City of PIQUA

PLANNING COMMISSION AGENDA
CITY OF PIQUA, OHIO
6:00 PM – TUESDAY, JUNE 30, 2026
MUNICIPAL GOVERNMENT COMPLEX
COMMISSION CHAMBERS – 201 W. WATER STREET

CALL TO ORDER

Chair Comments – Opening Remarks

ROLL CALL – Clerk Calls the Roll

Meeting Minutes – May 12, 2026

OLD BUSINESS

1. RESOLUTION PC 03-26 – Plat with Dedication – Whitetail Bend Section 1 & 2
   A resolution to approve a Plat with dedication for Whitetail Bend, Section 1 & 2 (Previously recommended without enough votes, returned from City Commission)

NEW BUSINESS

1. RESOLUTION PC 09-26 – Final Development Plan – Shaw Farm Subdivision Section 1
   A resolution to approve a Final Development Plan for Shaw Farm, Section 1

OTHER BUSINESS

ADJOURNMENT

City of PIQUA

PLANNING COMMISSION MINUTES
CITY OF PIQUA, OHIO
6:00 P.M. – TUESDAY, MAY 12, 2026
COMMISSION CHAMBERS – 201 W. WATER STREET

CALL TO ORDER

Vice Chairman Mr. Eddie Harvey called the meeting to order at 6:00PM. Mr. Harvey outlined the order of business and procedures that will be followed by the Planning Commission.

ROLL CALL

Members Present: Terry Wright, Micah Underwood, Eddie Harvey

Absent: Brad Bubp, Adam Seas

Mr. Wright made a motion and Mr. Underwood seconded to approve the April 14, 2026 meeting minutes. All in favor, motion passed 3-0.

A motion was made by Mr. Wright and seconded by Mr. Underwood to excuse Mr. Bubp and Mr. Seas. All in favor, motion passed 3-0.

OLD BUSINESS

Resolution PC 03-26 – Plat with Dedication – Whitetail Bend Section 1 & 2

Mr. Wright made a motion to take PC 03-26 off the table, seconded by Mr. Underwood. All in favor, motion passed 3-0.

Mr. Kyle Hinkelman, City of Piqua Community Services Director, went through the process and reviewed the case as no material changes were made to the application from the previous meeting. He detailed how the final development plan approval fits within the overall process.

Mr. Hinkelman then went through the request again, including detailing how the applicant was meeting the preliminary development plan approval that was previously approved in November 2024. He detailed the roadways and lot layouts. Mr. Hinkelman discussed the stormwater system that would serve the site in detail, as that was one of the main points of discussion at the previous meeting. This discussion included showing the stormwater pathway from the development site to Echo Lake, and the plat from 1988, which reflects the inlet and outlet easements to Eagles Lake.

Mr. Hinkelman noted that there were 25 questions related to the development that were provided to staff to get responses to, and he explained that each question was responded to in the packet by DR Horton or by the city's engineer.

Mr. Hinkelman noted that the staff still recommends approval of the request, based on the standards for approval of a final development plan that substantially conform to the previously approved preliminary development plan.

Rob Smith, DR Horton, spoke as the applicant, and noted that ChoiceOne engineering would address any specific questions about stormwater.

Mr. Underwood noted that he felt that answers to the questions provided were adequate. He noted his concerns about groundwater and asked the applicant to confirm when the soil borings were taken.

Mr. Nick Selhorst, ChoiceOne Engineering, confirmed that the soil borings were completed in the Spring of 2024, which included the entire site.

Additional discussion occurred about the questions and answers provided.

Public comments included substantial discussion on many topics.

Jeff Lange, 9586 St. Rt. 66, asked about stormwater that was dumped onto Mr. French's property in the past. He asked about if raingardens could be used in the design.

Loyal Davis, 2104 Eagles Lake Drive, would like to see families stay in Piqua, and not go to other towns.

Andy Burner, 1910 Eagles Lake Drive, noted how important a comprehensive plan is for the city. He continued that housing and specifically executive housing is important for the city. Feels that this is the last space that was R-10 zoning and would be a great location for larger homes. Feels no development should occur until the 2027 Comprehensive Plan is completed.

TJ Manson, 6 Eagles Way, felt that DR Horton should have been reaching out to the HOA to discuss this plan. He noted that the HOA held a vote and stated that they did not want to have it in the Eagles Lake pond. Noted multiple concerns about potential pond concerns. He continued that he also wanted to make sure that Mr. Underwood got the answers he needed, which he agreed that it seemed he did.

Mr. Wright asked Mr. Manson if a stormwater management facilities maintenance agreement covenant that could be developed, if that would alleviate their concerns. Mr. Manson noted that they don't want to have any additional water in their pond.

Roberta Webb, 605 Lambert Drive, had concerns about DR Horton, and wanted to make it clear that the Deerfield HOA voted to not allow access to their ponds. She noted additional issues that she felt existed with DR Horton.

Yvonne Wion, 1016 Westview Drive, had concerns about the buffer between the developments. She noted she felt that the city needs more executive and empty nester housing. She noted concerns about rentals, entry-level housing and property values.

Jean Heath, 2204 Eagles Lake Drive, wants to see a house that looks like hers next to hers. She supports the Nicklin development and other development in the community. She wants the Planning Commission to rezone the property to have RE-10 and RE-20 lots and has concerns about property values.

Wayne Davey, 5 Peregrine Place, he said that if the lots were bigger, it would be more likely to see support from the community. Had questions about elevations and grades to the west of the development site.

Mike Yannucci, 14 Eagles Way, discussed his opinions on how the original approval occurred. He noted examples of growth that he felt were great, but had concerns about some of the stormwater and density.

Public Comment was closed by the Planning Commission. The commission asked the applicant to respond to questions

Mr. Selhorst from ChoiceOne noted that the applicant would be willing to put a maintenance agreement on the property as a condition of approval. He explained how stormwater currently works in the area and detailed the calculations and impacts of existing and future conditions. He also noted that the zoning is in place and isn't under consideration.

Mr. Wright asked how many times DR Horton met with the community.

Mr. Smith from DR Horton explained that they met with the community during the first process. He noted he has given his card to all in the community and has offered to meet with anyone who asks. He said he has offered to meet them on site or to walk one of the other communities that they have in the area. He also noted that they believe that the homes are marketable, and does not believe they are entry-level homes, due to people being able to afford different price points.

Mr. Harvey asked if the water can go south instead of going to Eagles Lake Drive.

Tyler Tobe, ChoiceOne, explained that the water currently goes to Eagles Lake Drive, which is why the engineering goes to the same location the water is currently going to.

Mr. Underwood asked about raingardens.

Mr. Selhorst explained how raingardens work and noted that the site is over-engineered to meet the requirements without raingardens.

Mr. Underwood continued to discuss stormwater with Mr. Selhorst and noted to the public comments related to the process and previous approvals. He also noted that he looked into property values and that he didn't see that it would reduce the values of Eagles Nest, as it is separate from the Eagles Nest and the "vibe" is very different when an appraiser looks into it. He also discussed groundwater and his concerns about whether or not the calculations were completed for the amount of density provided.

Mr. Selhorst responded that the groundwater table concern would be made better with this development, as the stormwater would be managed by pipes which would take the water into the pond now instead of having the water percolate into the ground. Surface water runoff would be increased, but that is taken care of by the pond.

Mr. Underwood asked what the process for approval would be, and Mr. Hinkelman provided the process.

Mr. Yannucci, spoke for a second time about his concerns about having more water channeled into the pond. He noted that he was concerned about people the owned the land under the water, including

himself. He also said that he feels that the Commission has the right to change the zoning of the property.

Nancy Tobe, Access Engineering, who serves as a third-party plan reviewer for the City of Piqua, explained how the stormwater plans are reviewed and how that review is completed based on the requirements of the City and the State.

Mr. Underwood asked about mounding between the Westview homes and the new development.

Mr. Selhorst noted that the preliminary plan has a commitment to mound around the cul-de-sac, but not in the area noted. He said that the applicant would be willing to put in a mound if that is what the commission requests as a condition of approval.

Mr. Smith noted that they would be happy to do that, but they were keeping the existing vegetation, which is why they weren't showing a mound originally. He said they would remove the existing vegetation and put in a mound if that is what is requested.

Ms. Wion spoke for a second time and said that she asked at the preliminary plan approval about a buffer and said she was told that they would provide some kind of buffer.

Mr. Lange spoke for a second time and talked about his concerns related to drainage into Franz Pond.

Mr. Underwood stated that he hears the public comments, but wanted to detail what the planning commission's role is in the process at this point in time.

Mr. Underwood made a motion to approve with conditions, which included 1) A four to five foot buffer with shrubbery between the development and Westview Drive; 2) A reconsideration of the density; 3) A downstream study to evaluate the silt impacts on Echo Lake; 4) To do an evaluation of the right of DR Horton to utilize the Eagles Lake pond for stormwater. The motion was seconded by Mr. Harvey. Mr. Wright voted no. Mr. Underwood and Mr. Harvey voted aye.

Mr. Hinkelman noted that the case would be heard the following Tuesday, May 19th for consideration by the City Commission.

Resolution PC 07-26 – Zoning Map Amendment – N44-100684

Mr. Wright made a motion to take PC 07-26 off the table, seconded by Mr. Underwood. All in favor, motion passed 3-0.

Mr. Hinkelman gave the staff report on the case. He provided a recap of the previous meeting and discussed the request to change the zoning of the parcel from the existing "AG" Agriculture district to "S-RM" Residential Multi-Unit to allow the construction of a future townhome / apartment development.

Mr. Hinkelman noted that the case was tabled previously due to concerns about stormwater. He discussed the stormwater pathway from the development site to Franz Pond and reiterated the process that was before the Planning Commission for consideration. He noted that fully engineered plans will be required once the developer decides to build something specific, but this process was only to discuss the proposed use and zoning district.

Mr. Hinkelman went through the standards for approval and discussed how each section was reviewed by Staff for consideration. He noted that based on the standards Staff is recommending approval of PC 07-26.

Mr. Paresh Sha, XXX Fiesta Lane, explained what he was hoping to develop on the property, which included 36 units.

Mr. Harvey asked if both ponds shown on the example plan were required.

Mr. Hinkelman explained that the example plan isn't being requested for approval, and until the plan is fully engineered staff won't be able to determine if any of the codes have been met. When that part of the process occurs staff will review the plans and requirements and confirm that they meet expectations.

Mr. Harvey opened up the meeting for public comments.

Jonathan Wessel, 1820 Eagles Lake Drive, noted his support for housing in the city and the county. He continued to ask about work on the stormwater system on High Street and Sunset, due to water main breaks.

Mr. Hinkelman responded that water lines and stormwater lines are separate, but that the city is looking to make some substantial investments in the underground utilities in that area in the coming two years.

Mr. Underwood noted the previous discussion on the "French gully" and his concerns about potential future stormwater impacts.

Ms. Tobe from Access Engineering, explained that the City is required to manage water quality and quantity and that once the site is reviewed it will meet all requirements, which will not negatively impact the pond.

Mr. Hinkelman continued to explain that the future planning of the west side of the community would occur through the updated comprehensive plan, so that when developments come forward there is data and support for how the growth in the community will occur.

Mr. Underwood again stated his concern about future planning and growth and how the stormwater impacts are managed by the city.

Mr. Underwood made a motion to approve, and Mr. Wright seconded. All ayes, motion passed 3-0.

Mr. Hinkelman noted that the case would be heard the following Tuesday, May 19th for consideration by the City Commission.

NEW BUSINESS

Resolution PC 08-26 – Special Use – 319 N. Main Street

Mr. Hinkelman gave the staff report on the case. The applicant is requesting to open a yoga studio on the second floor of the building at 319 N. Main Street. He discussed the process for approval and how the planning commission is the final determination of this case. He explained the zoning, comprehensive plan status, and specific process for review of a special use. Based on the requirements, Mr. Hinkelman

noted that staff is recommendation approval of the case, but with three recommendations – 1) The use shall operate in susbstantial conformance with the application materials and site plans submitted; 2) All applicable Development Code standards, including buildng, fire, and health codes, must be met; and 3) The applicant shall obtain any required building permits prior to commencing operations.

Mr. Harvey opened up the meeting to public comments. There were none.

Mr. Harvey made a motion to approve PC 08-26 with Mr. Wright seconding the motion. All ayes, motion passed 3-0.

OTHER BUSINESS

Mr. Hinkelman updated the Commission on the process of the Comprehensive Plan and the timeline. He noted that the city was looking to select a firm in June.

Next Meeting will be Tuesday, June 9th.

ADJOURNMENT

With no other questions, comments, or business before the Planning Commission, a motion was made by Mr. Harvey to adjourn the meeting seconded by Mr. Wright to adjourn the meeting. With all those present in support of the motion, the meeting was adjourned at approximately 8:40 PM.

RESOLUTION No. PC 03-26

A RESOLUTION RECOMMENDING APPROVAL OF A FINAL PLAT FOR PARCEL N44-077518, CITY OF PIQUA, OHIO

WHEREAS, the property identified as Parcel #N44-077518, Piqua, Ohio, is zoned RE-6 under the City of Piqua Development Code (Title XV: Land Usage of the Piqua Code of Ordinances, effective May 18, 2023); and

WHEREAS, the applicant has requested approval of a Final Plat for Parcel #N44-077518 in accordance with Article 6 (Subdivisions & Streets) and §7.2.4 (Subdivision Review) of the Development Code; and

WHEREAS, the proposed Final Plat has been reviewed by City departments and complies with applicable standards for lot layout, access, utilities, easements, and development requirements; and

WHEREAS, the Piqua Planning Commission has reviewed the application, including any associated plans and supporting documents, and finds that the Final Plat meets the requirements of the Development Code, substantially conforms with the City's adopted plans and policies, and serves the public interest with no known violations or deficiencies noted; and

WHEREAS, this resolution addresses the Planning Commission's review and recommendation authority for final plats (with or without dedication) per §7.2.4 of the Development Code;

NOW THEREFORE BE IT RESOLVED, board member _____ hereby moves to recommend _____ of the Final Plat for #N44-077518, as described by this resolution, the testimony and documents provided, with the motion seconded by board member _____ and the voting record on this motion is hereby recorded as follows.

	AYE	NAY	ABSTAIN	ABSENT
Mr. Eddie Harvey	☐	☐	☐	☐
Mr. Terry Wright	☐	☐	☐	☐
Mr. Adam Seas	☐	☐	☐	☐
Mr. Micah Underwood	☐	☐	☐	☐
Mr. Wayne Davey	☐	☐	☐	☐

Adopted this ____ day of _____, 2026.

RESOLUTION No. PC 03-26

Chairman, Planning Commission	Clerk, Planning Commission
_____	_____
Eddie Harvey	Emily McCulla

STAFF REPORT

Planning Commission

Date: June 9, 2026
Re: PC 03-26 – Final Plat with Dedication

Applicant: Nicholas Selhorst, ChoiceOne
Owner: Craycon Homes Inc.

Address: Spotted Doe TL
Parcel #: N44-077518

Zoning: RE-6 – Residential Estate 6,000 SF

Request: The applicant is seeking a final plat with dedications for 22.72 acres of a previously approved Preliminary Plan and Plat that was approved under Resolution R-128-24. This was originally called Deerfield Section 4 & 5 but is now being called Whitetail Bend Section 1 & 2.

Section 1 reflects 42 buildable lots on 7.796 acres with 2.443 acres in public right-of-way and 4.361 acres of open space.

Section 2 reflects 33 buildable lots on 7.123 acres with 0.993 acres in public right-of-way.

UPDATE #2 (June 2026)
At the May 12, 2026 Planning Commission meeting the Planning Commission recommended approval to the City Commission with a 2-1 vote with four conditions:

1. A four-to-five-foot mound / landscape buffer with shrubbery along the south and southeast of the development
2. Reconsideration of the density for the purposes of stormwater management, creating more ground buffer.
3. Downstream study to evaluate the silt impacts of Echo Lake
4. An evaluation of whether or not Whitetail Bend has a right to channel water into the Eagles Nest Lake for stormwater.

Due to a provision within the City of Piqua Code of Ordinances, a recommendation from the Planning Commission to the City Commission must have 3 of the 5 members to be considered and therefore the recommendation made by the PC is not able to be forwarded to the City Commission. Due to that provision the case was forwarded to the City Commission for their consideration without a PC recommendation.

STAFF REPORT

At the May 19, 2026 City Commission Meeting, the City Commission decided not to hear the case due to there being no formal recommendation from the PC and sent the case back to the Planning Commission to provide a formal recommendation.

The case comes back to the Planning Commission with only one change, which is a plan that reflects a buffer and shrubbery along the south and southeast of the development, as requested within one of the conditions previously. Staff has reached out to all Planning Commission members, and anticipates having 5 members at the meeting on June 9th to allow for a full vote on the case.

This case, along the Planning Commission recommendation, will be forwarded to the City Commission for their final approval on July 7th.

UPDATE #1 (May 2026)
The Planning Commission tabled the case at their April 14, 2026 meeting to request that the applicant have their Stormwater Engineer available and that the City provide additional context to the stormwater review completed by our consultant. Below you will find additional information to answer questions asked during the meeting and after the meeting that will also be addressed at the Planning Commission meeting on May 12, 2026.

Additionally, staff would like to make it clear about the process for approval or denial and what should and should not be taken into consideration at this point in the process. As noted at the meeting in April, the request before the Planning Commission is the second of two steps to finalize a development under Section 7.2.4 of the City of Piqua Development Code. It is important to be clear that this request is not about whether or not a development should be approved in this location, or if the roadway design or density of the development is appropriate. The developer went through that portion of the process in November, 2024 and was approved for a Preliminary Development Plan that authorizes the developer to move forward with development on this parcel as long as it substantially meets the preliminary development plan.

When looking at the conditions for approval, Staff reviews the original Preliminary Development Plan against the proposed Final Development Plan for each Section. Confirmation that the request was made within the two-year time period is made and then in this case, a review of the roadways, utilities, and total lot number is completed. The developer is reflecting the same roadway design and widths; the same total number of buildable lots (although split in phasing differently); and the same building types discussed and approved at the preliminary development plan stage. None of these items would be considered out of alignment with the Preliminary Development Plan and would suggest a recommendation of approval.

STAFF REPORT

The substantial discussion that occurred at the April PC meeting related to stormwater is certainly a reasonable topic to discuss as long as it is in context to the question of whether or not it is meeting the stormwater regulations that any development within the City of Piqua must meet. Staff must be clear though that whether it is residential, commercial, or industrial development, they all must meet the same stormwater regulations through the City of Piqua and the Ohio Environmental Protection Agency. This standard review is completed by both the applicant and the city engineer of record for the project, in this case Access Engineering. Once the plans are reviewed and confirmation is given that they meet these standards, Staff documents that approval and trusts these experts.

We have provided responses to questions noted below. Access Engineering may also have additional information that will be shared at the meeting, as they will be present, to support the Planning Commission and its questions. At the meeting on May 12, the applicant has stated that they will also bring their engineer to answer questions.

Planning Commission Questions with Responses

Please note that the questions with an answer denoted [DR] was answered by DR Horton or its engineer.

1. **The City of Piqua has had concerns for over a decade concerning storm water runoff and Franz Pond and Franz Ditch. Could we please have the latest EPA report to the city concerning that issue?**
    - Additional details will need to be discussed regarding this question, as it isn't clear exactly what is being requested.
2. **Is there a report concerning how the City of Piqua intends to alleviate those growing storm water run off concerns? That would be helpful if there is such a recent report.**
    - The City utilizes professional reports and engineering standards for all storm water concerns. To date, there isn't any documented "storm water run off concerns" that have not been alleviated. It is certainly understandable to ask questions and to look for answers to verifiable questions, but Staff does not have any reliable data that reflects stormwater is a growing concern.
3. **Also, since the representative from D. R. Horton stated that he couldn't answer the engineering questions, could we get answers from that company about how many discussions took place with members of the current established and effected HOA community and a list of those concerns with the company's adjustments or remedies for those potential additional flooding concerns?**
    - [DR] During the preliminary plat zoning approvals, we had a meeting with

residents from the Deerfield and Eagle's Nest HOA at the Piqua Chamber office. We are unaware of a list of concerns from Eagle's Nest that have ever been shared with us other than the questions on this email.

4. **Would you please ask the city's law director if there could be a specific agreement designed to protect existing homeowners (and the city's storm water runoff potential issues) from flooding caused by any new development runoff? That legal document is called a Stormwater Management Facilities Maintenance Agreement/Covenant. This legal document requires developers to maintain, at their own cost, systems that prevent their new development from negatively impacting the drainage of surrounding areas.**
    - There is currently nothing within the City of Piqua Development Code that would require such an agreement. If the Planning Commission or City Commission determined that an instrument such as this would be necessary with each new development, we would need to determine the legality of such a request, and work to modify the development code to include this as part of the requirements for development. As of now, this proposed development will not be covered by any such changes.
    - [DR]We didn't make one of these for this subdivision and were not asked to, but we certainly can.
5. **The pond may control runoff, but what is being done about groundwater and saturated soils that already affect neighborhood homes?**
    - [DR] The homes are being built on slabs. The groundwater table is not relevant to the stormwater runoff questions. The stormwater surface runoff is being directed to the retention basin.
6. **Were on-site soil borings and seasonal groundwater studies completed?**
    - [DR] DR Horton completed soil borings and there were no issues identified for development of the site. We do not share our due diligence, reports, or proprietary information externally.
7. **What is the seasonal groundwater elevation compared to the detention basin bottom and foundation elevations?**
    - [DR] See above answer. Seasonable groundwater elevation has no effect on the storage volume of the pond.
8. **What is the groundwater elevation relative to the basin bottom elevation?**
    - [DR] See above answer. Groundwater elevation has no effect on the storage volume of the pond.
9. **Are footing drains and sump pump systems expected?**
    - [DR] Lots designed as slabs
10. **Have agricultural tile drains been identified, inspected, and replaced where necessary?**
    - [DR] Any tiles encountered will be connected to and routed to our storm system.

STAFF REPORT

11. **Has the city required lot-by-lot grading plans?**
    - The City of Piqua Development Code requires a grading plan for the development, which includes each lot being developed. This is within the packet considered for approval.
    - [DR] DR Horton & Choice One have provided mass grading plans as part of these construction plans.
12. **Were sensitivity analyses run using wetter assumptions such as higher runoff coefficients or curve numbers?**
    - [DR] A sensitivity analysis is a standard part of the iterative portion of our design.
13. **A CN of 90.52 appears appropriate on paper, but were these calculations adjusted for the known saturated conditions and shallow groundwater reported by resident?**
    - [DR] This is a composite CN of the whole site. A CN of 90 for 1/6 acre lots is reflective of type D (poorly drained, saturated) soils already. Our CN calculation did not take into account grassed areas outside of lots, this is a standard practice to keep designs more conservative than need be.
14. **Could a CN of 93 be considered instead?**
    - [DR] Same answer as above.
15. **Did they model drained C behavior, wet D behavior, or weighted average during storms?**
    - [DR] The pre-conditions are modeled as type C and the post are type D. This is another effort made to keep designs conservative.
16. **What existing subsurface drainage system currently makes the site function as a C?**
    - [DR] See above answer. Type C soils were used for the pre site and Type D for the post. This is the most conservative way to model this.
17. **How was Rv selected given known drainage complaints in adjacent subdivisions?**
    - [DR] Rv is calculated based on total impervious area % and nothing else. This is mandated by the OEPA.
18. **If every new home has sump pumps and discharges to the yards/streets, was this feedback loop volume considered?**
    - [DR] Lots are designed as slabs
19. **Could 0.68 be more appropriate?**
    - [DR] Per the Miami county subdivision design and construction manual, R-2 (lots below 0.18 acres and multifamily) has an allowable c-value of 0.45. This is lower than the typically acceptable value of 0.60 we use for lots of this size, so we stuck with 0.60. There are many other counties in the state that list this as an acceptable value. We also use a c-value of 0.40 in the backyards instead of 0.30 to remain conservative.
20. **What protections exist during construction mud/runoff phase?**

- [DR] See SWPPP

21. **Who is responsible for the maintenance of the drainage basin after construction?**
    - [DR] Homeowner's Association.
22. **Where does the overflow go if the basin overtops?**
    - [DR] In the event the basin overtops, water will flow over the sidewalk and curb on Eagles Nest drive. This is currently where all the water on site goes. It is standard practice to direct overflow routes to rear yards, side yards, or streets instead of towards structures.
23. **Where does the overflow go in a 100+ year storm?**
    - [DR] The basin has 1.80' of freeboard during a 100-yr event. This means it has capacity well over a 100yr storm.
24. **The provided drawings end at Eagles Lake Drive in the Eagles Nest subdivision so we can not tell where the storm drain routes after that. Will the basin outlet have to potential to flow into the Eagle's Nest pond?**
    - [DR] That is where all the stormwater goes now. It will continue to head there only now it will be at a substantially reduced rate. In the pre-development condition, the amount of flow going to this area is 48.44 CFS for the 100-year event. For the post development condition, this pond has 6.09 CFS being outletted to this existing storm sewer, a reduction of 87%. Our designs for any pond that outlets into existing City street storm sewers are always ultra conservative given the sensitive nature of the area.

STAFF REPORT

ORIGINAL STAFF REPORT FROM 4/14/2026

Background:
The applicant, ChoiceOne Engineering, is bringing forward the final development plan and plat for what was previously called the Deerfield Subdivision Section 4 & 5 approved by a 3-2 vote on November 21, 2024, for the DR Horton, the same homebuilder that received approval for the preliminary plat previously.

The original approval provided preliminary plat approval for five (5) sections that included single-family residences (198 total) and multi-unit living (132 townhome lots), offering a variety of housing options. The townhome units were located within Deerfield Section 1 and 2, which are under consideration at this time.

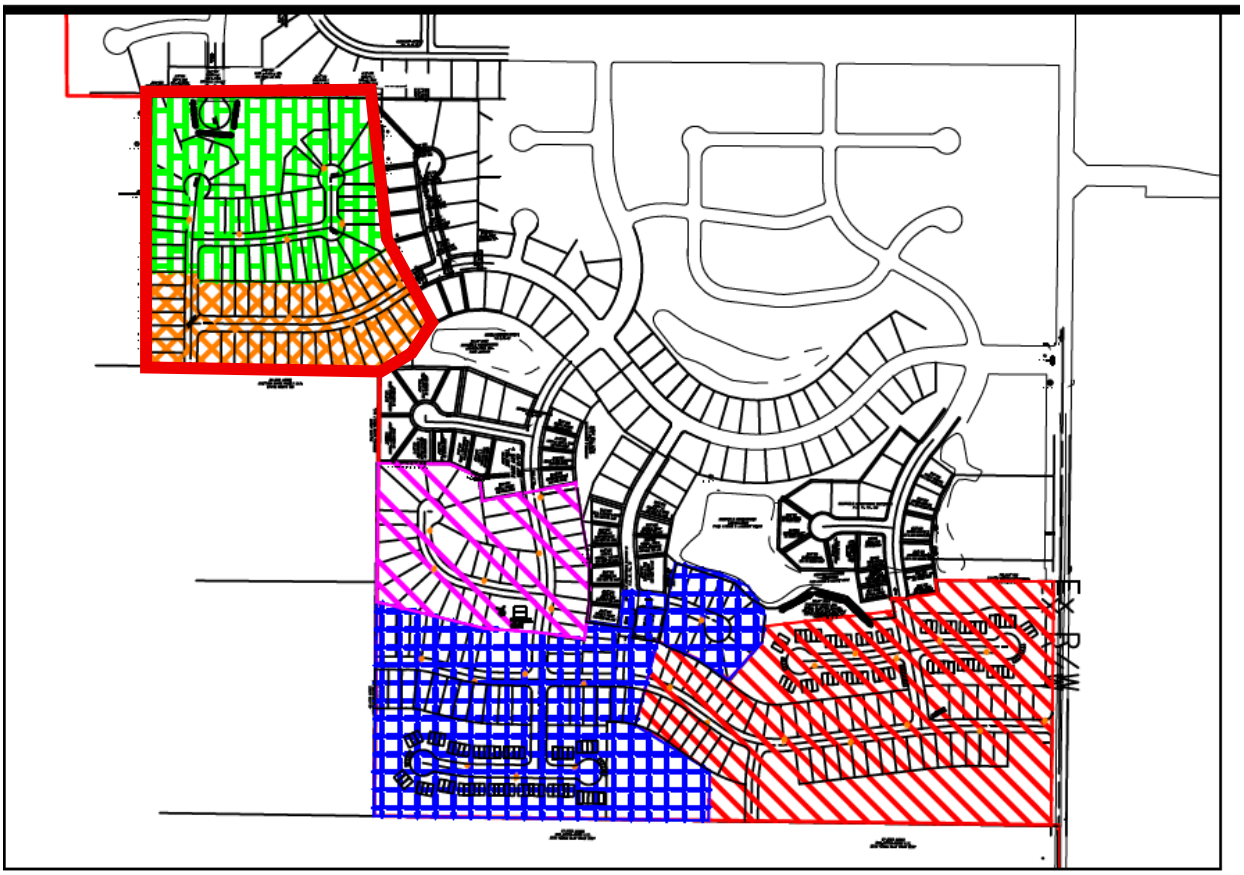
Process:
Section 7.2.4 of the City of Piqua Development Code covers the process of plat and replat review. This process includes submitting and getting approval of a preliminary plat, which occurred at the end of 2024, and submitting and getting approval of a final plat with dedications, which is what is being requested now. The applicant has 2 calendar years from the date of approval to bring a final plat forward before the preliminary plan and plat are invalid. The original approval was made by City Commission on November 21, 2024, and therefore it meets this requirement.

The Planning Commission will make a recommendation to the City Commission regarding this Section. If the City Commission approves the request, the applicant will be required to get a formal replat through the Community Services Department, which will include further review of utilities and roadway design, to confirm it is meeting city standards. Once they are approved, they would then be required to apply for a permit for each home lot.

The applicant will be required to come back to the Planning Commission and City Commission to get formal authorization for Section 2 whenever they determine they would like to move forward with that Section. All other approvals will be again required at that time for that Section.

STAFF REPORT

Request:



PHASING DEVELOPMENT PLAN

** PHASES SUBJECT TO CHANGE BASED ON MARKET DEMAND

The applicant was previously approved for five sections of development, reflected above. The application and approval noted Deerfield Sections 1-5. Over the last year, the applicant has renamed the development at the request of the Deerfield subdivision HOA and residents who requested this action. The current request is to complete what was previously labeled Deerfield Section 4 & 5, which is now being called Whitetail Bend Section 1 & 2. This request specifically looks to complete Section 1, which includes 42 buildable lots.

The applicant has also worked to bring forward the Deerfield Section 1-3 for the past year but has been unsuccessful in their negotiations with the Deerfield HOA to resolve two main outstanding issues. Those issues are related to utilization of the HOA stormwater ponds, and modification of the HOA boundaries onto the future development property. City Staff has not been involved in these discussions and cannot provide context or detail into the negotiations. Staff can only state that this has been the

reasoning behind the applicant requesting Deerfield Section 4 & 5 instead of 1-3 at this time. Originally the applicant stated that they intended to begin construction in 2025 for Section 1-3, with the final Sections being completed by 2029.

The applicant is additionally requesting that the City of Piqua dedicate new right-of-way specifically one roadway extension – Lambert Drive (60' ROW) and two new roadways – Deercrest Way (50' ROW) and Stag Hallow Court (50' ROW).

Analysis:

The request for Whitetail Bend includes two sections, but they are split differently from the previous approval for Deerfield Section 4 and 5. In the original preliminary plat Section 4 included 36 homes and Section 5 included 39 homes. The request for Whitetail Bend Section 1 includes 42 buildable lots and Section 2 includes 33 buildable lots, which totals the same number of buildable lots as the original approval, but it moves 6 lots into the first phase.

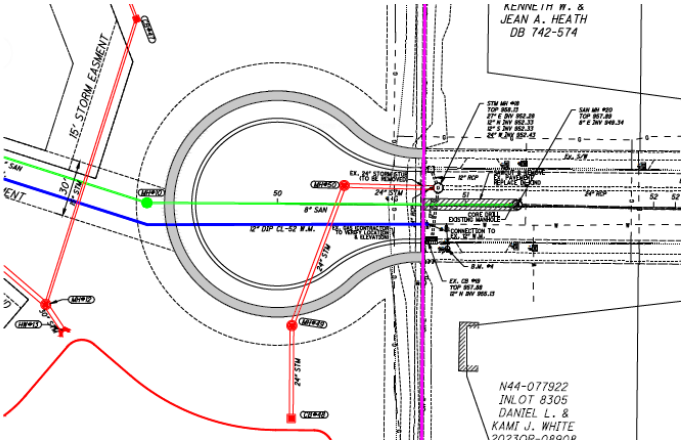


As part of the preliminary plat approval the applicant was required by the City Commission to provide multiple details including:

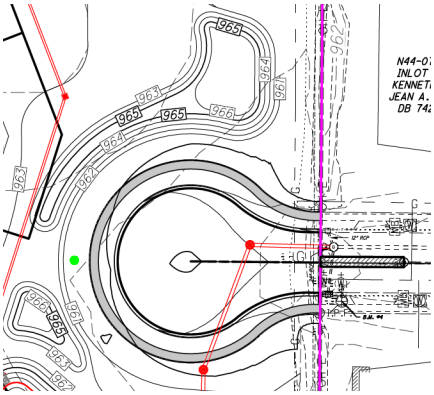
1. The creation of a cul-de-sac at Eagle's Lake Drive,
2. Preservation of tree lines where possible and the creation of new buffers between Deerfield and the new subdivision, and
3. Parking on both sides of the street

The applicant has provided a final plan that reflects these three requirements. As noted within the plan, the cul-de-sac for Eagle's Lake Drive is provided and shows the continuation of the existing sidewalk network and utility connections.

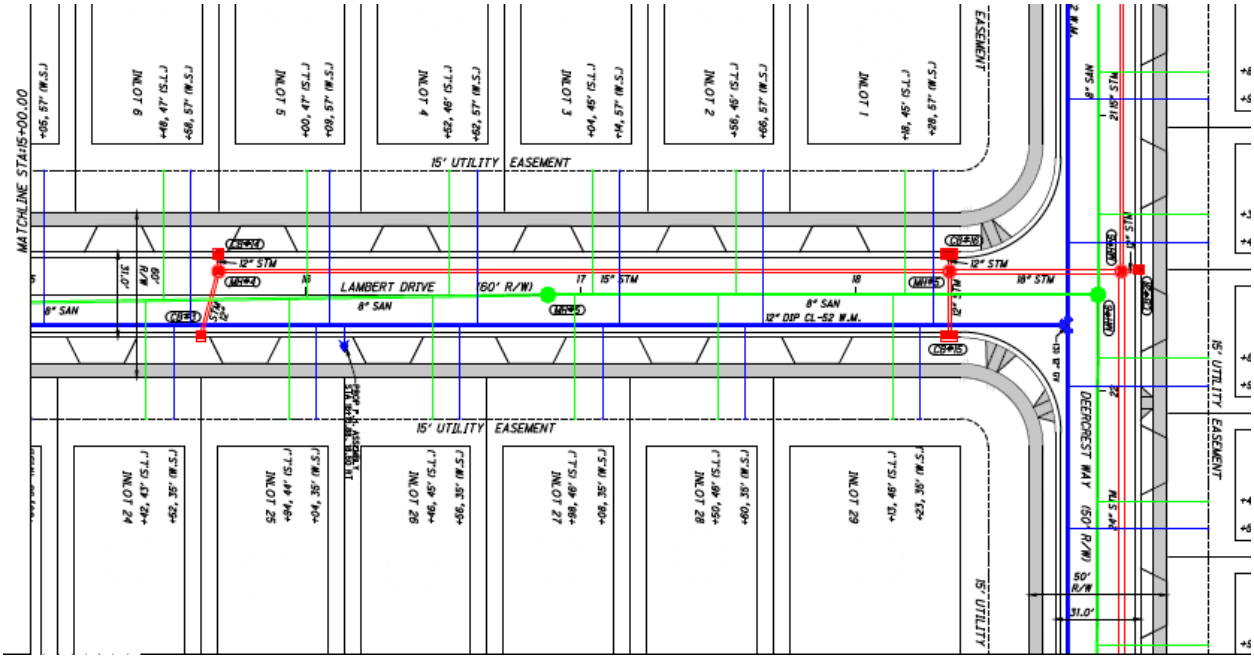
STAFF REPORT



The applicant has stated that they will be providing additional details regarding the buffer requirements but has noted that they will provide the required buffer between properties. Staff requests that this be made clear as part of any motion for approval, as the current plans reflect buffers along Eagle's Lake, but do not clearly reflect buffers along the southern border facing the Deerfield subdivision.



STAFF REPORT



As requested, and as reflected in the drawings, the roadway width would support parking on the street. Effectively though as the drive approaches are located, the total number of parking spaces on the street will be limited. It is likely that a single vehicle will fit between each property. The home setback will allow two cars to be parked on the driveway for homes as well.

Staff has provided additional comments to the applicant regarding updated plans that reflect details on the required emergency access between Eagle's Lake Drive and Deercrest Way, utility location and timing, and exact phasing lines.

Staff will provide updated plan sets as they are made available and update the Planning Commission packet available online with this data.

Recommendation:
The request is substantially in line with the preliminary plat approval, meets the requirements of Section 7.2.4.B.4 and 7.2.4.B.5 and therefore Staff recommends that the Planning Commission ***approve*** the request for a Final Plat with Dedication for Whitetail Bend Section 1 and forward a positive recommendation to City Commission for final acceptance and authorization.

City of PIQUA

(1) CELEBRATION MAPLE
(3) SERBIAN SPRUCE
(5) DENSA COMPACT INKBERRY
(29) BLACK-EYED SUSAN
(4) DENSA COMPACT INKBERRY
(4) RIVER BIRCH
(7) IVORY HALO DOGWOOD
(3) EASTERN RED CEDAR
(2) SERBIAN SPRUCE
(29) LITTLE BLUESTEM
(4) BALD CYPRESS
(5) DENSE YEW
(7) AMERICAN ARBORVITAE
(9) GREY OWL JUNIPER
(7) SWAMP WHITE OAK
(9) ARCTIC FIRE DOGWOOD
(9) SEA GREEN JUNIPER
(9) MAGICAL MOONLIGHT BUTTONBUSH
(7) SERBIAN SPRUCE
(3) BALD CYPRESS
(6) GREY OWL JUNIPER
(5) QUICK FIRE HYDRANGEA
(6) GREY OWL JUNIPER
(5) EASTERN RED CEDAR
(6) ARCTIC FIRE DOGWOOD
(10) SEA GREEN JUNIPER
(7) CANADIAN HEMLOCK
(6) AMERICAN ELM
(25) FOUNTAIN GRASS
(7) DENSA COMPACT INKBERRY
(12) MAGICAL MOONLIGHT BUTTONBUSH
(2) WINTER KING HAWTHORN
(5) SEA GREEN JUNIPER
(27) THREADLEAF BLUE STAR
(1) RIVER BIRCH
(1) AUTUMN BRILLIANCE SERVICEBERRY
SWALE
SWALE
SWALE
SWALE
SWALE
STAG

ADDITIONAL EXHIBIT

SCALE IN FEET
0 15 30 60

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ2502_Landscape.dwg 15-May-26 4:20 PM

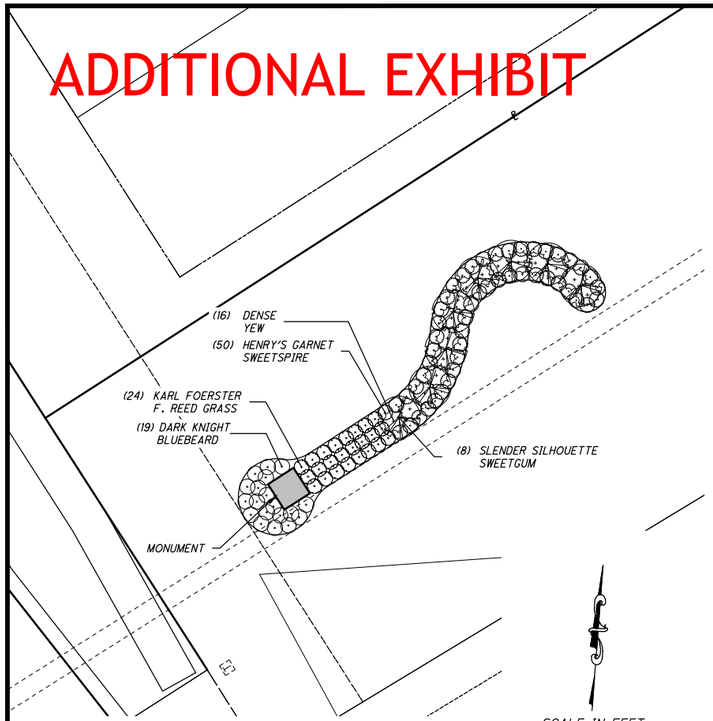
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
LANDSCAPE PLAN

REVISIONS:

FILE NAME: Lands
DRAWN BY: SJG
CHECKED BY: NNS
PROJECT No.: MIAPIQ02502
DATE: 04-10-2026
SHEET NUMBER: 25 OF 26

ADDITIONAL EXHIBIT



ENTRANCE LANDSCAPE

PLANTING SCHEDULE

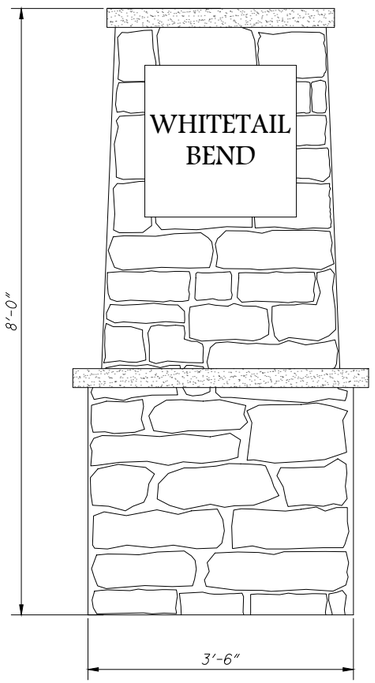
QTY.	COMMON NAME	BOTANICAL NAME	SIZE	ROOT
	TREES			
8	SLENDER SILHOUETTE SWEETGUM	LIQUIDAMBAR S. 'SLENDER SILHOUETTE'	2" CAL.	B&B
12	SERBIAN SPRUCE	PICEA OMORIKA	6' HGT.	B&B
8	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	6' HGT.	B&B
7	BALD CYPRESS	TAXODIUM DISTICHUM	2" CAL.	B&B
5	RIVER BIRCH	BETULA NIGRA	2" CAL.	B&B
1	CELEBRATION MAPLE	ACER X FREEMANII 'CELEBRATION'	2" CAL.	B&B
7	SWAMP WHITE OAK	QUERCUS BICOLOR	2" CAL.	B&B
6	AMERICAN ELM	ULMUS AMERICANA	2" CAL.	B&B
7	AMERICAN ARBORVITAE	THUJA OCCIDENTALIS	6' HGT.	B&B
7	CANADIAN HEMLOCK	TSUGA CANADENSIS	6' HGT.	B&B
2	WINTER KING HAWTHORN	CRATAEGUS VIRIDIS 'WINTER KING'	2" CAL.	B&B
1	AUTUMN BRILLIANCE SERVICEBERRY	AMELANCHIER X G. 'AUTUMN BRILLIANCE'	2" CAL.	B&B
	SHRUBS			
21	DENSE YEW	TAXUS DENSIFORMIS	24" SPR.	NO. 5 CONT.
50	HENRY'S GARNET SWEETSPIRE	ITEA VIRGINICA 'HENRY'S GARNET'	18" SPR.	NO. 3 CONT.
16	DENSA COMPACT INKBERRY	ILEX GLABRA 'DENSA'	18" SPR.	NO. 5 CONT.
7	IVORY HALO DOGWOOD	CORNUS ALBA 'IVORY HALO'	18" SPR.	NO. 5 CONT.
21	GREY OWL JUNIPER	JUNIPERUS V. 'GREY OWL'	24" SPR.	B&B
24	SEA GREEN JUNIPER	JUNIPERUS CH. 'SEA GREEN'	24" SPR.	B&B
21	MAGICAL MOONLIGHT BUTTONBUSH	CEPHALANTHUS O. 'MAGICAL MOONLIGHT'	18" SPR.	NO. 3 CONT.
5	QUICK FIRE HYDRANGEA	HYDRANGEA P. 'QUICK FIRE'	18" SPR.	NO. 5 CONT.
15	ARCTIC FIRE DOGWOOD	CORNUS STOLONIFERA ARCTIC FIRE	18" SPR.	NO. 5 CONT.
	GRASSES / PERENNIALS			
24	KARL FOERSTER F. REED GRASS	CALAMAGROSTIS A. 'KARL FOERSTER'	CLUMP	NO. 2 CONT.
19	DARK KNIGHT BLUEBEARD	CARYOPTERIS 'DARK KNIGHT'	CLUMP	NO. 2 CONT.
29	BLACK-EYED SUSAN	RUDBECKIA FULGIDA 'GOLDSTURM'	CLUMP	NO. 2 CONT.
29	LITTLE BLUESTEM	SCHIZACHYRIUM SCOPARIUM	CLUMP	NO. 2 CONT.
25	FOUNTAIN GRASS	PENNISETUM ALOPECUROIDES	CLUMP	NO. 2 CONT.
27	THREADLEAF BLUE STAR	AMSONIA HUBRICHTII	CLUMP	NO. 2 CONT.

GENERAL NOTES

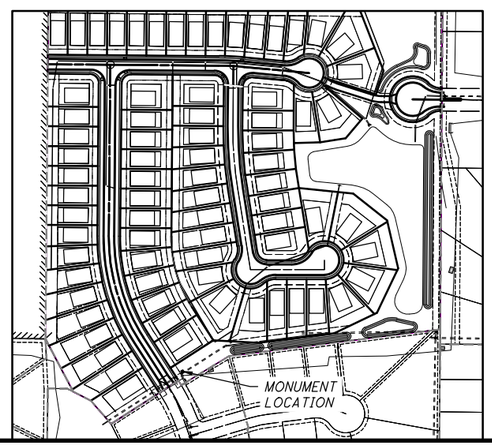
A. PRIOR TO INSTALLATION, THE LANDSCAPE CONTRACTOR SHALL INSPECT THE GENERAL SITE CONDITIONS AND VERIFY THE SUBGRADE, ELEVATIONS, UTILITY LOCATIONS AND TOPSOIL PROVIDED BY GENERAL CONTRACTOR. THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY UNSATISFACTORY CONDITIONS AND WORK SHALL NOT PROCEED UNTIL SUCH CONDITIONS HAVE BEEN CORRECTED AND ARE ACCEPTABLE TO THE LANDSCAPE CONTRACTOR.
B. SUBSTITUTIONS SHALL BE PERMITTED WITH NOTIFICATION AND WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT. SUBSTITUTED MATERIAL SHALL BE EQUIVALENT OR GREATER IN SIZE THAN THE SPECIFIED PLANT. SUBSTITUTED PLANTS SHALL HAVE THE SAME ESSENTIAL CHARACTERISTICS AND GROWTH HABIT OF THE SPECIFIED PLANT.
C. CONFIRM LOCATION OF ALL UTILITIES AND SUBSURFACE DRAIN LINES PRIOR TO PLANT INSTALLATION.
D. CONTRACTOR MAY SLIGHTLY FIELD ADJUST PLANT LOCATIONS AS NECESSARY TO AVOID UTILITIES. FINISHED PLANTING BEDS SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE.
E. CONTRACTOR SHALL REPAIR ALL LAWN AREAS DISTURBED DURING CONSTRUCTION WITH SEED AND WARRANT A HEALTHY, WEED FREE LAWN PRIOR TO PROJECT ACCEPTANCE.
F. SEED ALL AREAS WITHIN CONTRACT LIMITS THAT ARE NOT COVERED BY PAVING, BUILDINGS OR PLANTING BEDS UNLESS OTHERWISE NOTED. SEEDING SHALL NOT BEGIN UNTIL AREA HAS RECEIVED TOPSOIL AND FINISHED GRADE.
G. MULCH PLANTING BEDS WITH SHREDDED HARDWOOD MULCH OF UNIFORM DARK BROWN COLOR. IT SHALL BE FREE OF TWIGS, LEAVES DISEASE, PEST OR OTHER MATERIAL UNSIGHTLY OR INJURIOUS TO PLANTS. AVERAGE APPLIED THICKNESS SHALL BE 3" DEPTH. MULCH HEDGES IN A CONTINUOUS BED.
H. BED EDGE SHALL BE SMOOTH, CONSISTENT, HAND TRENCHED 6" DEEP AND "V" SHAPED UNLESS OTHERWISE NOTED. ALL EXCAVATED MATERIAL SHALL BE REMOVED FROM THE BED EDGE AND PLANTING BED.
I. ALL PLANTING BED EDGES TO BE SMOOTH FLOWING ARCS OR STRAIGHT LINES AS SHOWN ON PLAN.
J. INSTALL ALL PLANTS IN ACCORDANCE WITH PLANTING DETAILS AND SPECIFICATIONS.
K. PARKING LOT AND STREET TREES SHALL HAVE A CLEAR CANOPY HEIGHT OF 6' MIN.
L. TREE SHALL BE PLACED A MINIMUM OF 3' FROM SIDEWALKS AND CURBS.
M. LAWN AREAS TO BE BACKFILLED WITH TOPSOIL TO A MINIMUM SETTLED THICKNESS OF 6 INCHES.
N. CONTRACTOR TO DETERMINE PLANT LIST QUANTITIES FROM THE PLAN. GRAPHIC REPRESENTATION ON PLAN SUPERSEDES IN CASE OF DISCREPANCY WITH QUANTITIES ON SCHEDULE.
O. CONTRACTOR SHALL THOROUGHLY WATER ALL PLANTS AT TIME OF INSTALLATION AND AS NEEDED UNTIL PROJECT ACCEPTANCE BY OWNER. CONTRACTOR SHALL GUARANTEE ALL PLANTS INSTALLED FOR ONE FULL YEAR FROM DATE OF ACCEPTANCE BY THE OWNER. ALL PLANTS SHALL BE ALIVE AND AT A VIGOROUS RATE OF GROWTH AT THE END OF GUARANTEE PERIOD.

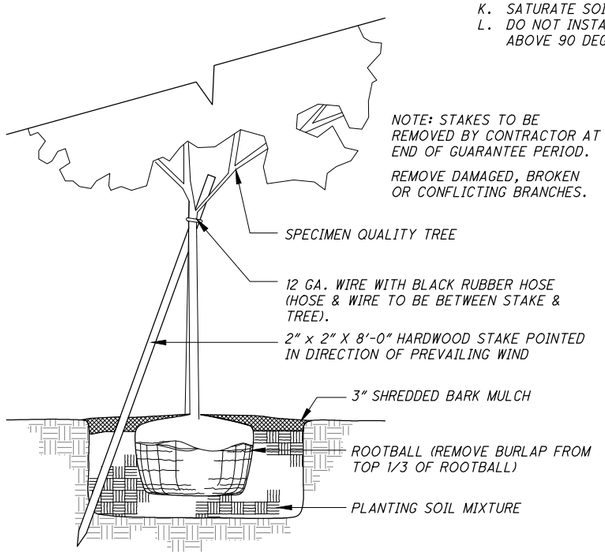
INSTALLATION NOTES

A. IF NOT READILY APPARENT, LOCATE ROOT FLARE BY REMOVING TWINE, BURLAP, AND EXCESS SOIL.
B. DIG TREE HOLE AT LEAST TWO TIMES WIDER THAN THE TREE BALL, WITH SIDES SLOPED TO AN UNEXCAVATED OR FIRM BASE. DIG HOLE TO A DEPTH SO THE LOCATED ROOT FLARE, AT THE FIRST ORDER LATERAL ROOT, WILL BE AT FINISHED GRADE.
C. LIFT ONLY FROM THE BOTTOM OF THE ROOT BALL, POSITION TREE ON FIRM PAD SO THAT IT IS STRAIGHT AND TOP OF ROOT FLARE IS LEVEL WITH THE SURROUNDING SOIL.
D. REMOVE ALL TWINE FROM THE ROOT BALL. IF PRESENT, REMOVE AND DISCARD AT LEAST THE TOP ONE HALF OF THE WIRE BASKET. BURLAP SHALL BE REMOVED FROM THE TOP TO A POINT HALFWAY DOWN THE ROOT BALL AND DISCARDED.
E. WITH CLEAN, SHARP PRUNING TOOLS, PRUNE OFF ANY SECONDARY/ADVENTITIOUS, GIRDLING, AND POTENTIAL GIRDLING ROOTS.
F. MULCH THE ENTIRE PLANTING SURFACE WITH MULCH APPLIED NO LESS THAN TWO INCHES DEEP AND NO MORE THAN THREE INCHES DEEP, LEAVING THREE INCHES ADJACENT TO THE TREE TRUNK FREE OF MULCH.
G. SPECIES AND SIZE IDENTIFIED IN PLANT SCHEDULE, GROWN IN CLIMATIC CONDITIONS SIMILAR TO THOSE IN LOCALITY OF THE WORK.
H. PROVIDE HEALTHY, SOUND, VIGOROUS PLANT MATERIALS, FREE FROM PLANT DISEASES, INSPECT PESTS, HEALTHY WELL-DEVELOPED ROOT SYSTEMS, FRESHLY DUG, NURSERY GROWN, WELL-BRANCHED, DENSELY FOLIATED WHEN IN LEAF AND WELL-PROPORTIONED, PARTICULARLY WITH RESPECT TO THE WIDTH-HEIGHT RELATIONSHIP.
I. DAMAGED OR BROKEN BRANCHES, BROKEN BALL AND LOOSE TOP BALL ARE UNACCEPTABLE.
J. SET PLANTS IN CENTER OF HOLE, PLUMB AND STRAIGHT. REMOVE $\frac{1}{3}$ TOP OF BURLAP (IF APPLICABLE).
K. SATURATE SOIL WITH WATER WHEN THE HOLE IS HALF FULL OF TOPSOIL AND AGAIN WHEN FULL.
L. DO NOT INSTALL PLANT LIFE WHEN AMBIENT TEMPERATURES MAY DROP BELOW 35 DEGREES F OR RISE ABOVE 90 DEGREES F.

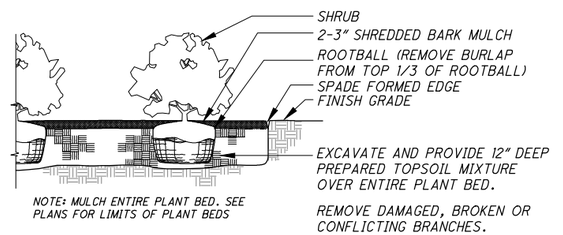


MONUMENT SIGN





TREE PLANTING DETAIL



SHRUB PLANTING DETAIL

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
MONUMENT LANDSCAPE PLAN

REVISIONS:

FILE NAME	Lands
DRAWN BY	SJG
CHECKED BY	NNS
PROJECT No.	MIAPIQ02502
DATE	04-10-2026
SHEET NUMBER	26 OF 26

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ2502_Landscape.dwg 15-May-26 4:20 PM

Date: March 20, 2026

City of Piqua
Development & Engineering Department
201 W. Water Street
Piqua, OH 45356

Re: Final Plat Application – Whitetail Bend Subdivision
(Parcels N44-076518 and N44-077518)

Dear City Staff, Planning Commission Members, and City Commission Members:

On behalf of D.R. Horton, please accept this letter as the formal submission requesting Final Plat approval for the Whitetail Bend Subdivision, formerly known as *Deerfield Crossing*, located within the City of Piqua, Miami County, Ohio.

This application advances the project in accordance with the City's Development Code and follows prior City Commission approvals for both zoning and preliminary plat, as outlined below.

Prior Approvals and Entitlements

The Whitetail Bend project has received the following approvals from the City of Piqua:

- Resolution No. R-129-24
  Adopted November 21, 2024, approving a Zoning Map Amendment for parcels N44-076518 and N44-077518, rezoning the property from RE-10 Residential Estate to RE-6 Residential Estate and S-RM Suburban Residential Multi-Unit.
- Resolution No. R-128-24
  Adopted November 21, 2024, authorizing and approving the Preliminary Plat (Preliminary Replat) for parcels N44-076518 and N44-077518, as recommended by the Planning Commission following its public hearing on October 8, 2024.

The Planning Commission voted 5-0 to recommend approval of both the zoning map amendment and the preliminary plat, and the City Commission subsequently approved both actions at its regular meeting on November 21, 2024.

The Final Plat submitted herein is consistent with the zoning entitlements, preliminary plat layout, and development conditions established through these approvals.

Project Overview

Sections 1 and 2 of the Whitetail Bend subdivision consists of 75 single-family detached residential lots located on approximately 22.724 acres. Approximately 4.361 acres of the site are designated as open space, including stormwater management areas and shared green space intended to serve as a buffer between the adjacent existing subdivision. The Final Plat depicts all lot lines, street rights-of-way, easements, open space tracts, and public improvements in accordance with City of Piqua requirements.

Stormwater Coordination and Development Phasing

During earlier phases of planning, D.R. Horton engaged in discussions with the Deerfield Crossing Homeowners Association “(HOA") regarding a potential stormwater easement and cost-sharing agreement related to shared stormwater facilities that are owned by the HOA.

On September 3, 2025, the Deerfield Crossing HOA Board formally notified D.R. Horton that, following a Board vote, the HOA elected not to proceed with entering into a stormwater maintenance or cost-sharing agreement, for the 60.935-acre parcel. The Board expressed a preference for maintaining separation between the existing Deerfield Crossing storm infrastructure and the proposed facilities serving this development. D.R. Horton will continue to work with the HOA in good faith efforts to reach a mutually beneficial agreement in the future.

As a result of the HOA’s decision, D.R. Horton reevaluated the original development sequencing anticipated under the preliminary plat and elected to advance development of the 22.724-acre parcel independently, utilizing stormwater management infrastructure fully contained within the Whitetail Bend subdivision. This allows the project to move forward in a timely manner, fully compliant with City of Piqua stormwater regulations and Ohio EPA standards.

The Final Plat and accompanying engineering plans reflect this revised strategy and remain consistent with all previously granted approvals.

Conclusion

The Whitetail Bend Final Plat represents the next step in the implementation of the approvals granted by the City of Piqua. The submission conforms to the approved zoning, preliminary plat, and applicable development standards.

D.R. Horton respectfully requests Final Plat approval and appreciates the continued coordination with City staff and officials throughout the review process.

Please feel free to contact me should you have any questions or require additional information.

Sincerely,

Aaron Horn

Aaron Horn
Land Acquisition
D.R. Horton | Cincinnati & Dayton Division

Whitetail Bend – Sections 1 & 2
Disposition of Comments

City of Piqua, Miami County

Date: 04-10-2026

City of Piqua comments:

1. You have broken Section 1 & 2 down differently from the previously approved Deerfield Section 4 & 5. Please provide a clear Section map that shows a single drawing with the breakdown of the two Sections. Please also confirm the number of lots is the same between the preliminary plan and the final plan for both sections. Section map has been added to the Title Sheet and the total lot count for Section 1 & 2 is the same as the approved Preliminary Plan.

2. It looks like you are only applying for Section 1. We want to be sure that you are installing all applicable underground utilities for Section 1 and Section 2 now. Where exactly are you intending to stop the roadway improvements or are these all going to go in as part of Section 1? All utilities and roadway improvements and grading work and landscaping will be installed all at once and then the project will be platted in two chunks.

3. The access between Eagle's Lake Drive and Deercrest Way needs to be installed as part of Section 1. Pathway between Deercrest Way cul-de-sac and Eagles Lake Drive cul-de-sac needs to be a paved surface. There should be a general easement for utilities and pedestrian access for this as well. Removable bollards will need installed on both ends to ensure vehicles do not drive across it. In general, we will need to see further details on this. Paved emergency access connecting Eagle's Lake Drive and Deercrest Way has been added. See Schematic Plan, sheet 6, Deerfield Crest P&P, sheet 17 and Eagle Lake Drive P&P, sheet 20.

4. I don't see that a full buffer between the development and Deerfield / Eagle's Nest is reflected. We would want to see this as part of the first section. Can you reflect exactly what you are intending to put for landscaping and mounding? We would like to see that are part of the first section to assure the landscaping can grow up and buffer appropriately. Landscaping plan has been updated to show landscaping on the mounding around Eagle's Lake Drive cul-de-sac.

    a. I don't see much of anything between the southern Deerfield homes, which we noted at the meeting as having a 5' mound and landscaping on the top. Mound was not planned for this area and was planned to utilize the existing vegetation as the screening. Mounding was only ever shown at the cul-de-sac on the preliminary plan.

5. Section Two area should be permanent or temporarily seeded depending on the timeframe between phases. Section One lot areas should be temporarily seeded post public infrastructure construction. All disturbed areas will be seeded after everything is built

6. Stormwater Comments

    a. Verify no additional stormwater is flowing on site from the west. No additional stormwater is flowing on site from the west.
    b. The pipe calculations need to match the plan/profile sheets (i.e. pipe from CB#37. Others are minor differences likely based on pipe network – #24,#25, #34, etc). Stormwater Report has been updated and is attached with this resubmittal.

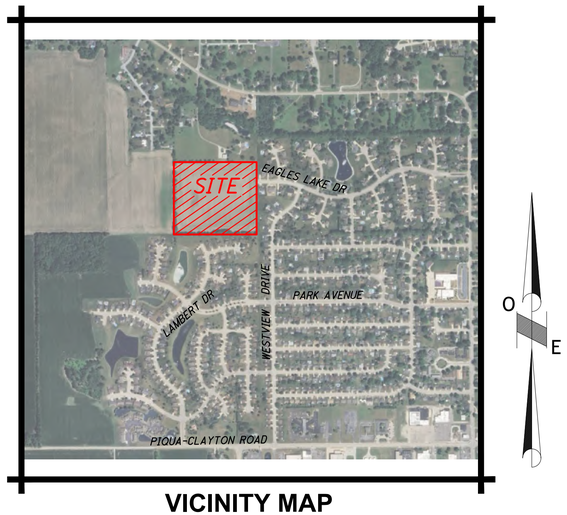
7. Storm Easement widths should match City of Piqua Design Criteria found on Page 53. Storm easement widths have been updated.

8. Storm Mains outside the ROW/street will need to be distinguished as private or public. This can be finalized later, but in general the stormwater mains outside the ROW should be labeled as private and maintained by the HOA (except for existing main being changed behind lots 61-64). Labels identifying between public and private has been added, see the Schematic Plan, sheet 6.

9. Curb drain needs to be 4" SDR pipe. Underdrain callout on the typical section has been updated, see Typical Section, sheet 7.

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2

CITY OF PIQUA
MIAMI COUNTY, OHIO



VICINITY MAP

INDEX OF SHEETS

TITLE SHEET	1
RECORD PLAT (SECTION 1)	2-3
RECORD PLAT (SECTION 2)	4-5
SCHEMATIC PLAN	6
TYPICAL SECTIONS	7
GENERAL NOTES	8
GENERAL DETAILS	9
STORM AND WATER NOTES AND DETAILS	10
SANITARY NOTES AND DETAILS	11
OUTLET STRUCTURE DETAIL	12
GRADING PLAN	13
LAMBERT DRIVE PLAN AND PROFILE	14-15
DEERCREST WAY PLAN AND PROFILE	16-17
STAG HALLOW COURT PLAN AND PROFILE	18-19
EAGLES LAKE DRIVE PLAN AND PROFILE	20
UTILITY PROFILES	21-23
INTERSECTION DETAILS	24
ENTRANCE MONUMENT	25
STORMWATER POLLUTION PREVENTION PLAN (SWPPP)	1-5

OWNER:
CRAYCON HOMES
P.O. BOX 1499
PIQUA, OHIO 45356

DEVELOPER:
OAKES TREE DEVELOPMENT
8534 YANKEE STREET
DAYTON, OHIO 45458
937-272-1100

DR HORTON
4705 DUKE DRIVE, SUITE 200
MASON, OHIO 45040
937-903-8010

ENGINEER:
CHOICE ONE ENGINEERING
2633 CAMPBELL ROAD
SIDNEY, OH 45365
937-497-0200

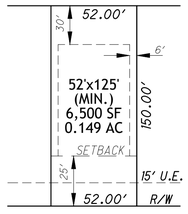
PROPERTY INFORMATION

CURRENT ZONING:	RE-6 (RESIDENTIAL ESTATE-6)
CURRENT USE:	FARMLAND
PARENT TRACTS:	22.724 ACRES

OVERALL DEVELOPMENT DATA	
NO. OF BUILDABLE LOTS	75
MIN. LOT AREA:	7,020 SF
MIN. LOT WIDTH:	52 FEET
MIN. FRONT YARD SETBACK:	25 FEET
MIN. REAR YARD SETBACK:	30 FEET
MIN. SIDE YARD SETBACK:	6 FEET MIN

SECTION 1 DATA	
NO. OF BUILDABLE LOTS:	42
AREA IN LOTS:	7.796 ACRES
AREA IN R/W:	2.443 ACRES
AREA IN OPEN SPACE:	4.361 ACRES

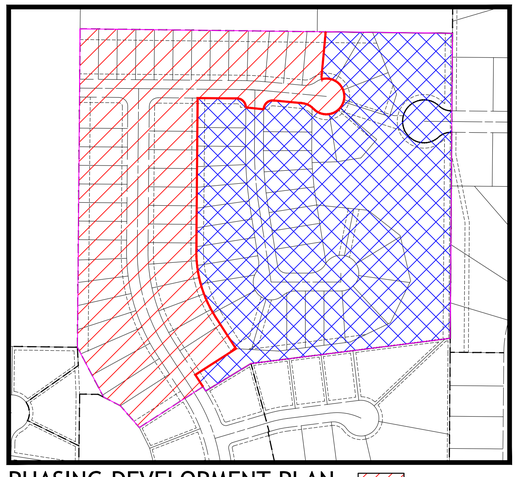
SECTION 2 DATA	
NO. OF BUILDABLE LOTS:	33
AREA IN LOTS:	7.123 ACRES
AREA IN R/W:	0.993 ACRES
AREA IN OPEN SPACE:	0.000 ACRES



MIN. TYPICAL LOT

NOTES

1. ALL UTILITIES TO BE UNDERGROUND, NO OVERHEAD WILL BE PERMITTED.
2. STREET LIGHTING TO BE PROVIDED BY CITY OF PIQUA.
3. PARKING SHALL BE RESTRICTED TO ONE SIDE OF THE STREET OPPOSITE SIDE OF FIRE HYDRANTS. NO PARKING SIGNS, STREET SIGNS AND STOP SIGNS TO BE INSTALLED BY THE DEVELOPER.
4. CLUSTER MAILBOXES TO BE INSTALLED BY DEVELOPER AT LOCATIONS TO BE DETERMINED AND COORDINATED WITH THE POST OFFICE.
5. OPEN SPACE LOTS, STORM WATER MANAGEMENT BASINS AND ALL STORM SEWER INFRASTRUCTURE OUTSIDE THE PUBLIC RIGHT-OF-WAY SHALL BE OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION.



PHASING DEVELOPMENT PLAN

SECTION 1
SECTION 2

2023 SPECIFICATIONS

THE CONSTRUCTION STANDARDS AND DRAWINGS OF CITY OF PIQUA AND THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND GENERAL NOTES LISTED IN THE PLAN, SHALL GOVERN THIS IMPROVEMENT. THE MOST RESTRICTIVE SHALL APPLY.

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF THE CONSTRUCTION OF STREETS, UTILITIES AND GRADING FOR SECTIONS 1 AND 2 AT WHITETAIL BEND SUBDIVISION, IN THE CITY OF PIQUA, MIAMI COUNTY, OHIO.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA	= 21.25 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	= 0.50 ACRES
NOTICE OF INTENT (NOI) EARTH DISTURBED AREA	= 21.75 ACRES

Choice One Engineering

2633 CAMPBELL ROAD • SIDNEY, OHIO 45365 • 937.497.0200
6279 TRI-RIDGE BOULEVARD, SUITE 100 • LOVELAND, OHIO 45140 • 513.239.8554

www.CHOICEONEENGINEERING.com

APRIL 10, 2026

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

Nicholas J. Selhorst — 04-10-2026
NICHOLAS J. SELHORST, P.E. — DATE
P.E.-#79554

STATE OF OHIO
NICHOLAS J. SELHORST
79554
REGISTERED PROFESSIONAL ENGINEER

CHOICE ONE ENGINEERING
RELEASE FOR AGENCY REVIEW
MARCH 20, 2026

APPROVED FOR CONSTRUCTION
THE CITY OF PIQUA SIGNATURES ON THIS PLAN SIGNIFY ONLY CONCURRENCE WITH THE GENERAL PURPOSES AND LOCATION OF THE PROPOSED IMPROVEMENT. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL ENGINEER WHO PREPARED AND CERTIFIED THESE PLANS.

APPROVED _____ CITY ENGINEER

DATE _____

Choice One Engineering

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2

REVISIONS:

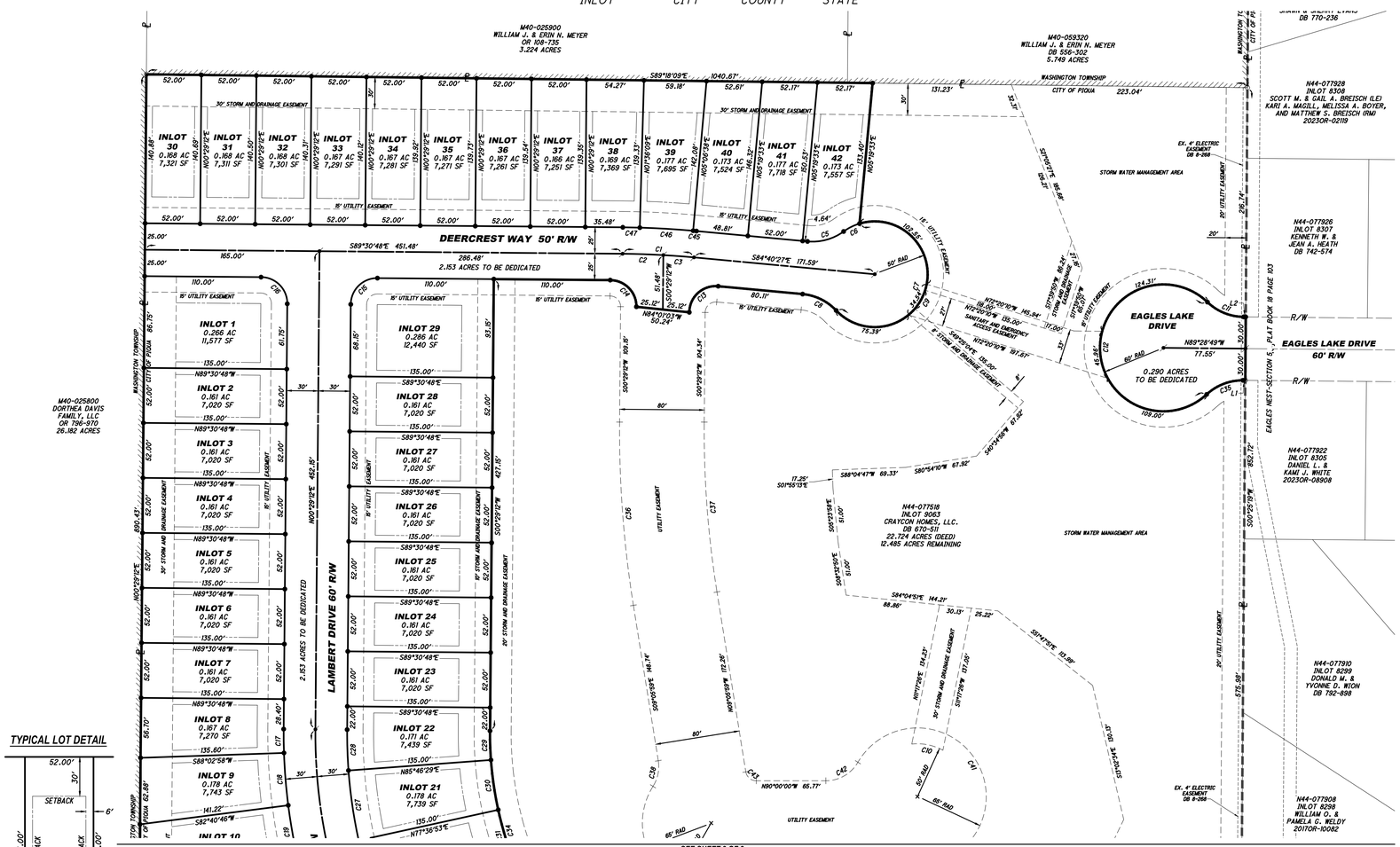
FILE NAME: Title
DRAWN BY: SJG
CHECKED BY: NNS
PROJECT No.: MIAPIO2502
SHEET NUMBER: 1 OF 25

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ2502_TitleSheet.dwg, 10-Apr-26 10:58 AM

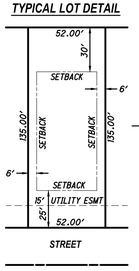
WHITETAIL BEND SECTION ONE

INLOT 9063 INLOT | PIQUA CITY | MIAMI COUNTY | OHIO STATE

VOLUME _____, PAGE _____-A
MIAMI COUNTY RECORDER'S RECORD OF PLATS



TYPICAL LOT DETAIL



LOT SIZE
MIN 52'X135'
MIN 7,020 S.F.

SETBACK
FRONT=25'
REAR=30'
SIDE=6'

UTILITY EASEMENT
FRONT=15'

THE BEARINGS ARE BASED ON NAD 83 CORS 2011 ADJUSTMENT, OHIO SOUTH ZONE, ODOT REAL TIME NETWORK(ORTN)

SCALE: 1"=60'

0 30 60 120

LEGEND

- 5/8" X 30" REBAR W/CAP TO BE SET
- IRON PIN FOUND
- MAG NAIL SET
- MAG NAIL FOUND
- BUILDING SETBACK LINE (FRONT=25' REAR=30' SIDE=6')
- EASEMENT LINE (FRONT=15' UTILITY ALL OTHER EASEMENTS ARE AS SHOWN)
- EXISTING EASEMENT LINE
- EXISTING SUBDIVISION LINE
- EXISTING CORPORATION LINE
- CXX CURVE NUMBER
- LXX LINE NUMBER

SEE SHEET 1 OF 3 FOR LINE TABLE AND CURVE TABLE

SUBMITTED FOR REVIEW

STATE OF OHIO BERTHE 8 STREET SURVEYOR

THIS INSTRUMENT WAS PREPARED BY:
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

DATE: 12-09-2025
DRAWN BY: MPL
JOB NUMBER: MIAPIQ2502
SHEET NUMBER: 2 OF 3

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
RECORD PLAT - SECTION 1

REVISIONS:

FILE NAME Deerf
DRAWN BY SJG
CHECKED BY NMS
PROJECT No. MIAPIQ2502
DATE 04-10-2026
SHEET NUMBER 2 OF 25

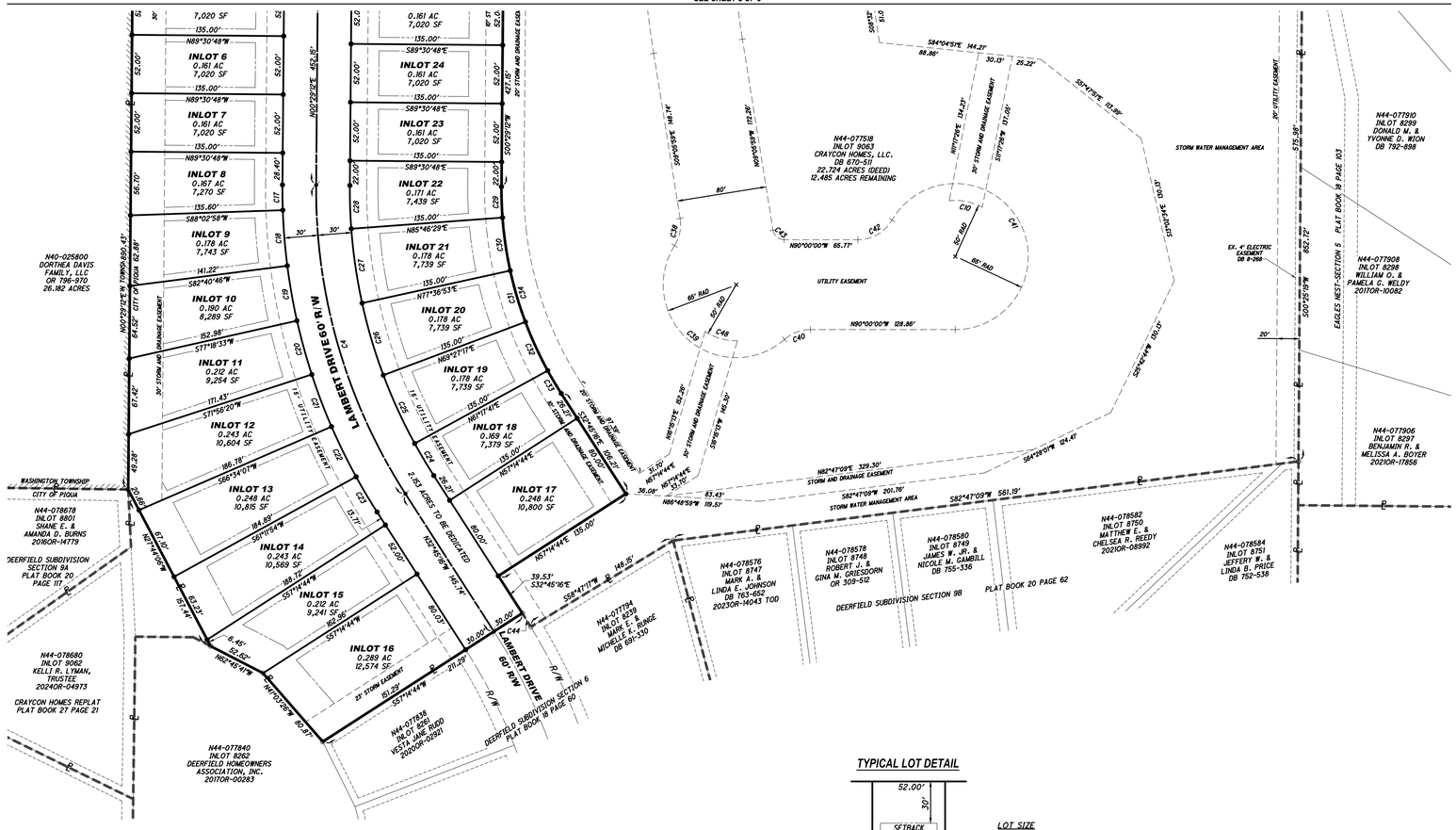
Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ2502_Deerfield Subdivision Section 1_Final Plat_Split.dwg 10-Apr-26 10:58 AM

WHITETAIL BEND SECTION ONE

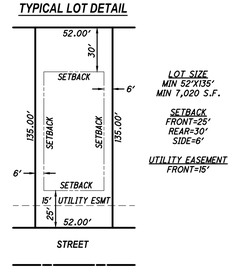
INLOT 9063 / INLOT — PIQUA / CITY — MIAMI / COUNTY — OHIO / STATE

VOLUME _____, PAGE _____-B
MIAMI COUNTY RECORDER'S RECORD OF PLATS

SEE SHEET 2 OF 3



TYPICAL LOT DETAIL



LOT SIZE
MIN 52'X135'
MIN 7,020 S.F.

SETBACK
FRONT=25'
REAR=30'
SIDE=6'

UTILITY EASEMENT
FRONT=15'

LEGEND

- 5/8" X 30" REBAR W/CAP TO BE SET
- IRON PIN FOUND
- MAG NAIL SET
- MAG NAIL FOUND
- BUILDING SETBACK LINE — FRONT=25' REAR=30' SIDE=6'
- EASEMENT LINE — FRONT=15' UTILITY ALL OTHER EASEMENTS ARE AS SHOWN
- EXISTING EASEMENT LINE
- EXISTING SUBDIVISION LINE
- EXISTING CORPORATION LINE
- CXX CURVE NUMBER
- LXX LINE NUMBER

THE BEARINGS ARE BASED ON NAD 83 CORS 2011 ADJUSTMENT, OHIO SOUTH ZONE, ODOT REAL TIME NETWORK(ORTN)

SCALE: 1"=60'

0 30 60 120

SEE SHEET 1 OF 3 FOR LINE TABLE AND CURVE TABLE

SUBMITTED FOR REVIEW

STATE OF OHIO — BERTHE — 8 — REGISTERED PROFESSIONAL SURVEYOR

THIS INSTRUMENT WAS PREPARED BY:

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

DATE: 12-09-2025
DRAWN BY: MPL
JOB NUMBER: MIAPIQ2502
SHEET NUMBER: 3 OF 3

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
RECORD PLAT - SECTION 1

REVISIONS:

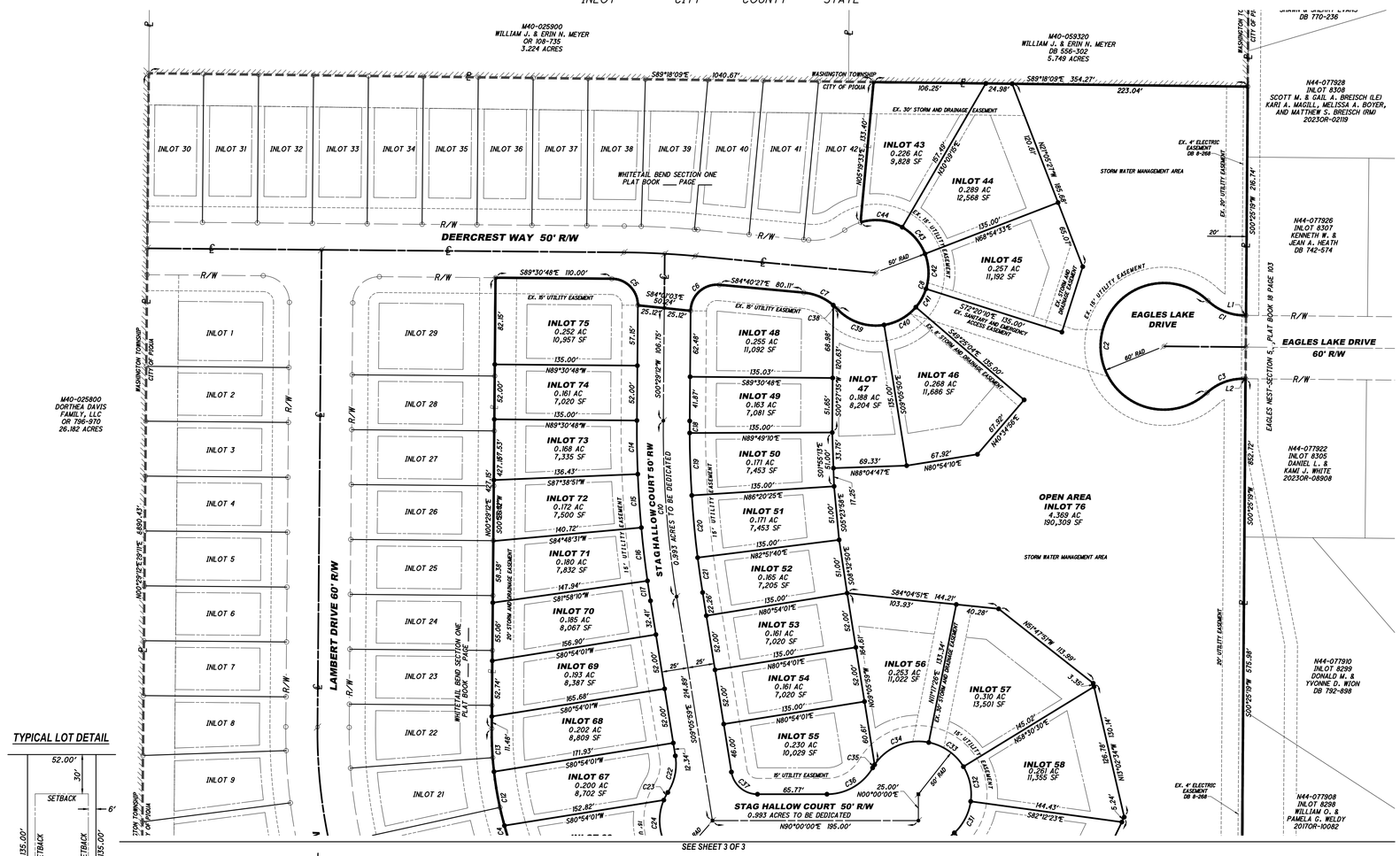
FILE NAME: Deerf
DRAWN BY: SJG
CHECKED BY: NMS
PROJECT No.: MIAPIQ2502
DATE: 04-10-2026
SHEET NUMBER: 3 OF 25

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ2502_Deerfield_Subdivision_Section_1_Final Plat_Split.dwg 10-Apr-26 10:58 AM

WHITETAIL BEND SECTION TWO

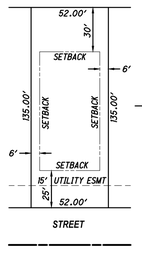
INLOT 9063 / INLOT | PIQUA / CITY | MIAMI / COUNTY | OHIO / STATE

VOLUME _____, PAGE _____-A
MIAMI COUNTY RECORDER'S RECORD OF PLATS



SEE SHEET 3 OF 3

TYPICAL LOT DETAIL



LOT SIZE
MIN 52'X135'
MIN 7,020 S.F.

SETBACK
FRONT=25'
REAR=30'
SIDE=6'

UTILITY EASEMENT
FRONT=15'

THE BEARINGS ARE BASED ON NAD 83 CORS 2011 ADJUSTMENT, OHIO SOUTH ZONE, ODOT REAL TIME NETWORK(ORTN)

SCALE: 1"=60'

0 30 60 120

LEGEND

- 5/8" X 30" REBAR W/CAP TO BE SET
- IRON PIN FOUND
- MAG NAIL SET
- MAG NAIL FOUND
- BUILDING SETBACK LINE (FRONT=25' REAR=30' SIDE=6')
- EASEMENT LINE (FRONT=15' UTILITY ALL OTHER EASEMENTS ARE AS SHOWN)
- EXISTING EASEMENT LINE
- EXISTING SUBDIVISION LINE
- EXISTING CORPORATION LINE
- CXX CURVE NUMBER
- LXX LINE NUMBER

SEE SHEET 1 OF 3 FOR LINE TABLE AND CURVE TABLE

STATE OF OHIO
BERTIE
REGISTERED
PROFESSIONAL SURVEYOR

SUBMITTED FOR REVIEW

THIS INSTRUMENT WAS PREPARED BY:

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

DATE: 04-09-2026
DRAWN BY: RAP
JOB NUMBER: MIAPIQ2502
SHEET NUMBER: 2 OF 3

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
RECORD PLAT - SECTION 2

REVISIONS:

FILE NAME: Deerf
DRAWN BY: SJG
CHECKED BY: NNS
PROJECT No.: MIAPIQ2502
DATE: 04-10-2026
SHEET NUMBER: 4 OF 25

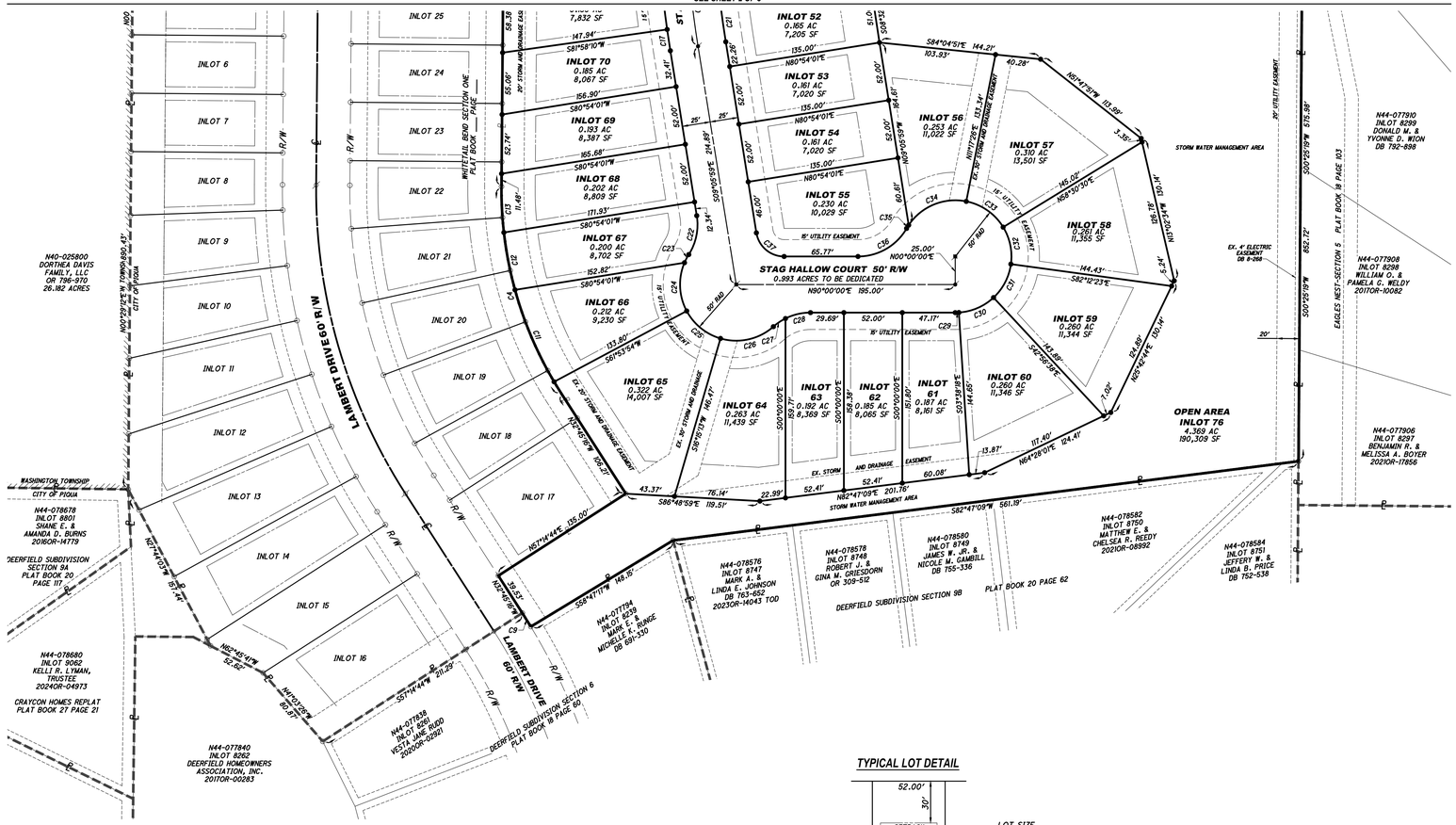
Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ2502_Deerfield Subdivision Section 2_Final Plat_Split.dwg 10-Apr-26 10:59 AM

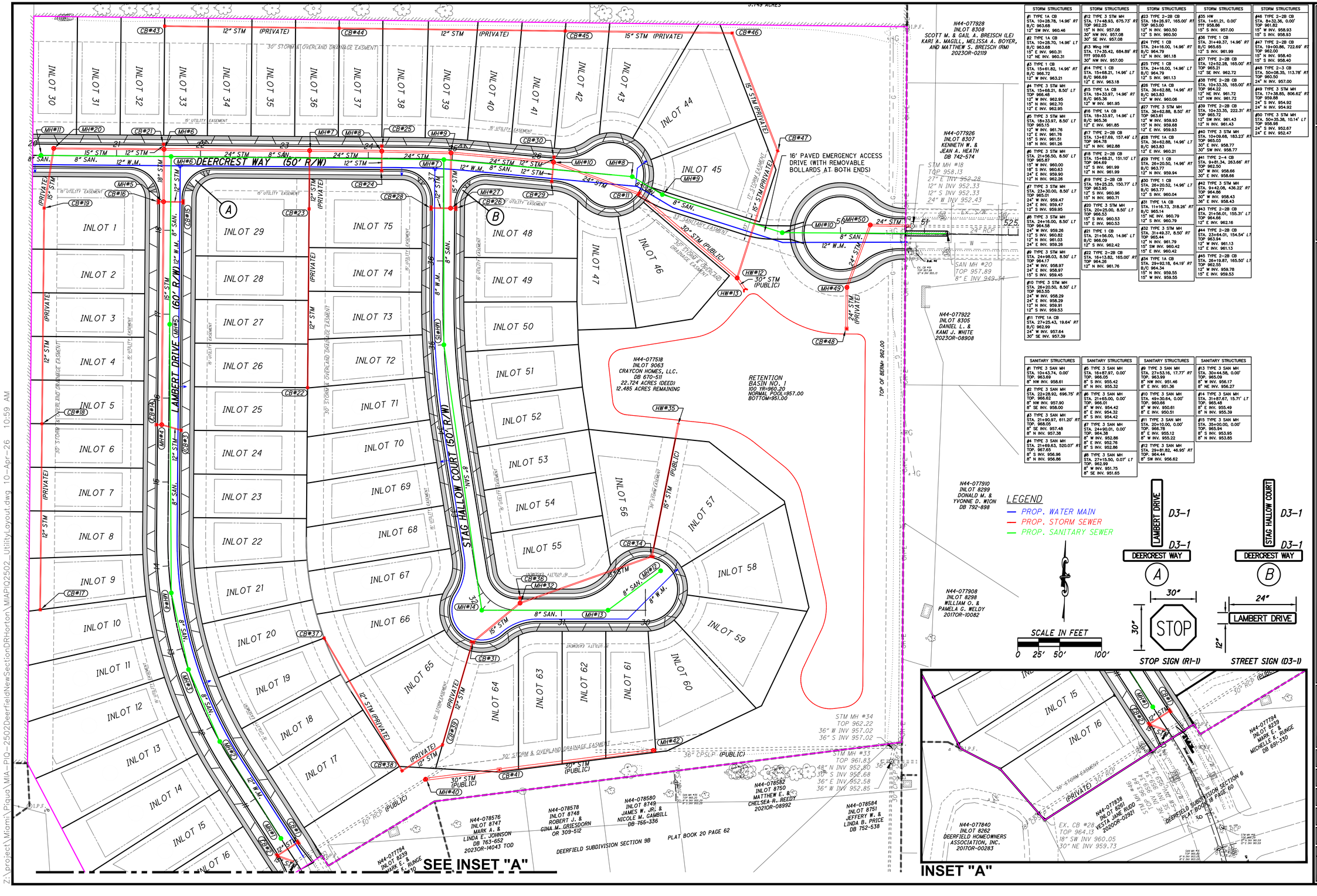
WHITETAIL BEND SECTION TWO

INLOT 9063 / INLOT — PIQUA / CITY — MIAMI / COUNTY — OHIO / STATE

VOLUME _____, PAGE _____-B
MIAMI COUNTY RECORDER'S RECORD OF PLATS

SEE SHEET 2 OF 3


INLOT 52
0.165 AC
7,205 SF
INLOT 53
0.161 AC
7,020 SF
INLOT 54
0.161 AC
7,020 SF
INLOT 55
0.230 AC
10,029 SF
INLOT 56
0.253 AC
11,022 SF
INLOT 57
0.310 AC
13,501 SF
INLOT 58
0.251 AC
11,355 SF
INLOT 59
0.260 AC
11,344 SF
INLOT 60
0.260 AC
11,346 SF
INLOT 61
0.187 AC
8,161 SF
INLOT 62
0.185 AC
8,065 SF
INLOT 63
0.192 AC
8,369 SF
INLOT 64
0.263 AC
11,439 SF
INLOT 65
0.322 AC
14,007 SF
INLOT 66
0.212 AC
9,230 SF
INLOT 67
0.200 AC
8,702 SF
INLOT 68
0.202 AC
8,809 SF
INLOT 69
0.193 AC
8,387 SF
INLOT 70
0.185 AC
8,067 SF
7,832 SF
STAG HALLOW COURT 50' R/W
0.993 ACRES TO BE DEDICATED
N90°00'00"E 195.00'
OPEN AREA
INLOT 76
4.369 AC
190,309 SF
STORM WATER MANAGEMENT AREA
INLOT 6
INLOT 7
INLOT 8
INLOT 9
INLOT 10
INLOT 11
INLOT 12
INLOT 13
INLOT 14
INLOT 15
INLOT 16
INLOT 17
INLOT 18
INLOT 19
INLOT 20
INLOT 21
INLOT 22
INLOT 23
INLOT 24
INLOT 25
LAMBERT DRIVE 50' R/W
LAMBERT DRIVE 60' R/W
WHITETAIL BEND SECTION ONE PLAT BOOK
DEERFIELD SUBDIVISION SECTION 9A PLAT BOOK 20 PAGE 117
DEERFIELD SUBDIVISION SECTION 9B PLAT BOOK 20 PAGE 62
DEERFIELD SUBDIVISION SECTION 6 PLAT BOOK 18 PAGE 60
EAGLES NEST-SECTION 5 PLAT BOOK 18 PAGE 103
EX. 25' STORM AND DRAINAGE EASEMENT
EX. 30' STORM AND DRAINAGE EASEMENT
EX. 30' UTILITY EASEMENT
EX. 4' ELECTRIC EASEMENT DB 8-268
EX. STORM AND DRAINAGE EASEMENT
15' UTILITY EASEMENT
N40-025800
DORTHEA DAVIS FAMILY, LLC
OR 796-970
26.182 ACRES
N44-078678
INLOT 8801
SHANE E. & AMANDA D. BURNS
2018OR-14779
N44-078680
INLOT 9062
KELLI R. LYMAN, TRUSTEE
2024OR-04973
CRAYCON HOMES REPLAT
PLAT BOOK 27 PAGE 21
N44-077838
INLOT 8261
VESTA LANE RUBIO
2020OR-02021
N44-077840
INLOT 8262
DEERFIELD HOMEOWNERS ASSOCIATION, INC.
2017OR-00283
N44-077794
INLOT 8235
MICHAEL F. & MICHELLE F. RUNGE
DB 691-350
N44-078576
INLOT 8747
MARK A. & LINDA E. JOHNSON
DB 763-652
2023OR-14043 TOD
N44-078578
INLOT 8748
ROBERT L. & GINA M. GRIESDORN
OR 309-512
N44-078580
INLOT 8749
JAMES W. JR. & NICOLE M. GAMBILL
DB 755-336
N44-078582
INLOT 8750
MATTHEW E. & CHELSEA R. REEDY
2021OR-08992
N44-078584
INLOT 8751
JEFFERY W. & LINDA B. PRICE
DB 752-538
N44-077910
INLOT 8299
DONALD W. & YVONNE D. WION
DB 792-898
N44-077908
INLOT 8298
WILLIAM O. & PAMELA G. WELDY
2017OR-10082
N44-077906
INLOT 8297
BENJAMIN R. & MELISSA A. BOYER
2021OR-11856
WASHINGTON TOWNSHIP
CITY OF PIQUA
N87°14'44"E 135.00'
S57°14'44"W 211.29'
N62°45'41"W 52.62'
N47°03'29"W 80.87'
N32°45'19"W 59.57'
S58°47'17"E 148.15'
S82°47'09"W 561.19'
N82°47'09"E 201.76'
S86°48'59"E 119.51'
N64°28'01"E 124.41'
N63°42'44"E 130.14'
S65°47'31"W 103.89'
S84°04'51"E 144.21'
S61°52'54"W 133.80'
N32°45'19"W 106.21'
S05°19'01"W 165.17'
S00°25'18"W 852.72'
S00°25'18"W 576.58'
N00°00'00"E 195.00'
S00°00'00"E 89.71'
S00°00'00"E 89.39'
S00°00'00"E 151.80'
S03°18'58"E 144.65'
S42°58'58"E 143.59'
N00°54'34"W 106.74'
N69°30'30"E 145.02'
S82°12'23"E 144.43'
R=25.00'
R=60.00'
L=39.27'
L=47.17'
L=29.69'
L=13.87'
L=7.04'
L=5.24'
L=3.35'
L=12.34'
L=11.48'
L=12.26'
L=18.84'
L=24.89'
L=25.00'
L=65.77'
L=46.00'
L=60.81'
L=52.41'
L=22.99'
L=76.14'
L=43.37'
L=117.40'
L=60.08'
L=144.27'
L=103.93'
L=40.28'
L=3.35'
L=5.24'
L=106.74'
L=144.43'
L=143.59'
L=7.04'
L=64.89'
L=130.14'
L=13.87'
L=117.40'
L=124.41'
L=60.08'
L=52.41'
L=76.14'
L=22.99'
L=43.37'
L=119.51'
L=201.76'
L=52.41'
L=148.15'
L=59.57'
L=80.87'
L=211.29'
L=52.62'
L=135.00'
L=561.19'
L=582.47'
L=576.58'
L=852.72'
L=106.21'
L=165.17'
L=133.80'
L=61.80'
L=61.80'
L=61



STORM STRUCTURES	STORM STRUCTURES	STORM STRUCTURES	STORM STRUCTURES	STORM STRUCTURES
#1 TYPE 1A CB STA. 10+28.78, 14.96' RT B/C 963.68 12" SW INV. 960.46	#12 TYPE 3 STM MH STA. 17+48.93, 675.73' RT TOP 962.25 15" N INV. 957.08 30" NW INV. 957.08 30" SE INV. 957.08	#23 TYPE 2-2B CB STA. 18+26.97, 165.00' RT TOP 963.00 12" N INV. 960.50 12" S INV. 960.50	#35 NW STA. 14+81.21, 0.00' ??? 958.86 15" S INV. 957.00	#46 TYPE 2-2B CB STA. 8+32.36, 0.00' TOP 961.82 15" W INV. 958.93 15" S INV. 958.93
#2 TYPE 1A CB STA. 10+28.70, 14.96' LT B/C 963.68 15" E INV. 960.31 12" NE INV. 960.31	#13 Wing HW STA. 17+35.42, 684.89' RT ??? 959.65 30" NW INV. 957.00	#24 TYPE 1 CB STA. 24+16.00, 14.96' RT B/C 964.79 12" N INV. 961.18	#36 TYPE 1 CB STA. 31+49.37, 14.96' RT B/C 965.65 12" S INV. 961.99	#47 TYPE 2-2B CB STA. 19+00.86, 722.69' RT TOP 962.00 15" N INV. 958.40 24" N INV. 957.00
#3 TYPE 1 CB STA. 15+61.82, 14.96' RT B/C 966.72 12" N INV. 963.21	#14 TYPE 1 CB STA. 15+68.21, 14.96' LT B/C 966.69 12" E INV. 963.18	#25 TYPE 1 CB STA. 24+16.00, 14.96' LT B/C 964.79 12" S INV. 961.13	#37 TYPE 2-2B CB STA. 12+52.28, 165.00' RT TOP 965.21 12" SE INV. 962.72	#48 TYPE 2-3 CB STA. 50+08.35, 113.78' RT TOP 960.50 24" N INV. 957.00
#4 TYPE 3 STM MH STA. 15+68.21, 8.50' LT TOP 966.48 12" W INV. 962.95 15" N INV. 962.70 12" E INV. 962.95	#15 TYPE 1A CB STA. 18+33.97, 14.96' RT B/C 965.36 12" W INV. 961.95	#26 TYPE 1A CB STA. 36+62.88, 14.96' RT B/C 963.83 12" W INV. 960.06	#38 TYPE 2-2B CB STA. 10+33.35, 165.00' RT TOP 964.22 12" NE INV. 961.72 12" NW INV. 961.72	#49 TYPE 3 STM MH STA. 17+38.85, 806.62' RT TOP 959.88 24" S INV. 954.92 24" N INV. 954.92
#5 TYPE 3 STM MH STA. 18+33.97, 8.50' LT TOP 965.15 12" W INV. 961.76 12" N INV. 961.76 15" S INV. 961.51 18" E INV. 961.26	#16 TYPE 1A CB STA. 18+33.97, 14.96' LT B/C 965.36 12" E INV. 961.85	#27 TYPE 3 STM MH STA. 36+62.88, 8.50' RT TOP 963.61 12" W INV. 959.93 15" N INV. 959.68 12" E INV. 959.93	#39 TYPE 2-2B CB STA. 10+33.35, 222.31' RT TOP 965.72 12" SW INV. 961.43 12" N INV. 961.43	#50 TYPE 3 STM MH STA. 50+35.38, 10.14' LT TOP 958.98 24" S INV. 952.67 24" E INV. 952.47
#6 TYPE 3 STM MH STA. 21+56.50, 8.50' LT TOP 965.87 15" W INV. 960.00 18" S INV. 960.63 24" E INV. 959.90 12" N INV. 962.26	#17 TYPE 2-2B CB STA. 13+67.69, 157.49' LT B/C 964.78 12" N INV. 962.88	#28 TYPE 1A CB STA. 36+62.88, 14.96' LT B/C 963.83 12" E INV. 960.21	#40 TYPE 3 STM MH STA. 10+09.68, 153.23' RT TOP 965.03 30" S INV. 958.77 30" SW INV. 958.77	
#7 TYPE 3 STM MH STA. 18+33.97, 8.50' RT TOP 965.36 12" W INV. 961.99 12" N INV. 961.99	#18 TYPE 2-2B CB STA. 15+68.21, 151.10' LT TOP 964.69 12" S INV. 961.99 12" N INV. 961.99	#29 TYPE 1 CB STA. 26+20.50, 14.96' RT B/C 963.77 12" N INV. 959.94	#41 TYPE 2-4 CB STA. 9+81.34, 263.66' RT TOP 962.50 30" W INV. 958.66 30" E INV. 958.66	
#8 TYPE 3 STM MH STA. 23+30.00, 8.50' LT TOP 965.01 24" W INV. 959.47 24" E INV. 959.47 12" N INV. 959.95	#19 TYPE 2-2B CB STA. 18+25.25, 150.77' LT TOP 963.95 12" S INV. 960.96 15" N INV. 960.71	#30 TYPE 1 CB STA. 26+20.50, 14.96' LT B/C 963.77 12" S INV. 960.04	#42 TYPE 3 STM MH STA. 9+42.08, 436.22' RT TOP 964.88 30" W INV. 958.43 30" E INV. 958.43	
#9 TYPE 3 STM MH STA. 24+98.03, 8.50' LT TOP 964.17 24" W INV. 958.97 24" E INV. 958.97 15" S INV. 959.45	#20 TYPE 3 STM MH STA. 20+25.00, 8.50' LT TOP 966.53 15" S INV. 960.53 15" E INV. 960.53	#31 TYPE 1A CB STA. 11+16.73, 318.26' RT B/C 965.14 15" NE INV. 960.79 12" S INV. 960.79	#43 TYPE 2-2B CB STA. 21+56.01, 155.31' LT TOP 964.66 12" E INV. 962.16	
#10 TYPE 3 STM MH STA. 26+20.50, 8.50' LT TOP 963.55 24" W INV. 958.29 24" E INV. 958.29 12" N INV. 959.91 12" S INV. 959.53	#21 TYPE 1 CB STA. 21+56.00, 14.96' LT B/C 966.09 12" S INV. 962.42	#32 TYPE 3 STM MH STA. 31+49.37, 8.50' RT TOP 965.44 12" N INV. 961.79 15" SW INV. 960.42 15" E INV. 960.42	#44 TYPE 2-2B CB STA. 23+64.01, 154.54' LT TOP 963.94 12" W INV. 961.13 12" E INV. 961.13	
#11 TYPE 1A CB STA. 27+25.43, 19.64' RT B/C 962.99 24" W INV. 957.64 30" SE INV. 957.39	#22 TYPE 2-2B CB STA. 15+13.82, 165.00' RT TOP 964.28 12" N INV. 961.76	#33 TYPE 1A CB STA. 29+92.18, 64.19' RT B/C 964.34 15" S INV. 959.55 15" W INV. 959.55	#45 TYPE 2-2B CB STA. 20+19.87, 165.50' LT TOP 962.55 12" W INV. 959.78 15" E INV. 959.53	

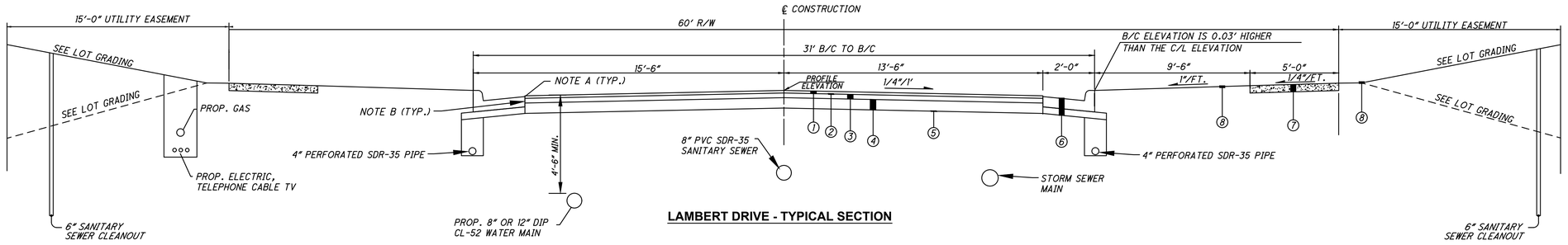
SANITARY STRUCTURES	SANITARY STRUCTURES	SANITARY STRUCTURES	SANITARY STRUCTURES
#1 TYPE 3 SAN MH STA. 10+43.74, 0.00' TOP. 963.69 8" NW INV. 958.61	#5 TYPE 3 SAN MH STA. 16+87.97, 0.00' TOP. 966.05 8" S INV. 955.42 8" E INV. 955.32	#9 TYPE 3 SAN MH STA. 27+53.16, 177.77' RT TOP. 963.99 8" W INV. 951.46 8" E INV. 951.36	#13 TYPE 3 SAN MH STA. 30+44.58, 0.00' TOP. 965.09 8" W INV. 956.17 8" NE INV. 956.27
#2 TYPE 3 SAN MH STA. 22+28.92, 696.75' RT TOP. 966.62 8" NW INV. 957.90 8" SE INV. 958.00	#6 TYPE 3 SAN MH STA. 21+65.00, 0.00' TOP. 966.01 8" W INV. 954.42 8" E INV. 954.32 8" S INV. 954.42	#10 TYPE 3 SAN MH STA. 49+30.64, 0.00' TOP. 960.66 8" W INV. 950.61 8" E INV. 950.51	#14 TYPE 3 SAN MH STA. 31+87.67, 15.71' LT TOP. 965.48 8" E INV. 955.49 8" N INV. 955.39
#3 TYPE 3 SAN MH STA. 21+90.97, 611.20' RT TOP. 968.05 8" SE INV. 957.48 8" N INV. 957.38	#7 TYPE 3 SAN MH STA. 24+90.01, 0.00' TOP. 964.38 8" W INV. 952.86 8" E INV. 952.76 8" S INV. 952.86	#11 TYPE 3 SAN MH STA. 20+10.00, 0.00' TOP. 966.78 8" E INV. 955.12 8" W INV. 955.22	#15 TYPE 3 SAN MH STA. 35+00.00, 0.00' TOP. 965.94 8" S INV. 953.95 8" N INV. 953.85
#4 TYPE 3 SAN MH STA. 21+69.63, 520.07' RT TOP. 967.65 8" S INV. 956.96 8" N INV. 956.86	#8 TYPE 3 SAN MH STA. 27+15.50, 0.07' LT TOP. 962.99 8" W INV. 951.75 8" SE INV. 951.65	#12 TYPE 3 SAN MH STA. 29+81.82, 46.95' RT TOP. 964.44 8" SW INV. 956.62	

CHOICEONE ENGINEERING	SIDNEY, OHIO 937.497.0200 LOVELAND, OHIO 513.239.8554 www.CHOICEONEENGINEERING.com

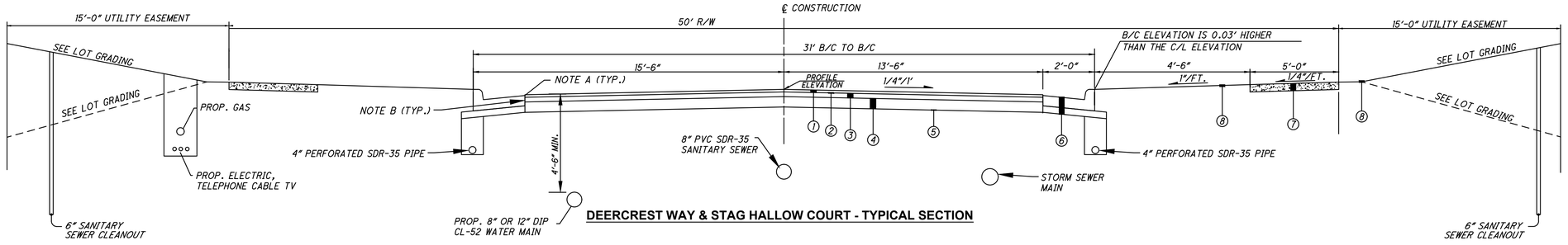
WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
SCHEMATIC PLAN

REVISIONS:	
FILE NAME	Utili
DRAWN BY	SJG
CHECKED BY	NNS
PROJECT No.	MIAPIQ02502
DATE	04-10-2026
SHEET NUMBER	6 OF 25

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ02502_Utility1ayout.dwg 10-Apr-26 10:59 AM



LAMBERT DRIVE - TYPICAL SECTION



DEERCREST WAY & STAG HALLOW COURT - TYPICAL SECTION

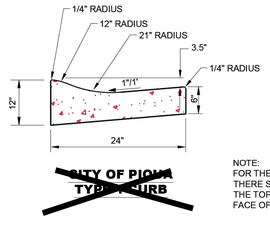
ROAD NAME	RIGHT-OF-WAY	B/B CURB	SIDEWALK WIDTH	CURB LAWN	ON STREET PARKING
DEERCREST WAY & STAG HALLOW COURT	50'	31'	5'	4.5'	BOTH SIDES
LAMBERT DRIVE	60'	31'	5'	9.5'	BOTH SIDES

1. ITEM 441 - 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22
2. ITEM 407 - TACK COAT @ 0.10 GAL./S.Y.
3. ITEM 441 - 2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)
4. ITEM 304 - 12" AGGREGATE BASE
5. ITEM 204 - SUBGRADE COMPACTION
6. ITEM 609 - COMBINATION CURB AND GUTTER - TYPE 2
7. ITEM 608 - 4" CONCRETE WALK
8. ITEM 659 - SEEDING AND MULCHING

MIN. COVER	UTILITY
24"	GAS
24"	SUMP LINE
36"	ELECTRIC
36"	TELEPHONE
36"	CABLE TV
48"	WATER

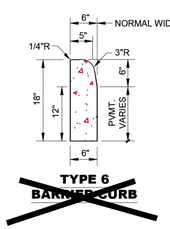
NOTE A
ITEM 441 ASPHALT SURFACE COURSE IS TO BE 1/4" ABOVE GUTTER PLATE.

NOTE B
LIQUID ASPHALT ON FACE OF CURB PRIOR TO ASPHALT PLACEMENT AND SEAL BETWEEN CURB AND PAVEMENT AFTER PLACEMENT OF ITEM 441 ASPHALT

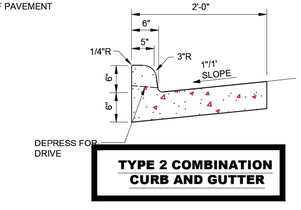


CITY OF PIQUA
TYPE 1 CURB

NOTE:
FOR THE TYPE 1 CURB, THERE SHALL BE 3.5" FROM THE TOP OF CURB TO THE FACE OF GUTTER.



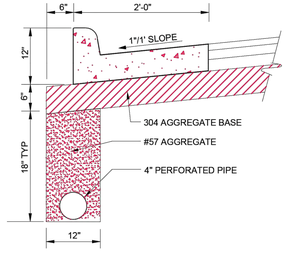
TYPE 6
BARRIER CURB



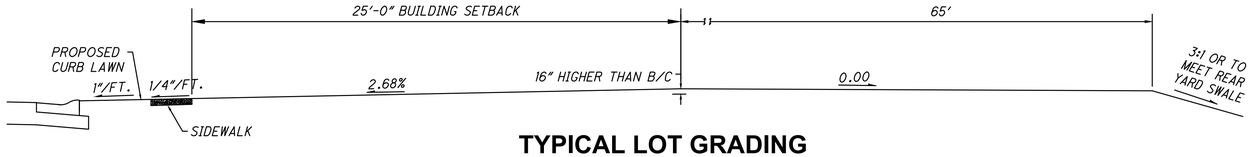
TYPE 2 COMBINATION CURB AND GUTTER

NOTES

A. CONCRETE AND WORK SHALL MEET THE REQUIREMENT SET FORTH IN ODOT ITEM 609 CURBING.
B. CURBING SHALL HAVE CONTRACTION JOINTS EVERY 10'.
C. MINIMUM OF 6" OF ODOT 304 SHALL BE PLACED UNDER CURBING.
D. CURBING SHALL BE BACKFILLED IMMEDIATELY AFTER FORMS ARE REMOVED OR AS SOON AS PRACTICAL WHEN SLIP FORMING PRIOR TO OTHER CONSTRUCTION OPERATIONS.
E. PROVIDE BROOM FINISH AND EDGING TO ALL EXPOSED SURFACES.
F. WITH PRIOR CITY DIRECTION, APPLY WHITE PIGMENTED CURING COMPOUND ON ALL SURFACES IMMEDIATELY AFTER FINISHING SURFACES.
G. ALL CONCRETE SHALL BE ODOT CLASS QC1, (4000 PSI, 520 LB/CY CEMENT) PROPORTIONING OPTIONS 1,2, AND 3 NOT ALLOWED.
H. CONCRETE SHALL CONTAIN 7% ± 2% OF TOTAL AIR.
I. ALL CURBING PLACED SHALL HAVE A FRONT AND REAR FORM. EXCEPTION: UNLESS CURBING IS SLIP FORMED BY MACHINE OR IS ABUTTING CONCRETE DRIVEWAY OR SIDEWALK OR OTHERWISE APPROVED BY THE ENGINEER.
J. MINIMUM FLOW LINE SLOPE OF THE PERFORATED PIPE IS TO BE 0.003 FT/FT TO OUTLET.



4" SHALLOW PIPE UNDERDRAIN DETAIL (AS REQUIRED BY CITY)



TYPICAL LOT GRADING
N.T.S.

CITY OF PIQUA

ACCESS Engineering Solutions

CONCRETE CURB DETAILS

REVISIONS:
11-11-19 BG
12-31-20 BG/KK

DATE APPROVED: DEC. 2016

PAGE No. 300-4

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
TYPICAL SECTION

REVISIONS:

FILE NAME Gener
DRAWN BY SJG
CHECKED BY NNS
PROJECT No. MIAPIQ2502
DATE 04-10-2026
SHEET NUMBER 7 OF 25

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ2502_GeneralDetails.dwg 10-Apr-26 11:00 AM

GENERAL NOTES (CITY OF PIQUA)

ALL CONSTRUCTION SHALL CONFORM TO THE LATEST VERSION OF THE CITY OF PIQUA, OHIO STANDARD SPECIFICATIONS AND TO THE LATEST VERSION OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS.

EXISTING UNDERGROUND UTILITIES AND SERVICES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS ACCORDING TO THE BEST INFORMATION AVAILABLE. THE LOCATIONS SHOWN ARE INTENDED ONLY AS A GUIDE AND CANNOT BE GUARANTEED ACCURATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR:

A. CONTACTING THE INDIVIDUAL UTILITY OWNERS TEN DAYS PRIOR TO CONSTRUCTION AND ADVISING THEM OF THE WORK TO TAKE PLACE.

B. SOLICITING THEIR AID IN LOCATING AND PROTECTING ANY UTILITY WHICH MAY INTERFERE WITH CONSTRUCTION.

C. EXCAVATING AND VERIFYING THE HORIZONTAL AND VERTICAL LOCATION OF EACH UTILITY.

D. ALL DAMAGE TO ANY EXISTING UTILITY.

UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 ORC. EXISTING UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATION ACCORDING TO THE BEST AVAILABLE DATA. THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING THEM IN THE FIELD PRIOR TO CONSTRUCTION AND WILL BE RESPONSIBLE FOR ANY DAMAGE DONE TO THEM. CONTRACTOR TO CONTACT OHIO UTILITIES PROTECTION SERVICE (1-800-362-2764) 48 HOURS PRIOR TO CONSTRUCTION.

NON-MEMBERS MUST BE CALLED DIRECTLY.

SEE CITY OF PIQUA "GENERAL NOTES" DETAIL 500-1, FOR ADDITIONAL UTILITY CONTACT INFORMATION.

OHIO UTILITIES PROTECTION SERVICE (OUPS)
CONTACT 48 HOURS
"CALL BEFORE YOU DIG"
1-800-362-2764

ANY MISCELLANEOUS DRAINS (FIELD TILE, ETC.) ENCOUNTERED DURING CONSTRUCTION SHALL BE TIED INTO THE STORM SEWER UPON INSPECTION BY THE CITY.

ALL STREET SURFACES, DRIVEWAYS, CULVERTS, ROADSIDE DRAINAGE DITCHES AND OTHER STRUCTURES THAT ARE DISTURBED OR DAMAGED IN ANY MANNER AS A RESULT OF CONSTRUCTION SHALL BE REPLACED IN KIND.

SAFETY REQUIREMENTS, STATED UNDER 29 CFR, OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION'S (OSHA) REGULATIONS FOR THIS TYPE OF WORK, WILL BE ENFORCED AND THE CONTRACTOR SHALL COMPLY WITH THESE PROVISIONS.

THE CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO CONTROL SOIL EROSION AND SEDIMENTATION THROUGHOUT THE COURSE OF THE WORK. THIS SHALL INCLUDE THE USE OF HAY BALES, DIKES, SEDIMENT PITS, MULCHES, FILTER FABRICS, AND OTHER DEVICES AND METHODS. PARTICULAR CARE SHALL BE TAKEN TO AVOID EROSION AND SEDIMENTATION ON PUBLIC STREETS AND NEIGHBORING PROPERTIES.

TRAFFIC CONTROL ON ALL PUBLIC ROADS SHALL CONFORM TO THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS".

THE CONTRACTOR SHALL ACQUIRE ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.

ALL NON-PAVED AREAS SHALL BE GRADED, SEEDED, AND MULCHED IN ACCORDANCE WITH ODOT ITEM 659. HIGHLY ERODIBLE AREAS, AS DESIGNATED BY THE CITY, SHALL BE SODDED IN ACCORDANCE WITH ODOT ITEM 660.

ALL UTILITY CROSSINGS (ELECTRIC, GAS, ETC.) ARE TO BE SLEEVED PRIOR TO ROAD COMPACTION TESTING.

CONTRACTOR TO COMMUNICATE WITH THE HOMEBUILDER TO PLACE ALL UTILITIES OUT OF THE FUTURE DRIVEWAY APPROACHES.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON NAVD 88 (ODOT VRS GEOID 12A).

BENCHMARK #1 ELEV. 970.159
BOLT AT TIP ARROW TOP FLANGE OF FIRE HYDRANT AT THE SOUTHWEST CORNER OF THE WHITETAIL LANE DEAD END INTERSECTION.

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. CHOICE ONE ENGINEERING CORPORATION MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. FURTHER, CHOICE ONE ENGINEERING CORPORATION DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH CHOICE ONE ENGINEERING CORPORATION DID LOCATE AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. CHOICE ONE ENGINEERING CORPORATION HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

UTILITY INTERFERENCE

IF, DURING CONSTRUCTION, INTERFERENCE ARISES WITH EXISTING UTILITIES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE UTILITY COMPANY INVOLVED. ANY AND ALL WORK REQUIRED FOR PUBLIC OR PRIVATE UTILITIES WILL BE DONE BY AND AT THE EXPENSE OF THEIR RESPECTIVE OWNERS, UNLESS OTHERWISE NOTED ON THESE PLANS. THE CONTRACTOR SHALL NOTIFY, AT LEAST 7 DAYS BEFORE BREAKING GROUND, ALL PUBLIC SERVICE COMPANIES HAVING WIRES, POLES, PIPES, CONDUITS, MANHOLES, OR OTHER STRUCTURES THAT MAY BE AFFECTED BY THIS OPERATION, INCLUDING ALL STRUCTURES WHICH ARE AFFECTED AND NOT SHOWN ON THESE PLANS.

LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL UTILITIES, AND STRUCTURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE METHOD OF SUPPORT OR PROTECTION MUST BE APPROVED BY THE APPROPRIATE UTILITY COMPANY, AND IF FACILITY IS DAMAGED BY THE CONTRACTOR, ALL REPAIRS SHALL BE MADE BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR IS HEREBY ADVISED THAT ALL UTILITY COMPANIES AFFECTED BY THIS PROJECT MAY BE WORKING CONCURRENTLY WITHIN THE PROJECT LIMITS. NO ADDITIONAL COMPENSATION WILL BE MADE TO THE CONTRACTOR FOR COORDINATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE UTILITY COMPANIES.

UTILITIES

CONTRACTOR SHALL INSTALL AND/OR COORDINATE THE INSTALLATION OF GAS, ELECTRIC, TELEPHONE AND CABLE TELEVISION. CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES PRIOR TO INSTALLATION OF ANY FACILITIES. ALL UTILITIES SHALL BE INSTALLED PER EACH PARTICULAR UTILITY COMPANY'S STANDARDS AND PROCEDURES. CONTRACTOR TO VERIFY ACTUAL SIZES, LOCATIONS (POINTS OF ENTRY INTO THE BUILDING) AND INVERTS OF ALL UTILITIES TYING INTO THE BUILDING WITH ARCHITECT PLANS BEFORE CONSTRUCTION.

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND BEFORE FINAL ACCEPTANCE BY THE OWNER, REPRESENTATIVES OF THE OWNER AND THE CONTRACTOR SHALL MAKE AN INSPECTION OF ALL EXISTING SEWER THAT MAY BE AFFECTED BY THE WORK AND ARE TO REMAIN IN SERVICE. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE OWNER.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER.

EXISTING DRAINAGE FACILITIES

ANY DRAINAGE CONDUIT CURRENTLY CONNECTED TO THE EXISTING STORM SEWER SHALL BE CONNECTED TO THE PROPOSED STORM SEWER. ANY DRAINAGE CONDUIT DAMAGED BY THE CONTRACTOR SHALL BE REPLACED BY THE CONTRACTOR TO A CONDITION EQUAL TO OR BETTER THAN ITS ORIGINAL CONDITION. ALL CONDUIT REMOVED, REPLACED AND/OR CONNECTED TO THE STORM SEWER SHALL BE NOTED ON THE RECORD DRAWINGS AND SHALL BE INSPECTED BY THE CITY BEFORE IT IS COVERED.

A CONCRETE COLLAR SHALL BE PROVIDED WHERE PROPOSED STORM SEWER PIPE IS CONNECTED TO AN EXISTING PIPE. THE COST SHALL BE INCLUDED IN THE COST OF THE CONTRACTORS OVERALL LUMP SUM BID FOR THE PROJECT.

ALL FIELD OR STORM DRAINS WHICH ARE ENCOUNTERED DURING CONSTRUCTION SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS OR PLUGGED AS APPROVED AND DIRECTED BY THE CITY CONNECTION OF INTERSECTING DRAIN TILES AND THE PROPOSED STORM SEWER SHALL BE THROUGH MANUFACTURED TEES, UNLESS OTHERWISE APPROVED BY THE CITY. COST OF ALL THE ITEMS ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PROJECT.

FIRE HYDRANT ASSEMBLY

THE ASSEMBLY WILL CONSIST OF THE FIRE HYDRANT, PIPE BRANCH, A GATE VALVE WITH VALVE BOX, THRUST BLOCKING AND RESTRAINING GLANDS.

WATER MAIN TESTING NOTES

- REFER TO CITY OF PIQUA'S STANDARD DETAIL, "WATER MAIN MATERIAL AND TESTING", 800-5.

PRECONSTRUCTION MEETING

ONCE THE JOB IS AWARDED TO A CONTRACTOR THERE SHALL BE A PRECONSTRUCTION MEETING WITH THE FOLLOWING ATTENDING PRIOR TO THE START OF ANY WORK:

-OWNER
-CONTRACTOR
-DESIGN ENGINEER
-CITY OF PIQUA (ENGINEERING, UTILITIES)
-PIONEER RURAL ELECTRIC- ELECTRIC
-ATT-PHONE SERVICE- TELEPHONE
-CHARTER COMMUNICATIONS - CABLE
-CENTERPOINT ENERGY- GAS

WATER MAIN SEPARATION

WHENEVER A SANITARY SEWER AND A WATER MAIN MUST CROSS, THE SEWER SHALL BE LAID BELOW THE WATER MAIN AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18" BELOW THE BOTTOM OF THE WATER MAIN PIPE. IF IT IS ABSOLUTELY IMPOSSIBLE TO MAINTAIN THE 18" VERTICAL SEPARATION, THE SEWER SHALL BE EITHER CONSTRUCTED OF EITHER SLIP-ON OR MECHANICAL JOINT WATER MAIN MATERIAL AND BE PRESSURE TESTED TO 150 PSI TO ENSURE WATER-TIGHTNESS OR BE ENCASED IN A ¼" THICK CONTINUOUS STEEL, DUCTILE IRON OR PRESSURE RATED, DR 18 OR LESS PVC PIPE FOR A DISTANCE OF 10 FEET ON EITHER SIDE OF THE CROSSING. THE SEWER SHALL BE THE LONGEST STANDARD LENGTH AVAILABLE AND BE CENTERED AT THE POINT OF CROSSING SO THE JOINTS ARE AS FAR AS POSSIBLE FROM THE WATER MAIN.

WHENEVER A STORM SEWER AND A WATER MAIN MUST CROSS, THE PIPES SHALL BE LAID AT SUCH ELEVATIONS THAT THE CROWN OF ONE PIPE IS AT LEAST 18" BELOW THE BOTTOM OF THE OTHER. WATER MAIN MUST BE INSTALLED WITH A MINIMUM OF 10' HORIZONTAL SEPARATION FROM ALL STORM AND SANITARY SEWERS, MEASURED FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.

WATER MAIN SHALL BE INSTALLED A MINIMUM OF 10' FROM ALL SEWERS, MEASURED FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.

CLEAN WATER CONNECTIONS

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

SANITARY SEWER TESTING NOTES

SEE CITY OF PIQUA STANDARD DETAILS, "SANITARY TESTING NOTES", 900-11 AND "SANITARY SEWER TELEVISING STANDARDS", 900-12.

SUBCONTRACTOR SUPERVISION

THE CONTRACTOR IS REQUIRED TO HAVE A PROJECT SUPERVISOR ON-SITE TO SUPERVISE THE SUBCONTRACTOR FOR QUALITY CONTROL PURPOSES AND TO PROVIDE ANY NECESSARY ASSISTANCE TO THE SUBCONTRACTOR TO ENSURE QUALITY WORK.

COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTORS OVERALL LUMP SUM BID FOR THE PROJECT.

SAFETY

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK.

MUD

THE TRACKING OR SPILLING OF MUD, DIRT, OR DEBRIS UPON CITY STREETS IS PROHIBITED, AND ANY SUCH OCCURRENCE SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR.

CERTIFICATION OF PROPERTY PINS

UPON COMPLETION OF ALL ROADWAY AND UTILITIES, INCLUDING ALL GAS, ELECTRIC AND LIGHTING, AND THE FINAL LIFT OF ASPHALT, THE DEVELOPER SHALL HAVE A PROFESSIONAL SURVEYOR VERIFY ALL LOT PINS FOR PROPER LOCATION. THE SURVEYOR SHALL SEND A CERTIFICATION LETTER TO THE CITY ENGINEER.

PROTECTION OF SUB-SURFACE TILE

BE ADVISED: A SUB-SURFACE DRAINAGE SYSTEM MAY EXIST ON THIS SITE. THE SYSTEM AND/OR OUTLET, IF LOCATED ON THIS PROPERTY, MUST BE MAINTAINED AT ALL TIMES.

RECORD DRAWINGS

THE CONTRACTOR SHALL PROVIDE 2 COMPLETE SETS OF RECORD DRAWINGS TO THE CITY OF PIQUA WITHIN 30 DAYS OF PROJECT COMPLETION. THESE DRAWINGS SHALL SHOW ALL CHANGES TO THE ORIGINAL DRAWINGS, ALL MANHOLE AND CATCH BASIN LOCATIONS AND INVERTS, ALL LATERAL LOCATIONS AND DEPTHS, ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION, AND ALL OTHER PERTINENT DATA TO THE IMPROVEMENTS. PAYMENT FOR THIS ITEM SHALL BE INCIDENTAL TO THE OTHER ITEMS PAID FOR IN THIS PROJECT.

CAD FILE DISCLAIMER

THE CAD FILE ASSOCIATED WITH THESE CONSTRUCTION PLANS IS A NON-CERTIFIED DOCUMENT. ANY USE OF THE INFORMATION OBTAINED OR DERIVED FROM THE ASSOCIATED CAD FILE WILL BE AT THE RECEIVING PARTY/USER'S RISK. CHOICE ONE ENGINEERING CORP. OFFERS NO WARRANTY AS TO THE ACCURACY OF THE INFORMATION IN THE CAD FILE OR THAT REVISIONS HAVE BEEN ISSUED AFTER THE CAD DRAWING WAS RELEASED. RECEIVING PARTIES/USERS SHALL HOLD HARMLESS TO THE MAXIMUM EXTENT ALLOWED BY LAW CHOICE ONE ENGINEERING CORP. FROM ANY USE OF THE CAD FILE BY THE RECEIVING PARTY/USER. IN ALL CIRCUMSTANCES, AND AT ALL TIMES, THE PUBLISHED PAPER AND/OR PDF DRAWINGS FOR THE PROJECT SHALL SUPERSEDE THE CAD FILES. IN THE CASE OF AN INCONSISTENCY BETWEEN THE PUBLISHED PAPER/PDF DRAWINGS AND THE ASSOCIATED CAD FILE, THE PUBLISHED PAPER/PDF DRAWINGS SHALL GOVERN THE PROJECT AND ALL WORK.

