

Planning Commission
CITY HALL COUNCIL CHAMBERS
AGENDA OF APRIL 9, 2024
7:00 PM

ROLL CALL

PLEDGE OF ALLEGIANCE

APPROVAL OF MINUTES

Regular meeting of March 12, 2024

CORRESPONDENCE

Administrative Approvals & Zoning Certificates

1. PPZ2024-0251: Fujisan, 35085 Center Ridge Rd
Approval of a Certificate of Zoning Compliance for a restaurant.
2. PPZ2024-0255: Tacos Del Pueblo, 34173 Center Ridge Rd
Approval of a Certificate of Zoning Compliance for a restaurant.

Planning Project Updates

1. Ridgeville Ready Master Plan
2. Zoning Code and Subdivision Regulation Update
3. Active Transportation Plan

OLD BUSINESS

NEW BUSINESS

1. PPZ2024-0252: RUF Briquetting Systems, 38778 Taylor Pkwy, PPN 07-00-047-000-096
Applicant: Brandon Kline/Geis Construction, 10020 Aurora-Hudson Rd, Streetsboro, OH 44241. Proposal consists of a new manufacturing facility. Property zoned I-3 Heavy Industrial District.
2. Root Road Park, 8949 Root Rd, PPN 07-00-011-103-058

Applicant: Brandon Kline/Geis Construction, 10020 Aurora-Hudson Rd, Streetsboro, OH 44241. Proposal consists of a new manufacturing facility. Property zoned I-3 Heavy Industrial District.

3. Shady Drive Complex, 37077 Shady Drive, PPN 07-00-035-102-041
Owner: City of North Ridgeville, 7307 Avon Belden Rd, North Ridgeville, OH 44039. Proposal consists of constructing a new playground. Property zoned R-1 Residence District.

ADJOURNMENT

**NORTH RIDGEVILLE PLANNING COMMISSION
MINUTES OF REGULAR MEETING
TUESDAY, MARCH 12, 2024**

CALL TO ORDER:

Chairman Smolik called the Planning Commission meeting to order with the Pledge of Allegiance at 7:00 PM.

ROLL CALL:

Present were members Steve Ali, Paul Graupmann, Council Liaison Bruce Abens, Vice-Chairman Paul Schumann and Chairman James Smolik.

Also present were Chief Building Official Guy Fursdon, City Engineer Christina Eavenson, Assistant Law Director Toni Morgan, Planning and Development Director Kimberly Lieber and Deputy Clerk of Council Tina Wieber.

MINUTES:

Chairman Smolik asked if the members had a chance to review the minutes of the regular meeting on February 13, 2024. He asked if there were any corrections. Hearing no corrections, the minutes were approved.

CORRESPONDENCE:

Administrative Approvals & Zoning Certificates

1. **PPZ2024-0246: CAPL Retail, LLC, 32393 Lorain Rd (BP)**
Approval of a Certificate of Zoning Compliance for a change of business owner for a gas station/convenience store.
2. **PPZ2024-0247: Puritas Metal Products, Inc., 39097 Center Ridge Rd**
Approval of a Certificate of Zoning Compliance for a metal products fabrication business.
3. **PPZ2024-0249: NGM Outlet, LLC, 37140 Sugar Ridge Rd**
Approval of a Certificate of Zoning Compliance for office and storage/warehousing.

Chairman Smolik asked Director Lieber if she would review the Administrative approvals.

Director Lieber stated that the first was just a change in owner of the BP Gas Station, the second was a new business certificate for the property that the Planning Commission approved their rezoning from B-3 to I-2 just a couple months ago, and then the third was just a new business in an existing office space on Sugar Ridge Rd.

OLD BUSINESS:

NEW BUSINESS:

2024 Master Plan Presentation

Chairman Smolik stated that the big agenda item for the night was the Master Plan presentation. He explained that there had been a lot of work with the community and there were members of the community that made up the steering committee and knew that the Administration and Planning Commission wanted to thank them. He indicated that Director Lieber and the consultants would conduct the presentation.

Director Lieber stated that it was an exciting night for her personally, and also hopefully for the City of North Ridgeville, as it was the first time since 2009 that they were on the verge of adopting a city-wide master plan that would provide some direction for the growth, development and change that they would expect to see in the City over the next 10 or 15 years. She remarked that so many people helped to get them to that place and wanted to recognize those who were on the steering committee and personally thanked them for their participation. She discussed that so many of the faces in the room had been at so many meetings of their public input sessions and that it really had been a community effort. She explained that she was turning the presentation over to Sarah Bongiorno and Emily Hayes with Planning Next and that they would walk through some of the highlights and then offer opportunity for the Commission to have questions and answers at the end.

Ms. Bongiorno stated that she and Emily would be sort of tag teaming through the slides and explained that the members of the audience could scan the QR code to follow along. She explained their planning process with the steering committee meetings, focus group meetings, the technical analysis and the three rounds of public engagement. She stated that they would go through their process, plan structure, goal areas, implementation and then answer any questions. She discussed the plan structure and the contents, as well as the vision that North Ridgeville was a community with a strategic focus on the future. She then identified the goals.

Ms. Hayes discussed that the different goals were organized into chapters and that the first of which was around land use. She explained that it was an opportunity to manage growth in a way that supported the community vision and desired character. She discussed that North Ridgeville was primarily a residential community and that it was growing fairly quickly. She indicated that the population that was growing fastest in the City was people 65 and over and discussed what that meant in looking to the future. She explained that they had developed land use principles that would guide the recommendations and what the focuses of land use should be. She mentioned some of the key recommendations like updating the zoning code, supporting preservation of rural and agricultural areas and promoting redevelopment in strategic locations. She reviewed the economy chapter and stated that it focused on the quality and the density of the jobs within North Ridgeville and set the foundation for a healthy financial future. She discussed that few residents actually worked within the City and that the opportunities to generate the most revenue for the City came from land uses that had high valued property and buildings or high-wage jobs. She explained that being that North Ridgeville was a residential community and that its financial well-being was dependent on it being a very desirable place to live. She then discussed the key recommendations like preserving or acquiring land for employment uses, creating new economic development programs to support small businesses and improving underutilized commercial areas along Center Ridge Road. She stated that the housing chapter focused largely on providing choice in housing and making sure that the housing that was available was attractive and affordable to current and future residents. She discussed that much of the housing that was being produced was single family and that many were owner occupied. She added that development costs had resulted in increased costs for both owners and renters. She stated that the largest growing population of 65 and over would have an impact on how the housing market needed to evolve over the next 10 years. She then went on to explain a few key recommendations such as a comprehensive audit and update of residential zoning districts,

update subdivision regulations and develop aging in place policies.

Ms. Bongiorno discussed the amenities chapter and stated that the total developed parkland was only 3.6 acres per 1,000 residents and stated that the national average was about 10.4 and indicated that they needed create more recreational spaces. She talked about expanding the bike network through connected multi-use trails, including a community gathering space as part of the future town center and creating a park plan for the 20-acre site at Shady Drive Complex. She discussed the mobility and infrastructure chapter and creating a connected community and ensuring accessible, safe and multi-modal transportation options. She mentioned that the City had few options for active mobility and that public transportation options were highly limited and only available to the older population. She stated that expanding and improving the City's physical infrastructure would be vital to accommodate its growth. She talked about the key recommendations of being able to coordinate planning efforts related to water, sanitary sewer and stormwater utilities to ensure master plan recommendations and identifying high-risk areas that required pedestrian safety measures. She discussed collaborating with Lorain County Transit and Greater Cleveland RTA to explore the extension of transit services and to plan for additional resources to serve the growth. She explained the leadership chapter and said that City leaders needed to continue to dedicate the resources required to realize the community's vision, which meant working closely with residents. She commented that the City would need to maintain strong relationships with local and regional partners in order to implement the plan.

Ms. Hayes discussed the town center chapter and stated that it was a focus of engagement and really capitalized on a lot of the trends that they were seeing in the City. She stated that it was expected in the next five years within 15 minutes of the town center location, the number of households would increase, household incomes would increase, as would education levels. She commented that that would create opportunities for retail and restaurants due to their buying power and preferences. She stated that the town center would need to be highly competitive in experience and amenities in order to be really viable. She described some of the community feedback regarding what belonged in a town center and what the vision was for what should be there. She said that they heard that small, local retail and restaurant was preferred over large chains and that a civic gathering space was really important and that if residential were included, that it ideally would be above retail, so the ground level experience wouldn't be residential. She stated that they did include high level steps to a town center to illustrate that it was a long process and that there were a number of things that needed to happen in order for a town center vision to be realized.

Ms. Bongiorno stated that the most important chapter of all was implementation. She commented that they created a great document and went through a great process with the public but they didn't want it sitting on a shelf. She explained that the plan was a long-term policy guide that required ongoing coordination with annual work programs and budgets, capital improvement plans, development approvals and economic incentives. She stated that it was really important that they promoted awareness of the plan to the community and were monitoring and reporting and they made progress from the recommendations for the plan. She discussed requiring staff reports to reference the masterplan so that 10 years down the road it would make the audit process easier to show the why and how decisions were made. She stated that they would be happy to take any questions if there were any.

Director Lieber stated that she wanted to point out that there were 83 recommendations in the plan and that each of those recommendations had a long description and some justification and sidebar, so clearly they didn't want to spend the three hours necessary to get into that kind of granular level, but she was sure the Commission had reviewed the document ahead of the meeting and that if there was any

area that they wanted to drill down in, they could certainly go to that section and have a more detailed conversation if any member wanted to do so.

Chairman Smolik thanked them for the great presentation and commented that since he sat in on the master steering committee, he had a unique look because he was there from the beginning. He stated that he did want to give acknowledgement to the Mayor, Council and Administration because it was truly indeed a community plan. He explained that the City didn't just hire a consultant that hid in a closet and then provided the plan. He added that everything that was in there was community driven. He stated that he thought it would go a long way to help now that they had this tool that they had to use. He explained that some of the important facts just sitting through the whole process that stuck with him were that they would hear the word bedroom community, and yes, currently North Ridgeville was a bedroom community. He mentioned that they even talked about the fact that only 13% of the population worked in North Ridgeville and 16,000 people that lived in the City were going to another community to work and that was income tax dollars that's lost. He commented that there was a community to the east of the City that had a population of 32,000 and had 32,000 people that worked there. He explained that income tax was a huge thing and was how cities got stuff done. He stated that if they continued with development, they would be out of open space in ten years if nothing happened, so regarding timing, they needed to do something now. He explained that that was why it was important that they created the master plan, and that otherwise, all the white R-1 area would continue to build out. He stated that he knew a lot of the Council and the Mayor had heard about density, density and questions about why are we putting all these new subdivisions in. He stated that unfortunately, the City really couldn't do anything about it because that was how it was zoned, but now they had a plan in place that would help them with smart development. He mentioned that another thing that caught his eye was the big population boom that happened in 2000 and that the reason for that was infrastructure improvements. He discussed that the City put in a giant sanitary sewer in and it opened up all that land. He stated that they were at the next phase, which was Center Ridge Road and that it was a giant infrastructure improvement that would now be the catalyst for new development. He stated that they were at a great opportunity to control that with smart development. He commented that the other thing that caught his eye was 40% of the housing since 2000, but the most startling fact was that 40% of the housing was installed before 1969. He discussed that that meant they had hardly any in that middle age group and that it was all new or old. He went on to say that that made North Ridgeville very unique and was why there was a lot of flooding issues, because a lot of that older stock, they needed to do upgrades and that was the sort of stuff that they were currently seeing. He commented that he thought it was an excellent plan and he appreciated it. He asked if any of the Commission members had anything they wanted to say.

Member Ali stated that he thought it was awesome and loved the plan. He commented that it was long overdue. He discussed that that was why he moved his business to the City. He said that twenty years ago he bought that property and everyone thought he was crazy. He discussed that the City had been good for his business and was welcomed with arms wide open.

Council Liaison Abens stated that under implementation, specifically housing, they mentioned that they wanted a wider variety of choice from affordable to what was presently going in, and his question was how would they implement that, especially the lower income. He discussed that developers weren't interested in putting in low-income type housing because that wasn't where the money was and being a capitalist system, he was just wondering how that could be accomplished.

Director Lieber explained that housing choice was about doing more than just traditional R-1

subdivisions. She said that they had a challenge with their zoning and the charter and discussed that the zoning had so much land zoned R-1 in the charter that required any multi-family district to go to a vote of the people, although that changed in 2022, and now they could do things like mixed use developments that they couldn't do before without having that additional hurdle of going to the people. She said that apartments, townhouses, attached three-family and all of those, were ways that they could reduce housing costs. She mentioned that she was aware that there was always concern in the community of high-rise apartment buildings and small shoe boxes for people to live in, but they also knew that there were a growing number of people that didn't want to maintain large properties. She stated that they just wanted to have something for everyone in North Ridgeville and the proportion of that was really up to Council as they made zoning decisions about how to amend the zoning code or rezone property in the community. She explained that the goal was to get away from that one style of housing and that by providing multiple kinds of housing in different scenarios, whether it was single-type districts that were residential or were even mixed-use residential districts, was one of the ideas in that plan that they had where they could incorporate more traditional lots with other types of housing product in the same development, so that it still maintained that residential character but would appeal to people at different price points. She remarked that that was what they were talking about, which wasn't mandating price points, which they didn't do, it was just creating different ownership opportunities, size of lots, amenities, those ownership structures and all of those things that she thought could help provide more options and more choices in North Ridgeville.

Ms. Bongiorno stated that she thought it was really about if they were just out of college and were by themselves and then when they were buying their first home, was there an option to do all of that within North Ridgeville. She gave the example of getting an apartment, a starter home, and then needing a bigger home because they had a family, and then all the kids went away to college and they didn't want all of that yard and stuff and it was too big of a two story house and now they wanted something that was easier to maintain, so that when people moved and they wanted a different housing product, that they were able to move within their community and that was really what it was about.

Council Liaison Abens stated that he understood that they could now do mixed developments, but if someone wanted to put up condos and that type of development, it still would have to go in front of the voters and that would be an issue because as a Councilman, what he heard, especially with Planning Commission, was that the housing developers were shoehorning in all those homes in smaller and smaller lots. He stated that many of the citizens in North Ridgeville didn't like that. He discussed that there was a movement that they wanted to put in minimum sizes of one acre lots, if not five acre lots. He stated that he wasn't saying he agreed with it, but was saying that it's there.

Chairman Smolik commented that it was a perfect segue for one of the things that he thought was sort of a red flag that they might have to be cautious of. He explained that during the process, a lot of people wanted to maintain the agricultural feel of North Ridgeville along with some of the larger lots, the rural residential and that they actually came up for a land use for that. He remarked that now the hard part would be protecting that land use and that he wasn't so worried about the current Administration or Council, but perhaps down the road, they never knew because a different Council and Administration could come in and they might think differently of that even though the general populist decided that no, they thought it was a good idea for North Ridgeville. He asked how they could protect that and stated that he guessed it was legislation but legislation could only go so far.

Director Lieber stated that a master plan was a policy document and not zoning. She explained that in order to prevent development of housing subdivisions, they would need to do one of two things, either

rezone the property or change the district and what the requirements of the district were to make it more the type of development that the City would think was appropriate for that area. She commented that the master plan document should be used as a guide, so that if someone was proposing a rezoning, they would look at the rezoning against the plan or if Council was considering creating a new districts or rezoning property, that would be used as a guide. She discussed that when it came to preservation, her opinion was that preservation came primarily from the private property owners, and that the City would not be in the business of actively preserving farm land. She explained that the City was in the business of providing for economic development for infrastructure, not for setting aside, but they could support those that wished to do that, support conservation groups, support those private property owners that wished to that and they could be a connector in that case. She stated that a challenge in the community was the tension between the preservation and the development but she thought they needed to focus on what would generate tax revenues, what would support growth and development, what would support the current residents. She stated that that, as a City, needed to be their top priority.

Chairman Smolik asked if there were any other questions or comments.

Council Liaison Abens commented that concerning town center, the one plan he saw suggested that a new City Hall be part of that town center, and that he wasn't really excited about doing that. He remarked, an open civic area, absolutely, but not necessarily City Hall. He stated that he looked at it from a tax point of view and town center would be a tax generating area and he wasn't sure City Hall being plopped right in the center of it was in their best interest. He stated that it wasn't a deal breaker for him but was something that he was concerned with. He discussed that he thought there were other places that he thought City Hall should be put rather than in town center, mainly because of taxes. He said that as the Mayor would point out, they needed tax money.

Chairman Smolik stated that throughout the discussions there was also talk about a senior center at the town center and he thought through the steering committee, the Administration sort of loosened up what their total idea of what that town center was going to be and he thought that was a good thing. He commented that it was the mile high document and they weren't down at that programming stage where they were figuring it all out, but thought it was good that they were having the open dialogue. He stated that he would tend to agree with him that they wanted generating income and he was assuming it would be a tiff district, so they were going to want income generated so that waterfall tax could be used for infrastructure projects down the road. He added that if they put a City Hall there, that it would be taking away the potential of that TIF.

Council Liaison Abens commented that the town center would probably go faster than what they were anticipating. He discussed that the indicator of that was that they were getting a new bank branch, Chase Bank. He explained that Chase Bank was busy closing offices all around the region because of lack of business, but they chose North Ridgeville to put in a branch. He discussed that that indicated that their bankers were saying that this was an up-and-coming area for commercial and economic activity. He added that that was why he thought town center might occur faster than maybe they were anticipating, and that it was important that they were looking at that right now. He mentioned that he saw that part of town center would be putting in town homes and he thought that was an excellent idea but he didn't know how that went with the charter.

Director Lieber stated that that was one of the reasons for the charter change, so that mixed use zoning districts could be approved by Council and not have to go to the people. She explained that it would be one district, town center district, and within that, Council could determine what percentage of density

versus residential and other uses could be permitted. She stated that creating a concept was their first step and she appreciated the comments about City Hall, but if City Hall wasn't there it had to go somewhere and be built somewhere and with some money. She added that one idea was that with a public private partnership there could be an opportunity to spend less of the City's money and more private equity to provide facilities that they might need.

Council Liaison Abens commented that that was the reason it wasn't a deal breaker for him, for that reason.

Director Lieber stated that they were early in that conversation and there wasn't a finished product there that they were asking the Commission to vote on. She mentioned that the idea of a combination of a civic use with a restaurant, retail office, residential, was kind of a proven blend that had worked in other communities and that created day and night vibrancy, like daytime populations, nighttime populations and support for some of those restaurant retail uses that the community really seemed to want to see here. She added that they would work that out as they moved forward.

Council Liaison Abens asked that as it pertained to zoning, could they readjust what particular zoning actually was defined as, in other words, they could remove some uses from B-3 and that type of thing. He asked if they were allowed to do that.

Director Lieber stated absolutely.

Council Liaison Abens commented that they could zone out additional car washes and coffee shops.

Assistant Law Director Morgan stated that the ability to zone was one of the hallmarks of home rule and that had been established in case law for a long time. She remarked that yes, they did have those abilities.

Chairman Smolik stated that the other thing the report sort of recommended was for example, the town center, they might get down to where they started creating its own rules, like architectural guidelines, that only pertained to that district, so that way they made sure that it was being built the way they wanted it to look and might control signage a little bit better, might limit the maximum height buildings could go just within that district. He stated that it could give a little more power to the City to actually control all of how that was going to be built out.

Council Liaison Abens commented that that was where they might have a disagreement, because he would like for town center to be multi-stories.

Chairman Smolik stated that he agreed that it was going to be multi-stories but he didn't see anything above a ladder.

Vice-Chairman Schumann stated that he wanted to say that he hadn't been in town that long, only a few years, but he had seen an enormous amount of real simple changes of subtle things going on and he thought it was a really good thing to do that master plan. He asked if it was every five years that they updated that.

Director Lieber stated ten years.

Vice-Chairman Schumann stated that it was an excellent document and they had the power to make some zoning changes to match it. He commented that they couldn't make developers come in and do what they wanted them to do. He said that they had to set the table for them and that document and zoning would help them do that. He stated that the branding efforts that had happened were terrific. He added that he like them from day one and they had grown on him even more since they had been up. He discussed that since being on the Planning Commission, with the education opportunities, that he had the opportunity to attend some of those ADA workshops about five or six years ago. He stated that everyone was talking about town centers and mixed use. He stated that almost every community was talking about that now and that either they had something already zoned or they were getting ready to and it wasn't like they were reinventing the wheel or anything like that. He mentioned that developers would come if they gave them an opportunity to, but they would have their own ideas too, and there may be some tussle, but it wasn't necessarily a bad thing. He discussed that if they didn't lay the groundwork for them, they weren't going to come because they didn't want to fight over it. He said that they didn't want to fight to put up the thing they wanted to do. He stated that town center was a great idea and it obviously worked, so hopefully they could pull something like that off themselves.

Chairman Smolik stated that he thought he hit on a really good point that they needed that private public partnership because the private wouldn't be able to do it by themselves and the public couldn't do it by themselves, they needed that by-in by both parties, and that was how you got a successful project, by laying the groundwork and by setting the table.

Council Liaison Abens stated that as was pointed out to them during that training session, they had to make it easy for developers to come to North Ridgeville because they would go somewhere else where it was easier if we made it difficult. He said that that was what he liked about Ridgeville Ready because they were showing them, come on in and they would welcome them and help them where they could. He stated that Council had their work cut out for them as far as zoning issues were concerned but they had already demonstrated that they could get that through on a quick basis and not needing emergency clauses.

Member Ali stated that when you looked up occupancy permits issued, they were number one in the State. He discussed that with housing they only got so much tax dollars off that and they needed business. He stated that whatever they needed to do to attract business there, that's what they should go after.

Council Liaison Abens stated that if you looked at North Ridgeville over the last few years, it seemed to be headed in that direction. He commented that if anyone had driven by that trucking terminal, that was an awesome facility and what was even better was no tax abatement. He added that they were also considering tax abatement for a business moving in that was a foreign business and they were looking at North Ridgeville. He stated that they were headed in the right direction.

Chairman Smolik asked the Administration if they had any questions or comments.

Assistant Law Director Morgan stated that they were talking about a high-level view and granular was mentioned, and asked where did they see that document intersecting with Council when they were making their decisions or Planning Commission when they were making their decisions and how did they envision that they would use that tool.

Ms. Bongiorno stated that everyone should have their copy with them at all times, on their desk or in

their bag, so that if anything came up, they could whip it out and they would have a spot to help engage in conversation about something or make a decision about something. She added that hopefully they would be turning to it on a regular basis. She mentioned that she thought Kim and the staff with the report programs and the budgets, they should be referencing it so that it would always be in the forefront of people's minds. She explained that they wouldn't just think it was great that night and then shove it on their shelf and not think about it again for a few years. She stated that it wasn't that kind of plan and that it was always supposed to be a living working document and that they would be "working the plan". She explained that it went from being broad like the vision, to the recommendations where they really would see the rolling up of their sleeves. She discussed that every so often it was good to get those goal statements out and look at their vision to make sure so that the little things they were doing along the way were really going up into that overall larger vision.

Director Lieber stated that she thought Planning Commission would be the more tactical group when it came to all of the zoning recommendations of the plan, spearheading and reviewing. She said that they just started an audit of the zoning code and that was going to be over the next month and they would be doing some focus groups and assembling a steering committee for that. She said that they were already launching some of the plan recommendations as they were going through the adoption process. She stated that when it came to reviewing zoning updates, rezoning requests, development proposals, that would be a good tool. She discussed that Council was a little bit different and that Council controlled the purse strings. She stated that how Council could use it, was that when budget season came and requests were being made, to kind of weigh the requests against how that fit into the master plan. She added that not every single project and not every culvert replacement was listed in there, but it was this infrastructure in support of existing neighborhoods or needed growth for the community and how could those requests should be weighed against the plan. She stated that that was really how she saw Council's role more, in their legislative role, in adopting code changes or rezonings or those kinds of things as well.

Ms. Bongiorno stated that they were very intentional in that document to write the recommendations with a sort of verb being action oriented so that they knew if they had done it or not. She discussed that there were some plans where there were a lot of platitudes or they said nice things and then they would question if they did that or not or weren't sure, but in that document was build this, identify this, create this program. She stated that hopefully as they went through it, it should be when they started to look at it every year or two years or three years, to be able to tell where they had made progress because of the way it was written, in a very action-oriented implication in mind.

Chairman Smolik asked if there were any further questions or comments.

None were given.

Moved by Schumann and seconded by Abens to recommend the North Ridgeville Ready Master Plan to Council.

A roll call vote was taken and the motion carried.

Yes – 5 No – 0

Ordinance No. 2024-31, An ordinance amending *Section 1268.02* of the North Ridgeville codified ordinances to eliminate truck terminals from the list of conditional uses in the B-3 Highway Commercial

District.

Ordinance was read.

Chairman Smolik asked Director Lieber for some background on the ordinance.

Director Lieber explained that some months ago a moratorium was introduced on truck terminals in the B-3 District. She stated that there was some discussion over the appropriateness of that kind of heavy traffic and heavy wear kind of activity in the B-3 District given that so many B-3 properties abut residential areas. She said it was felt that it might not continue to be appropriate in that District, so the moratorium was enacted to give some opportunity to review and it was her recommendation to just eliminate it from the B-3 District, as she had mentioned in the discussion of the master plan. She indicated that they were just beginning to embark upon a very comprehensive zoning audit, that would then be followed by recommendations and code updates. She explained that rather than just having that waiting around in the wings or attempting to craft some specific conditional use standards, that it felt maybe more appropriate just to eliminate it from the district while they reconsidered those standards and see if they thought it might be more appropriate in an industrial district, like the Dayton Freights of the world, those truck uses were very heavy on their local infrastructure. She added that when they thought of all the orange areas on the map, that could be a lot of trucks through the main community corridors. She said that it was her suggestion to set it aside, remove it from the B-3 and then they could tackle that more comprehensive list of uses as they navigated their way through the zoning update process.

Chairman Smolik asked if there were any other questions or comments from the Administration.

None were given.

Chairman Smolik asked if there were any other questions or comments from the general public.

None were given.

Chairman Smolik asked if there were any questions or comments from the Commission.

Vice-Chairman Schumann asked if most of Center Ridge Road was B-3.

Director Lieber stated that much of it was, not all. She discussed that there were five B Districts depending on what area of Center Ridge they were at. She mentioned that B-3, maybe more of the commercial corridor was zoned B-3 than other B Districts, but a lot of those were right up against side streets and residential neighborhoods.

Vice-Chairman Schumann asked if anyone had been knocking on the door to build one of those.

Director Lieber stated not recently, although there was one that had been operating illegally for a couple years.

Council Liaison Abens asked what Taylor Parkway was zoned as.

Director Lieber stated that it was I-2.

Member Ali commented that Center Ridge, as far as side streets, what about Maddock, Case, Race with

trucks and weight, if that would affect them also.

Director Lieber stated that it would also eliminate the opportunity for new truck terminals in B-3, so wherever B-3 zoning existed. She discussed that those kind of uses would still be permitted in I Districts.

Member Ali stated that there was a lot of commercial property on Maddock that had been there for 40 or 50 years.

Director Lieber stated that it wouldn't change rights to any existing legally operating business. She went on to say that if there were a truck terminal in the B-3 and that legislation were introduced, it would continue to operate as legal nonconforming for its life.

City Engineer Eavenson asked if the definition of truck terminals, could that potentially be a single bay or were they talking about multiple bays.

Director Lieber stated that she would have to read the definition and couldn't answer that.

City Engineer Eavenson asked if Marc's had a truck bay and that she had designed Marc's with truck bays.

Director Lieber stated that that was not the main use, that was a retail use that would have accessory.

City Engineer Eavenson asked if that was an accessory use and that wasn't included in that.

Director Lieber explained that that was when the main use was a trucking facility.

Chairman Smolik asked if there were any other questions or comments from the Commission.

Council Liaison Abens stated that he could name at least two places within his ward where trucks were parked, operating in R-1 areas. He asked if that was something that they could look into.

Director Lieber stated that it was.

Chairman Smolik asked if there were any further questions or comments from the Commission.

None were given.

Moved by Schumann and seconded by Graupmann to recommend approval of Ordinance 2024-31 to Council.

A roll call vote was taken and the motion carried.

Yes – 4 No – 1 (Ali)

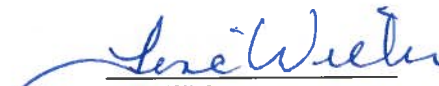
ADJOURNMENT:

Chairman Smolik adjourned the meeting at 8:07 PM.

**NORTH RIDGEVILLE PLANNING COMMISSION
REGULAR MEETING – TUESDAY, MARCH 12, 2024**

PAGE 12


James Smolik
Chairman


Tina Wieber
Deputy Clerk of Council

Tuesday, April 9, 2024
Date Approved



March 8, 2024

Samuel Zheng

Re: New Business at 35085 Center Ridge Road (Fujisan)

Dear Mr. Zheng,

The zoning certificate for your new business has been approved and is enclosed for your records. Please be aware of additional obligations under state building and fire codes:

If there is a change of occupancy classification in a commercial building under the Ohio Building Code or you intend to perform work other than interior finishes (painting, flooring), you will require approval and a building permit. **For assistance, please contact the North Ridgeville Building Department at (440) 353-0822.**

In all commercial spaces, fire extinguishers need to be visible in a common area, exits must be kept clear of debris and exit lights must be kept in good working order. Any fire alarm or sprinkler systems need to be tested annually. Ensure your address is visible from the street and keep your Certificate of Occupancy posted inside the business. **For assistance, please contact the North Ridgeville Fire Department at (440) 353-0839.**

We welcome your new business to North Ridgeville and wish you much success in our community.

Sincerely,

Kimberly Lieber, AICP
Director of Planning and Development



Certificate of Zoning Compliance

FUJISAN
35085 CENTER RIDGE ROAD
NORTH RIDGEVILLE, OH 44039

This certifies that the proposed use stated for the above referenced address complies with the provisions of the North Ridgeville Zoning Code. This certificate shall remain valid so long as buildings and property are used and maintained in accordance with approved plans. No other changes or modifications to the building(s) or site improvements, not approved or exempt under a Certificate of Occupancy, are permitted or approved.

Application Number: PPZ2024-0251

Proposed Use: Restaurant

Current Zoning: B-3 Commercial Highway District

Applicant: Samuel Zheng

Property Owner: Ridgecar Company LLC

Conditions/Notes:

This certificate does not provide approval to initiate any construction work. Any renovations or alterations to the building or tenant space must be approved and permitted by the Building Department prior to occupancy.

Signature of Approving Official

March 8, 2024

Date Issued

Application for New Business or Change in Use



APPLICABILITY

Section 1243.02(b)(1) When Required. Regardless of whether or not a building permit is required for construction activities, any change of use, establishment of a new use or new business occupancy must be reviewed and issued a Certificate of Zoning Compliance.

Section 1440.06 Notification of Change in Business Owner. Whenever a business, commercial or industrial space or building changes occupants, that new occupant is required to inform both the Police and Building Departments of his or her new occupancy to enable more reliable emergency response and hazard inspection.

APPLICANT: Excluding signage, are you proposing any exterior changes to the building or property? Examples include building façade changes, parking lot reconfiguration, landscaping changes, lighting changes, etc. If so, **DO NOT** submit this form. Planning review is required for your project. Contact the Planning and Economic Development Department for information about the development plan review process and submission requirements.

BUSINESS INFORMATION

<u>Fujian</u> Business name	<u>35085 Center ridge road North ridgeville, OHIO 44039</u> Business address
<u>Samuel Zheng</u> Business owner	<u>Manzi chen@yahoo.com</u> Business owner email
<u>4404209361</u> Business owner phone number	<u>6465096211</u> Emergency phone number

PROPERTY OWNER INFORMATION

<u>Ridgecar Company, LLC</u> Property owner name	<u>Westlake, Ohio 44113</u> City, state, zip
<u>27500 Detroit Rd Suite 300</u> Property owner address	<u>mfrantz@carnegiecorp.com. Agent of Owner</u> Property owner email
<u>(440) 892-6800</u> Property owner phone	

USE INFORMATION

<u>Chinese Restaurant</u> Previous use/occupant	<u>1,000 SF</u> Building/unit area (square feet)
<u>Japanese Restaurant</u> Describe proposed use*	

*Based upon the proposed use, the City may require the additional submission of a site plan showing lot configuration, building locations, provision of adequate parking and loading, driveways, etc. If a proposed use is determined to be a conditional use in a particular zoning district, development plan review and Planning Commission approval is required.

AUTHORIZATION AND ACKNOWLEDGEMENT

<u>[Signature]</u> Applicant signature	<u>Morgan Frantz</u> Agent of Owner Property owner signature
---	---

Submit this application to the Building Department with the \$50 application fee.

I hereby authorize the City of North Ridgeville to view the premises and consent to their entry onto the property for the purpose of observing site conditions related to review of my application.

OFFICE	PPZ No. <u>PPZ 2024-0251</u>	Date Received <u>MAR 08 2024</u>	Amount Paid <u>50.00</u> ✓ #318
--------	------------------------------	----------------------------------	---------------------------------



March 28, 2024

Adriana Melo
5947 Broad Boulevard
North Ridgeville, OH 44039

Re: New Business at 34173 Center Ridge Road (Tacos del Pueblo)

Dear Ms. Melo,

The zoning certificate for your new business has been approved and is enclosed for your records. Please be aware of additional obligations under state building and fire codes:

If there is a change of occupancy classification in a commercial building under the Ohio Building Code or you intend to perform work other than interior finishes (painting, flooring), you will require approval and a building permit. **For assistance, please contact the North Ridgeville Building Department at (440) 353-0822.**

In all commercial spaces, fire extinguishers need to be visible in a common area, exits must be kept clear of debris and exit lights must be kept in good working order. Any fire alarm or sprinkler systems need to be tested annually. Ensure your address is visible from the street and keep your Certificate of Occupancy posted inside the business. **For assistance, please contact the North Ridgeville Fire Department at (440) 353-0839.**

We welcome your new business to North Ridgeville and wish you much success in our community.

Sincerely,

Kimberly Lieber, AICP
Director of Planning and Development



Certificate of Zoning Compliance

TACOS DEL PUEBLO
34173 CENTER RIDGE ROAD
NORTH RIDGEVILLE, OH 44039

This certifies that the proposed use stated for the above referenced address complies with the provisions of the North Ridgeville Zoning Code. This certificate shall remain valid so long as buildings and property are used and maintained in accordance with approved plans. No other changes or modifications to the building(s) or site improvements, not approved or exempt under a Certificate of Occupancy, are permitted or approved.

Application Number: PPZ2024-0255

Proposed Use: Restaurant

Current Zoning: B-3 Highway Commercial District

Applicant: Adriana Melo

Property Owner: Providence Square LLC

Conditions/Notes:

This certificate does not provide approval to initiate any construction work. Any renovations or alterations to the building or tenant space must be approved and permitted by the Building Department prior to occupancy.

Signature of Approving Official

March 28, 2024

Date Issued

Application for New Business or Change in Use



APPLICABILITY

Section 1243.02(b)(1) When Required. Regardless of whether or not a building permit is required for construction activities, any change of use, establishment of a new use or new business occupancy must be reviewed and issued a Certificate of Zoning Compliance.

Sections 246.16/248.04 Notification of Change in Business Owner. Whenever a business, commercial or industrial space or building changes occupants, that new occupant is required to inform both the Police and Building Departments of his or her new occupancy to enable more reliable emergency response and hazard inspection.

APPLICANT: Excluding signage, are you proposing any exterior changes to the building or property? Examples include building façade changes, parking lot reconfiguration, landscaping changes, lighting changes, etc. If so, **DO NOT** submit this form. Planning review is required for your project. Contact the Planning and Development Department for information about the development plan review process and submission requirements.

BUSINESS INFORMATION

Tacos del Pueblo
Business name

39173 Center Ridge Rd
Business address

Adriano Melo
Business owner

Adriano Melo de Tacosdelpueblo@gmail.com
Business owner email

5947 Broad Blvd
Business owner home address

North Ridgeville OH 44039
City, state, zip

440-281-9246
Business owner phone number

440 219 5217
Emergency phone number

PROPERTY OWNER INFORMATION

Toni Valeri
Property owner name

23550 Center ridge Rd
Property owner address

Westlake OH 44145
City, state, zip

216-789-8005
Property owner phone

office@valorebuilders.com
Property owner email

USE INFORMATION

barbecue
Previous use/occupant

Building/unit area (square feet)

Taqueria
Describe proposed use*

*Based upon the proposed use, the City may require the additional submission of a site plan showing lot configuration, building locations, provision of adequate parking and loading, driveways, etc. If a proposed use is determined to be a conditional use in a particular zoning district, development plan review and Planning Commission approval is required.

AUTHORIZATION AND ACKNOWLEDGEMENT

Toni Valeri
Applicant signature

Adriano Melo
Property owner signature

Submit this application to the Building Division with the \$50 application fee.

I hereby authorize the City of North Ridgeville to view the premises and consent to their entry onto the property for the purpose of observing site conditions related to review of my application.

OFFICE	PPZ No.	Date Received	Amount Paid
	<u>PPZ 2024-0055</u>	<u>MAR 27 2024</u>	<u>\$50.00 CASH</u>

Planning Commission Application



SUBMITTAL INSTRUCTIONS AND PROCEDURES

Plan reviews will be carried out according to the processes described in the City's Zoning Code.

- **Pre-Application.** Prior to making application, applicants are recommended to contact the city to discuss their development project. City staff will outline the review process and provide a checklist of required submittals.
- **Application Submittal.** Following the pre-application meeting, the applicant shall submit this completed application, fee and ten (10) sets of all required exhibits. All submissions shall be made in hard copy to the Building Department. Plans shall be collated, folded and easily legible.
- **Staff Review.** The applicant shall attend a staff review meeting and may be required to submit additional information and/or revised plans based on staff input.
- **Variances.** Where zoning variances are sought by the applicant, review by the Board of Zoning and Building Appeals will be necessary prior to consideration by the Planning Commission, requiring a separate application.
- **Decision or Referral.** Following staff review, complete submittals for Administrative Review projects may be considered for approval. For Council Review projects, complete submittals shall be referred to the next available Planning Commission meeting, which are held the second Tuesday of each month.

PROJECT INFORMATION

38778 Taylor Parkway, North Ridgeville, OH, 44039

Location address

0700047000096

Parcel number

I3 - Heavy Industrial District

Current zoning

RUF Briquetting Systems US Headquarters

Proposed project

APPLICANT/AGENT INFORMATION

Brandon Kline/Geis Construction

Name/Company

10020 Aurora-Hudson Rd, Streetsboro, OH, 44241

Applicant address

(216) 870-3992

Applicant phone

brandon@geisco.net

Applicant email

PROPERTY OWNER INFORMATION

Purchase Sales Agreement

Name/Company

N/A

Property owner address

N/A

Property owner phone

N/A

Property owner email

AUTHORIZATION AND ACKNOWLEDGEMENT

Applicant signature

Property owner signature

I hereby authorize the City of North Ridgeville, including Planning Commission members, to view the premises and consent to their entry onto the property for the purpose of observing site conditions related to review of my application.

OFFICE	PPZ No.	Date Received	ACTION
	P P 22024-0052	MAR 18 2024	
	Planning Fee Paid	Engineering Fee Paid	
	150.00	1,125.00	
	ck# 54083		

CITY OF NORTH RIDGEVILLE

(440) 353-0819

nridgeville.org

BC001-1122

Staff Meeting Bulletin

Meeting Date: March 27, 2024

Project: RUF Briquetting Systems US Headquarters

Applicant: Brandon Kline/Geis Construction, 10020 Aurora-Hudson Rd, Streetsboro, OH 44241

Zoning: I-3 Heavy Industrial District

In Attendance: Kevin Corcoran, Mayor
Kim Lieber, Planning & Development Director
Toni Morgan, Assistant Law Director
Mike Uhnak, Assistant Fire Chief
Joe Reitz, Engineer
Eric Brown, Engineer
Tina Wieber, Deputy Clerk of Council
Jim Weist, President RUF Briquetting Systems
Jen Diasio, GLSD Architects

Project Introduction

- Jim stated that the business was currently located in Elyria, with a facility of about 8 to 10 people. He explained that they currently imported machines that are made in Germany and sold them here and serviced them out of Elyria but were now going to build a manufacturing plant in the United States and decided on North Ridgeville. He stated that the product that they sold would recycle of any type of scrap by compressing the material into bricks which could then be used again. He stated that plastics, metals and woods could all be put into the machines to make the bricks. He added that it was a technology that, with the Green Movement, was very accepted and that they had sold machines to Ford, GM and Honda.
- Jen stated that they would initially build 25,000 square feet with lots of room for expansion. She stated that there were earlier comments that they had addressed regarding the auto-turn, dumpster location and future parking. Jen stated that they were proposing an outside shipping container for some more hazardous products that may be used occasionally and they would want them outside the building.

Staff Comments

- Jim asked if sidewalks were required. Kim explained that sidewalks were required for all new construction. She stated that they had even started removing exceptions to that in the code in trying to become more walkable and pedestrian friendly. Mayor commented that Dayton Freight would be installing a sidewalk, and they would connect to theirs.
- Kim said that she didn't see any zoning issues, but she did have a note regarding their lighting plan and that the fixture schedule was blurry, and she wasn't able to read all the numbers. She asked of they could make sure that that was crisp. She discussed that they would need the cut sheets for any fixtures and that for any pole lights they required full cut off. She commented that they had all the elements that were needed and it was nice looking building with a nice landscape plan.
- Joe commented that the office area was two stories and 5,000 square feet, so it would be 10,000 square feet. Jen explained that they presently weren't building out the second floor and that it would be a future office. She stated that they were building the mezzanine/second floor for growth. He discussed that it looked like there was an existing water line on the east side as well as one that ran across the north side of the property, but it didn't look like they were anywhere near the easement area. Jen stated that that was correct. She said that they understood that they would have to look at those things closer when they did the first expansion.

- Eric asked what size water line they would use. Jen explained that they had no real process water use, so she would start with a 2 inch, but they could probably do an inch and a half. He explained that the City's tap fees were based on the size of the water meter and the tap, so the smaller they went, the better off they would be. Jim commented that they didn't use water in any of their processes other than cleaning up, showers, restrooms and plumbing.
- Mike asked if they would be recycling at that facility. Jim stated that they didn't recycle, but manufacture and sell the machines to companies that wanted to recycle their scrap. Mike asked if when they built the larger facility, would that be when they would have more fire hydrants. Jen stated that was correct and they did have a hydrant past the docks on the parking area.
- Mike asked what type of material would be stored in the outside container. Jim stated that they didn't use any chemicals because they were assembling machines, but on the occasion, customers would send material and they had a test lab that they would put it in the machines to see how it would work. He mentioned that maybe twice in a year they might have magnesium and they would store that in the 40-foot building. It would be carried in on a container, made into bricks and sent to the customer. He explained that they didn't store the material or keep it there, they would return it back to the customer. Mayor commented that he imagined on the dates that they would be bringing in the magnesium, they would want to let the Fire Department know ahead of time.

Next Steps

- The applicant will provide cut fixtures and make sure the lighting is clear and able to be read.

Planning Commission Comment Sheet



PROJECT INFORMATION

Constructing RUF Briquetting Systems US Headquarters

Proposed project

38778 Taylor Parkway

Location

April 9, 2024

Meeting date

07-00-047-000-096

Parcel number

March 28, 2024

Comments due

RECOMMENDATIONS

Type comments here. Attach additional sheets as necessary.

Setbacks appear to be code compliant.

Occupancy loads are not provided, parking spaces may be less than required.

SUBMITTED BY

Guy M. Fursdon

Administrative officer signature

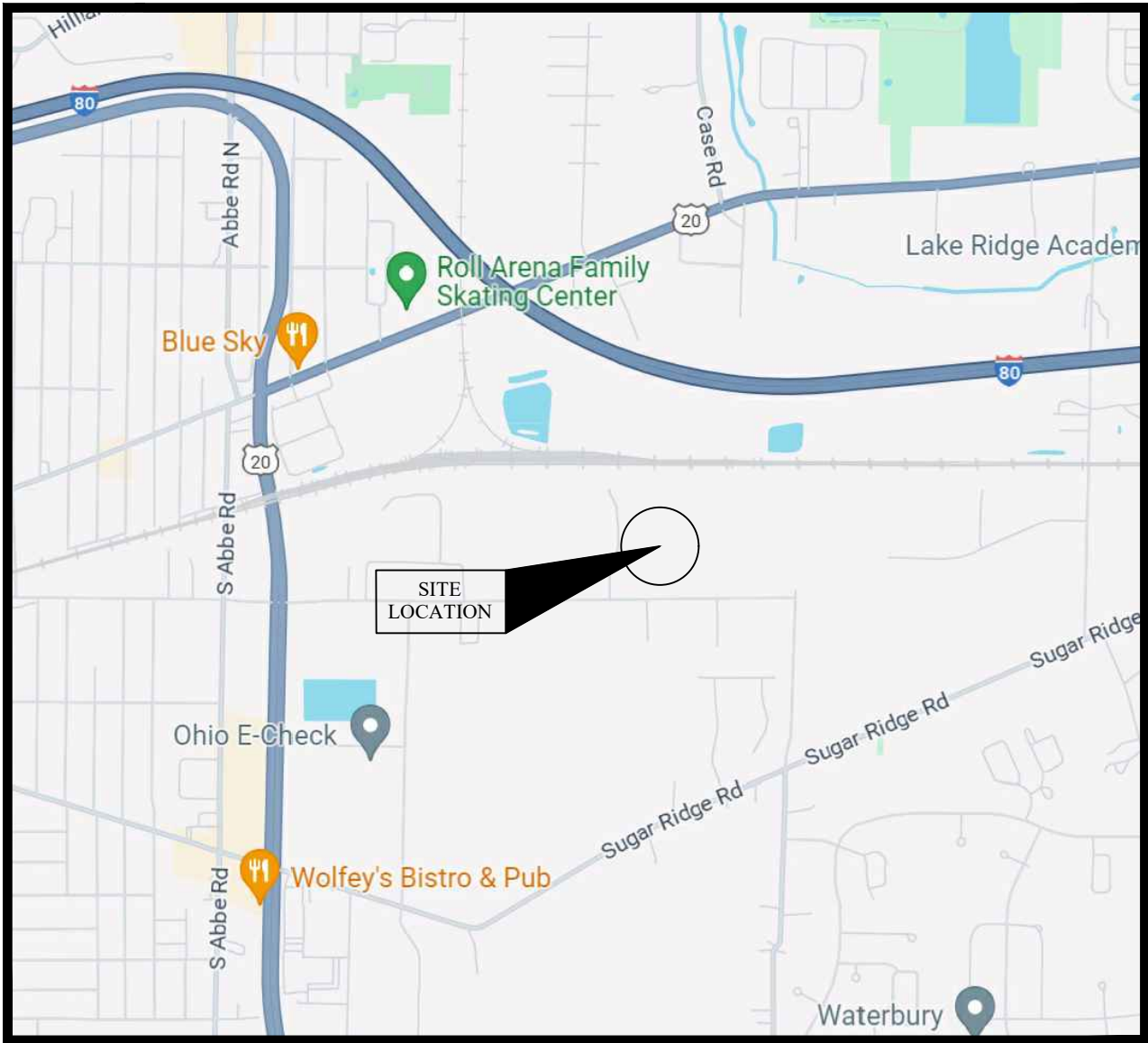
Chief Building Official

Title

Planning Commission Bylaws Article V Section 2 – Administrative Review. All applications including those plans and maps submitted to the Commission shall be referred to Administrative Officers. Comments and recommendations by Administrative Officers, if any, shall be forwarded to the Secretary not later than ten (10) calendar days after receipt. Administrative Officers who have not acted within the allotted time shall be deemed to have concurred with plans as submitted.

RUF BRIQUETTING SYSTEMS

CITY OF NORTH RIDGEVILLE
COUNTY OF LORAIN
STATE OF OHIO



VICINITY MAP
NO SCALE



DESCRIPTION

- TITLE SHEET
- GENERAL NOTES
- DEMOLITION PLAN
- SITE PLANS
- UTILITY PLANS
- GRADING PLANS
- SITE DETAILS
- SWP3
- SWP3 DETAILS

INDEX

SHEET NO.

