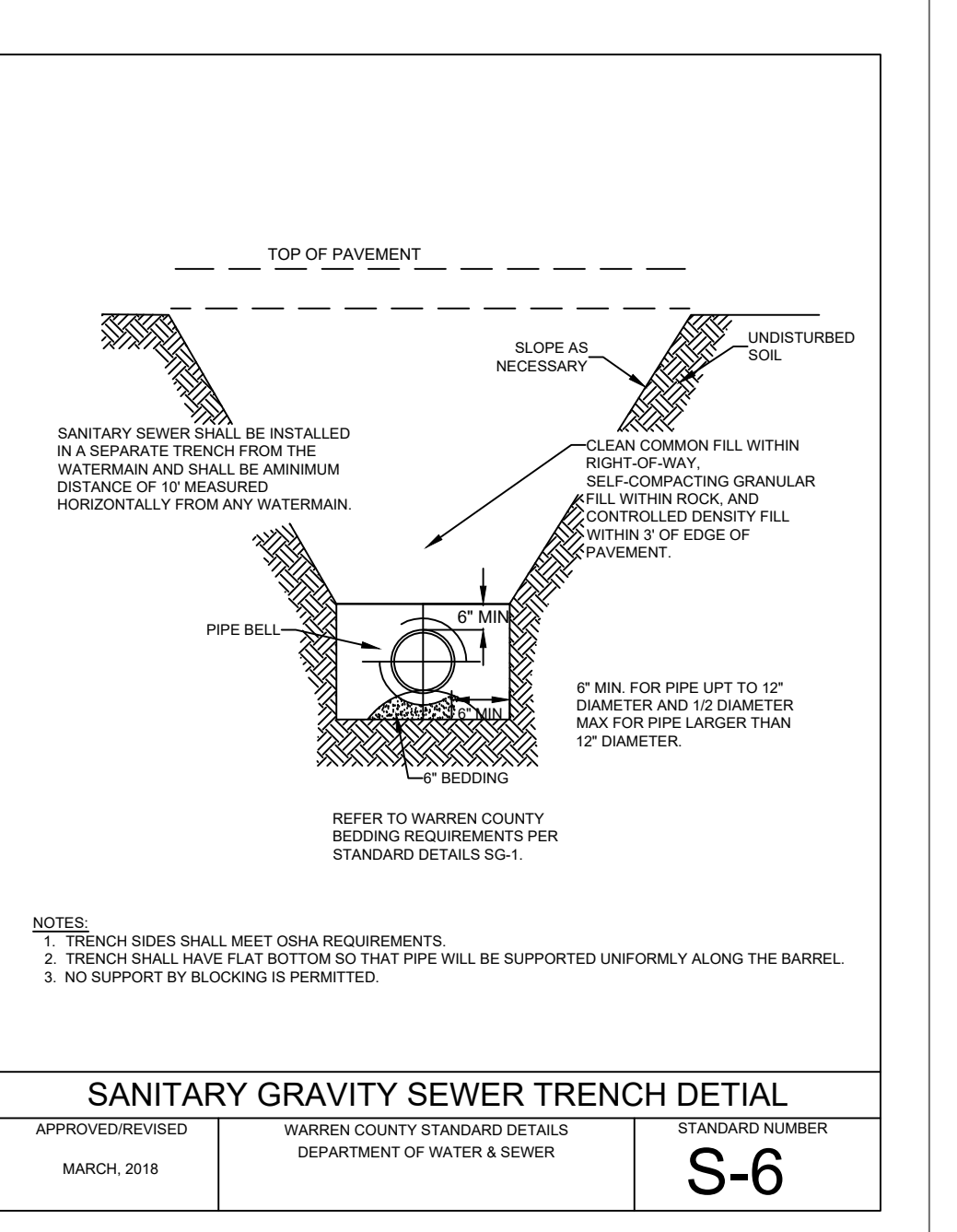


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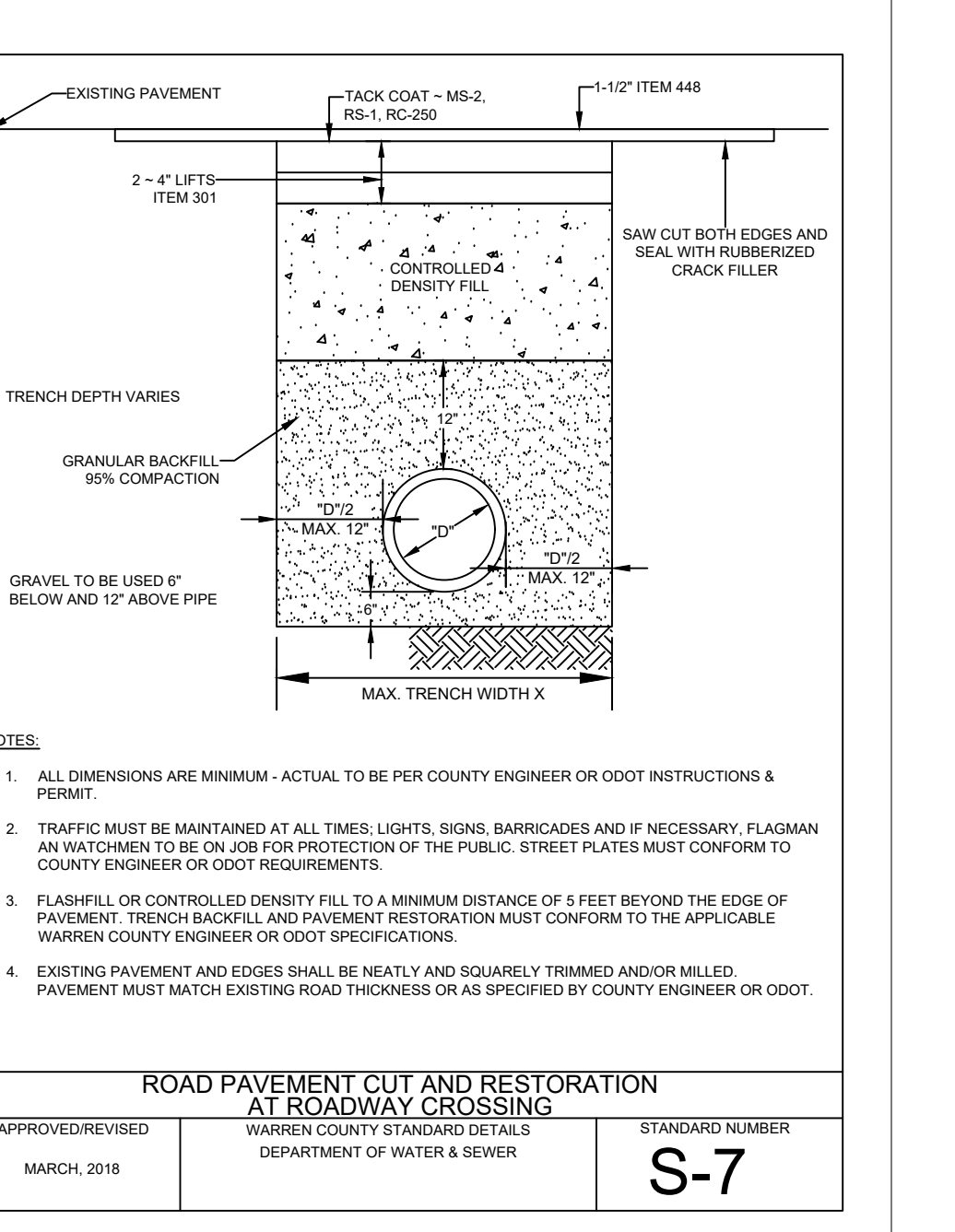


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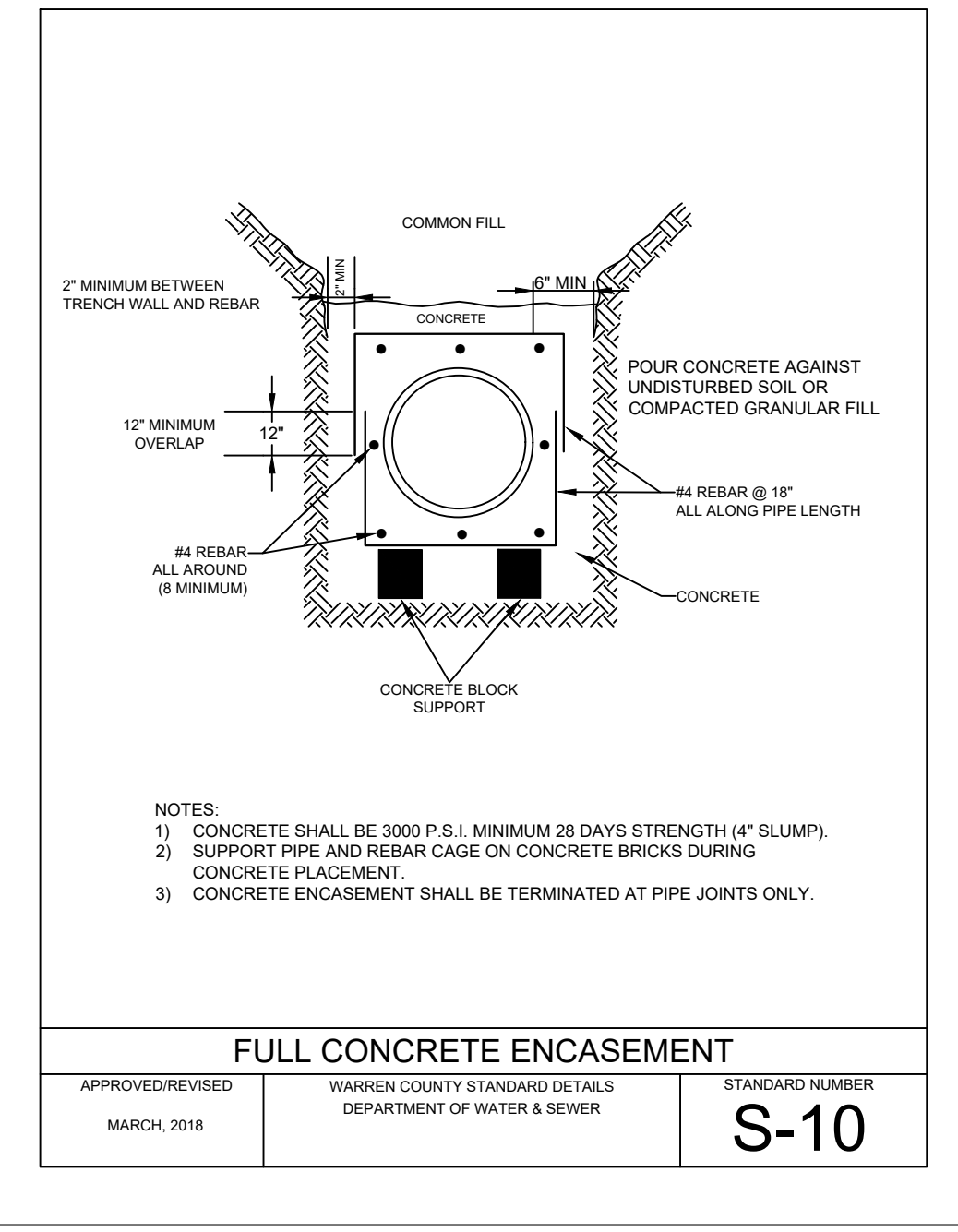


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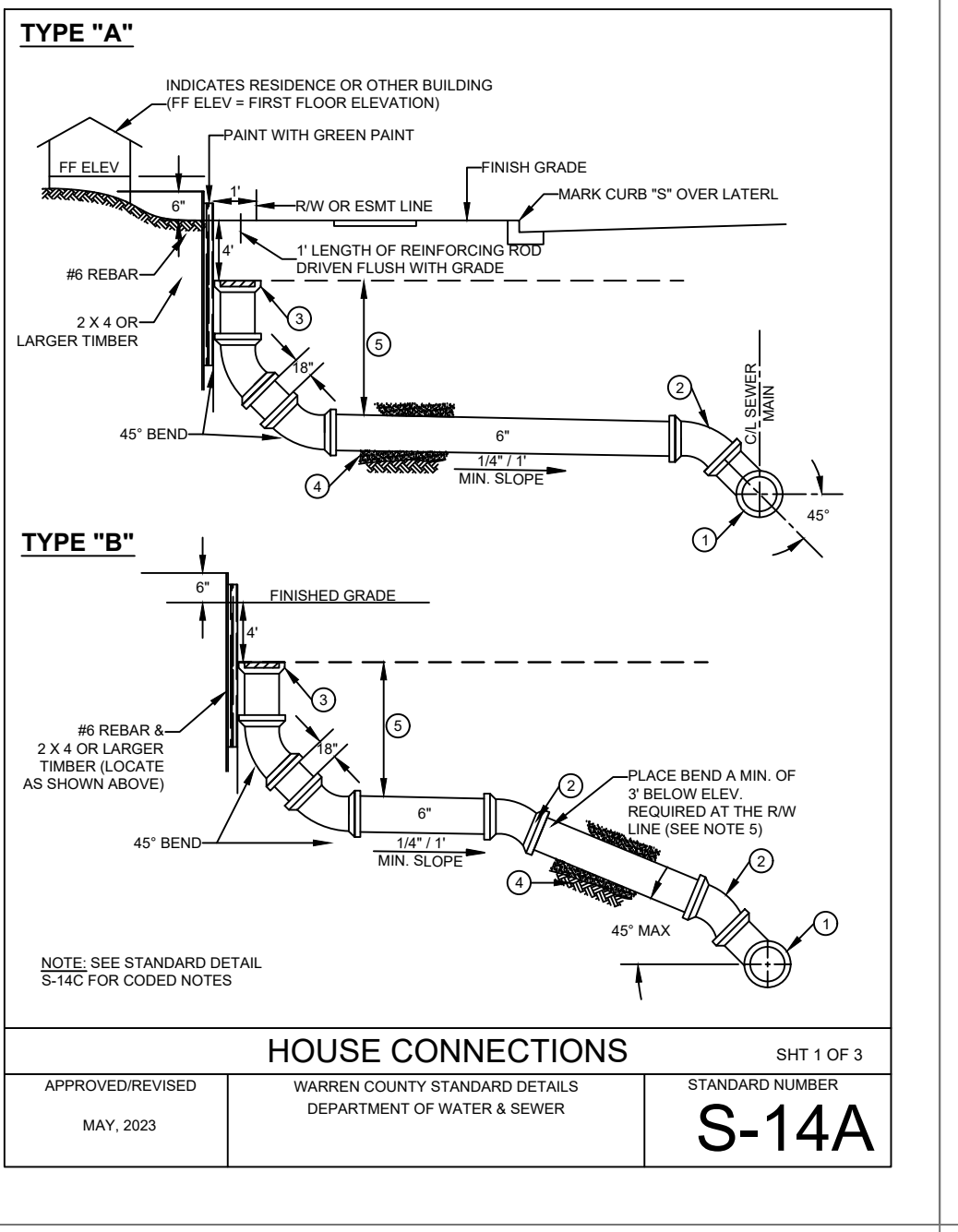


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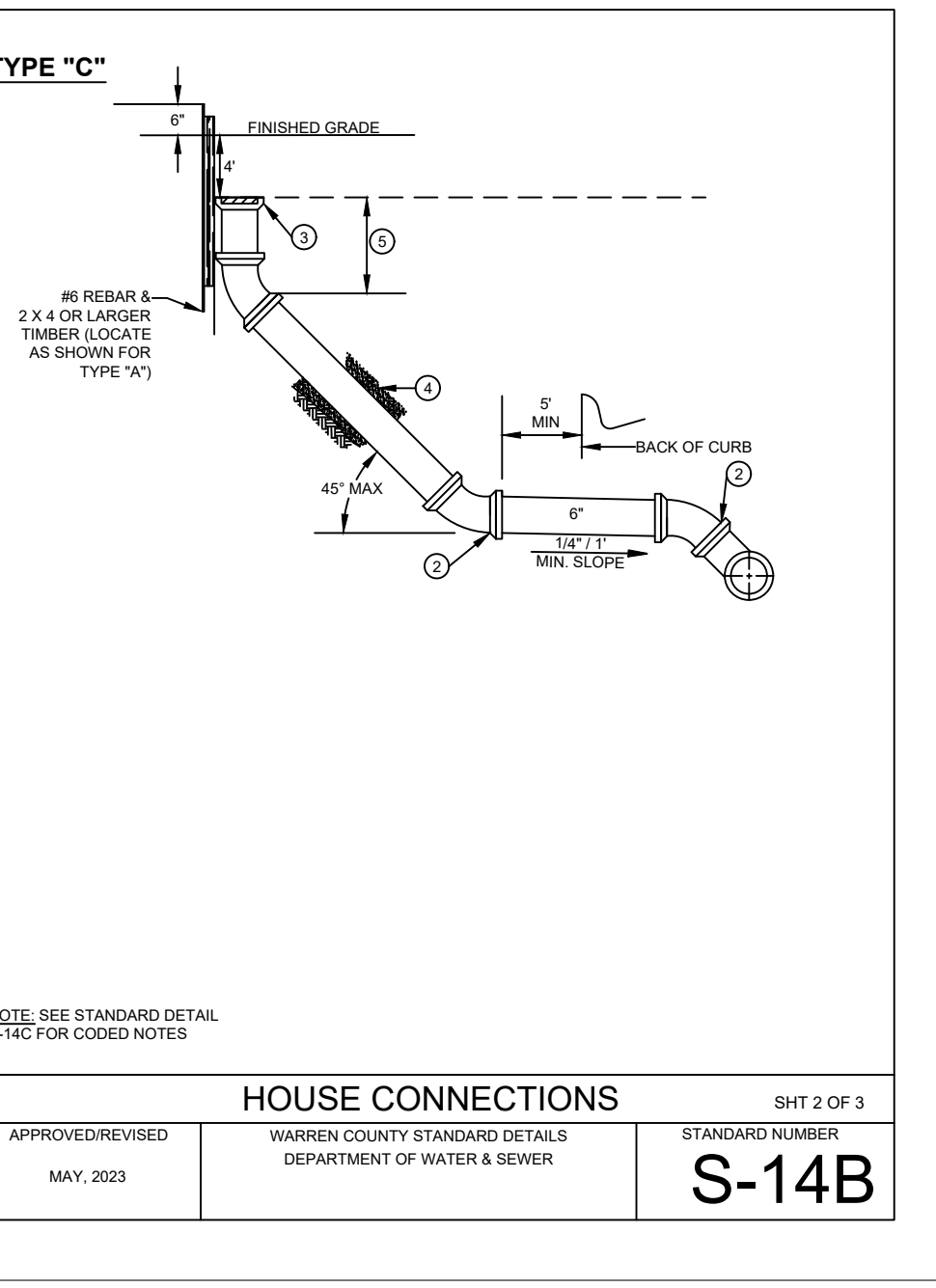