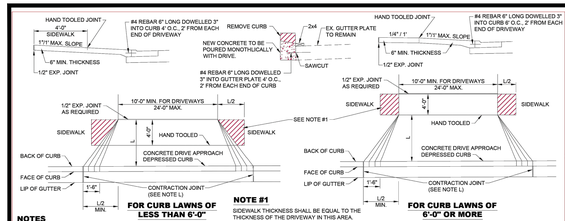
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
GENERAL NOTES

REVISIONS:

FILE NAME	Gener
DRAWN BY	SJG
CHECKED BY	NNS
PROJECT No.	MIAPIQ2502
DATE	04-10-2026
SHEET NUMBER	8 OF 25

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ2502_GeneralDetails.dwg 10-Apr-26 11:00 AM



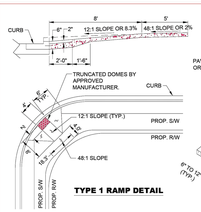
NOTES

A. DRIVE APPROACHES SHALL MEET THE REQUIREMENTS OF ODOT ITEM 452, 455, 608, AND 609 DATED AS PLACED IN CONTRACT.
B. DRIVE APPROACHES MAY BE PLACED MONOLITHICALLY WITH CURB.
C. MAXIMUM JOINT SPACING SHALL BE 10' LONGITUDINALLY, TRANSVERSELY AND AT TAPERS.
D. EXPANSION MATERIAL SHALL BE 0.5" PREMOLDED, ODOT APPROVED.
E. 6" OF COMPACTED ODOT ITEM 304, ITEM 411 OR 57'S AGGREGATE BASE SHALL BE PLACE UNDER DRIVE APPROACHES.
F. PROVIDED BROOM FINISH AND EDGING TO ALL EXPOSED SURFACES.
G. WHERE CURB AND GUTTER HAS NOT BEEN DROPPED AT DRIVE APPROACHES, THE CONTRACTOR WILL CUT AND REMOVE CURB. (SEE DETAIL)
H. WHERE ASPHALTIC CONCRETE PAVEMENT HAS BEEN DISTURBED, THE ASPHALT SHALL BE REPLACED BY THE CONTRACTOR AS DIRECTED BY THE CITY.
I. JOINTS SHALL BE CLEANED AND EDGED BY A ½" ROUGE EDGER, LONGITUDINAL JOINTS SHALL BE ALIGNED TO DRIVE WAY CITY. EXPANSION JOINTS SHALL BE OF SUCH DIMENSIONS AS SHOWN ON STANDARD DRAWINGS FOR CONSTRUCTION JOINTS.
J. CONCRETE SHALL CONTAIN 6% ± 2% OF TOTAL AIR.
K. THE STANDARD DRAWING IS FOR GUIDELINE PURPOSES. EACH INDIVIDUAL DRIVE WILL NEED TO BE DESIGNED AND SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL.
M. "6"=10' MINIMUM TO 24' MAXIMUM UNLESS OTHERWISE APPROVED BY THE CITY.
N. IF CURB IS REMOVED AND REPLACED DURING DRIVEWAY CONSTRUCTION, JOINTS BETWEEN EXISTING AND NEW CURB ARE TO BE DOWELLED WITH #4 REBAR AT 60 CENTERS, 2' INTO CURB, 4' OC.
O. ALL NEW CONSTRUCTION OR MODIFICATIONS OF DRIVE APPROACHES REQUIRE A CONCRETE APPROACH REGARDLESS OF WHETHER THERE IS A SIDEWALK OR NOT. THE NEW APPROACH IS TO GO FROM EDGE OF THE EXISTING STREET TO RIGHT OF WAY OR MINIMUM OF 6'-0"
P. DRAINAGE ISSUES WILL HAVE TO BE ADDRESSED, WHEN A DRIVEWAY IS INSTALLED OR MODIFIED.
Q. PRECAUTIONS SHALL BE TAKEN TO PROTECT EXISTING CONCRETE, BRICK FROM TRIM, MARKS AND DAMAGE DURING CONSTRUCTION.

NOTE #1

SIDEWALK THICKNESS SHALL BE EQUAL TO THE THICKNESS OF THE DRIVEWAY IN THIS AREA.

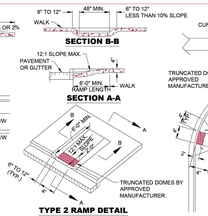
CITY OF PIQUA | ACCESS Engineering Solutions | RESIDENTIAL DRIVE APPROACH | REVISIONS: 8G 8-27-18 | DATE APPROVED: DEC. 2016 | PAGE No. 300-5



TYPE 1 RAMP DETAIL

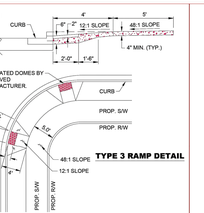
NOTES

A. CITY TO SPECIFY TYPE 1,2, OR 3 RAMP.
B. ANY COMBINATION OF SIDE SLOPES ON OPPOSITE SIDES OF A RAMP MAY BE USED TO BEST FIT THE SITE CONDITIONS.
C. THE MINIMUM RAMP LENGTH IS 6'-0" FOR THE BACK OF A 6'-0" CURB AND MAY BE INCREASED WHERE FEASIBLE TO OBTAIN FLATTER RAMP SLOPE OR TO BETTER BLEND WITH THE SITE CONFIGURATION.
D. WALK THICKNESS IN THE RAMP SLOPES SHALL BE 6" MINIMUM OR THICKER AS NECESSARY TO MATCH ADJACENT WALK THICKNESS.
E. CURB RAMPS SHALL MEET AND BE FINISHED TO AMERICAN WITH DISABILITIES ACT (ADA) STANDARDS.
F. TEXTURE OF CONCRETE SURFACES SHALL BE OBTAINED BY COURSE BROOMING TRAVERSE TO THE RAMP SLOPES AND SHALL BE ROUGHER THAN ADJACENT WALK.



TYPE 2 RAMP DETAIL

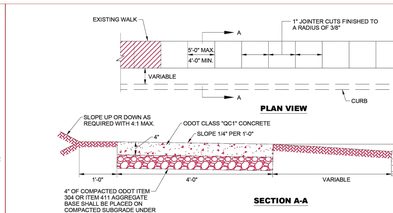
G. CURB RAMPS SHALL MEET THE REQUIREMENTS OF ODOT ITEM 608 UNLESS OTHERWISE SPECIFIED WITHIN. REFER TO ODOT STANDARD DRAWINGS FOR ADDITIONAL CURB RAMP CONFIGURATIONS.
H. CONCRETE SHALL BE ODOT QC1, (4000 PSI 520LB/CY CEMENT) PROPORTIONING OPTIONS 1,2, & 3 NOT ALLOWED. CONCRETE SHALL CONTAIN 6% ± 2% TOTAL AIR.
I. FOR RECONSTRUCTION JOBS THE CURB RAMPS WILL HAVE TO BE ADDRESSED BASED ON THE EXISTING CONDITIONS.
J. TRUNCATED DOME SPECIFICATIONS: INSTALL DETECTABLE WARNINGS (TRUNCATED DOMES) FOR A DISTANCE OF 24" FROM THE BACK OF THE CURB FOR THE ENTIRE WIDTH OF THE RAMP OPENING WHERE IT IS FLUSH WITH THE PAVEMENT. THE TRUNCATED DOMES SHALL BE DOT APPROVED, THE COLOR OF THE PANEL SHALL BE RED.



TYPE 3 RAMP DETAIL

K. CURB RAMPS TO BE POURED ON COMPACTED GRANULAR BEDDING. CITY INSPECTION OF FORM WORK IS REQUIRED PRIOR TO PLACING CONCRETE.
L. PROVIDE BROOM FINISH AND EDGING TO ALL EXPOSED SURFACES. TEXTURE SHALL BE A MEDIUM BROOM WITH TOOL FINISH, CITY TO REVIEW AND APPROVE PRIOR TO POURING.
M. ALL DETECTABLE WARNINGS CURB RAMPS TO BE CAST IRON MANUFACTURED BY EAST JORDAN IRON WORKS 7005 SERIES, NEENAH FOUNDRY MODEL R-4984.
N. ALL RAMPS SHALL BE DOUBLED TO THE CURB BY THE CURB AND GUTTER PER CITY STANDARDS 302-07 CONCRETE SIDEWALK ABUTTING TYPE 2 CURB DETAIL.
O. ADA SPECIFICATIONS SHALL ALL INCLUDE ALL PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG) FEDERAL STANDARDS.

CITY OF PIQUA | ACCESS Engineering Solutions | CURB RAMPS | REVISIONS: 9-09-16 8G; 12-01-20 8GMK | DATE APPROVED: DEC. 2016 | PAGE No. 300-8



COMBINED CURB AND SIDEWALK DETAIL

CITY OF PIQUA | ACCESS Engineering Solutions | CONCRETE SIDEWALK DETAIL | REVISIONS: 12-01-20 8GMK | DATE APPROVED: DEC. 2016 | PAGE No. 300-9

NOTES

A. WALK TO BE POURED ON COMPACTED GRANULAR BEDDING.
B. PROVIDE BROOM FINISH TO ALL EXPOSED SURFACES.
C. CONCRETE SHALL CONFORM TO ODOT ITEM 499 CONCRETE. CONCRETE WORK SHALL CONFORM TO ODOT ITEM 499 UNLESS OTHERWISE SPECIFIED WITHIN.
D. PROVIDE EDGING AROUND ALL EXPOSED SURFACES.
E. APPLY ONE COAT OF A WHITE PIGMENTED ODOT APPROVED CONCRETE SEALER ON ALL SURFACES ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
F. WHEN RENOVATING EXISTING STREETS, THE SIDEWALKS SHALL BE REPLACED TO CONFORM WITH CITY CONSTRUCTION STANDARDS AND DRAWINGS.
G. CONCRETE SHALL BE ODOT QC1, (4000 PSI, 520 LB/CY CEMENT) PROPORTIONING OPTIONS 1,2, & 3 NOT ALLOWED
H. CONCRETE SHALL CONTAIN 7% ± 2% OF TOTAL AIR.
I. PROPERTY PINS SHALL BE RE-ESTABLISHED AFTER FINISHING OF SIDEWALK.
J. COLD WEATHER POURING WILL NOT BE PERMITTED IF AMBIENT AIR TEMPERATURE IS AT OR BELOW 40°F AND FALLING. CONCRETE MAY BE PLACED WHEN THE FOLLOWING TEMPERATURE FIGURES ARE TO BE ALLOWED FOR A PERIOD OF NO LESS THAN THREE DAYS FROM THE TIME OF THE POUR: AT NO TIME SHALL THERE BE ANY FROST ON ANY PART OF THE GRAVEL BASE, THE FORMS OR ANY ADJURING MEMBER PRIOR TO POURING THE CONCRETE.

SIDEWALK JOINTS

1. GENERAL: CONSTRUCT ISOLATION, CONSTRUCTION, AND CONTRACTION JOINTS, AND TOOL EDGINGS TRUE TO LINE WITH FACES PERPENDICULAR TO SURFACE PLANE OF CONCRETE. CONSTRUCT TRANSVERSE JOINTS AT RIGHT ANGLES TO CENTERLINE, UNLESS OTHERWISE INDICATED.
   A. WHEN JOINING EXISTING PAVEMENT, PLACE TRANSVERSE JOINTS TO ALIGN WITH PREVIOUSLY PLACED JOINTS, UNLESS OTHERWISE INDICATED.
2. CONSTRUCTION JOINTS: SET CONSTRUCTION JOINTS AT SIDE AND END TERMINATION OF PAVEMENT AND AT LOCATIONS WHERE PAVEMENT OPERATIONS ARE STOPPED FOR MORE THAN ONE-HALF HOUR, UNLESS PAVEMENT TERMINATES AT ISOLATION JOINTS.
3. EXPANSION JOINTS: FORM ISOLATION JOINTS OF PREFORMED JOINT-FILLER STRIPS ABUTTING MANHOLES, STRUCTURES, WALKS, OTHER FIXED OBJECTS, AND WHERE INDICATED. EXPANSION JOINTS SHALL NOT BE PLACED AT THE BUILDING FACE UNLESS DIRECTED BY THE CITY OF PIQUA.
   A. LOCATION OF EXPANSION JOINTS AT INTERVALS OF 60', UNLESS OTHERWISE INDICATED.
   B. LOCATE EXPANSION JOINTS ALONG BUILDINGS.
   C. THE EXPANSION JOINT MATERIAL SHALL BE ¼" THICK ODOT SPECIFICATIONS
4. CONTRACTION JOINTS: FORM WEAKENED-PLANE CONTRACTION JOINTS, SECTIONING CONCRETE INTO AREAS AS INDICATED IN THE PLANS. CONSTRUCT CONTRACTION JOINTS FOR A DEPTH EQUAL TO AT LEAST ONE-FOURTH OF THE CONCRETE THICKNESS, WHERE INDICATED, AS FOLLOWS:
   A. GROOVED JOINTS: FROM CONTRACTION JOINTS AFTER INITIAL FLOATING BY GROOVING AND FINISHING EACH EDGE OF JOINT WITH GROOVER TOOL TO THE FOLLOWING RADIUS. REPEAT GROOVING OF CONTRACTION JOINTS AFTER APPLYING SURFACE FINISHES. ELIMINATE GROOVER OVERFLOW SLURRY MARKS ON CONCRETE SURFACES. QUALITY WORK SHALL BE PERFORMED OR THE NEW SIDEWALK WILL BE REMOVED AND REDONE AT THE CONTRACTOR'S EXPENSE. RADIUS TO BE ¼ INCH (6 MM).
   B. SAWED JOINTS WILL NOT BE PERMITTED.
5. EDGING: TOOL EDGES OF JOINTS IN CONCRETE AFTER INITIAL FLOATING WITH AN EDGING TOOL TO A RADIUS OF 1/8 INCH (6MM). REPEAT TOOLING OF EDGES AFTER APPLYING SURFACE FINISHES. ELIMINATE TOOL MARKS (OVER LOW SLURRY) ON CONCRETE SURFACES.

CITY OF PIQUA | ACCESS Engineering Solutions | CONCRETE SIDEWALK NOTES | REVISIONS: 09-26-16 8G; 12-01-20 8GMK; 12-31-20 8GMK; 02-03-21 8GMK | DATE APPROVED: DEC. 2016 | PAGE No. 300-10

GENERAL

A. ALL STREET CONSTRUCTION SHALL BE IN ACCORDANCE WITH ODOT SPECIFICATIONS LATEST REVISION.
B. CONTRACTOR MUST APPLY FOR NECESSARY PERMITS, FEES WITH THE CITY BEFORE CONSTRUCTION OR DEMOLITION BEGINS.

PAVEMENT REPLACEMENT

A. IMMEDIATELY AFTER PLACEMENT OF BACKFILL IN EXISTING STREETS, A TEMPORARY PAVEMENT SHALL BE INSTALLED AND THE STREET OPENED. TEMPORARY PAVEMENT SHALL CONSIST OF A MINIMUM OF 6" OF ODOT SPECIFIED 411 BASE AND A SURFACE COURSE APPROVED BY THE CITY. THE SURFACE COURSE KEPT FLUSH WITH THE EXISTING STREET.
B. PERMANENT PAVEMENT REPLACEMENT SHALL BE EQUAL TO OR EXCEED THE EXISTING PAVEMENT (MINIMUM PAVEMENT COMPOSITION, SEE PAGE 300-2).
C. ANY SETTLEMENT OF A TRENCH CAUSING A DEPRESSION SHALL BE REFILLED AS REQUIRED AT THE CONTRACTOR'S EXPENSE. THIS PROVISIONS APPLIES FOR ONE YEAR PERIOD AFTER THE WORK HAS BEEN ACCEPTED BY THE CITY.
D. ALL TEMPORARY PAVEMENT AND SIDEWALK SHALL BE MAINTAINED BY THE CONTRACTOR OR APPLICANT AT THEIR OWN EXPENSE IN A SUITABLE AND SAFE CONDITION FOR TRAFFIC UNTIL PERMANENT REPLACEMENT IS MADE OR THE PROJECT IS FINALLY ACCEPTED BY THE CITY. FOR COLD PATCH ALL TRENCHES A MINIMUM OF 4" WIDER THAN ASPHALT WILL NOT BE REPLACED WITHIN 24 HOURS.

TRAFFIC CONTROL

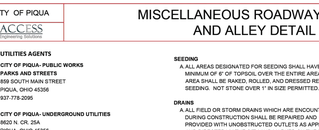
A. THE CONTRACTOR SHALL MAINTAIN TRAFFIC CONTROL AT ALL TIMES WITH THE PROPER BARRICADES AS PER THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THESE CONTROL DEVICES SHALL BE IN PLACE PRIOR TO ANY WORK COMMENCING.
B. TRAFFIC SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE CITY.

CURB STAKING AND ROADWAY

A. LINE AND GRADE EVERY 25' 0" ON A CONVENIENT OFFSET.

PAVEMENT (ASPHALT)

A. THE CONTRACTOR SHALL PROVIDE THE CITY WITH A COPY OF THE NORMAL (MEDIUM DUTY) ODOT ASPHALT MIX FORMULA FOR EACH PLANT THAT PROVIDES HOT MIXED ASPHALT TO THIS PROJECT. ALL MIXES SHALL FOLLOW ODOT JOB MIX FORMULA
B. ALL WORK SHALL ADHERE TO ODOT'S LASTEST REVISIONS AND TO THE CITY SPECIFICATIONS WHICH IS MORE STRINGENT SHALL PREVAIL UNLESS OTHERWISE APPROVED.
C. PATCHED AREAS SHALL BE SAWED ON THE PERIMETER OF THE PATCH WITH ASPHALT CEMENT.
D. ALL UTILITY ADJUSTMENTS, MANHOLE, WATER VALVES, SHALL BE RAISED TO FINISHED GRADE AFTER THE FINAL ASPHALT LIFT IS PLACED. ALL ADJUSTMENTS SHALL MEET THE CITY'S REQUIREMENTS, A REPAIR SIMILAR TO MR. MANHOLE SHALL BE USED TO ADJUST THE MANHOLE OR VALVE.
E. ASPHALT CEMENT SHALL BE USED NEXT TO THE LIP OF GUTTER PRIOR TO THE FINAL ASPHALT LIFT BEING PLACED (PG64-22 SEAL).
F. TACK COAT SHALL BE APPLIED PRIOR TO THE PLACEMENT OF THE FINAL LIFT OF ASPHALT. IF THE EXISTING ASPHALT LIFT IS DIRTY, OR AFTER TEN DAYS UNLESS OTHERWISE APPROVED. TEMPERATURE MUST BE 50° F OR HIGHER, ALL TACK SHALL BE TRACKLESS.
G. PRIME COAT SHALL BE APPLIED ON NEW AGGREGATE WHEN TEMPERATURE IS 50° F OR HIGHER. ALL DRIVEWAYS SHALL BE PRIMED PRIOR TO PLACEMENT OF ASPHALT UNLESS OTHERWISE APPROVED.
H. NO ASPHALT SHALL BE PLACED OVER EXCAVATED TRENCHES UNTIL IT HAS BEEN COMPACTED AS PER CITY SPECIFICATIONS.
I. LIP OF GUTTER ASPHALT SHALL BE FINISHED TO ¼" ABOVE THE LIP OF GUTTER.
J. ASPHALT CEMENT SHALL BE USED ON ALL JOINTS AND FEATHERED SURFACES PRIOR TO PLACEMENT OF THE NEXT COURSE OF ASPHALT TO THE ABUTTING JOINT, UNLESS OTHERWISE APPROVED.
K. ALL EDGES TO BE TRIMMED BACK TO SOLID MATERIAL BY SAWING AND BE CUT STRAIGHT AND NEAT AS PER THE CITY'S INSTRUCTIONS.



TYPICAL ALLEY CONSTRUCTION

A. MINIMUM STANDARD (UNLESS OTHERWISE APPROVED).
B. FOR RENOVATION OF EXISTING ALLEYS ONLY, NO NEW ALLEYS WILL BE APPROVED WITHIN THE CITY.

CITY OF PIQUA | ACCESS Engineering Solutions | MISCELLANEOUS ROADWAY NOTES AND ALLEY DETAIL | REVISIONS: 12-09-19 8G; 12-31-20 8GMK | DATE APPROVED: DEC. 2016 | PAGE No. 300-12

UTILITIES AGENTS

CITY OF PIQUA- PUBLIC WORKS
PARKS AND STREETS
559 SOUTH MAIN STREET
PIQUA, OHIO 45356
937-778-2095

CITY OF PIQUA- UNDERGROUND UTILITIES
8620 N. CR. 25A
PIQUA, OHIO 45356
937-778-2018

CITY OF PIQUA- POWER DISTRIBUTION
201 HEIMI AVENUE
PIQUA, OHIO 45356
937-778-2077

PIONEER RURAL ELECTRIC-POWER SERVICE
344 WEST US ROUTE 36
PIQUA, OHIO 45356
937-778-2523

DPL-POWER SERVICE
2385 CAMPBELL ROAD
SIDNEY, OHIO 45365
937-331-3315

CENTER POINTVECTREN-GAS
2395 E. MAIN STREET
DANVILLE, INDIANA 46122
937-440-1844

ATT- PHONE SERVICE — **CHARTER COMMUNICATION-CABLE**
GUY SPIDEL — 3691 TURNER COMMUNICATION
937-296-3699 — DAYTON, OHIO 45414
GS1878@ATT.COM

OHIO UTILITIES PROTECTION SERVICE
3 WORKING DAYS BEFORE YOU DIG
TOLL FREE 1-800-362-2764

SEEDING

A. ALL AREAS DESIGNATED FOR SEEDING SHALL HAVE A MINIMUM OF 6" OF TOPSOIL OVER THE ENTIRE AREAS. THE AREA SHALL BE RAKED, ROLLED, AND DRESSED READY FOR SEEDING. NOT STONE OVER 1" IN SIZE PERMITTED.

DRAINS

A. ALL FIELD OR STORM DRAINS WHICH ARE ENCOUNTERED DURING CONSTRUCTION SHALL BE REPAIRED AND PROVIDED WITH UNOBSTRUCTED OUTLETS AS APPROVED AND DIRECTED NY THE CITY AND MARKED ON THE RECORD DRAWINGS.

CONNECTIONS TO EXISTING PIPE

A. WHERE THE PLANS PROVIDE FOR PROPOSED CONDUIT TO BE CONNECTED TO, OR TO CROSS EITHER OVER OR UNDER AN EXISTING SEWER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING PIPE BOTH AS TO LINE AND GRADE BEFORE STARING TO LAY THE PROPOSED CONDUIT.

UTILITIES

A. THE MAXIMUM LENGTH OF ANY UTILITY TRENCH TO BE OPEN AT ANY TIME SHALL BE 250' UNLESS OTHERWISE APPROVED.
B. ALL UNDERGROUND UTILITIES ARE TO BE WITHIN THE PUBLIC RIGHT OF WAY.

COMPACTION METHODS

A. FLOODING SHALL NOT BE PERMITTED.
B. MECHANICAL DEVICES, HAND DEVICES VIBRATING PLATES OR OTHER EQUIPMENT APPROVED BY THE CITY IS ACCEPTABLE 1" ABOVE PIPE IN UNIFORM LIFTS OF 12" (LOOSE DEPTH) OF EXISTING NATIVE MATERIAL AND 6" OF GRANULAR BACKFILL. THE HEIGHT OF LIFTS WILL BE INCREASED WITH APPROVED EQUIPMENT BEING USED. THE HEIGHT WILL BE 6" FOR HAND OPERATED TOOLS AND UP TO 12" ON EQUIPMENT MOUNTED TOOLS. THE COMPACTION EQUIPMENT SHALL BE CAPABLE OF COMPACTING THE MATERIAL UNDER THE HAUNCH OF HE PIPE.
C. DENSITY FOR THE ABOVE METHODS SHALL BE NO LESS THAN THAT OF THE SURROUNDING GROUND UNLESS OTHERWISE SPECIFIED.

DISPOSAL OF SURPLUS MATERIAL

A. THE CITY MAY AT THEIR DISCRETION REQUIRE THAT SURPLUS MATERIAL BE DEPOSITED AT A LOCATION DESIGNATED WITHIN A TWO-MILE RADIUS OF THE WORK SITE.

TYPICAL NOTES-ALL SUBDIVISION CONSTRUCTION DRAWINGS

A. ALL CONSTRUCTION METHODS AND MATERIALS SHALL COMPLY WITH THE CITY ENGINEERING STANDARDS OR ODOT WHICHEVER IS MORE RESTRICTIVE.
B. ALL COMPACTION SHALL MEET THE CITY REQUIREMENTS. IF TESTING OF COMPACTED AREAS IS REQUESTED BY THE CITY, SAID TESTING SHALL BE PERFORMED AT THE EXPENSE OF THE DEVELOPER.
C. THE CITY WILL LOCATE AREAS IN NEED OF UNDERCUTTING UNLESS THE DEVELOPER CHOOSES TO HAVE AT HIS EXPENSE AN INDEPENDENT APPROVED TESTING COMPANY TO DETERMINE UNSUITABLE MATERIAL AREAS THAT NEED UNDERCUTTING.
D. ALL EMBANKMENT AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% OF ASTM D698 STANDARD PROCTOR CURVE AND TESTED TO REPRESENT A DEPTH OF 12" UNLESS OTHERWISE SPECIFIED BY THE CITY.
E. ALL UNPAVED AREAS WITHIN THE STREET RIGHT-OF-WAY SHALL BE SEEDED WITHIN 48 HOURS AFTER THE CURB IS BACKFILLED. STAKED STRAW BALES MAY BE REQUIRED IN ADDITION TO SEEDING CONTROL EROSION IF REQUESTED BY THE CITY.
F. STORM WATER POLLUTION PREVENTION SHOULD BE A HIGH PRIORITY ON ALL CONSTRUCTION PROJECTS. ON ALL PROJECTS WHICH DISTURB AT LEAST 1 ACRE OF SOIL, A NPDES PERMIT IS REQUIRED FROM OEPA AND A COPY OF THE PERMIT MUST BE ON FILE AT THE CITY OFFICE BEFORE CONSTRUCTION BEGINS.

CITY OF PIQUA | ACCESS Engineering Solutions | GENERAL NOTES | REVISIONS: 12-14-16 8G; 05-02-19 8G; 11-02-20 8K | DATE APPROVED: DEC. 2016 | PAGE No. 500-1

PERMIT REQUIRED

A RIGHT-OF-WAY PERMIT FOR ANY DIGGING OR EXCAVATING WITHIN A PUBLIC RIGHT-OF-WAY FOR ANY STREET OR ALLEY MUST BE OBTAINED IN ADVANCE OF THE WORK. IN THE EVENT OF AN EMERGENCY, THE PERMIT APPROVAL REQUIREMENT SHALL BE WAIVED WITH THE PROPER APPLICATION MUST BE SUBMITTED AS SOON AS FEASIBLE, BUT NO LATER THAN THE END OF THE FIRST WORKING WEEKDAY AFTER THE START OF WORK. AN EMERGENCY IS DEFINED AS A REPAIR REQUIRED TO PROVIDE SERVICE TO UTILITY CUSTOMERS OR TO MITIGATE A HAZARD, WHICH THREATENS PUBLIC HEALTH OR SAFETY.

PERMIT FORMS ARE AVAILABLE FROM THE CITY STREET DEPARTMENT. THE PERMIT FORM IS TO BE COMPLETED BY THE PERSON OR FIRM PLANNING THE WORK WITHIN THE RIGHT-OF-WAY. ALL FEES MUST BE PAID AND APPROVAL OBTAINED BEFORE ANY WORK IS STARTED. A 72 WORKING HOUR LEAD-TIME IS REQUIRED FOR ISSUANCE OF SIX OR LESS WILL BE REQUIRED OF EACH APPLICANT, INCLUDING CITY DEPARTMENTS.

PERFORMANCE BOND

ANY INDIVIDUAL OR FIRM WHO MAKES APPLICATION FOR A RIGHT-OF-WAY OPENING PERMIT MUST PROVIDE A CURRENT PERFORMANCE BOND TO THE CITY OF PIQUA IN THE AMOUNT OF $3000.

NO BOND IS REQUIRED FOR PLUMBERS WHO HOLD A CURRENT PLUMBERS LICENSE IN THE CITY OF PIQUA AND HAVE A CURRENT PERFORMANCE BOND ON FILE IN THE HEALTH DEPARTMENT.

IN THE EVENT THAT AFTER NOTIFICATION FROM THE CITY ANY CONTRACTOR FAILS TO CORRECT PROBLEMS ASSOCIATED WITH POOR TRENCH REPAIR OR MAINTENANCE WITHIN 24 HOURS OF NOTIFICATION, THE CITY RESERVES EXCLUSIVE RIGHT TO CORRECT THE PROBLEMS AND COLLECT ASSOCIATED COSTS FROM THE PERFORMANCE BOND.

WORK REQUIREMENTS

THE APPLICANT SHALL HAVE SUFFICIENT BARRICADES, WARNING SIGNS, AND LIGHTS DURING THE ENTIRE PERIOD THAT WORK IS BEING PERFORMED AND SHALL ADHERE TO APPLICABLE SECTION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

ALL DISTURBED AREAS MUST BE RETURNED TO A CONDITION THAT IS AS GOOD AS OR BETTER THAN THE CONDITION BEFORE THE WORK BEGAN. ALL REPAIRS MUST MEET CITY SPECIFICATIONS. THE CITY STREET SUPERINTENDENT WILL INSPECT AND APPROVE ALL REPAIRS. THE BOND WILL BE RETURNED AFTER ALL REPAIRS ARE APPROVED, IF APPLICABLE, FOR CLOSURE OF ARTERIALS OR BUSY COLLECTORS THE CITY RESERVES THE RIGHT TO DIRECT CONTRACTOR TO CLOSE THE STREET DURING OFF PEAK TRAFFIC HOURS. CLOSURE MAY OCCUR AT NIGHT OR ON WEEKENDS. CONTRACTOR SHALL PROVIDE ALL TRAFFIC CONTROL, ASSOCIATED WITH ROAD CLOSURE. EFFORTS SHALL BE MADE TO MINIMIZE ANY DISTURBANCE TO TREES OR ROOTS TO PREVENT ANY DAMAGE TO THE TREES WILL RESULT IN REMOVAL AND REPLACEMENT. IF A TREE IS CUT, IT MAY RESULT IN PROPERTY DAMAGE TO THE PROPERTY OWNER. THIS IS THE DUTY OF THE CITY ENGINEER.
THE APPLICANT MUST NOTIFY ALL AFFECTED PROPERTY OWNERS IN WRITING, AND PROVIDE A COPY OF THE NOTIFICATION AND MAILING LIST PRIOR TO THE ENGINEERING DEPARTMENT ISSUING THE PERMIT.

ALL CONTRACTORS WHO PERFORM WORK REQUIRING ENTRY INTO ANY CONFINED SPACE OF A CITY OWNED UTILITY SHALL COMPLY WITH THE CITY'S CONFINED SPACE ENTRY PROCEDURES AND IN ACCORDANCE WITH ALL OSHA REGULATIONS, IF APPLICABLE, AND APPROVAL FROM THE WASTEWATER SUPERINTENDENT OR DESIGNEE.

MATERIAL SPECIFICATION

ALL WORK SHALL BE IN ACCORDANCE WITH THE ATTACHED DRAWINGS AND SPECIFICATIONS AS REQUIRED BY THE ENGINEERING DEPARTMENT PRIOR TO COMMENCEMENT OF WORK.
STREET OPENINGS- THE MATERIAL USED TO FILL IN A DITCH OR A HOLE SHALL BE GRANULAR MATERIAL (#304,#411) OR ODOT ITEM 613 LOW STRENGTH MORTAR BACKFILL. OTHER APPROVED GRANULAR MATERIALS MAY BE USED ONLY UPON THE CONTRACTOR RECEIVING PRIOR WRITTEN APPROVAL FROM THE ENGINEERING DEPARTMENT OF EXTENUATING CIRCUMSTANCES EXIST. CONTRACTORS CONCERNED WITH THE CONTACT OF THE LOW STRENGTH MORTAR BACKFILL, SAND CAN BE BACKFILLED WITH CLEAN NATIVE MATERIAL COMPACTED IN 12 INCH LIFTS. MATERIAL SHALL BE COMPACTED TO 75% OF THE ORIGINAL COMPACTION. NO MATERIAL SHALL BE USED FOR BACKFILLING THAT CONTAINS GRANULAR MATERIAL ROCK OR STONE GREATER THAN 4 INCHES IN DIAMETER.

FOR RIGHT-OF-WAY OPENINGS BEYOND THE LIMITS OF THE PAVEMENT THE BACKFILL SHALL BE IN ACCORDANCE WITH 300-14 (BACKFILL).
A PERMANENT PATCH OF ASPHALT SURFACE. ASPHALT SURFACE SHALL BE PLACED TO A DEPTH AS STATED IN 300-14 (3) PAVEMENT RESTORATION.

CONSTRUCTION

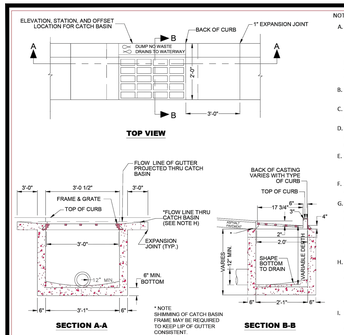
REPAIR AREAS SHALL BE RECTANGULAR IN SHAPE WITH DIMENSIONS AS REQUIRED TO ENVELOP THE SURFACE DETERIORATION, AT THE DISCRETION OF THE CITY THE LIMITS OF THE REPAIRED REPLACEMENT MAY BE EXTENDED AS DEEMED NECESSARY. PAVEMENT SHALL BE REMOVED BY METHODS THAT WILL NOT DAMAGE ADJACENT PAVEMENT.
ALL JOINTS AND VERTICAL FACES SHALL BE SAW CUT, CLEANED AND COATED WITH BITUMINOUS MATERIAL (TACK COAT) PRIOR TO PLACEMENT OF BITUMINOUS CONCRETE.

ALL JOINTS SHALL BE SEALED WITH ASPHALT SEALER AFTER THE FINAL SURFACE MATERIAL IS PLACED.

IF LOW STRENGTH MORTAR BACKFILL IS USED, LOW STRENGTH MORTAR BACKFILL SHALL BE BROUGHT UP UNIFORMLY TO THE FILL LINE SHOWN ON THE PLANS OR THE BOTTOM OF THE EXISTING PAVEMENT.

CITY OF PIQUA | ACCESS Engineering Solutions | STREET CUT AND RIGHT-OF-WAY OPENING STANDARD DRAWINGS AND SPECIFICATIONS | REVISIONS: 12-9-16 8G; 12-31-20 8GMK | DATE APPROVED: DEC. 2016 | PAGE No. 300-13

##



NOTES

A. AS OF JANUARY 1, 2003 THE FOLLOWING TEXT SHALL BE CAST INTO THE TOP OF THE GRATE: **"DUMP NO WASTE" AND "DRAINS TO WATERWAY"**.

TEXT SHALL BE PRINTED IN BOLD, CAPITAL LETTERS WITH A MINIMUM HEIGHT OF ½ INCH. "WATERWAY" MAY BE SUBSTITUTED WITH "STREAM", "RIVER", "LAKE", ETC. ACTUAL PLACEMENT AND LOGO MAY VARY PER MANUFACTURER.

B. CASTING SHALL BE EAST JORDAN 7030 OR NEENAH R-3246 OR EQUIVALENT.

C. FOR TYPE 2 COMBINATION CURB AND GUTTER THE BACK SHALL BE EAST JORDAN TYPE T4, OR NEENAH (3 INCH RADIUS) (R-3246-.5).

D. FOR TYPE 1 COMBINATION ROLL CURB AND GUTTER THE BACK SHALL BE EAST JORDAN TYPE T2 OR NEENAH (MOUNTABLE CURB) (R-3246-1 OR R-3067).

E. CATCH BASIN IN DRIVE APPROACHES TO BE AVOIDED, IF POSSIBLE. THE BACKS SHALL BE EAST JORDAN TYPE T3 OR NEENAH (R-3246-1 WITH CURB PLATE OR R3067C).

F. STANDARD GRATE SHALL BE EAST JORDAN TYPE M2, NEENAH TYPE C, OR EQUIVALENT. ALL BAR EDGES TO BE ROUNDED 1/8 INCH RADIUS.

G. CONCRETE, CAST-IN-PLACE, TO BE CLASS C.I. PRECAST CONSTRUCTION PERMITTED AND CONCRETE SHALL MEET THE REQUIREMENTS OF 706.13 WITH 7% ± 2% AIR VOID CONTENT IN THE HARDENED CONCRETE. KNOCKOUTS ARE REQUIRED IN PRECAST CONSTRUCTION. PRECAST WALLS SHALL HAVE A SUFFICIENT AMOUNT OF REINFORCEMENT TO PERMIT SHIPPING AND PLACEMENT WITHOUT DAMAGE.

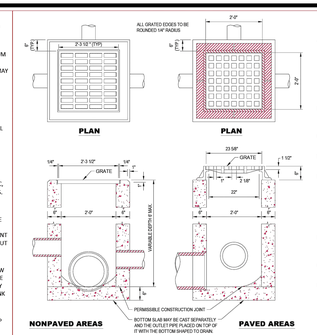
H. CARE SHALL BE TAKEN WHEN CONNECTING TO AN EXISTING CATCH BASIN TO KEEP OPENING AS MINIMAL AS POSSIBLE. IF POSSIBLE, SAW CUT OR USE ROTARY HAMMER FOR OPENING TO MINIMIZE DAMAGE TO CATCH BASIN. PIPE TO INTRUDE INTO CATCH BASIN 1 INCH ONLY AND PIPE MUST BE CUT PARALLEL TO CATCH BASIN. USE NON-SHRINK GROUT AROUND PIPE TO SEAL BETWEEN PIPE AND CATCH BASIN.

I. DROP FLOW LINE ¼ INCH WITHIN BLOCK OUT OF COMBINED CURB AND GUTTER WHILE KEEPING LIP OF GUTTER CONSISTENT WITH TOP OF CURB.

J. ALL GRATES SHALL BE CONSIDERED "BICYCLE SAFE".

CITY OF PIQUA — ACCESS Engineering Solutions — REVISIONS: 12-19-16 BG; 5-12-16 BG; 12-01-16 ML — DATE APPROVED: DEC. 2016 — PAGE No. 600-1

TYPE 1 CATCH BASIN



NOTES

A. AS OF JANUARY 1, 2003 THE FOLLOWING TEXT SHALL BE CAST INTO THE TOP OF THE GRATE:

"DUMP NO WASTE" AND "DRAINS TO WATERWAY"

TEXT SHALL BE PRINTED IN BOLD, CAPITAL LETTERS WITH A MINIMUM HEIGHT OF ½ INCH. "WATERWAY" MAY BE SUBSTITUTED WITH "STREAM", "RIVER", "LAKE", ETC. ACTUAL PLACEMENT AND LOGO MAY VARY PER MANUFACTURER.

B. LOCATION AND ELEVATIONS WHEN GIVEN ON THE PLANS IS TOP CENTER OF THE GRATE. WHEN SIDE OPENINGS ARE PROVIDED, ELEVATION SHALL BE THE FLOW LINE OF THE SIDE INLET.

C. GRATE FOR NON-PAVED AREAS SHALL BE EAST JORDAN IRON WORKS 5110 TYPE M3 OR NEENAH CATALOG NO. R-4859-C OR EQUIVALENT.

D. GRATE ELEVATION TO BE PLACED 4 INCH TO 6 INCH BELOW NORMAL DITCH RETURNING TO NORMAL 10' EACH SIDE OF BASIN.

E. PRECAST CONSTRUCTION IS REQUIRED, UNLESS OTHERWISE APPROVED AND CONCRETE SHALL MEET THE REQUIREMENTS OF 706.13 WITH 6±2% AIR VOID CONTENT IN THE HARDENED CONCRETE. KNOCKOUTS SHALL BE PROVIDED IN PRECAST CONSTRUCTION. PRECAST WALLS SHALL HAVE A SUFFICIENT AMOUNT OF REINFORCEMENT TO PERMIT SHIPPING AND PLACEMENT WITHOUT DAMAGE.

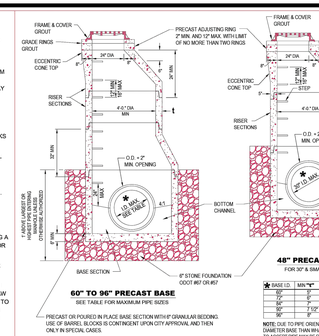
F. CATCH BASINS NOT PERMITTED IN PAVEMENT AREAS UNLESS USING A FRAME AND GRATE EQUIVALENT OF NEENAH CATALOG NO. R-3405 OR EAST JORDAN IRON WORKS NO. 5250.

G. FOR PIPES OVER 18" REFER TO ODOT CATCH BASIN 2-3 AND 2-4 FOR SIDE INLETS REFER TO ODOT CATCH BASIN 2-2.4.

H. CARE SHALL BE TAKEN WHEN CONNECTING TO AN EXISTING CATCH BASIN TO KEEP OPENING AS MINIMAL AS POSSIBLE. IF POSSIBLE SAW CUT OR USE ROTARY HAMMER FOR OPENING TO MINIMIZE DAMAGE TO CATCH BASIN 1" ONLY AND PIPE MUST BE CUT PARALLEL TO CATCH BASIN. USE NON-SHRINK GROUT AROUND PIPE TO SEAL BETWEEN PIPE AND CATCH BASIN.

CITY OF PIQUA — ACCESS Engineering Solutions — REVISIONS: 12-19-16 BG — DATE APPROVED: DEC. 2016 — PAGE No. 600-2

TYPE 2-2-B CATCH BASIN



NOTES

A. STORM MANHOLE FRAME AND APPROVED VENTED LID SHALL BE EQUAL OF NEENAH NO. R-1767 OR EAST JORDON IRON WORKS NO 1600.

B. TOP AND TRANSITION (OR REDUCER) SECTIONS MY BE EITHER ECCENTRIC CONE OR FLAT SLAB.

C. OPENINGS IN RISER SECTIONS FOR 18 INCH AND SMALLER INLET PIPES MAY BE PREFABRICATED OR CUT IN THE FIELD PROVIDED THE SIDES OF THE PIPE AT THE SPRING LINE DO NOT PROJECT INTO THE MANHOLE.

D. MATERIALS FOR BASES AND OTHER PRECAST SECTIONS, INCLUDING REINFORCEMENT SHALL COMPLY WITH ODOT REQUIREMENTS OF 706.13 (ASTM C-478).

E. LOCATE THE CENTERLINE OF MANHOLE COVES OVER THE CENTERLINE OF THE MAIN SEWER WHENEVER POSSIBLE.

F. FOR PIPE SIZES LARGER THAN 60 INCHED REFER TO ODOT TYPE 4 TO 5 MANHOLE.

G. NO LATERALS MAY PROTRUDE INTO INTERNAL MANHOLE.

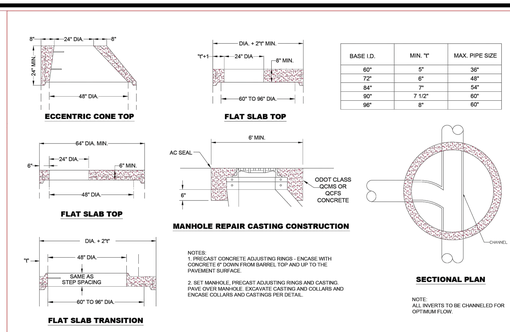
H. MAXIMUM SPACING SHALL BE 400 FEET.

I. WHEN CONNECTING TO AN EXISTING STORM MANHOLE CARE SHALL BE TAKEN TO KEEP OPENING AS MINIMAL AS POSSIBLE. IF POSSIBLE SAW CUT OR USE ROTARY HAMMER FOR OPENING TO MINIMIZE DAMAGE TO STORM MANHOLE AND PIPE MUST BE CUT PARALLEL TO STORM MANHOLE. USE NON-SHRINK GROUT AROUND PIPE TO SEAL BETWEEN PIPE AND STORM MANHOLE.

J. JOINTS BETWEEN SECTIONS TO BE EITHER MORTAR OR BITUMINOUS PIPE JOINT FILLER (ODOT 706.10).

CITY OF PIQUA — ACCESS Engineering Solutions — REVISIONS: 12-19-16 BG — DATE APPROVED: DEC. 2016 — PAGE No. 600-5

TYPE 3 STORM MANHOLE



BASE I.D.	MIN. "T"	MAX. PIPE SIZE
60"	5"	36"
72"	6"	48"
84"	7"	54"
90"	7 1/2"	60"
96"	8"	60"

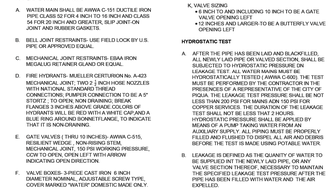
NOTES:
1. PRECAST CONCRETE ADJUSTING RINGS - ENCASE WITH CONCRETE 6" DOWN FROM BARREL TOP AND UP TO THE PAVEMENT SURFACE.

2. SET MANHOLE, PRECAST ADJUSTING RINGS AND CASTING. PAVE OVER MANHOLE. EXCAVATE CASTING AND COLLARS AND ENCASE COLLARS AND CASTINGS PER DETAIL.

NOTE:
ALL INVERTS TO BE CHANNELED FOR OPTIMUM FLOW.

CITY OF PIQUA — ACCESS Engineering Solutions — REVISIONS: 12-19-16 BG — DATE APPROVED: DEC. 2016 — PAGE No. 600-6

TYPE 3 STORM MANHOLE DETAILS



NOTES

A. THESE FULL HEIGHT HEADWALLS ARE FOR NON-SKEWED CULVERTS HAVING A DIAMETER OR RISE OF 36 INCHES OR LESS

B. CONCRETE SHALL BE ODOT QCI CONCRETE. REINFORCED STEEL BAR SHALL BE 5/8 INCH ROUND

C. DIMENSIONS AND QUANTITIES ARE SHOWN FOR CIRCULAR SECTIONS ONLY. IT WILL BE NECESSARY TO DETERMINE DIMENSIONS FOR THE HW-1 HEADWALL REQUIRED FOR REINFORCED ELLIPTICAL CONCRETE PIPE OR CORRUGATED METAL PIPE ARCHES IN ACCORDANCE WITH EQUATIONS LISTED ON THIS DRAWING.

D. CHAMFER ALL EXPOSED CORNERS ¾ INCH.

E. WHERE THE SOIL BORINGS INDICATE A BEARING CAPACITY 0 LESS THAN 2000 LBS. PER SQUARE FOOT, IT WILL BE NECESSARY TO INCREASE THE WIDTH OF THE BASE.

F. MINIMUM COVER FOR REINFORCING STEEL SHALL BE 2 INCH.

G. FOR PIPES HAVING A DIAMETER OR RISE OVER 36 INCHES, REFERENCE ODOT HW-3 HEADWALLS FOR FULL HEIGHT HEADWALL.

H. FOR SKEWED CULVERTS HAVING A DIAMETER OR RISE OF 36 INCHES OR LESS, REFERENCE ODOT HW-2 HEADWALLS.

I. HEADWALLS MAY BE PRECAST CONCRETE CONSTRUCTED TO THE ABOVE REQUIREMENTS. GROUT AROUND PIPE AFTER INSTALLATION.

DIMENSIONS				QUANTITIES ONE HEADWALL	
DIAMETER	HEIGHT	LENGTH	W	CONCRETE CU. YDS.	REINFORCING STEEL LBS.
15"	5'-3"	7'-0"	1.7	1.7	41
18"	5'-5"	8'-4"	2.2	2.2	57
21"	5'-8"	9'-8"	2.8	2.8	62
24"	5'-11"	11'-0"	3.3	3.3	69
30"	6'-5"	13'-8"	4.7	4.7	92
36"	7'-0"	16'-4"	6.5	6.5	105

L: CIRCULAR SECTIONS = 50 +4T
L: ELLIPTICAL OR PIPE ARCH = 48+4T+S
H: CIRCULAR SECTIONS = D+T+6"
H: ELLIPTICAL OR PIPE ARCH = R+T+44"
D= SPAN OF PIPE
R= RISE OF PIPE
T= THICKNESS OF BARREL
H= HEIGHT OF HEADWALL

CITY OF PIQUA — ACCESS Engineering Solutions — REVISIONS: 12-07-16 BG — DATE APPROVED: DEC. 2016 — PAGE No. 800-1

FIRE HYDRANT

MATERIAL SPECIFICATIONS

A. WATER MAIN SHALL BE AWWA C-151 DUCTILE IRON PIPE CLASS 52 FOR 4 INCH TO 16 INCH AND CLASS 54 FOR 20 INCH AND GREATER, BUP JOINT OR JOINT AND RUBBER GASKETS.

B. BELL JOINT RESTRAINTS- USE FIELD LOCK BY U.S. PIPE OR APPROVED EQUAL.

C. MECHANICAL JOINT RESTRAINTS- EBAA IRON MEGALUG RETAINER GLAND OR EQUAL.

D. FIRE HYDRANTS- MUELLER CENTURION No. A-423 MECHANICAL JOINT, TWO-2 ½ INCH HOSE NOZZLES AND ONE-STEAMER NOZZLE WITH NATIONAL STANDARD THREAD CONNECTIONS, PUMPER NOZZLE TO BE 5" STORZ MANUFACTURED BY HARRINGTON OR APPROVED EQUAL.

E. GATE VALVES (3 INCH TO 12 INCH), RESILIENT WEDGE, NON-RISING STEM, MECHANICAL JOINT, 150 PSI WORKING PRESSURE, CCW TO OPEN WITH ARROW INDICATING OPEN DIRECTION, MUELLER EQUIVALENT.

F. VALVE BOXES SHALL BE 3-PIECE, ADJUSTABLE 36 INCH TO 48 INCH, 5-1/4 INCH ADJUSTABLE SHAFT, 6 INCH DIAMETER NOMINAL ADJUSTABLE SCREW TYPE, COVER MARKED "WATER", DOMESTIC MADE ONLY.

G. ALL FITTINGS TO BE MEGALUG RESTRAINED AND THRUST BLOCKED.

H. ALL FITTINGS TO BE AWWA C-153 DUCTILE IRON, COMPACT.

I. ALL VALVES AND HYDRANTS SHALL OPEN LEFT BY TURNING IN A COUNTER CLOCKWISE DIRECTION.

J. CONTRACTOR TO FACE HYDRANT AS REQUIRED BY THE CITY.

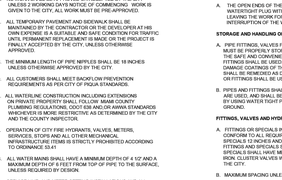
K. WATER MAIN SHALL BE DUCTILE IRON PIPE CLASS 52 CEMENT LINED, AWWA C-151, WITH MECHANICAL JOINTS.

L. THE LAYING OF PIPE ON EXISTING DIRT WITH THE BELLS CUT OUT SHALL NOT BE PERMITTED.

M. WHERE UNDERGROUND UTILITIES HAVE SPECIAL FITTINGS SHALL BE PLUGGED OR OTHERWISE CLOSED WITH A WATERTIGHT PLUG TO THE APPROVAL OF THE CITY BEFORE LEAVING THE WORK FOR THE NIGHT.

N. THE FIRE DEPARTMENT SHALL COMPLETE A FUNCTION/FLOW TEST PRIOR TO BEING PLACED INTO SERVICE.

O. ALL FIRE HYDRANTS MUST BE THRUST BLOCKED.



TRENCH DETAIL NOTES

A. GRANULAR BEDDING SHALL BE CRUSHED STONE OR GRAVEL, (#57 OR #67) OR OTHER APPROVED EQUIVALENT.

B. ALL TRENCHES OUTSIDE THE RIGHT-OF-WAY FROM PROPOSED OR EXISTING PAVEMENT, CURB, DRIVEWAYS, ALLEYS, STONE AREAS OR WALKS CAN BE COMPACTED WITH EXISTING NATIVE MATERIAL IN 12 INCH MAXIMUM LIFTS OR AS APPROVED BY THE CITY. NO MATERIAL SHALL BE USED FOR BACK FILLING THAT CONTAINS STONE, ROCKS, ETC., GREATER THAN 4 INCH DIAMETER.

ALL TRENCHES INSIDE THE RIGHT-OF-WAY FROM PROPOSED OR EXISTING PAVEMENT, CURB, DRIVEWAYS, ALLEYS, STONE AREAS OR WALKS SHALL BE COMPACTED WITH GRANULAR BACKFILL MATERIAL #304, #411 IN 6 INCH MAXIMUM LIFTS.

A DENSITY TEST ON GRANULAR BACKFILL OF 98% OF ASTMA D698 STANDARD PROCTOR CURVE MAY BE REQUIRED TO BE PERFORMED BY A COMMERCIAL TESTING LAB SATISFACTORY TO THE CITY.

C. OFF-PAVEMENT AREAS SHALL BE PROVIDED WITH A MINIMUM OF 5 INCH OF TOPSOIL OVER THE COMPACTED MATERIAL AND THEN SEEDED AND MULCHED PER ODOT ITEM 659.

ALL PAVED AREAS WITHIN THE STREET RIGHTS-OF-WAY SHALL FOLLOW THE REQUIREMENTS FO PAGE 305-14 OF THE STANDARD DRAWINGS.

D. THE OPEN ENDS OF ALL PIPES SHALL BE PLUGGED TO THE APPROVAL OF THE CITY BEFORE LEAVING THE WORK FOR THE NIGHT.

CITY OF PIQUA — ACCESS Engineering Solutions — REVISIONS: — DATE APPROVED: DEC. 2016 — PAGE No. 600-9

STORM SEWER TRENCH DETAILS



NOTES:

A. NO WORK SHALL BE APPROVED OR ACCEPTED BY THE CITY UNLESS 2 WORKING DAYS NOTICE OF COMMENCING WORK IS GIVEN TO THE CITY.

B. ALL TEMPORARY PAVEMENT AND SIDEWALK SHALL BE MAINTAINED BY THE CONTRACTOR OR THE DEVELOPER AT HIS OWN EXPENSE IN A SUITABLE AND SAVE CONDITION FOR TRAFFIC UNTIL A PERMANENT REPLACEMENT IS MADE OR THE PROJECT IS FINALLY ACCEPTED BY THE CITY.

C. ALL STORM SEWER CONSTRUCTION SHALL ADHERE TO ODOT SPECIFICATIONS LATEST REVISION OR WITH THE CITY STORM SEWER SPECIFICATIONS, WHICHEVER IS APPLICABLE AND MORE RESTRICTIVE.

D. MASTIC MATERIAL IS REQUIRED ON ALL NON O-RING STORM SEWER AND MANHOLES, UNLESS OTHERWISE APPROVED.

E. WHEN A CASTING IS REMOVED IT REMAINS CITY PROPERTY AND TO BE DELIVERED TO THE CITY SERVICE CENTER, UNLESS OTHERWISE APPROVED.

F. ANY DETAILS OR NOTES NOT DIRECTLY ADDRESSED IN THESE ENGINEERING STANDARDS SHALL BE COORDINATED WITH THE CITY ENGINEERING DEPARTMENT.

G. ALL STORM SEWER SHALL BE INSTALLED USING PIPE LASER INSIDE THE PIPE IF POSSIBLE FOR GRADE AND ALIGNMENT.

UTILITY STAKING

A. OFFSET AND GRADE AT EACH MANHOLE, CATCH BASIN, AND OTHER STRUCTURES. OFFSET AND GRADE 50 FEET AND 100 FEET OUT FROM EACH MANHOLE UNLESS OTHERWISE APPROVED.

PIPE

A. ALL STORM SEWER PIPE SHALL HAVE A MINIMUM DIAMETER OF 12 INCH UNLESS OTHERWISE APPROVED.

B. TYPES OF PIPE PERMITTED

APPROVED PIPE	ODOT MATERIAL NUMBER
REINFORCED CONCRETE PIPE	706.02
REINFORCED CONCRETE ELLIPTICAL PIPE	706.04
CORRUGATED POLYETHYLENE SMOOTH-LINED PIPE	707.33
POLYVINYL CHLORIDE PLASTIC PIPE (NON-PERFORATED)	707.41
POLYVINYL CHLORIDE CORRUGATED SMOOTH-INTERIOR PIPE	707.42
POLYVINYL CHLORIDE PROFILE WALL PIPE	707.43
POLYVINYL CHLORIDE SOLID WALL PIPE	707.45

EXISTING TILE HOOKUPS

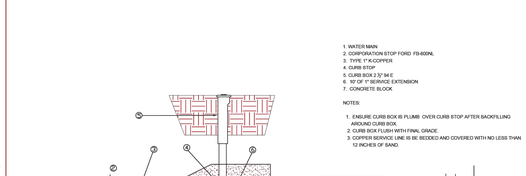
A. THE DRAINAGE TILE CURRENTLY CONNECTED TO THE EXISTING STORM SEWER SHALL BE CONNECTED TO THE PROPOSED STORM SEWER. ANY ENGINEERING STANDARDS SHALL BE COORDINATED WITH THE CITY ENGINEERING DEPARTMENT.

G. ALL STORM SEWER SHALL BE INSTALLED USING PIPE LASER INSIDE THE PIPE IF POSSIBLE FOR GRADE AND ALIGNMENT.

B. ALL FIELD OR STORM DRAINS WHICH ARE ENCOUNTERED DURING CONSTRUCTION SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS OR PLUGGED AS APPROVED AND DIRECTED BY THE CITY

CITY OF PIQUA — ACCESS Engineering Solutions — REVISIONS: 12-20-16 BG; 05-10-16 BG — DATE APPROVED: DEC. 2016 — PAGE No. 600-10

MISCELLANEOUS STORM NOTES



NOTES

A. A LID LOCKING BOLT MUST HAVE A STANDARD 2732" PENTAGON HEAD.

B. SUBSTITUTION OF MATERIALS LISTED MY BE MADE ONLY IF PRE-APPROVED BY THE CITY OF PIQUA UNDERGROUND UTILITIES DEPARTMENT.

C. NO PLASTIC OR SOLDERED JOINTS IN METER PIT.

D. ALL BRASS FITTINGS TO BE FOR, MUELLER, A.Y. MCDONALD, CAMBRIDGE OR APPROVED DOMESTIC FITTINGS. CONNECTION MUST BE LEAK FREE AND INSPECTED BY THE UNDERGROUND UTILITIES DEPARTMENT.

E. FLARE OR COMPRESSION MAY BE USED.

F. DO NOT CROSS COPPER TUBING IN METER PIT.

G. THE LID TO WATER PIT MUST BE LEVEL WITH FINISH GRADE PRIOR IN INSTALLING WATER METER. METER PIT MUST BE NOT LESS THAN 3'0" FROM THE FLAIR OF A DRIVEWAY OR APPROACH

CITY OF PIQUA — ACCESS Engineering Solutions — REVISIONS: — DATE APPROVED: DEC. 2016 — PAGE No. 800-3

CONCRETE BLOCKING FOR WATER MAINS

BENDS

SIZE OF PIPE	DEGREE OF BEND 11 1/4°		22 1/2°		45°		90°	
	L	D	L	D	L	D	L	D
3", 4", 6"	8"	8"	10"	6"	20"	6"	36"	6"
8"	9"	8"	14"	8"	24"	9"	50"	8"
12"	14"	12"	22"	12"	30"	16"	60"	15"
16"	18"	16"	24"	18"	33"	30"	70"	22"

TEES

RUN	BRANCH 3", 4", 6"		8"		12"		16"	
	L	D	L	D	L	D	L	D
3", 4", 6"	16"	6"						
8"	14"	8"	18"	12"				
12"	9"	12"	18"	12"	24"	18"		
16"	8"	16"	14"	16"	28"	16"	30"	26"

NOTES

A. CARE SHALL BE TAKEN TO KEEP CONCRETE AWAY FROM MECHANICAL JOINTS BY PLACING VISQUEEN OR OTHER PREAPPROVED MATERIAL OVER PIPE BEFORE PLACING OF CONCRETE. BOLTS SHALL NOT BE ENCASED IN CONCRETE.

B. CONCRETE FOR BLOCKING VALVES AND FITTINGS SHALL CONFORM TO SECTION 0OOT 499 QCI CONCRETE. ALLOW 72 HOURS FOR SETTING OF CONCRETE PRIOR TO FILLING WATER MAIN.

C. CONTRACTOR SHALL USE THE THRUST BLOCKS AS SHOWN.

D. ALL VERICAL THRUST BLOCK IS TO BE ACCOMPANIED WITH ROD CLAMPS AND DUCI LUGS WITH 3/4" STAINLESS STEEL THREADED RODS.

CITY OF PIQUA — ACCESS Engineering Solutions — REVISIONS: 12-01-16 ML — DATE APPROVED: DEC. 2016 — PAGE No. 800-4

WATER MAIN TRENCH DETAIL

TRENCH DETAIL NOTES

A. GRANULAR BEDDING SHALL BE CRUSHED STONE OR GRAVEL, (#57 OR #67) OR OTHER APPROVED EQUIVALENT.

B. ALL TRENCHES OUTSIDE THE RIGHT-OF-WAY FROM PROPOSED OR EXISTING PAVEMENT, CURB, DRIVEWAYS, ALLEYS, STONE AREAS OR WALKS CAN BE COMPACTED WITH EXISTING NATIVE MATERIAL IN 12 INCH MAXIMUM LIFTS OR AS APPROVED BY THE CITY. NO MATERIAL SHALL BE USED FOR BACK FILLING THAT CONTAINS STONE, ROCKS, ETC., GREATER THAN 4 INCH DIAMETER.

ALL TRENCHES INSIDE THE RIGHT-OF-WAY FROM PROPOSED OR EXISTING PAVEMENT, CURB, DRIVEWAYS, ALLEYS, STONE AREAS OR WALKS SHALL BE COMPACTED WITH GRANULAR BACKFILL MATERIAL #304, #411 IN 6 INCH MAXIMUM LIFTS.

A DENSITY TEST ON GRANULAR BACKFILL OF 98% OF ASTMA D698 STANDARD PROCTOR CURVE MAY BE REQUIRED TO BE PERFORMED BY A COMMERCIAL TESTING LAB SATISFACTORY TO THE CITY.

C OFF-PAVEMENT AREAS SHALL BE PROVIDED WITH A MINIMUM OF 5 INCHES OF TOPSOIL OVER THE COMPACTED MATERIAL AND THEN SEEDED AND MULCHED PER ODOT ITEM 659

ALL PAVED AREAS WITHIN THE STREET RIGHT-OF-WAY SHALL FOLLOW THE REQUIREMENTS OF PAGES 300-15 OF THE STANDARD DRAWINGS.

D. THE OPEN ENDS OF ALL PIPES SHALL BE PLUGGED WITH A WATER TIGHT PLUG TO THE APPROVAL BY THE CITY BEFORE LEAVING THE WORK FOR THE NIGHT.

CITY OF PIQUA — ACCESS Engineering Solutions — REVISIONS: 12-19-16 BG — DATE APPROVED: DEC. 2016 — PAGE No. 600-7

FULL-HEIGHT HEADWALL

NOTES

A. FIRE HYDRANTS- MUELLER CENTURION, OR APPROVED EQUAL, NO. A-423, MECHANICAL JOINT; TWO 2 1/2 INCH HOSE NOZZLE WITH NATIONAL STANDARD THREAD CONNECTIONS; PUMPER NOZZLE TO BE 5" STORTZ MANUFACTURED BY HARRINGTON OR APPROVED EQUAL.

B. GATE VALVES (3 INCH TO 12 INCH), RESILIENT WEDGE, NON-RISING STEM, MECHANICAL JOINT, 150 PSI WORKING PRESSURE, CCW TO OPEN WITH ARROW INDICATING OPEN DIRECTION, MUELLER EQUIVALENT.

C. VALVE BOXES SHALL BE 3-PIECE, ADJUSTABLE 36 INCH TO 48 INCH, 5-1/4 INCH ADJUSTABLE SHAFT, 6 INCH DIAMETER NOMINAL ADJUSTABLE SCREW TYPE, COVER MARKED "WATER", DOMESTIC MADE ONLY.

D. ALL FITTINGS TO BE MEGALUG RESTRAINED AND THRUST BLOCKED.

E. ALL FITTINGS TO BE AWWA C-153 DUCTILE IRON, COMPACT.

F. ALL VALVES AND HYDRANTS SHALL OPEN LEFT BY TURNING IN A COUNTER CLOCKWISE DIRECTION.

G. CONTRACTOR TO FACE HYDRANT AS REQUIRED BY THE CITY.

H. WATER MAIN SHALL BE DUCTILE IRON PIPE CLASS 52 CEMENT LINED, AWWA C-151, WITH MECHANICAL JOINTS.

I. THE LAYING OF PIPE ON EXISTING DIRT WITH THE BELLS CUT OUT SHALL NOT BE PERMITTED.

J. WHERE UNDERGROUND UTILITIES HAVE SPECIAL FITTINGS SHALL BE PLUGGED OR OTHERWISE CLOSED WITH A WATERTIGHT PLUG TO THE APPROVAL OF THE CITY BEFORE LEAVING THE WORK FOR THE NIGHT.

K. THE FIRE DEPARTMENT SHALL COMPLETE A FUNCTION/FLOW TEST PRIOR TO BEING PLACED INTO SERVICE.

L. ALL FIRE HYDRANTS MUST BE THRUST BLOCKED.

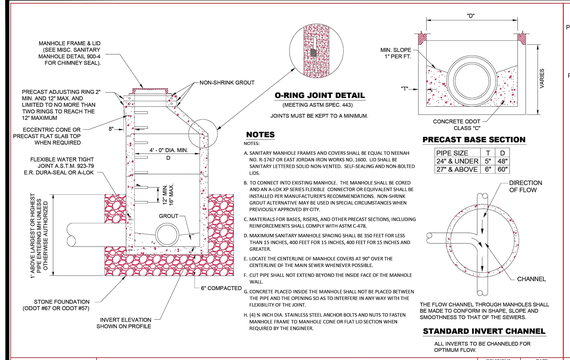
CITY OF PIQUA — ACCESS Engineering Solutions — REVISIONS: — DATE APPROVED: DEC. 2016 — PAGE No. 800-5

WATER MAIN MATERIAL AND TESTING

SECTION VIEW

DISINFECTION

A. AFTER SATISFACTORY HYDROSTATIC TESTING, THE CONTRACTOR SHALL WORK SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C-651 BY THE CONTRACTOR, WITH THE CITY OF PIQUA OVERSEEING BY



O-RING JOINT DETAIL
(MEETING ASTM SPEC. 443)
JOINTS MUST BE KEPT TO A MINIMUM.

PRECAST BASE SECTION

PIPE SIZE	T	D
24" & UNDER	5"	48"
27" & ABOVE	6"	60"

STANDARD INVERT CHANNEL
ALL INVERTS TO BE CHANNELED FOR OPTIMUM FLOW.

NOTES

NOTES:

A. SANITARY MANHOLE FRAMES AND COVERS SHALL BE EQUAL TO NEENAH NO. R-1767-I OR EAST JORDAN IRON WORKS NO. 1600. LID SHALL BE SANITARY LETTERED SOLID NON-VENTED. SELF-SEALING AND NON-BOLTED LIDS.

B. TO CONNECT INTO EXISTING MANHOLE. THE MANHOLE SHALL BE CORED AND AN A-LOK 39" SERIES FLEXIBLE CONNECTOR OR EQUIVALENT SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. NON-SHRINK GROUT ALTERNATIVE MAY BE USED IN SPECIAL CIRCUMSTANCES WHEN PREVIOUSLY APPROVED BY CITY.

C. MATERIALS FOR BASES, RISERS, AND OTHER PRECAST SECTIONS, INCLUDING REINFORCEMENTS SHALL COMPLY WITH ASTM C 478.

D. MAXIMUM SANITARY MANHOLE SPACING SHALL BE 350 FEET FOR LESS THAN 15 INCHES, 400 FEET FOR 15 INCHES, 800 FEET FOR 21 INCHES AND GREATER.

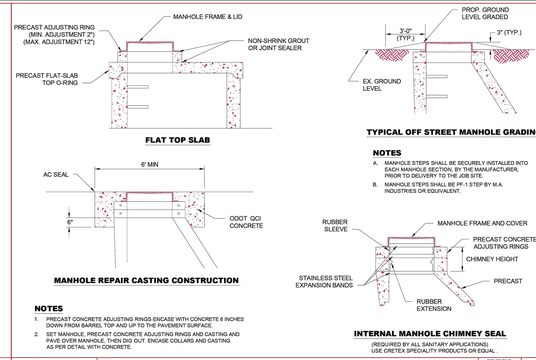
E. LOCATE THE CENTERLINE OF MANHOLE COVERS AT 90° OVER THE CENTERLINE OF THE MAIN SEWER WHENEVER POSSIBLE.

F. CUT PIPE SHALL NOT EXTEND BEYOND THE INSIDE FACE OF THE MANHOLE WALL.

G. CONCRETE PLACED INSIDE THE MANHOLE SHALL NOT BE PLACED BETWEEN THE PIPE AND THE OPENING SO AS TO INTERFERE IN ANY WAY WITH THE FLEXIBILITY OF THE JOINT.

H. (4) ¾ INCH DIA. STAINLESS STEEL ANCHOR BOLTS AND NUTS TO FASTEN MANHOLE FRAME TO MANHOLE CONE OR FLAT LID SECTION WHEN REQUIRED BY THE ENGINEER.

CITY OF PIQUA | ACCESS Engineering Solutions | TYPE 3 SANITARY MANHOLE | REVISIONS: | 12-29-16 BG | DATE APPROVED: DEC. 2016 | PAGE No. 900-1



MANHOLE REPAIR CASTING CONSTRUCTION

NOTES

1. PRECAST CONCRETE ADJUSTING RINGS-ENCASE WITH CONCRETE 6 INCHES DOWN FROM BARREL TOP AND UP TO THE PAVEMENT SURFACE.
2. SET MANHOLE, PRECAST CONCRETE ADJUSTING RINGS AND CASTING AND PAVE OVER MANHOLE, THEN DIG OUT, ENCASE COLLARS AND CASTING WITH PCC MATERIAL WITH CONCRETE.

FLAT TOP SLAB

TYPICAL OFF STREET MANHOLE GRADING

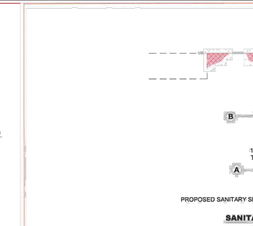
NOTES

A. MANHOLE STEPS SHALL BE SECURELY INSTALLED INTO EACH MANHOLE SECTION, BY THE MANUFACTURER, PRIOR TO DELIVERY TO THE JOB SITE.

B. MANHOLE STEPS SHALL BE PF-1 STEP BY M.A. INDUSTRIES OR EQUIVALENT.

INTERNAL MANHOLE CHIMNEY SEAL
(REQUIRED BY ALL SANITARY APPLICATIONS)
USE CRETEX SPECIALTY PRODUCTS OR EQUAL.

CITY OF PIQUA | ACCESS Engineering Solutions | MISCELLANEOUS SANITARY MANHOLE DETAILS | REVISIONS: | 12-29-16 BG | DATE APPROVED: DEC. 2016 | PAGE No. 900-4



SANITARY SEWER TRENCH DETAIL
SHOWN AS "OFF ROAD" APPLICATION

TRENCH DETAIL NOTES

A. GRANULAR BEDDING SHALL BE CRUSHED STONE OR GRAVEL, (#57 OR #67), OR OTHER APPROVED EQUIVALENT.

B. ALL TRENCHES OUTSIDE THE RIGHT-OF-WAY FROM PROPOSED OR EXISTING PAVEMENT, CURB, DRIVEWAYS, ALLEYS, STONE AREAS OR WALKS CAN COMPACTED WITH EXISTING NATIVE MATERIAL IN 12 INCH MAXIMUM LIFTS OR AS APPROVED BY THE CITY. NO MATERIAL SHALL BE USED FOR BACK FILLING THAT CONTAINS STONE, ROCKS, ETC., GREATER THAN 4 INCH DIAMETER.

ALL TRENCHES INSIDE THE RIGHT OF WAY FROM PROPOSED OR EXISTING PAVEMENT, CURB, DRIVEWAYS, ALLEYS, STONE AREAS OR WALKS SHALL BE COMPACTED WITH GRANULAR BACKFILL MATERIAL TYPE 1 IN 6 INCH MAXIMUM LIFTS.

A DENSITY TEST OR GRANULAR BACKFILL OF 95% OF ASTM D698 STANDARD PROCTOR CURVE MAY BE REQUIRED TO BE PERFORMED BY A COMMERCIAL TESTING LAB SATISFACTORY TO THE CITY.

C. OFF-PAVEMENT AREAS SHALL BE PROVIDED WITH A MINIMUM OF 6 INCHES OF TOPSOIL OVER THE COMPACTED MATERIAL AND THEN SEEDED AND MULCHED PER ODOT ITEM 659. IN PAVEMENT AREAS SHALL FOLLOW LANDSCAPE AND ROADWAY NOTES SHOWN ON PAGE 300-05.

D. THE OPEN ENDS OF ALL PIPES SHALL BE PLUGGED TO THE APPROVAL OF THE CITY BEFORE LEAVING THE WORK FOR THE NIGHT.

CITY OF PIQUA | ACCESS Engineering Solutions | SANITARY SEWER TRENCH DETAIL | REVISIONS: | 12-29-16 BG | DATE APPROVED: DEC. 2016 | PAGE No. 900-5

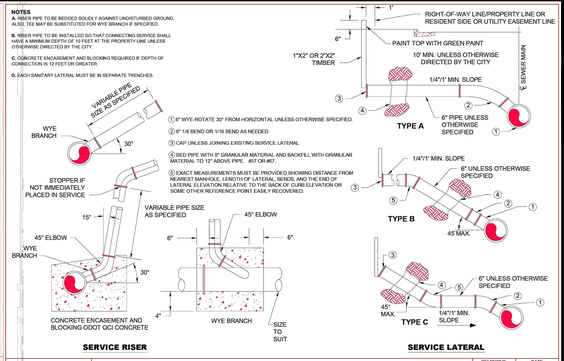
NOTES

A. RISER PIPE TO BE BEDDED SOLIDLY AGAINST UNDISTURBED GROUND. ALSO, TEE MAY BE SUBSTITUTED FOR WYE BRANCH IF SPECIFIED.

B. RISER PIPE TO BE INSTALLED SO THAT CONNECTING SERVICE SHALL HAVE A MINIMUM DEPTH OF 10 FEET AT THE PROPERTY LINE UNLESS OTHERWISE DIRECTED BY THE CITY.

C. CONCRETE ENCASEMENT AND BLOCKING REQUIRED IF DEPTH OF CONNECTION IS 12 FEET OR GREATER.

D. EACH SANITARY LATERAL MUST BE IN SEPARATE TRENCHES.



SERVICE LATERAL

CITY OF PIQUA | ACCESS Engineering Solutions | SERVICE RISER AND SERVICE LATERAL FOR NEW CONSTRUCTION ONLY | REVISIONS: | 12-29-16 BG | DATE APPROVED: DEC. 2016 | PAGE No. 900-7



NOTES:

A. SEPTIC TANKS, WHEN ABANDONED, SHALL BE DEWATERED BY AN ACCEPTABLE METHOD AND PROPERLY FILLED WITH GRANULAR MATERIAL. DRAIN HOLES SHALL BE BROKEN OUT ON THE BOTTOM AND SIDES OF THE TANK WHEN DIRECTED BY THE CITY.

B. ROOF DOWNSPOUTS EXTERIOR FOUNDATION DRAINS, AREA WAY DRAINS OR OTHER SURFACE RUNOFF OR GROUNDWATER SHALL NOT BE CONNECTED TO THE SANITARY SEWER MAIN.

C. BASEMENT FLOOR DRAINS AND SUMP PUMPS, THAT CARRY GRAY WATER, SHALL BE CONNECTED TO THE SANITARY SEWER - FOUNDATION DRAINS ARE ALL OTHER SUMP PUMPS, EXCEPT AS NOTED ABOVE ARE TO BE CONNECTED TO THE STORM SEWER OR DISCHARGED ONTO THE GROUND.

D. ANY INDIVIDUAL OR FIRM INSTALLING SEWER CONNECTIONS SHALL BE APPROVED BY THE CITY.

E. BEFORE BEGINNING WORK, A SEWER TAP PERMIT MUST BE OBTAINED FROM THE ENGINEERING DEPARTMENT AND APPLICABLE FEES MUST BE PAID. ALSO OBTAIN A PLUMBING PERMIT FOR BUILDING SEWER OR LATERAL FROM THE HEALTH DEPARTMENT.

F. WHEN THE BUILDING CONNECTION MUST ENTER INTO A PAVED PORTION OF THE STREET SIDEWALK OR ALLEY, A RIGHT-OF-WAY OPENING PERMIT MUST BE OBTAINED FROM THE CITY STREET DEPARTMENT BEFORE BEGINNING WORK.

G. A PERMIT TO BLOCK WAY OR STREET AND ALLEY CLOSING PERMIT SHALL ALSO BE OBTAINED FROM THE ENGINEERING DEPARTMENT.

H. WATER SERVICES SHALL BE A MINIMUM OF 10 FEET MEASURED HORIZONTALLY FROM THE SEWER SERVICE AND SHALL BE A MINIMUM OF 18 INCHES ABOVE THE CROWN (WHENEVER POSSIBLE) OF THE SANITARY SEWER MAIN WHERE THE WATER SERVICE CROSSES THE SEWER MAIN.

NOTES

PIPE SHALL HAVE A 8 INCH MINIMUM COVER OF APPROVED AGGREGATE MATERIAL APPROVED AGGREGATE MATERIAL SHALL BE CRUSHED STONE OR GRAVEL, (#57 OR #67) OR OTHER APPROVED EQUAL. PIPES SHALL BE BEDDED ON A 4 INCH MINIMUM OF APPROVED AGGREGATE BASE.

A TEST TEE IS TO BE INSTALLED AT THE PROPERTY LINE. THE TEE SHALL BE INSTALLED INTO THE END OF THE EXISTING SERVICE LATERAL. IF THERE IS NO EXISTING SERVICE LATERAL, AND ONE MUST BE INSTALLED, THEN THE TEST SHALL EXTEND FROM THE BUILDING TO THE SANITARY SEWER MAIN, UNLESS OTHERWISE APPROVED.

PIPE

A. THE PIPE MATERIAL SHALL BE PVC SDR 35 OR SCHEDULE 40 UTILIZING PURPLE PRIMER, OR AN APPROVED EQUIVALENT.

B. PIPE SIZES FOR BUILDING CONNECTIONS SHALL BE 4 INCH MINIMUM FOR SINGLE RESIDENCE AND 6 INCH MINIMUM FOR ALL OTHER USES. THE LATERALS SHALL BE RUN TO WITHIN 3' OF THE OUTSIDE OF THE BUILDING.

INSPECTION

A. A TAP INSPECTION SHALL BE REQUIRED ON ALL NEW BUILDING CONNECTIONS AND ALSO ON THE REPLACEMENT OF EXISTING BUILDING CONNECTIONS.

B. WHEN THE BUILDING SEWER IS READY FOR INSPECTION, THE PLUMBING INSPECTOR SHALL BE GIVEN 24 HOURS ADVANCE NOTICE. THE PIPE SHALL BE LEFT UNCOVERED UNTIL AN INSPECTION HAS BEEN MADE AND APPROVED. THE ENGINEERING DEPARTMENT INSPECTOR SHALL INSPECT ALL TAPS TO PROPERTY LINE. THE PLUMBING DEPARTMENT INSPECTOR SHALL INSPECT FROM THE PROPERTY LINE TO 3 FEET OUTSIDE OF BUILDING.

C. ANY NEW BUILDING CONNECTION INSTALLED WITHOUT AN INSPECTION SHALL RESULT IN NO ISSUANCE OF A WATER METER FOR THE BUILDING. IF THIS OCCURS, THE ENTIRE LATERAL SHALL BE UNCOVERED SO THAT A PROPER INSPECTION CAN BE MADE.

D. NO TAP FEE IS REQUIRED IF AN OLD BUILDING SEWER IS TO BE REUSED. AN INSPECTION WILL BE REQUIRED. THE PLUMBING INSPECTOR SHALL INSPECT THE ENTIRE BUILDING CONNECTION FROM THE CLEANOUT TO THE PROPERTY LINE CONNECTION - THE LATERAL SHALL BE INSPECTED FROM THE PROPERTY LINE TO THE SEWER MAIN BY THE INVESTIGATION DEPARTMENT.

E. IF A SADDLE HAS BEEN APPROVED, THE INSPECTOR SHALL BE PRESENT WHILE THE SANITARY SEWER MAIN IS BEING CUT INTO A SADDLE MAY BE USED WHERE A TEE OR WYE IS NOT PRESENT FOR LATERAL CONNECTION.

TESTING

A. THE ONSITE LICENSED PLUMBER SHALL BE RESPONSIBLE FOR THE TESTING FROM THE CLEANOUT TO THE EXISTING SERVICE LATERAL TO THE CLEANOUT.

B. ALL NEW BUILDING CONNECTIONS SHALL BE BY AIR WITH 4 PSA PRESSURE.

C. THE SEWER TEST SHALL BE FROM THE CLEANOUT TO THE PROPERTY LINE CONNECTION OR TO THE MAIN SEWER, WHICHEVER IS APPLICABLE.

D. WHEN A SUBSTANTIAL AMOUNT OF AN EXISTING LATERAL IS REPLACED, THE NEW PORTION OF THE LATERAL SHALL REQUIRE A TEST UNLESS OTHERWISE APPROVED.

PIPE LAYING

A. THE OPEN ENDS OF ALL PIPES SHALL BE PLUGGED OR OTHERWISE CLOSED WITH A WATERTIGHT PLUG TO THE APPROVAL OF THE CITY BEFORE LEAVING THE WORK SITE FOR THE NIGHT.

B. THE JOINING OF PIPE WITH CONCRETE SHALL NOT BE ACCEPTED.

C. BEFORE MAKING A CONNECTION TO AN EXISTING SEWER OR SEWER LATERAL, THE CONTRACTOR SHALL CHECK THE EXISTING PIPE BY UTILIZING A DYE TEST TO SEE THAT THE EXISTING PIPE IS CONNECTED TO THE SANITARY SEWER MAIN.

D. IN THE CASE WHERE A 90° CONNECTION IS REQUIRED IN THE BUILDING CONNECTION LINE, TWO 45° BENDS SHALL BE USED IN LIEU OF A 90° BEND.

E. THE BUILDING CONNECTION LINE SHALL BE LAID IN AS STRAIGHT A LINE, FORM THE BUILDING TO THE EXISTING LATERAL AS POSSIBLE.

F. ALL NEW CONSTRUCTION SHALL HAVE SANITARY LATERALS INSTALLED.

G. MINIMUM SLOPE OF SANITARY LATERAL SHALL BE 1% GRADE (1/8 INCH PER FOOT) MAXIMUM SLOPE (SEE 900-7).

CITY OF PIQUA | ACCESS Engineering Solutions | BUILDING CONNECTION DETAIL | REVISIONS: | 12-29-16 BG | DATE APPROVED: DEC. 2016 | PAGE No. 900-10

LOW PRESSURE AIR TEST

A. AFTER BACKFILLING, THE AIR TEST SHALL BE CONDUCTED BETWEEN TWO CONSECUTIVE MANHOLES. ALL PIPE OUTLETS MUST BE PLUGGED IN THE SECTION BEING TESTED WITH A SUITABLE TEST PLUG. ONE OF THE PLUGS USED AT A MANHOLE MUST BE TAPPED AND EQUIPPED FOR AN AIR INLET CONNECTION WITH FILLING THE LINE FROM THE AIR COMPRESSOR. AIR SHALL BE SUPPLIED SLOWLY TO THE SEALED LINE UNTIL AN INTERNAL PRESSURE OF APPROXIMATELY 4 PSI, IF THE PIPE IS BELOW EXISTING GROUNDWATER LEVEL, THE INTERNAL PRESSURE SHALL BE INCREASED BY THE AVERAGE BACK PRESSURE OF ANY GROUNDWATER THAT MAY BE OVER THE PIPE, BUT IN NO CASE SHOULD THE INTERNAL PRESSURE EVER EXCEED 5 PSI.

B. AT LEAST 1 MINUTES SHALL BE ALLOWED FOR THE AIR PRESSURE TO STABILIZE. ONCE THE PRESSURE HAS STABILIZED AND IS AT OR ABOVE 3.5 PSI, THE AIR SUPPLY SHALL BE DISCONNECTED AND TIMING SHALL BEGIN WITH A STOP WATCH. THE STOP WATCH SHALL BE ALLOWED TO RUN UNTIL THE PRESSURE HAS DROPPED 1.0 PSI, IF THE TIME SHOWN ON THE STOP WATCH IS GREATER THAN THE SPECIFIED MINIMUM TIME, THE SECTION SHALL BE CONSIDERED TO HAVE PASSED THE TEST. THE TIME MAY INTERPOLATED FROM THE FIGURES LISTED BELOW

PIPE DIA (IN.)	100FT	150FT	200FT	250FT	300FT	350FT	400FT
4	1:53	1:53	1:53	1:53	1:53	1:53	1:53
6	2:50	2:50	2:50	2:50	2:50	2:50	2:51
8	3:47	3:47	3:47	3:47	3:48	4:28	5:04
10	4:43	4:43	4:43	4:57	5:56	6:55	7:54
12	5:40	5:40	5:42	7:06	8:33	9:46	11:24
15	7:05	7:05	8:54	11:08	13:21	15:35	17:48
18	8:30	8:33	10:48	14:01	16:41	20:46	24:50
21	9:55	10:00	12:42	16:30	20:11	23:52	27:34
24	11:24	11:27	12:42	18:30	24:11	29:53	45:35

SPECIFICATION TIME FOR LENGTH (L) SHOWN (MIN SEC)

DEFLECTION TEST

A. DEFLECTION TEST SHALL BE PERFORMED BY THE CONTRACTOR ON ALL FLEXIBLE PIPE. THE TEST SHALL CONSIST OF PULLING A MANDREL OR THE PLUGS USED AT A MANHOLE MUST BE TAPPED AND EQUIPPED FOR AN AIR INLET CONNECTION FILLING THE LINE FROM THE AIR COMPRESSOR. AIR SHALL BE SUPPLIED SLOWLY TO THE SEALED LINE UNTIL AN INTERNAL PRESSURE OF APPROXIMATELY 4 PSI, IF THE PIPE IS BELOW EXISTING GROUNDWATER LEVEL, THE INTERNAL PRESSURE SHALL BE INCREASED BY THE AVERAGE BACK PRESSURE OF ANY GROUNDWATER THAT MAY BE OVER THE PIPE, BUT IN NO CASE SHOULD THE INTERNAL PRESSURE EVER EXCEED 5 PSI.

B. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. IF DEFLECTION EXCEEDS 5% REPLACEMENT OR CORRECTION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE REQUIREMENTS OF APPROVING AGENCY.

C. THE RIGID BALL OR MANDREL USED FOR THE DEFLECTION TEST SHALL HAVE A DIAMETER NOT LESS THAT 95% OF THE BASE INSIDE DIAMETER OR AVERAGE INSIDE DIAMETER. THE RIGID BALL OR MANDREL WHICH IS MANUFACTURED. THE PIPE SHALL BE MEASURED IN COMPLIANCE WITH ASTM D 2122 STANDARD METHOD OF DETERMINING DIMENSIONS OF THERMOPLASTIC PIPE AND FITTINGS. THE TEST SHALL BE PERFORMED WITH MECHANICAL PULLING DEVICES.

DEPTH (FT)	4FT	6FT	8 OR GREATER
8 OR LESS	20	26	33
10	25	33	41
12	30	39	49
14	35	46	57
16	40	52	67
18	45	59	73
20	50	65	81
22	55	72	89
24	59	78	97
26	64	85	105
28	69	91	113
30	74	98	121

MINIMUM TEST TIMES FOR VARIOUS MANHOLE DIAMETERS

MANHOLE VACUUM TEST

ALL SANITARY SEWER MANHOLES SHALL BE VACUUM TESTED BY THE CONTRACTOR USING THE FOLLOWING PROCEDURES FROM ASTM C-1244.

A. PREPARATION OF THE MANHOLE
1. ALL LIFT HOLES SHALL BE PLUGGED.
2. ALL PIPES ENTERING THE MANHOLE SHALL BE TEMPORARILY PLUGGED TAKING CARE TO SECURELY BRACE THE PIPES AND PLUGS TO PREVENT FROM BEING DRAWN INTO THE MANHOLE.

B. PROCEDURE
1. THE FIRST HEAD SHALL BE PLACED AT THE TOP OF THE MANHOLE IN THE CASTING IN ACCORDANCE WITH THE MANUFACTURE'S RECOMMENDATIONS.
2. A VACUUM OF 10 INCHES OF MERCURY (4.9 PSI) SHALL BE DRAWN ON THE MANHOLE. THE VALVE ON THE VACUUM LINE OF THE TEST HEAD CLOSED, AND THE VACUUM PUMP SHUT OFF. THE TIME SHALL BE MEASURED FOR THE VACUUM TO DROP FROM 10 INCHES OF MERCURY TO 9 INCHES OF MERCURY (4.9PSI) TO 4.6PSI.
3. THE MANHOLE SHALL PASS IN THE TIME FOR THE VACUUM READING TO DROP FROM 10 INCHES OF MERCURY (4.9 PSI) MEETS OR EXCEEDS THE VALUES INDICATED ON THE TABLE.
4. IF THE MANHOLE FAILS THE INITIAL TEST, NECESSARY REPAIRS SHALL BE MADE BY AN APPROVED METHOD. THE MANHOLE SHALL BE RETESTED UNTIL A SATISFACTORY TEST IS OBTAINED.

ALL TESTS SHALL BE WITNESSED BY A CITY OF PIQUA ENGINEERING DEPARTMENT REPRESENTATIVE

CITY OF PIQUA | ACCESS Engineering Solutions | SANITARY SEWER TESTING NOTES | REVISIONS: | 12-30-16 BG | DATE APPROVED: DEC. 2016 | PAGE No. 900-11

SEWER TELEVISING STANDARDS

A. ALL SEWER TELEVISING CONTRACTORS SHALL BE CERTIFIED BY NASSCO FOR PIPELINE ASSESSMENT AND CERTIFICATION.

B. SANITARY TELEVISING WORK SHALL COMPLY WITH NASSCO STANDARDS.

C. ALL TELEVISING WORK SHALL BE COMPLETED IN COLOR WITH THE PROPER AMOUNT OF ILLUMINATION TO CLEARLY SHOW THE ENTIRE PIPE DIAMETER.

D. THE CAMERA SHALL BE PUT PAN AND TILT TYPE

F. AT THE START OF THE TELEVISING PROCESS, THE DVD
1. DATE/TIME
2. OPERATOR AND COMPANY NAME
3. SEWER PROJECT NAME
4. ADDRESS OR INTERSECTION OF MANHOLE WORKING AGAINST
5. DIRECTION OF TELEVISING
6. COUNTER SETTING.

G. THE DVD MUST SHOW THE COUNTER RECORDING THROUGHOUT THE TELEVISING PROCESS.

H. THE DVD SHALL SHOW THE CLOCK POSITION AND DISTANCE FROM THE MANHOLE FOR EACH LATERAL. THE OPERATOR SHALL PAN EACH SEWER JOINT AND NOTE ANY DEFICIENCIES ON THE MAIN SCREEN.

I. THE OPERATOR SHALL STOP THE CAMERA TO LOOK UP EACH LATERAL CONNECTION.

K. AT NO TIME SHALL THE OPERATOR ALLOW THE CAMERA HEAD TO BE SUBMERGED.

L. THE OPERATOR SHALL NOTE ANY DEFICIENCIES ON THE MAIN SCREEN.

M. THE OPERATOR SHALL KEEP AN ACCURATE LOG CONSISTING OF THE FOLLOWING.
1. DIAGRAM OF SEWER FROM MANHOLE TO MANHOLE WITH DISTANCES NOTED.
2. SHALL NOTATE ALL SEWER LATERALS WITH CLOCK POSITIONS AND DISTANCE FROM MANHOLES
3. DEFICIENCIES IN THE SEWER PIPE INCLUDING BELLIES
4. SPECIAL NOTES DESCRIBING AREAS OF CONCERN.
5. ANY DEFICIENCIES NOTED SHALL ACCOMPANY A DIGITAL PHOTO ATTACHED ON INCLUDED IN THE REPORT.

STANDARDS FOR BELLIES/DIPS IN SEWER MAINS

SANITARY SEWERS SHALL BE DECLARED AS 'NOT APPROVED' IF DEFICIENCIES IN THE MAIN LINE EXCEEDS THE FOLLOWING CRITERIA
MAXIMUM ALLOWABLE BELLIES IN PIPE (INCHES)

SLOPE	8"	10"	12"	15"	18"	21"	24"
0.10%	4"	5"	6"	7"	8"	9"	10"
0.15%	4"	5"	6"	7"	8"	9"	9"
0.20%	4"	5"	6"	6"	7"	8"	8"
0.25%	4"	5"	5"	6"	6"	7"	7"
0.30%	4"	4"	5"	5"	6"	6"	7"
0.40%	4"	4"	4"	5"	5"	6"	6"
0.50%	3"	4"	4"	4"	5"	5"	6"

SEWER TELEVISING PROCEDURES FOR NEW SEWER CONSTRUCTION

A. THE SANITARY SEWER SHALL BE COMPLETELY CLEAN AND FREE OF DEBRIS USING A HIGH PRESSURE JET NOZZLER CAPABLE OF SCOURING THE PIPE WALLS.

B. ALL DEBRIS SHALL BE VACUUMED OUT OF THE SEWER MAIN.

C. ONCE CLEANING HAS BEEN COMPLETED, THE CONTRACTOR SHALL RUN CLEAR WATER IN THE NEW SEWER MAIN TO FILL ANY POTENTIAL BELLIES IN THE LINE. THE CONTRACTOR SHALL CALCULATE THE VOLUME GALLON CAPACITY OF THE SEWER MAIN AND SHALL USE THAT MUCH WATER TO FILL POTENTIAL DIPS/BELLIES.

D. THE CONTRACTOR MAY RENT A WATER HYDRANT METER FROM THE CITY TO PERFORM THIS TASK.

E. THE CONTRACTOR SHALL MAKE SURE THAT THERE IS NO FLOW EMANATING UPSTREAM. IF SO THE CONTRACTOR SHALL STOP THIS FLOW DURING THE TELEVISING PROCESS.

F. THE CONTRACTOR SHALL TELEVISE THE SEWER FOLLOWING THE TELEVISING STANDARDS.

SEWER TELEVISING PROCEDURES FOR SEWER RECONSTRUCTION PROJECTS

A. BEFORE COMMENCEMENT OF THE CLEANING PROCESS, THE TELEVISING CONTRACTOR SHALL NOTIFY ADJACENT AND AFFECTED PROPERTY OWNERS BY GOING DOOR TO DOOR AND NOTIFYING THEM OF THE POSSIBILITY OF SEWER BACKUP DURING THE CLEANING PROCESS.

B. THE SANITARY SEWER SHALL BE CONSTANTLY CLEAN AND FREE OF DEBRIS USING A HIGH PRESSURE JET RODDER CAPABLE OF SCOURING THE PIPE WALLS.

C. ALL DEBRIS SHALL BE VACUUMED OUT OF THE SEWER MAIN.

D. ONCE CLEANING HAS BEEN COMPLETED, THE CONTRACTOR SHALL BAG THE UPSTREAM MANHOLE AND PUMP THE SEWAGE FLOW DOWNSTREAM AND SHALL MAINTAIN PUMPING DURING THE TELEVISING PROCESS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY SEWER FLOODINGS AS A RESULT OF THEIR ACTIVITIES.

E. AFTER THE PUMP BYPASS HAS BEEN ESTABLISHED, THE CONTRACTOR SHALL RUN CLEAR WATER IN THE RECONSTRUCTED SEWER MAIN TO FILL ANY POTENTIAL BELLIES IN THE LINE. THE CONTRACTOR SHALL CALCULATE THE VOLUME GALLON CAPACITY OF THE SEWER MAIN AND SHALL USE THAT MUCH WATER TO FILL POTENTIAL DIPS/BELLIES.

F. THE CONTRACTOR MAY RENT A WATER HYDRANT METER FROM THE CITY TO PERFORM THIS TASK.

G. THE CONTRACTOR SHALL TELEVISE THE SEWER FOLLOWING THE TELEVISING STANDARDS

PASSING SANITARY SEWER

A. THE CITY WILL NOT PASS OR ACCEPT THE SANITARY SEWER FOR FINAL PAYMENT WITHOUT HAVING A PASSING DVD AND LOG OF THE SANITARY SEWER TELEVISING FOLLOWING THE STANDARDS PREVIOUSLY DESCRIBED.

B. ALL TELEVISING WORK SHALL BE AT THE CONTRACTORS EXPENSE.

C. THE CITY RESERVES THE RIGHT TO FINAL RE-TELEVISING AT THE CONTRACTORS EXPENSE IF DEFICIENCES ARE NOTED ON THE INITIAL TELEVISING WORK AND AFTER THE CONTRACTOR MAKES THE NECESSARY REPAIRS.

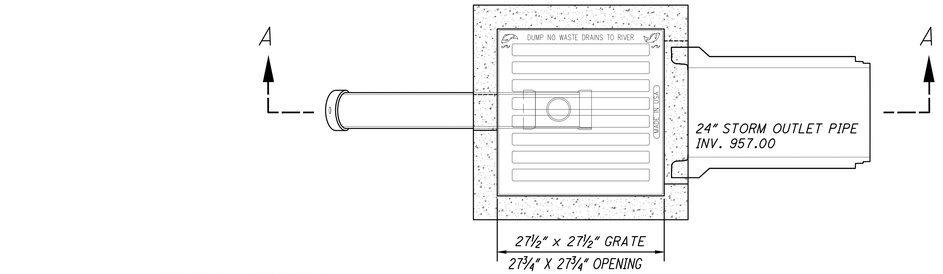
CITY OF PIQUA | ACCESS Engineering Solutions | SANITARY SEWER TELEVISING STANDARDS | REVISIONS: | 12-30-16 BG | DATE APPROVED: DEC. 2016 | PAGE No. 900-12

UTILITY STAKING

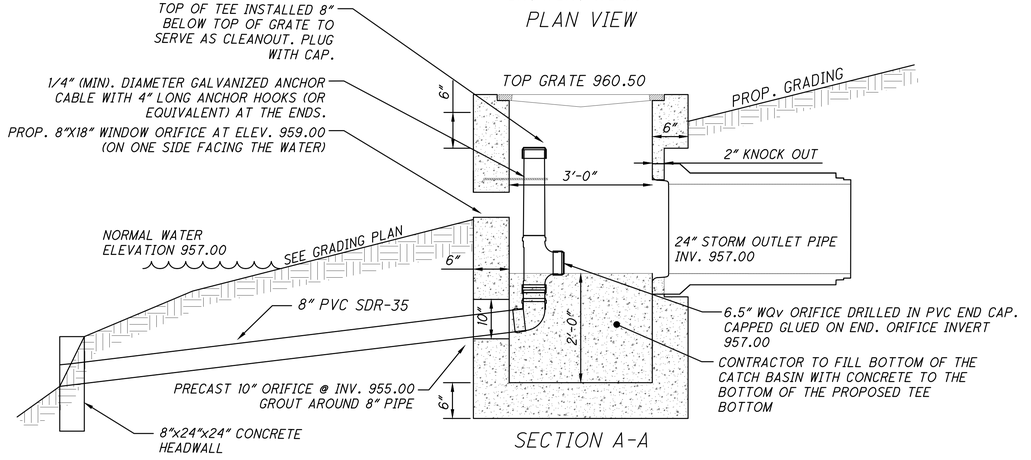
A. LASER METHOD- OFFSET AND GRADE AT EACH MANHOLE, OFFSET AND GRADE 50 FEET AND 100 FEET OUT FROM EACH MANHOLE UNLESS OTHERWISE APPROVED.

TESTING- ALL PHASES PERFORMED BY CONTRACTOR OR DEVELOPER

A. BEFORE ANY SEWER LINE IS PLACED INTO SERVICE OR ACCEPTED BY THE CITY, IT SHALL BE SUBJECTED TO AND PASS LOW PRESSURE AIR TEST. EACH RUN BETWEEN MANHOLES, WITH SERVICE LATERALS STUBBED INTO PROPERTY LINES, SHALL BE TESTED BEFORE BEING ACCEPTED. THE CONTRACTOR OR DEVELOPER SHAL

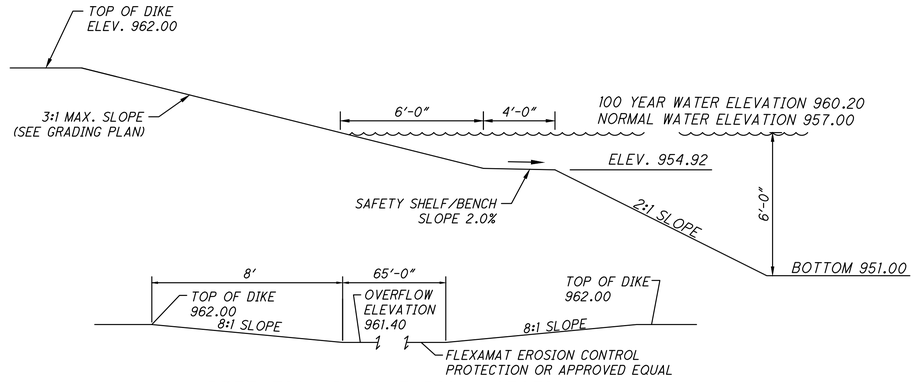


PLAN VIEW



SECTION A-A

2-3 CATCH BASIN, OUTLET STRUCTURE



RETENTION POND TYPICAL SECTION

NOTES

A. GRATE SHALL BE NEENAH CATALOG NO. R-4871 (TYPE D GRATE) OR EQUIVALENT. CONTRACTOR SHALL FASTEN/BOLT DOWN GRATE TO STRUCTURE TO ENSURE GRATE IS SECURELY FASTENED IN PLACE.

B. PRECAST CONSTRUCTION IS REQUIRED, UNLESS OTHERWISE APPROVED, AND CONCRETE SHALL MEET THE REQUIREMENTS OF 706.13. KNOCKOUTS CAN BE PROVIDED IN PRECAST CONSTRUCTION. PRECAST WALLS SHALL HAVE A SUFFICIENT AMOUNT OF REINFORCEMENT TO PERMIT SHIPPING AND PLACEMENT WITHOUT DAMAGE.

RETENTION POND- WEIR DETAIL

NTS

RETENTION BASIN CLAY LINER NOTE

PER THE GEOTECHNICAL REPORT IN REGARDS TO ALL RETENTION BASINS, A COMPACTED CLAY LINER SHALL BE INSTALLED THROUGHOUT THE ENTIRE WET POOL PORTION OF THE RETENTION BASIN. THE CONTRACTOR SHALL OBTAIN CLAY LINER RECOMMENDATIONS FROM LICENSED GEOTECHNICAL ENGINEER. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTORS OVERALL LUMP SUM BID FOR THE PROJECT.

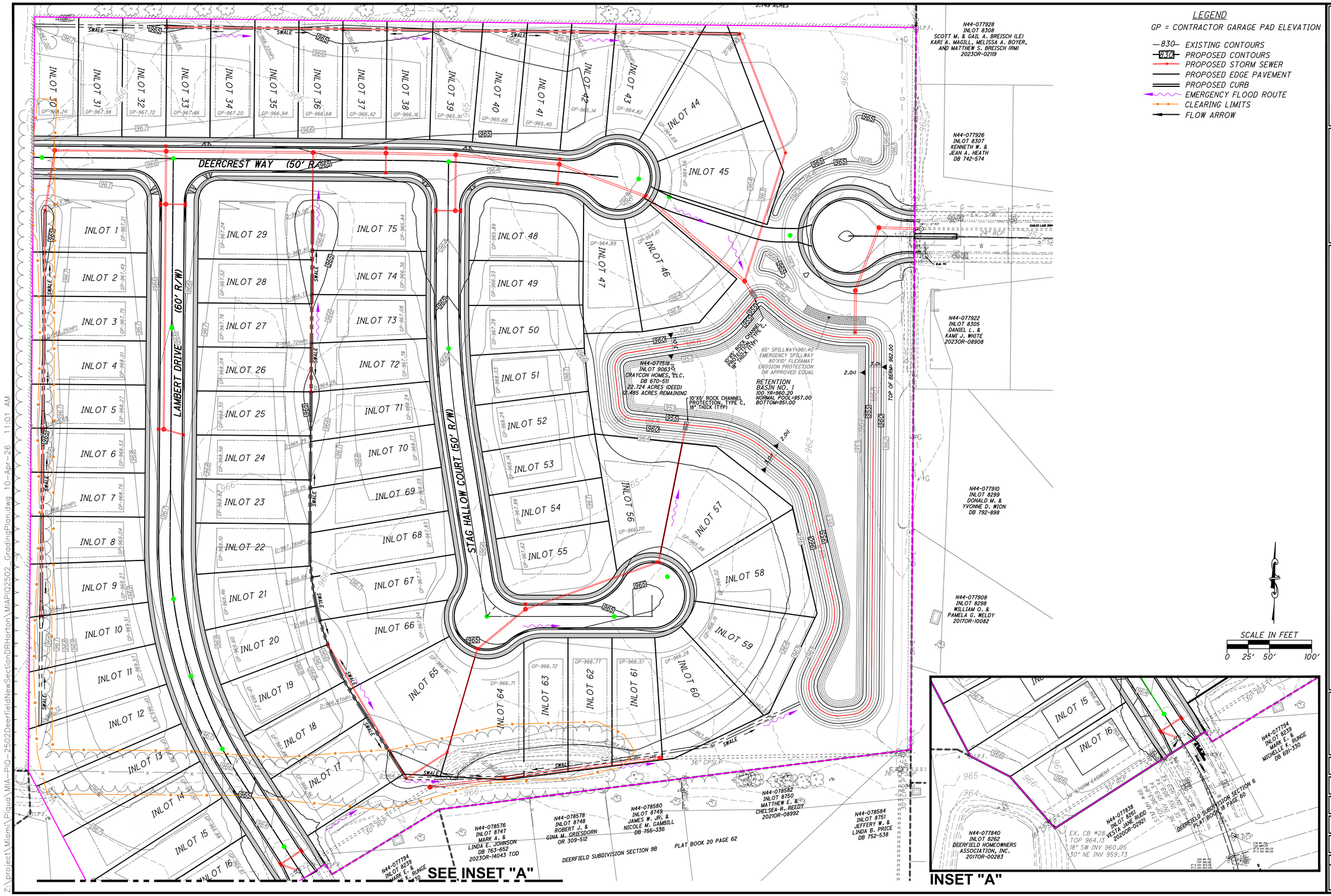
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
OUTLET STRUCTURE DETAIL

REVISIONS:

FILE NAME	Gener
DRAWN BY	SJG
CHECKED BY	NNS
PROJECT No.	MIAPIQ2502
DATE	04-10-2026
SHEET NUMBER	12 OF 25

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ2502_GeneralDetails.dwg 10-Apr-26 11:00 AM



LEGEND

GP = CONTRACTOR GARAGE PAD ELEVATION

- —830— EXISTING CONTOURS
- 830 PROPOSED CONTOURS
- PROPOSED STORM SEWER
- PROPOSED EDGE PAVEMENT
- PROPOSED CURB
- EMERGENCY FLOOD ROUTE
- CLEARING LIMITS
- FLOW ARROW

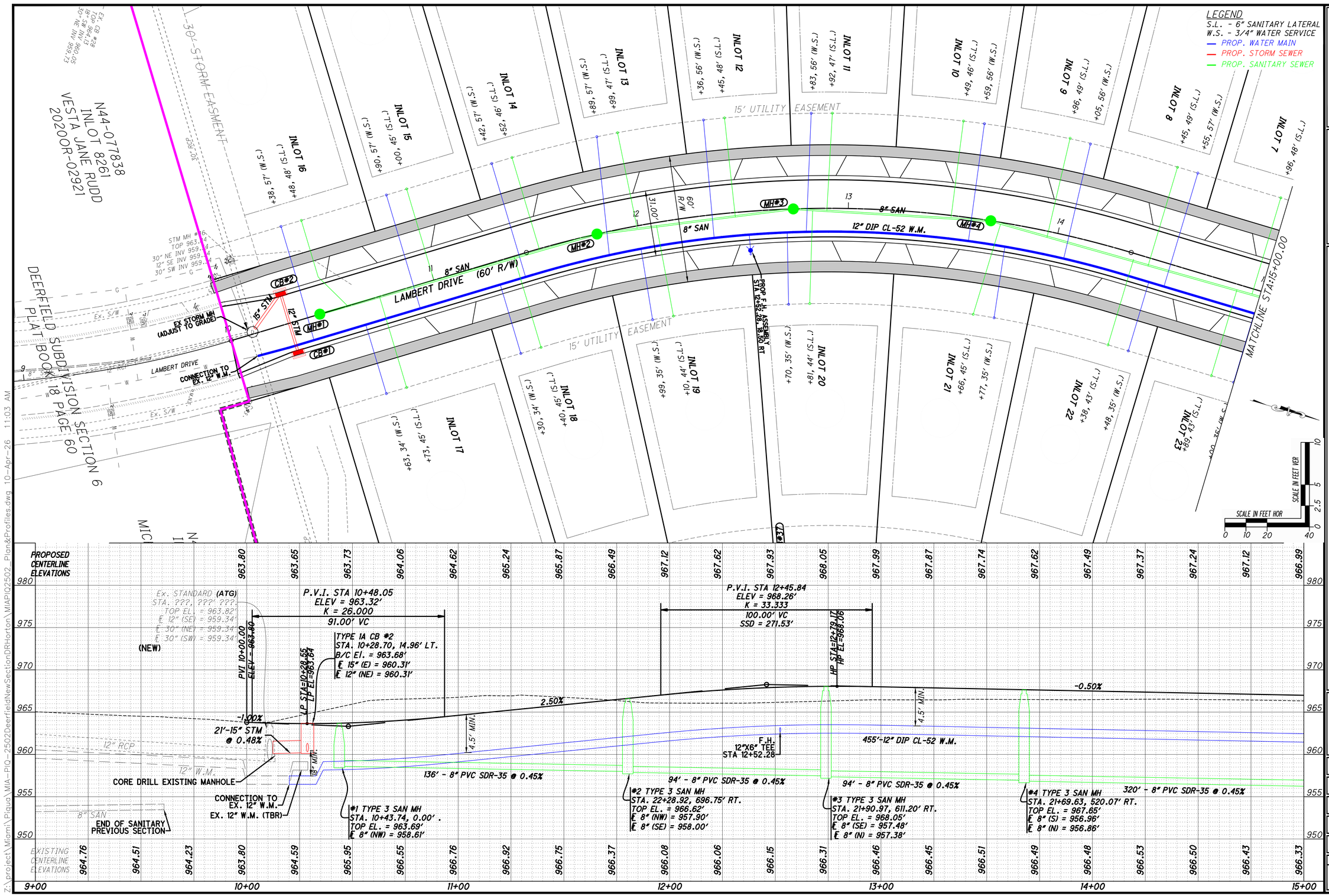
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
GRADING PLAN

REVISIONS:

FILE NAME	Gradi
DRAWN BY	SJG
CHECKED BY	WNS
PROJECT No.	MIAPIO2502
DATE	04-10-2026
SHEET NUMBER	13 OF 25

Z:\project\Miami Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIO2502_GradingPlan.dwg 10-Apr-26 11:01 AM



Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSection\DRHorton\MIAPIQ2502_Plan&Profiles.dwg 10-Apr-26 11:03 AM

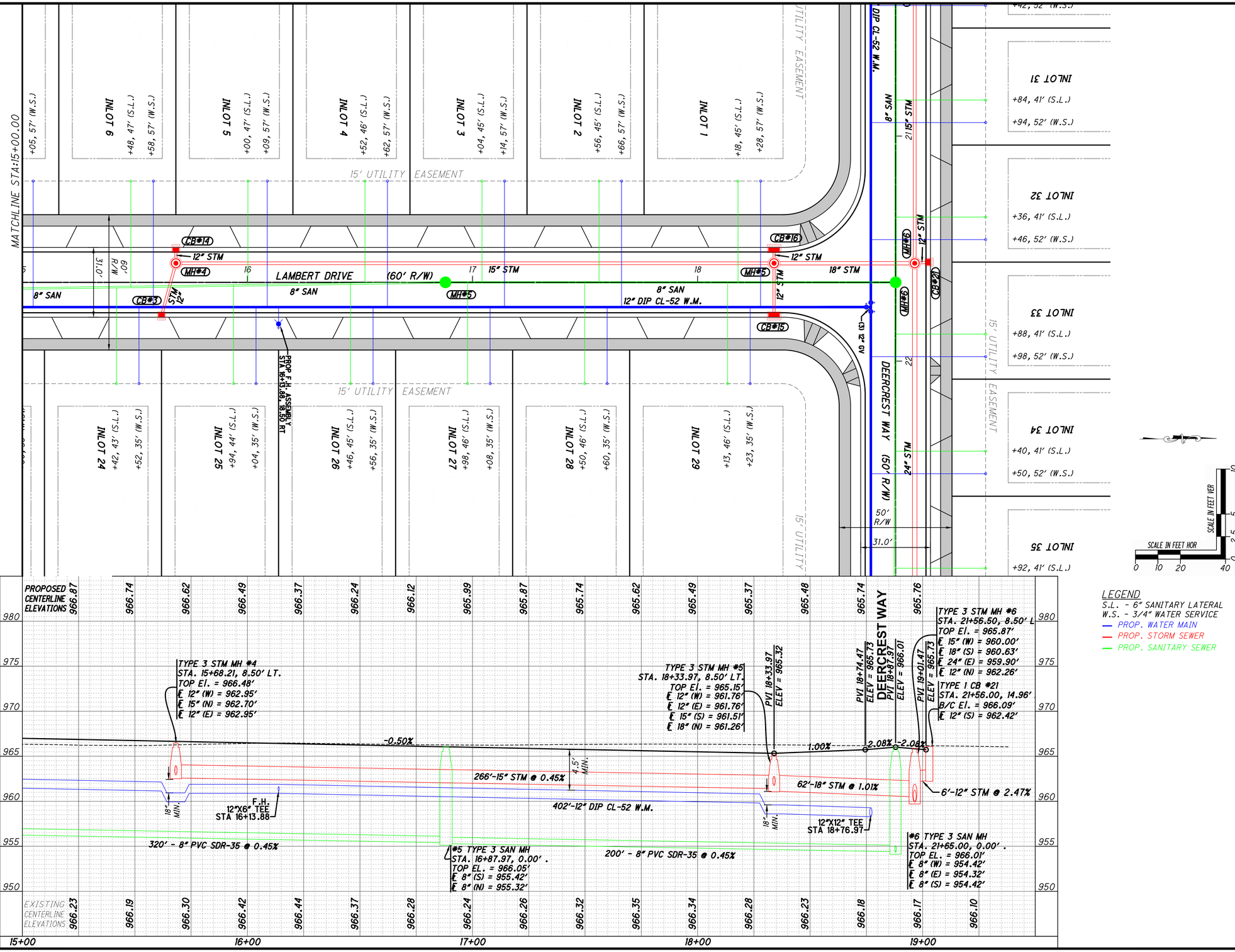
ChoiceOne Engineering

SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
LAMBERT DRIVE - PLAN & PROFILE

REVISIONS:

FILE NAME	Plan&
DRAWN BY	SJG
CHECKED BY	NNS
PROJECT No.	MIAPIQ2502
DATE	04-10-2026
SHEET NUMBER	14 OF 25



LEGEND
S.L. - 6" SANITARY LATERAL
W.S. - 3/4" WATER SERVICE
PROP. WATER MAIN
PROP. STORM SEWER
PROP. SANITARY SEWER

ChoiceOne Engineering

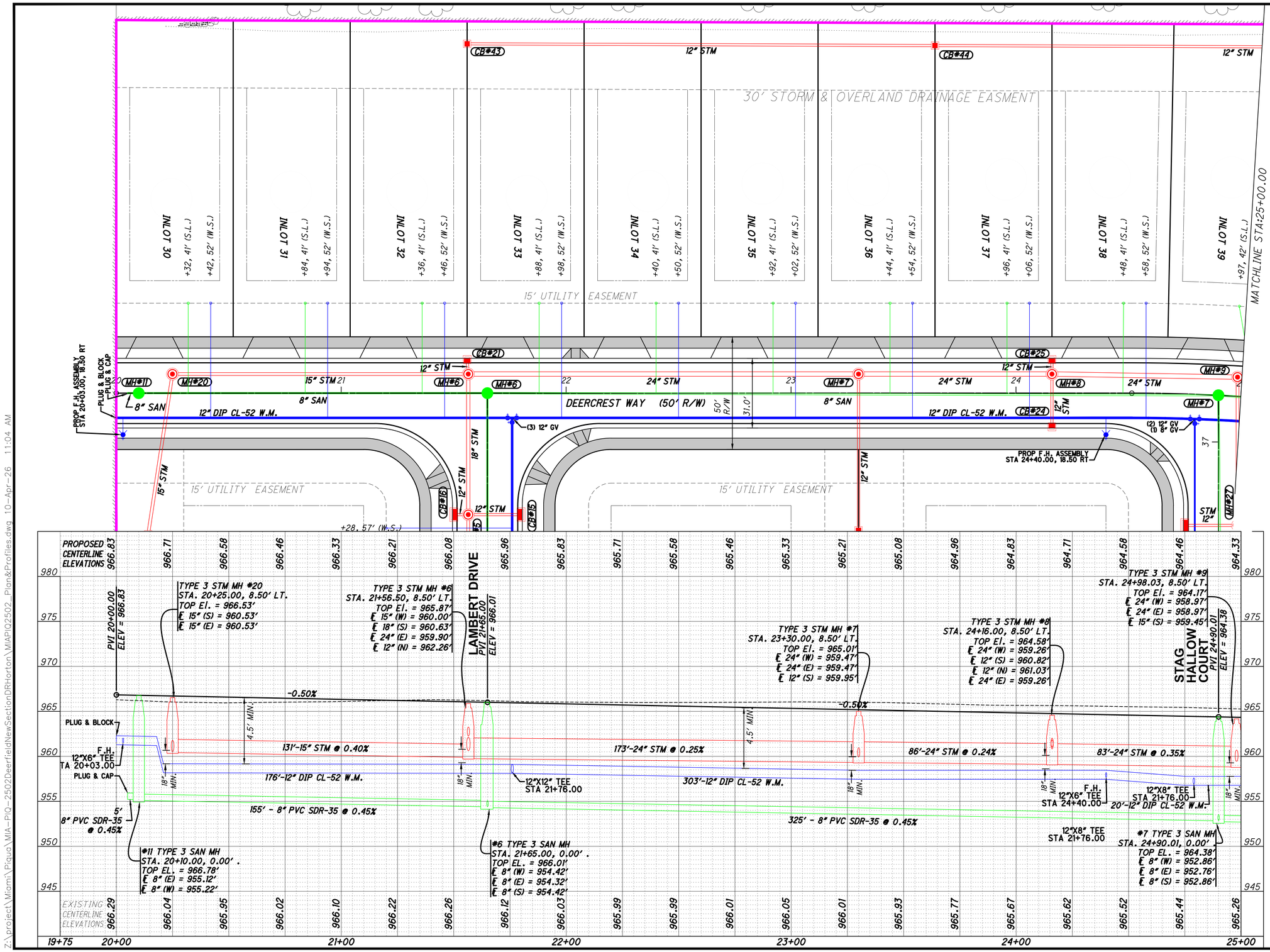
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
LAMBERT DRIVE - PLAN & PROFILE

REVISIONS:

FILE NAME	Plan&
DRAWN BY	SJG
CHECKED BY	NNS
PROJECT No.	MIAPIQ2502
DATE	04-10-2026
SHEET NUMBER	15 OF 25

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ2502_Plan&Profiles.dwg 10-Apr-26 11:03 AM



LEGEND
S.L. - 6" SANITARY LATERAL
W.S. - 3/4" WATER SERVICE
PROP. WATER MAIN
PROP. STORM SEWER
PROP. SANITARY SEWER

ChoiceOne Engineering

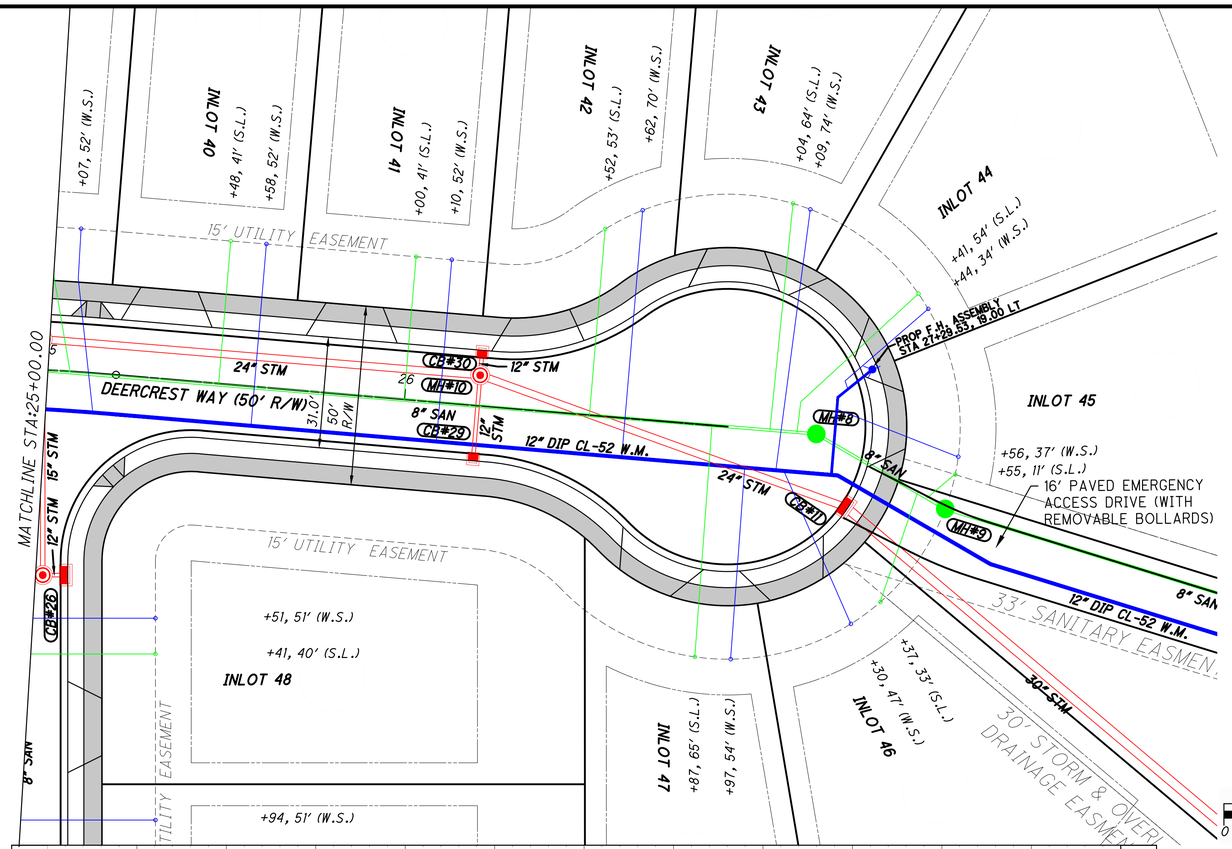
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

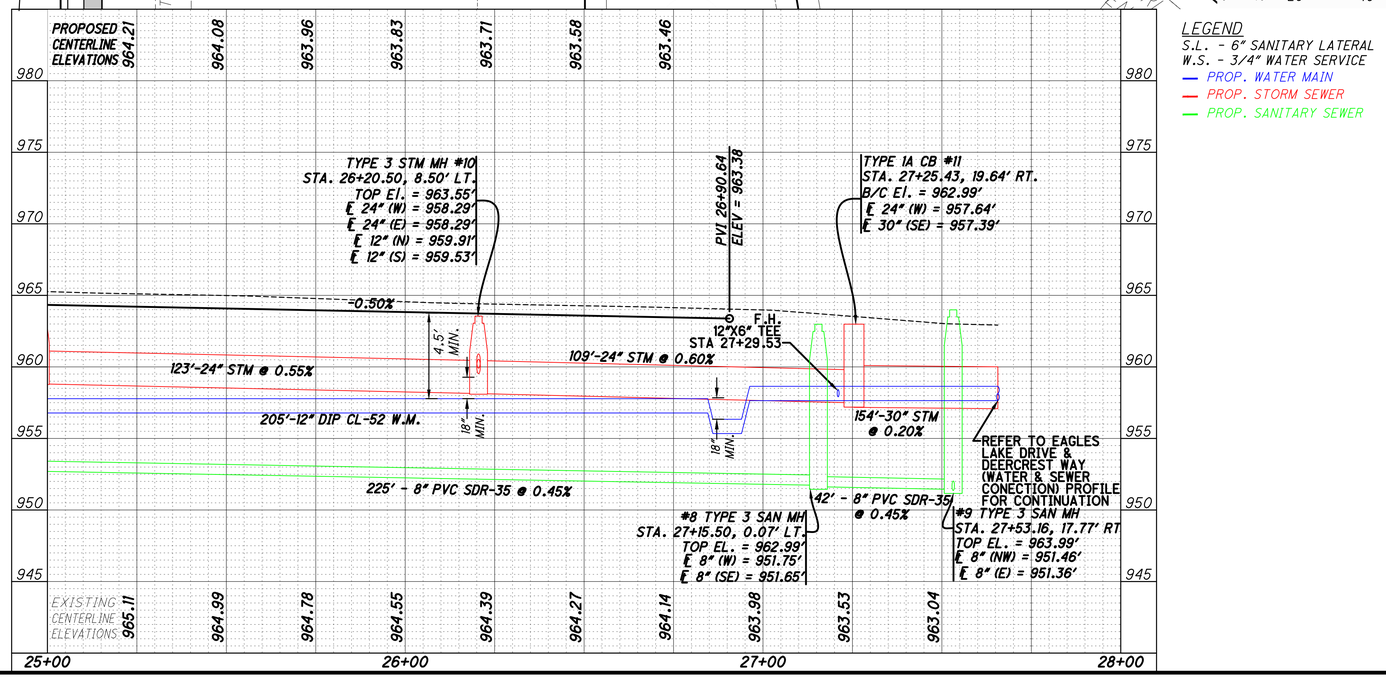
WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
DEERCREST WAY - PLAN & PROFILE

REVISIONS:

FILE NAME Plan&
DRAWN BY SJG
CHECKED BY NMS
PROJECT No. MIAPIQ2502
DATE 04-10-2026
SHEET NUMBER 16 OF 25

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ2502_Plan&Profiles.dwg 10-Apr-26 11:04 AM





LEGEND
S.L. - 6" SANITARY LATERAL
W.S. - 3/4" WATER SERVICE
PROP. WATER MAIN
PROP. STORM SEWER
PROP. SANITARY SEWER

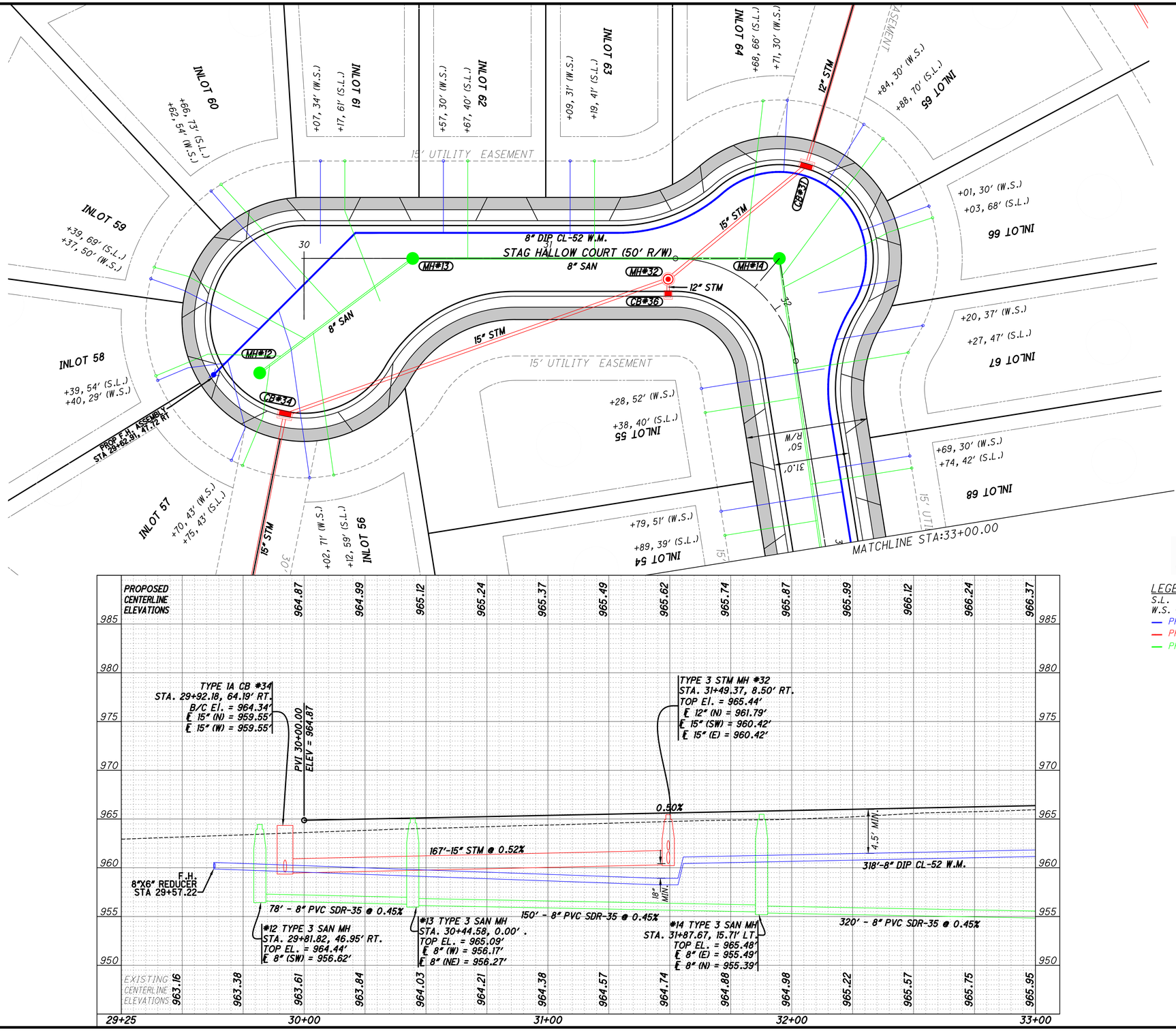
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
DEERCREST WAY - PLAN & PROFILE

REVISIONS:

FILE NAME	Plan&
DRAWN BY	SJG
CHECKED BY	NNS
PROJECT No.	MIAPIQ2502
DATE	04-10-2026
SHEET NUMBER	17 OF 25

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ2502_Plan&Profiles.dwg 10-Apr-26 11:04 AM



LEGEND
S.L. - 6" SANITARY LATERAL
W.S. - 3/4" WATER SERVICE
PROP. WATER MAIN
PROP. STORM SEWER
PROP. SANITARY SEWER

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
STAG HALLOW COURT - PLAN & PROFILE

REVISIONS:

FILE NAME	Plan&
DRAWN BY	SJG
CHECKED BY	NNS
PROJECT No.	MIAPIQ2502
DATE	04-10-2026
SHEET NUMBER	18 OF 25

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ2502_Plan&Profiles.dwg 10-Apr-26 11:05 AM

LEGEND
S.L. - 6" SANITARY LATERAL
W.S. - 3/4" WATER SERVICE
PROP. WATER MAIN
PROP. STORM SEWER
PROP. SANITARY SEWER

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ02502_Plan&Profiles.dwg 10-Apr-26 11:05 AM