- C100
- C100A
- C101
- C102-C102B
- C103-C103B
- C104-C104B
- C105-C105B
- C106
- C107-C112

CLIENT:

GEIS
CONSTRUCTION

10020 AURORA-HUDSON RD.
STREETSBORO, OHIO
JEN DIASIO
PHONE: (216) 218-3507

OWNER:

Issue Date
03-15-2024

RUF BRIQUETTING SYSTEMS
NEW SITE
38778 TAYLOR PARKWAY, NORTH RIDGEVILLE, OH

TITLE
SHEET

C100
Project No. 2024-108



WEBER
ENGINEERING
SERVICES

Where Strong Relationships & Superior Service Guide Your Project

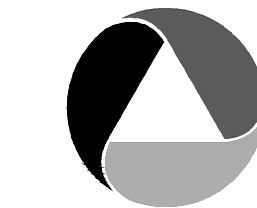
2555 Hartville Rd., Suite B
Rootstown, OH 44272
www.WeberEngineeringServices.com
330-329-2037
matt@webercivil.com



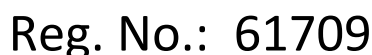
Reg. No.: 61709



Survey by:



ATWELL
866.850.4200 www.atwell-group.com
7100 E. PLEASANT VALLEY RD., SUITE 220
INDEPENDENCE, OH 44131
440.349.2000

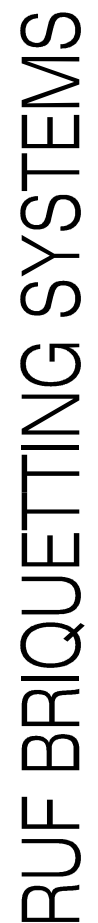


CLIENT:

GEIS CONSTRUCTION

10020 AURORA-HUDSON RD.
STREETSBORO, OHIO
JEN DIASIO
PHONE: (216) 218-3507

OWNER:



HO	Issue Date 03-15-2024
----	--------------------------

GENERAL NOTES

C100A

Project No. 2024-108

GENERAL

1. ALL WORK AND MATERIALS SHALL MEET THE RULES, LAWS & CODES OF THE CITY OF NORTH RIDGEVILLE.

2. THE FOLLOWING UTILITIES MAY BE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT:

PAYMENTS	CITY OF NORTH RIDGEVILLE	(640) 323-0982
STORM SEWERS	CITY OF NORTH RIDGEVILLE	(640) 323-0982
SANITARY SEWERS	CITY OF NORTH RIDGEVILLE	(640) 323-0982
WATERLINES	CITY OF NORTH RIDGEVILLE	(640) 323-0982
ELECTRIC	AMERICAN ELECTRIC COMPANY	(640) 323-0982
TELEPHONE-NORTHSTAR	GEOFF HAMM	(640) 323-4247
ELEVATOR	NEXUS K&N	(640) 323-3271
CABLE-SPELCO	RON HENSEL	(640) 323-3271 (Ext. 655)
WATER TRANSMISSION	AVON LAKE MUNICIPAL UTILITY	(640) 323-0202

THE CONTRACTOR SHALL VERIFY THE ABOVE INFORMATION WITH OAPS WHO HE CONTACTS THEN BEFORE CONSTRUCTION BEGINS.

3. THE CONTRACTOR SHALL LOCATE ALL UTILITIES OR UNDERGROUND OBSTRUCTIONS PRIOR TO CONSTRUCTION AND NOTIFY COPS OF ANY SUCH UTILITY OWNER FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.

4. WHERE IN ANY CASE THE PLANS AND SPECIFICATIONS DO NOT ENTIRELY COVER MATERIALS AND/OR WORKMANSHIP, THE "STATE OF GOOD CONSTRUCTION" TRANSFERRED BY THE CONTRACTOR TO THE CITY ENGINEER'S SPECIFICATIONS' CURRENT EDITION WILL APPLY. QUOTE REFERENCES MAY BE USED ONLY IF THEY ARE IDENTICAL TO THE CITY ENGINEER'S SPECIFICATIONS AND ALSO CONFORM TO THE SPECIFICATIONS, RULES, AND ORDINANCES OF THE CITY OF NORTH RIDGEVILLE. THE CONTRACTOR SHALL CONSULT WITH THE CITY ENGINEER SHALL DETERMINE THE GOVERNING AUTHORITY, ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE CITY ENGINEER FOR REPAIR OR REPLACED AS DIRECTED BY THE CITY ENGINEER, REFERENCE TO THESE PLANS TO THE ENGINEER SHALL BE THE CITY ENGINEER.

5. ALL WORK SHALL BE DONE IN A SAFE MANNER AND AS A MINIMUM SHALL COMPLY WITH THE OCCUPATIONAL SAFETY REGULATIONS OF THE OSHA AS DEFINED IN 29 CFR 1926.

6. AT LEAST FIVE DAYS PRIOR TO THE START OF ACTUAL CONSTRUCTION, THE PROJECT SUPERVISION CONGRESS SHALL BE HELD AT THE OFFICE OF THE CITY ENGINEER. THE CITY ENGINEER SHALL PRESENT THE PROJECT TO THE CITY ENGINEER, THE DISTRICT'S ENGINEER, THE CONTRACTOR OR HIS REPRESENTATIVE, THE CITY ENGINEER SHALL ADVISE THE CONTRACTOR OF ALL AND PRIVATE UTILITY COMPANY REPRESENTATIVES. THIS MEETING WILL BE HELD ON ONE OF TWO HOURS AFTER NOON EVERY WEEK PRIOR TO COMMENCING ANY PHYSICAL WORK.

7. THE CONTRACTOR SHALL NOT COMMENCE WITH ANY FORM OF CONSTRUCTION UNLESS HE HAS RECEIVED THE APPROVAL OF THE CITY ENGINEER TO ABANDON FOR INSPECTION. IF ANY CHANGE IN THE PROJECT DESIGN OR SCOPE IS REQUIRED, THE CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE INSPECTOR TO AVOID UNDESIRABLE SITUATIONS. IF THE CONTRACTOR REQUESTS THE CANCELLATION OF WORK, THE CONTRACTOR WILL BE CHARGED A MINIMUM OF \$100 PER HOUR.

8. THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY, SUCH AS CALCULUS, CHAINAGE, WATER, ON A MOTORIZED COMPACT BACKHOE, EXCAVATOR, AS LOCATED BY THE ENGINEER, TO MAINTAIN ALL ROADWAYS BEING USED FOR ACCESS TO THE CONSTRUCTION SITE.

9. THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY SAFEGUARDS SUCH AS BARRICADES, SATISFACTORY BARRIERS, LIGHTING, TRAFFIC CONTROL DEVICES, AND OTHER SAFETY DEVICES. THE CONTRACTOR SHALL PROVIDE IN WRITING "SEALED MATTERING TROTS" SO AS TO PROTECT ALL ADJACENT PROPERTY FROM DAMAGE. THE CONTRACTOR SHALL ROADWAY DURING CONSTRUCTION. ALL AREAS OF PAVEMENT REMOVED OR DAMAGED SHALL BE REPAIRED IMMEDIATELY. ALL AREAS OF PAVED DRIVE OR DRIVE DURING DAYLIGHT HOURS, THESE AREAS SHALL BE PROTECTED BY BARRIERS AND LIGHTING. ALL AREAS OF PAVED DRIVE OR DRIVE AT NIGHT, THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS AS TO NOT INTERFERE WITH THE NORMAL OPERATION OF THE DRIVE. THE CONTRACTOR SHALL ADVISE THE MOTORISTS USING THE STREETBY ADVISORY BY THE WORK DONE UNDER THE STREET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE CITY ENGINEER AND THE POLICE OFFICE OF THE CITY OF NORTH RIDGEVILLE.

10. ACCESS ROADS SHALL BE KEPT FREE OF MUD, DEBRIS, DIRT, ETC. AND SHALL BE CLEANED EVERY DAY AT THE END OF WORK OR MORE FREQUENTLY AS REQUIRED.

11. THE CONTRACTOR AND ANY SUBCONTRACTOR SHALL HAVE A COMPETENT SUPERVISOR ON THE PROJECT AT ALL TIMES WHEN WORK IS BEING DONE.

12. NO SLAG OR OTHER SOLIDIFIED MATERIAL WILL BE USED ON THE PROJECT.

GATE VALVES

- [illegible]

IN ADDITION A 300 PSI HYDROSTATIC TEST SHALL BE GIVEN TO THE ASSEMBLED VALVE. THIS 300 PSI PRESSURE SHALL ALSO BE APPLIED AGAINST THE FULLY CLOSED VANE OF EACH VALVE TO PROVE STRUCTURAL SOUNDNESS AND ASSURE COMPATIBILITY WITH FIELD LINE TEST PROCEDURES.

OCTOBER 1, 2008 – REV. 5/11/09, 9/29/09, 12/7/09, 8/18/16
5/9/17, 6/28/17, 6/5/20

HYDROSTATIC TESTING

1. ALL WATER MAINS SHALL BE INSTALLED AND PRESSURE TESTED ACCORDING TO AWWA C-605, LATEST EDITION.
 2. TESTING PLUGS OR CAPS SHALL BE FURNISHED AND INSTALLED FOR EACH SECTION OF MAIN.
 3. BEFORE THE TEST PRESSURE IS APPLIED, CARE SHALL BE TAKEN TO INSURE THE REMOVAL OF AIR IN THE LINE AT THE HIGH POINTS AND TO INSURE THAT ALL PLUGS AND EXPOSED PORTIONS OF THE LINE ARE SECURELY BARRICADED.
 4. THE CONTRACTOR SHALL SUPPLY ALL NECESSARY EQUIPMENT, GAUGES, AND RECORDING DEVICES TO CONDUCT THE TEST. ALL TESTING SHALL BE DONE UNDER THE DIRECTION OF THE CITY OF NORTH ROSSVILLE ENGINEERING DEPARTMENT.
 5. WATER IN THE TEST SECTIONS WILL BE PROVIDED BY THE CITY OF NORTH ROSSVILLE.
 6. IF THE LEAKAGE TEST EXCEEDS THE MAXIMUM ALLOWED, THE CONTRACTOR SHALL LOCATE AND REPAIR THE LEAKS AND AGAIN TEST THE PIPE. THIS PROVISION SHALL CONTINUE UNTIL THE LEAKAGE IS WITHIN THE ACCEPTABLE LIMITS.
- DISINFECTION METHODS**
1. AFTER HYDROSTATIC TESTING, THE NEW LINE SHALL BE THOROUGHLY FLUSHED ACCORDANCE WITH AWWA C-605. THE APPLICATOR SHALL BE FURNISHED THROUGH THE HYDRANTS, BLOWOFFS OR BY SOME OTHER APPROVED METHOD.
 2. CHLORINE SHALL BE ADDED AT 50 PARTS PER MILLION AS TO GIVE A MINIMUM CHLORINE DOSAGE OF 90 PARTS NACH AVAILABLE CHLORINE.
 3. CHLORINE USED AS A DISINFECTING AGENT MAY BE EITHER LIQUID CHLORINE OR AN ANHYDROUS CALCIUM HYPOCHLORITE COMPOUND SUCH AS "THI" OR "DTH". THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SELECTION OF A SUITABLE CHLORINE FEEDING MACHINE AND A SUCTION NOZZLE. ANHYDROUS CALCIUM HYPOCHLORITE SHALL BE FED AT INJECTION POINTS USING A SUITABLE INJECTION PUMP.
 4. FOLLOWING THE DISINFECTING PERIOD, THE LINE SHALL BE THOROUGHLY FLUSHED WITH CLEAN WATER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LINE SHALL UNPLUG TEST, BOTH CHEMICALLY AND HYDRAULICALLY. IT IS PROVED QUALITY TO THE QUALITY OF THE WATER IN THE EXISTING SYSTEM.
 5. THE CITY OF NORTH ROSSVILLE SERVICE DEPARTMENT WILL TEST THE DISINFECTED LINE FOR 100% CHLORINE RESIDUE AT SEVEN (7) LOCATIONS.

CURB CONNECTIONS

1. THE SIZE OF SERVICE CONNECTIONS SHALL BE THREE-QUARTER INCH (3/4") DIAMETER MINIMUM.
2. SERVICE CONNECTIONS SHALL BE K COPPER. ALTERNATIVELY, 200 PSI PLASTIC PIPE APPROVED FOR POTABLE WATER, WITH TRACER WIRE, MAY BE USED PROVIDED THERE IS NO EFFECT ON CONNECTION ADHERENCE TO THE SERVICE STRUCTURE. IS K COPPER AND THE STRUCTURE SERVED IS MORE THAN 2 FEET FROM THE ROADWAY RIGHT OF WAY LINE.
3. FOR STRUCTURES GREATER THAN 200 FEET FROM THE CENTERLINE OF THE ROADWAY, A METER VAULT MUST BE PROVIDED NEAR THE RIGHT OF WAY LINE OF THE ROADWAY.



UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPREHEND ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

EXISTING LEGEND

	FOUND MONUMENT BOX AS NOTED		EX. EDGE OF WATER
	SET IRON PIN WITH "ATWELL" CAP		EX. FENCE
	FOUND IRON ROD AS NOTED		EX. TREE LINE
	OBSERVED		EX. RAILROAD
	RECORD		OVERHEAD UTILITY WIRES
	FOUND		GAS LINES
	PER PLAN		SANITARY LINES
	DOCUMENT		STORM LINES
	UNKNOWN		WATER LINES
	HIGH-DENSITY POLYETHYLENE PIPE		MAJOR CONTOURS
	SMOOTH METAL PIPE		MINOR CONTOURS
	ELEVATION		EX. EASEMENT
	UTILITY POLE		EX. UTILITY POLE
	EX. ASPH.		EX. HYDRANT
	EX. CULVERT END		EX. WATER VALVE
	EX. CATCH BASIN/INLET AS NOTED		EX. GAS RISER
	EX. EASEMENT		EX. SANITARY LINE MARKER
	EX. HEADWALL		
	EX. COMM. LINE		

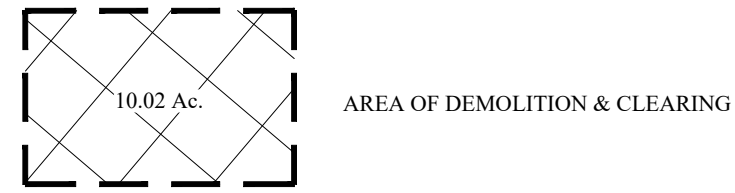
EX. STORM
STRUCTURE SCHEDULE

- INLET BASIN
RIM 731.52
6" INV. (N) 729.07
15" INV. (S) 728.12
- INLET BASIN
RIM 731.27
15" INV. (N) 727.87
15" INV. (S) 727.57
FILLED WITH WATER
- STORM MANHOLE
RIM 732.99
15" INV. (N) 727.39±
27" (PLAN) INV. (S) 727.32±
FILLED WITH WATER
- STORM MANHOLE
STRUCTURE FILLED WITH WATER
UNABLE TO OBSERVE INVERTS
RIM 728.14
38" ± 60" (PLAN) INV. (NW) 726.3±
21" (PLAN) INV. (W) 726.8±
CALC. FROM PLAN
- HEADWALL
38" ± 60" (PLAN) INV. (NW) 726.13±
CULVERT COMPLETELY SUBMERGED

EX. SANITARY
STRUCTURE SCHEDULE

- SANITARY MANHOLE
RIM 733.66
INV. 718.20
- SANITARY MANHOLE
RIM 733.03
15" INV. (E & W) 717.78
8" INV. (S) 718.28
- SANITARY MANHOLE
RIM 732.05
15" INV. (E & W) 717.03

LEGEND



ITALICS TEXT REPRESENTS EXISTING CONDITION
NON-ITALICS TEXT REPRESENTS PROPOSED CONDITION

STORM SEWER NOTE:
CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION, DEPTH, SIZE, CONDITION AND CONNECTIVITY OF ALL STORM SEWER SYSTEMS ON THE SITE. SITE CIVIL ENGINEER SHALL BE INFORMED OF THE RESULTS OF THE INVESTIGATION PRIOR TO CONSTRUCTION.

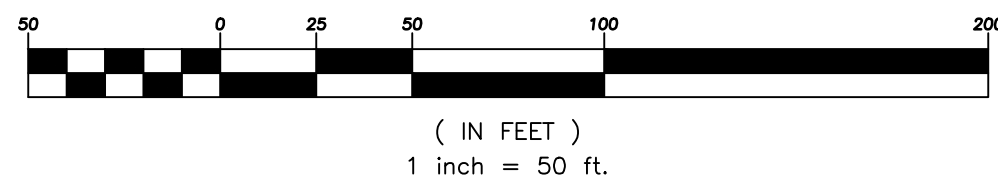
CURVE C1

R = 50.00'
A = 34.38'
C = 33.71'
Δ = 39°24'02"
S 69°21'36" W

CURVE C2

R = 60.00'
A = 98.14'
C = 87.56'
Δ = 93°42'55"
N 83°28'57" W

GRAPHIC SCALE



(IN FEET)
1 inch = 50 ft.

TAYLOR PARKWAY ~ (70') (PUBLIC)

SITE BENCH MARK

BENCH MARK #1
TOP NUT ON HYDRANT

ELEVATION = 735.41



2555 Hartville Rd., Suite B
Rookstown, OH 44272
www.WeberEngineeringServices.com
330-329-2037
matt@webercivil.com



Reg. No.: 61709

CLIENT:

GEIS
CONSTRUCTION

10020 AURORA-HUDSON RD.
STREETSBORO, OHIO
JEN DIASIO
PHONE: (216) 218-3507

OWNER:

RUF BRIQUETTING SYSTEMS
NEW SITE
38778 TAYLOR PARKWAY, NORTH RIDGEVILLE, OH

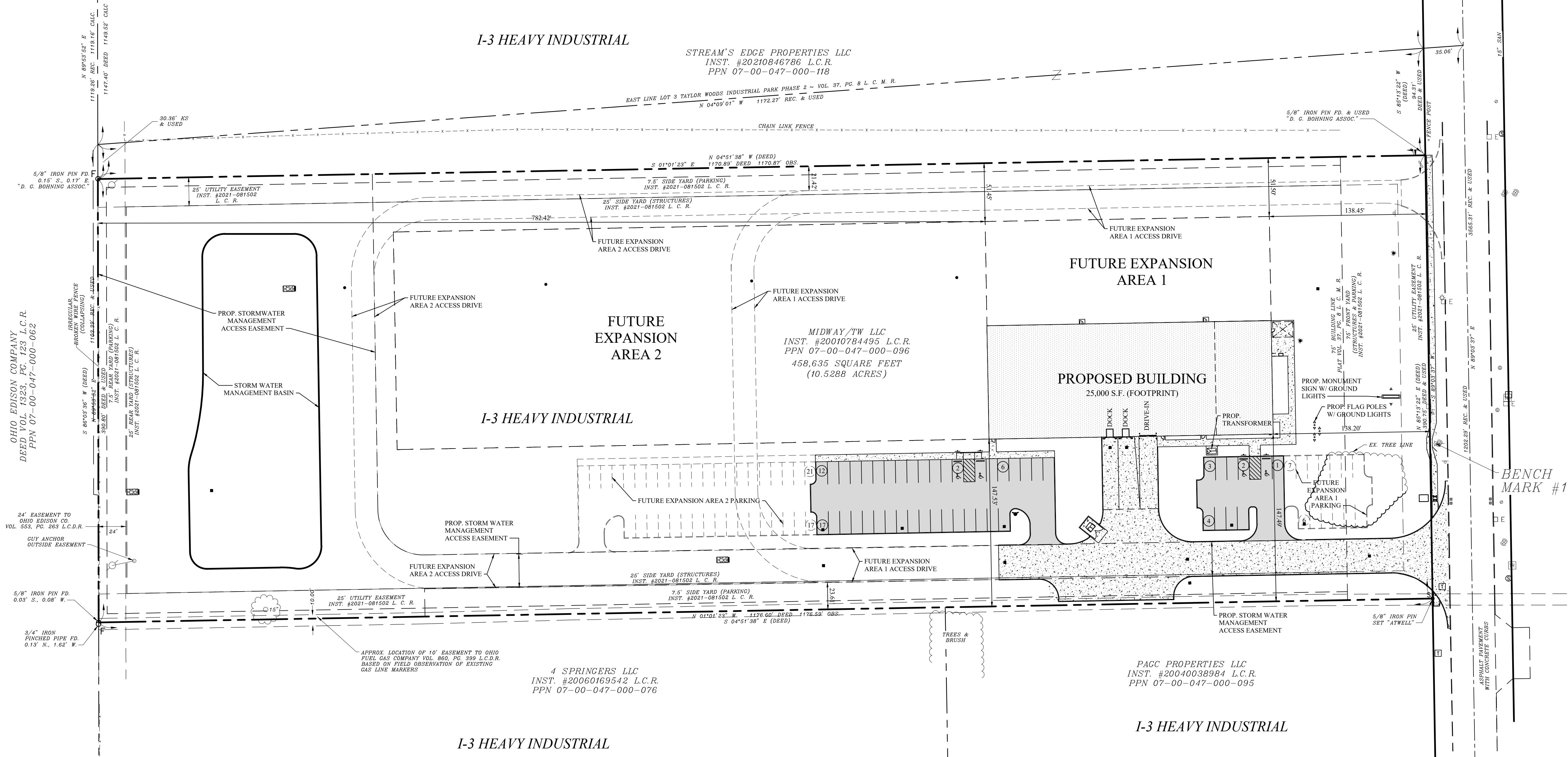
Issue Date
03-15-2024

DEMOLITION
PLAN

C101

Project No. 2024-108





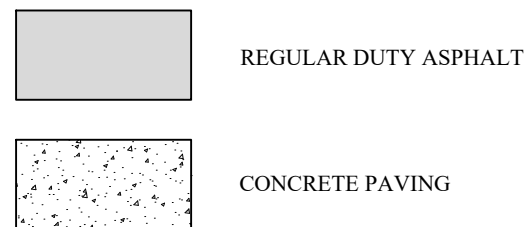
SITE DATA

USE DISTRICT	=	I-3 HEAVY INDUSTRIAL
SITE AREA	=	10.52 AC.
PROP. BUILDING AREA	=	48,069 S.F. (FOOTPRINT)
BUILDING SETBACKS:		
FRONT YARD	=	75'
SIDE YARD	=	25'
REAR YARD	=	25'
NUMBER OF PARKING SPACES:		
REGULAR PARKING SPACES	=	43
HANDICAP PARKING SPACES	=	4
TOTAL PARKING SPACES	=	47
NUMBER OF PARKING SPACES FUTURE EXP. AREA 1:		
REGULAR PARKING SPACES	=	13
NUMBER OF PARKING SPACES FUTURE EXP. AREA 2:		
REGULAR PARKING SPACES	=	38

FLOOD ZONE

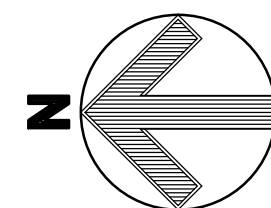
FLOOD ZONE "X" PER FLOOD INSURANCE
RATE MAP NUMBER 39093C0231D
EFFECTIVE DATE AUGUST 19, 2008

LEGEND

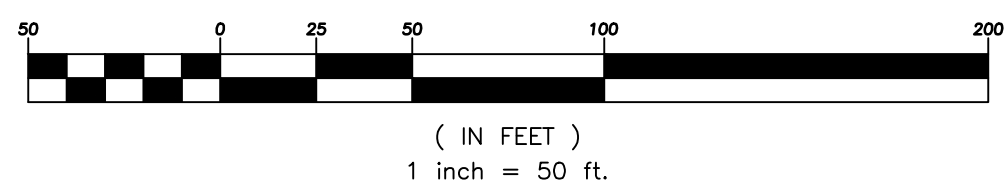


ITALICS TEXT REPRESENTS EXISTING CONDITION
NON-ITALICS TEXT REPRESENTS PROPOSED CONDITION

CURVE C1	CURVE C2
R = 50.00'	R = 60.00'
A = 34.38'	A = 98.14'
C = 33.71'	C = 87.56'
A = 39°24'02"	A = 93°42'55"
S 69°21'36" W	N 83°28'57" W



GRAPHIC SCALE



SITE BENCH MARK
BENCH MARK #1 TOP NUT ON HYDRANT
ELEVATION = 735.41

I-3 HEAVY INDUSTRIAL
TAYLOR PARKWAY ~ (70') (PUBLIC)

2555 Hartville Rd., Suite B
Rookstown, OH 44272
www.WeberEngineeringServices.com
330-329-2037
matt@webercivil.com

Reg. No.: 61709

CLIENT:

GEIS
CONSTRUCTION

10020 AURORA-HUDSON RD.
STREETSBORO, OHIO
JEN DASIO
PHONE: (216) 218-3507

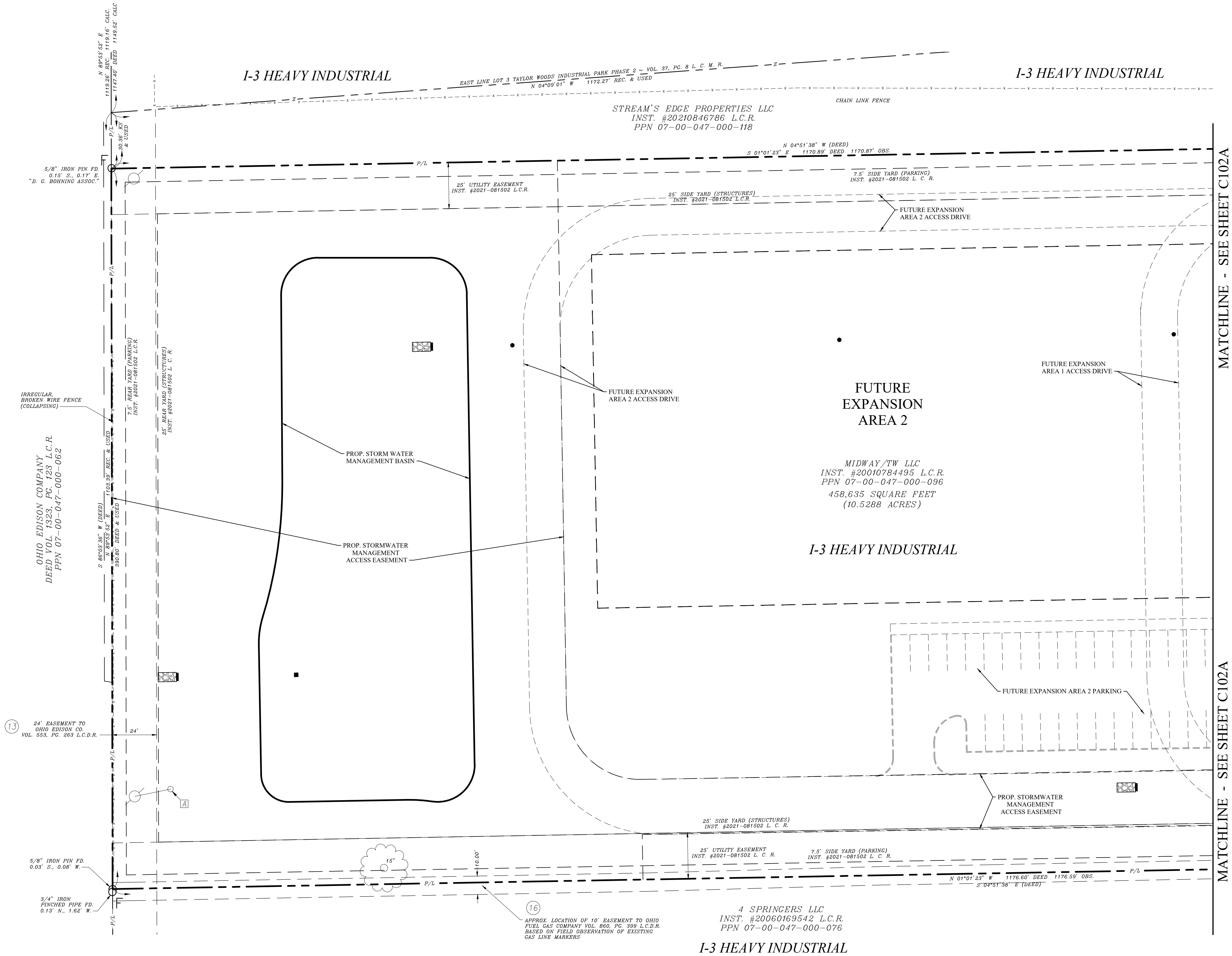
OWNER:

RUF BRIQUETTING SYSTEMS
NEW SITE
38778 TAYLOR PARKWAY, NORTH RIDGEVILLE, OH

Issue Date
03-15-2024

OVERALL
SITE PLAN

C102
Project No. 2024-108



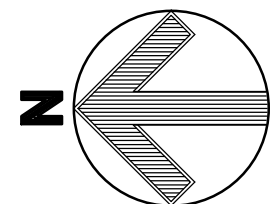
LEGEND

- REGULAR DUTY ASPHALT
- CONCRETE PAVING

ITALICS TEXT REPRESENTS EXISTING CONDITION
NON-ITALICS TEXT REPRESENTS PROPOSED CONDITION

CURVE C1
R = 50.00'
A = 34.38'
C = 33.71'
Δ = 39°24'02"
S 69°21'36" W

CURVE C2
R = 60.00'
A = 38.14'
C = 87.56'
Δ = 93°42'55"
N 83°28'57" W



GRAPHIC SCALE



(IN FEET)
1 inch = 30 ft.

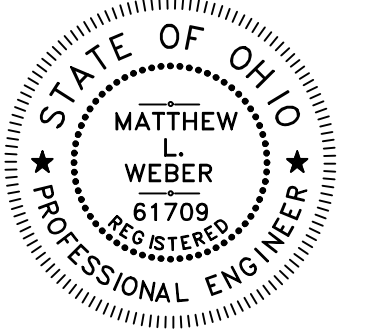
SITE BENCH MARK

BENCH MARK #1
TOP NUT ON HYDRANT

ELEVATION = 735.41



2555 Hartville Rd., Suite B
Rookstown, OH 44272
www.WeberEngineeringServices.com
330-329-2037
matt@webercivil.com



Reg. No.: 61709

CLIENT:

GEIS
CONSTRUCTION

10020 AURORA-HUDSON RD.
STREETSBORO, OHIO
JEN DIASIO
PHONE: (216) 218-3507

OWNER:

RUF BRIQUETTING SYSTEMS

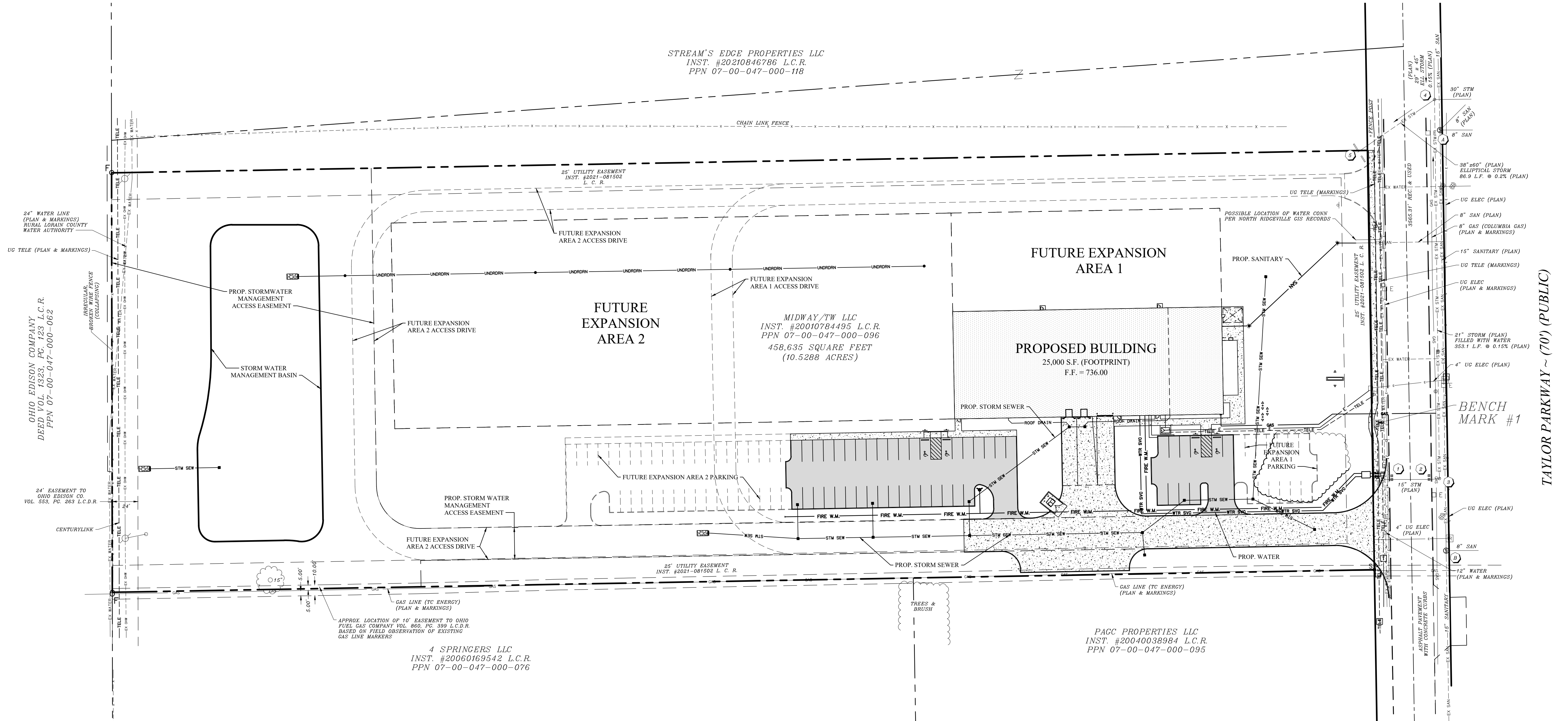
NEW SITE

38778 TAYLOR PARKWAY, NORTH RIDGEVILLE, OH

Issue Date
03-15-2024

PARTIAL
SITE PLAN

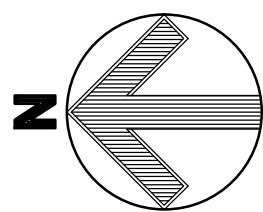
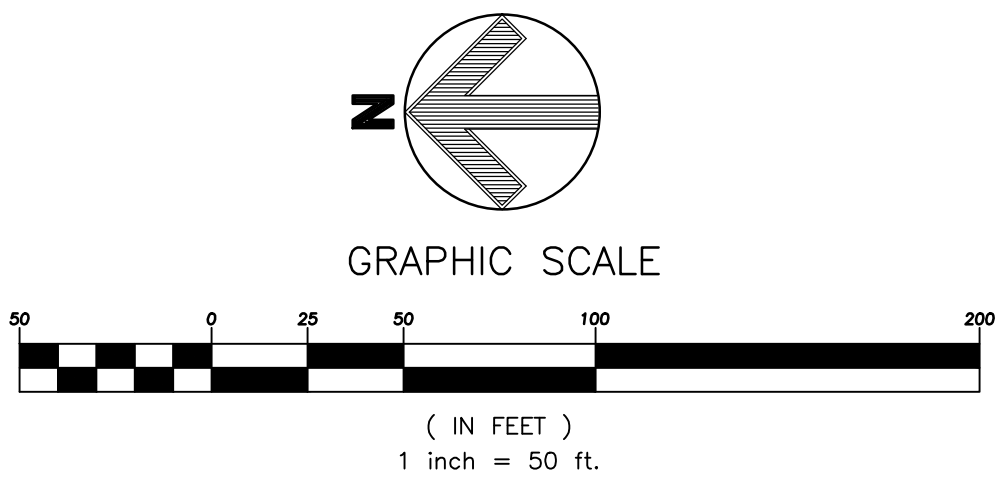
C102B
Project No. 2024-108



LEGEND

ITALICS TEXT REPRESENTS EXISTING CONDITION
NON-ITALICS TEXT REPRESENTS PROPOSED CONDITION

FINGER DRAINS:
ALL INLETS WITHIN ASPHALT PAVEMENT
SHALL HAVE FINGER DRAINS PER DETAIL ON
SHEET C103.



SITE BENCH MARK
BENCH MARK #1
TOP NUT ON HYDRANT
ELEVATION = 735.41

TAYLOR PARKWAY ~ (70') (PUBLIC)

2555 Hartville Rd., Suite B
Rookstown, OH 44272
www.WeberEngineeringServices.com
330-329-2037
matt@webercivil.com

Reg. No.: 61709

CLIENT:

GEIS CONSTRUCTION

10020 AURORA-HUDSON RD.
STREETSBORO, OHIO
JEN DASIO
PHONE: (216) 218-3507

OWNER:

RUF BRIQUETTING SYSTEMS
NEW SITE
38778 TAYLOR PARKWAY, NORTH RIDGEVILLE, OH

Issue Date
03-15-2024

OVERALL UTILITY PLAN

C103
Project No. 2024-108



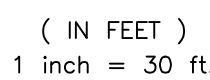
NAME	SIZE	LENGTH	SLOPE	TYPE
ST-1	24"	84.33'	0.30%	HDPE
ST-2	24"	70.00'	0.29%	HDPE
ST-3	24"	90.00'	0.22%	HDPE
ST-4	18"	161.11'	0.28%	HDPE
ST-5	18"	49.20'	0.30%	HDPE
ST-6	15"	64.01'	0.31%	HDPE
ST-7	12"	64.03'	0.31%	HDPE
ST-8	12"	31.65'	4.90%	HDPE
ST-9	12"	31.65'	4.27%	HDPE
ST-10	15"	31.65'	0.47%	HDPE
ST-11	15"	116.43'	0.47%	HDPE
ST-12	12"	14.59'	0.69%	HDPE
ST-13	12"	21.03'	0.71%	HDPE
ST-14	12"	207.55'	0.26%	HDPE

STORM STRUCTURE TABLE	
STRUCTURE	DETAILS
2	ODOT CB-2-3 RIM = 731.00 INV IN = 727.25, 12° E INV IN = 726.25, 24° S INV OUT = 726.25, 24° N
3	ODOT CB-2-3 RIM = 731.00 INV IN = 726.75, 24° S INV IN = 727.45, 12° E INV OUT = 726.45, 24° N
4	ODOT CB-2-3 RIM = 731.00 INV IN = 726.65, 18° S INV IN = 726.65, 15° E INV OUT = 726.65, 24° N
5	ODOT CB-2-2C RIM = 731.00 INV IN = 727.10, 18° SE INV IN = 727.60, 12° W INV OUT = 727.10, 18° N
6	ODOT CB-2-2C RIM = 733.40 INV IN = 727.25, 15° S INV OUT = 727.25, 18° NW
7	ODOT CB-2-2C RIM = 731.00 INV IN = 727.45, 12° SW INV IN = 727.45, 12° E INV OUT = 727.45, 15° N
8	ODOT CB-2-2C RIM = 731.40 INV OUT = 727.65, 12° NE
9	ODOT CB-2-2C RIM = 733.30 INV OUT = 728.80, 12° W
10	ODOT CB-2-2C RIM = 733.30 INV OUT = 728.80, 12° W
11	ODOT CB-2-2C RIM = 733.30 INV IN = 726.80, 15° SE INV OUT = 726.80, 15° W
12	ODOT CB-2-2C RIM = 731.80 INV IN = 727.60, 12° S INV IN = 727.77, 10° E INV OUT = 727.35, 15° NW
13	ODOT CB-2-2C RIM = 731.80 INV IN = 727.87, 10° E INV OUT = 727.70, 12° N
14	ODOT CB-2-2B RIM = 731.00 INV OUT = 727.75, 12° E
15	ODOT CB-2-2B RIM = 731.00 INV OUT = 728.00, 12° W
20	YARD INLET RIM = 731.00 INV OUT = 729.50, 6° N

NAME	SIZE	LENGTH	SLOPE	TYPE
ST-1	24"	84.33'	0.30%	HDPE
ST-2	24"	70.00'	0.29%	HDPE
ST-3	24"	90.00'	0.22%	HDPE
ST-4	18"	161.11'	0.28%	HDPE
ST-5	18"	49.20'	0.30%	HDPE
ST-6	15"	64.01'	0.31%	HDPE
ST-7	12"	64.03'	0.31%	HDPE
ST-8	12"	31.65'	4.90%	HDPE
ST-9	12"	31.65'	4.27%	HDPE
ST-10	15"	31.65'	0.47%	HDPE
ST-11	15"	116.43'	0.47%	HDPE
ST-12	12"	14.59'	0.69%	HDPE
ST-13	12"	21.03'	0.71%	HDPE
ST-14	12"	207.55'	0.26%	HDPE

FINGER DRAINS:

ALL INLETS WITHIN ASPHALT PAVEMENT
SHALL HAVE FINGER DRAINS PER DETAIL ON
SHEET C105.



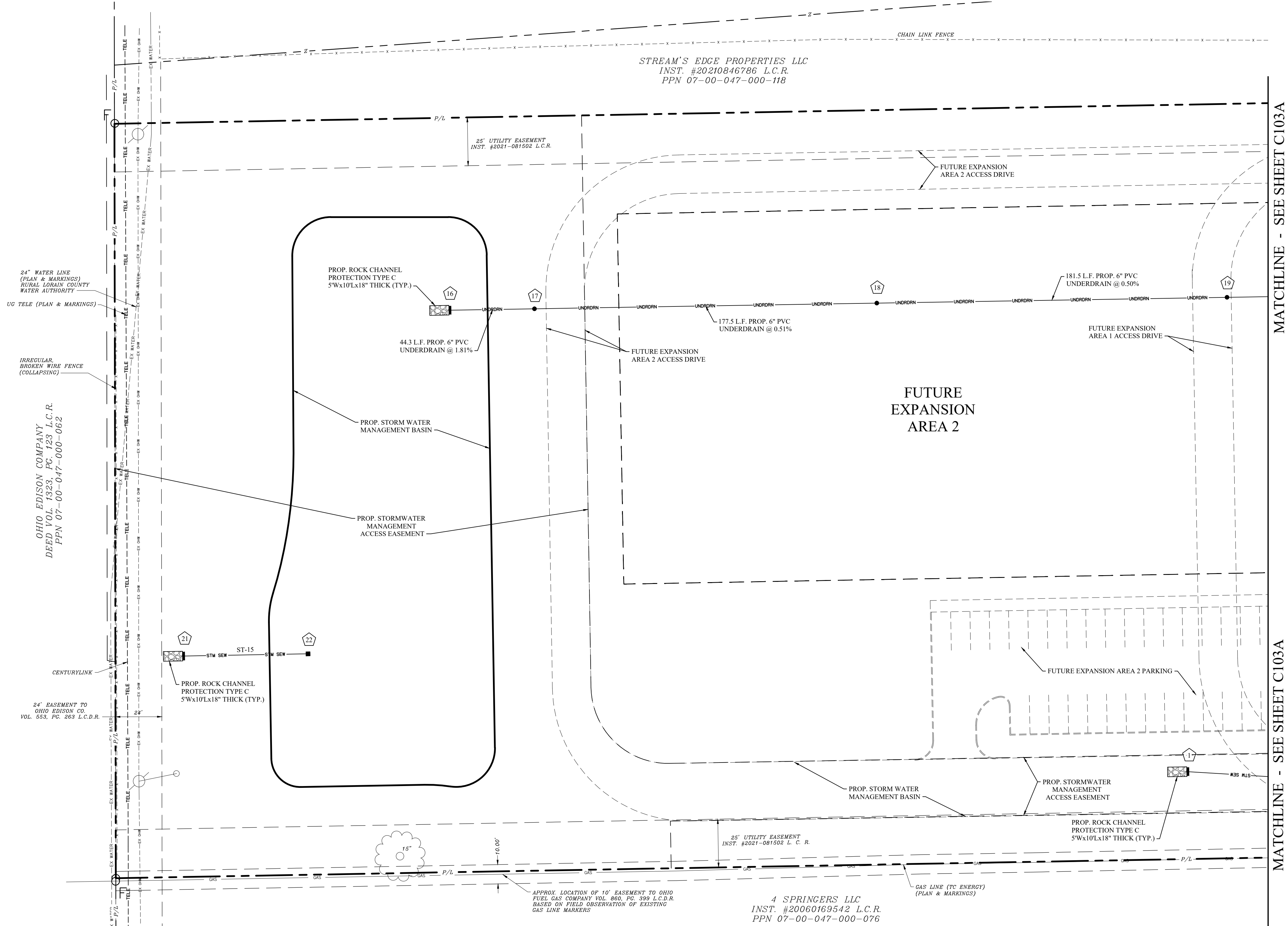
A SANITARY MANHOLE
RIM 733.68
INV. 718.20

B SANITARY MANHOLE
RIM 733.03
15" INV. (E & W) 717.78
8" INV. (S) 718.28

C SANITARY MANHOLE
RIM 732.05
15" INV. (E & W) 717.03

SANITARY PIPE TABLE				
NAME	SIZE	LENGTH	SLOPE	TYPE
SN-1	6"	17.16'	1.00% (MIN.)	PVC
SN-2	6"	112.85'	4.68%	PVC
SN-3	8"	25.29'	1.00% (MIN.)	PVC





EX. STORM
STRUCTURE SCHEDULE

- 1 INLET BASIN
RIM 731.52
6" INV. (N) 729.07
15" INV. (S) 728.12
- 2 INLET BASIN
RIM 731.67
15" INV. (N) 727.87
15" INV. (S) 727.57
- 3 STORM MANHOLE
RIM 732.39
15" INV. (N) 727.39±
27" (PLAN) INV. (E) 727.32±
FILLED WITH WATER
- 4 STORM MANHOLE
STRUCTURE FILLED WITH WATER
UNABLE TO OBSERVE INVERTS
RIM 733.14
36" ± 60" (PLAN) INV. (NW) 726.3±
31" (PLAN) INV. (W) 726.8±
CALC. FROM PLAN
- 5 HEADWALL
36" ± 60" (PLAN) INV. (NW) 726.13±
CULVERT COMPLETELY SUBMERGED

EX. SANITARY
STRUCTURE SCHEDULE

- A SANITARY MANHOLE
RIM 733.68
INV. 718.20
- B SANITARY MANHOLE
RIM 733.03
15" INV. (E & W) 717.78
8" INV. (S) 718.28
- C SANITARY MANHOLE
RIM 732.05
15" INV. (E & W) 717.03

STORM STRUCTURE TABLE	
STRUCTURE	DETAILS
1	ODOT HW 2.1 INV IN = 726.00, 24" S
16	ODOT HW 2.1 INV IN = 726.00, 6" S
17	YARD INLET RIM = 731.00 INV IN = 726.80, 6" S INV OUT = 726.80, 6" N
18	YARD INLET RIM = 731.00 INV IN = 727.70, 6" S INV OUT = 727.70, 6" N
19	YARD INLET RIM = 731.00 INV IN = 728.60, 6" S INV OUT = 728.60, 6" N
21	ODOT HW 2.1 INV IN = 725.75, 18" S
22	OUTLET STRUCTURE RIM = 730.50 INV OUT = 726.00, 18" N

STORM PIPE TABLE				
NAME	SIZE	LENGTH	SLOPE	TYPE
ST-15	18"	65.00'	0.38%	HDPE

LEGEND

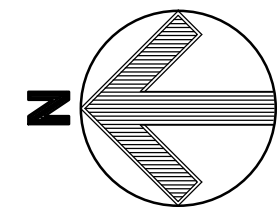
ITALICS TEXT REPRESENTS EXISTING CONDITION
NON-ITALICS TEXT REPRESENTS PROPOSED CONDITION

NOTE 1:

CONTRACTOR SHALL DEFLECT W.M. AS NECESSARY
TO MAINTAIN 18" MIN. VERTICAL CLEARANCE
BETWEEN W.M. & SAN. SEW. AND/OR STM. SEW. AT
ALL TIMES. (INSTALL BENDS WHERE NECESSARY)

FINGER DRAINS:

ALL INLETS WITHIN ASPHALT PAVEMENT
SHALL HAVE FINGER DRAINS PER DETAIL ON
SHEET C105.



GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

SITE BENCH MARK

BENCH MARK #1
TOP NUT ON HYDRANT

ELEVATION = 735.41



2555 Hartville Rd., Suite B
Rookstown, OH 44272
www.WeberEngineeringServices.com
330-329-2037
matt@webercivil.com



Reg. No.: 61709

CLIENT:

GEIS
CONSTRUCTION

10020 AURORA-HUDSON RD.
STREETSBORO, OHIO
JEN DIASIO
PHONE: (216) 218-3507

OWNER:

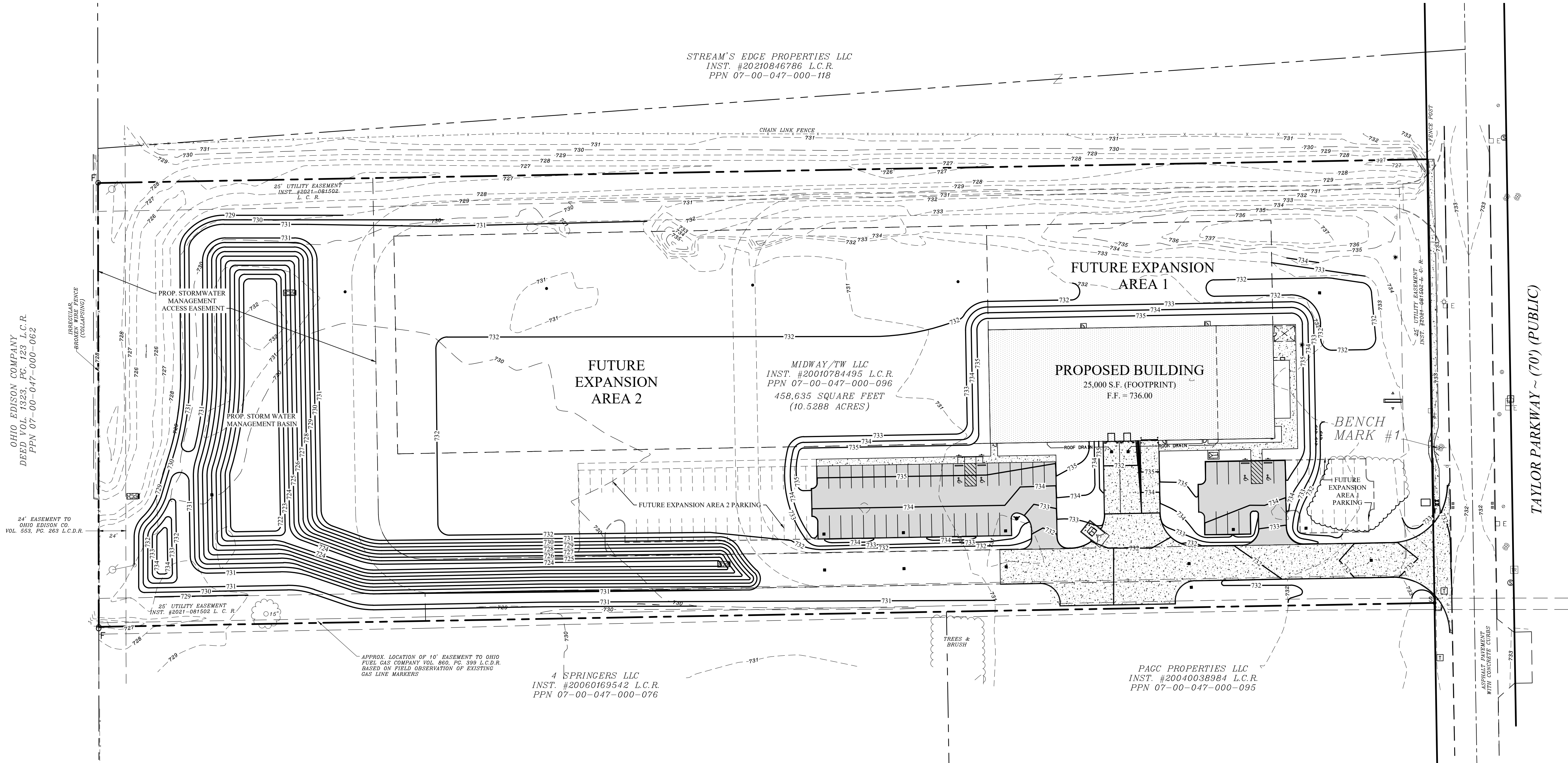
RUF BRIQUETTING SYSTEMS
NEW SITE

38778 TAYLOR PARKWAY, NORTH RIDGEVILLE, OH

Issue Date
03-15-2024

PARTIAL
UTILITY
PLAN

C103B
Project No. 2024-108



SITE BENCH MARK
BENCH MARK #1
TOP NUT ON HYDRANT
ELEVATION = 735.41

WEBER ENGINEERING SERVICES
Where Strong Relationships & Superior Service Guide Your Project
2555 Hartville Rd., Suite B
Rookstown, OH 44272
www.WeberEngineeringServices.com
330-329-2037
matt@webercivil.com

STATE OF OHIO
MATTHEW WEBER
61709
REGISTERED PROFESSIONAL ENGINEER
Reg. No.: 61709

CLIENT:
GEIS CONSTRUCTION
10020 AURORA-HUDSON RD.
STREETSBORO, OHIO
JEN DIASIO
PHONE: (216) 218-3507

OWNER:

RUF BRIQUETTING SYSTEMS
NEW SITE
38778 TAYLOR PARKWAY, NORTH RIDGEVILLE, OH
Issue Date
03-15-2024

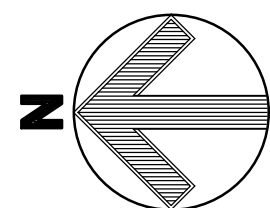
OVERALL GRADING PLAN

C104
Project No. 2024-108

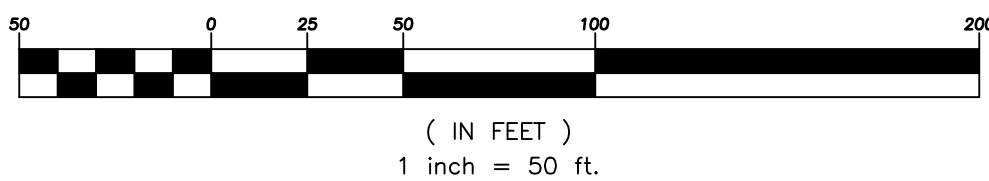
LEGEND

- REGULAR DUTY ASPHALT
- CONCRETE PAVING
- PROPOSED SPOT GRADE
- PROPOSED GRADE AT CURB
- MEET EXISTING GRADE LABEL
- EXISTING SPOT GRADE

ITALICS TEXT REPRESENTS EXISTING CONDITION
NON-ITALICS TEXT REPRESENTS PROPOSED CONDITION



GRAPHIC SCALE



STREAM'S EDGE PROPERTIES LLC
INST. #20210846786 L.C.R.
PPN 07-00-047-000-118

SITE BENCH MARK

BENCH MARK #1
TOP NUT ON HYDRANT

ELEVATION = 735.41



2555 Hartville Rd., Suite B
Rookstown, OH 44272
www.WeberEngineeringServices.com
330-329-2037
matt@webercivil.com



Reg. No.: 61709

CLIENT:

GEIS
CONSTRUCTION

10020 AURORA-HUDSON RD.
STREETSBORO, OHIO
JEN DIASIO
PHONE: (216) 218-3507

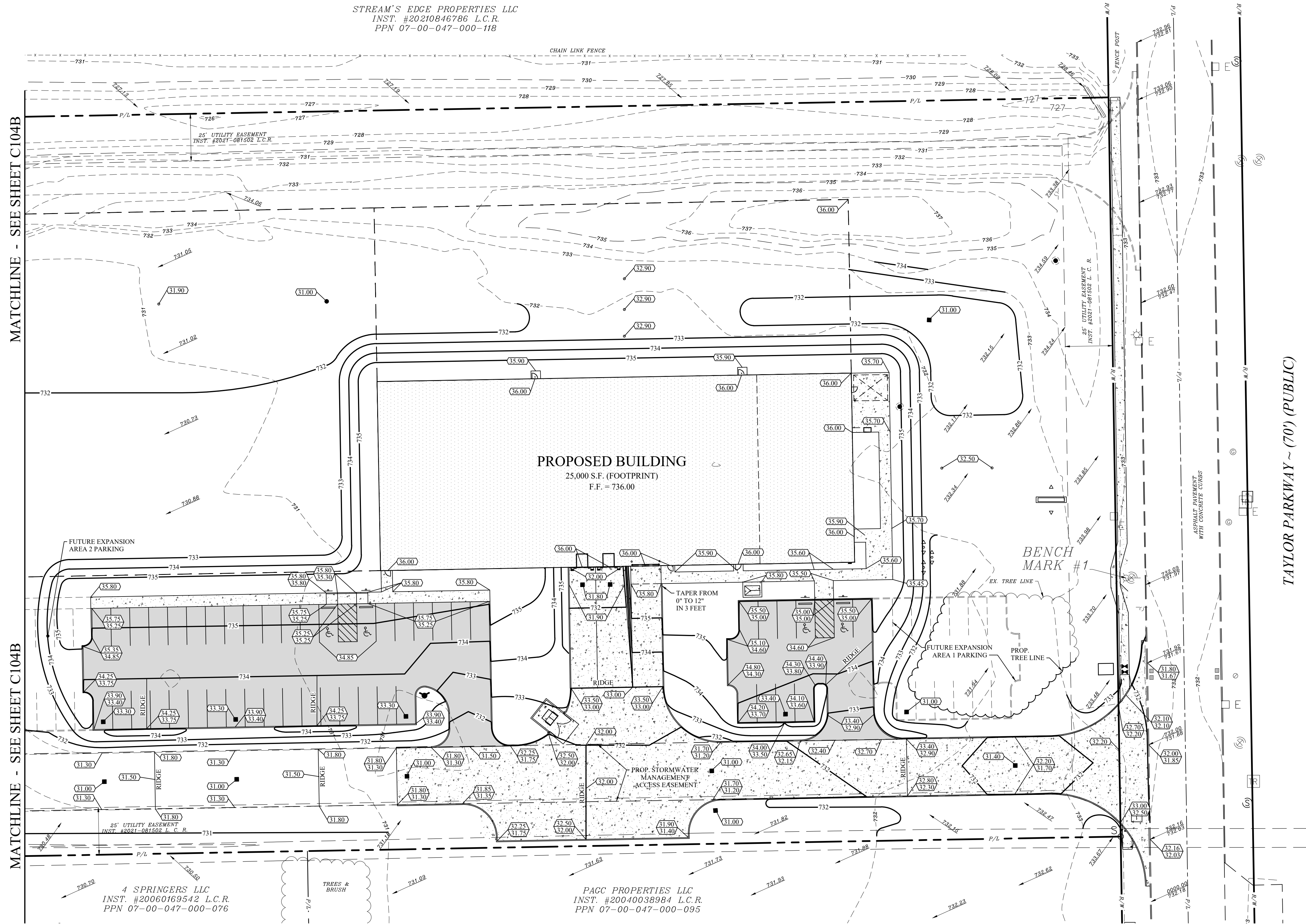
OWNER:

Issue Date
03-15-2024

RUF BRIQUETTING SYSTEMS
NEW SITE
38778 TAYLOR PARKWAY, NORTH RIDGEVILLE, OH

PARTIAL
GRADING
PLAN

C104A
Project No. 2024-108

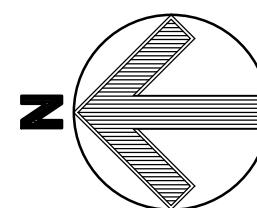


STORM WATER MANAGEMENT BASIN
EXCAVATION NOTE:
CONTRACTOR SHALL OVER EXCAVATE THE
STORM WATER MANAGEMENT BASIN AND
BURY EXCESS TOPSOIL TO UTILIZE BORROW
FROM STORM WATER MANAGEMENT BASIN
FOR FILL. (VERIFY WITH GEOTECHNICAL
REPORT)

LEGEND

- REGULAR DUTY ASPHALT
- HEAVY DUTY ASPHALT
- CONCRETE PAVING
- PROPOSED SPOT GRADE
- PROPOSED GRADE AT CURB
- MEET EXISTING GRADE LABEL
- EXISTING SPOT GRADE

ITALICS TEXT REPRESENTS EXISTING CONDITION
NON-ITALICS TEXT REPRESENTS PROPOSED CONDITION

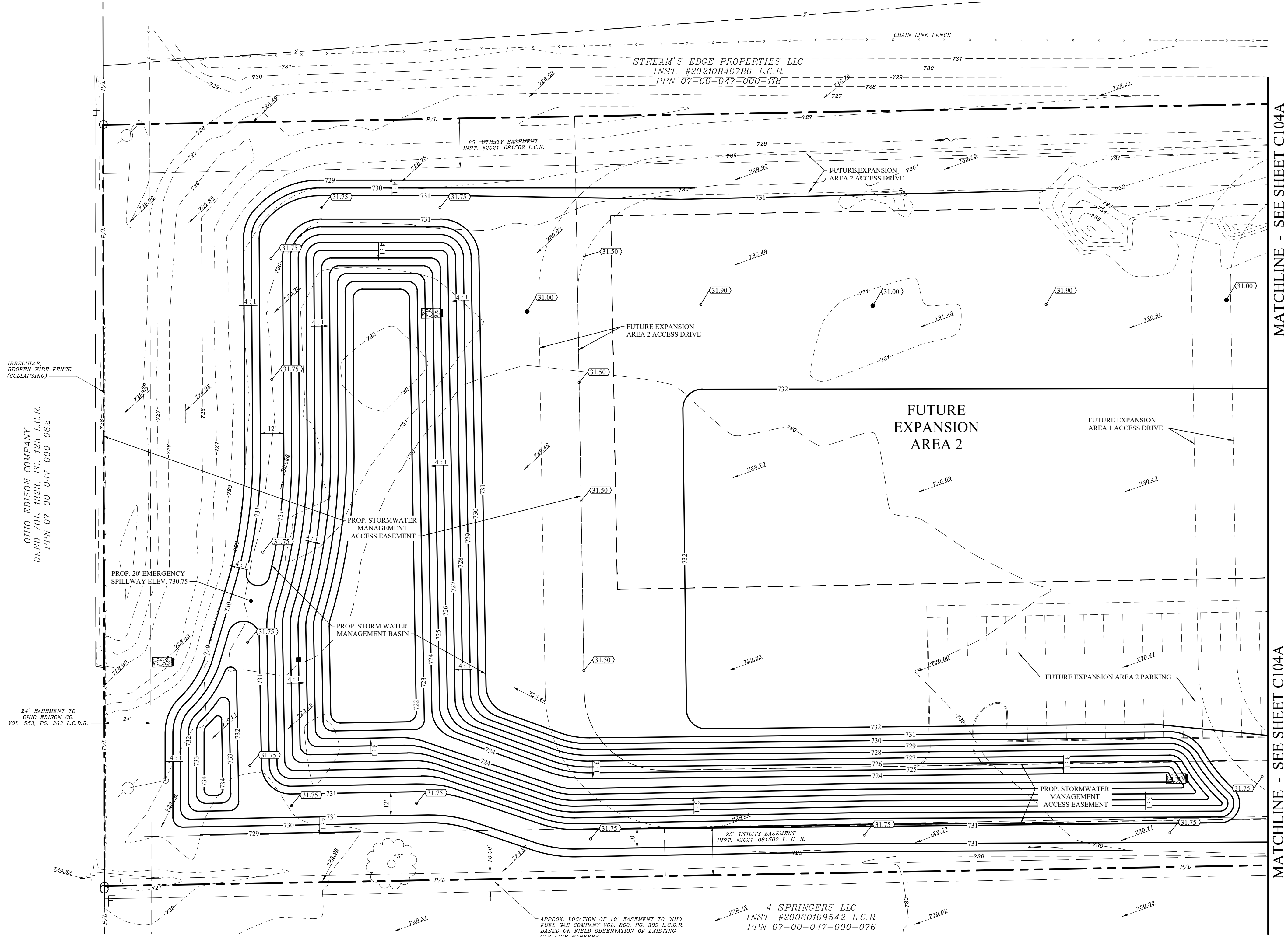


GRAPHIC SCALE



(IN FEET)
1 inch = 30 ft.



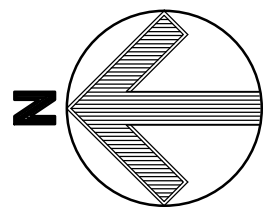


STORM WATER MANAGEMENT BASIN EXCAVATION NOTE:
CONTRACTOR SHALL OVER EXCAVATE THE STORM WATER MANAGEMENT BASIN AND BURY EXCESS TOPSOIL TO UTILIZE BORROW FROM STORM WATER MANAGEMENT BASIN FOR FILL. (VERIFY WITH GEOTECHNICAL REPORT)

LEGEND

- REGULAR DUTY ASPHALT
- HEAVY DUTY ASPHALT
- CONCRETE PAVING
- PROPOSED SPOT GRADE
- PROPOSED GRADE AT CURB
- MEET EXISTING GRADE LABEL
- EXISTING SPOT GRADE

ITALICS TEXT REPRESENTS EXISTING CONDITION
NON-ITALICS TEXT REPRESENTS PROPOSED CONDITION



GRAPHIC SCALE



(IN FEET)
1 inch = 30 ft.

SITE BENCH MARK

BENCH MARK #1
TOP NUT ON HYDRANT

ELEVATION = 735.41



2555 Hartville Rd., Suite B
Rootstown, OH 44272
www.WeberEngineeringServices.com
330-329-2037
matt@webercivil.com



Reg. No.: 61709

CLIENT:

**GEIS
CONSTRUCTION**

10020 AURORA-HUDSON RD.
STREETSBORO, OHIO
JEN DIASIO
PHONE: (216) 218-3507

OWNER:

RUF BRIQUETTING SYSTEMS

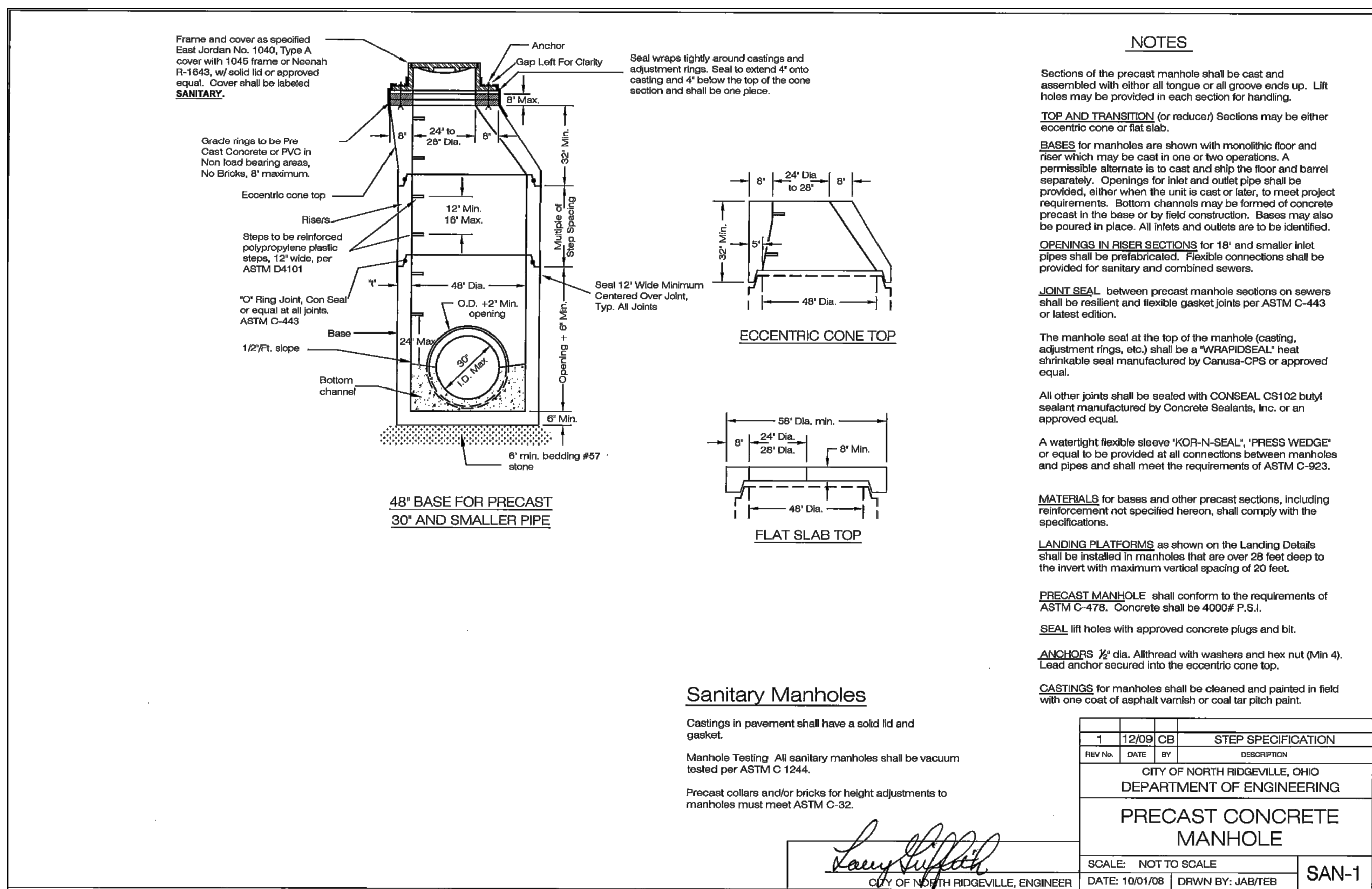
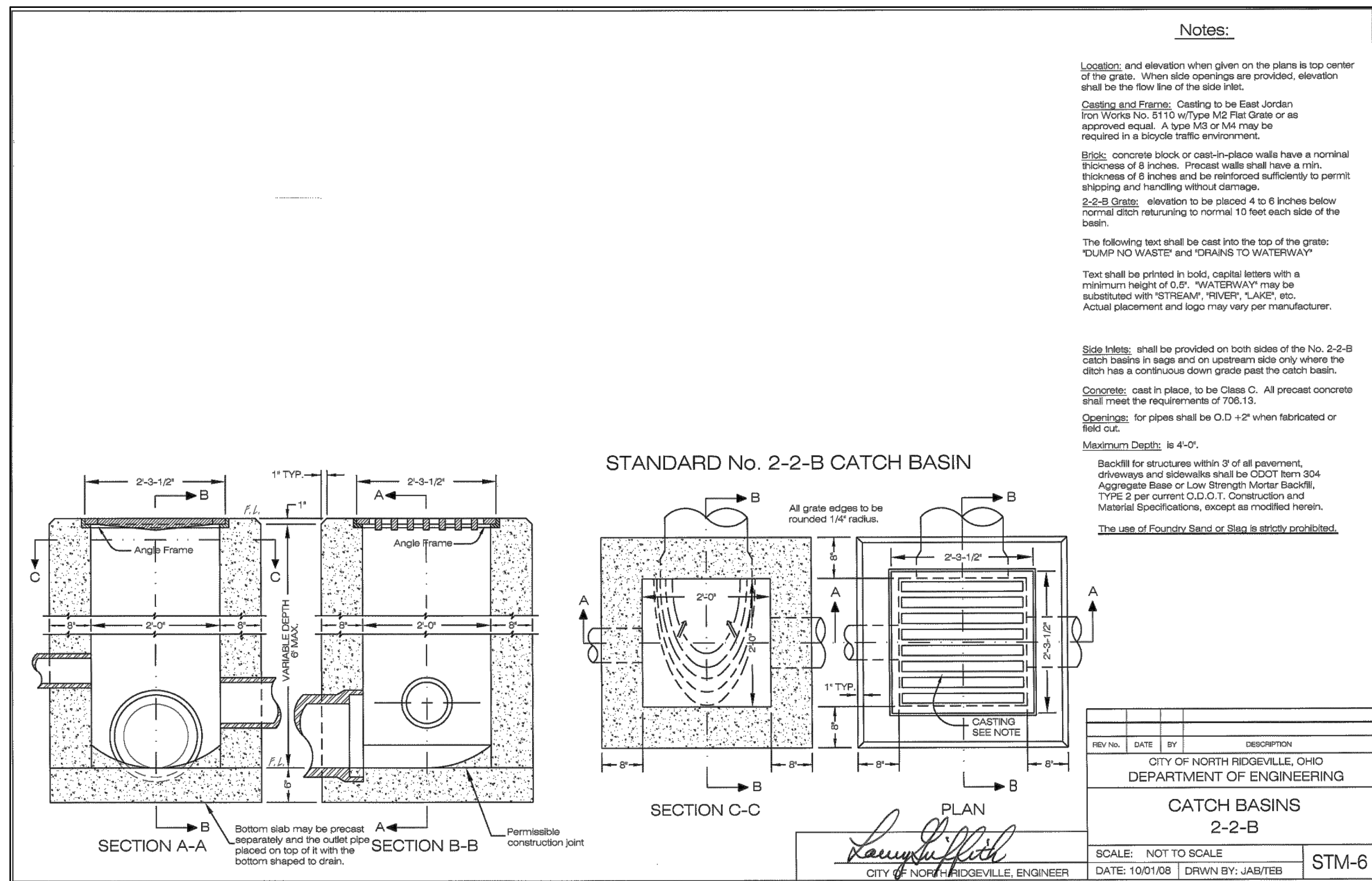
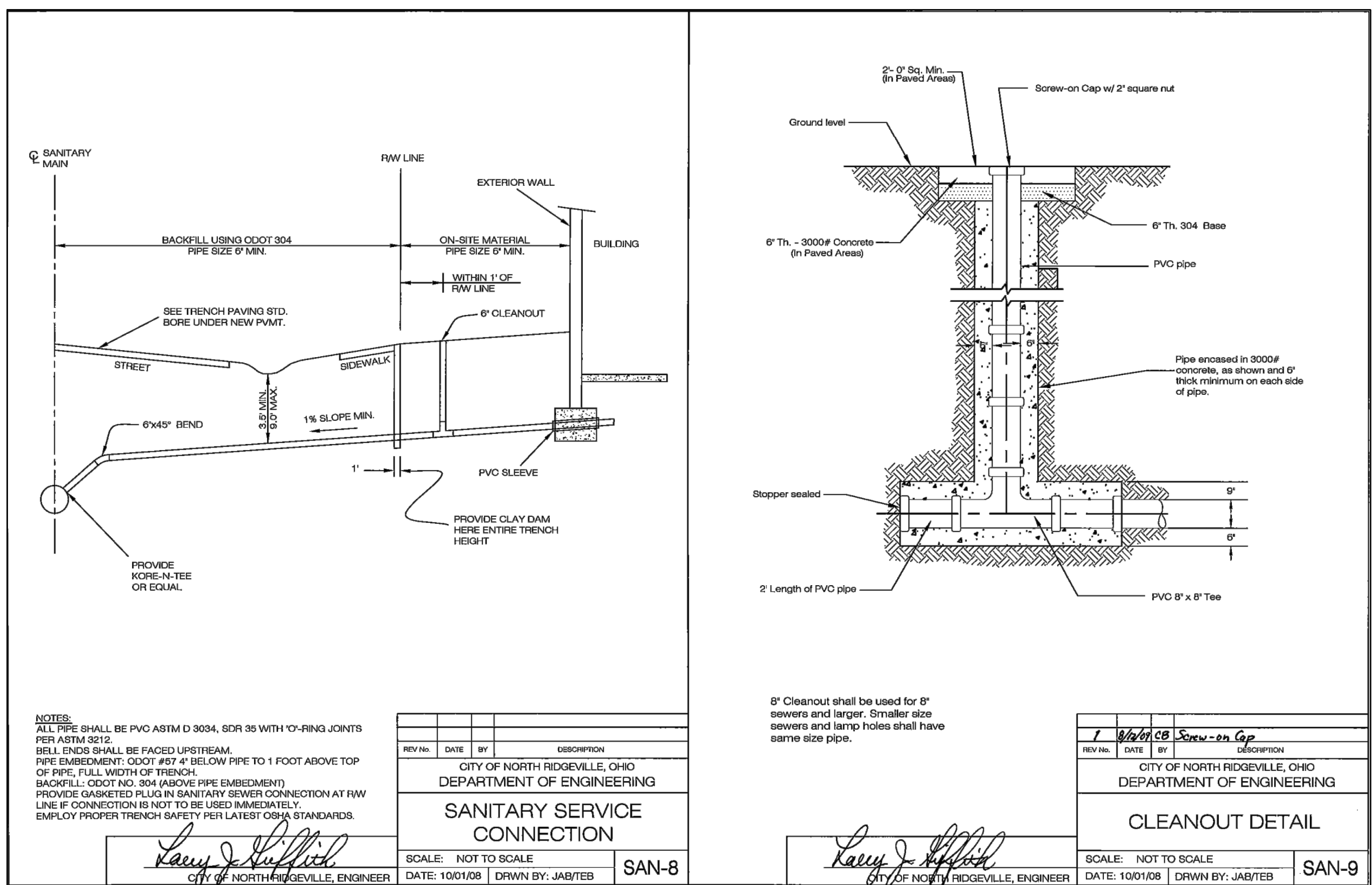
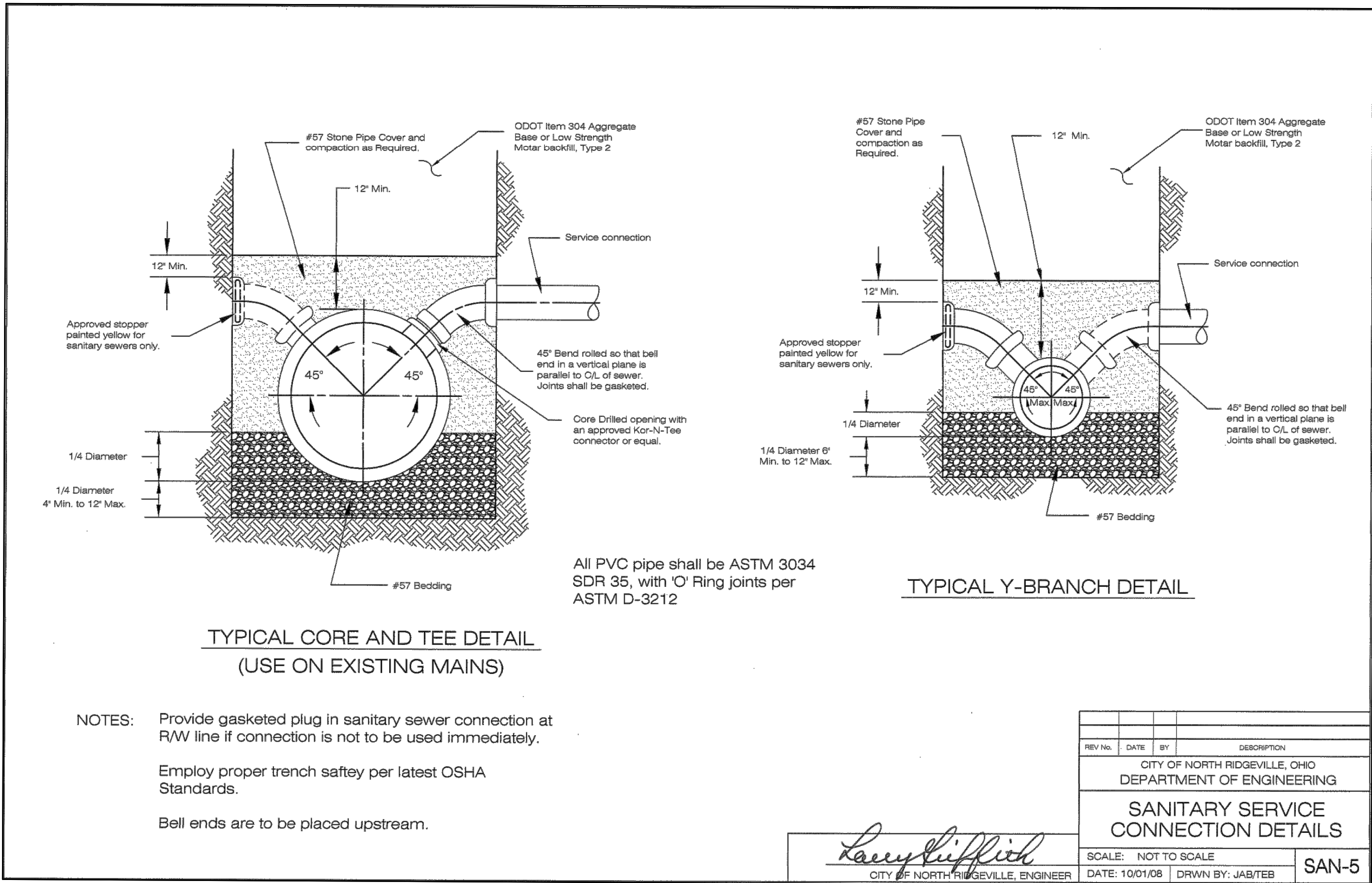
NEW SITE

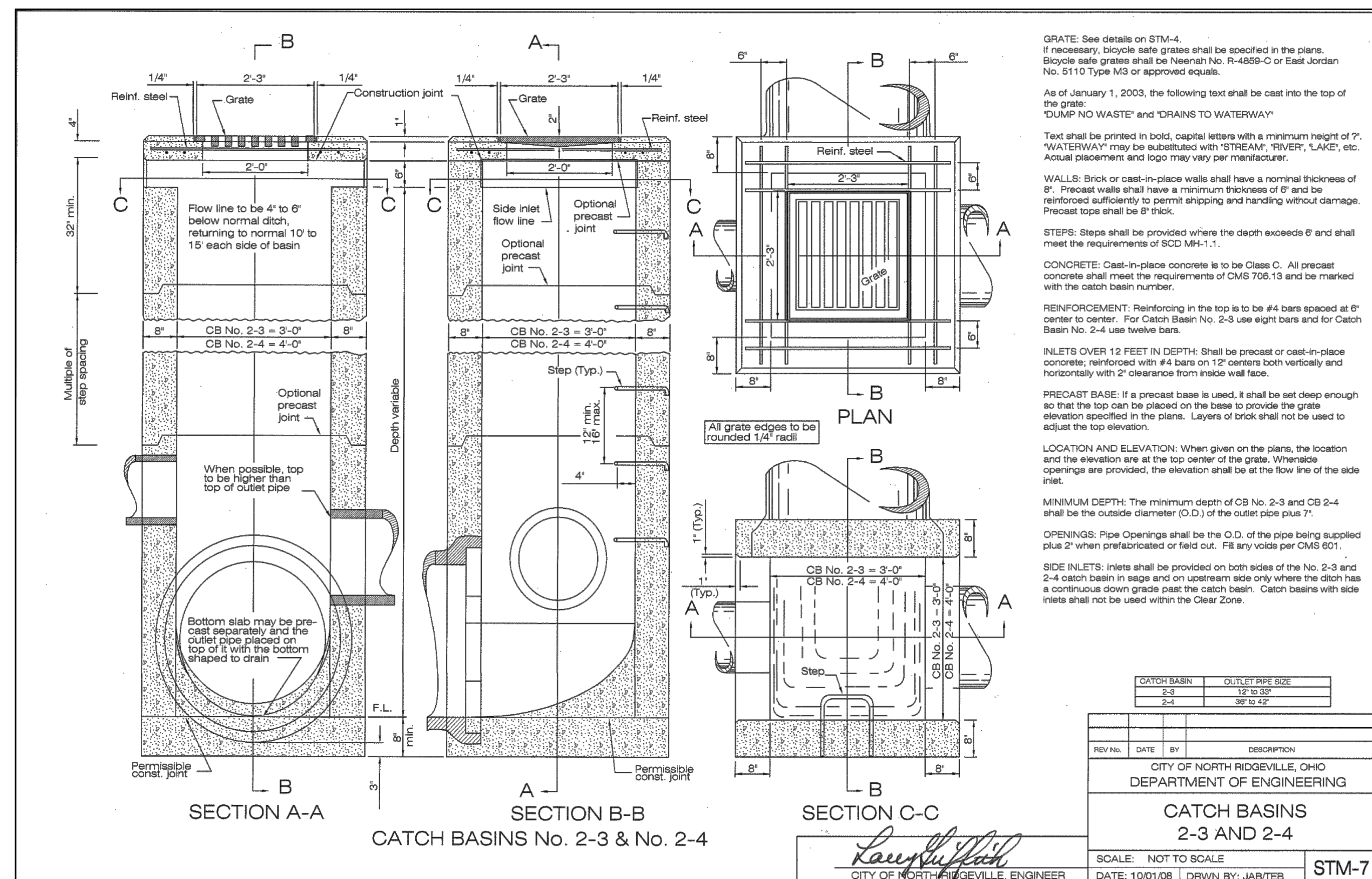
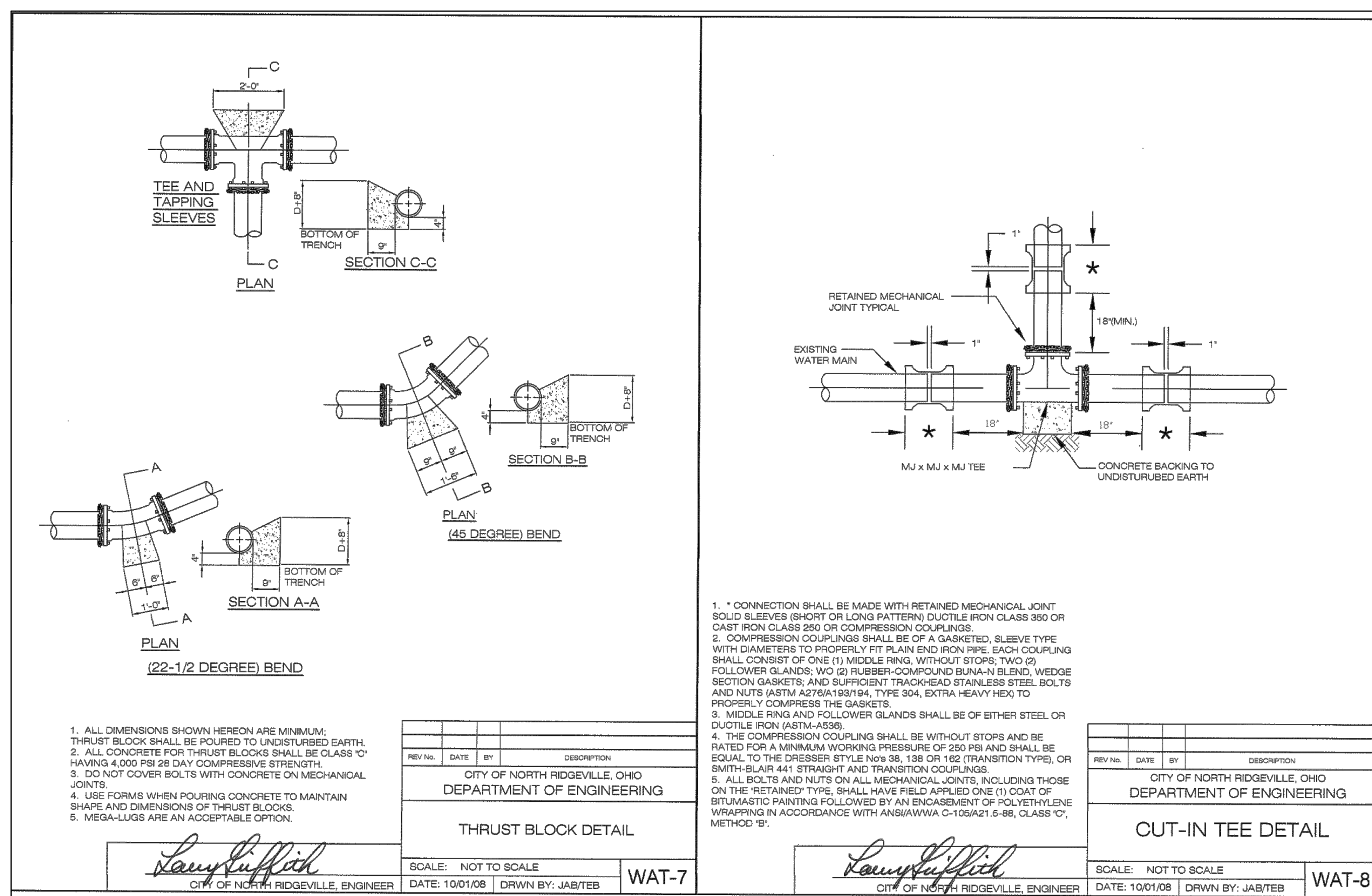
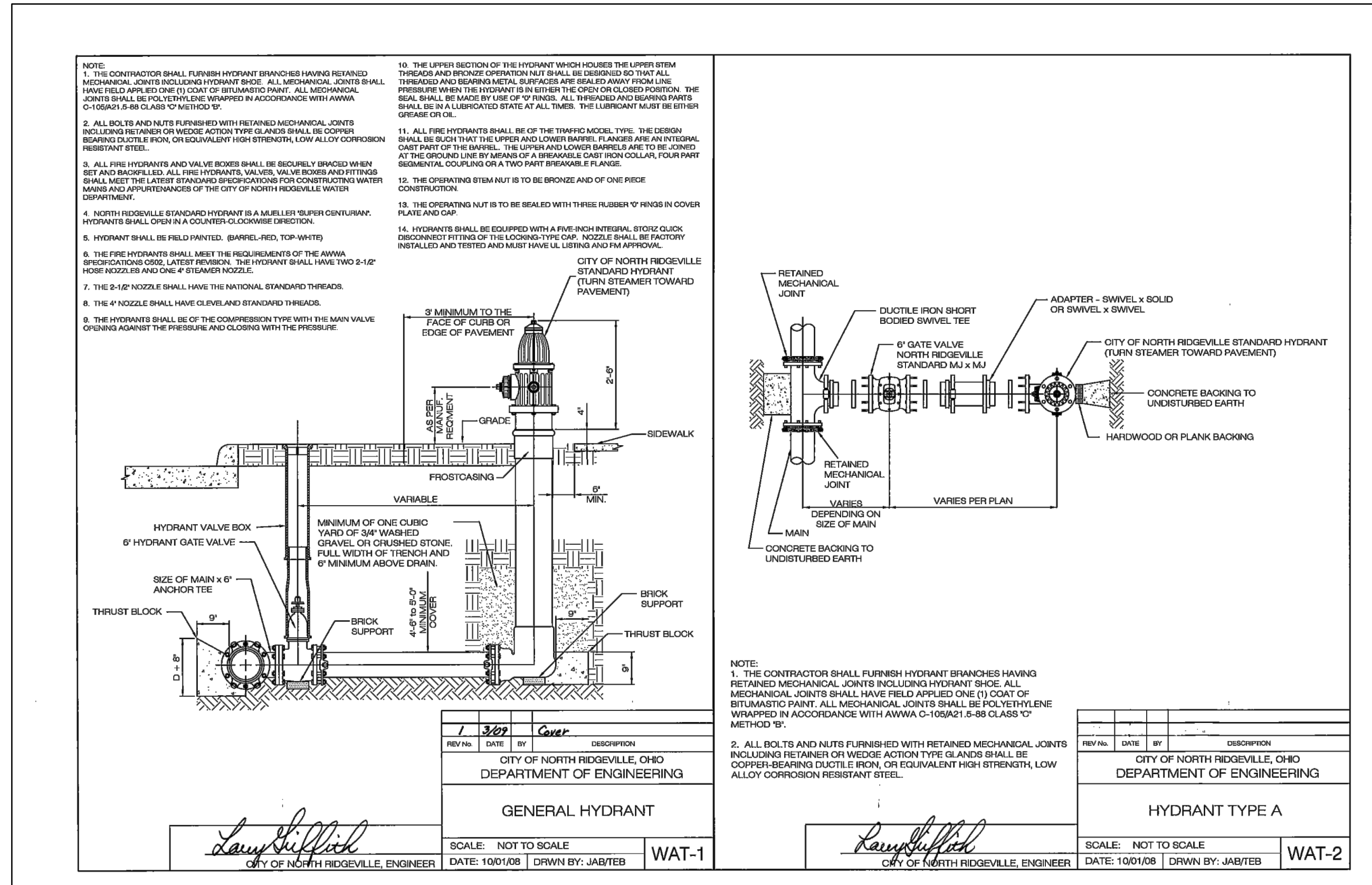
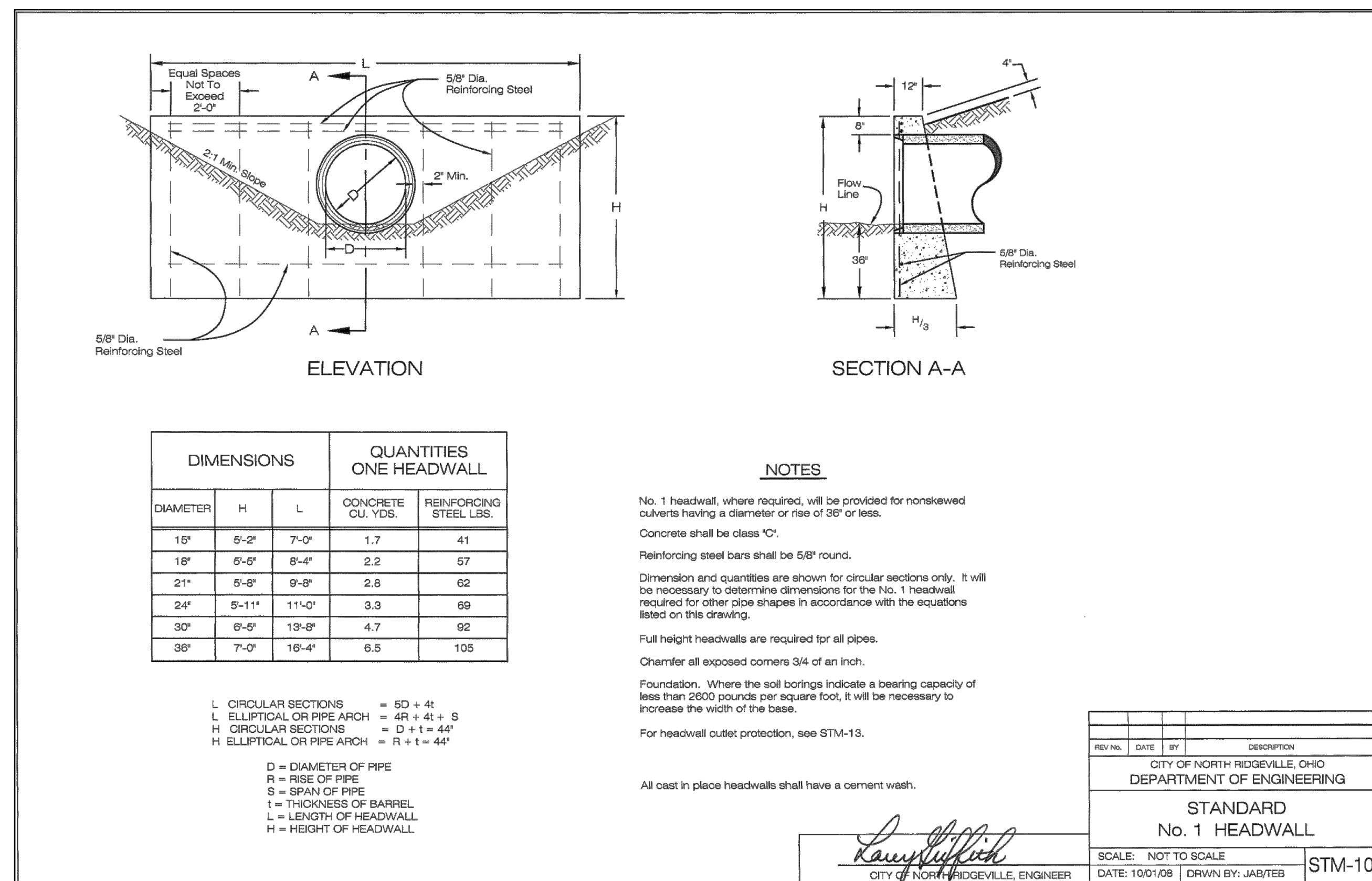
38778 TAYLOR PARKWAY, NORTH RIDGEVILLE, OH

Issue Date
03-15-2024

**PARTIAL
GRADING
PLAN**

C104B
Project No. 2024-108





Reg. No.: 61709

CLIENT:

GEIS
CONSTRUCTION

10020 AURORA-HUDSON RD
STREETSBORO, OHIO
JEN DIASIO
PHONE: (216) 218-3507

OWNER

Issue Date	03-15-2024
------------	------------

BRUF BRIQUETTING SYSTEMS
NEW SITE
38778 TAYLOR PARKWAY, NORTH RIDGE

SITE DETAILS

C105B
Project No. 2024-108



INSPECTIONS SHALL BE MADE ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVEN GREATER THAN ONE-HALF INCH OF RAIN PER 24 HOUR PERIOD

DATE	INSPECTOR	WEATHER CONDITIONS	RAINFALL AMOUNT	SEDIMENT DISCHARGE	DISCHARGE LOCATION	BMPS FAILED	ADDITIONAL BMPS NEEDED	CORRECTION MADE

ALL OFF-SITE BORROW OR SPOIL AREAS SHALL BE REQUIRED TO BE PERMITTED BY A SEPARATE NOI AND RELATED SWP3.