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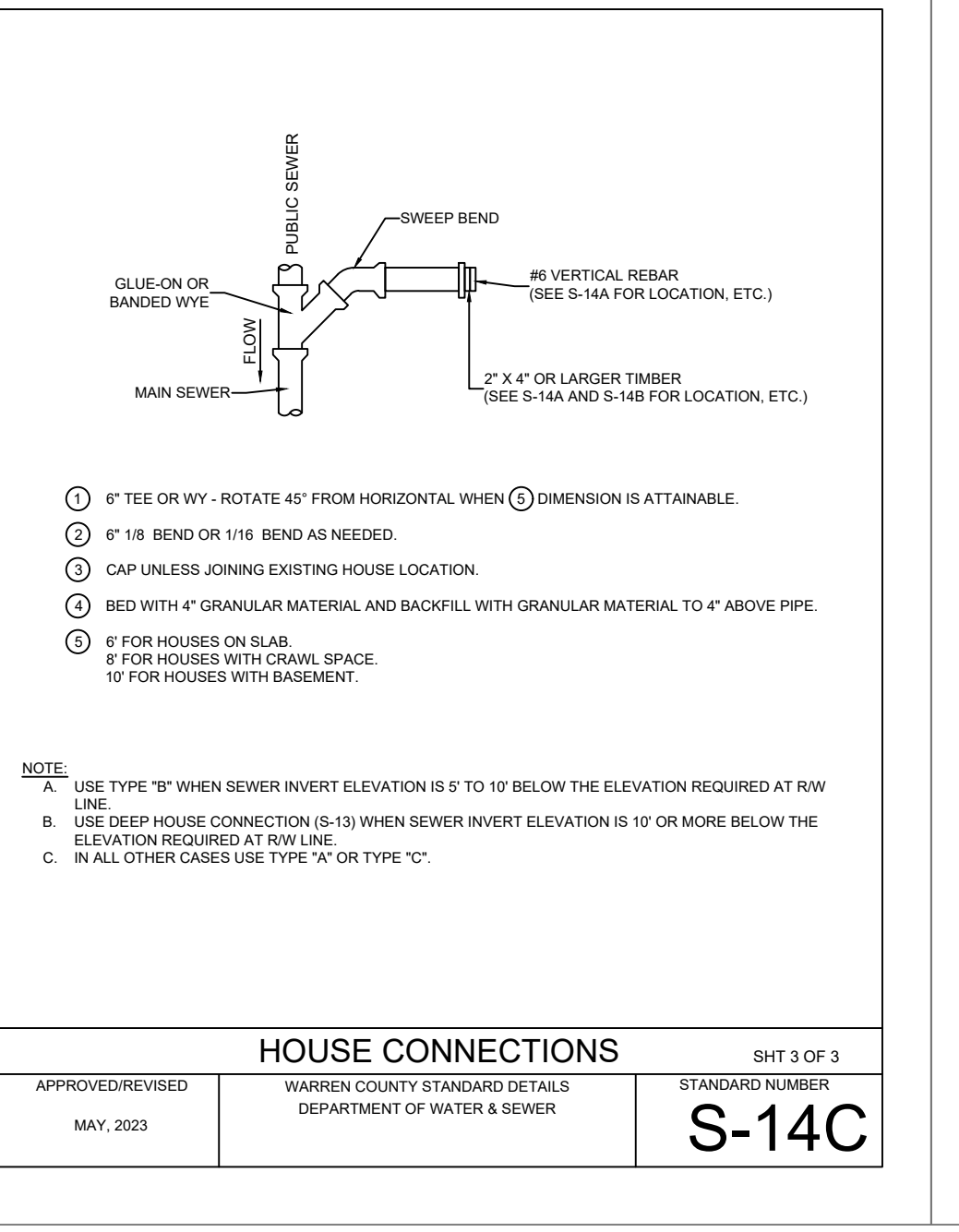


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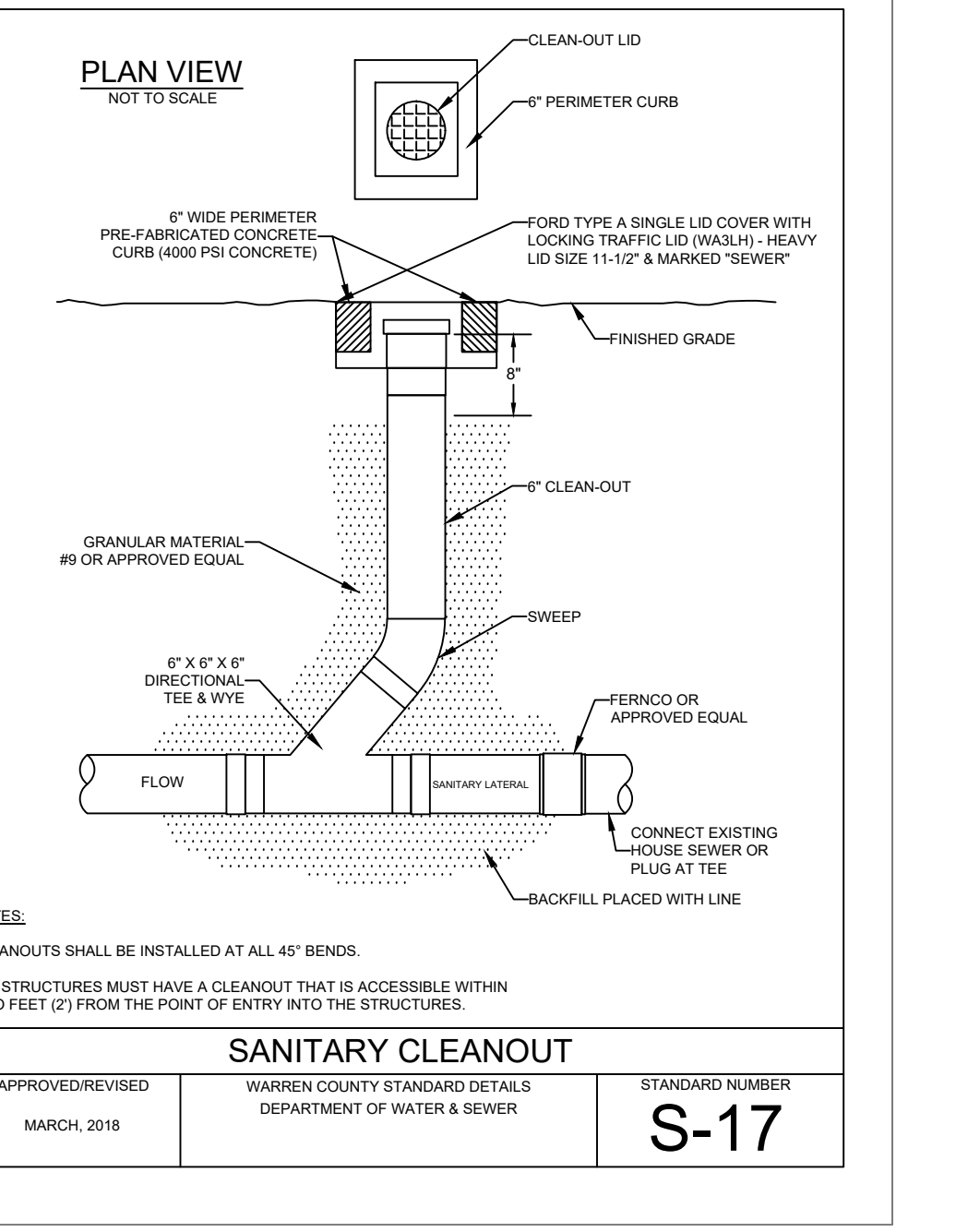


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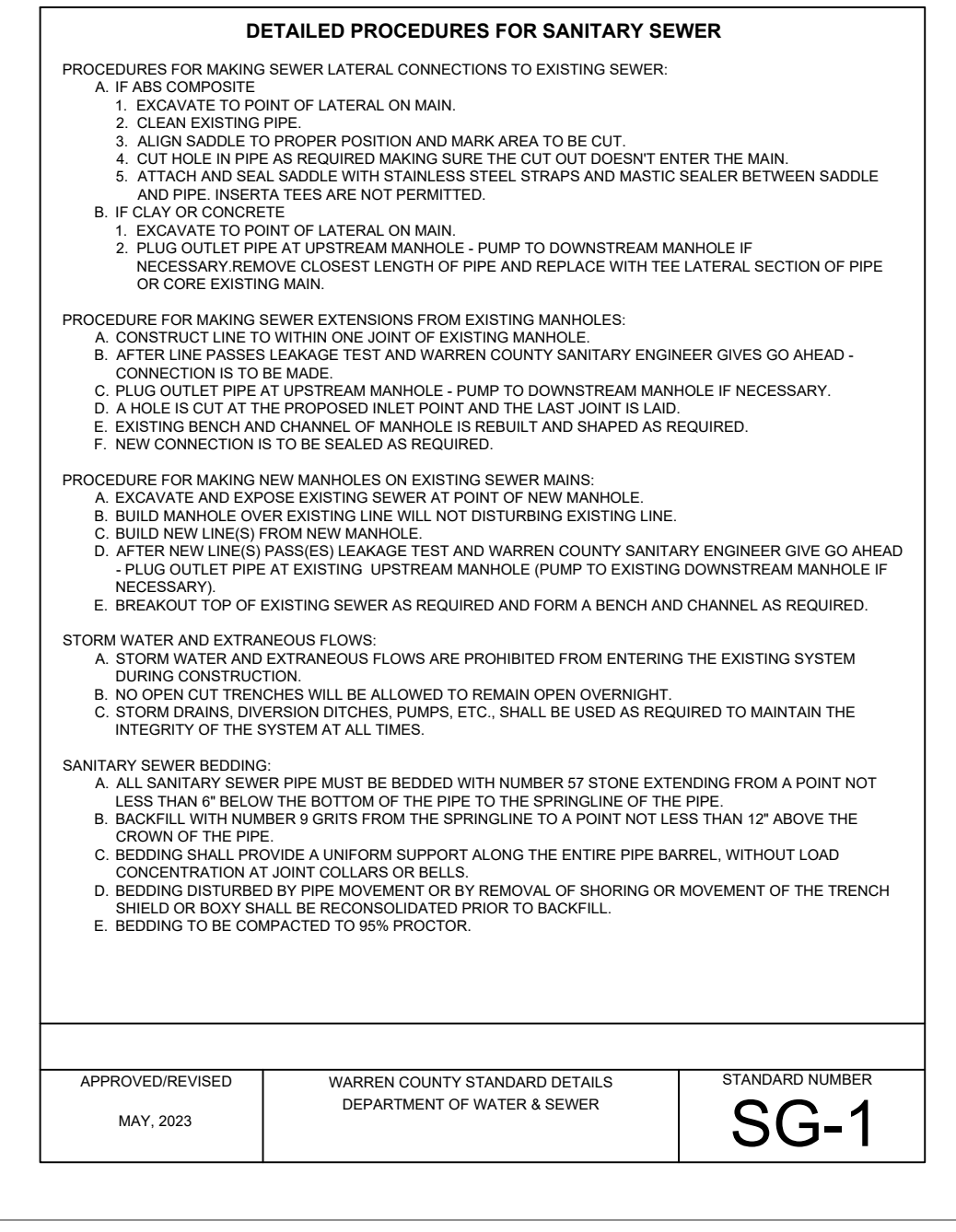


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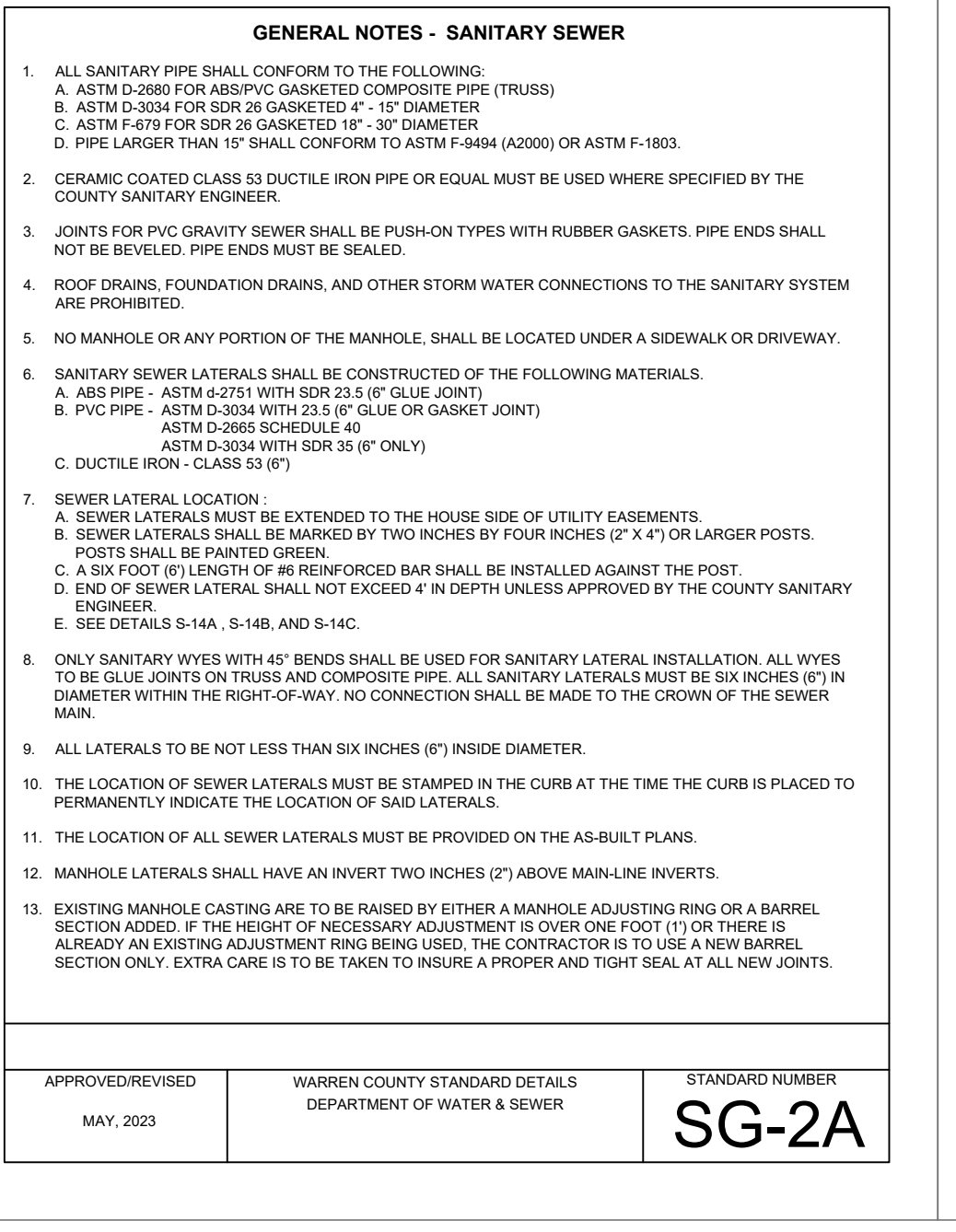


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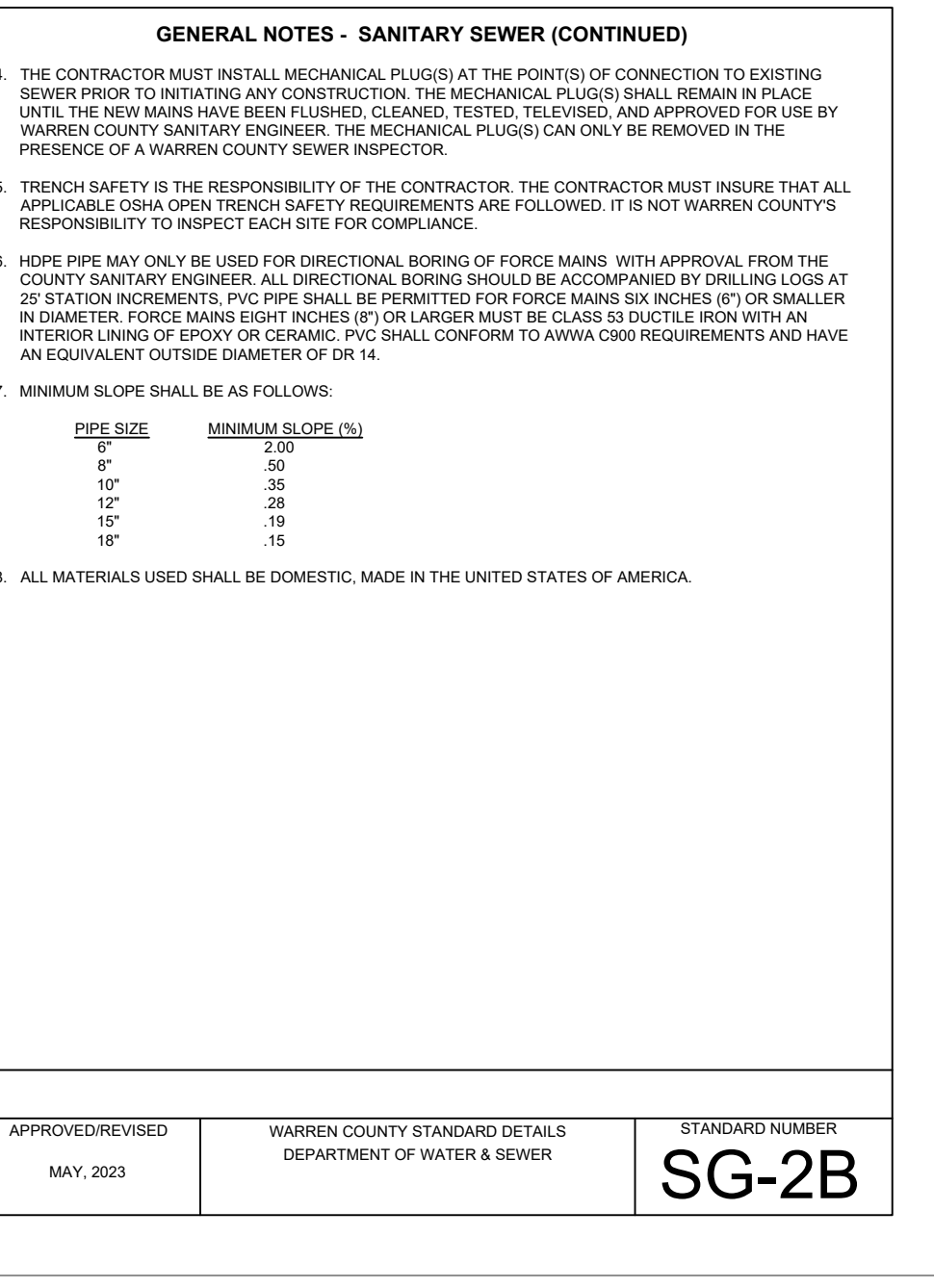