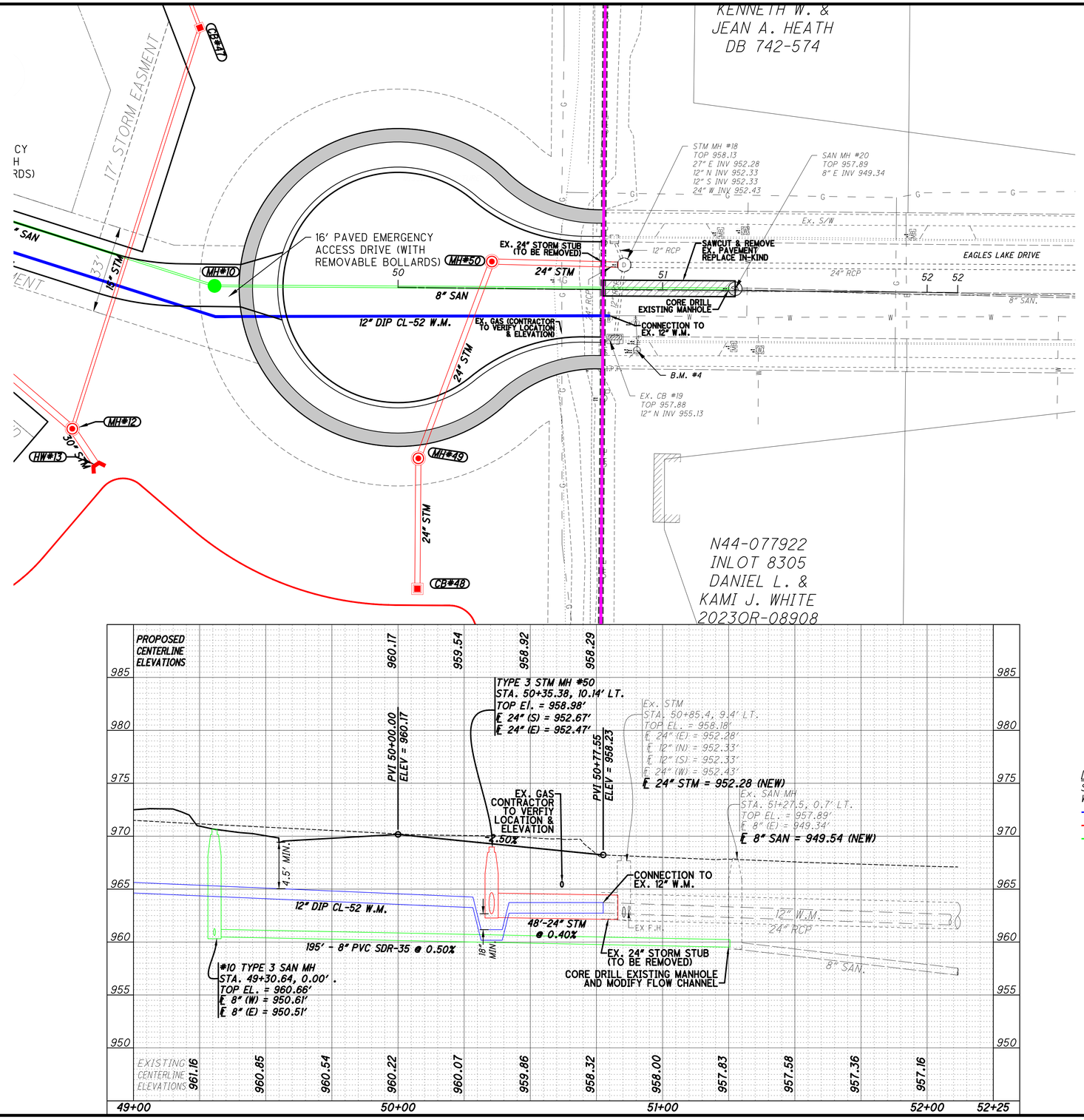
ChoiceOne Engineering

SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
STAG HALLOW COURT - PLAN & PROFILE

REVISIONS:

FILE NAME	Plan&
DRAWN BY	SJG
CHECKED BY	NNS
PROJECT No.	MIAPIQ02502
DATE	04-10-2026
SHEET NUMBER	19 OF 25



ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

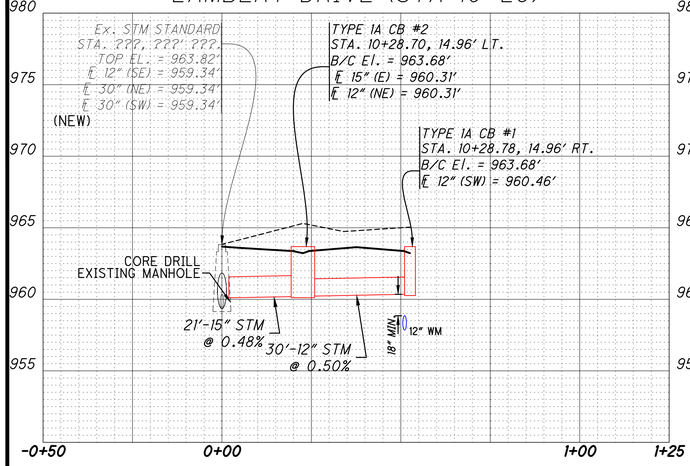
WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
EAGLE LAKE DRIVE - PLAN & PROFILE

REVISIONS:

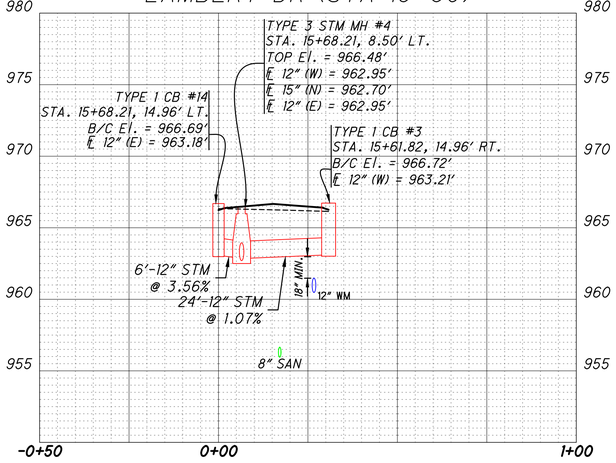
FILE NAME	Plan&
DRAWN BY	SJG
CHECKED BY	NMS
PROJECT No.	MIAPIQ2502
DATE	04-10-2026
SHEET NUMBER	20 OF 25

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ2502_Plan&Profiles.dwg 10-Apr-26 11:06 AM

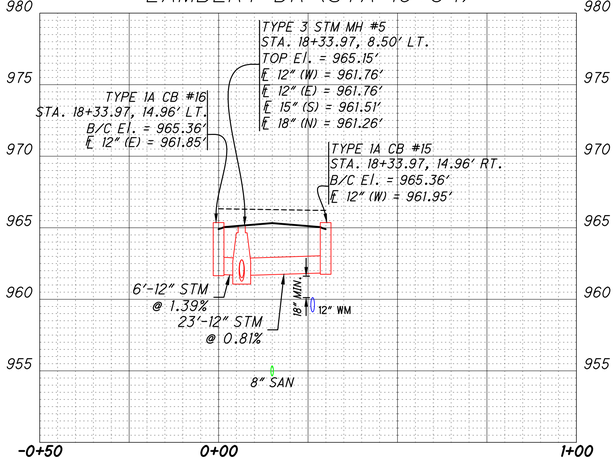
LAMBERT DRIVE (STA 10+29)



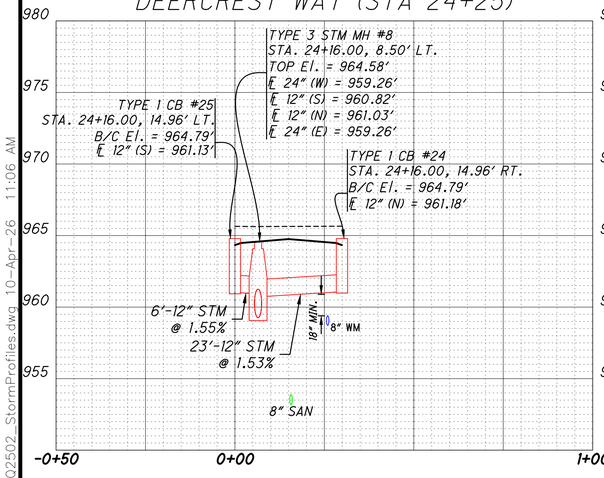
LAMBERT DR (STA 15+60)



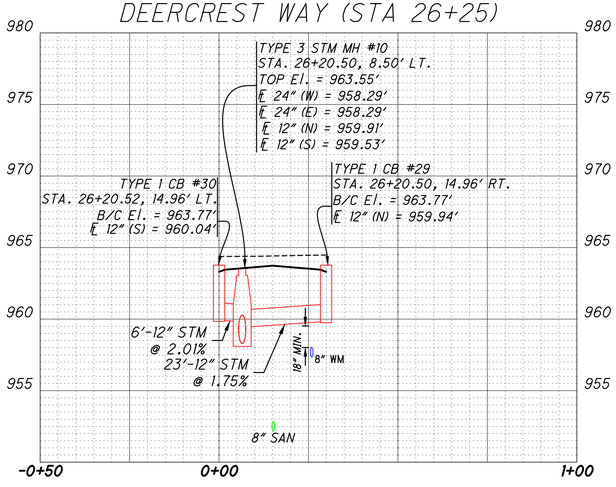
LAMBERT DR (STA 18+34)



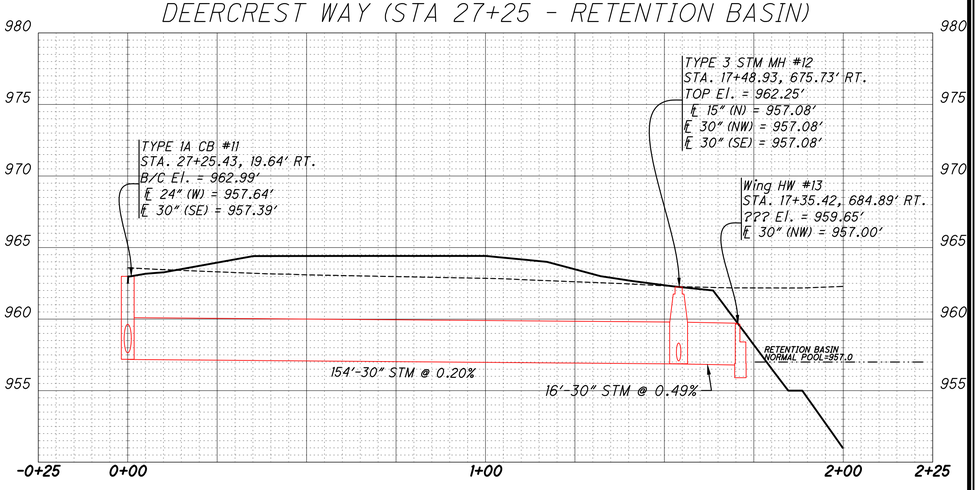
DEERCREST WAY (STA 24+25)



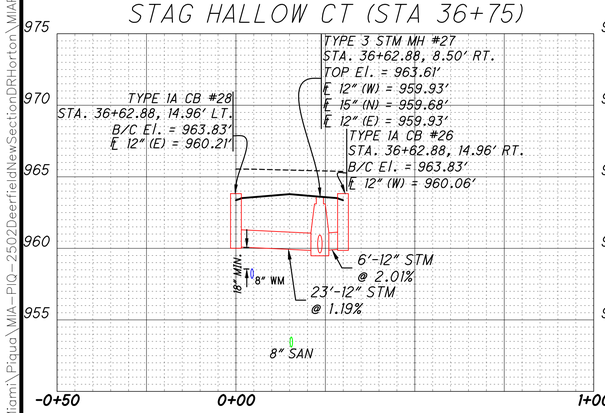
DEERCREST WAY (STA 26+25)



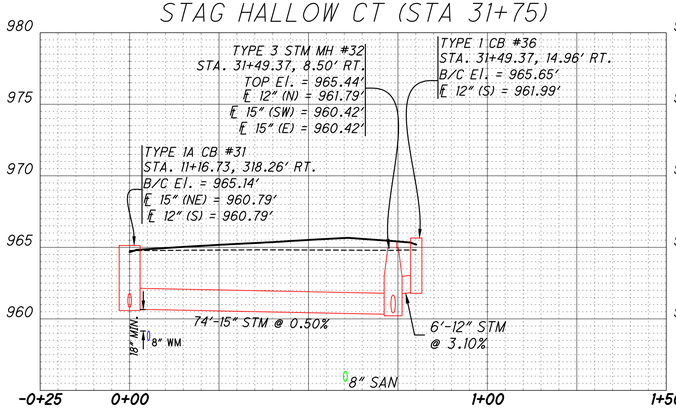
DEERCREST WAY (STA 27+25 - RETENTION BASIN)



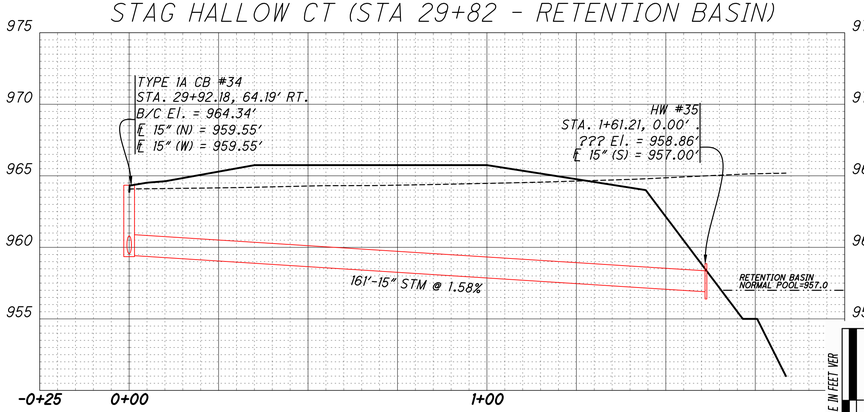
STAG HALLOW CT (STA 36+75)



STAG HALLOW CT (STA 31+75)



STAG HALLOW CT (STA 29+82 - RETENTION BASIN)



SCALE IN FEET HOR
0 10 20 40

SCALE IN FEET VER
0 2.5 5 10

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

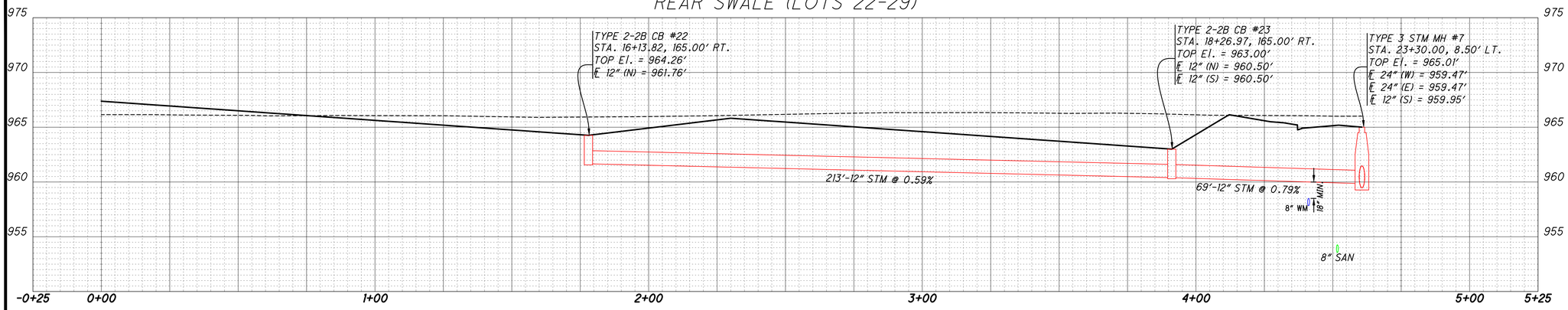
WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
UTILITY PROFILES

REVISIONS:

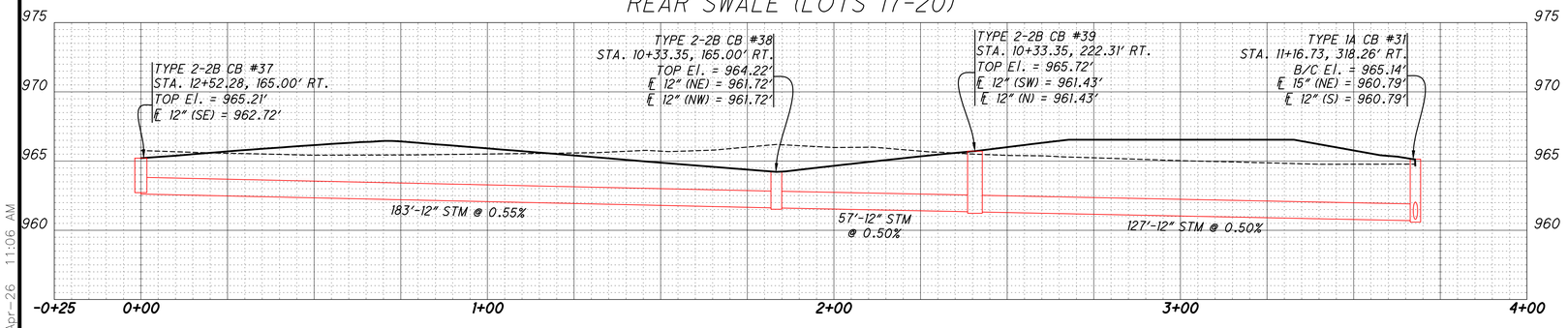
FILE NAME	Storm
DRAWN BY	SJG
CHECKED BY	WNS
PROJECT No.	MIAPIQ2502
DATE	04-10-2026
SHEET NUMBER	21 OF 25

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ2502_StormProfiles.dwg 10-Apr-26 11:06 AM

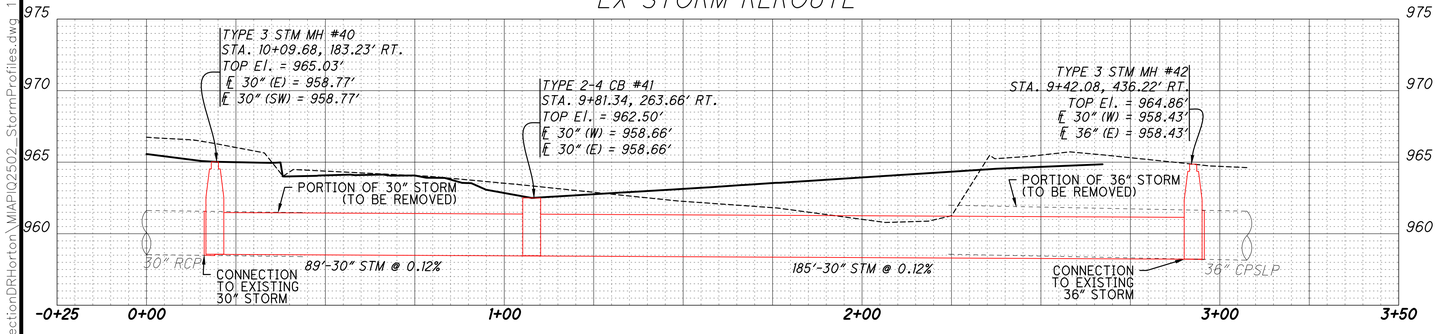
REAR SWALE (LOTS 22-29)



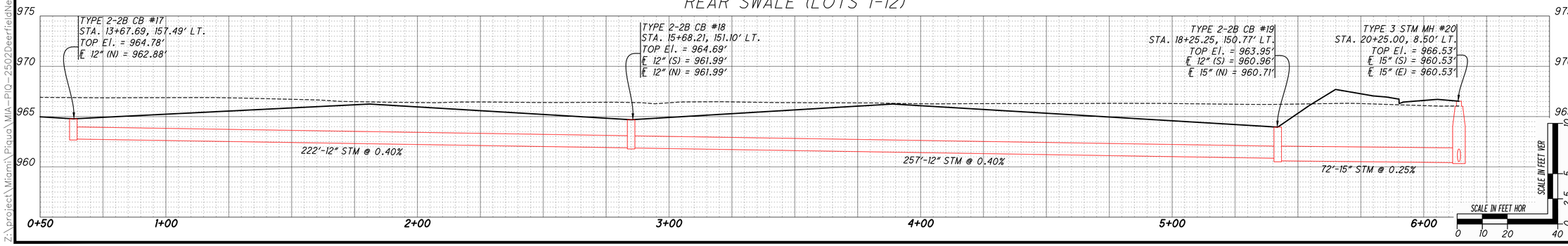
REAR SWALE (LOTS 17-20)



EX STORM REROUTE



REAR SWALE (LOTS 1-12)



ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

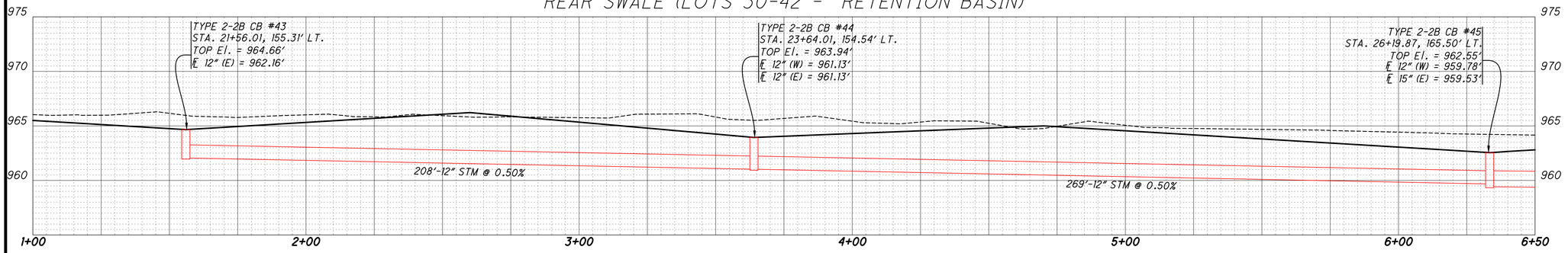
WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
UTILITY PROFILES

REVISIONS:

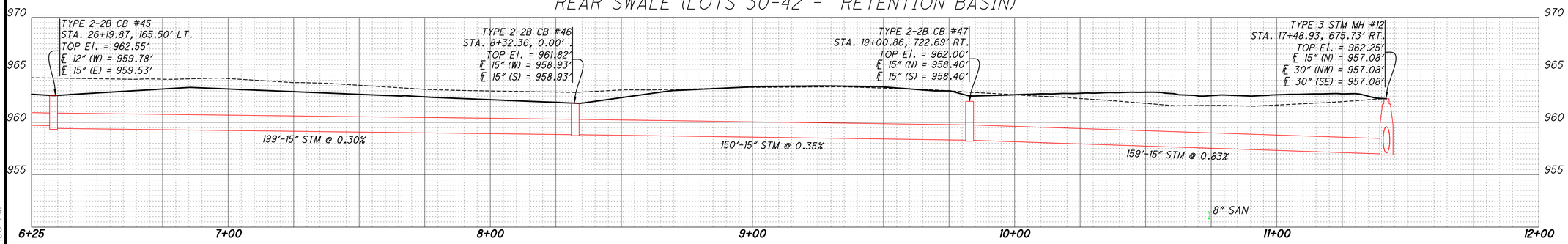
FILE NAME	STorm
DRAWN BY	SJG
CHECKED BY	NWS
PROJECT No.	MIAPIQ2502
DATE	04-10-2026
SHEET NUMBER	22 OF 25

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ2502_StormProfiles.dwg 10-Apr-26 11:06 AM

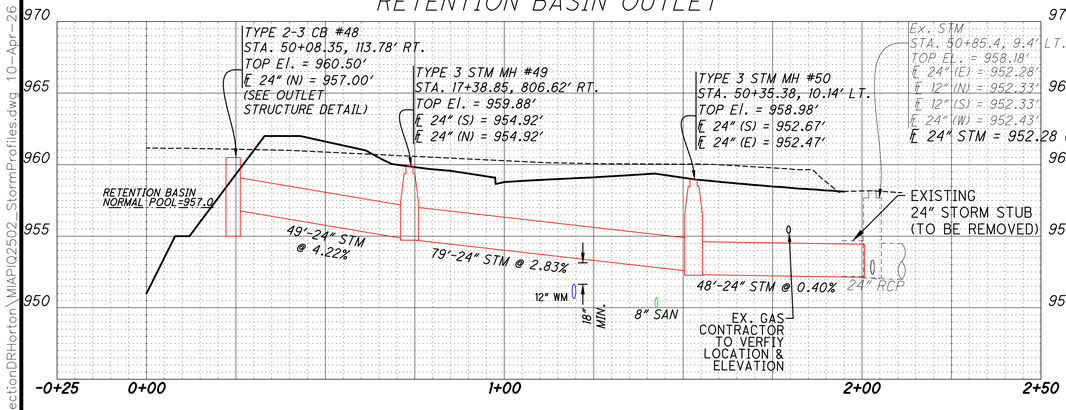
REAR SWALE (LOTS 30-42 - RETENTION BASIN)



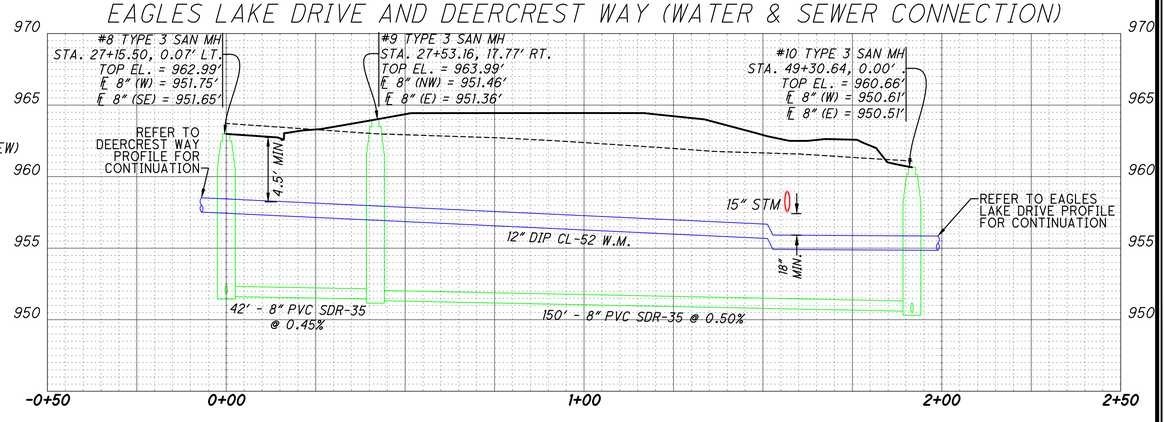
REAR SWALE (LOTS 30-42 - RETENTION BASIN)

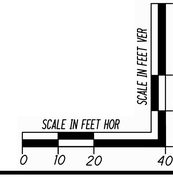


RETENTION BASIN OUTLET



EAGLES LAKE DRIVE AND DEERCREST WAY (WATER & SEWER CONNECTION)





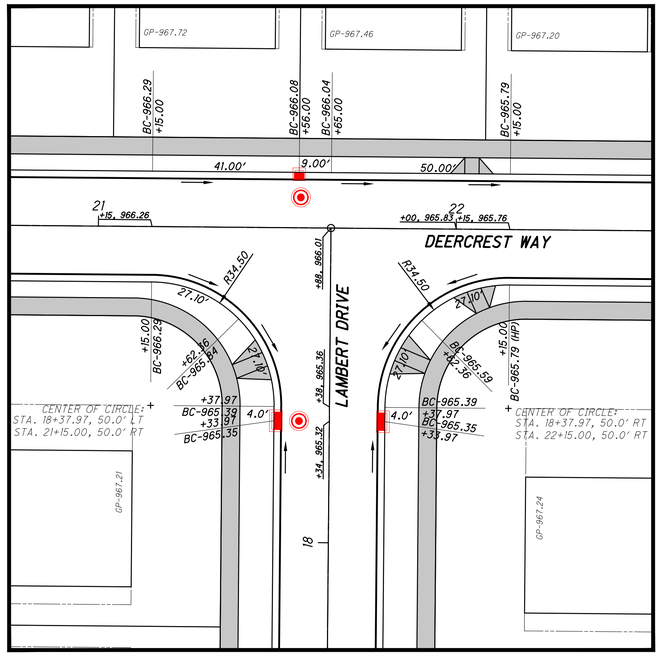
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
UTILITY PROFILES

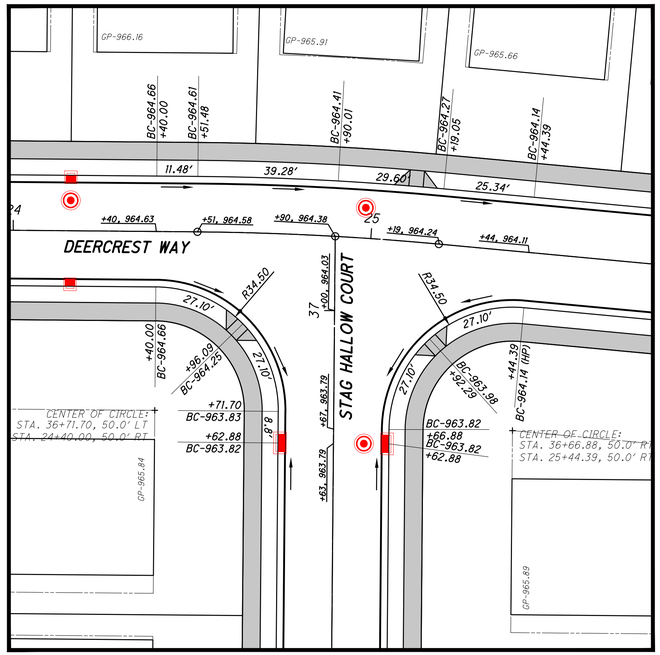
REVISIONS:

FILE NAME	Storm
DRAWN BY	SJG
CHECKED BY	NNS
PROJECT No.	MIAPIQ2502
DATE	04-10-2026
SHEET NUMBER	23 OF 25

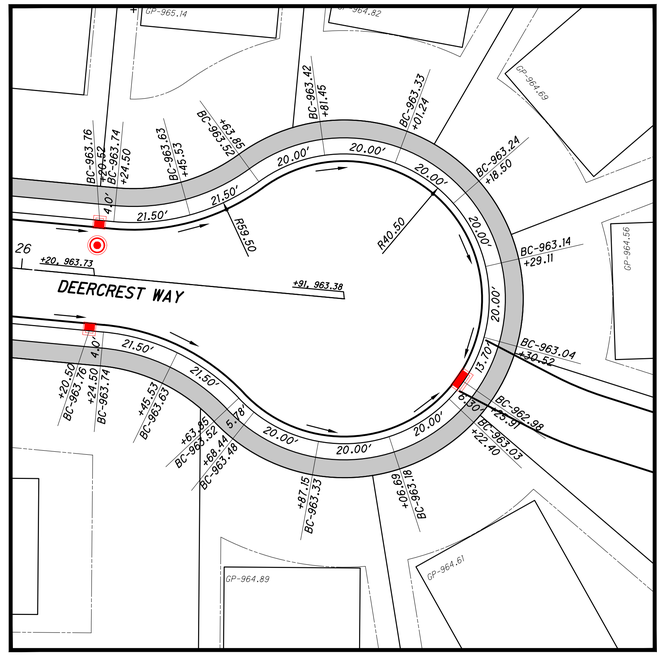
Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ2502_StormProfiles.dwg 10-Apr-26 11:06 AM



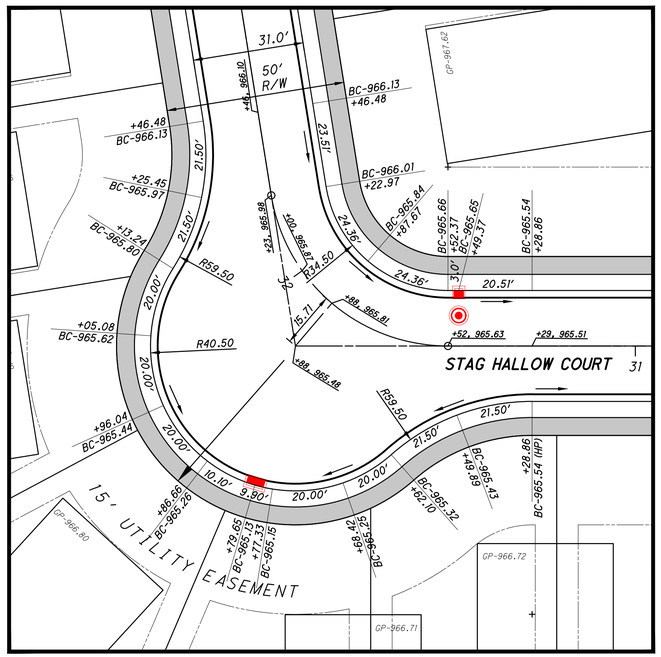
LAMBERT DRIVE & DEERCREST WAY



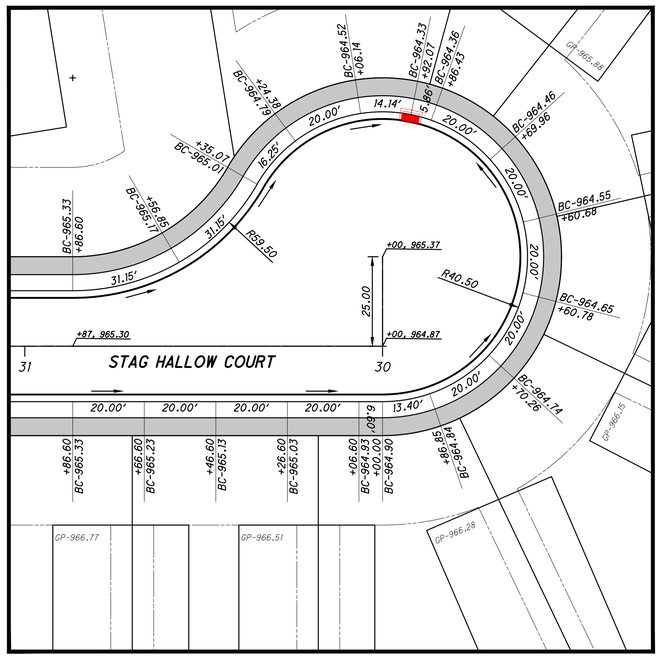
DEERCREST WAY & STAG HALLOW COURT



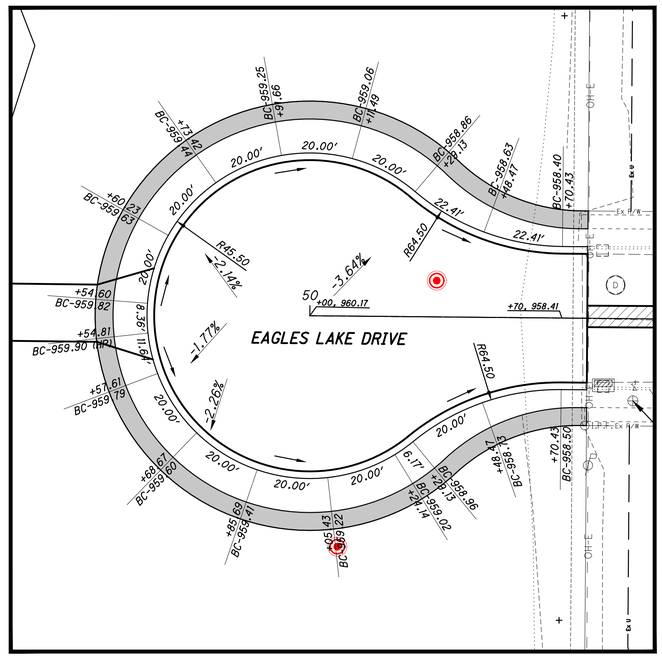
DEERCREST WAY - CUL-DE-SAC



STAG HALLOW COURT - KNUCKLE



STAG HALLOW COURT - CUL-DE-SAC



EAGLES LAKE DRIVE - CUL-DE-SAC

SCALE IN FEET
0 10' 20' 40'

LEGEND
B- BACK OF CURB
EP- EXISTING EDGE OF PAVEMENT
P- EDGE OF PAVEMENT
H.P - HIGH POINT
L.P - LOW POINT
→ - FLOW ARROW

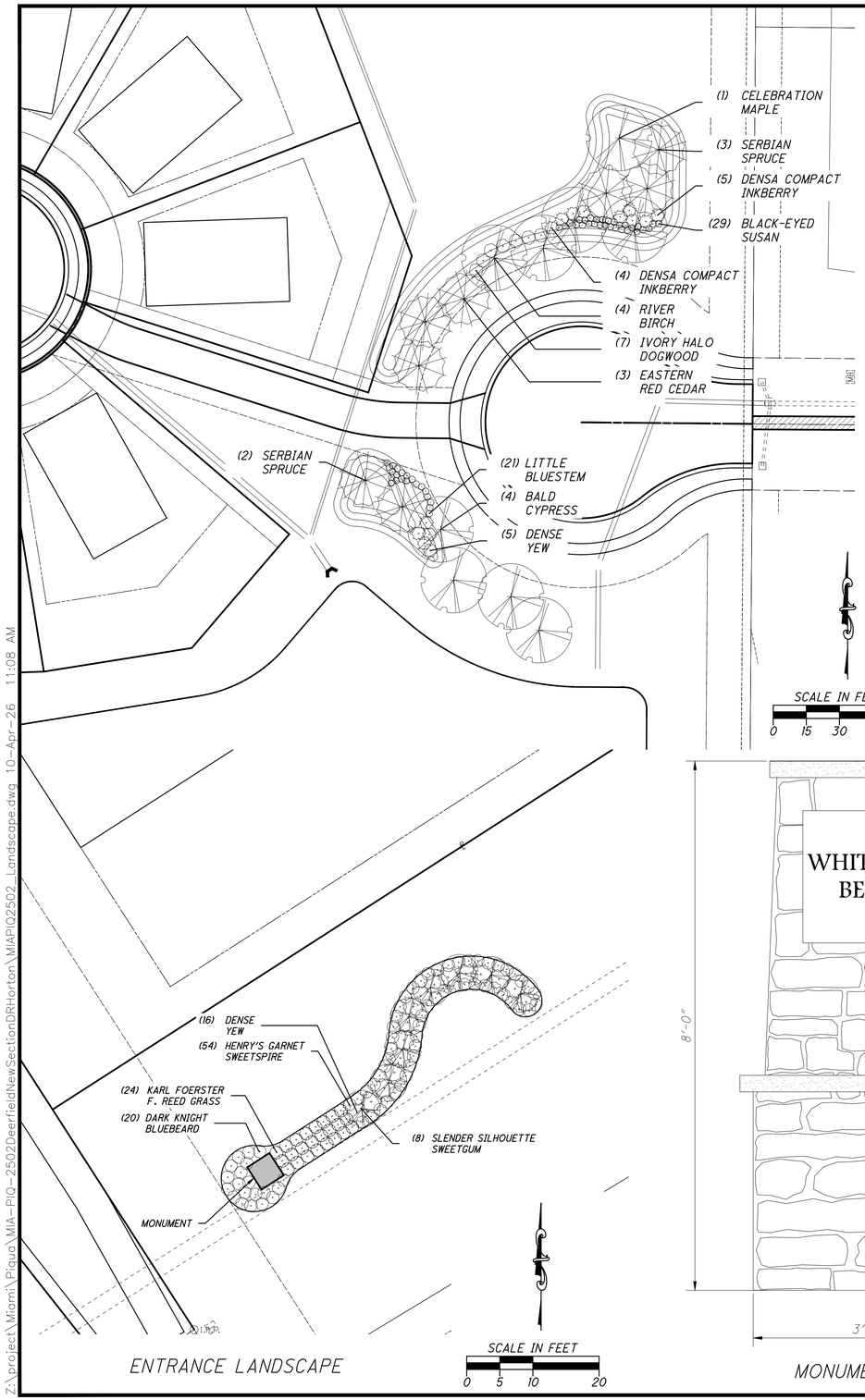
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
INTERSECTION DETAILS

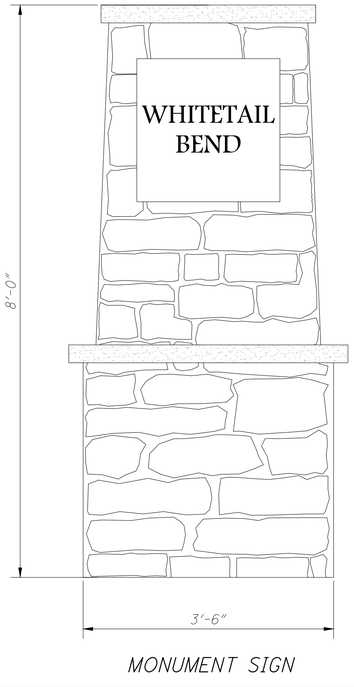
REVISIONS:

FILE NAME	Inter
DRAWN BY	SJG
CHECKED BY	NNS
PROJECT No.	MIAPIQ2502
DATE	04-10-2026
SHEET NUMBER	24 OF 25

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ2502_IntersectionDetails.dwg 10-Apr-26 11:07 AM



ENTRANCE LANDSCAPE



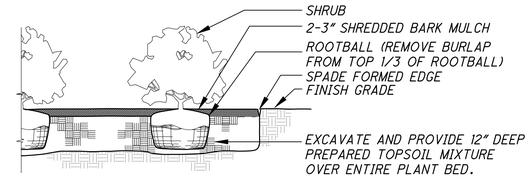
MONUMENT SIGN

PLANTING SCHEDULE

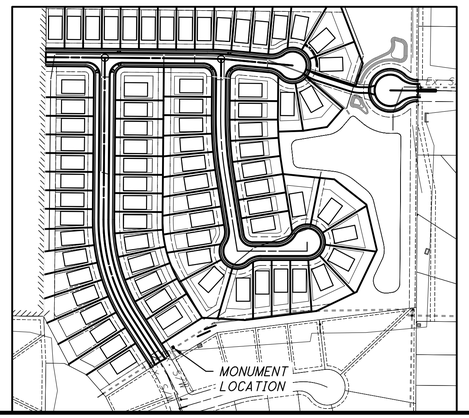
QTY.	COMMON NAME	BOTANICAL NAME	SIZE	ROOT
	TREES			
8	SLENDER SILHOUETTE SWEETGUM	LIQUIDAMBAR S. 'SLENDER SILHOUETTE'	2" CAL.	B&B
5	SERBIAN SPRUCE	PICEA OMORIKA	6' HGT.	B&B
3	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	6' HGT.	B&B
4	BALD CYPRESS	TAXODIUM DISTICHUM	2" CAL.	B&B
4	RIVER BIRCH	BETULA NIGRA	2" CAL.	B&B
1	CELEBRATION MAPLE	ACER X FREEMANII 'CELEBRATION'	2" CAL.	B&B
	SHRUBS/GRASSES/PERENNIALS			
21	DENSE YEW	TAXUS DENSIFORMIS	24" SPR.	NO. 5 CONT.
54	HENRY'S GARNET SWEETSPIRE	ITEA VIRGINICA 'HENRY'S GARNET'	18" SPR.	NO. 3 CONT.
24	KARL FOERSTER F. REED GRASS	CALAMAGROSTIS A. 'KARL FOERSTER'	CLUMP	NO. 2 CONT.
20	DARK KNIGHT BLUEBEARD	CARYOPTERIS 'DARK KNIGHT'	CLUMP	NO. 2 CONT.
9	DENSA COMPACT INKBERRY	ILEX GLABRA 'DENSA'	18" SPR.	NO. 5 CONT.
7	IVORY HALO DOGWOOD	CORNUS ALBA 'IVORY HALO'	18" SPR.	NO. 5 CONT.
29	BLACK-EYED SUSAN	RUDBECKIA FULGIDA 'GOLDSTURM'	CLUMP	NO. 2 CONT.
21	LITTLE BLUESTEM	SCHIZACHYRIUM SCOPARIUM	CLUMP	NO. 2 CONT.

INSTALLATION NOTES

A. IF NOT READILY APPARENT, LOCATE ROOT FLARE BY REMOVING TWINE, BURLAP, AND EXCESS SOIL.
B. DIG TREE HOLE AT LEAST TWO TIMES WIDER THAN THE TREE BALL, WITH SIDES SLOPED TO AN UNEXCAVATED OR FIRM BASE. DIG HOLE TO A DEPTH SO THE LOCATED ROOT FLARE, AT THE FIRST ORDER LATERAL ROOT, WILL BE AT FINISHED GRADE.
C. LIFT ONLY FROM THE BOTTOM OF THE ROOT BALL, POSITION TREE ON FIRM PAD SO THAT IT IS STRAIGHT AND TOP OF ROOT FLARE IS LEVEL WITH THE SURROUNDING SOIL.
D. REMOVE ALL TWINE FROM THE ROOT BALL. IF PRESENT, REMOVE AND DISCARD AT LEAST THE TOP ONE HALF OF THE WIRE BASKET. BURLAP SHALL BE REMOVED FROM THE TOP TO A POINT HALFWAY DOWN THE ROOT BALL AND DISCARDED.
E. WITH CLEAN, SHARP PRUNING TOOLS, PRUNE OFF ANY SECONDARY/ADVENTITIOUS, GIRDLING, AND POTENTIAL GIRDLING ROOTS.
F. MULCH THE ENTIRE PLANTING SURFACE WITH MULCH APPLIED NO LESS THAN TWO INCHES DEEP AND NO MORE THAN THREE INCHES DEEP, LEAVING THREE INCHES ADJACENT TO THE TREE TRUNK FREE OF MULCH.
G. SPECIES AND SIZE IDENTIFIED IN PLANT SCHEDULE, GROWN IN CLIMATIC CONDITIONS SIMILAR TO THOSE IN LOCALITY OF THE WORK.
H. PROVIDE HEALTHY, SOUND, VIGOROUS PLANT MATERIALS, FREE FROM PLANT DISEASES, INSPECT PESTS, HEALTHY WELL-DEVELOPED ROOT SYSTEMS, FRESHLY DUG, NURSERY GROWN, WELL-BRANCHED, DENSELY FOLIATED WHEN IN LEAF AND WELL-PROPORTIONED, PARTICULARLY WITH RESPECT TO THE WIDTH-HEIGHT RELATIONSHIP.
I. DAMAGED OR BROKEN BRANCHES, BROKEN BALL AND LOOSE TOP BALL ARE UNACCEPTABLE.
J. SET PLANTS IN CENTER OF HOLE, PLUMB AND STRAIGHT. REMOVE 1/3 TOP OF BURLAP (IF APPLICABLE).
K. SATURATE SOIL WITH WATER WHEN THE HOLE IS HALF FULL OF TOPSOIL AND AGAIN WHEN FULL.
L. DO NOT INSTALL PLANT LIFE WHEN AMBIENT TEMPERATURES MAY DROP BELOW 35 DEGREES F OR RISE ABOVE 90 DEGREES F.

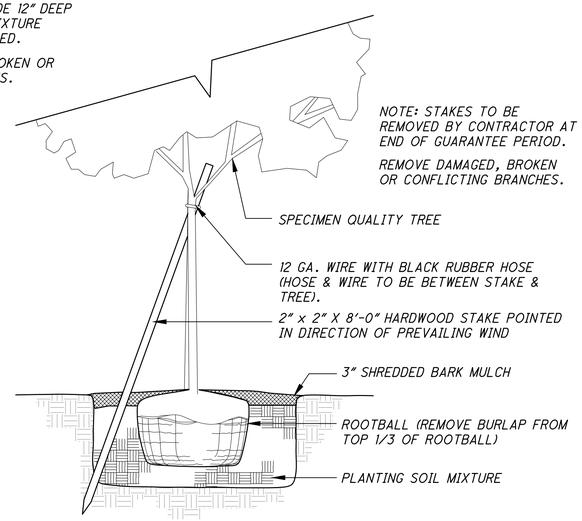


SHRUB PLANTING DETAIL



GENERAL NOTES

A. PRIOR TO INSTALLATION, THE LANDSCAPE CONTRACTOR SHALL INSPECT THE GENERAL SITE CONDITIONS AND VERIFY THE SUBGRADE, ELEVATIONS, UTILITY LOCATIONS AND TOPSOIL PROVIDED BY GENERAL CONTRACTOR. THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY UNSATISFACTORY CONDITIONS AND WORK SHALL NOT PROCEED UNTIL SUCH CONDITIONS HAVE BEEN CORRECTED AND ARE ACCEPTABLE TO THE LANDSCAPE CONTRACTOR.
B. SUBSTITUTIONS SHALL BE PERMITTED WITH NOTIFICATION AND WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT. SUBSTITUTED MATERIAL SHALL BE EQUIVALENT OR GREATER IN SIZE THAN THE SPECIFIED PLANT. SUBSTITUTED PLANTS SHALL HAVE THE SAME ESSENTIAL CHARACTERISTICS AND GROWTH HABIT OF THE SPECIFIED PLANT.
C. CONFIRM LOCATION OF ALL UTILITIES AND SUBSURFACE DRAIN LINES PRIOR TO PLANT INSTALLATION.
D. CONTRACTOR MAY SLIGHTLY FIELD ADJUST PLANT LOCATIONS AS NECESSARY TO AVOID UTILITIES. FINISHED PLANTING BEDS SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE.
E. CONTRACTOR SHALL REPAIR ALL LAWN AREAS DISTURBED DURING CONSTRUCTION WITH SEED AND WARRANT A HEALTHY, WEED FREE LAWN PRIOR TO PROJECT ACCEPTANCE.
F. SEED ALL AREAS WITHIN CONTRACT LIMITS THAT ARE NOT COVERED BY PAVING, BUILDINGS OR PLANTING BEDS UNLESS OTHERWISE NOTED. SEEDING SHALL NOT BEGIN UNTIL AREA HAS RECEIVED TOPSOIL AND FINISHED GRADE.
G. MULCH PLANTING BEDS WITH SHREDDED HARDWOOD MULCH OF UNIFORM DARK BROWN COLOR. IT SHALL BE FREE OF TWIGS, LEAVES DISEASE, PEST OR OTHER MATERIAL UNSIGHTLY OR INJURIOUS TO PLANTS. AVERAGE APPLIED THICKNESS SHALL BE 3" DEPTH. MULCH HEDGES IN A CONTINUOUS BED.
H. BED EDGE SHALL BE SMOOTH, CONSISTENT, HAND TRENCHED 6" DEEP AND "V" SHAPED UNLESS OTHERWISE NOTED. ALL EXCAVATED MATERIAL SHALL BE REMOVED FROM THE BED EDGE AND PLANTING BED.
I. ALL PLANTING BED EDGES TO BE SMOOTH FLOWING ARCS OR STRAIGHT LINES AS SHOWN ON PLAN.
J. INSTALL ALL PLANTS IN ACCORDANCE WITH PLANTING DETAILS AND SPECIFICATIONS.
K. PARKING LOT AND STREET TREES SHALL HAVE A CLEAR CANOPY HEIGHT OF 6' MIN.
L. TREE SHALL BE PLACED A MINIMUM OF 3' FROM SIDEWALKS AND CURBS.
M. LAWN AREAS TO BE BACKFILLED WITH TOPSOIL TO A MINIMUM SETTLED THICKNESS OF 6 INCHES.
N. CONTRACTOR TO DETERMINE PLANT LIST QUANTITIES FROM THE PLAN. GRAPHIC REPRESENTATION ON PLAN SUPERSEDES IN CASE OF DISCREPANCY WITH QUANTITIES ON SCHEDULE.
O. CONTRACTOR SHALL THOROUGHLY WATER ALL PLANTS AT TIME OF INSTALLATION AND AS NEEDED UNTIL PROJECT ACCEPTANCE BY OWNER. CONTRACTOR SHALL GUARANTEE ALL PLANTS INSTALLED FOR ONE FULL YEAR FROM DATE OF ACCEPTANCE BY THE OWNER. ALL PLANTS SHALL BE ALIVE AND AT A VIGOROUS RATE OF GROWTH AT THE END OF GUARANTEE PERIOD.



TREE PLANTING DETAIL

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
ENTRANCE MONUMENT

REVISIONS:

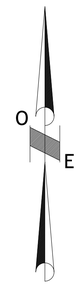
FILE NAME: Lands
DRAWN BY: SJG
CHECKED BY: NNS
PROJECT No.: MIAPIQ02502
DATE: 04-10-2026
SHEET NUMBER: 25 OF 25

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ02502_Landscape.dwg 10-Apr-26 11:08 AM

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2- SWPPP



VICINITY MAP



CITY OF PIQUA
MIAMI COUNTY , OHIO

SWPPP TITLE SHEET 1
SWPPP GENERAL EROSION CONTROL NOTES AND DETAILS 2-4
SWPPP SITE EROSION CONTROL PLAN 5

SWPPP NOTE
THIS STORMWATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN PREPARED FOR DR HORTON FOR THE PERFORMANCE OF WHITETAIL BEND SUBDIVISION IN MIAMI COUNTY, OHIO. ALL WORK SHALL BE PER AND COMPLY WITH THE OEPA CONSTRUCTION SITE STORM WATER GENERAL PERMIT, PERMIT #OHC000006. THIS INCLUDES FILING A CO-PERMITTEE NOI FORM WITH THE OEPA FOR ALL OPERATORS ENGAGED IN SITE WORK ON THE SITE. CONTRACTOR SHALL FOLLOW THE SPECIFICATIONS, INSTALLATION, MAINTENANCE AND REQUIREMENTS OF ODOT'S CURRENT SUPPLEMENTAL SPECIFICATION 832 "TEMPORARY SEDIMENT AND EROSION CONTROL." COMPLIANCE WITH SUPPLEMENTAL SPECIFICATION 832 SHALL INCLUDE THE STANDARD CONSTRUCTION DRAWING REFERENCES LISTED IN SECTION 832.03, BUT SHALL NOT INCLUDE SECTION 832.11 "INSPECTIONS AND SWPPP UPDATES." ALL INSPECTIONS AND SWPPP UPDATES SHALL BE PER THE OEPA CONSTRUCTION SITE STORM WATER GENERAL PERMIT, PERMIT #OHC000006. ALL WORK SHALL ALSO BE PER THE CURRENT ODOT CMS 107.19. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH LOCAL STORMWATER AND EROSION CONTROL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH AND INSTALLING ALL ITEMS NOTED AND AS REQUIRED BY OEPA AND LOCAL AUTHORITIES FOR MEETING ALL STORM WATER POLLUTION PREVENTION REQUIREMENTS. DR HORTON AND THE SELECTED CONTRACTOR SHALL BE THE RESPONSIBLE PARTY IN CHARGE OF THE SWPPP AND ASSOCIATED BMP'S.

SITE DATA
LOCATION SOIL TYPES_____BROOKSTON SILTY CLAY LOAM, CROSBY SILT LOAM
EARTH DISTURBED AREA_____21.25 ACRES
PROPOSED IMPERVIOUS AREA ADDED:_____12.00 ACRES
PRE-CONSTRUCTION RUNOFF COEFFICIENT:___0.40
POST-CONSTRUCTION RUNOFF COEFFICIENT:___0.60
DESCRIPTION OF PRIOR LAND USE_____AGRICULTURAL LAND
EXISTING QUALITY OF DISCHARGE FROM SITE___UNTREATED PERVIOUS RUNOFF
IMMEDIATE RECEIVING WATERS:_____ON-SITE RETENTION BASIN
SUBSEQUENT RECEIVING WATERS:_____CITY STORM SEWER
LATITUDE 40.156055° LONGITUDE -84.280768°

WATERS EDGE NOTE
ALL MATERIAL AND EQUIPMENT STAGING OR STORAGE AREAS, DEWATERING AREAS, CONCRETE TRUCK WASH OUT AREAS, CONSTRUCTION ACCESS LOCATIONS, AND VEHICLE FUELING AND REFUELING LOCATIONS MUST BE LOCATED A MINIMUM OF 100' FROM ANY CREEK/RIVER/STREAM WATERS EDGE.

CLEAN STORM SYSTEM NOTE
IMMEDIATELY PRIOR TO FINAL COMPLETION OF THE PROJECT, CONTRACTOR SHALL ENSURE THE ENTIRE STORM SYSTEM, INCLUDING BUT NOT LIMITED TO, THE DETENTION/RETENTION BASIN(S), CATCH BASINS, MANHOLES, PIPING, UNDERDRAINS AND UNDERDRAIN TRENCHES ARE FREE FROM SEDIMENTATION AND OTHER POLLUTANTS AND FOREIGN MATERIALS AND ARE TO BE CLEANED AS NEEDED TO ENSURE MAXIMUM STORMWATER QUALITY AND FULL FUNCTIONALITY.

OFFSITE CONSTRUCTION ACTIVITIES
IT IS EXPECTED ALL CONSTRUCTION ACTIVITIES WILL TAKE PLACE ON SITE.

SPILL REPORTING REQUIREMENTS
IN THE EVENT OF A SMALL RELEASE (LESS THAN 25 GALLONS) OF PETROLEUM WASTE, SPECIAL HANDING PROCEDURES MUST BE USED. IN THE EVENT OF A LARGE RELEASE (25 GALLONS OR MORE) OF PETROLEUM WASTE, YOU MUST CONTACT THE OHIO EPA (AT 1-800-282-9378), THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) WITHIN 30 MINUTES OF A SPILL OF 25 OR MORE GALLONS.

VEHICLE FUELING
VEHICLE FUELING AND MAINTENANCE WILL BE PERFORMED VIA A SMALL REFUEL TANK ON THE BACK OF A PICK-UP TRUCK.

OPEN BURNING NOTE
OPEN BURNING IS NOT PERMITTED IN THE CORPORATION LIMIT.

CONTACT INFORMATION
FACILITY SITE LOCATION: EXTENSION OF LAMBERT DRIVE, PIQUA, OH 45356
OWNER: DR HORTON, AARON SMITH, 513-297-3460, 4705 DUKE DR, SUITE 250, MASON, OH 45040
SWPPP CONTACT/CONTRACTOR CONTACT - TBD

SWPPP AND INSPECTION REPORTS LOCATION
NOTE: THE SWPPP AND INSPECTION REPORTS WILL BE KEPT ON-SITE IN THE JOB TRAILER/FOREMAN'S PICK-UP.

WASTE DISPOSAL NOTE
CONTAINERS (e.g. DUMPSTERS, DRUMS) MUST BE AVAILABLE FOR THE DISPOSAL OF DEBRIS, TRASH, HAZARDOUS MATERIAL AND PETROLEUM WASTES. ALL CONTAINERS MUST BE COVERED AND LEAK-PROOF.

CLEAN HARD FILL NOTE
NO CLEAN CONSTRUCTION WASTES SHALL BE DISPOSED OF INTO THE PROPERTY.

FUELING AND STAGING NOTE
CONTRACTOR'S STAGING AND STORAGE AREA WILL BE LOCATED WITHIN CONSTRUCTION LIMITS OF THE PROJECT. FUEL TANKS AND OTHER HAZARDOUS MATERIALS TO BE SAFELY STORED, PROTECTED, AND PROPERLY HANDLED BY CONTRACTOR. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ENSURE NO POLLUTANTS FROM THE STAGING/STORAGE AREA LEAVE THE SITE OR ENTER ADJACENT SURFACE WATERS OR THE STORM SYSTEM. CONTRACTOR SHALL CLEAN UP AND PROPERLY DISPOSE OF ANY WASTE MATERIALS.

SOIL STOCKPILE NOTE
CONTRACTOR'S SHALL LOCATE SOIL STOCKPILE AREAS WITHIN THE PROJECT AREA SO AS NOT TO BE WITHIN THE IMMEDIATE PROXIMITY OF ANY SURFACE WATERS OR STORM INLET STRUCTURES. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ENSURE NO POLLUTANTS FROM THE STOCKPILE AREA LEAVE THE SITE OR ENTER ADJACENT SURFACE WATERS OR THE STORM SYSTEM. THESE MEASURES MAY INCLUDE BUT SHALL NOT BE LIMITED TO INSTALLING FILTER FABRIC FENCE AROUND STOCKPILE, TEMPORARILY COVERING THE STOCKPILE AND/OR TEMPORARILY SEEDING THE STOCKPILE.

DEWATERING NOTE
PUMPING OF SEDIMENT LADEN WATER FROM TRENCHES OR ANY OTHER EXCAVATIONS DIRECTLY INTO ANY SURFACE WATERS, DITCH OR STREAM CORRIDORS, ANY WETLANDS OR STORM SEWERS IS PROHIBITED. ALL SUCH WATER SHALL BE PROPERLY FILTERED OR SETTLED TO REMOVE SOIL PARTICLES PRIOR TO ITS RELEASE. IF AN AREA OF THE SITE OR TRENCH NEEDS DEWATERED, IT SHOULD BE PUMPED FROM A SUMP PIT WITH A SOCK FILTER OR OTHER TYPE OF FILTERING DEVICE ON THE DISCHARGE OF THE HOSE. DO NOT ALLOW DISCHARGED WATER TO PASS OVER DISTURBED GROUND. IF THE DISCHARGE WATER IS BEING PUMPED INTO A SEDIMENT POND THEN NO FILTER IS REQUIRED AT THE END OF THE HOSE. IF THE GROUNDWATER MUST BE LOWERED, THE WATER MAY BE FREELY DISCHARGED AS LONG AS THE WATER REMAINS CLEAN. DO NOT CO-MINGLE CLEAN GROUND WATER WITH SEDIMENT LADEN WATER OR DISCHARGE IT BY ALLOWING IT TO PASS OVER DISTURBED GROUND.

LOG/DOCUMENTATION SHEETS
AS PART OF THE SWPPP, THE CONTRACTOR SHALL MAINTAIN LOG/DOCUMENTATION SHEETS FOR THE FOLLOWING:
1) A SIGNATURE LOG CONTAINING THE SIGNATURES OF ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED IN THE IMPLEMENTATION OF THE SWPPP AS PROOF ACKNOWLEDGING THAT THEY REVIEWED AND UNDERSTAND THE CONDITIONS AND RESPONSIBILITIES OF THE SWPPP.
2) A GRADING AND STABILIZATION LOG DOCUMENTING THE PROJECTS GRADING AND STABILIZATION ACTIVITIES AND
3) A SWPPP AMENDMENT LOG DOCUMENTING CHANGES/AMENDMENTS TO THE SWPPP, WHICH OCCUR AFTER CONSTRUCTION ACTIVITIES COMMENCE.

Choice One Engineering

2633 CAMPBELL ROAD ♦ SIDNEY, OHIO 45365 ♦ 937.497.0200
6279 TRI-RIDGE BOULEVARD, SUITE 100 ♦ LOVELAND, OHIO 45140 ♦ 513.239.8554

www.CHOICEONEENGINEERING.com

APRIL 10, 2026

PROJECT DESCRIPTION
THE PROJECT CONSISTS OF THE CONSTRUCTION OF STREETS, UTILITIES AND GRADING FOR SECTIONS 1 AND 2 AT WHITETAIL BEND SUBDIVISION, IN THE CITY OF PIQUA, MIAMI COUNTY, OHIO.

PROJECT WORK CONSTRUCTION DATES
START: SPRING 2026
ESTIMATED COMPLETION: SPRING 2027

EROSION CONTROL NOTES
A. INSTALL AND MAINTAIN FILTER FABRIC FENCE AND INLET PROTECTION WHERE SHOWN AND AS NEEDED TO MINIMIZE SEDIMENT LADEN WATER FROM LEAVING THE SITE OR ENTERING ANY STORM SYSTEM, ADJACENT DITCHES, STREAMS ETC. IF STORMWATER RUNOFF CONTAINING SEDIMENTS IS FOUND TO BE LEAVING THE PROJECT SITE IN AN AREA WHERE NO BMP/CONTROL MEASURE IS SHOWN OR IN PLACE, CONTRACTOR SHALL IMMEDIATELY INSTALL THE APPROPRIATE BMP/CONTROL MEASURE AS NEEDED TO REMEDY THE SITUATION (TYP. INLET PROTECTION, FILTER FABRIC FENCE, ETC.).

B. INSTALL INLET PROTECTION ON ALL STORM INLET STRUCTURES (YARD DRAINS, CATCH BASINS, MANHOLES WITH GRATED LIDS, ETC.) AND TO ANY EXISTING STORM STRUCTURES WITHIN THE PROJECT AREA WHICH MAY RECEIVE RUNOFF FROM THE CONSTRUCTION SITE AS NEEDED. INLET PROTECTION MAY CONSIST OF DEVICES SUCH AS SEDCAGE (WWW.SEDCATCH.COM), DANDY BAGS, SEDIGUARD FILTERS, FLEXSTORM INLET FILTERS, SEDIMENT FENCE OR OTHER DEVICES WHICH ARE EFFECTIVE AT MINIMIZING THE AMOUNT OF SEDIMENT ENTERING THE STRUCTURE.

C. CONTRACTOR IS RESPONSIBLE FOR IMMEDIATELY CLEANING UP ANY MUD, DIRT AND DEBRIS WHICH IS TRACKED OR SPILLED ONTO THE ROADWAYS.

D. PRE CONSTRUCTION - CONTRACTOR IS RESPONSIBLE TO INSTALL A CONSTRUCTION ENTRANCE AS NEEDED TO MINIMIZE ANY MUD, DIRT AND DEBRIS TRACKED ONTO THE ROADWAYS.

E. DURING CONSTRUCTION - THE CONTRACTOR MUST MAINTAIN EROSION CONTROL UNTIL AREA IS STABILIZED INCLUDING TEMPORARY SEEDING AS NEEDED. CONTRACTOR SHALL TEMPORARYILY SEED ALL CRITICAL EXPOSED SLOPES TO MINIMIZE SEDIMENT RUNOFF.

F. FINAL/POST CONSTRUCTION - CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED AREAS. CONTRACTOR SHALL ENSURE GRASS IS PERMANENTLY AND PROPERLY ESTABLISHED IN ALL AREAS WHERE GRASS IS SPECIFIED. ALL SEDIMENT AND EROSION CONTROL STRUCTURES, INCLUDING SEDIMENT FENCE, SHALL REMAIN IN PLACE UNTIL GRASS IS IN PLACE AND SITE IS STABILIZED. ONCE SITE IS STABILIZED AND ALL CONSTRUCTION IS COMPLETE, ALL SEDIMENT FENCE, INLET PROTECTION AND ANY OTHER TEMPORARY BMP'S SHALL BE REMOVED FROM THE SITE.

BMP NOTES
FOR ALL BMP'S INSTALLED, ENSURE THAT THE PONDING OF WATER BEHIND THE BMP WILL NOT DAMAGE PROPERTY OR POSE A SAFETY THREAT. IF PERIODIC INSPECTIONS OR OTHER INFORMATION INDICATES A CONTROL MEASURE/BMP HAS BEEN USED INAPPROPRIATELY, THE CONTRACTOR MUST REPLACE AND ADJUST THE CONTROL/BMP TO MEET SITE CONDITIONS AS REQUIRED. THE CONTRACTOR SHALL ADJUST THE SWPPP AND ITS CONTROLS/BMPS AND THEIR QUANTITIES TO MEET FIELD CONDITIONS AND THE OHIO EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION ACTIVITIES GENERAL PERMIT.

MAINTENANCE NOTE
THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO ENSURE ALL TEMPORARY AND PERMANENT CONTROL PRACTICES SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ENSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. ALL SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED IN A FUNCTIONAL CONDITION UNTIL ALL UP-SLOPE AREAS THEY CONTROL ARE PERMANENTLY STABILIZED. THE SWP3 SHALL BE DESIGNED TO MINIMIZE MAINTENANCE REQUIREMENTS. THE APPLICANT SHALL PROVIDE A DESCRIPTION OF MAINTENANCE PROCEDURES NEEDED TO ENSURE THE CONTINUED PERFORMANCE OF CONTROL PRACTICES.

SWPPP AND INSPECTION AVAILABILITY AND UPDATES NOTE
THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO ENSURE THE IMMEDIATE AVAILABILITY OF THE SWPPP AND INSPECTION REPORTS ON-SITE. THE CONTRACTOR SHALL ALSO BE SOLELY RESPONSIBLE TO PERFORM AND DOCUMENT ALL REQUIRED SWPPP INSPECTIONS AND ALL UPDATES AND AMENDMENTS TO THE SWPPP.

DOCUMENTATION AND GOVERNMENT INSPECTION NOTE
CONTRACTOR(S) SHALL PROVIDE THE OWNER'S REPRESENTATIVE A WRITTEN COPY OF THEIR CO-PERMITTEE APPLICATION AND ANY OTHER DOCUMENTATION THE CONTRACTOR(S) MAY SEND OR RECEIVE FROM THE OEPA OR ANY OTHER GOVERNING AUTHORITIES.

IF AN INSPECTOR OR REPRESENTATIVE FROM THE OEPA OR ANY OTHER GOVERNING AUTHORITY IS ON-SITE, THE CONTRACTOR SHALL IMMEDIATELY CONTACT AND NOTIFY THE OWNER'S REPRESENTATIVE.

Choice One Engineering

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2- SWPPP

REVISIONS:

FILE NAME: SWPPP COVER
DRAWN BY: SJG
CHECKED BY: NNS
PROJECT No.: MIAPIO2502
SHEET NUMBER: 1 OF 5

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIO2502_SWPPP.dwg 10-Apr-26 11:09 AM

IMPLEMENTATION SCHEDULE (EROSION CONSTRUCTION SEQUENCE)

THE CONTRACTOR OR ITS APPOINTED REPRESENTATIVES WILL ASSUME RESPONSIBILITY FOR INSTALLATION, INSPECTION AND MAINTENANCE OF ALL SOIL EROSION CONTROL MEASURES DURING CONSTRUCTION. THE INSTALLATION OF THE SOIL EROSION CONTROL MEASURES WILL BE COMPLETED, AS FOLLOWS:

A. PRIOR TO ANY GRADING OR EARTHWORK:
A-1. SILT FENCE AND INLET PROTECTION (ON EX. STORM STRUCTURES) TO BE INSTALLED AS SHOWN ON SWPPP
A-2. INSTALL CONSTRUCTION ENTRANCE(S) IF NEEDED AS SHOWN ON SWPPP. INSTALLATION OF ALL OTHER EROSION AND SEDIMENT CONTROL MEASURES, E.G. ROCK CHECK DAMS, CONCRETE WASHOUT PIT, SEDIMENT BASIN, ETC.

B. PERFORM ROUGH GRADING, INSTALL UTILITIES, BUILDINGS, PAVEMENT:
B-1. CLEAR AND GRUB AREA AS NEEDED
B-2. PERFORM SITE GRADING. INSTALL BUILDING(S)
B-3. INSTALL SANITARY, STORM, WATER LINES, OTHER UTILITIES, GRAVEL BASE, AND CURB AND GUTTER, AS PER PLANS), INSTALL INLET PROTECTION ON ALL PROPOSED STORM INLET STRUCTURES AS INDICATED ON THE PLANS AS SOON AS THEY ARE INSTALLED.
B-4 PERFORM TEMPORARY SEEDING AS NEEDED ON ANY DISTURBED AREAS PER THE TIME REQUIREMENTS FOR TEMPORARY SEEDING SPECIFIED ON THIS DRAWING.
B-5 INSTALL PAVEMENT.

C. PERFORM FINAL GRADING:
C-1. PLACE TOPSOIL AND PERFORM FINAL RAKING AND GRADING ON ALL DISTURBED AREAS.
C-2. ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED (SEEDED AND/OR MULCHED).
C-3. CLEAN UP SITE, AND ONCE SITE HAS REACHED FINAL STABILIZATION REMOVE ALL TEMPORARY BMP'S.

NOTES: A) CARE WILL BE TAKEN NOT TO DISTURB ANY EXISTING NATURAL VEGETATION NOT INVOLVED IN THE CONSTRUCTION PROCESS, WHENEVER POSSIBLE. B) TIMELY INSPECTIONS OF THE EROSION CONTROL MEASURES WILL BE MADE, BY THE CONTRACTOR, EVERY 7 DAYS, AND/OR AFTER ANY RAINFALL OF AT LEAST 1/2" IN A 24-HOUR PERIOD. REPORTS MUST BE KEPT ON-SITE AND SUPPLIED TO THE GOVERNING AUTHORITY IF REQUESTED.

INSPECTION SCHEDULE

A. THE SITE WILL BE INSPECTED PER OHIO EPA PERMIT No. OHC000006:

PART III.G.2.:
INSPECTIONS. THE PERMITTEE SHALL ASSIGN QUALIFIED INSPECTION PERSONNEL TO CONDUCT INSPECTIONS TO ENSURE THAT THE CONTROL PRACTICES ARE FUNCTIONAL AND TO EVALUATE WHETHER THE SWP3 IS ADEQUATE AND PROPERLY IMPLEMENTED IN ACCORDANCE WITH THE SCHEDULE PROPOSED IN PART III.G.1.H OF THE OHC000006 PERMIT OR WHETHER ADDITIONAL CONTROL MEASURES ARE REQUIRED. AT A MINIMUM, PROCEDURES IN A SWP3 SHALL PROVIDE THAT ALL CONTROLS ON THE SITE ARE INSPECTED:
* AFTER ANY STORM EVENT GREATER THAN ONE-HALF INCH OF RAIN PER 24-HOUR PERIOD BY THE END OF THE NEXT CALENDAR DAY, EXCLUDING WEEKENDS AND HOLIDAYS UNLESS WORK IS SCHEDULED; AND
* ONCE EVERY SEVEN CALENDAR DAYS.

THE INSPECTION FREQUENCY MAY BE REDUCED TO AT LEAST ONCE EVERY MONTH FOR DORMANT SITES IF:
* THE ENTIRE SITE IS TEMPORARILY STABILIZED OR
* RUNOFF IS UNLIKELY DUE TO WEATHER CONDITIONS FOR EXTENDED PERIODS OF TIME (E.G. SITE IS COVERED WITH SNOW, ICE, OR THE GROUND IS FROZEN.

THE BEGINNING AND ENDING DATES OF ANY REDUCED INSPECTION FREQUENCY SHALL BE DOCUMENTED IN THE SWP3. ONCE A DEFINABLE AREA HAS ACHIEVED FINAL STABILIZATION, THE AREA MAY BE MARKED ON THE SWP3 AND NO FURTHER INSPECTION REQUIREMENTS SHALL APPLY TO THAT PORTION OF THE SITE.

FOLLOWING EACH INSPECTION, A CHECKLIST MUST BE COMPLETED AND SIGNED BY THE QUALIFIED INSPECTION PERSONNEL REPRESENTATIVE. AT A MINIMUM, THE INSPECTION REPORT SHALL INCLUDE:
i. THE INSPECTION DATE;
ii. NAMES, TITLES, AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION;
iii. WEATHER INFORMATION FOR THE PERIOD SINCE THE LAST INSPECTION (OR SINCE COMMENCEMENT OF CONSTRUCTION ACTIVITY IF THE FIRST INSPECTION) INCLUDING A BEST ESTIMATE OF THE BEGINNING OF EACH STORM EVENT, DURATION OF EACH STORM EVENT, APPROXIMATE AMOUNT OF RAINFALL FOR EACH STORM EVENT (IN INCHES), AND WHETHER ANY DISCHARGES OCCURRED;
iv. WEATHER INFORMATION AND A DESCRIPTION OF ANY DISCHARGES OCCURRING AT THE TIME OF THE INSPECTION;
v. LOCATION(S) OF DISCHARGES OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE;
vi. LOCATION(S) OF BMPS THAT NEED TO BE MAINTAINED;
vii. LOCATION(S) OF BMPS THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION;
viii. LOCATION(S) WHERE ADDITIONAL BMPS ARE NEEDED THAT DID NOT EXIST AT THE TIME OF INSPECTION; AND
ix. CORRECTIVE ACTION REQUIRED INCLUDING ANY CHANGES TO THE SWP3 NECESSARY AND IMPLEMENTATION DATES.

DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF OR THE POTENTIAL FOR POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE SWP3 SHALL BE OBSERVED TO ENSURE THAT THOSE ARE OPERATING CORRECTLY. DISCHARGE LOCATIONS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE VEHICLE TRACKING.

THE PERMITTEE SHALL MAINTAIN FOR THREE YEARS FOLLOWING THE SUBMITTAL OF A NOTICE OF TERMINATION FORM, A RECORD SUMMARIZING THE RESULTS OF THE INSPECTION, NAME(S)S AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE SWP3 AND A CERTIFICATION AS TO WHETHER THE FACILITY IS IN COMPLIANCE WITH THE SWP3 AND THE PERMIT AND IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE. THE RECORD AND CERTIFICATION SHALL BE SIGNED IN ACCORDANCE WITH PART V.G. OF THIS PERMIT.

i. WHEN PRACTICES REQUIRE REPAIR OR MAINTENANCE. IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE IS IN NEED OF REPAIR OR MAINTENANCE, WITH THE EXCEPTION OF A SEDIMENT SETTLING POND, IT SHALL BE REPAIRED OR MAINTAINED WITHIN 3 DAYS OF THE INSPECTION. SEDIMENT SETTLING PONDS SHALL BE REPAIRED OR MAINTAINED WITHIN 10 DAYS OF THE INSPECTION.

ii. WHEN PRACTICES FAIL TO PROVIDE THEIR INTENDED FUNCTION. IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE FAILS TO PERFORM ITS INTENDED FUNCTION AND THAT ANOTHER, MORE APPROPRIATE CONTROL PRACTICE IS REQUIRED, THE SWP3 SHALL BE AMENDED AND THE NEW CONTROL PRACTICE SHALL BE INSTALLED WITHIN 10 DAYS OF THE INSPECTION.

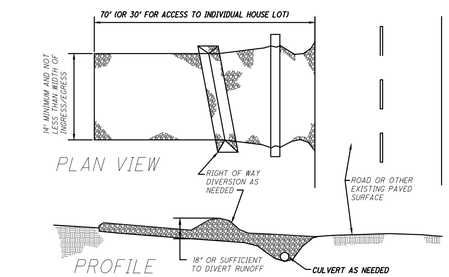
iii. WHEN PRACTICES DEPICTED ON THE SWP3 ARE NOT INSTALLED. IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE HAS NOT BEEN IMPLEMENTED IN ACCORDANCE WITH THE SCHEDULE CONTAINED IN PART III.G.1.H OF THIS PERMIT, THE CONTROL PRACTICE SHALL BE IMPLEMENTED WITHIN 10 DAYS FROM THE DATE OF THE INSPECTION. IF THE INSPECTION REVEALS THAT THE PLANNED CONTROL PRACTICE IS NOT NEEDED, THE RECORD SHALL CONTAIN A STATEMENT OF EXPLANATION AS TO WHY THE CONTROL PRACTICE IS NOT NEEDED.

B. VEGETATIVE PLANTINGS - SPRING PLANTINGS WILL BE CHECKED DURING SUMMER OR EARLY FALL.
C. REPAIRS - ANY EROSION CONTROL MEASURES, STRUCTURAL MEASURES, OR OTHER RELATED ITEMS IN NEED OF REPAIR WILL BE MADE WITHIN 7 DAYS.
D. MOWING - DRAINAGE WAYS, DITCHES, AND OTHER AREAS THAT SUPPORT A DESIGNED FLOW OF WATER WILL BE MOWED REGULARLY TO MAINTAIN THAT FLOW.
E. FERTILIZATION - SEEDED AREAS WHERE THE SEED HAS NOT PRODUCED A GOOD COVER WILL BE INSPECTED AND FERTILIZED AS NECESSARY.

CONSTRUCTION ENTRANCE

A. STONE SIZE - 2" STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT.
B. LENGTH - THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS, BUT NOT LESS THAN 70' (EXCEPT ON SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH APPLIES).
C. THICKNESS - THE STONE LAYER SHALL BE AT LEAST 6" THICK.
D. WIDTH - THE ENTRANCE SHALL BE AT LEAST 10' WIDE, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
E. BEDDING - A GEOTEXTILE SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL HAVE A GRAB TENSILE STRENGTH OF AT LEAST 200 LBS. AND A MULLEN BURST STRENGTH OF AT LEAST 190 LBS.
F. CULVERT - A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE, IF NEEDED, TO PREVENT SURFACE WATER FLOWING ACROSS THE ENTRANCE FROM BEING DIRECTED OUT ONTO PAVED SURFACES (IF DRIVE IS PLACED ACROSS A DITCH).
G. WATER BAR - A WATER BAR SHALL BE CONSTRUCTED AS PART OF THE CONSTRUCTION ENTRANCE, IF NEEDED TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO PAVED SURFACES (IF DRIVE IS PLACED ON A SLOPE).
H. MAINTENANCE - TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING.
I. CONSTRUCTION ENTRANCE SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFFSITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION SITE SHALL BE RESTRICTED FROM MUDDY AREAS.
J. CONSTRUCTION ENTRANCES ARE INSTALLED TO MINIMIZE OFFSITE TRACKING OF SEDIMENTS. A STONE ACCESS DRIVE SHOULD BE INSTALLED AT EVERY POINT WHERE VEHICLES ENTER OR EXIT THE SITE. EVERY INDIVIDUAL LOT SHOULD ALSO HAVE ITS OWN DRIVE ONCE CONSTRUCTION ON THE LOT BEGINS.

NOTE: ALTERNATIVE STABILIZATION METHODS FOR CONSTRUCTION ENTRANCE/EXIT SUCH AS MANUFACTURED STEEL PLATES, GRID PLATES, ETC. OR STEEL PIPES/GRATINGS WILL ALSO BE CONSIDERED BUT WILL REQUIRE WRITTEN APPROVAL FROM THE OWNER PRIOR TO THE USE OF SUCH ALTERNATIVE METHODS AS ON-SITE CONSTRUCTION ENTRANCES/EXIT. ANY PROPOSED ALTERNATIVE METHODS SHALL SHALL BE SHOWN TO EFFECTIVELY REMOVE MUD AND DEBRIS FROM VEHICLE WHEELS PRIOR TO EXITING THE SITE.



CONSTRUCTION ENTRANCE DETAIL

NON-SEDIMENT POLLUTION CONTROL

A. CONSTRUCTION PERSONNEL, INCLUDING SUBCONTRACTORS WHO MAY USE OR HANDLE HAZARDOUS OR TOXIC MATERIALS, SHALL BE MADE AWARE OF THE FOLLOWING GENERAL GUIDELINES:

DISPOSAL AND HANDLING OF HAZARDOUS AND OTHER CONSTRUCTION WASTE

DO:
* PREVENT SPILLS
* USE PRODUCTS UP
* FOLLOW LABEL DIRECTIONS FOR DISPOSAL
* REMOVE LIDS FROM EMPTY BOTTLES AND CANS WHEN DISPOSING IN TRASH
* RECYCLE WASTE WHENEVER POSSIBLE

DON'T
* DON'T POUR INTO WATERWAYS, STORM DRAINS, OR ONTO THE GROUND
* DON'T POUR DOWN THE SINK, FLOOR DRAIN, OR SEPTIC TANKS
* DON'T BURY CHEMICALS OR CONTAINERS
* DON'T BURN CHEMICALS OR CONTAINERS
* DON'T MIX CHEMICALS TOGETHER

B. CONTAINERS SHALL BE PROVIDED FOR COLLECTION OF ALL WASTE MATERIAL INCLUDING CONSTRUCTION DEBRIS, TRASH, PETROLEUM, AND ANY HAZARDOUS MATERIALS TO BE USED ON SITE. ALL WASTE MATERIAL SHALL BE DISPOSED OF AT FACILITIES APPROVED FOR THAT MATERIAL.

C. NO WASTE MATERIALS SHALL BE BURIED ON SITE. SITE PERSONNEL, INCLUDING SUBCONTRACTORS, SHALL BE NOTIFIED THAT NO CONSTRUCTION-RELATED MATERIALS ARE TO BE BURIED ON SITE.

D. MIXING, PUMPING, TRANSFERRING, OR OTHERWISE HANDLING CONSTRUCTION CHEMICALS SUCH AS FERTILIZER, LIME, ASPHALT, CONCRETE DRYING COMPOUNDS, AND ALL OTHER POTENTIALLY HAZARDOUS MATERIALS SHALL BE PERFORMED IN AN AREA AWAY FROM ANY WATERCOURSE, DITCH, OR STORM DRAIN.

E. EQUIPMENT FUELING AND MAINTENANCE, OIL CHANGING, ETC., SHALL BE PERFORMED AWAY FROM WATERCOURSES, DITCHES, OR STORM DRAINS, IN AN AREA DESIGNATED FOR THAT PURPOSE. THE DESIGNATED AREA SHALL BE EQUIPPED FOR RECYCLING OIL AND CATCHING SPILLS.

F. CONCRETE WASH WATER SHALL NOT BE ALLOWED TO FLOW TO STREAMS, DITCHES, STORM DRAINS, OR ANY OTHER WATER CONVEYANCE. A SUMP OR PIT SHALL BE CONSTRUCTED IF NEEDED TO CONTAIN CONCRETE WASH WATER.

G. IF HAZARDOUS SUBSTANCES SUCH AS OIL, DIESEL FUEL, HYDRAULIC FLUID, ANTIFREEZE, ETC. ARE SPILLED, LEAKED, OR RELEASED ONTO THE SOIL, THE SOIL SHOULD BE DUG UP AND DISPOSED OF WITH THE TRASH AT A LICENSED SANITARY LANDFILL (NOT A CONSTRUCTION/DEMOLITION DEBRIS LANDFILL). SPILLS ON PAVEMENT SHALL BE ABSORBED WITH SAWDUST OR KITTY LITTER AND DISPOSED OF WITH THE TRASH AT A LICENSED SANITARY LANDFILL. HAZARDOUS OR INDUSTRIAL WASTES SUCH AS MOST SOLVENTS, GASOLINE, OIL-BASED PAINTS, AND CEMENT CURING COMPOUNDS REQUIRE SPECIAL HANDLING. CONTACT OHIO EPA (1-800-282-9378).

H. SPILLS OF 25 GAL. OR MORE OF PETROLEUM PRODUCTS SHALL BE REPORTED TO OHIO EPA (1-800-282-9378), THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE WITHIN 30 MIN. OF THE DISCOVERY OF THE RELEASE.

I. STREETS NEED TO BE SWEPT AS OFTEN AS NECESSARY TO KEEP THEM CLEAN AND FREE FROM SEDIMENT. SEDIMENT TO BE SWEPT BACK ONTO THE LOT - NOT DOWN THE STORM SEWER.

J. STOCKPILES OF SOIL AND OTHER MATERIALS SHALL BE STORED AWAY FROM WATERCOURSES, DITCHES, OR STORM DRAINS, AND SHALL HAVE EROSION CONTROL MATERIALS PLACED AROUND THEM.

K. ALL STREAM CROSSINGS SHALL BE CONSTRUCTED ENTIRELY OF NON-ERODIBLE MATERIAL.

PROCESS WASTEWATER/LEACHATE MANAGEMENT NOTE

ALL PROCESS WASTEWATERS (e.g. EQUIPMENT WASHING, LEACHATE ASSOCIATED WITH ON-SITE WASTE DISPOSAL, AND CONCRETE WASH-OUTS) MUST BE COLLECTED AND DISPOSED OF PROPERLY (e.g. TO A PUBLICLY-OWNED TREATMENT WORKS). THE NPDES CONSTRUCTION STORM WATER GENERAL PERMIT ONLY AUTHORIZES THE DISCHARGE OF STORM WATER AND CERTAIN UNCONTAMINATED NON-STORM WATERS. THE DISCHARGE OF NON-STORM WATERS TO WATERS OF THE STATE MAY BE IN VIOLATION OF LOCAL, STATE, AND FEDERAL LAWS OR REGULATIONS.

HANDLING OF TOXIC OR HAZARDOUS MATERIALS NOTE

NO SOLID, SANITARY, OR TOXIC WASTE IS TO BE DISPOSED OF ON THE PROJECT SITE. RECYCLING OF USED OR UNUSED HAZARDOUS MATERIALS SHALL NOT OCCUR ON SITE EITHER. AREAS DESIGNATED FOR CEMENT TRUCK WASHOUTS, AND VEHICLE FUELING SHALL NOT TAKE PLACE ON PARKING LOT BASE.

CONSTRUCTION CHEMICAL COMPOUNDS NOTE

NO MIXING OR STORAGE OF CHEMICAL COMPOUNDS SUCH AS FERTILIZERS, LIME, ASPHALT, OR CONCRETE ARE PERMITTED TO TAKE PLACE ON-SITE. ALL MIXING SHALL TAKE PLACE BEFORE ENTERING THE SITE.

CONSTRUCTION & DEMOLITION DEBRIS NOTE

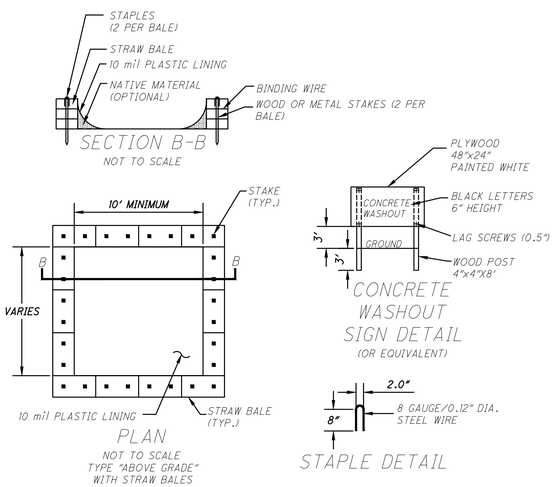
ALL CONSTRUCTION AND DEMOLITION DEBRIS (C&DD) WASTE SHALL BE DISPOSED OF IN AN OHIO EPA APPROVED C&DD LANDFILL AS REQUIRED BY OHIO REVISED CODE (ORC) 3714. MATERIALS WHICH CONTAIN ASBESTOS MUST COMPLY WITH AIR POLLUTION REGULATIONS (SEE OHIO ADMINISTRATIVE CODE 3745-20).

CONTAMINATED SOILS NOTE

SOILS CONTAMINATED BY PETROLEUM OR OTHER CHEMICAL SPILLS SHALL BE HANDLED AND DISPOSED OF PROPERLY. ALL CONTAMINATED SOILS MUST BE TREATED AND/OR DISPOSED OF IN AN OHIO EPA APPROVED SOLID WASTE MANAGEMENT FACILITY OR HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITY (TSDFs). IF CONTAMINATION HAPPENS TO OCCUR, TARPS ARE TO BE USED TO PREVENT STORM WATER FROM COMING INTO CONTACT WITH THE MATERIAL.

CONCRETE WASHOUT NOTE

CONCRETE WASHOUT OPERATIONS SHALL TAKE PLACE WITHIN THE PROPOSED PROJECT AREA UTILIZING THE CONTRACTOR'S PORTABLE CONCRETE WASHOUT CONTAINER OR WITHIN A BERMED/CONTAINED AREA. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ENSURE WASHOUT MATERIAL DOES NOT LEAVE THE WASHOUT AREA OR ENTER THE STORM SYSTEM. CONTRACTOR SHALL CLEAN UP AND PROPERLY DISPOSE OF ALL LEFTOVER WASHOUT MATERIAL.



CONCRETE WASHOUT DETAIL

DUST CONTROL

DUST CONTROL SHALL BE PROVIDED AS NEEDED TO PREVENT SEDIMENT FROM BECOMING AIRBORNE. MEASURES SHALL INCLUDE WATERING VIA A WATER TRUCK OR OTHER WATERING DEVICE AS NEEDED TO REDUCE AND/OR ELIMINATE AIRBORNE DUST CREATED BY CONSTRUCTION AND CONSTRUCTION RELATED ACTIVITIES.

CONSTRUCTION OF A FILTER BARRIER (SILT FENCE)

A. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.

B. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.

C. TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UPSLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.

D. WHERE POSSIBLE, SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.

E. WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5' (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.

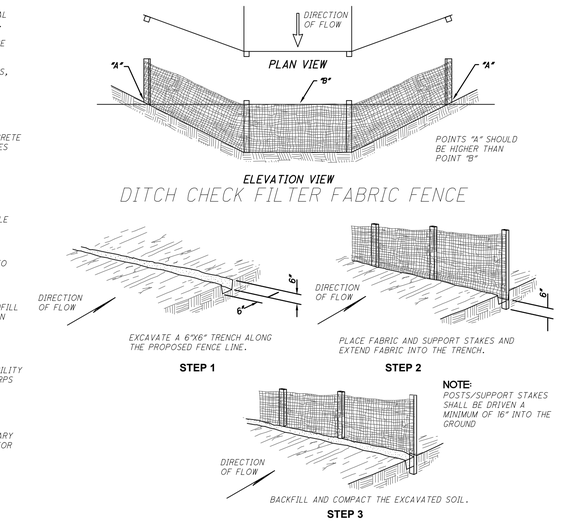
F. THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16" ABOVE THE ORIGINAL GROUND SURFACE.

G. THE SILT FENCE SHALL BE PLACED IN A TRENCH CUT A MINIMUM OF 6" DEEP. THE TRENCH SHALL BE CUT WITH A TRENCHER, CABLE LAYING MACHINE, OR OTHER SUITABLE DEVICE WHICH WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.

H. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE AND SO THAT 8" OF CLOTH IS BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6" DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED.

I. SEAMS BETWEEN SECTIONS OF SILT FENCE SHALL BE OVERLAPPED WITH THE END STAKES OF EACH SECTION WRAPPED TOGETHER BEFORE DRIVING INTO THE GROUND.

J. MAINTENANCE - SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. ALL THE GAPS AND TEARS IN THE FENCE MUST BE ELIMINATED AND REPAIRED. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: 1) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, 2) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR 3) OTHER PRACTICES SHALL BE INSTALLED.



FILTER FABRIC FENCE DETAIL

CRITERIA FOR SILT FENCE MATERIAL

A. FENCE POSTS - THE LENGTH SHALL BE A MINIMUM OF 48" LONG. WOOD POSTS WILL BE 2"-BY-2" HARDWOOD OF SOUND QUALITY. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 5'. POSTS/SUPPORT STAKES SHALL BE DRIVEN A MINIMUM OF 16" INTO THE GROUND.

B. SILT FENCE FABRIC SHALL CONFORM TO THE AASHTO SILT FENCE SPECIFICATION 100X AND SHALL HAVE A MINIMUM 100# GRAB TENSILE. SILT FENCE SHALL ALSO CONFORM TO THE MOST RECENT ODOT STANDARD FOR SEDIMENT/SILT FENCE (TABLE 712.09-1)

C. SILT FENCE SHALL BE ATTACHED TO THE WOODEN POSTS WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PERMANENT STABILIZATION

ALL AREAS AT FINAL GRADE MUST BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF REACHING FINAL GRADE. THIS IS USUALLY ACCOMPLISHED BY USING SEED AND MULCH, BUT SPECIAL MEASURES ARE SOMETIMES REQUIRED. THIS IS PARTICULARLY TRUE IN DRAINAGE DITCHES/SWALES, LOW AREAS, DETENTION POND BOTTOMS AND SIDES OR ON STEEP SLOPES. THESE MEASURES INCLUDE, BUT ARE NOT LIMITED TO, THE INSTALLATION OF EROSION CONTROL BLANKETS AND/OR MATTING, ADDITION OF TOPSOIL, OR ROCK RIP-RAP. CONTRACTOR SHALL UTILIZE THESE AND ANY OTHER SPECIAL MEASURES AS NEEDED TO PERMANENTLY STABILIZE THE SITE. PERMANENT SEEDING SHOULD BE DONE MARCH 1 TO MAY 31 AND AUGUST 1 TO SEPTEMBER 30. DORMANT SEEDING CAN BE DONE FROM NOVEMBER 20 TO MARCH 15. AT ALL OTHER TIMES OF THE YEAR, THE AREA SHOULD BE TEMPORARILY STABILIZED UNTIL A PERMANENT SEEDING CAN BE APPLIED.

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY AREAS THAT WILL LIE DORMANT FOR ONE YEAR OR MORE.	WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE.
ANY AREAS WITHIN 50' OF A SURFACE WATER OF THE STATE (STREAM, WATERWAY, WATER BODY, ETC.) AND AT FINAL GRADE	WITHIN 2 DAYS OF REACHING FINAL GRADE
ANY OTHER AREAS AT FINAL GRADE.	WITHIN 7 DAYS OF REACHING FINAL GRADE WITHIN THAT AREA.

SOILS EXPOSED NOTE

CONTRACTOR SHALL PLAN AND IMPLEMENT CONSTRUCTION AND GRADING ACTIVITIES TO MINIMIZE THE AMOUNT OF SOIL EXPOSED DURING CONSTRUCTION ACTIVITIES.

TEMPORARY SEEDING SPECIES SELECTION			
SEEDING DATES	SPECIES	L.B./1000 SQ. FT.	PER ACRE
MARCH 1 TO AUGUST 15	OATS	3	4 BUSHELS
	TALL FESCUE	1	40 LBS.
	ANNUAL RYEGRASS	1	40 LBS.
	PERENNIAL RYEGRASS	1	40 LBS.
	TALL FESCUE	1	40 LBS.
	ANNUAL RYEGRASS	1	40 LBS.
AUGUST 16 TO NOVEMBER 1	RYE	3	2 BUSHELS
	TALL FESCUE	1	40 LBS.
	ANNUAL RYEGRASS	1	40 LBS.
	WHEAT	1	2 BUSHELS
	TALL FESCUE	1	40 LBS.
	ANNUAL RYEGRASS	1	40 LBS.
	PERENNIAL RYEGRASS	1	40 LBS.
	TALL FESCUE	1	40 LBS.
	ANNUAL RYEGRASS	1	40 LBS.
NOVEMBER 1 TO SPRING SEEDING	USE MULCH ONLY, SODDING PRACTICES OR DORMANT SEEDING		
NOTE: OTHER APPROVED SEED SPECIES MAY BE SUBSTITUTED.			

SPECIFICATIONS FOR TEMPORARY SEEDING

A. TO MINIMIZE COSTS OF TEMPORARY STABILIZATION, LEAVE NATURAL COVER IN PLACE FOR AS LONG AS POSSIBLE. ONLY DISTURB AREAS YOU INTEND TO WORK WITHIN THE NEXT 14 DAYS.

B. STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS AND SEDIMENT TRAPS SHALL BE INSTALLED AND STABILIZED WITH TEMPORARY SEEDING PRIOR TO GRADING THE REST OF THE CONSTRUCTION SITE.

C. THE SEEDBED SHOULD BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION. HOWEVER, TEMPORARY SEEDING SHALL NOT BE POSTPONED IF IDEAL SEEDBED PREPARATION IS NOT POSSIBLE.

D. SOIL AMENDMENTS - APPLICATIONS OF TEMPORARY VEGETATION SHALL ESTABLISH ADEQUATE STANDS OF VEGETATION WHICH MAY REQUIRE THE USE OF SOIL AMENDMENTS. SOIL TESTS SHOULD BE TAKEN ON THE SITE TO PREDICT THE NEED FOR LIME AND FERTILIZER.

E. SEEDING METHOD - SEED SHALL BE APPLIED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. WHEN FEASIBLE, SEED THAT HAS BEEN BROADCAST SHALL BE COVERED BY RAKING OR DRAGGING AND THEN LIGHTLY PLACED USING A ROLLER OR CULTIPACKER. IF HYDROSEEDING IS USED, THE SEED AND FERTILIZER WILL BE MIXED ON SITE AND THE SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION.

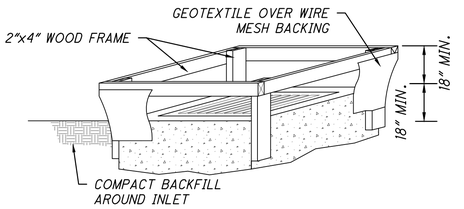
MULCHING TEMPORARY SEEDING

A. APPLICATIONS OF TEMPORARY SEEDING SHALL INCLUDE MULCH WHICH SHALL BE APPLIED DURING OR IMMEDIATELY AFTER SEEDING. SEEDINGS MADE DURING OPTIMUM SEEDING DATES AND WITH FAVORABLE SOIL CONDITIONS AND ON VERY FLAT AREAS MAY NOT NEED MULCH TO ACHIEVE ADEQUATE STABILIZATION.

B. MATERIALS:
- STRAW - IF STRAW IS USED, IT SHALL BE UNROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 2 TONS/ACRE OR 90 LBS./1,000 SQ. FT. (TWO TO THREE BALES). THE MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQ. FT. SECTIONS AND SPREAD TWO 45 LBS. BALES OF STRAW IN EACH SECTION.
- HYDROSEEDERS - IF WOOD CELLULOSE FIBER IS USED, IT SHALL BE USED AT 2,000 LB/AC. OR 46 LBS./1,000 SQ. FT.
- OTHER - OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 6 TONS/AC.
- STRAW MULCH SHALL BE ANCHORED IMMEDIATELY T

INLET PROTECTION FOR STORM STRUCTURES W/ GRATE

INLET PROTECTION MAY CONSIST OF SEDIMENT FENCE AND/OR DEVICES SUCH AS FLEX STORM INLET FILTERS, SEDCAGE (WWW.SEDCATCH.COM), DANDY BAGS, SEDIGUARD FILTERS, OR OTHER DEVICES (ALTERNATE PRODUCTS WHOSE PERFORMANCE IS EQUAL TO OR EXCEEDS THOSE LISTED) WHICH ARE EFFECTIVE AT MINIMIZING THE AMOUNT OF SEDIMENT ENTERING THE STRUCTURE . INSTALL INLET PROTECTION ON ALL PROPOSED YARD DRAINS, CATCH BASINS AND MANHOLES WITH GRATED LIDS AND TO ALL EXISTING STORM STRUCTURES WITH GRATED LIDS WITHIN THE PROJECT AREA WHICH MAY RECEIVE RUNOFF FROM THE CONSTRUCTION SITE.



NOTES

A. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOMES OPERATIONAL.

B. THE EARTH AROUND THE INLET SHALL BE EXCAVATED COMPLETELY TO A DEPTH OF AT LEAST 18".

C. THE WOODEN FRAME SHALL BE CONSTRUCTED OF 2" BY 4" CONSTRUCTION GRADE LUMBER. THE 2" BY 4" POST SHALL BE DRIVEN 1' INTO THE GROUND AT FOUR CORNERS OF THE INLET AND THE TOP PORTION OF 2" BY 4" FRAME ASSEMBLED USING THE OVERLAP JOINT SHOWN. THE TOP OF THE FRAME SHALL BE AT LEAST 6" BELOW ADJACENT ROAD, IF PONDED WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC.

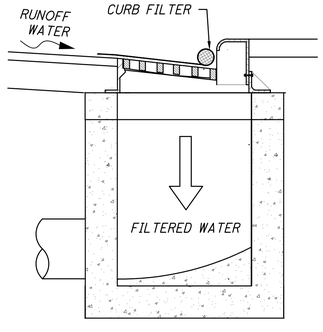
D. WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC WITH WATER FULLY IMPOUNDED AGAINST IT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY TO THE FRAME.

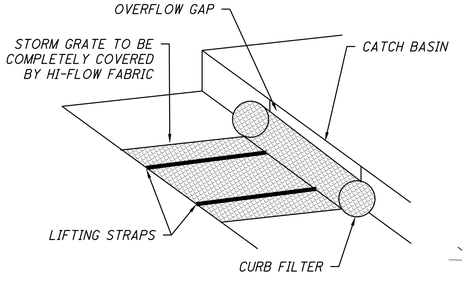
E. GEOTEXTILE SHALL HAVE AN EQUIVALENT OPENING SIZE OF 20-40 SIEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY. IT SHALL EXTEND FROM THE TOP OF THE FRAME TO 18" BELOW THE INLET NOTCH ELEVATION. THE GEOTEXTILE SHALL OVERLAY ACROSS ONE SIDE OF THE INLET SO THE ENDS OF THE CLOTH ARE NOT FASTENED TO THE SAME POST.

F. BACKFILL SHALL BE PLACED AROUND THE INLET IN COMPACTED 6" LAYERS UNTIL THE EARTH IS EVEN WITH NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES.

G. A COMPACTED EARTH DIKE OR A CHECK DAM SHALL BE CONSTRUCTED IN THE DITCH LINE BELOW THE INLET IF THE INLET IS NOT IN A DEPRESSION, AND IF RUNOFF BY PASSING THE INLET WILL NOT FLOW TO A SETTING POND, THE TOP OF EARTH DIKES SHALL BE AT LEAST 6" HIGHER THAN THE TOP OF THE FRAME.

INLET PROTECTION IN SWALES, DITCH LINES OR YARD INLETS





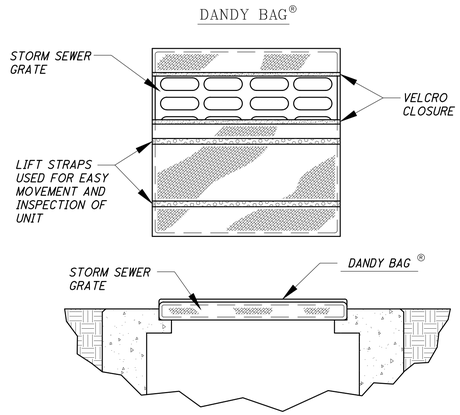
NOTES

A. DANDY CURB BAG, SEDIGUARDS, OR ALTERNATE PRODUCT WHOSE PERFORMANCE IS EQUAL TO OR EXCEEDS THOSE LISTED MAY BE USED.

B. REMOVE SEDIMENT FROM CURB INLET PROTECTION BEFORE IT HINDERS THE FILTERING CAPACITY.
- DANDY CURB BAG: LIFT GRATE AND REMOVE DANDY BAG, CLEAN ACCUMULATED SEDIMENT AND REPLACE BAG AS REQUIRED BY MANUFACTURER.
- SEDIGUARD: CLEAN SEDIGUARD ONCE IT IS DRY WITH A STIFF BROOM AFTER EVERY RAIN.
- ALTERNATE PRODUCTS: CLEAN AS REQUIRED PER MANUFACTURER'S RECCOMENDATIONS

C. INLET PROTECTION SHOULD NEVER INTERFERE WITH SAFETY OF ACTIVE TRAFFIC.

CURB INLET SEDIMENT FILTER DETAIL



DETAIL OF INLET SEDIMENT CONTROL DEVICE

DANDY BAG® SPECIFICATIONS

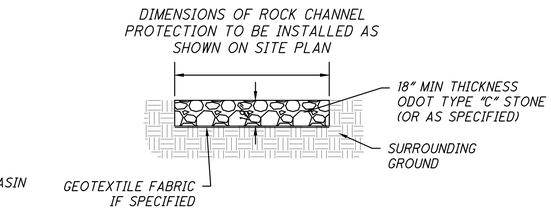
NOTE: THE DANDY BAG® WILL BE **MANUFACTURED IN THE U.S.A.** FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

HI-FLOW DANDY BAG® (SAFETY ORANGE)

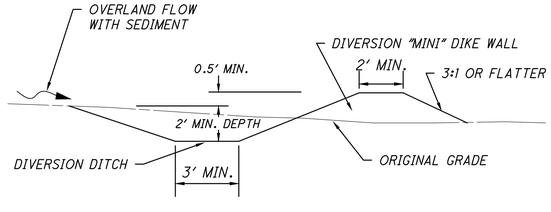
Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.62 (365) X 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 X 10
Puncture Strength	ASTM D 4833	kN (lbs)	0.40 (90)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.51 (115) X 0.33 (75)
UV Resistance	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/m²(gal/min/ft²)	5907 (145)
Permittivity	ASTM D 4491	Sec⁻¹	2.1

*Note: All Dandy Bags® can be ordered with optional oil absorbent pillows

INLET PROTECTION - DANDY BAG



ROCK CHANNEL PROTECTION DETAIL FOR PIPE OUTLET

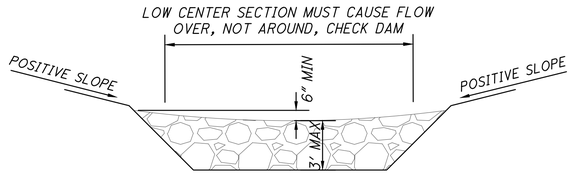


NOTES

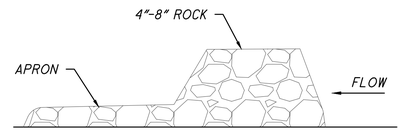
A. BERM CAN BE CONSTRUCTED AS DITCH OR DIKE WALL

B. PLACE DITCH ON A GRADE TO DRAIN TO SEDIMENT BASIN.

CROSS SECTION OF A DIVERSION BERM



CROSS SECTION



PROFILE

NOTES

A. THE CHECK DAM SHALL BE CONSTRUCTED OF 4-8 INCH DIAMETER STONE, PLACED SO THAT IT COMPLETELY COVERS THE WIDTH OF THE CHANNEL. ODOT TYPE D STONE IS ACCEPTABLE, BUT SHOULD BE UNDERLAIN WITH A GRAVEL FILTER CONSISTING OF ODOT No. 3 OR 4 OR SUITABLE FILTER FABRIC.

B. MAXIMUM HEIGHT OF CHECK DAM SHALL NOT EXCEED 3.0 FEET.

C. THE MIDPOINT OF THE ROCK CHECK DAM SHALL BE A MINIMUM OF 6 INCHES LOWER THAN THE SIDES IN ORDER TO DIRECT ACROSS THE CENTER AND AWAY FROM THE CHANNEL SIDES.

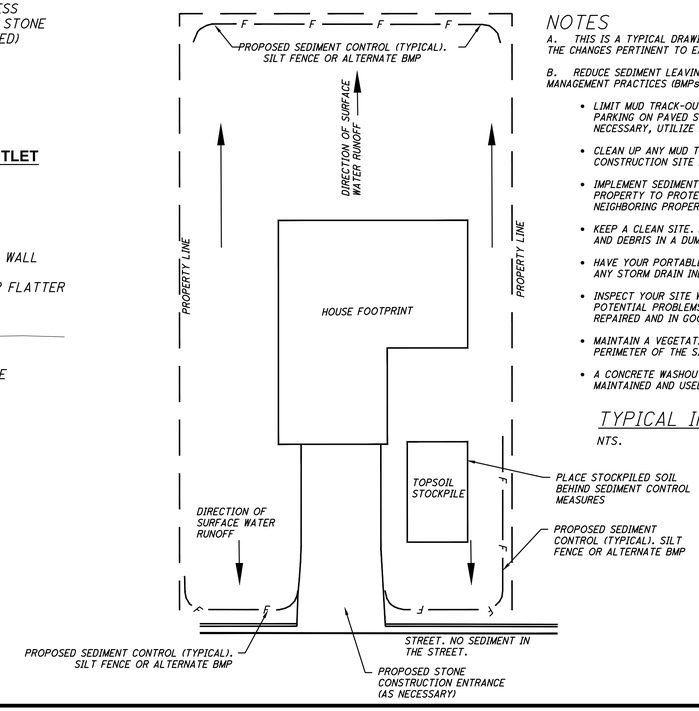
D. THE BASE OF THE CHECK DAM SHALL BE ENTRENCHED APPROXIMATELY 6 INCHES.

E. A STONE APRON SHALL BE CONSTRUCTED IMMEDIATELY DOWNSTREAM OF THE CHECK DAM TO PREVENT FLOWS FROM UNDERCUTTING THE STRUCTURE. THE APRON SHOULD BE 6 INCHES THICK AND ITS LENGTH TWO TIMES THE HEIGHT OF THE DAM.

F. STONE PLACEMENT SHALL BE PERFORMED EITHER BY HAND OR MECHANICALLY AS LONG AS THE CENTER OF CHECK DAM IS LOWER THAN THE SIDES AND EXTENDS ACROSS ENTIRE CHANNEL.

G. SIDE SLOPES SHALL BE A MINIMUM OF 2:1.

DITCH ROCK CHECK DAM



NOTES

A. THIS IS A TYPICAL DRAWING. APPLICANT IS RESPONSIBLE FOR MAKING THE CHANGES PERTINENT TO EACH LOT/SITE.

B. REDUCE SEDIMENT LEAVING THE SITE BY IMPLEMENTING BEST MANAGEMENT PRACTICES (BMPs) SUCH AS:

- LIMIT MUD TRACK-OUT ONTO PRIVATE OR PUBLIC STREETS BY PARKING ON PAVED STREETS OR DRIVEWAYS WHENEVER POSSIBLE. IF NECESSARY, UTILIZE A TEMPORARY GRAVEL DRIVE.
- CLEAN UP ANY MUD THAT HAS BEEN TRACKED OFF THE CONSTRUCTION SITE IN A THOROUGH AND TIMELY MANNER.
- IMPLEMENT SEDIMENT CONTROLS ALONG THE LOWER SIDES OF THE PROPERTY TO PROTECT ADJACENT WATERWAYS, STORM DRAINS OR NEIGHBORING PROPERTY FROM SEDIMENTATION.
- KEEP A CLEAN SITE. DISPOSE OF CONSTRUCTION WASTE MATERIALS AND DEBRIS IN A DUMPSTER OR CONTAINMENT DEVICE.
- HAVE YOUR PORTABLE TOILET STAKED AND ANCHORED AWAY FROM ANY STORM DRAIN INLETS.
- INSPECT YOUR SITE WEEKLY AND AFTER RAIN EVENTS TO FIND ANY POTENTIAL PROBLEMS AND KEEP YOUR BEST MANAGEMENT PRACTICES REPAIRED AND IN GOOD WORKING ORDER.
- MAINTAIN A VEGETATION BUFFER WHERE POSSIBLE AROUND THE PERIMETER OF THE SITE.
- A CONCRETE WASHOUT PIT OR WASHOUT CONTAINER SHOULD BE MAINTAINED AND USED UNTIL ALL CONCRETE WORK IS COMPLETE.

TYPICAL INDIVIDUAL LOT SWPPP

NTS.

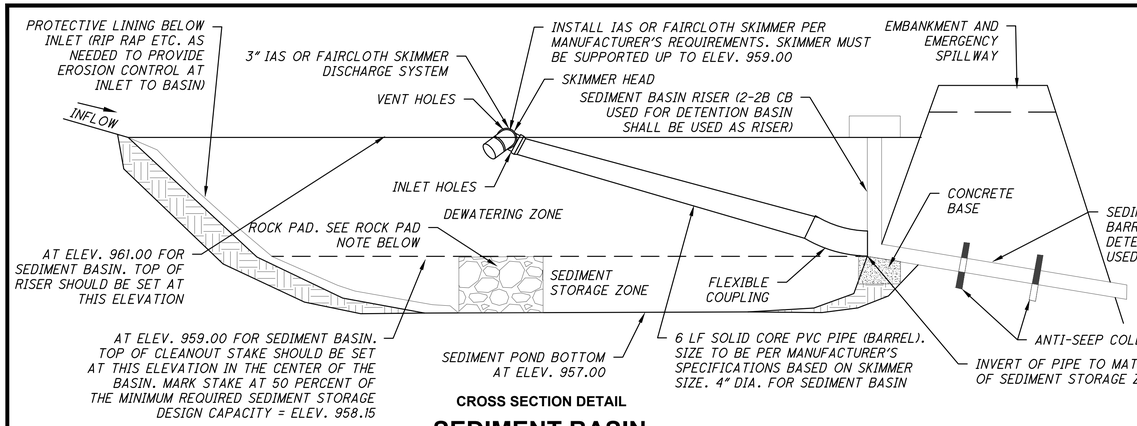
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
SWPPP - EROSION CONTROL NOTES AND DETAILS

REVISIONS:

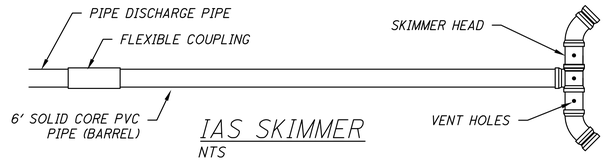
FILE NAME: SWPPP NOTES 2
DRAWN BY: SJG
CHECKED BY: NMS
PROJECT No.: MIAPIQ2502
DATE: 04-10-2026
SHEET NUMBER: 3 OF 5

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ2502_SWPPP.dwg 10-Apr-26 11:09 AM

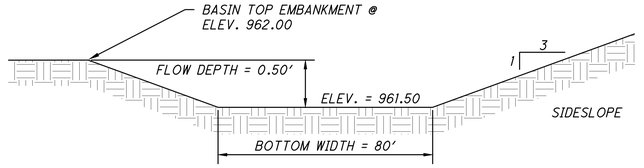


CROSS SECTION DETAIL

SEDIMENT BASIN

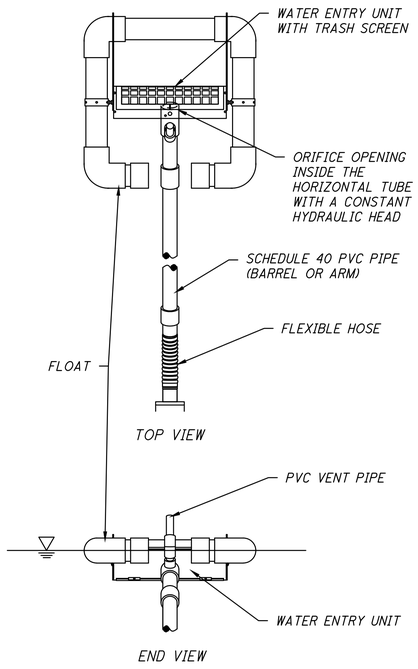


IAS SKIMMER
NTS



CROSS SECTION

EMERGENCY SPILLWAY
NTS



FAIRCLOTH SKIMMER
NTS

NOTES

A. SEDIMENT BASINS SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE UPSLOPE LAND DISTURBANCE BEGINS.

B. SITE PREPARATION -THE AREA UNDER THE EMBANKMENT SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED AS NEEDED TO FACILITATE SEDIMENT CLEANOUT. GULLIES AND SHARP BREAKS SHALL BE SLOPED TO NO STEEPER THAN 1:1. THE SURFACE OF THE FOUNDATION AREA WILL BE THOROUGHLY SCARIFIED BEFORE PLACEMENT OF THE EMBANKMENT MATERIAL.

C. EMBANKMENT -THE FILL MATERIAL SHALL BE FREE OF ALL SOD, ROOTS, FROZEN SOIL, STONES OVER 6 IN. IN DIAMETER, AND OTHER OBJECTIONABLE MATERIAL. THE PLACING AND SPREADING OF THE FILL MATERIAL SHALL BE STARTED AT THE LOWEST POINT OF THE FOUNDATION AND THE FILL SHALL BE BROUGHT UP IN APPROXIMATELY 6 IN. HORIZONTAL LAYERS OR OF SUCH THICKNESS THAT THE REQUIRED COMPACTION CAN BE OBTAINED WITH THE EQUIPMENT USED. CONSTRUCTION EQUIPMENT SHALL BE OPERATED OVER EACH LAYER IN A WAY THAT WILL RESULT IN THE REQUIRED COMPACTION. SPECIAL EQUIPMENT SHALL BE USED WHEN THE REQUIRED COMPACTION CANNOT BE OBTAINED WITHOUT IT. THE MOISTURE CONTENT OF FILL MATERIAL SHALL BE SUCH THAT THE REQUIRED DEGREE OF COMPACTION CAN BE OBTAINED WITH THE EQUIPMENT USED. THE EMBANKMENTS OF THE SEDIMENT BASIN AND THE AREAS THAT LIE DOWNSTREAM OF THE POND MUST BE STABILIZED.

D. PIPE SPILLWAY -THE PIPE CONDUIT BARREL SHALL BE PLACED ON A FIRM FOUNDATION TO THE LINES AND GRADES SHOWN ON THE PLANS. CONNECTIONS BETWEEN THE RISER AND BARREL, THE ANTI-SEEP COLLARS AND BARREL AND ALL PIPE JOINTS SHALL BE WATERTIGHT. SELECTED BACKFILL MATERIAL SHALL BE PLACED AROUND THE CONDUIT IN LAYERS AND EACH LAYER SHALL BE COMPACTED TO AT LEAST THE SAME DENSITY AS THE ADJACENT EMBANKMENT. ALL COMPACTION WITHIN 2 FT. OF THE PIPE SPILLWAY WILL BE ACCOMPLISHED WITH HAND-OPERATED TAMPING EQUIPMENT.

E. RISER PIPE BASE -THE RISER PIPE SHALL BE SET A MINIMUM OF 6 IN. IN THE CONCRETE BASE.

F. TRASH RACKS -THE TOP OF THE RISER SHALL BE FITTED WITH TRASH RACKS FIRMLY FASTENED TO THE RISER PIPE.

G. SEED AND MULCH -THE SEDIMENT BASIN SHALL BE STABILIZED IMMEDIATELY FOLLOWING ITS CONSTRUCTION. IN NO CASE SHALL THE EMBANKMENT OR EMERGENCY SPILLWAY REMAIN BARE FOR MORE THAN 7 DAYS.

H. SEDIMENT CLEANOUT - ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT STORAGE ZONE ONCE IT EXCEEDS 50 PERCENT OF THE MINIMUM REQUIRED SEDIMENT STORAGE DESIGN CAPACITY AND PRIOR TO THE CONVERSION TO THE POST-CONSTRUCTION PRACTICE UNLESS SUITABLE STORAGE IS DEMONSTRATED BASED UPON OVER-DESIGN. THIS ELEVATION SHALL BE MARKED ON A CLEANOUT STAKE NEAR THE CENTER OF THE BASIN. SEDIMENT REMOVED FROM THE BASIN SHALL BE PLACED SO THAT IT WILL NOT ERODE.

I. FINAL REMOVAL - SEDIMENT BASINS SHALL BE REMOVED AFTER THE UPSTREAM DRAINAGE AREA IS STABILIZED OR AS INDICATED IN THE PLANS. DEWATERING AND REMOVAL SHALL NOT CAUSE SEDIMENT TO BE DISCHARGED. THE SEDIMENT BASIN SITE AND SEDIMENT REMOVED FROM THE BASIN SHALL BE STABILIZED.

OPERATIONS AND MAINTENANCE

SEDIMENT BASINS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT.
NECESSARY ACTIVITIES ARE SHOWN AS FOLLOWS:

A. ESTABLISH VEGETATIVE COVER AND FERTILIZE AS NECESSARY TO MAINTAIN A VIGOROUS COVER IN AND AROUND THE SEDIMENT BASIN.

B. REMOVE UNDESIRABLE VEGETATION PERIODICALLY TO PREVENT GROWTH OF TREES AND SHRUBS ON THE EMBANKMENT AND SPILLWAY AREAS.

C. PROMPTLY REPAIR ERODED AREAS. REESTABLISH VEGETATIVE COVER IMMEDIATELY WHERE SCOUR EROSION HAS REMOVED ESTABLISHED SEEDING.

D. PROMPTLY REMOVE ANY BURROWING RODENTS THAT MAY INVADE AREAS OF THE EMBANKMENT.

E. REMOVE TRASH AND DEBRIS THAT MAY BLOCK SPILLWAYS AND ACCUMULATE IN THE POND.

F. CHECK SPILLWAY OUTLETS AND POINTS OF INFLOW TO ENSURE DRAINAGE IS NOT CAUSING EROSION AND THAT OUTLETS ARE NOT CLOGGED. REPLACE DISPLACED RIPRAP IMMEDIATELY.

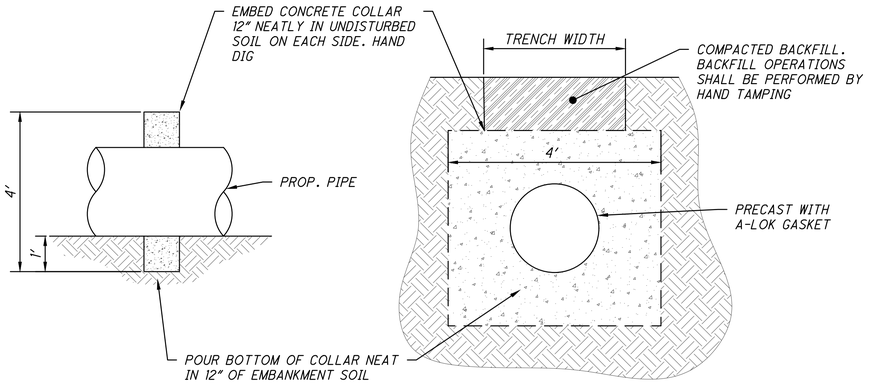
ROCK PAD NOTE

IT IS VERY IMPORTANT THAT A ROCK PAD BE CONSTRUCTED TO THE HEIGHT OF THE TOP OF THE SEDIMENT STORAGE ZONE. IF THIS IS NOT DONE OR IF THE PAD IS NOT BUILT TO THE SAME HEIGHT AS THE TOP OF THE SEDIMENT STORAGE ZONE, THE SKIMMER WILL NOT FUNCTION PROPERLY .

WHEN COMPLETE THE IAS FLEXIBLE COUPLING SHOULD BE LYING FLAT ON THE ROCK PAD. THE UNIT WILL BE TOUCHING AT TWO POINTS: THE TOP OF THE BARREL/MIDDLE OF THE SKIMMER HEAD AND THE POINT AT WHICH THE BARREL IS ATTACHED TO THE IAS FLEXIBLE COUPLING. SEE MANUFACTURER'S ASSEMBLY INSTRUCTIONS.

SEDIMENT BASIN CALCULATIONS

REQUIRED SEDIMENT STORAGE VOLUME = 37 C.Y./ACRE * 21.75 ACRES = 805 C.Y.
TOP OF SEDIMENT STORAGE ZONE ELEVATION = 959.00 (4,586 C.Y.). SET CLEANOUT STAKE AT THIS ELEVATION.
REQUIRED DEWATERING ZONE VOLUME = 67 C.Y./ACRE * 20.43 ACRES = 1,368 C.Y.
DEWATERING ZONE VOLUME (BETWEEN 959.00 AND 961.00) = 5,233 C.Y.
TOTAL BASIN VOLUME REQUIRED TO TOP OF DEWATERING ZONE = 805 C.Y. + 1,368 C.Y. = 2,173 C.Y.
TOP OF DEWATERING ZONE ELEVATION = 961.00 (9,819 C.Y.)
TOTAL SEDIMENT BASIN VOLUME PROVIDED TO ELEV. 962.00 = 12,685 C.Y.
RISER AND BARREL: PROPOSED 18" DETENTION OUTLET AND 2-3 CB ARE TO BE USED AS OUTLET FOR SEDIMENT BASIN.
EMERGENCY SPILLWAY: EMERGENCY SPILLWAY TO BE TRAPEZOIDAL WITH A BOTTOM WIDTH OF 80'.
DEWATERING TIME : 3.61 DAYS
1,368 C.Y. * 27 = 36,936 C.F. VOLUME TO BE DEWATERED
USING A FAIRCLOTH/IAS WATER QUALITY SKIMMER WITH A 3" SKIMMER SIZE, IT DISCHARGES 10,205 CF PER 24 HOURS THEREFORE IT WILL TAKE 3.61 DAYS TO DEWATER THIS SEDIMENT BASIN.



ANTI-SEEP COLLAR

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
SWPPP - EROSION CONTROL NOTES AND DETAILS

REVISIONS:

FILE NAME: SWPPP NOTES 3
DRAWN BY: SJG
CHECKED BY: NNS
PROJECT No.: MIAPIQ2502
DATE: 04-10-2026
SHEET NUMBER: 4 OF 5

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ2502_SWPPP.dwg 10-Apr-26 11:09 AM

DEERCREST WAY (50' R/W)

LAMBERT DRIVE (60' R/W)

STAG HALLOW COURT (50' R/W)

INLOT 1 | INLOT 2 | INLOT 3 | INLOT 4 | INLOT 5 | INLOT 6 | INLOT 7 | INLOT 8 | INLOT 9 | INLOT 10 | INLOT 11 | INLOT 12 | INLOT 13 | INLOT 14 | INLOT 15 | INLOT 16 | INLOT 17 | INLOT 18 | INLOT 19 | INLOT 20 | INLOT 21 | INLOT 22 | INLOT 23 | INLOT 24 | INLOT 25 | INLOT 26 | INLOT 27 | INLOT 28 | INLOT 29 | INLOT 30 | INLOT 31 | INLOT 32 | INLOT 33 | INLOT 34 | INLOT 35 | INLOT 36 | INLOT 37 | INLOT 38 | INLOT 39 | INLOT 40 | INLOT 41 | INLOT 42 | INLOT 43 | INLOT 44 | INLOT 45 | INLOT 46 | INLOT 47 | INLOT 48 | INLOT 49 | INLOT 50 | INLOT 51 | INLOT 52 | INLOT 53 | INLOT 54 | INLOT 55 | INLOT 56 | INLOT 57 | INLOT 58 | INLOT 59 | INLOT 60 | INLOT 61 | INLOT 62 | INLOT 63 | INLOT 64 | INLOT 65 | INLOT 66 | INLOT 67 | INLOT 68 | INLOT 69 | INLOT 70 | INLOT 71 | INLOT 72 | INLOT 73 | INLOT 74 | INLOT 75

SWALE

PROP. FILTER FABRIC FENCE (TYP.)

PROP. STAGING AND STORAGE AREA

PROP. CONSTRUCTION ENTRANCE

PROP. INLET PROTECTION (TYP.)

RETENTION BASIN NO. 1
100 YR=960.20
NORMAL POOL=957.00
BOTTOM=951.00

65' SPILLWAY=961.40
EMERGENCY SPILLWAY
80'X10' FLEXMAT
EROSION PROTECTION
OR APPROVED EQUAL

10'XS' ROCK CHANNEL PROTECTION, TYPE C, 18" THICK (TYP)

TOP OF BERM= 962.00

PROP. SEDIMENT BASIN
TOP 962.00
BOTTOM 957.00
A CLEANOUT STAKE SHOULD BE PLACED NEAR THE CENTER OF THE BASIN SO THAT THE TOP OF THE STAKE'S ELEVATION IS AT 959.00. ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE BASIN WHENEVER IT REACHES 50% OF THE TOP ELEVATION OF THE CLEANOUT STAKE.
PROP. 2-2B CB WITH TOP AT 961.00. 18" OUTLET PIPE INV. 957.00. INSTALL 3.00" IAS WATER QUALITY SKIMMER IN SEDIMENT BASIN PER MANUFACTURER'S REQUIREMENTS. CONNECT TO RISER AT ELEVATION 959.00. CONNECT TO 8"X18" ORIFICE OPENING.
FINAL 18" OUTLET PIPE AND 2-2B CB ARE TO BE USED AS THE OUTLET FOR THE SEDIMENT BASIN. THE SKIMMER SHALL BE CONNECTED TO THE CB AT INV 959.00. SKIMMER TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED AND SITE IS STABILIZED.

N44-077928
INLOT 8308
SCOTT M. & GAIL A. BREISCH (LE)
KARI A. MAGILL, MELISSA A. BOYER,
AND MATTHEW S. BREISCH (RM)
20230R-02119

N44-077926
INLOT 8307
KENNETH W. &
JEAN A. HEATH
DB T42-574

N44-077922
INLOT 8305
DANIEL L. &
KAMI J. WHITE
20230R-08908

N44-077518
INLOT 9063
CRAYCON HOMES, LLC.
DB 670-511
22.724 ACRES (DEED)
21.465 ACRES REMAINING

N44-077910
INLOT 8299

N44-078576
INLOT 8747
MARK A. &
INDA E. JOHNSON
DB 763-652
20230R-14043 TOD

N44-078580
INLOT 8749
W. JR) &
A. CAMBILL
55-336

N44-078582
INLOT 8750
MATTHEW E. &
CHELSEA R. REEDY
20210R-08992

N44-078584
INLOT 8751
JEFFERY W. &
LINDA B. PRICE
DB T52-538

N44-077840
INLOT 8262
DEERFIELD HOMEOWNERS
ASSOCIATION, INC.
20170R-00283

N44-077838
INLOT 8261
VESTA JANE RUDD
20200R-02921

N44-077794
INLOT 8239
MARK E. &
MICHELE K. RUNGE
DB 691-330

DEERFIELD SUBDIVISION SECTION 9B
PLAT BOOK 20 PAGE 62

DEERFIELD SUBDIVISION SECTION 8
PLAT BOOK 18 PAGE 60

EX. CB #28
TOP 964.13
18" SW INV 960.05
30" NE INV 959.73

SEE INSET "A"

INSET "A"

LEGEND

- 830 — EXISTING CONTOURS
- 830 — PROPOSED CONTOURS
- PROPOSED STORM SEWER
- PROPOSED CONSTRUCTION LIMITS
- F — PROPOSED FILTER FABRIC FENCE MEASURE
- PROPOSED INLET PROTECTION
- PROPOSED DITCH CHECK/ROCK CHECK DAM
- PROPOSED CONSTRUCTION ENTRANCE

THIS AREA IS TO BE USED FOR VEHICLE FUELING AND MAINTENANCE. AN ABOVE GROUND STORAGE TANK OF LESS THAN 500 GALLONS WILL BE USED AS THE FUEL SOURCE. THIS AREA WILL ALSO BE USED FOR RECEIVING CONCRETE CHUTE AND OTHER CONCRETE WASH WATERS. THIS SHALL NOT occur ON STREET SUBGRADE OR BASE.

WATER QUALITY AND POST CONSTRUCTION STORM WATER MANAGEMENT AND TREATMENT:

THE FIRST 0.90" OF STORMWATER RUNOFF FOR THE SITE WILL BE CONTROLLED VIA FILTRATION (AND SOME INFILTRATION) BY THE GRASSED AREAS IN AND AROUND THE PROPOSED IMPERVIOUS AREAS, GRASSED SWALES, AND GRASSED BOTTOM OF THE DETENTION BASIN. ADDITIONAL POLLUTANTS WILL ALSO SETTLE OUT OVER TIME IN THE DETENTION BASIN. THE ON-SITE DETENTION BASIN HAS BEEN DESIGNED TO TREAT THE WATER QUALITY VOLUME (WQv) USING A REDUCED SIZED ORIFICE FOR AN OUTLET AS FOLLOWS:
-RELEASE THE RUNOFF FROM A 0.90" RAIN EVENT ON THE SITE DRAINAGE AREA OVER 48 HOURS OR LONGER AND
-THE FIRST HALF OF THE TOTAL VOLUME GENERATED BY THE RUNOFF FROM A 0.90" RAIN EVENT IS RETAINED FOR GREATER THAN 16 HOURS.

POST-CONSTRUCTION STORM WATER MANAGEMENT WATER QUALITY VOLUME FOR DEVELOPMENT USING 0.90 INCHES OF RAIN:
DETENTION BASIN:
WQv=0.59*0.90*22.74/12=43,832 CU FT
59,764 CU FT PROVIDED TO ELEV. 958.00
THE DETENTION BASIN HAS AN OUTLET WITH A 6.50" DIA. ORIFICE THAT RELEASES APPROX. 33% OF THE WQv AT 8 HOURS AND APPROX. 99% AT 24 HOURS

SEE SEPARATE STORMWATER CALCS. FOR ADDITIONAL DETAILS IF NEEDED

SCALE IN FEET
0 25' 50' 100'

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
SWPPP

REVISIONS:

FILE NAME	SWPPP
DRAWN BY	SJG
CHECKED BY	NNS
PROJECT No.	MIAPIQ2502
DATE	04-10-2026
SHEET NUMBER	5 OF 5

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ2502_SWPPP.dwg 10-Apr-26 11:10 AM

City of Piqua, Miami County

Whitetail Bend Subdivision
Storm Water Detention Calculations

March 20, 2026

Site Description:
Site is an existing open row crop field with some woods that currently has no onsite detention to control the storm water runoff. The proposed site will increase the impervious area and require stormwater basins on site to control the runoff. This basin will be sized to control the existing and additional runoff that will be produced by the increased impervious area and will serve as water quality measures.

Hydrologic Methodologies:
The hydrologic methodology used for this design was the Soil Conservation Service (SCS) TR-55 Method, which was computed via the Bentley PondPack program.

Existing Hydrologic Conditions:
The storm water on the existing site moves via overland flow through row crop farm field from west to east where it enters an existing catch basin on Eagles Lake Drive.