THIS PROJECT WILL HAVE NO OFF-SITE BORROW OR SPOIL AREAS. ALL MATERIALS WILL BE CONTAINED WITHIN THE SITE.

FLOOD ZONE

FLOOD ZONE "X" PER FLOOD INSURANCE RATE MAP NUMBER 39093C0231D EFFECTIVE DATE AUGUST 19, 2008

SWP3 AMENDMENT ACTIVITIES

GRADING DATE

SITE STABILIZATION DATE

SWP3 AMENDMENT DATE

SWP3 RESPONSIBLE PARTY

GEIS COMPANIES
10020 AURORA HUDSON ROAD
STREETSBORO, OHIO 44241
JEN DIASIO
330.528.3500

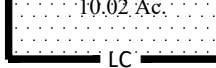
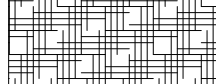
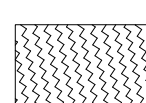
ESTIMATED CONSTRUCTION DATES

START DATE 06-01-2024
END DATE 06-01-2025

SWP3 PREPARED

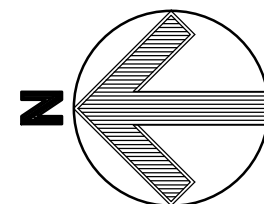
03-15-2024

TAG HATCH/SYMBOL SWP3 BMP

		CLEARING LIMITS, LIMITS OF CONSTRUCTION
		TEMPORARY CONSTRUCTION ENTRANCE
		CEMENT TRUCK WASHOUT VEHICLE FUELING, TOXIC WASTE AND DUMPSTER LOCATION
		INLET PROTECTION (SEE DETAIL ON SHT. C111)
		INLET SILT SACK PROTECT (SEE DETAIL ON SHT. C111)

TAG LINE SWP3 BMP

SF	SF	SILT FENCE
CFS		12" COMPOST FILTER SOCK MAY BE SUBSTITUTED FOR SILT FENCE AT CONTRACTORS DISCRETION
OP		OUTLET PROTECTION
TDC	TDC	TEMPORARY DIVERSION CHANNEL
TCD		TEMPORARY CHECK DAM



GRAPHIC SCALE

(IN FEET)
1 inch = 50 ft.

TAYLOR PARKWAY ~ (70') (PUBLIC)

BENCH MARK #1

RUF BRIQUETTING SYSTEMS
NEW SITE
38778 TAYLOR PARKWAY, NORTH RIDGEVILLE, OH

SWP3
PLAN

C106
Project No. 2024-108



2555 Hartville Rd., Suite B
Rookstown, OH 44272
www.WeberEngineeringServices.com
330-329-2037
matt@webercivil.com



Reg. No.: 61709

CLIENT:

GEIS
CONSTRUCTION

10020 AURORA-HUDSON RD.
STREETSBORO, OHIO
JEN DIASIO
PHONE: (216) 218-3507

OWNER:

Issue Date
03-15-2024

OHIO EDISON COMPANY
DEED VOL. 1323 PG. 23 L.C.R.
PPN 07-00-047-000-062

34' EASEMENT TO
OHIO EDISON CO.
VOL. 553, PG. 263 L.C.D.R.

PROP. OUTLET STRUCTURE
W/ SKIMMER DEVICE
(SEE DETAILS SHEET C108)

APPROX. LOCATION OF 10' EASEMENT TO OHIO
FUEL GAS COMPANY VOL. 860, PG. 399 L.C.D.R.
BASED ON FIELD OBSERVATION OF EXISTING
GAS LINE MARKERS

4 SPRINGERS LLC
INST. #20060169542 L.C.R.
PPN 07-00-047-000-076

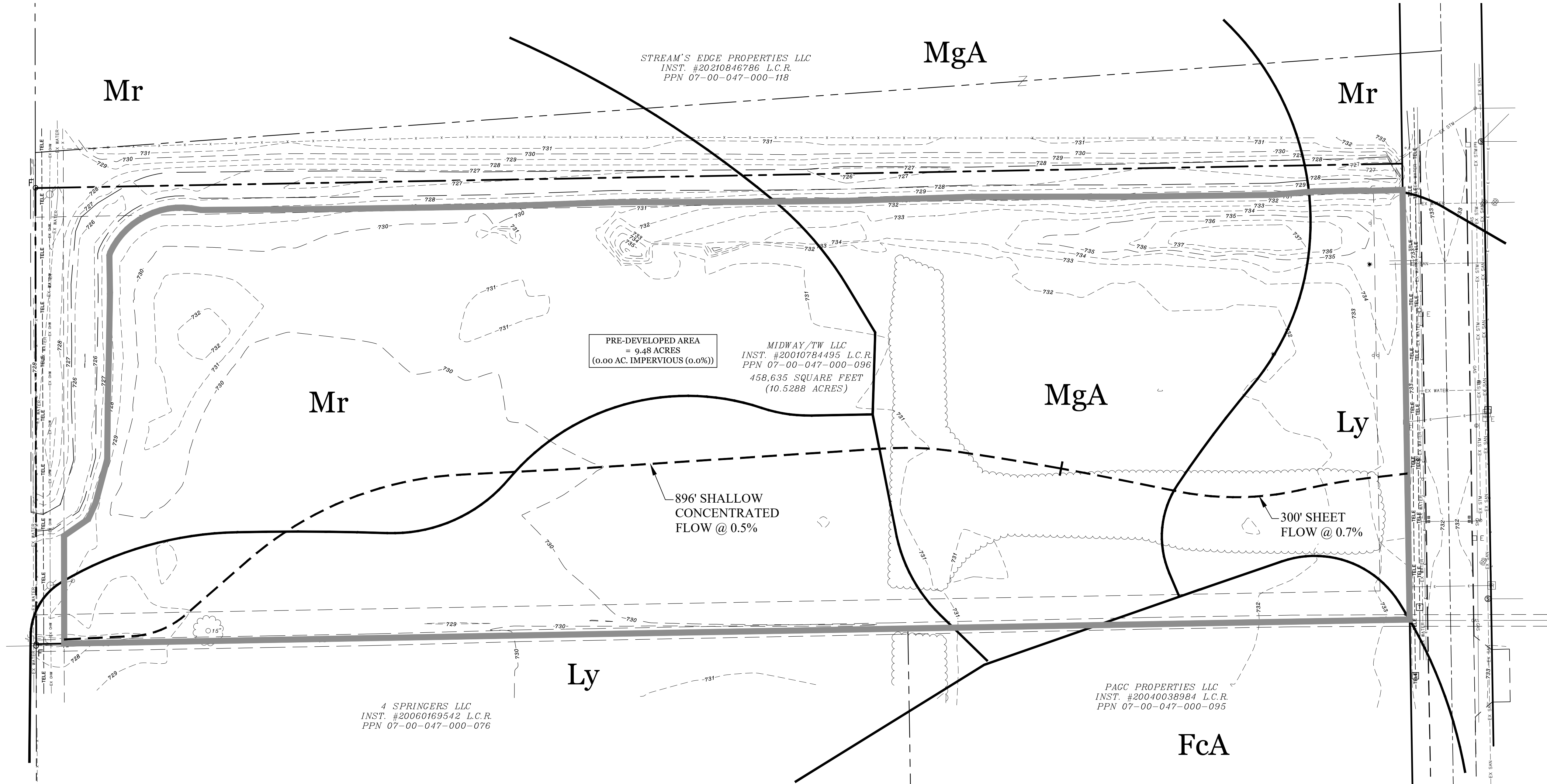
STREAM'S EDGE PROPERTIES LLC
INST. #20210846786 L.C.R.
PPN 07-00-047-000-118

MIDWAY, TW, LLC
INST. #20010784495 L.C.R.
PPN 07-00-047-000-096
458,635 SQUARE FEET
(10.5288 ACRES)

PACC PROPERTIES LLC
INST. #20040038984 L.C.R.
PPN 07-00-047-000-095



OHIO EDISON COMPANY
DEED VOL 1323 PG 123 L.C.R.
PPN 07-00-047-000-062



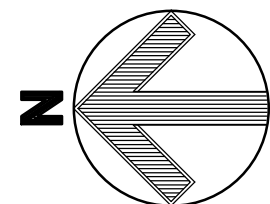
SITE BENCH MARK
BENCH MARK #1
TOP NUT ON HYDRANT
ELEVATION = 735.41

TAYLOR PARKWAY ~ (70') (PUBLIC)

PRE-DEVELOPED DRAINAGE MAP & SOILS MAP

PRE-DEVELOPED: AREA = 9.48 AC., CN = 85, TC = 103.2 MIN.

- FcA - Fitchville silt loam, 2 to 6% slopes
- Ly - Luray silty clay loam, 0 to 2% slopes
- MgA - Mahoning silt loam, 0 to 2% slopes
- Mr - Miner silty clay loam, 0 to 2%



GRAPHIC SCALE



(IN FEET)
1 inch = 50 ft.



2555 Hartville Rd., Suite B
Rootstown, OH 44272
www.WeberEngineeringServices.com
330-329-2037
matt@webercivil.com



Reg. No.: 61709

CLIENT:

GEIS
CONSTRUCTION

10020 AURORA-HUDSON RD.
STREETSBORO, OHIO
JEN DIASIO
PHONE: (216) 218-3507

OWNER:

RUF BRIQUETTING SYSTEMS

NEW SITE

38778 TAYLOR PARKWAY, NORTH RIDGEVILLE, OH

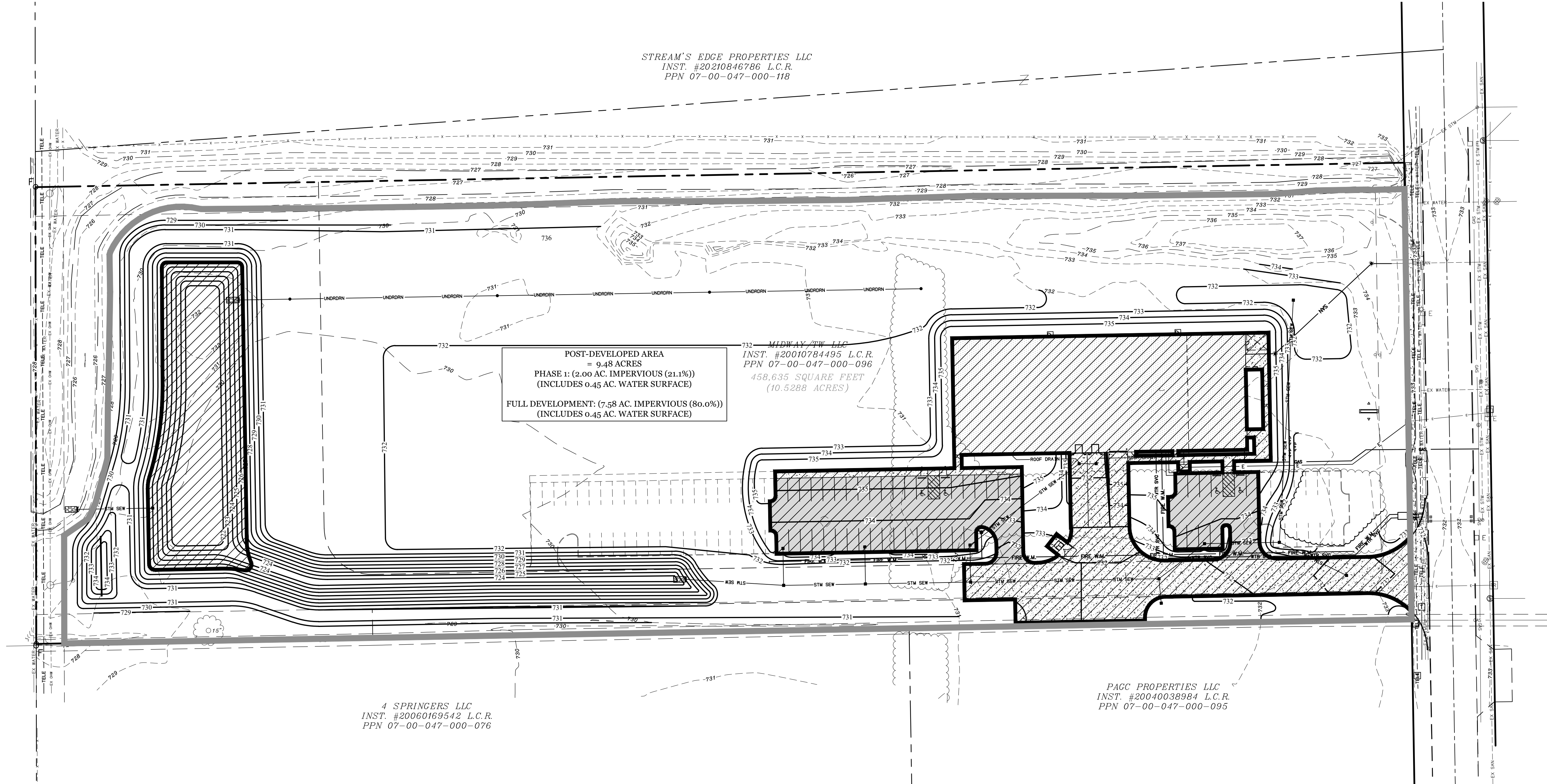
Issue Date
03-15-2024

SWP3
DETAILS

C107
Project No. 2024-108

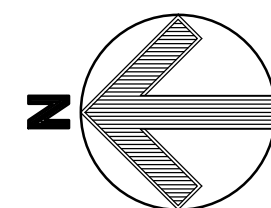


OHIO EDISON COMPANY
DEED VOL 1323 PG 123 L.C.R.
PPN 07-00-047-000-062



POST-DEVELOPED DRAINAGE

POST-DEVELOPED (PHASE 1): AREA = 9.48 AC., CN = 84, TC = 12 MIN.
POST-DEVELOPED (FULL DEVELOPMENT): AREA = 9.48 AC., CN = 94, TC = 12 MIN.



GRAPHIC SCALE



(IN FEET)
1 inch = 50 ft.

SITE BENCH MARK

BENCH MARK #1
TOP NUT ON HYDRANT

ELEVATION = 735.41

TAYLOR PARKWAY ~ (70') (PUBLIC)



2555 Hartville Rd., Suite B
Rootstown, OH 44272
www.WeberEngineeringServices.com
330-329-2037
matt@webercivil.com



Reg. No.: 61709

CLIENT:

GEIS
CONSTRUCTION

10020 AURORA-HUDSON RD.
STREETSBORO, OHIO
JEN DIASIO
PHONE: (216) 218-3507

OWNER:

RUF BRIQUETTING SYSTEMS

NEW SITE

38778 TAYLOR PARKWAY, NORTH RIDGEVILLE, OH

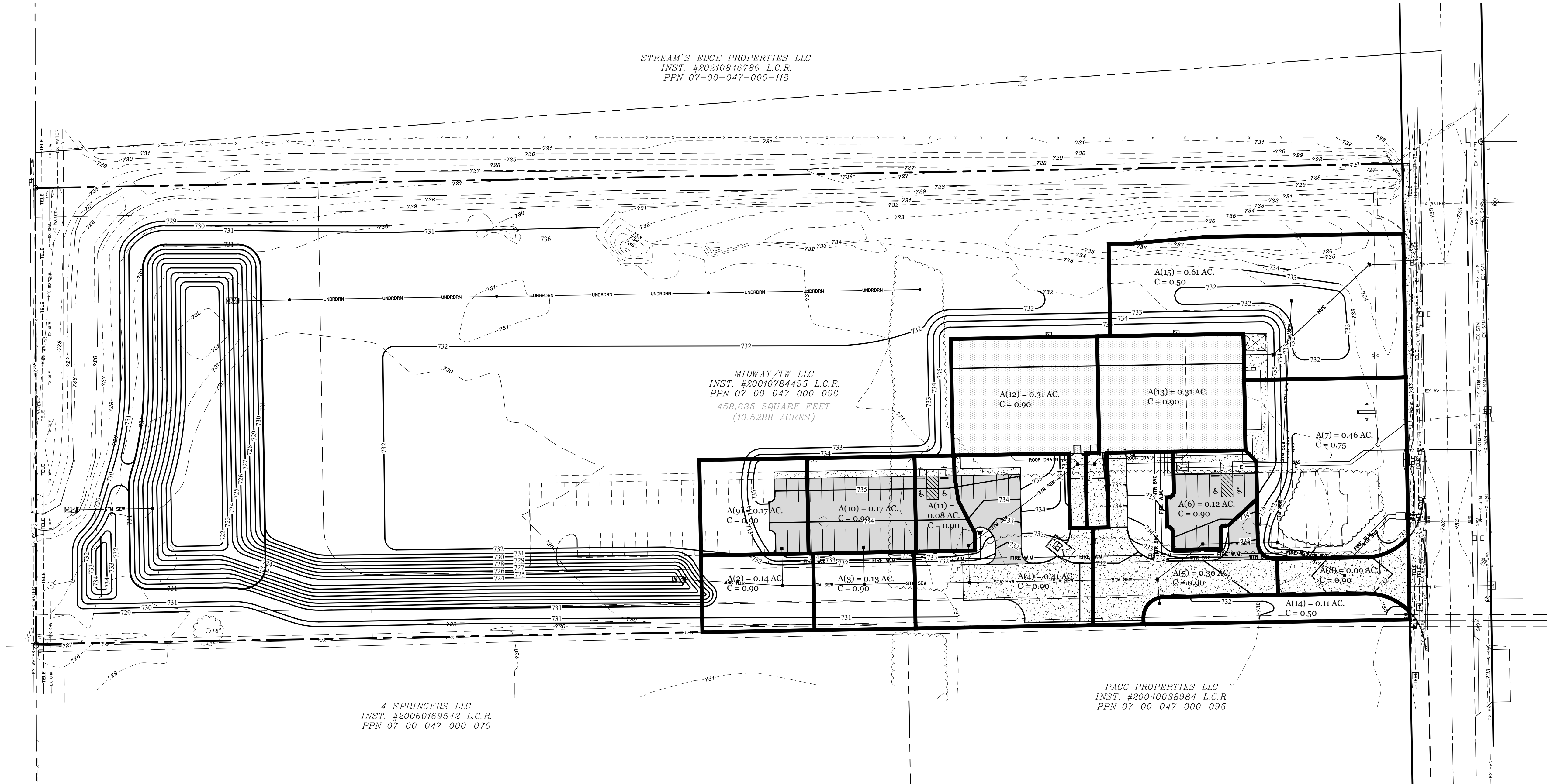
Issue Date
03-15-2024

SWP3
DETAILS

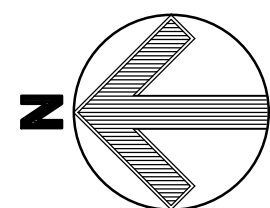
C107A
Project No. 2024-108



OHIO EDISON COMPANY
DEED VOL 1323 PG 123 L.C.R.
PPN 07-00-047-000-062



STORM DRAINAGE MAP



GRAPHIC SCALE



SITE BENCH MARK
BENCH MARK #1
TOP NUT ON HYDRANT
ELEVATION = 735.41



2555 Hartville Rd., Suite B
Rootstown, OH 44272
www.WeberEngineeringServices.com
330-329-2037
matt@webercivil.com



Reg. No.: 61709

CLIENT:

GEIS
CONSTRUCTION

10020 AURORA-HUDSON RD.
STREETSBORO, OHIO
JEN DIASIO
PHONE: (216) 218-3507

OWNER:

RUF BRIQUETTING SYSTEMS
NEW SITE

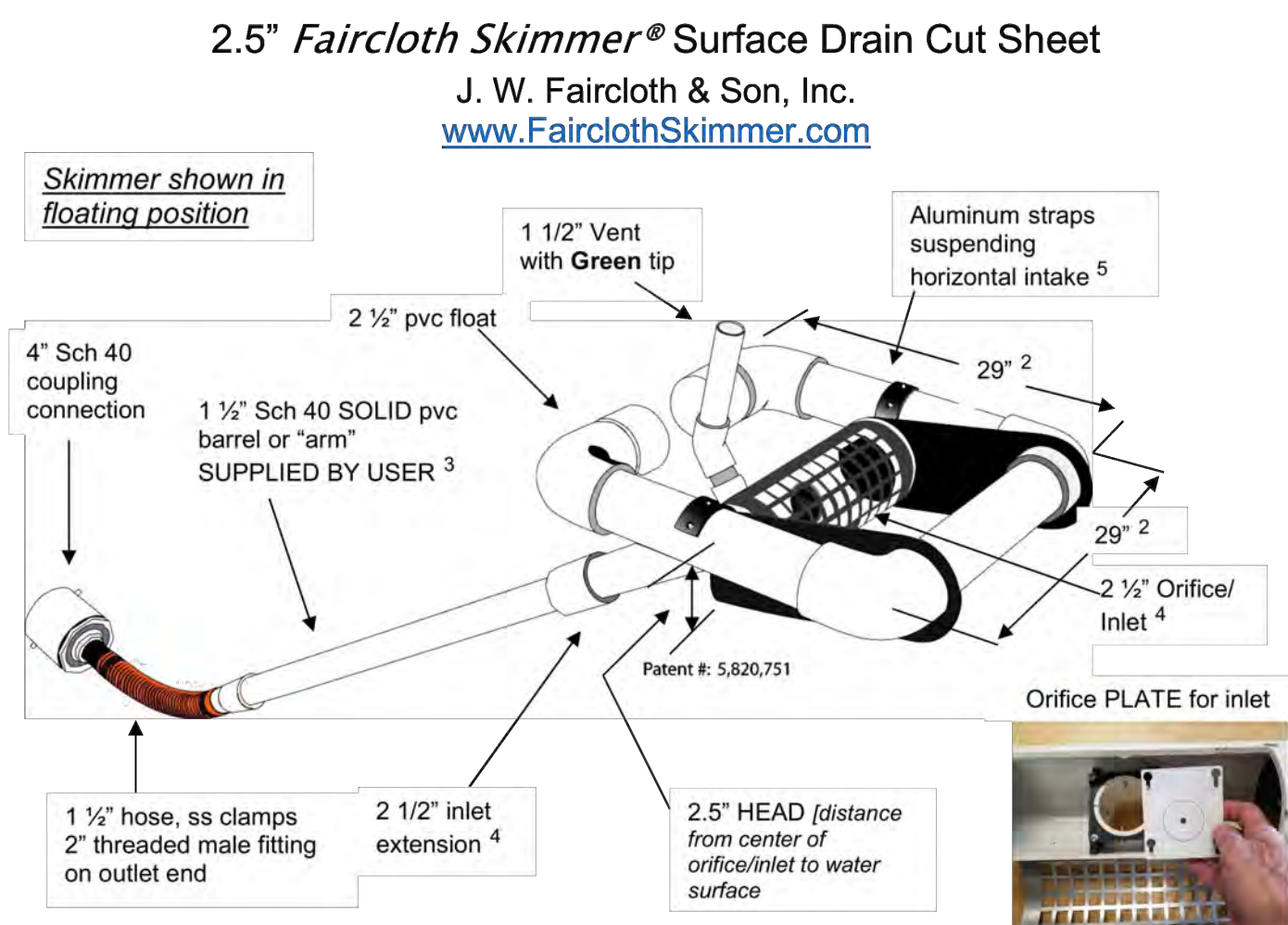
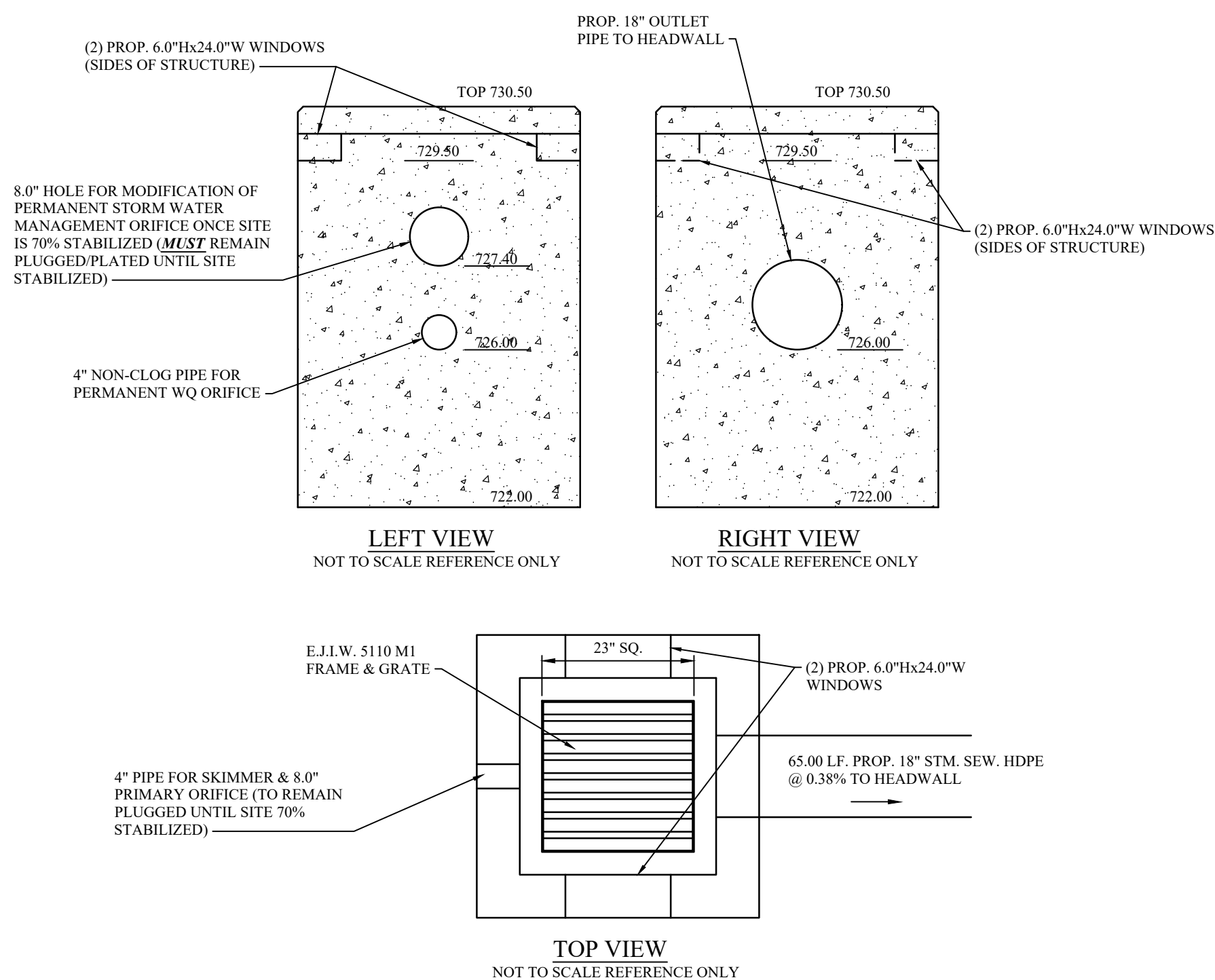
38778 TAYLOR PARKWAY, NORTH RIDGEVILLE, OH

Issue Date
03-15-2024

SWP3
DETAILS

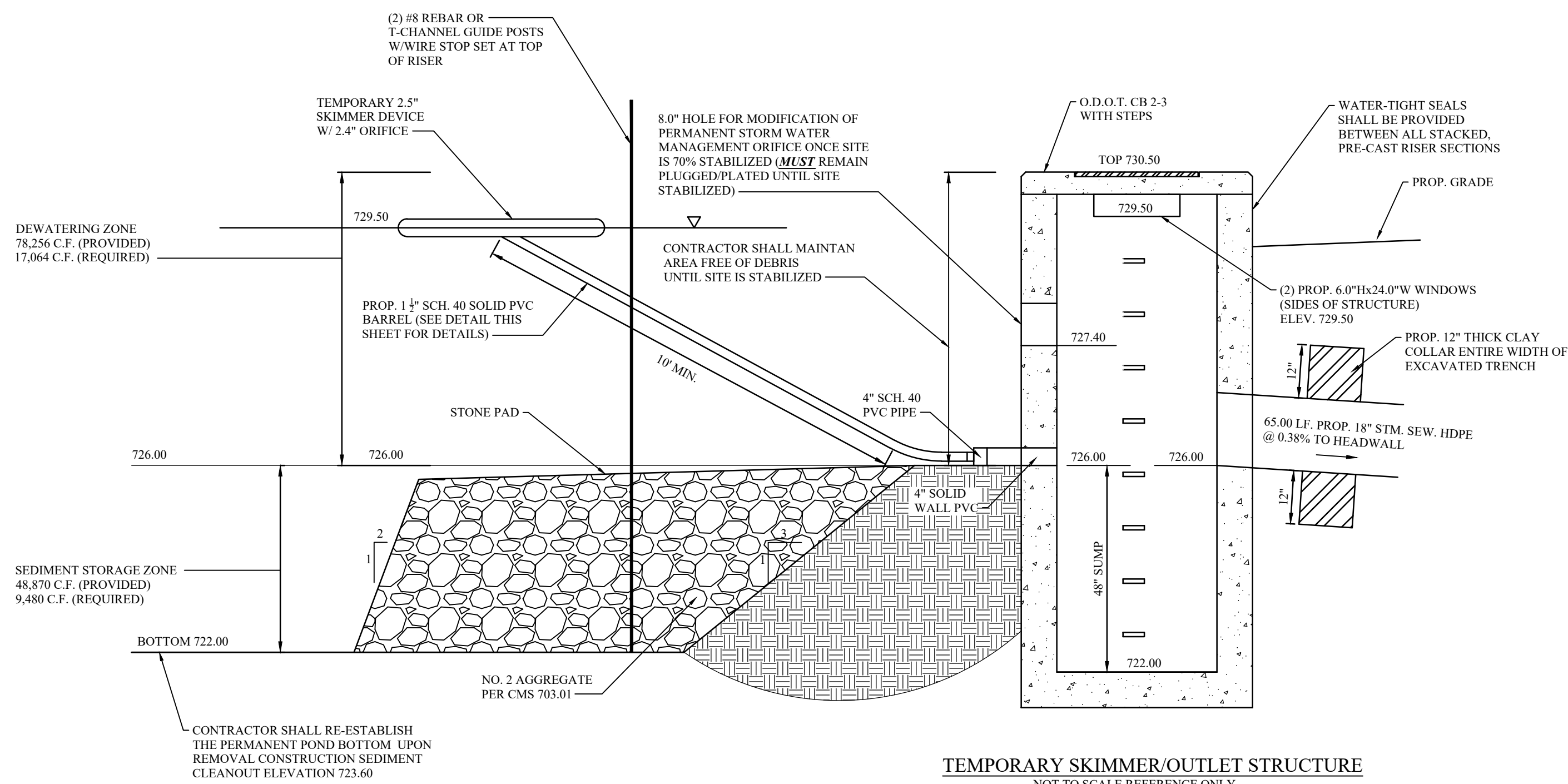
C107B
Project No. 2024-108

Sediment Basin Data			
Basin Number			
A. Total Contributing Watershed (ac.)	9.48		
B. Disturbed Area (ac.)	9.48		
C. Req. Dewatering Volume (A x 1,800 cu. ft./ac.)	17,064		
D. Req. Sediment Storage Zone Vol. (B* 1000)	9,480		
E. Total Required Capacity (C+D in cu ft)	26,544		
F. Dewatering Volume Provided (cu. ft./ac.)	78,256		
G. Sediment Storage Provided (cu. ft./ac.)	48,870		
H. Total Storage Provided in Crest of Riser (cu. ft./ac.)	127,126		
Principal Spillway			
Req. Principal Spillway Capacity (10 yr-24hr storm) (cfs)	26.71		
Principal Spillway Capacity Provided (cfs)	44.13		
Principal Spillway Elevation	729.50		
Riser (inches)	24" SQ		
Diameter of Barrel (inches)	18"		
Volume of Concrete to Prevent Riser Flotation (cu. ft.)	9		
Outlet Type			
Drawdown Time (Hours must exceed 48 hr drawdown)	72		
Mark selected outlet type (X)			
A. Non-perforated Riser with Stub & Faircloth Skimmer	X		
(Orifice size in inches)	2.4		
Stone pad provided at top of Sediment storage	X		
B. Protected Single Orifice			
(Orifice size in inches)			
C. Perforated Riser			
Hole size (inches)			
Number of Holes			
Protection of Perforations - sm holes (<3/4") typ need anti-clogging measure - aggregate > than hole size or wire cloth/fence & geotextile			
Bottom Elevation	722.00		
Sediment Storage Zone Elevation	726.00		
Crest of Principal Spillway Elevation (Min. 1 ft. below crest E. S.)	729.50		
Pool Depth at Riser (ft., ideally 3'-5')	7.50		
Top of Embankment Elevation	731.75		
Embankment Side Slopes (Max 2:1, combined 5:1)	4:1		
Embankment Top Width (ft.)	12		
Req. Emergency Spillway Capacity (25 yr-24hr storm) (cfs)	35.95		
Req. Emergency Spillway Discharge (25 yr-24 hr storm less Principal S.)	-8.18		
Emergency Spillway Capacity Provided (cfs)	56.00		
Emergency Spillway Elevation	730.75		
Emergency Spillway Bottom Width	20.00		
Emergency Spillway Lining	Vegetative		
Rock Outlet Protection (Size, gradation and quality of rock)			
Length	10.00		
Width	5.00		
Depth	1.50		
Gradation - O.D.O.T. unless specified otherwise	C		



1. Skimmer can be attached to a straight 4" sch 40 pipe through the dam but the pipe may need to be anchored to the bottom at the connection so it is secure. Coupling can be removed and hose attached to outlet using the threaded 2" fitting. Typical methods used: a) a metal structure with a steel stub out welded on the side at the bottom with a 2" threaded coupling or reducer(s); b) a concrete structure with a hole or orifice at the bottom - use a steel plate with a hole cut in it and coupling welded to it that will fit over the hole in the concrete and bolted to the structure with sealant; or c) grout a 4" pvc pipe in a hole in the concrete to connect the skimmer.
2. Dimensions are approximate, not intended as plans for construction.
3. Barrel (solid, not foam core pipe) should be 1.4 times the depth of water with a minimum length of 6' so the inlet can be pulled to the side for maintenance. If more than 8' long weight may have to be added to inlet to counter the increased buoyancy.
4. Orifice/inlet tapers down from 2 1/2" maximum inlet to a 1 1/2" barrel and hose. Barrel is smaller to reduce buoyancy and tendency to lift inlet but is sufficient for flow through inlet because of slope. The orifice/inlet can be reduced using the plate and cutter provided to control the outflow rate - see #6.
5. Horizontal intake is 5" pipe between the straps with aluminum screen door for access to the 2 1/2" inlet and orifice inside.
6. **Capacity:** 6,234 cubic feet per day maximum with 2 1/2" inlet and 2.5 head. Inlet can be reduced by installing a smaller orifice using the plate and cutter provided to adjust flow rate for the particular drawdown time required. Please use the sizing template at www.fairclothskimmer.com.
7. Ships assembled. User glues inlet extension and barrel, installs vent, cuts orifice plate in plate and attaches to outlet pipe or structure. Includes float, flexible hose, rope, and orifice plate and cutter. Does NOT include 1 1/2" Sch 40 SOLID pvc barrel or "arm" SUPPLIED BY USER.

© J. W. Faircloth & Son, Inc. 2019



TEMPORARY SEDIMENT CONTROL CALCULATIONS

Total Drainage Area:	9.48	Ac.
Disturbed Earth Area:	9.48	Ac.
Sediment Storage Volume Required (1,000 C.F./Ac.):	9,480	C.F.
Sediment Storage Volume Provided Below Skimmer Orifice:	48,870	C.F.
Dewatering Volume Required (1,800 C.F./Ac.)	17,064	C.F.
Dewatering Volume Provided Below Principal Spillway:	78,256	C.F.
Design Detention Volume:	147,340	C.F.
Bottom of Temporary Sediment Basin:	722.00	
Invert of Skimmer device:	726.00	
Normal Water Level:	726.00	
Cleanout Elevation:	723.60	
Set Crest of Principal Spillway at:	729.50	
Set Crest of Emergency Spillway at:	730.75	
Top of Bank:	731.75	

TEMPORARY SEDIMENT CONTROL VOLUME CALCULATIONS

Retention Pond Information				Volume Sum		
	Elevation	Area, S.F.	Volume (C.F.)	(C.F.)	Spillway Design	
					54.38	100-yr Peak Flow, C.F.S.
					1.00	Spillway Height, Ft.
					20.00	Spillway Width, Ft.
BOT	722.00	7,709	0	0		
	723.00	9,848	8,778	8,778		
	724.00	12,118	10,983	19,761		
	725.00	14,520	13,319	33,080		
	726.00	17,060	15,790	48,870		
DEW	727.00	19,749	18,404	67,274		
	728.00	22,520	21,134	88,408		
	729.00	25,393	23,956	112,365		
	730.00	28,364	26,878	139,243		
	731.00	31,435	29,899	169,143		
TB	731.75	36,230	25,374	194,517		

TEMPORARY SKIMMER DEVICE

Calculate Skimmer Size				
Basin Volume in Cubic Feet	17,064	Cu.Ft	Skimmer Size	2.5 Inch
Days to Drain*	3	Days	Orifice Radius	1.2 Inch[es]
			Orifice Diameter	2.4 Inch[es]
*In NC assume 3 days to drain				



Reg. No.: 61709

CLIENT:

GEIS CONSTRUCTION

10020 AURORA-HUDSON RD.
STREETSBORO, OHIO
JEN DIASIO
PHONE: (216) 218-3507

OWNER:

RUF BRIQUETTING SYSTEMS NEW SITE 38778 TAYLOR PARKWAY, NORTH RIDGEVILLE, OH	Issue Date 03-15-2024
--	--

SWP3 DETAILS

C108

1. Construction personnel, including subcontractors who may use or handle hazardous or toxic materials, shall be made aware of the following general guidelines regarding disposal and handling of hazardous and construction wastes:
- Prevent spills

•Use products up

•Follow label directions for disposal

•Remove lids from empty bottles and cans when disposing in trash

•Recycle wastes whenever possible

•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 bum chemicals or containers

•Don't mix chemicals together
2. Containers shall be provided for the proper collection of all waste material including construction debris, trash, petroleum products and any hazardous materials used on-site. Containers shall be covered and not leaking. All waste material shall be disposed of at facilities approved for that material. Construction Demolition and Debris (CD&D) waste must be disposed of at an Ohio EPA approved CD&D landfill.
3. No construction related waste materials are to be buried on-site. By exception, clean fill (bricks, hardened concrete, soil) may be utilized in a way which does not encroach upon natural wetlands, streams or floodplains or result in the contamination of waters of the state.
4. Handling Construction Chemicals. Mixing, pumping, transferring or other handling of 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.
5. 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. Secondary containment shall be provided for all fuel oil storage tanks. These areas must be inspected every seven days and within 24 hrs. of a 0.5 inch or greater rain event to ensure there are no exposed materials which would contaminate storm water. Site operators must be aware that Spill Prevention Control and Countermeasures (SPCC) requirements may apply. An SPCC plan is required for sites with one single above ground tank of 660 gallons or more, accumulative above ground storage of 1330 gallons or more, or 42,000 gallons of underground storage. Contaminated soils must be disposed of in accordance with Item 8.
6. Concrete Wash Water shall not be allowed to flow to streams, ditches, storm drains, or any other water conveyance. A sump or pit with no potential for discharge shall be constructed if needed to contain concrete wash water. Field tie or other subsurface drainage structures within 10 ft. of the sump shall be cut and plugged.
7. Spill Reporting Requirements: 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. Spills shall be reported to Ohio EPA (1-800-282-9378). Spills of 25 gallons or more of petroleum products shall be reported to Ohio EPA, the local fire department, and the Local Emergency Planning Committee within 30 min. of the discovery of the release. All spills which contact waters of the state must be reported to Ohio EPA.
8. Contaminated Soils. If 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 at licensed sanitary landfill or other approved petroleum contaminated soil remediation facility. (not a construction/demolition debris landfill). Note that storm water runoff associated with contaminated soils are not be authorized under Ohio EPA's General Storm Water Permit associated with Construction Activities.
9. Open Burning. No materials containing rubber, grease, asphalt, or petroleum products, such as tires, autparts, plastics or plastic coated wire must be burned (OAC 3745-19). Open burning is not allowed in restricted areas, which are defined as: 1) within corporation limits; 2) within 1000 feet outside a municipal corporation having a population of 1000 to 10,000; and 3) a one mile zone outside of a corporation of 10, 000 or more. Outside of restricted areas, no open burning is allowed within a 1000 feet of an inhabited building on another property. Open burning is permissible in a restricted area for: heating tar, welding, smudge pots and similar occupational needs, and heating for warmth or outdoor barbecues. Outside of restricted areas, open burning is permissible for landscape or land-clearing wastes (plant material, with prior written permission from Ohio EPA) , and agricultural wastes, excluding buildings.
10. Dust Control or dust suppressants shall be used to prevent nuisance conditions, in accordance with the manufacturer's specifications and in a manner, which prevent a discharge to waters of the state. Sufficient distance must be provided between applications and nearby bridges, catch basins, and other waterways. Application (excluding water) may not occur when rain is imminent as noted in the short term forecast. Used oil may not be applied for dust control.
11. Other Air Permitting Requirements: Certain activities associated with construction will require air permits including but not limited to: mobile concrete batch plants, mobile asphalt plants, concrete crushers, large generators, etc. These activities will require specific Ohio EPA Air Permits for installation and operation. Operators must seek authorization from the corresponding district of Ohio EPA. For demolition of all commercial sites, a Notification for Restoration and Demolition must be submitted to Ohio EPA to determine if asbestos corrective actions are required.
12. Process Waste Water/Leachate Management. Ohio EPA's Construction General Permit only allows the discharge of storm water and does not include other waste streams/discharges such as vehicle and/or equipment washing, on-site septic leachate concrete wash outs, which are considered process wastewaters. All process wastewaters must be collected and properly disposed at an approved disposal facility. In the event, leachate or seepage is discharged, it must be isolated for collection and proper disposal and corrective actions taken to eliminate the source of waste water.
13. A Permit To Install (PTI) is required prior to the construction of all centralized sanitary systems, including sewer extensions, and sewerage systems (except those serving one, two, and three family dwellings) and potable water lines. Plans must be submitted and approved by Ohio EPA. Issuance of an Ohio EPA Construction General Storm Water Permit does not authorize the installation of any sewerage system where Ohio EPA has not approved a PTI.

OHIO EPA PERMIT NO. OHC000005

PART III G. SWP3 REQUIREMENTS

- a. COMMERCIAL BUILDING
- b. TOTAL SITE AREA - 10.52 AC. - DISTURBED AREA = 10.02 AC.
- c. PRE-CONSTRUCTION RUNOFF COEFFICIENT - C=0.60; POST-CONSTRUCTION RUNOFF COEFFICIENT C=0.58
- d. IMPERVIOUS AREA = 2.00 AC. (ENTIRE SITE), PERCENT IMPERVIOUS = 19.0%.
- e. SOIL TYPES:
- FcA - Fitchville silt loam, 2 to 6% slopes

Ly - Luray silty clay loam, 0 to 2% slopes

MgA - Mahoning silt loam, 0 to 2% slopes

Mr - Miner silty clay loam, 0 to 2%

- f. PRIOR LAND USE: UNDEVELOPED COMMERCIAL (AGRICULTURAL)
- g. CONSTRUCTION SEQUENCE - SEE IMPROVEMENT PLANS
- h. UNNAMED TRIBUTARY TO BLACK RIVER
- NO WETLANDS
- i. NOT SUBDIVIDED (MEASURES IDENTIFIED ON PLANS)
- j. NOT APPLICABLE
- k. PERMIT REQUIREMENTS ATTACHED. (FIELD COPY)
- l. IDENTIFIED ON SHEET C106
- m. IDENTIFIED ON SHEET C106
- n. SITE MAP SHOWN ON PLANS

- (i) LIMITS OF CONSTRUCTION IDENTIFIED ON THE PLANS (LC).
- (ii) SOIL TYPES IDENTIFIED ON THE PLANS
- (iii) DRAINAGE WATER SHEDS IDENTIFIED ON THE PLANS.
- (iv) THERE ARE NO WETLANDS ON THE SITE. NO SPRINGS, LAKES OR WATER WELLS WITHIN 200 FEET OF THE SITE.
- (v) EXISTING & PLANNED LOCATIONS OF BUILDINGS, ROADS, PARKING FACILITIES AND UTILITIES ARE IDENTIFIED ON THE PLANS.
- (vi) EROSION AND SEDIMENT CONTROL PRACTICES ARE IDENTIFIED ON THE PLANS.
- (vii) SEDIMENT & STORM WATER MANAGEMENT DATA IS IDENTIFIED ON THE PLANS.
- (viii) PERMANENT STORM WATER MANAGEMENT PRACTICES ARE IDENTIFIED ON THE PLANS.
- (ix) CEMENT TRUCK WASHOUT, DUMPSTER & VEHICLE FUELING AREA ARE IDENTIFIED ON THE PLANS.
- (x) CONSTRUCTION ENTRANCE IS IDENTIFIED ON THE PLANS.
- (xi) NOT APPLICABLE.
2. A. NOT APPLICABLE.

- B. TEMPORARY SEEDING AND PERMANENT SEEDING MEASURES ARE IDENTIFIED ON THE PLANS.
- (I) TABLE 1 & TABLE 2 HAVE BEEN IDENTIFIED ON THE PLANS.
- (II)NOT APPLICABLE.
- C. SHEET FLOW RUNOFF HAS BEEN CONTROLLED BY MEANS OF SILT FENCE AND DIRECTED TOWARDS UNDISTURBED SOILS. POINT DISCHARGES HAVE BEEN CONTAINED WITHIN STORM SEWERS.
- D. SEDIMENT CONTROL HAS BEEN MANAGED BY MEANS OF SILT FENCE.
- (I) NOTED THROUGHOUT THE PLANS.
- (II) SILT FENCE UTILIZED.
- (III) SILT FENCE IS IDENTIFIED ON THE PLANS.
- (IV) INLET PROTECTION IS IDENTIFIED ON THE PLANS.
- (V) NOT APPLICABLE.
- (VI) NOTED ON THE IMPROVEMENT PLANS.

- E. POST-CONSTRUCTION MAINTENANCE AND INSPECTION IS IDENTIFIED ON THE PLANS.
- LARGE CONSTRUCTION ACTIVITIES - NOT APPLICABLE
- SMALL CONSTRUCTION ACTIVITIES - RATIONALE IDENTIFIED ON PLANS
- F. SURFACE WATER PROTECTION - NOT APPLICABLE
- G. OTHER CONTROLS
- (I) CEMENT TRUCK WASHOUT AREA IS IDENTIFIED ON THE PLANS.
- (II)DUST CONTROL MEASURES AND VEHICLE TRACKING ARE IDENTIFIED ON THE PLANS.
- (III) ADDITIONAL NOTES ARE IDENTIFIED ON THE PLANS.
- (IV) NOTED ON THE PLANS.
- (V) NOTED ON THE PLANS.