Table with 3 columns: APPROVED/REVISED, WARREN COUNTY STANDARD DETAILS, STANDARD NUMBER. Row 1: MAY, 2023, DEPARTMENT OF WATER & SEWER, SG-2B

THE ARBORS AT GRANDIN POND PHASES 1 & 2
MILITARY SURVEY NO. 1547 & 1548
CITY OF SOUTH LEBANON
HAMILTON TOWNSHIP
WARREN COUNTY, OHIO

N:\land projects\16000\16448\dwg\16448024-imp-01.dwg, 11-Sm, Dtd, 6/11/2024, 11:50:58 AM, nsk, hnot

Issue/Revision	No.	Date
WCWS COMMENTS		05/03/24

GENERAL NOTES - WATER

- ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 4'-6".
 - ALL WATER SERVICE LATERALS SHALL HAVE A MINIMUM COVER OF 42".
- ALL WATER MAINS SHALL BE DUCTILE IRON CONFORMING WITH AWWA SPEC. C-151 CLASS S2 IN SIZES 4", 6", 8", 10", 12", 15", 18", 24", 30" AND ABOVE.
- ALL WATER MAINS SHALL BE INSTALLED WITH POLYETHYLENE ENCASEMENT IN ACCORDANCE WITH STANDARD DETAILS W-26A, W-26B AND W-27.
- COMPACT FITTINGS ARE PERMITTED.
- ALL WATER VALVES MUST OPEN LEFT. ALL VALVE BOX LIDS MUST BE CAST/STAMPED "WCW" IN 1/2" LETTERS AND BE NEMA NF-19120222 OR EQUAL. ALL VALVE EXTENSIONS TO HAVE SET SCREWS. ALL VALVES TO BE EQUIPPED WITH BOX-LOCK-2.
- A CONCRETE SLAB MUST BE PROVIDED AT FINAL GRADE AROUND ALL MAIN VALVE BOXES. THE SLABS MUST BE EIGHTEEN (18") SQUARE/CIRCLE AND NINE INCHES (9") THICK. PRE-FABRICATED CONCRETE RINGS ARE ACCEPTABLE.
- WATER AND SEWER LINES SHALL HAVE A MINIMUM OF TEN FEET (10') HORIZONTAL SEPARATION AND/OR TWO FEET (2') VERTICAL SEPARATION.
- NO GATE VALVE. METER PIT. BLOW OFF OR CORPORATION STOP SHALL BE LOCATED UNDER OR WITHIN THREE FEET (3') OF DRIVEWAYS, ROADWAYS OR SIDEWALKS.
- NO DRIVEWAY SHALL BE INSTALLED WITHIN FIVE FEET (5') OF A FIRE HYDRANT.
- A MINIMUM OF THREE FEET (3') IS REQUIRED BETWEEN CORPORATION STOPS. NO TAP SHALL BE MADE WITHIN THREE (3) FEET OF A BELL.
- THE LOCATION OF WATER SERVICE LATERALS MUST BE STAMPED IN THE CURB AT THE TIME THE CURB IS PLACED TO PERMANENTLY INDICATE THE LOCATION OF SAID LATERALS.
- THE LOCATION OF ALL WATER SERVICE LATERALS, BENDS, TEES, ETC. MUST BE PROVIDED ON THE AS-BUILT PLANS. ALL OF THESE APPURTENANCES SHOULD BE SURVEYED IN STATE PLANE COORDINATES AND ELECTRONICALLY DELIVERED WITH AS-BUILTS.
- CONTRACTOR SHALL SUBMIT AS-BUILT PLANS OF SANITARY AND WATER LATERALS TO THE OWNER.
- ALL WATER MAINS CROSSING UNDER STORM DRAINS SHALL BE BACK-FILLED WITH GRANULAR MATERIAL, O.D.T. ITEM 310.02, BETWEEN MAINS AND DRAINS.
- ALL NEW WATER MAINS SHALL BE PRESSURE TESTED FOR 2 HOURS AT 200 PSI. ALLOWABLE LEAKAGE SHALL BE PER TABLE 8.A OF AWWA C500.
- WHERE PVC IS USED IN RURAL WATER SERVICE AREAS, DETECTABLE WATER TAPE, PRESO #P5D105852, SHOULD BE PLACED 1" ABOVE WATER MAIN.

APPROVED/REVISED: MARCH, 2024
WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER
STANDARD NUMBER: WG-1A

GENERAL NOTES - WATER (CONTINUED)