Developed Hydrologic Conditions:
The proposed site will move the rain water via proposed swales and storm sewer. Once the storm water has entered the storm sewer it will then be carried to the proposed stormwater basins.

Storm Water Management Plan:
The proposed site will move the runoff through the site by having the proposed pavement and ground sloped towards proposed swales and catch basins. Once the water enters the storm structures, it will then travel through proposed storm sewer to the retention basin.

Applicable Permits:
The Ohio Environmental Protection Agency, Notice of Intent.

Calculation Sheets:
Below is a summary of the storm water detention calculations. Please see the attached computer printouts for additional details.

Hydrologic Soil Group C/D was used for these calculations based upon soil in the surrounding area. A soil map from the USDA's Web Soil Survey website was utilized to determine this Soil Group.

Proposed Retention Basin

- Time of Concentration (Tc)
  - Pre-developed drainage area = 45 minutes (0.75 hrs)
  - Post-developed & Direct Release drainage area = 20 minutes (0.333 hrs)
- CN Number
  - Pre-developed = 80 – see page 7 of 28 of computer calculations
  - Post-developed = 90.52 – see page 6 of 28 of computer calculations
  - Direct Releaser = 88 – see page 5 of 28 of computer calculations
- Pre & Post-Drainage Area = 20.401 acres
- Direct Release Area = 2.34 acres

Pre-developed Hydrograph Volume		Post-developed + Direct Release Hydrograph Volume	
Storm	Peak Volume	Storm	Peak Volume
1 year	1.554 ac-ft	1 year	2.837 ac-ft
2 year	2.088 ac-ft	2 year	3.527 ac-ft
5 year	3.100 ac-ft	5 year	4.764 ac-ft
10 year	3868 ac-ft	10 year	5.664 ac-ft
25 year	4.664 ac-ft	25 year	6.573 ac-ft
50 year	5.481 ac-ft	50 year	7.488 ac-ft
100 year	6.147 ac-ft	100 year	8.224 ac-ft

- Critical Storm Calculation using Hydrograph Volumes. Volume provides a 5-year critical storm. On page 2 of the Pond Pack calculations it shows the Hydrograph volumes. The calculation would be as follows: ((2.837-1.554)/1.554) = = 82.5%. Therefore a 10-year critical storm shall be used.
- Storm Requirements = Control runoff from a 1, 2, 5 and 10-year storm on the post developed site to the runoff from a 1-year storm on the pre developed site. Then control the runoff from the 25, 50 and 100-year storm on the post-developed site to the runoff from their respective storms for the pre-developed site.
- Retention Volume provided to an elevation of 962.00 = 7.863 acre-feet – see page 8 of 28

Proposed Detention Basin Summary:

STORM	PEAK INFLOW	PEAK OUTFLOW	STORAGE	PEAK BASIN ELEVATION
1 YEAR	33.01 cfs	0.96 cfs	1.808 ac-ft	958.30
2 YEAR	40.69 cfs	1.13 cfs	2.280 ac-ft	958.63
5 YEAR	54.19 cfs	1.91 cfs	3.427 ac-ft	959.13
10 YEAR	63.82 cfs	3.13 cfs	3.427 ac-ft	959.38
25 YEAR	73.42 cfs	4.30 cfs	3.868 ac-ft	959.66
50 YEAR	83.00 cfs	5.40 cfs	4.348 ac-ft	959.96
100 YEAR	90.63 cfs	6.09 cfs	4.748 ac-ft	960.20

STORM	DIRECT RELEASE	TOTAL FLOW	ALLOWABLE FLOW
1 YEAR	3.20 cfs	4.16 cfs	11.34 cfs
2 YEAR	4.04 cfs	5.17 cfs	11.34 cfs
5 YEAR	5.55 cfs	7.46 cfs	11.34 cfs
10 YEAR	6.64 cfs	9.77 cfs	11.34 cfs
25 YEAR	7.73 cfs	12.03 cfs	36.56 cfs
50 YEAR	8.82 cfs	14.22 cfs	43.12 cfs
100 YEAR	9.69 cfs	15.78 cfs	48.44 cfs

NOTE: The post developed release rates for the 1 through 10-year storms are less than the 1-year pre-developed release rates. This meets the critical storm method requirements.

Water Quality Calculations per OEPA Requirements

Below is a summary of the storm water runoff water quality calculations that are needed to meet the OEPA water quality requirements for the development.

- Retention Pond:
  - Release the runoff from a 0.90" rain event on the drainage area over 24 hours or longer.
  - The first half of the total volume generated by the runoff from a 0.90" rain event must be detained for greater than 8 hours.

Water Quality Volume Calculations – Pond A

- Post-Construction storm water management water quality volume for development using 0.90 inches of rain:
  - WQ_v= 0.59*0.90*22.74/12=1.0062 AC-FT
  - 1.372 AC-FT Provided to elev. 958.00. Therefore 1.372>1.0062 and water quality volume is detained.

Water Quality Release Rate Calculations – Pond A

Detention Outlet Structure consists of:

- A 6.50" diameter orifice at invert 957.0 would be required to hold back the water quality runoff from the site.
- Per the draw down calculation we satisfy the requirement of not releasing more than 50% before 8 hours and not more than 100% by 24 hours. Per the calculations the pond releases about 32% at 8 hours and about 98% at 24 hours.

WATER QUALITY CALCULATIONS

Project: Whitetail Bend Subdivision Prop. WQv Calculations — Job No:
Location: Piqua, Miami County — Date: 03/19/2026

OEPA REQUIREMENTS :
1) Release the runoff from a 0.90" rain event on the drainage area over 24 hours or longer
2) The first half of the total volume generated by the runoff from a 0.90" rain event must be detained for greater than 8 hours

WQv VOLUME CALCULATIONS USING 0.9" OF RAIN - WQv = Rv*P(0.90 inches)*A(acres)/12

Precipitation (Inches)	**0.9**		
Area (Acres)	**22.74**	←	
Impervious %	**60%**	←	
Rv	**0.59**		
WQv (CF)	**43,832.03**	**1.0062**	**AC-FT**

WQv = 0.59*0.9*22.72/12 = 1.0062 AC-FT = 43,832 CF
DETENTION BASIN HOLDS 59,764 CF AT ELEV. OF 958.00. 59,764 CF > 43,832 CF THEREFORE WQv SATISFIED. THEREFORE MUST RELEASE WQv THRU PROPERLY SIZED ORIFICE UNTIL 958.00 TO ENSURE WQv IS PROPERLY DETAINED AND RELEASED.

WQv DRAW DOWN CALCULATIONS

INSTALL 6.5" ORIFICE IN FACE OF CATCH BASIN AT INV. ELEVATIONS 957.00 TO RELEASE WQv AT REQUIRED RATE
SET INV. OF NEXT ORIFICE ELEV. AT OR ABOVE 958.00.

Per the OEPA Method 1 Maximum Hydraulic Head WQv orifice draw down calculations below, we satisfy the requirement of not releasing more than 50% before 8 hours and not more than 100% by 24 hours for a wet detention basin. Per the calculations a 6.57" orifice or smaller will adequately detain the WQv longer than the required 24 hours timeframe.

SITE DETENTION BASIN

Basin Invert:.....	957.00	ft.
Orifice Opening…..	6.50	In.
Orifice Coefficient…	0.60	
Maximum Head…	0.8	ft.
Discharge Rate	0.496	cfs
Discharge Volume	893.15	cu. ft. per 30 minutes

Time (hour)	Time (min)	Starting Volume (CF)	Total Discharged Volume (CF)	Percentage Volume Discharged (%)
0.0	0	43,832.03	0	0.00%
0.5	30		893.15	2.04%
1.0	60		1,786.29	4.08%
1.5	90		2,679.44	6.11%
2.0	120		3,572.59	8.15%
2.5	150		4,465.74	10.19%
3.0	180		5,358.88	12.23%
3.5	210		6,252.03	14.26%
4.0	240		7,145.18	16.30%
4.5	270		8,038.32	18.34%
5.0	300		8,931.47	20.38%
5.5	330		9,824.62	22.41%
6.0	360		10,717.76	24.45%
6.5	390		11,610.91	26.49%
7.0	420		12,504.06	28.53%
7.5	450		13,397.21	30.56%
8.0	480		14,290.35	32.60%
8.5	510		15,183.50	34.64%
9.0	540		16,076.65	36.68%
9.5	570		16,969.79	38.72%
10.0	600		17,862.94	40.75%
10.5	630		18,756.09	42.79%
11.0	660		19,649.24	44.83%
11.5	690		20,542.38	46.87%
12.0	720		21,435.53	48.90%
12.5	750		22,328.68	50.94%
13.0	780		23,221.82	52.98%
13.5	810		24,114.97	55.02%
14.0	840		25,008.12	57.05%
14.5	870		25,901.27	59.09%
15.0	900		26,794.41	61.13%
15.5	930		27,687.56	63.17%
16.0	960		28,580.71	65.21%
16.5	990		29,473.85	67.24%

17.0	1020	30,367.00	69.28%
17.5	1050	31,260.15	71.32%
18.0	1080	32,153.29	73.36%
18.5	1110	33,046.44	75.39%
19.0	1140	33,939.59	77.43%
19.5	1170	34,832.74	79.47%
20.0	1200	35,725.88	81.51%
20.5	1230	36,619.03	83.54%
21.0	1260	37,512.18	85.58%
21.5	1290	38,405.32	87.62%
22.0	1320	39,298.47	89.66%
22.5	1350	40,191.62	91.69%
23.0	1380	41,084.77	93.73%
23.5	1410	41,977.91	95.77%
24.0	1440	42,871.06	97.81%
24.5	1470	43,764.21	99.85%
25.0	1500	44,657.35	101.88%
25.5	1530	45,550.50	103.92%
26.0	1560	46,443.65	105.96%
26.5	1590	47,336.80	108.00%
27.0	1620	48,229.94	110.03%
27.5	1650	49,123.09	112.07%
28.0	1680	50,016.24	114.11%
28.5	1710	50,909.38	116.15%
29.0	1740	51,802.53	118.18%
29.5	1770	52,695.68	120.22%
30.0	1800	53,588.82	122.26%
30.5	1830	54,481.97	124.30%
31.0	1860	55,375.12	126.33%
31.5	1890	56,268.27	128.37%
32.0	1920	57,161.41	130.41%
32.5	1950	58,054.56	132.45%
33.0	1980	58,947.71	134.49%
33.5	2010	59,840.85	136.52%
34.0	2040	60,734.00	138.56%
34.5	2070	61,627.15	140.60%
35.0	2100	62,520.30	142.64%
35.5	2130	63,413.44	144.67%
36.0	2160	64,306.59	146.71%
36.5	2190	65,199.74	148.75%
37.0	2220	66,092.88	150.79%
37.5	2250	66,986.03	152.82%
38.0	2280	67,879.18	154.86%
38.5	2310	68,772.32	156.90%
39.0	2340	69,665.47	158.94%
39.5	2370	70,558.62	160.98%
40.0	2400	71,451.77	163.01%
40.5	2430	72,344.91	165.05%
41.0	2460	73,238.06	167.09%
41.5	2490	74,131.21	169.13%
42.0	2520	75,024.35	171.16%
42.5	2550	75,917.50	173.20%
43.0	2580	76,810.65	175.24%
43.5	2610	77,703.80	177.28%
44.0	2640	78,596.94	179.31%
44.5	2670	79,490.09	181.35%
45.0	2700	80,383.24	183.39%
45.5	2730	81,276.38	185.43%
46.0	2760	82,169.53	187.46%
46.5	2790	83,062.68	189.50%
47.0	2820	83,955.83	191.54%
47.5	2850	84,848.97	193.58%
48.0	2880	85,742.12	195.62%
48.5	2910	86,635.27	197.65%
49.0	2940	87,528.41	199.69%
49.5	2970	88,421.56	201.73%
50.0	3000	89,314.71	203.77%
50.5	3030	90,207.85	205.80%
51.0	3060	91,101.00	207.84%
51.5	3090	91,994.15	209.88%
52.0	3120	92,887.30	211.92%
52.5	3150	93,780.44	213.95%
53.0	3180	94,673.59	215.99%
53.5	3210	95,566.74	218.03%
54.0	3240	96,459.88	220.07%
54.5	3270	97,353.03	222.10%
55.0	3300	98,246.18	224.14%
55.5	3330	99,139.33	226.18%
56.0	3360	100,032.47	228.22%

Whitetail Bend Subdivision

Project Summary	
Title	Whitetail Bend Subdivision
Engineer	MSK
Company	COEC
Date	3/19/2026

Notes

Table of Contents

	Master Network Summary	2
DIRECT RELEASE		
	Runoff CN-Area, 100 years (Miami County - , 100 yrs)	5
POST AREA		
	Runoff CN-Area, 100 years (Miami County - , 100 yrs)	6
PRE AREA		
	Runoff CN-Area, 100 years (Miami County - , 100 yrs)	7
BASIN		
	Elevation-Area Volume Curve, 100 years (Miami County - , 100 yrs)	8
	Volume Equations, 100 years (Miami County - , 100 yrs)	9
P4 Out		
	Outlet Input Data, 100 years (Miami County - , 100 yrs)	10
	Individual Outlet Curves, 100 years (Miami County - , 100 yrs)	14
	Composite Rating Curve, 100 years (Miami County - , 100 yrs)	19
BASIN (IN)		
	Level Pool Pond Routing Summary, 1 years (Miami County - , 1 yrs)	21
	Level Pool Pond Routing Summary, 2 years (Miami County - , 2 yrs)	22
	Level Pool Pond Routing Summary, 5 years (Miami County - , 5 yrs)	23
	Level Pool Pond Routing Summary, 10 years (Miami County - , 10 yrs)	24
	Level Pool Pond Routing Summary, 25 years (Miami County - , 25 yrs)	25
	Level Pool Pond Routing Summary, 50 years (Miami County - , 50 yrs)	26
	Level Pool Pond Routing Summary, 100 years (Miami County - , 100 yrs)	27

Whitetail Bend Subdivision

Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft^3/s)
POST AREA	Miami County - , 1 yrs	1	2.585	12.100	33.01
POST AREA	Miami County - , 2 yrs	2	3.208	12.100	40.69
POST AREA	Miami County - , 5 yrs	5	4.323	12.100	54.19
POST AREA	Miami County - , 10 yrs	10	5.133	12.100	63.82
POST AREA	Miami County - , 25 yrs	25	5.951	12.100	73.42
POST AREA	Miami County - , 50 yrs	50	6.774	12.100	83.00
POST AREA	Miami County - , 100 yrs	100	7.436	12.100	90.63
PRE AREA	Miami County - , 1 yrs	1	1.554	12.400	11.34
PRE AREA	Miami County - , 2 yrs	2	2.088	12.400	15.62
PRE AREA	Miami County - , 5 yrs	5	3.100	12.300	23.89
PRE AREA	Miami County - , 10 yrs	10	3.868	12.300	30.13
PRE AREA	Miami County - , 25 yrs	25	4.664	12.300	36.56
PRE AREA	Miami County - , 50 yrs	50	5.481	12.300	43.12
PRE AREA	Miami County - , 100 yrs	100	6.147	12.300	48.44
DIRECT RELEASE	Miami County - , 1 yrs	1	0.252	12.100	3.20
DIRECT RELEASE	Miami County - , 2 yrs	2	0.319	12.100	4.04
DIRECT RELEASE	Miami County - , 5 yrs	5	0.441	12.100	5.55
DIRECT RELEASE	Miami County - , 10 yrs	10	0.531	12.100	6.64
DIRECT RELEASE	Miami County - , 25 yrs	25	0.622	12.100	7.73
DIRECT RELEASE	Miami County - , 50 yrs	50	0.714	12.100	8.82
DIRECT RELEASE	Miami County - , 100 yrs	100	0.788	12.100	9.69

Node Summary

Whitetail Bend Subdivision

Subsection: Master Network Summary

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft³/s)
P4 Out	Miami County - , 1 yrs	1	1.864	12.100	3.71
P4 Out	Miami County - , 2 yrs	2	2.255	12.100	4.70
P4 Out	Miami County - , 5 yrs	5	3.022	12.100	6.43
P4 Out	Miami County - , 10 yrs	10	3.840	12.100	7.65
P4 Out	Miami County - , 25 yrs	25	4.692	12.100	8.86
P4 Out	Miami County - , 50 yrs	50	5.555	12.100	10.07
P4 Out	Miami County - , 100 yrs	100	6.249	12.150	11.62
PRE	Miami County - , 1 yrs	1	1.554	12.400	11.34
PRE	Miami County - , 2 yrs	2	2.088	12.400	15.62
PRE	Miami County - , 5 yrs	5	3.100	12.300	23.89
PRE	Miami County - , 10 yrs	10	3.868	12.300	30.13
PRE	Miami County - , 25 yrs	25	4.664	12.300	36.56
PRE	Miami County - , 50 yrs	50	5.481	12.300	43.12
PRE	Miami County - , 100 yrs	100	6.147	12.300	48.44

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft³/s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ac-ft)
BASIN (IN)	Miami County - , 1 yrs	1	2.585	12.100	33.01	(N/A)	(N/A)
BASIN (OUT)	Miami County - , 1 yrs	1	1.611	16.650	0.96	958.30	1.808
BASIN (IN)	Miami County - , 2 yrs	2	3.208	12.100	40.69	(N/A)	(N/A)
BASIN (OUT)	Miami County - , 2 yrs	2	1.936	16.850	1.13	958.63	2.280
BASIN (IN)	Miami County - , 5 yrs	5	4.323	12.100	54.19	(N/A)	(N/A)

Whitetail Bend Subdivision

Subsection: Master Network Summary

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft^3/s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ac-ft)
BASIN (OUT)	Miami County - , 5 yrs	5	2.580	15.500	1.91	959.13	3.036
BASIN (IN)	Miami County - , 10 yrs	10	5.133	12.100	63.82	(N/A)	(N/A)
BASIN (OUT)	Miami County - , 10 yrs	10	3.309	14.100	3.13	959.38	3.427
BASIN (IN)	Miami County - , 25 yrs	25	5.951	12.100	73.42	(N/A)	(N/A)
BASIN (OUT)	Miami County - , 25 yrs	25	4.071	13.700	4.30	959.66	3.868
BASIN (IN)	Miami County - , 50 yrs	50	6.774	12.100	83.00	(N/A)	(N/A)
BASIN (OUT)	Miami County - , 50 yrs	50	4.841	13.500	5.40	959.96	4.348
BASIN (IN)	Miami County - , 100 yrs	100	7.436	12.100	90.63	(N/A)	(N/A)
BASIN (OUT)	Miami County - , 100 yrs	100	5.461	13.400	6.09	960.20	4.748

Whitetail Bend Subdivision

Subsection: Runoff CN-Area
Label: DIRECT RELEASE
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft²)	C (%)	UC (%)	Adjusted CN
1/6 ACRE LOTS + GRASS	88.000	101,772.500	0.0	0.0	88.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	101,772.500	(N/A)	(N/A)	88.000

Whitetail Bend Subdivision

Subsection: Runoff CN-Area
Label: POST AREA
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft²)	C (%)	UC (%)	Adjusted CN
Impervious	98.000	57,640.000	0.0	0.0	98.000
1/6 Acre Lots	90.000	831,039.000	0.0	0.0	90.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	888,679.000	(N/A)	(N/A)	90.519

Whitetail Bend Subdivision

Subsection: Runoff CN-Area
Label: PRE AREA
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft²)	C (%)	UC (%)	Adjusted CN
Row crops - SR + Crop residue, good - Soil D	80.000	990,371.000	0.0	0.0	80.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	990,371.000	(N/A)	(N/A)	80.000

Whitetail Bend Subdivision

Subsection: Elevation-Area Volume Curve
Return Event: 100 years
Label: BASIN
Storm Event: TypeII 24hr (5.4 in)
Scenario: Miami County - , 100 yrs

Elevation (ft)	Planimeter (ft²)	Area (ft²)	A1+A2+sqr(A1*A2) (ft²)	Volume (ac-ft)	Volume (Total) (ac-ft)
957.00	0.0	57,639.590	0.000	0.000	0.000
958.00	0.0	61,921.900	179,303.878	1.372	1.372
959.00	0.0	66,260.800	192,237.322	1.471	2.843
960.00	0.0	70,656.400	205,340.512	1.571	4.414
961.00	0.0	75,108.300	218,613.050	1.673	6.087
962.00	0.0	79,616.900	232,054.949	1.776	7.863

Whitetail Bend Subdivision

Subsection: Volume Equations
Label: BASIN
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Pond Volume Equations

*** Incremental volume computed by the Conic Method for Reservoir Volumes.**

Volume = (1/3) * (EL2 - El1) * (Area1 + Area2 + sqr(Area1 * Area2))

where:	EL1, EL2	Lower and upper elevations of the increment
	Area1, Area2	Areas computed for EL1, EL2, respectively
	Volume	Incremental volume between EL1 and EL2

Whitetail Bend Subdivision

Subsection: Outlet Input Data
Label: P4 Out
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Requested Pond Water Surface Elevations	
Minimum (Headwater)	957.00 ft
Increment (Headwater)	0.50 ft
Maximum (Headwater)	962.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Area	Orifice - 2	Forward	Culvert - 1	959.00	962.00
Inlet Box	Riser - 1	Forward	Culvert - 1	960.50	962.00
Orifice-Circular	Orifice - 1	Forward	Culvert - 1	957.00	962.00
Culvert-Circular	Culvert - 1	Forward	TW	957.00	962.00
Rectangular Weir	Weir - 1	Forward	TW	961.40	962.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Whitetail Bend Subdivision

Subsection: Outlet Input Data
Label: P4 Out
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Structure ID: Riser - 1 Structure Type: Inlet Box	
Number of Openings	1
Elevation	960.50 ft
Orifice Area	2.7 ft²
Orifice Coefficient	0.600
Weir Length	9.20 ft
Weir Coefficient	3.00 (ft^0.5)/s
K Reverse	1.000
Manning's n	0.000
Kev, Charged Riser	0.000
Weir Submergence	False
Orifice H to crest	False

Structure ID: Orifice - 1 Structure Type: Orifice-Circular	
Number of Openings	1
Elevation	957.00 ft
Orifice Diameter	6.5 in
Orifice Coefficient	0.600

Whitetail Bend Subdivision

Subsection: Outlet Input Data
Label: P4 Out
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Structure ID: Culvert - 1 Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	18.0 in
Length	100.00 ft
Length (Computed Barrel)	100.00 ft
Slope (Computed)	0.003 ft/ft

Outlet Control Data	
Manning's n	0.013
Ke	0.200
Kb	0.018
Kr	0.000
Convergence Tolerance	0.00 ft

Inlet Control Data	
Equation Form	Form 1
K	0.0045
M	2.0000
C	0.0317
Y	0.6900
T1 ratio (HW/D)	1.094
T2 ratio (HW/D)	1.196
Slope Correction Factor	-0.500

Use unsubmerged inlet control 0 equation below T1 elevation.
Use submerged inlet control 0 equation above T2 elevation

In transition zone between unsubmerged and submerged inlet control,
interpolate between flows at T1 & T2...

T1 Elevation	958.64 ft	T1 Flow	7.58 ft³/s
T2 Elevation	958.79 ft	T2 Flow	8.66 ft³/s

Whitetail Bend Subdivision

Subsection: Outlet Input Data
Label: P4 Out
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Structure ID: Orifice - 2 Structure Type: Orifice-Area	
Number of Openings	1
Elevation	959.00 ft
Orifice Area	1.0 ft²
Top Elevation	959.50 ft
Datum Elevation	959.25 ft
Orifice Coefficient	0.600

Structure ID: Weir - 1 Structure Type: Rectangular Weir	
Number of Openings	1
Elevation	961.40 ft
Weir Length	65.00 ft
Weir Coefficient	3.00 (ft^0.5)/s

Structure ID: TW Structure Type: TW Setup, DS Channel	
Tailwater Type	Free Outfall

Convergence Tolerances	
Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01 ft
Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft
Headwater Tolerance (Maximum)	0.50 ft
Flow Tolerance (Minimum)	0.001 ft³/s
Flow Tolerance (Maximum)	10.000 ft³/s

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = ()

Upstream ID =
Downstream ID =

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
Contributing Structures			

Whitetail Bend Subdivision

Subsection: Individual Outlet Curves
Label: P4 Out
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = ()

Upstream ID =
Downstream ID =

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
Contributing Structures			

Whitetail Bend Subdivision

Subsection: Individual Outlet Curves
Label: P4 Out
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = ()

Upstream ID =
Downstream ID =

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
Contributing Structures			

Whitetail Bend Subdivision

Subsection: Individual Outlet Curves
Label: P4 Out
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = ()

Upstream ID =
Downstream ID =

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
Contributing Structures			

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = ()

Upstream ID =
Downstream ID =

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
Contributing Structures			

Whitetail Bend Subdivision

Subsection: Composite Rating Curve
Label: P4 Out
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft³/s)	Tailwater Elevation (ft)	Convergence Error (ft)
957.00	0.00	(N/A)	0.00
957.50	0.40	(N/A)	0.00
958.00	0.80	(N/A)	0.00
958.50	1.07	(N/A)	0.00
959.00	1.30	(N/A)	0.00
959.50	3.71	(N/A)	0.00
960.00	5.55	(N/A)	0.00
960.50	6.87	(N/A)	0.00
961.00	12.77	(N/A)	0.00
961.40	14.31	(N/A)	0.00
961.50	20.78	(N/A)	0.00
962.00	106.47	(N/A)	0.00

Contributing Structures
(no Q: Orifice - 2,Riser - 1,Orifice - 1,Culvert - 1,Weir - 1)
Orifice - 1,Culvert - 1 (no Q: Orifice - 2,Riser - 1,Weir - 1)
Orifice - 1,Culvert - 1 (no Q: Orifice - 2,Riser - 1,Weir - 1)
Orifice - 1,Culvert - 1 (no Q: Orifice - 2,Riser - 1,Weir - 1)
Orifice - 1,Culvert - 1 (no Q: Orifice - 2,Riser - 1,Weir - 1)
Orifice - 2,Orifice - 1,Culvert - 1 (no Q: Riser - 1,Weir - 1)
Orifice - 2,Orifice - 1,Culvert - 1 (no Q: Riser - 1,Weir - 1)
Orifice - 2,Orifice - 1,Culvert - 1 (no Q: Riser - 1,Weir - 1)
Orifice - 2,Riser - 1,Orifice - 1,Culvert - 1 (no Q: Weir - 1)
Orifice - 2,Riser - 1,Orifice - 1,Culvert - 1 (no Q: Weir - 1)

Whitetail Bend Subdivision

Subsection: Composite Rating Curve
Label: P4 Out
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Composite Outflow Summary

Contributing Structures
Orifice - 2,Riser - 1,Orifice - 1,Culvert - 1,Weir - 1
Riser - 1,Culvert - 1,Weir - 1 (no Q: Orifice - 2,Orifice - 1)

Whitetail Bend Subdivision

Subsection: Level Pool Pond Routing Summary
Label: BASIN (IN)
Scenario: Miami County - , 1 yrs

Return Event: 1 years
Storm Event: TypeII 24hr (2.4 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	957.00 ft
Volume (Initial)	0.000 ac-ft
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	33.01 ft³/s	Time to Peak (Flow, In)	12.100 hours
Flow (Peak Outlet)	0.96 ft³/s	Time to Peak (Flow, Outlet)	16.650 hours

Elevation (Water Surface, Peak)	958.30 ft
Volume (Peak)	1.808 ac-ft

Mass Balance (ac-ft)	
Volume (Initial)	0.000 ac-ft
Volume (Total Inflow)	2.585 ac-ft
Volume (Total Infiltration)	0.000 ac-ft
Volume (Total Outlet Outflow)	1.611 ac-ft
Volume (Retained)	0.969 ac-ft
Volume (Unrouted)	-0.005 ac-ft
Error (Mass Balance)	0.2 %

Whitetail Bend Subdivision

Subsection: Level Pool Pond Routing Summary
Label: BASIN (IN)
Scenario: Miami County - , 2 yrs

Return Event: 2 years
Storm Event: TypeII 24hr (2.8 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	957.00 ft
Volume (Initial)	0.000 ac-ft
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	40.69 ft³/s	Time to Peak (Flow, In)	12.100 hours
Flow (Peak Outlet)	1.13 ft³/s	Time to Peak (Flow, Outlet)	16.850 hours

Elevation (Water Surface, Peak)	958.63 ft
Volume (Peak)	2.280 ac-ft

Mass Balance (ac-ft)	
Volume (Initial)	0.000 ac-ft
Volume (Total Inflow)	3.208 ac-ft
Volume (Total Infiltration)	0.000 ac-ft
Volume (Total Outlet Outflow)	1.936 ac-ft
Volume (Retained)	1.267 ac-ft
Volume (Unrouted)	-0.005 ac-ft
Error (Mass Balance)	0.1 %

Whitetail Bend Subdivision

Subsection: Level Pool Pond Routing Summary
Label: BASIN (IN)
Scenario: Miami County - , 5 yrs

Return Event: 5 years
Storm Event: TypeII 24hr (3.5 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	957.00 ft
Volume (Initial)	0.000 ac-ft
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	54.19 ft³/s	Time to Peak (Flow, In)	12.100 hours
Flow (Peak Outlet)	1.91 ft³/s	Time to Peak (Flow, Outlet)	15.500 hours

Elevation (Water Surface, Peak)	959.13 ft
Volume (Peak)	3.036 ac-ft

Mass Balance (ac-ft)	
Volume (Initial)	0.000 ac-ft
Volume (Total Inflow)	4.323 ac-ft
Volume (Total Infiltration)	0.000 ac-ft
Volume (Total Outlet Outflow)	2.580 ac-ft
Volume (Retained)	1.735 ac-ft
Volume (Unrouted)	-0.007 ac-ft
Error (Mass Balance)	0.2 %

Whitetail Bend Subdivision

Subsection: Level Pool Pond Routing Summary
Label: BASIN (IN)
Scenario: Miami County - , 10 yrs

Return Event: 10 years
Storm Event: TypeII 24hr (4.0 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	957.00 ft
Volume (Initial)	0.000 ac-ft
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	63.82 ft³/s	Time to Peak (Flow, In)	12.100 hours
Flow (Peak Outlet)	3.13 ft³/s	Time to Peak (Flow, Outlet)	14.100 hours

Elevation (Water Surface, Peak)	959.38 ft
Volume (Peak)	3.427 ac-ft

Mass Balance (ac-ft)	
Volume (Initial)	0.000 ac-ft
Volume (Total Inflow)	5.133 ac-ft
Volume (Total Infiltration)	0.000 ac-ft
Volume (Total Outlet Outflow)	3.309 ac-ft
Volume (Retained)	1.817 ac-ft
Volume (Unrouted)	-0.007 ac-ft
Error (Mass Balance)	0.1 %

Whitetail Bend Subdivision

Subsection: Level Pool Pond Routing Summary
Label: BASIN (IN)
Scenario: Miami County - , 25 yrs

Return Event: 25 years
Storm Event: TypeII 24hr (4.5 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	957.00 ft
Volume (Initial)	0.000 ac-ft
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	73.42 ft³/s	Time to Peak (Flow, In)	12.100 hours
Flow (Peak Outlet)	4.30 ft³/s	Time to Peak (Flow, Outlet)	13.700 hours

Elevation (Water Surface, Peak)	959.66 ft
Volume (Peak)	3.868 ac-ft

Mass Balance (ac-ft)	
Volume (Initial)	0.000 ac-ft
Volume (Total Inflow)	5.951 ac-ft
Volume (Total Infiltration)	0.000 ac-ft
Volume (Total Outlet Outflow)	4.071 ac-ft
Volume (Retained)	1.873 ac-ft
Volume (Unrouted)	-0.007 ac-ft
Error (Mass Balance)	0.1 %

Whitetail Bend Subdivision

Subsection: Level Pool Pond Routing Summary
Label: BASIN (IN)
Scenario: Miami County - , 50 yrs

Return Event: 50 years
Storm Event: TypeII 24hr (5.0 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	957.00 ft
Volume (Initial)	0.000 ac-ft
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	83.00 ft³/s	Time to Peak (Flow, In)	12.100 hours
Flow (Peak Outlet)	5.40 ft³/s	Time to Peak (Flow, Outlet)	13.500 hours

Elevation (Water Surface, Peak)	959.96 ft
Volume (Peak)	4.348 ac-ft

Mass Balance (ac-ft)	
Volume (Initial)	0.000 ac-ft
Volume (Total Inflow)	6.774 ac-ft
Volume (Total Infiltration)	0.000 ac-ft
Volume (Total Outlet Outflow)	4.841 ac-ft
Volume (Retained)	1.927 ac-ft
Volume (Unrouted)	-0.006 ac-ft
Error (Mass Balance)	0.1 %

Whitetail Bend Subdivision

Subsection: Level Pool Pond Routing Summary
Label: BASIN (IN)
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	957.00 ft
Volume (Initial)	0.000 ac-ft
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	90.63 ft³/s	Time to Peak (Flow, In)	12.100 hours
Flow (Peak Outlet)	6.09 ft³/s	Time to Peak (Flow, Outlet)	13.400 hours

Elevation (Water Surface, Peak)	960.20 ft
Volume (Peak)	4.748 ac-ft

Mass Balance (ac-ft)	
Volume (Initial)	0.000 ac-ft
Volume (Total Inflow)	7.436 ac-ft
Volume (Total Infiltration)	0.000 ac-ft
Volume (Total Outlet Outflow)	5.461 ac-ft
Volume (Retained)	1.969 ac-ft
Volume (Unrouted)	-0.006 ac-ft
Error (Mass Balance)	0.1 %

Whitetail Bend Subdivision

Index

B

BASIN (Elevation-Area Volume Curve, 100 years (Miami County - , 100 yrs))...8

BASIN (IN) (Level Pool Pond Routing Summary, 1 years (Miami County - , 1 yrs))...21

BASIN (IN) (Level Pool Pond Routing Summary, 10 years (Miami County - , 10 yrs))...24

BASIN (IN) (Level Pool Pond Routing Summary, 100 years (Miami County - , 100 yrs))...27

BASIN (IN) (Level Pool Pond Routing Summary, 2 years (Miami County - , 2 yrs))...22

BASIN (IN) (Level Pool Pond Routing Summary, 25 years (Miami County - , 25 yrs))...25

BASIN (IN) (Level Pool Pond Routing Summary, 5 years (Miami County - , 5 yrs))...23

BASIN (IN) (Level Pool Pond Routing Summary, 50 years (Miami County - , 50 yrs))...26

BASIN (Volume Equations, 100 years (Miami County - , 100 yrs))...9

D

DIRECT RELEASE (Runoff CN-Area, 100 years (Miami County - , 100 yrs))...5

M

Master Network Summary...2, 3, 4

P

P4 Out (Composite Rating Curve, 100 years (Miami County - , 100 yrs))...19, 20

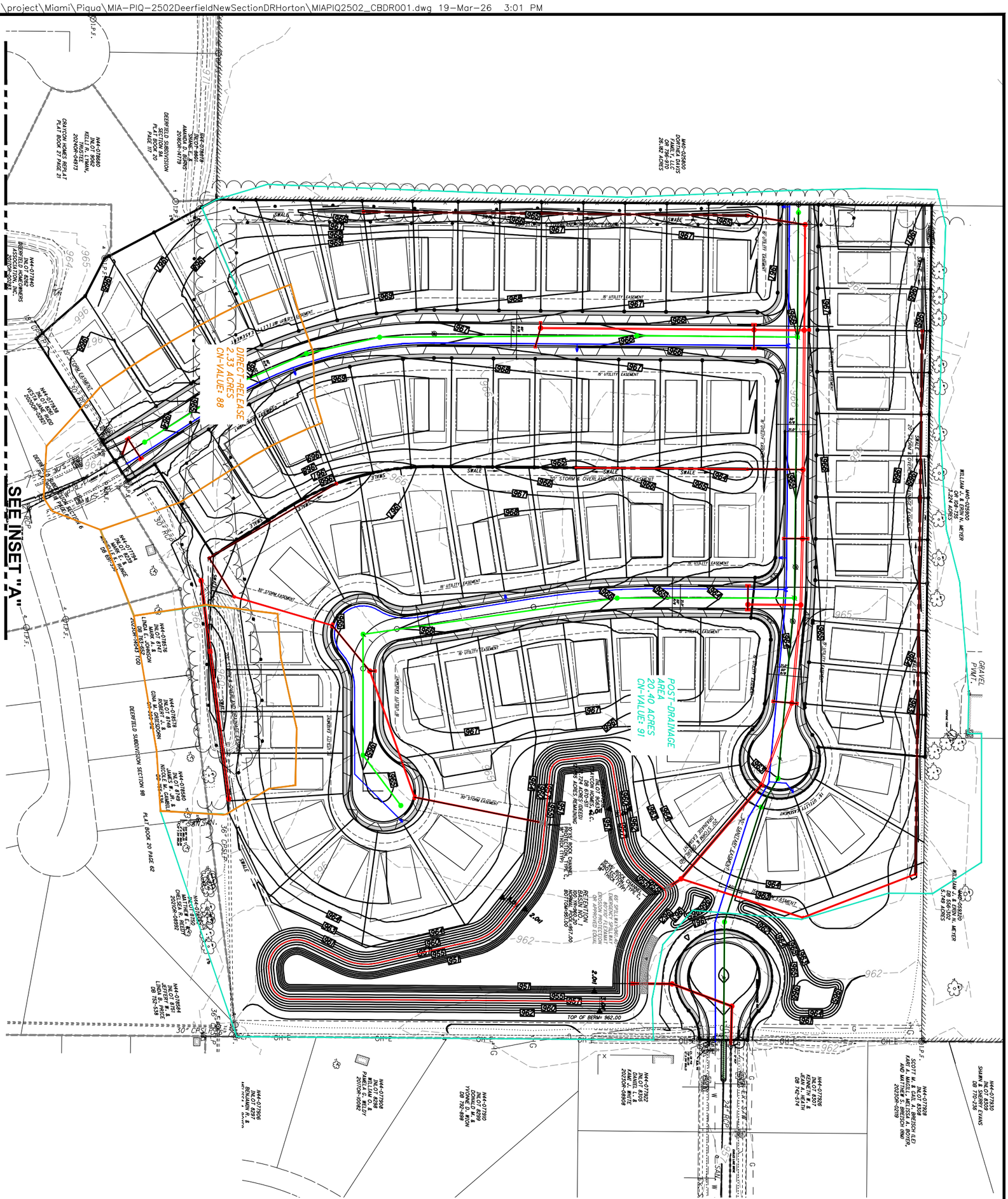
P4 Out (Individual Outlet Curves, 100 years (Miami County - , 100 yrs))...14, 15, 16, 17, 18

P4 Out (Outlet Input Data, 100 years (Miami County - , 100 yrs))...10, 11, 12, 13

POST AREA (Runoff CN-Area, 100 years (Miami County - , 100 yrs))...6

PRE AREA (Runoff CN-Area, 100 years (Miami County - , 100 yrs))...7

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHorton\MIAPIQ2502_CBDR001.dwg 19-Mar-26 3:01 PM

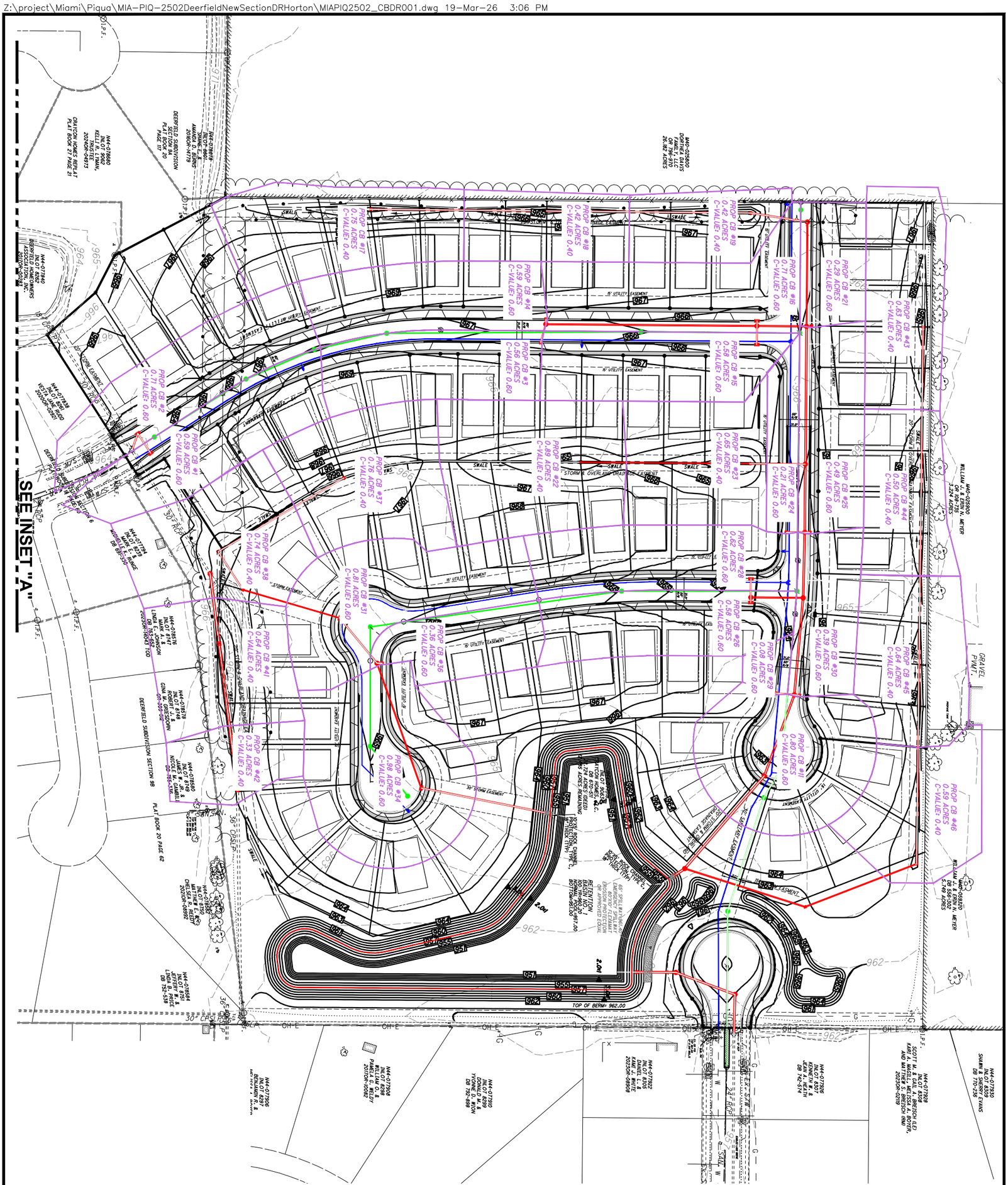


SHEET NUMBER	1 OF 1
DATE	03-20-2026
PROJECT No.	MIAPIQ2502
CHECKED BY	NNS
DRAWN BY	SJG
FILE NAME	CBDR0
REVISIONS:	

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
TOTAL DRAINAGE AREA

SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com
Choice One Engineering

Z:\project\Miami\Piqua\MIA-PIQ-2502DeerfieldNewSectionDRHortonWhitetail\MIAPIQ2502_CBDR001.dwg 19-Mar-26 3:06 PM



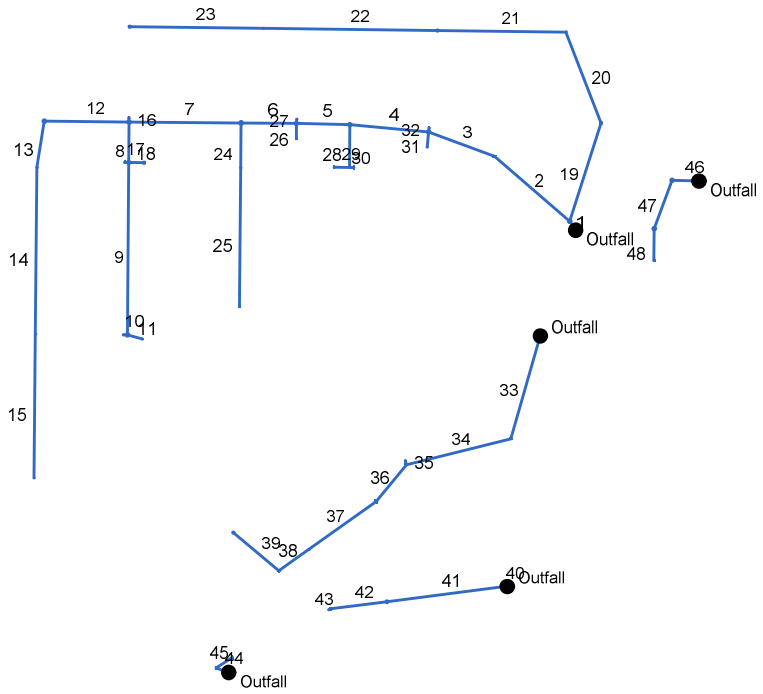
SHEET NUMBER	1 OF 1
DATE	03-20-2026
PROJECT No.	MIAPIQ2502
CHECKED BY	NNS
DRAWN BY	SJG
FILE NAME	CBDR0
REVISIONS:	

WHITETAIL BEND SUBDIVISION - SECTIONS 1 & 2
CITY OF PIQUA
CATCH BASIN DRAINAGE AREA

SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

Choice One Engineering

Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: MIAPIQ2502.stm	Number of lines: 48	Date: 3/19/2026

COEC RPT2

25yr Calculations

Line No.	Inlet ID	Drng Area (ac)	Total Area (ac)	Runoff Coeff (C)	Total CxA	Inlet Time (min)	Tc (min)	Flow Rate (cfs)	Capac Full (cfs)	Line Size (in)	Line Slope (%)	Invert Up (ft)	Invert Dn (ft)	HGL Up (ft)	HGL Dn (ft)	Gnd/Rim El Up (ft)	Gnd/Rim El Dn (ft)	Cover Up (ft)	Cover Dn (ft)	Vel Ave (ft/s)	
1	#12	0.00	11.39	0.00	5.74	0.0	29.0	19.71	31.11	30	0.49	957.08	957.00	959.69	959.66	962.30	959.65	2.72	0.15	4.02	
2	#11	0.80	9.03	0.60	4.79	10.0	28.3	16.72	19.93	30	0.20	957.39	957.08	960.12	959.90	962.97	962.30	3.08	2.72	3.41	
3	#10	0.00	8.23	0.00	4.31	0.0	27.9	15.16	19.02	24	0.60	958.29	957.64	960.64	960.22	963.51	962.97	3.22	3.33	4.82	
4	#9	0.00	7.76	0.00	4.03	0.0	27.5	14.29	18.11	24	0.55	958.97	958.29	961.42	961.00	964.12	963.51	3.16	3.22	4.55	
5	#8	0.00	6.56	0.00	3.31	0.0	27.2	11.83	14.53	24	0.35	959.26	958.97	961.93	961.74	964.53	964.12	3.28	3.16	3.77	
6	#7	0.00	5.86	0.00	2.89	0.0	26.7	10.42	12.22	24	0.25	959.47	959.26	962.31	962.15	964.96	964.53	3.49	3.28	3.32	
7	#6	0.00	4.32	0.00	2.27	0.0	25.7	8.39	12.26	24	0.25	959.90	959.47	962.68	962.48	965.83	964.96	3.93	3.49	2.67	
8	#5	0.00	2.44	0.00	1.46	0.0	11.5	7.99	11.39	18	1.00	961.26	960.63	963.10	962.79	965.10	965.83	2.34	3.70	4.52	
9	#4	0.00	1.15	0.00	0.69	0.0	10.2	3.96	4.68	15	0.45	962.70	961.51	964.27	963.42	966.43	965.10	2.48	2.34	3.23	
10	#14	0.59	0.59	0.60	0.35	10.0	10.0	2.04	7.28	12	3.56	963.18	962.95	964.45	964.44	966.68	966.43	2.50	2.48	2.60	
11	#3	0.56	0.56	0.60	0.34	10.0	10.0	1.94	3.99	12	1.07	963.21	962.95	964.50	964.44	966.71	966.43	2.50	2.48	2.47	
12	#20	0.00	1.59	0.00	0.64	0.0	24.6	2.40	4.43	15	0.40	960.53	960.00	962.95	962.79	966.49	965.83	4.71	4.58	1.96	
13	#19	0.42	1.59	0.40	0.64	20.0	24.0	2.44	3.50	15	0.25	960.71	960.53	963.10	963.01	963.95	966.49	1.99	4.71	1.98	
14	#18	0.42	1.17	0.40	0.47	20.0	22.3	1.87	2.44	12	0.40	961.99	960.96	963.73	963.13	964.69	963.95	1.70	1.99	2.38	
15	#17	0.75	0.75	0.40	0.30	20.0	20.0	1.27	2.44	12	0.40	962.88	961.99	964.01	963.77	964.78	964.69	0.90	1.70	1.62	
16	#21	0.29	0.29	0.60	0.17	10.0	10.0	1.01	6.06	12	2.47	962.42	962.26	962.84 j	962.79	966.08	965.83	2.66	2.57	2.78	
17	#16	0.71	0.71	0.60	0.43	10.0	10.0	2.46	4.56	12	1.39	961.85	961.76	963.45	963.42	965.35	965.10	2.50	2.34	3.13	
18	#15	0.58	0.58	0.60	0.35	10.0	10.0	2.01	3.47	12	0.81	961.95	961.76	963.49	963.42	965.35	965.10	2.40	2.34	2.56	
19	#47	0.00	2.36	0.00	0.94	0.0	26.8	3.40	4.71	15	0.45	958.40	957.68	960.27	959.90	962.84	962.30	3.19	3.37	2.77	
20	#46	0.59	2.36	0.40	0.94	12.0	25.9	3.47	4.15	15	0.35	958.93	958.40	960.76	960.39	961.82	962.84	1.64	3.19	2.82	
21	#45	0.64	1.77	0.40	0.71	20.0	24.5	2.69	3.84	15	0.30	959.53	958.93	961.23	960.94	962.55	961.82	1.77	1.64	2.19	
22	#44	0.50	1.13	0.40	0.45	20.0	22.6	1.79	2.73	12	0.50	961.13	959.78	961.87	961.27	963.94	962.55	1.81	1.77	2.58	
23	#43	0.63	0.63	0.40	0.25	20.0	20.0	1.07	2.71	12	0.50	962.16	961.13	962.59	961.94	964.66	963.94	1.50	1.81	2.42	

Project File: MIAPIQ2502.stm | Number of lines: 48 | Date: 3/19/2026

NOTES: ** Critical depth

COEC RPT2

Line No.	Inlet ID	Drng Area (ac)	Total Area (ac)	Runoff Coeff (C)	Total CxA	Inlet Time (min)	Tc (min)	Flow Rate (cfs)	Capac Full (cfs)	Line Size (in)	Line Slope (%)	Invert Up (ft)	Invert Dn (ft)	HGL Up (ft)	HGL Dn (ft)	Gnd/Rim El Up (ft)	Gnd/Rim El Dn (ft)	Cover Up (ft)	Cover Dn (ft)	Vel Ave (ft/s)	
24	#23	0.65	1.54	0.40	0.62	15.0	21.9	2.48	3.43	12	0.79	960.50	959.95	962.77	962.48	963.00	964.96	1.50	4.01	3.16	
25	#22	0.89	0.89	0.40	0.36	20.0	20.0	1.51	2.97	12	0.59	961.76	960.50	963.17	962.85	964.26	963.00	1.50	1.50	1.92	
26	#24	0.21	0.21	0.60	0.13	10.0	10.0	0.73	4.78	12	1.54	961.18	960.82	962.16	962.15	964.78	964.53	2.60	2.71	0.93	
27	#25	0.49	0.49	0.60	0.29	10.0	10.0	1.70	4.92	12	1.62	961.13	961.03	962.17	962.15	964.78	964.53	2.65	2.51	2.16	
28	#27	0.00	1.20	0.00	0.72	0.0	12.2	3.85	4.13	15	0.35	959.68	959.45	961.94	961.74	963.57	964.12	2.64	3.42	3.14	
29	#28	0.62	0.62	0.60	0.37	12.0	12.0	2.00	4.22	12	1.19	960.21	959.93	962.16	962.09	963.81	963.57	2.60	2.64	2.54	
30	#26	0.58	0.58	0.60	0.35	12.0	12.0	1.87	5.47	12	2.01	960.06	959.93	962.11	962.09	963.81	963.57	2.75	2.64	2.38	
31	#29	0.08	0.08	0.60	0.05	10.0	10.0	0.28	5.10	12	1.75	959.94	959.53	961.00	961.00	963.76	963.51	2.82	2.98	0.35	
32	#30	0.39	0.39	0.60	0.23	10.0	10.0	1.35	5.48	12	2.01	960.04	959.91	961.01	961.00	963.76	963.51	2.72	2.60	1.73	
33	#34	0.98	3.65	0.60	1.89	10.0	22.9	7.43	8.69	15	1.54	959.55	957.00	961.52	959.66	964.38	958.86	3.58	0.61	6.06	
34	#32	0.00	2.67	0.00	1.30	0.0	22.2	5.20	5.05	15	0.52	960.42	959.55	963.21	962.28	965.40	964.38	3.73	3.58	4.24	
35	#36	0.36	0.36	0.60	0.22	10.0	10.0	1.25	6.79	12	3.10	961.99	961.79	963.49	963.49	965.64	965.40	2.65	2.61	1.59	
36	#31	0.81	2.31	0.60	1.09	12.0	21.9	4.38	4.96	15	0.50	960.79	960.42	963.77	963.49	965.10	965.40	3.06	3.73	3.57	
37	#39	0.00	1.50	0.00	0.60	0.0	21.2	2.46	2.74	12	0.50	961.43	960.79	964.39	963.87	965.72	965.10	3.29	3.31	3.13	
38	#38	0.74	1.50	0.40	0.60	20.0	20.9	2.48	2.74	12	0.51	961.72	961.43	964.70	964.47	964.22	965.72	1.50	3.29	3.15	
39	#37	0.76	0.76	0.40	0.30	20.0	20.0	1.29	4.01	12	1.08	962.71	961.72	965.03	964.93	965.21	964.22	1.50	1.50	1.64	
40	#42	0.33	0.97	0.40	0.39	15.0	15.0	21.74	57.94	36	0.64	958.43	958.41	961.64	961.64	964.86	0.00	3.43	n/a	3.08	
41	#41	0.64	0.64	0.40	0.26	12.0	12.0	21.23	15.67	30	0.12	958.66	958.43	962.09	961.66	962.50	964.86	1.34	3.93	4.32	
42	#40	0.00	0.00	0.00	0.00	0.0	0.0	19.85	15.66	30	0.12	958.77	958.66	962.41	962.23	965.03	962.50	3.76	1.34	4.04	
43	Null Structure	0.00	0.00	0.00	0.00	0.0	0.0	19.85	23.75	30	0.34	958.78	958.77	962.54	962.53	0.00	965.03	n/a	3.76	4.04	
44	#2	0.71	1.30	0.60	0.78	10.0	10.2	4.47	4.86	15	0.48	960.31	960.21	961.25	961.07	963.71	0.00	2.15	n/a	4.74	
45	#1	0.59	0.59	0.60	0.35	10.0	10.0	2.04	2.73	12	0.50	960.46	960.31	961.81	961.73	963.71	963.71	2.25	2.40	2.60	
46	#50	0.00	0.00	0.00	0.00	0.0	1.6	4.30	16.58	24	0.46	952.47	952.28	953.20	953.25	958.98	0.00	4.51	n/a	3.50	

Project File: MIAPIQ2502.stm | Number of lines: 48 | Date: 3/19/2026

NOTES: ** Critical depth

COEC RPT2

Line No.	Inlet ID	Drng Area (ac)	Total Area (ac)	Runoff Coeff (C)	Total CxA	Inlet Time (min)	Tc (min)	Flow Rate (cfs)	Capac Full (cfs)	Line Size (in)	Line Slope (%)	Invert Up (ft)	Invert Dn (ft)	HGL Up (ft)	HGL Dn (ft)	Gnd/Rim El Up (ft)	Gnd/Rim El Dn (ft)	Cover Up (ft)	Cover Dn (ft)	Vel Ave (ft/s)	
47	#49	0.00	0.00	0.00	0.00	0.0	0.6	4.30	41.25	24	2.83	954.92	952.67	955.65	953.20	959.92	958.98	3.00	4.31	5.33	
48	#48	0.00	0.00	0.00	0.00	0.0	0.0	4.30	50.32	24	4.22	957.00	954.92	957.73	955.65	960.00	959.92	1.00	3.00	4.16	

Project File: MIAPIQ2502.stm | Number of lines: 48 | Date: 3/19/2026

NOTES: ** Critical depth

COEC RPT2

10yr Calculations

Line No.	Inlet ID	Drng Area (ac)	Total Area (ac)	Runoff Coeff (C)	Total CxA	Inlet Time (min)	Tc (min)	Flow Rate (cfs)	Capac Full (cfs)	Line Size (in)	Line Slope (%)	Invert Up (ft)	Invert Dn (ft)	HGL Up (ft)	HGL Dn (ft)	Gnd/Rim El Up (ft)	Gnd/Rim El Dn (ft)	Cover Up (ft)	Cover Dn (ft)	Vel Ave (ft/s)	
1	#12	0.00	11.39	0.00	5.74	0.0	30.4	16.52	31.11	30	0.49	957.08	957.00	959.68	959.66	962.30	959.65	2.72	0.15	3.37	
2	#11	0.80	9.03	0.60	4.79	10.0	29.6	14.05	19.93	30	0.20	957.39	957.08	959.98	959.83	962.97	962.30	3.08	2.72	2.86	
3	#10	0.00	8.23	0.00	4.31	0.0	29.2	12.75	19.02	24	0.60	958.29	957.64	960.35	960.06	963.51	962.97	3.22	3.33	4.06	
4	#9	0.00	7.76	0.00	4.03	0.0	28.7	12.04	18.11	24	0.55	958.97	958.29	960.88	960.61	964.12	963.51	3.16	3.22	3.86	
5	#8	0.00	6.56	0.00	3.31	0.0	28.3	9.98	14.53	24	0.35	959.26	958.97	961.25	961.11	964.53	964.12	3.28	3.16	3.18	
6	#7	0.00	5.86	0.00	2.89	0.0	27.8	8.80	12.22	24	0.25	959.47	959.26	961.47	961.40	964.96	964.53	3.49	3.28	2.80	
7	#6	0.00	4.32	0.00	2.27	0.0	26.6	7.11	12.26	24	0.25	959.90	959.47	961.72	961.59	965.83	964.96	3.93	3.49	2.32	
8	#5	0.00	2.44	0.00	1.46	0.0	11.7	6.96	11.39	18	1.00	961.26	960.63	962.28 j	961.81	965.10	965.83	2.34	3.70	5.06	
9	#4	0.00	1.15	0.00	0.69	0.0	10.2	3.48	4.68	15	0.45	962.70	961.51	963.50	962.31	966.43	965.10	2.48	2.34	4.18	
10	#14	0.59	0.59	0.60	0.35	10.0	10.0	1.80	7.28	12	3.56	963.18	962.95	963.75 j	963.77	966.68	966.43	2.50	2.48	3.24	
11	#3	0.56	0.56	0.60	0.34	10.0	10.0	1.71	3.99	12	1.07	963.21	962.95	963.76 j	963.77	966.71	966.43	2.50	2.48	3.14	
12	#20	0.00	1.59	0.00	0.64	0.0	25.3	2.05	4.43	15	0.40	960.53	960.00	961.92	961.81	966.49	965.83	4.71	4.58	1.67	
13	#19	0.42	1.59	0.40	0.64	20.0	24.7	2.08	3.50	15	0.25	960.71	960.53	962.03	961.96	963.95	966.49	1.99	4.71	1.69	
14	#18	0.42	1.17	0.40	0.47	20.0	22.6	1.61	2.44	12	0.40	961.99	960.96	962.62	962.05	964.69	963.95	1.70	1.99	2.57	
15	#17	0.75	0.75	0.40	0.30	20.0	20.0	1.10	2.44	12	0.40	962.88	961.99	963.32	962.69	964.78	964.69	0.90	1.70	2.58	
16	#21	0.29	0.29	0.60	0.17	10.0	10.0	0.88	6.06	12	2.47	962.42	962.26	962.81	962.52	966.08	965.83	2.66	2.57	4.29	
17	#16	0.71	0.71	0.60	0.43	10.0	10.0	2.16	4.56	12	1.39	961.85	961.76	962.48	962.28	965.35	965.10	2.50	2.34	4.70	
18	#15	0.58	0.58	0.60	0.35	10.0	10.0	1.77	3.47	12	0.81	961.95	961.76	962.52	962.28	965.35	965.10	2.40	2.34	4.07	
19	#47	0.00	2.36	0.00	0.94	0.0	27.8	2.87	4.71	15	0.45	958.40	957.68	960.10	959.83	962.84	962.30	3.19	3.37	2.34	
20	#46	0.59	2.36	0.40	0.94	12.0	26.8	2.94	4.15	15	0.35	958.93	958.40	960.45	960.18	961.82	962.84	1.64	3.19	2.39	
21	#45	0.64	1.77	0.40	0.71	20.0	25.1	2.29	3.84	15	0.30	959.53	958.93	960.78	960.57	962.55	961.82	1.77	1.64	1.86	
22	#44	0.50	1.13	0.40	0.45	20.0	22.9	1.54	2.73	12	0.50	961.13	959.78	961.66	960.81	963.94	962.55	1.81	1.77	2.82	
23	#43	0.63	0.63	0.40	0.25	20.0	20.0	0.93	2.71	12	0.50	962.16	961.13	962.56	961.66	964.66	963.94	1.50	1.81	2.67	

Project File: MIAPIQ2502.stm	Number of lines: 48	Date: 3/19/2026
NOTES: ** Critical depth		

COEC RPT2

Line No.	Inlet ID	Drng Area (ac)	Total Area (ac)	Runoff Coeff (C)	Total CxA	Inlet Time (min)	Tc (min)	Flow Rate (cfs)	Capac Full (cfs)	Line Size (in)	Line Slope (%)	Invert Up (ft)	Invert Dn (ft)	HGL Up (ft)	HGL Dn (ft)	Gnd/Rim El Up (ft)	Gnd/Rim El Dn (ft)	Cover Up (ft)	Cover Dn (ft)	Vel Ave (ft/s)	
24	#23	0.65	1.54	0.40	0.62	15.0	22.1	2.14	3.43	12	0.79	960.50	959.95	961.80	961.59	963.00	964.96	1.50	4.01	2.73	
25	#22	0.89	0.89	0.40	0.36	20.0	20.0	1.31	2.97	12	0.59	961.76	960.50	962.29	961.86	964.26	963.00	1.50	1.50	2.39	
26	#24	0.21	0.21	0.60	0.13	10.0	10.0	0.64	4.78	12	1.54	961.18	960.82	961.51 j	961.40	964.78	964.53	2.60	2.71	2.07	
27	#25	0.49	0.49	0.60	0.29	10.0	10.0	1.49	4.92	12	1.62	961.13	961.03	961.65	961.40	964.78	964.53	2.65	2.51	4.56	
28	#27	0.00	1.20	0.00	0.72	0.0	12.2	3.37	4.13	15	0.35	959.68	959.45	961.27	961.11	963.57	964.12	2.64	3.42	2.75	
29	#28	0.62	0.62	0.60	0.37	12.0	12.0	1.75	4.22	12	1.19	960.21	959.93	961.43	961.38	963.81	963.57	2.60	2.64	2.23	
30	#26	0.58	0.58	0.60	0.35	12.0	12.0	1.64	5.47	12	2.01	960.06	959.93	961.39	961.38	963.81	963.57	2.75	2.64	2.09	
31	#29	0.08	0.08	0.60	0.05	10.0	10.0	0.24	5.10	12	1.75	959.94	959.53	960.61	960.61	963.76	963.51	2.82	2.98	0.37	
32	#30	0.39	0.39	0.60	0.23	10.0	10.0	1.19	5.48	12	2.01	960.04	959.91	960.50	960.61	963.76	963.51	2.72	2.60	2.70	
33	#34	0.98	3.65	0.60	1.89	10.0	23.3	6.37	8.69	15	1.54	959.55	957.00	961.03	959.66	964.38	958.86	3.58	0.61	5.19	
34	#32	0.00	2.67	0.00	1.30	0.0	22.6	4.47	5.05	15	0.52	960.42	959.55	962.27	961.59	965.40	964.38	3.73	3.58	3.65	
35	#36	0.36	0.36	0.60	0.22	10.0	10.0	1.10	6.79	12	3.10	961.99	961.79	962.43 j	962.48	965.64	965.40	2.65	2.61	2.60	
36	#31	0.81	2.31	0.60	1.09	12.0	22.2	3.77	4.96	15	0.50	960.79	960.42	962.69	962.48	965.10	965.40	3.06	3.73	3.07	
37	#39	0.00	1.50	0.00	0.60	0.0	21.4	2.12	2.74	12	0.50	961.43	960.79	963.15	962.76	965.72	965.10	3.29	3.31	2.70	
38	#38	0.74	1.50	0.40	0.60	20.0	21.1	2.14	2.74	12	0.51	961.72	961.43	963.38	963.21	964.22	965.72	1.50	3.29	2.73	
39	#37	0.76	0.76	0.40	0.30	20.0	20.0	1.12	4.01	12	1.08	962.71	961.72	963.62	963.55	965.21	964.22	1.50	1.50	1.45	
40	#42	0.33	0.97	0.40	0.39	15.0	15.0	21.50	57.94	36	0.64	958.43	958.41	961.64	961.64	964.86	0.00	3.43	n/a	3.04	
41	#41	0.64	0.64	0.40	0.26	12.0	12.0	21.06	15.67	30	0.12	958.66	958.43	962.08	961.66	962.50	964.86	1.34	3.93	4.29	
42	#40	0.00	0.00	0.00	0.00	0.0	0.0	19.85	15.66	30	0.12	958.77	958.66	962.40	962.22	965.03	962.50	3.76	1.34	4.04	
43	Null Structure	0.00	0.00	0.00	0.00	0.0	0.0	19.85	23.75	30	0.34	958.78	958.77	962.53	962.52	0.00	965.03	n/a	3.76	4.04	
44	#2	0.71	1.30	0.60	0.78	10.0	10.2	3.93	4.86	15	0.48	960.31	960.21	961.16	961.07	963.71	0.00	2.15	n/a	4.38	
45	#1	0.59	0.59	0.60	0.35	10.0	10.0	1.80	2.73	12	0.50	960.46	960.31	961.68	961.61	963.71	963.71	2.25	2.40	2.29	
46	#50	0.00	0.00	0.00	0.00	0.0	1.6	4.30	16.58	24	0.46	952.47	952.28	953.20	953.25	958.98	0.00	4.51	n/a	3.50	

Project File: MIAPIQ2502.stm	Number of lines: 48	Date: 3/19/2026

NOTES: ** Critical depth

COEC RPT2

Line No.	Inlet ID	Drng Area (ac)	Total Area (ac)	Runoff Coeff (C)	Total CxA	Inlet Time (min)	Tc (min)	Flow Rate (cfs)	Capac Full (cfs)	Line Size (in)	Line Slope (%)	Invert Up (ft)	Invert Dn (ft)	HGL Up (ft)	HGL Dn (ft)	Gnd/Rim El Up (ft)	Gnd/Rim El Dn (ft)	Cover Up (ft)	Cover Dn (ft)	Vel Ave (ft/s)	
47	#49	0.00	0.00	0.00	0.00	0.0	0.6	4.30	41.25	24	2.83	954.92	952.67	955.65	953.20	959.92	958.98	3.00	4.31	5.33	
48	#48	0.00	0.00	0.00	0.00	0.0	0.0	4.30	50.32	24	4.22	957.00	954.92	957.73	955.65	960.00	959.92	1.00	3.00	4.16	

Project File: MIAPIQ2502.stm | Number of lines: 48 | Date: 3/19/2026

NOTES: ** Critical depth

Hydrologic Soil Group—Miami County, Ohio
(Soil Map)



Map Scale: 1:2,590 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 35 70 140 210

Feet
0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Soil Rating Lines

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Soil Rating Points

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Water Features

Streams and Canals

Transportation

Rails
Interstate Highways
US Routes
Major Roads
Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Miami County, Ohio
Survey Area Data: Version 24, Sep 2, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 18, 2023—Aug 4, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Bs	Brookston silty clay loam, fine texture, 0 to 2 percent slopes	C/D	2.2	8.9%
CeB	Celina silt loam, 2 to 6 percent slopes	C/D	1.2	4.9%
CrA	Crosby silt loam, Southern Ohio Till Plain, 0 to 2 percent slopes	C/D	17.3	71.5%
MhB	Miamian silt loam, 2 to 6 percent slopes	C	1.9	7.6%
OdA	Odell silt loam, 0 to 2 percent slopes	C/D	1.7	7.0%
Totals for Area of Interest			**24.2**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

RESOLUTION No. PC 09-26

A RESOLUTION RECOMMENDING APPROVAL OF A FINAL DEVELOPMENT PLAN FOR SECTION 1, PARCEL N44-076909, CITY OF PIQUA, OHIO

WHEREAS, the property identified as Parcel #N44-076909, Piqua, Ohio, is zoned PD-R under the City of Piqua Development Code (Title XV: Land Usage of the Piqua Code of Ordinances, effective May 18, 2023); and

WHEREAS, the applicant has requested approval of a Final Development Plan for Section 1, Parcel #N44-077518 in accordance with Article 2, Section 2.10.2.G of the Development Code; and

WHEREAS, the proposed Final Development Plan has been reviewed by City departments and complies with the Preliminary Development Plan and Development standards adopted in December 2025, for lot layout, access, utilities, landscaping, easements, and other requirements; and

WHEREAS, the Piqua Planning Commission has reviewed the application, including any associated plans and supporting documents, and finds that the Final Development Plan is in alignment with the Preliminary Development Plan and adopted Development Standards for the Shaw Farms Planned Development and substantially conforms with the City's adopted plans and policies, and serves the public interest; and

NOW THEREFORE BE IT RESOLVED, board member _____ hereby moves to recommend _____ of the Final Development Plan for Secton 1, Parcel #N44-077518, as described by this resolution, the testimony and documents provided, with the motion seconded by board member _____ and the voting record on this motion is hereby recorded as follows.

	AYE	NAY	ABSTAIN	ABSENT
Mr. Eddie Harvey	☐	☐	☐	☐
Mr. Terry Wright	☐	☐	☐	☐
Mr. Adam Seas	☐	☐	☐	☐
Mr. Micah Underwood	☐	☐	☐	☐
Mr. Wayne Davey	☐	☐	☐	☐

Adopted this ____ day of _____, 2026.

Chairman, Planning Commission

_____

Eddie Harvey

Clerk, Planning Commission

_____

Emily McCulla

STAFF REPORT

Planning Commission

Date: June 9, 2026
Re: PC 09-26 – Final Development Plan (Planned Development)

Applicant: Kristi Marchal, Arbor Homes
Owner: Lora French & Cynthia Garland

Address: 9691 N. County Road 25-A
Parcel #: N44-076909

Zoning: PD-R – Planned Residential District

Summary: The applicant is seeking a final development plan (FDP) for Shaw Farms, a residential subdivision, which was approved for a Preliminary Development Plan and Development Standards under the Planned Development process in December 2025. The FDP includes the record plat for Section 1 and will be constructed in 3 separate phases.

Section 1 reflects 44 buildable lots on 12.166 acres with 2.867 acres in public right-of-way and 4.134 acres of open space.

Section 2 reflects 40 buildable lots on 14.994 acres with 1.699 acres in public right-of-way and 7.596 acres of open space.

Section 3 reflects 48 buildable lots on 6.851 acres with 1.503 acres in public right-of-way and 0 acres of open space.

Process:
Section 2.10.2.G of the City of Piqua Development Code covers the process for approval of a Final Development Plan in accordance with an approved Preliminary Development Plan.

Under Section 2.10.2.G.2 it notes that the Planning Commission shall hold a public hearing on the Final Development Plan and that its recommendation shall be forwarded to the City Commission for their final decision. The Planning Commission may recommend approval, disapproval, or approval with amendments, conditions or restrictions.

Under Section 2.10.2.G.3 it notes that the City Commission shall hold a public hearing and shall consider the recommendation of the Planning Commission. The City

STAFF REPORT

Commission can approve, disapprove, or approve with amendments, conditions or restrictions. If the City Commission approves the FDP it will go into effect immediately.

Staff Analysis:
The applicant is requesting approval of a Final Development Plan that they have stated meets the Development Standards approved in December 2025 and which are also attached to this Staff Report. After reviewing the request, staff agrees that the request generally meets the requirements detailed within the Preliminary Development and Development Standards.

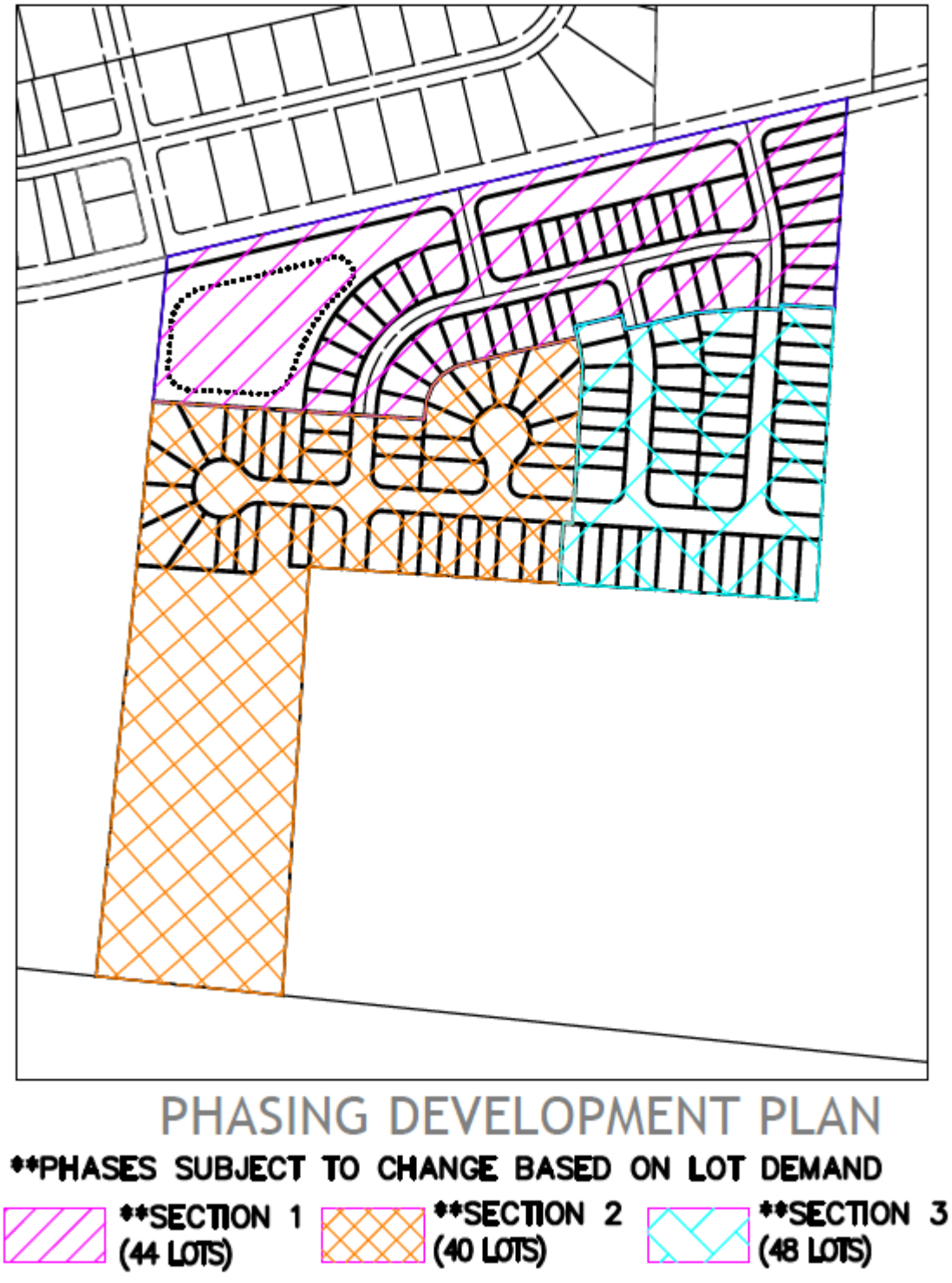
Number of Lots: The Preliminary Plan noted two phases with a total of 132 lots. The Final Development Plan requests three phases with the same number of lots requests.

Roadway Design: The FDP reflects the same design as the PDP, which includes construction of five new roads over the phases. The FDP also includes the required improvements to 25-A in front of the development which include a 8' pedestrian / bikeway path along 25-A in front of the development.

Utilities: The FPD reflects buried utilities. Staff provided comments reflecting the requirement to have increased sizing of pipes to accommodate future growth at the east and south of the property.

Open Space / Landscape: The FPD reflects the requirements of the Development Standards to have buffers, screening, and street trees.

STAFF REPORT



The applicant intends to construct phase 1 later in 2026 or in early 2027. Within the

City of PIQUA

packet the applicant has provided a record plat for section 1. Phase 1 also includes a retention pond, improvements to CR25-A including a bikeway along the frontage, construction of Rossville Way, and a portion of Randolph Drive and Shaw Farms Drive. Section 1 also includes all of the landscaping buffers required along CR25-A and the underground utilities sized and located to allow full build out.

Staff provided comments to the applicant which included:

- Confirmation of a 12” water main extension
- Confirmation of a 12” and 10” sanitary main,
- Details about sidewalks, roadways, and curbs that are required
- Piqua Power requirements for the development
- Confirmation all tree planted along CR 25-A are 3” DBH at time of planting and all other trees are 2” DBH.

The applicant will dedicate Rossville Way, Randolph Drive, and Shaw Farms Drive, after the developer has completed the development and met all paving requirements from the city. Additionally, it is anticipated that the city and the developer will enter into an agreement to complete CR 25-A with a portion being funded by the city and portion being funded by the developer.

Recommendation:
Staff Recommends approval of PC 09-26 a Final Development Plan for Shaw Farms with the following conditions:

1. The water main is 12” on CR 25-A and extend to Shaw Farm Drive for redundancy.
2. The sanitary main is 12” east and down Rossville Way, and 10” down Randolph Drive to the dead end. 10” on Armstrong Drive from Randolph Drive to the dead end to the east.
3. Sidewalks should be 5’ throughout the development.
4. Type 2 Curb is required for the entire development and along CR 25-A.
5. All landscaping shall meet the Development Standards approved December 2025, which includes 3” DBH large tree species along CR 25-A and 2” DBH species within the development.

A PRELIMINARY DEVELOPMENT PLAN AND DEVELOPMENT STANDARDS FOR SHAW FARMS, A SINGLE-FAMILY DEVELOPMENT LOCATED AT COUNTY ROAD 25-A, PIQUA, OH 45356.

Date Adopted: *December 9, 2025*
Date Modified: *To be determined*

Shaw Farms is a single-family home development in Piqua, Ohio. There are 132 home sites on 34 acres. 12 acres or 35.2% of the site will serve as detention and retention ponds as well as open space that will be managed and maintained by an HOA.

PRELIMINARY DEVELOPMENT PLAN

This Planned Development Plan (PDP) and Development Standards shall serve as the official regulatory framework for Shaw Farms. It establishes the permitted uses, building placement, circulation, access, landscaping, signage, and phasing standards that govern all subsequent Final Development Plans.

The following plans are adopted as official Exhibits and are integral to this PDP:

Exhibit A: Preliminary Development Plan - "Concept Plan." Illustrates the overall framework for redevelopment, showing buildable zones for residential and public spaces. Open space, frontage conditions, circulation, right of way, pedestrian buffers, gathering areas, and monument signage are illustrated as guiding elements.

Exhibit B: Phasing Plan. The Phasing Plan divides the site into 2 development phases coordinated with project build-out and any City improvements. Phases might change slightly as project if further engineered.

- Phase 1 (2026–2027): Initial development of 76 home sites, landscape buffer along N County Rd 25A, stormwater management and other utility infrastructure
- Phase 2 (2028–2029): 56 additional home sites

Exhibit C: Emergency Access. Illustrates fire apparatus turnarounds, hammerhead and three-point access, and event-based street closures. Alignments and details are approximate, intended to establish the framework for emergency access that will be finalized in final development plans.

Exhibit D: Connectivity Plan. Outlines the pedestrian and bicycle framework, including bikeway extension to CR25-A, sidewalks on both sides of streets, and

crosswalks. Layouts and routes are approximate, intended to illustrate multimodal connectivity with flexibility for adjustments in final development plans.

Exhibit E: Designs / Material Board. Defines the approved housing designs (with exact square footages, elevations drawings, plan names, and floor plans). Each floor plan has 5 different elevation designs. Premium vinyl siding (0.44) in the horizontal, shake and vertical board and baton styles are the primary exterior materials. These are offered in 13 different colors. Brick siding is available as an option for the customer in 10 colors.

The Concept Plan and Exhibits serve as guiding frameworks for development, establishing clear direction for massing, circulation, and amenity placement. They incorporate approximations and examples to allow flexibility in future Final Development Plans, provided that the overarching design intent and development objectives are preserved.

PERMITTED USES

The following uses are permitted for the development. These allocations establish maximum lot count by use category, and all Final Development Plans must demonstrate compliance with these thresholds.

A. Single-Family Residential – 132 units

B. Home Occupation, as defined within the City of Piqua Development Code (3.7.2.C.8)

C. All Public Uses not listed as prohibited below.

PROHIBITED USES

The following uses are not permitted within the Shaw Farms Planned Development Plan area:

- Residential
    - Group Homes
    - Manufactured Home Park
- Public Uses
    - Cemeteries
    - PreK-12 schools (standalone facilities)
    - Solar fields
    - Wind turbine fields
- Commercial
    - All Commercial Uses

- Industrial
    - All Industrial Uses.
- Other
    - Adult Oriented Businesses
    - Self-service storage facilities (mini-warehousing)
    - Vehicle repair garages
    - Marijuana Cultivators and Processors
    - Energy / Agriculture Uses
    - Remote Shared Parking Uses
    - Vehicle Sales and Rental
    - Vehicle Repair
    - Car Wash
    - Fueling Station

Any use not expressly listed as permitted is prohibited unless specifically authorized by the Planning Commission under this PDP.

STANDARDS

The project is envisioned as a single-family residential community of 132 Arrival series homes from Arbor Homes. The Arrival series of homes are designed to be attainable in today's environment; affordable to a community's teachers and police officers. Shaw Farms will provide attainable housing while providing a high-quality environment to raise a family. Amenities will include a playground, benches, wooded trail and sidewalk connectivity to the larger Piqua pedestrian network.

For Final Development Plans, the following standards serve as a baseline for design, establishing the overarching vision for building form, circulation, and site improvements. These standards are intended to ensure consistency across all phases while also incorporating a measure of flexibility and approximation. Illustrative examples and guide words are included to convey intent, recognizing that adjustments may be made in future submittals so long as the overall character, connectivity, and development objectives are preserved.

1. Building Models

   The following models are permitted:

   A. Home Models – Coach, Rockaway, Victoria, Berlin and Gladstone

   B. Options Available – Brick, Siding Color, Upgraded Finishes, Additional Bedroom and Bathroom

2. Accessory Structures

   A. Sheds will have a maximum area of 140 SF. The exterior must match the house's siding color.

   B. Other accessory structures are permitted per the City of Piqua Development Code and must meet the Code's standards.

3. Utilities.

   A. All new utilities shall be located below ground to minimize service disruptions, reduce weather-related impacts, and maintain the visual appearance of the development.

   B. All occupied buildings will connect to municipal water and sanitary sewer systems.

   C. Stormwater facilities will be designed to manage runoff in accordance with applicable regulations and sized to accommodate 100-year storm events.

   D. Service lines for street and site lighting will also be placed underground, consistent with lighting requirements.

   E. Utility routing, easements, and separations will be coordinated with the City of Piqua Community Services Department, Miami County Sanitary Engineering Department, and Ohio Utility Protection Service (OUPS) prior to installation.

4. Fences.

   A. No fences are permitted in the front yard.

   B. Fences used for screening or decorative purposes shall be constructed of durable, high-quality materials such as finished wood, composite, vinyl, ornamental metal, or brick accents. Chain link or similar fencing is prohibited, except where specifically approved for security or temporary public safety purposes.

   C. Electrified fencing, barbed wire, and razor wire are prohibited in all circumstances.

   D. Only ornamental fencing may be placed in front of buildings or along primary street frontages, reinforcing the pedestrian-oriented character of corridors.

   E. Fencing within a development area shall maintain a unified design to provide visual consistency. Materials and finishes should coordinate with the architectural character of adjacent buildings.

   F. Fence heights shall not exceed six (6) feet in the side and rear yards.

G. Where fencing is used to screen mechanical equipment, loading areas, or refuse/recycling enclosures, it shall be paired with evergreen landscaping to soften visual impact.

H. Fencing and screening elements adjacent to sidewalks or public rights-of-way shall not obstruct pedestrian visibility or conflict with required transparency standards.

5. Lighting.

The purpose of these standards is to provide consistent site lighting that ensures safety, enhances pedestrian comfort, reduces glare, and minimizes light spill into the night sky. All lighting shall meet the City of Piqua Development Code.

5. Yard and Bulk Requirements.

A. Front Yard Setback. 25’

B. Side Yard Setback. 5’

C. Rear Yard Setback. 25’

6. Landscaping.

Any Final Development Plan will include a landscaping plan for approval by the Planning Commission. The conditions that follow shall apply. Landscaping should emphasize street trees, buffers, and plantings that reinforce pedestrian comfort and the overall character of the Development.

A. General Requirements. A consistent greenspace program is required throughout the Development, including a mix of evergreen trees, canopy trees, ornamental trees, shrubs, grasses, and flowering groundcovers. Plant selections must:

1) Be hardy to the Piqua region (Zone 6a), non-invasive, and capable of thriving on natural rainfall once established or with supplemental irrigation.

2) Follow Development Code requirements: no artificial plants; minimum sizes at planting; and standards for maintenance and replacement.

3) Integrate with existing vegetation and topography, using earth mounds and plant groupings to create naturalistic and visually varied landscapes.

B. Trees Required.

1) Frontage / Street Trees.

a. Frontage Trees. Trees shall be planted along CR-25A with other landscaping as noted below. A minimum of one large tree per 25 feet of the linear feet of roadway excluding access drives.

b. Street Trees. Shade trees shall be planted along street frontages within the tree lawn with consistent plantings along the streets of a minimum of one tree for every lot. Corner lots will receive an additional tree.

c. Required Street Trees may be grouped in a central open space instead of being planted along the street frontage, but at no time should a residential lot not have at least one tree in each of its frontages.

2) General Landscape Trees.

a. Overall, the site shall be well landscaped and create a more unique street frontage with varying landscaping design throughout the development.
b. Open spaces shall include one large tree per 3,000 square feet of open space, excluding the wooded 7.526 acres on the Southern section of the property which will remain wooded. This is in addition to any street trees that are being grouped into open spaces to meet the required street tree frontage requirements.

C. Landscaping Adjacent to Rights-of-Way. Landscape buffers shall reinforce the frontage along CR-25A. Buffers should include mounding, shade trees, evergreens, shrubs, and groundcovers. Earth mounds and vegetation can be used in any combination to provide the required screening.

D. Planting Standards. Plant selections shall comply with minimum code standards while allowing flexibility for seasonal interest and integration with the overall design intent. The following table summarizes the required categories, minimum standards, and representative species for use throughout the development.

1) Trees located internal to the site will have a DBH (diameter at breast height) of at least 2 inches; Frontage Trees along CR-25A will have a DBH of at least 3 inches and evergreen trees will be at least six (6) feet high at the time of planting. A minimum of 50% of the deciduous trees on the site shall be native trees. Shrubs shall be a minimum of 24 inches high at the time of planting.

2) Landscape design will strive to be creative. The planting design will use massing or groupings of materials to create a stronger visual impact for high speed areas, create dense screening in certain areas, use plant diversity for long term health of the plants, use repetition for continuity, and create visual interest by incorporating spring and summer flowers and fall color.

3) Tree species shall be listed on the City of Piqua street tree list or be approved

by the City of Piqua prior to planting.

7. Signage.

Signage within Shaw Farms will be designed to reinforce project identity, maintain pedestrian scale, and protect public safety. Standards regulate sign type, scale, and placement to ensure clear visibility for vehicles, bicycles, and pedestrians, while contributing positively to the architectural character of the development.

A. Development Entrance Signs. Monument signs shall be permitted at the entrances to the site along CR25-A.

1) 50 square feet maximum.

2) Must have a 6” brick or stone base and be no taller than six feet (6’).

3) Substantial landscaping at the base is required. If provided, ground lighting shall be of high quality and flush with the grade or obscured by landscaping.

B. Temporary Signage. Temporary signage shall meet the standards of the City of Piqua Development Code for residential properties, with the following exemptions during construction:

1) Each unsold lot is permitted to have up to 6 square feet of temporary signage.

2) Each entrance is permitted to have a temporary sign with maximum dimensions of 4’ by 8’

8. Parking, Loading, and Access.

Parking and access throughout the development are organized around the internal circulation system: Shaw Farms Drive, Harmar Drive, Visher Court, Armstrong Drive, Randolph Drive and Rossville Way. These function as the project’s primary frontages.

A. **On-Street Parking**. On-street parking shall be permitted on both sides of the street.
B. **Access Points.** Two access points will be provided along CR25-A.

9. Bicycle Facilities.

Bicycle circulation within the Development will be supported by the following improvements. These facilities will ensure safe multimodal access between homes and surrounding networks.

A. Bikeway Connection. A bikeway connection (or oversized sidewalk of 8-10 feet) shall be provided to CR25-A. This pathway shall be located within existing right-of-way where possible and shall have a dedicated easement granted for locations outside of the right-of-way.

B. Parking. Bicycle parking will be provided near the playground.

10. Pedestrian Amenities and Circulation

Pedestrian facilities will be fully integrated throughout the Development, ensuring safe and comfortable circulation. Amenities include walkways/sidewalks, playground, and gathering areas anchored by seating. These features collectively reinforce the pedestrian realm and support connectivity between community destinations.

A. Sidewalks. Sidewalks shall be constructed on both sides of all internal streets with a minimum width of 5 feet.

B. Crosswalks. High-visibility crosswalk shall be provided across N CR 25A at the Northwest of the property, ensuring safe pedestrian crossings of circulation corridors.

C. Walkways & Access. Each Final Development Plan shall incorporate perimeter walkways, internal pedestrian connections, and emergency access routes consistent with the Connectivity Plan (Exhibit D). Site improvements will demonstrate compliance through coordinated landscaping and accessibility upgrades.

11. Open Space

Open space within the Development will be concentrated in key nodes rather than spread uniformly, as shown in Exhibit A. Open Space shall be incorporated throughout the Development to support pedestrian connectivity, public gathering, and overall site character, while meeting landscaping and screening standards.

A. Open space includes a playground, landscaped setbacks and other pedestrian-oriented areas. Playground will be located on the cul-de-sac of Armstrong Drive as part of Section 2.

B. A minimum of 10% of the development shall be open space. This area shall not include required retention or detention ponds or required buffer yards.

12. Site Amenities

The Development will feature a coordinated package of pedestrian-oriented amenities that enhance the overall development. These amenities will be organized as a consistent system, ensuring continuity across phases of development. Amenity elements will be strategically located at community gathering locations.

All amenities will be selected and designed to align with the landscaping palette, pedestrian circulation network (Exhibit D), and architectural standards, reinforcing a unified identity for Shaw Farms. The table below summarizes the required amenity types, minimum standards, and intended locations.

Amenity Type	Standard / Notes
Bike Racks	Located at playground
Benches	Placed at playground and sidewalk in Open Space
Street Signs	Pedestrian-scale, coordinated with project graphics
Playground	Located on cul-de-sac of Armstrong Dr.
Gateway Elements	Mark primary vehicular and pedestrian entries

13. Fire Safety

A. Fire safety within Shaw Farms will be coordinated with the Piqua Fire Department to ensure that each development phase provides adequate emergency access, fire apparatus circulation, hydrant coverage, and water supply.

B. Emergency access routes are required to remain functional throughout phased build-out and during interim conditions, ensuring continuous coverage across the site. Fire apparatus access roads must maintain adequate width and turning radii, with turnaround provisions at dead-end conditions. Hydrant spacing and water supply will be designed to provide redundancy, looping, and sufficient pressure to meet firefighting needs.

C. Buildings fronting internal site drives will be designed to allow fire apparatus access within hose reach, and all fire lanes will be clearly designated and maintained free of obstructions. Phased compliance requires that no occupancy will occur until each phase demonstrates sufficient access and hydrant coverage as illustrated in Exhibit B.

D. Fire lane striping and associated signage shall also comply with the Pavement Markings and Striping standards of this PDP.

E. All striping, signage, and roadway design shall meet the Engineering Design standards and Fire Code of the City of Piqua.

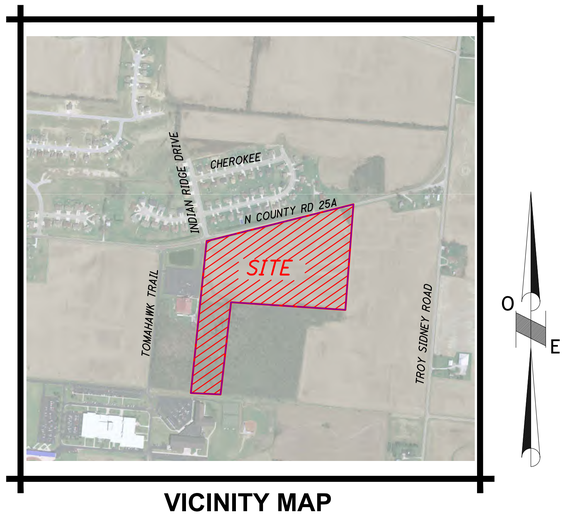
14. Special Conditions.

A. Shared Mailboxes. Centralized areas for mail, as required by the United States Postal Service, shall be provided. Groups of 16 mailboxes will be placed throughout the community. These areas shall also include landscaping and screening plantings to create an attractive community.

B. Emergency Access During Events. Harmar Drive and the cul-de-sac of Armstrong Drive may be temporarily closed to accommodate special events, community activities, or short-term programming. During such closures, emergency access will remain functional at all times. Final Development Plans must demonstrate that any proposed event closure strategies preserve adequate fire and life-safety access.

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3

CITY OF PIQUA
MIAMI COUNTY, OHIO



VICINITY MAP

INDEX OF SHEETS

TITLE SHEET	1
SECTION 1 RECORD PLAT	2-3
STREET AND UTILITY PLAN	4
TYPICAL SECTION	5
GENERAL NOTES AND DETAILS	6-7
STORM AND WATER GENERAL NOTES AND DETAILS	8
OUTLET STRUCTURE DETAILS	9
SANITARY SEWER NOTES AND DETAILS	10
GRADING PLAN	11
ARMSTRONG DRIVE PLAN AND PROFILE	12-14
HARMAR DRIVE PLAN AND PROFILE	15-16
RANDOLPH DRIVE PLAN AND PROFILE	17-19
ROSSVILLE WAY PLAN AND PROFILE	20
SHAW FARMS DRIVE PLAN AND PROFILE	21-22
VISHER COURT PLAN AND PROFILE	23
STORM PROFILES	24-29
COUNTY ROAD 25A PLAN AND PROFILE	30-33
COUNTY ROAD 25A CROSS SECTIONS	34-46
COUNTY ROAD 25A PAVEMENT MARKINGS	47-48
INTERSECTION DETAILS	49-50
LANDSCAPE PLAN	51
STORMWATER POLLUTION PREVENTION PLAN (SWPPP)	1-6

PROPERTY INFORMATION

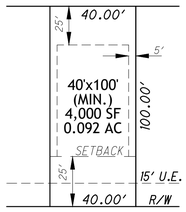
CURRENT ZONING:	PD - PLANNED DEVELOPMENT
CURRENT USE:	WOODED AND FARMLAND
GROSS TOTAL ACRE:	34.01 ACRES

OVERALL DEVELOPMENT DATA	
NO. OF BUILDABLE LOTS	132
MIN. LOT AREA:	4,000 SF
MIN. LOT WIDTH:	40 FEET
MIN. FRONT YARD SETBACK:	25 FEET
MIN. REAR YARD SETBACK:	25 FEET
MIN. SIDE YARD SETBACK:	5 FEET MIN

SECTION 1 DATA	
NO. OF BUILDABLE LOTS:	44
AREA IN LOTS:	5.165 ACRES
AREA IN OPEN SPACE:	4.134 ACRES
AREA IN NEW R/W:	1.873 ACRES
AREA IN Ex. R/W:	0.994 ACRES
TOTAL AREA:	12.166 ACRES

SECTION 2 DATA	
NO. OF BUILDABLE LOTS:	40
AREA IN LOTS:	5.699 ACRES
AREA IN OPEN SPACE:	7.596 ACRES
AREA IN R/W:	1.699 ACRES
TOTAL AREA:	14.994 ACRES

SECTION 3 DATA	
NO. OF BUILDABLE LOTS:	48
AREA IN LOTS:	5.348 ACRES
AREA IN OPEN SPACE:	0.000 ACRES
AREA IN R/W:	1.503 ACRES
TOTAL AREA:	6.851 ACRES



MIN. TYPICAL LOT

NOTES

1. ALL UTILITIES TO BE UNDERGROUND, NO OVERHEAD WILL BE PERMITTED.
2. STREET LIGHTING TO BE PROVIDED BY CITY OF PIQUA.
3. PARKING SHALL BE ON BOTH SIDES OF THE STREET.
4. CLUSTER MAILBOXES TO BE INSTALLED BY DEVELOPER AT LOCATIONS TO BE DETERMINED AND COORDINATED WITH THE POST OFFICE.
5. OPEN SPACE LOTS, STORM WATER MANAGEMENT BASINS AND ALL STORM SEWER INFRASTRUCTURE OUTSIDE THE PUBLIC RIGHT-OF-WAY SHALL BE OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION.

ODOT SUPPLEMENTAL SPECIFICATIONS	
800	01/16/2026
832	07/18/2025
TC-71.10	01/16/2026

ARRIVAL
BY ARBOR HOMES

OWNER:
CYNTHIA GARLAND & LORA FRENCH
CO ROAD 25A NORTH
SUGARCREEK TOWNSHIP, OHIO 45356

DEVELOPER:
CLAYTON PROPERTIES DBA ARBOR HOMES
9050 CENTRE POINTE DR. SUITE 210
WEST CHESTER, OHIO 45069
513-667-1182

ENGINEER:
CHOICE ONE ENGINEERING
2633 CAMPBELL ROAD
SIDNEY, OH 45365
937-497-0200

ChoiceOne Engineering

2633 CAMPBELL ROAD • SIDNEY, OHIO 45365 • 937.497.0200
6279 TRI-RIDGE BOULEVARD, SUITE 100 • LOVELAND, OHIO 45140 • 513.239.8554

www.CHOICEONEENGINEERING.com

MAY 15, 2026

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811. 8-1-1. or 1-800-362-2764
(Non-members must be called directly)

Kristi Marchal 5-15-2026
KRISTI M. MARCHAL, P.E. DATE
P.E.-#89511

STATE OF OHIO · KRISTI M. MARCHAL · E-89511 · REGISTERED PROFESSIONAL ENGINEER

2023 SPECIFICATIONS

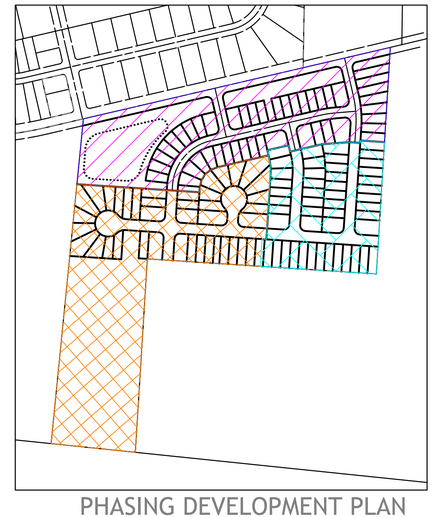
THE CONSTRUCTION STANDARDS AND DRAWINGS OF CITY OF PIQUA AND THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND GENERAL NOTES LISTED IN THE PLAN, SHALL GOVERN THIS IMPROVEMENT. THE MOST RESTRICTIVE SHALL APPLY.

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF THE CONSTRUCTION OF STREETS, UTILITIES AND GRADING FOR SHAW FARM SUBDIVISION - SECTION 1, 2, AND 3, IN THE CITY OF PIQUA, MIAMI COUNTY, OHIO.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA	= 27.80 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	= 0.50 ACRES
NOTICE OF INTENT (NOI) EARTH DISTURBED AREA	= 28.30 ACRES



PHASING DEVELOPMENT PLAN

**PHASES SUBJECT TO CHANGE BASED ON LOT DEMAND

**SECTION 1 (44 LOTS) **SECTION 2 (40 LOTS) **SECTION 3 (48 LOTS)

APPROVED FOR CONSTRUCTION

THE CITY OF PIQUA SIGNATURES ON THIS PLAN SIGNIFY ONLY CONCURRENCE WITH THE GENERAL PURPOSES AND LOCATION OF THE PROPOSED IMPROVEMENT. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL ENGINEER WHO PREPARED AND CERTIFIED THESE PLANS.

APPROVED _____
CITY ENGINEER
DATE _____

APPROVED _____
CLAYTON PROPERTIES, INC
dba ARBOR HOMES

PAUL A. METZGER
DIRECTOR OF LAND ACQUISITION & DEVELOPMENT

ChoiceOne Engineering

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3

REVISIONS:

FILE NAME Title
DRAWN BY KMM
CHECKED BY KMM
PROJECT No. MIA-PIO-2527
SHEET NUMBER 1 OF 51

Z:\project\Miami\Piqua\MIA-PIO-2527_FrenchPropertyConcept\MIAPIO2527_TitleSheet.dwg 18-Jun-26 8:30 AM

SHAW FARM SUBDIVISION SECTION ONE

PT INLOT 7852 INLOT | PIQUA CITY | MIAMI COUNTY | OHIO STATE

VOLUME _____, PAGE _____-A
MIAMI COUNTY RECORDER'S RECORD OF PLATS

THE BEARINGS ARE BASED ON NAD 83 CORS 2011 ADJUSTMENT, OHIO SOUTH ZONE, OHIO REAL TIME NETWORK

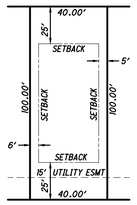
SCALE: 1"=50'

0 25 50 100

LEGEND

- 5/8" X 30" REBAR W/CAP TO BE SET
- IRON PIN FOUND
- MAG NAIL SET
- MAG NAIL FOUND
- STONE FOUND
- MONUMENT BOX FOUND
- NEW BUILDING SETBACK LINE FRONT=25' REAR=25' SIDE=5'
- NEW UTILITY EASEMENT LINE FRONT=15' ALL OTHER EASEMENTS ARE AS SHOWN
- EXISTING EASEMENT LINE
- EXISTING SUBDIVISION LINE
- EXISTING CORPORATION LINE
- CXX CURVE NUMBER
- LXX LINE NUMBER

TYPICAL LOT DETAIL



LOT SIZE
MIN 40'X100'
MIN 4,000 S.F.

SETBACK
FRONT=25'
REAR=25'
SIDE=5'

UTILITY EASEMENT
FRONT=15'

COUNTY ROAD 25A (R/W VARIES)

INDIAN RIDGE DRIVE (60' R/W)

INDIAN RIDGE SECTION ONE PLAT BOOK 17 PAGE 26

N44-077252 INLOT 8004
N44-077250 INLOT 8003
N44-077248 INLOT 8002
N44-077246 INLOT 8001
N44-077244 INLOT 8000
N44-077242 INLOT 7999
N44-077240 INLOT 7998
N44-077238 INLOT 7997
N44-077236 INLOT 7996

N44-077756 INLOT 8220
REPLAT OF LOTS 7977, 7980, 7981, 8005 AND 8010 PLAT BOOK 18 PAGE 57

N44-101524 PT INLOT 7852

CITY OF PIQUA 2014OR-05109

STATE PLANE SOUTH No 794534.206 E: 1493231.029

N44-250507 PT INLOT 7852 GRACE UNITED METHODIST CHURCH OF PIQUA, INC. OFFICIAL RECORD 53 PAGE 986

STATE PLANE SOUTH No 1942665.267 E: 1493299.414

SW COR SE 1/4 SEC 20 STONE FOUND 1.32' N28°01'19"E FROM CORNER

N44-076909 PT INLOT 7852 CYNTHIA J. GARLAND, TRUSTEE, FBO ROXANNE E. WINTROW 202101R-18215 2022OR-02814 34.012 ACRES DEED

PROP R/W N76°53'53"E 578.77'
618.57'
1433.33'
N76°53'53"E
PROP R/W N76°53'53"E 509.14'
609.14'
0.994 ACRES TO BE DEDICATED
1.874 ACRES TO BE DEDICATED
S76°53'53"W 74.96'
S76°53'53"W 240.00'
N83°52'32"W 100.00'
N86°13'50"W 412.27'
563.27'
S85°05'51"E 100.00'
S13°06'07"E 294.14'
S13°06'07"E 76.80'
N03°40'30"E 300.84'
N03°40'30"E 269.18'
N03°40'30"E 193.65'
S84°05'40"E 390.00'
S84°05'40"E 387.48'
HALF SECTION LINE

ROSSVILLE WAY 50' R/W

RANDOLPH DRIVE 50' R/W

INLOT 45
OPEN SPACE A
3.194 AC
139,196 SF
THIS INLOT SHALL BE CONVEYED TO THE OWNER'S ASSOCIATION AND TO BE MAINTAINED AS AN OPEN SPACE AND DRAINAGE/STORM WATER DETENTION PURPOSE

INLOT 47
OPEN SPACE C
1.037 AC
45,167 SF

INLOT 33 0.135 AC 5,866 SF
INLOT 34 0.092 AC 4,000 SF
INLOT 35 0.092 AC 4,000 SF
INLOT 36 0.092 AC 4,000 SF

INLOT 32 0.137 AC 5,957 SF
INLOT 31 0.103 AC 4,495 SF
INLOT 30 0.103 AC 4,495 SF
INLOT 29 0.103 AC 4,495 SF
INLOT 28 0.103 AC 4,495 SF
INLOT 27 0.103 AC 4,495 SF
INLOT 26 0.103 AC 4,495 SF
INLOT 25 0.103 AC 4,495 SF
INLOT 24 0.103 AC 4,495 SF

INLOT 20 0.109 AC 4,733 SF
INLOT 21 0.172 AC 4,879 SF
INLOT 22 0.172 AC 4,879 SF
INLOT 23 0.172 AC 4,879 SF

INLOT 19 0.092 AC 4,000 SF
INLOT 18 0.092 AC 4,000 SF
INLOT 17 0.092 AC 4,000 SF
INLOT 16 0.092 AC 4,000 SF
INLOT 15 0.092 AC 4,000 SF
INLOT 14 0.092 AC 4,000 SF

INLOT 4 OPEN SPAC 0.080 AC / 2,5

80'x80' TURNAROUND AND UTILITY EASEMENT

POND

SEE SHEET 3 OF 3

SEE SHEET 1 OF 3 FOR LINE TABLE AND CURVE TABLE

SUBMITTED FOR REVIEW

STATE OF OHIO — REGISTERED PROFESSIONAL SURVEYOR

THIS INSTRUMENT WAS PREPARED BY:

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

DATE: 04-30-2026
DRAWN BY: MPL
JOB NUMBER: MIAPIO2527
SHEET NUMBER: 2 OF 3

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
SECTION 1 RECORD PLAT

REVISIONS:

FILE NAME: RECORD PLAT
DRAWN BY: KMM
CHECKED BY: KMM
PROJECT No.: MIA-PIO-2527
DATE: 5-15-2026
SHEET NUMBER: 2 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527 Show Farms Subdivision Phase One-Final Plat.dwg 18-Jun-26 8:30 AM

SHAW FARM SUBDIVISION SECTION ONE

PT INLOT 7852 INLOT | PIQUA CITY | MIAMI COUNTY | OHIO STATE

VOLUME _____, PAGE _____-B
MIAMI COUNTY RECORDER'S RECORD OF PLATS

THE BEARINGS ARE BASED ON NAD 83 CORS 2011 ADJUSTMENT, OHIO SOUTH ZONE, OHIO REAL TIME NETWORK

SCALE: 1"=50'
0 25 50 100

LEGEND

- 5/8" X 30" REBAR W/CAP TO BE SET
- IRON PIN FOUND
- MAG NAIL SET
- MAG NAIL FOUND
- STONE FOUND
- MONUMENT BOX FOUND
- NEW BUILDING SETBACK LINE FRONT=25' REAR=25' SIDE=5'
- NEW UTILITY EASEMENT LINE FRONT=15' ALL OTHER EASEMENTS ARE AS SHOWN
- EXISTING EASEMENT LINE
- EXISTING SUBDIVISION LINE
- EXISTING CORPORATION LINE
- CXX CURVE NUMBER
- LXX LINE NUMBER

N44-076898
INLOT 7848
JAMES H. CRUSE JR.
20250R-06301

N44-077234
INLOT 7995

N44-077236
INLOT 7996

N44-077238
INLOT 7997

N44-077240
INLOT 7998

N44-077242
INLOT 7999

INDIAN RIDGE SECTION ONE PLAT BOOK 17 PAGE 26

EX R/W

COUNTY ROAD 25A (R/W VARIES)

N76°53'53"E 1433.33'

0.994 ACRES TO BE DEDICATED

PROP R/W

N76°53'53"E 509.14'

618.57'

N76°53'53"E 559.23'

N75°50'16"E 559.23'

INLOT 47
OPEN SPACE C
1.037 AC / 45,167 SF

N76°53'53"E 344.14'

ROSSVILLE WAY 50' R/W

S13°06'07"E 230.00'

S76°53'53"W 49.96'

N76°53'53"E 180.00'

INLOT 32 0.137 AC 5,957 SF

INLOT 33 0.135 AC 5,866 SF

INLOT 34 0.092 AC 4,000 SF

INLOT 35 0.092 AC 4,000 SF

INLOT 36 0.092 AC 4,000 SF

INLOT 37 0.092 AC 4,000 SF

INLOT 38 0.092 AC 4,000 SF

INLOT 39 0.092 AC 4,000 SF

INLOT 40 0.092 AC 4,000 SF

INLOT 41 0.092 AC 4,000 SF

INLOT 42 0.092 AC 4,019 SF

INLOT 43 0.095 AC 4,139 SF

INLOT 44 0.159 AC 6,907 SF

RANDOLPH DRIVE 50' R/W

N76°53'53"E 294.14'

N76°53'53"E 146.64'

1.874 ACRES TO BE DEDICATED

N85°20'02"E 90.58'

S76°53'53"W 74.96'

S76°53'53"W 49.96'

S76°53'53"W 100.00'

S76°53'53"W 240.00'

S76°53'53"W 150.00'

INLOT 19 0.092 AC 4,000 SF

INLOT 18 0.092 AC 4,000 SF

INLOT 17 0.092 AC 4,000 SF

INLOT 16 0.092 AC 4,000 SF

INLOT 15 0.092 AC 4,000 SF

INLOT 14 0.092 AC 4,000 SF

INLOT 13 0.171 AC 7,446 SF

HARMER DR. 50' R/W

S13°06'07"E 150.80'

INLOT 12 0.169 AC 7,354 SF

INLOT 11 0.110 AC 4,780 SF

INLOT 10 0.115 AC 5,007 SF

INLOT 9 0.207 AC 9,004 SF

S85°42'25"W 125.76'

SHAW FARM DRIVE 50' R/W

S13°06'07"E 175.35'

S13°06'07"E 41.78'

S13°06'07"E 65.58'

S13°06'07"E 69.87'

S23°49'40"W 69.89'

N86°13'50"W 110.32'

S03°32'07"W 606.01'

STATE PLANE SOUTH
N 794459.446
E 1493270.555

STATE PLANE SOUTH
N 794459.098
E 1493702.742

STORM/ DRAINAGE EASEMENT

80'x80' TURNAROUND AND UTILITY EASEMENT

N44-076909
PT INLOT 7852
CYNTHIA J. GARLAND, TRUSTEE,
FBO ROXANNE E. WINTROW
2021OR-16215
2022OR-02814
34.012 ACRES DEED

N44-076907
INLOT 7851
SALLY K. APPLE, TRUSTEE
OFFICIAL RECORD 217
PAGE 46
2020OR-01713

STATE PLANE SOUTH
N 794882.193
E 1493726.542

N76°38'26"E 937.54'

TROY SIDNEY ROAD

PROP R/W

LANDSCAPE EASEMENT

N76°53'53"E 155.67'

15' UTILITY EASEMENT

12' PATH EASEMENT

10' STORM/DRAINAGE EASEMENT

N76°53'53"E 169.60'

INLOT 48
OPEN SPACE D
0.154 AC / 6,709 SF

INLOT 1 0.150 AC / 6,545 SF

N76°53'53"E 157.65'

INLOT 2 0.139 AC 6,067 SF

N76°53'53"E 145.70'

INLOT 3 0.134 AC 5,821 SF

N78°23'21"E 132.93'

INLOT 4 0.131 AC 5,688 SF

N82°45'16"E 121.49'

INLOT 5 0.120 AC 5,224 SF

N87°07'11"E 114.08'

INLOT 6 0.114 AC 4,956 SF

S88°30'53"E 110.48'

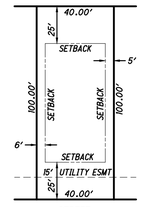
INLOT 7 0.107 AC 4,648 SF

S86°13'50"E 110.16'

INLOT 8 0.101 AC 4,410 SF

N86°13'50"W 110.32'

TYPICAL LOT DETAIL



STREET

LOT SIZE
MIN 40'X100'
MIN 4,000 S.F.

SETBACK
FRONT=25'
REAR=25'
SIDE=5'

UTILITY EASEMENT
FRONT=15'

SEE SHEET 2 OF 3

SEE SHEET 1 OF 3 FOR LINE TABLE AND CURVE TABLE

SUBMITTED FOR REVIEW

STATE OF OHIO — KEVIN J. BERGER — REGISTERED PROFESSIONAL SURVEYOR

THIS INSTRUMENT WAS PREPARED BY:

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

DATE: 04-16-2026
DRAWN BY: MPL
JOB NUMBER: MIAPIO2527
SHEET NUMBER: 3 OF 3

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
SECTION 1 RECORD PLAT

REVISIONS:

FILE NAME	RECORD PLAT
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	3 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527 Shaw Farms Subdivision Phase One-Final Plat.dwg 18-Jun-26 8:30 AM

LEGEND

- PROPOSED STORM SEWER
- PROPOSED CURB & GUTTER
- CLEARING LIMITS
- SECTION 1 BOUNDARY
- SECTION 2 BOUNDARY
- SECTION 3 BOUNDARY
- 10' WALKING PATH
- 5' MULCH PATH
- STREET LIGHTS (PROVIDED BY CITY OF PIQUA)

SCALE IN FEET
0 30 60' 120'

NOTE: DETAILED STRUCTURE INFORMATION, SANITARY LATERAL, AND WATER SERVICE INFORMATION SHOWN ON PLAN AND PROFILE SHEETS.

NOTE: CONTRACTOR TO VERIFY LOCATIONS AND DEPTHS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

TIE INTO Ex. MANHOLE

Ex. 18" STM (TBR)

PROP. RETENTION BASIN W/ FOUNTAIN
100-YR= 961.99
NORMAL WATER 955.00
BOTTOM 947.00

30' SPILLWAY = 962.00
EMERGENCY SPILLWAY
40'X0' FLEXAMAT
EROSION PROTECTION
OR APPROVED EQUAL

20'X20'DR ROCK CHANNEL PROTECTION, TYPE C

PROP. MONUMENT SIGN

OPEN SPACE A

OPEN SPACE B

OPEN SPACE C

OPEN SPACE D 47

OPEN SPACE E

OPEN SPACE F

ROSSVILLE WAY

RANDOLPH DRIVE

ARMSTRONG DRIVE

VISHER COURT

HARMAR DRIVE

SHAW FARM DRIVE

CO. RD. 25A

ASPHALT PVMT.

CLEAR AND GRUB AS NEEDED FOR MULCH PATH

SALLY A APPLE TRUST
3838 CO. RD. 25A

ROSSVILLE WAY D3-1	RANDOLPH DRIVE D3-1 (A)
RANDOLPH DRIVE D3-1	ARMSTRONG DRIVE D3-1 (B)
VISHER COURT D3-1	ARMSTRONG DRIVE D3-1 (C)
HARMAR DRIVE D3-1	ARMSTRONG DRIVE D3-1 (D)
SHAW FARM DRIVE D3-1	ARMSTRONG DRIVE D3-1 (E)
HARMAR DRIVE D3-1	RANDOLPH DRIVE D3-1 (F)
SHAW FARM DRIVE D3-1	RANDOLPH DRIVE D3-1 (G)
SHAW FARM DRIVE D3-1	CO. RD. 25A (H)
ROSSVILLE WAY D3-1	CO. RD. 25A (I)

30" STOP 30"
STOP SIGN (R1-1)
NOTE: STOP SIGN SHALL HAVE SIGN POST REFLECTOR

24" ARMSTRONG DRIVE 12"
STREET SIGN (D3-1)

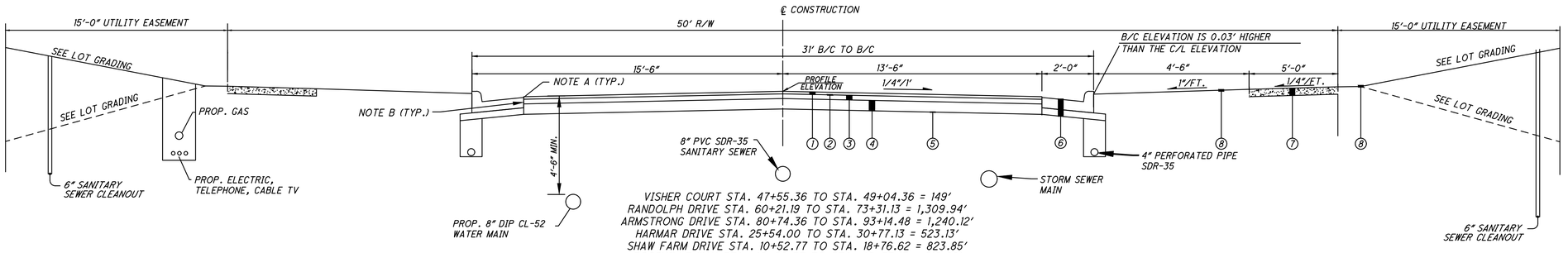
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
STREET AND UTILITY PLAN

REVISIONS:

FILE NAME: STREET & UTILITY
DRAWN BY: KMM
CHECKED BY: KMM
PROJECT No.: MIA-PIQ-2527
DATE: 5-15-2026
SHEET NUMBER: 4 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GradingPlan.dwg 18-Jun-26 8:30 AM



VISHER COURT STA. 47+55.36 TO STA. 49+04.36 = 149'
RANDOLPH DRIVE STA. 60+21.19 TO STA. 73+31.13 = 1,309.94'
ARMSTRONG DRIVE STA. 80+74.36 TO STA. 93+14.48 = 1,240.12'
HARMAR DRIVE STA. 25+54.00 TO STA. 30+77.13 = 523.13'
SHAW FARM DRIVE STA. 10+52.77 TO STA. 18+76.62 = 823.85'
ROSSVILLE WAY STA. 40+60.33 TO STA. 42+77.15 = 216.82'
TOTAL = 4,262.86'

ROAD NAME	RIGHT-OF-WAY	B/B CURB	SIDEWALK WIDTH	CURB LAWN	ON STREET PARKING
ROSSVILLE WAY, RANDOLPH DRIVE, SHAW FARMS DRIVE, ARMSTRONG DRIVE, & HARMAR DRIVE	50'	31'	5'	4.5'	BOTH SIDES

TYPICAL SECTION

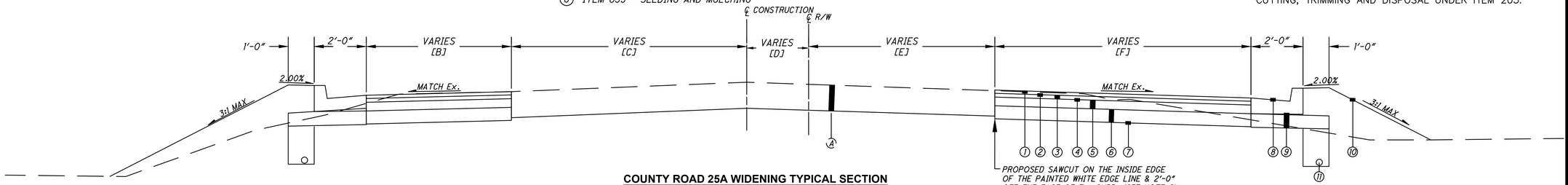
1. ITEM 441 - 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22
2. ITEM 407 - TACK COAT @ 0.10 GAL./S.Y.
3. ITEM 441 - 2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)
4. ITEM 304 - 12" AGGREGATE BASE (2 - 6" LIFTS)
5. ITEM 204 - SUBGRADE COMPACTION
6. ITEM 609 - CITY OF PIQUA TYPE 1 CURB
7. ITEM 608 - 4" CONCRETE WALK (BY HOMEBUILDER)
8. ITEM 659 - SEEDING AND MULCHING

MIN. COVER	UTILITY
24"	GAS
24"	SUMP LINE
36"	ELECTRIC
36"	TELEPHONE
36"	CABLE TV
54"	WATER

NOTE A
ITEM 441 ASPHALT SURFACE COURSE IS TO BE 1/4" ABOVE GUTTER PLATE.

NOTE B
LIQUID ASPHALT ON FACE OF CURB PRIOR TO ASPHALT PLACEMENT AND SEAL BETWEEN CURB AND PAVEMENT AFTER PLACEMENT OF ITEM 441 ASPHALT

NOTE C
PER CM&S 203.04E, LOCATE SOUND PAVEMENT EDGES, AND CUT AND TRIM PAVEMENT TO A NEAT LINE. REPAIR AND RESTORE DAMAGE CAUSED BY THE EQUIPMENT OR METHODS. INCLUDE THE COST OF CUTTING, TRIMMING AND DISPOSAL UNDER ITEM 203.

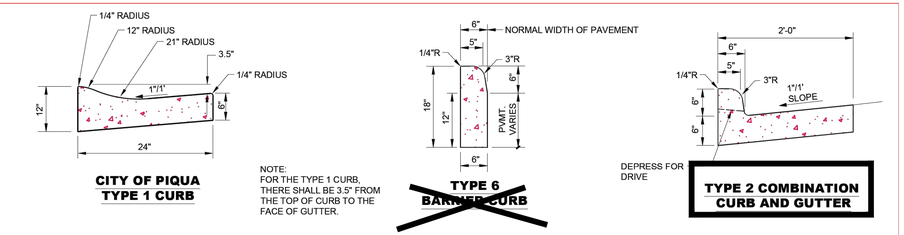


COUNTY ROAD 25A WIDENING TYPICAL SECTION

STA. 138+56.93 TO STA. 155+26.60 = 1669.67'

1. ITEM 448 - 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22
2. ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE @ 0.10 GAL./S.Y.
3. ITEM 448 - 1-3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
4. ITEM 407 - TACK COAT @ 0.10 GAL/S.Y.
5. ITEM 301 - 4" ASPHALT CONCRETE BASE, PG64-22
6. ITEM 304 - 6" AGGREGATE BASE
7. ITEM 204 - SUBGRADE COMPACTION
8. ITEM 609 - COMBINATION CURB AND GUTTER, TYPE 2 (CITY OF PIQUA STANDARD
9. ITEM 304 - 7-1/4" AGGREGATE BASE
10. ITEM 659 - SEEDING AND MULCHING
11. ITEM 605 - 6" BASE PIPE UNDERDRAINGS
- A. EXISTING PAVEMENT

[B] - VARIES 2.00' TO 4.08' FROM STA. 139+02.36 TO STA. 141+96.96
[B] - VARIES 4.08' TO 0.00' FROM STA. 141+96.96 TO STA 155+26.60
[C] - VARIES 14.44' TO 10.53' FROM STA. 139+02.36 TO STA. 141+96.96
[C] - VARIES 10.53' TO 11.54' FROM STA. 141+96.96 TO STA. 155+26.60
[D] - VARIES 2.86' TO 0.21' FROM STA. 138+56.93 TO STA. 155+26.60
[E] - VARIES 15.37' TO 11.36' FROM STA. 138+56.93 TO STA. 140+62.01
[E] - VARIES 11.36' TO 10.91' FROM STA. 140+62.01 TO STA. 155+26.60
[F] - VARIES 2.00' TO 8.60' FROM STA. 138+56.93 TO STA. 140+62.01
[F] - VARIES 8.60' TO 0.81' FROM STA. 140+62.01 TO STA. 155+26.60



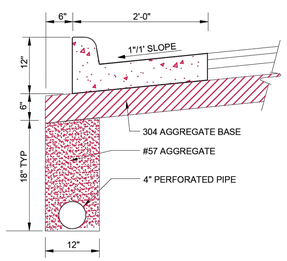
CITY OF PIQUA TYPE 1 CURB

NOTE:
FOR THE TYPE 1 CURB, THERE SHALL BE 3.5" FROM THE TOP OF CURB TO THE FACE OF GUTTER.

~~TYPE 6 BARRIER CURB~~

DEPRESS FOR DRIVE

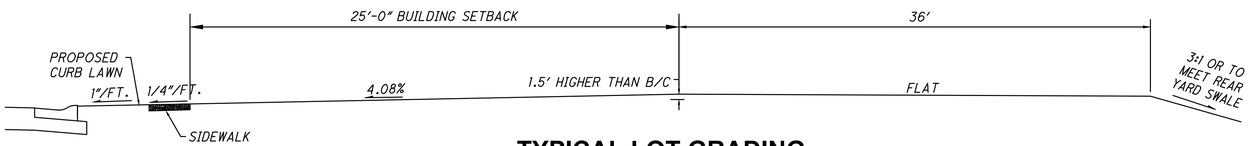
TYPE 2 COMBINATION CURB AND GUTTER



4" SHALLOW PIPE UNDERDRAIN DETAIL (AS REQUIRED BY CITY)

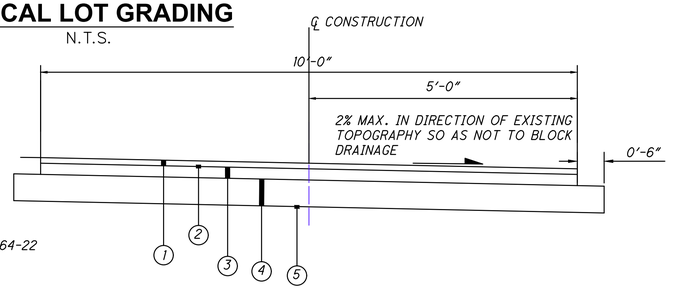
NOTES

A. CONCRETE AND WORK SHALL MEET THE REQUIREMENT SET FORTH IN ODOT ITEM 609 CURBING.
B. CURBING SHALL HAVE CONTRACTION JOINTS EVERY 10'.
C. MINIMUM OF 6" OF ODOT 304 SHALL BE PLACED UNDER CURBING.
D. CURBING SHALL BE BACKFILLED IMMEDIATELY AFTER FORMS ARE REMOVED OR AS SOON AS PRACTICAL WHEN SLIP FORMING PRIOR TO OTHER CONSTRUCTION OPERATIONS.
E. PROVIDE BROOM FINISH AND EDGING TO ALL EXPOSED SURFACES.
F. WITH PRIOR CITY DIRECTION, APPLY WHITE PIGMENTED CURING COMPOUND ON ALL SURFACES IMMEDIATELY AFTER FINISHING SURFACES.
G. ALL CONCRETE SHALL BE ODOT CLASS QC1, (4000 PSI, 520 LB/CY CEMENT) PROPORTIONING OPTIONS 1,2, AND 3 NOT ALLOWED.
H. CONCRETE SHALL CONTAIN 7% ± 2% OF TOTAL AIR.
I. ALL CURBING PLACED SHALL HAVE A FRONT AND REAR FORM. EXCEPTION: UNLESS CURBING IS SLIP FORMED BY MACHINE OR IS ABUTTING CONCRETE DRIVEWAY OR SIDEWALK OR OTHERWISE APPROVED BY THE ENGINEER.
J. MINIMUM FLOW LINE SLOPE OF THE PERFORATED PIPE IS TO BE 0.003 FT/FT TO OUTLET.



TYPICAL LOT GRADING

N.T.S.



LEGEND

1. ITEM 441 - 1-1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
2. ITEM 407 - NON-TRACKING TACK COAT APPLIED AT 0.06 GAL./S.Y.
3. ITEM 441 - 1-3/4" ASPHALT CONCRETE BASE, PG64-22
4. ITEM 304 - 6" AGGREGATE BASE
5. ITEM 204 - SUBGRADE COMPACTION

ASPHALT WALKING PATH CROSS SECTION
NTS

CITY OF PIQUA
ACCESS Engineering Solutions

CONCRETE CURB DETAILS

REVISIONS:
11-11-19 BG
12-31-20 BG/KK

DATE APPROVED: DEC. 2016

PAGE No.
300-4

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
TYPICAL SECTION

REVISIONS:

FILE NAME GYA
DRAWN BY KMM
CHECKED BY KMM
PROJECT No. MIA-PIQ-2527
DATE 5-15-2026
SHEET NUMBER 5 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GeneralDetails.dwg 18-Jun-26 8:31 AM

GENERAL NOTES (CITY OF PIQUA)

ALL CONSTRUCTION SHALL CONFORM TO THE LATEST VERSION OF THE CITY OF PIQUA, OHIO STANDARD SPECIFICATIONS AND TO THE LATEST VERSION OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS.

EXISTING UNDERGROUND UTILITIES AND SERVICES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS ACCORDING TO THE BEST INFORMATION AVAILABLE. THE LOCATIONS SHOWN ARE INTENDED ONLY AS A GUIDE AND CANNOT BE GUARANTEED ACCURATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR:

A. CONTACTING THE INDIVIDUAL UTILITY OWNERS TEN DAYS PRIOR TO CONSTRUCTION AND ADVISING THEM OF THE WORK TO TAKE PLACE.

B. SOLICITING THEIR AID IN LOCATING AND PROTECTING ANY UTILITY WHICH MAY INTERFERE WITH CONSTRUCTION.

C. EXCAVATING AND VERIFYING THE HORIZONTAL AND VERTICAL LOCATION OF EACH UTILITY.

D. ALL DAMAGE TO ANY EXISTING UTILITY.

UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 ORC. EXISTING UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATION ACCORDING TO THE BEST AVAILABLE DATA. THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING THEM IN THE FIELD PRIOR TO CONSTRUCTION AND WILL BE RESPONSIBLE FOR ANY DAMAGE DONE TO THEM. CONTRACTOR TO CONTACT OHIO UTILITIES PROTECTION SERVICE (1-800-362-2764) 48 HOURS PRIOR TO CONSTRUCTION.

NON-MEMBERS MUST BE CALLED DIRECTLY.

SEE CITY OF PIQUA "GENERAL NOTES" DETAIL 500-1, FOR ADDITIONAL UTILITY CONTACT INFORMATION.

OHIO UTILITIES PROTECTION SERVICE (OUPS)
CONTACT 48 HOURS
"CALL BEFORE YOU DIG"
1-800-362-2764

ANY MISCELLANEOUS DRAINS (FIELD TILE, ETC.) ENCOUNTERED DURING CONSTRUCTION SHALL BE TIED INTO THE STORM SEWER UPON INSPECTION BY THE CITY.

ALL STREET SURFACES, DRIVEWAYS, CULVERTS, ROADSIDE DRAINAGE DITCHES AND OTHER STRUCTURES THAT ARE DISTURBED OR DAMAGED IN ANY MANNER AS A RESULT OF CONSTRUCTION SHALL BE REPLACED IN KIND.

SAFETY REQUIREMENTS, STATED UNDER 29 CFR, OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION'S (OSHA) REGULATIONS FOR THIS TYPE OF WORK, WILL BE ENFORCED AND THE CONTRACTOR SHALL COMPLY WITH THESE PROVISIONS.

THE CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO CONTROL SOIL EROSION AND SEDIMENTATION THROUGHOUT THE COURSE OF THE WORK. THIS SHALL INCLUDE THE USE OF HAY BALES, DIKES, SEDIMENT PITS, MULCHES, FILTER FABRICS, AND OTHER DEVICES AND METHODS. PARTICULAR CARE SHALL BE TAKEN TO AVOID EROSION AND SEDIMENTATION ON PUBLIC STREETS AND NEIGHBORING PROPERTIES.

TRAFFIC CONTROL ON ALL PUBLIC ROADS SHALL CONFORM TO THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS".

THE CONTRACTOR SHALL ACQUIRE ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.

ALL NON-PAVED AREAS SHALL BE GRADED, SEEDED, AND MULCHED IN ACCORDANCE WITH ODOT ITEM 659. HIGHLY ERODIBLE AREAS, AS DESIGNATED BY THE CITY, SHALL BE SODDED IN ACCORDANCE WITH ODOT ITEM 660.

ALL UTILITY CROSSINGS (ELECTRIC, GAS, ETC.) ARE TO BE SLEEVED PRIOR TO ROAD COMPACTION TESTING.

CONTRACTOR TO COMMUNICATE WITH THE HOMEBUILDER TO PLACE ALL UTILITIES OUT OF THE FUTURE DRIVEWAY APPROACHES.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON NAVD 88 (ODOT VRS GEOID 18).

BENCHMARK #1 ELEV. 962.43
BOLT AT TIP ARROW TOP FLANGE OF FIRE HYDRANT SOUTH SIDE OF COUNTY RD 25A AT THE ENTRANCE TO THE CHURCH.