- H. NOTED THROUGHOUT THE PLANS.
- I. INSPECTION FREQUENCY AND INSPECTION CHECKLIST IS NOTED ON THE PLANS.
- (I) NOTED ON THE PLANS.
- (II) NOTED ON THE PLANS.
- (III) STATEMENT NOTED.
3. APPROVED STATE OR LOCAL PLANS
- STATEMENT NOTED.
4. EXCEPTIONS
- STATEMENT NOTED.

CONSTRUCTION SEQUENCE

(ALL ITEMS ARE TO BE THE RESPONSIBILITY OF THE GENERAL SITE CONTRACTOR)

SITE PREPARATION

NOTE:

PROVIDE SAFE AND SECURE PEDESTRIAN AND VEHICULAR TRAFFIC CIRCULATION THROUGHOUT THE ENTIRETY OF THE CONSTRUCTION SEQUENCE WITH WELL DEFINED CONSTRUCTION BOUNDARIES TO BE ACCESSED BY CONSTRUCTION PERSONNEL ONLY. ALL EROSION CONTROLS ARE TO BE THOROUGHLY INSPECTED BY THE CONTRACTOR UPON THE COMPLETION OF EACH WORK DAY AND MAINTAINED THROUGHOUT THE REQUIRED LIFE OF THE CONTROL, AS SPECIFIED BY THE APPROVED EROSION AND SEDIMENTATION CONTROL PLANS AND NARRATIVE. THE CONTRACTOR MUST REVIEW THE APPROVED EROSION AND SEDIMENTATION CONTROL PLANS AND NARRATIVE. THE CONTRACTOR MUST REVIEW THE APPROVED NPDES PERMIT AND SIGN THE PERMIT TO ACCEPT RESPONSIBILITIES AS THE CO-PERMITTEE.

INITIAL PHASE (WITHIN 7 DAYS OF START OF GRUBBING)

1. INSTALL A TEMPORARY CONSTRUCTION ENTRANCE FOR ACCESS TO CONSTRUCTION AREAS OF SITE.
2. SETUP CONSTRUCTION TRAILER ON SITE AND ESTABLISH TEMPORARY POWER AND TELEPHONE SERVICE AS NECESSARY.
3. ALL TEMPORARY UTILITY SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. STAKEOUT LIMITS OF DISTURBANCE.
5. INSTALL TEMPORARY INLET PROTECTION ON ALL EXISTING CATCH BASINS WITHIN LIMITS OF CONSTRUCTION. REMOVE SILT PROTECTION FROM DESIGNATED INLETS ONLY WHEN INLET STRUCTURE IS TO BE REMOVED AS REQUIRED BY PROGRESSION OF CONSTRUCTION. REFER TO PLANS FOR IDENTIFICATION OF INLET STRUCTURES TO BE REMOVED.
6. INSTALL ALL FILTER FABRIC FENCE WHERE SHOWN ON PLANS.
7. BEGIN SITE CLEARING.
8. REMOVE TOPSOIL FROM AREAS OF BUILDING AND PAVEMENT.
9. BEGIN EARTHWORK OPERATIONS.
10. CONSTRUCT STORM WATER BASIN.
11. IN THE EVENT OF RAIN, ALLOW STANDING WATER TO SETTLE PRIOR TO PUMPING. UTILIZE THE PUMPING SYSTEMS TO PUMP POLLUTED WATER PER E.P.A. REQUIREMENTS. ALLOW ONLY CLEAN WATER TO BE DISCHARGED TO THE EXISTING DRAINAGE SYSTEM. REMOVE SILT FROM BASINS AS NECESSARY PRIOR TO CONTINUING EARTHWORK. MATERIAL SHOULD BE MECHANICALLY SPREAD AND DRIED PRIOR TO INCORPORATION INTO THE EARTHWORK PROCEDURES. ADEQUACY OF THE DRIED MATERIAL IS TO BE DETERMINED BY A GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE AND ENSURE THAT PROPER MECHANISMS ARE IN PLACE TO CONTROL WASTE MATERIALS. CONSTRUCTION WASTES INCLUDES, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC., THAT COULD ADVERSELY IMPACT WATER QUALITY. MEASURES SHALL BE PLANNED AND IMPLEMENTED FOR HOUSEKEEPING, MATERIALS MANAGEMENT, AND LITTER CONTROL. WHEREVER POSSIBLE, RECYCLING OF EXCESS MATERIALS IS PREFERRED, RATHER THAN DISPOSAL.

- (i) LIMITS OF CONSTRUCTION IDENTIFIED ON THE PLANS (LC).
- (ii) SOIL TYPES IDENTIFIED ON THE PLANS
- (iii) DRAINAGE WATER SHEDS IDENTIFIED ON THE PLANS.
- (iv) THERE ARE NO WETLANDS ON THE SITE. NO SPRINGS, LAKES OR WATER WELLS WITHIN 200 FEET OF THE SITE.
- (v) EXISTING & PLANNED LOCATIONS OF BUILDINGS, ROADS, PARKING FACILITIES AND UTILITIES ARE IDENTIFIED ON THE PLANS.
- (vi) EROSION AND SEDIMENT CONTROL PRACTICES ARE IDENTIFIED ON THE PLANS.
- (vii) SEDIMENT & STORM WATER MANAGEMENT DATA IS IDENTIFIED ON THE PLANS.
- (viii) PERMANENT STORM WATER MANAGEMENT PRACTICES ARE IDENTIFIED ON THE PLANS.
- (ix) CEMENT TRUCK WASHOUT, DUMPSTER & VEHICLE FUELING AREA ARE IDENTIFIED ON THE PLANS.
- (x) CONSTRUCTION ENTRANCE IS IDENTIFIED ON THE PLANS.
- (xi) NOT APPLICABLE.
2. A. NOT APPLICABLE.

- B. TEMPORARY SEEDING AND PERMANENT SEEDING MEASURES ARE IDENTIFIED ON THE PLANS.
- (I) TABLE 1 & TABLE 2 HAVE BEEN IDENTIFIED ON THE PLANS.
- (II)NOT APPLICABLE.
- C. SHEET FLOW RUNOFF HAS BEEN CONTROLLED BY MEANS OF SILT FENCE AND DIRECTED TOWARDS UNDISTURBED SOILS. POINT DISCHARGES HAVE BEEN CONTAINED WITHIN STORM SEWERS.
- D. SEDIMENT CONTROL HAS BEEN MANAGED BY MEANS OF SILT FENCE.
- (I) NOTED THROUGHOUT THE PLANS.
- (II) SILT FENCE UTILIZED.
- (III) SILT FENCE IS IDENTIFIED ON THE PLANS.
- (IV) INLET PROTECTION IS IDENTIFIED ON THE PLANS.
- (V) NOT APPLICABLE.
- (VI) NOTED ON THE IMPROVEMENT PLANS.

- E. POST-CONSTRUCTION MAINTENANCE AND INSPECTION IS IDENTIFIED ON THE PLANS.
- LARGE CONSTRUCTION ACTIVITIES - NOT APPLICABLE
- SMALL CONSTRUCTION ACTIVITIES - RATIONALE IDENTIFIED ON PLANS
- F. SURFACE WATER PROTECTION - NOT APPLICABLE
- G. OTHER CONTROLS
- (I) CEMENT TRUCK WASHOUT AREA IS IDENTIFIED ON THE PLANS.
- (II)DUST CONTROL MEASURES AND VEHICLE TRACKING ARE IDENTIFIED ON THE PLANS.
- (III) ADDITIONAL NOTES ARE IDENTIFIED ON THE PLANS.
- (IV) NOTED ON THE PLANS.
- (V) NOTED ON THE PLANS.

- H. NOTED THROUGHOUT THE PLANS.
- I. INSPECTION FREQUENCY AND INSPECTION CHECKLIST IS NOTED ON THE PLANS.
- (I) NOTED ON THE PLANS.
- (II) NOTED ON THE PLANS.
- (III) STATEMENT NOTED.
3. APPROVED STATE OR LOCAL PLANS
- STATEMENT NOTED.
4. EXCEPTIONS
- STATEMENT NOTED.

FINAL PHASE POST-PAVING BASIN CONVERSION

1. IF, FOR ANY REASON, THE PROJECT IS SUSPENDED, THE CONTRACTOR SHALL INSURE THAT ALL INSTALLED EROSION MEASURES ARE FUNCTIONING AND PROPERLY MAINTAINED DURING THIS PERIOD, AND THAT ALL BARED SOILS ARE SEEDED AND MULCHED WITH TEMPORARY SEED MIXTURE.
2. THE FOLLOWING ITEMS MUST BE COMPLETED BY THE CONTRACTOR, IN ORDER, ONCE THE SITE HAS BEEN DEEMED STABLE:
- A. REMOVE SEDIMENT CONTROL DEVICES AND ESTABLISH WATER QUALITY CONTROL ORIFICE.
- B. REMOVE TEMPORARY CONSTRUCTION ENTRANCE PRIOR TO COMPLETION OF PAVING.
- C. SITE CLEAN UP.
- D. RESEED ANY AREAS THAT REQUIRE ADDITIONAL SEED
- E. FILTER FENCES ARE TO BE CLEANED, REMOVED, BACKFILLED AND SEEDED WITH PERMANENT SEEDING.
- F. VERIFY POSITIVE CONVEYANCE FLOW IN ALL DRAINAGE STRUCTURES.

SPECIFICATIONS FOR TEMPORARY SEEDING

TEMPORARY SEEDING SPECIES SELECTION			
SEEDING DATES	SPECIES	LB/100 FT ²	LB/ACRE
MARCH 1 TO AUGUST 15	OATS		128 (4 BUSHEL)
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	PERENNIAL RYEGRASS	1	40
	ANNUAL RYEGRASS	1.25	55
	PERENNIAL RYEGRASS	3.25	142
AUGUST 16TH TO NOVEMBER	CREeping RED FESCUE	0.4	17
	KENTUCKY BLUEGRASS	0.4	17
	OATS	3	128 (3 BUSHELS)
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	RYE	3	112 (2 BUSHEL)
NOVEMBER 1 TO FEB. 29	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	WHEAT	3	120 (BUSHEL)
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	PERENNIAL RYE	1	40
NOVEMBER 1 TO FEB. 29	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	PERENNIAL RYEGRASS	1.25	40
	PERENNIAL RYEGRASS CREEPING	3.25	40
	RED FESCUE	0.4	40
	KENTUCKY BLUEGRASS	0.4	40

NOTE: OTHER APPROVED SPECIES MAY BE SUBSTITUTED

1. 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.
2. TEMPORARY SEED SHALL BE APPLIED BETWEEN CONSTRUCTION OPERATIONS ON SOIL THAT WILL NOT BE GRADED OR REWORKED FOR 14 DAYS OR MORE. THESE IDLE AREAS SHOULD BE SEEDED AS SOON AS POSSIBLE AFTER GRADING OR SHALL BE SEEDED WITHIN 7 DAYS. SEVERAL APPLICATIONS OF TEMPORARY SEEDING ARE NECESSARY ON TYPICAL CONSTRUCTION PROJECTS.
3. THE SEEDED SHALL BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION. HOWEVER, TEMPORARY SEEDING SHALL NOT BE POSTPONED IF IDEAL SEEDED PREPARATION IS NOT POSSIBLE.
4. SOIL AMENDMENTS-APPLICATIONS OF TEMPORARY VEGETATION SHALL. ESTABLISHED 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.
5. SEEDING METHOD--SEED SHALL BE APPLIED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. WHEN FASIBLE, SEED THAT HAS BEEN BROADCAST SHALL BE COVERED BY RAKING OR DRAGGING AND THEN LIGHTLY TAMPED INTO PLACE 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

1. 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 SOIL CONDITIONS MAY NOT NEED MULCH TO ACHIEVE ADEQUATE STABILIZATION.
2. MATERIALS - STRAW--IF STRAW IS USED, IT SHALL BE UNROTTED SMALL-GRAIN APPLIED AT 2 TONS/AC. OR 60 LB. / 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 LB. BALES OF STRAW IN EACH SECTION. HYDROSEEDERS-IF WOOD CELLULOSE FIBER IS USED, IT SHALL BE USED AT 2,000 LB. / AC. OR 46 LB./ 1,000 SQ. FT. OTHER-OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS APPLIED ACCORDING TO MANUFACTURERS RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 4 TONS/ AC.
3. STRAW MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR WATER. ANCHORING METHODS MECHANICAL--A DISK, CRIMPER OR SIMILAR TYPE TOOL SHALL BE SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT LONGER THAN 6 IN. MULCH NETTINGS--NETTINGS SHALL BE USED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS. NETTING MAY BE NECESSARY TO HOLD MULCH IN PLACE IN AREAS OF CONCENTRATED RUNOFF AND ON CRITICAL SLOPES. SYNTHETIC BINDERS--SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGR-TAC), DC-7A, PETROSET, TERRA-TACK OR EQUIVALENT MAY BE USED AT RATES SPECIFIED BY THE MANUFACTURER. WOOD CELLULOSE FIBER--WOOD CELLULOSE FIBER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LB./ AC. THE WOOD-CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LB. / 100 GAL.

REGULAR INSPECTION AND MAINTENANCE WILL BE PROVIDED FOR ALL EROSION AND SEDIMENT CONTROL PRACTICES. PERMANENT RECORDS OF MAINTENANCE AND INSPECTION MUST BE KEPT THROUGHOUT THE CONSTRUCTION PERIOD. INSPECTIONS MUST BE MADE A MINIMUM OF ONCE EVERY 7 DAYS AND IMMEDIATELY AFTER STORM EVENTS GREATER THAN 0.5 INCHES OF RAIN IN A 24 HOUR PERIOD. PROVIDED WILL BE NAME OF INSPECTOR, MAJOR OBSERVATIONS, DATED OF INSPECTION AND CORRECTIVE MEASURES TAKEN. RECORDS SHALL BE SUBMITTED TO THE CITY OF NORTH RIDGEVILLE ENGINEERING DEPARTMENT FOR REVIEW BY MAY 1st of EACH YEAR.

IF THE SITE IS TO REMAIN DORMANT AND IS STABILIZED, AND LESS FREQUENT INSPECTIONS ARE DESIRED, A WAIVER REQUEST SHALL BE SUBMITTED TO THE OEPA FOR A REDUCTION TO MONTHLY INSPECTIONS.

INSPECTION REPORTS SHALL BE MAINTAINED FOR 3 YEARS FOLLOWING PROJECT COMPLETION.

ONLY "QUALIFIED" PERSONNEL ARE TO PERFORM WEEKLY AND STORM EVENT INSPECTIONS.

THE INSPECTION CHECKLIST SHALL BE COMPLETED AND SIGNED BY THE INSPECTOR AFTER EVERY INSPECTION.

BMPs NOT MEETING THE INTENDED FUNCTION SHALL BE REPLACED WITH A NEW BMP WITHIN 10 DAYS OF THE INSPECTION

MISSING BMPs REQUIRED FOR INSTALLATION BY THE SWP3 SHALL BE INSTALLED WITHIN 10 DAYS OF INSPECTION.

ADDITIONAL SWP3 CONSIDERATIONS

NO OPEN BURNING

DUST CONTROL SHALL BE ACHIEVED BY USE OF WATERING TRUCKS. USE OF OIL IS STRICTLY PROHIBITED. INLET PROTECTION MUST BE IMPLEMENTED PRIOR TO DUST CONTROL MEASURES.

IN THE EVENT OF A PETROLEUM SPILL (<25 GALLONS) OR THE PRESENCE OF OIL SHEEN, THE CONTRACTOR SHALL CONTACT THE OHIO E.P.A. AT 800-282-9378, THE LOCAL FIRE DEPARTMENT.

SMALL SPILLS (<25 GALLONS) SHALL BE CLEANED UP USING AN ABSORBING AGENT, THE ABSORBING AGENT REMOVED AND DISPOSED OF ACCORDING TO FEDERAL REGULATIONS.

ALL TRENCH DEWATERING MEASURES SHALL BE DISCHARGED INTO SETTLING BASINS PRIOR TO DISCHARGE FROM SITE. BMPs THAT REQUIRE REPAIR SHALL BE REPAIRED WITHIN 3 DAYS OF INSPECTION. SETTLING PONDS MUST BE REPAIRED WITHIN 10 DAYS OF INSPECTION.

STREETS ADJACENT TO SITE SHALL BE CLEANED AT THE END OF EACH WORK DAY.

POST-CONSTRUCTION BMP RATIONALE

STORM WATER MANAGEMENT AND POST-CONSTRUCTION WATER QUALITY BMPs HAVE BEEN ADDRESSED BY MEANS OF AN ON-SITE STORM WATER MANAGEMENT/WATER QUALITY RETENTION BASIN.

MAINTENANCE FOR PERMANENT SEEDINGS FERTILIZATION AND MOWING					
MIXTURE	FORMULA	LBS./ACRE	LBS./1,000 SQ. FT	TIME	MOWING
CREEPING RE FESCUE RYEGRASS KENTCKY BLUEGRASS	10-10-10	500	12	FALL, YEARLY AS NEEDED	NOT CLOSER THAN 3"
TALL FESCUE	10-10-10	500	12		NOT CLOSER THAN 4"
TURF-TYPE FESCUE	10-10-10	500	12		
CROWN VETCH FESCUE	0-20-20	400	10	SPRING, YEARLY FOLLOWING ESTABLISHMENT AND EVERY 4-7 YEARS THEREAFTER	DO NOT MOW
FLAT PEA FESCUE	0-20-20	400	10		DO NOT MOW

NOTE: FOLLOWING SOIL TEST RECOMMENDATIONS IS PREFERRED TO FERTILIZER RATES SHOWN ABOVE.

SPECIFICATIONS FOR PERMANENT SEEDING

- SITE PREPARATION

1. A SUBSOLER, PLOW OR OTHER IMPLEMENT SHALL BE USED TO REDUCE SOIL COMPACTION AND ALLOW MAXIMUM INFILTRATION. (MAXIMIZING INFILTRATION WILL HELP CONTROL BOTH RUNOFF RATE AND WATER QUALITY.) SUBSOILING SHOULD BE DONE WHEN THE SOIL MOISTURE IS LOW ENOUGH TO ALLOW THE SOIL TO CRACK OR FRACTURE. SUBSOILING SHALL NOT BE DONE ON SLIP PRONE AREAS WHERE SOIL PREPARATION SHOULD BE LIMITED TO DISKING. DISKING IS NECESSARY FOR ESTABLISHING VEGETATION.

2. THE SITE SHALL BE GRADED AS NEEDED TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDED PREPARATION AND SEEDING.

3. TOPSOIL SHALL BE APPLIED WHEN NEEDED TO ESTABLISH VEGETATION. SEEDED PREPARATION

a. LIME--AGRICULTURAL GROUND LIMESTONE SHALL BE APPLIED TO ACID SOIL. AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, LIME SHALL BE APPLIED AT THE RATE OF 100 LB./1,000 SQ. FT. OR 2 TONS/ACRE.

b. FERTILIZER--FERTILIZER SHALL BE APPLIED AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, FERTILIZER SHALL BE APPLIED AT A RATE OF 25 LB./1,000 SQ. FT. OR 100 LB./ ACRE OF 10-10-10 OR 12-12-12 ANALYSES.

c. THE LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL WITH A DISK, HARROW, SPRING-TOOTH HARROW OR OTHER SUITABLE FIELD IMPLEMENT TO A DEPTH OF 3 INCHES. ON SLOPING LAND, THE SOIL SHALL BE WORKED ON THE CONTOR.
- EROSION PREVENTION PRACTICES

SEEDING DATES AND SOIL CONDITIONS

SEEDING SHOULD BE DONE MARCH 1 TO MAY 31 OR AUG 1 TO SEPTEMBER 30. IF SEEDING OCCURS OUTSIDE OF THE ABOVE SPECIFIED DATES, ADDITIONAL MULCH AND IRRIGATION MAY BE REQUIRED TO ENSURE A MINIMUM OF 80% GERMINATION. TILLAGE FOR SEEDED PREPARATION SHOULD BE DONE WHEN SOIL IS DRY ENOUGH TO CRUMBLE AND NOT FORM RIBBONS WHEN COMPRESSED BY HAND. FOR WINTER SEEDING, SEE THE FOLLOWING SECTION ON DORMANT SEEDING.

DORMANT SEEDING

1. SEEDINGS SHOULD NOT BE MADE FROM OCTOBER 1 THROUGH NOVEMBER 20. DURING THIS PERIOD, THE SEEDS ARE LIKELY TO GERMINATE BUT PROBABLY WILL NOT BE ABLE TO SURVIVE THE WINTER.

2. THE FOLLOWING METHODS MAY BE USED FOR "DORMANT SEEDING":

- FROM OCTOBER 1 THROUGH NOVEMBER 20, PREPARE THE SEEDED, AND THE REQUIRED AMOUNTS OF LIME AND FERTILIZER, THEN DISK AND ANCHOR. AFTER NOVEMBER 20, BROADCAST THE SELECTED SEED MIXTURE AT A 50% INCREASE IN THE SEEDING RATE.

- FROM NOVEMBER 20 THROUGH MARCH 15, WHEN SOIL CONDITIONS PERMIT, PREPARE THE SEEDED, LIME AND FERTILIZE, AND THE SELECTED SEED MIXTURE. MULCH AND ANCHOR. INCREASE THE SEEDING RATES BY 50% FOR THIS TYPE OF SEEDING.

- APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER OR HYDRO-SEEDER (SLURRY MAY INCLUDE SEED AND FERTILIZER) ON A FIRM, MOIST SEEDED.

- WHERE FEASIBLE, EXCEPT WHEN A CULTIPACKER TYPE SEEDER IS USED, THE SEEDED SHOULD BE FIRMD FOLLOWING SEEDING OPERATIONS WITH A CULTIPACKER, ROLLER OR LIGHT DRAG. ON SLOPING LAND, SEEDING OPERATIONS SHOULD FOLLOW THE CONTOUR WHERE FEASIBLE.
- MULCHING

1. MULCH MATERIAL SHALL BE APPLIED IMMEDIATELY AFTER SEEDING. DORMANT SEEDING SHALL BE MULCHED 100% OF THE GROUND SURFACE SHALL BE COVERED WITH AN APPROVED MATERIAL.

2. MATERIALS

STRAW--IF STRAW IS USED IT SHALL BE UNROTTED SMALL-GRAIN STRAW APPLIED AT THE RATE OF 2 TONS/ACRE OR 60 LB./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 BY-IDE, AREA INTO APPROXIMATELY 1,000 SQ. FT. HAND-SPREAD MULCH, SECTIONS AND SPREAD TWO 45-LB. BALES OF STRAW IN EACH SECTION.

HYDROSEEDERS-IF WOOD CELLULOSE FIBER IS USED, IT SHALL BE USED AT 2,000 LB./ACRE. OR 46 LB./1,000 SQ. FT.

OTHER-OTHER ACCEPTABLE MULCHES INCLUDE ROLLED EROSION CONTROL MATTINGS OR BLANKETS APPLIED ACCORDING TO MANUFACTURERS RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 4 TONS/ACRE.

3. STRAW AND MULCH ANCHORING METHODS

STRAW MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR WATER.

MECHANICAL--A DISK, CRIMPER OR SIMILAR TYPE TOOL SHALL BE SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT GENERALLY LEFT LONGER THAN 6 IN.

MULCH NETTINGS--NETTINGS SHALL BE USED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS. NETTING MAY BE NECESSARY TO HOLD MULCH IN PLACE IN AREAS OF CONCENTRATED RUNOFF AND ON CRITICAL SLOPES.

SYNTHETIC BINDERS--SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGR-TAC), DC-7A, PETROSET, TERRA TACK OR EQUIVALENT MAY BE USED AT RATES SPECIFIED BY THE MANUFACTURER.

- EROSION PREVENTION PRACTICES

WOOD CELLULOSE FIBER--WOOD CELLULOSE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LBS./ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER WITH THE MIXTURE CONTAINING A MAXIMUM OF 50 LBS. CELLULOSE/100 GALLONS OF WATER.

IRRIGATION

PERMANENT SEEDING SHALL INCLUDE IRRIGATION TO ESTABLISH VEGETATION DURING DRY WEATHER OR ON ADVERSE SITE CONDITIONS, WHICH REQUIRE ADEQUATE MOISTURE FOR SEED GERMINATION AND PLANT GROWTH.

2. IRRIGATION RATES SHALL BE MONITORED TO PREVENT EROSION AND DAMAGE TO SEEDED AREAS FROM EXCESSIVE RUNOFF.

PERMANENT SEEDING			
SEED MIX	SEEDING RATE		NOTES
	LBS./ACRE	LBS./1,000 SQ. FEET	
GENERAL USE			
CREEPING RED FESCUE DOMESTIC RYEGRASS KENTUCKY BLUEGRASS	20-40 10-20 20-40	1/2-1 1/4-1/2 1/2-1	FOR CLOSE MOWING & FOR WATERWAYS WITH <2.0 FT/SEC VELOCITY
TALL FESCUE	40-50	1-1 1/4	
TURF- TYPE (DWARF) FESCUE	90	2 1/4	
STEEP BANKS OR CUT SLOPES			
TALL FESCUE	40-50	1-1/4	
CROWN VETCH TALL FESCUE	10-20 20-30	1/4-1/2 1/2-3/4	DO NOT SEED LATER THAN AUGUST
FLAT PEA TALL FESCUE	20-25 20-30	1/2-3/4 1/2-3/4	DO NOT SEED LATER THAN AUGUST
ROAD DITCHES AND SWALES			
TALL FESCUE	40-50	1-1 1/4	
TURF-TYPE (DWARF) FESCUE KENTUCKY BLUEGRASS	90 5	2 1/4 0.1	
LAWNS			
KENTUCKY BLUEGRASS PERENNIAL RYEGRASS	100-120	2 2	
KENTUCKY BLUEGRASS CREEPING RED FESCUE	100-120	2 1-1/2	FOR SHADED AREAS

NOTE: OTHER APPROVAL SEED SPECIES MAY BE SUBSTITUTED.

TABLE 1: PERMANENT STABILIZATION

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY AREAS THAT WILL LIE DORMANT FOR ONE YEAR OR MORE	WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE
ANY AREAS WITHIN 50 FEET OF A SURFACE WATER OF THE STATE AND AT FINAL GRADE	WITHIN TWO DAYS OF REACHING FINAL GRADE
ANY OTHER AREAS AT FINAL GRADE	WITHIN SEVEN DAYS OF REACHING FINAL GRADE WITHIN THAT AREAS

CITY OF NORTH RIDGEVILLE SWP3 STANDARD GENERAL NOTES

GENERAL EROSION AND SEDIMENT CONTROL NOTES

EROSION AND SEDIMENT CONTROL MEASURES AS SPECIFIED ON THE PLANS OR ORDERED BY THE GOVERNING AGENCY DURING THE LIFE OF THE CONTRACT TO CONTROL SOIL EROSION AND REDEMORATION THROUGH USE OF EROSION CONTROL BEST MANAGEMENT PRACTICES (BMPs) SHALL BE PERMITTED.

TEMPORARY EROSION AND SEDIMENT CONTROL ITEMS, THE LOCATION AND SIZE OF WHICH ARE DETAILED ON THE OPERATIONS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR PRIOR TO COMMENCEMENT OF ANY CLEANING OR EARTHWORK OPERATIONS. MEASURES THAT REQUIRE EROSION CONTROL MEASURES THAT ARE NOT PERMITTED SHALL BE APPROVED BY THE CITY ENGINEER AND REFLECTED ON THE STRAIN SEWER SYSTEM.

SETBACK FENCE, SEDIMENT TRAPS, AND PERIMETER SEDIMENT CONTROLS SHALL BE MAINTAINED AS THE FIRST LINE OF DEFENSE AND WITHIN 2 DAYS FROM THE START OF EROSION. THEY SHALL CONTINUE TO REMAIN IN PLACE UNTIL EROSION IS COMPLETELY STOPPED. EROSION CONTROL MEASURES SHALL BE MAINTAINED AS LONG AS NECESSARY TO PREVENT EROSION AND SEDIMENTATION. EROSION CONTROL MEASURES SHALL BE MAINTAINED AS LONG AS NECESSARY TO PREVENT EROSION AND SEDIMENTATION. EROSION CONTROL MEASURES SHALL BE MAINTAINED AS LONG AS NECESSARY TO PREVENT EROSION AND SEDIMENTATION.

THE SWP3 NOTES AND DETAIL DRAWINGS ARE INTENDED TO SERVE AS BASIC GUIDELINES. ALL EROSION CONTROL PRACTICES SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE OTHER RAINWATER AND LAND DEVELOPMENT MANUAL.

ADDITIONAL EROSION CONTROL BMPs MAY BE NEEDED BY THE GOVERNING AGENCY AT ANY TIME DURING THE PROJECT AS UNFORESEEN SITUATIONS MAY ARISE THAT WARRANT FURTHER EROSION AND SEDIMENT CONTROL PRACTICES.

CLEANING AND GRADING
LIMITS OF CLEANING AND GRADING SHALL BE CLEARLY MARKED ON THE SITE WITH STAKES, FLAGGING AND/OR GRADE CONSTRUCTION POKERS.

THE CONTRACTOR SHALL LIMIT THE SURFACE AREA OF EROSION EARTH MATERIAL EXPOSED BY EXCAVATION, EROSION, AND FILL OPERATIONS AND PROVIDE IMMEDIATE PERMANENT OR TEMPORARY CONTROL MEASURES TO PREVENT CONTINUATION OF ADVANCED EROSION ON OTHER NEAR COUSSES, LAWS, POKERS, INCLINE OF THE AREA OF EROSION OR IMPROVEMENT.

CONSTRUCTION ENTRANCE
A STURDY CONSTRUCTION ENTRANCE SHALL BE INSTALLED FOR ALL INGRESS & EGRESS TO THE SITE. THE ENTRANCE CHANNELS OF THE DRIVE SHALL BE 18" WIDE AND 10" DEEP. THE DRIVE SHALL BE 6" INCHES DEEP WITH AN UNDERLAIN IMPERMEABLE FABRIC. THE DRIVE SHALL BE INSTALLED PRIOR TO ANY CLEANING AND GRADING. SEDIMENTS SHALL BE REMOVED FROM THE DRIVEWAY ONLY.

STABILIZATION
PERMANENT AND TEMPORARY STABILIZATION ARE DEFINED IN PART VI OF THE OHIO REDEMORATION FOR EROSION AND SEDIMENT CONTROL. PERMANENT STABILIZATION SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES. TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES.

AREA REQUIRING PERMANENT STABILIZATION
ANY AREA THAT SHALL BE REMOVED FOR EROSION AND SEDIMENT CONTROL SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES. TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES.

AREA REQUIRING TEMPORARY STABILIZATION
ANY AREA THAT SHALL BE REMOVED FOR EROSION AND SEDIMENT CONTROL SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES. TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES.

TEMPORARY EROSION
EROSION SHALL BE INSPECTED AND WHERE THE SEDIMENT HAS NOT PRODUCED ROSE COVER SHALL BE REMOVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EROSION AND SEDIMENT CONTROL MEASURES. TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES.

AREA REQUIRING PERMANENT STABILIZATION
ANY AREA THAT SHALL BE REMOVED FOR EROSION AND SEDIMENT CONTROL SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES. TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES.

AREA REQUIRING TEMPORARY STABILIZATION
ANY AREA THAT SHALL BE REMOVED FOR EROSION AND SEDIMENT CONTROL SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES. TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES.

AREA REQUIRING PERMANENT STABILIZATION
ANY AREA THAT SHALL BE REMOVED FOR EROSION AND SEDIMENT CONTROL SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES. TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES.

AREA REQUIRING PERMANENT STABILIZATION
ANY AREA THAT SHALL BE REMOVED FOR EROSION AND SEDIMENT CONTROL SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES. TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES.

AREA REQUIRING TEMPORARY STABILIZATION
ANY AREA THAT SHALL BE REMOVED FOR EROSION AND SEDIMENT CONTROL SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES. TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES.

AREA REQUIRING PERMANENT STABILIZATION
ANY AREA THAT SHALL BE REMOVED FOR EROSION AND SEDIMENT CONTROL SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES. TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES.

AREA REQUIRING TEMPORARY STABILIZATION
ANY AREA THAT SHALL BE REMOVED FOR EROSION AND SEDIMENT CONTROL SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES. TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES.

AREA REQUIRING PERMANENT STABILIZATION
ANY AREA THAT SHALL BE REMOVED FOR EROSION AND SEDIMENT CONTROL SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES. TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES.

AREA REQUIRING TEMPORARY STABILIZATION
ANY AREA THAT SHALL BE REMOVED FOR EROSION AND SEDIMENT CONTROL SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES. TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 90 DAYS OF THE DATE OF THE EROSION AND SEDIMENT CONTROL MEASURES.

SPECIFICATIONS FOR MULCHING

- MULCH AND OTHER APPROPRIATE VEGETATIVE PRACTICES SHALL BE APPLIED TO DISTURBED AREAS WITHIN 7 DAYS OF GRADING IF THE AREA IS TO REMAIN DORMANT (UNDISTURBED) FOR MORE THAN 21 DAYS OR ON AREAS AND PORTIONS OF THE SITE WHICH CAN BE BROUGHT TO FINAL GRADE.
- MULCH SHALL CONSIST OF ONE OF THE FOLLOWING:
 - STRAW - SHALL BE UNROOTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 2 TONS/AC. OR 90 LB./1,000 SQ. FT. (TWO TO THREE BALES). THE STRAW 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 PLACE TWO 45-LB. BALES OF STRAW IN EACH SECTION.
 - HYDROSEEDERS - WOOD CELLULOSE FIBER SHOULD BE USED AT 2,000 LB./AC. OR 46 LB./1,000 SQ. FT.
 - OTHER - ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS AND ROLLED EROSION CONTROL PRODUCTS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD MULCH CHIPS APPLIED AT 10-20 TONS/AC.
- MULCH ANCHORING - MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR RUNOFF. THE FOLLOWING ARE ACCEPTABLE METHODS FOR ANCHORING MULCH:
 - MECHANICAL - USE A DISK, CRIMPER, OR SIMILAR TYPE TOOL SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT BE LEFT GENERALLY LONGER THAN 6 INCHES.
 - MULCH NETTINGS - USE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, FOLLOWING ALL PLACEMENT AND ANCHORING REQUIREMENTS. USE IN AREAS OF WATER CONCENTRATION AND STEEP SLOPES TO HOLD MULCH IN PLACE.
 - SYNTHETIC BINDERS - FOR STRAW MULCH, SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGR-TAC), DCA-70, PETROSET, TERRA TACK, OR EQUAL MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER. ALL APPLICATIONS OF SYNTHETIC BINDERS MUST BE CONDUCTED IN SUCH A MANNER WHERE THERE IS NO CONTACT WITH WATER OF THE STATE.
 - WOOD CELLULOSE FIBER - WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. THE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LBS./AC. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LB./100 GAL. OF WOOD CELLULOSE FIBER.

SPECIFICATIONS FOR SODDING

- MATERIALS**
- SOD SHALL BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 48 HOURS. SOD NOT TRANSPORTED WITHIN THIS PERIOD SHALL BE INSPECTED AND APPROVED PRIOR TO INSTALLATION.
 - THE SOD SHALL BE KEPT MOIST AND COVERED DURING HAULING AND PREPARATION FOR PLACEMENT.
 - SOD SHALL BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 0.75 INCHES, PLUS OR MINUS 0.25 INCHES, AT THE TIME OF CUTTING. MEASUREMENTS FOR THICKNESS SHALL EXCLUDE TOP GROWTH AND THATCH.
- SITE PREPARATION**
- A SUBSOILER, PLOW OR OTHER IMPLEMENT SHALL BE USED TO REDUCE SOIL COMPACTION AND ALLOW MAXIMUM INFILTRATION. MAXIMIZING INFILTRATION WILL HELP CONTROL BOTH RUNOFF RATE AND WATER QUALITY. SUBSOILING SHALL NOT BE CONDUCTED ON SLIP-PRONE AREAS WHERE SOIL PREPARATION SHOULD BE LIMITED ONLY TO WHAT IS NECESSARY FOR ESTABLISHING VEGETATION.
 - THE AREA SHALL BE GRADED AND TOPSOIL SPREAD WHERE NEEDED.
 - SOD AMENDMENTS
- LIME - AGRICULTURAL GROUND LIMESTONE SHALL BE APPLIED TO ACIDIC SOILS AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, LIME SHALL BE APPLIED AT THE RATE OF 100 LB./1,000 SQ. FT. OR 2 TONS/AC.**
- FERTILIZER - FERTILIZER SHALL BE APPLIED AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, FERTILIZER SHALL BE APPLIED AT A RATE OF 12 LB./1,000 SQ. FT. OR 500 LB./AC. OF 10-10-10 OR 12-12-12 ANALYSIS**
- THE LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL WITH A DISK HARROW, SPRING-TOOTH HARROW, OR OTHER SUITABLE FIELD IMPLEMENT TO A DEPTH OF 3 INCHES.**
- BEFORE LAYING SOD, THE SURFACE SHALL BE UNIFORMLY GRADED AND CLEARED OF ALL DEBRIS, STONES AND CLODS LARGER THAN 3-IN. DIAMETER.

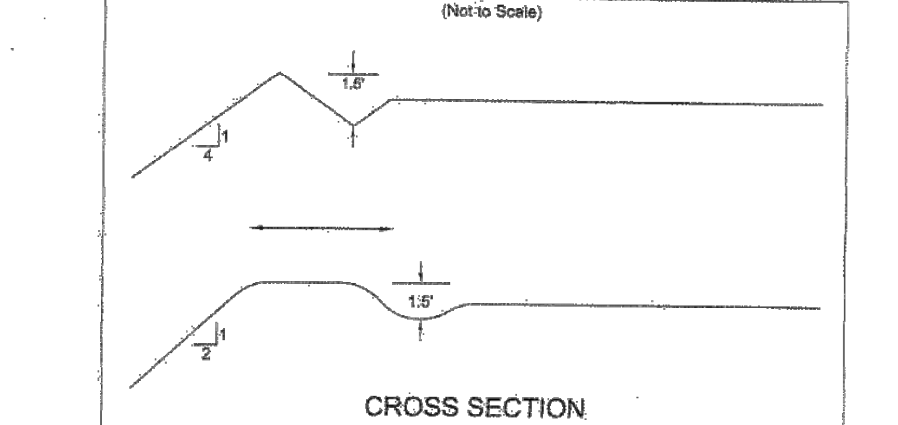
- SOD INSTALLATION**
- DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURES, THE SOIL SHALL BE LIGHTLY IRRIGATED IMMEDIATELY BEFORE LAYING THE SOD.
 - SOD SHALL NOT BE PLACED ON FROZEN SOIL.
 - THE FIRST ROW OF SOD SHALL BE LAID IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO AND TIGHTLY WEDGED AGAINST EACH OTHER. LATERAL JOINTS SHALL BE STAGGERED IN A BRICK-LIKE PATTERN. ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS THAT WOULD DRY THE ROOTS.
 - ON SLOPING AREAS WHERE EROSION MAY BE A PROBLEM, SOD SHALL BE LAID WITH THE LONG EDGE PARALLEL TO THE SLOPE AND STAGGERED JOINTS. THE SOD SHALL BE SECURED WITH PEGS OR STAPLES.
 - AS SODDING IS COMPLETED IN ANY ONE SECTION, THE ENTIRE AREA SHALL BE ROLLED OR TAMPED TO ENSURE SOLID CONTACT OF ROOTS WITH THE SOIL SURFACE. SOD SHALL BE WATERED IMMEDIATELY AFTER ROLLING OR TAMPING UNTIL THE SOD AND SOIL SURFACE BELOW THE SOD ARE THOROUGHLY WET. THE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD SHALL BE COMPLETED WITHIN 8 HOURS.
- MAINTENANCE**
- IN THE ABSENCE OF ADEQUATE RAINFALL, WATERING SHALL BE PERFORMED DAILY OR AS OFTEN AS NECESSARY DURING THE FIRST WEEK WITH SUFFICIENT QUANTITIES TO MAINTAIN MOIST SOIL TO A DEPTH OF 4-6 INCHES.
 - AFTER THE FIRST WEEK, SOD SHALL BE WATERED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE AND ENSURE ESTABLISHMENT.
 - THE FIRST MOWING SHALL NOT BE ATTEMPTED UNTIL SOD IS FIRMLY ROOTED.

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S RAINWATER AND LAND DEVELOPMENT MANUAL.

Laurel P. Fisher
CITY OF NORTH RIDGEVILLE, ENGINEER

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TEB	DESCRIPTION
CITY OF NORTH RIDGEVILLE, OHIO DEPARTMENT OF ENGINEERING			
DUST CONTROL			
SCALE: NOT TO SCALE			
DATE: 10/01/08 DRAWN BY: JAB/TEB SWP-29			

Specifications for Temporary Diversion



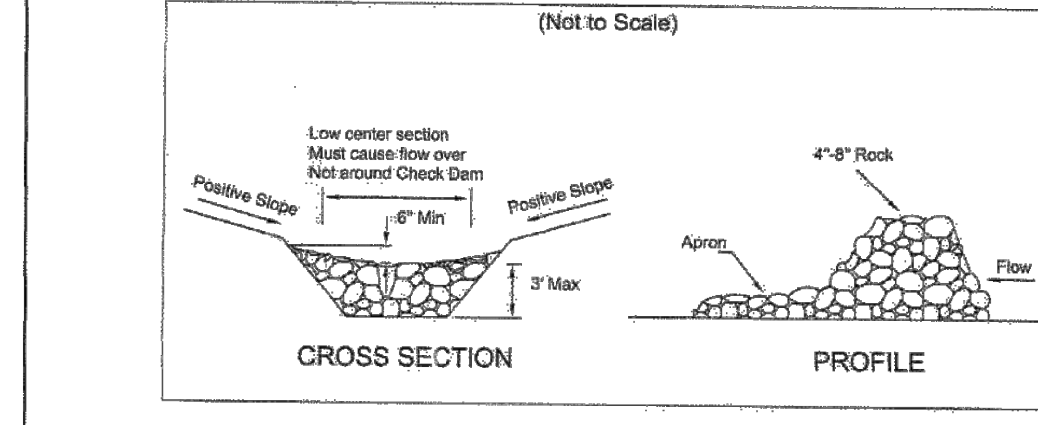
- Drainage area should not exceed 10 acres. Larger areas require a more extensive design.
 - The channel cross section may be parabolic or trapezoidal. Disk the base of the dike before placing fill. Slope the dike 10% higher than designed for settlement. The dike shall be constructed by hand using tracked early-equipment.
 - The minimum cross section of the levee or dike will be as follows (Minimum design threshold shall be 0.5 ft. high). Where construction traffic will cross the top width may be made wider and the side slopes flatter than specified above.
- | Drainage Area (Acres) | Side Slope | Height (ft.) |
|-----------------------|------------|--------------|
| 0 - 1 | 1:1 | 1.0 |
| 1 - 2 | 1:1 | 1.5 |
| 2 - 3 | 1:1 | 2.0 |
| 3 - 4 | 1:1 | 2.5 |
| 4 - 5 | 1:1 | 3.0 |

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S RAINWATER AND LAND DEVELOPMENT MANUAL.

Laurel P. Fisher
CITY OF NORTH RIDGEVILLE, ENGINEER

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TEB	DESCRIPTION
CITY OF NORTH RIDGEVILLE, OHIO DEPARTMENT OF ENGINEERING			
TEMPORARY DIVERSION			
SCALE: NOT TO SCALE			
DATE: 10/01/08 DRAWN BY: JAB/TEB SWP-9			

Specifications for Rock Check Dam



- The check dam shall be constructed of 4'-8" diameter stones, placed so that it completely covers the width of the channel. (DOT Type D stone is acceptable, but should be underlain with a gravel filter consisting of 0.075 No. 3 or 4 or suitable filter fabric).
 - Maximum height of check dam shall not exceed 3.0 feet.
 - The midpoint of the rock check dam shall be a minimum of 6 inches lower than the sides in order to direct across the dike and away from the channel sides.
 - The base of the check dam shall be reinforced approximately 6 inches.
 - Spacing of check dams shall be in a manner such that the top of the upstream dam is at the same elevation as the top of the downstream dam.
- A Splash Apron shall be constructed where check dams are required to be in place for an extended period of time. A stone apron shall be constructed immediately downstream of the check dam to prevent flows from undercutting the structure. The apron should be 6 in. thick and be length two times the height of the dam.
 - 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.
 - Side slopes shall be a minimum of 2:1.

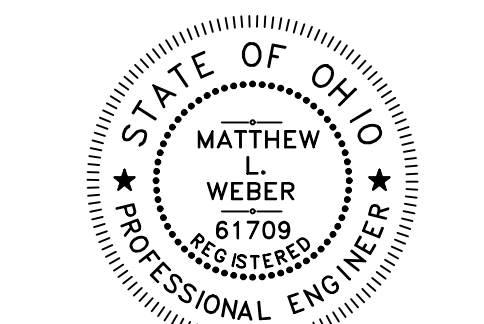
INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S RAINWATER AND LAND DEVELOPMENT MANUAL.