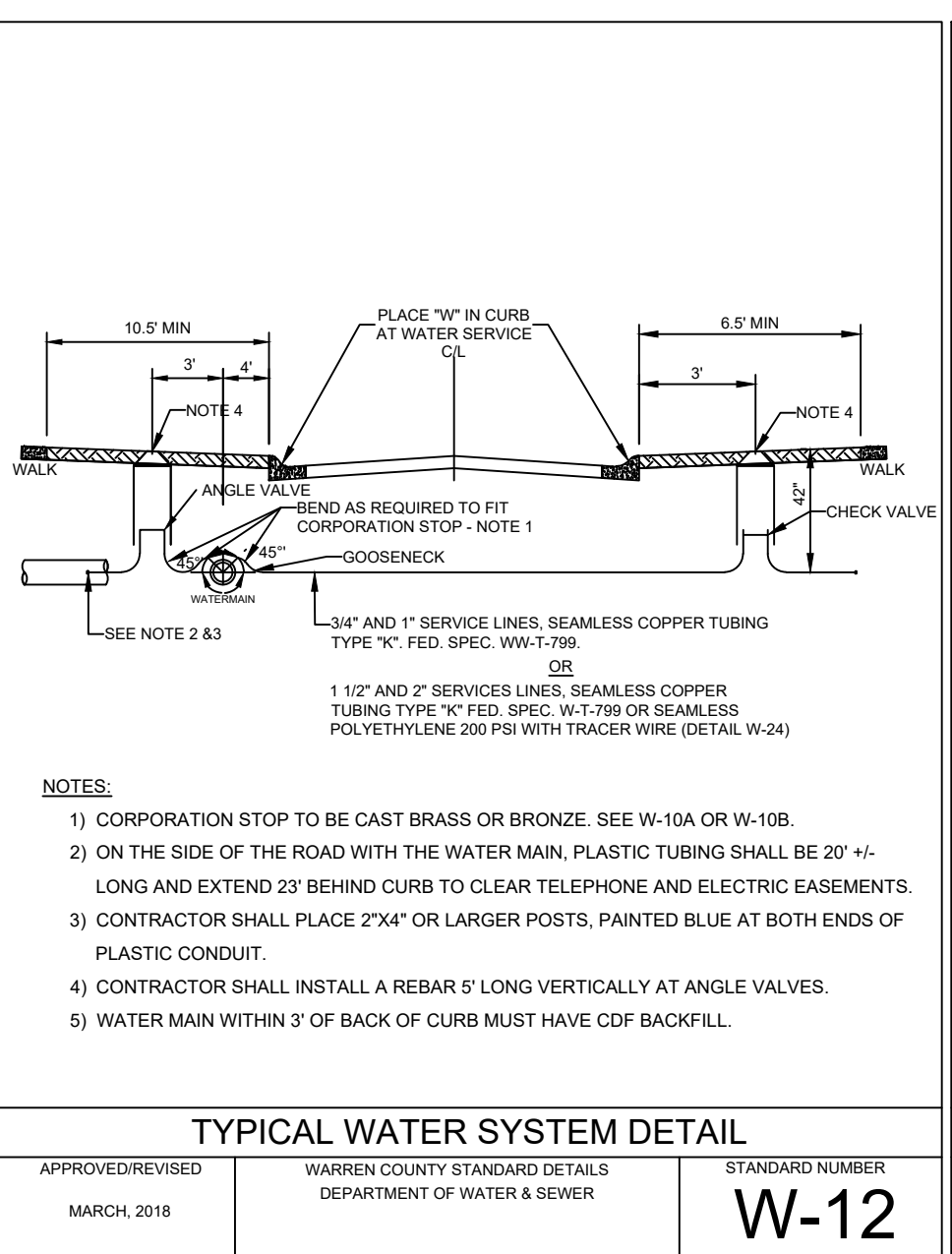
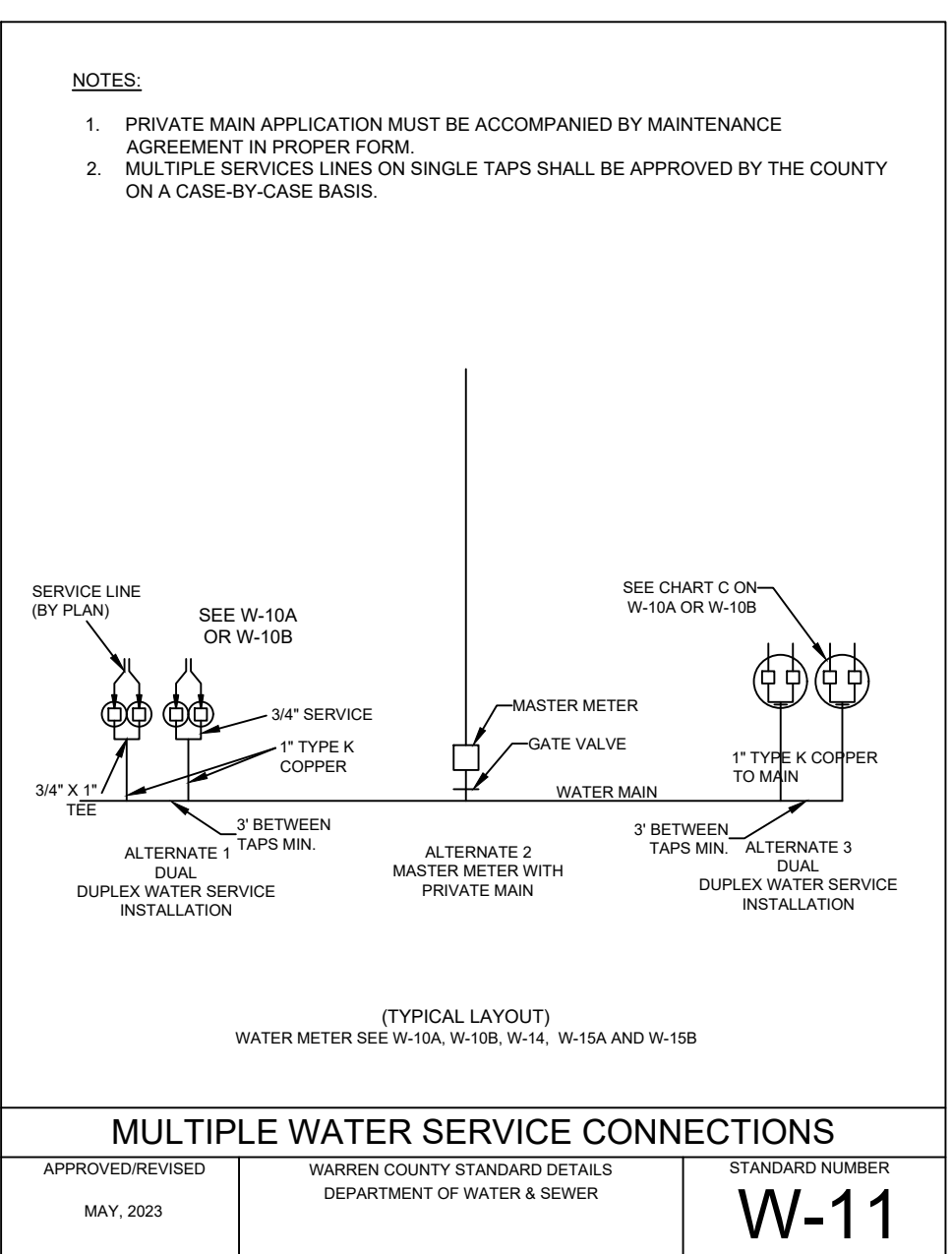
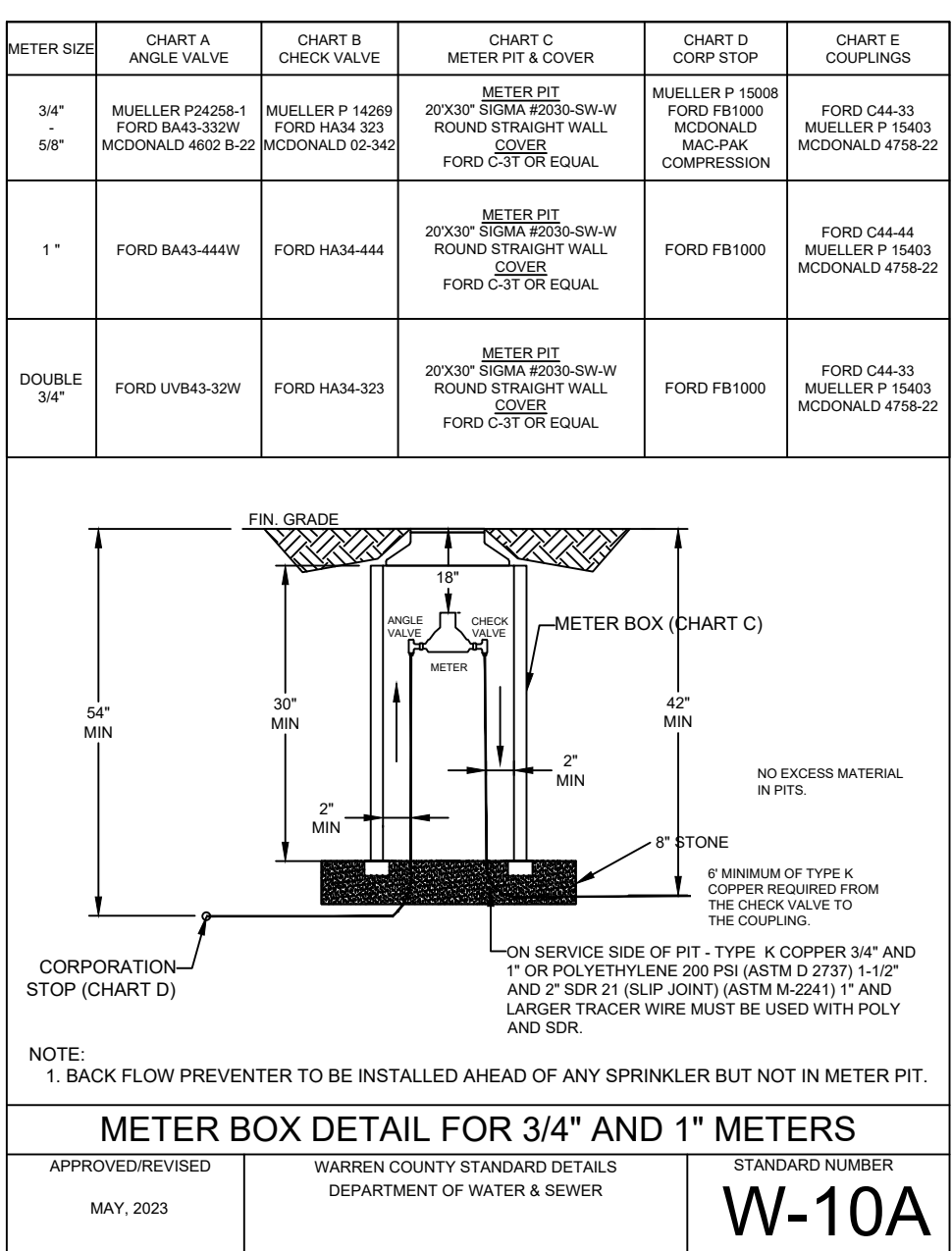
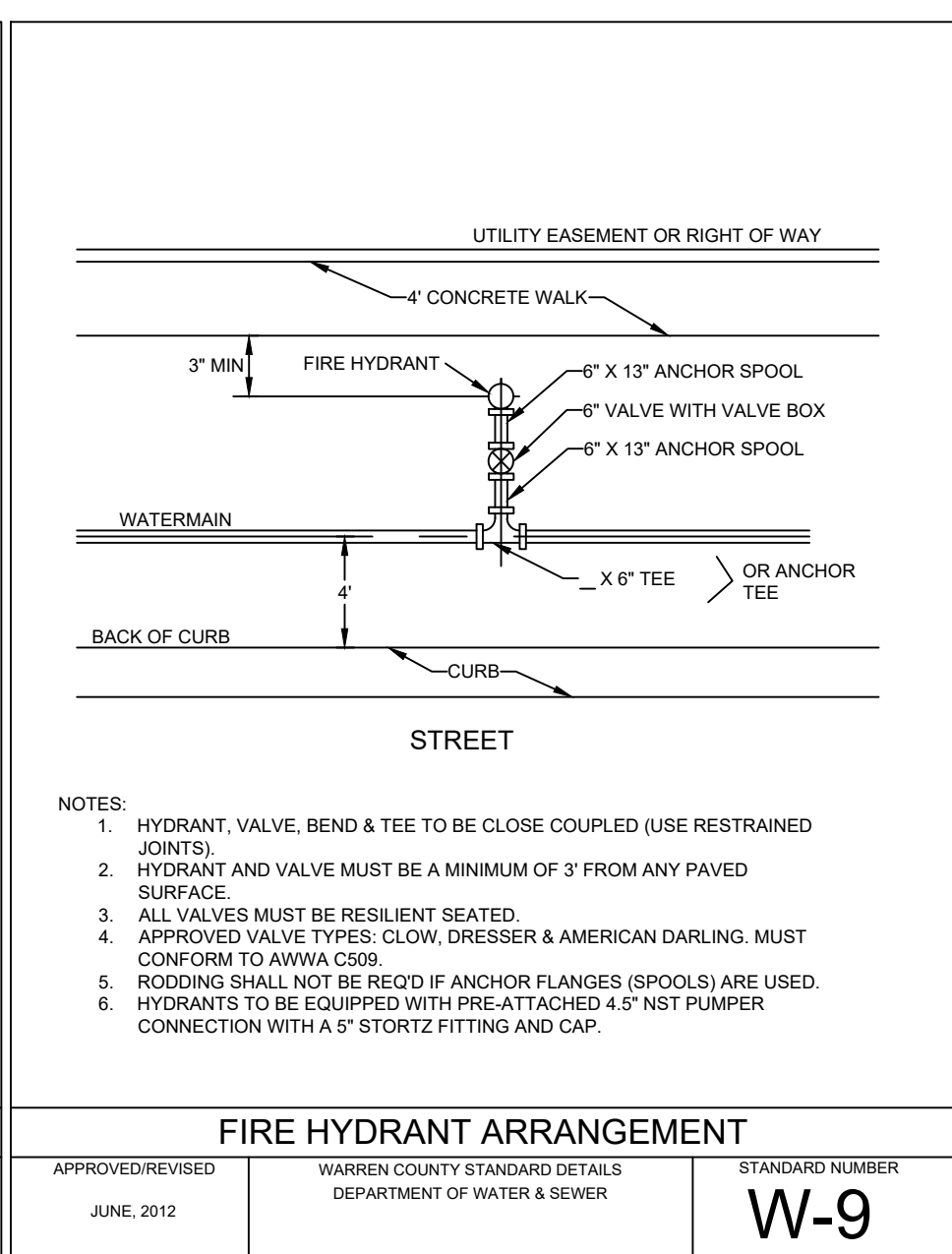
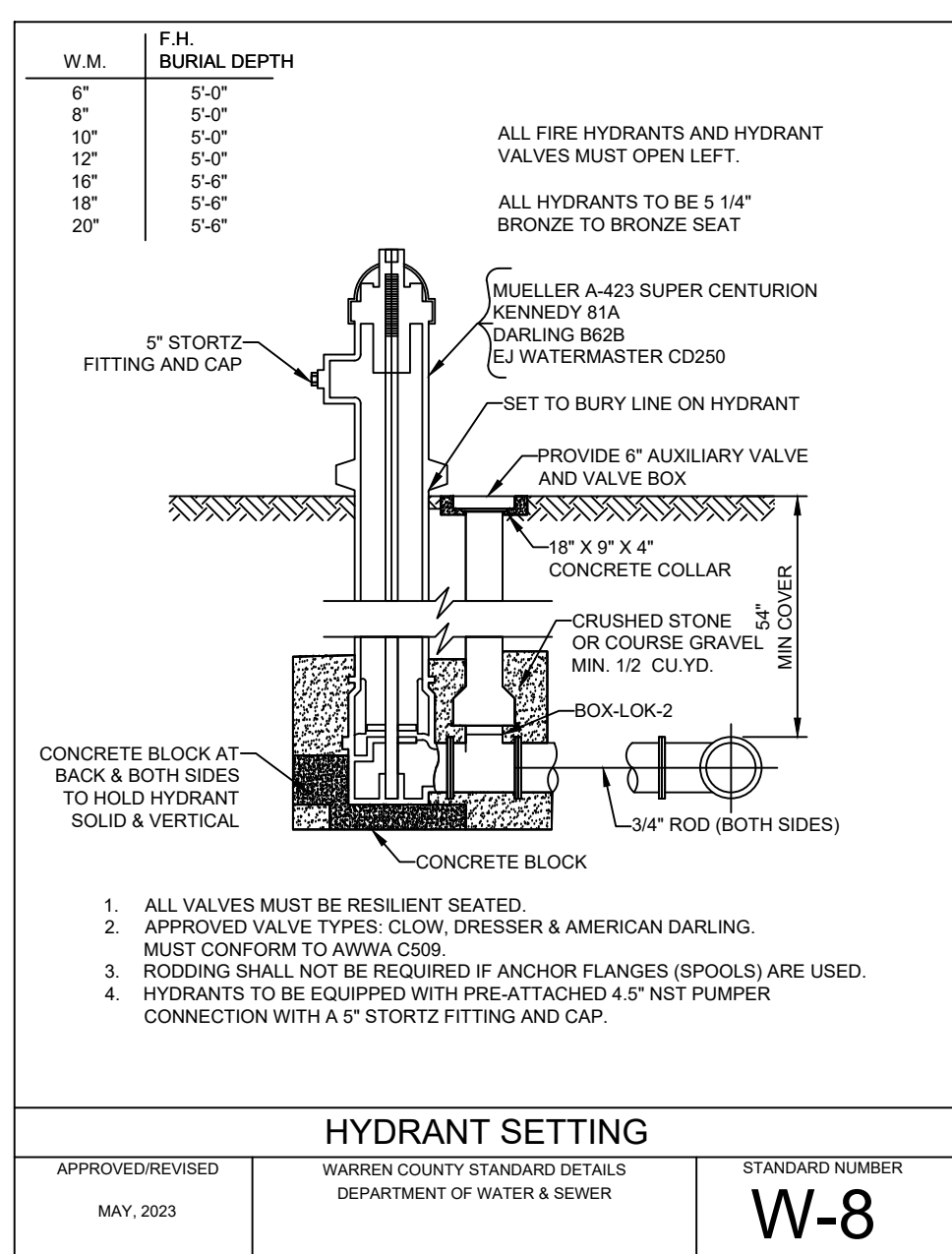
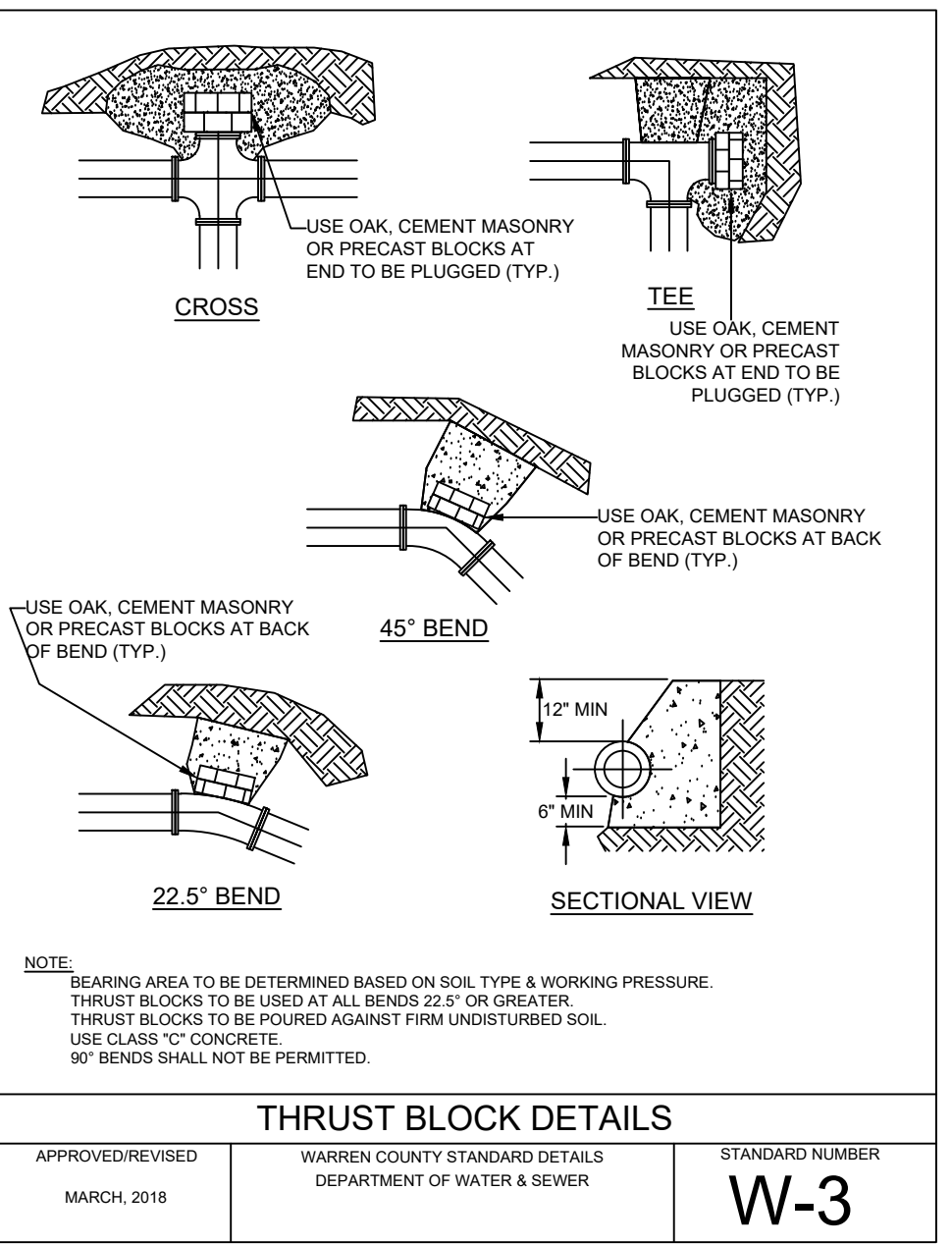
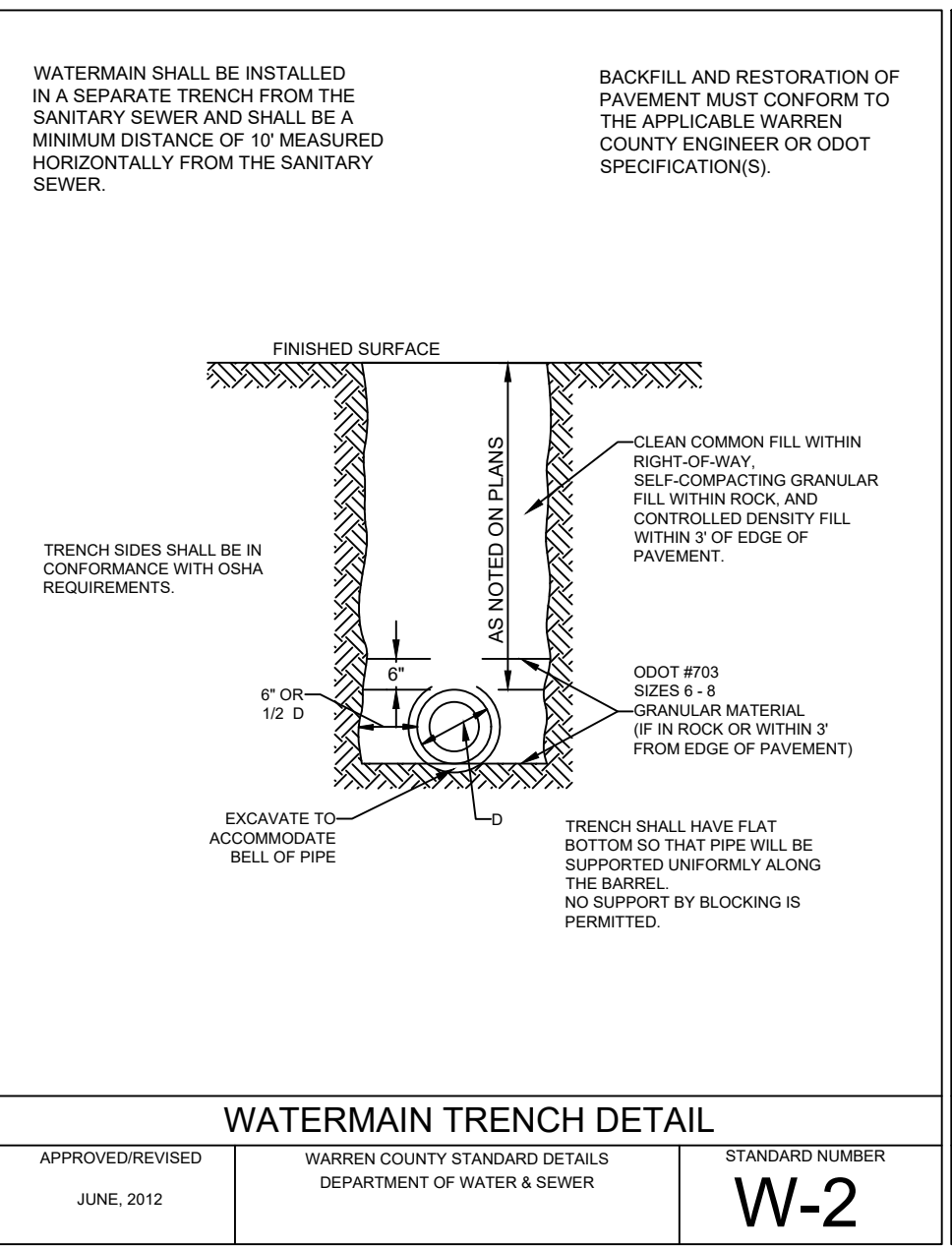
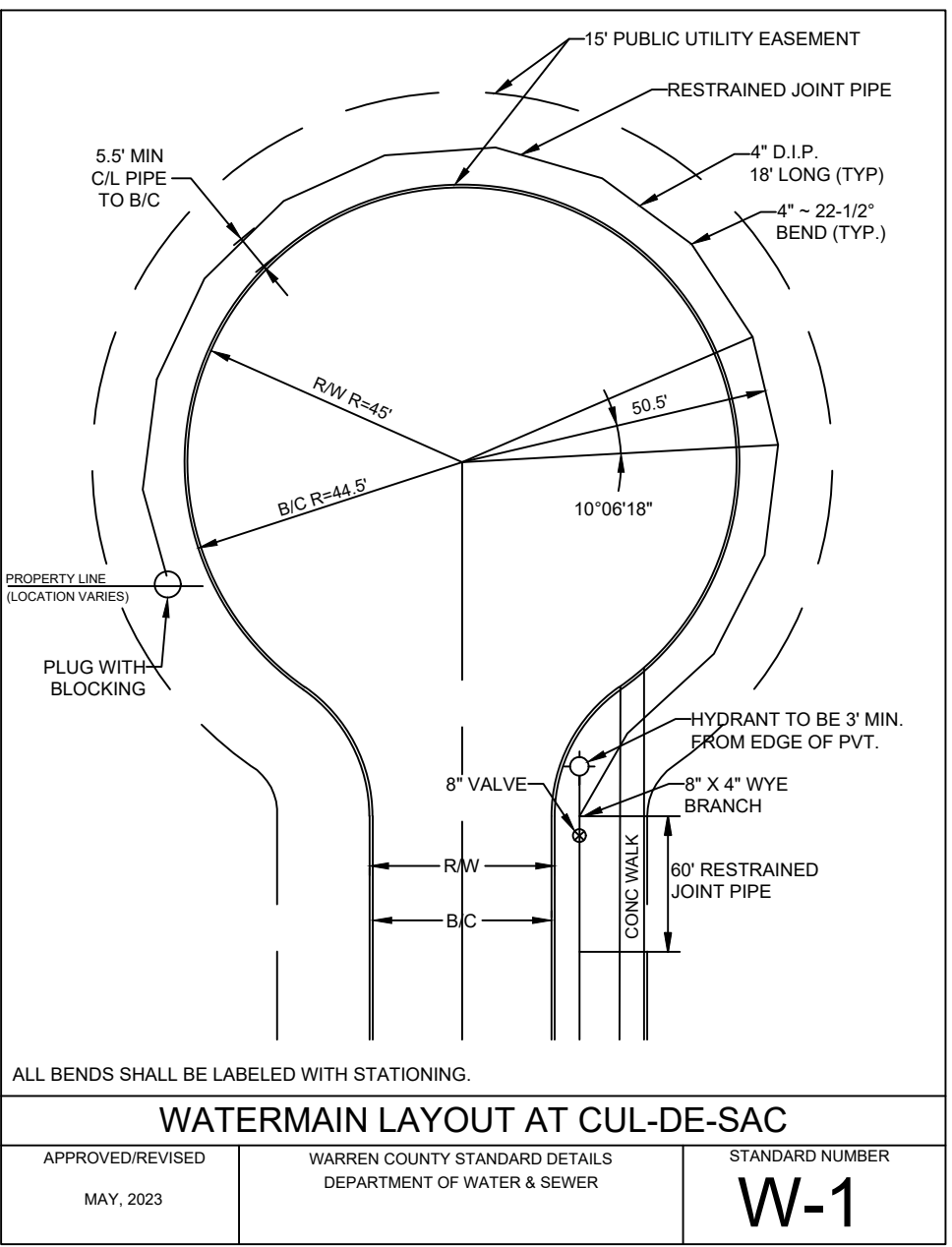
- EACH SERVICE LATERAL MUST BE A CONTINUOUS PIECE OF PIPE FROM THE CORP STOP TO THE METER. COUPLINGS SHALL NOT BE ALLOWED. TYPE K COPPER SHALL BE USED FOR 3/4" AND 1" SERVICES. POLYETHYLENE 200 PSI (COPPER TUBE SIZE) MAY BE USED FOR 1 1/2" AND 2" SERVICES. TRACER WIRE MUST BE USED WITH POLY AND SDR 21.
- SERVICE LINES 1" AND LARGER MUST BE EITHER TYPE K COPPER, POLY 200 PSI (ASTM D-2737) OR SDR 21 (SLIP JOINT) (ASTM-2241). TRACER WIRE MUST BE TAPPED EVERY 3' ON POLY AND SDR 21 FROM THE METER PIT INTO THE STRUCTURE BEING SERVED (A 7' LEAD IS REQUIRED INSIDE THE PIT).
- 1 1/2" AND 2" SERVICE LINES FROM THE CORP STOP TO THE METER PIT MUST BE TYPE K COPPER OR POLYETHYLENE 200 PSI. POLY MUST HAVE A TRACER WIRE. SEE W-10B.
- FIRE HYDRANTS MUST BE PROVIDED AT THE ENTRANCE TO ALL SUBDIVISIONS AND AT ALL STREET INTERSECTIONS.
- AN APPROVED BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED ON ALL WATER SERVICE LATERALS BY THE PROPERTY OWNER PRIOR TO ANY POINT OF CONNECTION OR USAGE. THE FOLLOWING DEVICES AND LOCATIONS ARE REQUIRED:
 - RESIDENTIAL DWELLING UNITS (3 FAMILY OR LESS) LOCATED IMMEDIATELY UPON ENTRY OF STRUCTURE. CHECK VALVE A.S.S.E. 1013.
 - LANDSCAPE IRRIGATION SYSTEMS, REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY A.S.S.E. 1013. LOCATED IMMEDIATELY UPON ENTRY OF STRUCTURE.
 - FIREF PROTECTION SYSTEMS, DOUBLE CHECK DETECTOR CHECK ASSEMBLY A.S.S.E. 1048 OR REDUCED PRESSURE PRINCIPLE DETECTOR CHECK A.S.S.E. 1047 IF SYSTEM CONTAINS ACTIVITIES A.S.S.E. 1048 LOCATED IN VAULT AND A.S.S.E. 1047 LOCATED IN BUILDING.
 - NON-RESIDENTIAL SERVICES, REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY A.S.S.E. 1013, LOCATED IMMEDIATELY UPON ENTRY OF STRUCTURE.
- BACKFLOW PREVENTION DEVICE THAT COMPLIES WITH A.S.S.E. 1013 IS TO BE INSTALLED AHEAD OF ANY SPRINKLER BUT NOT IN THE METER PIT.
- NEW BACKFLOW PREVENTION DEVICES BEING INSTALLED ON EXISTING SERVICES SHALL BE INSTALLED EITHER IMMEDIATELY UPON ENTRY TO THE BUILDING, BEFORE ANY CONNECTIONS, OR IN A PIT OR ABOVE GROUND HEATED ENCLOSURE (IN ACCORDANCE WITH DEVICE INSTALLATION REQUIREMENTS) A MINIMUM OF 4 FEET AWAY FROM THE EXISTING METER PIT OR VALVE.
- SWAB PIPE WITH 50 PPM CHLORINE SOLUTION BEFORE INSTALLATION.
- DEDUCT METERS SHALL NOT BE ALLOWED.
- NO IRRIGATION CONNECTIONS SHALL BE ALLOWED IN THE METER PIT.
- ALL MATERIALS USED SHALL BE DOMESTIC, MADE IN THE UNITED STATES OF AMERICA.