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. CHOICE ONE ENGINEERING CORPORATION MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. FURTHER, CHOICE ONE ENGINEERING CORPORATION DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH CHOICE ONE ENGINEERING CORPORATION DID LOCATE AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. CHOICE ONE ENGINEERING CORPORATION HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

UTILITY INTERFERENCE

IF, DURING CONSTRUCTION, INTERFERENCE ARISES WITH EXISTING UTILITIES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE UTILITY COMPANY INVOLVED. ANY AND ALL WORK REQUIRED FOR PUBLIC OR PRIVATE UTILITIES WILL BE DONE BY AND AT THE EXPENSE OF THEIR RESPECTIVE OWNERS, UNLESS OTHERWISE NOTED ON THESE PLANS. THE CONTRACTOR SHALL NOTIFY, AT LEAST 7 DAYS BEFORE BREAKING GROUND, ALL PUBLIC SERVICE COMPANIES HAVING WIRES, POLES, PIPES, CONDUITS, MANHOLES, OR OTHER STRUCTURES THAT MAY BE AFFECTED BY THIS OPERATION, INCLUDING ALL STRUCTURES WHICH ARE AFFECTED AND NOT SHOWN ON THESE PLANS.

LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL UTILITIES, AND STRUCTURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE METHOD OF SUPPORT OR PROTECTION MUST BE APPROVED BY THE APPROPRIATE UTILITY COMPANY, AND IF FACILITY IS DAMAGED BY THE CONTRACTOR, ALL REPAIRS SHALL BE MADE BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR IS HEREBY ADVISED THAT ALL UTILITY COMPANIES AFFECTED BY THIS PROJECT MAY BE WORKING CONCURRENTLY WITHIN THE PROJECT LIMITS. NO ADDITIONAL COMPENSATION WILL BE MADE TO THE CONTRACTOR FOR COORDINATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE UTILITY COMPANIES.

UTILITIES

CONTRACTOR SHALL INSTALL AND/OR COORDINATE THE INSTALLATION OF GAS, ELECTRIC, TELEPHONE AND CABLE TELEVISION. CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES PRIOR TO INSTALLATION OF ANY FACILITIES. ALL UTILITIES SHALL BE INSTALLED PER EACH PARTICULAR UTILITY COMPANY'S STANDARDS AND PROCEDURES. CONTRACTOR TO VERIFY ACTUAL SIZES, LOCATIONS (POINTS OF ENTRY INTO THE BUILDING) AND INVERTS OF ALL UTILITIES TYING INTO THE BUILDING WITH ARCHITECT PLANS BEFORE CONSTRUCTION.

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND BEFORE FINAL ACCEPTANCE BY THE OWNER, REPRESENTATIVES OF THE OWNER AND THE CONTRACTOR SHALL MAKE AN INSPECTION OF ALL EXISTING SEWER THAT MAY BE AFFECTED BY THE WORK AND ARE TO REMAIN IN SERVICE. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE OWNER.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER.

EXISTING DRAINAGE FACILITIES

ANY DRAINAGE CONDUIT CURRENTLY CONNECTED TO THE EXISTING STORM SEWER SHALL BE CONNECTED TO THE PROPOSED STORM SEWER. ANY DRAINAGE CONDUIT DAMAGED BY THE CONTRACTOR SHALL BE REPLACED BY THE CONTRACTOR TO A CONDITION EQUAL TO OR BETTER THAN ITS ORIGINAL CONDITION. ALL CONDUIT REMOVED, REPLACED AND/OR CONNECTED TO THE STORM SEWER SHALL BE NOTED ON THE RECORD DRAWINGS AND SHALL BE INSPECTED BY THE CITY BEFORE IT IS COVERED.

A CONCRETE COLLAR SHALL BE PROVIDED WHERE PROPOSED STORM SEWER PIPE IS CONNECTED TO AN EXISTING PIPE. THE COST SHALL BE INCLUDED IN THE COST OF THE CONTRACTORS OVERALL LUMP SUM BID FOR THE PROJECT.

ALL FIELD OR STORM DRAINS WHICH ARE ENCOUNTERED DURING CONSTRUCTION SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS OR PLUGGED AS APPROVED AND DIRECTED BY THE CITY CONNECTION OF INTERSECTING DRAIN TILES AND THE PROPOSED STORM SEWER SHALL BE THROUGH MANUFACTURED TEES, UNLESS OTHERWISE APPROVED BY THE CITY. COST OF ALL THE ITEMS ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PROJECT.

FIRE HYDRANT ASSEMBLY

THE ASSEMBLY WILL CONSIST OF THE FIRE HYDRANT, PIPE BRANCH, A GATE VALVE WITH VALVE BOX, THRUST BLOCKING AND RESTRAINING GLANDS.

WATER MAIN TESTING NOTES

- REFER TO CITY OF PIQUA'S STANDARD DETAIL, "WATER MAIN MATERIAL AND TESTING", 800-5.

PRECONSTRUCTION MEETING

ONCE THE JOB IS AWARDED TO A CONTRACTOR THERE SHALL BE A PRECONSTRUCTION MEETING WITH THE FOLLOWING ATTENDING PRIOR TO THE START OF ANY WORK:

-OWNER
-CONTRACTOR
-DESIGN ENGINEER
-CITY OF PIQUA (ENGINEERING, UTILITIES, ELECTRIC)
-PIONEER RURAL ELECTRIC- ELECTRIC
-AT&T-PHONE SERVICE
-SPECTRUM - CABLE

WATER MAIN SEPARATION

WHENEVER A SANITARY SEWER AND A WATER MAIN MUST CROSS, THE SEWER SHALL BE LAID BELOW THE WATER MAIN AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18" BELOW THE BOTTOM OF THE WATER MAIN PIPE. IF IT IS ABSOLUTELY IMPOSSIBLE TO MAINTAIN THE 18" VERTICAL SEPARATION, THE SEWER SHALL BE EITHER CONSTRUCTED OF EITHER SLIP-ON OR MECHANICAL JOINT WATER MAIN MATERIAL AND BE PRESSURE TESTED TO 150 PSI TO ENSURE WATER-TIGHTNESS OR BE ENCASED IN A ¼" THICK CONTINUOUS STEEL, DUCTILE IRON OR PRESSURE RATED, DR 18 OR LESS PVC PIPE FOR A DISTANCE OF 10 FEET ON EITHER SIDE OF THE CROSSING. THE SEWER SHALL BE THE LONGEST STANDARD LENGTH AVAILABLE AND BE CENTERED AT THE POINT OF CROSSING SO THE JOINTS ARE AS FAR AS POSSIBLE FROM THE WATER MAIN.

WHENEVER A STORM SEWER AND A WATER MAIN MUST CROSS, THE PIPES SHALL BE LAID AT SUCH ELEVATIONS THAT THE CROWN OF ONE PIPE IS AT LEAST 18" BELOW THE BOTTOM OF THE OTHER.
WATER MAIN MUST BE INSTALLED WITH A MINIMUM OF 10' HORIZONTAL SEPARATION FROM ALL STORM AND SANITARY SEWERS, MEASURED FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.

WATER MAIN SHALL BE INSTALLED A MINIMUM OF 10' FROM ALL SEWERS, MEASURED FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.

CLEAN WATER CONNECTIONS

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

SANITARY SEWER TESTING NOTES

SEE CITY OF PIQUA STANDARD DETAILS, "SANITARY TESTING NOTES", 900-11 AND "SANITARY SEWER TELEVISING STANDARDS", 900-12.

SUBCONTRACTOR SUPERVISION

THE CONTRACTOR IS REQUIRED TO HAVE A PROJECT SUPERVISOR ON-SITE TO SUPERVISE THE SUBCONTRACTOR FOR QUALITY CONTROL PURPOSES AND TO PROVIDE ANY NECESSARY ASSISTANCE TO THE SUBCONTRACTOR TO ENSURE QUALITY WORK.

COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTORS OVERALL LUMP SUM BID FOR THE PROJECT.

SAFETY

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK.

MUD

THE TRACKING OR SPILLING OF MUD, DIRT, OR DEBRIS UPON CITY STREETS IS PROHIBITED, AND ANY SUCH OCCURRENCE SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR.

CERTIFICATION OF PROPERTY PINS

UPON COMPLETION OF ALL ROADWAY AND UTILITIES, INCLUDING ALL GAS, ELECTRIC AND LIGHTING, AND THE FINAL LIFT OF ASPHALT, THE DEVELOPER SHALL HAVE A PROFESSIONAL SURVEYOR VERIFY ALL LOT PINS FOR PROPER LOCATION. THE SURVEYOR SHALL SEND A CERTIFICATION LETTER TO THE CITY ENGINEER.

PROTECTION OF SUB-SURFACE TILE

BE ADVISED: A SUB-SURFACE DRAINAGE SYSTEM MAY EXIST ON THIS SITE. THE SYSTEM AND/OR OUTLET, IF LOCATED ON THIS PROPERTY, MUST BE MAINTAINED AT ALL TIMES.

RECORD DRAWINGS

THE CONTRACTOR SHALL PROVIDE 2 COMPLETE SETS OF RECORD DRAWINGS TO THE CITY OF PIQUA WITHIN 30 DAYS OF PROJECT COMPLETION. THESE DRAWINGS SHALL SHOW ALL CHANGES TO THE ORIGINAL DRAWINGS, ALL MANHOLE AND CATCH BASIN LOCATIONS AND INVERTS, ALL LATERAL LOCATIONS AND DEPTHS, ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION, AND ALL OTHER PERTINENT DATA TO THE IMPROVEMENTS. PAYMENT FOR THIS ITEM SHALL BE INCIDENTAL TO THE OTHER ITEMS PAID FOR IN THIS PROJECT.

CAD FILE DISCLAIMER

THE CAD FILE ASSOCIATED WITH THESE CONSTRUCTION PLANS IS A NON-CERTIFIED DOCUMENT. ANY USE OF THE INFORMATION OBTAINED OR DERIVED FROM THE ASSOCIATED CAD FILE WILL BE AT THE RECEIVING PARTY/USER'S RISK. CHOICE ONE ENGINEERING CORP. OFFERS NO WARRANTY AS TO THE ACCURACY OF THE INFORMATION IN THE CAD FILE OR THAT REVISIONS HAVE BEEN ISSUED AFTER THE CAD DRAWING WAS RELEASED. RECEIVING PARTIES/USERS SHALL HOLD HARMLESS TO THE MAXIMUM EXTENT ALLOWED BY LAW CHOICE ONE ENGINEERING CORP. FROM ANY USE OF THE CAD FILE BY THE RECEIVING PARTY/USER. IN ALL CIRCUMSTANCES, AND AT ALL TIMES, THE PUBLISHED PAPER AND/OR PDF DRAWINGS FOR THE PROJECT SHALL SUPERSEDE THE CAD FILES. IN THE CASE OF AN INCONSISTENCY BETWEEN THE PUBLISHED PAPER/PDF DRAWINGS AND THE ASSOCIATED CAD FILE, THE PUBLISHED PAPER/PDF DRAWINGS SHALL GOVERN THE PROJECT AND ALL WORK.

ITEM 614 MAINTAINING TRAFFIC

IT IS THE INTENTION TO PERFORM THE REQUIRED WORK WITHIN THESE PLANS WITH THE LEAST INCONVENIENCE TO, AND THE MAXIMUM SAFETY OF, THE CONTRACTOR, LOCAL MERCHANTS, PEDESTRIAN TRAFFIC, AND THE TRAVELING PUBLIC.

REQUIREMENTS FOR MAINTAINING TRAFFIC AS SPECIFIED IN THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (CURRENT EDITION, LATEST REVISION), PERTINENT PROVISIONS OF THE "OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS" (INCLUDING SUPPLEMENTAL SPECIFICATIONS) AND APPLICABLE STANDARD CONSTRUCTION DRAWINGS SHALL APPLY TO THIS PROJECT IN ADDITION TO THE FOLLOWING NOTES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SAFE AND EFFECTIVE VEHICULAR TRAFFIC CONTROL 24 HOURS A DAY FOR THE DURATION OF THIS PROJECT. THIS WILL INCLUDE PROVIDING, PLACING, MAINTAINING, AND SUBSEQUENTLY REMOVING ALL NECESSARY TRAFFIC CONTROL MEASURES FOR ALL PROPOSED CONSTRUCTION OPERATIONS.

BEFORE THE WORK BEGINS, THE CONTRACTOR SHALL SUBMIT TO THE CITY THE NAME(S) AND TELEPHONE NUMBER(S) OF A PERSON OR PERSONS WHO CAN BE CONTACTED TWENTY-FOUR (24) HOURS A DAY BY THE CITY, OR ANY OTHER INTERESTED POLICE AGENCY.

THIS PERSON OR PERSONS SHALL BE RESPONSIBLE FOR REPAIRING AND/OR REPLACING ALL TRAFFIC CONTROL DEVICES NEEDED TO MAINTAIN THE SAFETY OF THE TRAVELED PAVEMENT FOR THE DURATION OF THIS PROJECT. THIS PERSON SHALL HAVE AVAILABLE ALL MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO PERFORM THE REQUIRED REPAIRS WITHIN A REASONABLE PERIOD OF TIME AS PER C.M.S. 614.14.

THE CONTRACTOR SHALL ALSO SUBMIT A CONSTRUCTION SEQUENCING SCHEDULE PRIOR TO WORK BEGINNING FOR APPROVAL BY THE CITY. THE CONSTRUCTION SEQUENCING SCHEDULE SHALL TAKE INTO CONSIDERATION ALL ASPECTS OF THE PROJECT INCLUDING HOW LOCAL TRAFFIC TO THE BUSINESSES WILL BE MAINTAINED. THE CONSTRUCTION SEQUENCE WILL NEED TO BE APPROVED BY THE CITY PRIOR TO ANY COMMENCEMENT OF WORK.

ACCESS FOR PROPERTY OWNERS AND BUSINESS TRAFFIC SHALL BE MAINTAINED IN A UNIFORM PATTERN THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT AND SHALL NOT BE SUBJECTED TO CONSTANT LANE SHIFTS.

ACCESS TO AND FROM ALL LOCAL RESIDENTIAL AND BUSINESS DRIVES WITHIN THE LIMITS OF THIS PROJECT SHALL BE MAINTAINED AT ALL TIMES (24 HOURS A DAY) BY USING THE EXISTING PAVEMENT, TEMPORARY PAVEMENT, AND THE PROPOSED PAVEMENT UNLESS OTHERWISE DIRECTED BY THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SEQUENCE HIS WORK TO HELP MINIMIZE THE NEED FOR TEMPORARY AGGREGATE PAVEMENT. TEMPORARY AGGREGATE PAVEMENT CAN BE ASPHALT GRINDINGS OR OTHER AGGREGATE APPROVED BY THE CITY. THE COST OF INSTALLATION, MATERIAL, AND REMOVAL OF THE TEMPORARY AGGREGATE PAVEMENT IS TO BE PART OF THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC.

WHERE MORE THAN ONE ACCESS TO A BUSINESS OR RESIDENCE EXISTS, ONLY ONE ACCESS NEEDS TO BE MAINTAINED AT A TIME DURING CONSTRUCTION. WHEN A BUSINESS OR RESIDENCE ONLY HAS ONE ACCESS DRIVE, ACCESS SHALL BE MAINTAINED AT ALL TIMES. IF THE PROJECT REQUIRES IMPROVEMENTS TO THIS ACCESS DRIVE, THE CONTRACTOR SHALL REPLACE HALF OF THE DRIVE AT ONE TIME TO ALLOW ACCESS AT ALL TIMES. THESE ACCESS OPTIONS ARE SUBJECT TO THE APPROVAL OF THE CITY.

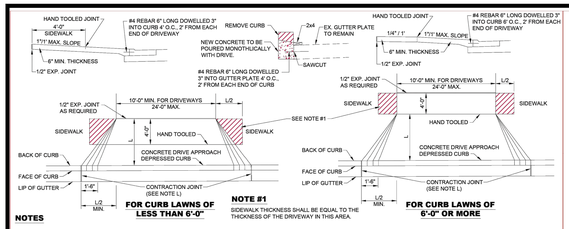
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
GENERAL NOTES

REVISIONS:

FILE NAME	GNA
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	6 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GeneralDetails.dwg 18-Jun-26 8:31 AM



NOTES

A. DRIVE APPROACHES SHALL MEET THE REQUIREMENTS OF ODOT ITEM 402, 406, 608, AND 609 AND BE CAST-IN-PLACE CONCRETE
B. DRIVE APPROACHES MAY BE PLACED MONOLITHICALLY WITH CURB.
C. MAXIMUM JOINT SPACING SHALL BE 10' LONGITUDINALLY, TRANSVERSELY AND AT TAPERS.
D. EXPANSION MATERIAL SHALL BE ½" PREMOLDED, ODOT APPROVED.
E. 6" OF COMPACTED ODOT ITEM 304, ITEM 411 OR 0T5 AGGREGATE BASE SHALL BE PLACE UNDER DRIVE APPROACHES.
F. PROVIDED BROOM FINISH AND EDGING TO ALL EXPOSED SURFACES.
G. WHERE CURB AND GUTTER HAS NOT BEEN DROPPED AT DRIVE APPROACHES, THE CONTRACTOR WILL CUT AND REMOVE CURB. (SEE DETAIL)
H. WHERE ASPHALTIC CONCRETE PAVEMENT HAS BEEN DISTURBED, THE ASPHALT SHALL BE REPLACED BY THE CONTRACTOR AS DIRECTED BY THE CITY.
I. JOINTS SHALL BE CLEANED AND EDGED BY A ¼" RADIUS EDGER. LONGITUDINAL JOINTS SHALL BE AS DIRECTED BY THE CITY. EXPANSION JOINTS SHALL BE OF SUCH DIMENSIONS AS SHOWN ON STANDARD DRAWINGS FOR CONSTRUCTION JOINTS.
J. CONCRETE SHALL CONTAIN 6 ± 2% OF TOTAL AIR.
K. CONCRETE SHALL BE ODOT CLASS QC1.
L. THIS STANDARD DRAWING IS FOR GUIDELINE PURPOSES. EACH INDIVIDUAL DRIVE WILL NEED TO BE DESIGNED AND SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL.
M. "6H"=5' MINIMUM TO 24' MAXIMUM UNLESS OTHERWISE APPROVED BY THE CITY.
N. IF CURB IS REMOVED AND REPLACED DURING DRIVEWAY CONSTRUCTION, JOINTS BETWEEN EXISTING AND NEW CURB ARE TO BE DOWELLED WITH #4 REBAR 6" IN LENGTH, 3" INTO CURB, 4' OC.
O. ALL NEW CONSTRUCTION OR MODIFICATIONS OF DRIVE APPROACHES REQUIRE LIFT OF CONCRETE APPROACH REGARDLESS OF WHETHER THERE IS A SIDEWALK OR NOT. THE NEW APPROACH IS TO GO FROM EDGE OF THE EXISTING STREET TO RIGHT OF WAY OR MINIMUM OF 6'-0".
P. DRAINAGE SWALES WILL HAVE TO BE ADDRESSED, WHEN A DRIVEWAY IS BEING CONSTRUCTED.
Q. PRECAUTIONS SHALL BE TAKEN TO PROTECT EXISTING CONCRETE, BRICK FROM TIRE MARKS AND DAMAGE DURING CONSTRUCTION.

RESIDENTIAL DRIVE APPROACH

REVISIONS:	DATE APPROVED: DEC. 2016
BG 8-21-18	PAGE No. 300-5

GENERAL

A. ALL STREET CONSTRUCTION SHALL BE IN ACCORDANCE WITH ODOT SPECIFICATIONS LATEST REVISION.
B. CONTRACTOR MUST APPLY FOR NECESSARY PERMITS, FEES WITH THE CITY BEFORE CONSTRUCTION OR DEMOLITION BEGINS.

PAVEMENT REPLACEMENT

A. IMMEDIATELY AFTER PLACEMENT OF BACKFILL IN EXISTING STREETS, A TEMPORARY PAVEMENT SHALL BE INSTALLED AND THE STREET OPENED. TEMPORARY PAVEMENT SHALL CONSIST OF 8" OF COMPACTED ODOT SPECIFIED 411 BASE AND A SURFACE COURSE APPROVED BY THE CITY. THE SURFACE COURSE KEPT FLUSH WITH THE EXISTING STREET.
B. PERMANENT PAVEMENT REPLACEMENT SHALL BE EQUAL TO OR EXCEED THE EXISTING PAVEMENT (MINIMUM PAVEMENT COMPOSITION, SEE PAGE 300-2).
C. IF THE CITY DETERMINES THAT THERE IS A DEPRESSION SHALL BE REFILLED AS REQUIRED AT THE CONTRACTOR'S EXPENSE. THIS PROVISION APPLIES FOR ONE YEAR PERIOD AFTER THE WORK HAS BEEN ACCEPTED BY THE CITY.
D. ALL TEMPORARY PAVEMENT AND SIDEWALK SHALL BE MAINTAINED BY THE CONTRACTOR OR DEVELOPER AT THEIR OWN EXPENSE IN A SUITABLE AND SAFE CONDITION FOR TRAFFIC UNTIL PERMANENT REPLACEMENT IS MADE OR THE PROJECT IS FINALLY ACCEPTED BY THE CITY. COLD PATCH ALL TRENCHES A MINIMUM OF 4" WHEN FINAL ASPHALT WILL NOT BE REPLACED WITHIN 24 HOURS.

TRAFFIC CONTROL

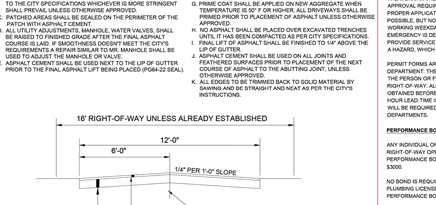
A. THE CONTRACTOR SHALL MAINTAIN TRAFFIC CONTROL AT ALL TIMES WITH THE PROPER BARRICADES AS PER THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THESE CONTROL DEVICES SHALL BE IN PLACE PRIOR TO ANY WORK COMMENCING.
B. TRAFFIC SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE CITY.

CURB STAKING AND ROADWAY

A. LINE AND GRADE EVERY 25'-0" ON A CONVENIENT OFFSET.

PAVEMENT (ASPHALT)

A. THE CONTRACTOR SHALL PROVIDE THE CITY WITH A COPY OF THE MANUFACTURER'S TRAFFIC MIX DESIGN FOR ASPHALT FOR EACH PLANT THAT PROVIDES HOT MIXED ASPHALT TO THIS PROJECT. ALL MIXES SHALL FOLLOW ODOT 408 MIX FORMULA.
B. ALL WORK SHALL ADHERE TO ODOT'S LATEST REVISIONS AND ODOT 2016 CONSTRUCTION MANUAL. ANY MORE STRINGENT SHALL PREVAIL UNLESS OTHERWISE APPROVED.
C. PATCHED AREAS SHALL BE SEALED ON THE PERIMETER OF THE PATCH WITH ASPHALT CEMENT.
D. ALL UTILITY ADJUSTMENTS, MANHOLE, WATER VALVES, SHALL BE RAISED TO FINISHED GRADE AFTER THE FINAL ASPHALT COURSE IS LAID. IF SMOOTHNESS DOESN'T MEET THE CITY'S REQUIREMENTS A REPAIR SIMILAR TO MR. MANHOLE SHALL BE USED TO ADJUST THE MANHOLE OR VALVE.
E. ASPHALT CEMENT SHALL BE USED NOT TO THE LIP OF GUTTER PRIOR TO THE FINAL ASPHALT LIFT BEING PLACED (PG64-22 SEAL).
F. TACK COAT SHALL BE APPLIED PRIOR TO THE PLACEMENT OF THE FINAL LIFT OF ASPHALT. CONTRACT 446 JOB MIX FORMULA.
G. TACK COAT SHALL BE APPLIED ON NEW AGGREGATE WHEN TEMPERATURE IS 60°F AND HIGHER. ALL DRIVEWAYS SHALL BE PRIMED PRIOR TO PLACEMENT OF ASPHALT UNLESS OTHERWISE APPROVED.
H. NO ASPHALT SHALL BE PLACED OVER EXCAVATED TRENCHES UNTIL IT HAS BEEN COMPACTED AS PER CITY SPECIFICATIONS.
I. FINAL LIFT OF ASPHALT SHALL BE FINISHED TO 1/4" ABOVE THE LIP OF GUTTER.
J. ASPHALT CEMENT SHALL BE USED ON ALL JOINTS AND FEATHERED SURFACES PRIOR TO PLACEMENT OF THE NEXT COURSE OF ASPHALT TO THE ABUTTING JOINT, UNLESS OTHERWISE APPROVED.
K. ALL EDGES TO BE TRIMMED BACK TO SOLID MATERIAL BY SAWING AND BE STRAIGHT AND NEAT AS PER THE CITY'S INSTRUCTIONS.



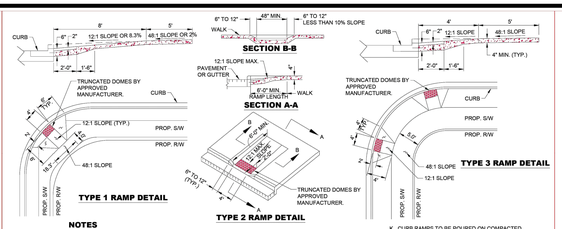
TYPICAL ALLEY CONSTRUCTION

A. MINIMUM STANDARD (UNLESS OTHERWISE APPROVED).

B. FOR RENOVATION OF EXISTING ALLEYS ONLY. NO NEW ALLEYS WILL BE APPROVED WITHIN THE CITY.

CURB RAMPS

REVISIONS:	DATE APPROVED: DEC. 2016
6-30-16 BG 11-11-16 BG 12-31-20 BG/MK	PAGE No. 300-8

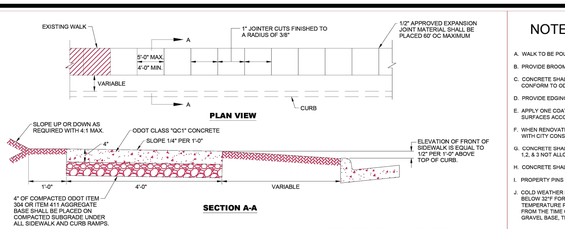


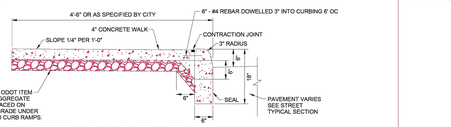
NOTES

A. CITY TO SPECIFY TYPE 1,2, OR 3 RAMP.
B. ANY COMBINATION OF SIDE SLOPES ON OPPOSITE SIDES OF A RAMP MAY BE USED TO BEST FIT THE SITE CONDITIONS.
C. THE MINIMUM RAMP LENGTH IS 6'-0" FOR THE BACK OF A 6'-0" CURB AND MAY BE INCREASED WHERE FEASIBLE TO OBTAIN FLATTER RAMP SLOPE OR TO BETTER BLEND WITH THE WALK CONFIGURATION.
D. WALK THICKNESS IN THE RAMP SLOPES SHALL BE 6" MINIMUM OR THICKER AS NECESSARY TO MATCH ADJACENT WALK THICKNESS.
E. CURB RAMPS SHALL MEET AND BE FINISHED TO AMERICAN WITH DISABILITIES ACT (ADA) STANDARDS.
F. TEXTURE OF CONCRETE SURFACES SHALL BE OBTAINED BY COURSE BROOMING TRAVERSE TO THE RAMP SLOPES AND SHALL BE ROUGHER THAN ADJACENT WALK.
G. CURB RAMPS SHALL MEET THE REQUIREMENTS OF ODOT TEM 608 UNLESS OTHERWISE SPECIFIED WITHIN. REFER TO ODOT STANDARD DRAWINGS FOR ADDITIONAL CURB RAMP CONFIGURATIONS.
H. CONCRETE SHALL BE ODOT QC1, (4000 PSI 520LB/CY CEMENT) PROPORTIONING OPTIONS 1,2, & 3 NOT ALLOWED. CONCRETE SHALL CONTAIN 7% ± 2% TOTAL AIR.
I. FOR RECONSTRUCTION JOBS THE CURB RAMPS WILL HAVE TO BE ADJUSTED BASED ON THE EXISTING CONDITIONS.
J. TRUNCATED DOME SPECIFICATIONS; INSTALL DETECTABLE WARNINGS (TRUNCATED DOMES) FOR A DISTANCE OF 24" FROM THE BACK OF THE CURB FOR THE ENTIRE WIDTH OF THE RAMP OPENING WHERE IT IS FLUSH WITH THE PAVEMENT. THE TRUNCATED DOMES SHALL BE ODOT APPROVED, THE COLOR OF THE PANEL SHALL BE RED.
K. CURB RAMPS TO BE POURED ON COMPACTED GRANULAR BEDDING. CITY INSPECTION OF FORM WORK IS REQUIRED PRIOR TO PLACING CONCRETE.
L. PROVIDE BROOM FINISH AND EDGING TO ALL EXPOSED SURFACES. TEXTURE SHALL BE A MEDIUM BROOM WITH TOOL FINISH. CITY TO REVIEW AND APPROVE PRIOR TO POURING.
M. ALL DETECTABLE WARNINGS CURB RAMPS TO BE CAST IRON MANUFACTURED BY EAST JORDAN IRON WORKS 7005 SERIES, NEENAH FOUNDRY MODEL R-4994.
N. ALL RAMPS SHALL BE DOWELLED TO THE CURB BY THE USE OF #4 REBAR AS PER CITY STANDARDS 300-07 CONCRETE SIDEWALK ABUTTING TYPE 2 CURB DETAIL.
O. ADA SPECIFICATIONS SHALL ALL INCLUDE ALL PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG) FEDERAL STANDARDS.

CONCRETE SIDEWALK DETAIL

REVISIONS:	DATE APPROVED: DEC. 2016
12-31-20 BG/MK	PAGE No. 300-9





COMBINED CURB AND SIDEWALK DETAIL

NOTES

A. WALK TO BE POURED ON COMPACTED GRANULAR BEDDING.
B. PROVIDE BROOM FINISH TO ALL EXPOSED SURFACES.
C. CONCRETE SHALL CONFORM TO ODOT ITEM 499 CONCRETE. CONCRETE WORK SHALL CONFORM TO ODOT ITEM 499 UNLESS OTHERWISE SPECIFIED WITHIN.
D. PROVIDE EDGING AROUND ALL EXPOSED SURFACES.
E. APPLY ONE COAT OF A WHITE PIGMENTED ODOT APPROVED CONCRETE SEALER ON ALL SURFACES ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
F. WHEN RENOVATING EXISTING STREETS, THE SIDEWALKS SHALL BE REPLACED TO CONFORM WITH CITY CONSTRUCTION STANDARDS AND DRAWINGS.
G. CONCRETE SHALL BE ODOT QC1, (4000 PSA, 520 LB/CY CEMENT) PROPORTIONING OPTIONS 1,2, & 3 NOT ALLOWED.
H. CONCRETE SHALL CONTAIN 7% ± 2% OF TOTAL AIR.
I. PROPERTY PINS SHALL BE RE-ESTABLISHED AFTER FINISHING OF SIDEWALK.
J. COLD WEATHER POURING WILL NOT BE PERMITTED IF AMBIENT AIR TEMPERATURE IS AT OR BELOW 32°F FOR THE NEXT 72 HOURS AFTER THE PROPOSED POUR DATE. ALL COLD TEMPERATURE POURS ARE TO BE BLANKETED FOR A PERIOD OF NO LESS THAN THREE DAYS FROM THE TIME OF THE POUR. AT NO TIME SHALL THERE BE ANY FROST ON ANY PART OF THE GRAVEL BASE, THE FORMS OR ANY ADJURING MEMBER PRIOR TO POURING THE CONCRETE.

SIDEWALK JOINTS

1. GENERAL: CONSTRUCT ISOLATION, CONSTRUCTION, AND CONTRACTION JOINTS, AND TOOL EDGINGS TRUE TO LINE WITH FACES PERPENDICULAR TO SURFACE PLANE OF CONCRETE. CONSTRUCT TRANSVERSE JOINTS AT RIGHT ANGLES TO CENTERLINE, UNLESS OTHERWISE INDICATED.
   A. WHEN JOINING EXISTING PAVEMENT, PLACE TRANSVERSE JOINTS TO ALIGN WITH PREVIOUSLY PLACED JOINTS, UNLESS OTHERWISE INDICATED.
2. CONSTRUCTION JOINTS: SET CONSTRUCTION JOINTS AT SIDE AND END TERMINATION OF PAVEMENT AND AT LOCATIONS WHERE PAVEMENT OPERATIONS ARE STOPPED FOR MORE THAN ONE-HALF HOUR, UNLESS PAVEMENT TERMINATES AT ISOLATION JOINTS.
3. EXPANSION JOINTS: FORM ISOLATION JOINTS OF PREFORMED JOINT-FILLER STRIPS ABUTTING MANHOLES, STRUCTURES, WALKS, OTHER FIXED OBJECTS, AND WHERE INDICATED. EXPANSION JOINTS SHALL NOT BE PLACED AT THE BUILDING FACE UNLESS DIRECTED BY THE CITY OF PIQUA.
   A. LOCATION OF EXPANSION JOINTS AT INTERVALS OF 60', UNLESS OTHERWISE INDICATED.
   B. LOCATE EXPANSION JOINTS ALONG BUILDINGS.
   C. THE EXPANSION JOINT MATERIAL SHALL BE ¼" THICK ODOT SPECIFICATIONS.
4. CONTRACTION JOINTS: FORM WEAKENED-PLANE CONTRACTION JOINTS, SECTIONING CONCRETE INTO AREAS AS INDICATED IN THE PLANS. CONSTRUCT CONTRACTION JOINTS FOR A DEPTH EQUAL TO AT LEAST ONE-FOURTH OF THE CONCRETE THICKNESS, WHERE INDICATED, AS FOLLOWS:
   A. GROOVED JOINTS: FROM CONTRACTION JOINTS AFTER INITIAL FLOATING BY GROOVING AND FINISHING EACH EDGE OF JOINT WITH GROOVER TOOL TO THE FOLLOWING RADIUS. REPEAT GROOVING OF CONTRACTION JOINTS AFTER APPLYING SURFACE FINISHES. ELIMINATE GROOVER OVERFLOW SLURRY MARKS ON CONCRETE SURFACES. QUALITY WORK SHALL BE PERFORMED ON THE NEW SIDEWALK WILL BE REMOVED AND REDONE AT THE CONTRACTOR'S EXPENSE. RADIUS TO BE ½ INCH (6 MM).
   B. SAWED JOINTS WILL NOT BE PERMITTED.
5. EDGING: TOOL EDGES OF JOINTS IN CONCRETE AFTER INITIAL FLOATING WITH AN EDGING TOOL TO A RADIUS OF 1/4 INCH (6MM). REPEAT TOOLING OF EDGES AFTER APPLYING SURFACE FINISHES. ELIMINATE TOOL MARKS (OVER FLOW SLURRY) ON CONCRETE SURFACES.

CONCRETE SIDEWALK NOTES

REVISIONS:	DATE APPROVED: DEC. 2016
09-20-16 BG 11-11-19 BG 12-31-20 BG/MK 02-03-21 BG/MK	PAGE No. 300-10

AGGREGATE BASE, ASPHALT, CONCRETE AND SUBGRADE TESTING

AN INDEPENDENT CERTIFIED TESTING LABORATORY ACCEPTANCE TO THE CITY OF PIQUA IS TO BE USED BY THE CONTRACTOR TO PERFORM THE REQUIRED TESTING. THE TESTING LAB SHALL PROVIDE THE CITY OF PIQUA WITH AND COPY OF ALL TEST RESULTS. INSPECTION LOGS ETC.

1) ASPHALT- ONE TEST SAMPLE PER TYPE PER PAVED LAYER OR PAVER PASS PER DAY PLANT TESTING, BY ODOT, OR BY A TESTING LAB
   A) TEST- GRADATION AND EXTRACTION TO DETERMINE BITUMEN CONTENT BASED ON SUBMITTED JOB MIX FORMULA.
   B) THE ENGINEER MY REQUIRE ADDITIONAL ASPHALT SAMPLES BY TYPE, PER LAYER OR PAVER PASS.
2) CONCRETE
   A) CURBING- ONCE DAILY DURING PLACEMENT
   B) DRIVEWAY- ONCE DAILY DURING PLACEMENT
   C) SIDEWALK- ONCE DAILY DURING PLACEMENT
   D) TESTING REQUIRED
      i) SLUMP TEST
      ii) AIR ENTRAINMENT
      iii) CONCRETE TEST CYLINDERS FOR COMPRESSION STRENGTH TESTING AT 7 DAYS, 14 DAYS, AND 28 DAYS.
   E) THE ENGINEER MAY REQUIRE ADDITIONAL SAMPLES OF CONCRETE FOR CURB, DRIVEWAY OR SIDEWALK.
3) AGGREGATE BASE AND STREET SUB-GRADE
4)
   A) STREET SUB-GRADE
      i) COMPACTION/ DENSITY TESTING USING "ONE POINT" PROCTOR" AT 98%
      ii) A MAXIMUM OF 100-FOOT INTERVALS OUTSIDE OF ALL UTILITY TRENCHES IN UNDISTURBED SOILS, ALTERNATING SIDES OF THE STREET.
   B) AGGREGATE BASE
      i) COMPACTION/DENSITY TESTING USING STANDARD MATERIAL PROCTOR AT 98%
      ii) A MINIMUM OF 200 FEET FROM START AND END OF WORK AREA.
      iii) A MAXIMUM OF 100-FOOT INTERVALS ALTERNATING SIDES OF THE STREET.
      iv) A MINIMUM OF 3 FEET FROM THE PROPOSED CURB-LINE.
   C) THE ENGINEER MAY REQUIRE ADDITIONAL COMPACTION / DENSITY TESTING IN INTERSECTIONS, FILL AREAS OR IN AREAS OF UNDERCUTTING.
4) DRIVEWAYS AND SIDEWALK AREAS WHERE EMBANKMENT HAS BEEN PLACED OR UNDERCUTTING HAS OCCURRED AT THE DISCRETION OF THE ENGINEER.
   A) COMPACTION / DENSITY TESTING USING STANDARD MATERIAL PROCTOR AT 98%
   B) SIDEWALKS, AS DIRECTED
      i) A MINIMUM OF 10 FEET FROM THE START AND END OF THE WORK AREA
      ii) A MAXIMUM OF 100 FOOT INTERVALS
   C) DRIVEWAYS AS DIRECTED
      i) ONE PER AREA.

STREET CUT AND RIGHT-OF-WAY OPENING STANDARD DRAWINGS AND SPECIFICATIONS

REVISIONS:	DATE APPROVED: DEC. 2016
12-09-16 BG 12-31-20 BG/MK	PAGE No. 300-13

PERMIT REQUIRED

A RIGHT-OF-WAY PERMIT FOR ANY DIGGING OR EXCAVATING WITHIN A PUBLIC RIGHT-OF-WAY FOR ANY STREET OR ALLEY IS REQUIRED 48 HOURS IN ADVANCE OF THE WORK. IN THE EVENT OF AN EMERGENCY, THE PERMIT REQUIREMENT SHALL BE WAIVED AND THE PROPER APPLICATION MUST BE SUBMITTED AS SOON AS POSSIBLE, BUT NO LATER THAN THE END OF THE FIRST WORKING WEEKDAY AFTER THE START OF WORK. AN EMERGENCY IS DEFINED AS A REPAIR REQUIRED TO PROVIDE SERVICE TO UTILITY CUSTOMERS OR TO MITIGATE A HAZARD. WORK STARTING PUBLIC HEALTH OR SAFETY.

PERMIT FORMS ARE AVAILABLE FROM THE CITY STREET DEPARTMENT. THE PERMIT FORM IS TO BE COMPLETED BY THE PERSON OR FIRM PLANNING THE WORK WITHIN THE RIGHT-OF-WAY. ALL FEES MUST BE PAID AND APPROVALS OBTAINED BEFORE WORK IS STARTED. A 72 WORKING HOUR LEAD-TIME IS RECOMMENDED. A PERMIT FEE OF $25 WILL BE REQUIRED OF EACH APPLICANT, INCLUDING CITY DEPARTMENTS.

PERFORMANCE BOND

ANY INDIVIDUAL OR FIRM WHO MAKES APPLICATION FOR A RIGHT-OF-WAY OPENING PERMIT MUST PROVIDE A CURRENT PERFORMANCE BOND TO THE CITY OF PIQUA IN THE AMOUNT OF $3000.

NO BOND IS REQUIRED FOR PLUMBERS WHO HOLD A CURRENT PLUMBING LICENSE TO THE CITY OF PIQUA AND HAVE A CURRENT PERFORMANCE BOND ON FILE IN THE HEALTH DEPARTMENT.

IN THE EVENT THAT AFTER NOTIFICATION FROM THE CITY ANY EXCAVATION FAILS TO CORRECT PROBLEMS ASSOCIATED WITH POOR TRENCH REPAIR OR MAINTENANCE WITHIN 24 HOURS OF NOTIFICATION, THE CITY RESERVES EXCLUSIVE RIGHT TO CORRECT THE PROBLEMS AND COLLECT ASSOCIATED COSTS FROM THE PERFORMANCE BOND.

WORK REQUIREMENTS

THE APPLICANT SHALL HAVE SUFFICIENT BARRICADES, WARNING SIGNS, AND LIGHTS DURING THE ENTIRE PERIOD THAT WORK IS BEING PERFORMED AND SHALL ADHERE TO APPLICABLE SECTION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

ALL DISTURBED AREAS MUST BE RETURNED TO A CONDITION THAT IS AS GOOD AS OR BETTER THAN THE CONDITION BEFORE THE WORK BEGAN. ALL REPAIRS MUST MEET CITY SPECIFICATIONS. THE CITY STREET SUPERINTENDENT SHALL INSPECT AND APPROVE ALL REPAIRS. THE BOND WILL BE RETURNED AFTER ALL REPAIRS ARE APPROVED, IF APPLICABLE, FOR CLOSURE OF ARTERIALS OR BUSY COLLECTORS THE CITY RESERVES THE RIGHT TO DIRECT CONTRACTOR TO CLOSE THE STREET DURING OFF PEAK TRAFFIC HOURS. CLOSURE MAY OCCUR AT NIGHT OR ON WEEKENDS. CONTRACTOR SHALL PROVIDE ALL TRAFFIC CONTROL ASSOCIATED WITH CLOSURE. EFFORTS SHALL BE MADE TO MINIMIZE ANY DISTURBANCE TO TREES OR ROOTS. EXCAVATION CAUSING DAMAGE TO TREES WILL RESULT IN REMOVAL AND REPLACEMENT. IF A TREE IS CUT, IT MAY RESULT IN PROPERTY DAMAGE TO THE PROPERTY OWNER. THIS IS THE DECISION OF THE CITY ENGINEER.
THE APPLICANT MUST NOTIFY ALL AFFECTED PROPERTY OWNERS IN WRITING, AND PROVIDE A COPY OF THE NOTIFICATION AND MAILING LIST PRIOR TO THE ENGINEERING DEPARTMENT ISSUING THE PERMIT.

ALL CONTRACTORS WHO PERFORM WORK REQUIRING ENTRY INTO ANY CONFINED SPACE OF A CITY-OWNED UTILITY SHALL COMPLY WITH THE CITY'S CONFINED SPACE ENTRY PROCEDURES AND IN ACCORDANCE WITH ALL OSHA REGULATIONS, IF APPLICABLE, AND APPROVAL FROM THE WASTEWATER SUPERINTENDENT OR DESIGNEE.

MATERIAL SPECIFICATION

ALL WORK SHALL BE IN ACCORDANCE WITH THE ATTACHED DRAWINGS AND SPECIFICATIONS AND APPROVED BY THE ENGINEERING DEPARTMENT PRIOR TO BEGINNING ANY PHASE OF WORK.
STREET OPENINGS: THE MATERIAL USED TO FILL IN A DITCH OR A HOLE SHALL BE GRANULAR MATERIAL (#304 #411) OR ODOT ITEM 613 LOW STRENGTH MORTAR BACKFILL. OTHER APPROVED GRANULAR MATERIALS MAY BE USED ONLY UPON THE CONTRACTOR RECEIVING PRIOR WRITTEN APPROVAL FROM THE ENGINEERING DEPARTMENT IF EXTENUATING CIRCUMSTANCES EXIST. CONTRACTORS CONCERNED WITH THE CONTACT OF THE LOW STRENGTH MORTAR AND THE FITTINGS SAID THE PIPE MAY PLACE A MAXIMUM OF 12 INCHES OF GRANULAR BACKFILL ABOVE THE TOP OF THE PIPE.

FOR RIGHT-OF-WAY OPENINGS BEYOND THE LIMITS OF THE PAVEMENT THE MATERIAL SHALL BE IN ACCORDANCE WITH 300-14 (2) BACKFILL.
ASPHALT SURFACE- ASPHALT SURFACE SHALL BE PLACED TO A DEPTH AS STATED IN 300-14 (3) PAVEMENT RESTORATION.

CONSTRUCTION

REPAIR AREAS SHALL BE RECTANGULAR IN SHAPE WITH DIMENSIONS AS REQUIRED TO ENSURE SUFFICIENT STRUCTURAL DETERIORATION. AT THE DIRECTION OF THE CITY THE LIMITS OF THE REPAIRED REPLACEMENT MAY BE EXTENDED AS DEEMED NECESSARY. PAVEMENT SHALL BE REMOVED BY METHODS THAT WILL NOT DAMAGE ADJACENT PAVEMENT.
ALL JOINTS AND VERTICAL FACES SHALL BE SAW CUT, CLEANED AND COATED WITH BITUMINOUS MATERIAL (TACK COAT) PRIOR TO PLACEMENT OF BITUMINOUS CONCRETE.

ALL JOINTS SHALL BE SEALED WITH ASPHALT SEALER AFTER THE FINAL SURFACE MATERIAL IS PLACED.

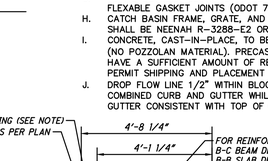
IF LOW STRENGTH MORTAR BACKFILL IS USED, LOW STRENGTH MORTAR BACKFILL SHALL BE BROUGHT TO WITHIN ONE FILL LINE SHOWN ON THE PLANS OR THE BOTTOM OF THE EXISTING PAVEMENT.

STREET CUT AND RIGHT-OF-WAY OPENING STANDARD DRAWINGS AND SPECIFICATIONS

REVISIONS:	DATE APPROVED: DEC. 2016
12-09-16 BG 12-31-20 BG 2-23-21 MK	PAGE No. 300-14

- GRANULAR MATERIAL SHALL BE PLACED IN MAXIMUM 8-INCH LIFTS. FOR GRANULAR EMBANKMENT AND STRUCTURAL BACKFILL. COMPACT EACH LIFT OF MATERIAL USING MECHANICAL DEVICES, HOE RAMS, JUMPING JACKS, HAND TAMPERS, VIBRATING PLATES, OR OTHER SIMILAR EQUIPMENT. COMPACTION REQUIREMENTS SHALL BE 98% OF STANDARD PROCTOR CURVE.
- LOW STRENGTH MORTAR BACKFILL SHALL BE FURNISHED AND PLACED AS PER ODOT ITEM 613.

ALL TRENCH EDGES NOT WITHIN THE STREET RIGHT-OF-WAY, NOT UNDER OR WITHIN 5 FEET OF PROPOSED OR EXISTING PAVEMENT, CURB, DRIVEWAYS, ALLEYS, OR WALKS CAN BE BACKFILLED WITH CLEAN NATIVE MATERIAL COMPACTED IN 12 INCH LIFTS. MATERIAL SHALL BE COMPACTED TO 85% OF THE ORIGINAL COMPACTION. NO MATERIAL SHALL BE USED FOR BACKFILLING THAT CONTAINS GRANULAR MATERIAL ROCK OR STONE GREATER THAN 4 INCHES IN DIAMETER.



TRENCH DETAIL

1 BEDDING

GRANULAR BEDDING MATERIAL SHALL BE CRUSHED STONE OR GRAVEL COMPLYING WITH TYPE 2 BEDDING (#57 OR #67). BEDDING SHALL EXTEND 6 INCHES BELOW THE CONDUIT. BEDDING MATERIAL SHALL EXTEND 12 INCHES ABOVE THE TOP AND TO EACH SIDE OF THE CONDUIT. USE SHOVEL SLICING AND SPUD BARS IN CONJUNCTION WITH THE COMPACTION OPERATIONS TO COMPACT THE MATERIAL AND TO MANIPULATE THE MATERIAL UNDER THE HAUNCH OF THE PIPE.

2 BACKFILL

ALL TRENCH EDGES WITHIN THE STREET RIGHT-OF-WAY, UNDER OR WITHIN 5 FEET OF PROPOSED OR EXISTING PAVEMENT, CURB, DRIVEWAYS ALLEYS, OR WALKS SHALL BE BACKFILLED WITH EITHER GRANULAR BACKFILL MATERIAL (#304, #411) OR ODOT ITEM 613 LOW STRENGTH MORTAR BACKFILL.

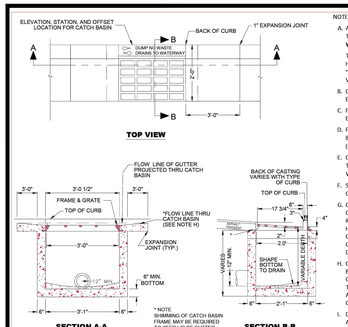
3 PAVEMENT RESTORATION

IN PAVED AREAS WITHIN THE STREET RIGHT-OF-WAY THE PAVEMENT AND AGGREGATE BASE COMPOSITION SHALL BE PROVIDED EQUAL TO THE EXISTING PAVEMENT BUT IN NO CASE SHALL THE COMPOSITION BE LESS THAN THE FOLLOWING: 1-½ INCHES OF ODOT ITEM 448, SURFACE COURSE, TYPE 1; 2-1/2 INCHES OF ODOT ITEM 448 INTERMEDIATE COURSE, TYPE 2; 10 INCHES OF ODOT ITEM 304 AGGREGATE BASE.

IN ALLEYWAYS AND DRIVEWAYS OUTSIDE OF THE STREET RIGHT-OF-WAY, THE REPLACEMENT OF PAVEMENT AND/OR AGGREGATE SHALL BE EQUAL TO THE EXISTING ALLEYWAY OR DRIVEWAY COMPOSITION. IF THE PERMANENT ASPHALT CANNOT BE APPLIED WITHIN 48 HOURS OF THE INITIAL REPAIR, COLD PATCH SHALL BE APPLIED TO THE TRENCH SURFACE. MINIMUM THICKNESS OF THE COLD PATCH MATERIAL SHALL BE 4 INCHES. SAID MATERIAL SHALL BE REMOVED PRIOR TO THE PLACEMENT OF ODOT ITEM 448.

CONCRETE RESTORATION

ALL CONCRETE DRIVEWAYS, DRIVE APPROACHES, AND SIDEWALKS WITHIN THE STREET RIGHT-OF-WAY, SHALL BE REPLACED WITH ODOT CL



NOTES

A. AS OF JANUARY 1, 2003 THE FOLLOWING TEXT SHALL BE CAST INTO THE TOP OF THE GRATE: **"DUMP NO WASTE" AND "DRAINS TO WATERWAY".**

TEXT SHALL BE PRINTED IN BOLD, CAPITAL LETTERS WITH A MINIMUM HEIGHT OF ½ INCH. "WATERWAY" MAY BE SUBSTITUTED WITH "STREAM", "RIVER", "LAKE", ETC. ACTUAL PLACEMENT AND LOGO MAY VARY PER MANUFACTURER.

B. CASTING SHALL BE EAST JORDAN 7030 OR NEENAH R-3246 OR EQUIVALENT.

C. FOR TYPE 2 COMBINATION CURB AND GUTTER THE BACK SHALL BE EAST JORDAN TYPE TA, OR NEENAH (3 INCH RADIUS) (R-3246-1).

D. FOR TYPE 1 COMBINATION ROLL CURB AND GUTTER THE BACK SHALL BE EAST JORDAN TYPE T2 OR NEENAH (MOUNTABLE CURB) (R-3246-1 OR R-3067C).

E. CATCH BASIN IN DRIVE APPROACHES TO BE AVOIDED, IF POSSIBLE. THE BACKS SHALL BE EAST JORDAN TYPE T3 OR NEENAH (R-3246-1 WITH CURB PLATE OR R3067C).

F. STANDARD GRATE SHALL BE EAST JORDAN TYPE M2, NEENAH TYPE C, OR EQUIVALENT. ALL BAR EDGES TO BE ROUNDED 1/8 INCH RADIUS.

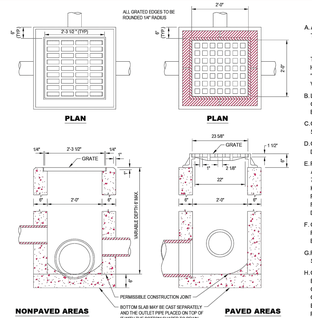
G. CONCRETE, CAST-IN-PLACE, TO BE CLASS QC1, PRECAST CONSTRUCTION PERMITTED AND CONCRETE SHALL MEET THE REQUIREMENTS OF 706.13 WITH 7% ± 2% AIR VOID CONTENT IN THE HARDENED CONCRETE. KNOCKOUTS ARE REQUIRED IN PRECAST CONSTRUCTION. PRECAST WALLS SHALL HAVE A SUFFICIENT AMOUNT OF REINFORCEMENT TO PERMIT SHIPPING AND PLACEMENT WITHOUT DAMAGE.

H. CARE SHALL BE TAKEN WHEN CONNECTING TO AN EXISTING CATCH BASIN TO KEEP OPENING AS MINIMAL AS POSSIBLE. IF POSSIBLE, SAW CUT OR USE ROTARY HAMMER FOR OPENING TO MINIMIZE DAMAGE TO CATCH BASIN. PIPE TO INTRUDE INTO CATCH BASIN 1 INCH ONLY AND PIPE MUST BE CUT PARALLEL TO CATCH BASIN. USE NON-SHRINK GROUT AROUND PIPE TO SEAL BETWEEN PIPE AND CATCH BASIN.

I. DROP FLOW LINE ⅛ INCH WITHIN BLOCK OUT OF COMBINED CURB AND GUTTER WHILE KEEPING LIP OF GUTTER CONSISTENT WITH TOP OF CURB.

J. ALL GRATES SHALL BE CONSIDERED "BICYCLE SAFE".

CITY OF PIQUA	TYPE 1 CATCH BASIN	REVISIONS: 12-19-16 BG; 5-16-18 BG; 10-03-18 MK	DATE APPROVED: DEC. 2016	PAGE No. 600-1



NOTES

A. AS OF JANUARY 1, 2003 THE FOLLOWING TEXT SHALL BE CAST INTO THE TOP OF THE GRATE:

"DUMP NO WASTE" AND "DRAINS TO WATERWAY"

TEXT SHALL BE PRINTED IN BOLD, CAPITAL LETTERS WITH A MINIMUM HEIGHT OF ½ INCH. "WATERWAY" MAY BE SUBSTITUTED WITH "STREAM", "RIVER", "LAKE", ETC. ACTUAL PLACEMENT AND LOGO MAY VARY PER MANUFACTURER.

B. LOCATION AND ELEVATIONS WHEN GIVEN ON THE PLANS IS TOP CENTER OF THE GRATE. WHEN SIDE OPENINGS ARE PROVIDED ELEVATION SHALL BE THE FLOW LINE OF THE SIDE INLET.

C. GRATE FOR NON-PAVED AREAS SHALL BE EAST JORDAN IRON WORKS 5110 TYPE M3 OR NEENAH CATALOG NO. R-4859-C OR EQUIVALENT.

D. GRATE ELEVATION TO BE PLACED 4 INCH TO 6 INCH BELOW NORMAL DITCH RETURNING TO NORMAL 10' EACH SIDE OF BANK.

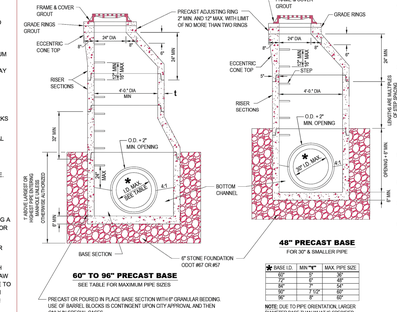
E. PRECAST CONSTRUCTION IS REQUIRED, UNLESS OTHERWISE APPROVED AND CONCRETE SHALL MEET THE REQUIREMENTS OF 706.13 WITH 6±2% AIR VOID CONTENT IN THE HARDENED CONCRETE. KNOCKOUTS SHALL BE PROVIDED IN PRECAST CONSTRUCTION. PRECAST WALLS SHALL HAVE A SUFFICIENT AMOUNT OF REINFORCEMENT TO PERMIT SHIPPING AND PLACEMENT WITHOUT DAMAGE.

F. CATCH BASINS NOT PERMITTED IN PAVEMENT AREAS UNLESS USING A FRAME AND GRATE EQUIVALENT OF NEENAH CATALOG NO. R-3405 OR EAST JORDAN IRON WORKS NO. 5250.

G. FOR PIPES OVER 18" REFER TO ODOT CATCH BASIN 2-3 AND 2-4 FOR SIDE INLETS REFER TO ODOT CATCH BASIN 2-2-A.

H. CARE SHALL BE TAKEN WHEN CONNECTING TO AN EXISTING CATCH BASIN TO KEEP OPENING AS MINIMAL AS POSSIBLE. IF POSSIBLE SAW CUT OR USE ROTARY HAMMER FOR OPENING TO MINIMIZE DAMAGE TO CATCH BASIN ½" ONLY AND PIPE MUST BE CUT PARALLEL TO CATCH BASIN. USE NON-SHRINK GROUT AROUND PIPE TO SEAL BETWEEN PIPE AND CATCH BASIN.

CITY OF PIQUA	TYPE 2-2-B CATCH BASIN	REVISIONS: 12-19-16 BG	DATE APPROVED: DEC. 2016	PAGE No. 600-2



NOTES

A. STORM MANHOLE FRAME AND APPROVED VENTED LID SHALL BE EQUAL OF NEENAH NO. R-1787 OR EAST JORDON IRON WORKS NO 1600.

B. TOP AND TRANSITION (OR REDUCER) SECTIONS MY BE EITHER ECCENTRIC CONE OR FLAT SLAB.

C. OPENINGS IN RISER SECTIONS FOR 18 INCH AND SMALLER INLET PIPES MAY BE PREFABRICATED OR CUT IN THE FIELD PROVIDED THE SIDES OF THE PIPE AT THE SPRING LINE DO NOT PROJECT INTO THE MANHOLE.

D. MATERIALS FOR BASES AND OTHER PRECAST SECTIONS, INCLUDING REINFORCEMENT SHALL COMPLY WITH ODOT REQUIREMENTS OF 706.13 (ASTM C-478).

E. LOCATE THE CENTERLINE OF MANHOLE CONES OVER THE CENTERLINE OF THE MAIN SEWER WHENEVER POSSIBLE.

F. FOR PIPE SIZES LARGER THAN 60 INCHED REFER TO ODOT TYPE 4 TO 5 MANHOLE.

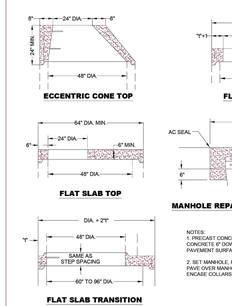
G. NO LATERALS MAY PROTRUDE INTO INTERNAL MANHOLE.

H. MAXIMUM SPACING SHALL BE 400 FEET.

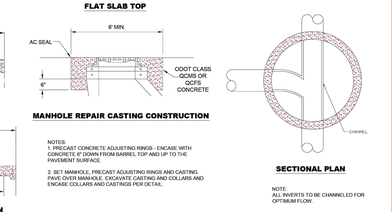
I. WHEN CONNECTING TO AN EXISTING STORM MANHOLE CARE SHALL BE TAKEN TO KEEP OPENING AS MINIMAL AS POSSIBLE. IF POSSIBLE, SAW CUT OR USE ROTARY HAMMER FOR OPENING TO MINIMIZE DAMAGE TO STORM MANHOLE AND PIPE MUST BE CUT PARALLEL TO STORM MANHOLE. USE NON-SHRINK GROUT AROUND PIPE TO SEAL BETWEEN PIPE AND STORM MANHOLE.

J. JOINTS BETWEEN SECTIONS TO BE EITHER MORTAR OR BITUMINOUS PIPE JOINT FILLER (ODOT 706.10)

CITY OF PIQUA	TYPE 3 STORM MANHOLE	REVISIONS: 12-19-16 BG	DATE APPROVED: DEC. 2016	PAGE No. 600-5



BASE I.D.	MIN. "T"	MAX. PIPE SIZE
60"	5"	36"
72"	6"	48"
84"	7"	54"
90"	7 1/2"	60"
96"	8"	60"

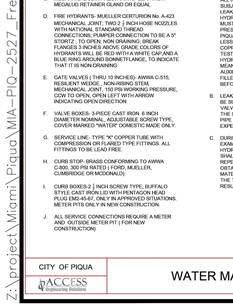


NOTES:

1. PRECAST CONCRETE ADJUSTING RINGS - ENCASE WITH CONCRETE 9" DOWN FROM BARREL TOP AND UP TO THE PAVEMENT SURFACE.

2. SET MANHOLE, PRECAST ADJUSTING RINGS AND CASTING PAVE OVER MANHOLE. EXCAVATE CASTING AND COLLARS AND ENCASE COLLARS AND CASTINGS PER DETAIL.

CITY OF PIQUA	TYPE 3 STORM MANHOLE DETAILS	REVISIONS: 12-19-16 BG	DATE APPROVED: DEC. 2016	PAGE No. 600-6



NOTES

A. THESE FULL HEIGHT HEADWALLS ARE FOR NON-SKEWED CULVERTS HAVING A DIAMETER OR RISE OF 36 INCHES OR LESS

B. CONCRETE SHALL BE ODOT QC1 CONCRETE. REINFORCED STEEL BAR SHALL BE SN INCHSND

C. DIMENSIONS AND QUANTITIES ARE SHOWN FOR CIRCULAR SECTIONS ONLY. IT WILL BE NECESSARY TO DETERMINE DIMENSIONS FOR THE HW-1 HEADWALL REQUIRED FOR REINFORCED ELLIPTICAL CONCRETE PIPE OR CORRUGATED METAL PIPE ARCHES IN ACCORDANCE WITH EQUATIONS LISTED ON THIS DRAWING.

D. CHAMFER ALL EXPOSED CORNERS ¾ INCH.

E. WHERE THE SOIL BORINGS INDICATE A BEARING CAPACITY 0 LESS THAN 2600 LBS. PER SQUARE FOOT, IT WILL BE NECESSARY TO INCREASE THE WIDTH OF THE BASE.

F. MINIMUM COVER FOR REINFORCING STEEL SHALL BE 2 INCH.

G. FOR PIPES HAVING A DIAMETER OR RISE OVER 36 INCHES, REFERENCE ODOT HW-3 HEADWALLS FULL HEIGHT HEADWALL

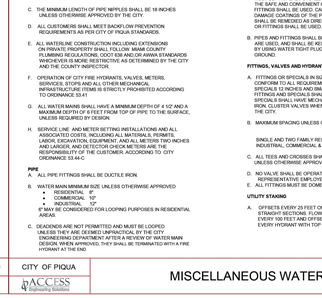
H. FOR SKEWED CULVERTS HAVING A DIAMETER OR RISE OF 36 INCHES OR LESS, REFERENCE ODOT HW-2 HEADWALLS.

I. HEADWALLS MAY BE PRECAST CONCRETE CONSTRUCTED TO THE ABOVE REQUIREMENTS. GROUT AROUND PIPE AFTER INSTALLATION.

DIMENSIONS			QUANTITIES ONE HEADWALL	
DIAMETER	HEIGHT	LENGTH	CONCRETE	REINFORCING STEEL LBS.
15"	5'-2"	7'-0"	1.7	41
18"	5'-5"	8'-4"	2.2	57
21"	5'-8"	9'-8"	2.8	62
24"	5'-11"	11'-0"	3.3	69
30"	6'-5"	13'-8"	4.7	92
36"	7'-0"	16'-4"	6.5	105

L. CIRCULAR SECTIONS = 5D +4T
L. ELLIPTICAL OR PIPE- ARCH = 4R+4T+5
H. CIRCULAR SECTIONS = D+T+4"
H. ELLIPTICAL OR PIPE- ARCH = R+T+4"
D= DIAMETER OF PIPE
R= SPAN OF PIPE
L= LENGTH OF HEADWALL
R= RISE OF PIPE
T= THICKNESS OF BARREL
H= HEIGHT OF HEADWALL

CITY OF PIQUA	FULL-HEIGHT HEADWALL	REVISIONS: 12-19-16 BG	DATE APPROVED: DEC. 2016	PAGE No. 600-7



TRENCH DETAIL NOTES

A. GRANULAR BEDDING SHALL BE CRUSHED STONE OR GRAVEL, ODOT 603 TYPE 3 (#57 OR #67), OR OTHER APPROVED EQUIVALENT.

B. ALL TRENCHES OUTSIDE THE RIGHT-OF-WAY FROM PROPOSED OR EXISTING PAVEMENT, CURB, DRIVEWAY, ALLEYS, STONE AREAS OR WALKS CAN BE COMPACTED WITH EXISTING NATIVE MATERIAL IN 12 INCH MAXIMUM LIFTS OR AS APPROVED BY THE CITY. NO MATERIAL SHALL BE USED FOR BACK FILLING THAT CONTAINS STONE, ROCKS, ETC., GREATER THAN 4 INCH DIAMETER.

ALL TRENCHES INSIDE THE RIGHT-OF-WAY FROM PROPOSED OR EXISTING PAVEMENT, CURB DRIVEWAYS, ALLEYS, STONE AREAS OR WALKS SHALL BE COMPACTED WITH GRANULAR BACKFILL MATERIAL, ODOT 603 TYPE 1 OR 6" MINIMUM LIFTS.

C. A DENSITY TEST ON GRANULAR BACKFILL OF 98% OF ASTM D698 STANDARD PROCTOR CURVE MAY BE REQUIRED TO BE PERFORMED BY A COMMERCIAL TESTING LAB SATISFACTORY TO THE CITY.

OFF-PAVEMENT AREAS SHALL BE PROVIDED WITH A MINIMUM OF 5 INCH OF TOPSOIL OVER THE COMPACTED MATERIAL AND THEN, SEEDED AND MULCHED PER ODOT ITEM 659.

ALL PAVED AREAS WITHIN THE STREET RIGHT-OF-WAY SHALL FOLLOW THE REQUIREMENTS FO PAGE 309-14 OF THE STANDARD DRAWINGS.

D. THE OPEN ENDS OF ALL PIPES SHALL BE PLUGGED TO THE APPROVAL OF THE CITY BEFORE LEAVING THE WORK FOR THE NIGHT.

CITY OF PIQUA	STORM SEWER TRENCH DETAILS	REVISIONS: 10-03-18 BG	DATE APPROVED: DEC. 2016	PAGE No. 600-9

NOTES:

A. NO WORK SHALL BE APPROVED OR ACCEPTED BY THE CITY UNLESS 2 WORKING DAYS NOTICE OF COMMENCING WORK IS GIVEN TO THE CITY.

B. ALL TEMPORARY PAVEMENT AND SIDEWALK SHALL BE MAINTAINED BY THE CONTRACTOR OR THE DEVELOPER AT HIS OWN EXPENSE IN A SUITABLE AND SAFE CONDITION FOR TRAFFIC UNTIL A PERMANENT REPLACEMENT IS MADE OR THE PROJECT IS FINALLY ACCEPTED BY THE CITY.

C. ALL STORM SEWER CONSTRUCTION SHALL ADHERE TO ODOT SPECIFICATIONS LATEST REVISION OR WITH THE CITY STORM SEWER SPECIFICATIONS, WHICHEVER IS APPLICABLE AND MORE RESTRICTIVE.

D. MASTIC MATERIAL IS REQUIRED ON ALL NON O-RING STORM SEWER AND MANHOLES, UNLESS OTHER WISE APPROVED.

E. WHEN A CASTING IS REMOVED IT REMAINS CITY PROPERTY AND TO BE DELIVERED TO THE CITY SERVICE CENTER, UNLESS OTHERWISE APPROVED.

F. ANY DETAILS OR NOTES NOT DIRECTLY ADDRESSED IN THESE STANDARDS SHALL BE COORDINATED WITH THE CITY ENGINEERING DEPARTMENT.

G. ALL STORM SEWER SHALL BE INSTALLED USING PIPE LASER INSIDE THE PIPE IF POSSIBLE FOR GRADE AND ALIGNMENT.

UTILITY STAKING

A. OFFSET AND GRADE AT EACH MANHOLE, CATCH BASIN, AND OTHER STRUCTURES. OFFSET AND GRADE 50 FEET AND 100 FEET OUT FROM EACH MANHOLE UNLESS OTHERWISE APPROVED.

PIPE

A. ALL STORM SEWER PIPE SHALL HAVE A MINIMUM DIAMETER OF 12 INCH UNLESS OTHERWISE APPROVED.

B. TYPES OF PIPE PERMITTED

APPROVED PIPE	ODOT MATERIAL NUMBER
REINFORCED CONCRETE PIPE	706.02
REINFORCED CONCRETE ELLIPTICAL PIPE	706.04
CORRUGATED POLYETHYLENE SMOOTH-LINED PIPE (NON-PERFORATED)	707.33
POLYVINYL CHLORIDE PLASTIC PIPE (NON-PERFORATED)	707.41
POLYVINYL CHLORIDE CORRUGATED SMOOTH-INTERIOR PIPE	707.42
POLYVINYL CHLORIDE PROFILE WALL PIPE	707.43
POLYVINYL CHLORIDE SOLID WALL PIPE	707.45

EXISTING TILE HOOKUPS

A. THE DRAINAGE TILE CURRENTLY CONNECTED TO THE EXISTING STORM SEWER SHALL BE CONNECTED TO THE PROPOSED STORM SEWER. ANY DRAINAGE TILE DAMAGED BY THE CONTRACTOR SHALL BE REPLACED BY THE CONTRACTOR TO A CONDITION EQUAL TO OR BETTER THAN ITS ORIGINAL CONDITION. ANYTHING REMOVED, REPLACED, AND/OR CONNECTED TO THE STORM SEWER SHALL BE NOTED ON THE AS-BUILT DRAWINGS AND SHALL BE INSPECTED BY THE INSPECTOR BEFORE THEY ARE COVERED.

B. ALL FIELD OR STORM DRAINS WHICH ARE ENCOUNTERED DURING CONSTRUCTION SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS OR PLUGGED AS APPROVED AND DIRECTED BY THE CITY

NOTE: ALL CATCH BASINS AND WATER VALVES TO HAVE ASPHALT WEDGE PLACED AFTER INTERMEDIATE ASPHALT BASE TO PROTECT THE APPURTENANCES FROM DAMAGE.

CITY OF PIQUA	MISCELLANEOUS STORM NOTES	REVISIONS: 12-20-16 BG; 03-02-18 BG	DATE APPROVED: DEC. 2016	PAGE No. 600-10

NOTES

A. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROVIDED FOR ALL CONSTRUCTION PROJECTS HAVING SIGNIFICANT GRADING. THE CONTROLS ARE PROVIDED DURING CONSTRUCTION TO PREVENT SOIL ERODED FROM THE CONSTRUCTION AREA FROM ENTERING ADJACENT WATERWAYS AND PROPERTIES.

B. CONSTRUCTION ITEMS INCLUDE: SEDIMENT BASINS, SEDIMENT DAMS, DIVERSION DIKES AND/OR DITCHES AND STRAW BALES OR OTHER FILTER DIKES SHOWN ON ODOT STANDARD DRAWING MC-11. OTHER MISCELLANEOUS EROSION CONTROL MEASURES INCLUDE REPAIR SEEDING AND MULCHING, COMMERCIAL FERTILIZER, WATER AND MOWING AND ROCK CHANNEL PROTECTION, COVERED IN ODOT SPECIFICATION ITEMS 659 AND 601.

C. THE SIZE OF THE ENTIRE DRAINAGE AREA CONTRIBUTING FLOW IS USED TO DETERMINE THE MOST EFFECTIVE EROSION CONTROL METHOD. IN MANY CASES THE MAJOR PORTION OF THE DRAINAGE AREA WILL BE OUTSIDE OF THE PROJECT LIMITS AND FLOW DIVERSION DEVICES MAY BE NECESSARY TO CONTROL THE FLOW FROM OUTSIDE SECTIONS REACHES THE AREA DISTURBED BY PROJECT CONSTRUCTION. FLOW FROM THE AREA DISTURBED BY CONSTRUCTION SHALL BE TREATED PRIOR TO COMMINGLING IT WITH OFF-PAVEMENT DRAINAGE.

D. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROVIDED FOR ALL SUBDIVISIONS AND INDIVIDUAL SITES UNLESS OTHERWISE APPROVED. THE CONTROL MEASURES ARE TO BE PROVIDED DURING CONSTRUCTION TO PREVENT EROSION FROM ENTERING ADJACENT WATERWAYS AND PROPERTIES.

E. THERE SHALL BE ONLY ONE CONSTRUCTION ENTRANCE/S OFF THE SITE. ENTRANCE TO BE CONSTRUCTED OF 6" OF #2 STONE, 75 FEET LONG BY 25 FEET WIDE. CONTRACTOR TO KEEP MUD OFF EXISTING STREETS. NO EQUIPMENT TO BE PARKED ON EXISTING STREETS. MORE THAN ONE ENTRANCE MUST BE APPROVED BY THE CITY.

PLAN SUBMITTAL

A. ALL SITE PLANS SHALL INCLUDE APPROPRIATE EROSION AND SEDIMENT CONTROL DEVISES AND SHALL BE SUBMITTED TO THE CITY FOR APPROVAL PRIOR TO COMMENCEMENT OF ANY WORK UNLESS OTHERWISE APPROVED. ALL PROJECTS WHICH DISTURB 1 ACRE OR MORE MUST HAVE OEPA EROSION CONTROL APPROVALS.

CONSTRUCTION

A. ALL EROSION AND SEDIMENT CONTROL MUST BE INSPECTED AND APPROVED BY THE CITY UNLESS OTHERWISE APPROVED.

STORM WATER PERMITS

A. ON ALL PROJECTS WHICH DISTURB AT LEAST 1 ACRE OF SOIL A NPDES PERMIT IS REQUIRED FROM OEPA AND A COPY OF THE PERMIT MUST BE ON FILE AT THE CITY BEFORE CONSTRUCTION BEGINS

B. EROSION CONTROL SUBMITTALS SHALL BE AS PER THE CURRENT STORM WATER MANAGEMENT ORDINANCE.

CONTROL MEASURES

A. DISTURB ONLY THE AREAS NEEDED FOR CONSTRUCTION.

B. REMOVE ONLY THOSE TREES, SHRUBS, AND GRASSES THAT MUST BE REMOVED FOR CONSTRUCTION, PROTECT THE REST TO PRESERVE THEIR ESTHETIC AND EROSION CONTROL VALUES.

C. INSTALL SEDIMENT BASINS AND DIVERSION DIKES BEFORE DISTURBING THE LAND THAT DRAINS INTO THEM.

D. INSTALL EROSION AND SEDIMENT CONTROL PRACTICES AS INDICATED IN THE PLAN. THE PRACTICES ARE TO BE MAINTAINED IN EFFECTIVE WORKING CONDITION DURING CONSTRUCTION AND UNTIL THE DRAINAGE AREAS HAVE BEEN PERMANENTLY STABILIZED.

E. TEMPORARILY STABILIZE EACH SEGMENT, GRADED OR OTHERWISE DISTURBED LAND, INCLUDING THE SEDIMENT CONTROL DEVISES NOT OTHERWISE STABILIZED, BY SEEDING AND MULCHING OR BY MULCHING ALONE. AS CONSTRUCTION IS COMPLETED, PERMANENTLY STABILIZE EACH SEGMENT WITH PERENNIAL VEGETATION STRUCTURAL MEASURES.

F. LEVEL DIVERSION DIKES, SEDIMENT BASINS, AND SILT TRAPS AFTER AREAS THAT DRAIN INTO THEM ARE STABILIZED. ESTABLISH PERMANENT VEGETATION ON THOSE AREAS. SEDIMENT BASINS THAT ARE TO BE RETAINED FOR STORM WATER DETENTION MAY BE SEEDED TO PERMANENT VEGETATION AFTER THEY ARE BUILT.

G.DISCHARGE WATER FROM OUTLET STRUCTURES AT NON-EROSIVE VELOCITIES.

CITY OF PIQUA	EROSION CONTROL	REVISIONS: 12-20-16 BG	DATE APPROVED: DEC. 2016	PAGE No. 600-11

NOTES

A.FIRE HYDRANTS-MUELLER CENTURION, OR APPROVED EQUAL, (NO. A-423, MECHANICAL JOINT- TWO 2-1/2 INCH HOSE NOZZLE WITH NATIONAL STANDARD THREAD CONNECTIONS; PUMPER NOZZLE TO BE 5" STORTZ MANUFACTURED BY HARRINGTON OR APPROVED EQUAL

B. GATE VALVES SHALL BE AWWA C-515, RESILIENT WEDGE, NON-RISING STEM, MECHANICAL JOINT, 150 PSI WORKING PRESSURE, CCW TO OPEN WITH ARROW INDICATING OPEN DIRECTION, MUELLER OR EQUIVALENT.

C. VALVE BOXES SHALL BE 3-PIECE, ADJUSTABLE 36 INCH TO 48 INCH, 5-1/4 INCH ADJUSTABLE SHAFT, 6 INCH DIAMETER NOMINAL, ADJUSTABLE SCREW TYPE, COVER MARKED "WATER", DOMESTICE MADE ONLY.

D. ALL FITTINGS TO BE MEGALUG RESTRAINED AND THRUST BLOCKED.

E. ALL FITTINGS TO BE AWWA C-153 DUCTILE IRON, COMPACT.

F. ALL VALVES AND HYDRANTS SHALL OPEN LEFT BY TURNING IN A COUNTER CLOCKWISE DIRECTION.

G. GATE VALVES SHALL BE FURNISHED WITH MECHANICAL JOINTS.

H. ALL WATER MAIN SHALL BE DUCTILE IRON PIPE CLASS 53 CEMENT LINED, AWWA C-151, WITH MECHANICAL JOINTS.

I. THE LAYING OF PIPE ON EXISTING DIRT WITH THE BELLS CUT OUT SHALL NOT BE PERMITTED.

J. THE OPEN ENDS OF ALL PIPES AND SPECIAL CASTINGS SHALL BE PLUGGED OR OTHERWISE CLOSED WITH A WATERTIGHT PLUG TO THE APPROVAL OF THE CITY BEFORE LEAVING THE WORK FOR THE NIGHT.

K. THE FIRE DEPARTMENT SHALL COMPLETE A FUNCTION/FLOW TEST PRIOR TO BEING PLACED INTO SERVICE.

L. ALL FIRE HYDRANTS MUST BE THRUST BLOCKED.

CITY OF PIQUA	FIRE HYDRANT	REVISIONS: 12-27-16 BG	DATE APPROVED: DEC. 2016	PAGE No. 800-1

MATERIAL SPECIFICATIONS

A. WATER MAIN SHALL BE AWWA C-151 DUCTILE IRON PIPE CLASS 52 FOR 4 INCH TO 16 INCH AND CLASS 54 FOR 20 INCH AND GREATTER, SLIP JOINT OR JOINT AND RUBBER GASKETS.

B. BELL JOINT RESTRAINTS- USE FIELD LOCK BY U.S. PIPE OR APPROVED EQUAL.

C. MECHANICAL JOINT RESTRAINTS- EBAA IRON MEGALUG RETAINER GLAND OR EQUIVALENT.

D. FIRE HYDRANTS- MUELLER CENTURION No. A-423 MECHANICAL JOINT, TWO 2-1/2 INCH HOSE NOZZLES WITH NATIONAL STANDARD THREAD CONNECTIONS; PUMPER NOZZLE TO BE A 5" STORTZ. TO OPEN; NON DRAINING; BREAK FLANGES 3 INCHES ABOVE GRADE; COLORS OF HYDRANTS WILL BE RED WITH A WHITE CAP, AND A BLUE RING AROUND BONNET FLANGE, TO INDICATE THAT IT IS NON DRAINING.

E. GATE VALVES (THRU 12 INCHES)- AWWA C-515, RESILIENT WEDGE , NON-RISING STEM, MECHANICAL JOINT, 150 PSI WORKING PRESSURE, CCW TO OPEN, OPEN LEFT WITH ARROW INDICATING OPEN DIRECTION

F. VALVE BOXES- 3-PIECE CAST IRON, 6 INCH DIAMETER NOMINAL, ADJUSTABLE SCREW TYPE, COVER MARKED "WATER" DOMESTIC MADE ONLY.

G. SERVICE LINE- TYPE "K" COPPER TUBE WITH COMPRESSION OR FLARED TYPE FITTINGS. ALL FITTINGS TO BE LEAD FREE.

H. CURB STOP- BRASS CONFORMING TO AWWA C-800, 300 PSI RATED (FORD, MUELLER, CUMMINGS OR APPROVED EQUAL)

I. CURB BOXES-2 (INCH SCREW TYPE, BUFFALO STYLE CAST IRON LID WITH PENTAGON HEAD PLUG EBAI-45-57, ONLY IN APPROVED SITUATIONS. METER PITS ONLY IN NEW CONSTRUCTION.

J. ALL SERVICE CONNECTIONS REQUIRE A METER AND OUTSIDE METER PIT (FOR NEW CONSTRUCTION)

K. VALVE SIZING

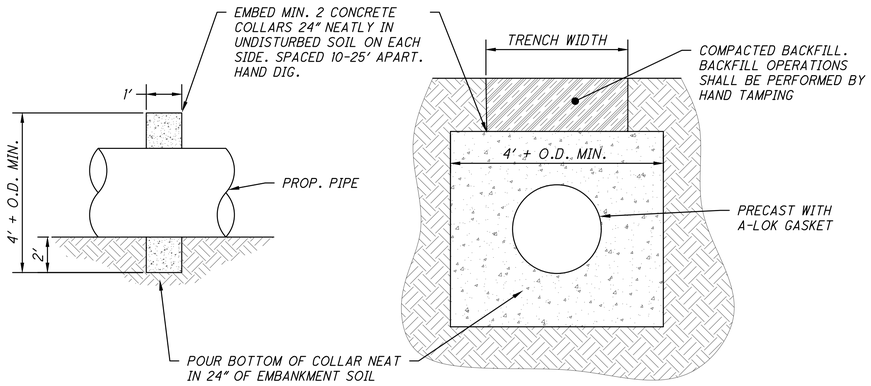
- 6 INCH TO 12 INCH INCLUDING 10 INCH TO BE A GATE VALVE OPENING LEFT
- 12 INCHES AND LARGER- TO BE A BUTTERFLY VALVE OPENING LEFT

HYDROSTATIC TEST

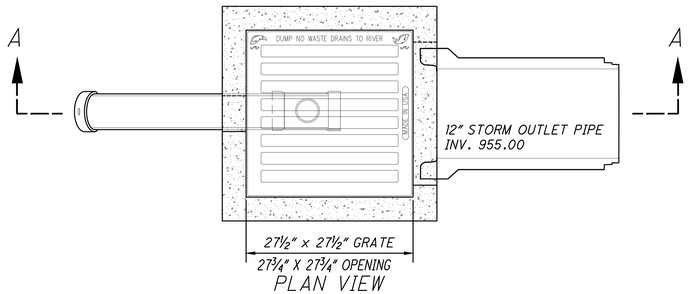
A. AFTER THE PIPE HAS BEEN LAID AND BLACKFILLED, ALL NEWLY LAID PIPE OR VALVED SECTION, SHALL BE SUBJECTED TO HYDROSTATIC PRESSURE OR LEAKAGE TEST. ALL WATER MAINS MUST BE HYDROSTATICALLY TESTED. THE LEAKAGE TEST MUST BE PERFORMED BY THE CONTRACTOR IN THE PRESENCES OF A REPRESENTATIVE OF THE CITY OF PIQUA. THE LEAKAGE TEST PRESSURE SHALL BE NOT LESS THAN 200 PSI FOR MAINS ADN 150 PSI FOR COPPER SERVICES. THE DURATION OF THE LEAKAGE TEST SHALL NOT BE LESS THAT 2 HOURS. PRESSURE SHALL BE MAINTAINED FOR THE TEST BY MEANS OF A PUMP TAKING WATER FROM AN AUXILIARY SUPPLY. ALL PIPING MUST BE PROPERLY FILLED AND FLUSHED TO DISPEL ALL AIR AND DEBRIS BEFORE THE TEST IS MADE USING POTABLE WATER.

B. LEAKAGE IS DEFINED AS THE QUANTITY OF WATER TO BE SUPPLIED INTO THE NEWLY LAID PIPE OR VALVE SECTION THEREOF, NECESSARY TO MAINTAIN THE SPECIFIED LEAKAGE TEST PRESSURE AFTER THE PIPE HAS BEEN FILLED WITH WATER AND THE AIR EXPELLED.

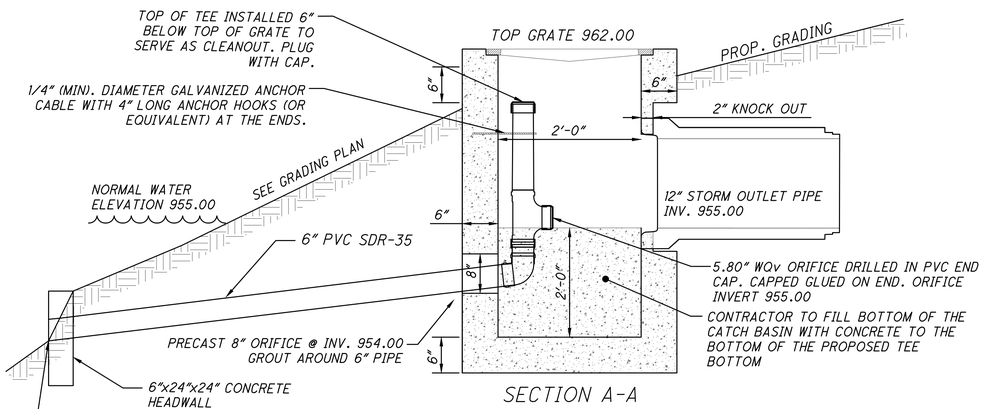
C. DURING THE HYDROSTATIC TEST, A THOROUGH INSPECTION SHALL BE MADE OF ALL JOINTS AND APPURTENANCES. THE TEST SHALL BE PERFORMED, LEAKING JOINTS SHALL BE TIGHTENED AND THE



ANTI-SEEP COLLAR



PLAN VIEW



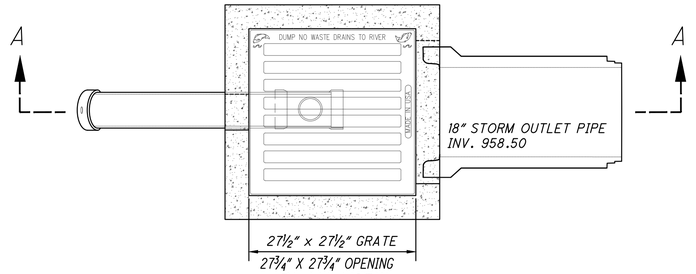
SECTION A-A

2-2B CATCH BASIN, NORTH OUTLET STRUCTURE #2

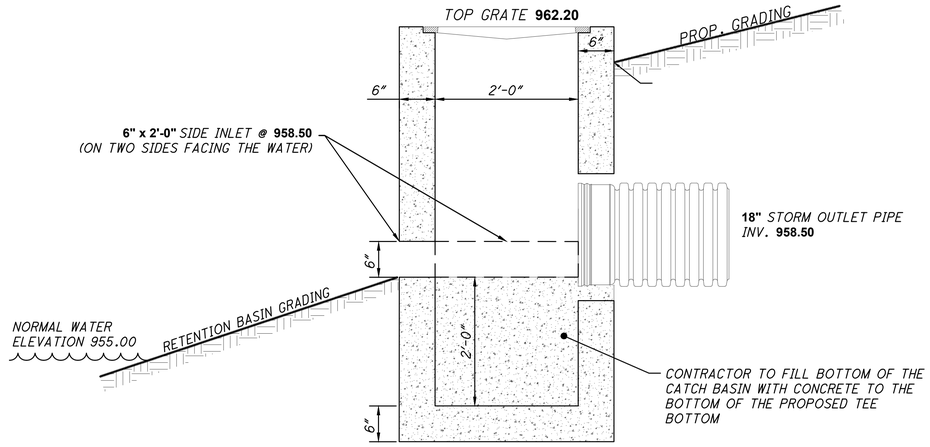
NOTES

A. GRATE SHALL BE NEENAH CATALOG NO. R-4871 (TYPE D GRATE) OR EQUIVALENT. CONTRACTOR SHALL FASTEN/BOLT DOWN GRATE TO STRUCTURE TO ENSURE GRATE IS SECURELY FASTENED IN PLACE.

B. PRECAST CONSTRUCTION IS REQUIRED, UNLESS OTHERWISE APPROVED, AND CONCRETE SHALL MEET THE REQUIREMENTS OF 706.13. KNOCKOUTS CAN BE PROVIDED IN PRECAST CONSTRUCTION. PRECAST WALLS SHALL HAVE A SUFFICIENT AMOUNT OF REINFORCEMENT TO PERMIT SHIPPING AND PLACEMENT WITHOUT DAMAGE.



PLAN VIEW



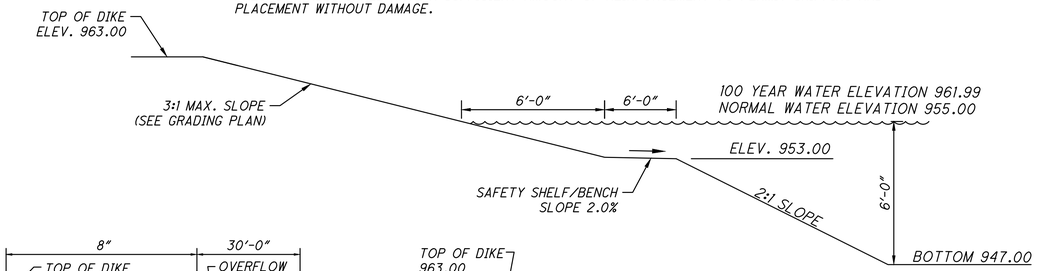
SECTION A-A

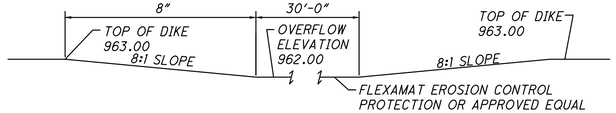
2-2B CATCH BASIN, SOUTH OUTLET STRUCTURE #1

NOTES

A. GRATE SHALL BE NEENAH CATALOG NO. R-4871 (TYPE D GRATE) OR EQUIVALENT. CONTRACTOR SHALL FASTEN/BOLT DOWN GRATE TO STRUCTURE TO ENSURE GRATE IS SECURELY FASTENED IN PLACE.

B. PRECAST CONSTRUCTION IS REQUIRED, UNLESS OTHERWISE APPROVED, AND CONCRETE SHALL MEET THE REQUIREMENTS OF 706.13. KNOCKOUTS CAN BE PROVIDED IN PRECAST CONSTRUCTION. PRECAST WALLS SHALL HAVE A SUFFICIENT AMOUNT OF REINFORCEMENT TO PERMIT SHIPPING AND PLACEMENT WITHOUT DAMAGE.





RETENTION POND TYPICAL SECTION

RETENTION POND- WEIR DETAIL

NTS

RETENTION BASIN CLAY LINER NOTE

PER THE GEOTECHNICAL REPORT IN REGARDS TO ALL RETENTION BASINS, A COMPACTED CLAY LINER SHALL BE INSTALLED THROUGHOUT THE ENTIRE WET POOL PORTION OF THE RETENTION BASIN. THE CONTRACTOR SHALL OBTAIN CLAY LINER RECOMMENDATIONS FROM LICENSED GEOTECHNICAL ENGINEER. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTORS OVERALL LUMP SUM BID FOR THE PROJECT.

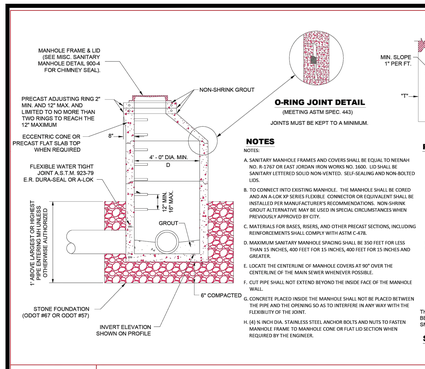
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0300
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
OUTLET STRUCTURE DETAILS

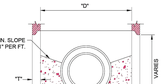
REVISIONS:

FILE NAME	STMB
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	9 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GeneralDetails.dwg 18-Jun-26 8:31 AM

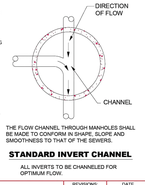


O-RING JOINT DETAIL
(MEETING ASTM SPEC. 443)
JOINTS MUST BE KEPT TO A MINIMUM.



PRECAST BASE SECTION

PIPE SIZE	T	D
24" & UNDER	5"	48"
27" & ABOVE	6"	60"



THE FLOW CHANNEL THROUGH MANHOLES SHALL BE MADE TO CONFORM IN SHAPE, SLOPE AND SMOOTHNESS TO THAT OF THE SEWERS.

STANDARD INVERT CHANNEL

ALL INVERTS TO BE CHANNELED FOR OPTIMUM FLOW.

NOTES

NOTES:

A. SANITARY MANHOLE FRAMES AND COVERS SHALL BE EQUAL TO NEENAH NO. R-1767 OR EAST JORDAN IRON WORKS NO. 1600. U.S. NAVAL SANITARY LETTERED SOLID NON-VENTED. SELF-SEALING AND NON-BOLTED LIDS.

B. TO CONNECT INTO EXISTING MANHOLE. THE MANHOLE SHALL BE CORED AND AN A-LOK SP SERIES FLEXIBLE CONNECTOR OR EQUIVALENT SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. NON-SHRINK GROUT ALTERNATIVE MAY BE USED IN SPECIAL CIRCUMSTANCES WHEN PREVIOUSLY APPROVED BY CITY.

C. MATERIALS FOR BASES, RISERS, AND OTHER PRECAST SECTIONS, INCLUDING REINFORCEMENTS SHALL COMPLY WITH ASTM C-478.

D. MAXIMUM SANITARY MANHOLE SPACING SHALL BE 350 FEET FOR LESS THAN 15 INCHES, 400 FEET FOR 15 INCHES, 400 FEET FOR 15 INCHES AND GREATER.

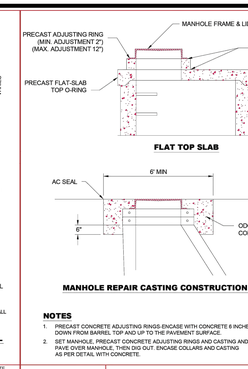
E. LOCATE THE CENTERLINE OF MANHOLE COVERS AT 90° OVER THE CENTERLINE OF THE MAIN SEWER WHENEVER POSSIBLE.

F. CUT PIPE SHALL NOT EXTEND BEYOND THE INSIDE FACE OF THE MANHOLE WALL.

G. CONCRETE PLACED INSIDE THE MANHOLE SHALL NOT BE PLACED BETWEEN THE PIPE AND THE OPENING SO AS TO INTERFERE IN ANY WAY WITH THE FLEXIBILITY OF THE JOINT.

H. (4) ¾ INCH DIA. STAINLESS STEEL ANCHOR BOLTS AND NUTS TO FASTEN MANHOLE FRAME TO MANHOLE CONE OR FLAT LID SECTION WHEN REQUIRED BY THE ENGINEER.

CITY OF PIQUA	TYPE 3 SANITARY MANHOLE	REVISIONS:	DATE APPROVED: DEC. 2016
ACCESS Engineering Solutions		12-28-16 BD	PAGE No. 900-1

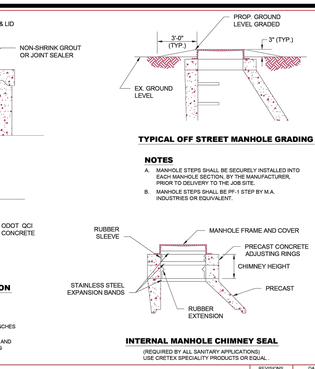


FLAT TOP SLAB

MANHOLE REPAIR CASTING CONSTRUCTION

NOTES

1. PRECAST CONCRETE ADJUSTING RINGS-ENCASE WITH CONCRETE 6 INCHES DOWN FROM BARREL TOP AND UP TO THE PAVEMENT SURFACE.
2. SET MANHOLE, PRECAST CONCRETE ADJUSTING RINGS AND CASTING AND PAVE OVER MANHOLE. THEN DIG OUT. ENCASE COLLARS AND CASTING AS PER DETAIL WITH CONCRETE.



TYPICAL OFF STREET MANHOLE GRADING

NOTES

A. MANHOLE STEPS SHALL BE SECURELY INSTALLED INTO EACH MANHOLE SECTION, BY THE MANUFACTURER, PRIOR TO DELIVERY TO THE JOB SITE.

B. MANHOLE STEPS SHALL BE IP-1 STEP BY M.A. INDUSTRIES OR EQUIVALENT.

INTERNAL MANHOLE CHIMNEY SEAL

(REQUIRED BY ALL SANITARY APPLICATIONS)
USE CRETEX SPECIALTY PRODUCTS OR EQUAL.

CITY OF PIQUA	MISCELLANEOUS SANITARY MANHOLE DETAILS	REVISIONS:	DATE APPROVED: DEC. 2016
ACCESS Engineering Solutions		12-28-16 BD	PAGE No. 900-4

SANITARY SEWER TRENCH DETAIL
SHOWN AS "OPF ROAD" APPLICATION

TRENCH DETAIL NOTES

A. GRANULAR BEDDING SHALL BE CRUSHED STONE OR GRAVEL, (#57 OR #67), OR OTHER APPROVED EQUIVALENT.

B. ALL TRENCHES OUTSIDE THE RIGHT-OF-WAY FROM PROPOSED OR EXISTING PAVEMENT, CURB, DRIVEWAYS, ALLEYS, STONE AREAS OR WALKS CAN COMPACTED WITH EXISTING NATIVE MATERIAL IN 12 INCH MAXIMUM LIFTS OR AS APPROVED BY THE CITY. NO MATERIAL SHALL BE USED FOR BACK FILLING THAT CONTAINS STONE, ROCKS, ETC., GREATER THAN 4 INCH DIAMETER.

ALL TRENCHES INSIDE THE RIGHT-OF-WAY FROM PROPOSED OR EXISTING PAVEMENT, CURB, DRIVEWAYS, ALLEYS, STONE AREAS OR WALKS SHALL BE COMPACTED WITH GRANULAR BACKFILL MATERIAL TYPE 1 IN 6 INCH MAXIMUM LIFTS.

A DENSITY TEST ON GRANULAR BACKFILL OF 95% OF ASTM D698 STANDARD PROCTOR CURVE MAY BE REQUIRED TO BE PERFORMED BY A COMMERCIAL TESTING LAB SATISFACTORY TO THE CITY.

C. OFF-PAVEMENT AREAS SHALL BE PROVIDED WITH A MINIMUM OF 6 INCHES OF TOPSOIL OVER THE COMPACTED MATERIAL AND THEN SEEDED AND MULCHED PER ODOT ITEM 659. IN PAVEMENT AREAS SHALL PROVIDE MINIMUM 3 INCHES ASPHALT CONCRETE SURFACE.

D. THE TYPE ENDS OF ALL PIPES SHALL BE PLUGGED TO THE APPROVAL OF THE CITY BEFORE LEAVING THE WORK FOR THE NIGHT.

CITY OF PIQUA	SANITARY SEWER TRENCH DETAIL	REVISIONS:	DATE APPROVED: DEC. 2016
ACCESS Engineering Solutions		12-28-16 BD	PAGE No. 900-5

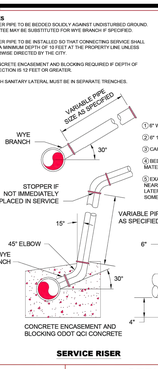
NOTES

A. REB R PIPE TO BE BEDDED SOLIDLY AGAINST UNDISTURBED GROUND. ALSO, TEE MAY BE SUBSTITUTED FOR WYE BRANCH IF SPECIFIED.

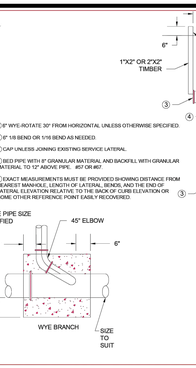
B. RIBER PIPE TO BE INSTALLED SO THAT CONNECTING SERVICE SHALL NOT EXTEND BEYOND THE INSIDE FACE OF THE PROPERTY LINE UNLESS OTHERWISE DIRECTED BY THE CITY.

C. CONCRETE ENCASEMENT AND BLOCKING REQUIRED IF DEPTH OF CONNECTION IS 12 FEET OR GREATER.

D. EACH SANITARY LATERAL MUST BE IN SEPARATE TRENCHES.



SERVICE RISER



1. 4" WYE-ROTATE 30° FROM HORIZONTAL UNLESS OTHERWISE SPECIFIED.
2. 6" 1/8 BEND OR 1/16 BEND AS NEEDED.
3. CAP UNLESS JOINING EXISTING SERVICE LATERAL.
4. BED PIPE WITH 8" GRANULAR MATERIAL AND BACKFILL WITH GRANULAR MATERIAL TO 12" ABOVE PIPE. #57 OR #67.
5. EXACT MEASUREMENTS MUST BE PROVIDED IN SHOWING DISTANCE FROM NEAREST MANHOLE, LENGTH OF LATERAL, BENDS, AND THE END OF LATERAL ELEVATION RELATIVE TO THE BACK OF CURB ELEVATION OR SOME OTHER REFERENCE POINT EASILY RECOVERED.

SERVICE LATERAL

CITY OF PIQUA	SERVICE RISER AND SERVICE LATERAL FOR NEW CONSTRUCTION ONLY	REVISIONS:	DATE APPROVED: DEC. 2016
ACCESS Engineering Solutions		12-28-16 BD	PAGE No. 900-7

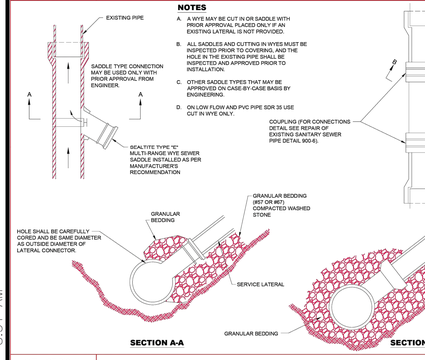
NOTES

A. A WYE MAY BE CUT IN OR SADDLE WITH PRIOR APPROVAL PLACED ONLY IF AN EXISTING LATERAL IS NOT PROVIDED.

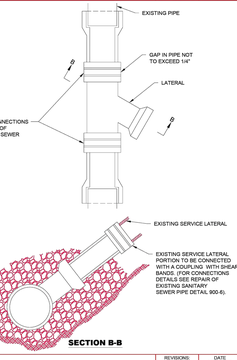
B. ALL SADDLES AND CUTTING IN WYE MUST BE INSPECTED PRIOR TO COVERING, AND THE HOLE IN THE EXISTING MAIN MUST BE INSPECTED AND APPROVED PRIOR TO INSTALLATION.

C. OTHER SADDLE TYPES THAT MAY BE APPROVED ON CASE-BY-CASE BASIS BY ENGINEERING

D. ON LOW FLOW AND PVC PIPE SDR 35 USE CUT IN WYE ONLY.



SECTION A-A

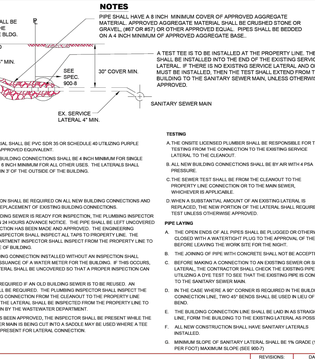


SECTION B-B

CITY OF PIQUA	SANITARY SEWER SADDLE DETAILS	REVISIONS:	DATE APPROVED: DEC. 2016
ACCESS Engineering Solutions		12-28-16 BD	PAGE No. 900-8

NOTES

A. A TEST TEE IS TO BE INSTALLED AT THE PROPERTY LINE. THE TEE SHALL BE INSTALLED INTO THE END OF THE EXISTING SERVICE LATERAL. IF THERE IS NO EXISTING SERVICE LATERAL, ONE MUST BE INSTALLED. THEN THE TEST SHALL EXTEND FROM THE BUILDING TO THE SANITARY SEWER MAIN, UNLESS OTHERWISE APPROVED.



NOTES:

A. SEPTIC TANKS, WHEN ABANDONED, SHALL BE DEWATERED BY AN ACCEPTED METHOD, VALVED AND PROPERLY FILLED WITH GRANULAR MATERIAL. DRAIN HOLES SHALL BE BROKEN OUT ON THE BOTTOM AND SIDES OF THE TANK AS DIRECTED BY THE CITY.

B. ROOF DOWNSPOUTS EXTERIOR FOUNDATION DRAINS, AREA WAY DRAINS OR OTHER SURFACE RUNOFF OR GROUNDWATER SHALL NOT BE CONNECTED TO THE SANITARY SEWER MAIN.

C. BASEMENT FLOOR DRAINS AND SUMP PUMPS, THAT CARRY GRAY WATER, SHALL BE CONNECTED TO THE SANITARY SEWER. FOUNDATION DRAINS AND ALL AND OTHER SUMP PUMPS, EXCEPT AS NOTED ABOVE ARE TO BE CONNECTED TO THE STORM SEWER OR DISCHARGED ONTO THE GROUND.

D. ANY INDIVIDUAL OR FIRM INSTALLING SEWER CONNECTIONS SHALL BE APPROVED BY THE CITY.

E. BEFORE BEGINNING WORK, A SEWER TAP PERMIT MUST BE OBTAINED FROM THE ENGINEERING DEPARTMENT AND APPLICABLE FEES MUST BE PAID. ALSO OBTAIN A PLUMBING PERMIT FOR BUILDING SEWER OR LATERAL FROM THE HEALTH DEPARTMENT.

F. WHEN THE BUILDING CONNECTION MUST ENTER INTO A PAVED PORTION OF THE STREET SIDEWALK OR ALLEY, A RIGHT-OF-WAY OPENING PERMIT MUST BE OBTAINED FROM THE CITY STREET DEPARTMENT BEFORE BEGINNING WORK.

G. A PERMIT TO BLOCK WAY OR STREET AND ALLEY CLOSING PERMIT SHALL ALSO BE OBTAINED FROM THE ENGINEERING DEPARTMENT.

H. WATER SERVICES SHALL BE A MINIMUM OF 10 FEET MEASURED HORIZONTALLY FROM THE SEWER SERVICE AND SHALL BE A MINIMUM OF 18 INCHES ABOVE THE CROWN (WHENEVER POSSIBLE) OF THE SANITARY SEWER MAIN WHERE THE WATER SERVICE CROSSES THE SEWER MAIN.

PIPE

A. THE PIPE MATERIAL SHALL BE PVC SDR 35 OR SCHEDULE 40 UTILIZING PURPLE PIPE, OR AN APPROVED EQUIVALENT.

B. PIPE SIZES FOR BUILDING CONNECTIONS SHALL BE 4 INCH MINIMUM FOR SINGLE RESIDENCE AND 6 INCH MINIMUM FOR ALL OTHER USES. THE LATERALS SHALL BE RUN TO WITHIN 3' OF THE OUTSIDE OF THE BUILDING.

INSPECTION

A. A TAP INSPECTION SHALL BE REQUIRED ON ALL NEW BUILDING CONNECTIONS AND ALSO ON THE REPLACEMENT OF EXISTING BUILDING CONNECTIONS.

B. WHEN THE BUILDING SEWER IS READY FOR INSPECTION, THE PLUMBING INSPECTOR SHALL BE GIVEN 24 HOURS ADVANCE NOTICE. THE PIPE SHALL BE LEFT UNCOVERED UNTIL AN INSPECTION HAS BEEN MADE AND APPROVED. THE ENGINEERING DEPARTMENT PIPE INSPECTOR SHALL INSPECT ALL TAPS TO PROPERTY LINE. THE APPLICABLE FEES MUST BE PAID. ALSO OBTAIN A PLUMBING PERMIT FOR BUILDING SEWER OR LATERAL FROM THE HEALTH DEPARTMENT.

C. ANY NEW BUILDING CONNECTION INSTALLED WITHOUT AN INSPECTION SHALL RESULT IN NO ISSUANCE OF A WATER METER FOR THE BUILDING. IF THIS OCCURS, THE ENTIRE LATERAL SHALL BE UNCOVERED SO THAT A PROPER INSPECTION CAN BE MADE.

D. NO TAP FEE IS REQUIRED IF AN OLD BUILDING SEWER IS TO BE REUSED. AN INSPECTION WILL BE REQUIRED. THE PLUMBING INSPECTOR SHALL INSPECT THE ENTIRE BUILDING CONNECTION FROM THE CLEANOUT TO THE PROPERTY LINE CONNECTION. THE LATERAL SHALL BE INSPECTED FROM THE PROPERTY LINE TO THE SEWER MAIN BY THE WASTEWATER DEPARTMENT.

E. IF A SADDLE HAS BEEN REMOVED, THE INSPECTOR SHALL BE PRESENT WHILE THE SANITARY SEWER MAIN IS BEING CUT INTO A SADDLE MAY BE USED WHERE A TEE OR WYE IS NOT PRESENT FOR LATERAL CONNECTION.

TESTING

A. THE ONSITE LICENSED PLUMBER SHALL BE RESPONSIBLE FOR THE TESTING FROM THE CLEANOUT TO THE BUILDING SERVICE LATERAL TO THE CLEANOUT.

B. ALL NEW BUILDING CONNECTIONS SHALL BE BY AIR WITH 4 PSIA PRESSURE.

C. THE SEWER TEST SHALL BE FROM THE CLEANOUT TO THE PROPERTY LINE CONNECTION OR TO THE MAIN SEWER, WHICHEVER IS APPLICABLE.

D. WHEN A SUBSTANTIAL AMOUNT OF AN EXISTING LATERAL IS REPLACED, THE NEW PORTION OF THE LATERAL SHALL REQUIRE A TEST UNLESS OTHERWISE APPROVED.

PIPE LAYING

A. THE OPEN ENDS OF ALL PIPES SHALL BE PLUGGED OR OTHERWISE CLOSED WITH A WATERTIGHT PLUG TO THE APPROVAL OF THE CITY BEFORE LEAVING THE WORK SITE FOR THE NIGHT.

B. THE JOINING OF PIPE WITH CONCRETE SHALL NOT BE ACCEPTED.

C. BEFORE MAKING A CONNECTION TO AN EXISTING SEWER OR SERVICE LATERAL, THE CONTRACTOR SHALL CHECK THE EXISTING PIPE BY UTILIZING A DYE TEST TO SEE THAT THE EXISTING PIPE IS CONNECTED TO THE SANITARY SEWER MAIN.

D. IN THE CASE WHERE A 90° CONNECTION IS REQUIRED IN THE BUILDING CONNECTION LINE, TWO 45° BENDS SHALL BE USED IN LIEU OF A 90° BEND.

E. THE BUILDING CONNECTION LINE SHALL BE LAID IN AS STRAIGHT A LINE, FORM THE BUILDING TO THE EXISTING LATERAL AS POSSIBLE.

F. ALL NEW CONSTRUCTION SHALL HAVE SANITARY LATERALS INSTALLED.

G. MINIMUM SLOPE OF SANITARY LATERAL SHALL BE 1% GRADE (1/8 INCH PER FOOT) MAXIMUM SLOPE (SEE 900-7)

CITY OF PIQUA	BUILDING CONNECTION DETAIL	REVISIONS:	DATE APPROVED: DEC. 2016
ACCESS Engineering Solutions		12-28-16 BD	PAGE No. 900-10

LOW PRESSURE AIR TEST

A. AFTER BACKFILLING, THE AIR TEST SHALL BE CONDUCTED BETWEEN TWO CONSECUTIVE MANHOLES. ALL PIPE OUTLETS MUST BE PLUGGED IN THE SECTION BEING TESTED WITH A PLUG DESIGNED FOR THAT PURPOSE. PLUGS USED AT MANHOLE STUBS FOR FUTURE EXTENSIONS SHALL BE EQUIPPED FOR LINE PACKER CONNECTION FOR PLUGS THE LINE FROM THE AIR COMPRESSOR AND SHALL BE SUPPLIED SLOWLY TO THE TEST UNTIL THE INTERNAL PRESSURE REACHES APPROXIMATELY 4 PSI. IF THE PIPE IS BELOW EXISTING GROUNDWATER LEVEL, THE INTERNAL PRESSURE SHALL BE INCREASED BY THE AVERAGE BACK PRESSURE OF ANY GROUNDWATER THAT MAY BE OVER THE PIPE, BUT IN NO CASE SHOULD THE INTERNAL PRESSURE EVER EXCEED 5 PSI.

B. AT LEAST 2 MINUTES SHALL BE ALLOWED FOR THE AIR PRESSURE TO STABILIZE. WHEN THE PRESSURE HAS STABILIZED AND IS AT OR ABOVE 3.5 PSI, THE AIR SUPPLY SHALL BE DISCONNECTED AND TIMING SHALL BEGIN WITH A STOP WATCH. THE STOP WATCH SHALL BE ALLOWED TO RUN UNTIL THE PRESSURE HAS DROPPED 1.0 PSI. IF THE TIME SHOWN ON THE STOP WATCH GREATER THAN THE SPECIFIED MINIMUM TIME, THE SECTION SHALL BE CONSIDERED TO HAVE PASSED THE TEST. THE TIME MAY INTERPOLATED FROM THE FIGURES LISTED BELOW

PIPE DIA (IN)	100FT	150FT	200FT	250FT	300FT	350FT	400FT
4	1.53	1.53	1.53	1.53	1.53	1.53	1.53
6	2.50	2.50	2.50	2.50	2.50	2.50	2.51
8	3.47	3.47	3.47	3.47	3.48	4.06	4.64
10	4.43	4.43	4.43	4.57	5.36	6.25	7.14
12	5.40	5.40	5.40	6.96	8.04	9.38	10.71
15	7.05	7.05	8.54	11.08	13.21	15.35	17.48
18	8.30	9.37	12.49	16.01	19.41	22.26	25.38
21	9.55	13.05	17.27	21.49	26.11	30.32	34.54
24	11.24	17.57	22.46	28.30	34.11	39.53	45.35

SPECIFICATION TIME FOR LENGTH (L) SHOWN (MIN SEC)

DEFLECTION TEST

A. DEFLECTION TEST SHALL BE PERFORMED BY THE CONTRACTOR ON ALL FLEXIBLE PIPE. THE TEST SHALL CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS TO PERMIT STABILIZATION OF THE SOIL SYSTEM.

B. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. IF DEFLECTION EXCEEDS 5% REPLACEMENT OR CORRECTION SHALL BE ACCOMPLISHED AS DIRECTED WITH THE REQUIREMENTS OF APPROVING AGENCY.

C. THE RIGID BALL OR MANDREL USED FOR THE DEFLECTION TEST SHALL HAVE A DIAMETER NOT LESS THAT 95% OF THE BASE INSIDE DIAMETER OR AVERAGE INSIDE DIAMETER OF THE PIPE DEPENDING ON WHICH IS MANUFACTURED. THE PIPE SHALL BE MEASURED IN COMPLIANCE WITH ASTM D-2122 STANDARD TEST METHOD OF DETERMINING DIMENSIONS OF THERMOPLASTIC PIPE AND FITTINGS. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.

DEPTH (FT)	48 TIME	60 TIME	72
8 OR LESS	20	26	33
10	25	33	41
12	30	39	49
14	35	46	57
16	40	52	67
18	45	59	73
20	50	65	81
22	55	72	89
24	59	78	97
26	64	85	105
28	69	91	113
30	74	98	121

MINIMUM TEST TIMES FOR VARIOUS MANHOLE DIAMETERS

MANHOLE VACUUM TEST

ALL SANITARY SEWER MANHOLES SHALL BE VACUUM TESTED BY THE CONTRACTOR USING THE FOLLOWING PROCEDURES FROM ASTM C-1244.

A. PREPARATION OF THE MANHOLE
1. ALL LIFT HOLES SHALL BE PLUGGED.
2. ALL PIPES ENTERING THE MANHOLE SHALL BE TEMPORARILY PLUGGED TAKING CARE TO SECURELY BRACE THE PIPES AND PLUGS TO PREVENT FROM BEING DRAWN INTO THE MANHOLE.

B. PROCEDURE
1. THE TEST HEAD SHALL BE PLACED AT THE TOP OF THE MANHOLE IN THE CASTING IN ACCORDANCE WITH THE MANUFACTURE'S RECOMMENDATIONS.
2. A VACUUM OF 10 INCHES OF MERCURY (4.9 PSI) SHALL BE DRAWN ON THE MANHOLE. THE VALVE ON THE VACUUM LINE OF THE TEST HEAD CLOSED, AND THE VACUUM PUMP SHUT OFF. THE TIME SHALL BE MEASURED FOR THE VACUUM TO DROP TO 9 INCHES OF MERCURY (4.4 PSI).
3. THE MANHOLE SHALL PASS IN THE TIME FOR THE VACUUM READING TO DROP FROM 10 INCHES OF MERCURY (4.9 PSI) MEETES OR EXCEEDS THE VALUES INDICATED ON THE TABLE.
4. IF THE MANHOLE FAILS THE INITIAL TEST, NECESSARY REPAIRS SHALL BE MADE BY AN APPROVED METHOD. THE MANHOLE SHALL BE RETESTED UNTIL A SATISFACTORY TEST IS OBTAINED.

ALL TESTS SHALL BE WITNESSED BY A CITY OF PIQUA ENGINEERING DEPARTMENT REPRESENTATIVE

CITY OF PIQUA	SANITARY SEWER TESTING NOTES	REVISIONS:	DATE APPROVED: DEC. 2016
ACCESS Engineering Solutions		12-30-16 BD	PAGE No. 900-11

SEWER TELEVISING STANDARDS

A. ALL SEWER TELEVISING CONTRACTORS SHALL BE CERTIFIED BY NASSCO FOR PIPELINE ASSESMENT AND CERTIFICATION.

B. SANITARY TELEVISING WORK SHALL COMPLY WITH NASSCO STANDARDS.

C. ALL TELEVISING WORK SHALL BE COMPLETED IN COLOR WITH THE PROPER AMOUNT OF ILLUMINATION TO CLEARLY SHOW THE ENTIRE PIPE DIAMETER.

D. THE CAMERA SHALL BE OF THE PAN AND TILT TYPE

F. AT THE START OF THE TELEVISING PROCESS, THE DVD SHALL SHOW
1. OPERATOR AND COMPANY NAME
3. SEWER PROJECT NAME
4. ADDRESS OR INTERSECTION OF MANHOLE WORKING ON
5. DIRECTION OF TELEVISING
6. COUNTER SETTING

G. THE DVD MUST SHOW THE COUNTER RECORDING THROUGHOUT THE TELEVISING PROCESS.

H. THE CAMERA SHALL BE STOPPED AT EACH MANHOLE FROM THE MANHOLE FOR EACH LATERAL

I. THE OPERATOR SHALL PAN EACH SEWER JOINT AND NOTE ANY OFFSETS IN THE MAIN SEWER.

J. THE OPERATOR SHALL POSITION THE CAMERA TO LOOK UP EACH LATERAL CONNECTION.

K. AT NO TIME SHALL THE OPERATOR ALLOW THE CAMERA HEAD TO BE SUBMERGED.

L. THE OPERATOR SHALL NOTE ANY DEFICIENCIES ON THE MAIN SCREEN.

M. THE OPERATOR SHALL KEEP AN ACCURATE LOG INDICATING THE FOLLOWING
1. FOOTAGE OF SEWER FROM MANHOLE TO MANHOLE SHOWING DIRECTION OF FLOW.
2. SHALL NOTATE ALL SEWER LATERALS WITH CLOCK POSITIONS AND DISTANCE FROM MANHOLES
3. DEFICIENCIES IN THE SEWER PIPE INCLUDING BELLIES
4. SPECIAL NOTES DESCRIBING AREAS OF CONCERN.
5. ANY DEFICIENCIES NOTED SHALL ACCOMPANY A DIGITAL PHOTO ATTACHED ON INCLUDED IN THE REPORT

STANDARDS FOR BELLIES/DIPS IN SEWER MAINS

SANITARY SEWERS SHALL BE DECLARED AS "NOT APPROVED" IF DIPS/BELLIES IN THE MAIN LINE EXCEEDS THE FOLLOWING CRITERIA
MAXIMUM ALLOWABLE BELLIES IN PIPE (INCHES)

SLOPE	8"	10"	12"	15"	18"	21"	24"	>27"
0.50%	2"	2.5"	3"	4"	4"	5"	6"	7"
0.75%	2"	2.5"	3"	4"	4"	5"	6"	7"
1.00%	2"	2.5"	3"	4"	4"	5"	6"	7"
1.25%	2"	2.5"	3"	4"	4"	5"	6"	7"
1.50%	2"	2.5"	3"	4"	4"	5"	6"	7"
1.75%	1"	1"	1"	1"	1"	1"	1"	1"
2.00%	1"	1"	1"	1"	1"	1"	1"	1"
2.50%	1"	1"	1"	1"	1"	1"	1"	1"

SEWER TELEVISING PROCEDURES FOR SEWER RECONSTRUCTION PROJECTS

A. BEFORE COMMENCEMENT OF THE CLEANING PROCESS, THE TELEVISING CONTRACTOR SHALL NOTIFY ADJACENT AND AFFECTED PROPERTY OWNERS BY GOING DOOR TO DOOR AND NOTIFY THEM OF THE POSSIBILITY OF SEWER BACKUP DURING THE CLEANING PROCESS.

B. THE CONTRACTOR SHALL BE RESPONSIBLE TO CLEAN AND FREE OF DEBRIS USING A HIGH PRESSURE JET RODDER CAPABLE OF SCOURING THE PIPE WALLS.

C. ALL DEBRIS SHALL BE FLUSHED OUT OF THE SEWER MAIN.

D. ONCE CLEANING HAS BEEN COMPLETED, THE CONTRACTOR SHALL BAG THE UPSTREAM MANHOLE AND PUMP THE SEWAGE FLOW DOWNSTREAM AND SHALL MAINTAIN PUMPING DURING THE TELEVISING PROCESS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY SEWER FLOODINGS AS A RESULT OF THEIR ACTIVITIES.

E. AFTER THE PIPES HAVE BEEN TELEVISED, THE CONTRACTOR SHALL RUN CLEAR WATER IN THE RECONSTRUCTED SEWER MAIN TO FILL ANY POTENTIAL BELLIES IN THE LINE. THE CONTRACTOR SHALL CALCULATE THE VOLUME GALLON CAPACITY OF THE SEWER MAIN AND SHALL USE THAT MUCH WATER TO FILL POTENTIAL DIPS/BELLIES.

F. THE CONTRACTOR MAY RENT A WATER HYDRANT METER FROM THE CITY TO PERFORM THIS TASK.

G. THE CONTRACTOR SHALL TELEVISE THE SEWER FOLLOWING THE TELEVISING STANDARDS

PASSING SANITARY SEWER

A. THE CITY WILL NOT PASS OR ACCEPT THE SANITARY SEWER FOR FINAL PAYMENT WITHOUT HAVING A PASSING DVD AND LOG OF THE SANITARY SEWER TELEVISING FOLLOWING THE STANDARDS PREVIOUSLY DESCRIBED.

B. ALL TELEVISING WORK SHALL BE AT THE CONTRACTORS EXPENSE.

C. THE CITY RESERVES THE RIGHT TO FINAL RE-TELEVISING AT THE CONTRACTORS EXPENSE IF DEFICIENCIES ARE NOTED ON THE INITIAL TELEVISING WORK AND AFTER THE CONTRACTOR MAKES THE NECESSARY REPAIRS.

CITY OF PIQUA	SANITARY SEWER TELEVISING STANDARDS	REVISIONS:	DATE APPROVED: DEC. 2016
ACCESS Engineering Solutions		12-30-16 BD	PAGE No. 900-12

NOTES

A. NO WORK SHALL BE APPROVED OR ACCEPTED BY THE CITY UNLESS 2 WORKING DAYS NOTICE OF COMMENCING WORK IS GIVEN TO THE CITY.

B. ALL TEMPORARY PAVEMENT AND SIDEWALK SHALL BE MAINTAINED BY THE CONTRACTOR OR DEVELOPER AT HIS OWN EXPENSE IN A SUITABLE AND SAFE CONDITION FOR TRAFFIC UNTIL PERMANENT PLACEMENT IS MADE OR THE PROJECT IS FINALLY ACCEPTED BY THE CITY.

C. ROOF DRAINS, FOUNDATION DRAINS, SUMP PUMPS, AND ALL OTHER CLEAR WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.

D. WHEN A SEWER IS TO BE EXTENDED AT THE DOWNSTREAM MANHOLE OR FIRST MANHOLE IS THE NEW LINE, IT SHALL BE PLUGGED BEFORE CONSTRUCTION BEGIN

LEGEND

GP = CONTRACTOR GARAGE PAD ELEVATION
H.P. = HIGH POINT
830 EXISTING CONTOURS
830 PROPOSED CONTOURS
PROPOSED STORM SEWER
CLEARING LIMITS
100 YR FLOOD ROUTE
10' WALKING PATH
5' MULCH PATH
STREET LIGHTS (PROVDED BY CITY OF PIQUA)

SCALE IN FEET
0 25' 50' 100'

SECTION 1 BOUNDARY
SECTION 2 BOUNDARY
SECTION 3 BOUNDARY

NOTE: DETAILED STRUCTURE INFORMATION, SANITARY LATERAL, AND WATER SERVICE INFORMATION SHOWN ON PLAN AND PROFILE SHEETS.

PROP. DETENTION BASIN W/ FOUNTAIN
100-YR= 961.99
NORMAL WATER 955.00
BOTTOM 947.00

30' SPILLWAY = 962.00
EMERGENCY SPILLWAY 40'X10' FLEXAMAT EROSION PROTECTION OR APPROVED EQUAL

18"ø W. 65.00 20'X10'X8" ROCK CHANNEL PROTECTION, TYPE C

OPEN SPACE A
OPEN SPACE B
OPEN SPACE C
OPEN SPACE D
OPEN SPACE E
OPEN SPACE F

ROSSVILLE WAY
RANDOLPH DRIVE
HARMAR DRIVE
SHAW FARM DRIVE
ARMSTRONG DRIVE
VISHER COURT

ASPHALT PVMT.
GRAVEL PVMT.
CONC. PVMT.
OHE
H.P 965.60
H.P 971.04
H.P 973.62
H.P 976.92

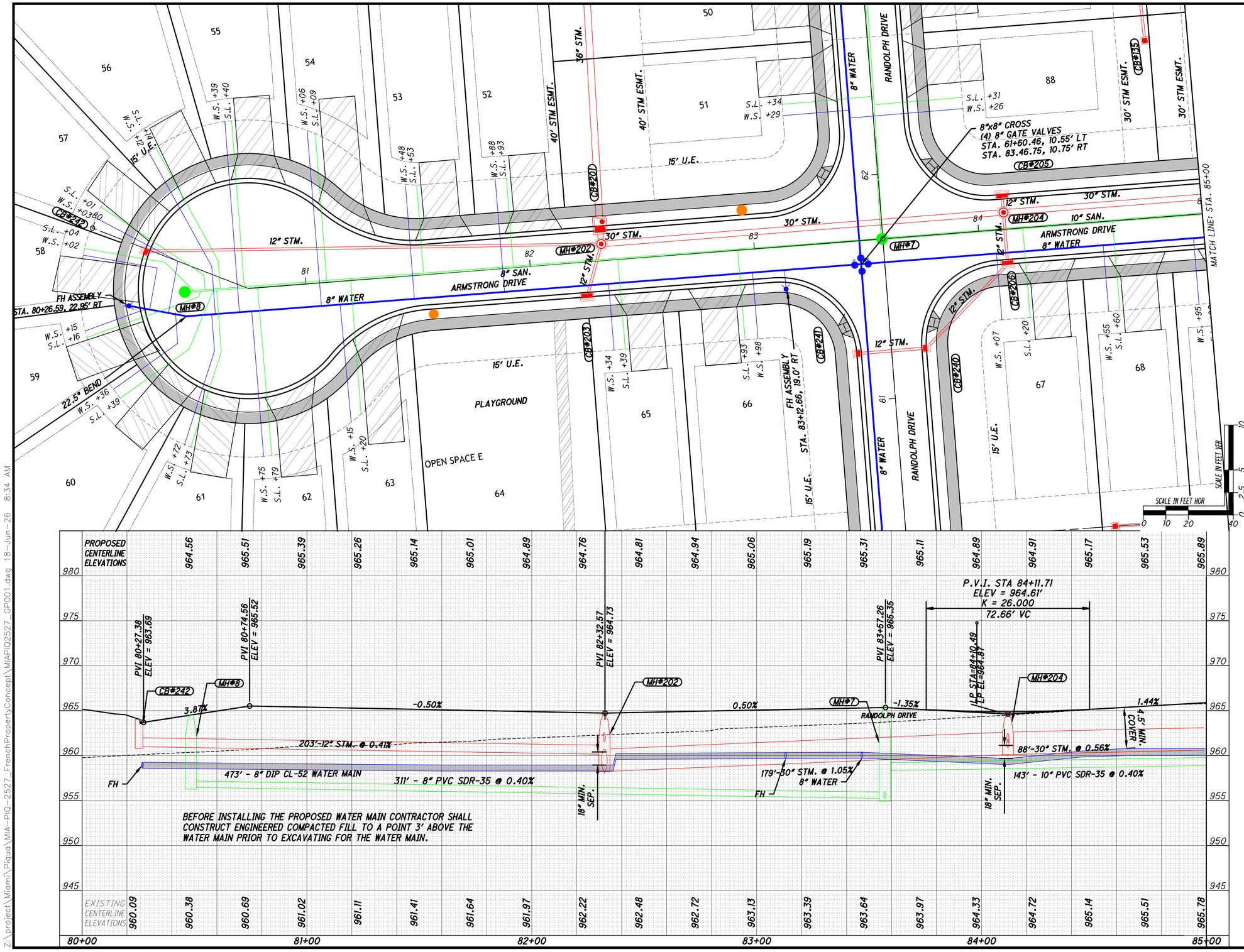
Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ02527_GradingPlan.dwg 18-Jun-26 8:32 AM

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
GRADING PLAN

REVISIONS:

FILE NAME	GRADING PLAN
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	11 OF 51



LEGEND:

S.L - 6" SANITARY LATERAL
W.S. - 3/4" WATER SERVICE

STREET LIGHTS (PROVDED BY CITY OF PIQUA)

PROP. 5' MULCH PATH
NOTE: MULCH PATH FROM ARMSTRONG DRIVE TO WETLANDS AREA.

NOTE: ALL SEWER LATERAL INVERTS TO BE 5 FEET BELOW FINISH FLOOR.