Laurel P. Fisher
CITY OF NORTH RIDGEVILLE, ENGINEER

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TEB	DESCRIPTION
CITY OF NORTH RIDGEVILLE, OHIO DEPARTMENT OF ENGINEERING			
ROCK CHECK DAM			
SCALE: NOT TO SCALE			
DATE: 10/01/08 DRAWN BY: JAB/TEB SWP-10			

WEBER ENGINEERING SERVICES
Where Strong Relationships & Superior Service Guide Your Project

2555 Hartville Rd., Suite B
Rookstown, OH 44472
www.WeberEngineeringServices.com
330-329-2037
matt@webercivil.com



Reg. No.: 61709

CLIENT:

GEIS CONSTRUCTION

10020 AURORA-HUDSON RD.
STREETSBORO, OHIO
JEN DIASIO
PHONE: (216) 218-3507

OWNER:

RUF BRIQUETTING SYSTEMS

NEW SITE

83778 TAYLOR PARKWAY, NORTH RIDGEVILLE, OH

Issue Date
03-15-2024

SWP3 DETAILS

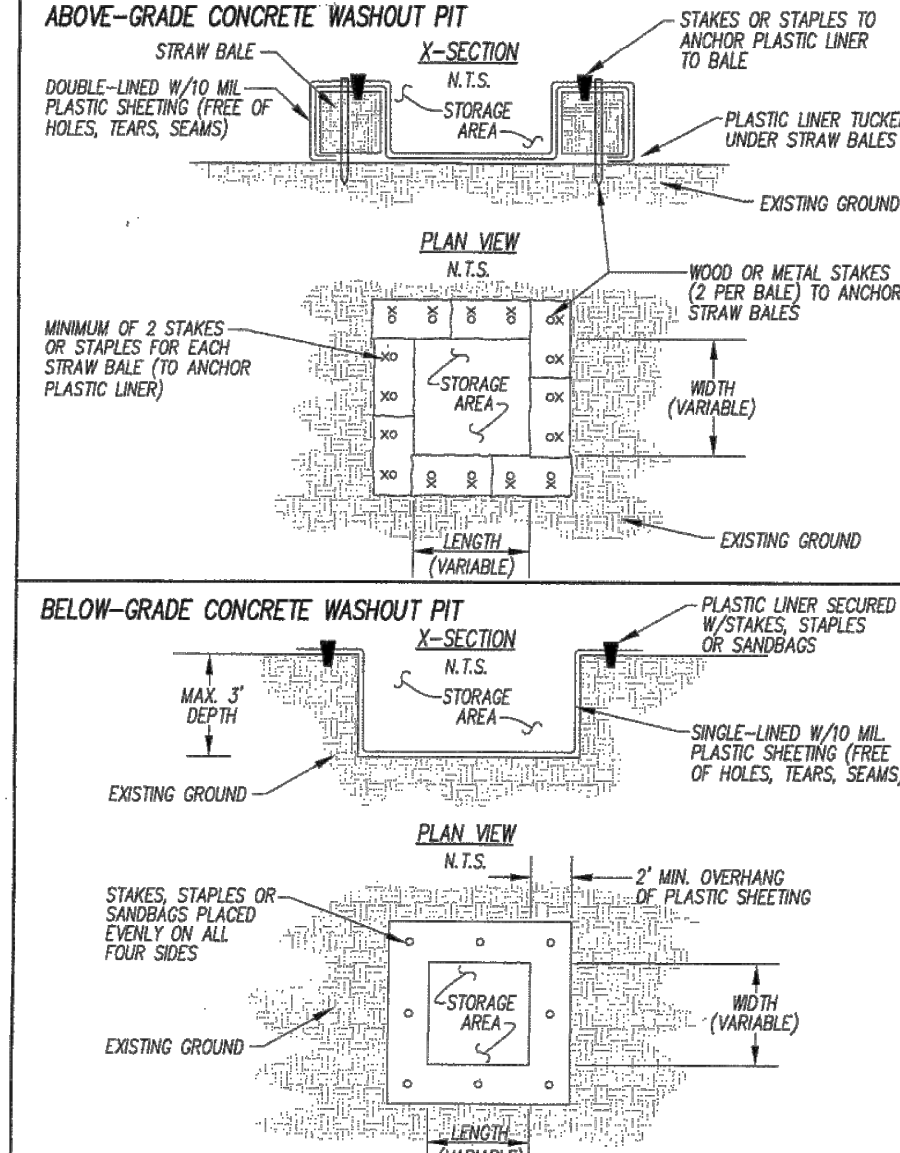
C112
Project No. 2024-108

Concrete Washout Areas

- Installation:**
- Concrete wash water shall not be allowed to flow to streams, ditches, storm drains, or any other water conveyance and washout pits shall be situated a minimum of fifty (50) feet from them.
 - Field tile or other subsurface drainage structures within 10 ft. of the sump shall be cut and plugged.
 - Ensure a stable path is provided for concrete trucks to reach the washout pit.
 - A highly visible sign that reads "Concrete Washout Area" shall be erected adjacent to the washout pit.
 - Surface runoff generated from uplope areas shall be diverted away from below-grade washout pits so as not to flow into them.
 - A single centralized washout area may be utilized for multiple sublots.
- Maintenance:**
- The washout pit must be inspected frequently to ensure the liner is intact.
 - Once 75% of the original volume of the washout pit is filled or if the liner is torn, the material must be removed and properly disposed of once it is completely hardened. Once the hardened concrete is removed, the liner must be replaced (if torn). A new pit must be constructed if the original structure is no longer suitable.
- Removal:**
- Once the washout pit is no longer needed, ensure all washout material has completely hardened, then remove and properly dispose of all materials. If straw bales were used, they can be spread as mulch.
 - Prefabricated containers specifically designed for concrete washout collection may be used subject to prior approval by the Community Engineer. Follow the manufacturer's suggestions for installation, maintenance and removal procedures.

Below-grade (3-ft depth)			Above-grade (2-ft depth)		
# of concrete trucks expected to be washed out on site	Width (ft)	Length (ft)	# of concrete trucks expected to be washed out on site	Width (ft)	Length (ft)
2-3	3	3	2	3	3
4-5	4	4	3-4	4	4
6-7	5	5	5-6	5	5
8-10	6	6	7-8	6	6
11-14	7	7	9-11	7	7
			12-15	8	8

*For small projects using a maximum of only one truckload of concrete or utilizing on-site mixing, rinsing of equipment may take place on the lot without a pit, provided it can be done a minimum of fifty (50) feet away from any water conveyances.



REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TEB	DESCRIPTION
CITY OF NORTH RIDGEVILLE, OHIO DEPARTMENT OF ENGINEERING			
CONCRETE WASHOUT			
SCALE: NOT TO SCALE			
DATE: 10/01/08 DRAWN BY: JAB/TEB SWP-33			

Laurel P. Fisher
CITY OF NORTH RIDGEVILLE, ENGINEER



RUF BRIQUETTING SYSTEMS

INDUSTRIAL | OFFICE

SITE

TAYLOR PKWY





VICINITY PLAN

RUF BRIQUETTING SYSTEMS
38778 TAYLOR PARKWAY, NORTH RIDGEVILLE, OH, 44039

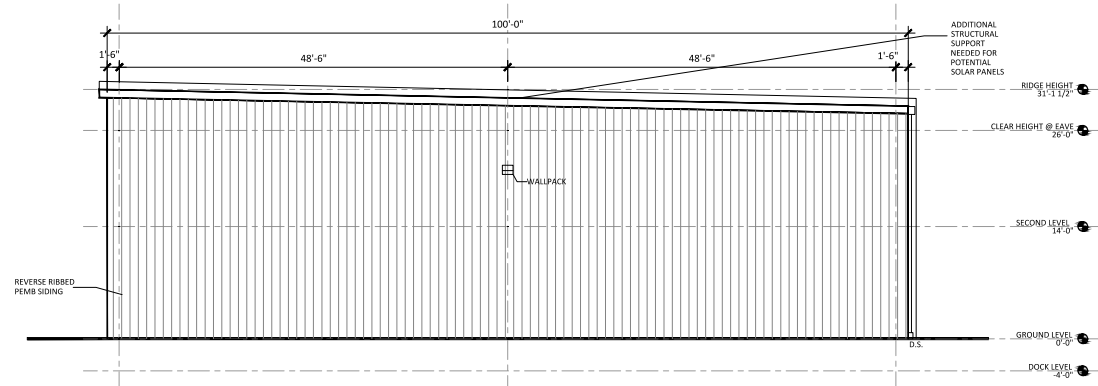
MATERIAL LEGEND:

 DMI FLAT LOCK METAL PANEL

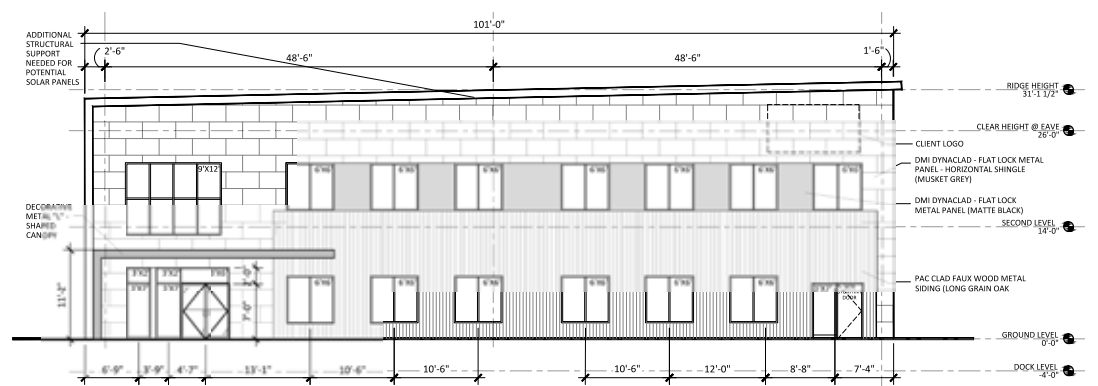
 METAL PANEL

 PAC CLAD - WOOD-LOOK METAL PANEL

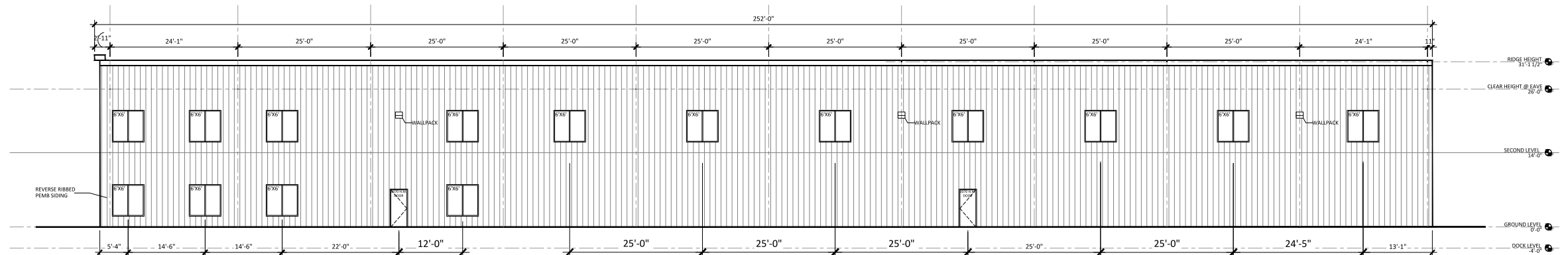
 METAL ROOF



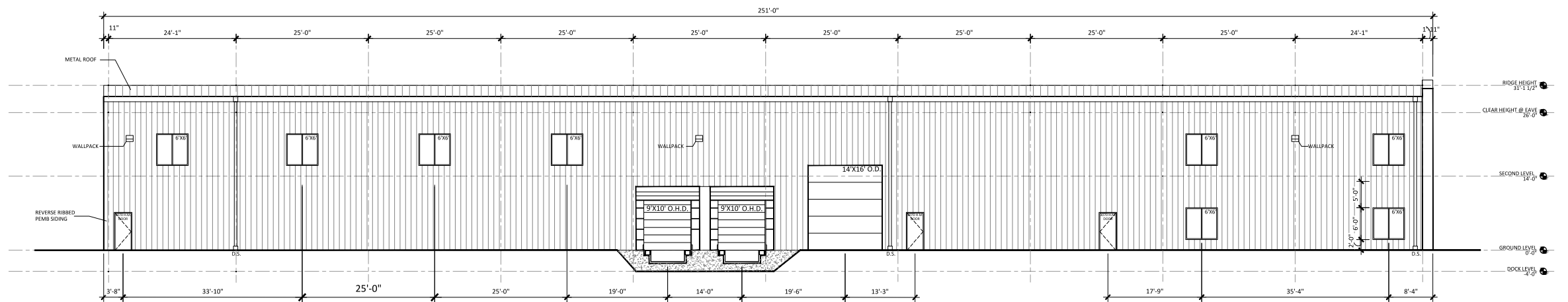
NORTH ELEVATION
SCALE: 3/32"=1'-0"



SOUTH ELEVATION
SCALE: 3/32"=1'-0"



EAST ELEVATION
SCALE: 3/32"=1'-0"



WEST ELEVATION
SCALE: 3/32"=1'-0"

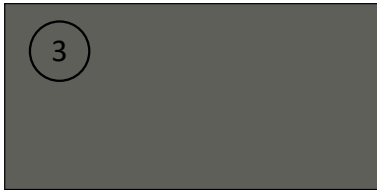




1
FAUX WOOD METAL PANEL FACADE
PAC CLAD
COLOR: LONG GRAIN OAK



2
METAL PANEL FACADE
DMI (DYNACLAD) FLAT LOCK
PANEL
COLOR: MATTE BLACK



3
METAL PANEL FACADE
HORIZONTAL SHINGLE
DMI (DYNACLAD) FLAT LOCK
PANEL
COLOR: MUSKET GREY



4
DECORATIVE METAL CANOPY
ALPOLIC (OR EQUAL)
COLOR: TDR GREEN



5
DECORATIVE ACM DETAIL
ALPOLIC (OR EQUAL)
COLOR: HWH WHITE



6
PRE-ENGINEERED METAL
BUILDING
REVERSE RIBBED METAL
NUCOR
REGAL WHITE



7
METAL COPING
NUCOR
COLOR: SLATE GRAY



8
GUTTERS & DOWNSPOUTS
NUCOR
COLOR: SLATE GRAY



9
STOREFRONT & WINDOWS
KAWNEER
COLOR: BLACK ANODIZED
ALUMINUM



10
HOLLOW METAL DOORS AND
FRAMES PAINTED
SHERWIN WILLIAMS
PEPPERCORN SW 7674



11
OVERHEAD DOORS
WAYNE DALTON (OR EQUAL)
COLOR: WHITE



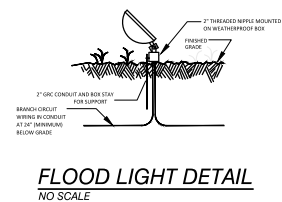
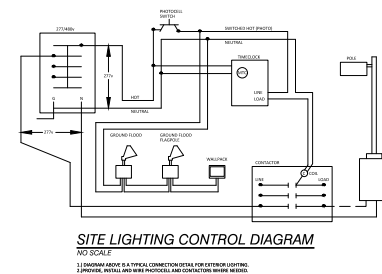
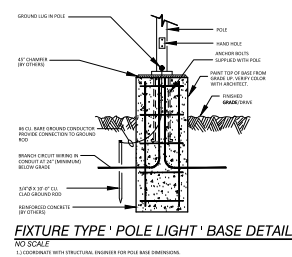
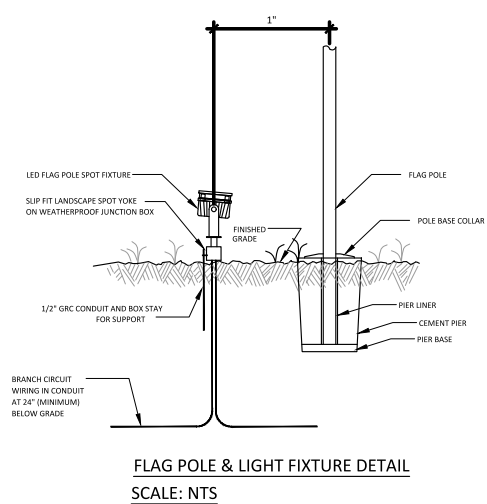
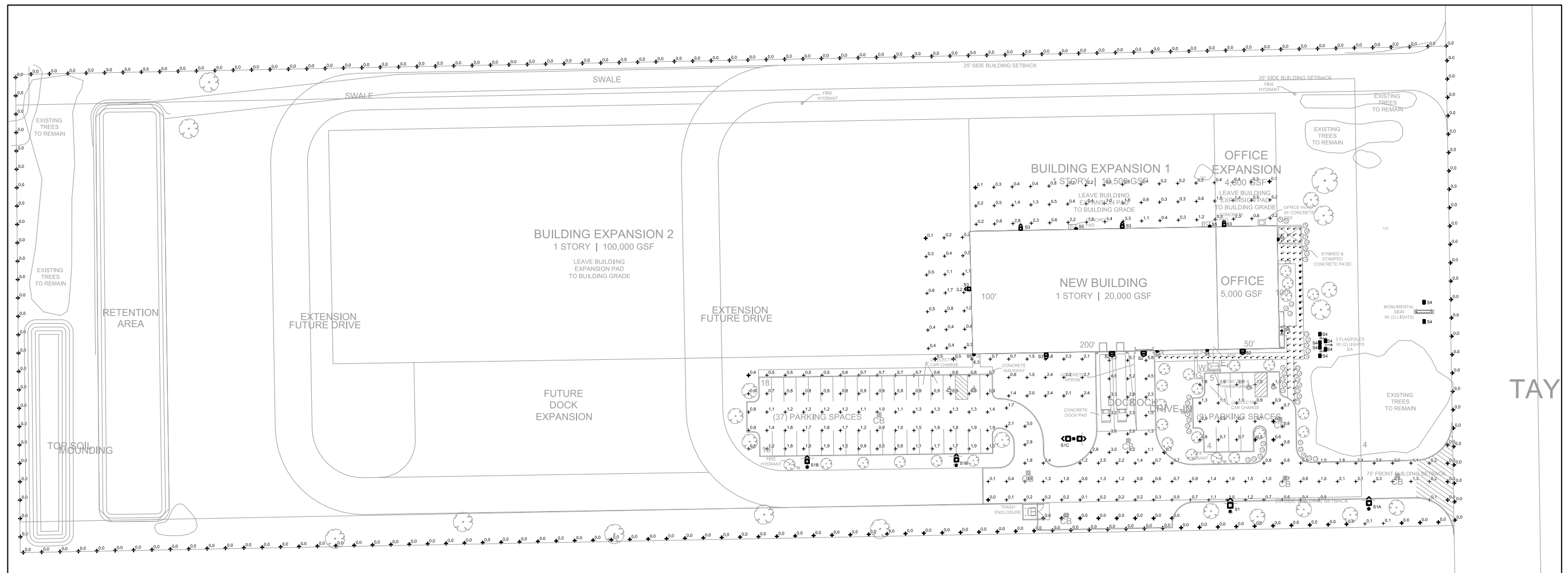
12
EXTERIOR GLASS
1" INSULATED GLASS W/ 1/4"
VITRO (PPG) SB60 #2 ON SOLAR
GRAY
1/2" ARGO, 1/4" CLEAR



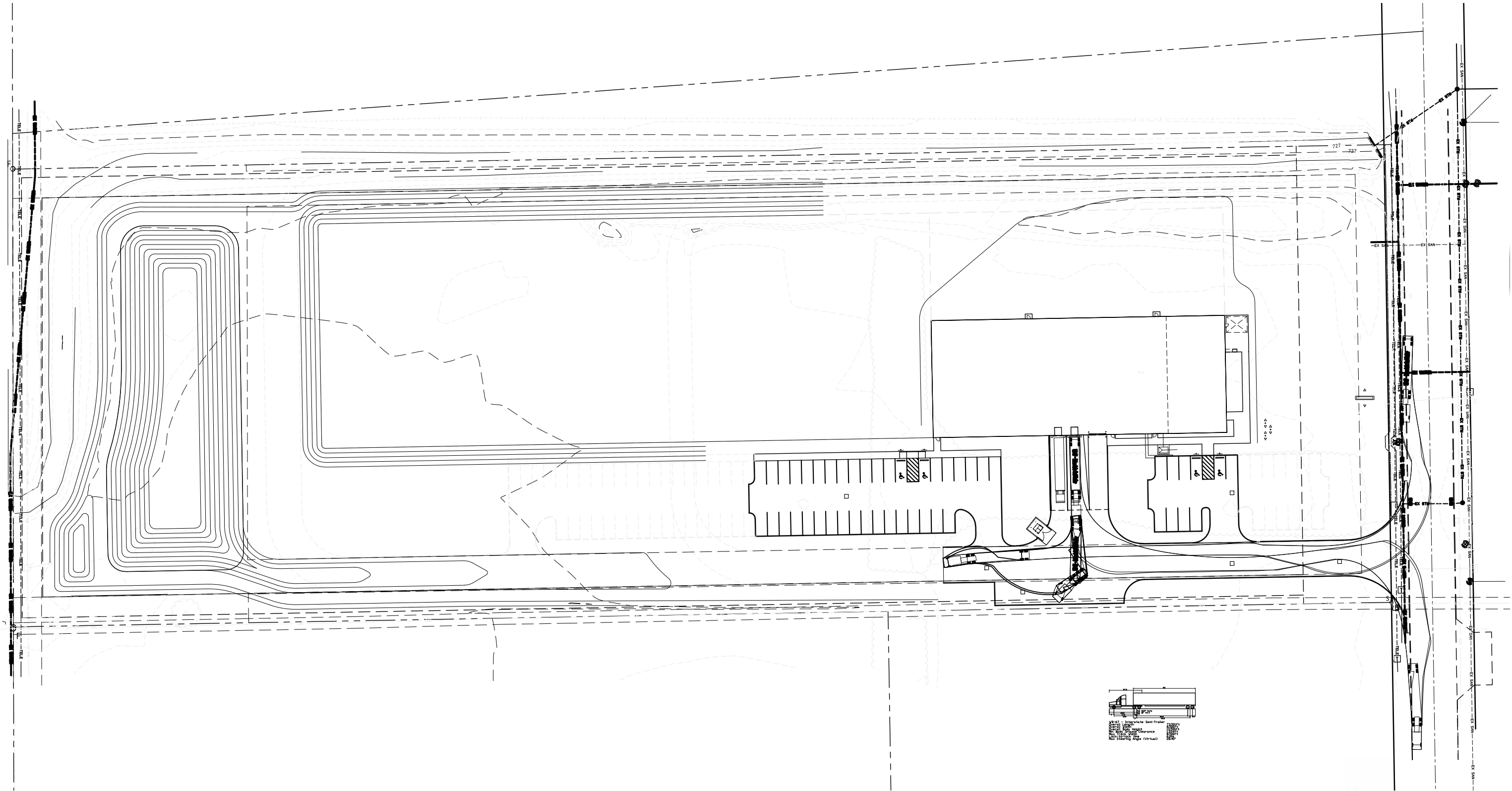
EXTERIOR MATERIAL FINISH SELECTIONS





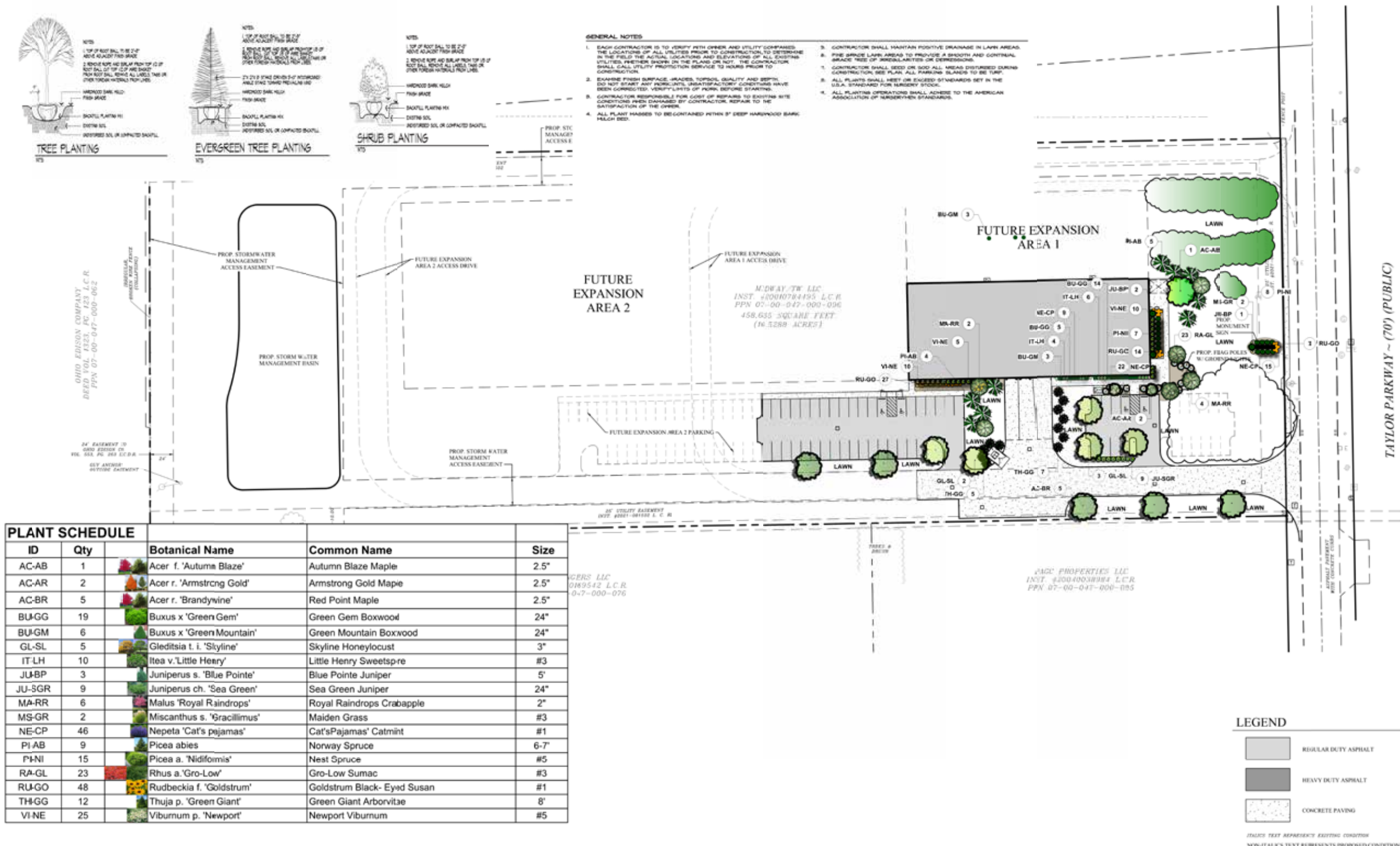


SITE FIXTURE SCHEDULE								
TAG	MPG / MODEL 3	DESC	MTNG ELEV.(FT)	LAMP	LUMENS	VOLTAGE	WATTAGE	NOTES
S1A	LSI / MR16-LED-18-9L-FT-40-70CR-IL	SITE POLE	28	LED	12151.04	UNV	150	OR EQUAL
S1A	LSI / MR16-LED-12L-9L-VA-40-70CR-IL	SITE POLE	28	LED	8501.69	UNV	85	OR EQUAL
S1B	LSI / MR16-LED-24L-9L-FT-40-70CR-IL	SITE POLE	28	LED	15336.74	UNV	160	OR EQUAL
S1C	LSI / MR16-LED-12L-9L-VA-40-70CR-IL	SITE POLE	28	LED	17003.38	UNV	170	OR EQUAL
S2	LSI / XWA-FT-LED-12L-40	WALLPACK	102	LED	12063.01	UNV	102.2	OR EQUAL
S3	XV6-LED-03L-FTV40-60CR	WALLPACK	16	LED	3758.61	UNV	26	OR EQUAL
S4	LSI / TSP-LED-03L-40	GROUND FLOOD	1	LED	1975.02	UNV	21.29	OR EQUAL
S5	RAB / ENTR12	DOORWAY	7	LED	142.5638	UNV	14.4	OR EQUAL
S6	LSI / LAD1-LAD1R-LCD4-LED-14L-40-FL-TMRFL-SF-HAZ	RECESSED CAN	10	LED	1382.933	UNV	13.9	OR EQUAL



TRUCK TURN PLAN

RUF BRIQUETTING SYSTEMS
38778 TAYLOR PARKWAY, NORTH RIDGEVILLE, OH, 44039



LANDSCAPE PLAN

RUF BRIQUETTING SYSTEMS
38778 TAYLOR PARKWAY, NORTH RIDGEVILLE, OH, 44039



GEIS COMPANIES
10020 Aurora-Hudson Rd
Streetsboro, Ohio 44241
PH: (330) 528-3500
FX: (330) 528-0008
www.geisco.net

DATES AND REVISIONS

04/05/2024
UPDATED

NOTICE

THIS ARCHITECTURAL AND ENGINEERING DRAWING IS GIVEN IN CONFIDENCE. NO USE OR DISSEMINATION MAY BE MADE WITHOUT PRIOR WRITTEN CONSENT OF THE ARCHITECT. ALL RIGHTS ARE HEREBY SPECIFICALLY RESERVED.
GEIS CONSTRUCTION
REVISIONS REFLECTED IN THESE DRAWINGS INVOLVE CHANGES TO CONTRACT PRICE PREVIOUSLY PROVIDED. CHANGE ORDERS WILL BE PROVIDED FOR ALL CHANGES. THESE CHANGES ARE NOT IN THE BASE BID.

RUF BRIQUETTING SYSTEMS

TAYLOR PARKWAY
NORTH RIDGEVILLE, OH

Drawn By
Checked By
Project Number

PHOTOMETRIC PLAN
DRAWING NO:

E0

MOUNTING
/POLE
HEIGHT

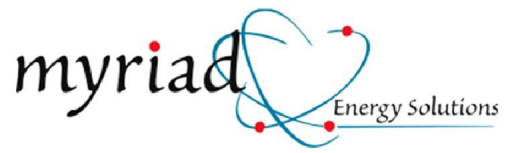
Label	MH
S1B	28.00
S1B	28.00
S1C	28.00
S1C-1	28.00
S1C-2	28.00
S1	28.00
S2	18.00
S2	18.00
S2	18.00
S3	18.00
S3	18.00
S3	18.00
S3	18.00
S3	18.00
S3	18.00
S4	1.50
S4	1.50
S4	1.50
S4	1.50
S4	1.50
S4	1.50
S5	7.00
S5	7.00
S5	7.00
S5	7.00
S5	7.00
S6	10.00
S1A	28.00

Note
AREA LIGHTS ARE 25' POLES ON 3FT BASES, TOTAL MOUNTING HEIGHT OF 28' AFG.

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
LOADING DOCK	✕	0.9 fc	2.3 fc	0.1 fc	23.0:1	9.0:1
PARKING	✕	0.7 fc	1.2 fc	0.3 fc	4.0:1	2.3:1
PARKING	✕	1.7 fc	2.9 fc	0.7 fc	4.1:1	2.4:1
PERIMETER	+	0.0 fc	0.0 fc	0.0 fc	N/A	N/A
PERIMETER N-W	+	0.4 fc	2.6 fc	0.0 fc	N/A	N/A
PROP LINE	+	0.0 fc	0.0 fc	0.0 fc	N/A	N/A
ROADWAY	✕	0.7 fc	2.7 fc	0.0 fc	N/A	N/A
SIDEWALK	+	1.3 fc	4.8 fc	0.0 fc	N/A	N/A
SITE	+	1.1 fc	3.1 fc	0.0 fc	N/A	N/A
ENTRY	+	3.2 fc	6.8 fc	0.0 fc	N/A	N/A

Schedule								
Symbol	Label	QTY	Manufacturer	Catalog	Description			
□	S1	1	LSI INDUSTRIES, INC.	MRM-LED-18L-SIL-FT-40-70CRI-IL	FULL CUTOFF AREA LIGHT WITH FORWARD THROWN OPTICS AND INTEGRAL LOUVER	1	12151	1 150
□	S1A	1	LSI INDUSTRIES, INC.	MRM-LED-12L-SIL-AM-40-70CRI-IL	FULL CUTOFF AREA LIGHT WITH FORWARD THROWN OPTICS AND INTEGRAL LOUVER	1	8847	0.92 94
□	S1B	2	LSI INDUSTRIES, INC.	MRM-LED-24L-SIL-FT-40-70CRI-IL	FULL CUTOFF AREA LIGHT WITH FORWARD THROWN OPTICS AND INTEGRAL LOUVER	1	15921	0.92 187
□	S1C	1	LSI INDUSTRIES, INC.	MRM-LED-12L-SIL-AM-40-70CRI-IL	FULL CUTOFF AREA LIGHT WITH FORWARD THROWN OPTICS AND INTEGRAL LOUVER	1	8847	0.92 188
□	S2	3	LSI INDUSTRIES, INC.	XWM-FT-LED-12L-40	FULL CUTOFF WALLPACK WITH FORWARD THROW OPTICS	1	12192	0.92 82
□	S3	5	LSI INDUSTRIES, INC.	XWS-LED-03L-FTW-40-80CRI	FULL CUTOFF WALLPACK WITH WIDE FORWARD THROW OPTICS	1	3759	0.92 26
□	S4	6	LSI INDUSTRIES, INC.	TSFL-LED-02L-40		1	1975	0.92 21.29
□	S5	6	RAB LIGHTING, INC.	ENTRA12	CAST FINNED WHITE PAINTED METAL HOUSING, FORMED WHITE PAINTED METAL REAR REFLECTOR, MOLDED PLASTIC UPPER REFLECTOR WITH SPECULAR FINISH, 1 WHITE CIRCUIT BOARD WITH ONE 3X3 LED ARRAY, MOLDED CLEAR PLASTIC FRONT COVER WITH HOLOGRAPHIC LENSED SECTION AND WHITE PAINTED INTERIOR TOP, SIDE, AND LOWER SECTIONS. SIDE AND UPPER FRONT EXTERIOR SECTIONS ARE TEXTURED.	9	143	0.92 14.4
○	S6	1	LSI INDUSTRIES, INC.	LAD4_LAD4R_LCD4-LED-14L-30-NF-TR4R-SF-HAZ	LCD4-LAD4-LAD4R	1	1142	0.92 13.9



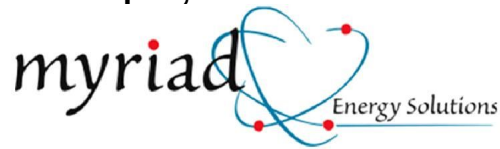
Date: Apr 5, 2024

Myriad Energy
9100 Valley View
Macedonia OH 44056
Phone: (330) 467-0675
Fax: (330) 467-0129

Job Name
RUF

Bid Date
Apr 5, 2024

Submittal Date
Apr 5, 2024



Transmittal

Myriad Energy
 9100 Valley View
 Macedonia OH 44056
 Phone: (330) 467-0675
From: Stacie Youger

Project RUF

Location

To Geis Construction
 10020 Aurora Rd
 Streetsboro OH 44241
 Contact: Jen Diasio

ATTACHED WE ARE SENDING YOU 1 COPY OF THE FOLLOWING ITEM:

- | | | |
|-----------------------------------|--|--------|
| ☐ Drawings | ☐ Specifications | Other: |
| ☐ Prints | ☐ Information | |
| ☐ Plans | ☒ Submittals | |

THESE ARE TRANSMITTED FOR:

- | | | |
|--|--|---------------------------------|
| ☐ Prior Approval | ☐ Resubmittal for Approval | ☐ Record |
| ☐ Approval | ☐ Corrections | Bids due on: |
| ☐ Approval as Submitted | ☐ Your Use | Other: |
| ☐ Approval as Noted | ☒ Review and Comment | |

Qty	Type	MFG	Part
0	S1	LSI INDUSTRIES	MRM LED 18L SIL FT 40 70CRI IL
0	S1A	LSI INDUSTRIES	MRM LED 12L SIL AM 40 70CRI IL
0	S1B	LSI INDUSTRIES	MRM LED 24L SIL FT 40 70CRI IL
0	S1C	LSI INDUSTRIES	MRM LED 12L SIL AM 40 70CRI IL
0	S2	LSI INDUSTRIES	XWM FT LED 12L 40
0	S3	LSI INDUSTRIES	XWS LED 03L FTW 40 70CRI
0	S6	LSI INDUSTRIES	LAD4 LED 14L 40 FL TR4RL SF HAZ

Mirada Medium (MRM)

Outdoor LED Area Light



OVERVIEW	
Lumen Package	7,000 - 55,000
Wattage Range	48 - 438
Efficacy Range (LPW)	115 - 162
Weight lbs(kg)	30 (13.6)
Control Options	IMSBT, ALB, ALS, 7-Pin, PCI

QUICK LINKS

[Ordering Guide](#)[Performance](#)[Photometrics](#)[Dimensions](#)

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Cast aluminum wiring access door located underneath.
- Designed to mount to square or round poles.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 37 lbs in carton.

Optical System

- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated sealed optical chamber in 1 component.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in IES Types 2, 3, 4, 5W, FT, FTA, AM, and LC/RC.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93-95%.
- Zero uplight.
- Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377. Also Available in Phosphor Converted Amber with Peak intensity at 610nm.
- Minimum CRI of 70.
- Integral louver (IL) and integral half louver (IH) options available for enhanced backlight control.

Electrical

- High-performance programmable driver features over-voltage, under-voltage, short-circuit and over temperature protection. Custom lumen and wattage packages available.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L80 Calculated Life: >100k Hours (See Lumen Maintenance chart)
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F). 42L and 48L lumen packages rated to +40°C. 55L lumen package rate to +35°C.
- Power factor: >.90
- Input power stays constant over life.
- Field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Components are fully encased in potting material for moisture resistance. Driver and key electronic components can easily be accessed.

Controls

- Optional integral passive infrared Bluetooth™ motion. Fixtures operate independently and can be commissioned via iOS or Android configuration app
- LSI's AirLink™ wireless control system options reduce energy and maintenance

costs while optimizing light quality 24/7. (see controls section for more details).

Installation

- Designed to mount to square or round poles.
- A single fastener secures the hinged door, underneath the housing and provides quick & easy access to the electrical compartment.
- Included terminal block accepts up to 12 ga. wire.
- Utilizes LSI's traditional 3" drill pattern B3 for easy fastening of LSI products.

Warranty

- LSI LED Fixtures carry a 5-year warranty.

Listings

- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet Locations.
- IP66 rated Luminaire per IEC 60598.
- 3G rated for ANSI C136.31 high vibration applications are qualified.
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.
- Patented Silicone Optics (US Patent NO. 10,816,165 B2)
- IK08 rated luminaire per IEC 66262 mechanical impact code

Submitted by Myriad Energy		Catalog Number: MRM LED 18L SIL FT 40 70CRI IL		Type: S1
		Job Name: RUF		
Notes:				

Mirada Medium Outdoor LED Area Light

Type : _____

 Have questions? Call us at (800) 436-7800

ORDERING GUIDE

[Back to Quick Links](#)

TYPICAL ORDER EXAMPLE: MRM LED 36L SIL FTA UNV DIM 50 70CRI ALSCS04 BRZ IL

Prefix	Light Source	Lumen Package	Lens	Distribution	Orientation ²	Voltage	Driver
MRM - Mirada Medium Area Light	LED	7L - 7,000 lms, 48W 9L - 9,000 lms, 62W 12L - 12,000 lms, 85W 18L - 18,000 lms, 135W 24L - 24,000 lms, 176W 30L - 30,000 lms, 232W 36L - 36,000 lms, 288W 42L - 42,000 lms, 314W 48L - 48,000 lms, 401W 55L - 55,000 lms, 438W Custom Lumen Packages ¹	SIL - Silicone	2 - Type 2 3 - Type 3 4 - Type 4 5W - Type 5 Wide FT - Forward Throw FTA - Forward Throw Automotive AM - Automotive Merchandise LC - Left Corner RC - Right Corner	(blank) - standard L - Optics rotated left 90° R - Optics rotated right 90°	UNV - Universal Voltage (120-277V) HV - High Voltage (347-480V)	DIM - 0-10V Dimming (0-10%)
Color Temp		Color Rendering	Finish		Options		
50 - 5,000 CCT 40 - 4,000 CCT 30 - 3,000 CCT AMB - Phosphor Converted Amber ¹²		70CRI - 70 CRI	BLK - Black BRZ - Dark Bronze GMG - Gun Metal Gray GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus SVG - Satin Verde Green WHT - White		(Blank) - None IH - Integral Half Louver (Moderate Spill Light Cutoff) ² IL - Integral Louver (Sharp Spill Light Cutoff) ²		

Controls (Choose One)

(Blank) - None

Wireless Controls System

ALSC - AirLink Synapse Control System¹³

ALSCS02 - AirLink Synapse Control System with 12-20' Motion Sensor¹³

ALSCS04 - AirLink Synapse Control System with 20-40' Motion Sensor¹³

ALBSC1 - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' mounting height)⁵

ALBSC2 - AirLink Blue Wireless Motion & Photo Sensor Controller (25-40' mounting height)⁵

Stand-Alone Controls

EXT - 0-10v Dimming leads extended to housing exterior

CR7P - 7 Pin Control Receptacle ANSI C136.41⁶

IMSBTL1 - Integral Bluetooth™ Motion and Photocell Sensor (8-24' MH)⁵

IMSBTL2 - Integral Bluetooth™ Motion and Photocell Sensor (25-40' MH)⁵

Button Type Photocells

PCI120 - 120V

PCI208-277 - 208 - 277V

PCI347 - 347V



Need more information?

Click here for our glossary

Have additional questions?

Call us at (800) 436-7800



ACCESSORY ORDERING INFORMATION⁷

CONTROLS ACCESSORIES	
Description	Order Number
PCI20 Photocell for use with CR7P option (120V) ⁹	122514
PC208-277 Photocell for use with CR7P option (208V, 240V, 277V) ⁹	122515
Twist Lock Photocell (347V) for use with CR7P ⁸	122516
Twist Lock Photocell (480V) for use with CR7P ⁸	1225180
AirLink 5 Pin Twist Lock Controller ⁸	661409
AirLink 7 Pin Twist Lock Controller ⁸	661410
Shorting Cap for use with CR7P	149328

FUSING OPTIONS ¹¹	
Single Fusing (120V)	See Fusing Accessory Guide
Single Fusing (277V)	
Double Fusing (208V, 240V)	
Double Fusing (480V)	
Double Fusing (347V)	

SHIELDING OPTIONS	
Mirada Small	See Shielding Guide
Mirada Medium	
Mirada Large	
Zone Medium	
Zone Large	
Slice Medium	

- Custom lumen and wattage packages available, consult factory. Values are within industry standard tolerances but not DLC listed.
- Not available with 5W distribution
- Consult Factory for availability.
- Not available in HV.
- Motion sensors are field configurable via an app that can be downloaded from your smartphone's native app store. See controls section for more details.
- Control device or shorting cap must be ordered separately. See Accessory Ordering Information.

- Accessories are shipped separately and field installed.
- Factory installed CR7P option required. See Options.
- "CLR" denotes finish. See Finish options.
- Only available with ALSC/ALSC control options.
- Fusing must be located in hand hole of pole. See [Fusing Accessory Guide](#) for compatibility.
- Only available in 9L, 12L, 18L and 24L Lumen Packages. Consult factory for lead time and availability.
- Not available with 55L Lumen Package.



LSI Industries Inc. 10000 Alliance Rd. Cincinnati, OH 45242 • (513) 372-3200 • www.lsicorp.com
©LSI Industries Inc. All Rights Reserved. Specifications and dimensions subject to industry standard tolerances. Specifications subject to change without notice.

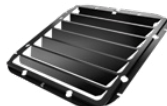
Page 2/11 Rev. 01/16/24
SPEC.1020.B.0422

Mirada Medium Outdoor LED Area Light

Type : _____

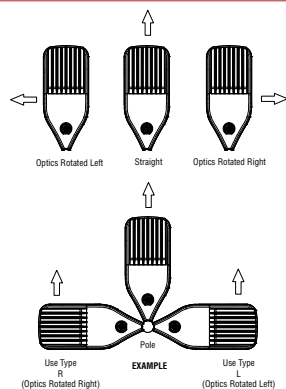
 Have questions? Call us at (800) 436-7800

ACCESSORIES

MOUNTING ACCESSORIES		SHIELDING, POLES & MISC. ACCESSORIES		
Side Arm	Universal Mounting Bracket Mounts to $\geq 3"$ square or round (tapered/straight) poles with (2) mounting hole spaces between 3.5" to 5" Part Number: BKA UMB CLR	Shielding	Integral Louver Field Install Integral Louver provides maximum backlight control by shielding each individual row of LEDs Part Number: 690981	
	Quick Mount Plate True one person installation to existing/new construction poles with hole spaces between 2.4 to 4.6" Part Number: BKS PQM B3B5 XX CLR		Integral Half Louver Field Install Integral Half Louver provides great backlight control without impacting front side distribution. Part Number: 743415	
	15° Tilt Quick Mount Plate True one person installation to existing/new construction poles with hole spaces between 2.4 to 4.6" Part Number: BKS PQ15 B3B5 XX CLR		External Shield External shield blocks view of light source from anyside of luminaire, additional shielding configurations available Part Number: 783607BLK (3") / 776538BLK (6")	
Tenon / Slipfitter	Adjustable Slipfitter Mounts onto a 2" (51mm) IP, 2.375" (60mm) O.D. tenon and provides 180° of tilt (max 45° above horizontal) Part Number: BKA ASF CLR	Poles	Square Poles 14 - 39" steel and aluminum poles in 4", 5" and 6" sizes for retrofit and new construction Part Number: 45Q/55Q/65Q	
	Square Tenon Top Mounts onto a 2" (51mm) IP, 2.375" (60mm) O.D. tenon and allows for mounting up to 4 luminaires Part Number: BKA XNM *		Round Poles 10 - 30" steel and aluminum poles in 4" and 5" sizes for retrofit and new construction Part Number: 4RP/SRP	
	Square Internal Slipfitter Mounts inside 4" or 5" square pole and allows for mounting up to 4 luminaires Part Number: BKA X_ISF * CLR		Tapered Poles 20' - 39" steel and aluminum poles for retrofit and new construction Part Number: RTP	
Wall Mount/ Wood Pole	Wall Mount Bracket Mounts onto vertical wall surface (hardware/anchors not included) Part Number: BKS XBO WM CLR	Misc.	Bird Spikes 10' Linear Bird Spike Kit, 4' recommended per luminaire, includes silicone adhesive and application tool Part Number: 736795	
	Wood Pole Bracket Mounts onto wooden poles (6" minimum OD, hardware/anchors not included) Part Number: BKS XBO WP CLR		Replace CLR with paint finish description Replace XX with SQ for square pole or RD for round pole ($\geq 3"$ OD) Replace * with S (Single), D180 (Double @180°), D90 (Double @90°), T90 (Triple), Q90 (Quad) Replace _ with 4 (4" square pole) or 5 (5" square pole)	

OPTICS ROTATION

Top View



ACCESSORIES/OPTIONS

Integral Louver (IL) and House-Side Shield (IH)

Integral louver (IL) and half louver (IH) accessory shields available for improved backlight control without sacrificing street side performance. LSI's Integral Louver (IL) and Integral House-Side Shield (IH) options deliver backlight control that significantly reduces spill light behind the poles for applications with pole locations close to adjacent properties. The design maximizes forward reflected light while reducing glare, maintaining the optical distribution selected, and most importantly eliminating light trespass. Both options rotate

Luminaire Shown with Integral Louver (IL)



Luminaire Shown with IMSBTL Option



7 Pin Photoelectric Control

7-pin ANSI C136.41-2013 control receptacle option available for twist lock photocontrols or wireless control modules. Control accessories sold separately. Dimming leads from the receptacle will be connected to the driver dimming leads (Consult factory for alternate wiring).

Luminaire Shown with CR7P



Mirada Medium Outdoor LED Area Light

Type : _____

 Have questions? Call us at (800) 436-7800

PERFORMANCE

[Back to Quick Links](#)

DELIVERED LUMENS*												
Lumen Package	Distribution	CRI	3000K CCT			4000K CCT			5000K CCT			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
9L	2	70	9853	159	B2-U0-G2	9853	159	B2-U0-G2	9853	159	B2-U0-G2	62
	3		9926	160	B2-U0-G2	9926	160	B2-U0-G2	9926	160	B2-U0-G2	
	4		9178	148	B2-U0-G3	9713	157	B2-U0-G3	9498	153	B2-U0-G3	
	5W		9504	153	B3-U0-G2	9504	153	B3-U0-G2	9504	153	B3-U0-G2	
	FT		9856	159	B2-U0-G3	9856	159	B2-U0-G3	9856	159	B2-U0-G3	
	FTA		9900	160	B2-U0-G2	9900	160	B2-U0-G2	9900	160	B2-U0-G2	
	AM		10019	162	B2-U0-G1	10019	162	B2-U0-G1	10019	162	B2-U0-G1	
	LC/RC		9008	145	B2-U0-G3	9533	154	B2-U0-G3	9321	150	B2-U0-G3	
12L	2	70	13135	155	B3-U0-G2	13135	155	B3-U0-G2	13135	155	B3-U0-G2	85
	3		13232	156	B2-U0-G2	13232	156	B2-U0-G2	13232	156	B2-U0-G2	
	4		12223	144	B2-U0-G3	12935	152	B2-U0-G4	12648	149	B2-U0-G4	
	5W		12669	149	B4-U0-G2	12669	149	B4-U0-G2	12669	149	B4-U0-G2	
	FT		13138	155	B2-U0-G3	13138	155	B2-U0-G3	13138	155	B2-U0-G3	
	FTA		13196	155	B2-U0-G2	13196	155	B2-U0-G2	13196	155	B2-U0-G2	
	AM		13355	157	B2-U0-G2	13355	157	B2-U0-G2	13355	157	B2-U0-G2	
	LC/RC		11996	141	B2-U0-G3	12695	149	B2-U0-G3	12414	146	B2-U0-G3	
18L	2	70	19318	143	B3-U0-G3	19318	143	B3-U0-G3	19318	143	B3-U0-G3	135
	3		19461	144	B3-U0-G3	19461	144	B3-U0-G3	19461	144	B3-U0-G3	
	4		18013	133	B2-U0-G4	19063	141	B3-U0-G5	18640	138	B3-U0-G5	
	5W		18633	138	B4-U0-G2	18633	138	B4-U0-G2	18633	138	B4-U0-G2	
	FT		19324	143	B3-U0-G3	19324	143	B3-U0-G3	19324	143	B3-U0-G3	
	FTA		19408	144	B3-U0-G3	19408	144	B3-U0-G3	19408	144	B3-U0-G3	
	AM		19641	145	B3-U0-G2	19641	145	B3-U0-G2	19641	145	B3-U0-G2	
	LC/RC		17679	131	B2-U0-G3	18710	139	B2-U0-G3	18295	136	B2-U0-G3	
24L	2	70	23361	145	B4-U0-G3	24506	152	B4-U0-G3	24414	152	B4-U0-G3	161
	3		23998	149	B3-U0-G3	25174	156	B3-U0-G3	25079	156	B3-U0-G3	
	4		24397	152	B3-U0-G5	25600	160	B3-U0-G5	25457	159	B3-U0-G5	
	5W		23788	148	B5-U0-G3	24953	155	B5-U0-G3	24859	154	B5-U0-G3	
	FT		24059	149	B3-U0-G3	25238	157	B3-U0-G3	25143	156	B3-U0-G3	
	FTA		23079	143	B3-U0-G3	24210	150	B4-U0-G3	24119	150	B4-U0-G3	
	AM		24051	149	B3-U0-G2	25229	157	B3-U0-G2	25134	156	B3-U0-G2	
	LC/RC		25884	162	B3-U0-G4	25884	162	B3-U0-G4	25310	158	B3-U0-G4	
30L	2	70	29464	138	B4-U0-G3	30908	145	B4-U0-G3	30791	145	B4-U0-G3	213
	3		30268	142	B3-U0-G4	31751	149	B3-U0-G4	31631	149	B3-U0-G4	
	4		30631	144	B3-U0-G5	32141	151	B3-U0-G5	31961	150	B3-U0-G5	
	5W		30002	141	B5-U0-G3	31472	148	B5-U0-G3	31353	147	B5-U0-G3	
	FT		30345	142	B4-U0-G4	31832	149	B4-U0-G4	31712	149	B4-U0-G4	
	FTA		29109	137	B4-U0-G4	30535	143	B4-U0-G4	30420	143	B4-U0-G4	
	AM		30334	142	B4-U0-G3	31820	149	B4-U0-G3	31700	149	B4-U0-G3	
	LC/RC		32498	153	B3-U0-G5	32498	153	B3-U0-G5	31777	149	B3-U0-G5	

*LEDs are frequently updated therefore values are nominal.