APPROVED/REVISED: MAY, 2023
WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER
STANDARD NUMBER: WG-1B

PROCEDURE FOR CONNECTION TO EXISTING WATER SYSTEM

- MUST NOTIFY WARREN COUNTY WATER DEPARTMENT THREE (3) DAYS IN ADVANCE OF ANY SHUT DOWN. WARREN COUNTY WILL ISSUE THE SHUT DOWN NOTIFICATION AND/OR BOLL ADVISORY TO AFFECTED CUSTOMERS PER OHIO EPA REQUIREMENTS IF DETERMINED NECESSARY BY WARREN COUNTY.
- EXPOSE EXISTING MAIN AT PROPOSED CONNECTION POINT. NO WET TAP SHALL BE MADE WITHIN THREE (3) FEET OF A BELL OR PIPE CONNECTION.
- COUNTY PERSONNEL TO OPERATE CLOSING OF APPROPRIATE VALVES TO ISOLATE LINE TO BE TAPPED.
- INSTALL PROPER TAPPING SLEEVE AND TAPPING VALVE. THE TAPPING SLEEVE AND VALVE SHALL BE LEFT OPEN AND AS NECESSARY TO ACCOMMODATE THE TEE AND COUPLED VALVES AT EACH END OF TEE. CARE IS TO BE TAKEN SO AS NOT TO GET DIRT IN EXISTING MAIN.
- IF THE TAPPING SLEEVE AND VALVE WILL BE UNDER FUTURE PAVEMENT, THE BURIED VALVE MUST BE LEFT OPEN AND A NEW VALVE SET OUT OF PAVEMENT.
- FIELD CUT EXISTING MAIN TO ACCOMMODATE THE TEE AND COUPLED VALVES AT EACH END OF TEE. CARE IS TO BE TAKEN SO AS NOT TO GET DIRT IN EXISTING MAIN.
- THOROUGHLY CLEAN AND DISINFECT PIPE AND APPURTENANCES TO BE INSTALLED.
- INSTALL TEE AND VALVES. DRESSER COUPLINGS CAN BE USED IF NECESSARY. PROPOSED MAIN VALVE IS TO BE CAPPED AND SHUT OFF. EXISTING MAIN IS THEN TO BE RETURNED TO SERVICE BY COUNTY PERSONNEL.
- CONSTRUCTION OF PROPOSED MAIN IS TO BE COMPLETED WITHIN A JOINT OF CONNECTION TO TEE AND VALVES INSTALLED ABOVE.
- ENTIRE LINE IS TO BE PRESSURE TESTED AND DISINFECTED TO COUNTY STANDARDS.
- ENTIRE LENGTH OF PIPE IS TO BE THOROUGHLY CLEANED AND DISINFECTED PRIOR TO INSTALLATION. PERMATEX COLOR CHANGING TABLETS TO BE USED FOR DISINFECTION. DOSAGE SHALL BE PER MANUFACTURERS SPECIFICATIONS BASED ON PIPE MATERIAL.
- NEW MAIN IS TO BE PUT INTO SERVICE BY COUNTY PERSONNEL.
- TAPPING SLEEVES/SADDLES TO BE TWO-PIECE CAST IRON OR DUCTILE IRON (MUELLER H815), JCM12 OR FORD FTS3 TAPPING SLEEVES PERMITTED ON C-900. SIZE ON SIZE TAPPING SLEEVES ARE NOT PERMITTED.

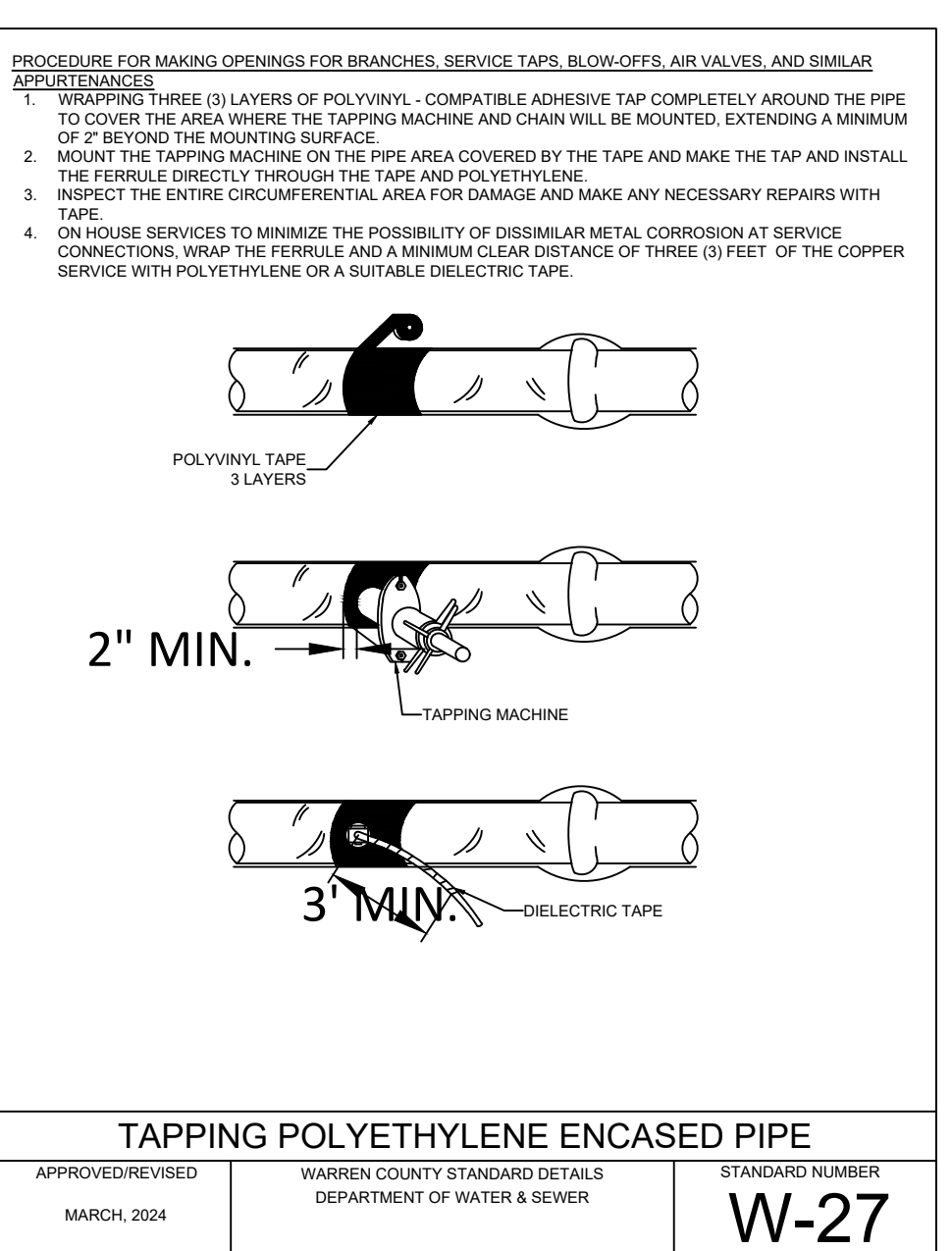
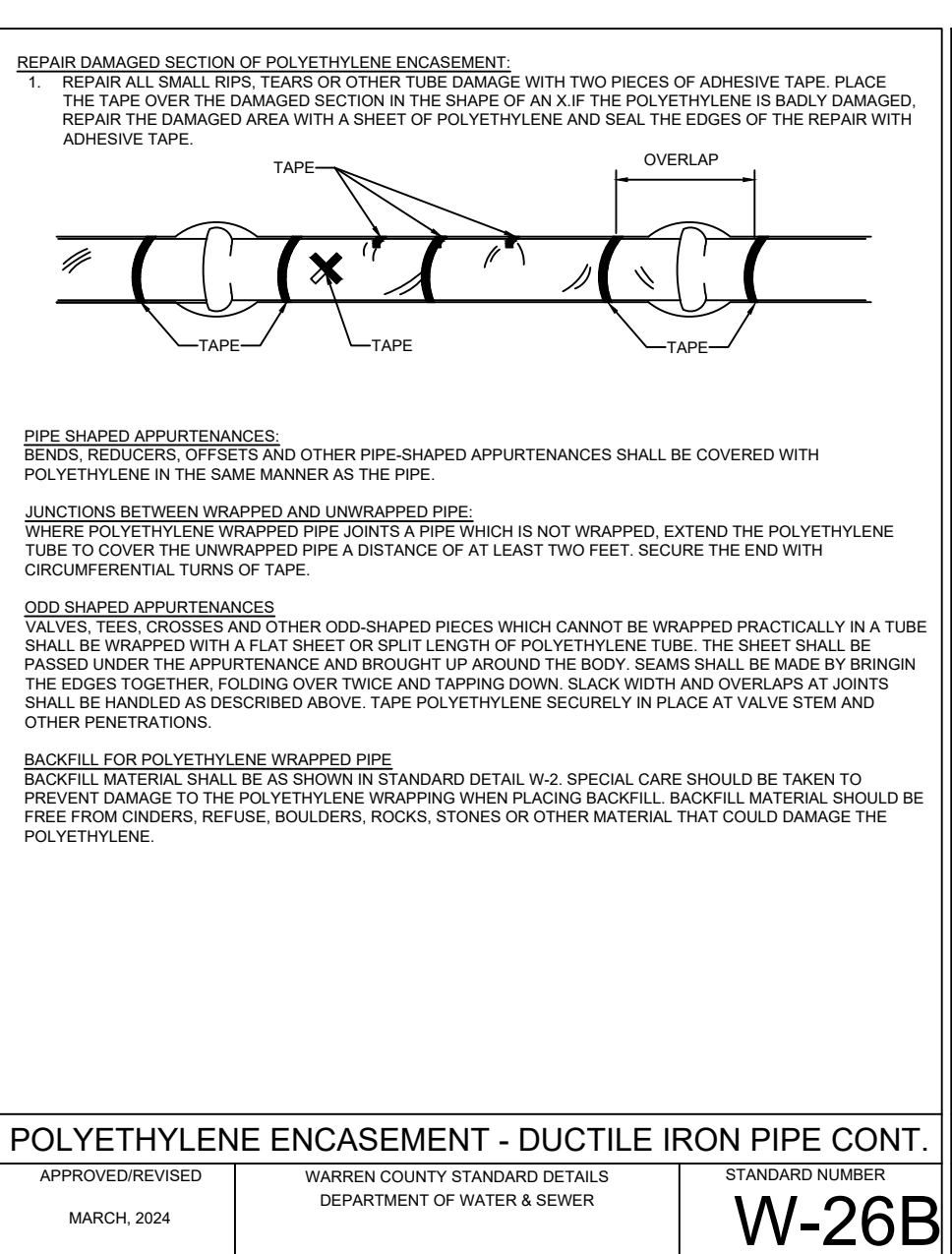
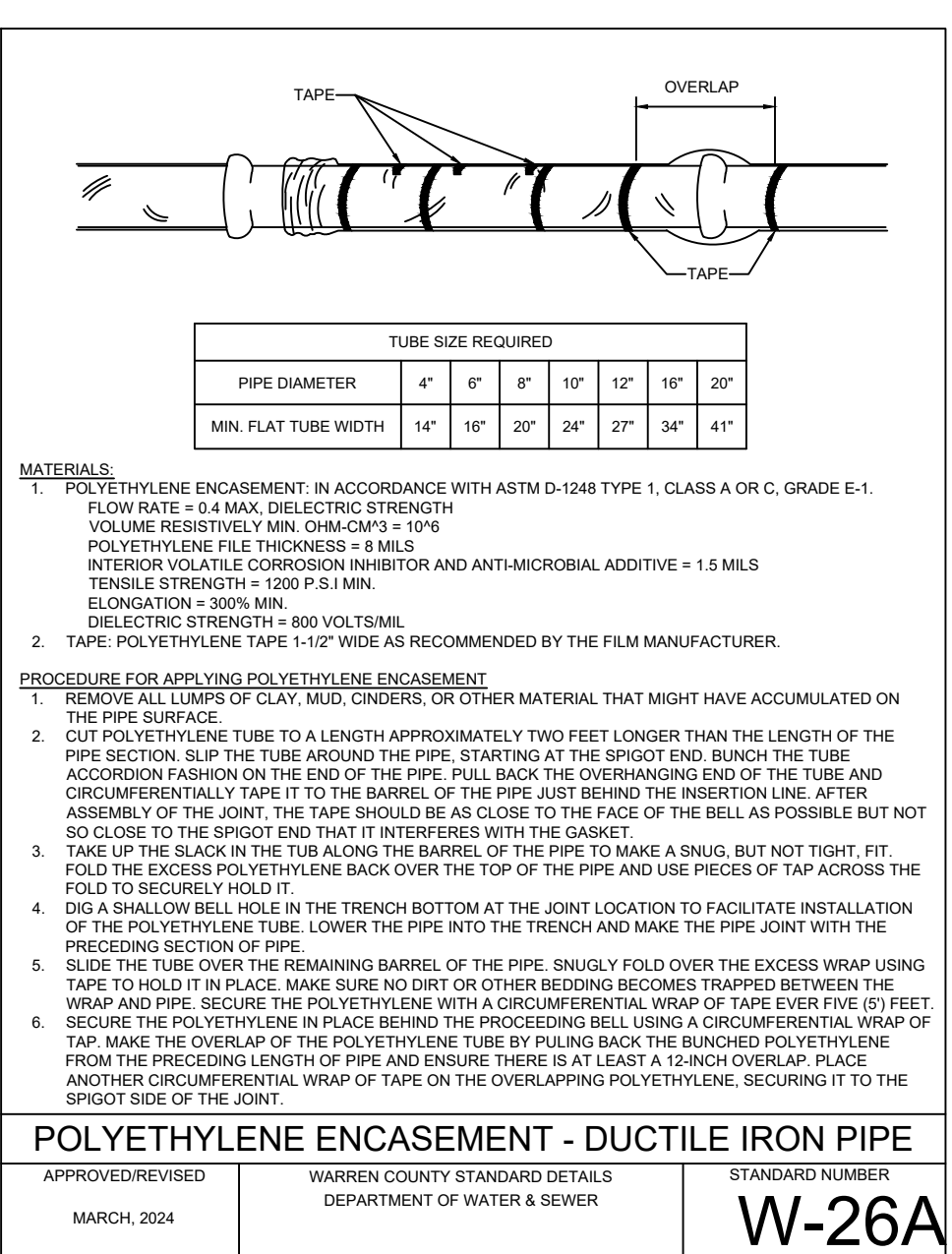
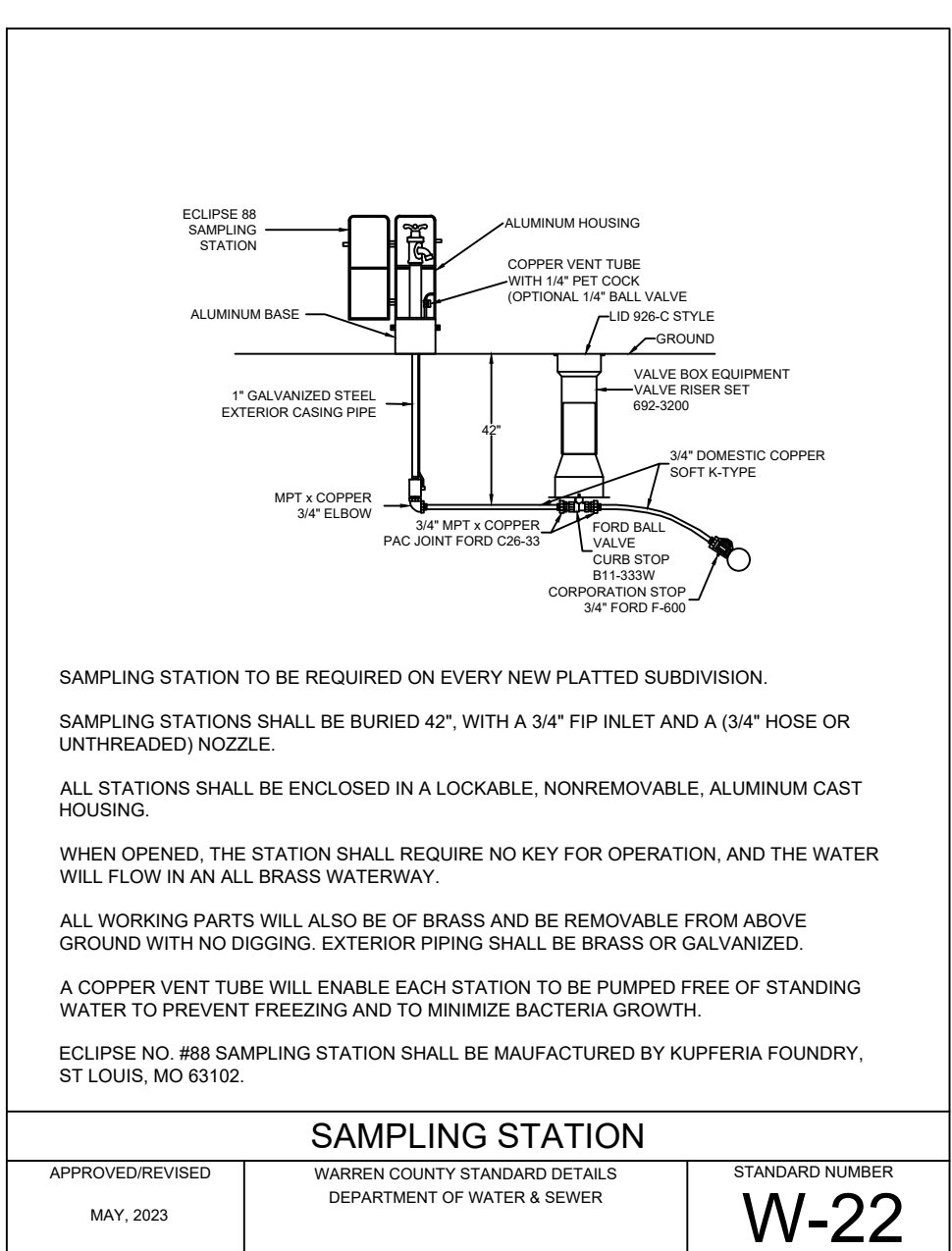
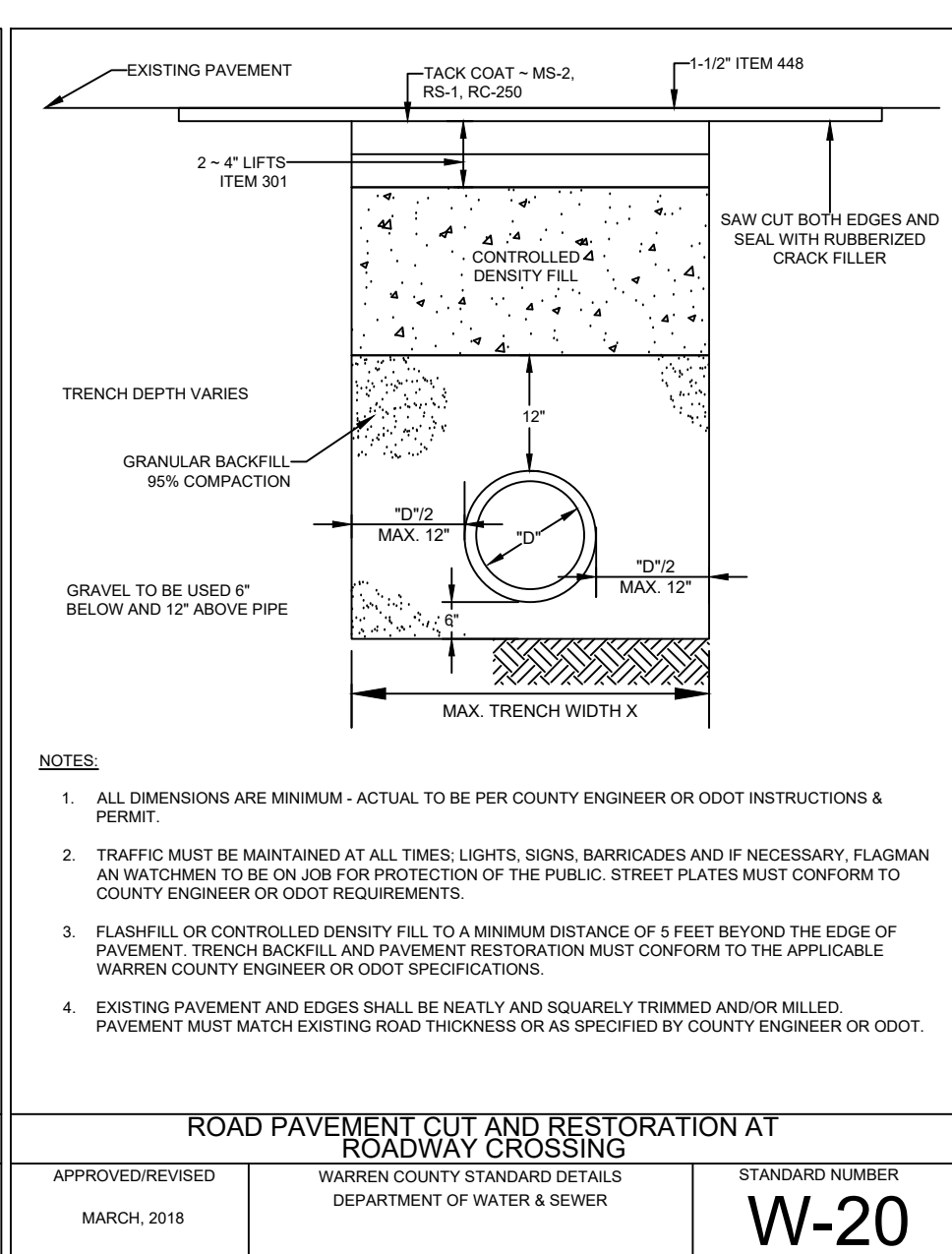
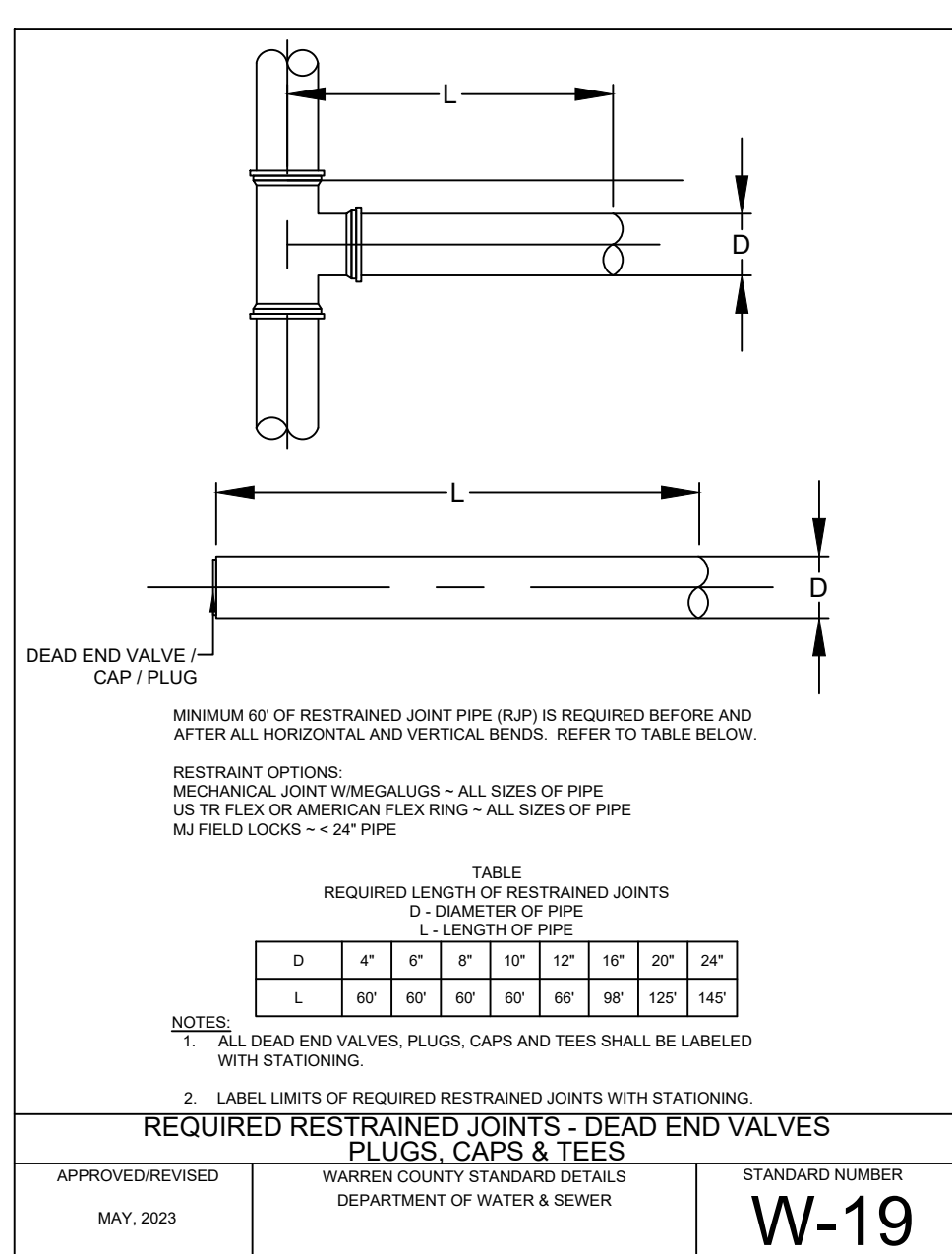
APPROVED/REVISED: MARCH, 2018
WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER
STANDARD NUMBER: WG-2