PROPOSED STORM STRUCTURES
#201 TYPE CB–3MH STA. 82+32.30, 15.50' *LT* B/C 964.76 36" N INV. 957.68 30" S INV. 958.18
#202 TYPE 3 STM MH STA. 82+32.29, 7.49' *LT* TOP 964.57 30" N INV. 958.23 12" SW INV. 961.56 30" E INV. 958.23 12" W INV. 960.15
#203 TYPE 1A CB STA. 82+24.19, 15.50' *RT* B/C 964.80 12" NE INV. 961.73
#204 TYPE 3 STM MH STA. 84+11.71, 7.50' *LT* TOP 964.71 30" W INV. 960.12 12" N INV. 961.46 12" S INV. 960.86 30" E INV. 960.12
#205 TYPE 1A CB STA. 84+11.59, 15.50' *LT* B/C 964.92 12" S INV. 961.54
#206 TYPE 1A CB STA. 84+11.74, 15.50' *RT* B/C 964.90 12" N INV. 961.24 12" SW INV. 961.24
#240 TYPE 1 CB STA. 61+21.21, 15.50' *RT* B/C 964.92 12" NE INV. 961.60 12" W INV. 961.60
#241 TYPE 1 CB STA. 61+21.20, 15.50' *LT* B/C 964.85 12" E INV. 961.88
#242 TYPE 1 CB STA. 80+25.38, 1.13' *RT* B/C 964.05 12" E INV. 960.99
PROPOSED SANITARY STRUCTURES
#7 TYPE 3 SAN MH STA. 83+56.93, 0.00' TOP. 965.35 10" N INV. 955.15 10" E INV. 958.35 8" W INV. 955.25
#8 TYPE 3 SAN MH STA. 80+48.50, 11.67' *RT* TOP. 964.49 8" E INV. 956.49

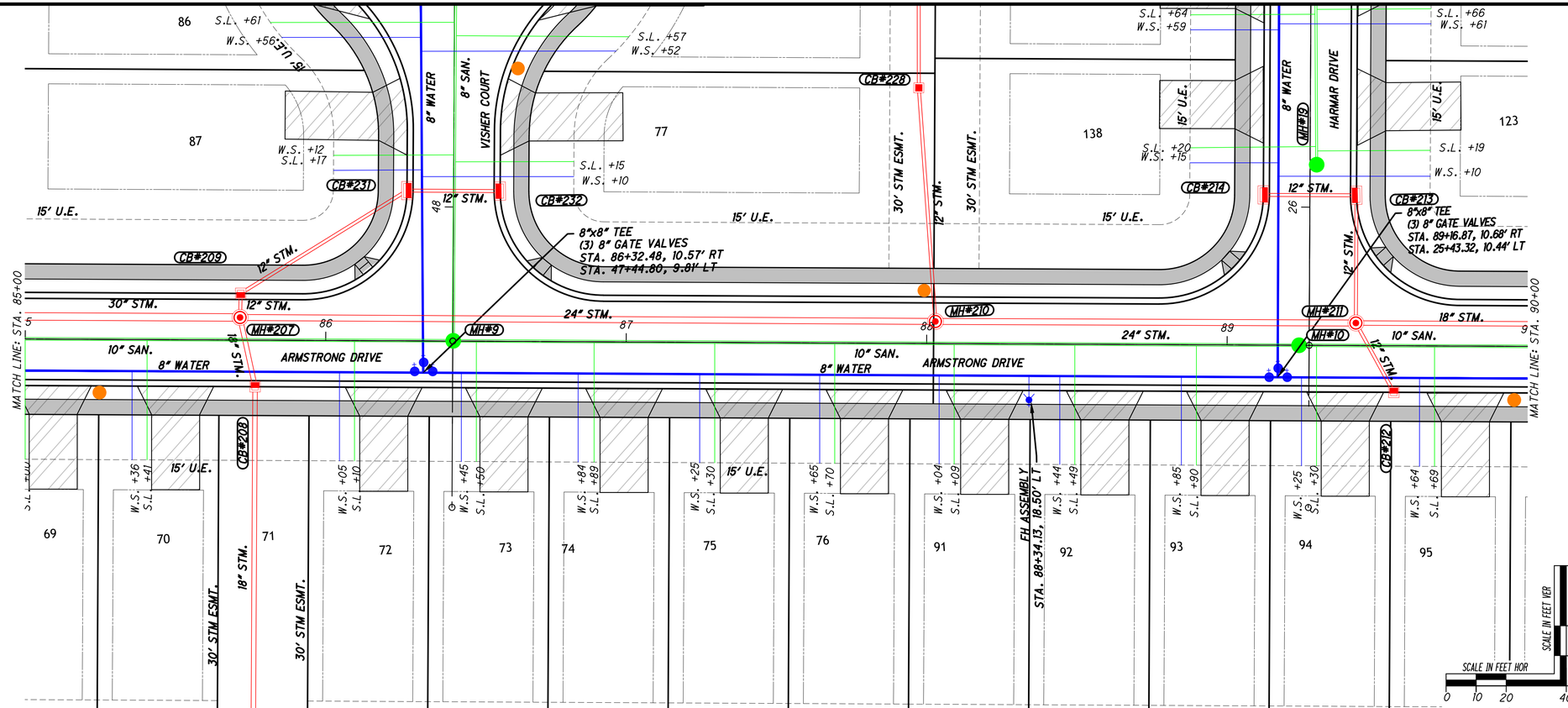
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
ARMSTRONG DRIVE PLAN AND PROFILE STA. 80+00 TO STA. 85+00

REVISIONS:

FILE NAME: GP001
DRAWN BY: KMM
CHECKED BY: KMM
PROJECT No.: MIA-PIQ-2527
DATE: 5-15-2026
SHEET NUMBER: 12 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GP001.dwg 18-Jun-26 8:34 AM



LEGEND:

S.L - 6" SANITARY LATERAL
W.S. - 3/4" WATER SERVICE

STREET LIGHTS (PROVDED BY CITY OF PIQUA)

NOTE: ALL SEWER LATERAL INVERTS TO BE 5 FEET BELOW FINISH FLOOR.

PROPOSED STORM STRUCTURES
#207 TYPE 3 STM MH STA. 85+71.45, 7.50' LT TOP 966.77 12" N INV. 962.73 30" W INV. 961.01 18" S INV. 962.01 24" E INV. 962.12
#208 TYPE 1 CB STA. 85+76.56, 15.50' RT B/C 967.02 18" N INV. 962.32 18" S INV. 962.32
#209 TYPE 1 CB STA. 85+71.62, 15.50' LT B/C 966.95 12" NE INV. 962.88 12" S INV. 962.88
#210 TYPE 3 STM MH STA. 88+02.87, 7.33' LT TOP 969.90 24" W INV. 963.95 12" N INV. 964.48 24" E INV. 963.95
#211 TYPE 3 STM MH STA. 89+42.81, 7.50' LT TOP 971.73 12" SE INV. 968.33 12" N INV. 966.08 24" W INV. 965.08 18" E INV. 965.45
#212 TYPE 1 CB STA. 89+55.56, 15.50' RT B/C 972.09 12" NW INV. 968.57
#213 TYPE 1A CB STA. 26+04.01, 15.50' RT B/C 971.28 12" W INV. 967.50 12" S INV. 967.50
#214 TYPE 1A CB STA. 26+04.00, 15.50' LT B/C 971.28 12" E INV. 967.81
#228 TYPE 2-2B CB STA. 1+10.41, 0.00' TOP 968.36 12" S INV. 964.91 12" N INV. 964.91
#231 TYPE 1A CB STA. 48+05.37, 15.50' LT B/C 967.52 12" E INV. 963.79 12" SW INV. 963.79
#232 TYPE 1A CB STA. 48+05.36, 15.50' RT B/C 967.52 12" W INV. 964.11

PROPOSED SANITARY STRUCTURES
#9 TYPE 3 SAN MH STA. 86+42.43, 0.08' LT TOP. 967.95 10" W INV. 959.50 10" E INV. 959.52 8" N INV. 959.42
#10 TYPE 3 SAN MH STA. 89+23.95, 0.00' TOP. 971.64 10" E INV. 962.46 10" W INV. 962.36

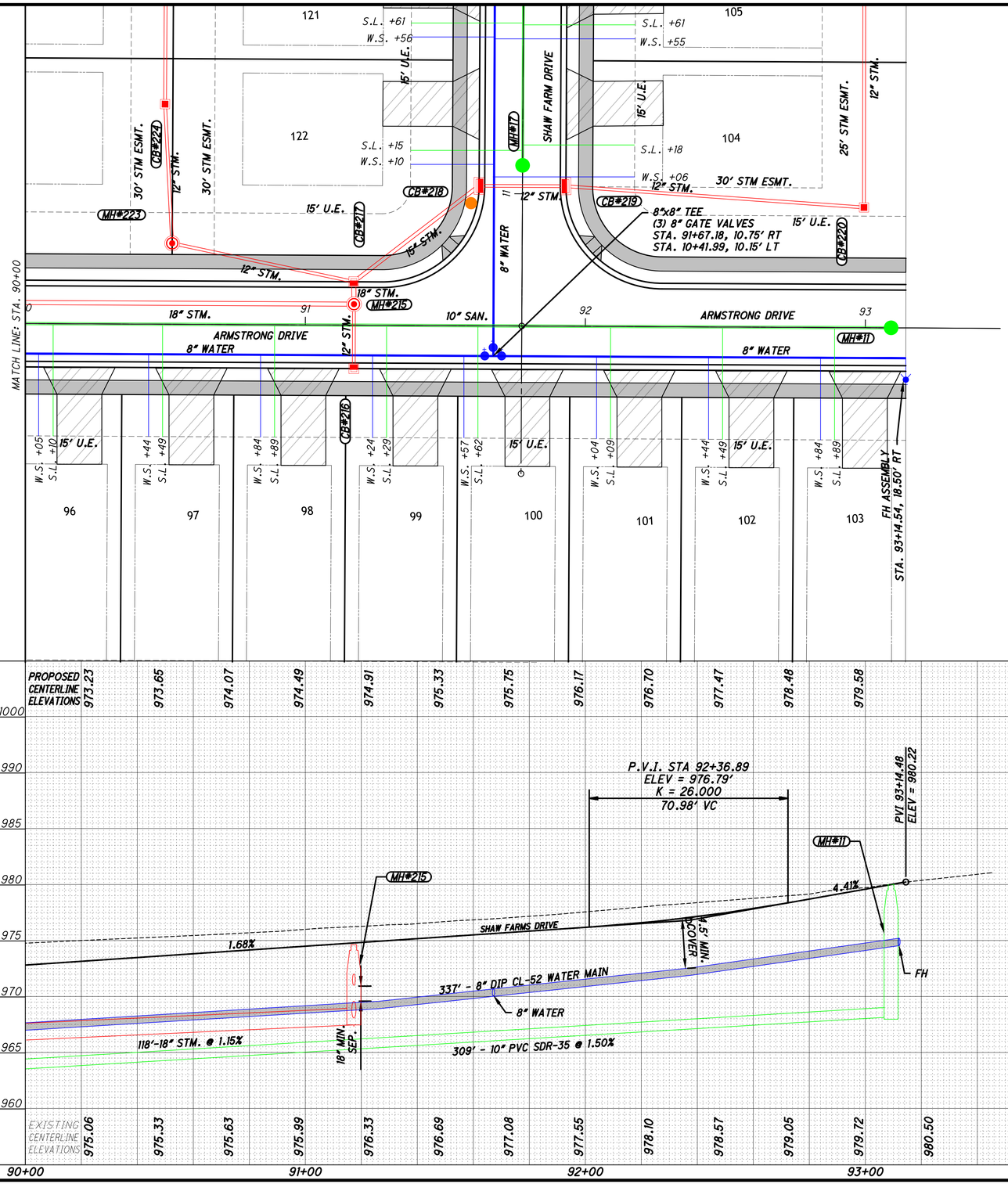
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
ARMSTRONG DRIVE PLAN AND PROFILE STA. 85+00 TO STA. 90+00

REVISIONS:

FILE NAME	GP001
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	13 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GP001.dwg 18-Jun-26 8:35 AM



LEGEND:

- S.L - 6" SANITARY LATERAL
- W.S. - 3/4" WATER SERVICE
- STREET LIGHTS (PROVDED BY CITY OF PIQUA)

NOTE: ALL SEWER LATERAL INVERTS TO BE 5 FEET BELOW FINISH FLOOR.

PROPOSED STORM STRUCTURES

#215 TYPE 3 STM MH
STA. 91+17.34, 7.50' *LT*
TOP 974.63
12" S INV. 971.00
18" N INV. 968.07
18" W INV. 967.46

#216 TYPE 1 CB
STA. 91+17.39, 15.50' *RT*
B/C 974.81
12" N INV. 971.13

#217 TYPE 1 CB
STA. 91+17.23, 15.50' *LT*
B/C 974.81
18" S INV. 968.12
15" NE INV. 969.49
12" W INV. 968.12

#218 TYPE 1A CB
STA. 11+02.76, 15.50' *LT*
B/C 974.97
15" SW INV. 970.33
12" E INV. 970.33

#219 TYPE 1A CB
STA. 11+02.77, 15.50' *RT*
B/C 974.99
12" W INV. 970.94
12" E INV. 970.94

#220 TYPE 2-2B CB
STA. 2+45.75, 0.00'
TOP 976.31
12" W INV. 972.33
12" N INV. 972.32

#223 TYPE 3 STM MH
STA. 90+52.31, 28.93' *LT*
TOP 974.23
12" N INV. 968.45
12" E INV. 968.45

#224 TYPE 2-2B CB
STA. 1+49.60, 0.00'
TOP 972.70
12" N INV. 968.70
12" S INV. 968.70

PROPOSED SANITARY STRUCTURES

#11 TYPE 3 SAN MH
STA. 93+09.19, 0.00'
TOP. 980.00
10" W INV. 968.19

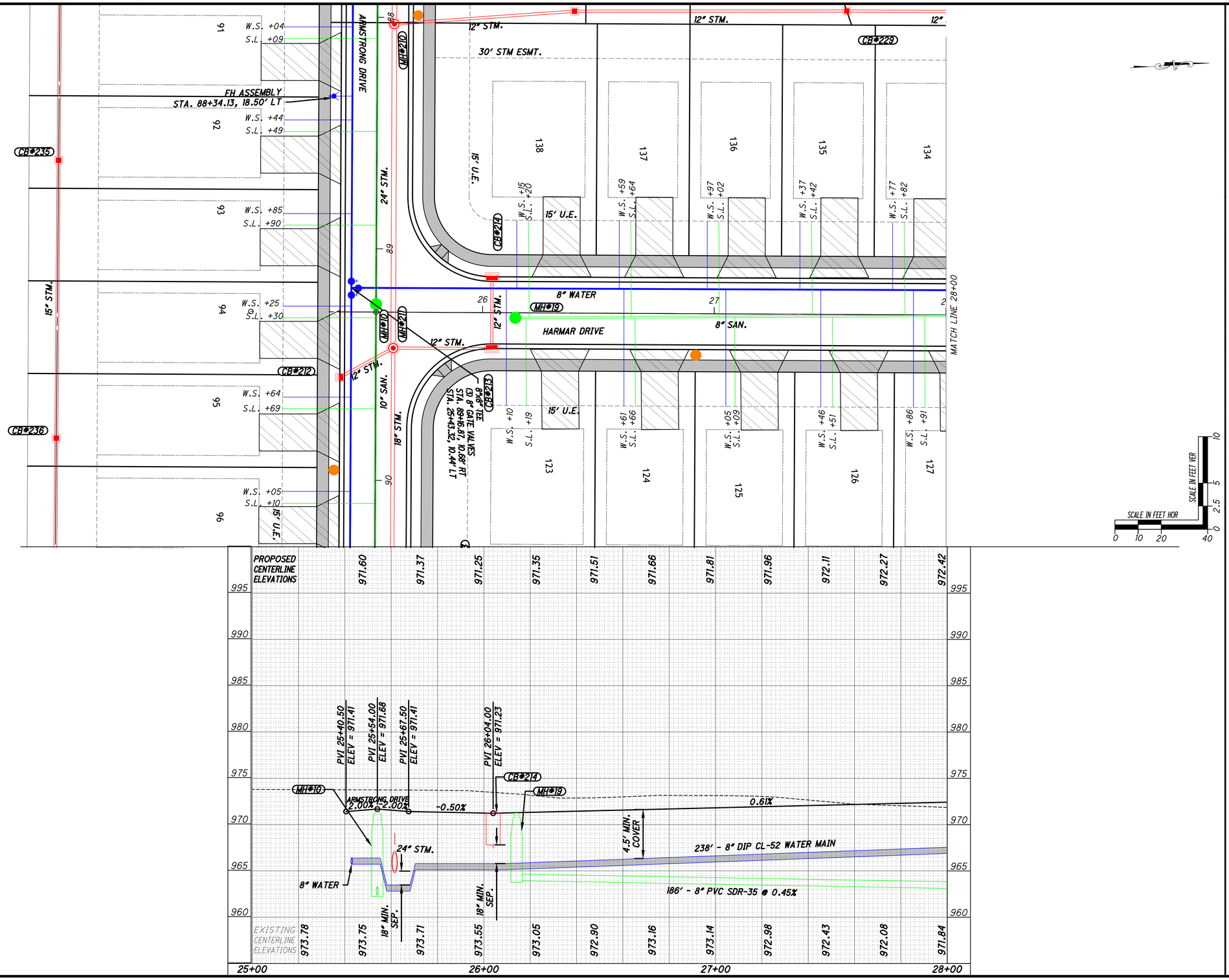
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0300
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
ARMSTRONG DRIVE PLAN AND PROFILE STA. 90+00 TO 94+00

REVISIONS:

FILE NAME	GP001
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	14 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GP001.dwg 18-Jun-26 8:35 AM



LEGEND:
S.L - 6" SANITARY LATERAL
W.S. - 3/4" WATER SERVICE
STREET LIGHTS (PROVDED BY CITY OF PIQUA)

NOTE: ALL SEWER LATERAL INVERTS TO BE 5 FEET BELOW FINISH FLOOR.

PROPOSED STORM STRUCTURES
#211 TYPE 3 STM MH STA. 89+42.81, 7.50' *LT* TOP 971.73 12" SE INV. 968.33 12" N INV. 966.08 24" W INV. 965.08 18" E INV. 965.45
#212 TYPE 1 CB STA. 89+55.56, 15.50' *RT* B/C 972.09 12" NW INV. 968.57
#213 TYPE 1A CB STA. 26+04.01, 15.50' *RT* B/C 971.28 12" W INV. 967.50 12" S INV. 967.50
#214 TYPE 1A CB STA. 26+04.00, 15.50' *LT* B/C 971.28 12" E INV. 967.81

PROPOSED SANITARY STRUCTURES
#10 TYPE 3 SAN MH STA. 89+23.95, 0.00' TOP. 971.64 10" E INV. 962.46 10" W INV. 962.36
#19 TYPE 3 SAN MH STA. 26+14.13, 2.19' *RT* TOP. 971.24 8" N INV. 963.97

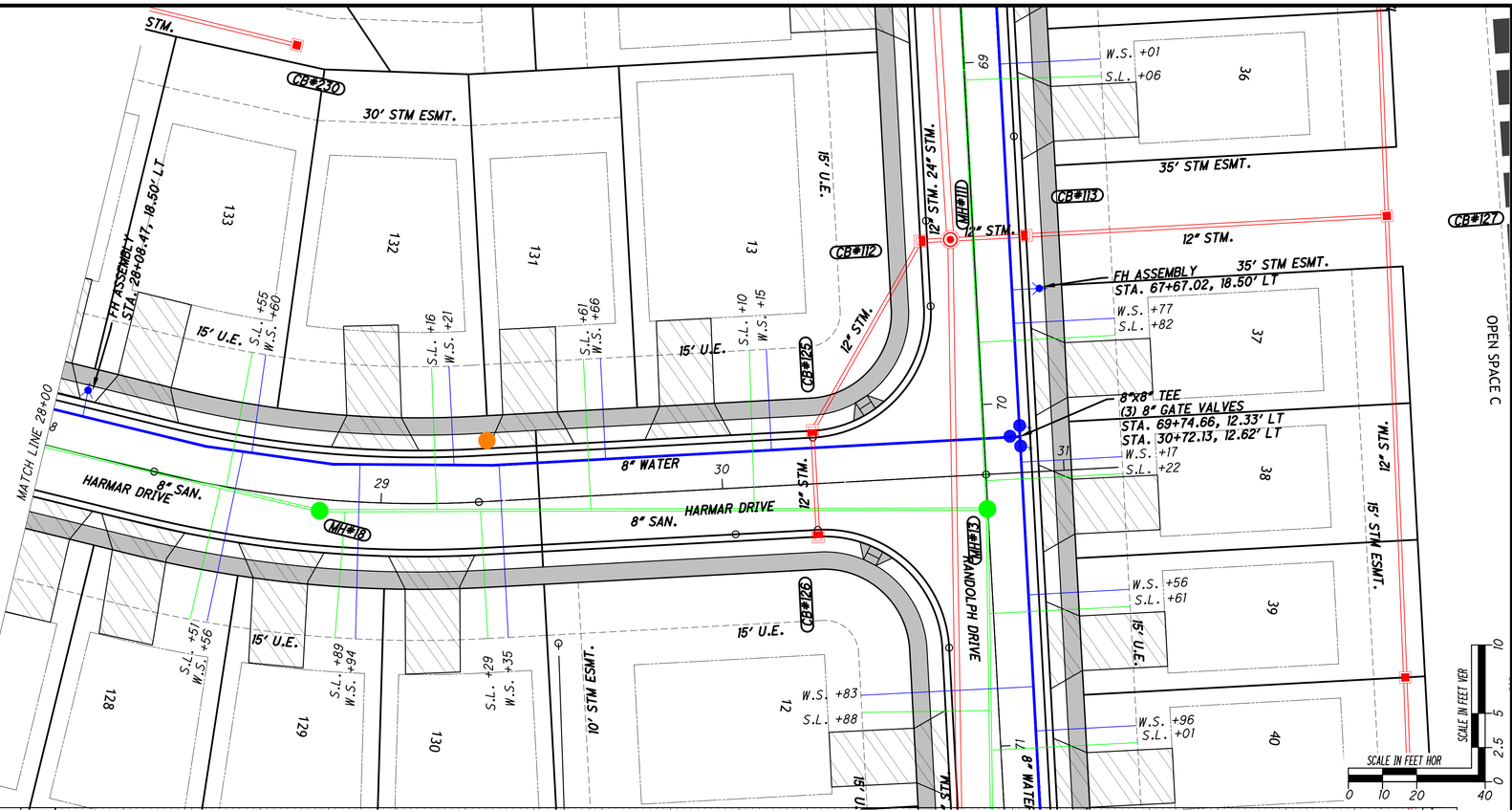
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

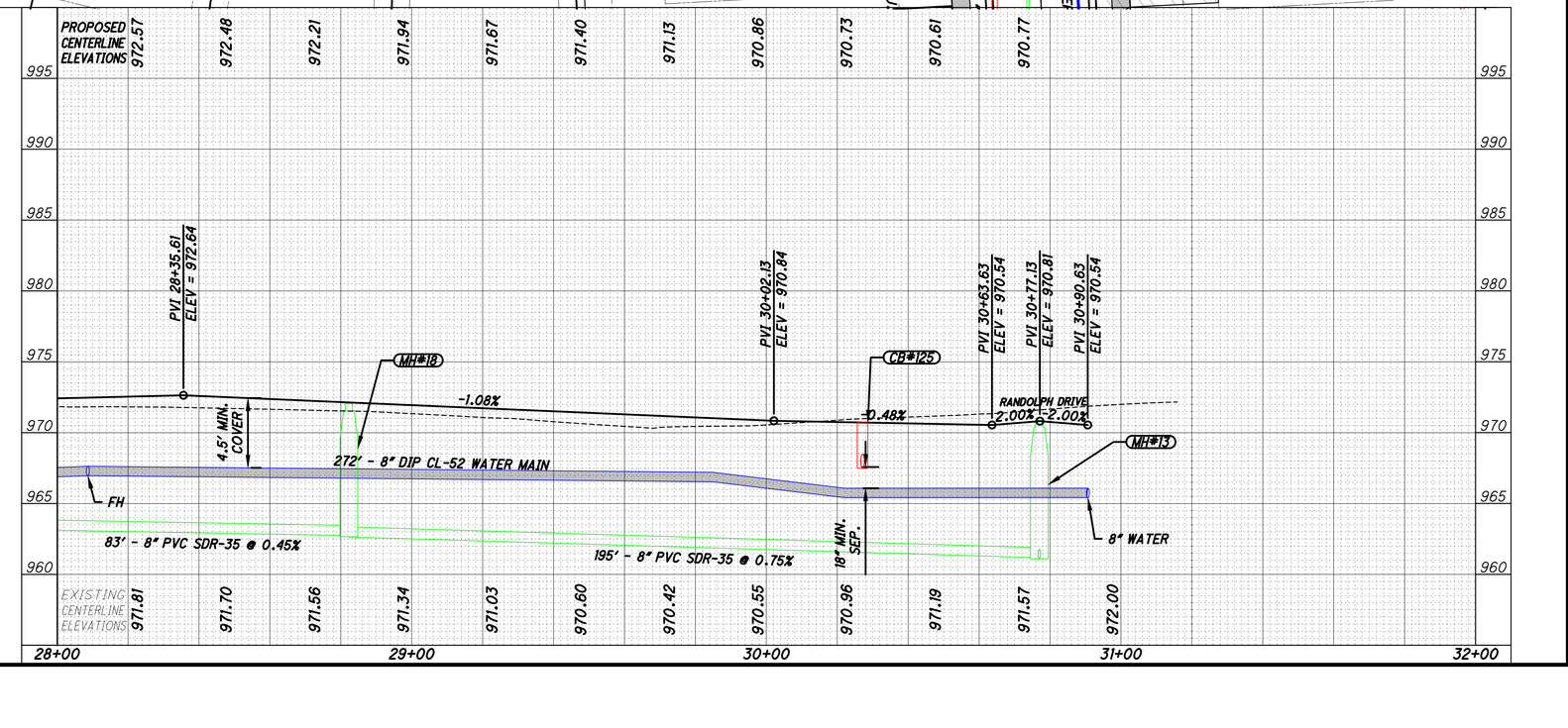
SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
HARMAR DRIVE PLAN AND PROFILE STA. 25+00 TO STA. 28+00

REVISIONS:

FILE NAME: GP001
DRAWN BY: KMM
CHECKED BY: KMM
PROJECT No.: MIA-PIQ-2527
DATE: 5-15-2026
SHEET NUMBER: 15 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GP001.dwg 18-Jun-26 8:36 AM





LEGEND:
S.L - 6" SANITARY LATERAL
W.S. - 3/4" WATER SERVICE
STREET LIGHTS (PROVDED BY CITY OF PIQUA)
PROP. 10' PATH

NOTE: ALL SEWER LATERAL INVERTS TO BE 5 FEET BELOW FINISH FLOOR.

PROPOSED STORM STRUCTURES
#111 TYPE 3 STM MH STA. 69+51.34, 6.69' *RT* TOP 969.82 24" W INV. 963.58 18" E INV. 963.58 12" S INV. 966.59 12" N INV. 963.58
#112 TYPE 1 CB STA. 69+51.34, 15.50' *RT* B/C 969.99 12" N INV. 966.69 12" E INV. 966.69
#113 TYPE 1 CB STA. 69+51.34, 15.50' *LT* B/C 969.99 12" S INV. 963.83 12" N INV. 963.83
#125 TYPE 1 CB STA. 30+27.13, 15.50' *LT* B/C 970.75 12" W INV. 967.49 12" E INV. 967.49
#126 TYPE 1 CB STA. 30+27.13, 15.50' *RT* B/C 970.75 12" W INV. 967.68
PROPOSED SANITARY STRUCTURES
#13 TYPE 3 SAN MH STA. 70+30.58, 0.15' *RT* TOP. 970.88 8" W INV. 961.10 8" E INV. 961.10 8" S INV. 961.20
#18 TYPE 3 SAN MH STA. 28+82.28, 3.37' *RT* TOP. 972.06 8" S INV. 962.76 8" N INV. 962.66

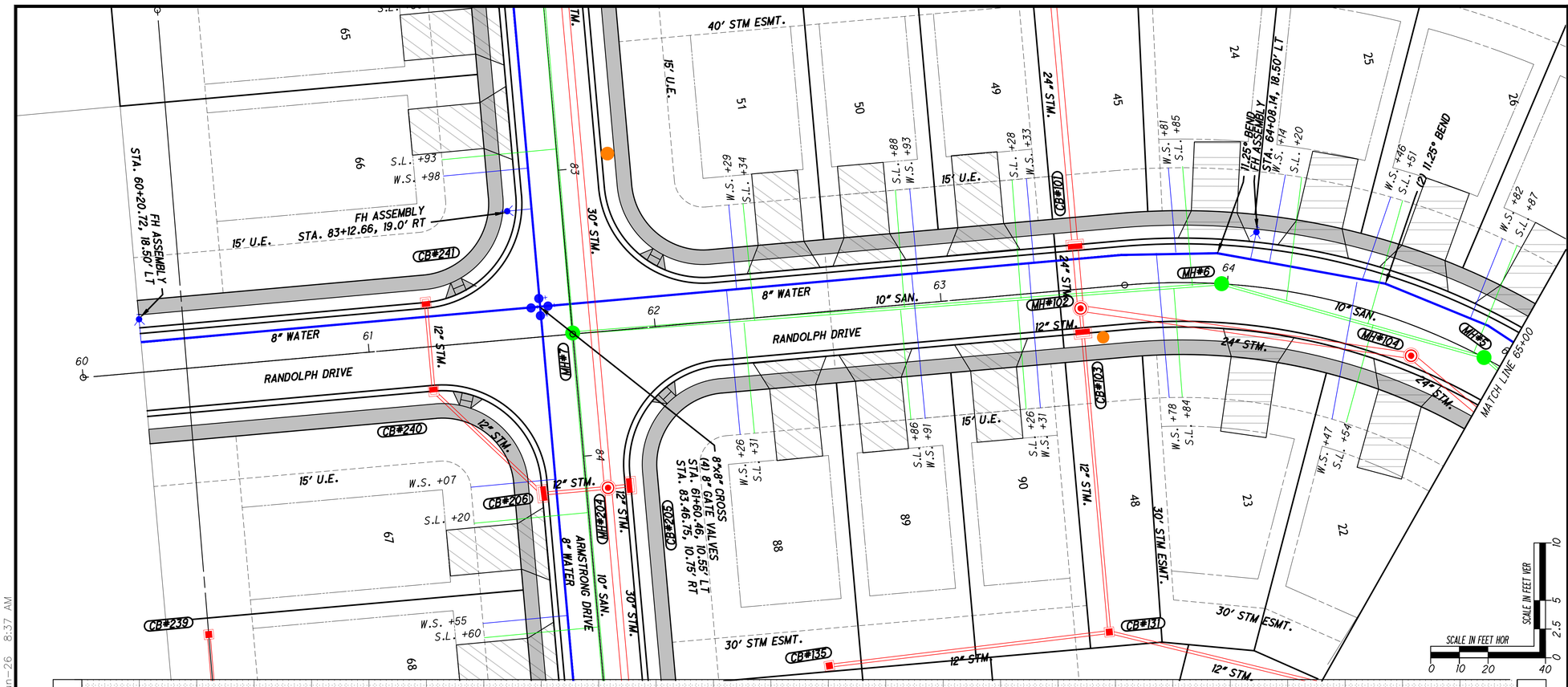
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0300
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

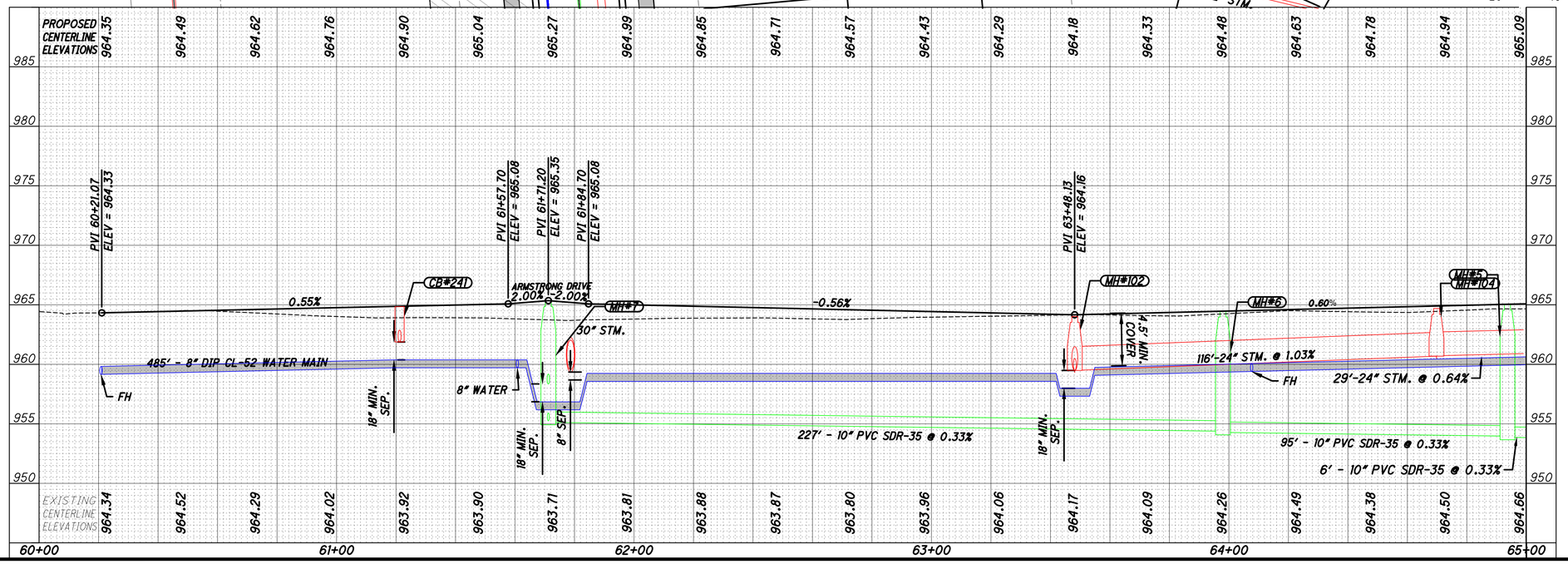
SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
HARMAR DRIVE PLAN AND PROFILE STA. 28+00 TO 32+00

REVISIONS:

FILE NAME	GP001
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	16 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GP001.dwg 18-Jun-26 8:36 AM





LEGEND:

S.L - 6" SANITARY LATERAL
W.S. - 3/4" WATER SERVICE

STREET LIGHTS (PROVIDED BY CITY OF PIQUA)

NOTE: ALL SEWER LATERAL INVERTS TO BE 5 FEET BELOW FINISH FLOOR.

PROPOSED STORM STRUCTURES
#101 TYPE 1A CB STA. 63+48.19, 15.50' LT B/C 964.19 24" W INV. 959.26 24" E INV. 959.26
#102 TYPE 3 STM MH STA. 63+48.19, 6.73' RT TOP 964.03 24" W INV. 959.49 12" E INV. 959.49 24" N INV. 959.49
#103 TYPE 1A CB STA. 63+48.19, 15.50' RT B/C 964.19 12" W INV. 959.65 12" E INV. 959.65
#104 TYPE 3 STM MH STA. 64+69.80, 10.09' RT TOP 964.69 24" S INV. 960.69 24" NE INV. 960.72
#204 TYPE 3 STM MH STA. 84+11.71, 7.50' LT TOP 964.71 30" W INV. 960.12 12" N INV. 961.46 12" S INV. 960.86 30" E INV. 960.12
#205 TYPE 1A CB STA. 84+11.59, 15.50' LT B/C 964.92 12" S INV. 961.54
#206 TYPE 1A CB STA. 84+11.74, 15.50' RT B/C 964.90 12" N INV. 961.24 12" SW INV. 961.24
#240 TYPE 1 CB STA. 61+21.21, 15.50' RT B/C 964.92 12" NE INV. 961.60 12" W INV. 961.60
#241 TYPE 1 CB STA. 61+21.20, 15.50' LT B/C 964.85 12" E INV. 961.88

PROPOSED SANITARY STRUCTURES
#5 TYPE 3 SAN MH STA. 64+93.65, 0.03' LT TOP. 965.05 10" NE INV. 953.89 10" SW INV. 953.99
#6 TYPE 3 SAN MH STA. 63+98.00, 0.04' LT TOP. 964.47 10" NE INV. 954.30 10" S INV. 954.40
#7 TYPE 3 SAN MH STA. 83+56.93, 0.00' TOP. 965.35 10" N INV. 955.15 10" E INV. 958.35 8" W INV. 955.25

ChoiceOne Engineering

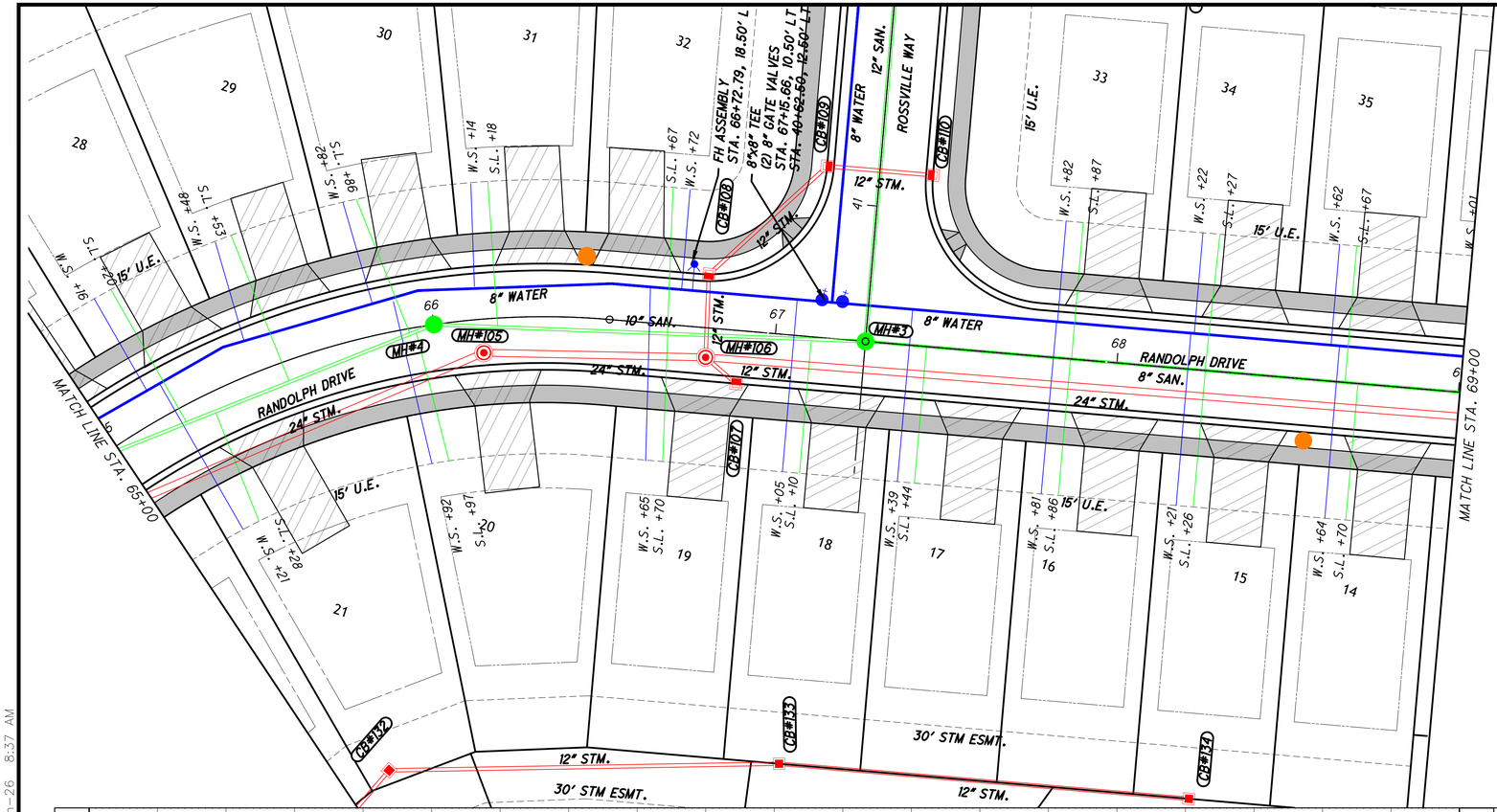
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

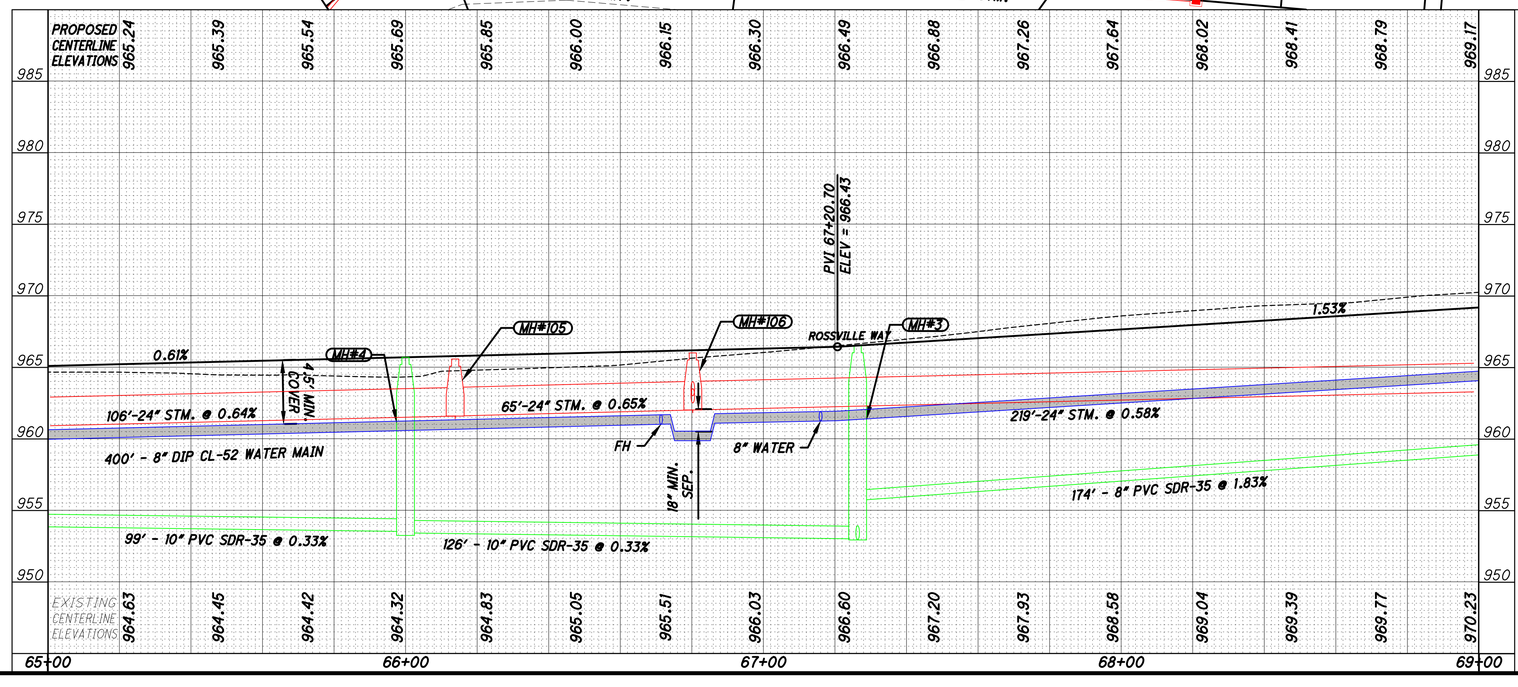
SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
RANDOLPH DRIVE PLAN AND PROFILE STA. 60+00 TO STA. 65+00

REVISIONS:

FILE NAME: GP001
DRAWN BY: KMM
CHECKED BY: KMM
PROJECT No.: MIA-PIQ-2527
DATE: 5-15-2026
SHEET NUMBER: 17 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GP001.dwg 18-Jun-26 8:37 AM





LEGEND:

S.L - 6" SANITARY LATERAL
W.S. - 3/4" WATER SERVICE

STREET LIGHTS (PROVIDED BY CITY OF PIQUA)

NOTE: ALL SEWER LATERAL INVERTS TO BE 5 FEET BELOW FINISH FLOOR.

SCALE IN FEET HOR
0 10 20 40

SCALE IN FEET VER
0 2.5 5 10

PROPOSED STORM STRUCTURES
#105 TYPE 3 STM MH STA. 66+13.84, 9.82' *RT* TOP 965.57 24" SW INV. 961.59 24" E INV. 961.59
#106 TYPE 3 STM MH STA. 66+80.26, 8.62' *RT* TOP 966.00 24" W INV. 962.01 12" N INV. 963.00 12" SE INV. 962.50 24" E INV. 962.01
#107 TYPE 1 CB STA. 66+89.79, 15.50' *RT* B/C 966.27 12" NW INV. 962.65
#108 TYPE 1 CB STA. 66+79.16, 15.62' *LT* B/C 966.23 12" NE INV. 963.11 12" S INV. 963.11
#109 TYPE 1 CB STA. 41+10.33, 15.50' *LT* B/C 966.51 12" SW INV. 963.31 12" E INV. 963.31
#110 TYPE 1 CB STA. 41+10.33, 15.50' *RT* B/C 966.51 12" W INV. 963.44

PROPOSED SANITARY STRUCTURES
#3 TYPE 3 SAN MH STA. 67+26.34, 0.00' TOP. 966.51 12" N INV. 952.93 8" E INV. 955.72 10" W INV. 953.03
#4 TYPE 3 SAN MH STA. 65+99.97, 0.01' *LT* TOP. 965.69 10" E INV. 953.44 10" SW INV. 953.54

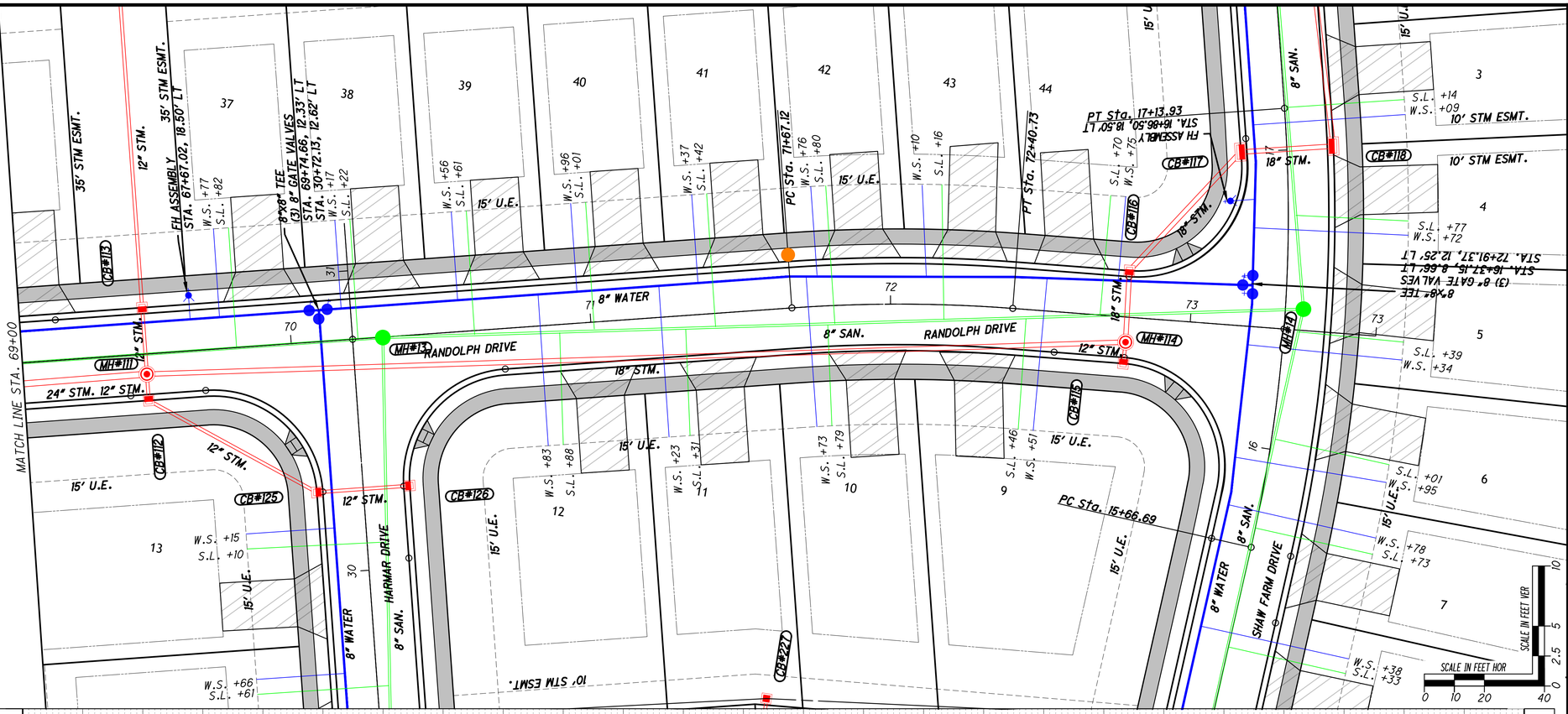
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

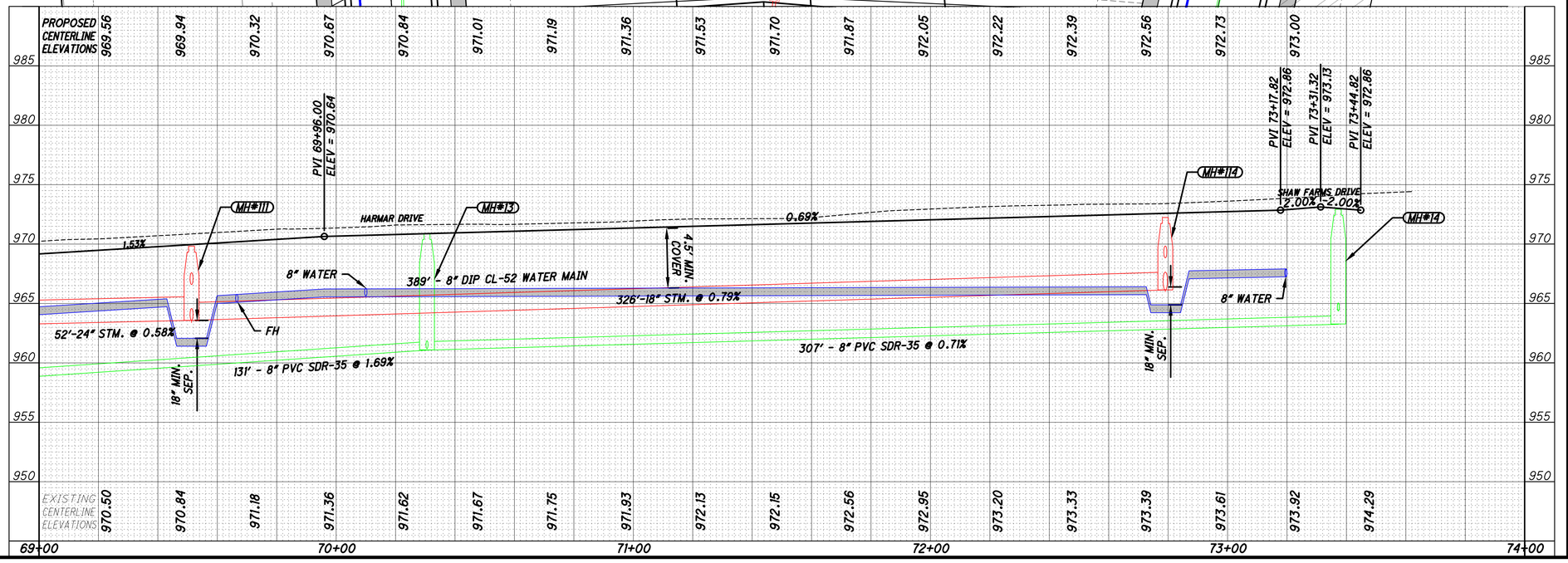
SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
RANDOLPH DRIVE PLAN AND PROFILE STA. 65+00 TO STA. 69+00

REVISIONS:

FILE NAME GP001
DRAWN BY KMM
CHECKED BY KMM
PROJECT No. MIA-PIQ-2527
DATE 5-15-2026
SHEET NUMBER 18 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GP001.dwg 18-Jun-26 8:37 AM





LEGEND:

S.L - 6" SANITARY LATERAL
W.S. - 3/4" WATER SERVICE

STREET LIGHTS (PROVIDED BY CITY OF PIQUA)

NOTE: ALL SEWER LATERAL INVERTS TO BE 5 FEET BELOW FINISH FLOOR.

PROPOSED STORM STRUCTURES
#111 TYPE 3 STM MH STA. 69+51.34, 6.69' *RT* TOP 969.82 24" W INV. 963.58 18" E INV. 963.58 12" S INV. 966.59 12" N INV. 963.58
#112 TYPE 1 CB STA. 69+51.34, 15.50' *RT* B/C 969.99 12" N INV. 966.69 12" E INV. 966.69
#113 TYPE 1 CB STA. 69+51.34, 15.50' *LT* B/C 969.99 12" S INV. 963.83 12" N INV. 963.83
#114 TYPE 3 STM MH STA. 72+79.04, 8.35' *RT* TOP 972.24 18" N INV. 966.14 12" S INV. 968.84 18" W INV. 966.14
#115 TYPE 1 CB STA. 72+78.82, 15.50' *RT* B/C 972.36 12" N INV. 969.05
#116 TYPE 1 CB STA. 72+78.53, 15.50' *LT* B/C 972.54 18" S INV. 966.28 18" NE INV. 966.28
#117 TYPE 1A CB STA. 16+99.97, 15.50' *LT* B/C 972.56 18" SW INV. 966.58 18" E INV. 966.58
#118 TYPE 1A CB STA. 17+00.59, 15.50' *RT* B/C 972.56 18" W INV. 966.74 18" N INV. 966.74
#125 TYPE 1 CB STA. 30+27.13, 15.50' *LT* B/C 970.75 12" W INV. 967.49 12" E INV. 967.49
#126 TYPE 1 CB STA. 30+27.13, 15.50' *RT* B/C 970.75 12" W INV. 967.68
PROPOSED SANITARY STRUCTURES
#13 TYPE 3 SAN MH STA. 70+30.58, 0.15' *RT* TOP. 970.88 8" W INV. 961.10 8" E INV. 961.10 8" S INV. 961.20
#14 TYPE 3 SAN MH STA. 16+47.32, 6.00' *RT* TOP. 972.93 8" W INV. 963.28 8" S INV. 964.38 8" N INV. 964.37

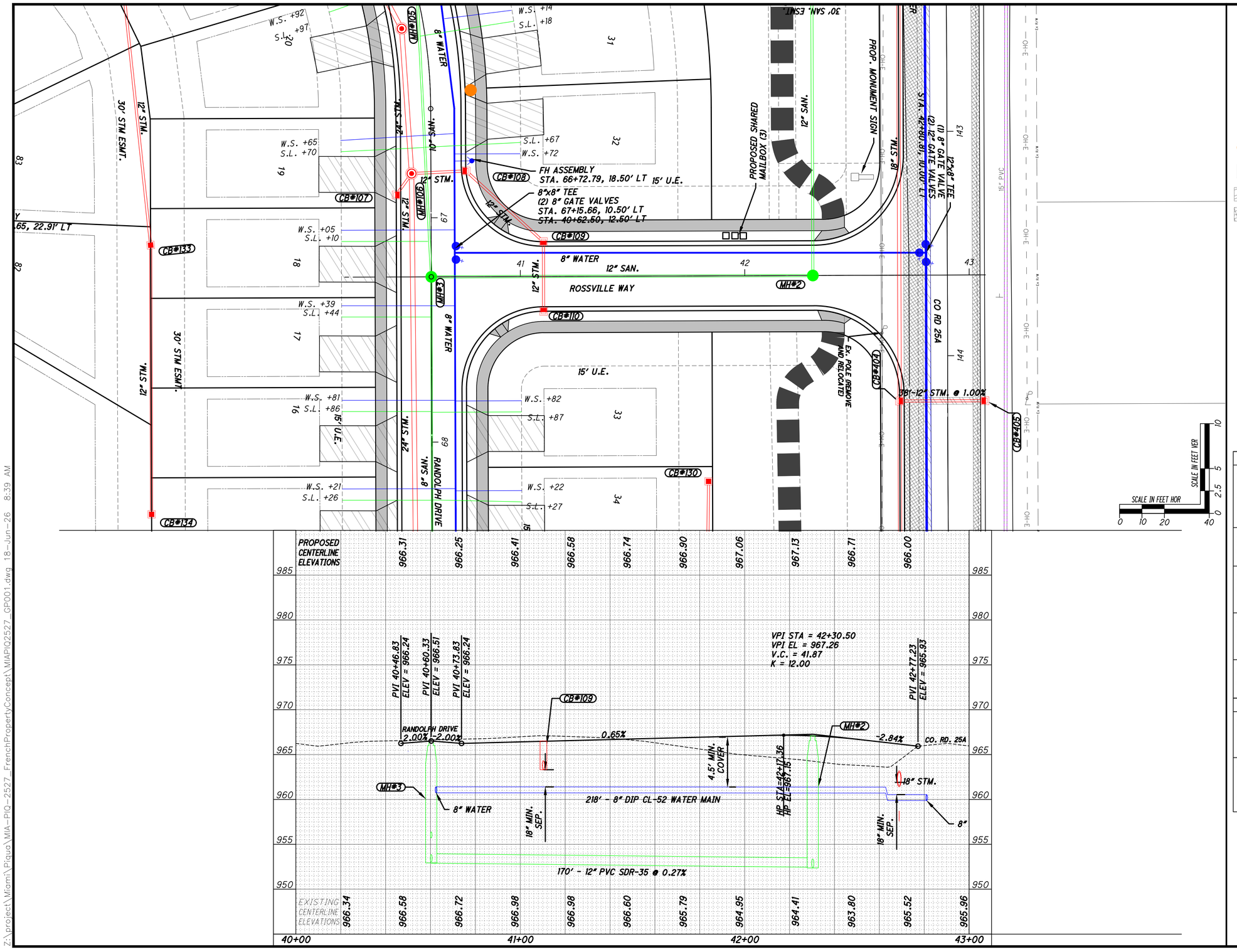
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0300
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
RANDOLPH DRIVE PLAN AND PROFILE STA. 69+00 TO 74+00

REVISIONS:

FILE NAME GP001
DRAWN BY KMM
CHECKED BY KMM
PROJECT No. MIA-PIQ-2527
DATE 5-15-2026
SHEET NUMBER 19 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GP001.dwg 18-Jun-26 8:38 AM



LEGEND:

S.L - 6" SANITARY LATERAL
W.S. - 3/4" WATER SERVICE

STREET LIGHTS (PROVIDED BY CITY OF PIQUA)

PROP. 10' PATH

FULL DEPTH REPAIR OVER STORM SEWER

FULL DEPTH PAVEMENT SECTION

NOTE: ALL SEWER LATERAL INVERTS TO BE 5 FEET BELOW FINISH FLOOR.

PROPOSED STORM STRUCTURES

#106 TYPE 3 STM MH
STA. 66+80.26, 8.62' RT
TOP 966.00
24" W INV. 962.01
12" N INV. 963.00
12" SE INV. 962.50
24" E INV. 962.01

#107 TYPE 1 CB
STA. 66+89.79, 15.50' RT
B/C 966.27
12" NW INV. 962.65

#108 TYPE 1 CB
STA. 66+79.16, 15.62' LT
B/C 966.23
12" NE INV. 963.11
12" S INV. 963.11

#109 TYPE 1 CB
STA. 41+10.33, 15.50' LT
B/C 966.51
12" SW INV. 963.31
12" E INV. 963.31

#110 TYPE 1 CB
STA. 41+10.33, 15.50' RT
B/C 966.51
12" W INV. 963.44

PROPOSED SANITARY STRUCTURES

#2 TYPE 3 SAN MH
STA. 42+30.33, 0.00'
TOP. 967.08
12" W INV. 952.37
12" S INV. 952.47

#3 TYPE 3 SAN MH
STA. 67+26.34, 0.00'
TOP. 966.51
12" N INV. 952.93
8" E INV. 955.72
10" W INV. 953.03

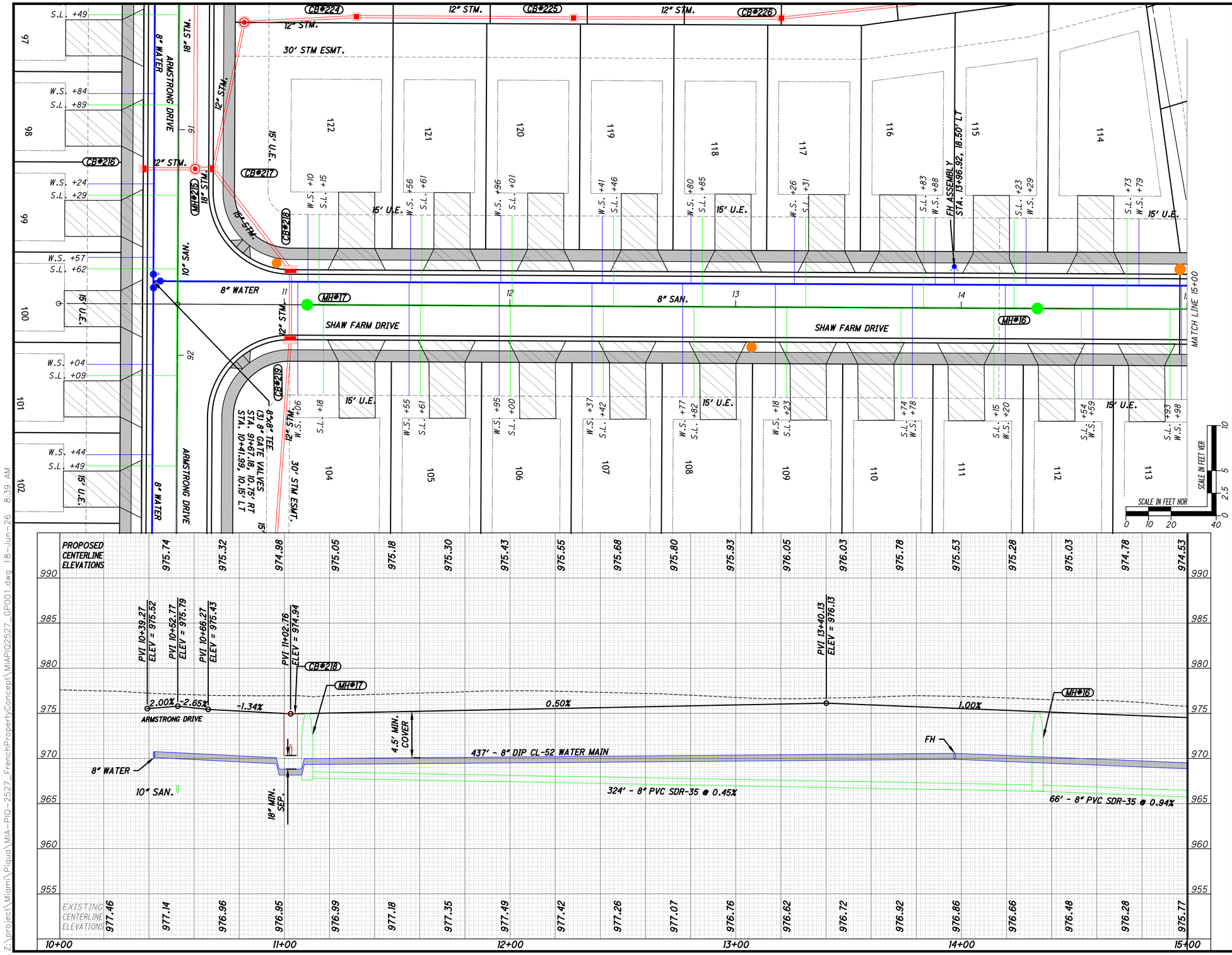
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
ROSSVILLE WAY PLAN AND PROFILE STA. 40+00 TO STA. 43+00

REVISIONS:

FILE NAME GP001
DRAWN BY KMM
CHECKED BY KMM
PROJECT No. MIA-PIQ-2527
DATE 5-15-2026
SHEET NUMBER 20 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GP001.dwg 18-Jun-26 8:39 AM



LEGEND:
S.L - 6" SANITARY LATERAL
W.S. - 3/4" WATER SERVICE
STREET LIGHTS (PROVIDED BY CITY OF PIQUA)

NOTE: ALL SEWER LATERAL INVERTS TO BE 5 FEET BELOW FINISH FLOOR.

PROPOSED STORM STRUCTURES
#215 TYPE 3 STM MH STA. 91+17.34, 7.50' *LT* TOP 974.63 12" S INV. 971.00 18" N INV. 968.07 18" W INV. 967.46
#216 TYPE 1 CB STA. 91+17.39, 15.50' *RT* B/C 974.81 12" N INV. 971.13
#217 TYPE 1 CB STA. 91+17.23, 15.50' *LT* B/C 974.81 18" S INV. 968.12 15" NE INV. 969.49 12" W INV. 968.12
#218 TYPE 1A CB STA. 11+02.76, 15.50' *LT* B/C 974.97 15" SW INV. 970.33 12" E INV. 970.33
#219 TYPE 1A CB STA. 11+02.77, 15.50' *RT* B/C 974.99 12" W INV. 970.94 12" E INV. 970.94
PROPOSED SANITARY STRUCTURES
#16 TYPE 3 SAN MH STA. 14+33.74, 0.00' TOP. 975.19 8" N INV. 966.38 8" S INV. 966.39
#17 TYPE 3 SAN MH STA. 11+10.15, 0.00' TOP. 974.98 8" N INV. 967.84

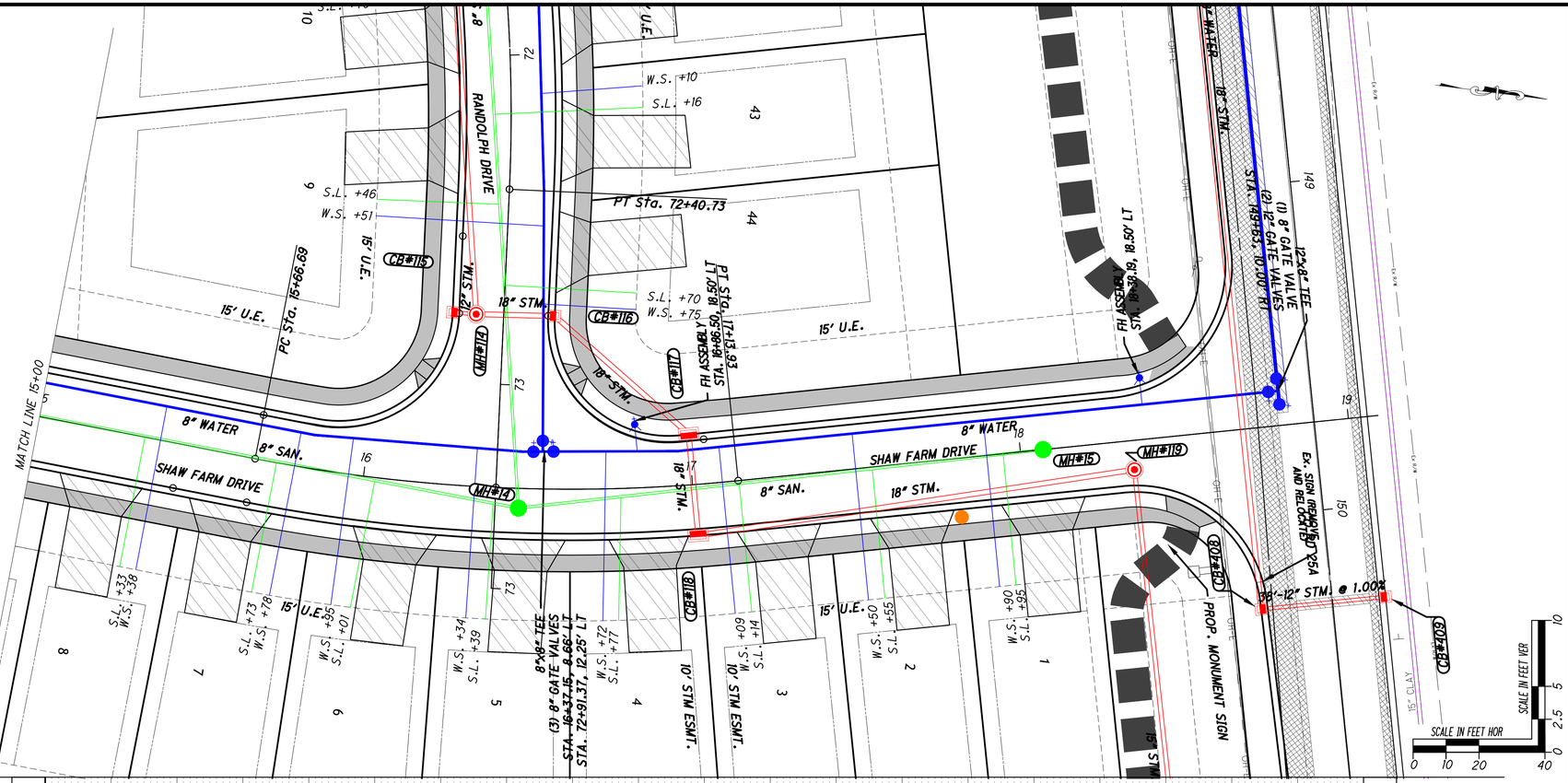
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
SHAW FARM DRIVE PLAN AND PROFILE STA. 10+00 TO STA. 15+00

REVISIONS:

FILE NAME GP001
DRAWN BY KMM
CHECKED BY KMM
PROJECT No. MIA-PIQ-2527
DATE 5-15-2026
SHEET NUMBER 21 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GP001.dwg 18-Jun-26 8:39 AM



LEGEND:

- S.L - 6" SANITARY LATERAL
- W.S. - 3/4" WATER SERVICE
- STREET LIGHTS (PROVIDED BY CITY OF PIQUA)
- PROP. 10' PATH
- FULL DEPTH REPAIR OVER STORM SEWER
- FULL DEPTH PAVEMENT SECTION

NOTE: ALL SEWER LATERAL INVERTS TO BE 5 FEET BELOW FINISH FLOOR.

PROPOSED STORM STRUCTURES
#114 TYPE 3 STM MH STA. 72+79.04, 8.35' *RT* TOP 972.24 18" N INV. 966.14 12" S INV. 968.84 18" W INV. 966.14
#115 TYPE 1 CB STA. 72+78.82, 15.50' *RT* B/C 972.36 12" N INV. 969.05
#116 TYPE 1 CB STA. 72+78.53, 15.50' *LT* B/C 972.54 18" S INV. 966.28 18" NE INV. 966.28
#117 TYPE 1A CB STA. 16+99.97, 15.50' *LT* B/C 972.56 18" SW INV. 966.58 18" E INV. 966.58
#118 TYPE 1A CB STA. 17+00.59, 15.50' *RT* B/C 972.56 18" W INV. 966.74 18" N INV. 966.74
#119 TYPE 3 STM MH STA. 18+33.86, 8.85' *RT* TOP 973.21 18" S INV. 967.14 15" E INV. 967.39
PROPOSED SANITARY STRUCTURES
#14 TYPE 3 SAN MH STA. 16+47.32, 6.00' *RT* TOP. 972.93 8" W INV. 963.28 8" S INV. 964.38 8" N INV. 964.37
#15 TYPE 3 SAN MH STA. 18+06.88, 0.00' TOP. 973.38 8" S INV. 965.58

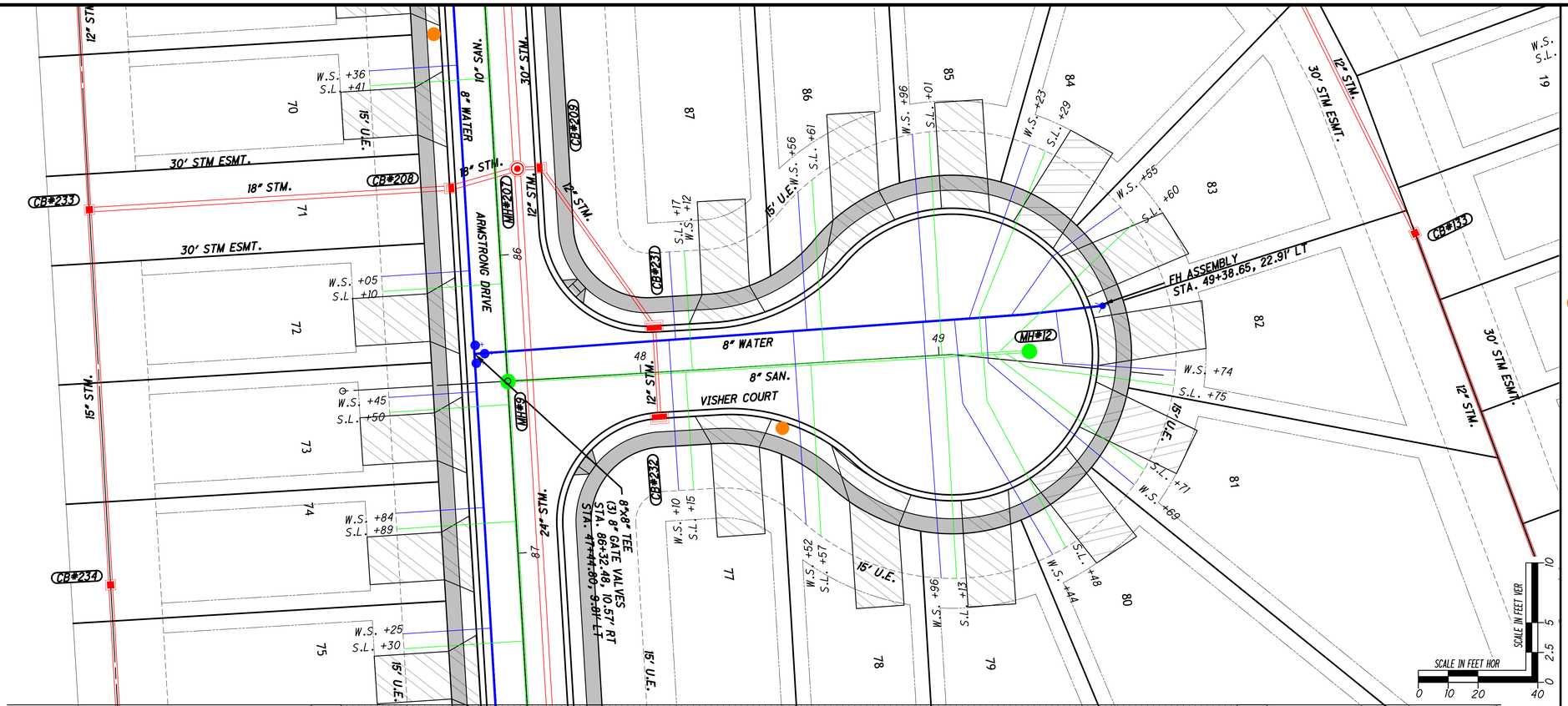
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

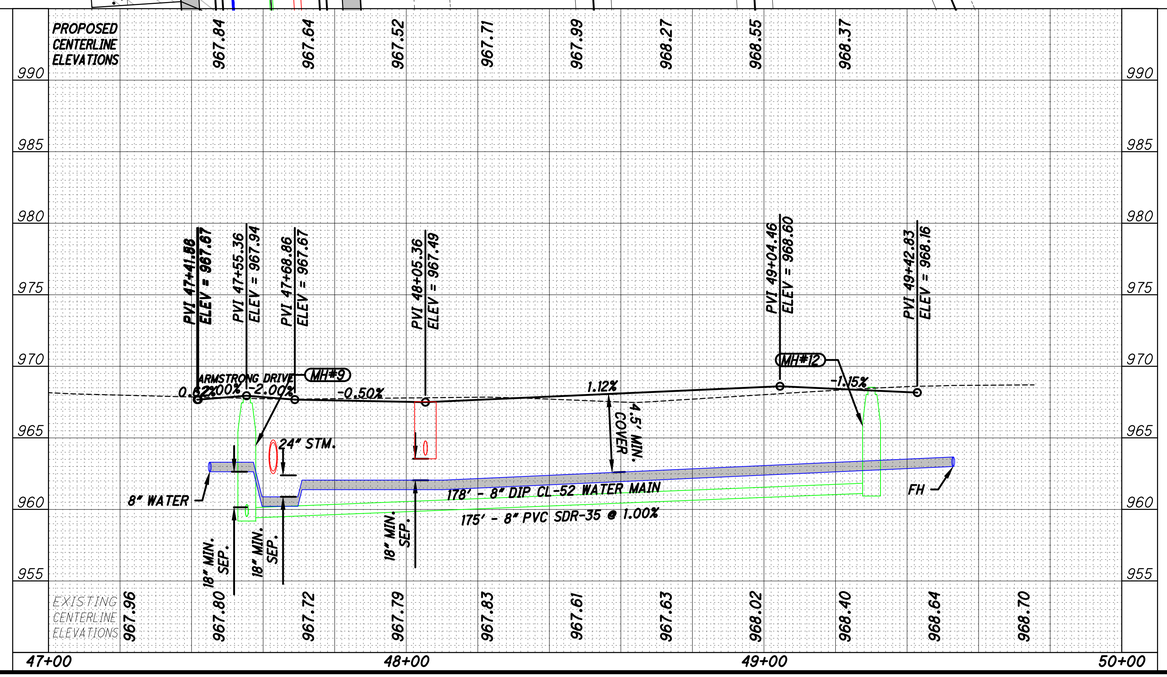
SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
SHAW FARM DRIVE PLAN AND PROFILE STA. 15+00 TO STA. 20+00

REVISIONS:

FILE NAME: GP001
DRAWN BY: KMM
CHECKED BY: KMM
PROJECT No.: MIA-PIQ-2527
DATE: 5-15-2026
SHEET NUMBER: 22 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GP001.dwg 18-Jun-26 8:40 AM





LEGEND:

S.L - 6" SANITARY LATERAL
W.S. - 3/4" WATER SERVICE

STREET LIGHTS (PROVIDED BY CITY OF PIQUA)

NOTE: ALL SEWER LATERAL INVERTS TO BE 5 FEET BELOW FINISH FLOOR.

PROPOSED STORM STRUCTURES
#207 TYPE 3 STM MH STA. 85+71.45, 7.50' *LT* TOP 966.77 12" N INV. 962.73 30" W INV. 961.01 18" S INV. 962.01 24" E INV. 962.12
#208 TYPE 1 CB STA. 85+76.56, 15.50' *RT* B/C 967.02 18" N INV. 962.32 18" S INV. 962.32
#209 TYPE 1 CB STA. 85+71.62, 15.50' *LT* B/C 966.95 12" NE INV. 962.88 12" S INV. 962.88
#231 TYPE 1A CB STA. 48+05.37, 15.50' *LT* B/C 967.52 12" E INV. 963.79 12" SW INV. 963.79
#232 TYPE 1A CB STA. 48+05.36, 15.50' *RT* B/C 967.52 12" W INV. 964.11
PROPOSED SANITARY STRUCTURES
#9 TYPE 3 SAN MH STA. 86+42.43, 0.08' *LT* TOP. 967.95 10" W INV. 959.50 10" E INV. 959.52 8" N INV. 959.42
#12 TYPE 3 SAN MH STA. 49+30.05, 3.57' *LT* TOP. 968.54 8" S INV. 961.16

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

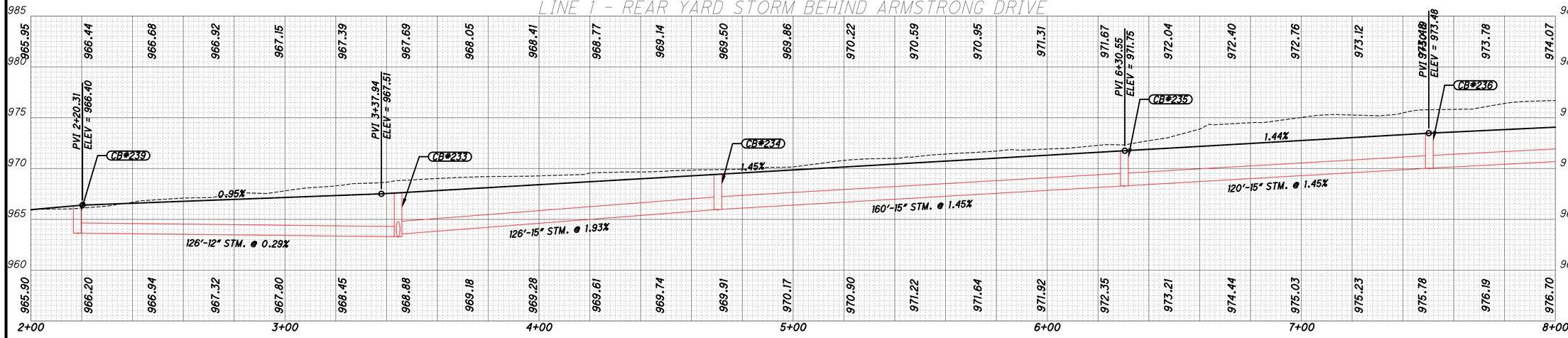
SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
VISHER COURT PLAN AND PROFILE STA. 47+00 TO STA. 50+00

REVISIONS:

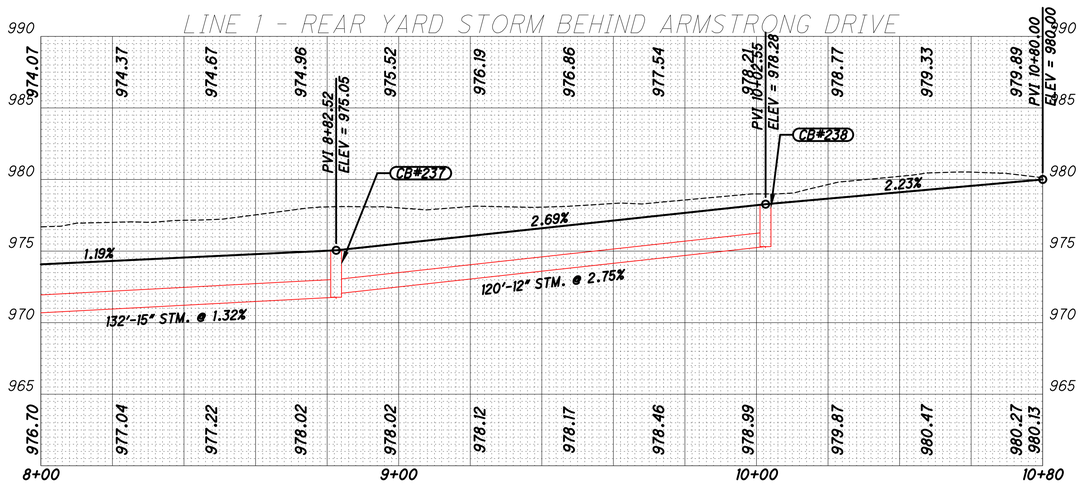
FILE NAME: GP001
DRAWN BY: KMM
CHECKED BY: KMM
PROJECT No.: MIA-PIQ-2527
DATE: 5-15-2026
SHEET NUMBER: 23 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GP001.dwg 18-Jun-26 8:40 AM

LINE 1 - REAR YARD STORM BEHIND ARMSTRONG DRIVE

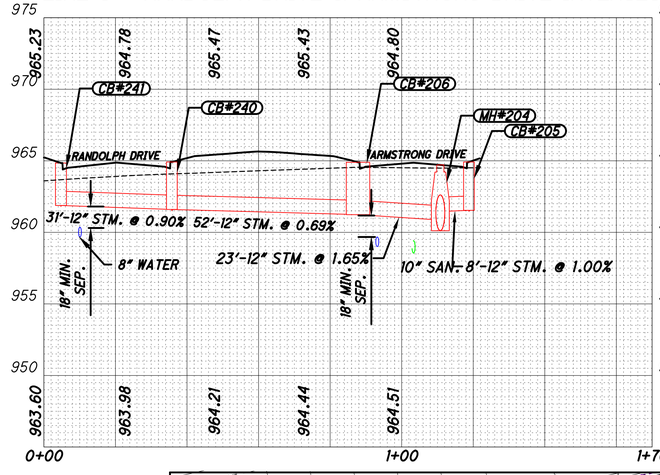


LINE 1 - REAR YARD STORM BEHIND ARMSTRONG DRIVE



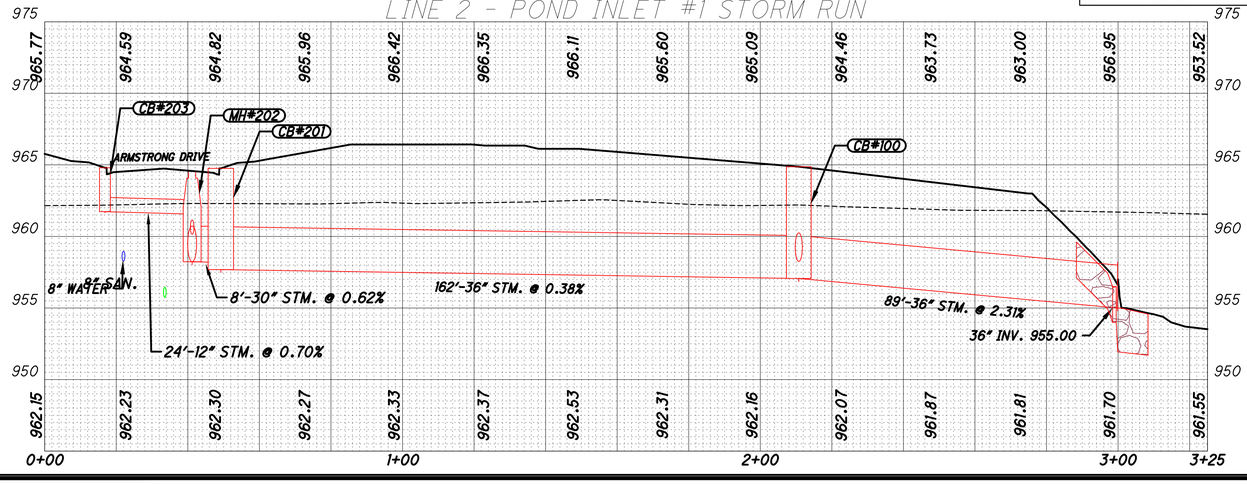
PROPOSED STORM STRUCTURES
#233 TYPE 2-2B CB STA. 3+44.52, 0.02' *LT* TOP 967.61 18" N INV. 963.29 12" W INV. 963.29 15" E INV. 963.54
#234 TYPE 2-2B CB STA. 4+70.39, 0.01' *RT* TOP 969.43 15" W INV. 965.97 15" E INV. 965.97
#235 TYPE 2-2B CB STA. 6+30.39, 0.01' *RT* TOP 971.75 15" W INV. 968.29 15" E INV. 968.29
#236 TYPE 2-2B CB STA. 7+50.39, 0.00' TOP 973.48 15" W INV. 970.03 15" E INV. 970.03
#237 TYPE 2-2B CB STA. 8+82.52, 0.01' *RT* TOP 975.05 15" W INV. 971.77 12" E INV. 972.01
#238 TYPE 2-2B CB STA. 10+02.52, 0.02' *RT* TOP 978.27 12" W INV. 975.31
#239 TYPE 2-2B CB STA. 2+18.25, 0.00' TOP 966.35 12" E INV. 963.65

LINE 3 - RANDOLPH DRIVE & ARMSTRONG DRIVE INTERSECTION STORM PROFILE

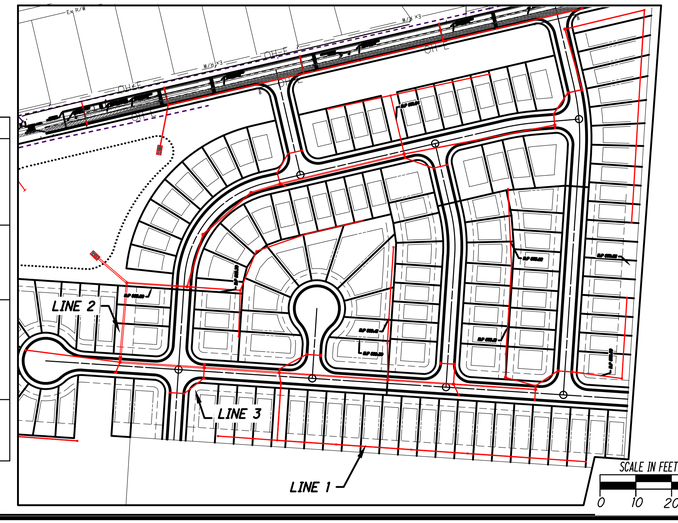


PROPOSED STORM STRUCTURES
#204 TYPE 3 STM MH STA. 84+11.71, 7.50' *LT* TOP 964.71 30" W INV. 960.12 12" N INV. 961.46 12" S INV. 960.86 30" E INV. 960.12
#205 TYPE 1A CB STA. 84+11.59, 15.50' *LT* B/C 964.92 12" S INV. 961.54
#206 TYPE 1A CB STA. 84+11.74, 15.50' *RT* B/C 964.90 12" N INV. 961.24 12" SW INV. 961.24
#240 TYPE 1 CB STA. 61+21.21, 15.50' *RT* B/C 964.92 12" NE INV. 961.60 12" W INV. 961.60
#241 TYPE 1 CB STA. 61+21.20, 15.50' *LT* B/C 964.85 12" E INV. 961.88

LINE 2 - POND INLET #1 STORM RUN



PROPOSED STORM STRUCTURES
#100 TYPE 2-4 CB STA. 1+10.07, 0.00' TOP 964.87 36" NW INV. 957.06 24" E INV. 958.25 36" S INV. 957.06
#201 TYPE CB-3MH STA. 82+32.30, 15.50' *LT* B/C 964.76 36" N INV. 957.68 30" S INV. 958.18
#202 TYPE 3 STM MH STA. 82+32.29, 7.49' *LT* TOP 964.57 30" N INV. 958.23 12" SW INV. 961.56 30" E INV. 958.23 12" W INV. 960.15
#203 TYPE 1A CB STA. 82+24.19, 15.50' *RT* B/C 964.80 12" NE INV. 961.73



ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

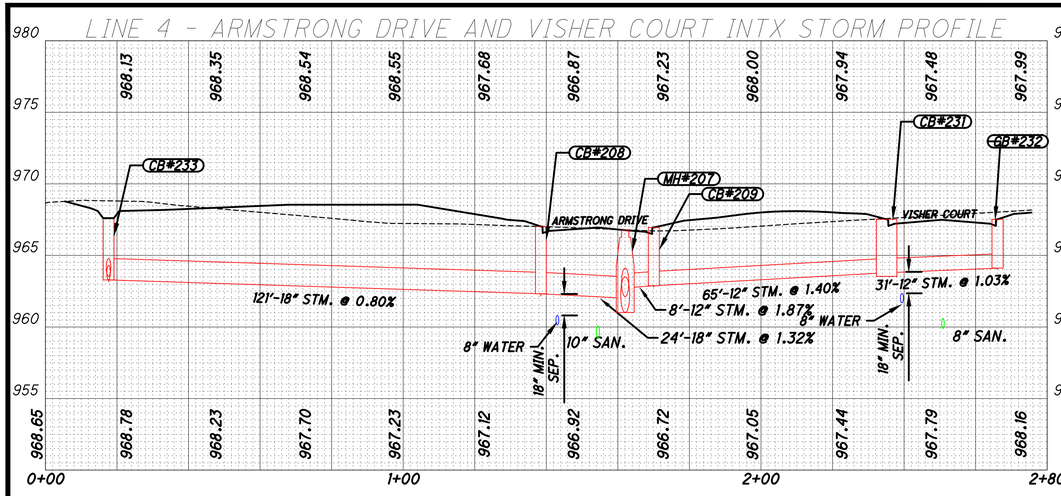
SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
STORM PROFILES 1

REVISIONS:

FILE NAME	GP001
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	24 OF 51

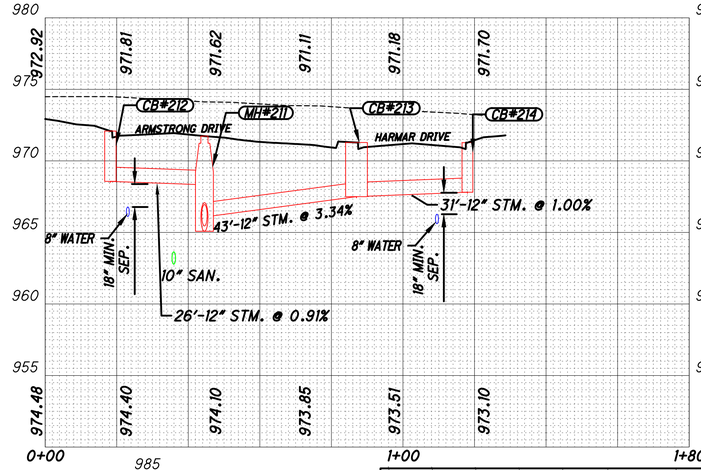
Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GP001.dwg 18-Jun-26 8:40 AM

LINE 4 - ARMSTRONG DRIVE AND VISHER COURT INTX STORM PROFILE



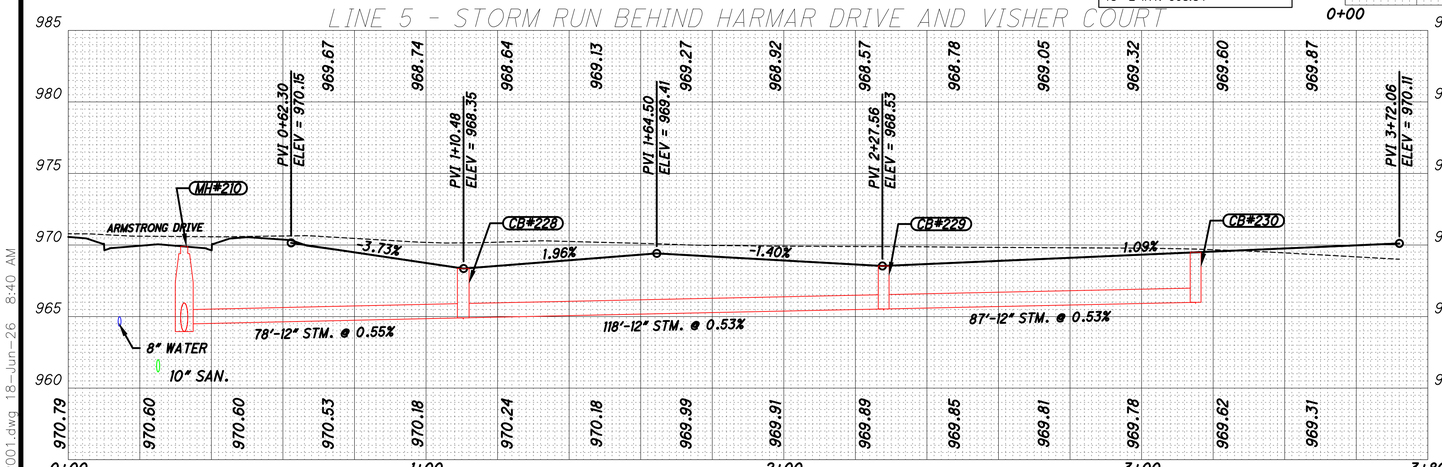
PROPOSED STORM STRUCTURES
#207 TYPE 3 STM MH STA. 85+71.45, 7.50' *LT* TOP 966.77 12" N INV. 962.73 30" W INV. 961.01 18" S INV. 962.01 24" E INV. 962.12
#208 TYPE 1 CB STA. 85+76.56, 15.50' *RT* B/C 967.02 18" N INV. 962.32 18" S INV. 962.32
#209 TYPE 1 CB STA. 85+71.62, 15.50' *LT* B/C 966.95 12" NE INV. 962.88 12" S INV. 962.88
#231 TYPE 1A CB STA. 48+05.37, 15.50' *LT* B/C 967.52 12" E INV. 963.79 12" SW INV. 963.79
#232 TYPE 1A CB STA. 48+05.36, 15.50' *RT* B/C 967.52 12" W INV. 964.11
#233 TYPE 2-2B CB STA. 3+44.52, 0.02' *LT* TOP 967.61 18" N INV. 963.29 12" W INV. 963.29 15" E INV. 963.54

LINE 6 - ARMSTRONG DRIVE & HARMAR DRIVE INTERSECTION STORM PROFILE

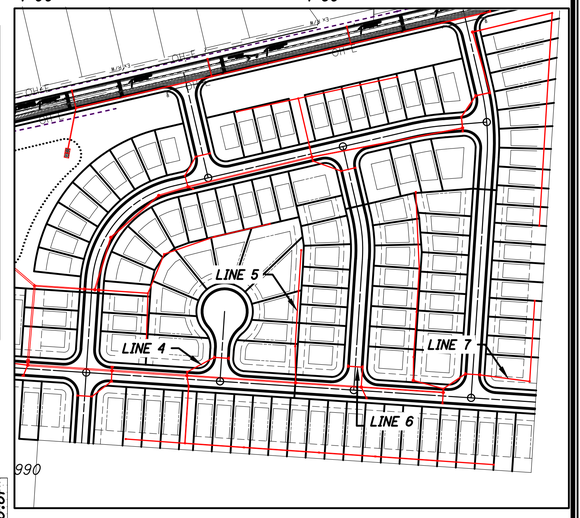


PROPOSED STORM STRUCTURES
#211 TYPE 3 STM MH STA. 89+42.81, 7.50' *LT* TOP 971.73 12" SE INV. 968.33 12" N INV. 966.08 24" W INV. 965.08 18" E INV. 965.45
#212 TYPE 1 CB STA. 89+55.56, 15.50' *RT* B/C 972.09 12" NW INV. 968.57
#213 TYPE 1A CB STA. 26+04.01, 15.50' *RT* B/C 971.28 12" W INV. 967.50 12" S INV. 967.50
#214 TYPE 1A CB STA. 26+04.00, 15.50' *LT* B/C 971.28 12" E INV. 967.81

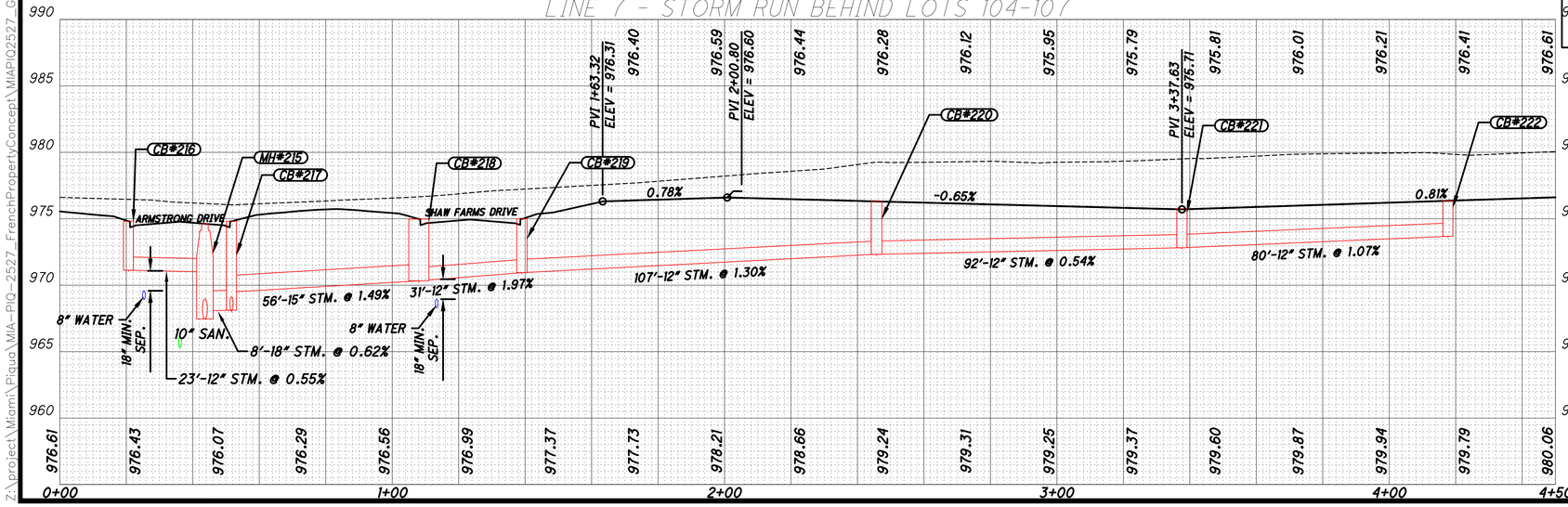
LINE 5 - STORM RUN BEHIND HARMAR DRIVE AND VISHER COURT



PROPOSED STORM STRUCTURES
#210 TYPE 3 STM MH STA. 88+02.87, 7.33' *LT* TOP 969.90 24" W INV. 963.95 12" N INV. 964.48 24" E INV. 963.95
#228 TYPE 2-2B CB STA. 1+10.41, 0.00' TOP 968.36 12" S INV. 964.91 12" N INV. 964.91
#229 TYPE 2-2B CB STA. 2+27.92, 0.31' *LT* TOP 968.54 12" S INV. 965.53 12" N INV. 965.53
#230 TYPE 2-2B CB STA. 3+15.10, 0.00' TOP 969.49 12" S INV. 965.99



LINE 7 - STORM RUN BEHIND LOTS 104-107



PROPOSED STORM STRUCTURES	PROPOSED STORM STRUCTURES
#215 TYPE 3 STM MH STA. 91+17.34, 7.50' *LT* TOP 974.63 12" S INV. 971.00 18" N INV. 968.07 18" W INV. 967.46	#219 TYPE 1A CB STA. 11+02.77, 15.50' *RT* B/C 974.99 12" W INV. 970.94 12" E INV. 970.94
#216 TYPE 1 CB STA. 91+17.39, 15.50' *RT* B/C 974.81 12" N INV. 971.13	#220 TYPE 2-2B CB STA. 2+45.75, 0.00' TOP 976.31 12" W INV. 972.33 12" N INV. 972.32
#217 TYPE 1 CB STA. 91+17.23, 15.50' *LT* B/C 974.81 18" S INV. 968.12 15" NE INV. 969.49 12" W INV. 968.12	#221 TYPE 2-2B CB STA. 3+37.63, 1.70' *RT* TOP 975.78 12" S INV. 972.82 12" N INV. 972.82
#218 TYPE 1A CB STA. 11+02.76, 15.50' *LT* B/C 974.97 15" SW INV. 970.33 12" E INV. 970.33	#222 TYPE 2-2B CB STA. 4+17.67, 1.36' *RT* TOP 976.35 12" S INV. 973.68

SCALE IN FEET HOR: 0, 10, 20, 40
SCALE IN FEET VER: 0, 2.5, 5, 10

ChoiceOne Engineering

SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

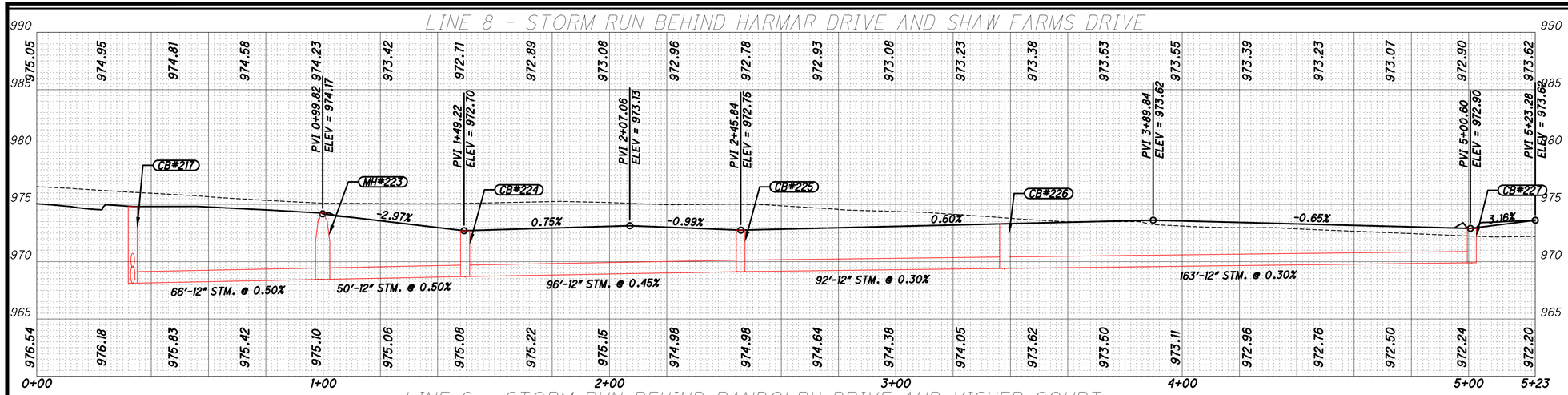
SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
STORM PROFILES 2

REVISIONS:

FILE NAME: GP001
DRAWN BY: KMM
CHECKED BY: KMM
PROJECT No.: MIA-PIQ-2527
DATE: 5-15-2026
SHEET NUMBER: 25 OF 51

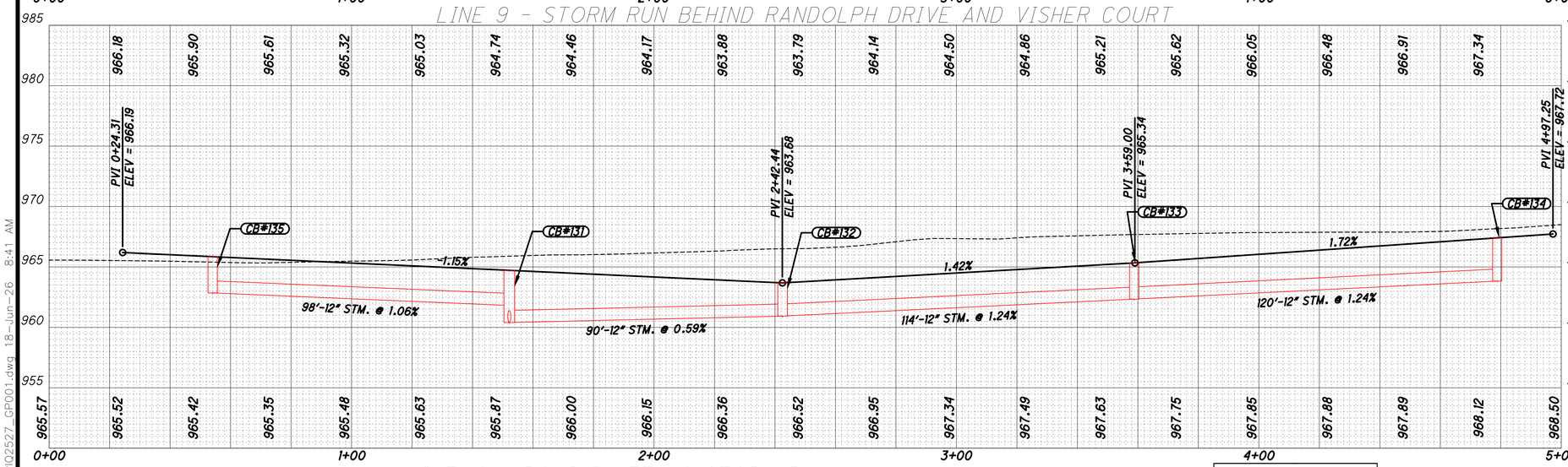
Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GP001.dwg 18-Jun-26 8:40 AM

LINE 8 - STORM RUN BEHIND HARMAR DRIVE AND SHAW FARMS DRIVE

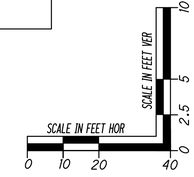


PROPOSED STORM STRUCTURES
#217 TYPE 1 CB STA. 91+17.23, 15.50' *LT* B/C 974.81 18" S INV. 968.12 15" NE INV. 969.49 12" W INV. 968.12
#223 TYPE 3 STM MH STA. 90+52.31, 28.93' *LT* TOP 974.23 12" N INV. 968.45 12" E INV. 968.45
#224 TYPE 2-2B CB STA. 1+49.60, 0.00' TOP 972.70 12" N INV. 968.70 12" S INV. 968.70
#225 TYPE 2-2B CB STA. 2+45.79, 0.01' *LT* TOP 972.75 12" N INV. 969.13 12" S INV. 969.13
#226 TYPE 2-2B CB STA. 3+37.88, 0.00' TOP 973.31 12" N INV. 969.41 12" S INV. 969.41
#227 TYPE 2-2B CB STA. 5+01.10, 0.00' TOP 972.90 12" S INV. 969.90

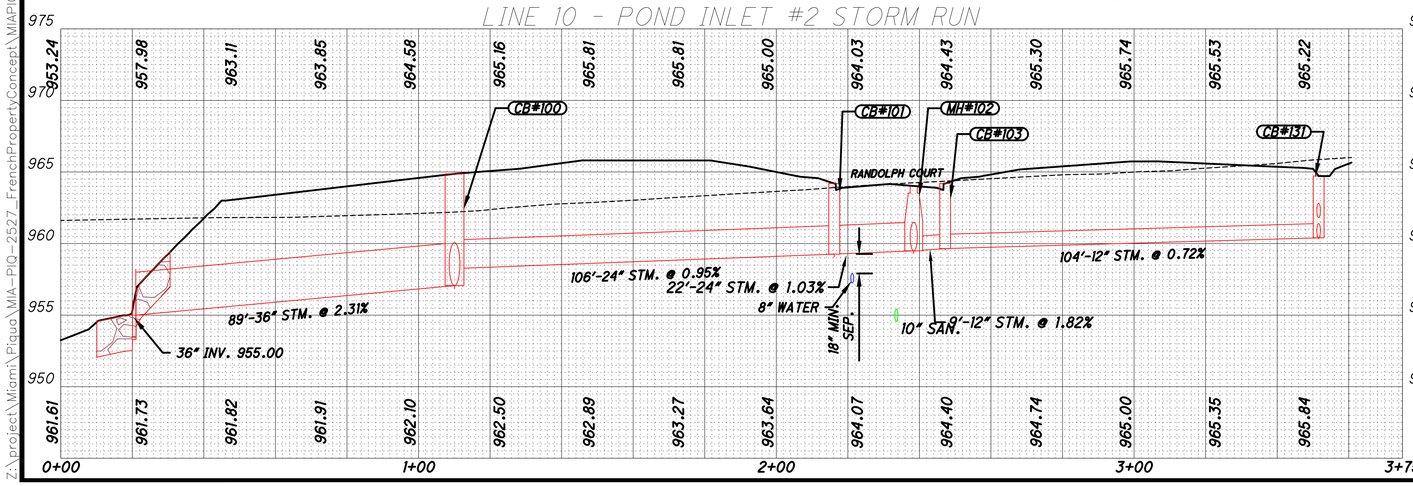
LINE 9 - STORM RUN BEHIND RANDOLPH DRIVE AND VISHER COURT



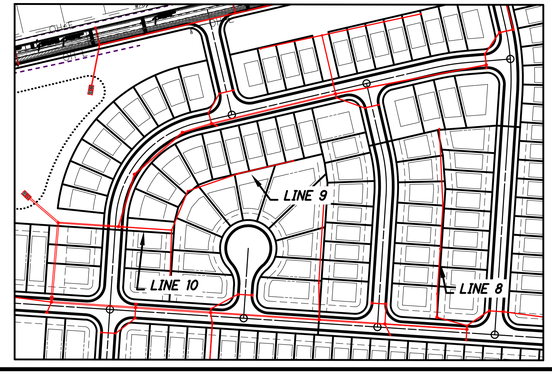
PROPOSED STORM STRUCTURES
#131 TYPE 2-2B CB STA. 1+52.15, 1.49' *LT* TOP 964.72 12" S INV. 961.81 12" N INV. 960.40 12" W INV. 960.40
#132 TYPE 2-2B CB STA. 2+42.52, 0.00' TOP 963.68 12" S INV. 960.93 12" E INV. 960.93
#133 TYPE 2-2B CB STA. 3+58.81, 0.00' TOP 965.34 12" W INV. 962.34 12" E INV. 962.34
#134 TYPE 2-2B CB STA. 4+78.80, 0.00' TOP 967.41 12" W INV. 963.83
#135 TYPE 2-2B CB STA. 0+54.08, 0.36' *RT* TOP 965.85 12" N INV. 962.85



LINE 10 - POND INLET #2 STORM RUN



PROPOSED STORM STRUCTURES
#100 TYPE 2-4 CB STA. 1+10.07, 0.00' TOP 964.87 36" NW INV. 957.06 24" E INV. 958.25 36" S INV. 957.06
#101 TYPE 1A CB STA. 63+48.19, 15.50' *LT* B/C 964.19 24" W INV. 959.26 24" E INV. 959.26
#102 TYPE 3 STM MH STA. 63+48.19, 6.73' *RT* TOP 964.03 24" W INV. 959.49 12" E INV. 959.49 24" N INV. 959.49
#103 TYPE 1A CB STA. 63+48.19, 15.50' *RT* B/C 964.19 12" W INV. 959.65 12" E INV. 959.65
#131 TYPE 2-2B CB STA. 1+52.15, 1.49' *LT* TOP 964.72 12" S INV. 961.81 12" N INV. 960.40 12" W INV. 960.40



ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

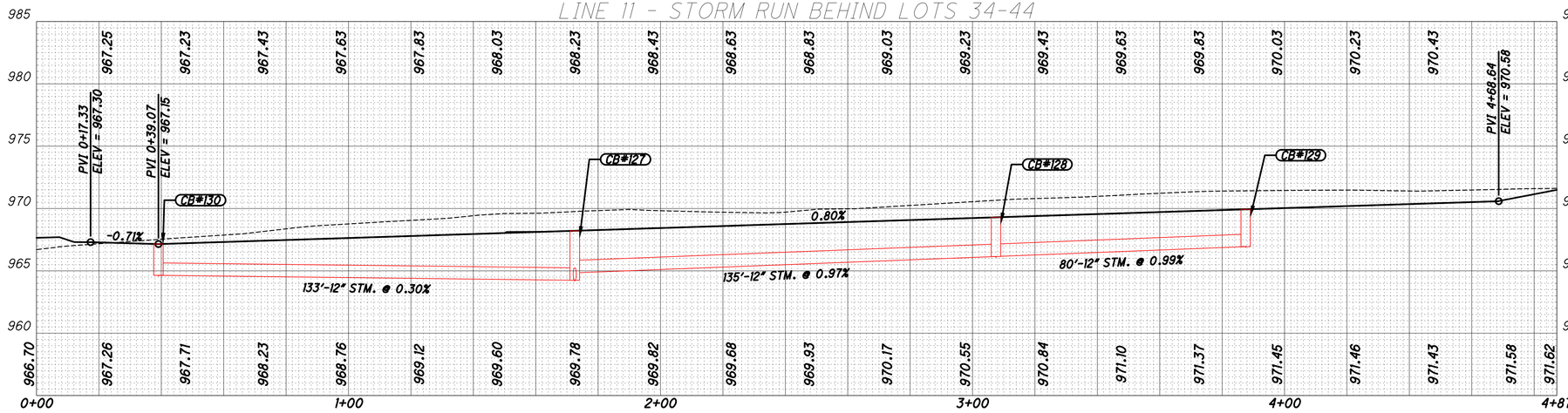
SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
STORM PROFILES 3

REVISIONS:

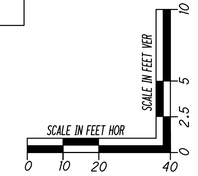
FILE NAME	GP001
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	26 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchProperty\Concept\MIAPIQ2527_GP001.dwg 18-Jun-26 8:41 AM

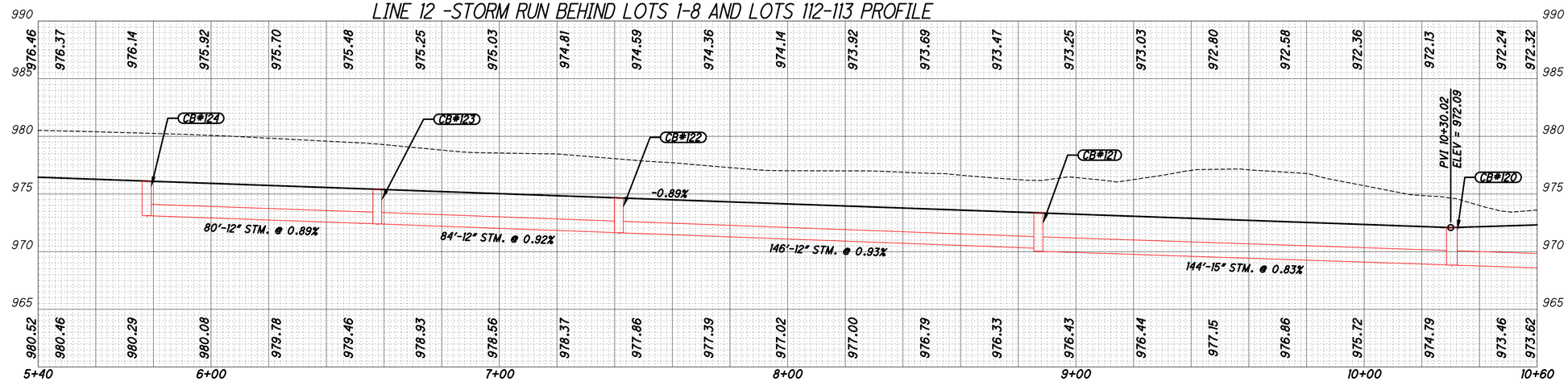
LINE 11 - STORM RUN BEHIND LOTS 34-44



PROPOSED STORM STRUCTURES
#127 TYPE 2-2B CB STA. 1+72.50, 0.00' TOP 968.21 12" S INV. 964.24 12" W INV. 964.24 12" E INV. 964.84
#128 TYPE 2-2B CB STA. 3+07.52, 0.24' *LT* TOP 969.29 12" W INV. 966.15 12" E INV. 966.15
#129 TYPE 2-2B CB STA. 3+87.53, 0.03' *LT* TOP 969.93 12" W INV. 966.94
#130 TYPE 2-2B CB STA. 0+39.07, 0.00' TOP 967.15 12" E INV. 964.64

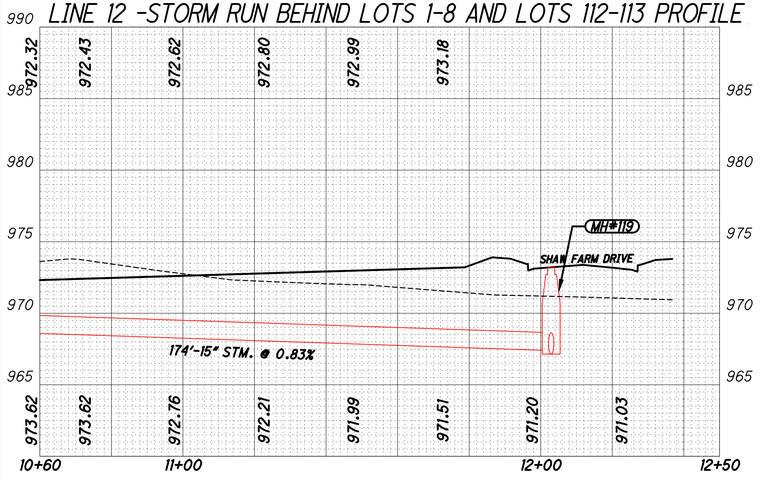


LINE 12 -STORM RUN BEHIND LOTS 1-8 AND LOTS 112-113 PROFILE

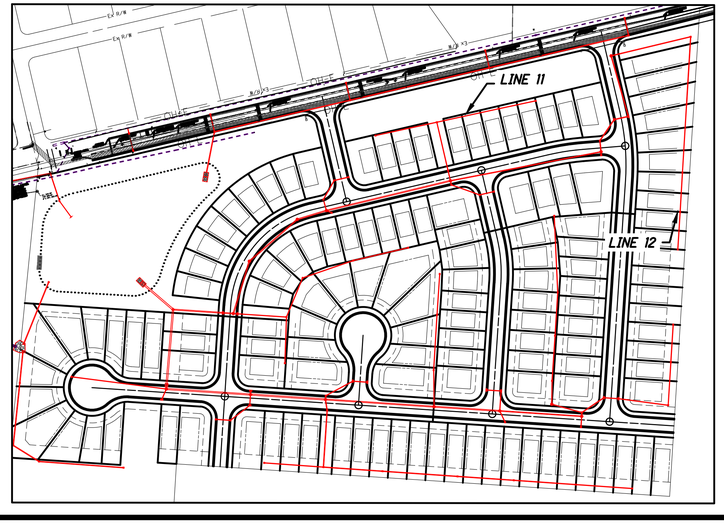


PROPOSED STORM STRUCTURES
#120 TYPE 2-2B CB STA. 10+30.44, 1.37' *RT* TOP 972.09 15" S INV. 968.84 15" W INV. 968.84
#121 TYPE 2-2B CB STA. 8+87.00, 0.56' *RT* TOP 973.36 12" S INV. 970.29 15" N INV. 970.04
#122 TYPE 2-2B CB STA. 7+41.46, 0.22' *LT* TOP 974.66 12" N INV. 971.64 12" S INV. 971.64
#123 TYPE 2-2B CB STA. 6+57.67, 0.35' *RT* TOP 975.41 12" S INV. 972.41 12" N INV. 972.41
#124 TYPE 2-2B CB STA. 5+77.67, 0.69' *RT* TOP 976.12 12" N INV. 973.12

LINE 12 -STORM RUN BEHIND LOTS 1-8 AND LOTS 112-113 PROFILE



PROPOSED STORM STRUCTURES
#119 TYPE 3 STM MH STA. 18+33.86, 8.85' *RT* TOP 973.21 18" S INV. 967.14 15" E INV. 967.39



ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

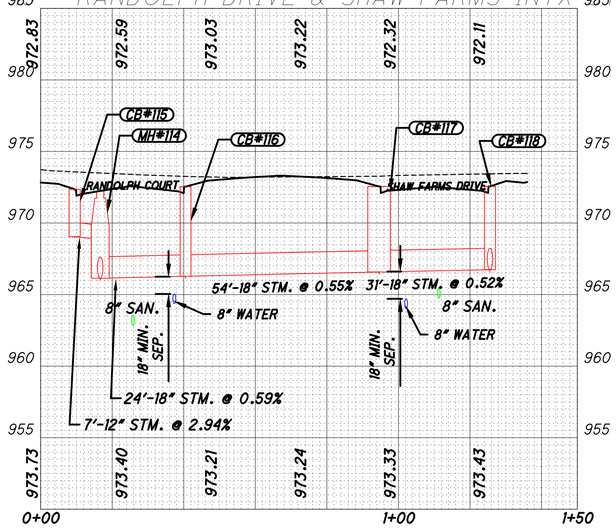
SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
STORM PROFILES 4

REVISIONS:

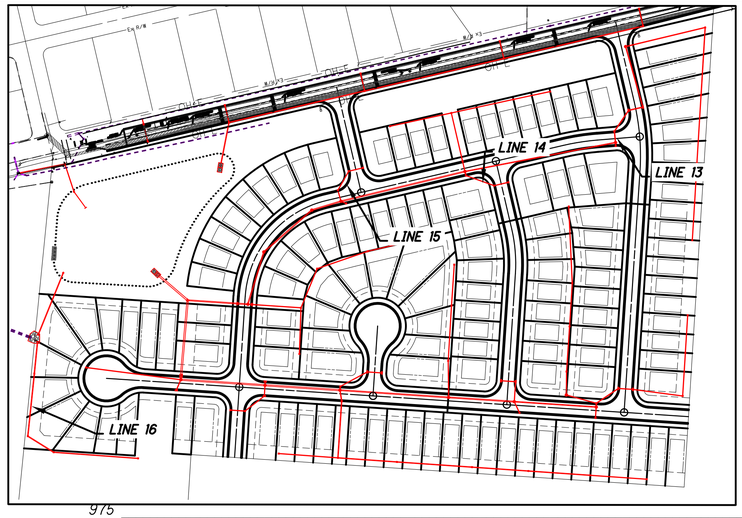
FILE NAME GP001
DRAWN BY KMM
CHECKED BY KMM
PROJECT No. MIA-PIQ-2527
DATE 5-15-2026
SHEET NUMBER 27 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\WIAPIQ2527_GP001.dwg 18-Jun-26 8:41 AM

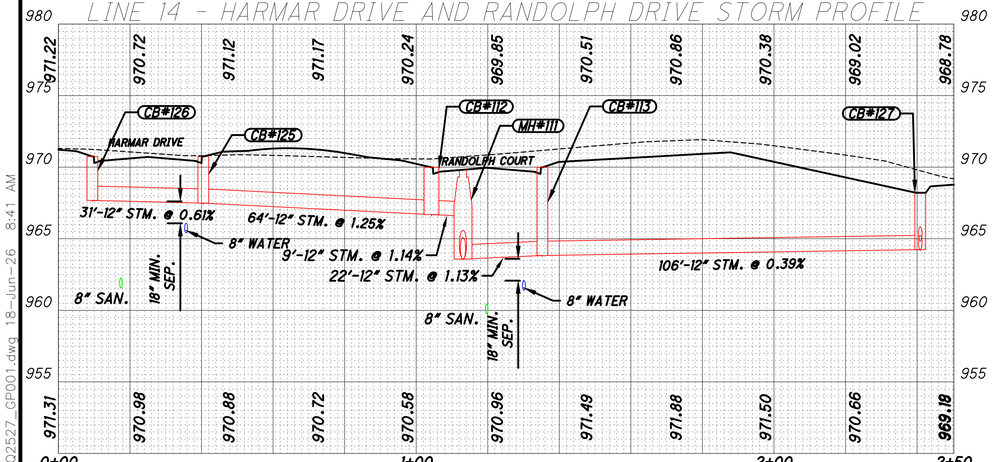
LINE 13 - RANDOLPH DRIVE & SHAW FARMS INTX STORM



PROPOSED STORM STRUCTURES
#114 TYPE 3 STM MH STA. 72+79.04, 8.35' *RT* TOP 972.24 18" N INV. 966.14 12" S INV. 968.84 18" W INV. 966.14
#115 TYPE 1 CB STA. 72+78.82, 15.50' *RT* B/C 972.36 12" N INV. 969.05
#116 TYPE 1 CB STA. 72+78.53, 15.50' *LT* B/C 972.54 18" S INV. 966.28 18" NE INV. 966.28
#117 TYPE 1A CB STA. 16+99.97, 15.50' *LT* B/C 972.56 18" SW INV. 966.58 18" E INV. 966.58
#118 TYPE 1A CB STA. 17+00.59, 15.50' *RT* B/C 972.56 18" W INV. 966.74 18" N INV. 966.74
#121 TYPE 2-2B CB STA. 8+87.00, 0.56' *RT* TOP 973.36 12" S INV. 970.29 15" N INV. 970.04

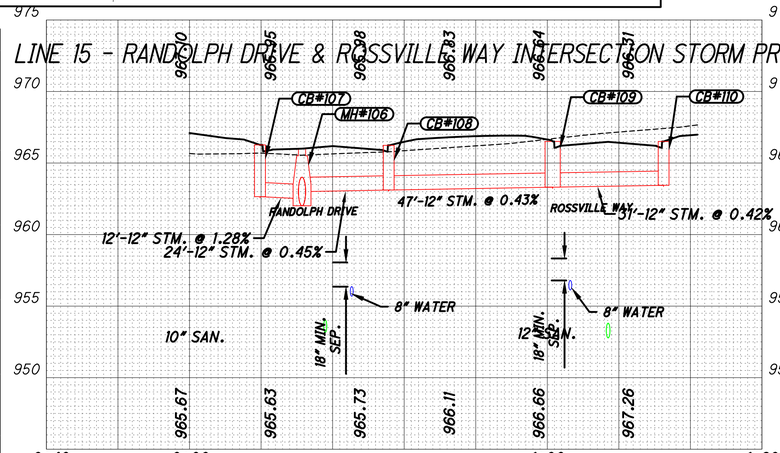


LINE 14 - HARMAR DRIVE AND RANDOLPH DRIVE STORM PROFILE



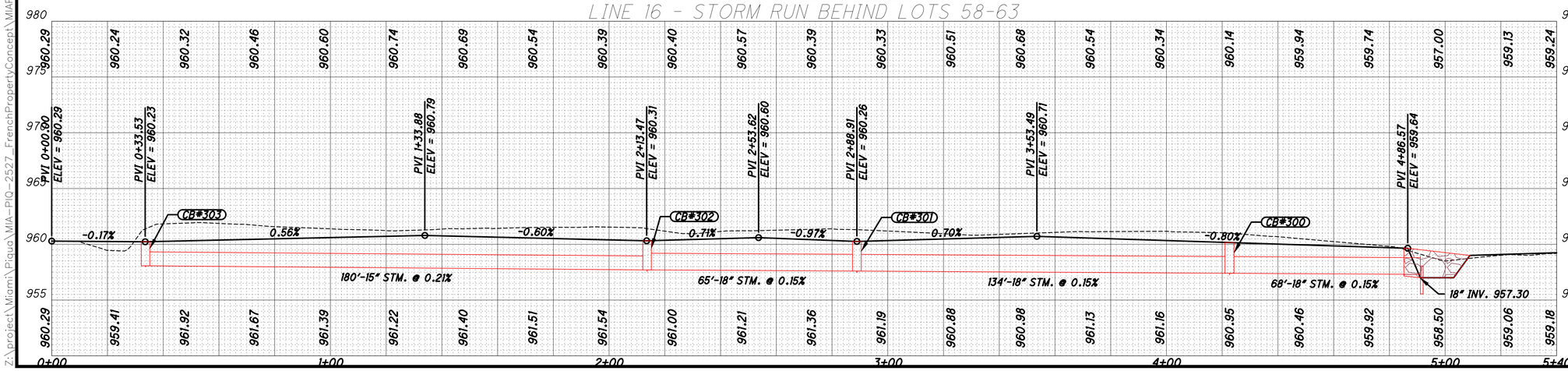
PROPOSED STORM STRUCTURES
#111 TYPE 3 STM MH STA. 69+51.34, 6.69' *RT* TOP 969.82 24" W INV. 963.58 18" E INV. 963.58 12" S INV. 966.59 12" N INV. 963.58
#112 TYPE 1 CB STA. 69+51.34, 15.50' *RT* B/C 969.99 12" N INV. 966.69 12" E INV. 966.69
#113 TYPE 1 CB STA. 69+51.34, 15.50' *LT* B/C 969.99 12" S INV. 963.83 12" N INV. 963.83
#125 TYPE 1 CB STA. 30+27.13, 15.50' *LT* B/C 970.75 12" W INV. 967.49 12" E INV. 967.49
#126 TYPE 1 CB STA. 30+27.13, 15.50' *RT* B/C 970.75 12" W INV. 967.68
#127 TYPE 2-2B CB STA. 1+72.50, 0.00' TOP 968.21 12" S INV. 964.24 12" W INV. 964.24 12" E INV. 964.84

LINE 15 - RANDOLPH DRIVE & ROSSVILLE WAY INTERSECTION STORM PROFILE



PROPOSED STORM STRUCTURES
#106 TYPE 3 STM MH STA. 66+80.26, 8.62' *RT* TOP 966.00 24" W INV. 962.01 12" N INV. 963.00 12" SE INV. 962.50 24" E INV. 962.01
#107 TYPE 1 CB STA. 66+89.79, 15.50' *RT* B/C 966.27 12" NW INV. 962.65
#108 TYPE 1 CB STA. 66+79.16, 15.62' *LT* B/C 966.23 12" NE INV. 963.11 12" S INV. 963.11
#109 TYPE 1 CB STA. 41+10.33, 15.50' *LT* B/C 966.51 12" SW INV. 963.31 12" E INV. 963.31
#110 TYPE 1 CB STA. 41+10.33, 15.50' *RT* B/C 966.51 12" W INV. 963.44

LINE 16 - STORM RUN BEHIND LOTS 58-63



PROPOSED STORM STRUCTURES
#300 TYPE 2-2B CB STA. 4+22.61, 1.22' *RT* TOP 960.16 18" N INV. 957.40 18" S INV. 957.40
#301 TYPE 2-2B CB STA. 2+88.91, 0.00' TOP 960.26 18" N INV. 957.60 18" SE INV. 957.60
#302 TYPE 2-2B CB STA. 2+13.64, 0.00' *RT* TOP 960.32 18" NW INV. 957.70 15" E INV. 957.70
#303 TYPE 2-2B CB STA. 0+33.65, 0.01' *RT* TOP 960.23 15" W INV. 958.07

SCALE IN FEET HOR: 0, 10, 20, 40
SCALE IN FEET VER: 0, 2.5, 5, 10

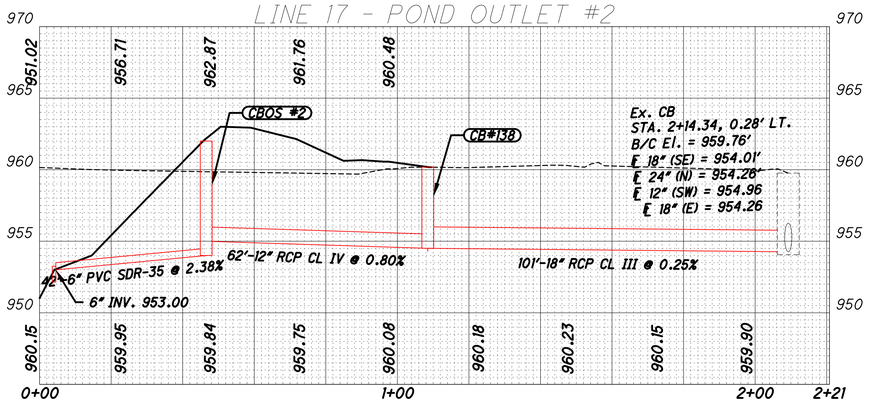
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
STORM PROFILES 5

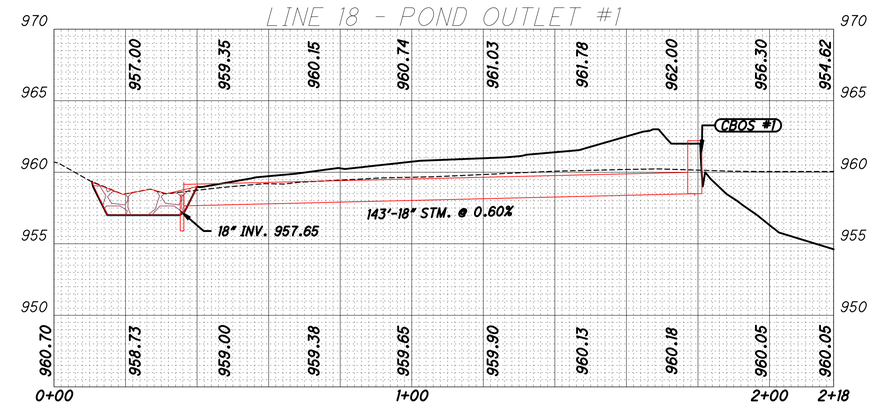
REVISIONS:

FILE NAME	GP001
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	28 OF 51

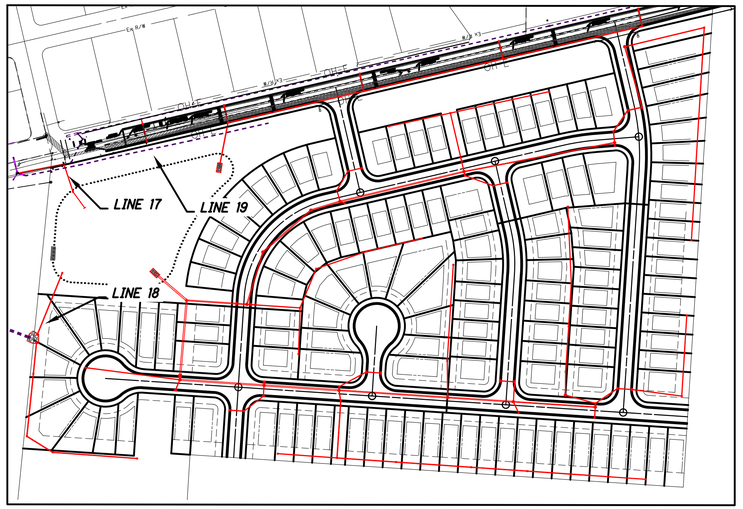
Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GP001.dwg 18-Jun-26 8:41 AM

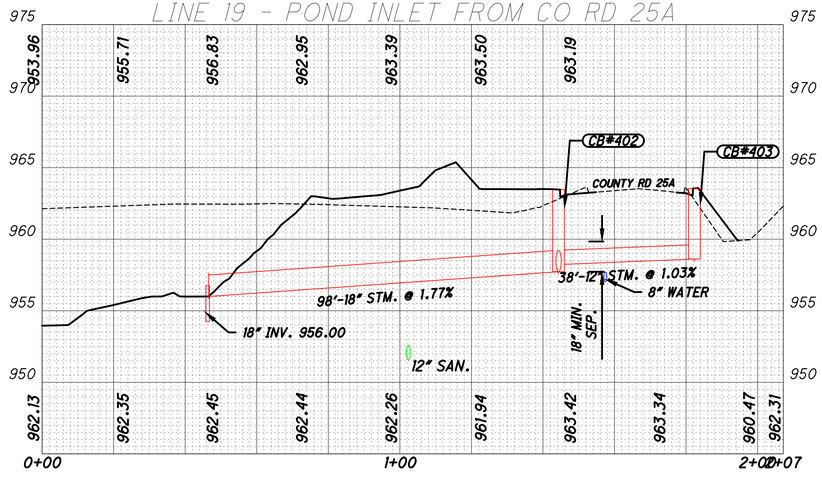


PROPOSED STORM STRUCTURES
#138 TYPE 2-2B CB STA. 1+08.51, 0.00' TOP 960.19 18" W INV. 954.51 12" S INV. 954.51
OS #2 TYPE 2-2B CB STA. 0+46.57, 0.00' TOP 962.00 12" N INV. 955.00 6" SE INV. 954.00

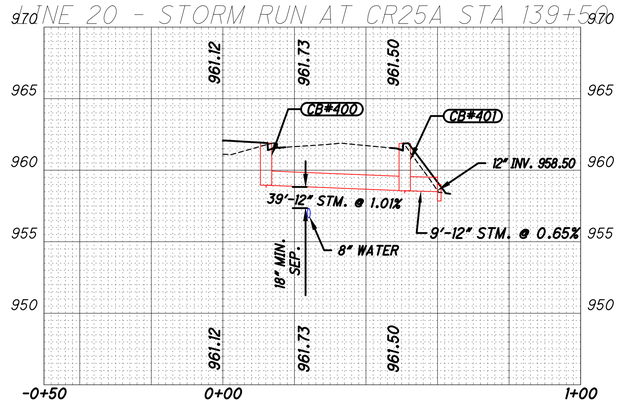


PROPOSED STORM STRUCTURES
OS #1 TYPE 2-2B CB STA. 1+79.10, 0.07' *RT* TOP 962.20 18" S INV. 958.50

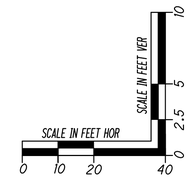




PROPOSED STORM STRUCTURES
#402 TYPE 1 CB STA. 141+24.03, 21.58' *RT* B/C 963.48 12" N INV. 958.23 18" E INV. 957.73 18" S INV. 957.73
#403 TYPE 1 CB STA. 141+24.05, 16.42' *LT* B/C 963.55 12" S INV. 958.62



PROPOSED STORM STRUCTURES
#400 TYPE 1 CB STA. 139+46.24, 21.02' *RT* B/C 961.90 12" N INV. 958.95
#401 TYPE 1 CB STA. 139+46.69, 17.73' *LT* B/C 961.86 12" S INV. 958.56 12" N INV. 958.56



ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
STORM PROFILES 6

REVISIONS:

FILE NAME GP001
DRAWN BY KMM
CHECKED BY KMM
PROJECT No. MIA-PIQ-2527
DATE 5-15-2026
SHEET NUMBER 29 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ02527_GP001.dwg 18-Jun-26 8:41 AM

NOTE: CONTRACTOR TO VERIFY LOCATIONS AND DEPTHS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

INDIAN RIPPLE DRIVE

8" SAN.