Submitted by Myriad Energy 	Job Name: RUF	Catalog Number: MRM LED 18L SIL FT 40 70CRI IL Notes:	Type: S1
--	-------------------------	---	---------------------------

Mirada Medium Outdoor LED Area Light

Type : _____

 **Have questions?** Call us at (800) 436-7800

PERFORMANCE (CONT.)

DELIVERED LUMENS*												
Lumen Package	Distribution	CRI	3000K CCT			4000K CCT			5000K CCT			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
36L	2	70	34123	134	B4-U0-G3	35795	140	B4-U0-G3	35660	140	B4-U0-G3	255
	3		35053	137	B4-U0-G4	36771	144	B4-U0-G4	36632	144	B4-U0-G4	
	4		35402	139	B3-U0-G5	37148	146	B4-U0-G5	36940	145	B4-U0-G5	
	5W		34745	136	B5-U0-G4	36448	143	B5-U0-G4	36311	142	B5-U0-G4	
	FT		35142	138	B4-U0-G4	36864	145	B4-U0-G4	36725	144	B4-U0-G4	
	FTA		33711	132	B4-U0-G4	35363	139	B4-U0-G4	35230	138	B4-U0-G4	
	AM		35130	138	B4-U0-G3	36851	145	B4-U0-G3	36712	144	B4-U0-G3	
	LC/RC		37561	147	B3-U0-G5	37561	147	B3-U0-G5	36727	144	B3-U0-G5	
42L	2	70	39966	127	B5-U0-G4	41925	134	B5-U0-G4	41767	133	B5-U0-G4	314
	3		41056	131	B4-U0-G5	43068	137	B4-U0-G5	42905	137	B4-U0-G5	
	4		41453	132	B4-U0-G5	43497	138	B4-U0-G5	43254	138	B4-U0-G5	
	5W		40696	130	B5-U0-G4	42690	136	B5-U0-G4	42529	135	B5-U0-G4	
	FT		41161	131	B4-U0-G4	43178	138	B4-U0-G4	43015	137	B4-U0-G4	
	FTA		39484	126	B4-U0-G4	41419	132	B5-U0-G4	41263	131	B5-U0-G4	
	AM		41146	131	B4-U0-G3	43162	137	B4-U0-G3	43000	137	B4-U0-G3	
	LC/RC		43980	140	B3-U0-G5	43980	140	B3-U0-G5	43004	137	B3-U0-G5	
48L	2	70	44390	121	B5-U0-G4	46565	127	B5-U0-G4	46389	126	B5-U0-G4	367
	3		45325	124	B4-U0-G5	47547	130	B4-U0-G5	47367	129	B4-U0-G5	
	4		46006	126	B4-U0-G5	48275	132	B4-U0-G5	48005	131	B4-U0-G5	
	5W		45002	123	B5-U0-G4	47435	129	B5-U0-G4	47302	129	B5-U0-G4	
	FT		44799	122	B4-U0-G5	46994	128	B4-U0-G5	46817	128	B4-U0-G5	
	FTA		44590	121	B5-U0-G4	46775	127	B5-U0-G4	46599	128	B5-U0-G4	
	AM		46310	126	B4-U0-G3	48579	132	B4-U0-G3	48396	132	B4-U0-G3	
	LC/RC		48811	133	B4-U0-G5	48811	133	B4-U0-G5	47728	130	B4-U0-G5	
55L	2	70	49583	114	B5-U0-G4	52012	119	B5-U0-G4	51816	119	B5-U0-G4	436
	3		50934	117	B4-U0-G5	53430	123	B4-U0-G5	53229	122	B4-U0-G5	
	4		51635	119	B4-U0-G5	54181	125	B4-U0-G5	53878	124	B4-U0-G5	
	5W		50487	116	B5-U0-G4	52961	121	B5-U0-G4	52761	121	B5-U0-G4	
	FT		51064	117	B4-U0-G5	53566	123	B4-U0-G5	53364	122	B4-U0-G5	
	FTA		48984	112	B5-U0-G4	51384	118	B5-U0-G4	51191	117	B5-U0-G4	
	AM		51045	117	B4-U0-G3	53546	123	B4-U0-G3	53344	122	B4-U0-G3	
	LC/RC		54113	124	B4-U0-G5	54113	124	B4-U0-G5	52912	121	B4-U0-G5	

*LEDs are frequently updated therefore values are nominal.



Submitted by Myriad Energy 	Job Name: RUF	Catalog Number: MRM LED 18L SIL FT 40 70CRI IL Notes:	Type: S1
--	-------------------------	--	-----------------------------------

Mirada Medium Outdoor LED Area Light

Type : _____

 **Have questions?** Call us at (800) 436-7800

PERFORMANCE (CONT.)

ELECTRICAL DATA (AMPS)*						
Lumens	120V	208V	240V	277V	347V	480V
9L	0.52	0.30	0.26	0.22	0.18	0.13
12L	0.71	0.41	0.35	0.31	0.24	0.18
18L	1.13	0.65	0.56	0.49	0.39	0.28
24L	1.33	0.77	0.67	0.58	0.46	0.33
30L	1.78	1.02	0.89	0.77	0.61	0.44
36L	2.12	1.22	1.06	0.92	0.73	0.53
42L	2.62	1.51	1.31	1.13	0.90	0.65
48L	3.05	1.76	1.53	1.32	1.05	0.76
55L	3.65	2.11	1.83	1.58	1.26	0.91

RECOMMENDED LUMEN MAINTENANCE ¹ (0-25°C)					
Ambient	Initial ²	25h ²	50hr ²	75hr ²	100hr ²
9L - 18L	100%	97%	93%	90%	86%
24L - 48L	100%	95%	89%	84%	79%
55L	100%	91%	82%	74%	67%

RECOMMENDED LUMEN MAINTENANCE ¹ (40°C)					
Ambient	Initial ²	25h ²	50hr ²	75hr ²	100hr ²
9L - 18L	100%	97%	92%	88%	84%
24L - 48L	100%	94%	87%	80%	74%

RECOMMENDED LUMEN MAINTENANCE ¹ (50°C)					
Ambient	Initial ²	25h ²	50hr ²	75hr ²	100hr ²
9L - 18L C	100%	96%	91%	87%	83%

*Electrical data at 25°C (77°F). Actual wattage may differ by +/-10%

- Lumen maintenance values at 25C are calculated per TM-21 based on LM-80 data and in-situ testing.
- In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times the IESNA LM-80-08 total test duration for the device under testing.
- In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times the IESNA LM-80-08 total test duration for the device under testing.

DELIVERED LUMENS*					
Lumen Package	Distribution	Phosphor Converted Amber (Peak 610nm)			Wattage
		Delivered Lumens	Efficacy	BUG Rating	
9L	2	5848	80	B2-U0-G2	74
	3	6018	82	B1-U0-G2	
	5W	5471	74	B3-U0-G1	
	FT	5801	79	B1-U0-G2	
	FTA	5924	81	B1-U0-G1	
	AM	5995	81	B1-U0-G1	
12L	2	7530	74	B2-U0-G2	102
	3	7749	76	B1-U0-G2	
	5W	7045	69	B3-U0-G2	
	FT	7470	73	B2-U0-G2	
	FTA	7628	75	B2-U0-G2	
	AM	7720	76	B1-U0-G1	
18L	2	9311	69	B2-U0-G2	135
	3	9582	71	B2-U0-G2	
	5W	8712	65	B3-U0-G2	
	FT	9237	68	B2-U0-G2	
	FTA	9433	70	B2-U0-G2	
	AM	9546	71	B2-U0-G1	
24L	2	10955	63	B2-U0-G2	175
	3	11273	64	B2-U0-G2	
	5W	10249	59	B3-U0-G2	
	FT	10867	62	B2-U0-G2	
	FTA	11097	63	B2-U0-G2	
	AM	11230	64	B2-U0-G1	

ELECTRICAL DATA - PHOSPHOR CONVERTED AMBER (AMPS)*						
Lumens	120V	208V	240V	277V	347V	480V
9L	0.62	0.36	0.31	0.27	0.21	0.15
12L	0.85	0.50	0.43	0.38	0.30	0.22
18L	1.13	0.65	0.56	0.49	0.39	0.28
24L	1.47	0.85	0.73	0.64	0.51	0.37

*LEDs are frequently updated therefore values are nominal.



Mirada Medium Outdoor LED Area Light

Type : _____

Have questions? Call us at (800) 436-7800

PHOTOMETRICS

[Back to Quick Links](#)

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. As specified by IESNA LM-79-08 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

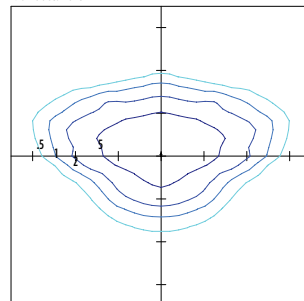
See the individual product page on <https://www.lsicorp.com/> for detailed photometric data.

MRM-LED-30L-SIL-2-40-70CRI

Luminaire Data	
Type 2 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	32,416
Watts	232
Efficacy	140
IES Type	Type II - Short
BUG Rating	B4-U0-G3

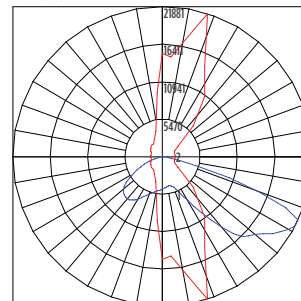
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	4796	15%
Medium (30-60°)	19811	61%
High (60-80°)	7474	23%
Very High (80-90°)	335	1%
Uplight (90-180°)	0	0%
Total Flux	32,416	100%

ISO Footcandle



25' Mounting Height / 25' Grid Spacing
 5 FC 2 FC 1 FC 0.5 FC

Polar Curve



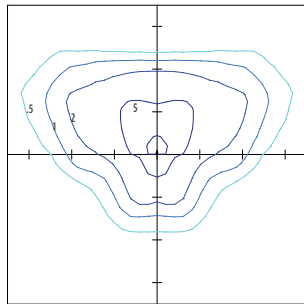
Vertical Plane Horizontal Cone

MRM-LED-30L-SIL-3-40-70CRI

Luminaire Data	
Type 3 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	32,656
Watts	232
Efficacy	141
IES Type	Type III - Short
BUG Rating	B3-U0-G4

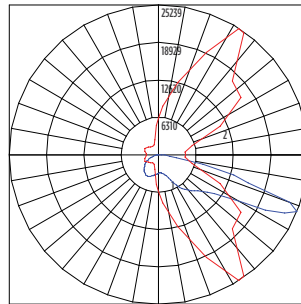
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	3385	10%
Medium (30-60°)	16250	50%
High (60-80°)	12430	38%
Very High (80-90°)	591	2%
Uplight (90-180°)	0	0%
Total Flux	32,656	100%

ISO Footcandle



25' Mounting Height / 25' Grid Spacing
 5 FC 2 FC 1 FC 0.5 FC

Polar Curve



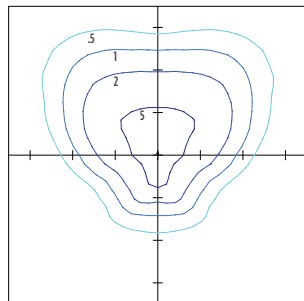
Vertical Plane Horizontal Cone

MRM-LED-30L-SIL-FT-40-70CRI

Luminaire Data	
Type FT Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	32,424
Watts	232
Efficacy	140
IES Type	Type IV - Short
BUG Rating	B3-U0-G4

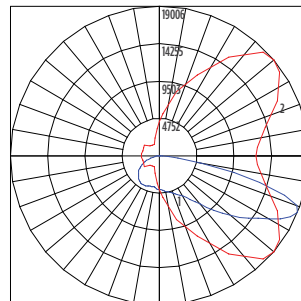
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	3952	12%
Medium (30-60°)	15505	48%
High (60-80°)	12279	38%
Very High (80-90°)	688	2%
Uplight (90-180°)	0	0%
Total Flux	32,424	100%

ISO Footcandle



25' Mounting Height / 25' Grid Spacing
 5 FC 2 FC 1 FC 0.5 FC

Polar Curve



Vertical Plane Horizontal Cone





Mirada Medium Outdoor LED Area Light

Type : _____

Have questions? Call us at (800) 436-7800

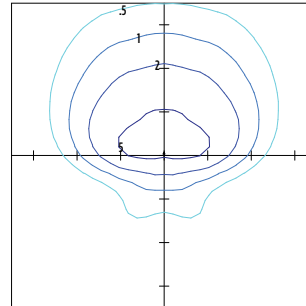
PHOTOMETRICS (CONT)

MRM-LED-30L-SIL-4-40-70CRI

Luminaire Data	
Type 4 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	32,141
Watts	213
Efficacy	151
IES Type	Type IV - Very Short
BUG Rating	B3-U0-G5

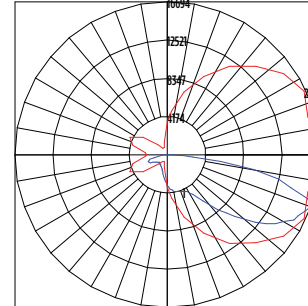
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	3119	10%
Medium (30-60°)	13569	42%
High (60-80°)	13649	42%
Very High (80-90°)	1804	6%
Uplight (90-180°)	0	0%
Total Flux	32141	100%

ISO Footcandle



25' Mounting Height / 25' Grid Spacing
 5 FC 2 FC 1 FC 0.5 FC

Polar Curve



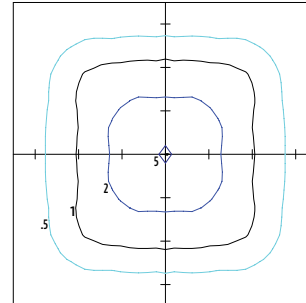
Vertical Plane Horizontal Cone

MRM-LED-30L-SIL-5W-40-70CRI

Luminaire Data	
Type 5W Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	31,267
Watts	232
Efficacy	135
IES Type	Type VS - Short
BUG Rating	B5-U0-G3

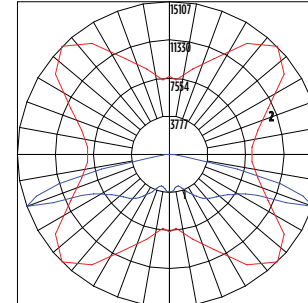
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	3138	10%
Medium (30-60°)	13193	42%
High (60-80°)	14641	47%
Very High (80-90°)	296	1%
Uplight (90-180°)	0	0%
Total Flux	31267	100%

ISO Footcandle



25' Mounting Height / 25' Grid Spacing
 5 FC 2 FC 1 FC 0.5 FC

Polar Curve



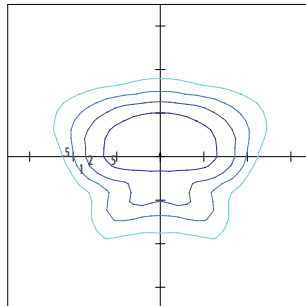
Vertical Plane Horizontal Cone

MRM-LED-30L-SIL-FTA-40-70CRI

Luminaire Data	
Type FTA Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	32,566
Watts	232
Efficacy	140
IES Type	Type VS - Short
BUG Rating	B4-U0-G3

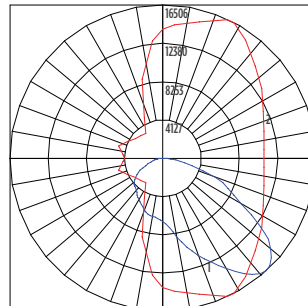
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	6986	21%
Medium (30-60°)	19172	59%
High (60-80°)	5875	18%
Very High (80-90°)	534	2%
Uplight (90-180°)	0	0%
Total Flux	32566	100%

ISO Footcandle



25' Mounting Height / 25' Grid Spacing
 5 FC 2 FC 1 FC 0.5 FC

Polar Curve



Vertical Plane Horizontal Cone





Mirada Medium Outdoor LED Area Light

Type : _____

Have questions? Call us at (800) 436-7800

PHOTOMETRICS (CONT)

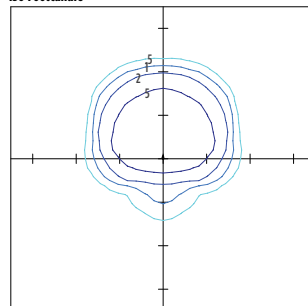
[Back to Quick Links](#)

MRM-LED-30L-SIL-AM-40-70CRI

Luminaire Data	
Type AM Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	32,960
Watts	232
Efficacy	142
IES Type	Type III - Very Short
BUG Rating	B3-U0-G3

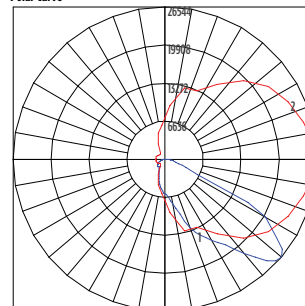
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	6363	19%
Medium (30-60°)	22026	67%
High (60-80°)	4192	13%
Very High (80-90°)	379	1%
Uplight (90-180°)	0	0%
Total Flux	32960	100%

ISO Footcandle



25' Mounting Height / 25' Grid Spacing
 5 FC 2 FC 1 FC 0.5 FC

Polar Curve



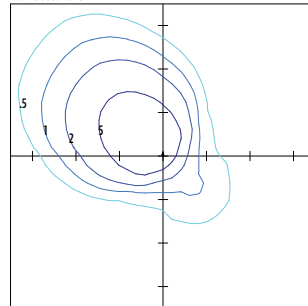
Vertical Plane Horizontal Cone

MRM-LED-30L-SIL-LC-40-70CRI

Luminaire Data	
Left Corner Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	32,498
Watts	213
Efficacy	153
IES Type	N/A
BUG Rating	B3-U0-G5

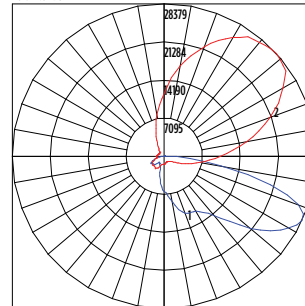
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	5083	16%
Medium (30-60°)	14808	46%
High (60-80°)	11603	36%
Very High (80-90°)	1005	3%
Uplight (90-180°)	0	0%
Total Flux	32498	100%

ISO Footcandle



25' Mounting Height / 25' Grid Spacing
 5 FC 2 FC 1 FC 0.5 FC

Polar Curve



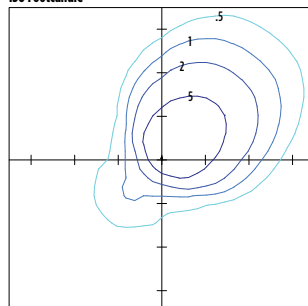
Vertical Plane Horizontal Cone

MRM-LED-30L-SIL-RC-40-70CRI

Luminaire Data	
Right Corner Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	32,498
Watts	213
Efficacy	153
IES Type	N/A
BUG Rating	B3-U0-G5

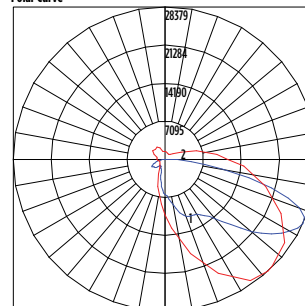
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	5083	16%
Medium (30-60°)	14808	46%
High (60-80°)	11603	36%
Very High (80-90°)	1005	3%
Uplight (90-180°)	0	0%
Total Flux	32498	100%

ISO Footcandle



25' Mounting Height / 25' Grid Spacing
 5 FC 2 FC 1 FC 0.5 FC

Polar Curve



Vertical Plane Horizontal Cone

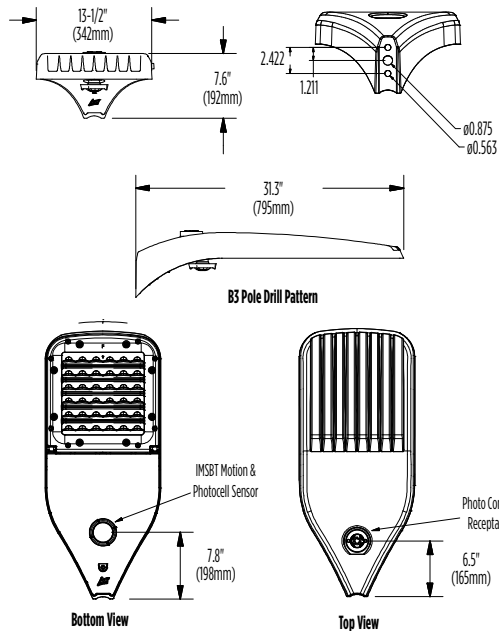


Mirada Medium Outdoor LED Area Light

Type : _____

 **Have questions?** Call us at (800) 436-7800

PRODUCT DIMENSIONS



Luminaire EPA Chart					
Tilt Degree		0°	15°	30°	45°
	Single	0.5	1.0	1.5	1.9
	D180°	1.0	1.5	1.5	1.9
	D90°	0.8	1.8	1.9	2.3
	T90°	1.0	4.0	2.5	2.8
	TN120°	1.0	2.9	3.3	3.9
	Q90°	1.0	4.0	2.5	2.8



Submitted by Myriad Energy 	Job Name: RUF	Catalog Number: MRM LED 18L SIL FT 40 70CRI IL Notes:	Type: S1
--	-------------------------	---	-------------------------------

Mirada Medium Outdoor LED Area Light

Type: _____

 **Have questions?** Call us at (800) 436-7800

CONTROLS

Integral Bluetooth™ Motion and Photocell Sensor (IMSBTxL)

Slim low profile sensor provides multi-level control based on motion and/or daylight. Sensor controls 0-10 VDC LED drivers and is IP66 rated for cold and wet locations (-40°F to 167°F). Two unique PIR lenses are available and used based on fixture mounting height. All control parameters are adjustable via an iOS or Android App capable of storing and transmitting sensor profiles.

[Click here to learn more details about IMSBT](#)



LEVITON App



Apple



Android

AirLink Blue (ALBCSx)

Wireless Bluetooth Mesh Outdoor Lighting Control System that provides energy savings, code compliance and enhanced safety/security for parking lots and parking garages. Three key components; Bluetooth wireless radio/sensor controller, Time Keeper and an iOS App. Capable of grouping multiple fixtures and sensors as well as scheduling time-based events by zone. Radio/Sensor Controller is factory integrated into Area/Site, Wall Mounted, Parking Garage and Canopy luminaires.

[Click here to learn more details about AirLink Blue](#)



AirLink Blue App



Apple

Sensor Sequence of Operations

Standard Programming	On Event	Off Event	On Light Level	Dim Light Level	Daylight Harvesting	Delay To Off	Sensitivity
OMSBTxL/IMSBTxL	Motion	No Motion	100%	N/A	On; Auto Calibration	20 minutes	High
OMS	Motion	No Motion	N/A	N/A	N/A	30 seconds	Auto

Operation	Description
On Event	Trigger that activates lights to turn on; either automatic via motion detected or manually activated via push of button.
Off Event	Trigger that activates lights to turn off; either automatic via no motion detected or manually activated via push of button.
On Light Level	The light level that the fixtures will turn on to when ON EVENT occurs.
Dim Light Level	The light level that the fixtures will dim down to when no motion is detected.
Delay to Dim	The amount of time after which no motion is detected that the fixtures will be triggered to dim down. This sequence is optional, and sensor can be programmed to only trigger the fixture to turn off by entering 100% in this field.
Delay to Off	The amount of time after which no motion is detected that the fixtures will be triggered to turn off. If delay to dim is part of the programmed functionality, this is the amount of time after which no motion is detected after the fixture have already dimmed down.
Sensitivity	The sensitivity can be set to high, medium, low, or auto where applicable. High will detect smaller, simple motions. Low will only detect larger more complex motions. Auto temperature calibration adjusts the PIR sensitivity as ambient temperature rises to increase detection of heat movement through the field of view.

Submitted by Myriad Energy		Catalog Number: MRM LED 12L SIL AM 40 70CRI IL	Type: S1A
	Job Name: RUF	Notes:	

Mirada Medium Outdoor LED Area Light

Type : _____

 **Have questions?** Call us at (800) 436-7800

ORDERING GUIDE

[Back to Quick Links](#)

TYPICAL ORDER EXAMPLE: MRM LED 36L SIL FTA UNV DIM 50 70CRI ALSCS04 BRZ IL

Prefix	Light Source	Lumen Package	Lens	Distribution	Orientation ²	Voltage	Driver
MRM - Mirada Medium Area Light	LED	7L - 7,000 lms, 48W 9L - 9,000 lms, 62W 12L - 12,000 lms, 85W 18L - 18,000 lms, 135W 24L - 24,000 lms, 176W 30L - 30,000 lms, 232W 36L - 36,000 lms, 288W 42L - 42,000 lms, 314W 48L - 48,000 lms, 401W 55L - 55,000 lms, 438W Custom Lumen Packages ¹	SIL - Silicone	2 - Type 2 3 - Type 3 4 - Type 4 5W - Type 5 Wide FT - Forward Throw FTA - Forward Throw Automotive AM - Automotive Merchandise LC - Left Corner RC - Right Corner	(blank) - standard L - Optics rotated left 90° R - Optics rotated right 90°	UNV - Universal Voltage (120-277V) HV - High Voltage (347-480V)	DIM - 0-10V Dimming (0-10%)
Color Temp		Color Rendering	Finish		Options		
50 - 5,000 CCT 40 - 4,000 CCT 30 - 3,000 CCT AMB - Phosphor Converted Amber ¹²		70CRI - 70 CRI	BLK - Black BRZ - Dark Bronze GMG - Gun Metal Gray GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus SVG - Satin Verde Green WHT - White		(Blank) - None IH - Integral Half Louver (Moderate Spill Light Cutoff) ² IL - Integral Louver (Sharp Spill Light Cutoff) ²		

Controls (Choose One)

(Blank) - None

Wireless Controls System

ALSC - AirLink Synapse Control System¹³

ALSCS02 - AirLink Synapse Control System with 12-20' Motion Sensor¹³

ALSCS04 - AirLink Synapse Control System with 20-40' Motion Sensor¹³

ALBCS1 - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' mounting height)⁵

ALBCS2 - AirLink Blue Wireless Motion & Photo Sensor Controller (25-40' mounting height)⁵

Stand-Alone Controls

EXT - 0-10v Dimming leads extended to housing exterior

CR7P - 7 Pin Control Receptacle ANSI C136.41⁶

IMSBTL1 - Integral Bluetooth™ Motion and Photocell Sensor (8-24' MH)⁵

IMSBTL2 - Integral Bluetooth™ Motion and Photocell Sensor (25-40' MH)⁵

Button Type Photocells

PCI120 - 120V

PCI208-277 - 208 - 277V

PCI347 - 347V



Need more information?

Click here for our glossary

Have additional questions?

Call us at (800) 436-7800



ACCESSORY ORDERING INFORMATION⁷

CONTROLS ACCESSORIES		FUSING OPTIONS ¹¹		SHIELDING OPTIONS	
Description	Order Number	Single Fusing (120V)	See Fusing Accessory Guide	Mirada Small	See Shielding Guide
PCI20 Photocell for use with CR7P option (120V) ⁹	122514	Single Fusing (277V)		Mirada Medium	
PC208-277 Photocell for use with CR7P option (208V, 240V, 277V) ⁹	122515	Double Fusing (208V, 240V)		Mirada Large	
Twist Lock Photocell (347V) for use with CR7P ⁸	122516	Double Fusing (480V)		Zone Medium	
Twist Lock Photocell (480V) for use with CR7P ⁸	1225180	Double Fusing (347V)		Zone Large	
AirLink 5 Pin Twist Lock Controller ⁸	661409			Slice Medium	
AirLink 7 Pin Twist Lock Controller ⁸	661410				
Shorting Cap for use with CR7P	149328				

1. Custom lumen and wattage packages available, consult factory. Values are within industry standard tolerances but not DLC listed.

2. Not available with 5W distribution

3. Consult Factory for availability.

4. Not available in HV.

5. Motion sensors are field configurable via an app that can be downloaded from your smartphone's native app store. See controls section for more details.

6. Control device or shorting cap must be ordered separately. See Accessory Ordering Information.

7. Accessories are shipped separately and field installed.

8. Factory installed CR7P option required. See Options.

9. "CLR" denotes finish. See Finish options.

10. Only available with ALSC/ALSC control options.

11. Fusing must be located in hand hole of pole. See Fusing Accessory Guide for compatibility.

12. Only available in 9L, 12L, 18L and 24L Lumen Packages. Consult factory for lead time and availability.

13. Not available with 55L Lumen Package.



LSI Industries Inc. 10000 Alliance Rd. Cincinnati, OH 45242 • (513) 372-3200 • www.lsicorp.com

©LSI Industries Inc. All Rights Reserved. Specifications and dimensions subject to industry standard tolerances. Specifications subject to change without notice.

Page 2/11 Rev. 01/16/24

SPEC.1020.B.0422

Submitted by Myriad Energy		Catalog Number: MRM LED 24L SIL FT 40 70CRI IL		Type: S1B
		Job Name: RUF		
Notes:				

Mirada Medium Outdoor LED Area Light

Type : _____

 **Have questions?** Call us at (800) 436-7800

ORDERING GUIDE

[Back to Quick Links](#)

TYPICAL ORDER EXAMPLE: MRM LED 36L SIL FTA UNV DIM 50 70CRI ALSCS04 BRZ IL

Prefix	Light Source	Lumen Package	Lens	Distribution	Orientation ²	Voltage	Driver
MRM - Mirada Medium Area Light	LED	7L - 7,000 lms, 48W 9L - 9,000 lms, 62W 12L - 12,000 lms, 85W 18L - 18,000 lms, 135W 24L - 24,000 lms, 176W 30L - 30,000 lms, 232W 36L - 36,000 lms, 288W 42L - 42,000 lms, 314W 48L - 48,000 lms, 401W 55L - 55,000 lms, 438W Custom Lumen Packages ¹	SIL - Silicone	2 - Type 2 3 - Type 3 4 - Type 4 5W - Type 5 Wide FT - Forward Throw FTA - Forward Throw Automotive AM - Automotive Merchandise LC - Left Corner RC - Right Corner	(blank) - standard L - Optics rotated left 90° R - Optics rotated right 90°	UNV - Universal Voltage (120-277V) HV - High Voltage (347-480V)	DIM - 0-10V Dimming (0-10%)
Color Temp		Color Rendering	Finish		Options		
50 - 5,000 CCT 40 - 4,000 CCT 30 - 3,000 CCT AMB - Phosphor Converted Amber ¹²		70CRI - 70 CRI	BLK - Black BRZ - Dark Bronze GMG - Gun Metal Gray GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus SVG - Satin Verde Green WHT - White		(Blank) - None IH - Integral Half Louver (Moderate Spill Light Cutoff) ² IL - Integral Louver (Sharp Spill Light Cutoff) ²		

Controls (Choose One)

(Blank) - None

Wireless Controls System

ALSC - AirLink Synapse Control System¹³

ALSCS02 - AirLink Synapse Control System with 12-20' Motion Sensor¹³

ALSCS04 - AirLink Synapse Control System with 20-40' Motion Sensor¹³

ALBSC1 - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' mounting height)⁵

ALBSC2 - AirLink Blue Wireless Motion & Photo Sensor Controller (25-40' mounting height)⁵

Stand-Alone Controls

EXT - 0-10v Dimming leads extended to housing exterior

CR7P - 7 Pin Control Receptacle ANSI C136.41⁶

IMSBTL1 - Integral Bluetooth™ Motion and Photocell Sensor (8-24' MH)⁵

IMSBTL2 - Integral Bluetooth™ Motion and Photocell Sensor (25-40' MH)⁵

Button Type Photocells

PCI120 - 120V

PCI208-277 - 208 - 277V

PCI347 - 347V



Need more information?

Click here for our glossary

Have additional questions?

Call us at (800) 436-7800



ACCESSORY ORDERING INFORMATION⁷

CONTROLS ACCESSORIES	
Description	Order Number
PCI20 Photocell for use with CR7P option (120V) ⁹	122514
PC208-277 Photocell for use with CR7P option (208V, 240V, 277V) ⁹	122515
Twist Lock Photocell (347V) for use with CR7P ⁸	122516
Twist Lock Photocell (480V) for use with CR7P ⁸	1225180
AirLink 5 Pin Twist Lock Controller ⁸	661409
AirLink 7 Pin Twist Lock Controller ⁸	661410
Shorting Cap for use with CR7P	149328

FUSING OPTIONS ¹¹	
Single Fusing (120V)	See Fusing Accessory Guide
Single Fusing (277V)	
Double Fusing (208V, 240V)	
Double Fusing (480V)	
Double Fusing (347V)	

SHIELDING OPTIONS	
Mirada Small	See Shielding Guide
Mirada Medium	
Mirada Large	
Zone Medium	
Zone Large	
Slice Medium	

1. Custom lumen and wattage packages available, consult factory. Values are within industry standard tolerances but not DLC listed.

2. Not available with 5W distribution

3. Consult Factory for availability.

4. Not available in HV.

5. Motion sensors are field configurable via an app that can be downloaded from your smartphone's native app store. See controls section for more details.

6. Control device or shorting cap must be ordered separately. See Accessory Ordering Information.

7. Accessories are shipped separately and field installed.

8. Factory installed CR7P option required. See Options.

9. "CLR" denotes finish. See Finish options.

10. Only available with ALSC/ALSC control options.

11. Fusing must be located in hand hole of pole. See [Fusing Accessory Guide](#) for compatibility.

12. Only available in 9L, 12L, 18L and 24L Lumen Packages. Consult factory for lead time and availability.

13. Not available with 55L Lumen Package.



Submitted by Myriad Energy		Catalog Number: MRM LED 12L SIL AM 40 70CRI IL		Type: S1C
		Job Name: RUF		
Notes:				

Mirada Medium Outdoor LED Area Light

Type : _____

 Have questions? Call us at (800) 436-7800

ORDERING GUIDE

[Back to Quick Links](#)

TYPICAL ORDER EXAMPLE: MRM LED 36L SIL FTA UNV DIM 50 70CRI ALSCS04 BRZ IL

Prefix	Light Source	Lumen Package	Lens	Distribution	Orientation ²	Voltage	Driver
MRM - Mirada Medium Area Light	LED	7L - 7,000 lms, 48W 9L - 9,000 lms, 62W 12L - 12,000 lms, 85W 18L - 18,000 lms, 135W 24L - 24,000 lms, 176W 30L - 30,000 lms, 232W 36L - 36,000 lms, 288W 42L - 42,000 lms, 314W 48L - 48,000 lms, 401W 55L - 55,000 lms, 438W Custom Lumen Packages ¹	SIL - Silicone	2 - Type 2 3 - Type 3 4 - Type 4 5W - Type 5 Wide FT - Forward Throw FTA - Forward Throw Automotive AM - Automotive Merchandise LC - Left Corner RC - Right Corner	(blank) - standard L - Optics rotated left 90° R - Optics rotated right 90°	UNV - Universal Voltage (120-277V) HV - High Voltage (347-480V)	DIM - 0-10V Dimming (0-10%)
Color Temp		Color Rendering	Finish		Options		
50 - 5,000 CCT 40 - 4,000 CCT 30 - 3,000 CCT AMB - Phosphor Converted Amber ¹²		70CRI - 70 CRI	BLK - Black BRZ - Dark Bronze GMG - Gun Metal Gray GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus SVG - Satin Verde Green WHT - White		(Blank) - None IH - Integral Half Louver (Moderate Spill Light Cutoff) ² IL - Integral Louver (Sharp Spill Light Cutoff) ²		

Controls (Choose One)

(Blank) - None

Wireless Controls System

ALSC - AirLink Synapse Control System¹³

ALSCS02 - AirLink Synapse Control System with 12-20' Motion Sensor¹³

ALSCS04 - AirLink Synapse Control System with 20-40' Motion Sensor¹³

ALBCS1 - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' mounting height)⁵

ALBCS2 - AirLink Blue Wireless Motion & Photo Sensor Controller (25-40' mounting height)⁵

Stand-Alone Controls

EXT - 0-10v Dimming leads extended to housing exterior

CR7P - 7 Pin Control Receptacle ANSI C136.41⁶

IMSBTL1 - Integral Bluetooth™ Motion and Photocell Sensor (8-24' MH)⁵

IMSBTL2 - Integral Bluetooth™ Motion and Photocell Sensor (25-40' MH)⁵

Button Type Photocells

PCI120 - 120V

PCI208-277 - 208 - 277V

PCI347 - 347V



Need more information?

Click here for our glossary

Have additional questions?

Call us at (800) 436-7800



ACCESSORY ORDERING INFORMATION⁷

CONTROLS ACCESSORIES		FUSING OPTIONS ¹¹		SHIELDING OPTIONS	
Description	Order Number	See Fusing Accessory Guide		See Shielding Guide	
PCI20 Photocell for use with CR7P option (120V) ⁹	122514				
PC208-277 Photocell for use with CR7P option (208V, 240V, 277V) ⁹	122515				
Twist Lock Photocell (347V) for use with CR7P ⁸	122516				
Twist Lock Photocell (480V) for use with CR7P ⁸	1225180				
AirLink 5 Pin Twist Lock Controller ⁸	661409	Double Fusing (120V)		Mirada Small	
AirLink 7 Pin Twist Lock Controller ⁸	661410				
Shorting Cap for use with CR7P	149328				
		Double Fusing (277V)		Mirada Medium	
		Double Fusing (208V, 240V)		Mirada Large	
		Double Fusing (480V)		Zone Medium	
		Double Fusing (347V)		Zone Large	
				Slice Medium	

1. Custom lumen and wattage packages available, consult factory. Values are within industry standard tolerances but not DLC listed.

2. Not available with 5W distribution

3. Consult Factory for availability.

4. Not available in HV.

5. Motion sensors are field configurable via an app that can be downloaded from your smartphone's native app store. See controls section for more details.

6. Control device or shorting cap must be ordered separately. See Accessory Ordering Information.

7. Accessories are shipped separately and field installed.

8. Factory installed CR7P option required. See Options.

9. "CLR" denotes finish. See Finish options.

10. Only available with ALSC/ALSC control options.

11. Fusing must be located in hand hole of pole. See Fusing Accessory Guide for compatibility.

12. Only available in 9L, 12L, 18L and 24L Lumen Packages. Consult factory for lead time and availability.

13. Not available with 55L Lumen Package.



LSI Industries Inc. 10000 Alliance Rd. Cincinnati, OH 45242 • (513) 372-3200 • www.lsicorp.com

©LSI Industries Inc. All Rights Reserved. Specifications and dimensions subject to industry standard tolerances. Specifications subject to change without notice.

Page 2/11 Rev. 01/16/24

SPEC.1020.B.0422



Catalog #: _____ Project: _____ Type: _____
Prepared By: _____ Date: _____

Mirada Medium Wall Sconce (XWM)

Outdoor Wall Sconce



OVERVIEW	
Lumen Package	3,000 - 21,000
Wattage Range	23 - 175
Efficacy Range (LPW)	125 - 158
Weight lbs(kg)	27 (12.2)
Control Options	IMSBT, ALB, ALS, PCI

QUICK LINKS

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Hinged die-cast aluminum wiring access door located underneath.
- Galvanized-steel universal wall mount bracket comes standard with hinging mechanism to easily access the junction box wire connections without removing the luminaire.
- Optional pole-mounting bracket (XPMa) permits mounting to standard poles.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Max shipping weight: 30lbs in carton

Optical System

- State-of-the-Art one piece silicone optic provides industry leading optical control while also acting as an integrated gasket reducing system complexity and improving fixture reliability.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in Types 2, 3, 4, and FT distributions.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93-95%.
- Zero uplight.
- Available in 5000K, 4000K and 3000K color temperatures per ANSI C78.377. Also Available in Phosphor Converted Amber with Peak intensity at 610nm.
- Minimum CRI of 70.

Electrical

- High-performance programmable driver features over-voltage, under-voltage, short-circuit and over temperature protection. Custom lumen and wattage packages available.

- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L80 Calculated Life: >100k Hours
- Total harmonic distortion (THD): <20%
- 3L to 12L operating temperature: -40°C to +50°C (-40°F to +122°F)
- 15L operating temperature: -40°C to +45°C (-40°F to +113°F).
- 18L operating temperature: -40°C to +40°C (-40°F to +104°F).
- 21L operating temperature: -40°C to +35°C (-40°F to + 95°F).
- Power factor (PF): >.90
- Input power stays constant over life.
- Optional 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed via hinged door.
- Optional integral emergency battery pack provides 90-minutes of constant power to the LED system, ensuring code compliance. A test switch/indicator button is installed on the housing for ease of maintenance. The fixture delivers 1500 lumens during emergency mode.

Controls

- Integral passive infrared Bluetooth™ motion sensor options. Fixtures operate independently and can be commissioned via an iOS or Android configuration app. Updates and modifications to the control strategy are easily implemented via an intuitive app.

- LSI's AirLink™ Blue lighting control system is a simple feature rich wireless Bluetooth mesh network. The integrated fixture sensor module provides wireless control of grouped fixtures based on motion sensors, daylight or a fully customizable schedule.

Installation

- Universal wall mounting plate easily mounts directly to 4" octagonal or square junction box.
- 2 fasteners secure the hinged door underneath the housing and provide quick & easy access to the electrical compartment for installing/servicing.
- Optional terminal block accepts up to 12 ga wire.

Warranty

- LSI luminaires carry a 5-year limited warranty. Refer to <https://www.lsicorp.com/resources/terms-conditions-warranty/> for more information.
- 1 Year warranty on Battery Back-up option.

Listings

- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K or lower color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet Locations.
- IP65 rated luminaire per IEC 60598.
- 3G rated for ANSI C136.31 high vibration applications when pole mounted (using optional XPMa bracket) or wall mounted.
- IK08 rated luminaire per IEC 66262 mechanical impact code
- DesignLights Consortium® (DLC) Premium qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.



Submitted by Myriad Energy		Catalog Number: XWM FT LED 12L 40	Type: S2
	Job Name: RUF	Notes:	

Mirada Medium Wall Sconce (XWM) Outdoor Wall Sconce

Type: _____

 Have questions? Call us at (800) 436-7800

ORDERING GUIDE

TYPICAL ORDER EXAMPLE: XWM 2 LED 03L 30 UE BRZ ALSC

Family	Distribution	Light Source	Lumen Package	Color Temperature
XWM - Mirada Medium Wall Sconce	2 - Type 2 3 - Type 3 4 - Type 4 FT - Type 4 Forward Throw	LED	3L - 3,000 4L - 4,000 6L - 6,000 8L - 8,000 12L - 12,000 15L - 15,000 18L - 18,000 21L - 21,000 Custom Lumen Packages ¹	30 - 3000K 40 - 4000K 50 - 5000K AMB - Phosphor Converted Amber ²
Voltage	Finish	Controls	Options	
UE - Universal Voltage (120-277V) HV - High Voltage (347-480V)	BLK - Black BRZ - Dark Bronze GMG - Gun Metal Gray GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus SVG - Satin Verde Green WHT - White	Blank - None <u>Wireless Controls</u> ALSC - AirLink Synapse Control System ALSCS01 - AirLink Synapse Control System with 8-12' Motion Sensor ALSCS02 - AirLink Synapse Control System with 12-20' Motion Sensor ALBCS1 - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' MH) ³ ALBCS2 - AirLink Blue Wireless Motion & Photo Sensor Controller (25-40' MH) ³ <u>Standalone Controls</u> DIM - 0-10v Dimming leads extended to housing exterior IMSBT1 - Integral Bluetooth™ Motion and Photocell Sensor (8-24' MH) ^{3,4} IMSBT2 - Integral Bluetooth™ Motion and Photocell Sensor (25-40' MH) ^{3,4} <u>Button Type Photocells</u> PCI120 - 120V PCI208-277 - 208 -277V PCI347 - 347V	Blank - None BB - Battery Back-up (0°C) ⁵ CWBB - Cold Weather Battery Backup (-20°C) ⁵ XPM - Pole Mounting Bracket SP1 - 10kV Surge Protection TB - Terminal Block	



Need more information?
Click here for our glossary

Have additional questions?
Call us at (800) 436-7800



FUSING ACCESSORY ORDERING INFORMATION⁶

Part Number	Description
FK120 ⁷	FK120 - Single Fusing
FK277 ⁷	FK277 - Single Fusing
FK347 ⁷	FK347 - Single Fusing
DFK208 ⁷	DFK - Double Fusing
DFK240 ⁷	DFK - Double Fusing (240V)
DFK480 ⁷	DFK - Double Fusing (480V)

MOUNTING ACCESSORY ORDERING INFORMATION⁶

Part Number ⁸	Description
809374CLR	XWM Wet Location Surface Conduit/Wiring Box
751632	10' Linear Bird Spike Kit (2' Recommended per Luminaire)

1 Custom lumen and wattage packages available consult factory. Values are within industry standard tolerances but not DLC listed.
2 Only available in 6L Lumen Package. Consult factory for lead time and availability.
3 IMSBT and ALBCS control options are not available in 3L or 4L lumen packages when high voltage (HV) is specified.
4 IMSBTxL is field configurable via the Leviton app that can be downloaded from your smartphone's app store.

5 Not available in HV.
6 Accessories are shipped separately and field installed.
7 Fusing must be located in a hand hole for pole or in the junction box.
8 "CLR" to be replaced by paint finish selection. See Finish options for paint color selections.