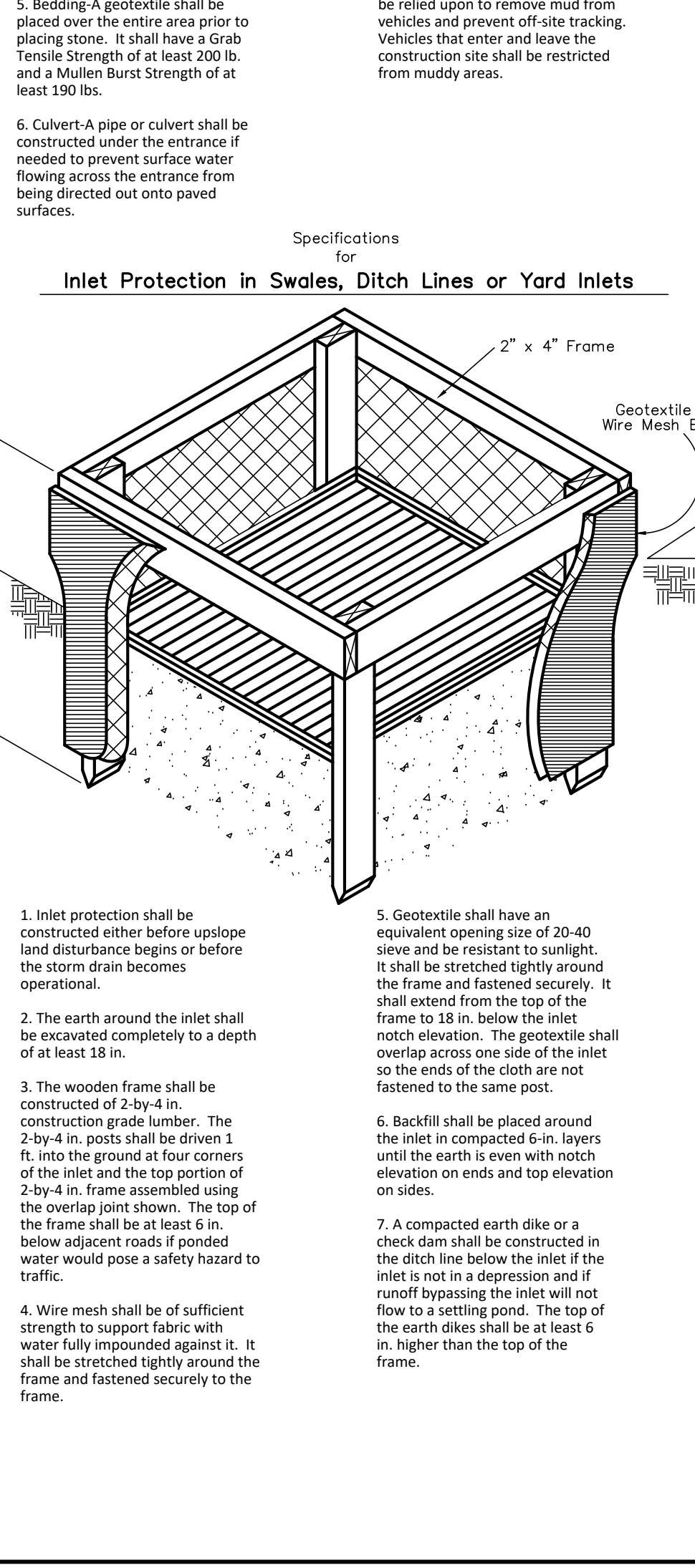
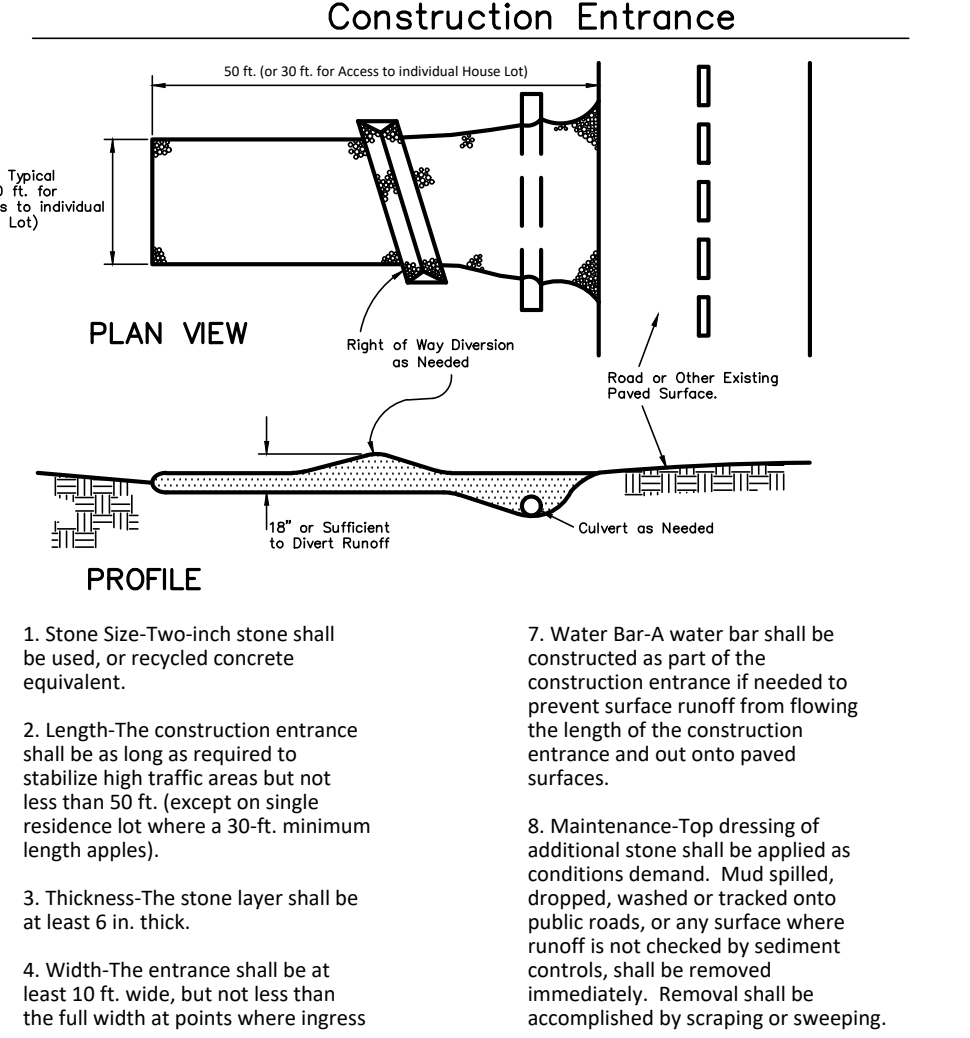
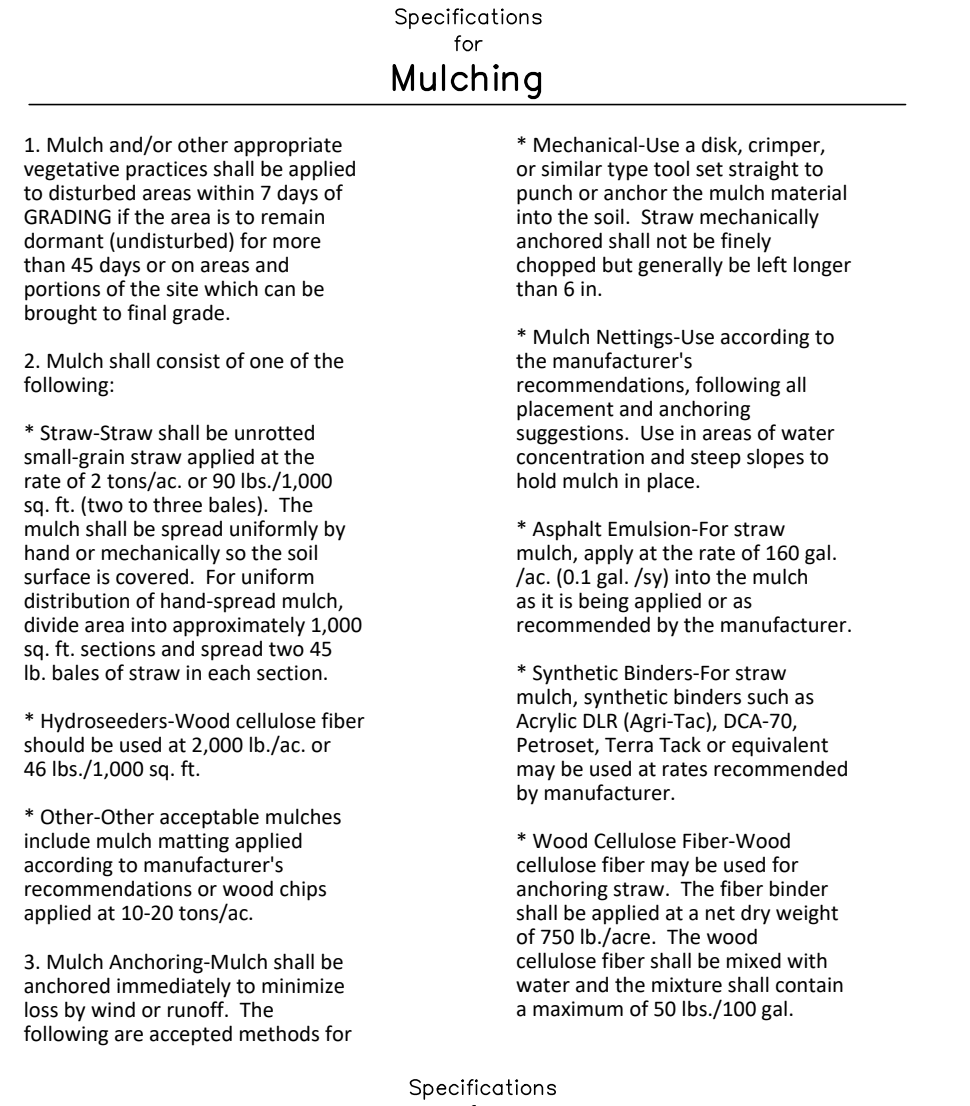
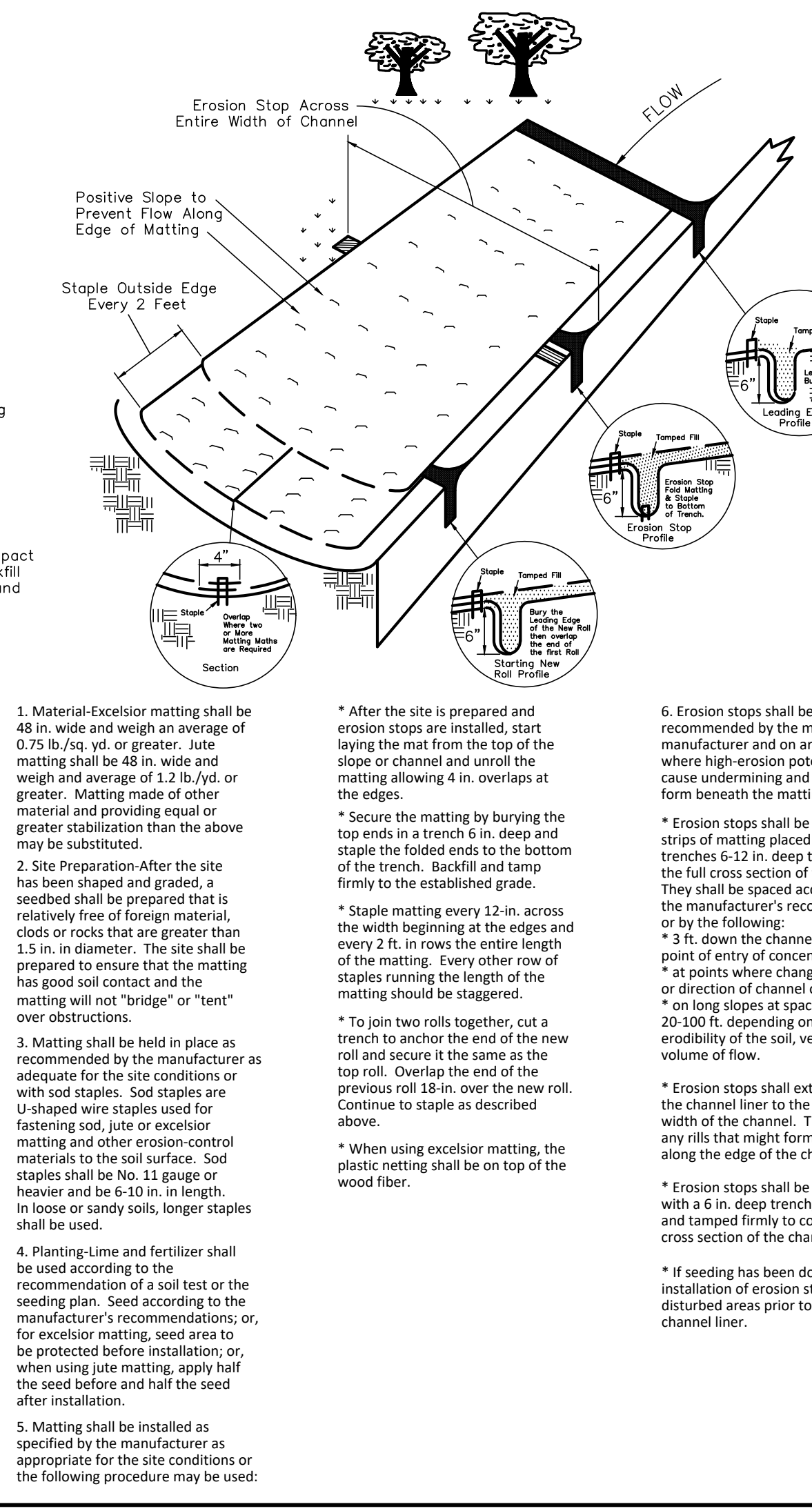
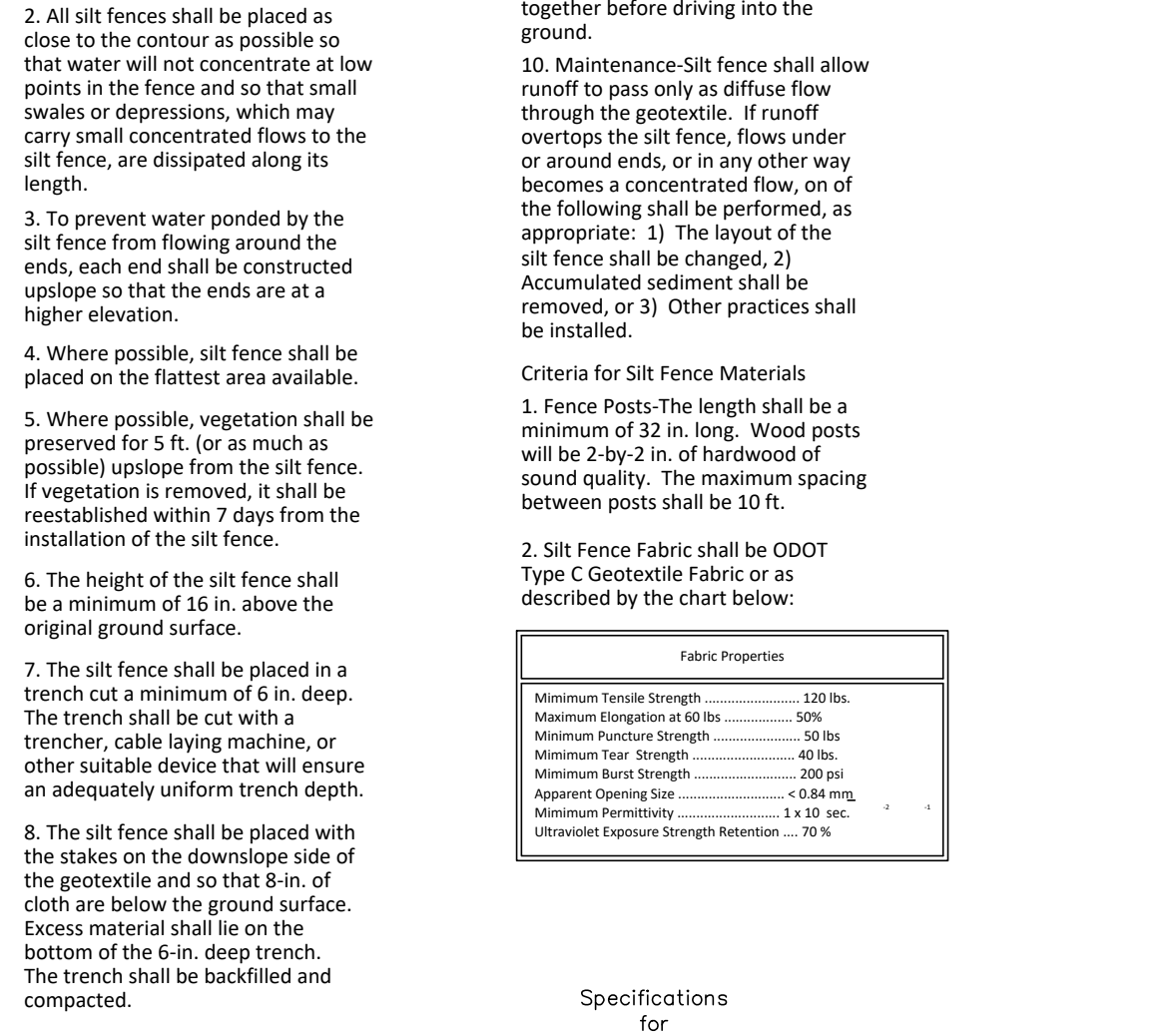
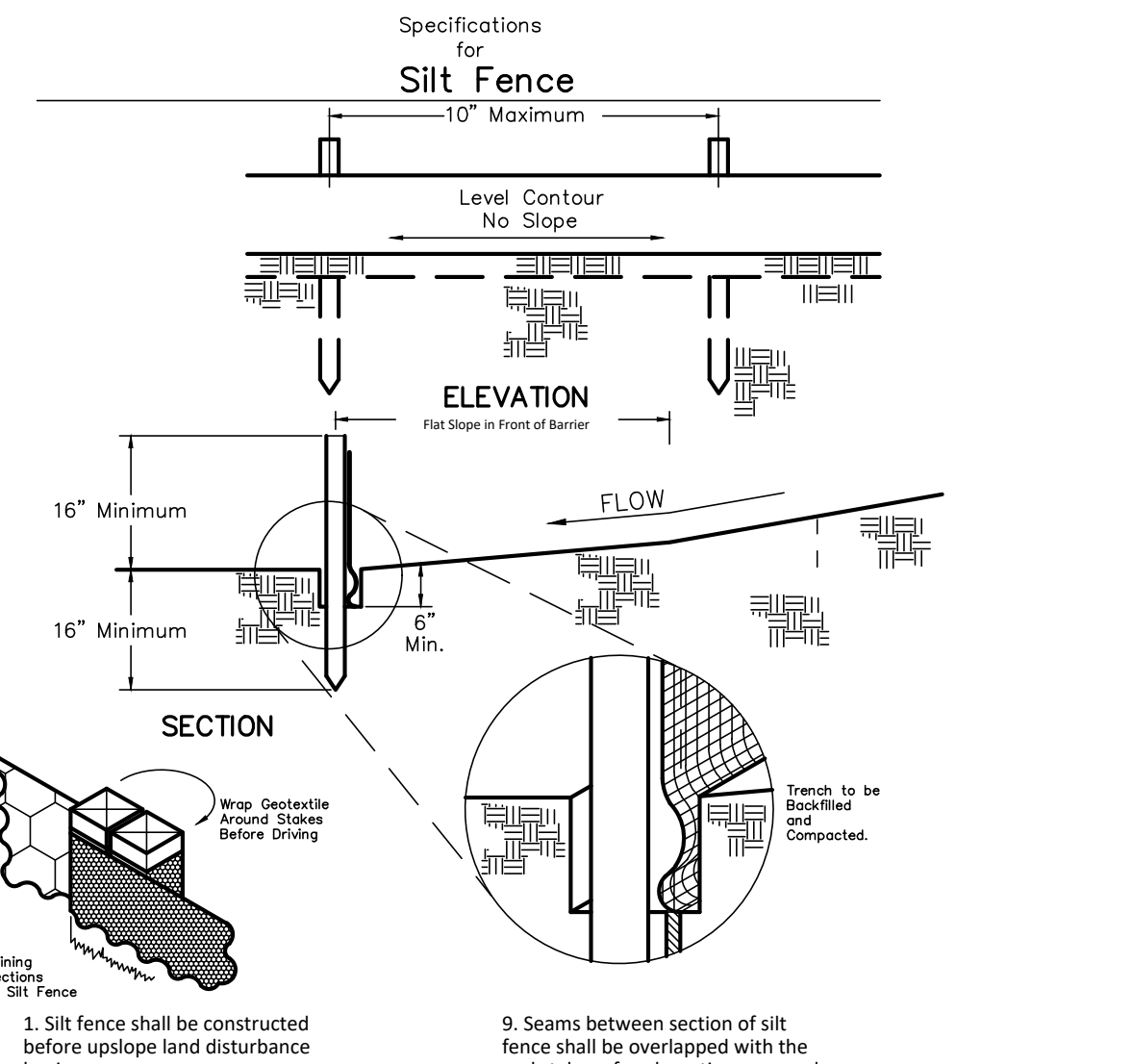
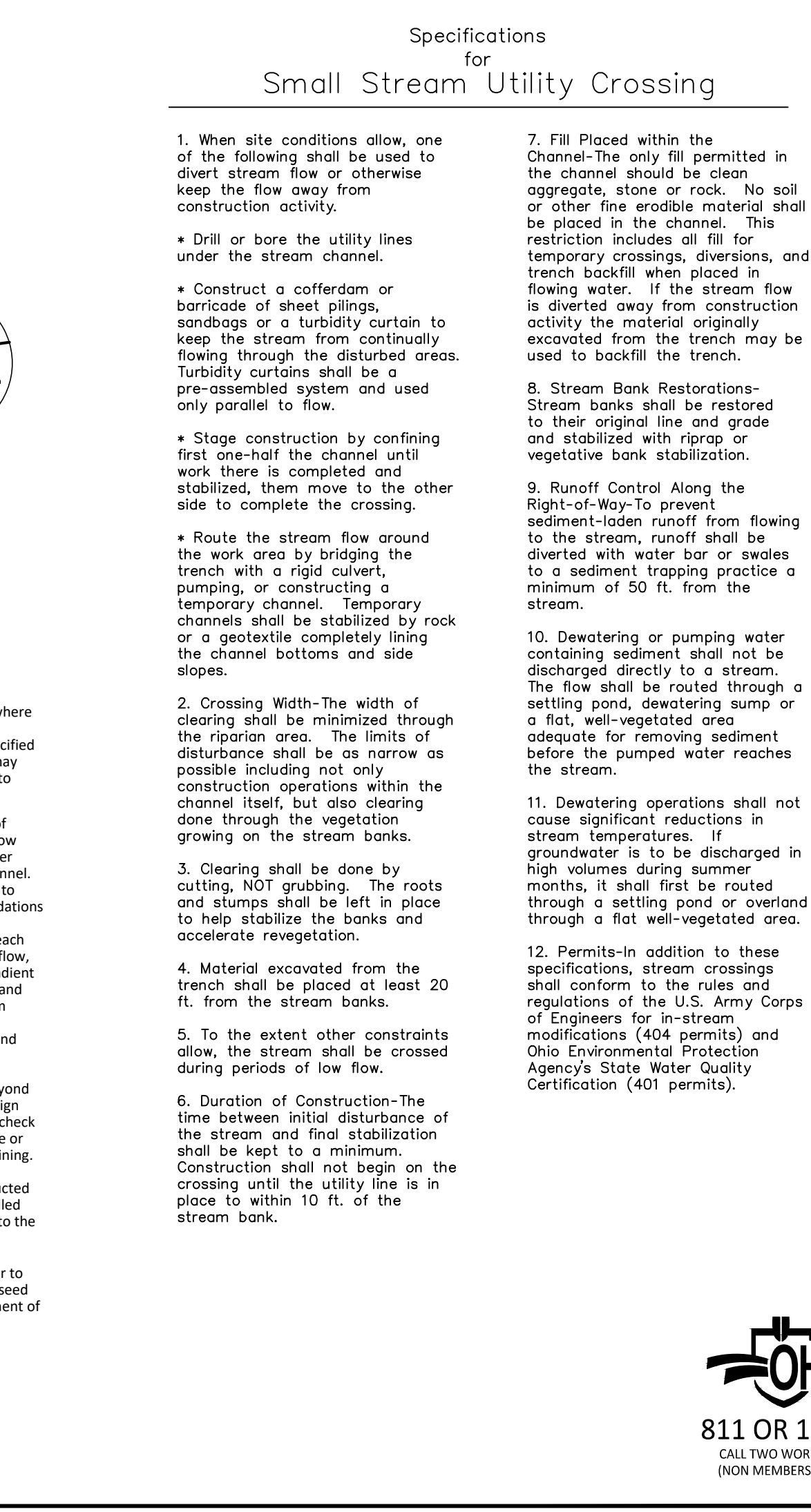
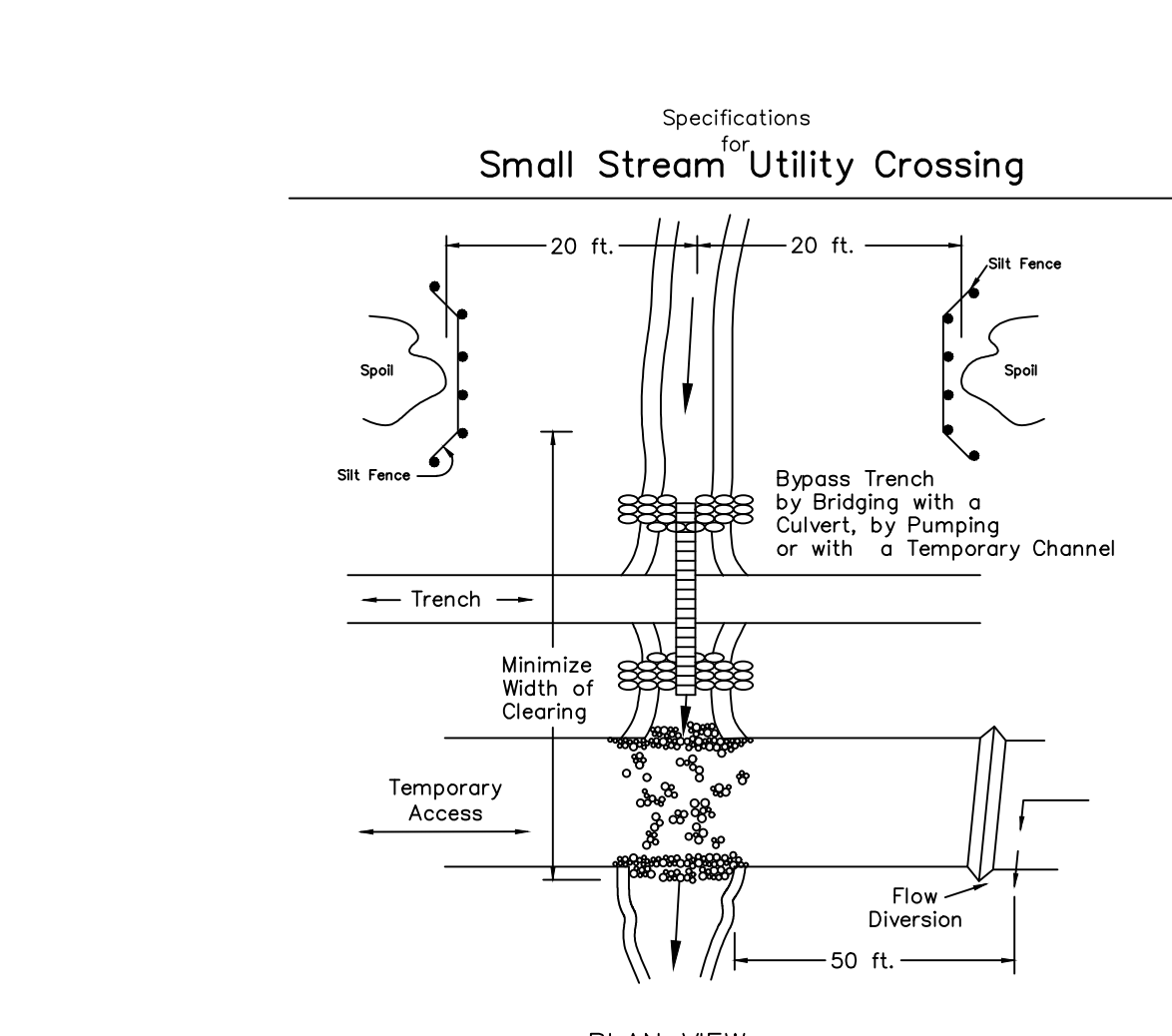
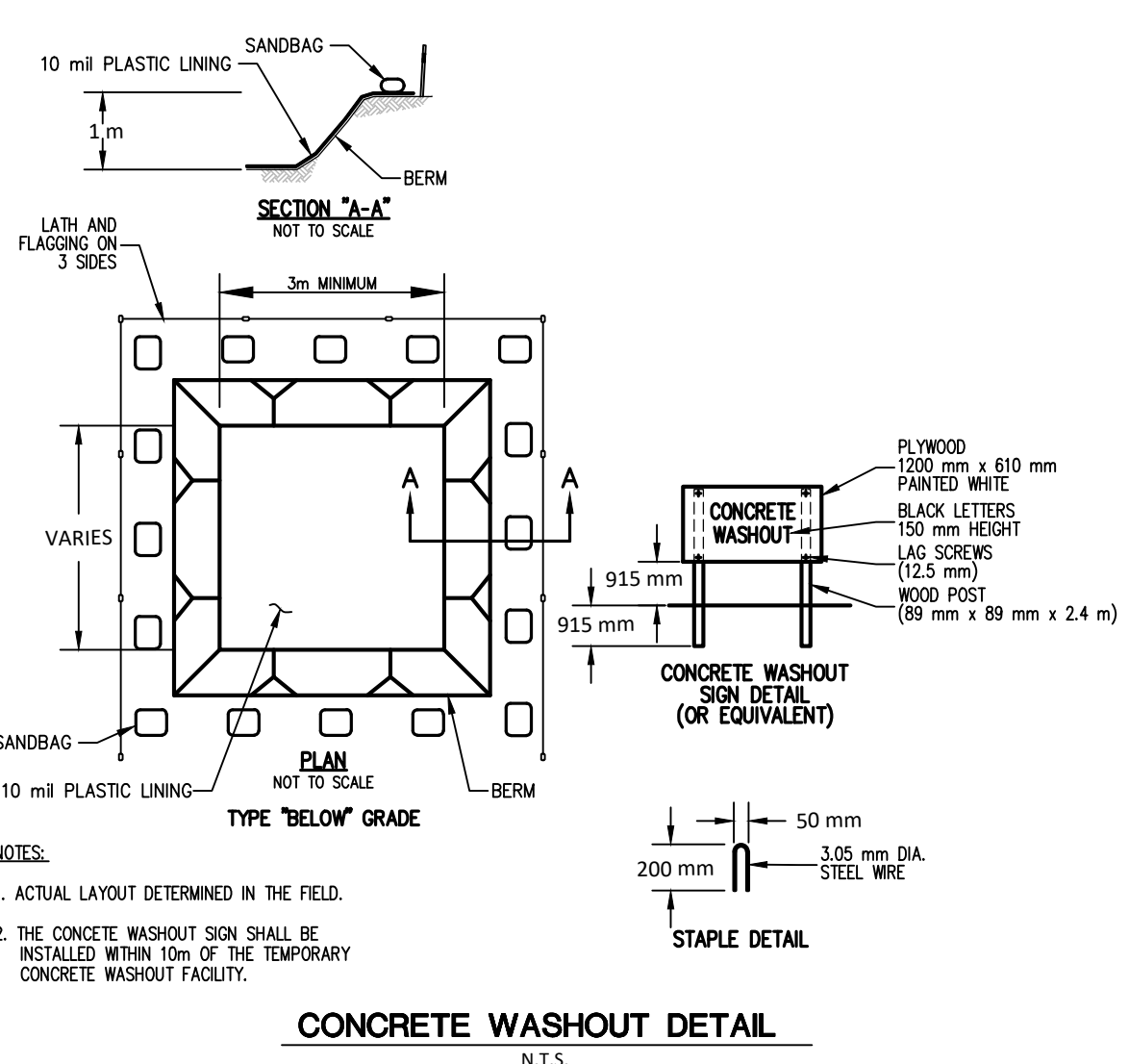
REQUIRED RESTRAINED JOINTS FOR BENDS