118' - 12" PVC SDR-35 @ 0.27%

CB#139

CO RD 25A

38' - REMOVE AND REPLACE CURB - IN KIND

Ex. FH (DND)

18" RCP CL III

Ex. CB (DND)

B.M #1

Ex. CB
STA. 2+14.34, 0.28' LT.
B/C El. = 959.76'
℄ 18" (SE) = 954.01'
℄ 24" (N) = 954.26'
℄ 12" (SW) = 954.96
℄ 18" (E) = 954.26

12" RCP CL III

Ex. SAN MH
TOP 959.63
8" E INV. 952.08

OUTLET STRUCTURE NORTH (SEE DETAIL)

6" PVC SDR-35

6" INV. 953.00

BENCHMARK #1 ELEV. 962.43
BOLT AT TIP ARROW TOP FLANGE FIRE HYDRANT SOUTH SIDE OF COUNTY RD 25A AT THE ENTRANCE TO THE CHURCH

CB#401

CB#403

12" STM.

CENTERLINE OF R/W

CENTERLINE OF CONSTRUCTION

12" WATER

38'-12" STM. @ 1.03%

18" STM.

CB#400

CB#402

(TBR)

18" RCP (TBR)

30' SAN. ESMT.

8" STM.

MH#1

12" SAN.

12' PATH ESMT.

45

HW-1 #2
18" INV. 956.00
20'x10'x18" ROCK CHANNEL PROTECTION, TYPE C

OPEN SPACE A

10

5

2.5

0

SCALE IN FEET VER

SCALE IN FEET HOR

0 10 20 40

MATCH LINE 142+00

LEGEND:
TBR - TO BE REMOVED
DND - DO NOT DISTURB

PROP. 10' PATH

FULL DEPTH REPAIR OVER STORM SEWER

FULL DEPTH PAVEMENT SECTION

PROPOSED CENTERLINE ELEVATIONS

985 980 975 970 965 960 955 950

Ex. SAN MH
STA. 137+28.2, 54.8' RT.
TOP EL. = 959.63'
℄ 8" (W) = 952.03'

MH#0

CB#138

Ex. STM CB
STA. 137+80.6, 23.2' RT.
TOP EL. = 959.90'
℄ 12" (NE) = 958.30'

437' - 12" DIP CL-52 WATER MAIN

18" MIN. SEP.

18" MIN. SEP.

18" MIN. SEP.

76'-18" STM. @ 1.59%

73' - 12" PVC SDR-35 @ 0.27%

TIE INTO Ex. 12" WATER (CONTRACTOR TO VERIFY DEPTH)

EXISTING CENTERLINE ELEVATIONS

960.61 960.67 960.75 960.96 961.14 961.29 961.44 961.59 961.75 961.91 962.08 962.24 962.45 962.67 962.93 963.22 963.52 963.86 964.20 964.53

137+00 138+00 139+00 140+00 141+00 142+00

PROPOSED SANITARY STRUCTURES

#0 TYPE 3 SAN MH
STA. 138+06.13, 54.64' *RT*
TOP. 961.81
12" E INV. 950.76
12" NW INV. 950.66

#1 TYPE 3 SAN MH
STA. 104+09.27, 38.65' *RT*
TOP. 963.62
12" W INV. 951.63
12" E INV. 951.73

PROPOSED STORM STRUCTURES

#138 TYPE 2-2B CB
STA. 1+08.51, 0.00'
TOP 960.19
18" W INV. 954.51
12" S INV. 954.51

#400 TYPE 1 CB
STA. 139+46.24, 21.02' *RT*
B/C 961.90
12" N INV. 958.95

#401 TYPE 1 CB
STA. 139+46.69, 17.73' *LT*
B/C 961.86
12" S INV. 958.56
12" N INV. 958.56

#402 TYPE 1 CB
STA. 141+24.03, 21.58' *RT*
B/C 963.48
12" N INV. 958.23
18" E INV. 957.73
18" S INV. 957.73

#403 TYPE 1 CB

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
COUNTY ROAD 25A PLAN AND PROFILE STA. 137+00 TO STA. 142+00

REVISIONS:

FILE NAME GP001
DRAWN BY KMM
CHECKED BY KMM
PROJECT No. MIA-PIQ-2527
DATE 5-15-2026
SHEET NUMBER 30 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GP001.dwg 18-Jun-26 8:42 AM

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GP001.dwg 18-Jun-26 8:42 AM

MATCH LINE 142+00

MATCH LINE 147+00

CB#405

CB#404

CB#127

CB#130

MH#2

12"x8" TEE
(1) 8" GATE VALVE
(2) 12" GATE VALVES
STA. 42+80.81, 10.00' LT

8" WATER

CO RD 25A

280'-18" STM. @ 1.00%

Ex. SIGN (REMOVE AND RELOCATE)

18" STM.

PROP. MONUMENT SIGN

Ex. POLE (REMOVE AND RELOCATE)

30' SAN. ESMT.

12" SAN.

PROPOSED SHARED MAILBOX (3)

ROSSVILLE WAY

12' PATH ESMT.

OPEN SPACE C

12" STM.

SCALE IN FEET HOR
0 10 20 40

SCALE IN FEET VER
0 2.5 5 10

PROP. 10' PATH

FULL DEPTH REPAIR OVER STORM SEWER

FULL DEPTH PAVEMENT SECTION

PROPOSED SANITARY STRUCTURES
#2 TYPE 3 SAN MH STA. 42+30.33, 0.00' TOP. 967.08 12" W INV. 952.37 12" S INV. 952.47
PROPOSED STORM STRUCTURES
#404 TYPE 1 CB STA. 144+20.22, 21.36' *RT* B/C 966.69 12" N INV. 962.95 18" E INV. 962.45 18" W INV. 962.44
#405 TYPE 1 CB STA. 144+20.09, 16.64' *LT* B/C 966.67 12" S INV. 963.33

985 980 975 970 965 960 955 950

CB#404

MH#2

220'-18" STM. @ 1.59%

280'-18" STM. @ 1.08%

500' - 12" DIP CL-52 WATER MAIN

8" WATER

18" MIN. SEP.

164' - 12" PVC SDR-35 @ 0.27%

EXISTING CENTERLINE ELEVATIONS	964.87	965.18	965.35	965.61	965.87	966.11	966.34	966.60	966.87	967.14	967.41	967.68	967.94	968.22	968.53	968.84	969.17	969.48	969.71	969.94

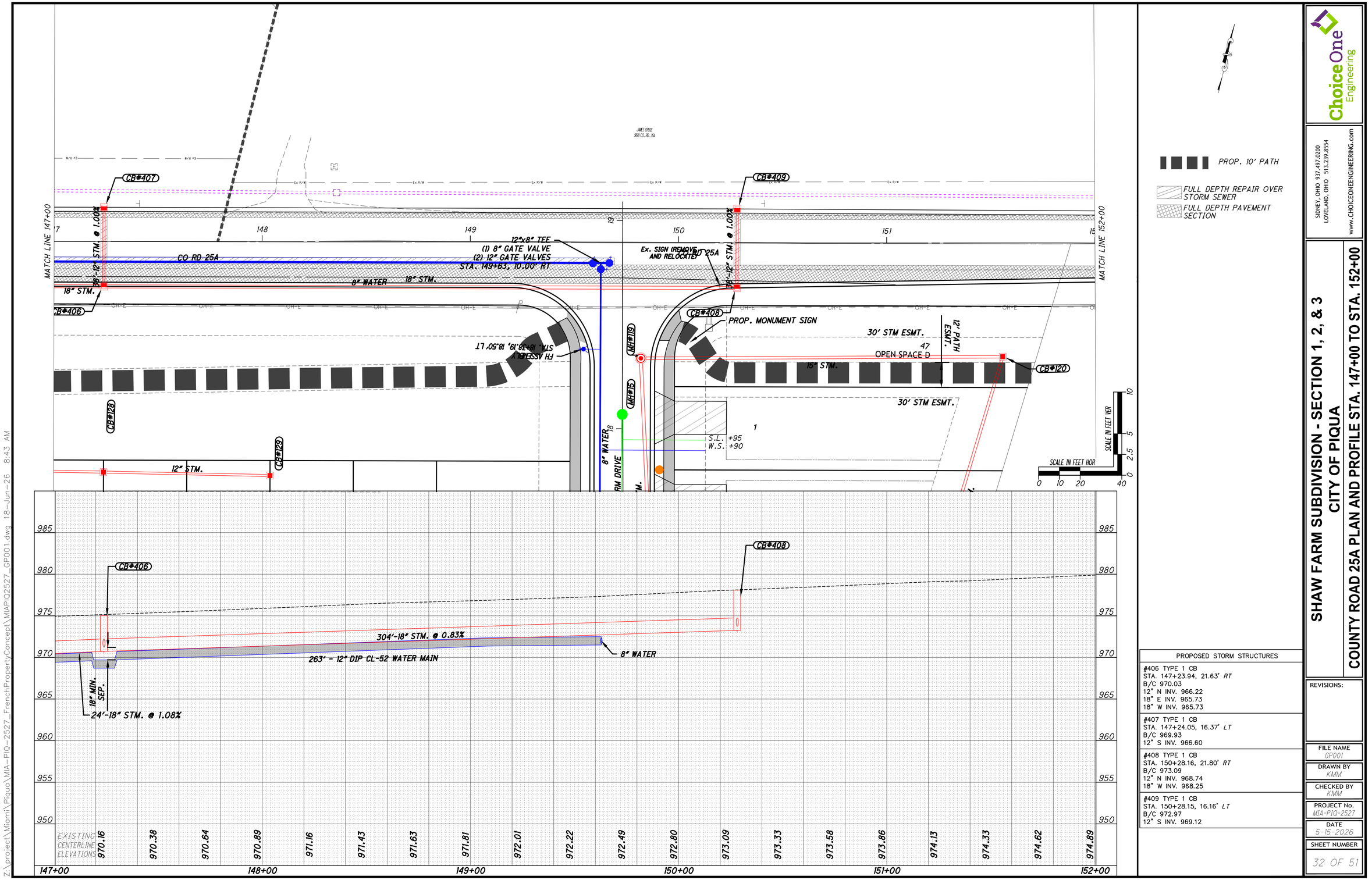
142+00 143+00 144+00 145+00 146+00 147+00

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
COUNTY ROAD 25A PLAN AND PROFILE STA. 142+00 TO STA. 147+00

REVISIONS:

FILE NAME: GP001
DRAWN BY: KMM
CHECKED BY: KMM
PROJECT No.: MIA-PIQ-2527
DATE: 5-15-2026
SHEET NUMBER: 31 OF 51



PROPOSED STORM STRUCTURES
#406 TYPE 1 CB STA. 147+23.94, 21.63' *RT* B/C 970.03 12" N INV. 966.22 18" E INV. 965.73 18" W INV. 965.73
#407 TYPE 1 CB STA. 147+24.05, 16.37' *LT* B/C 969.93 12" S INV. 966.60
#408 TYPE 1 CB STA. 150+28.16, 21.80' *RT* B/C 973.09 12" N INV. 968.74 18" W INV. 968.25
#409 TYPE 1 CB STA. 150+28.15, 16.16' *LT* B/C 972.97 12" S INV. 969.12

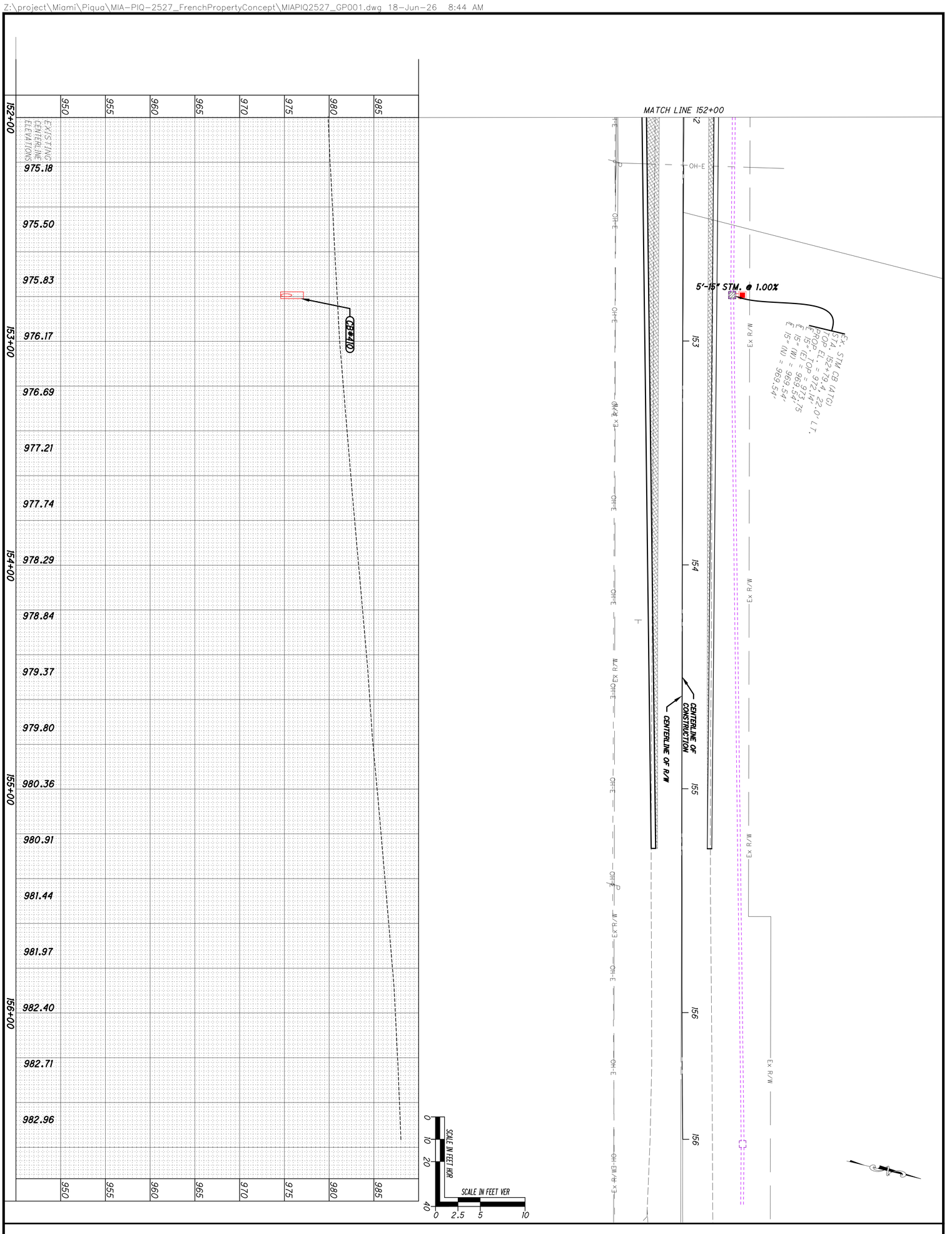
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
COUNTY ROAD 25A PLAN AND PROFILE STA. 147+00 TO STA. 152+00

REVISIONS:

FILE NAME	GP001
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	32 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GP001.dwg 18-Jun-26 8:43 AM



PROPOSED STORM STRUCTURES

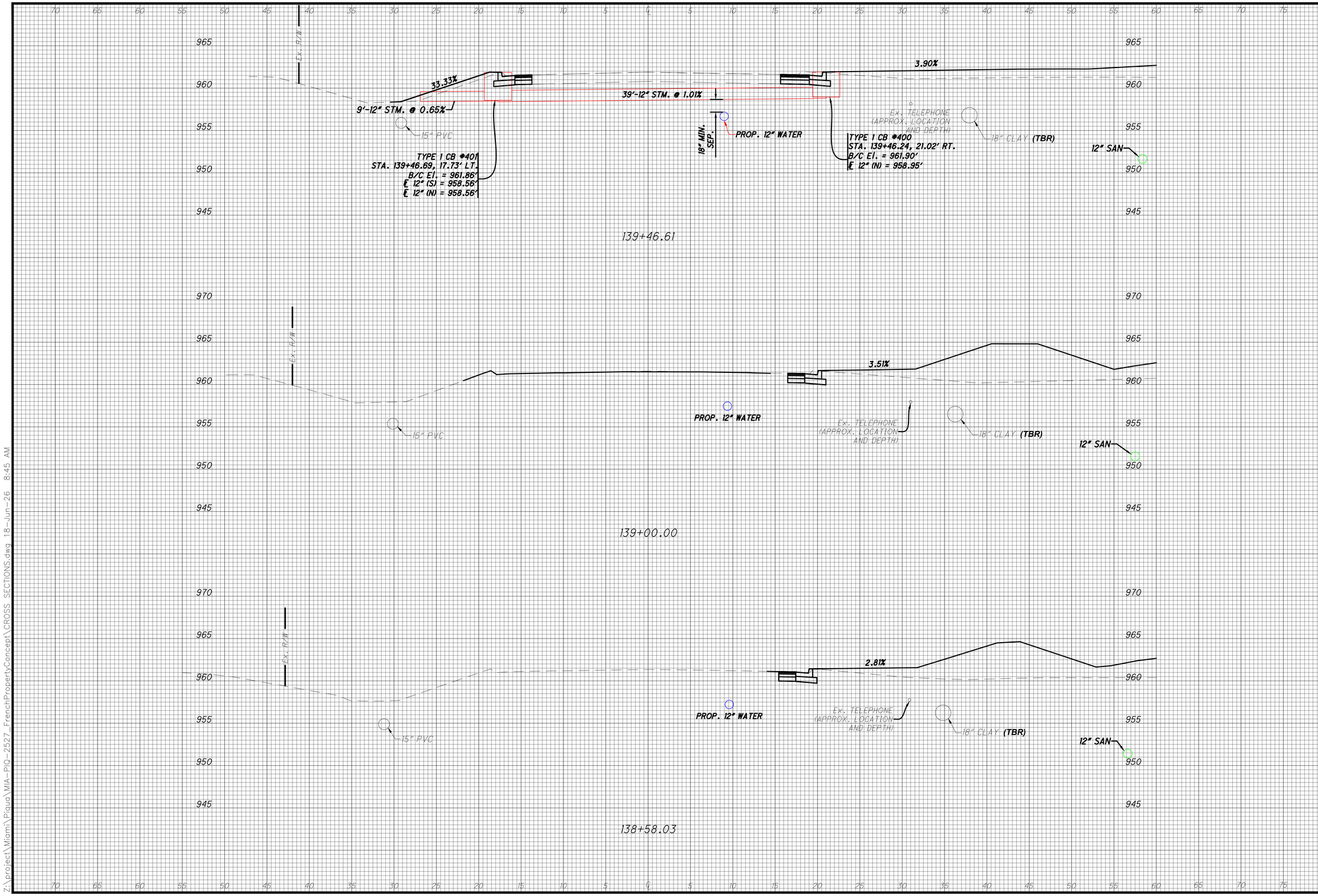
#410 TYPE 2-28 CB
STA. 152+19.40, 26.52' LT
TOP 972.13
15" S INV. 969.59

FULL DEPTH REPAIR OVER STORM SEWER
FULL DEPTH PAVEMENT SECTION

SHEET NUMBER	33 OF 51
DATE	5-15-2026
PROJECT No.	MIA-PIQ-2527
CHECKED BY	KMM
DRAWN BY	KMM
FILE NAME	GP001
REVISIONS:	

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
COUNTY ROAD 25A PLAN AND PROFILE STA. 152+00 TO STA. 157+00

SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com
ChoiceOne Engineering



Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\CROSS SECTIONS.dwg 18-Jun-26 8:45 AM

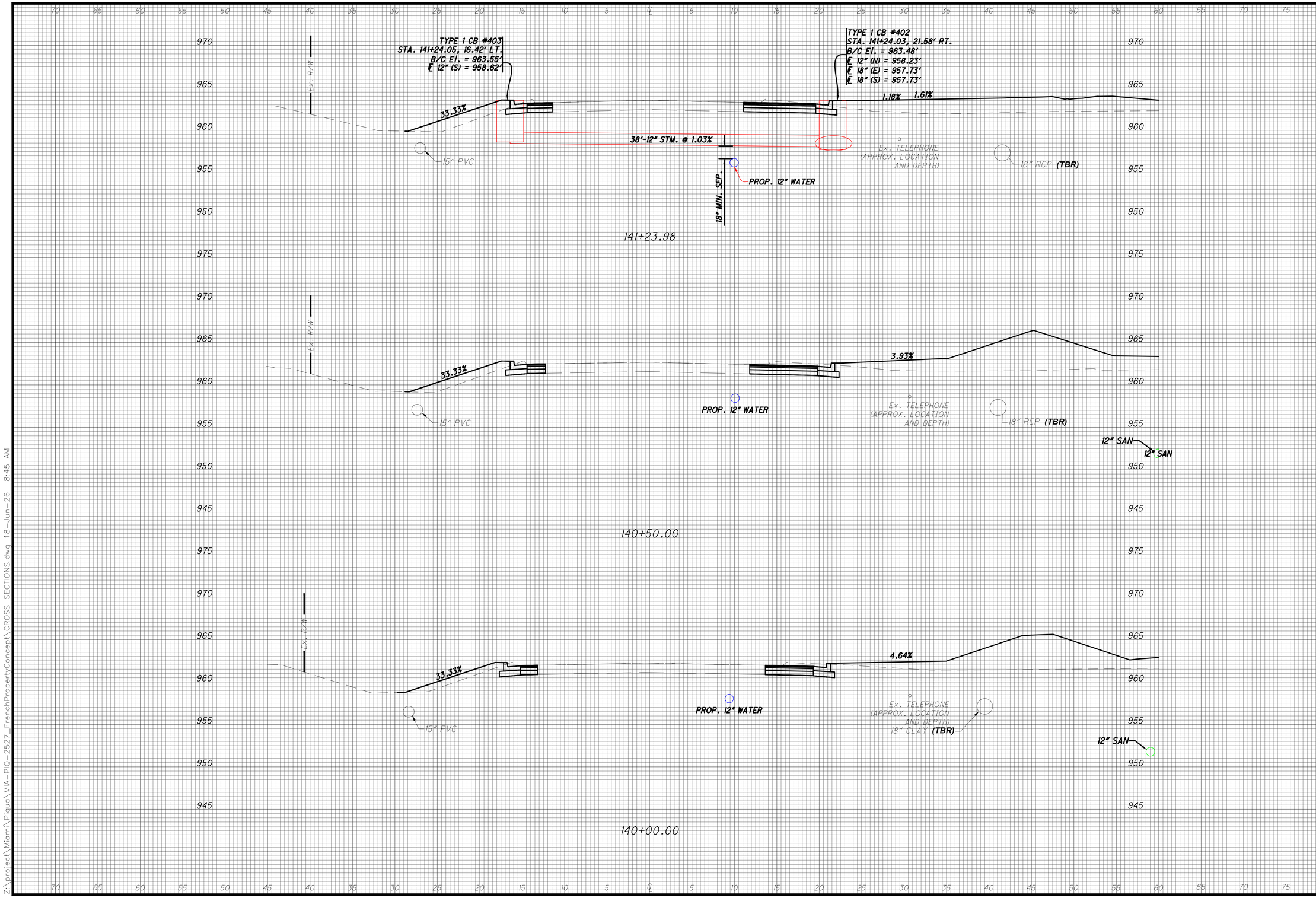
ChoiceOne Engineering

SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
COUNTY ROAD 25A C.S. STA. 138+58.03 TO STA. 139+46.61

REVISIONS:

FILE NAME	ONS.d
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	34 OF 51



Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\CROSS SECTIONS.dwg 18-Jun-26 8:45 AM

ChoiceOne Engineering

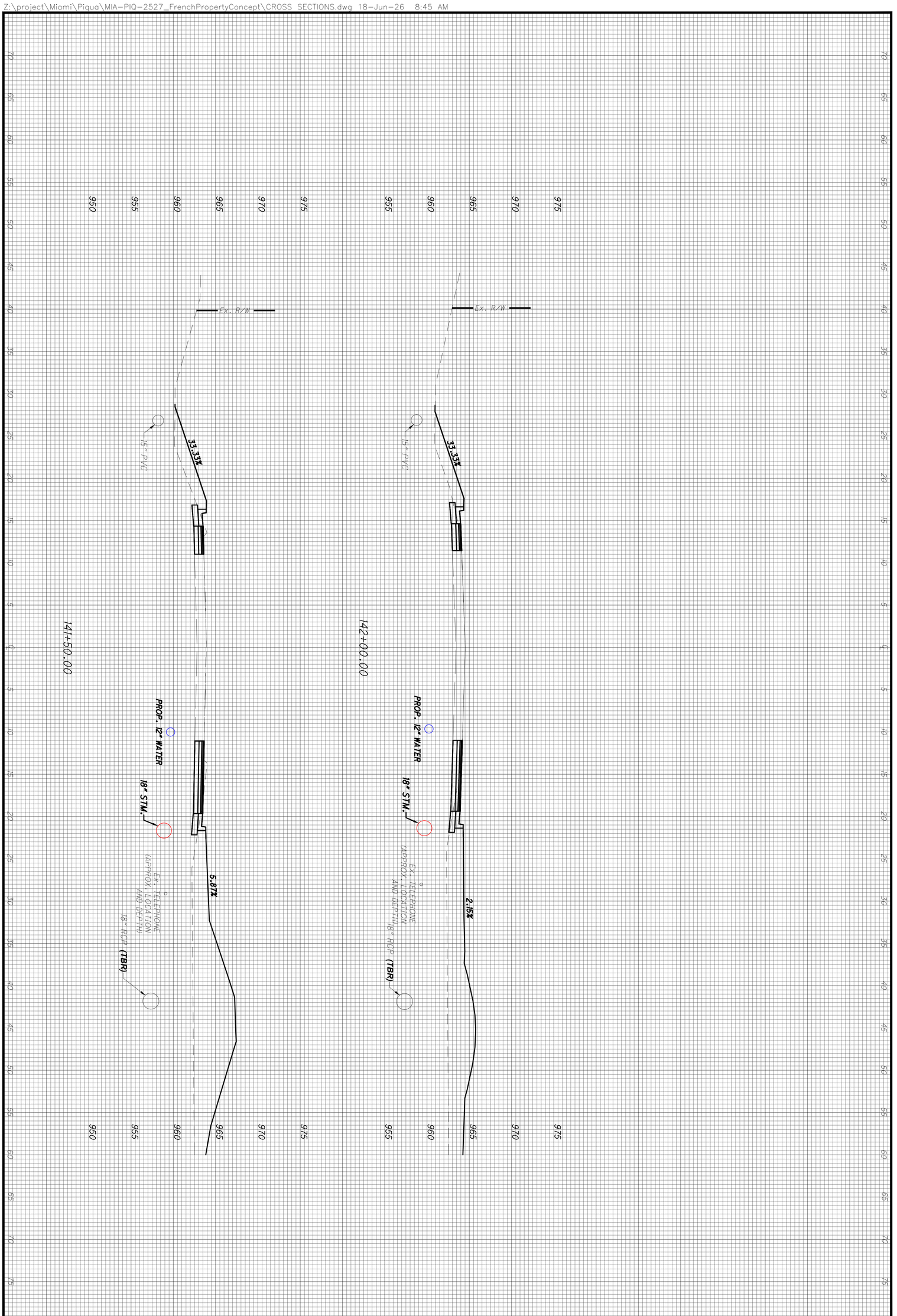
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
COUNTY ROAD 25A C.S. STA. 140+00 TO STA. 141+23.98

REVISIONS:

FILE NAME	ONS.d
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	35 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\CROSS SECTIONS.dwg 18-Jun-26 8:45 AM



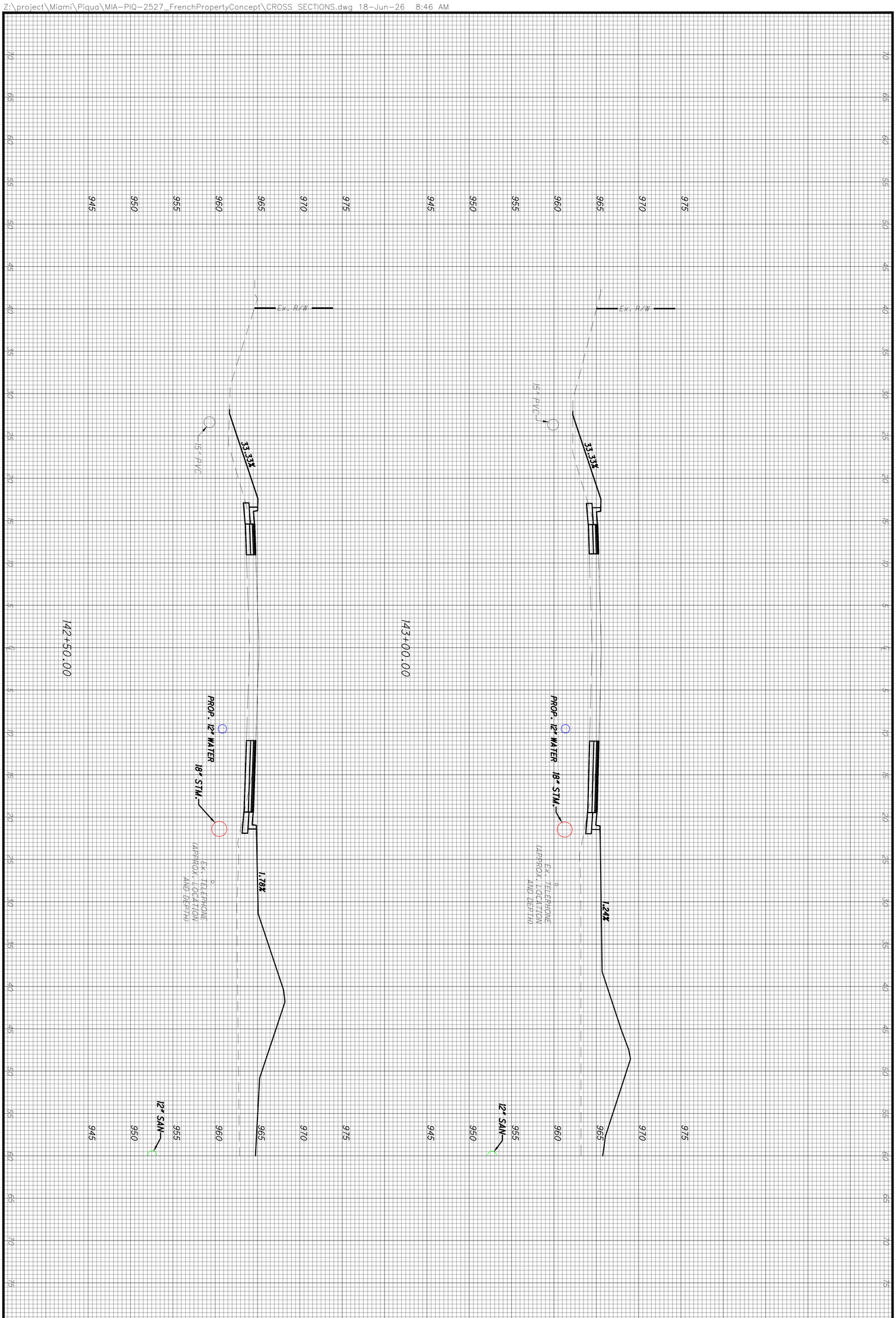
REVISIONS:	
FILE NAME	CNS.d
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	36 OF 51

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
COUNTY ROAD 25A C.S. STA. 141+50 TO STA. 142+00

SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

ChoiceOne Engineering

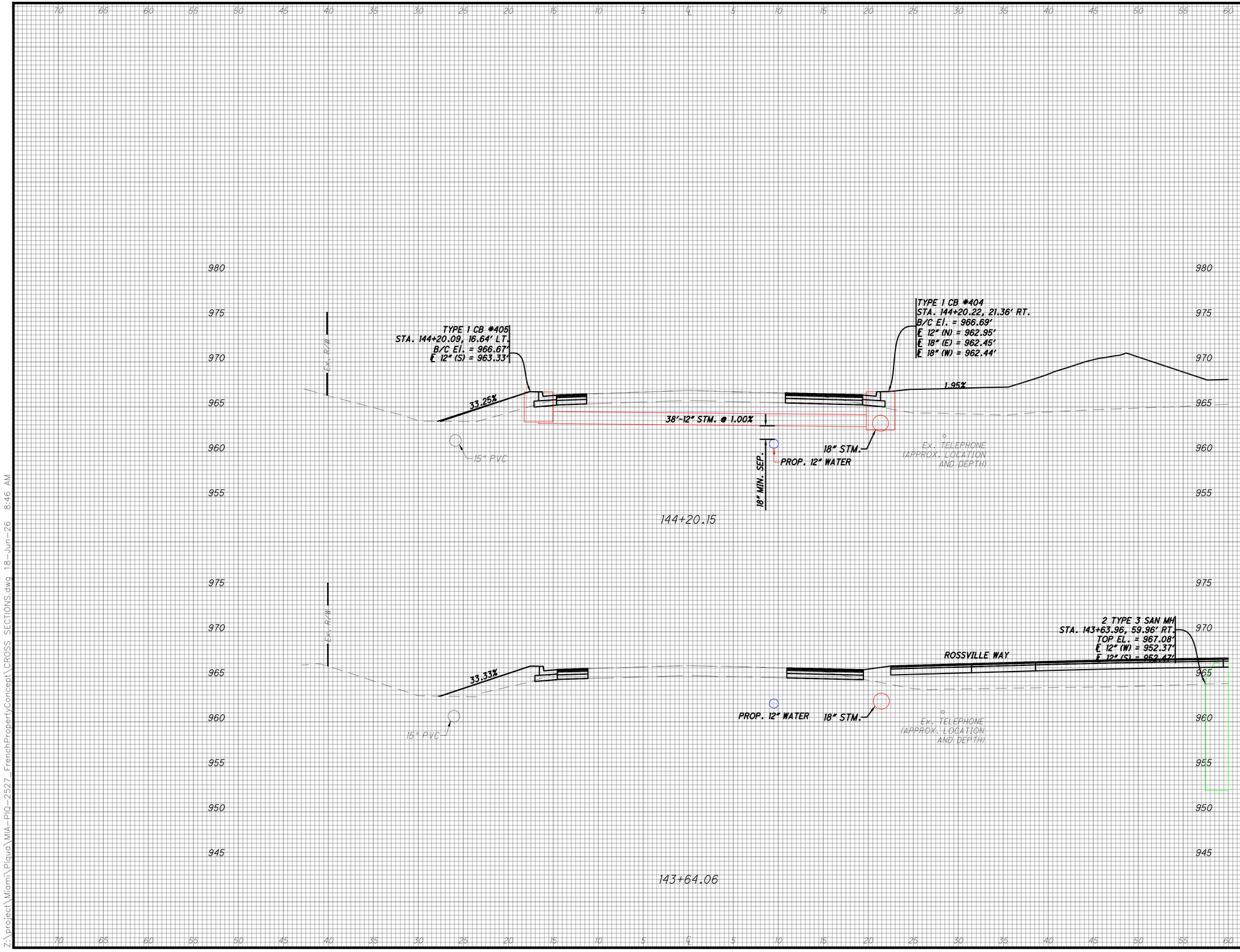
Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\CROSS SECTIONS.dwg 18-Jun-26 8:46 AM



REVISIONS:	
FILE NAME	CNS.d
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	37 OF 51

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
COUNTY ROAD 25A C.S. STA. 142+50 TO STA. 143+00

SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com
ChoiceOne Engineering



ChoiceOne Engineering

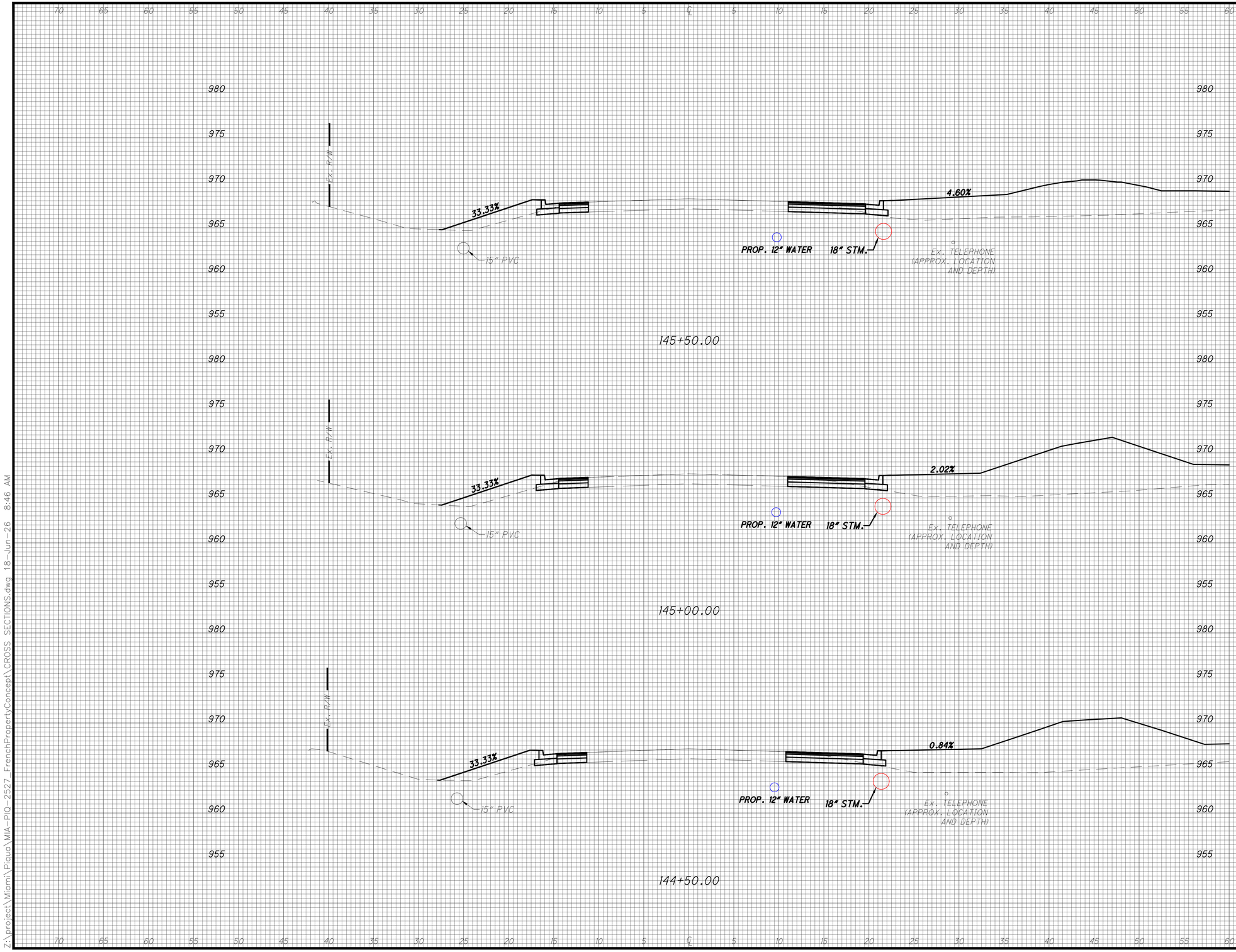
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
COUNTY ROAD 25A C.S. STA. 143+64.06 TO STA. 14+20.15

REVISIONS:

FILE NAME	ONS.d
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	38 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\CROSS SECTIONS.dwg 18-Jun-26 8:46 AM



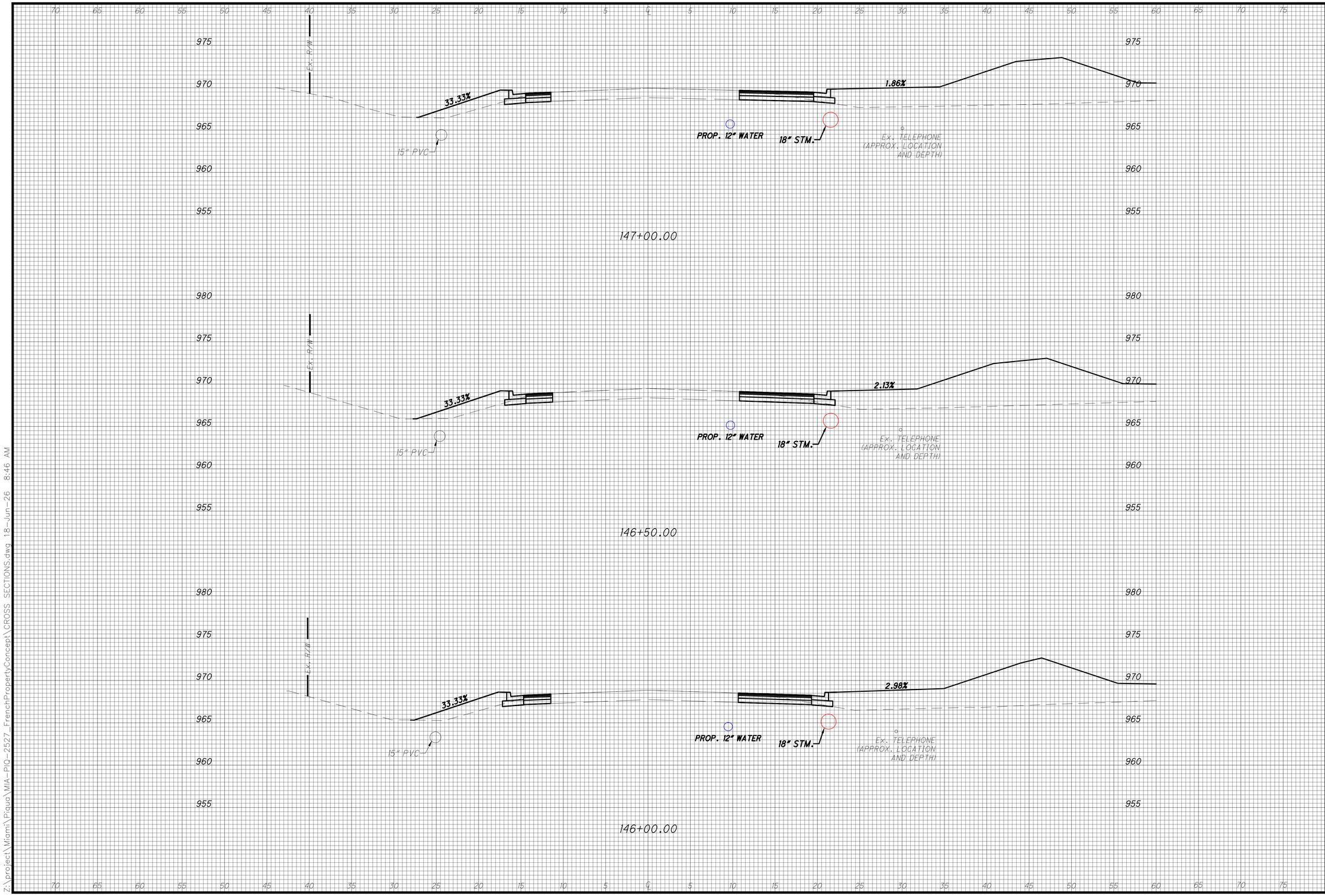
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
COUNTY ROAD 25A C.S. STA. 144+50 TO STA. 145+50

REVISIONS:

FILE NAME	ONS.d
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIO-2527
DATE	5-15-2026
SHEET NUMBER	39 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\CROSS SECTIONS.dwg 18-Jun-26 8:46 AM



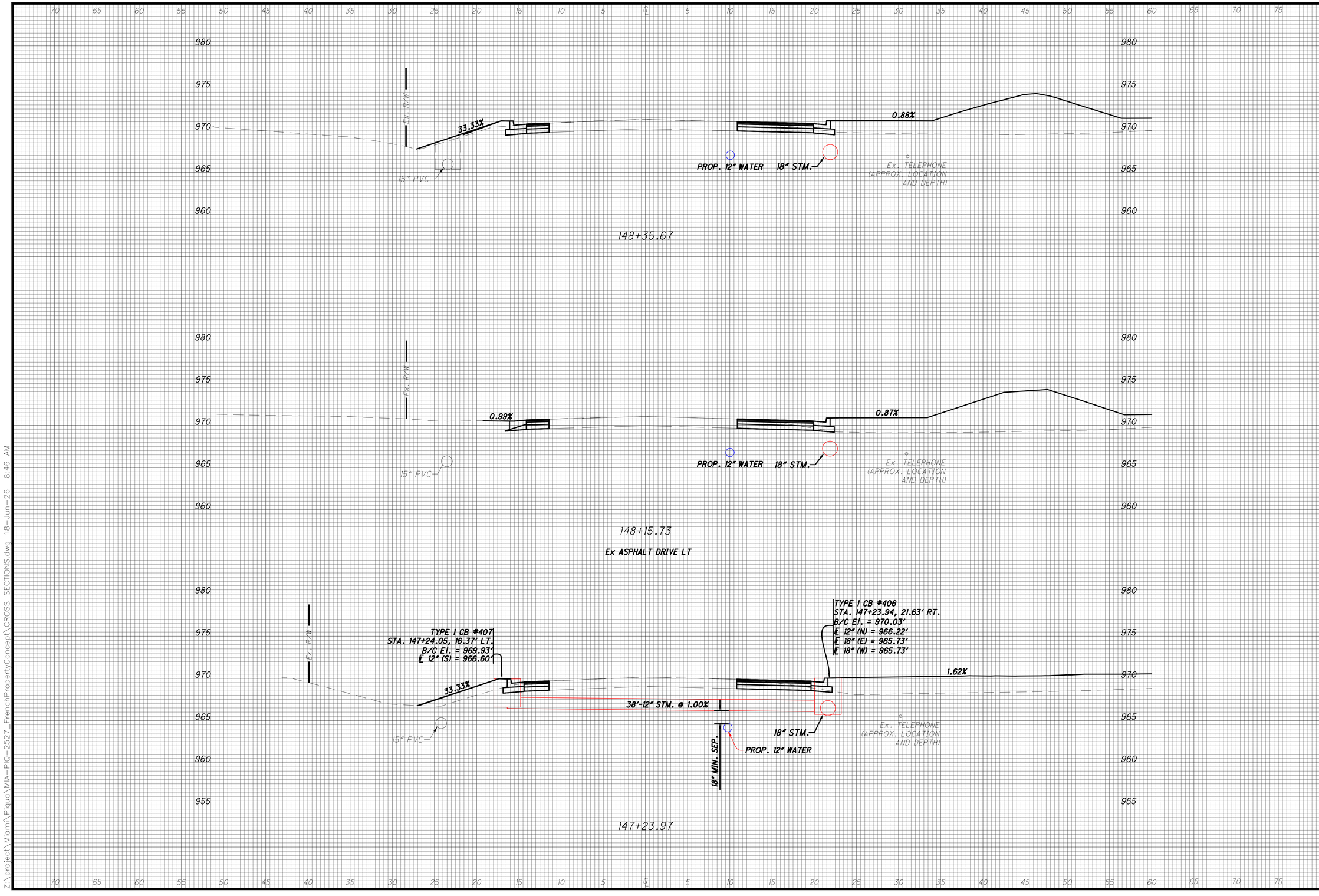
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
COUNTY ROAD 25A C.S. STA. 146+00 TO STA. 147+00

REVISIONS:

FILE NAME	ONS.d
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIO-2527
DATE	5-15-2026
SHEET NUMBER	40 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\CROSS SECTIONS.dwg 18-Jun-26 8:46 AM



Z:\project\Wiam\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\CROSS SECTIONS.dwg 18-Jun-26 8:46 AM

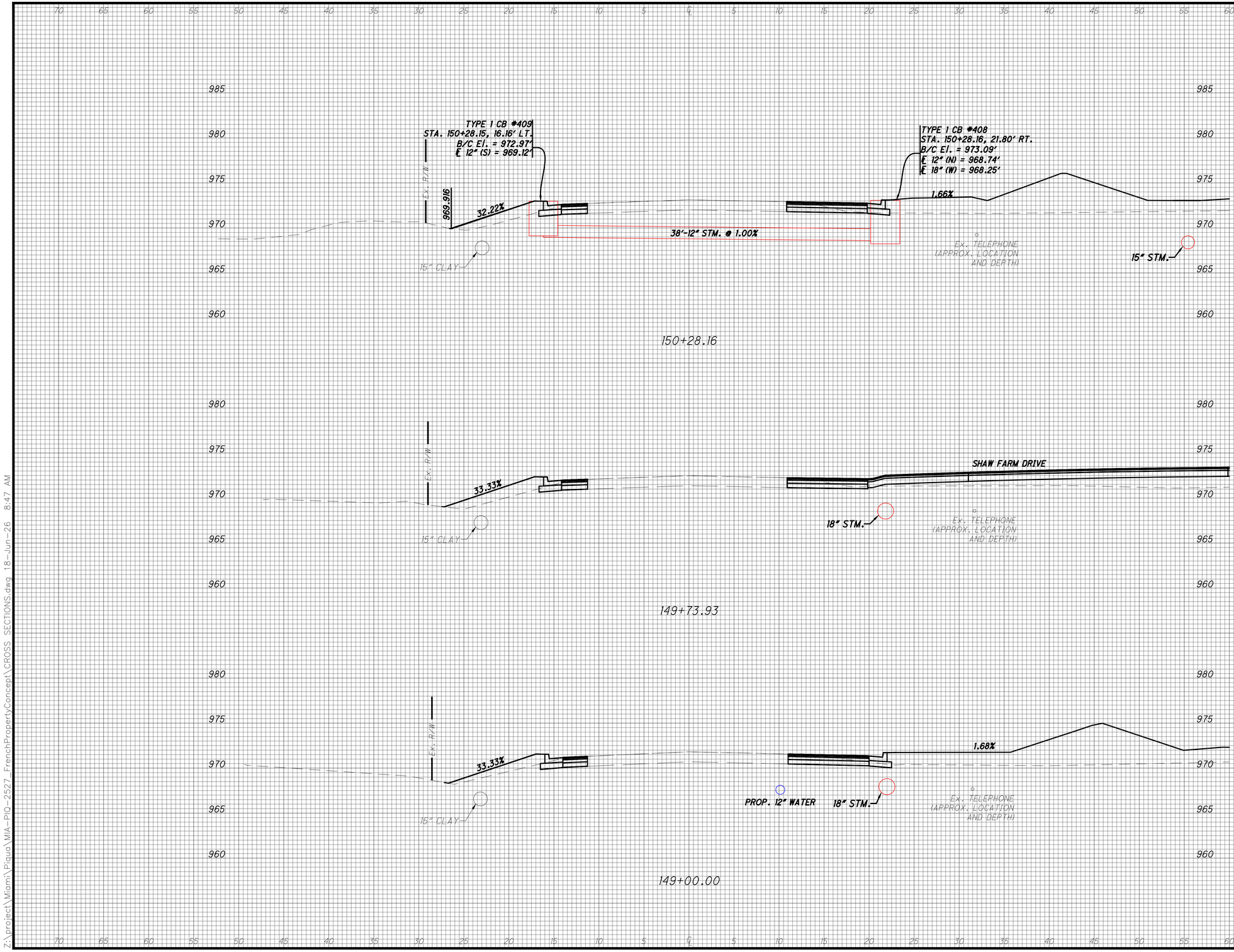
ChoiceOne Engineering

SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
COUNTY ROAD 25A C.S. STA. 147+23.97 TO STA. 148+35.67

REVISIONS:

FILE NAME	ONS.d
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	41 OF 51



Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\CROSS SECTIONS.dwg 18-Jun-26 8:47 AM

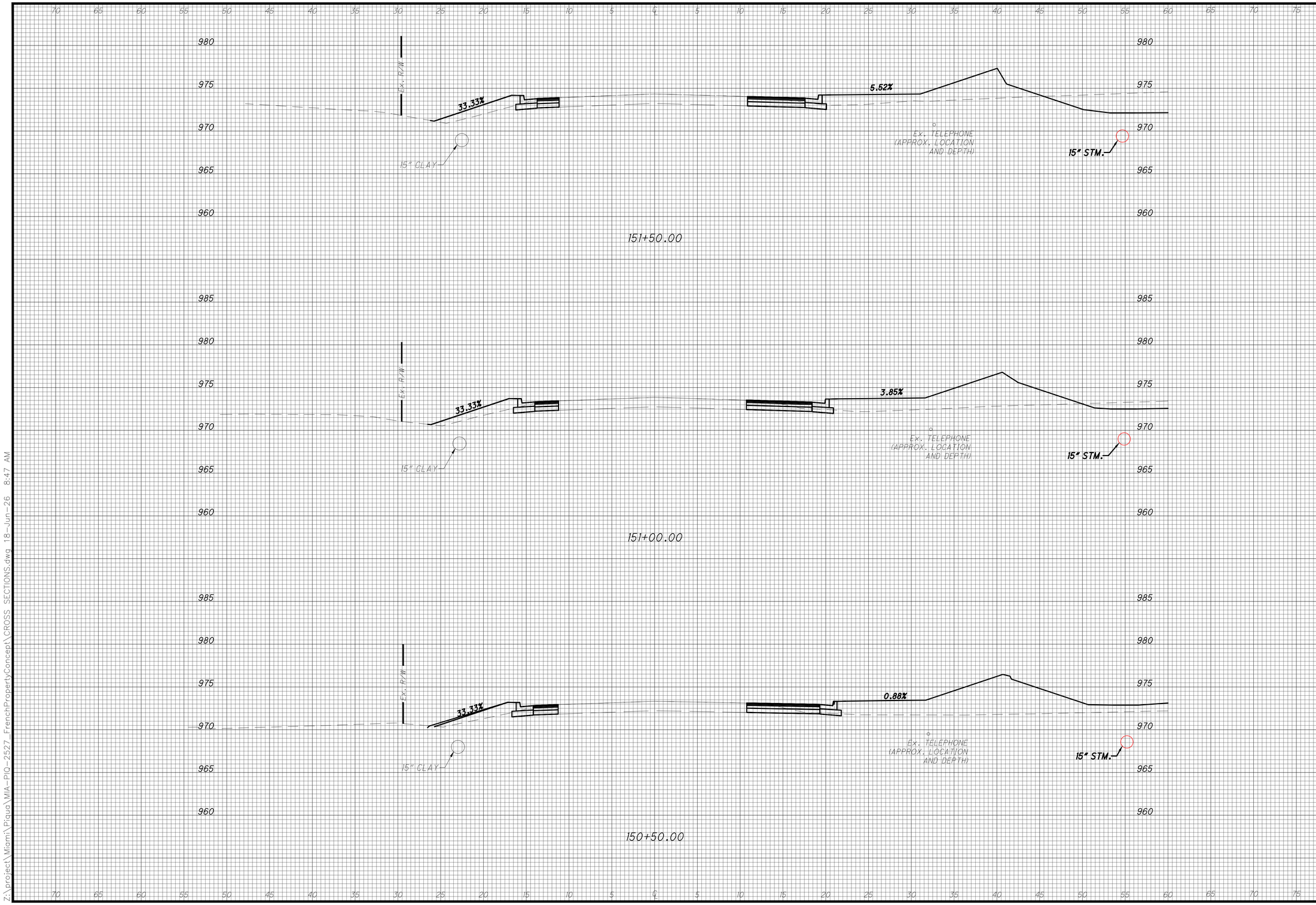
ChoiceOne Engineering

SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
COUNTY ROAD 25A C.S. STA. 149+00 TO STA. 150+28.16

REVISIONS:

FILE NAME	ONS.d
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	42 OF 51



Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\CROSS SECTIONS.dwg 18-Jun-26 8:47 AM

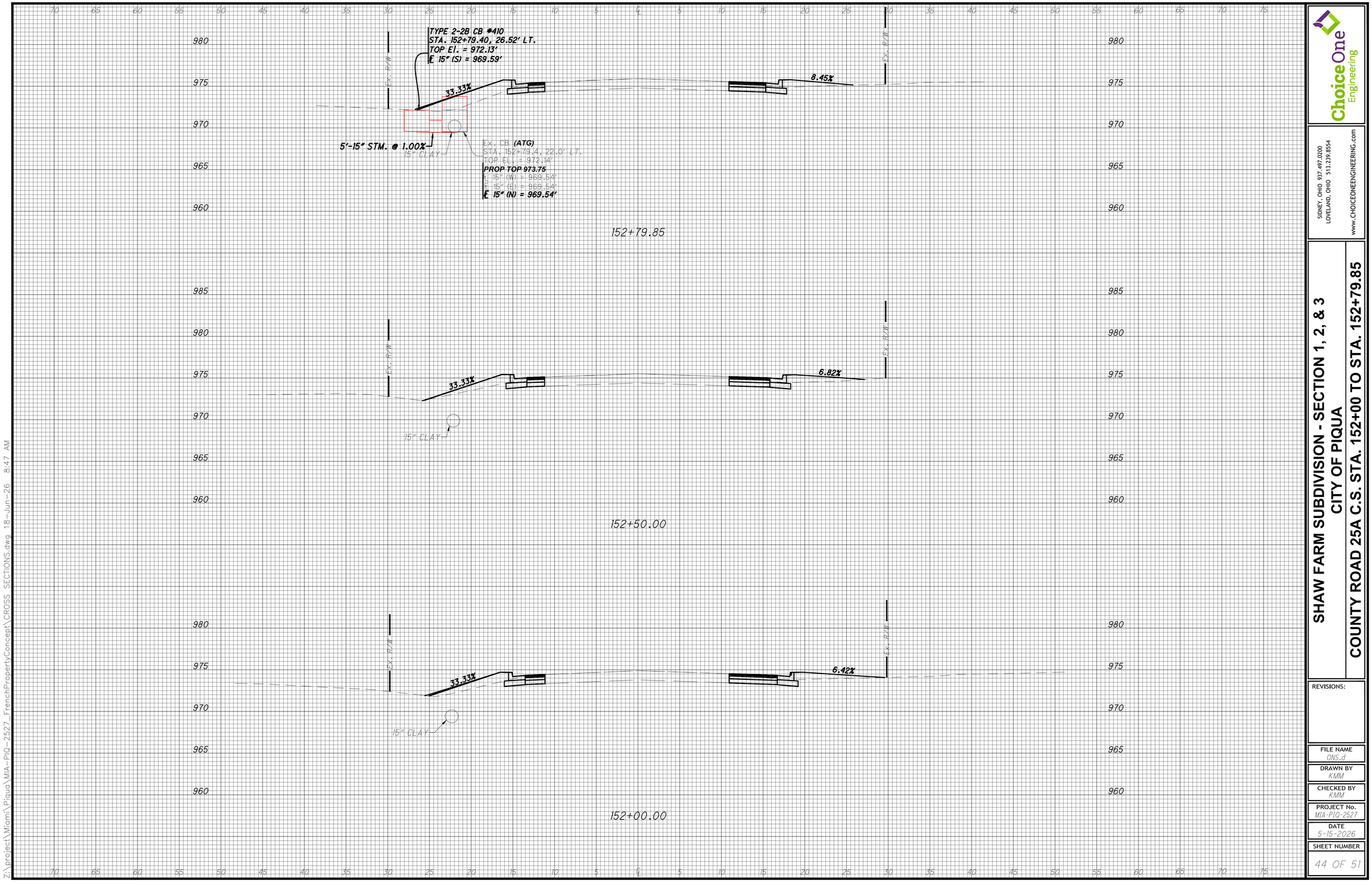
ChoiceOne Engineering

SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
COUNTY ROAD 25A C.S. STA. 150+50 TO STA. 151+50

REVISIONS:

FILE NAME	ONS.d
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	43 OF 51



Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\CROSS SECTIONS.dwg 18-Jun-26 8:47 AM

ChoiceOne Engineering

SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
COUNTY ROAD 25A C.S. STA. 152+00 TO STA. 152+79.85

REVISIONS:

FILE NAME	ONS.d
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	44 OF 51

ChoiceOne Engineering

SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
COUNTY ROAD 25A C.S. STA. 153+50 TO STA. 154+50

REVISIONS:

FILE NAME	ONS.d
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIO-2527
DATE	5-15-2026
SHEET NUMBER	45 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\CROSS SECTIONS.dwg 18-Jun-26 8:47 AM

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\CROSS SECTIONS.dwg 18-Jun-26 8:47 AM

ChoiceOne Engineering

SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
COUNTY ROAD 25A C.S. STA. 155+00 TO STA. 156+00

REVISIONS:

FILE NAME	ONS.d
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	46 OF 51

SIGN LEGEND

NEW SIGN

EXISTING SIGN TO BE REMOVED AND RESET

W11-2 30"X30"

W16-7PL 24"X12" STA. 137+89, 25' LT

S1-1

W16-7P (YELLOW-GREEN) STA. 138+25, 21' LT RELOCATE TO STA. 139+97, 19' LT

W11-2 30"X30"

W16-7PL 24"X12" STA. 137+63, 21' RT

SCHOOL

REMOVE Ex. SCHOOL WARNING

BEGIN WORK STA. 139+02.39

BEGIN WORK STA. 138+57.14

ARROW ON PAVEMENT (96" WHITE)

REMOVE Ex. CENTERLINE (BROKEN SOLID, YELLOW)

CENTERLINE (BROKEN SOLID, YELLOW)

11.00 12.00 11.00

MATCH LINE 142+00

SPEED LIMIT 45 R2-1 STA. 138+44, 23' RT RELOCATE TO STA. 139+44, 24' RT

137 138 139 140 141 14

45

OPEN SPACE A

CENTERLINE (BROKEN SOLID, YELLOW) 143

43

144

CO RD 25A

ARROW ON PAVEMENT (96" WHITE) 145

CENTERLINE (BROKEN SOLID, YELLOW) 146

MATCH LINE 147+00

42

46

OPEN SPACE C

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GP001.dwg 18-Jun-26 8:49 AM

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
COUNTY ROAD 25APAVEMENT MARKINGS STA. 137+00TO STA. 147+00

REVISIONS:

FILE NAME GP001

DRAWN BY KMM

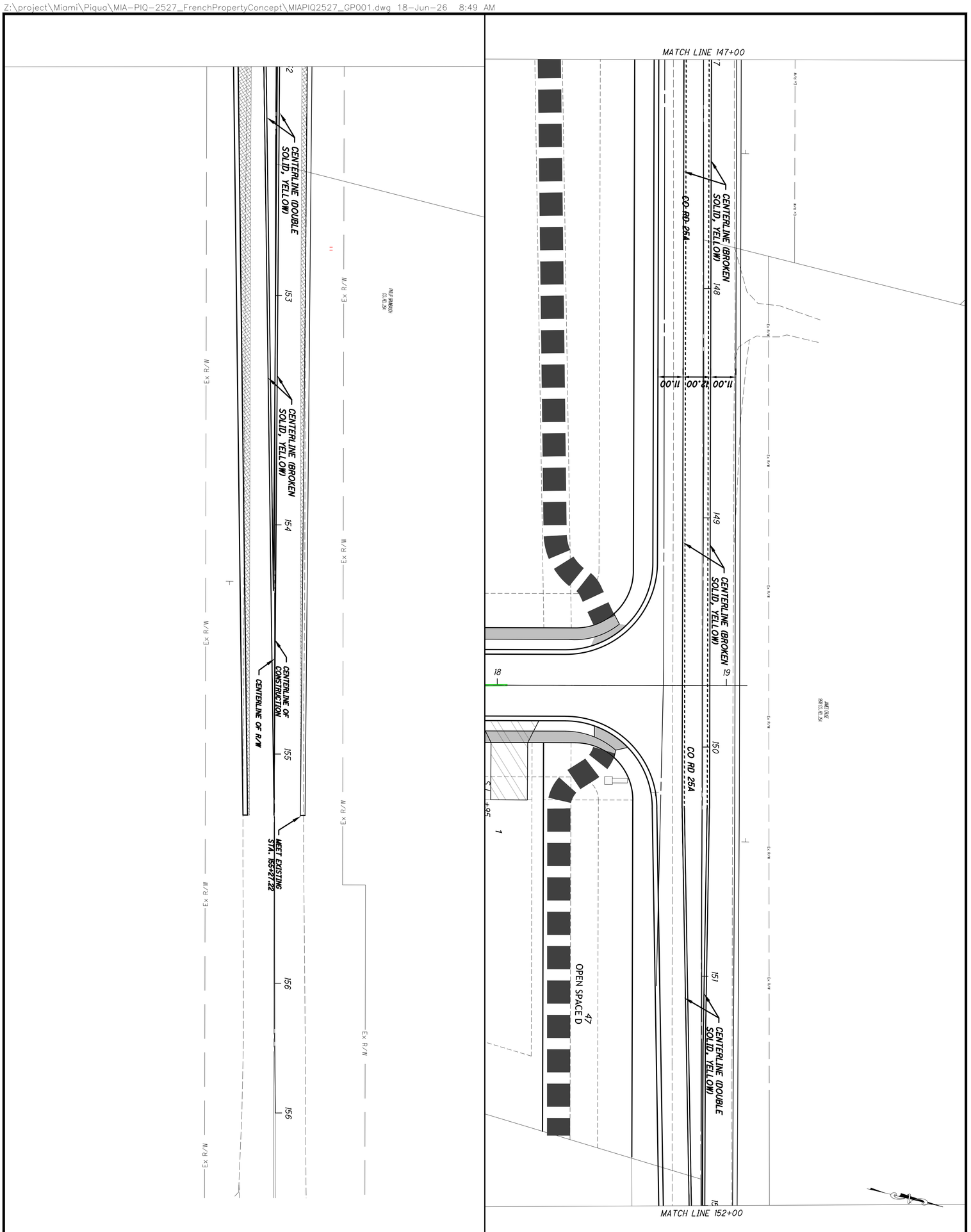
CHECKED BY KMM

PROJECT No. MIA-PIQ-2527

DATE 5-15-2026

SHEET NUMBER 47 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GP001.dwg 18-Jun-26 8:49 AM



REVISIONS:	
FILE NAME	GP001
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	48 OF 51

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
COUNTY ROAD 25A PAVEMENT MARKINGS STA. 147+00 TO STA. 156+00

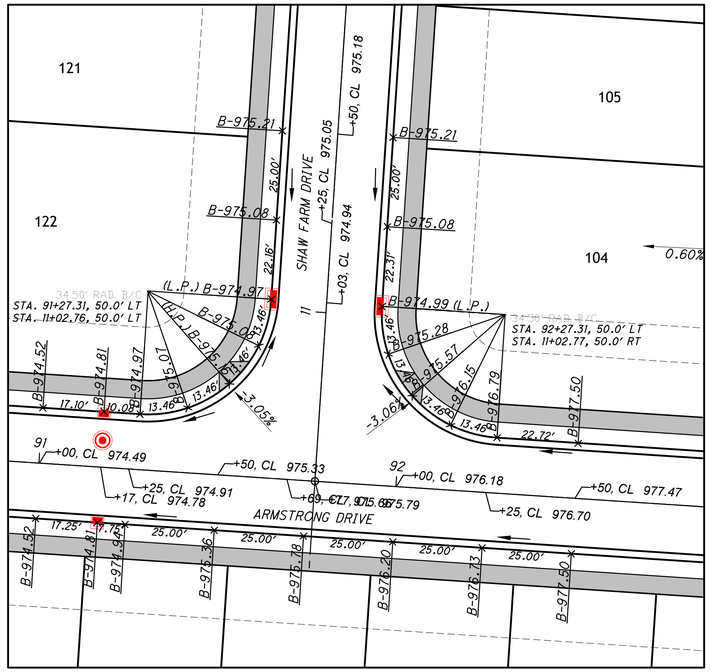
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com
ChoiceOne Engineering

SCALE IN FEET

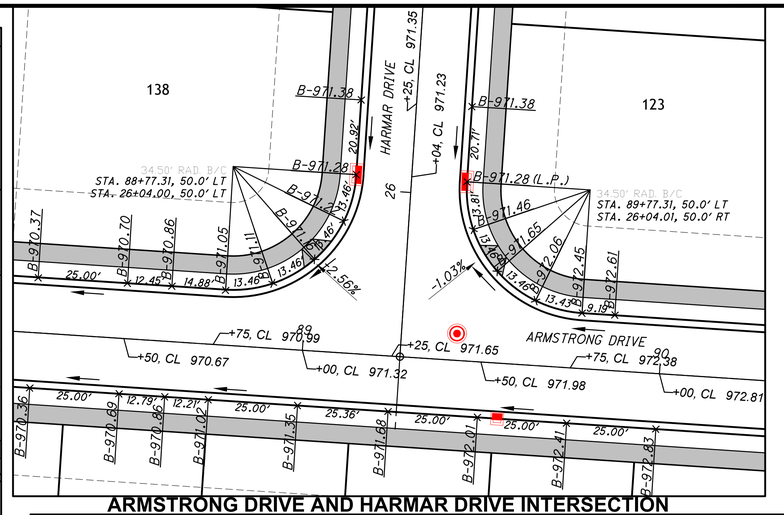
0 10′ 20′ 40′

LEGEND

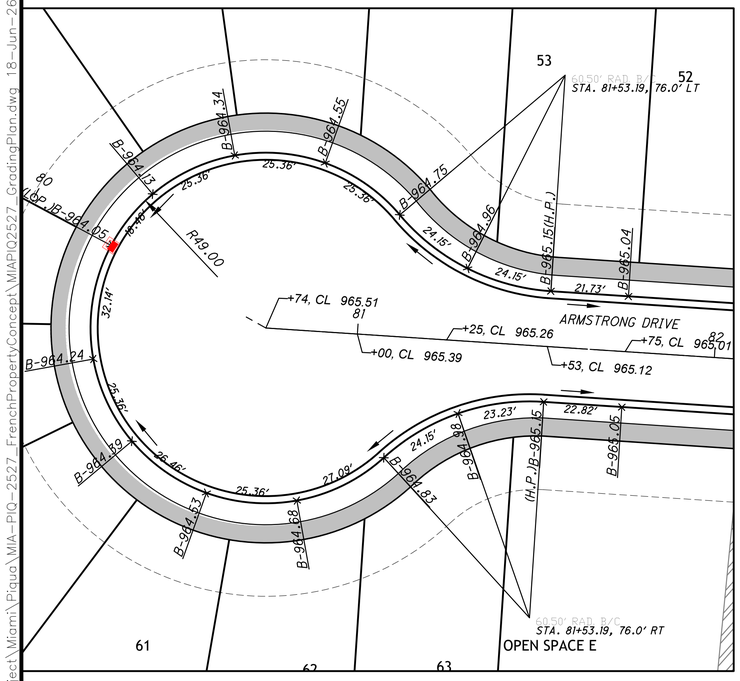
B = PROPOSED BACK OF CURB ELEVATION
EP = EXISTING PAVEMENT ELEVATION
H.P = HIGH POINT
L.P = LOW POINT
CL = PAVEMENT CENTERLINE ELEVATION
= FLOW ARROW



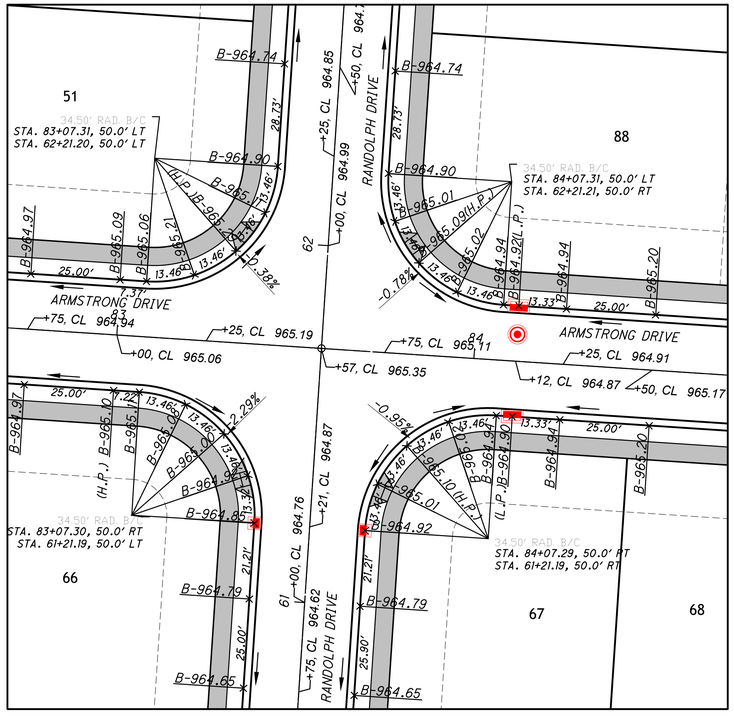
ARMSTRONG DRIVE AND SHAW FARM DRIVE INTERSECTION



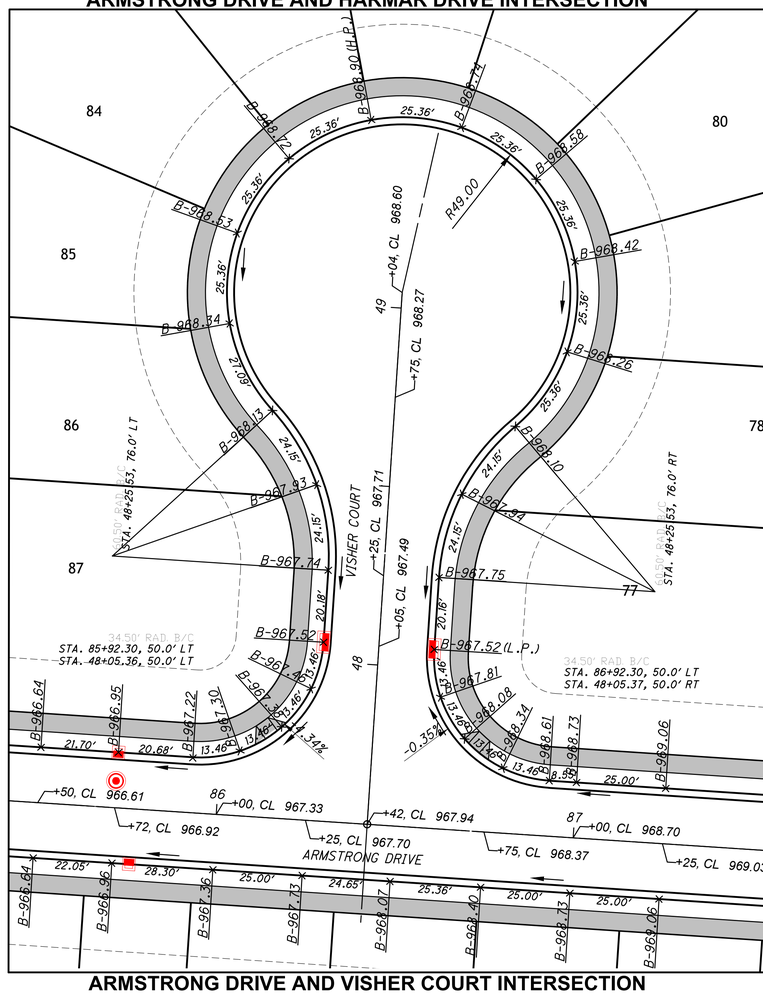
ARMSTRONG DRIVE AND HARMAR DRIVE INTERSECTION



ARMSTRONG DRIVE CUL-DE-SAC



ARMSTRONG DRIVE AND RANDOLPH DRIVE INTERSECTION



ARMSTRONG DRIVE AND VISHER COURT INTERSECTION

ChoiceOne Engineering

SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
INTERSECTION DETAILS

REVISIONS:

FILE NAME	INTXI
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	49 OF 51

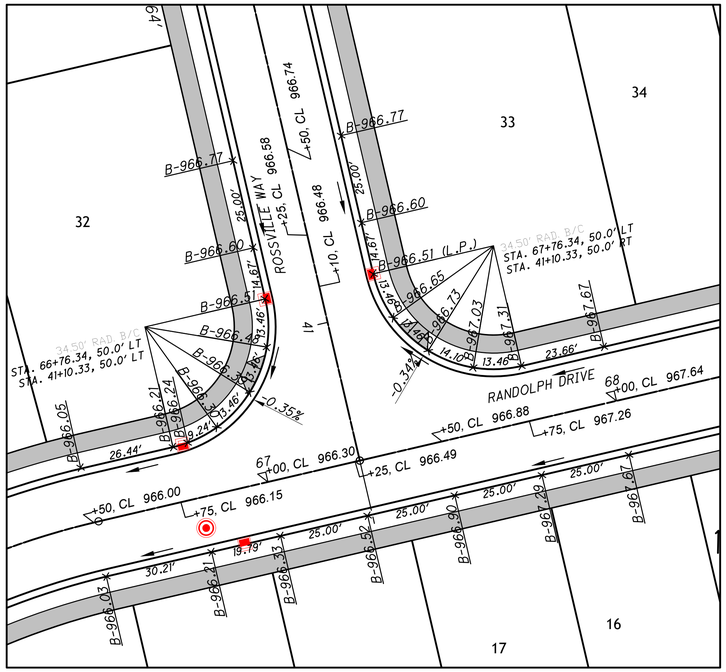
Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchProperty\Concept\MIAPIQ2527_GradingPlan.dwg 18-Jun-26 8:50 AM

SCALE IN FEET

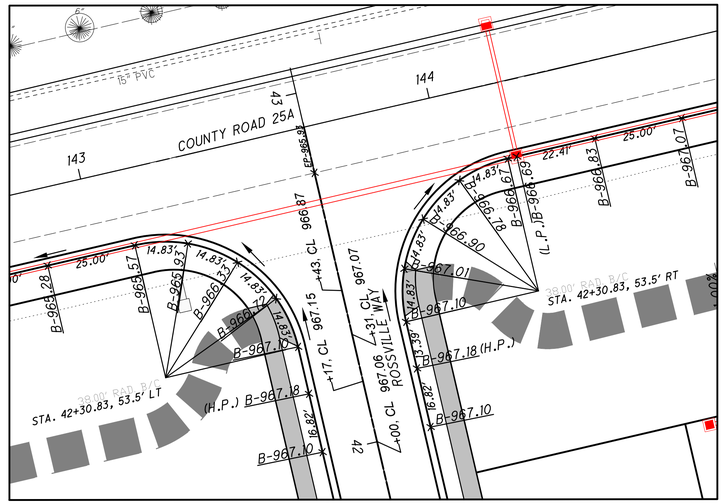
0 10' 20' 40'

LEGEND

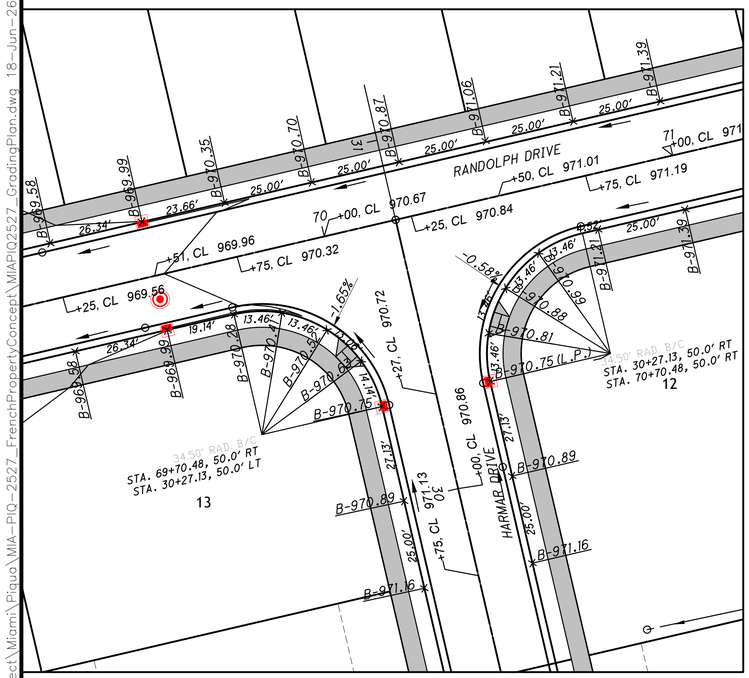
B = PROPOSED BACK OF CURB ELEVATION
EP = EXISTING PAVEMENT ELEVATION
H.P = HIGH POINT
L.P = LOW POINT
CL - PAVEMENT CENTERLINE ELEVATION
= FLOW ARROW



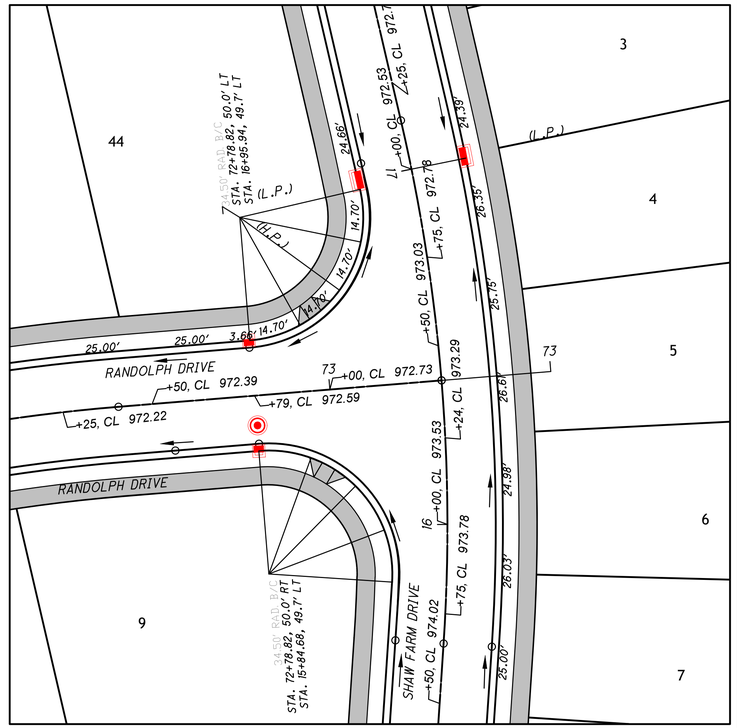
RANDOLPH DRIVE AND ROSSVILLE WAY INTERSECTION



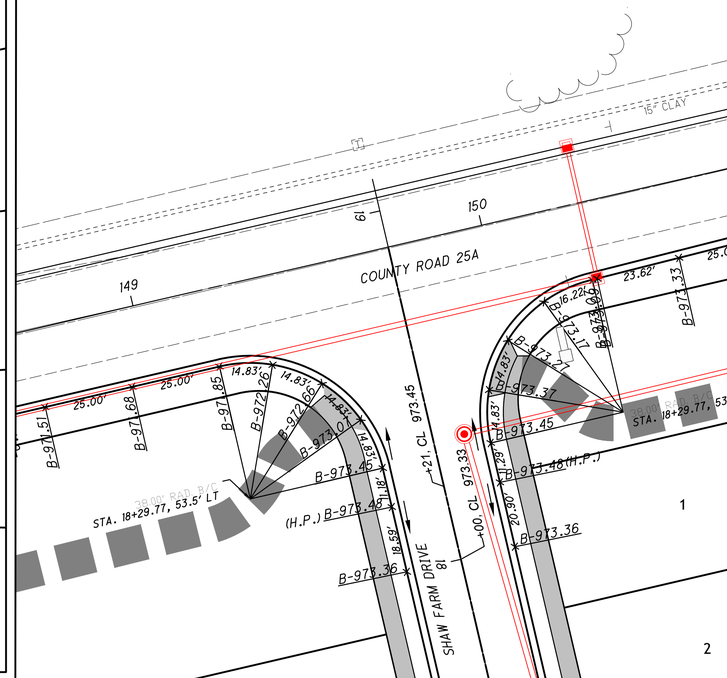
ROSSVILE WAY AND COUNTY ROAD 25A TIE IN



RANDOLPH DRIVE AND HARMAR DRIVE INTERSECTION



RANDOLPH DRIVE AND SHAW FARM DRIVE INTERSECTION



SHAW FARM DRIVE AND COUNTY ROAD 25A TIE IN

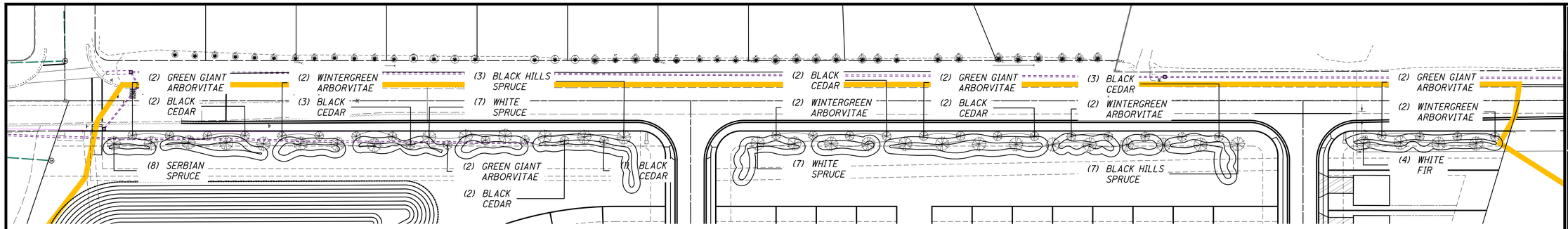
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
INTERSECTION DETAILS

REVISIONS:

FILE NAME	INTX2
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	50 OF 51

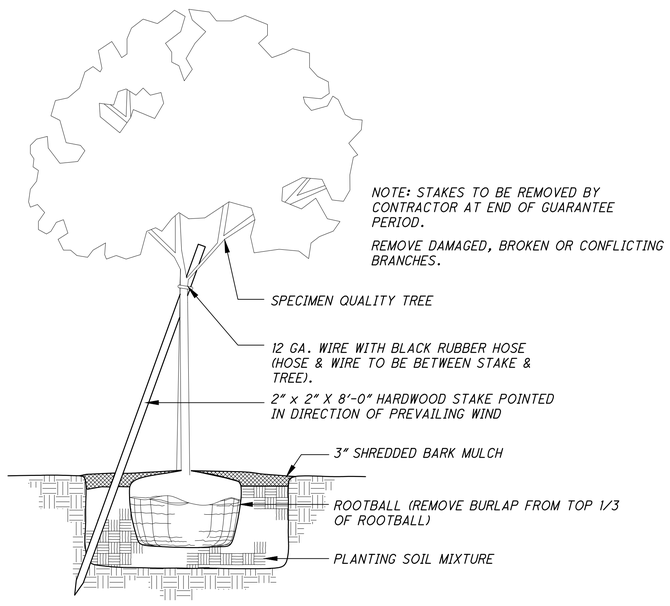
Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GradingPlan.dwg 18-Jun-26 8:50 AM



PLANTING SCHEDULE

QTY.	COMMON NAME	BOTANICAL NAME	SIZE	ROOT
	TREES			
15	BLACK CEDAR	THUJA OCCIDENTALIS 'NIGRA'	6' HGT.	B&B
10	BLACK HILLS SPRUCE	PICEA GLAUCA VAR. DENSATA	6' HGT.	B&B
8	GREEN GIANT ARBORVITAE	THUJA P. 'GREEN GIANT'	6' HGT.	B&B
8	SERBIAN SPRUCE	PICEA OMORIKA	6' HGT.	B&B
4	WHITE FIR	ABIES CONCOLOR	6' HGT.	B&B
14	WHITE SPRUCE	PICEA GLAUCA	6' HGT.	B&B
8	WINTERGREEN ARBORVITAE	THUJA O. 'WINTERGREEN'	6' HGT.	B&B

NOTE: PLANT TYPES ARE SUBJECT TO CHANGE BASED ON AVAILABILITY.



TREE PLANTING DETAIL

GENERAL NOTES

A. PRIOR TO INSTALLATION, THE LANDSCAPE CONTRACTOR SHALL INSPECT THE GENERAL SITE CONDITIONS AND VERIFY THE SUBGRADE, ELEVATIONS, UTILITY LOCATIONS AND TOPSOIL PROVIDED BY GENERAL CONTRACTOR. THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY UNSATISFACTORY CONDITIONS AND WORK SHALL NOT PROCEED UNTIL SUCH CONDITIONS HAVE BEEN CORRECTED AND ARE ACCEPTABLE TO THE LANDSCAPE CONTRACTOR.
B. SUBSTITUTIONS SHALL BE PERMITTED WITH NOTIFICATION AND WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT. SUBSTITUTED MATERIAL SHALL BE EQUIVALENT OR GREATER IN SIZE THAN THE SPECIFIED PLANT. SUBSTITUTED PLANTS SHALL HAVE THE SAME ESSENTIAL CHARACTERISTICS AND GROWTH HABIT OF THE SPECIFIED PLANT.
C. CONFIRM LOCATION OF ALL UTILITIES AND SUBSURFACE DRAIN LINES PRIOR TO PLANT INSTALLATION.
D. CONTRACTOR MAY SLIGHTLY FIELD ADJUST PLANT LOCATIONS AS NECESSARY TO AVOID UTILITIES. FINISHED PLANTING BEDS SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE.
E. CONTRACTOR SHALL REPAIR ALL LAWN AREAS DISTURBED DURING CONSTRUCTION WITH SEED AND WARRANT A HEALTHY, WEED FREE LAWN PRIOR TO PROJECT ACCEPTANCE.
F. SEED ALL AREAS WITHIN CONTRACT LIMITS THAT ARE NOT COVERED BY PAVING, BUILDINGS OR PLANTING BEDS UNLESS OTHERWISE NOTED. SEEDING SHALL NOT BEGIN UNTIL AREA HAS RECEIVED TOPSOIL AND FINISHED GRADE.
G. MULCH PLANTING BEDS WITH SHREDDED HARDWOOD MULCH OF UNIFORM DARK BROWN COLOR. IT SHALL BE FREE OF TWIGS, LEAVES DISEASE, PEST OR OTHER MATERIAL UNSIGHTLY OR INJURIOUS TO PLANTS. AVERAGE APPLIED THICKNESS SHALL BE 3" DEPTH. MULCH HEDGES IN A CONTINUOUS BED.
H. BED EDGE SHALL BE SMOOTH, CONSISTENT, HAND TRENCHED 6" DEEP AND "V" SHAPED UNLESS OTHERWISE NOTED. ALL EXCAVATED MATERIAL SHALL BE REMOVED FROM THE BED EDGE AND PLANTING BED.
I. ALL PLANTING BED EDGES TO BE SMOOTH FLOWING ARCS OR STRAIGHT LINES AS SHOWN ON PLAN.
J. INSTALL ALL PLANTS IN ACCORDANCE WITH PLANTING DETAILS AND SPECIFICATIONS.
K. PARKING LOT AND STREET TREES SHALL HAVE A CLEAR CANOPY HEIGHT OF 6' MIN.
L. TREE SHALL BE PLACED A MINIMUM OF 3' FROM SIDEWALKS AND CURBS.
M. LAWN AREAS TO BE BACKFILLED WITH TOPSOIL TO A MINIMUM SETTLED THICKNESS OF 6 INCHES.
N. CONTRACTOR TO DETERMINE PLANT LIST QUANTITIES FROM THE PLAN. GRAPHIC REPRESENTATION ON PLAN SUPERSEDES IN CASE OF DISCREPANCY WITH QUANTITIES ON SCHEDULE.
O. CONTRACTOR SHALL THOROUGHLY WATER ALL PLANTS AT TIME OF INSTALLATION AND AS NEEDED UNTIL PROJECT ACCEPTANCE BY OWNER. CONTRACTOR SHALL GUARANTEE ALL PLANTS INSTALLED FOR ONE FULL YEAR FROM DATE OF ACCEPTANCE BY THE OWNER. ALL PLANTS SHALL BE ALIVE AND AT A VIGOROUS RATE OF GROWTH AT THE END OF GUARANTEE PERIOD.

INSTALLATION NOTES

A. IF NOT READILY APPARENT, LOCATE ROOT FLARE BY REMOVING TWINE, BURLAP, AND EXCESS SOIL.
B. DIG TREE HOLE AT LEAST TWO TIMES WIDER THAN THE TREE BALL, WITH SIDES SLOPED TO AN UNEXCAVATED OR FIRM BASE. DIG HOLE TO A DEPTH SO THE LOCATED ROOT FLARE, AT THE FIRST ORDER LATERAL ROOT, WILL BE AT FINISHED GRADE.
C. LIFT ONLY FROM THE BOTTOM OF THE ROOT BALL, POSITION TREE ON FIRM PAD SO THAT IT IS STRAIGHT AND TOP OF ROOT FLARE IS LEVEL WITH THE SURROUNDING SOIL.
D. REMOVE ALL TWINE FROM THE ROOT BALL. IF PRESENT, REMOVE AND DISCARD AT LEAST THE TOP ONE HALF OF THE WIRE BASKET. BURLAP SHALL BE REMOVED FROM THE TOP TO A POINT HALFWAY DOWN THE ROOT BALL AND DISCARDED.
E. WITH CLEAN, SHARP PRUNING TOOLS, PRUNE OFF ANY SECONDARY/ADVENTITIOUS, GIRDLING, AND POTENTIAL GIRDLING ROOTS.
F. MULCH THE ENTIRE PLANTING SURFACE WITH MULCH APPLIED NO LESS THAN TWO INCHES DEEP AND NO MORE THAN THREE INCHES DEEP, LEAVING THREE INCHES ADJACENT TO THE TREE TRUNK FREE OF MULCH.
G. SPECIES AND SIZE IDENTIFIED IN PLANT SCHEDULE, GROWN IN CLIMATIC CONDITIONS SIMILAR TO THOSE IN LOCALITY OF THE WORK.
H. PROVIDE HEALTHY, SOUND, VIGOROUS PLANT MATERIALS, FREE FROM PLANT DISEASES, INSPECT PESTS, HEALTHY WELL-DEVELOPED ROOT SYSTEMS, FRESHLY DUG, NURSERY GROWN, WELL-BRANCHED, DENSELY FOLIATED WHEN IN LEAF AND WELL-PROPORTIONED, PARTICULARLY WITH RESPECT TO THE WIDTH-HEIGHT RELATIONSHIP.
I. DAMAGED OR BROKEN BRANCHES, BROKEN BALL AND LOOSE TOP BALL ARE UNACCEPTABLE.
J. SET PLANTS IN CENTER OF HOLE, PLUMB AND STRAIGHT. REMOVE ⅓ TOP OF BURLAP (IF APPLICABLE).
K. SATURATE SOIL WITH WATER WHEN THE HOLE IS HALF FULL OF TOPSOIL AND AGAIN WHEN FULL.
L. DO NOT INSTALL PLANT LIFE WHEN AMBIENT TEMPERATURES MAY DROP BELOW 35 DEGREES F OR RISE ABOVE 90 DEGREES F.



ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
LANDSCAPE PLAN

REVISIONS:

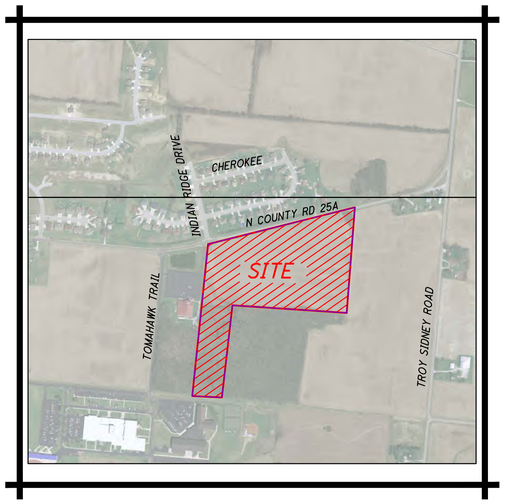
FILE NAME: LANDSCAPE
DRAWN BY: KMM
CHECKED BY: KMM
PROJECT No.: MIA-PIQ-2527
DATE: 5-15-2026
SHEET NUMBER: 51 OF 51

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_LANDSCAPE.dwg 18-Jun-26 8:51 AM

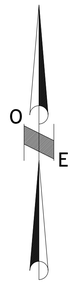
SHAW FARM SUBDIVISION - SECTION 1, 2, & 3- SWPPP

CITY OF PIQUA

MIAMI COUNTY, OHIO



VICINITY MAP



SWPPP TITLE SHEET	1
SWPPP GENERAL EROSION CONTROL NOTES AND DETAILS	2-5
SWPPP SITE EROSION CONTROL PLAN	6

SWPPP NOTE

THIS STORMWATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN PREPARED FOR CLAYTON PROPERTIES GROUP FOR THE PERFORMANCE OF SHAW FARMS SUBDIVISION IN MIAMI COUNTY, OHIO. ALL WORK SHALL BE PER AND COMPLY WITH THE OEPA CONSTRUCTION SITE STORM WATER GENERAL PERMIT, PERMIT #OHC000006. THIS INCLUDES FILING A CO-PERMITTEE NOI FORM WITH THE OEPA FOR ALL OPERATORS ENGAGED IN SITE WORK ON THE SITE. CONTRACTOR SHALL FOLLOW THE SPECIFICATIONS, INSTALLATION, MAINTENANCE AND REQUIREMENTS OF ODOT'S CURRENT SUPPLEMENTAL SPECIFICATION 832 "TEMPORARY SEDIMENT AND EROSION CONTROL." COMPLIANCE WITH SUPPLEMENTAL SPECIFICATION 832 SHALL INCLUDE THE STANDARD CONSTRUCTION DRAWING REFERENCES LISTED IN SECTION 832.03, BUT SHALL NOT INCLUDE SECTION 832.11 "INSPECTIONS AND SWPPP UPDATES." ALL INSPECTIONS AND SWPPP UPDATES SHALL BE PER THE OEPA CONSTRUCTION SITE STORM WATER GENERAL PERMIT, PERMIT #OHC000006. ALL WORK SHALL ALSO BE PER THE CURRENT ODOT CMS 107.19. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH LOCAL STORMWATER AND EROSION CONTROL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH AND INSTALLING ALL ITEMS NOTED AND AS REQUIRED BY OEPA AND LOCAL AUTHORITIES FOR MEETING ALL STORM WATER POLLUTION PREVENTION REQUIREMENTS. CLAYTON PROPERTIES GROUP AND THE SELECTED CONTRACTOR SHALL BE THE RESPONSIBLE PARTY IN CHARGE OF THE SWPPP AND ASSOCIATED BMP'S.

SITE DATA

LOCATION SOIL TYPES_____SILTY CLAY LOAM, SILT LOAM
PROJECT EARTH DISTURBED AREA_____27.80 ACRES
CONTRACTOR EARTH DISTURBED AREA_____0.50 ACRES
TOTAL EARTH DISTURBED AREA_____28.30 ACRES
PROPOSED IMPERVIOUS AREA ADDED:_____13.95 ACRES
PRE-CONSTRUCTION RUNOFF COEFFICIENT:___0.00
POST-CONSTRUCTION RUNOFF COEFFICIENT:___0.42
DESCRIPTION OF PRIOR LAND USE_____AGRICULTURAL LAND
EXISTING QUALITY OF DISCHARGE FROM SITE___UNTREATED PERVIOUS RUNOFF
IMMEDIATE RECEIVING WATERS:_____ON-SITE RETENTION BASIN
SUBSEQUENT RECEIVING WATERS:_____FIELD SWALE
LATITUDE 40.16875° LONGITUDE -84.20220°

WATERS EDGE NOTE

ALL MATERIAL AND EQUIPMENT STAGING OR STORAGE AREAS, DEWATERING AREAS, CONCRETE TRUCK WASH OUT AREAS, CONSTRUCTION ACCESS LOCATIONS, AND VEHICLE FUELING AND REFUELING LOCATIONS MUST BE LOCATED A MINIMUM OF 100' FROM ANY CREEK/RIVER/STREAM WATERS EDGE.

CLEAN STORM SYSTEM NOTE

IMMEDIATELY PRIOR TO FINAL COMPLETION OF THE PROJECT, CONTRACTOR SHALL ENSURE THE ENTIRE STORM SYSTEM, INCLUDING BUT NOT LIMITED TO, THE DETENTION/RETENTION BASIN(S), CATCH BASINS, MANHOLES, PIPING, UNDERDRAINS AND UNDERDRAIN TRENCHES ARE FREE FROM SEDIMENTATION AND OTHER POLLUTANTS AND FOREIGN MATERIALS AND ARE TO BE CLEANED AS NEEDED TO ENSURE MAXIMUM STORMWATER QUALITY AND FULL FUNCTIONALITY.

OFFSITE CONSTRUCTION ACTIVITIES

IT IS EXPECTED ALL CONSTRUCTION ACTIVITIES WILL TAKE PLACE ON SITE.

SPILL REPORTING REQUIREMENTS

IN THE EVENT OF A SMALL RELEASE (LESS THAN 25 GALLONS) OF PETROLEUM WASTE, SPECIAL HANDING PROCEDURES MUST BE USED. IN THE EVENT OF A LARGE RELEASE (25 GALLONS OR MORE) OF PETROLEUM WASTE, YOU MUST CONTACT THE OHIO EPA (AT 1-800-282-9378), THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) WITHIN 30 MINUTES OF A SPILL OF 25 OR MORE GALLONS.

VEHICLE FUELING

VEHICLE FUELING AND MAINTENANCE WILL BE PERFORMED VIA A SMALL REFUEL TANK ON THE BACK OF A PICK-UP TRUCK.

OPEN BURNING NOTE

OPEN BURNING IS NOT PERMITTED IN THE CORPORATION LIMIT.

CONTACT INFORMATION

A: FACILITY SITE LOCATION: EAST OF THE INTERSECTION OF NORTH COUNTY ROAD 25A AND TOMAHAWK TRAIL, PIQUA, OHIO.
B: CLAYTON PROPERTIES GROUP, PAUL METZGER, 9050 CENTRE POINTE DR., STE. 210, WEST CHESTER, OHIO, 45069, Paul.metzger@yourarborhome.com
SWPPP CONTACT/CONTRACTOR CONTACT - TBD

SWPPP AND INSPECTION REPORTS LOCATION

NOTE: THE SWPPP AND INSPECTION REPORTS WILL BE KEPT ON-SITE IN THE JOB TRAILER/FOREMAN'S PICK-UP.

WASTE DISPOSAL NOTE

CONTAINERS (e.g. DUMPSTERS, DRUMS) MUST BE AVAILABLE FOR THE DISPOSAL OF DEBRIS, TRASH, HAZARDOUS MATERIAL AND PETROLEUM WASTES. ALL CONTAINERS MUST BE COVERED AND LEAK-PROOF.

CLEAN HARD FILL NOTE

NO CLEAN CONSTRUCTION WASTES SHALL BE DISPOSED OF INTO THE PROPERTY.

FUELING AND STAGING NOTE

CONTRACTOR'S STAGING AND STORAGE AREA WILL BE LOCATED WITHIN CONSTRUCTION LIMITS OF THE PROJECT. FUEL TANKS AND OTHER HAZARDOUS MATERIALS TO BE SAFELY STORED, PROTECTED, AND PROPERLY HANDLED BY CONTRACTOR. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ENSURE NO POLLUTANTS FROM THE STAGING/STORAGE AREA LEAVE THE SITE OR ENTER ADJACENT SURFACE WATERS OR THE STORM SYSTEM. CONTRACTOR SHALL CLEAN UP AND PROPERLY DISPOSE OF ANY WASTE MATERIALS.

SOIL STOCKPILE NOTE

CONTRACTOR'S SHALL LOCATE SOIL STOCKPILE AREAS WITHIN THE PROJECT AREA SO AS NOT TO BE WITHIN THE IMMEDIATE PROXIMITY OF ANY SURFACE WATERS OR STORM INLET STRUCTURES. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ENSURE NO POLLUTANTS FROM THE STOCKPILE AREA LEAVE THE SITE OR ENTER ADJACENT SURFACE WATERS OR THE STORM SYSTEM. THESE MEASURES MAY INCLUDE BUT SHALL NOT BE LIMITED TO INSTALLING FILTER FABRIC FENCE AROUND STOCKPILE, TEMPORARILY COVERING THE STOCKPILE AND/OR TEMPORARILY SEEDING THE STOCKPILE.

DEWATERING NOTE

PUMPING OF SEDIMENT LADEN WATER FROM TRENCHES OR ANY OTHER EXCAVATIONS DIRECTLY INTO ANY SURFACE WATERS, DITCH OR STREAM CORRIDORS, ANY WETLANDS OR STORM SEWERS IS PROHIBITED. ALL SUCH WATER SHALL BE PROPERLY FILTERED OR SETTLED TO REMOVE SOIL PARTICLES PRIOR TO ITS RELEASE. IF AN AREA OF THE SITE OR TRENCH NEEDS DEWATERED, IT SHOULD BE PUMPED FROM A SUMP PIT WITH A SOCK FILTER OR OTHER TYPE OF FILTERING DEVICE ON THE DISCHARGE OF THE HOSE. DO NOT ALLOW DISCHARGED WATER TO PASS OVER DISTURBED GROUND. IF THE DISCHARGE WATER IS BEING PUMPED INTO A SEDIMENT POND THEN NO FILTER IS REQUIRED AT THE END OF THE HOSE. IF THE GROUNDWATER MUST BE LOWERED, THE WATER MAY BE FREELY DISCHARGED AS LONG AS THE WATER REMAINS CLEAN. DO NOT CO-MINGLE CLEAN GROUND WATER WITH SEDIMENT LADEN WATER OR DISCHARGE IT BY ALLOWING IT TO PASS OVER DISTURBED GROUND.

LOG/DOCUMENTATION SHEETS

AS PART OF THE SWPPP, THE CONTRACTOR SHALL MAINTAIN LOG/DOCUMENTATION SHEETS FOR THE FOLLOWING:
1) A SIGNATURE LOG CONTAINING THE SIGNATURES OF ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED IN THE IMPLEMENTATION OF THE SWPPP AS PROOF ACKNOWLEDGING THAT THEY REVIEWED AND UNDERSTAND THE CONDITIONS AND RESPONSIBILITIES OF THE SWPPP.
2) A GRADING AND STABILIZATION LOG DOCUMENTING THE PROJECTS GRADING AND STABILIZATION ACTIVITIES AND
3) A SWPPP AMENDMENT LOG DOCUMENTING CHANGES/AMENDMENTS TO THE SWPPP, WHICH OCCUR AFTER CONSTRUCTION ACTIVITIES COMMENCE.

Choice One Engineering

2633 CAMPBELL ROAD ♦ SIDNEY, OHIO 45365 ♦ 937.497.0200
6279 TRI-RIDGE BOULEVARD, SUITE 100 ♦ LOVELAND, OHIO 45140 ♦ 513.239.8554

www.CHOICEONEENGINEERING.com

MAY 15, 2026

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF THE CONSTRUCTION OF STREETS, UTILITIES AND GRADING FOR SHAW FARM SUBDIVISION - SECTION 1, 2, AND 3, IN THE CITY OF PIQUA, MIAMI COUNTY, OHIO.

PROJECT WORK CONSTRUCTION DATES

START: FALL 2026
ESTIMATED COMPLETION: FALL 2027

EROSION CONTROL NOTES

A. INSTALL AND MAINTAIN FILTER FABRIC FENCE AND INLET PROTECTION WHERE SHOWN AND AS NEEDED TO MINIMIZE SEDIMENT LADEN WATER FROM LEAVING THE SITE OR ENTERING ANY STORM SYSTEM, ADJACENT DITCHES, STREAMS ETC. IF STORMWATER RUNOFF CONTAINING SEDIMENTS IS FOUND TO BE LEAVING THE PROJECT SITE IN AN AREA WHERE NO BMP/CONTROL MEASURE IS SHOWN OR IN PLACE, CONTRACTOR SHALL IMMEDIATELY INSTALL THE APPROPRIATE BMP/CONTROL MEASURE AS NEEDED TO REMEDY THE SITUATION (TYP. INLET PROTECTION, FILTER FABRIC FENCE, ETC.).

B. INSTALL INLET PROTECTION ON ALL STORM INLET STRUCTURES (YARD DRAINS, CATCH BASINS, MANHOLES WITH GRATED LIDS, ETC.) AND TO ANY EXISTING STORM STRUCTURES WITHIN THE PROJECT AREA WHICH MAY RECEIVE RUNOFF FROM THE CONSTRUCTION SITE AS NEEDED. INLET PROTECTION MAY CONSIST OF DEVICES SUCH AS SEDCAGE (WWW.SEDCATCH.COM), DANDY BAGS, SEDIGUARD FILTERS, FLEXSTORM INLET FILTERS, SEDIMENT FENCE OR OTHER DEVICES WHICH ARE EFFECTIVE AT MINIMIZING THE AMOUNT OF SEDIMENT ENTERING THE STRUCTURE.

C. CONTRACTOR IS RESPONSIBLE FOR IMMEDIATELY CLEANING UP ANY MUD, DIRT AND DEBRIS WHICH IS TRACKED OR SPILLED ONTO THE ROADWAYS.

D. PRE CONSTRUCTION - CONTRACTOR IS RESPONSIBLE TO INSTALL A CONSTRUCTION ENTRANCE AS NEEDED TO MINIMIZE ANY MUD, DIRT AND DEBRIS TRACKED ONTO THE ROADWAYS.

E. DURING CONSTRUCTION - THE CONTRACTOR MUST MAINTAIN EROSION CONTROL UNTIL AREA IS STABILIZED INCLUDING TEMPORARY SEEDING AS NEEDED. CONTRACTOR SHALL TEMPORARYILY SEED ALL CRITICAL EXPOSED SLOPES TO MINIMIZE SEDIMENT RUNOFF.

F. FINAL/POST CONSTRUCTION - CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED AREAS. CONTRACTOR SHALL ENSURE GRASS IS PERMANENTLY AND PROPERLY ESTABLISHED IN ALL AREAS WHERE GRASS IS SPECIFIED. ALL SEDIMENT AND EROSION CONTROL STRUCTURES, INCLUDING SEDIMENT FENCE, SHALL REMAIN IN PLACE UNTIL GRASS IS IN PLACE AND SITE IS STABILIZED. ONCE SITE IS STABILIZED AND ALL CONSTRUCTION IS COMPLETE, ALL SEDIMENT FENCE, INLET PROTECTION AND ANY OTHER TEMPORARY BMP'S SHALL BE REMOVED FROM THE SITE.

BMP NOTES

FOR ALL BMP'S INSTALLED, ENSURE THAT THE PONDING OF WATER BEHIND THE BMP WILL NOT DAMAGE PROPERTY OR POSE A SAFETY THREAT. IF PERIODIC INSPECTIONS OR OTHER INFORMATION INDICATES A CONTROL MEASURE/BMP HAS BEEN USED INAPPROPRIATELY, THE CONTRACTOR MUST REPLACE AND ADJUST THE CONTROL/BMP TO MEET SITE CONDITIONS AS REQUIRED. THE CONTRACTOR SHALL ADJUST THE SWPPP AND ITS CONTROLS/BMPS AND THEIR QUANTITIES TO MEET FIELD CONDITIONS AND THE OHIO EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION ACTIVITIES GENERAL PERMIT.

MAINTENANCE NOTE

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO ENSURE ALL TEMPORARY AND PERMANENT CONTROL PRACTICES SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ENSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. ALL SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED IN A FUNCTIONAL CONDITION UNTIL ALL UP-SLOPE AREAS THEY CONTROL ARE PERMANENTLY STABILIZED. THE SWP3 SHALL BE DESIGNED TO MINIMIZE MAINTENANCE REQUIREMENTS. THE APPLICANT SHALL PROVIDE A DESCRIPTION OF MAINTENANCE PROCEDURES NEEDED TO ENSURE THE CONTINUED PERFORMANCE OF CONTROL PRACTICES.

SWPPP AND INSPECTION AVAILABILITY AND UPDATES NOTE

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO ENSURE THE IMMEDIATE AVAILABILITY OF THE SWPPP AND INSPECTION REPORTS ON-SITE. THE CONTRACTOR SHALL ALSO BE SOLELY RESPONSIBLE TO PERFORM AND DOCUMENT ALL REQUIRED SWPPP INSPECTIONS AND ALL UPDATES AND AMENDMENTS TO THE SWPPP.

DOCUMENTATION AND GOVERNMENT INSPECTION NOTE

CONTRACTOR(S) SHALL PROVIDE THE OWNER'S REPRESENTATIVE A WRITTEN COPY OF THEIR CO-PERMITTEE APPLICATION AND ANY OTHER DOCUMENTATION THE CONTRACTOR(S) MAY SEND OR RECEIVE FROM THE OEPA OR ANY OTHER GOVERNING AUTHORITIES.

IF AN INSPECTOR OR REPRESENTATIVE FROM THE OEPA OR ANY OTHER GOVERNING AUTHORITY IS ON-SITE, THE CONTRACTOR SHALL IMMEDIATELY CONTACT AND NOTIFY THE OWNER'S REPRESENTATIVE.

Choice One Engineering

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3- SWPPP

REVISIONS:

FILE NAME	SWPPP COVER
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
SHEET NUMBER	1 OF 6

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_SWPPP.dwg 18-Jun-26 8:52 AM

IMPLEMENTATION SCHEDULE (EROSION CONSTRUCTION SEQUENCE)

THE CONTRACTOR OR ITS APPOINTED REPRESENTATIVES WILL ASSUME RESPONSIBILITY FOR INSTALLATION, INSPECTION AND MAINTENANCE OF ALL SOIL EROSION CONTROL MEASURES DURING CONSTRUCTION. THE INSTALLATION OF THE SOIL EROSION CONTROL MEASURES WILL BE COMPLETED, AS FOLLOWS:

A. PRIOR TO ANY GRADING OR EARTHWORK:
A-1. SILT FENCE AND INLET PROTECTION (ON EX. STORM STRUCTURES) TO BE INSTALLED AS SHOWN ON SWPPP
A-2. INSTALL CONSTRUCTION ENTRANCE(S) IF NEEDED AS SHOWN ON SWPPP. INSTALLATION OF ALL OTHER EROSION AND SEDIMENT CONTROL MEASURES, E.G. ROCK CHECK DAMS, CONCRETE WASHOUT PIT, SEDIMENT BASIN, ETC.

B. PERFORM ROUGH GRADING, INSTALL UTILITIES, BUILDINGS, PAVEMENT:
B-1. CLEAR AND GRUB AREA AS NEEDED
B-2. PERFORM SITE GRADING. INSTALL BUILDING(S)
B-3. INSTALL SANITARY, STORM, WATER LINES, OTHER UTILITIES, GRAVEL BASE, AND CURB AND GUTTER, AS PER PLAN(S), INSTALL INLET PROTECTION ON ALL PROPOSED STORM INLET STRUCTURES AS INDICATED ON THE PLANS AS SOON AS THEY ARE INSTALLED.
B-4 PERFORM TEMPORARY SEEDING AS NEEDED ON ANY DISTURBED AREAS PER THE TIME REQUIREMENTS FOR TEMPORARY SEEDING SPECIFIED ON THIS DRAWING.
B-5 INSTALL PAVEMENT.

C. PERFORM FINAL GRADING:
C-1. PLACE TOPSOIL AND PERFORM FINAL RAKING AND GRADING ON ALL DISTURBED AREAS.
C-2. ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED (SEEDED AND/OR MULCHED).
C-3. CLEAN UP SITE, AND ONCE SITE HAS REACHED FINAL STABILIZATION REMOVE ALL TEMPORARY BMP'S.

NOTES: A) CARE WILL BE TAKEN NOT TO DISTURB ANY EXISTING NATURAL VEGETATION NOT INVOLVED IN THE CONSTRUCTION PROCESS, WHENEVER POSSIBLE. B) TIMELY INSPECTIONS OF THE EROSION CONTROL MEASURES WILL BE MADE, BY THE CONTRACTOR, EVERY 7 DAYS, AND/OR AFTER ANY RAINFALL OF AT LEAST 1/2" IN A 24-HOUR PERIOD. REPORTS MUST BE KEPT ON-SITE AND SUPPLIED TO THE GOVERNING AUTHORITY IF REQUESTED.

INSPECTION SCHEDULE

A. THE SITE WILL BE INSPECTED PER OHIO EPA PERMIT No. OHC000006:

PART III.G.2.J
INSPECTIONS. THE PERMITTEE SHALL ASSIGN QUALIFIED INSPECTION PERSONNEL TO CONDUCT INSPECTIONS TO ENSURE THAT THE CONTROL PRACTICES ARE FUNCTIONAL AND TO EVALUATE WHETHER THE SWP3 IS ADEQUATE AND PROPERLY IMPLEMENTED IN ACCORDANCE WITH THE SCHEDULE PROPOSED IN PART III.G.1.H OF THE OHC000006 PERMIT OR WHETHER ADDITIONAL CONTROL MEASURES ARE REQUIRED. AT A MINIMUM, PROCEDURES IN A SWP3 SHALL PROVIDE THAT ALL CONTROLS ON THE SITE ARE INSPECTED:
* AFTER ANY STORM EVENT GREATER THAN ONE-HALF INCH OF RAIN PER 24-HOUR PERIOD BY THE END OF THE NEXT CALENDAR DAY, EXCLUDING WEEKENDS AND HOLIDAYS UNLESS WORK IS SCHEDULED; AND
* ONCE EVERY SEVEN CALENDAR DAYS.

THE INSPECTION FREQUENCY MAY BE REDUCED TO AT LEAST ONCE EVERY MONTH FOR DORMANT SITES IF:
* THE ENTIRE SITE IS TEMPORARILY STABILIZED OR
* RUNOFF IS UNLIKELY DUE TO WEATHER CONDITIONS FOR EXTENDED PERIODS OF TIME (E.G. SITE IS COVERED WITH SNOW, ICE, OR THE GROUND IS FROZEN).

THE BEGINNING AND ENDING DATES OF ANY REDUCED INSPECTION FREQUENCY SHALL BE DOCUMENTED IN THE SWP3. ONCE A DEFINABLE AREA HAS ACHIEVED FINAL STABILIZATION, THE AREA MAY BE MARKED ON THE SWP3 AND NO FURTHER INSPECTION REQUIREMENTS SHALL APPLY TO THAT PORTION OF THE SITE.

FOLLOWING EACH INSPECTION, A CHECKLIST MUST BE COMPLETED AND SIGNED BY THE QUALIFIED INSPECTION PERSONNEL REPRESENTATIVE. AT A MINIMUM, THE INSPECTION REPORT SHALL INCLUDE:
i. THE INSPECTION DATE;
ii. NAMES, TITLES, AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION;
iii. WEATHER INFORMATION FOR THE PERIOD SINCE THE LAST INSPECTION (OR SINCE COMMENCEMENT OF CONSTRUCTION ACTIVITY IF THE FIRST INSPECTION) INCLUDING A BEST ESTIMATE OF THE BEGINNING OF EACH STORM EVENT, DURATION OF EACH STORM EVENT, APPROXIMATE AMOUNT OF RAINFALL FOR EACH STORM EVENT (IN INCHES), AND WHETHER ANY DISCHARGES OCCURRED;
iv. WEATHER INFORMATION AND A DESCRIPTION OF ANY DISCHARGES OCCURRING AT THE TIME OF THE INSPECTION;
v. LOCATION(S) OF DISCHARGES OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE;
vi. LOCATION(S) OF BMPS THAT NEED TO BE MAINTAINED;
vii. LOCATION(S) OF BMPS THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION;
viii. LOCATION(S) WHERE ADDITIONAL BMPS ARE NEEDED THAT DID NOT EXIST AT THE TIME OF INSPECTION; AND
ix. CORRECTIVE ACTION REQUIRED INCLUDING ANY CHANGES TO THE SWP3 NECESSARY AND IMPLEMENTATION DATES.

DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF OR THE POTENTIAL FOR POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE SWP3 SHALL BE OBSERVED TO ENSURE THAT THOSE ARE OPERATING CORRECTLY. DISCHARGE LOCATIONS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE VEHICLE TRACKING.

THE PERMITTEE SHALL MAINTAIN FOR THREE YEARS FOLLOWING THE SUBMITTAL OF A NOTICE OF TERMINATION FORM, A RECORD SUMMARIZING THE RESULTS OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, MALFUNCTION & OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE SWP3 AND A CERTIFICATION AS TO WHETHER THE FACILITY IS IN COMPLIANCE WITH THE SWP3 AND THE PERMIT AND IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE. THE RECORD AND CERTIFICATION SHALL BE SIGNED IN ACCORDANCE WITH PART V.G. OF THIS PERMIT.

i. WHEN PRACTICES REQUIRE REPAIR OR MAINTENANCE. IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE IS IN NEED OF REPAIR OR MAINTENANCE, WITH THE EXCEPTION OF A SEDIMENT SETTLING POND, IT SHALL BE REPAIRED OR MAINTAINED WITHIN 3 DAYS OF THE INSPECTION. SEDIMENT SETTLING PONDS SHALL BE REPAIRED OR MAINTAINED WITHIN 10 DAYS OF THE INSPECTION.

ii. WHEN PRACTICES FAIL TO PROVIDE THEIR INTENDED FUNCTION. IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE FAILS TO PERFORM ITS INTENDED FUNCTION AND THAT ANOTHER, MORE APPROPRIATE CONTROL PRACTICE IS REQUIRED, THE SWP3 SHALL BE AMENDED AND THE NEW CONTROL PRACTICE SHALL BE INSTALLED WITHIN 10 DAYS OF THE INSPECTION.

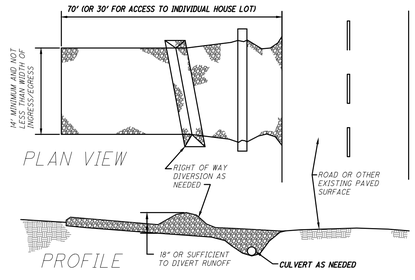
iii. WHEN PRACTICES DEPICTED ON THE SWP3 ARE NOT INSTALLED. IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE HAS NOT BEEN IMPLEMENTED IN ACCORDANCE WITH THE SCHEDULE CONTAINED IN PART III.G.1.H OF THIS PERMIT, THE CONTROL PRACTICE SHALL BE IMPLEMENTED WITHIN 10 DAYS FROM THE DATE OF THE INSPECTION. IF THE INSPECTION REVEALS THAT THE PLANNED CONTROL PRACTICE IS NOT NEEDED, THE RECORD SHALL CONTAIN A STATEMENT OF EXPLANATION AS TO WHY THE CONTROL PRACTICE IS NOT NEEDED.

B. VEGETATIVE PLANTINGS - SPRING PLANTINGS WILL BE CHECKED DURING SUMMER OR EARLY FALL.
C. REPAIRS - ANY EROSION CONTROL MEASURES, STRUCTURAL MEASURES, OR OTHER RELATED ITEMS IN NEED OF REPAIR WILL BE MADE WITHIN 7 DAYS.
D. MOWING - DRAINAGE WAYS, DITCHES, AND OTHER AREAS THAT SUPPORT A DESIGNED FLOW OF WATER WILL BE MOWED REGULARLY TO MAINTAIN THAT FLOW.
E. FERTILIZATION - SEEDED AREAS WHERE THE SEED HAS NOT PRODUCED A GOOD COVER WILL BE INSPECTED AND FERTILIZED AS NECESSARY.

CONSTRUCTION ENTRANCE

A. STONE SIZE - 2" STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT.
B. LENGTH - THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS, BUT NOT LESS THAN 70' (EXCEPT ON SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH APPLIES).
C. THICKNESS - THE STONE LAYER SHALL BE AT LEAST 6" THICK.
D. WIDTH - THE ENTRANCE SHALL BE AT LEAST 10' WIDE, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
E. BEDDING - A GEOTEXTILE SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL HAVE A GRAB TENSILE STRENGTH OF AT LEAST 200 LBS. AND A MULLEN BURST STRENGTH OF AT LEAST 190 LBS.
F. CULVERT - A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE, IF NEEDED, TO PREVENT SURFACE WATER FLOWING ACROSS THE ENTRANCE FROM BEING DIRECTED OUT ONTO PAVED SURFACES (IF DRIVE IS PLACED ACROSS A DITCH).
G. WATER BAR - A WATER BAR SHALL BE CONSTRUCTED AS PART OF THE CONSTRUCTION ENTRANCE, IF NEEDED TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO PAVED SURFACES (IF DRIVE IS PLACED ON A SLOPE).
H. MAINTENANCE - TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING.
I. CONSTRUCTION ENTRANCE SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFFSITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION SITE SHALL BE RESTRICTED FROM MUDDY AREAS.
J. CONSTRUCTION ENTRANCES ARE INSTALLED TO MINIMIZE OFFSITE TRACKING OF SEDIMENTS. A STONE ACCESS DRIVE SHOULD BE INSTALLED AT EVERY POINT WHERE VEHICLES ENTER OR EXIT THE SITE. EVERY INDIVIDUAL LOT SHOULD ALSO HAVE ITS OWN DRIVE ONCE CONSTRUCTION ON THE LOT BEGINS.

NOTE: ALTERNATIVE STABILIZATION METHODS FOR CONSTRUCTION ENTRANCE/EXIT SUCH AS MANUFACTURED STEEL PLATES, GRID PLATES, ETC. OR STEEL PIPES/GRATINGS WILL ALSO BE CONSIDERED BUT WILL REQUIRE WRITTEN APPROVAL FROM THE OWNER PRIOR TO THE USE OF SUCH ALTERNATIVE METHODS AS ON-SITE CONSTRUCTION ENTRANCES/EXIT. ANY PROPOSED ALTERNATIVE METHODS SHALL SHALL BE SHOWN TO EFFECTIVELY REMOVE MUD AND DEBRIS FROM VEHICLE WHEELS PRIOR TO EXITING THE SITE.



CONSTRUCTION ENTRANCE DETAIL

NON-SEDIMENT POLLUTION CONTROL

A. CONSTRUCTION PERSONNEL, INCLUDING SUBCONTRACTORS WHO MAY USE OR HANDLE HAZARDOUS OR TOXIC MATERIALS, SHALL BE MADE AWARE OF THE FOLLOWING GENERAL GUIDELINES:

DISPOSAL AND HANDLING OF HAZARDOUS AND OTHER CONSTRUCTION WASTE

DO:
* PREVENT SPILLS
* USE PRODUCTS UP
* FOLLOW LABEL DIRECTIONS FOR DISPOSAL
* REMOVE LIDS FROM EMPTY BOTTLES AND CANS WHEN DISPOSING IN TRASH
* RECYCLE WASTE WHENEVER POSSIBLE

DON'T
* DON'T POUR INTO WATERWAYS, STORM DRAINS, OR ONTO THE GROUND
* DON'T POUR DOWN THE SINK, FLOOR DRAIN, OR SEPTIC TANKS
* DON'T BURY CHEMICALS OR CONTAINERS
* DON'T BURN CHEMICALS OR CONTAINERS
* DON'T MIX CHEMICALS TOGETHER

B. CONTAINERS SHALL BE PROVIDED FOR COLLECTION OF ALL WASTE MATERIAL INCLUDING CONSTRUCTION DEBRIS, TRASH, PETROLEUM, AND ANY HAZARDOUS MATERIALS TO BE USED ON SITE. ALL WASTE MATERIAL SHALL BE DISPOSED OF AT FACILITIES APPROVED FOR THAT MATERIAL.

C. NO WASTE MATERIALS SHALL BE BURIED ON SITE. SITE PERSONNEL, INCLUDING SUBCONTRACTORS, SHALL BE NOTIFIED THAT NO CONSTRUCTION-RELATED MATERIALS ARE TO BE BURIED ON SITE.

D. MIXING, PUMPING, TRANSFERRING, OR OTHERWISE HANDLING CONSTRUCTION CHEMICALS SUCH AS FERTILIZER, LIME, ASPHALT, CONCRETE DRYING COMPOUNDS, AND ALL OTHER POTENTIALLY HAZARDOUS MATERIALS SHALL BE PERFORMED IN AN AREA AWAY FROM ANY WATERCOURSE, DITCH, OR STORM DRAIN.

E. EQUIPMENT FUELING AND MAINTENANCE, OIL CHANGING, ETC., SHALL BE PERFORMED AWAY FROM WATERCOURSES, DITCHES, OR STORM DRAINS, IN AN AREA DESIGNATED FOR THAT PURPOSE. THE DESIGNATED AREA SHALL BE EQUIPPED FOR RECYCLING OIL AND CATCHING SPILLS.

F. CONCRETE WASH WATER SHALL NOT BE ALLOWED TO FLOW TO STREAMS, DITCHES, STORM DRAINS, OR ANY OTHER WATER CONVEYANCE. A SUMP OR PIT SHALL BE CONSTRUCTED IF NEEDED TO CONTAIN CONCRETE WASH WATER.

G. IF HAZARDOUS SUBSTANCES SUCH AS OIL, DIESEL FUEL, HYDRAULIC FLUID, ANTIFREEZE, ETC. ARE SPILLED, LEAKED, OR RELEASED ONTO THE SOIL, THE SOIL SHOULD BE DUG UP AND DISPOSED OF WITH THE TRASH AT A LICENSED SANITARY LANDFILL (NOT A CONSTRUCTION/DEMOLITION DEBRIS LANDFILL). SPILLS ON PAVEMENT SHALL BE ABSORBED WITH SAWDUST OR KITTY LITTER AND DISPOSED OF WITH THE TRASH AT A LICENSED SANITARY LANDFILL. HAZARDOUS OR INDUSTRIAL WASTES SUCH AS MOST SOLVENTS, GASOLINE, OIL-BASED PAINTS, AND CEMENT CURING COMPOUNDS REQUIRE SPECIAL HANDLING. CONTACT OHIO EPA (1-800-282-9378).

H. SPILLS OF 25 GAL. OR MORE OF PETROLEUM PRODUCTS SHALL BE REPORTED TO OHIO EPA (1-800-282-9378), THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE WITHIN 30 MIN. OF THE DISCOVERY OF THE RELEASE.

I. STREETS NEED TO BE SWEPT AS OFTEN AS NECESSARY TO KEEP THEM CLEAN AND FREE FROM SEDIMENT. SEDIMENT TO BE SWEPT BACK ONTO THE LOT - NOT DOWN THE STORM SEWER.

J. STOCKPILES OF SOIL AND OTHER MATERIALS SHALL BE STORED AWAY FROM WATERCOURSES, DITCHES, OR STORM DRAINS, AND SHALL HAVE EROSION CONTROL MATERIALS PLACED AROUND THEM.

K. ALL STREAM CROSSINGS SHALL BE CONSTRUCTED ENTIRELY OF NON-ERODIBLE MATERIAL.

PROCESS WASTEWATER/LEACHATE MANAGEMENT NOTE

ALL PROCESS WASTEWATERS (e.g. EQUIPMENT WASHING, LEACHATE ASSOCIATED WITH ON-SITE WASTE DISPOSAL, AND CONCRETE WASH-OUTS) MUST BE COLLECTED AND DISPOSED OF PROPERLY (e.g. TO A PUBLICLY-OWNED TREATMENT WORKS). THE NPDES CONSTRUCTION STORM WATER GENERAL PERMIT ONLY AUTHORIZES THE DISCHARGE OF STORM WATER AND CERTAIN UNCONTAMINATED NON-STORM WATERS. THE DISCHARGE OF NON-STORM WATERS TO WATERS OF THE STATE MAY BE IN VIOLATION OF LOCAL, STATE, AND FEDERAL LAWS OR REGULATIONS.

HANDLING OF TOXIC OR HAZARDOUS MATERIALS NOTE

NO SOLID, SANITARY, OR TOXIC WASTE IS TO BE DISPOSED OF ON THE PROJECT SITE. RECYCLING OF USED OR UNUSED HAZARDOUS MATERIALS SHALL NOT OCCUR ON SITE EITHER. AREAS DESIGNATED FOR CEMENT TRUCK WASHOUTS, AND VEHICLE FUELING SHALL NOT TAKE PLACE ON PARKING LOT BASE.

CONSTRUCTION CHEMICAL COMPOUNDS NOTE

NO MIXING OF STORAGE OF CHEMICAL COMPOUNDS SUCH AS FERTILIZERS, LIME, ASPHALT, OR CONCRETE ARE PERMITTED TO TAKE PLACE ON-SITE. ALL MIXING SHALL TAKE PLACE BEFORE ENTERING THE SITE.

CONSTRUCTION & DEMOLITION DEBRIS NOTE

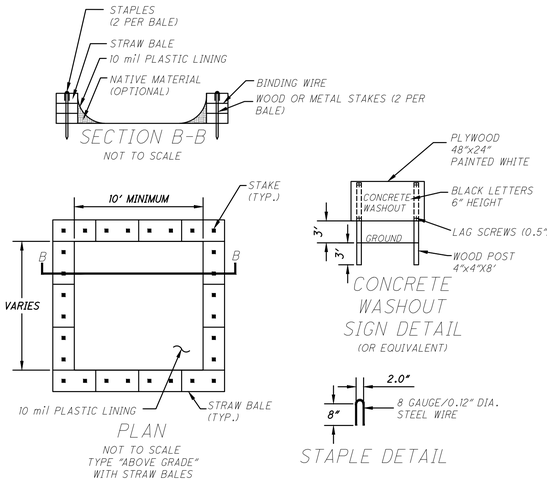
ALL CONSTRUCTION AND DEMOLITION DEBRIS (C&DD) WASTE SHALL BE DISPOSED OF IN AN OHIO EPA APPROVED C&DD LANDFILL AS REQUIRED BY OHIO REVISED CODE (ORC) 3714. MATERIALS WHICH CONTAIN ASBESTOS MUST COMPLY WITH AIR POLLUTION REGULATIONS (SEE OHIO ADMINISTRATIVE CODE 3745-20).

CONTAMINATED SOILS NOTE

SOILS CONTAMINATED BY PETROLEUM OR OTHER CHEMICAL SPILLS SHALL BE HANDLED AND DISPOSED OF PROPERLY. ALL CONTAMINATED SOILS MUST BE TREATED AND/OR DISPOSED OF IN AN OHIO EPA APPROVED SOLID WASTE MANAGEMENT FACILITY OR HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITY (TSDFs). IF CONTAMINATION HAPPENS TO OCCUR, TARPS ARE TO BE USED TO PREVENT STORM WATER FROM COMING INTO CONTACT WITH THE MATERIAL.

CONCRETE WASHOUT NOTE

CONCRETE WASHOUT OPERATIONS SHALL TAKE PLACE WITHIN THE PROPOSED PROJECT AREA UTILIZING THE CONTRACTOR'S PORTABLE CONCRETE WASHOUT CONTAINER OR WITHIN A BERMED/CONTAINED AREA. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ENSURE WASHOUT MATERIAL DOES NOT LEAVE THE WASHOUT AREA OR ENTER THE STORM SYSTEM. CONTRACTOR SHALL CLEAN UP AND PROPERLY DISPOSE OF ALL LEFTOVER WASHOUT MATERIAL.



CONCRETE WASHOUT DETAIL

DUST CONTROL

DUST CONTROL SHALL BE PROVIDED AS NEEDED TO PREVENT SEDIMENT FROM BECOMING AIRBORNE. MEASURES SHALL INCLUDE WATERING VIA A WATER TRUCK OR OTHER WATERING DEVICE AS NEEDED TO REDUCE AND/OR ELIMINATE AIRBORNE DUST CREATED BY CONSTRUCTION AND CONSTRUCTION RELATED ACTIVITIES.

CONSTRUCTION OF A FILTER BARRIER (SILT FENCE)

A. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.

B. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.

C. TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UPSLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.

D. WHERE POSSIBLE, SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.

E. WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5' (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.

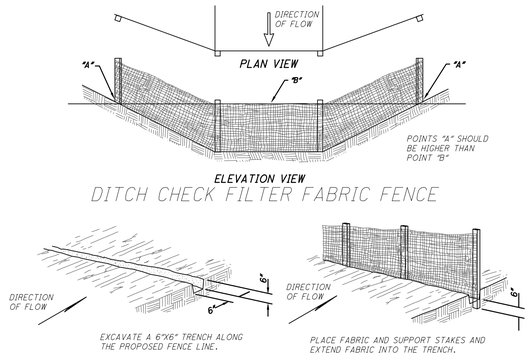
F. THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16" ABOVE THE ORIGINAL GROUND SURFACE.

G. THE SILT FENCE SHALL BE PLACED IN A TRENCH CUT A MINIMUM OF 6" DEEP. THE TRENCH SHALL BE CUT WITH A TRENCHER, CABLE LAYING MACHINE, OR OTHER SUITABLE DEVICE WHICH WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.

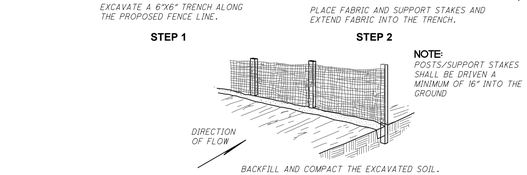
H. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE AND SO THAT 8" OF CLOTH IS BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6" DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED.

I. SEAMS BETWEEN SECTIONS OF SILT FENCE SHALL BE OVERLAPPED WITH THE END STAKES OF EACH SECTION WRAPPED TOGETHER BEFORE DRIVING INTO THE GROUND.

J. MAINTENANCE - SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. ALL THE GAPS AND TEARS IN THE FENCE MUST BE ELIMINATED AND REPAIRED. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: 1) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, 2) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR 3) OTHER PRACTICES SHALL BE INSTALLED.



DITCH CHECK FILTER FABRIC FENCE



DITCH CHECK FILTER FABRIC FENCE

FILTER FABRIC FENCE DETAIL

CRITERIA FOR SILT FENCE MATERIAL

A. FENCE POSTS - THE LENGTH SHALL BE A MINIMUM OF 48" LONG. WOOD POSTS WILL BE 2"-BY-2" HARDWOOD OF SOUND QUALITY. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 5'. POSTS/SUPPORT STAKES SHALL BE DRIVEN A MINIMUM OF 16" INTO THE GROUND.

B. SILT FENCE FABRIC SHALL CONFORM TO THE AASHTO SILT FENCE SPECIFICATION 100X AND SHALL HAVE A MINIMUM 100# GRAB TENSILE. SILT FENCE SHALL ALSO CONFORM TO THE MOST RECENT ODOT STANDARD FOR SEDIMENT/SILT FENCE (TABLE 712.09-1)

C. SILT FENCE SHALL BE ATTACHED TO THE WOODEN POSTS WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PERMANENT STABILIZATION

ALL AREAS AT FINAL GRADE MUST BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF REACHING FINAL GRADE. THIS IS USUALLY ACCOMPLISHED BY USING SEED AND MULCH, BUT SPECIAL MEASURES ARE SOMETIMES REQUIRED. THIS IS PARTICULARLY TRUE IN DRAINAGE DITCHES/SWALES, LOW AREAS, DETENTION POND BOTTOMS AND SIDES OR ON STEEP SLOPES. THESE MEASURES INCLUDE, BUT ARE NOT LIMITED TO, THE INSTALLATION OF EROSION CONTROL BLANKETS AND/OR MATTING, ADDITION OF TOPSOIL, OR ROCK RIP-RAP. CONTRACTOR SHALL UTILIZE THESE AND ANY OTHER SPECIAL MEASURES AS NEEDED TO PERMANENTLY STABILIZE THE SITE. PERMANENT SEEDING SHOULD BE DONE MARCH 1 TO MAY 31 AND AUGUST 1 TO SEPTEMBER 30. DORMANT SEEDING CAN BE DONE FROM NOVEMBER 20 TO MARCH 15. AT ALL OTHER TIMES OF THE YEAR, THE AREA SHOULD BE TEMPORARILY STABILIZED UNTIL A PERMANENT SEEDING CAN BE APPLIED.

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY AREAS THAT WILL LIE DORMANT FOR ONE YEAR OR MORE.	WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE.
ANY AREAS WITHIN 50' OF A SURFACE WATER OF THE STATE (STREAM, WATERWAY, WATER BODY, ETC.) AND AT FINAL GRADE	WITHIN 2 DAYS OF REACHING FINAL GRADE
ANY OTHER AREAS AT FINAL GRADE.	WITHIN 7 DAYS OF REACHING FINAL GRADE WITHIN THAT AREA.

SOILS EXPOSED NOTE

CONTRACTOR SHALL PLAN AND IMPLEMENT CONSTRUCTION AND GRADING ACTIVITIES TO MINIMIZE THE AMOUNT OF SOIL EXPOSED DURING CONSTRUCTION ACTIVITIES.

TEMPORARY SEEDING SPECIES SELECTION			
SEEDING DATES	SPECIES	L.B./1000 SQ. FT.	PER ACRE
MARCH 1 TO AUGUST 15	OATS	3	4 BUSHELS
	TALL FESCUE	1	40 LBS.
	ANNUAL RYEGRASS	1	40 LBS.
	PERENNIAL RYEGRASS	1	40 LBS.
	TALL FESCUE	1	40 LBS.
	ANNUAL RYEGRASS	1	40 LBS.
AUGUST 16 TO NOVEMBER 1	RYE	3	2 BUSHELS
	TALL FESCUE	1	40 LBS.
	ANNUAL RYEGRASS	1	40 LBS.
	WHEAT	1	2 BUSHELS
	TALL FESCUE	1	40 LBS.
	ANNUAL RYEGRASS	1	40 LBS.
	PERENNIAL RYEGRASS	1	40 LBS.
	TALL FESCUE	1	40 LBS.
	ANNUAL RYEGRASS	1	40 LBS.
NOVEMBER 1 TO SPRING SEEDING	USE MULCH ONLY, SODDING PRACTICES OR DORMANT SEEDING		
NOTE: OTHER APPROVED SEED SPECIES MAY BE SUBSTITUTED.			

SPECIFICATIONS FOR TEMPORARY SEEDING

A. TO MINIMIZE COSTS OF TEMPORARY STABILIZATION, LEAVE NATURAL COVER IN PLACE FOR AS LONG AS POSSIBLE. ONLY DISTURB AREAS YOU INTEND TO WORK WITHIN THE NEXT 14 DAYS.

B. STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS AND SEDIMENT TRAPS SHALL BE INSTALLED AND STABILIZED WITH TEMPORARY SEEDING PRIOR TO GRADING THE REST OF THE CONSTRUCTION SITE.

C. THE SEEDBED SHOULD BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION. HOWEVER, TEMPORARY SEEDING SHALL NOT BE POSTPONED IF IDEAL SEEDBED PREPARATION IS NOT POSSIBLE.

D. SOIL AMENDMENTS - APPLICATIONS OF TEMPORARY VEGETATION SHALL ESTABLISH ADEQUATE STANDS OF VEGETATION WHICH MAY REQUIRE THE USE OF SOIL AMENDMENTS. SOIL TESTS SHOULD BE TAKEN ON THE SITE TO PREDICT THE NEED FOR LIME AND FERTILIZER.

E. SEEDING METHOD - SEED SHALL BE APPLIED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. WHEN FEASIBLE, SEED THAT HAS BEEN BROADCAST SHALL BE COVERED BY RAKING OR DRAGGING AND THEN LIGHTLY PLACED USING A ROLLER OR CULTIPACKER. IF HYDROSEEDING IS USED, THE SEED AND FERTILIZER WILL BE MIXED ON SITE AND THE SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION.

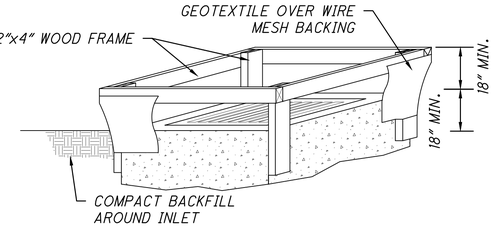
MULCHING TEMPORARY SEEDING

A. APPLICATIONS OF TEMPORARY SEEDING SHALL INCLUDE MULCH WHICH SHALL BE APPLIED DURING OR IMMEDIATELY AFTER SEEDING. SEEDINGS MADE DURING OPTIMUM SEEDING DATES AND WITH FAVORABLE SOIL CONDITIONS AND ON VERY FLAT AREAS MAY NOT NEED MULCH TO ACHIEVE ADEQUATE STABILIZATION.

B. MATERIALS:
- STRAW - IF STRAW IS USED, IT SHALL BE UNROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 2 TONS/ACRE OR 90 LBS./1,000 SQ. FT. (TWO TO THREE BALES). THE MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQ. FT. SECTIONS AND SPREAD TWO 45 LBS. BALES OF STRAW IN EACH SECTION.
- HYDROSEEDERS - IF WOOD CELLULOSE FIBER IS USED, IT SHALL BE USED AT 2,000 LB/AC. OR 46 LBS./1,000 SQ. FT.
- OTHER - OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR

INLET PROTECTION FOR STORM STRUCTURES W/ GRATE

INLET PROTECTION MAY CONSIST OF SEDIMENT FENCE AND/OR DEVICES SUCH AS FLEX STORM INLET FILTERS, SEDCAGE (WWW.SEDCATCH.COM), DANDY BAGS, SEDIGUARD FILTERS, OR OTHER DEVICES (ALTERNATE PRODUCTS WHOSE PERFORMANCE IS EQUAL TO OR EXCEEDS THOSE LISTED) WHICH ARE EFFECTIVE AT MINIMIZING THE AMOUNT OF SEDIMENT ENTERING THE STRUCTURE . INSTALL INLET PROTECTION ON ALL PROPOSED YARD DRAINS, CATCH BASINS AND MANHOLES WITH GRATED LIDS AND TO ALL EXISTING STORM STRUCTURES WITH GRATED LIDS WITHIN THE PROJECT AREA WHICH MAY RECEIVE RUNOFF FROM THE CONSTRUCTION SITE.



NOTES

A. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOMES OPERATIONAL.

B. THE EARTH AROUND THE INLET SHALL BE EXCAVATED COMPLETELY TO A DEPTH OF AT LEAST 18".

C. THE WOODEN FRAME SHALL BE CONSTRUCTED OF 2" BY 4" CONSTRUCTION GRADE LUMBER. THE 2" BY 4" POST SHALL BE DRIVEN 1' INTO THE GROUND AT FOUR CORNERS OF THE INLET AND THE TOP PORTION OF 2" BY 4" FRAME ASSEMBLED USING THE OVERLAP JOINT SHOWN. THE TOP OF THE FRAME SHALL BE AT LEAST 6" BELOW ADJACENT ROAD, IF PONDED WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC.

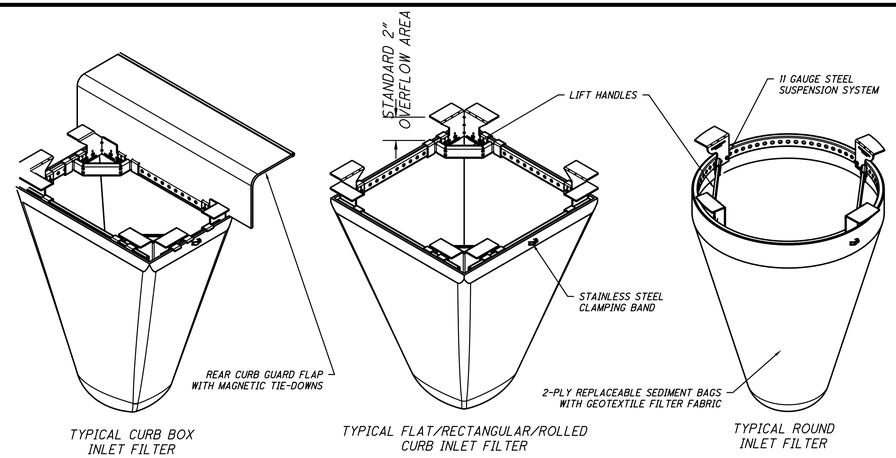
D. WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC WITH WATER FULLY IMPOUNDED AGAINST IT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY TO THE FRAME.

E. GEOTEXTILE SHALL HAVE AN EQUIVALENT OPENING SIZE OF 20-40 SIEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY. IT SHALL EXTEND FROM THE TOP OF THE FRAME TO 18" BELOW THE INLET NOTCH ELEVATION. THE GEOTEXTILE SHALL OVERLAY ACROSS ONE SIDE OF THE INLET SO THE ENDS OF THE CLOTH ARE NOT FASTENED TO THE SAME POST.

F. BACKFILL SHALL BE PLACED AROUND THE INLET IN COMPACTED 6" LAYERS UNTIL THE EARTH IS EVEN WITH NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES.

G. A COMPACTED EARTH DIKE OR A CHECK DAM SHALL BE CONSTRUCTED IN THE DITCH LINE BELOW THE INLET IF THE INLET IS NOT IN A DEPRESSION, AND IF RUNOFF BY PASSING THE INLET WILL NOT FLOW TO A SETTING POND, THE TOP OF EARTH DIKES SHALL BE AT LEAST 6" HIGHER THAN THE TOP OF THE FRAME.

INLET PROTECTION IN SWALES, DITCH LINES OR YARD INLETS



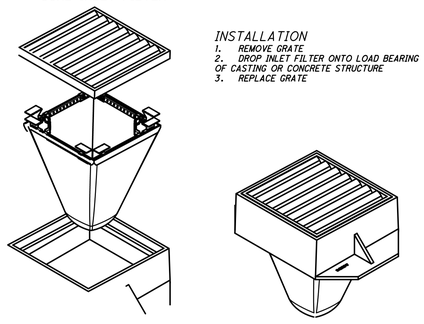
TYPICAL CURB BOX INLET FILTER

TYPICAL FLAT/RECTANGULAR/ROLLED CURB INLET FILTER

TYPICAL ROUND INLET FILTER

INLET FILTER SPECIFICATIONS

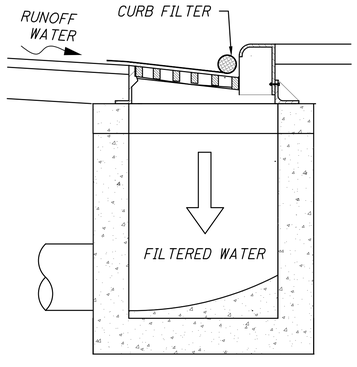
MATERIAL PROPERTY	TEST METHOD	VALUE (MIN. AVE.)
> NON WOVEN GEOTEXTILE INNER FILTER BAG SPECS (2 CF MIN. VOL.)		
GRAB TENSILE	ASTM D 4632	100 LBS
PUNCTURE STRENGTH	ASTM D 4833	65 LBS
TRAPEZOIDAL TEAR	ASTM D 4533	45 LBS
UV RESISTANCE	ASTM D 4355	70% AT 500 HRS.
APP OPEN SIZE (AOS)	ASTM D 4751	70 SIEVE (0.212 MM)
PERMITTIVITY	ASTM D 4491	2.0/SEC
WATER FLOW RATE	ASTM D 4491	145 GPM/SQFT
> POLYESTER OUTER REINFORCEMENT BAG SPECIFICATIONS		
WEIGHT	ASTM D 3776	4.55 OZ/SOYD ?15%
THICKNESS	ASTM D 1777	0.040 ?0.005
> FRAME CONSTRUCTION		
A36 STRUCTURAL STEEL; 11 GAUGE; ZINC PLATED	ASTM A 576	TENSILE STRENGTH > 58,000 PSI; YIELD STRENGTH > 36,000 PSI

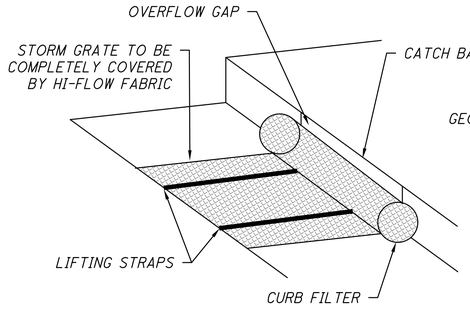


INSTALLATION
1. REMOVE GRATE
2. DROP INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE
3. REPLACE GRATE

INLET PROTECTION FOR STORM STRUCTURES W/ GRATE, INCLUDING CATCH BASINS AND MANHOLES WITH GRATED LIDS

INLET PROTECTION MAY CONSIST OF SEDIMENT FENCE AND/OR DEVICES SUCH AS FLEX STORM INLET FILTERS, SEDCAGE (WWW.SEDCATCH.COM), DANDY BAGS, SEDIGUARD FILTERS, OR OTHER DEVICES (ALTERNATE PRODUCTS WHOSE PERFORMANCE IS EQUAL TO OR EXCEEDS THOSE LISTED) WHICH ARE EFFECTIVE AT MINIMIZING THE AMOUNT OF SEDIMENT ENTERING THE STRUCTURE . INSTALL INLET PROTECTION ON ALL PROPOSED YARD DRAINS, CATCH BASINS AND MANHOLES WITH GRATED LIDS AND TO ALL EXISTING STORM STRUCTURES WITH GRATED LIDS WITHIN THE PROJECT AREA WHICH MAY RECEIVE RUNOFF FROM THE CONSTRUCTION SITE.





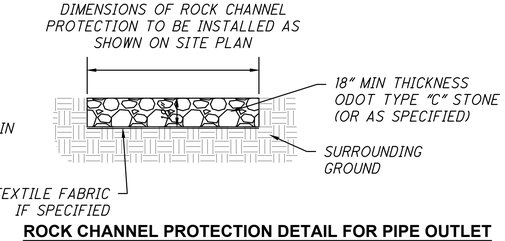
NOTES

A. DANDY CURB BAG, SEDIGUARDS, OR ALTERNATE PRODUCT WHOSE PERFORMANCE IS EQUAL TO OR EXCEEDS THOSE LISTED MAY BE USED.

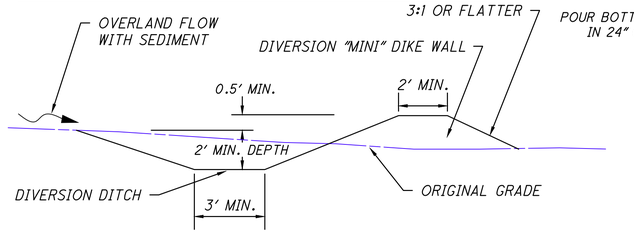
B. REMOVE SEDIMENT FROM CURB INLET PROTECTION BEFORE IT HINDERS THE FILTERING CAPACITY.
- DANDY CURB BAG: LIFT GRATE AND REMOVE DANDY BAG, CLEAN ACCUMULATED SEDIMENT AND REPLACE BAG AS REQUIRED BY MANUFACTURER.
- SEDIGUARD: CLEAN SEDIGUARD ONCE IT IS DRY WITH A STIFF BROOM AFTER EVERY RAIN.
- ALTERNATE PRODUCTS: CLEAN AS REQUIRED PER MANUFACTURER'S RECCOMENDATIONS

C. INLET PROTECTION SHOULD NEVER INTERFERE WITH SAFETY OF ACTIVE TRAFFIC.

CURB INLET SEDIMENT FILTER DETAIL



ROCK CHANNEL PROTECTION DETAIL FOR PIPE OUTLET

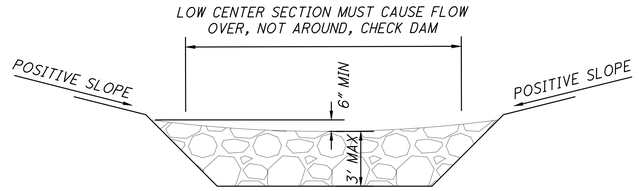


NOTES

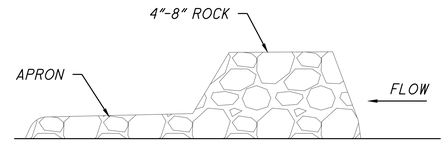
A. BERM CAN BE CONSTRUCTED AS DITCH OR DIKE WALL

B. PLACE DITCH ON A GRADE TO DRAIN TO SEDIMENT BASIN.

CROSS SECTION OF A DIVERSION BERM



CROSS SECTION



PROFILE

NOTES

A. THE CHECK DAM SHALL BE CONSTRUCTED OF 4-8 INCH DIAMETER STONE, PLACED SO THAT IT COMPLETELY COVERS THE WIDTH OF THE CHANNEL. ODOT TYPE D STONE IS ACCEPTABLE, BUT SHOULD BE UNDERLAIN WITH A GRAVEL FILTER CONSISTING OF ODOT No. 3 OR 4 OR SUITABLE FILTER FABRIC.

B. MAXIMUM HEIGHT OF CHECK DAM SHALL NOT EXCEED 3.0 FEET.

C. THE MIDPOINT OF THE ROCK CHECK DAM SHALL BE A MINIMUM OF 6 INCHES LOWER THAN THE SIDES IN ORDER TO DIRECT ACROSS THE CENTER AND AWAY FROM THE CHANNEL SIDES.

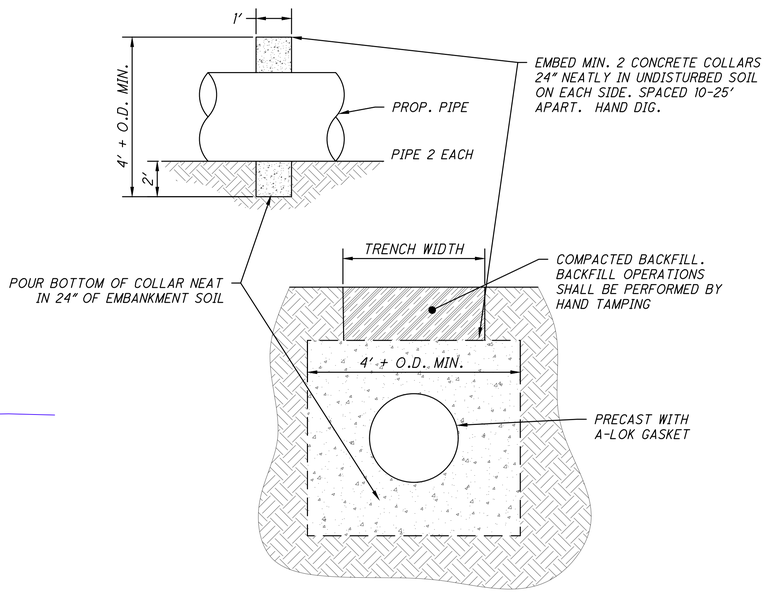
D. THE BASE OF THE CHECK DAM SHALL BE ENTRENCHED APPROXIMATELY 6 INCHES.

E. A STONE APRON SHALL BE CONSTRUCTED IMMEDIATELY DOWNSTREAM OF THE CHECK DAM TO PREVENT FLOWS FROM UNDERCUTTING THE STRUCTURE. THE APRON SHOULD BE 6 INCHES THICK AND ITS LENGTH TWO TIMES THE HEIGHT OF THE DAM.

F. STONE PLACEMENT SHALL BE PERFORMED EITHER BY HAND OR MECHANICALLY AS LONG AS THE CENTER OF CHECK DAM IS LOWER THAN THE SIDES AND EXTENDS ACROSS ENTIRE CHANNEL.

G. SIDE SLOPES SHALL BE A MINIMUM OF 2:1.

DITCH ROCK CHECK DAM



ANTI-SEEP COLLAR

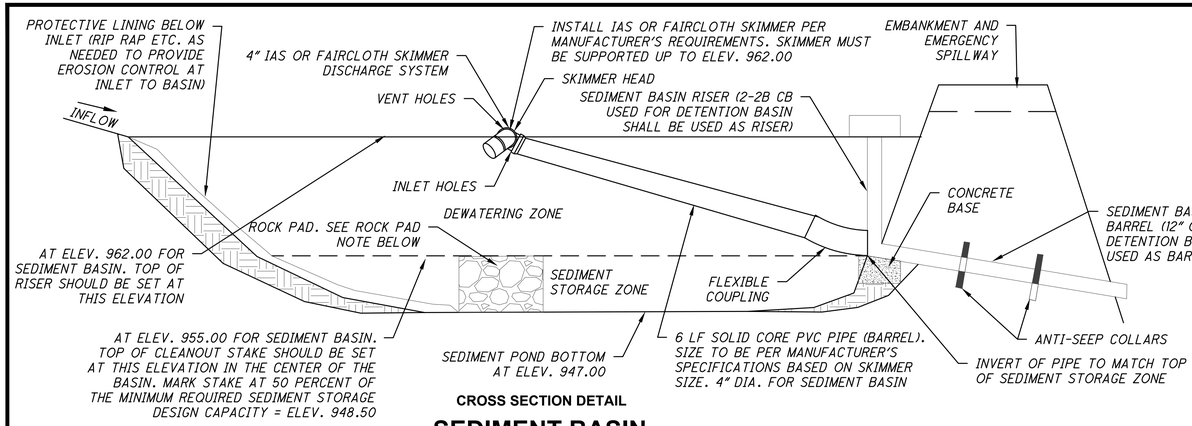
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
SWPPP - EROSION CONTROL NOTES AND DETAILS

REVISIONS:

FILE NAME: SWPPP NOTES 2
DRAWN BY: KMM
CHECKED BY: KMM
PROJECT No.: MIA-PIQ-2527
DATE: 5-15-2026
SHEET NUMBER: 3 OF 6

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchProperty\Concept\MIAPIQ2527_SWPPP.dwg 18-Jun-26 8:52 AM

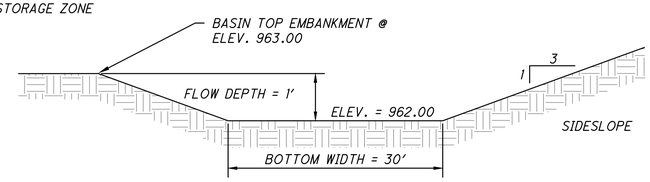


CROSS SECTION DETAIL

SEDIMENT BASIN

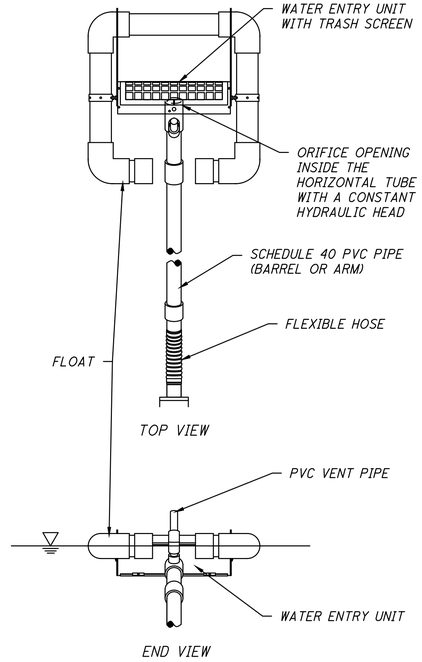


IAS SKIMMER
NTS



CROSS SECTION

EMERGENCY SPILLWAY
NTS



FAIRCLOTH SKIMMER
NTS

NOTES

A. SEDIMENT BASINS SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE UPSLOPE LAND DISTURBANCE BEGINS.

B. SITE PREPARATION -THE AREA UNDER THE EMBANKMENT SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED AS NEEDED TO FACILITATE SEDIMENT CLEANOUT. GULLIES AND SHARP BREAKS SHALL BE SLOPED TO NO STEEPER THAN 1:1. THE SURFACE OF THE FOUNDATION AREA WILL BE THOROUGHLY SCARIFIED BEFORE PLACEMENT OF THE EMBANKMENT MATERIAL.

C. EMBANKMENT -THE FILL MATERIAL SHALL BE FREE OF ALL SOD, ROOTS, FROZEN SOIL, STONES OVER 6 IN. IN DIAMETER, AND OTHER OBJECTIONABLE MATERIAL. THE PLACING AND SPREADING OF THE FILL MATERIAL SHALL BE STARTED AT THE LOWEST POINT OF THE FOUNDATION AND THE FILL SHALL BE BROUGHT UP IN APPROXIMATELY 6 IN. HORIZONTAL LAYERS OR OF SUCH THICKNESS THAT THE REQUIRED COMPACTION CAN BE OBTAINED WITH THE EQUIPMENT USED. CONSTRUCTION EQUIPMENT SHALL BE OPERATED OVER EACH LAYER IN A WAY THAT WILL RESULT IN THE REQUIRED COMPACTION. SPECIAL EQUIPMENT SHALL BE USED WHEN THE REQUIRED COMPACTION CANNOT BE OBTAINED WITHOUT IT. THE MOISTURE CONTENT OF FILL MATERIAL SHALL BE SUCH THAT THE REQUIRED DEGREE OF COMPACTION CAN BE OBTAINED WITH THE EQUIPMENT USED. THE EMBANKMENTS OF THE SEDIMENT BASIN AND THE AREAS THAT LIE DOWNSTREAM OF THE POND MUST BE STABILIZED.

D. PIPE SPILLWAY -THE PIPE CONDUIT BARREL SHALL BE PLACED ON A FIRM FOUNDATION TO THE LINES AND GRADES SHOWN ON THE PLANS. CONNECTIONS BETWEEN THE RISER AND BARREL, THE ANTI-SEEP COLLARS AND BARREL AND ALL PIPE JOINTS SHALL BE WATERTIGHT. SELECTED BACKFILL MATERIAL SHALL BE PLACED AROUND THE CONDUIT IN LAYERS AND EACH LAYER SHALL BE COMPACTED TO AT LEAST THE SAME DENSITY AS THE ADJACENT EMBANKMENT. ALL COMPACTION WITHIN 2 FT. OF THE PIPE SPILLWAY WILL BE ACCOMPLISHED WITH HAND-OPERATED TAMPING EQUIPMENT.

E. RISER PIPE BASE -THE RISER PIPE SHALL BE SET A MINIMUM OF 6 IN. IN THE CONCRETE BASE.

F. TRASH RACKS -THE TOP OF THE RISER SHALL BE FITTED WITH TRASH RACKS FIRMLY FASTENED TO THE RISER PIPE.

G. SEED AND MULCH -THE SEDIMENT BASIN SHALL BE STABILIZED IMMEDIATELY FOLLOWING ITS CONSTRUCTION. IN NO CASE SHALL THE EMBANKMENT OR EMERGENCY SPILLWAY REMAIN BARE FOR MORE THAN 7 DAYS.

H. SEDIMENT CLEANOUT - ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT STORAGE ZONE ONCE IT EXCEEDS 50 PERCENT OF THE MINIMUM REQUIRED SEDIMENT STORAGE DESIGN CAPACITY AND PRIOR TO THE CONVERSION TO THE POST-CONSTRUCTION PRACTICE UNLESS SUITABLE STORAGE IS DEMONSTRATED BASED UPON OVER-DESIGN. THIS ELEVATION SHALL BE MARKED ON A CLEANOUT STAKE NEAR THE CENTER OF THE BASIN. SEDIMENT REMOVED FROM THE BASIN SHALL BE PLACED SO THAT IT WILL NOT ERODE.

I. FINAL REMOVAL - SEDIMENT BASINS SHALL BE REMOVED AFTER THE UPSTREAM DRAINAGE AREA IS STABILIZED OR AS INDICATED IN THE PLANS. DEWATERING AND REMOVAL SHALL NOT CAUSE SEDIMENT TO BE DISCHARGED. THE SEDIMENT BASIN SITE AND SEDIMENT REMOVED FROM THE BASIN SHALL BE STABILIZED.

OPERATIONS AND MAINTENANCE

SEDIMENT BASINS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT.
NECESSARY ACTIVITIES ARE SHOWN AS FOLLOWS:

A. ESTABLISH VEGETATIVE COVER AND FERTILIZE AS NECESSARY TO MAINTAIN A VIGOROUS COVER IN AND AROUND THE SEDIMENT BASIN.

B. REMOVE UNDESIRABLE VEGETATION PERIODICALLY TO PREVENT GROWTH OF TREES AND SHRUBS ON THE EMBANKMENT AND SPILLWAY AREAS.

C. PROMPTLY REPAIR ERODED AREAS. REESTABLISH VEGETATIVE COVER IMMEDIATELY WHERE SCOUR EROSION HAS REMOVED ESTABLISHED SEEDING.

D. PROMPTLY REMOVE ANY BURROWING RODENTS THAT MAY INVADE AREAS OF THE EMBANKMENT.

E. REMOVE TRASH AND DEBRIS THAT MAY BLOCK SPILLWAYS AND ACCUMULATE IN THE POND.

F. CHECK SPILLWAY OUTLETS AND POINTS OF INFLOW TO ENSURE DRAINAGE IS NOT CAUSING EROSION AND THAT OUTLETS ARE NOT CLOGGED. REPLACE DISPLACED RIPRAP IMMEDIATELY.

ROCK PAD NOTE

IT IS VERY IMPORTANT THAT A ROCK PAD BE CONSTRUCTED TO THE HEIGHT OF THE TOP OF THE SEDIMENT STORAGE ZONE. IF THIS IS NOT DONE OR IF THE PAD IS NOT BUILT TO THE SAME HEIGHT AS THE TOP OF THE SEDIMENT STORAGE ZONE, THE SKIMMER WILL NOT FUNCTION PROPERLY .

WHEN COMPLETE THE IAS FLEXIBLE COUPLING SHOULD BE LYING FLAT ON THE ROCK PAD. THE UNIT WILL BE TOUCHING AT TWO POINTS: THE TOP OF THE BARREL/MIDDLE OF THE SKIMMER HEAD AND THE POINT AT WHICH THE BARREL IS ATTACHED TO THE IAS FLEXIBLE COUPLING. SEE MANUFACTURER'S ASSEMBLY INSTRUCTIONS.

SEDIMENT BASIN CALCULATIONS

REQUIRED SEDIMENT STORAGE VOLUME = 37 C.Y./ACRE * 27.80 ACRES = 1029 C.Y.
TOP OF SEDIMENT STORAGE ZONE ELEVATION = 955.00 (7568 C.Y.). SET CLEANOUT STAKE AT THIS ELEVATION.
REQUIRED DEWATERING ZONE VOLUME = 67 C.Y./ACRE * 40.16 ACRES = 2691 C.Y.
DEWATERING ZONE VOLUME (BETWEEN 955.00 AND 958.50) = 5842 C.Y.
TOTAL BASIN VOLUME REQUIRED TO TOP OF DEWATERING ZONE = 1029 C.Y. + 2691 C.Y. = 3720 C.Y.
TOP OF DEWATERING ZONE ELEVATION = 962.00 (20,983 C.Y.)
TOTAL SEDIMENT BASIN VOLUME PROVIDED TO ELEV. 963.00 = 23,474 C.Y.
RISER AND BARREL: PROPOSED 12" DETENTION OUTLET AND 2-2B CB ARE TO BE USED AS OUTLET FOR SEDIMENT BASIN.
EMERGENCY SPILLWAY: EMERGENCY SPILLWAY TO BE TRAPEZOIDAL WITH A BOTTOM WIDTH OF 30'.
DEWATERING TIME : 3.26 DAYS
2691 C.Y. * 27 = 72,657 C.F. VOLUME TO BE DEWATERED
USING A FAIRCLOTH/IAS WATER QUALITY SKIMMER WITH A 4" SKIMMER SIZE, IT DISCHARGES 22,220 CF PER 24 HOURS
THEREFORE IT WILL TAKE 3.26 DAYS TO DEWATER THIS SEDIMENT BASIN.

SEDIMENT BASIN CONVERT TO SITE RETENTION BASIN NOTE

UPON COMPLETION OF THE PROJECT, IF THE SEDIMENT BASIN IS TO SERVE AND FUNCTION AS A SITE RETENTION BASIN, ALL SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT BASIN WHICH IS ABOVE ITS PROPOSED FINAL SURFACE GRADES THROUGHOUT THE BASIN AND ALSO AS NEEDED TO PLACE ANY REQUIRED TOPSOIL. UPON PROJECT COMPLETION AND FINAL CLEANING, THE SEDIMENT BASIN SHOULD BE ESTABLISHED TO ITS PROPOSED RETENTION BASIN DESIGN INCLUDING CAPACITY, GRADES, AND OUTLETS.

TYPICAL MAINTENANCE ACTIVITIES FOR RETENTION BASINS

POTENTIAL POLLUTANT SOURCES POST CONSTRUCTION THAT SHOULD BE MONITORED INCLUDE: TRASH, FERTILIZERS, GRAINS, HERBICIDES, PESTICIDES, LAWN TREATMENT APPLICATIONS ALONG WITH ASSORTED FUELS, OILS, GREASE, HYDRAULIC FLUID, AND OTHER VEHICULAR FLUIDS ASSOCIATED WITH TRAFFIC THROUGHOUT THE DEVELOPED SITE.

MONTHLY: MOW EMBANKMENT AND CLEAN TRASH AND DEBRIS FROM OUTLET STRUCTURE. ADDRESS ANY ACCUMULATION OF HYDROCARBONS.

ANNUALLY: INSPECT EMBANKMENT AND OUTLET STRUCTURE FOR DAMAGE AND PROPER FLOW. REMOVE WOODY VEGETATION AND FIX ANY ERODING AREAS. MONITOR SEDIMENT ACCUMULATIONS IN MAIN POOL.

SEMI-ANNUALLY: INSPECT WETLAND AREAS FOR INVASIVE PLANS

15-20 YEARS: MONITOR SEDIMENT ACCUMULATIONS IN THE MAIN POOL AND CLEAN AS POND BECOMES EUTROPHIC OR POOL VOLUME IS REDUCED SIGNIFICANTLY.

FINAL DETENTION BASIN

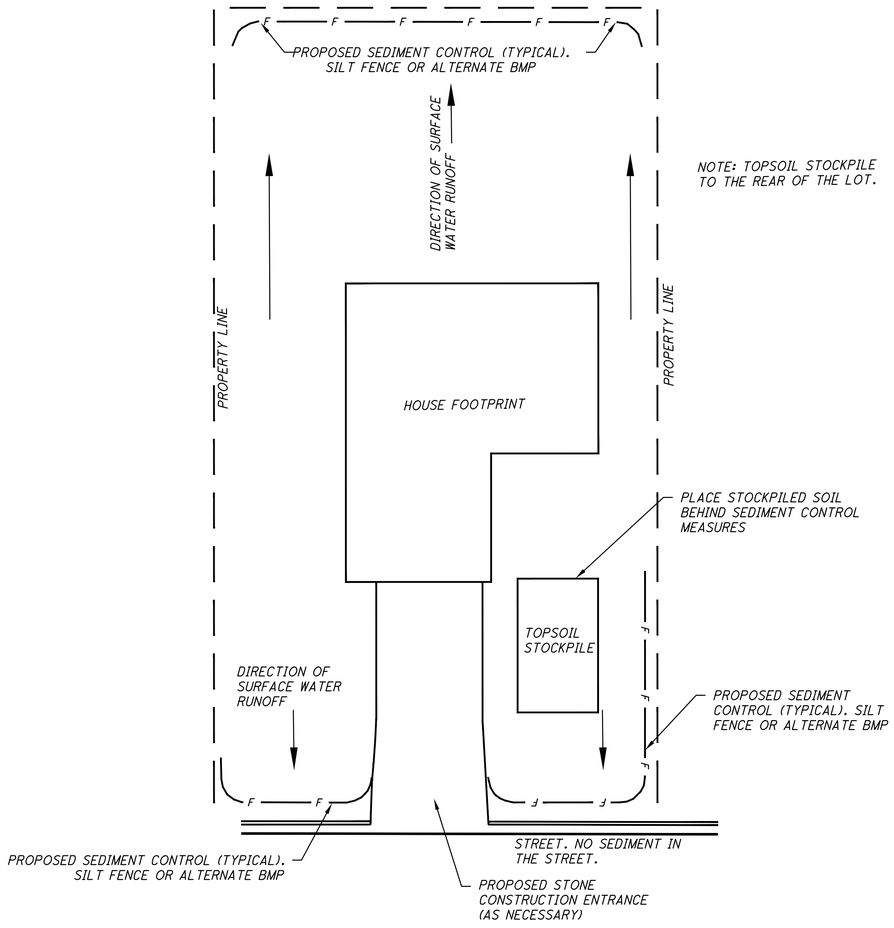
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
SWPPP - EROSION CONTROL NOTES AND DETAILS

REVISIONS:

FILE NAME: SWPPP NOTES 3
DRAWN BY: KMM
CHECKED BY: KMM
PROJECT No.: MIA-PIQ-2527
DATE: 5-15-2026
SHEET NUMBER: 4 OF 6

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_SWPPP.dwg 18-Jun-26 8:52 AM



NOTES

A. THIS IS A TYPICAL DRAWING. APPLICANT IS RESPONSIBLE FOR MAKING THE CHANGES PERTINENT TO EACH LOT/SITE.

B. REDUCE SEDIMENT LEAVING THE SITE BY IMPLEMENTING BEST MANAGEMENT PRACTICES (BMPs) SUCH AS:

- LIMIT MUD TRACK-OUT ONTO PRIVATE OR PUBLIC STREETS BY PARKING ON PAVED STREETS OR DRIVEWAYS WHENEVER POSSIBLE. IF NECESSARY, UTILIZE A TEMPORARY GRAVEL DRIVE.
- CLEAN UP ANY MUD THAT HAS BEEN TRACKED OFF THE CONSTRUCTION SITE IN A THOROUGH AND TIMELY MANNER.
- IMPLEMENT SEDIMENT CONTROLS ALONG THE LOWER SIDES OF THE PROPERTY TO PROTECT ADJACENT WATERWAYS, STORM DRAINS OR NEIGHBORING PROPERTY FROM SEDIMENTATION.
- KEEP A CLEAN SITE. DISPOSE OF CONSTRUCTION WASTE MATERIALS AND DEBRIS IN A DUMPSTER OR CONTAINMENT DEVICE.
- HAVE YOUR PORTABLE TOILET STAKED AND ANCHORED AWAY FROM ANY STORM DRAIN INLETS.
- INSPECT YOUR SITE WEEKLY AND AFTER RAIN EVENTS TO FIND ANY POTENTIAL PROBLEMS AND KEEP YOUR BEST MANAGEMENT PRACTICES REPAIRED AND IN GOOD WORKING ORDER.
- MAINTAIN A VEGETATION BUFFER WHERE POSSIBLE AROUND THE PERIMETER OF THE SITE.
- A CONCRETE WASHOUT PIT OR WASHOUT CONTAINER SHOULD BE MAINTAINED AND USED UNTIL ALL CONCRETE WORK IS COMPLETE.

TYPICAL INDIVIDUAL LOT SWPPP

NTS.

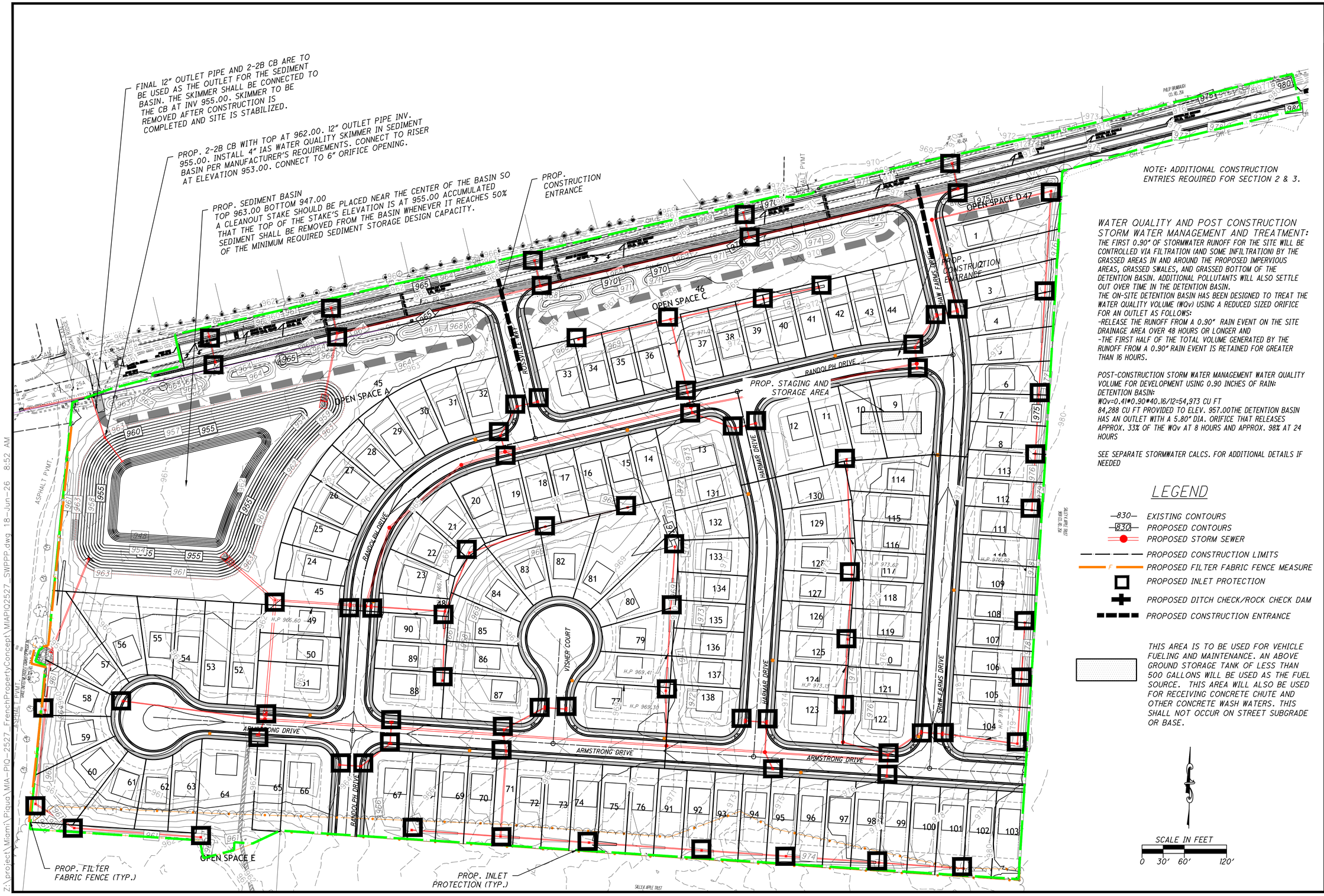
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
SWPPP - TYPICAL INDIVIDUAL LOT

REVISIONS:

FILE NAME: INDIV LOT SWPPP TYP.
DRAWN BY: KMM
CHECKED BY: KMM
PROJECT No.: MIA-PIQ-2527
DATE: 5-15-2026
SHEET NUMBER: 5 OF 6

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_SWPPP.dwg 18-Jun-26 8:52 AM



NOTE: ADDITIONAL CONSTRUCTION ENTRIES REQUIRED FOR SECTION 2 & 3.

WATER QUALITY AND POST CONSTRUCTION STORM WATER MANAGEMENT AND TREATMENT:

THE FIRST 0.90" OF STORMWATER RUNOFF FOR THE SITE WILL BE CONTROLLED VIA FILTRATION (AND SOME INFILTRATION) BY THE GRASSED AREAS IN AND AROUND THE PROPOSED IMPERVIOUS AREAS, GRASSED SWALES, AND GRASSED BOTTOM OF THE DETENTION BASIN. ADDITIONAL POLLUTANTS WILL ALSO SETTLE OUT OVER TIME IN THE DETENTION BASIN.
THE ON-SITE DETENTION BASIN HAS BEEN DESIGNED TO TREAT THE WATER QUALITY VOLUME (WQv) USING A REDUCED SIZED ORIFICE FOR AN OUTLET AS FOLLOWS:
-RELEASE THE RUNOFF FROM A 0.90" RAIN EVENT ON THE SITE DRAINAGE AREA OVER 48 HOURS OR LONGER AND
-THE FIRST HALF OF THE TOTAL VOLUME GENERATED BY THE RUNOFF FROM A 0.90" RAIN EVENT IS RETAINED FOR GREATER THAN 16 HOURS.

POST-CONSTRUCTION STORM WATER MANAGEMENT WATER QUALITY VOLUME FOR DEVELOPMENT USING 0.90 INCHES OF RAIN:
DETENTION BASIN:
WQv=0.41*0.90*40.16/12=54,973 CU FT
84,288 CU FT PROVIDED TO ELEV. 957.00THE DETENTION BASIN HAS AN OUTLET WITH A 5.80" DIA. ORIFICE THAT RELEASES APPROX. 33% OF THE WQv AT 8 HOURS AND APPROX. 98% AT 24 HOURS

SEE SEPARATE STORMWATER CALCS. FOR ADDITIONAL DETAILS IF NEEDED

LEGEND

- 830 — EXISTING CONTOURS
- 830 — PROPOSED CONTOURS
- PROPOSED STORM SEWER
- PROPOSED CONSTRUCTION LIMITS
- F — PROPOSED FILTER FABRIC FENCE MEASURE
- PROPOSED INLET PROTECTION
- PROPOSED DITCH CHECK/ROCK CHECK DAM
- PROPOSED CONSTRUCTION ENTRANCE

THIS AREA IS TO BE USED FOR VEHICLE FUELING AND MAINTENANCE. AN ABOVE GROUND STORAGE TANK OF LESS THAN 500 GALLONS WILL BE USED AS THE FUEL SOURCE. THIS AREA WILL ALSO BE USED FOR RECEIVING CONCRETE CHUTE AND OTHER CONCRETE WASH WATERS. THIS SHALL NOT OCCUR ON STREET SUBGRADE OR BASE.

SCALE IN FEET
0 30' 60' 120'

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARM SUBDIVISION - SECTION 1, 2, & 3
CITY OF PIQUA
EROSION CONTROL PLAN

REVISIONS:

FILE NAME	SWPPP
DRAWN BY	KMM
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	5-15-2026
SHEET NUMBER	6 OF 6

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_SWPPP.dwg 18-Jun-26 8:52 AM

ChoiceOne Engineering

Piqua, Miami County, Ohio
Shaw Farms Subdivision Detention Report

April 1, 2026

W. Central Ohio/E. Indiana
2633 Campbell Rd.
Sidney, OH 45365
937.497.0200 **Phone**

S. Ohio/N. Kentucky
6279 Tri-Ridge Blvd., Suite 100
Loveland, OH 45140
513.239.8554 **Phone**

WWW.CHOICEONEENGINEERING.COM

City of Piqua, Miami County

Shaw Farms Subdivision
Storm Water Retention Calculations

April, 1, 2026

Site Description:
The site is an existing open row crop field with no onsite retention to manage stormwater runoff. Stormwater from the site is currently conveyed to two twin 18-inch pipes located along the west edge of the property. A wetland along the south edge of the site also drains to this same twin 18-inch pipe system. The proposed development will increase the impervious area, requiring a retention basin sized to control both existing and additional runoff. Water quality measures will be incorporated into the proposed retention basin.

Hydrologic Methodologies:
The hydrologic methodology used for this design was the Soil Conservation Service (SCS) TR-55 Method, which was computed via the Bentley PondPack program.

Existing Hydrologic Conditions:
The storm water on the existing site moves via overland flow through row crop farm field from east to west. There is a wetland on the south end of the site that also discharges water to the twin 18" pipes. The north edge of the site contains existing clay storm pipes which take some field drainage that connect into the city storm sewer.

Developed Hydrologic Conditions:
The proposed site will convey stormwater through a new storm sewer system. Once runoff enters the storm sewer, it will be routed to the onsite retention basin. The first 0.90 inches of rainfall will be detained for the required 24-hour drawdown period to provide water quality treatment. After the water quality volume has been treated, the outlet structure will allow increased discharge rates up to the critical storm (5-year), while ensuring that outflow does not exceed the pre-developed 1-year peak discharge or the allowable peak for each respective storm event. Stormwater leaving the retention basin will discharge through two outlet structures: a portion of the flow will be conveyed north through a 12-inch pipe to the city storm sewer, while most of the flow will be released through a 18-inch pipe that connects to the existing twin 18-inch pipes along the west side of the site.

Storm Water Management Plan:
The proposed site will move the runoff through the site by having the proposed pavement and ground sloped towards proposed catch basins. Once the water enters the storm structures, it will then travel through proposed storm sewer to the retention basin. From the retention basin a small amount will outlet North into the existing city storm sewer, and the majority of the water will discharge south into existing twin 18" pipes.

Applicable Permits:
The Ohio Environmental Protection Agency, Notice of Intent.

Calculation Sheets:
Below is a summary of the storm water retention calculations. Please see the attached computer printouts for additional details. Hydrologic Soil Group D was used for calculations based upon soil in the surrounding area. A soil map from the USDA's Web Soil Survey website was utilized to determine this Soil Group. The retention basin will be constructed to accommodate the additional water that will need to be detained based upon the addition of impervious area to the site and water quality volume requirements.

Pre-Developed North Outlet Area

- Time of Concentration (Tc)
  - Pre-developed Tc =1.07 hours - See page 7 of 34 of computer calcs
- Curve Number
  - Pre-developed = 85
- Acreage = 5.02 acres

Pre-Developed South Outlet Area

- Time of Concentration (Tc)
  - Pre-developed Tc =1.30 hours - See page 9 of 34 of computer calcs
- Curve Number
  - Pre-developed = 84 – see page 12 of 34 of computer calculations
- Acreage = 31.68 acres

Proposed Retention Basin

- Time of Concentration (Tc)
  - Post-developed Tc = 1.01 hours – see page 5 of 34 of computer calculations
- Curve Number
  - Post-developed CN = 88 – see page 11 of 34 of computer calculations
- Total Acreage = 36.70 acres

Critical Storm:

Pre-developed Hydrograph Volume		Post-developed Hydrograph Volume	
Storm	Peak Volume	Storm	Peak Volume
1 year	3.203 ac-ft	1 year	3.965 ac-ft

- Critical Storm = ((1-yr. post – 1 yr. pre) / 1 yr. pre)*100 = ((3.965-3.203)/3.203)*100 = 23.79%
  - 23.79% increase in runoff volume = 5 yr. critical

Proposed Retention Basin Summary

STORM	PEAK INFLOW	PEAK OUTFLOW	BASIN STORAGE	PEAK BASIN ELEVATION
1 YEAR	24.72 cfs	1.36 cfs	2.785 ac-ft	957.78
2 YEAR	31.38 cfs	1.58 cfs	3.622 ac-ft	958.51
5 YEAR	43.48 cfs	3.91 cfs	4.630 ac-ft	959.34
10 YEAR	52.26 cfs	6.19 cfs	5.328 ac-ft	959.88
25 YEAR	61.10 cfs	8.42 cfs	6.070 ac-ft	960.44
50 YEAR	69.95 cfs	10.36 cfs	6.858 ac-ft	961.00
100 YEAR	77.04 cfs	12.24 cfs	7.493 ac-ft	961.45

Proposed Retention Outlet Summary

STORM	North Allowable Outflow	North Actual Outflow	South Allowable Outflow	South Actual Outflow	Combined Outflow
1 YEAR	2.71 cfs	1.36 cfs	13.87 cfs	0.00 cfs	1.36 cfs
2 YEAR	2.71 cfs	1.56 cfs	13.87 cfs	0.02 cfs	1.58 cfs
5 YEAR	2.71 cfs	1.77 cfs	13.87 cfs	2.14 cfs	3.91 cfs
10 YEAR	6.17 cfs	1.89 cfs	32.85 cfs	4.30 cfs	6.19 cfs
25 YEAR	7.30 cfs	2.01 cfs	39.10 cfs	6.41 cfs	8.42 cfs
50 YEAR	8.45 cfs	2.13 cfs	45.42 cfs	8.23 cfs	10.36 cfs
100 YEAR	9.38 cfs	2.21 cfs	50.51 cfs	10.03 cfs	12.24 cfs

NOTE: The post-developed release rate from the 1, 2 and 5-year storms are less than the 1-year pre-developed release rate (per the required critical storm method) and the post-developed release rates from the 10, 25, 50, and 100-year storms are less than their respective pre-developed release rates.

Water Quality Calculations per OEPA Requirements

Below is a summary of the storm water runoff quality calculations that would be needed to fully contain the water quality runoff for the site.

- OEPA Requirements
- Retention Pond:
  - Release the runoff from a 0.90" rain event on the drainage area over 24 hours or longer.
  - The first half of the total volume generated by the runoff from a 0.90" rain event must be detained for greater than 8 hours.

Water Quality Calculations for Phase 5

- Post-Construction storm water management water quality volume for development using 0.90 inches of rain:
  - WQ_v= (0.39*0.90*36.703/12) = 1.08 AC-FT
  - 1.17 AC-FT Provided to elev. 956.25. 1.17>1.08 and therefore water quality volume is detained.

Water Quality Release Rate Calculations for Phase 5

Retention Outlet Structure consists of:

- A 6.00" diameter hole at Inv. 955.00 would be required to hold back the water quality runoff from the site.
- Per the draw down calculation we satisfy the requirement of not releasing more than 50% before 8 hours and not more than 100% by 24 hours. Per the calculations the pond releases about 32% at 8 hours and about 97% at 24 hours.

WATER QUALITY CALCULATIONS

Project: Shaw Farms Subdivision Prop. WQv Calculations — Job No:
Location: Piqua, Miami County — Date: 3/25/26

OEPA REQUIREMENTS :
1) Release the runoff from a 0.90" rain event on the drainage area over 24 hours or longer
2) The first half of the total volume generated by the runoff from a 0.90" rain event must be detained for greater than 8 hours

WQv VOLUME CALCULATIONS USING 0.9" OF RAIN - WQv = Rv*P(0.90 inches)*A(acres)/12

Precipitation (Inches)	**0.9**		
Area (Acres)	**36.703**	←	
Impervious %	**38%**	←	
Rv	**0.39**		
WQv (CF)	**47,187.67**	**1.0833**	**AC-FT**

WQv = 0.39*0.9*36.703/12 = 1.08 AC-FT = 47,187 CF
DETENTION BASIN HOLDS 51,248 CF AT ELEV. OF 956.25 51,428 > 47,187 CF THEREFORE WQv SATISFIED. THEREFORE MUST RELEASE WQv THRU PROPERLY SIZED ORIFICE UNTIL 956.25 TO ENSURE WQv IS PROPERLY DETAINED AND RELEASED.

WQv DRAW DOWN CALCULATIONS

INSTALL 6" ORIFICE IN FACE OF CATCH BASIN AT INV. ELEVATIONS 955.00 TO RELEASE WQv AT REQUIRED RATE
SET INV. OF NEXT ORIFICE ELEV. AT OR ABOVE 956.25

Per the OEPA Method 1 Maximum Hydraulic Head WQv orifice draw down calculations below, we satisfy the requirement of not releasing more than 50% before 8 hours and not more than 100% by 24 hours for a wet detention basin. Per the calculations a 6" orifice or smaller will adequately detain the WQv longer than the required 24 hours timeframe.

SITE DETENTION BASIN

Basin Invert:.....	955.00	ft.
Orifice Opening…..	6.00	In.
Orifice Coefficient…	0.60	
Maximum Head…	1.25	ft.
Discharge Rate	0.528	cfs
Discharge Volume	951.28	cu. ft. per 30 minutes

Time (hour)	Time (min)	Starting Volume (CF)	Total Discharged Volume (CF)	Percentage Volume Discharged (%)
0.0	0	47,187.67	0	0.00%
0.5	30		951.28	2.02%
1.0	60		1,902.56	4.03%
1.5	90		2,853.84	6.05%
2.0	120		3,805.12	8.06%
2.5	150		4,756.40	10.08%
3.0	180		5,707.69	12.10%
3.5	210		6,658.97	14.11%
4.0	240		7,610.25	16.13%
4.5	270		8,561.53	18.14%
5.0	300		9,512.81	20.16%
5.5	330		10,464.09	22.18%
6.0	360		11,415.37	24.19%
6.5	390		12,366.65	26.21%
7.0	420		13,317.93	28.22%
7.5	450		14,269.21	30.24%
8.0	480		15,220.49	32.26%
8.5	510		16,171.78	34.27%
9.0	540		17,123.06	36.29%
9.5	570		18,074.34	38.30%
10.0	600		19,025.62	40.32%
10.5	630		19,976.90	42.33%
11.0	660		20,928.18	44.35%
11.5	690		21,879.46	46.37%
12.0	720		22,830.74	48.38%
12.5	750		23,782.02	50.40%
13.0	780		24,733.30	52.41%
13.5	810		25,684.58	54.43%
14.0	840		26,635.87	56.45%
14.5	870		27,587.15	58.46%
15.0	900		28,538.43	60.48%
15.5	930		29,489.71	62.49%
16.0	960		30,440.99	64.51%
16.5	990		31,392.27	66.53%
17.0	1020		32,343.55	68.54%

17.5	1050	33,294.83	70.56%
18.0	1080	34,246.11	72.57%
18.5	1110	35,197.39	74.59%
19.0	1140	36,148.67	76.61%
19.5	1170	37,099.96	78.62%
20.0	1200	38,051.24	80.64%
20.5	1230	39,002.52	82.65%
21.0	1260	39,953.80	84.67%
21.5	1290	40,905.08	86.69%
22.0	1320	41,856.36	88.70%
22.5	1350	42,807.64	90.72%
23.0	1380	43,758.92	92.73%
23.5	1410	44,710.20	94.75%
24.0	1440	45,661.48	96.77%
24.5	1470	46,612.76	98.78%
25.0	1500	47,564.05	100.80%
25.5	1530	48,515.33	102.81%
26.0	1560	49,466.61	104.83%
26.5	1590	50,417.89	106.85%
27.0	1620	51,369.17	108.86%
27.5	1650	52,320.45	110.88%
28.0	1680	53,271.73	112.89%
28.5	1710	54,223.01	114.91%
29.0	1740	55,174.29	116.93%
29.5	1770	56,125.57	118.94%
30.0	1800	57,076.85	120.96%
30.5	1830	58,028.14	122.97%
31.0	1860	58,979.42	124.99%
31.5	1890	59,930.70	127.00%
32.0	1920	60,881.98	129.02%
32.5	1950	61,833.26	131.04%
33.0	1980	62,784.54	133.05%
33.5	2010	63,735.82	135.07%
34.0	2040	64,687.10	137.08%
34.5	2070	65,638.38	139.10%
35.0	2100	66,589.66	141.12%
35.5	2130	67,540.94	143.13%
36.0	2160	68,492.23	145.15%
36.5	2190	69,443.51	147.16%
37.0	2220	70,394.79	149.18%
37.5	2250	71,346.07	151.20%
38.0	2280	72,297.35	153.21%
38.5	2310	73,248.63	155.23%
39.0	2340	74,199.91	157.24%
39.5	2370	75,151.19	159.26%
40.0	2400	76,102.47	161.28%
40.5	2430	77,053.75	163.29%
41.0	2460	78,005.03	165.31%
41.5	2490	78,956.32	167.32%
42.0	2520	79,907.60	169.34%
42.5	2550	80,858.88	171.36%
43.0	2580	81,810.16	173.37%
43.5	2610	82,761.44	175.39%
44.0	2640	83,712.72	177.40%
44.5	2670	84,664.00	179.42%
45.0	2700	85,615.28	181.44%
45.5	2730	86,566.56	183.45%
46.0	2760	87,517.84	185.47%
46.5	2790	88,469.12	187.48%
47.0	2820	89,420.41	189.50%
47.5	2850	90,371.69	191.52%
48.0	2880	91,322.97	193.53%
48.5	2910	92,274.25	195.55%
49.0	2940	93,225.53	197.56%
49.5	2970	94,176.81	199.58%
50.0	3000	95,128.09	201.60%
50.5	3030	96,079.37	203.61%
51.0	3060	97,030.65	205.63%
51.5	3090	97,981.93	207.64%
52.0	3120	98,933.21	209.66%
52.5	3150	99,884.50	211.67%
53.0	3180	100,835.78	213.69%
53.5	3210	101,787.06	215.71%
54.0	3240	102,738.34	217.72%
54.5	3270	103,689.62	219.74%
55.0	3300	104,640.90	221.75%
55.5	3330	105,592.18	223.77%
56.0	3360	106,543.46	225.79%

MIA-PIQ-2527 Detention Report

Project Summary	
Title	MIA-PIQ-2527
Engineer	NES
Company	Choice One Engineering
Date	3/30/2026

Notes

MIA-PIQ-2527 Detention Report

Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft^3/s)
PRE SOUTH	Miami County - , 1 yrs	1	2.743	12.650	13.87
PRE SOUTH	Miami County - , 2 yrs	2	3.573	12.650	18.39
PRE SOUTH	Miami County - , 5 yrs	5	5.112	12.650	26.71
PRE SOUTH	Miami County - , 10 yrs	10	6.260	12.650	32.85
PRE SOUTH	Miami County - , 25 yrs	25	7.436	12.650	39.10
PRE SOUTH	Miami County - , 50 yrs	50	8.634	12.650	45.42
PRE SOUTH	Miami County - , 100 yrs	100	9.605	12.650	50.51
POST	Miami County - , 1 yrs	1	3.965	12.550	24.72
POST	Miami County - , 2 yrs	2	5.021	12.550	31.38
POST	Miami County - , 5 yrs	5	6.939	12.450	43.48
POST	Miami County - , 10 yrs	10	8.347	12.450	52.26
POST	Miami County - , 25 yrs	25	9.776	12.450	61.10
POST	Miami County - , 50 yrs	50	11.222	12.450	69.95
POST	Miami County - , 100 yrs	100	12.388	12.450	77.04
PRE NORTH	Miami County - , 1 yrs	1	0.460	12.600	2.71
PRE NORTH	Miami County - , 2 yrs	2	0.595	12.600	3.54
PRE NORTH	Miami County - , 5 yrs	5	0.844	12.600	5.06
PRE NORTH	Miami County - , 10 yrs	10	1.029	12.500	6.17
PRE NORTH	Miami County - , 25 yrs	25	1.218	12.500	7.30
PRE NORTH	Miami County - , 50 yrs	50	1.410	12.500	8.45
PRE NORTH	Miami County - , 100 yrs	100	1.566	12.500	9.38

Node Summary

MIA-PIQ-2527 Detention Report

Subsection: Master Network Summary

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft^3/s)
PRE SOUTH	Miami County - , 1 yrs	1	2.743	12.650	13.87
PRE SOUTH	Miami County - , 2 yrs	2	3.573	12.650	18.39
PRE SOUTH	Miami County - , 5 yrs	5	5.112	12.650	26.71
PRE SOUTH	Miami County - , 10 yrs	10	6.260	12.650	32.85
PRE SOUTH	Miami County - , 25 yrs	25	7.436	12.650	39.10
PRE SOUTH	Miami County - , 50 yrs	50	8.634	12.650	45.42
PRE SOUTH	Miami County - , 100 yrs	100	9.605	12.650	50.51
POST North	Miami County - , 1 yrs	1	2.326	18.650	1.36
POST North	Miami County - , 2 yrs	2	2.726	18.950	1.56
POST North	Miami County - , 5 yrs	5	3.028	15.350	1.77
POST North	Miami County - , 10 yrs	10	3.161	14.600	1.89
POST North	Miami County - , 25 yrs	25	3.282	14.300	2.01
POST North	Miami County - , 50 yrs	50	3.403	14.200	2.13
POST North	Miami County - , 100 yrs	100	3.498	14.100	2.21
POST South	Miami County - , 1 yrs	1	0.000	0.000	0.00
POST South	Miami County - , 2 yrs	2	0.002	18.950	0.02
POST South	Miami County - , 5 yrs	5	1.261	15.350	2.14
POST South	Miami County - , 10 yrs	10	2.432	14.600	4.30
POST South	Miami County - , 25 yrs	25	3.664	14.300	6.41
POST South	Miami County - , 50 yrs	50	4.923	14.200	8.23
POST South	Miami County - , 100 yrs	100	5.946	14.100	10.03
PRE NORTH	Miami County - , 1 yrs	1	0.460	12.600	2.71
PRE NORTH	Miami County - , 2 yrs	2	0.595	12.600	3.54

MIA-PIQ-2527 Detention Report

Subsection: Master Network Summary

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft³/s)
PRE NORTH	Miami County - , 5 yrs	5	0.844	12.600	5.06
PRE NORTH	Miami County - , 10 yrs	10	1.029	12.500	6.17
PRE NORTH	Miami County - , 25 yrs	25	1.218	12.500	7.30
PRE NORTH	Miami County - , 50 yrs	50	1.410	12.500	8.45
PRE NORTH	Miami County - , 100 yrs	100	1.566	12.500	9.38

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft³/s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ac-ft)
POND (IN)	Miami County - , 1 yrs	1	3.965	12.550	24.72	(N/A)	(N/A)
POND (OUT)	Miami County - , 1 yrs	1	2.326	18.650	1.36	957.78	2.785
POND (IN)	Miami County - , 2 yrs	2	5.021	12.550	31.38	(N/A)	(N/A)
POND (OUT)	Miami County - , 2 yrs	2	2.729	18.950	1.58	958.51	3.622
POND (IN)	Miami County - , 5 yrs	5	6.939	12.450	43.48	(N/A)	(N/A)
POND (OUT)	Miami County - , 5 yrs	5	4.289	15.350	3.91	959.34	4.630
POND (IN)	Miami County - , 10 yrs	10	8.347	12.450	52.26	(N/A)	(N/A)
POND (OUT)	Miami County - , 10 yrs	10	5.593	14.600	6.19	959.88	5.328
POND (IN)	Miami County - , 25 yrs	25	9.776	12.450	61.10	(N/A)	(N/A)
POND (OUT)	Miami County - , 25 yrs	25	6.946	14.300	8.42	960.44	6.070
POND (IN)	Miami County - , 50 yrs	50	11.222	12.450	69.95	(N/A)	(N/A)
POND (OUT)	Miami County - , 50 yrs	50	8.326	14.200	10.36	961.00	6.858
POND (IN)	Miami County - , 100 yrs	100	12.388	12.450	77.04	(N/A)	(N/A)
POND (OUT)	Miami County - , 100 yrs	100	9.444	14.100	12.24	961.45	7.493

MIA-PIQ-2527 Detention Report

Subsection: Time of Concentration Calculations
Label: POST
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Time of Concentration Results

Segment #1: TR-55 Sheet Flow	
Hydraulic Length	300.00 ft
Manning's n	0.240
Slope	0.006 ft/ft
2 Year 24 Hour Depth	2.7 in
Average Velocity	0.08 ft/s
Segment Time of Concentration	1.013 hours

Time of Concentration (Composite)	
Time of Concentration (Composite)	1.013 hours

==== SCS Channel Flow

Tc = R = Qa / Wp
V = (1.49 * (R**(2/3)) * (Sf**-0.5)) / n

(Lf / V) / 3600

Where:
R= Hydraulic radius
Aq= Flow area, square feet
Wp= Wetted perimeter, feet
V= Velocity, ft/sec
Sf= Slope, ft/ft
n= Manning's n
Tc= Time of concentration, hours
Lf= Flow length, feet

MIA-PIQ-2527 Detention Report

Subsection: Time of Concentration Calculations
Label: PRE NORTH
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Time of Concentration Results

Segment #1: TR-55 Sheet Flow	
Hydraulic Length	300.00 ft
Manning's n	0.240
Slope	0.007 ft/ft
2 Year 24 Hour Depth	2.7 in
Average Velocity	0.09 ft/s
Segment Time of Concentration	0.952 hours

Segment #2: TR-55 Shallow Concentrated Flow	
Hydraulic Length	1,000.00 ft
Is Paved?	False
Slope	0.020 ft/ft
Average Velocity	2.28 ft/s
Segment Time of Concentration	0.122 hours

Time of Concentration (Composite)	
Time of Concentration (Composite)	1.074 hours

==== SCS Channel Flow

Tc = R = Qa / Wp
V = (1.49 * (R**(2/3)) * (Sf**-0.5)) / n

(Lf / V) / 3600

Where:
R= Hydraulic radius
Aq= Flow area, square feet
Wp= Wetted perimeter, feet
V= Velocity, ft/sec
Sf= Slope, ft/ft
n= Manning's n
Tc= Time of concentration, hours
Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

Tc = Unpaved surface:
V = 16.1345 * (Sf**0.5)

Paved Surface:
V = 20.3282 * (Sf**0.5)

(Lf / V) / 3600

Where:
V= Velocity, ft/sec
Sf= Slope, ft/ft
Tc= Time of concentration, hours
Lf= Flow length, feet

MIA-PIQ-2527 Detention Report

Subsection: Time of Concentration Calculations
Label: PRE SOUTH
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Time of Concentration Results

Segment #1: TR-55 Sheet Flow	
Hydraulic Length	300.00 ft
Manning's n	0.240
Slope	0.006 ft/ft
2 Year 24 Hour Depth	2.7 in
Average Velocity	0.08 ft/s
Segment Time of Concentration	1.013 hours

Segment #2: TR-55 Shallow Concentrated Flow	
Hydraulic Length	1,900.00 ft
Is Paved?	False
Slope	0.013 ft/ft
Average Velocity	1.84 ft/s
Segment Time of Concentration	0.287 hours

Time of Concentration (Composite)	
Time of Concentration (Composite)	1.300 hours

==== SCS Channel Flow

Tc = R = Qa / Wp
V = (1.49 * (R**(2/3)) * (Sf**-0.5)) / n

(Lf / V) / 3600

Where:
R= Hydraulic radius
Aq= Flow area, square feet
Wp= Wetted perimeter, feet
V= Velocity, ft/sec
Sf= Slope, ft/ft
n= Manning's n
Tc= Time of concentration, hours
Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

Tc = Unpaved surface:
V = 16.1345 * (Sf**0.5)

Paved Surface:
V = 20.3282 * (Sf**0.5)

(Lf / V) / 3600

Where:
V= Velocity, ft/sec
Sf= Slope, ft/ft
Tc= Time of concentration, hours
Lf= Flow length, feet

MIA-PIQ-2527 Detention Report

Subsection: Runoff CN-Area
Label: POST
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft²)	C (%)	UC (%)	Adjusted CN
Woodland	77.000	123,291.000	0.0	0.0	77.000
Residential	92.000	939,045.000	0.0	0.0	92.000
Rowcrops	85.000	536,452.000	0.0	0.0	85.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	1,598,788.000	(N/A)	(N/A)	88.495

MIA-PIQ-2527 Detention Report

Subsection: Runoff CN-Area
Label: PRE SOUTH
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft²)	C (%)	UC (%)	Adjusted CN
Row Crops	85.000	1,256,646.000	0.0	0.0	85.000
Woodland	77.000	123,291.000	0.0	0.0	77.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	1,379,937.000	(N/A)	(N/A)	84.285

MIA-PIQ-2527 Detention Report

Subsection: Elevation-Area Volume Curve
Return Event: 100 years
Label: POND
Storm Event: TypeII 24hr (5.4 in)
Scenario: Miami County - , 100 yrs

Elevation (ft)	Planimeter (ft²)	Area (ft²)	A1+A2+sqr (A1*A2) (ft²)	Volume (ac-ft)	Volume (Total) (ac-ft)
955.00	0.0	38,353.000	0.000	0.000	0.000
956.00	0.0	42,166.000	120,733.333	0.924	0.924
957.00	0.0	45,846.000	131,979.516	1.010	1.934
958.00	0.0	49,627.000	143,172.051	1.096	3.029
959.00	0.0	53,508.000	154,665.976	1.184	4.213
960.00	0.0	57,490.000	166,461.275	1.274	5.487
961.00	0.0	61,572.000	178,558.002	1.366	6.853
962.00	0.0	65,755.000	190,956.135	1.461	8.314
963.00	0.0	68,813.000	201,834.625	1.544	9.859

Pond Volume Equations

*** Incremental volume computed by the Conic Method for Reservoir Volumes.**

Volume = (1/3) * (EL2 - El1) * (Area1 + Area2 + sqr(Area1 * Area2))

where:	EL1, EL2	Lower and upper elevations of the increment
	Area1, Area2	Areas computed for EL1, EL2, respectively
	Volume	Incremental volume between EL1 and EL2

MIA-PIQ-2527 Detention Report

Subsection: Outlet Input Data
Label: NORTH OUT
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Requested Pond Water Surface Elevations	
Minimum (Headwater)	955.00 ft
Increment (Headwater)	0.25 ft
Maximum (Headwater)	963.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Inlet Box	Riser - 1	Forward	Culvert - 1	962.00	963.00
Orifice-Circular	Orifice - 1	Forward	Culvert - 1	955.00	963.00
Culvert-Circular	Culvert - 1	Forward	TW	955.00	963.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

MIA-PIQ-2527 Detention Report

Subsection: Outlet Input Data
Label: NORTH OUT
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Structure ID: Orifice - 1 Structure Type: Orifice-Circular	
Number of Openings	1
Elevation	955.00 ft
Orifice Diameter	6.0 in
Orifice Coefficient	0.600

MIA-PIQ-2527 Detention Report

Subsection: Outlet Input Data
Label: NORTH OUT
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Structure ID: Culvert - 1 Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	12.0 in
Length	91.30 ft
Length (Computed Barrel)	91.30 ft
Slope (Computed)	0.005 ft/ft

Outlet Control Data	
Manning's n	0.013
Ke	0.200
Kb	0.031
Kr	0.000
Convergence Tolerance	0.00 ft

Inlet Control Data	
Equation Form	Form 1
K	0.0045
M	2.0000
C	0.0317
Y	0.6900
T1 ratio (HW/D)	1.093
T2 ratio (HW/D)	1.195
Slope Correction Factor	-0.500

Use unsubmerged inlet control 0 equation below T1 elevation.
Use submerged inlet control 0 equation above T2 elevation

In transition zone between unsubmerged and submerged inlet control,
interpolate between flows at T1 & T2...

T1 Elevation	956.09 ft	T1 Flow	2.75 ft³/s
T2 Elevation	956.19 ft	T2 Flow	3.14 ft³/s

MIA-PIQ-2527 Detention Report

Subsection: Outlet Input Data
Label: NORTH OUT
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Structure ID: Riser - 1 Structure Type: Inlet Box	
Number of Openings	1
Elevation	962.00 ft
Orifice Area	2.7 ft²
Orifice Coefficient	0.600
Weir Length	9.20 ft
Weir Coefficient	2.70 (ft^0.5)/s
K Reverse	1.000
Manning's n	0.000
Kev, Charged Riser	0.000
Weir Submergence	False
Orifice H to crest	False

Structure ID: TW Structure Type: TW Setup, DS Channel	
Tailwater Type	Free Outfall

Convergence Tolerances	
Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01 ft
Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft
Headwater Tolerance (Maximum)	0.50 ft
Flow Tolerance (Minimum)	0.001 ft³/s
Flow Tolerance (Maximum)	10.000 ft³/s

MIA-PIQ-2527 Detention Report

Subsection: Composite Rating Curve
Label: NORTH OUT
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft³/s)	Tailwater Elevation (ft)	Convergence Error (ft)
955.00	0.00	(N/A)	0.00
955.25	0.10	(N/A)	0.00
955.50	0.36	(N/A)	0.00
955.75	0.53	(N/A)	0.00
956.00	0.67	(N/A)	0.00
956.25	0.80	(N/A)	0.00
956.50	0.91	(N/A)	0.00
956.75	1.01	(N/A)	0.00
957.00	1.10	(N/A)	0.00
957.25	1.19	(N/A)	0.00
957.50	1.27	(N/A)	0.00
957.75	1.35	(N/A)	0.00
958.00	1.42	(N/A)	0.00
958.25	1.49	(N/A)	0.00
958.50	1.56	(N/A)	0.00
958.75	1.62	(N/A)	0.00
959.00	1.69	(N/A)	0.00
959.25	1.75	(N/A)	0.00
959.50	1.80	(N/A)	0.00
959.75	1.86	(N/A)	0.00
960.00	1.92	(N/A)	0.00
960.25	1.97	(N/A)	0.00
960.50	2.02	(N/A)	0.00
960.75	2.07	(N/A)	0.00
961.00	2.12	(N/A)	0.00
961.25	2.17	(N/A)	0.00
961.50	2.22	(N/A)	0.00
961.75	2.27	(N/A)	0.00
962.00	2.31	(N/A)	0.00
962.25	5.03	(N/A)	0.00
962.50	8.28	(N/A)	0.00
962.75	8.42	(N/A)	0.00
963.00	8.57	(N/A)	0.00

Contributing Structures
(no Q: Riser - 1,Orifice - 1,Culvert - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)

MIA-PIQ-2527 Detention Report

Subsection: Composite Rating Curve
Label: NORTH OUT
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Composite Outflow Summary

Contributing Structures
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)

MIA-PIQ-2527 Detention Report

Subsection: Composite Rating Curve
Label: NORTH OUT
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Composite Outflow Summary

Contributing Structures
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1)
Riser - 1,Orifice - 1,Culvert - 1
Riser - 1,Culvert - 1 (no Q: Orifice - 1)
Riser - 1,Culvert - 1 (no Q: Orifice - 1)
Riser - 1,Culvert - 1 (no Q: Orifice - 1)

MIA-PIQ-2527 Detention Report

Subsection: Outlet Input Data
Label: SOUTH OUT
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Requested Pond Water Surface Elevations	
Minimum (Headwater)	955.00 ft
Increment (Headwater)	0.50 ft
Maximum (Headwater)	963.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Inlet Box	Riser - 1	Forward	Culvert - 1	961.20	963.00
Orifice-Area	Orifice - 1	Forward	Culvert - 1	958.50	963.00
Culvert-Circular	Culvert - 1	Forward	TW	958.50	963.00
Rectangular Weir	Weir - 1	Forward	TW	962.00	963.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

MIA-PIQ-2527 Detention Report

Subsection: Outlet Input Data
Label: SOUTH OUT
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Structure ID: Orifice - 1 Structure Type: Orifice-Area	
Number of Openings	2
Elevation	958.50 ft
Orifice Area	1.0 ft²
Top Elevation	959.00 ft
Datum Elevation	958.75 ft
Orifice Coefficient	0.600

MIA-PIQ-2527 Detention Report

Subsection: Outlet Input Data
Label: SOUTH OUT
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Structure ID: Culvert - 1 Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	18.0 in
Length	150.00 ft
Length (Computed Barrel)	150.00 ft
Slope (Computed)	0.006 ft/ft

Outlet Control Data	
Manning's n	0.013
Ke	0.200
Kb	0.018
Kr	0.000
Convergence Tolerance	0.00 ft

Inlet Control Data	
Equation Form	Form 1
K	0.0045
M	2.0000
C	0.0317
Y	0.6900
T1 ratio (HW/D)	1.092
T2 ratio (HW/D)	1.194
Slope Correction Factor	-0.500

Use unsubmerged inlet control 0 equation below T1 elevation.
Use submerged inlet control 0 equation above T2 elevation

In transition zone between unsubmerged and submerged inlet control,
interpolate between flows at T1 & T2...

T1 Elevation	960.14 ft	T1 Flow	7.58 ft³/s
T2 Elevation	960.29 ft	T2 Flow	8.66 ft³/s

MIA-PIQ-2527 Detention Report

Subsection: Outlet Input Data
Label: SOUTH OUT
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Structure ID: Riser - 1 Structure Type: Inlet Box	
Number of Openings	1
Elevation	961.20 ft
Orifice Area	2.7 ft²
Orifice Coefficient	0.600
Weir Length	9.20 ft
Weir Coefficient	2.70 (ft^0.5)/s
K Reverse	1.000
Manning's n	0.000
Kev, Charged Riser	0.000
Weir Submergence	False
Orifice H to crest	False

Structure ID: Weir - 1 Structure Type: Rectangular Weir	
Number of Openings	1
Elevation	962.00 ft
Weir Length	30.00 ft
Weir Coefficient	3.00 (ft^0.5)/s

Structure ID: TW Structure Type: TW Setup, DS Channel	
Tailwater Type	Free Outfall

Convergence Tolerances	
Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01 ft
Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft
Headwater Tolerance (Maximum)	0.50 ft
Flow Tolerance (Minimum)	0.001 ft³/s
Flow Tolerance (Maximum)	10.000 ft³/s

MIA-PIQ-2527 Detention Report

Subsection: Composite Rating Curve
Label: SOUTH OUT
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
955.00	0.00	(N/A)	0.00
955.50	0.00	(N/A)	0.00
956.00	0.00	(N/A)	0.00
956.50	0.00	(N/A)	0.00
957.00	0.00	(N/A)	0.00
957.50	0.00	(N/A)	0.00
958.00	0.00	(N/A)	0.00
958.50	0.00	(N/A)	0.00
959.00	0.86	(N/A)	0.00
959.50	2.77	(N/A)	0.00
960.00	4.79	(N/A)	0.00
960.50	6.65	(N/A)	0.00
961.00	8.22	(N/A)	0.00
961.20	8.73	(N/A)	0.00
961.50	10.31	(N/A)	0.00
962.00	12.24	(N/A)	0.00
962.50	45.03	(N/A)	0.00
963.00	104.11	(N/A)	0.00

Contributing Structures
(no Q: Riser - 1,Orifice - 1,Culvert - 1,Weir - 1)
(no Q: Riser - 1,Orifice - 1,Culvert - 1,Weir - 1)
(no Q: Riser - 1,Orifice - 1,Culvert - 1,Weir - 1)
(no Q: Riser - 1,Orifice - 1,Culvert - 1,Weir - 1)
(no Q: Riser - 1,Orifice - 1,Culvert - 1,Weir - 1)
(no Q: Riser - 1,Orifice - 1,Culvert - 1,Weir - 1)
(no Q: Riser - 1,Orifice - 1,Culvert - 1,Weir - 1)
(no Q: Riser - 1,Orifice - 1,Culvert - 1,Weir - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1,Weir - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1,Weir - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1,Weir - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1,Weir - 1)

MIA-PIQ-2527 Detention Report

Subsection: Composite Rating Curve
Label: SOUTH OUT
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Composite Outflow Summary

Contributing Structures
Orifice - 1,Culvert - 1 (no Q: Riser - 1,Weir - 1)
Orifice - 1,Culvert - 1 (no Q: Riser - 1,Weir - 1)
Riser - 1,Orifice - 1,Culvert - 1 (no Q: Weir - 1)
Riser - 1,Culvert - 1 (no Q: Orifice - 1,Weir - 1)
Riser - 1,Culvert - 1,Weir - 1 (no Q: Orifice - 1)
Riser - 1,Culvert - 1,Weir - 1 (no Q: Orifice - 1)

MIA-PIQ-2527 Detention Report

Subsection: Level Pool Pond Routing Summary
Label: POND (IN)
Scenario: Miami County - , 1 yrs

Return Event: 1 years
Storm Event: TypeII 24hr (2.4 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	955.00 ft
Volume (Initial)	0.000 ac-ft
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	24.72 ft³/s	Time to Peak (Flow, In)	12.550 hours
Flow (Peak Outlet)	1.36 ft³/s	Time to Peak (Flow, Outlet)	18.650 hours

Elevation (Water Surface, Peak)	957.78 ft
Volume (Peak)	2.785 ac-ft

Mass Balance (ac-ft)	
Volume (Initial)	0.000 ac-ft
Volume (Total Inflow)	3.965 ac-ft
Volume (Total Infiltration)	0.000 ac-ft
Volume (Total Outlet Outflow)	2.326 ac-ft
Volume (Retained)	1.635 ac-ft
Volume (Unrouted)	-0.004 ac-ft
Error (Mass Balance)	0.1 %

MIA-PIQ-2527 Detention Report

Subsection: Level Pool Pond Routing Summary
Label: POND (IN)
Scenario: Miami County - , 2 yrs

Return Event: 2 years
Storm Event: TypeII 24hr (2.8 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	955.00 ft
Volume (Initial)	0.000 ac-ft
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	31.38 ft³/s	Time to Peak (Flow, In)	12.550 hours
Flow (Peak Outlet)	1.58 ft³/s	Time to Peak (Flow, Outlet)	18.950 hours

Elevation (Water Surface, Peak)	958.51 ft
Volume (Peak)	3.622 ac-ft

Mass Balance (ac-ft)	
Volume (Initial)	0.000 ac-ft
Volume (Total Inflow)	5.021 ac-ft
Volume (Total Infiltration)	0.000 ac-ft
Volume (Total Outlet Outflow)	2.729 ac-ft
Volume (Retained)	2.287 ac-ft
Volume (Unrouted)	-0.006 ac-ft
Error (Mass Balance)	0.1 %

MIA-PIQ-2527 Detention Report

Subsection: Level Pool Pond Routing Summary
Label: POND (IN)
Scenario: Miami County - , 5 yrs

Return Event: 5 years
Storm Event: TypeII 24hr (3.5 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	955.00 ft
Volume (Initial)	0.000 ac-ft
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	43.48 ft³/s	Time to Peak (Flow, In)	12.450 hours
Flow (Peak Outlet)	3.91 ft³/s	Time to Peak (Flow, Outlet)	15.350 hours

Elevation (Water Surface, Peak)	959.34 ft
Volume (Peak)	4.630 ac-ft

Mass Balance (ac-ft)	
Volume (Initial)	0.000 ac-ft
Volume (Total Inflow)	6.939 ac-ft
Volume (Total Infiltration)	0.000 ac-ft
Volume (Total Outlet Outflow)	4.289 ac-ft
Volume (Retained)	2.644 ac-ft
Volume (Unrouted)	-0.006 ac-ft
Error (Mass Balance)	0.1 %

MIA-PIQ-2527 Detention Report

Subsection: Level Pool Pond Routing Summary
Label: POND (IN)
Scenario: Miami County - , 10 yrs

Return Event: 10 years
Storm Event: TypeII 24hr (4.0 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	955.00 ft
Volume (Initial)	0.000 ac-ft
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	52.26 ft³/s	Time to Peak (Flow, In)	12.450 hours
Flow (Peak Outlet)	6.19 ft³/s	Time to Peak (Flow, Outlet)	14.600 hours

Elevation (Water Surface, Peak)	959.88 ft
Volume (Peak)	5.328 ac-ft

Mass Balance (ac-ft)	
Volume (Initial)	0.000 ac-ft
Volume (Total Inflow)	8.347 ac-ft
Volume (Total Infiltration)	0.000 ac-ft
Volume (Total Outlet Outflow)	5.593 ac-ft
Volume (Retained)	2.748 ac-ft
Volume (Unrouted)	-0.006 ac-ft
Error (Mass Balance)	0.1 %

MIA-PIQ-2527 Detention Report

Subsection: Level Pool Pond Routing Summary
Label: POND (IN)
Scenario: Miami County - , 25 yrs

Return Event: 25 years
Storm Event: TypeII 24hr (4.5 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	955.00 ft
Volume (Initial)	0.000 ac-ft
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	61.10 ft³/s	Time to Peak (Flow, In)	12.450 hours
Flow (Peak Outlet)	8.42 ft³/s	Time to Peak (Flow, Outlet)	14.300 hours

Elevation (Water Surface, Peak)	960.44 ft
Volume (Peak)	6.070 ac-ft

Mass Balance (ac-ft)	
Volume (Initial)	0.000 ac-ft
Volume (Total Inflow)	9.776 ac-ft
Volume (Total Infiltration)	0.000 ac-ft
Volume (Total Outlet Outflow)	6.946 ac-ft
Volume (Retained)	2.823 ac-ft
Volume (Unrouted)	-0.006 ac-ft
Error (Mass Balance)	0.1 %

MIA-PIQ-2527 Detention Report

Subsection: Level Pool Pond Routing Summary
Label: POND (IN)
Scenario: Miami County - , 50 yrs

Return Event: 50 years
Storm Event: TypeII 24hr (5.0 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	955.00 ft
Volume (Initial)	0.000 ac-ft
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	69.95 ft³/s	Time to Peak (Flow, In)	12.450 hours
Flow (Peak Outlet)	10.36 ft³/s	Time to Peak (Flow, Outlet)	14.200 hours

Elevation (Water Surface, Peak)	961.00 ft
Volume (Peak)	6.858 ac-ft

Mass Balance (ac-ft)	
Volume (Initial)	0.000 ac-ft
Volume (Total Inflow)	11.222 ac-ft
Volume (Total Infiltration)	0.000 ac-ft
Volume (Total Outlet Outflow)	8.326 ac-ft
Volume (Retained)	2.889 ac-ft
Volume (Unrouted)	-0.006 ac-ft
Error (Mass Balance)	0.1 %

MIA-PIQ-2527 Detention Report

Subsection: Level Pool Pond Routing Summary
Label: POND (IN)
Scenario: Miami County - , 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (5.4 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	955.00 ft
Volume (Initial)	0.000 ac-ft
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	77.04 ft³/s	Time to Peak (Flow, In)	12.450 hours
Flow (Peak Outlet)	12.24 ft³/s	Time to Peak (Flow, Outlet)	14.100 hours

Elevation (Water Surface, Peak)	961.45 ft
Volume (Peak)	7.493 ac-ft

Mass Balance (ac-ft)	
Volume (Initial)	0.000 ac-ft
Volume (Total Inflow)	12.388 ac-ft
Volume (Total Infiltration)	0.000 ac-ft
Volume (Total Outlet Outflow)	9.444 ac-ft
Volume (Retained)	2.937 ac-ft
Volume (Unrouted)	-0.006 ac-ft
Error (Mass Balance)	0.1 %

PRE-DEVELOPED NORTH
DRAINAGE AREA
AREA= 5.02 ACRES
CN= 85
TC= 1.07 HOURS

PRE-DEVELOPED SOUTH
DRAINAGE AREA
AREA= 31.68 ACRES
CN= 84
TC= 1.30 HOURS

SCALE IN FEET
0 50 100 200

18"
12"
12"

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_BD001.dwg 30-Mar-26 3:28 PM

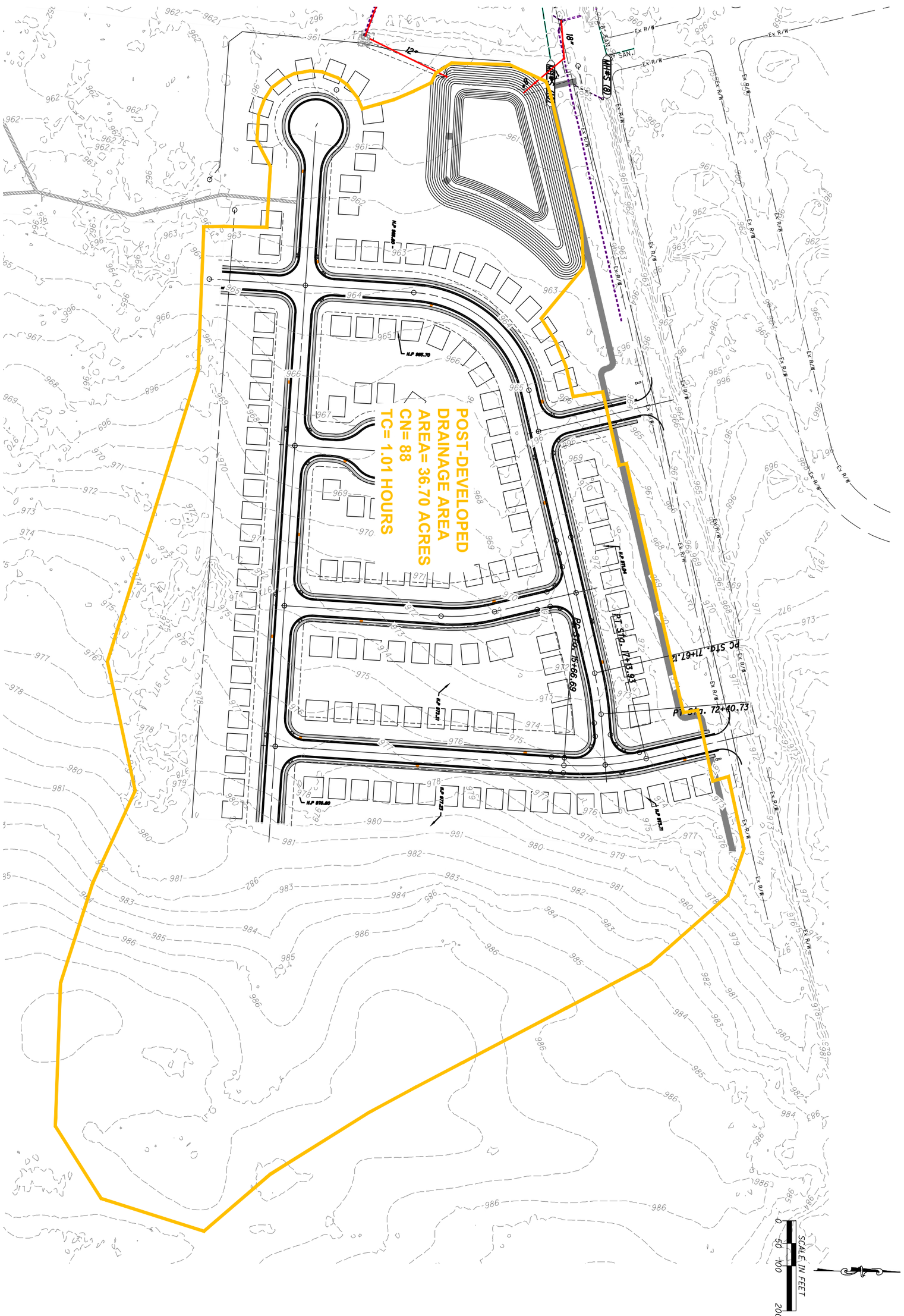
ChoiceOne Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

SHAW FARMS SUBDIVISION
CITY OF PIQUA
PRE-DEVELOPED DRAINAGE MAP

REVISIONS:

FILE NAME	BD001
DRAWN BY	NES
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	3/30/2026
SHEET NUMBER	1 OF 2

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_BD001.dwg 30-Mar-26 3:34 PM



FILE NAME	BD001
DRAWN BY	NES
CHECKED BY	KMM
PROJECT No.	MIA-PIQ-2527
DATE	3/30/2026
SHEET NUMBER	2 OF 2
REVISIONS:	

SHAW FARMS SUBDIVISION
CITY OF PIQUA
POST-DEVELOPED DRAINAGE MAP

SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

ChoiceOne Engineering



Map Scale: 1:3,610 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Miami County, Ohio
Survey Area Data: Version 24, Sep 2, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 18, 2023—Aug 4, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group (MIAPIQ2527)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Bs	Brookston silty clay loam, fine texture, 0 to 2 percent slopes	C/D	0.7	2.3%
CeB	Celina silt loam, 2 to 6 percent slopes	C/D	0.0	0.0%
CrA	Crosby silt loam, Southern Ohio Till Plain, 0 to 2 percent slopes	C/D	15.3	48.4%
MhB	Miamian silt loam, 2 to 6 percent slopes	C	1.7	5.3%
OdA	Odell silt loam, 0 to 2 percent slopes	C/D	13.9	44.0%
Totals for Area of Interest			**31.6**	**100.0%**

Rating Options—Hydrologic Soil Group (MIAPIQ2527)

Aggregation Method: Dominant Condition

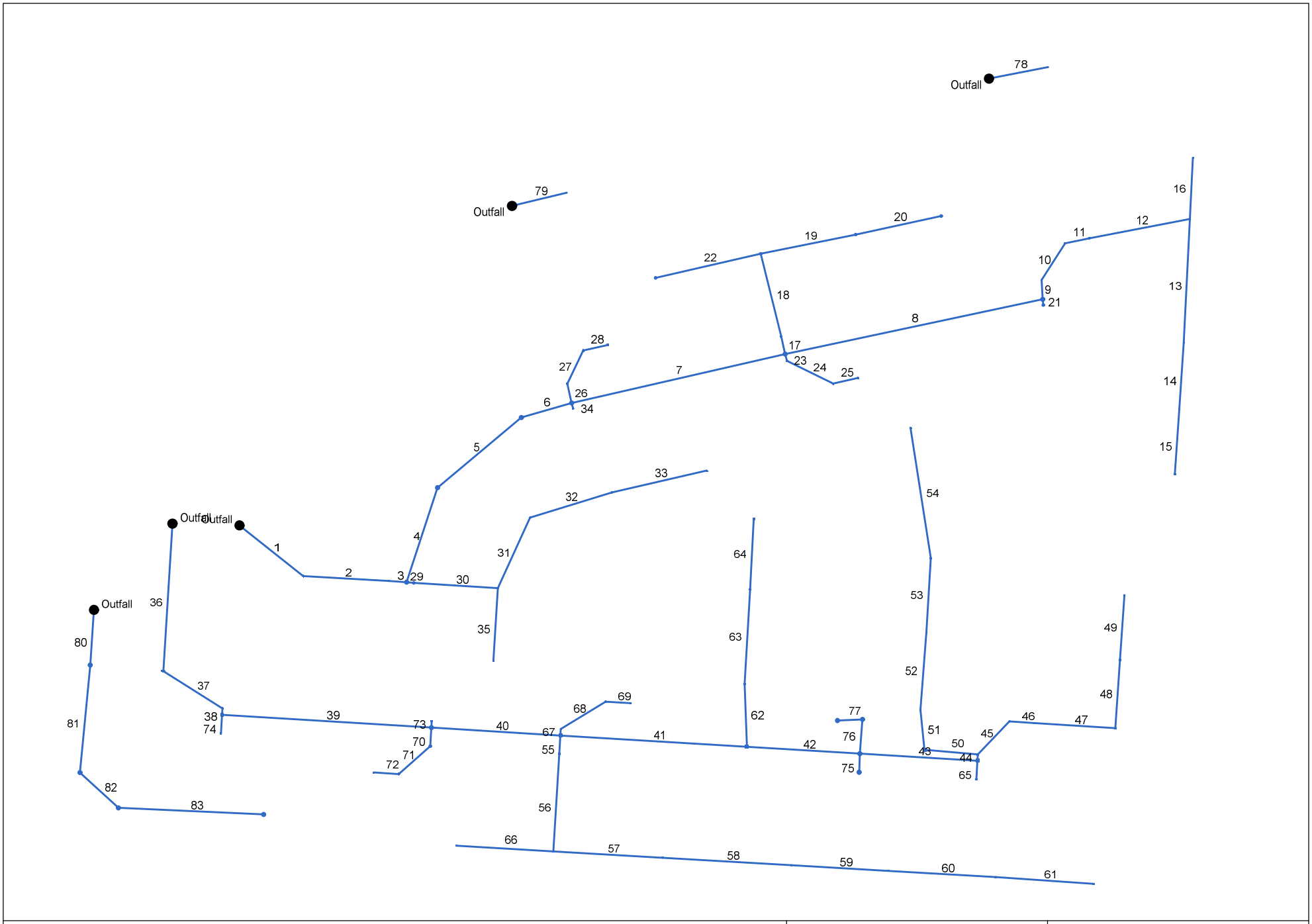
Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Z:\project\Miami\Piqua\MIA-PIQ-2527_FrenchPropertyConcept\MIAPIQ2527_GradingPlan.dwg 13-Apr-26 8:54 AM


SCALE IN FEET
0
40'
80'
160'
ASPHALT PVMT.
GRAVEL PVMT.
ARMSTRONG DRIVE
RANDOLPH DRIVE
FISHER COURT
HARMAR DRIVE
SHAW FARMS DRIVE
ROSSVILLE PIKE
CB #301 0.37 ACRES C-VALUE: 0.40
CB #302 0.74 ACRES C-VALUE: 0.40
CB #303 2.90 ACRES C-VALUE: 0.40
CB #200 0.64 ACRES C-VALUE: 0.70
CB #201 0.13 ACRES C-VALUE: 0.70
CB #202 0.15 ACRES C-VALUE: 0.40
CB #203 0.15 ACRES C-VALUE: 0.40
CB #100 0.23 ACRES C-VALUE: 0.40
CB #101 0.93 ACRES C-VALUE: 0.70
CB #102 0.65 ACRES C-VALUE: 0.70
CB #103 0.65 ACRES C-VALUE: 0.70
CB #104 0.24 ACRES C-VALUE: 0.40
CB #105 0.22 ACRES C-VALUE: 0.70
CB #106 0.34 ACRES C-VALUE: 0.70
CB #107 0.44 ACRES C-VALUE: 0.70
CB #108 0.47 ACRES C-VALUE: 0.70
CB #109 0.08 ACRES C-VALUE: 0.70
CB #110 0.22 ACRES C-VALUE: 0.40
CB #111 0.20 ACRES C-VALUE: 0.40
CB #112 0.18 ACRES C-VALUE: 0.40
CB #113 0.16 ACRES C-VALUE: 0.40
CB #114 0.22 ACRES C-VALUE: 0.70
CB #115 0.44 ACRES C-VALUE: 0.70
CB #116 0.47 ACRES C-VALUE: 0.40
CB #117 0.69 ACRES C-VALUE: 0.70
CB #118 0.76 ACRES C-VALUE: 0.70
CB #119 0.50 ACRES C-VALUE: 0.40
CB #120 2.81 ACRES C-VALUE: 0.40
CB #121 0.82 ACRES C-VALUE: 0.40
CB #122 1.00 ACRES C-VALUE: 0.40
CB #123 0.91 ACRES C-VALUE: 0.40
CB #124 0.30 ACRES C-VALUE: 0.70
CB #125 0.51 ACRES C-VALUE: 0.70
CB #126 0.58 ACRES C-VALUE: 0.40
CB #127 0.46 ACRES C-VALUE: 0.40
CB #128 0.09 ACRES C-VALUE: 0.40
CB #129 0.22 ACRES C-VALUE: 0.40
CB #130 0.10 ACRES C-VALUE: 0.40
CB #131 0.54 ACRES C-VALUE: 0.40
CB #132 0.31 ACRES C-VALUE: 0.40
CB #133 0.12 ACRES C-VALUE: 0.40
CB #134 0.41 ACRES C-VALUE: 0.40
CB #135 0.36 ACRES C-VALUE: 0.40
CB #136 0.70 ACRES C-VALUE: 0.40
CB #137 0.55 ACRES C-VALUE: 0.40
CB #138 2.38 ACRES C-VALUE: 0.40
CB #204 0.47 ACRES C-VALUE: 0.70
CB #205 0.40 ACRES C-VALUE: 0.40
CB #206 0.30 ACRES C-VALUE: 0.40
CB #207 0.41 ACRES C-VALUE: 0.40
CB #208 0.63 ACRES C-VALUE: 0.70
CB #209 0.62 ACRES C-VALUE: 0.40
CB #210 0.13 ACRES C-VALUE: 0.40
CB #211 0.09 ACRES C-VALUE: 0.40
CB #212 0.09 ACRES C-VALUE: 0.40
CB #213 0.58 ACRES C-VALUE: 0.70
CB #214 0.45 ACRES C-VALUE: 0.70
CB #215 0.39 ACRES C-VALUE: 0.70
CB #216 0.82 ACRES C-VALUE: 0.50
CB #217 0.60 ACRES C-VALUE: 0.70
CB #218 0.39 ACRES C-VALUE: 0.70
CB #219 0.60 ACRES C-VALUE: 0.70
CB #220 1.48 ACRES C-VALUE: 0.40
CB #221 1.10 ACRES C-VALUE: 0.40
CB #222 1.00 ACRES C-VALUE: 0.40
CB #223 0.91 ACRES C-VALUE: 0.40
CB #224 0.30 ACRES C-VALUE: 0.70
CB #225 0.51 ACRES C-VALUE: 0.70
CB #226 0.58 ACRES C-VALUE: 0.40
CB #227 0.46 ACRES C-VALUE: 0.40
CB #228 0.09 ACRES C-VALUE: 0.40
CB #229 0.41 ACRES C-VALUE: 0.40
CB #230 0.10 ACRES C-VALUE: 0.40
CB #231 0.34 ACRES C-VALUE: 0.70
CB #232 0.31 ACRES C-VALUE: 0.40
CB #233 0.12 ACRES C-VALUE: 0.40
CB #234 0.41 ACRES C-VALUE: 0.40
CB #235 0.36 ACRES C-VALUE: 0.40
CB #236 0.70 ACRES C-VALUE: 0.40
CB #237 0.55 ACRES C-VALUE: 0.40
CB #238 2.38 ACRES C-VALUE: 0.40
CB #239 0.30 ACRES C-VALUE: 0.40
CB #240 0.25 ACRES C-VALUE: 0.70
CB #241 0.47 ACRES C-VALUE: 0.70
CB #242 0.20 ACRES C-VALUE: 0.40
CB #243 0.20 ACRES C-VALUE: 0.40
CB #244 0.22 ACRES C-VALUE: 0.40
CB #245 0.20 ACRES C-VALUE: 0.40
CB #246 0.18 ACRES C-VALUE: 0.40
CB #247 0.16 ACRES C-VALUE: 0.40
CB #248 0.22 ACRES C-VALUE: 0.70
CB #249 0.50 ACRES C-VALUE: 0.40
CB #250 0.50 ACRES C-VALUE: 0.40
CB #251 0.47 ACRES C-VALUE: 0.40
CB #252 0.50 ACRES C-VALUE: 0.40
CB #253 0.50 ACRES C-VALUE: 0.40
CB #254 0.50 ACRES C-VALUE: 0.40
CB #255 0.50 ACRES C-VALUE: 0.40
CB #256 0.50 ACRES C-VALUE: 0.40
CB #257 0.50 ACRES C-VALUE: 0.40
CB

Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: kmm.stm	Number of lines: 83	Date: 4/13/2026

COEC RPT2

Line No.	Inlet ID	Drng Area (ac)	Total Area (ac)	Runoff Coeff (C)	Total CxA	Inlet Time (min)	Tc (min)	Flow Rate (cfs)	Capac Full (cfs)	Line Size (in)	Line Slope (%)	Invert Up (ft)	Invert Dn (ft)	HGL Up (ft)	HGL Dn (ft)	Gnd/Rim El Up (ft)	Gnd/Rim El Dn (ft)	Cover Up (ft)	Cover Dn (ft)	
1	#100	0.23	12.57	0.40	6.73	10.0	30.7	22.37	40.63	24	3.23	958.25	955.00	959.94	956.66	965.12	0.00	4.87	n/a	
2	#101	0.93	12.34	0.70	6.63	10.0	30.4	22.18	22.07	24	0.95	959.26	958.25	960.94	959.94	964.16	965.12	2.90	4.87	
3	#102	0.00	11.41	0.00	5.98	0.0	30.4	20.03	24.90	24	1.03	959.49	959.26	961.10 j	960.94	964.52	964.16	3.03	2.90	
4	#104	0.00	9.35	0.00	4.96	0.0	29.9	16.75	24.49	24	1.00	960.72	959.49	962.19 j	961.10	965.49	964.52	2.77	3.03	
5	#105	0.00	9.35	0.00	4.96	0.0	29.5	16.90	19.64	24	0.64	961.59	960.72	963.07	962.19	965.59	965.49	2.00	2.77	
6	#106	0.00	9.35	0.00	4.96	0.0	29.3	16.97	19.74	24	0.65	962.01	961.59	963.49	963.07	966.78	965.59	2.77	2.00	
7	#111	0.00	8.31	0.00	4.24	0.0	28.3	14.77	18.65	24	0.58	963.58	962.01	964.96 j	963.49	969.82	966.78	4.24	2.77	
8	#114	0.00	5.97	0.00	2.83	0.0	27.3	10.06	10.56	18	0.86	966.39	963.58	967.61 j	964.96	972.26	969.82	4.37	4.74	
9	#116	0.04	5.53	0.70	2.52	10.0	27.3	8.98	10.53	18	1.01	966.63	966.39	967.79 j	967.61	972.46	972.26	4.33	4.37	
10	#117	0.22	5.49	0.70	2.49	10.0	27.1	8.90	8.83	15	1.87	967.89	966.88	969.04	967.91	972.34	972.46	3.20	4.33	
11	#118	0.76	5.27	0.70	2.34	10.0	27.1	8.36	8.36	15	1.68	968.41	967.89	969.54 j	969.04	972.34	972.34	2.68	3.20	
12	#119	1.47	4.51	0.40	1.80	25.8	26.7	6.51	6.50	15	1.01	969.69	968.41	970.72 j	969.54	972.72	972.34	1.78	2.68	
13	#120	0.81	2.54	0.40	1.02	24.7	26.1	3.71	3.88	12	1.01	971.24	969.69	972.06 j	970.72	974.28	972.72	2.04	2.03	
14	#121	0.82	1.73	0.40	0.69	24.7	25.7	2.55	3.96	12	1.24	972.27	971.24	972.95 j	972.29	975.27	974.28	2.00	2.04	
15	#122	0.91	0.91	0.40	0.36	24.9	24.9	1.37	3.84	12	1.16	973.20	972.27	973.69 j	972.95	976.23	975.27	2.03	2.00	
16	#123	0.50	0.50	0.40	0.20	19.4	19.4	0.86	3.26	12	0.84	970.35	969.72	970.74 j	970.72	973.35	972.72	2.00	2.00	
17	#113	0.51	1.27	0.70	0.66	10.0	16.7	3.06	3.12	12	0.77	963.75	963.58	965.13	964.96	969.95	969.82	5.20	5.24	
18	#126	0.20	0.76	0.40	0.30	10.0	15.9	1.44	2.42	12	0.46	964.24	963.75	965.42	965.25	968.75	969.95	3.51	5.20	
19	#127	0.18	0.34	0.40	0.14	10.0	13.8	0.69	3.99	12	1.26	967.26	965.75	967.61	966.03	970.26	968.75	2.00	2.00	
20	#128	0.16	0.16	0.40	0.06	10.0	10.0	0.37	3.95	12	1.23	968.59	967.26	968.84 j	967.61	971.59	970.26	2.00	2.00	
21	#115	0.44	0.44	0.70	0.31	10.0	10.0	1.78	6.10	12	2.94	969.05	968.84	969.62	969.21	972.31	972.26	2.26	2.42	
22	#129	0.22	0.22	0.40	0.09	10.0	10.0	0.51	1.95	12	0.30	964.64	964.24	965.56	965.54	967.15	968.75	1.51	3.51	
23	#112	0.08	1.07	0.70	0.75	10.0	10.4	4.27	3.61	12	1.03	966.69	966.60	967.69	967.60	969.95	969.82	2.26	2.22	

Project File: kmm.stm | Number of lines: 83 | Date: 4/13/2026

NOTES: ** Critical depth

COEC RPT2

Line No.	Inlet ID	Drng Area (ac)	Total Area (ac)	Runoff Coeff (C)	Total CxA	Inlet Time (min)	Tc (min)	Flow Rate (cfs)	Capac Full (cfs)	Line Size (in)	Line Slope (%)	Invert Up (ft)	Invert Dn (ft)	HGL Up (ft)	HGL Dn (ft)	Gnd/Rim El Up (ft)	Gnd/Rim El Dn (ft)	Cover Up (ft)	Cover Dn (ft)	
24	#124	0.30	0.99	0.70	0.69	10.0	10.1	3.98	3.99	12	1.25	967.49	966.69	969.03	968.24	970.70	969.95	2.21	2.26	
25	#125	0.69	0.69	0.70	0.48	10.0	10.0	2.79	2.79	12	0.61	967.68	967.49	969.63	969.44	970.70	970.70	2.02	2.21	
26	#108	0.05	0.60	0.70	0.42	10.0	10.5	2.38	2.40	12	0.45	963.11	963.00	963.92	963.81	966.19	966.78	2.08	2.78	
27	#109	0.08	0.55	0.70	0.39	10.0	10.2	2.21	2.35	12	0.44	963.31	963.11	964.27	964.11	966.51	966.19	2.20	2.08	
28	#110	0.47	0.47	0.70	0.33	10.0	10.0	1.90	2.31	12	0.42	963.44	963.31	964.52	964.43	966.51	966.51	2.07	2.20	
29	#103	0.65	2.06	0.70	1.02	10.0	15.5	4.88	4.82	12	1.84	959.65	959.49	961.26	961.10	964.16	964.52	3.51	4.03	
30	#130	0.24	1.41	0.40	0.56	10.0	15.1	2.74	3.02	12	0.72	960.40	959.65	962.18	961.56	964.81	964.16	3.41	3.51	
31	#131	0.54	1.07	0.40	0.43	10.0	14.3	2.13	2.65	12	0.55	960.93	960.40	962.81	962.46	963.68	964.81	1.75	3.41	
32	#132	0.31	0.53	0.40	0.21	10.0	13.1	1.10	4.10	12	1.33	962.34	960.93	963.04	962.94	965.34	963.68	2.00	1.75	
33	#133	0.22	0.22	0.40	0.09	10.0	10.0	0.51	6.57	12	3.41	966.43	962.34	966.73 j	963.07	969.43	965.34	2.00	2.00	
34	#107	0.44	0.44	0.70	0.31	10.0	10.0	1.78	5.26	12	2.18	962.65	962.50	963.22	963.49	966.17	966.78	2.52	3.28	
35	#134	0.10	0.10	0.40	0.04	10.0	10.0	0.23	3.83	12	1.16	962.85	961.81	963.05 j	962.46	965.85	964.81	2.00	2.00	
36	#200	0.64	21.10	0.70	10.50	10.0	37.7	30.75	31.18	36	0.22	955.40	955.00	957.78	956.80	963.53	0.00	5.13	n/a	
37	#201	0.13	20.46	0.70	10.05	10.0	37.4	29.62	29.53	36	0.20	955.57	955.40	958.48	958.33	964.95	963.53	6.38	5.13	
38	#202	0.00	20.33	0.00	9.96	0.0	37.3	29.36	31.41	30	0.50	955.61	955.57	958.89	958.86	964.80	964.95	6.69	6.88	
39	#204	0.00	20.18	0.00	9.86	0.0	36.6	29.42	55.71	30	1.57	959.69	955.61	961.54 j	959.45	964.60	964.80	2.41	6.69	
40	#207	0.00	18.90	0.00	8.96	0.0	36.3	26.89	27.60	24	1.27	962.12	960.09	963.93	961.69	966.77	964.60	2.65	2.51	
41	#210	0.00	9.54	0.00	4.66	0.0	35.4	14.21	20.11	24	0.79	963.95	962.12	965.31 j	963.93	969.90	966.77	3.95	2.65	
42	New	0.00	8.83	0.00	4.38	0.0	34.9	13.48	20.32	24	0.81	965.08	963.95	966.40 j	965.31	971.73	969.90	4.65	3.95	
43	#215	0.00	7.67	0.00	3.57	0.0	34.5	11.06	11.27	18	1.15	967.13	965.45	968.40	966.65	974.63	971.73	6.00	4.78	
44	#217	0.07	5.85	0.70	2.66	10.0	34.4	8.24	8.30	18	0.62	968.12	968.07	969.34	969.29	974.77	974.63	5.15	5.06	
45	#218	0.39	4.57	0.70	2.13	10.0	34.3	6.61	7.88	15	1.49	970.33	969.49	971.36	970.37	974.93	974.77	3.35	4.03	
46	#219	0.60	4.18	0.70	1.85	10.0	34.2	5.77	4.52	12	1.61	971.33	970.83	972.64	971.83	974.96	974.93	2.63	3.10	

Project File: kmm.stm | Number of lines: 83 | Date: 4/13/2026

NOTES: ** Critical depth

COEC RPT2

Line No.	Inlet ID	Drng Area (ac)	Total Area (ac)	Runoff Coeff (C)	Total CxA	Inlet Time (min)	Tc (min)	Flow Rate (cfs)	Capac Full (cfs)	Line Size (in)	Line Slope (%)	Invert Up (ft)	Invert Dn (ft)	HGL Up (ft)	HGL Dn (ft)	Gnd/Rim El Up (ft)	Gnd/Rim El Dn (ft)	Cover Up (ft)	Cover Dn (ft)	
47	#220	1.48	3.58	0.40	1.43	32.7	33.9	4.48	3.05	12	0.74	972.07	971.33	974.66	973.06	975.50	974.96	2.43	2.63	
48	#220	1.10	2.10	0.40	0.84	32.7	33.5	2.65	3.52	12	0.98	972.90	972.07	975.89	975.42	976.14	975.50	2.24	2.43	
49	#222	1.00	1.00	0.40	0.40	32.7	32.7	1.28	3.52	12	0.97	973.68	972.90	976.08	975.98	976.70	976.14	2.02	2.24	
50	#223	0.00	1.21	0.00	0.48	0.0	13.2	2.50	2.72	12	0.50	968.45	968.12	970.29	970.01	974.17	974.77	4.72	5.65	
51	#224	0.09	1.21	0.40	0.48	10.0	12.9	2.52	2.52	12	0.50	968.70	968.45	970.69	970.44	972.70	974.17	3.00	4.72	
52	#225	0.46	1.12	0.40	0.45	10.0	12.4	2.37	2.38	12	0.45	969.13	968.70	971.20	970.77	972.75	972.70	2.62	3.00	
53	#226	0.08	0.66	0.40	0.26	10.0	11.6	1.44	1.96	12	0.30	969.41	969.13	971.42	971.27	973.31	972.75	2.90	2.62	
54	#227	0.58	0.58	0.40	0.23	10.0	10.0	1.34	1.95	12	0.30	969.90	969.41	971.68	971.45	972.90	973.31	2.00	2.90	
55	#208	0.63	8.15	0.70	3.45	10.0	34.9	10.61	5.36	18	0.26	962.32	962.26	964.16	963.93	966.92	966.77	3.10	3.01	
56	#234	0.41	7.52	0.40	3.01	15.0	34.5	9.31	9.41	18	0.80	963.29	962.32	965.39	964.44	967.52	966.92	2.73	3.10	
57	#234	0.62	6.81	0.40	2.72	20.0	34.2	8.49	8.66	15	1.80	965.97	963.54	968.70	966.36	969.43	967.52	2.21	2.73	
58	#235	0.56	6.19	0.40	2.48	10.0	33.7	7.77	7.78	15	1.45	968.29	965.97	971.39	969.07	971.75	969.43	2.21	2.21	
59	#236	0.70	5.63	0.40	2.25	10.0	33.4	7.12	7.78	15	1.45	970.03	968.29	973.16	971.70	973.48	971.75	2.20	2.21	
60	#237	0.55	4.93	0.40	1.97	10.0	33.0	6.28	7.38	15	1.31	971.77	970.03	974.68	973.42	975.05	973.48	2.03	2.20	
61	#238	4.38	4.38	0.40	1.75	32.7	32.7	5.61	6.35	12	2.71	975.31	972.02	977.46	974.89	978.27	975.05	1.96	2.03	
62	#228	0.20	0.71	0.40	0.28	10.0	16.3	1.33	2.64	12	0.55	964.91	964.48	965.44	965.31	968.36	969.90	2.45	4.42	
63	#229	0.41	0.51	0.40	0.20	10.0	15.0	0.99	2.59	12	0.53	965.53	964.91	965.95 j	965.52	968.53	968.36	2.00	2.45	
64	#230	0.10	0.10	0.40	0.04	10.0	10.0	0.23	2.58	12	0.53	965.99	965.53	966.19 j	965.95	969.49	968.53	2.50	2.00	
65	#216	1.82	1.82	0.50	0.91	32.7	32.7	2.91	1.82	12	0.26	971.13	971.07	972.22	972.07	974.77	974.63	2.64	2.56	
66	#239	0.30	0.30	0.40	0.12	15.0	15.0	0.58	1.75	12	0.24	963.58	963.29	966.40	966.36	966.40	967.52	1.82	3.23	
67	#209	0.08	1.21	0.70	0.85	10.0	10.3	4.84	4.88	12	1.88	962.88	962.73	964.07	963.93	966.91	966.77	3.03	3.04	
68	#231	0.34	1.13	0.70	0.79	10.0	10.1	4.55	4.21	12	1.40	963.79	962.88	965.88	964.82	967.48	966.91	2.69	3.03	
69	#232	0.79	0.79	0.70	0.55	10.0	10.0	3.19	3.62	12	1.03	964.11	963.79	966.62	966.37	967.48	967.48	2.37	2.69	

Project File: kmm.stm | Number of lines: 83 | Date: 4/13/2026

NOTES: ** Critical depth

COEC RPT2

Line No.	Inlet ID	Drng Area (ac)	Total Area (ac)	Runoff Coeff (C)	Total CxA	Inlet Time (min)	Tc (min)	Flow Rate (cfs)	Capac Full (cfs)	Line Size (in)	Line Slope (%)	Invert Up (ft)	Invert Dn (ft)	HGL Up (ft)	HGL Dn (ft)	Gnd/Rim El Up (ft)	Gnd/Rim El Dn (ft)	Cover Up (ft)	Cover Dn (ft)	
70	#206	0.34	1.06	0.70	0.74	10.0	10.4	4.21	2.23	12	0.39	960.90	960.81	962.13	961.81	964.82	964.60	2.92	2.79	
71	#240	0.25	0.72	0.70	0.50	10.0	10.2	2.89	2.96	12	0.69	961.26	960.90	962.98	962.64	964.82	964.82	2.56	2.92	
72	#241	0.47	0.47	0.70	0.33	10.0	10.0	1.90	2.48	12	0.48	961.41	961.26	963.31	963.22	964.88	964.82	2.47	2.56	
73	#205	0.22	0.22	0.70	0.15	10.0	10.0	0.89	8.35	12	5.50	961.29	960.85	961.68 j	961.54	964.81	964.60	2.52	2.75	
74	#203	0.15	0.15	0.70	0.11	10.0	10.0	0.61	3.06	12	0.74	961.73	961.56	962.05	961.86	964.95	964.80	2.22	2.24	
75	#212	0.13	0.13	0.70	0.09	10.0	10.0	0.53	3.94	12	1.04	968.57	968.33	968.87	968.58	971.87	971.73	2.30	2.40	
76	#213	0.58	1.03	0.70	0.72	10.0	10.2	4.13	7.05	12	3.34	967.50	966.08	968.36	966.63	971.24	971.73	2.74	4.65	
77	#214	0.45	0.45	0.70	0.32	10.0	10.0	1.82	3.86	12	1.00	967.81	967.50	968.38 j	968.36	971.24	971.24	2.43	2.74	
78		6.09	6.09	0.40	2.44	41.5	41.5	6.71	7.71	18	0.54	969.52	969.12	970.65	970.12	972.27	972.06	1.25	1.44	
79		7.20	7.20	0.40	2.88	41.5	41.5	7.94	8.17	18	0.61	963.05	962.63	964.29	963.72	965.81	965.40	1.26	1.27	
80	#300	0.15	4.16	0.40	1.66	10.0	40.5	4.66	4.01	18	0.15	957.40	957.30	958.58	958.13	960.16	957.00	1.26	-1.80	
81	#301	0.37	4.01	0.40	1.60	10.0	39.6	4.55	4.06	18	0.15	957.60	957.40	959.10	958.90	960.26	960.16	1.16	1.26	
82	#302	0.74	3.64	0.40	1.46	10.0	39.1	4.16	4.13	18	0.15	957.70	957.60	959.33	959.23	960.32	960.26	1.12	1.16	
83	#303	2.90	2.90	0.40	1.16	38.1	38.1	3.38	2.93	15	0.21	958.07	957.70	959.91	959.42	960.23	960.32	0.91	1.37	

Project File: kmm.stm | Number of lines: 83 | Date: 4/13/2026

NOTES: ** Critical depth

Email
April 16, 2026, 8:35am

Subject: #PC-PLAT-26-0010 | Piqua: Submission Received and Status Tracker (Kristi Marchal) (west of 9691 N County Road 25a, Piqua, Ohio, 45356)
To: Kristi Marchal

Email
April 16, 2026, 8:35am

Subject: #PC-PLAT-26-0010 | New Task - Review Application (Kristi Marchal) (west of 9691 N County Road 25a, Piqua, Ohio, 45356)
To: Chad Henry

Record Submitted
April 16, 2026, 8:35am

Kristi Marchal submitted the application.

City of PIQUA

Community Services Department

Chad Henry | City Planner
201 West Water Street • Piqua, Ohio 45356
(937) 778-2049

May 28, 2026

***** MEETING NOTICE *****

Please be advised that the City of Piqua Planning Commission meeting is scheduled for **Tuesday, June 9, 2026, at 6:00pm**. The meeting will take place in the Commission Chambers (Second Floor) of the Municipal Government Complex, 201 W. Water Street, Piqua, Ohio.

Residents and interested parties may attend the meeting to present comments on agenda items. Alternatively, public comments can be submitted via email at emcculla@piquaoh.gov by noon on the day of the meeting.

The meeting notice and agenda, including the address of items under consideration, are available to the public through this notice or by scanning the QR code posted at the location listed in the agenda. The full agenda packet will be available for public review at https://piquaoh.gov/1614/Agendas-Minutes.

For any questions regarding this notice, please contact the Community Services Department.

Chad D. Henry
City Planner

Enc.

City of PIQUA

Community Services Department

Chad Henry | City Planner
201 West Water Street • Piqua, Ohio 45356
(937) 778-2049

June 10, 2026

***** MEETING NOTICE *****

Please be advised that the City of Piqua Planning Commission meeting is scheduled for **Tuesday, June 30, 2026, at 6:00pm**. The meeting will take place in the Commission Chambers (Second Floor) of the Municipal Government Complex, 201 W. Water Street, Piqua, Ohio.

Residents and interested parties may attend the meeting to present comments on agenda items. Alternatively, public comments can be submitted via email at emcculla@piquaoh.gov by noon on the day of the meeting.

The meeting notice and agenda, including the address of items under consideration, are available to the public through this notice or by scanning the QR code posted at the location listed in the agenda. The full agenda packet will be available for public review at https://piquaoh.gov/1614/Agendas-Minutes.

For any questions regarding this notice, please contact the Community Services Department.

Chad D. Henry
City Planner

Enc.