APPROVED/REVISED: MAY, 2023
WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER
STANDARD NUMBER: W-18

D	4"	6"	8"	10"	12"	16"	20"	24"
L	60"	60"	60"	60"	60"	90"	120"	140"



THE ARBORS AT GRANDIN POND
PHASES 1 & 2
MILITARY SURVEY NO. 1547 & 1548
CITY OF SOUTH LEBANON
HAMILTON TOWNSHIP
WARREN COUNTY, OHIO

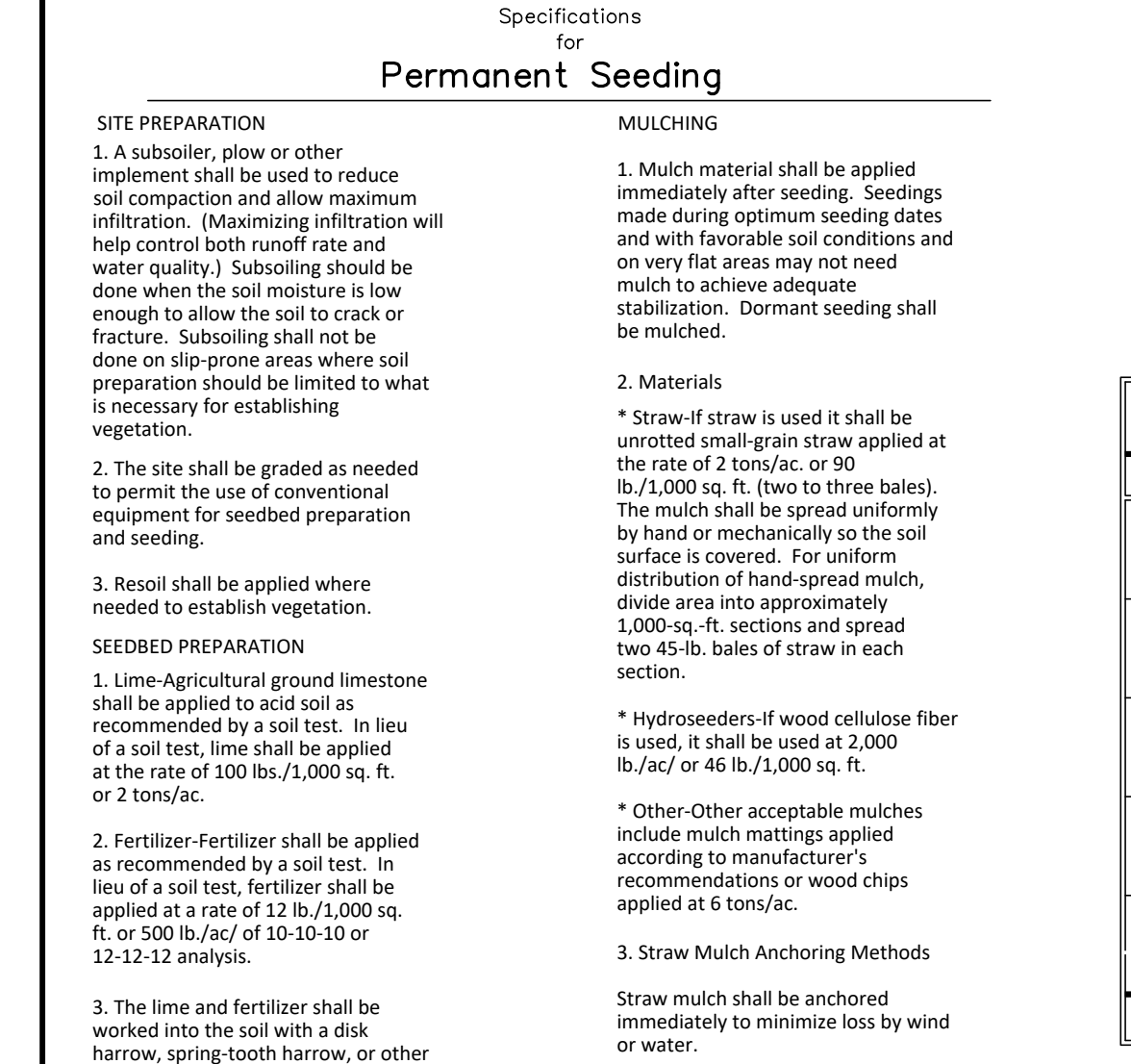
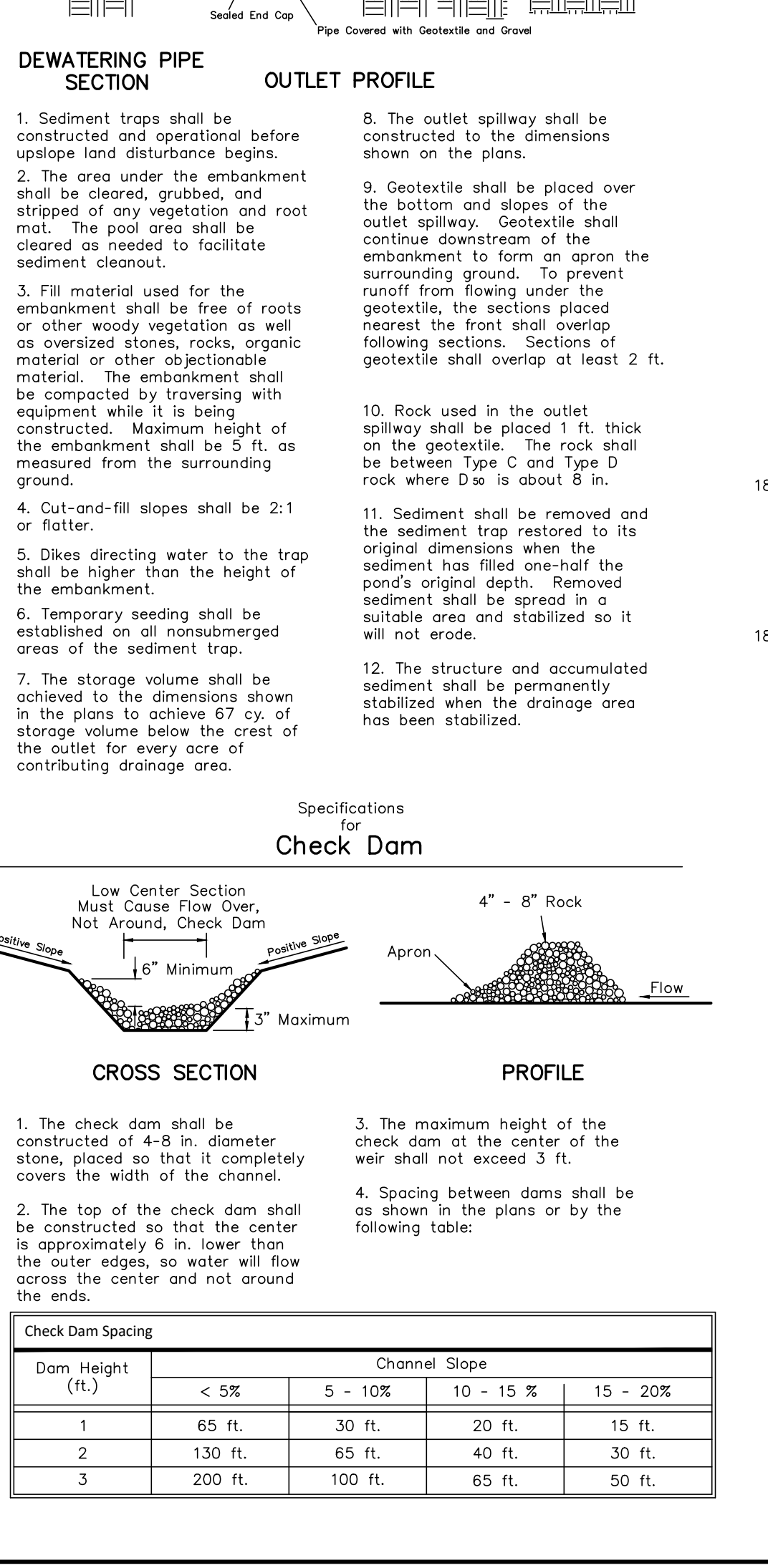
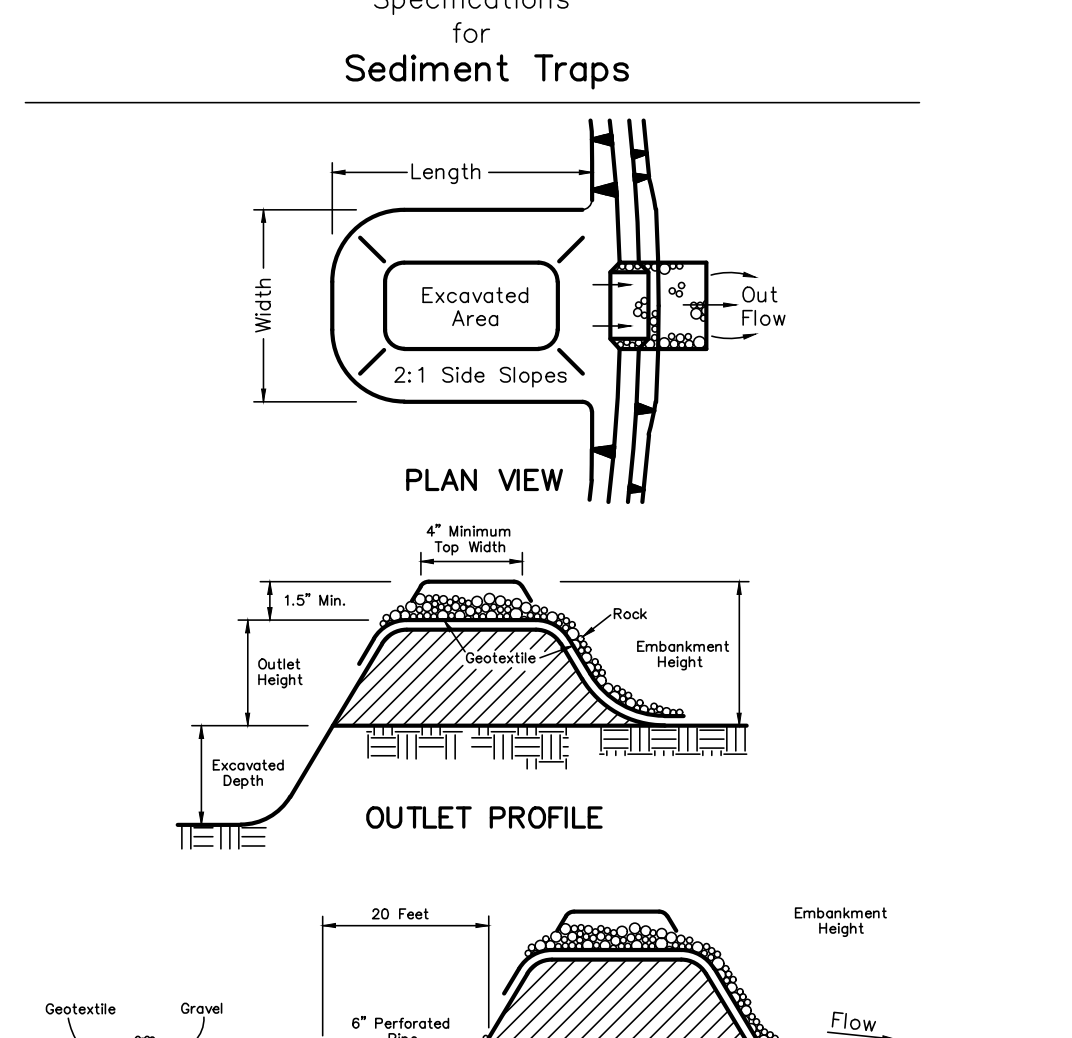


Specifications for Permanent Seeding

- Permanent seeding shall not be considered established for at least 1 year from the time of planting. Seeded areas shall be inspected for failure and reestablished as needed. Depending on site conditions, it may be necessary to irrigate, fertilize, overseed, or reestablish plantings in order to provide permanent vegetation for adequate erosion control.
- Maintenance fertilization rates shall be established by soil test recommendations or by using the rates shown in the following table:

Mixture	Formula	lb./ac.	lb./1,000 ft. ²	Time	Mowing
Creeping Red Fescue Ryegrass Kentucky Bluegrass	10-10-10	500	12		Not closer than 3"
Tall Fescue	10-10-10	500	12	Fall, yearly or as needed.	Not closer than 4"
Dwarf Fescue	10-10-10	500	12		Not closer than 2"
Crown Vetch Fescue	0-20-20	400	10	Spring, yearly following establishment and every 4-7 yr. thereafter.	Do not mow
Flat Pea Fescue	0-20-20	400	10		Do not mow

Note: Following soil test recommendations is preferred to fertilizer rates shown above.



Permanent Seeding

Seed Mix	Seeding Rate		Notes:
	lb./ac.	lb./1,000 ft. ²	
General Use			
Creeping Red Fescue	20-40	1/2-1	Do not seed later than August
Domestic Ryegrass	10-20	1/4-1/2	
Kentucky Bluegrass	10-20	1/4-1/2	
Tall Fescue	40	1	Do not seed later than August
Dwarf Fescue	40	1	
Steep Banks or Cut Slopes			
Tall Fescue	40	1	Do not seed later than August
Crown Vetch	10	1/4	
Tall Fescue	20	1/2	Do not seed later than August
Flat Pea	20	1/2	
Tall Fescue	20	1/2	Do not seed later than August
Flat Pea	20	1/2	
Road Ditches and Swales			
Tall Fescue	40	1	Do not seed later than August
Dwarf Fescue	90	2 1/4	
Kentucky Bluegrass	5	1/2	For shaded areas
Kentucky Bluegrass	60	1 1/2	
Kentucky Bluegrass	60	1 1/2	For shaded areas
Creeping Red Fescue	60	1 1/2	

Note: Other approved seed species may be substituted.