Submitted by Myriad Energy		Catalog Number: XWM FT LED 12L 40 Notes:	Type: S2
	Job Name: RUF		

Mirada Medium Wall Sconce (XWM) Outdoor Wall Sconce

Type: _____

 **Have questions?** Call us at (800) 436-7800

PERFORMANCE

Delivered Lumens¹												
Lumen Package	Distribution	CRI	3000K			4000K			5000K			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
3L	2	70	3,178	138	B1-U0-G1	3,368	146	B1-U0-G1	9,853	159	B1-U0-G1	23
	3		3,224	140	B1-U0-G1	3,416	148	B1-U0-G1	3,361	145	B1-U0-G1	
	4		3,210	140	B1-U0-G2	3,364	146	B1-U0-G2	3,294	143	B1-U0-G2	
	FT		3,160	137	B1-U0-G1	3,349	145	B1-U0-G1	3,294	143	B1-U0-G1	
4L	2	70	4,230	139	B1-U0-G1	4,483	147	B1-U0-G1	4,410	145	B1-U0-G1	30
	3		4,291	141	B1-U0-G1	4,547	150	B1-U0-G1	4,473	147	B1-U0-G1	
	4		4,234	141	B1-U0-G2	4,437	148	B1-U0-G2	4,344	145	B1-U0-G2	
	FT		4,206	138	B1-U0-G1	4,458	147	B1-U0-G1	4,385	144	B1-U0-G1	
6L	2	70	6,326	134	B2-U0-G1	6,704	142	B2-U0-G2	6,595	140	B2-U0-G2	47
	3		6,417	136	B1-U0-G2	6,800	144	B2-U0-G2	6,689	142	B2-U0-G2	
	4		6,336	135	B1-U0-G3	6,640	141	B1-U0-G3	6,500	138	B1-U0-G3	
	FT		6,290	134	B2-U0-G2	6,666	142	B2-U0-G2	6,557	139	B2-U0-G2	
8L	2	70	8,166	128	B2-U0-G2	8,654	135	B2-U0-G2	8,513	133	B2-U0-G2	64
	3		8,283	129	B2-U0-G2	8,778	137	B2-U0-G2	8,635	134	B2-U0-G2	
	4		8,362	131	B1-U0-G3	8,763	137	B2-U0-G3	8,579	134	B1-U0-G3	
	FT		8,120	126	B2-U0-G2	8,605	134	B2-U0-G2	8,465	132	B2-U0-G2	
12L	2	70	11,492	149	B2-U0-G2	12,033	156	B3-U0-G2	11,927	155	B3-U0-G2	77
	3		11,757	153	B2-U0-G2	12,311	160	B2-U0-G2	12,203	158	B2-U0-G2	
	4		11,486	149	B2-U0-G3	12,058	157	B2-U0-G3	11,716	152	B2-U0-G3	
	FT		11,721	152	B2-U0-G2	12,274	159	B2-U0-G3	12,166	158	B2-U0-G3	
15L	2	70	14,221	145	B3-U0-G2	14,891	152	B3-U0-G2	14,760	151	B3-U0-G2	98
	3		14,549	148	B2-U0-G2	15,235	155	B2-U0-G2	15,101	154	B2-U0-G2	
	4		14,099	144	B2-U0-G3	14,801	151	B2-U0-G3	14,382	147	B2-U0-G3	
	FT		14,505	148	B2-U0-G3	15,189	155	B2-U0-G3	15,055	154	B2-U0-G3	
18L	2	70	16,894	138	B3-U0-G3	17,690	145	B3-U0-G3	17,534	144	B3-U0-G3	122
	3		17,285	142	B3-U0-G3	18,099	148	B3-U0-G3	17,940	147	B3-U0-G3	
	4		16,951	139	B2-U0-G3	17,795	146	B3-U0-G3	17,291	142	B3-U0-G3	
	FT		17,231	141	B3-U0-G3	18,044	148	B3-U0-G3	17,885	147	B3-U0-G3	
21L	2	70	19,961	133	B3-U0-G3	20,902	139	B3-U0-G3	20,718	138	B3-U0-G3	150
	3		20,422	136	B3-U0-G3	21,385	143	B3-U0-G3	21,197	141	B3-U0-G3	
	4		19,768	132	B3-U0-G4	20,753	138	B3-U0-G5	20,165	134	B3-U0-G4	
	FT		20,360	136	B3-U0-G3	21,320	142	B3-U0-G3	21,132	141	B3-U0-G3	

Electrical Data (Amps) - 3000K/4000K/5000K²

Lumen Package	120V	208V	240V	277V	347V	480V
3L	0.19	0.11	0.10	0.08	0.07	0.05
4L	0.25	0.14	0.13	0.11	0.09	0.06
6L	0.39	0.23	0.20	0.17	0.14	0.10
9L	0.53	0.31	0.27	0.23	0.18	0.13
12L	0.64	0.37	0.32	0.28	0.22	0.16
15L	0.82	0.47	0.41	0.35	0.28	0.20
18L	1.02	0.59	0.51	0.44	0.35	0.25
21L	1.25	0.72	0.63	0.54	0.43	0.31

Recommended Lumen Maintenance - XWM³

Ambient Temperature C°	Initial ⁴	25K hrs. ⁴	50K hrs. ⁴	75K hrs. ⁵	100K hrs. ⁵
35	99%	97%	95%	93%	91%
50	100%	98%	95%	93%	90%

1 LEDs are frequently updated therefore values are nominal

2 Electrical data at 25C (77F). Actual wattage may differ by +/-10%.

3 Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing.

4 In accordance with IESNA TM-21-II, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip).

5 In accordance with IESNA TM-21-II, Calculated Values represent time durations that exceed six times NA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip).

Delivered Lumens (Phosphor Converted Amber)

Lumen Package	Distribution	Amber			Wattage
		Delivered Lumens	Efficacy	BUG Rating	
6L	2	3,325	76	B1-U0-G1	44
	3	3,385	78	B1-U0-G1	
	4	3,310	75	B1-U0-G1	
	FT	3,343	77	B1-U0-G1	



Mirada Medium Wall Sconce (XWM) Outdoor Wall Sconce

Type: _____

Have questions? Call us at (800) 436-7800

PHOTOMETRICS

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. As specified by IESNA LM-79-08 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

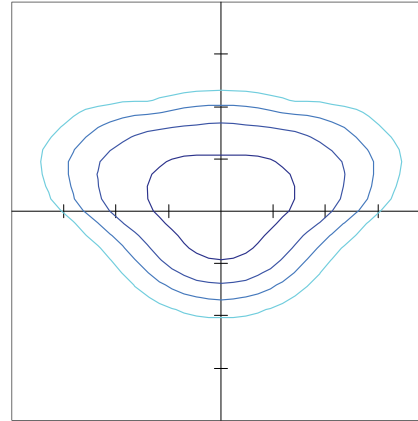
See the individual product page on <https://www.lsicorp.com/> for detailed photometric data.

XWM-2-LED-12L-40

Luminaire Data	
Type 2 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	12,033
Watts	77
Efficacy	156
IES Type	Type II - Short
BUG Rating	B3-U0-G2

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	1,961	16%
Medium (30-60°)	6,874	57%
High (60-80°)	3,014	25%
Very High (80-90°)	184	2%
Uplight (90-180°)	0	0%
Total Flux	12,033	100%

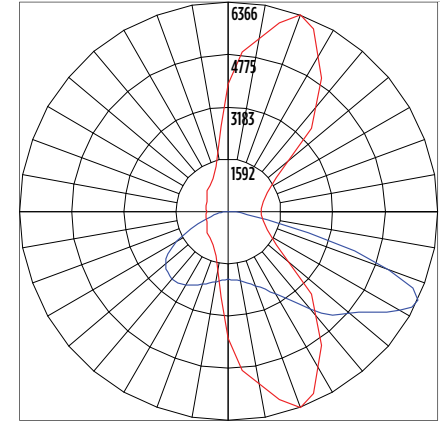
ISO Footcandle



15' Mounting Height / 15' Grid Spacing

■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

Polar Curve



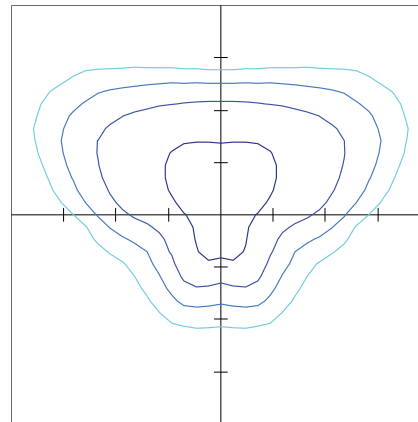
■ Vertical Plane ■ Horizontal Cone

XWM-3-LED-12L-40

Luminaire Data	
Type 3 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	12,311
Watts	77
Efficacy	160
IES Type	Type III - Short
BUG Rating	B2-U0-G2

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	1,340	11%
Medium (30-60°)	6,164	50%
High (60-80°)	4,549	37%
Very High (80-90°)	258	2%
Uplight (90-180°)	0	0%
Total Flux	12,311	100%

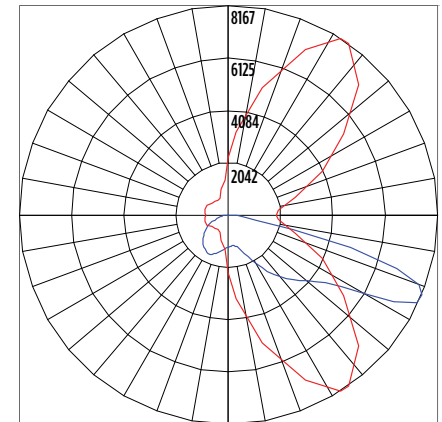
ISO Footcandle



15' Mounting Height / 15' Grid Spacing

■ 10 FC ■ 5 FC ■ 2 FC ■ 1 FC

Polar Curve



■ Vertical Plane ■ Horizontal Cone





Mirada Medium Wall Sconce (XWM) Outdoor Wall Sconce

Type: _____

Have questions? Call us at (800) 436-7800

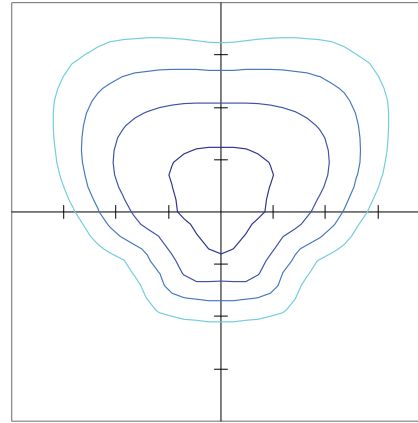
PHOTOMETRICS

XWM-FT-LED-12L-40

Luminaire Data	
Type FT Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	12,274
Watts	77
Efficacy	159
IES Type	Type IV - Short
BUG Rating	B2-U0-G3

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	1,578	13%
Medium (30-60°)	5,798	47%
High (60-80°)	4,576	37%
Very High (80-90°)	322	3%
Uplight (90-180°)	0	0%
Total Flux	12,274	100%

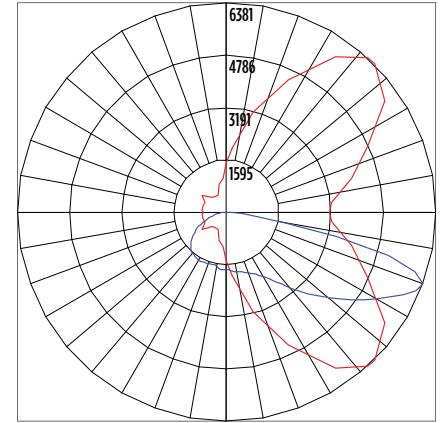
ISO Footcandle



15' Mounting Height / 15' Grid Spacing

■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

Polar Curve



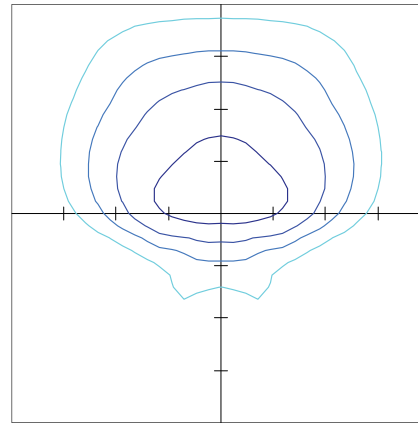
■ Vertical Plane ■ Horizontal Cone

XWM-4-LED-12L-40

Luminaire Data	
Type 4 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	12,058
Watts	77
Efficacy	157
IES Type	Type IV - Very Short
BUG Rating	B2-U0-G3

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	1,345	11%
Medium (30-60°)	5,394	45%
High (60-80°)	4,855	40%
Very High (80-90°)	464	4%
Uplight (90-180°)	0	0%
Total Flux	12,058	100%

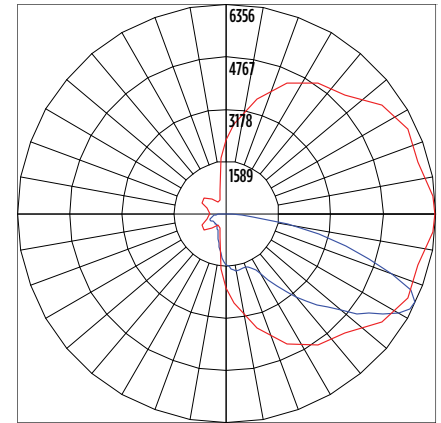
ISO Footcandle



15' Mounting Height / 15' Grid Spacing

■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

Polar Curve



■ Vertical Plane ■ Horizontal Cone

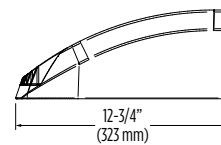
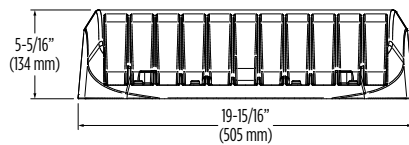
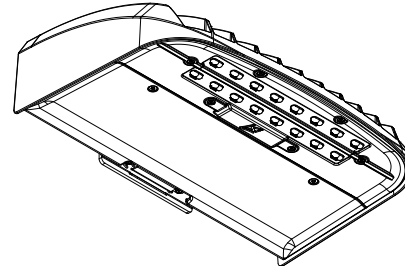
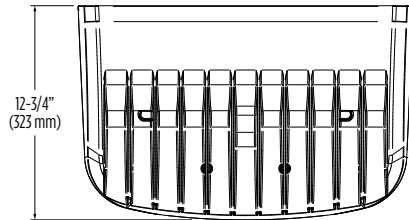


Mirada Medium Wall Sconce (XWM) Outdoor Wall Sconce

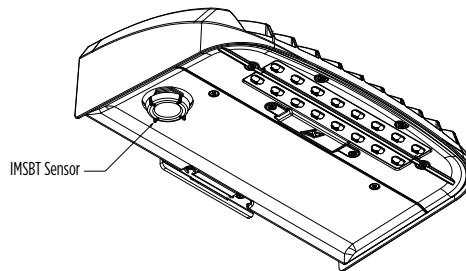
Type: _____

 **Have questions?** Call us at (800) 436-7800

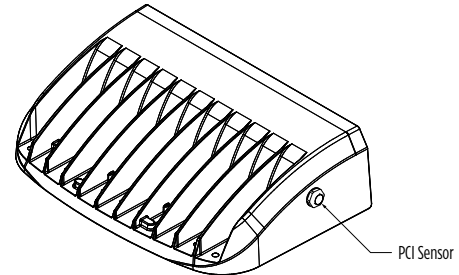
PRODUCT DIMENSIONS



**Mirada Medium Wall Sconce with
Integral Bluetooth™ Motion and Photocell Sensor**
(XWM IMSBTxL)

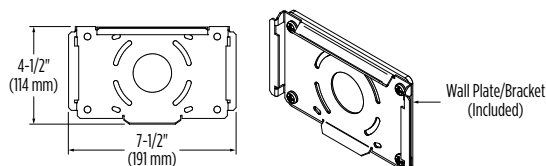


**Mirada Medium Wall Sconce with
Button Type Photocell**
(XWM PCI)

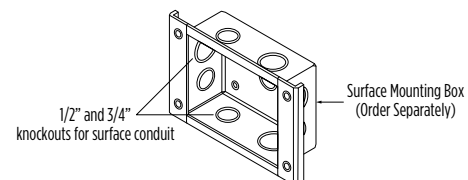


Mounting Options

Mounting Over Junction Box
(Standard/Included)



XWM Wet Location Surface Conduit/Wiring Box
(809374CLR)



Submitted by Myriad Energy	Job Name: RUF	Catalog Number: XWM FT LED 12L 40 Notes:	Type: S2
----------------------------	-------------------------	--	-----------------------------------

Mirada Medium Wall Sconce (XWM) Outdoor Wall Sconce

Type: _____

 **Have questions?** Call us at (800) 436-7800

CONTROLS

Integral Bluetooth™ Motion and Photocell Sensor (IMSBTxL)

Slim low profile sensor provides multi-level control based on motion and/or daylight. Sensor controls 0-10 VDC LED drivers and is IP66 rated for cold and wet locations (-40°F to 167°F). Two unique PIR lenses are available and used based on fixture mounting height. All control parameters are adjustable via an iOS or Android App capable of storing and transmitting sensor profiles.

[Click here to learn more details about IMSBT](#)



LEVITON App



Apple



Android

AirLink Wireless Lighting Controller (ALSC, ALSCS)

The AirLink integrated controller is a California Title 24 compliant lighting controller that provides real-time light monitoring and control with utility-grade power monitoring. It includes a 24V sensor input and power supply to connect a sensor into the outdoor AirLink wireless lighting system. The wireless integrated controller is compatible with this fixture.

[Click here to learn more details about AirLink](#)

AirLink Blue (ALBCSx)

Wireless Bluetooth Mesh Outdoor Lighting Control System that provides energy savings, code compliance and enhanced safety/security for parking lots and parking garages. Three key components; Bluetooth wireless radio/sensor controller, Time Keeper and an iOS App. Capable of grouping multiple fixtures and sensors as well as scheduling time-based events by zone. Radio/Sensor Controller is factory integrated into Area/ Site, Wall Mounted, Parking Garage and Canopy luminaires.

[Click here to learn more details about AirLink Blue](#)



AirLink Blue App



Apple

Sensor Sequence of Operations

Standard Programming	On Event	Off Event	On Light Level	Dim Light Level	Daylight Harvesting	Delay To Off	Sensitivity
IMSBTxL	Motion	No Motion	100%	N/A	On; Auto Calibration	20 minutes	High

Operation	Description
On Event	Trigger that activates lights to turn on; either automatic via motion detected or manually activated via push of button.
Off Event	Trigger that activates lights to turn off; either automatic via no motion detected or manually activated via push of button.
On Light Level	The light level that the fixtures will turn on to when ON EVENT occurs.
Dim Light Level	The light level that the fixtures will dim down to when no motion is detected.
Delay to Dim	The amount of time after which no motion is detected that the fixtures will be triggered to dim down. This sequence is optional, and sensor can be programmed to only trigger the fixture to turn off by entering 100% in this field.
Delay to Off	The amount of time after which no motion is detected that the fixtures will be triggered to turn off. If delay to dim is part of the programmed functionality, this is the amount of time after which no motion is detected after the fixture have already dimmed down.
Sensitivity	The sensitivity can be set to high, medium, low, or auto where applicable. High will detect smaller, simple motions. Low will only detect larger more complex motions. Auto temperature calibration adjusts the PIR sensitivity as ambient temperature rises to increase detection of heat movement through the field of view.



Catalog #: _____ Project: _____ Type: _____
Prepared By: _____ Date: _____

Mirada Small Wall Sconce Silicone (XWS SIL)

Outdoor LED Wall Light



OVERVIEW	
Lumen Package (lm)	2,000 - 8,000
Wattage Range (W)	13 - 61
Efficacy Range (LPW)	126 - 162
Weight lbs (kg)	10 (4.5)

QUICK LINKS

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Extended housing available with 1/2" threaded hubs for surface conduit and rated wire.
- Standard luminaire shipping weight: TBD lbs in carton.
- Max luminaire shipping weight: 12 lbs in carton (20 lbs w/EH option)

Optical System

- State-of-the-Art one piece silicone optic provides industry leading optical control while also acting as an integrated gasket reducing system complexity and improving fixture reliability.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in distribution types 2, 3, and FT.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
- Zero uplight.
- Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377.
- Minimum CRI of 70

Electrical

- High-performance driver features over-voltage under-voltage, short-circuit, and over temperature protection.

- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 VAC) Input 50/60 Hz or optional High Voltage (347-480 VAC).
- L70 Calculated Life: >60k Hours
- Total harmonic distortion (THD): <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F).
- Power factor (PF): >.90
- Input power stays constant over life.
- Optional 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Driver is fully encased in potting material for moisture resistance. Driver complies with FCC standards. Accessible driver and electrical components.
- Optional battery backup provides 90-minutes of constant power to the LED system, ensuring code compliance. A test switch/indicator button is installed on the housing for ease of maintenance. Standard battery rated for 0°C to 50°C with cold weather battery rated for -20°C to 50°C (40°C max for 8L). 120-277V Only.

Controls

- Optional integral passive infrared Bluetooth™ motion. Fixtures operate independently and can be commissioned via iOS or Android configuration app.
- Optional button photocell turns fixtures on and off based on ambient light levels for dusk to dawn lighting.

- LSI's AirLink Blue wireless control system options allow for fixture and motion sensor grouping while reducing energy and maintenance costs.

Installation

- Universal wall mounting plate mounts directly to vertical surface or 4" junction box (octagonal or square).
- Luminaire hinges to the top of the mounting plate and is secured via two flush mount screws that help to conceal the hardware and prevent over tightening during installation.

Warranty

- LSI luminaires carry a 5-year limited warranty. Refer to <https://www.lsicorp.com/resources/terms-conditions-warranty/> for more information.

Listings

- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet locations.
- IP65 rated luminaire per IEC 60598-1.
- IK08 rated luminaire per IEC 66262 mechanical impact code.
- DesignLights Consortium® (DLC) Premium qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.



Submitted by Myriad Energy	Job Name: RUF	Catalog Number: XWS LED 03L FTW 40 70CRI Notes:	Type: S3
----------------------------	-------------------------	--	-------------------------------

Mirada Small Wall Sconce Silicone (XWS SIL)

Type: _____

Have questions? Call us at (800) 436-7800

ORDERING GUIDE

TYPICAL ORDER EXAMPLE: XWS LED 6L SIL FT UNV DIM 40 70CRI ALBCS1 BLK CWBB						
Prefix	Light Source	Lumen Package	Lens	Distribution	Voltage	Driver
XWS - Mirada Small Wall Sconce	LED	2L - 2,000 3L - 3,000 5L - 5,000 6L - 6,000 8L - 8,000 Custom Lumen Packages ¹	SIL - Silicone	2 - Type 2 3 - Type 3 FT - Forward Throw	UNV - Universal Voltage (120-277V) HV - High Voltage (347-480V)	DIM - 0-10v Dimming (0-10%)
Color Temperature	Color Rendering	Controls			Finish	Options
50 - 5000K 40 - 4000K 30 - 3000K	70CRI - 70 CRI	Blank - None <u>Wireless Controls</u> ALBCS1 - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' mounting height) ² <u>Standalone Controls</u> EXT - 0-10v Dimming leads extended to housing exterior IMSBT1L - Integral Bluetooth™ Motion Sensor 8-24' MH ^{2,3} <u>Button Type Photocells</u> PCI120 - 120V PCI208-277 - 208 -277V PCI347 - 347V			BLK - Black BRZ - Dark Bronze GMG - Gun Metal Gray GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus SVG - Satin Verde Green WHT - White	Blank - None BB - 10w Battery Back-up (0°C) ⁴ CWBB - 10w Cold Weather Battery Backup (-20°C) ⁴ BB20 - 20W Battery Back-up (0°C) ⁴ EH - Extended Housing ⁵ SP1 - 10kV Surge Protection Device



Need more information?
[Click here for our glossary.](#)

Have additional questions?
Call us at (800) 436-7800



ACCESSORY ORDERING INFORMATION*

Part Number	Description
758274CLR	XWS Extended Housing/Surface Conduit Wiring Box
760159CLR	XWS Spacer Plate/Wiring Box

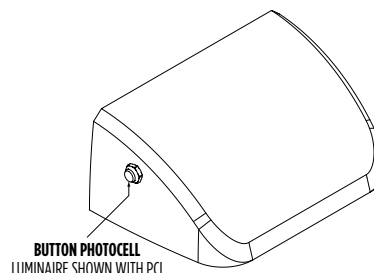
*Accessories are shipped separately and field installed.

Battery Backup

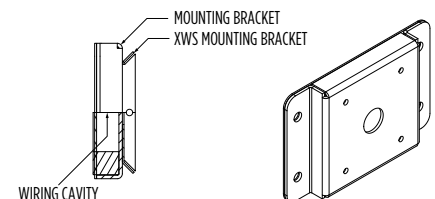
- Emergency battery system provides 90-minutes of constant power to the LED system, ensuring code compliance.
- A test switch/indicator button is installed on the housing for ease of maintenance.
- 10w battery delivers ~1,500 lumens during emergency mode.
- 20w battery delivers ~3,000 lumens during emergency mode.



Luminaire shown with sensor & battery backup



BUTTON PHOTOCCELL
LUMINAIRE SHOWN WITH PCI



- Custom lumen and wattage packages available, consult factory. Values are within industry standard tolerances but not DLC listed.
- When high voltage (HV) is specified, IMSBT and ALBCS control options are limited to 6L and 8L lumen packages.
- IMSBT is field configurable via the LSI app that can be downloaded from your smartphone's native app store.
- Universal Voltage Only (120-277V). 20W Battery Backup only available 2L - 6L.
- For applications with surface conduit.



LSI Industries Inc. 10000 Alliance Rd. Cincinnati, OH 45242 • (513) 372-3200 • www.lsicorp.com
©LSI Industries Inc. All Rights Reserved. Specifications and dimensions subject to industry standard tolerances. Specifications subject to change without notice.

Page 2/7 Rev. 06/30/23
SPEC.1021.D.0623

Submitted by Myriad Energy



Job Name:
RUF

Catalog Number:
XWS LED 03L FTW 40 70CRI

Type:
S3

Notes:

Mirada Small Wall Sconce Silicone (XWS SIL)

Type : _____

Have questions? Call us at (800) 436-7800

PERFORMANCE

Delivered Lumens¹

Lumen Package	Distribution	CRI	3000K CCT			4000K CCT			5000K CCT			Wattage
			Delivered Lumens	Efficacy	Bug Rating	Delivered Lumens	Efficacy	Bug Rating	Delivered Lumens	Efficacy	Bug Rating	
2L	2	70	1,851	142	B1-U0-G1	1,974	152	B1-U0-G1	1,976	152	B1-U0-G1	13
	3		1,930	148	B1-U0-G1	2,058	158	B1-U0-G1	2,060	158	B1-U0-G1	
	FT		1,889	145	B1-U0-G1	2,015	155	B1-U0-G1	2,017	155	B1-U0-G1	
3L	2	70	2,765	146	B1-U0-G1	2,950	155	B1-U0-G1	2,953	155	B1-U0-G1	19
	3		2,884	152	B1-U0-G1	3,077	162	B1-U0-G1	3,079	162	B1-U0-G1	
	FT		2,822	149	B1-U0-G1	3,010	158	B1-U0-G1	3,012	159	B1-U0-G1	
5L	2	70	4,655	133	B2-U0-G1	4,965	142	B2-U0-G1	4,970	142	B2-U0-G1	35
	3		4,855	139	B1-U0-G1	5,179	148	B1-U0-G1	5,184	148	B1-U0-G1	
	FT		4,750	136	B1-U0-G2	5,067	145	B1-U0-G2	5,072	145	B1-U0-G2	
6L	2	70	5,578	130	B2-U0-G1	5,950	138	B2-U0-G2	5,956	139	B2-U0-G2	43
	3		5,819	135	B1-U0-G2	6,207	144	B1-U0-G2	6,214	145	B1-U0-G2	
	FT		5,693	132	B1-U0-G2	6,073	141	B1-U0-G2	6,079	141	B1-U0-G2	
8L	2	70	7,531	123	B2-U0-G2	8,034	132	B2-U0-G2	8,041	132	B2-U0-G2	61
	3		7,856	129	B2-U0-G2	8,380	137	B2-U0-G2	8,388	138	B2-U0-G2	
	FT		7,687	126	B2-U0-G2	8,199	134	B2-U0-G2	8,207	135	B2-U0-G2	

Electrical Data - Current Draw AMPS²

Lumen Package	120V	208V	240V	277V	347V	480V
2L	0.11	0.06	0.05	0.05	0.04	0.03
3L	0.16	0.09	0.08	0.07	0.05	0.04
5L	0.29	0.17	0.15	0.13	0.10	0.07
6L	0.36	0.21	0.18	0.16	0.12	0.09
8L	0.51	0.29	0.25	0.22	0.18	0.13

Recommended Lumen Maintenance - XWS³

Ambient Temperature C°	Initial ⁴	25K hrs. ⁴	50K hrs. ⁴	75K hrs. ⁵	100K hrs. ⁵
25	100%	95%	90%	85%	80%
40	100%	91%	82%	73%	65%

1 LEDs are frequently updated therefore values are nominal

2 Electrical data at 25C (77F). Actual wattage may differ by +/-10%.

3 Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing.

4 In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip).

5 In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times NA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip).



LSI Industries Inc. 10000 Alliance Rd. Cincinnati, OH 45242 • (513) 372-3200 • www.lsicorp.com

©LSI Industries Inc. All Rights Reserved. Specifications and dimensions subject to industry standard tolerances. Specifications subject to change without notice.

Page 3/7 Rev. 06/30/23

SPEC.1021.D.0623

Page 86 of 148

Index Page

Submitted On: Apr 5, 2024

3/7

Mirada Small Wall Sconce Silicone (XWS SIL)

Type: _____

 Have questions? Call us at (800) 436-7800

PHOTOMETRICS

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. As specified by IESNA LM-79-08 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

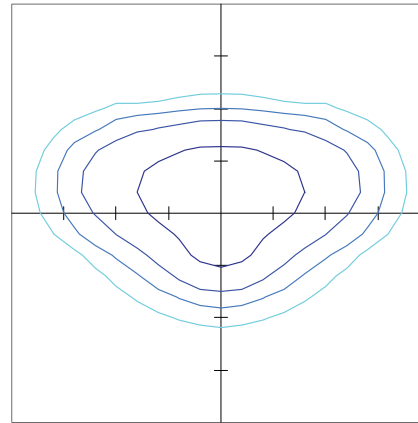
See the individual product page on <https://www.lsicorp.com/> for detailed photometric data.

XWS-LED-6L-SIL-2-40-70CRI

Luminaire Data	
Type 2 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	5,951
Watts	42.5
Efficacy	138
IES Type	Type II - Short
BUG Rating	B1-U0-G1

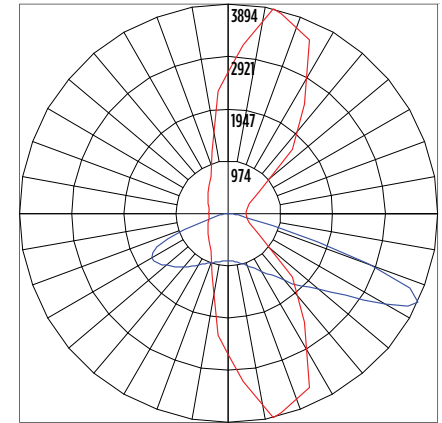
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	834	20%
Medium (30-60°)	3,379	50%
High (60-80°)	1,647	28%
Very High (80-90°)	91	1%
Uplight (90-180°)	0	0%
Total Flux	5,951	100%

ISO Footcandle



10' Mounting Height / 10' Grid Spacing
 5 FC 2 FC 1 FC 0.5 FC

Polar Curve



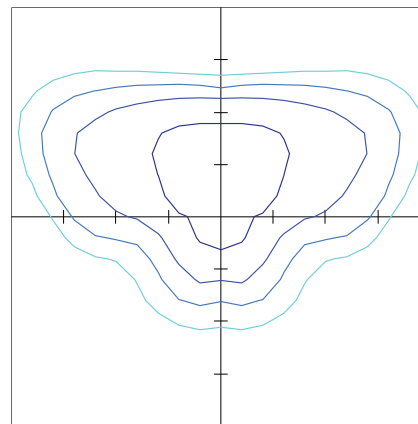
Vertical Plane Horizontal Cone

XWS-LED-6L-SIL-3-40-70CRI

Luminaire Data	
Type 3 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	6,208
Watts	42.5
Efficacy	146
IES Type	Type III - Medium
BUG Rating	B1-U0-G2

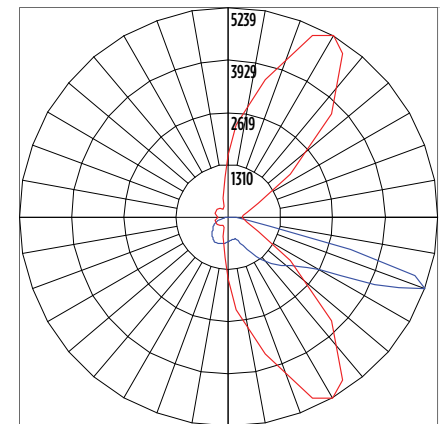
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	582	9%
Medium (30-60°)	2,997	48%
High (60-80°)	2,506	40%
Very High (80-90°)	124	2%
Uplight (90-180°)	0	0%
Total Flux	6,208	100%

ISO Footcandle



10' Mounting Height / 10' Grid Spacing
 5 FC 2 FC 1 FC 0.5 FC

Polar Curve



Vertical Plane Horizontal Cone



Mirada Small Wall Sconce Silicone (XWS SIL)

Type: _____

Have questions? Call us at (800) 436-7800

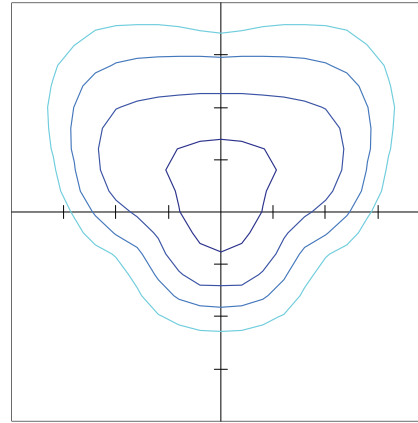
PHOTOMETRICS

XWS-LED-6L-SIL-FT-40-70CRI

Luminaire Data	
Type FT Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	6,073
Watts	42.5
Efficacy	143
IES Type	Type IV - Short
BUG Rating	B1-U0-G2

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	708.3	12%
Medium (30-60°)	2,715.5	45%
High (60-80°)	2,475.4	41%
Very High (80-90°)	173.6	3%
Uplight (90-180°)	0	0%
Total Flux	6,073	100%

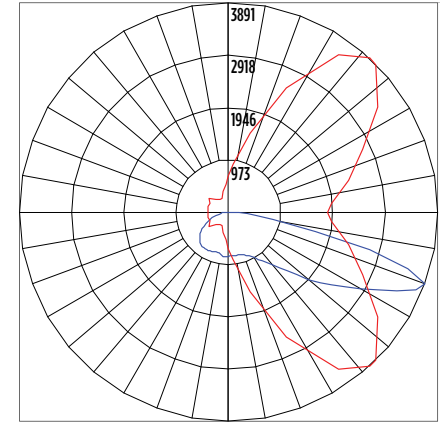
ISO Footcandle



10' Mounting Height / 10' Grid Spacing

■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

Polar Curve



■ Vertical Plane ■ Horizontal Cone



Submitted by Myriad Energy	Job Name: RUF	Catalog Number: XWS LED 03L FTW 40 70CRI Notes:	Type: S3
----------------------------	------------------	---	------------------------

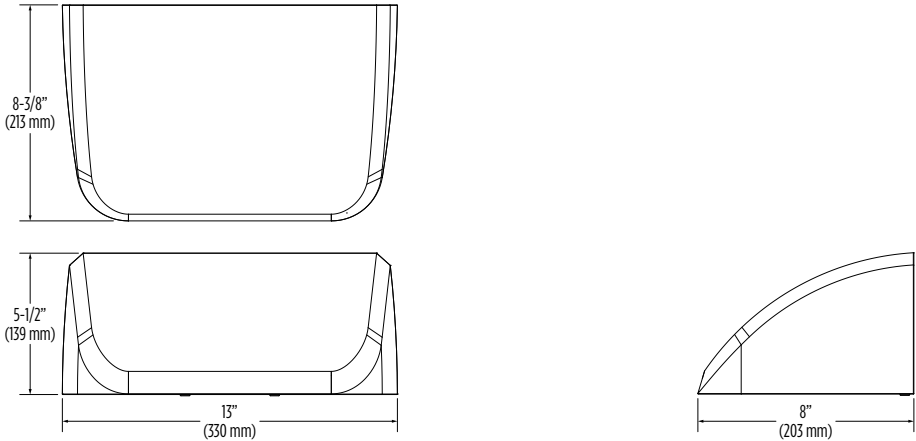
Mirada Small Wall Sconce Silicone (XWS SIL)

Type : _____

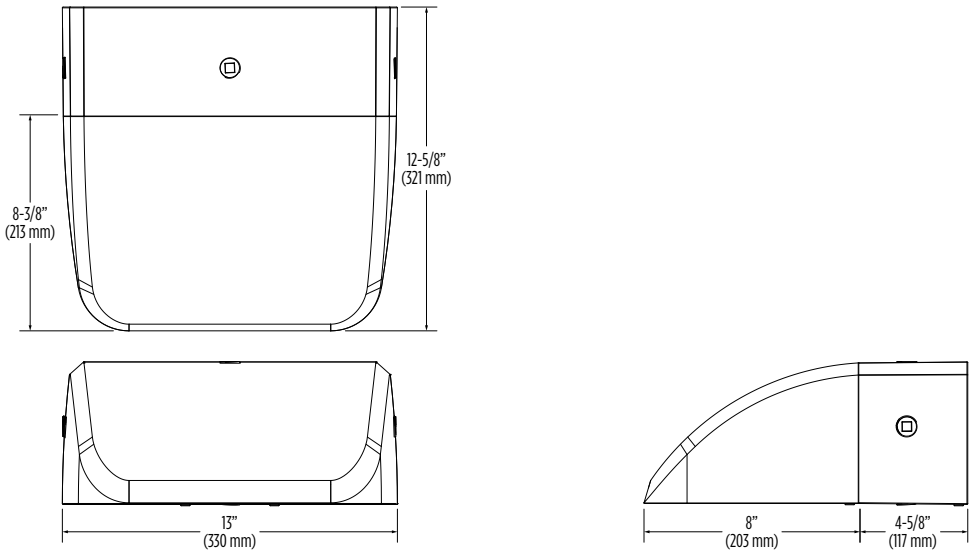
 Have questions? Call us at (800) 436-7800

PRODUCT DIMENSIONS

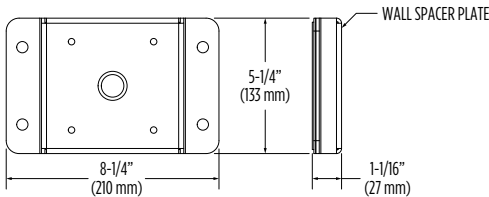
STANDARD HOUSING
(XWS)



SCWB EXTENDED HOUSING
(XWS 758274CLR)



XWS SPACER PLATE/WIRING BOX
(XWS 760159CLR)



NOTE: Wall spacer plate allows the luminaire to float off the wall and provides space for securing wires (8.25" X 5.25" X 1.07").

Submitted by Myriad Energy	Job Name: RUF	Catalog Number: XWS LED 03L FTW 40 70CRI Notes:	Type: S3
----------------------------	-------------------------	--	-------------------------------

Mirada Small Wall Sconce Silicone (XWS SIL)

Type : _____

 **Have questions?** Call us at (800) 436-7800

CONTROLS

Integral Bluetooth™ Motion and Photocell Sensor (IMSBTxL)

Slim low profile sensor provides multi-level control based on motion and/or daylight. Sensor controls 0-10 VDC LED drivers and is IP66 rated for cold and wet locations (-40°F to 167°F). Two unique PIR lenses are available and used based on fixture mounting height. All control parameters are adjustable via an iOS or Android App capable of storing and transmitting sensor profiles.

[Click here to learn more details about IMSBT](#)



LEVITON App



Apple



Android

AirLink Blue (ALBCSx)

Wireless Bluetooth Mesh Outdoor Lighting Control System that provides energy savings, code compliance and enhanced safety/security for parking lots and parking garages. Three key components; Bluetooth wireless radio/sensor controller, Time Keeper and an iOS App. Capable of grouping multiple fixtures and sensors as well as scheduling time-based events by zone. Radio/Sensor Controller is factory integrated into Area/ Site, Wall Mounted, Parking Garage and Canopy luminaires.

[Click here to learn more details about AirLink Blue](#)



AirLink Blue App



Apple

Sensor Sequence of Operations

Standard Programming	On Event	Off Event	On Light Level	Dim Light Level	Daylight Harvesting	Delay To Off	Sensitivity
IMSBTxL	Motion	No Motion	100%	N/A	On; Auto Calibration	20 minutes	High

Operation	Description
On Event	Trigger that activates lights to turn on; either automatic via motion detected or manually activated via push of button.
Off Event	Trigger that activates lights to turn off; either automatic via no motion detected or manually activated via push of button.
On Light Level	The light level that the fixtures will turn on to when ON EVENT occurs.
Dim Light Level	The light level that the fixtures will dim down to when no motion is detected.
Delay to Dim	The amount of time after which no motion is detected that the fixtures will be triggered to dim down. This sequence is optional, and sensor can be programmed to only trigger the fixture to turn off by entering 100% in this field.
Delay to Off	The amount of time after which no motion is detected that the fixtures will be triggered to turn off. If delay to dim is part of the programmed functionality, this is the amount of time after which no motion is detected after the fixture have already dimmed down.
Sensitivity	The sensitivity can be set to high, medium, low, or auto where applicable. High will detect smaller, simple motions. Low will only detect larger more complex motions. Auto temperature calibration adjusts the PIR sensitivity as ambient temperature rises to increase detection of heat movement through the field of view.



Catalog #: _____ Project: _____ Type: _____
Prepared By: _____ Date: _____

4" Architectural Downlight (LAD4)

New Construction



OVERVIEW	
Lumen Package (lm)	1,050 - 2,500
Wattage Range (W)	14 - 22
Efficacy Range (LPW)	93 - 112
Weight lbs (kg)	7.5 (3.4)

QUICK LINKS

FEATURES & SPECIFICATIONS

Optical System

- LED source provides superior lumen output with maximum visual comfort.
- Tailored spot, narrow flood, flood and wide flood beam optics designed for glare free illumination.
- Choice of flanged or flangeless spun reflector utilizing heavy gauge highly reflective diffuse anodized aluminum to deliver low glare, even illumination of the space.
- Reflectors are retained with three retention clips holding the flange tight to the finished ceiling surface.
- Minimum CRI of 80.

Electrical

- High-performance driver features over-voltage, under voltage, short-circuit and over temperature protection.
- 0 - 10V dimming (1% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz.
- L70 Calculated Life: > 50k Hours projected @ 25°C per IESNA TM-21-11.
- Total harmonic distortion: <20%.
- Power factor: >.90.
- Input power stays constant over life.
- Driver can be accessed from below plenum for servicing.

- High-efficacy LEDs with integrated circuit board mount directly to an extruded aluminum heatsink to maximize heat dissipation and promote long life.
- Remote Emergency Battery (120-277V) is available to meet critical life safety lighting requirements. The 90-minute battery provides 7.8watts constant power to the LED system, ensuring code compliance. To calculate light output during emergency mode(EM battery 7.8 watts x LPW of fixture being powered - see spec sheet). Detailed wiring diagram and installation instructions can be located on the website..

Controls

- 0 - 10V dimming standard.
- Compatible with most 0-10V dimmers
- Compatible with LSI AirLink® Blue for networked controls
- See controls table for more information

New Construction Housing/Plaster Frame

- Designed for use in non-insulated ceiling where insulation must be kept a minimum of 3" from the fixture.
- Junction box listed for (8) #12 AWG (four in, four out) 90°C conductors and thru branch wiring.
- Junction box contains (5) 1/2" knockouts with trade pry-out slots and (4) Romex cable clamp knockouts.

- Accommodates ceiling thickness up to 1.5".
- Plaster frame with collar is designed with 20-gauge colled rolled steel, black-painted
- Universal mounting brackets provide up to 5" vertical adjustment and accepts 1/2" EMT conduit.
- Additional channel bar, nailer bar and suspended ceiling accessories available. See accessories.
- Frame kit can be ordered separately for new construction build.

Installation

- Additional channel bar, nailer bar and suspended ceiling accessories available to accommodate a variety of ceiling types.

Warranty

- LSI luminaires carry a 5-year limited warranty. Refer to <https://www.lsicorp.com/resources/terms-conditions-warranty/> for more information.

Listings

- cETLus Listed to UL 1598 and UL 8750 standards for 25°C Ambient applications
- RoHS Compliant.
- EMI/RFI compliant with FCC 47CFR Part 15 Class B Consumer limits and Class A Commercial & Industrial.
- Damp location rated.
- Wet location rated with regressed lens.
- Title 24 Compliant.



Submitted by Myriad Energy	Job Name: RUF	Catalog Number: LAD4 LED 14L 40 FL TR4RL SF HAZ	Type: S6
		Notes:	

4" Architectural Downlight (LAD4) New Construction

Type : _____

 **Have questions?** Call us at (800) 436-7800

ORDERING GUIDE

TYPICAL ORDER EXAMPLE: LAD4 LED 24L UNV DIM1 35 NF TR4R HAZ

Prefix	Light Source	Lumen Package	Voltage	Driver	Color Temperature	CRI ²	Beam Optics ³
LAD4 - 4" New Construction ¹	LED	14L - 1,400 Lumens 24L - 2,400 Lumens	UNV - 120 - 277V	DIM1 - Dims to 1% (0-10V dimming)	27 - 2700K 30 - 3000K 35 - 3500K 40 - 4000K	Blank - 80 min.	SP - Spot NF - Narrow Flood FL - Flood WF - Wide Flood

	Reflector	Finish
Self-flanged	TR4R - Open Reflector	SF HAZ - Haze semi- diffused SF SPC - Specular clear
Flangeless (Ships standard w/ white plastic trim ring)	TR4R - Open Reflector	HAZ - Haze semi-diffused, white trim ring SPC - Specular clear, white trim ring
	TR4RWW - Wall Wash ⁴	HAZ - Haze semi-diffused wall wash reflector, white trim ring
	TR4RL - Regressed Lens ⁵	HAZ - Haze semi-diffused reflector w/ specular clear regressed lens and white trim ring
		SPC - Specular clear refector w/ specular clear regressed lens and white trim ring



Need more information?
Click here for our glossary

Have additional questions?
Call us at (800) 436-7800



ACCESSORY ORDERING INFORMATION

Part Number	Description
616105	WH - White metal trim ring (only compatible w/ flangeless trims)
205599	C27 - 27" channel bars (pair)
287522	C52 - 52" channel bars (pair)
345989	NB - Nailer bar kt (set of 4)
234808	SCIK - Suspended ceiling installation kit (set of 4 channel bars & 4 T-grid clips)
778196	Remote Mount Battery
786277	Remote Battery with Grid Mount Kit ⁵
687986	New Construction Frame Kit-1 pack
791427	New Construction Frame Kit-2 pack
791429	New Construction Frame Kit-1 pack with Self-Diagnostic EM
791430	New Construction Frame Kit-2 pack with Self-Diagnostic EM
791431	T-Grid Bracket for EM ⁶

- Housing can ship ahead of the light engine and reflector.
- 90 CRI requires 55 day leadtime & 100 MOQ; Consult Factory.
- Self-flanged TR4RWW wall wash reflector comes with 40° integrated optic; additional beam optics not compatible.

- Regressed lens trims are wet location listed. All other trims are rated for damp location.
- For complete fixture with remote mount EM for T-Grid install, order remote battery with grid mount kit.
- For new construction frame kit with EM for T-Grid install, order T-Grid bracket separately.

Submitted by Myriad Energy



Job Name:
RUF

Catalog Number:
LAD4 LED 14L 40 FL TR4RL SF HAZ

Notes:

Type:
S6

4" Architectural Downlight (LAD4) New Construction

Type : _____

Have questions? Call us at (800) 436-7800

PERFORMANCE

DELIVERED LUMENS*

Lumen Package	Distribution	2700K CCT		3000K CCT		3500K CCT		4000K CCT		Wattage
		Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	
14L	SP	1157	82.6	1157	82.6	1414	101.0	1414	101.0	14
	NF	1147	81.9	1146	81.9	1401	100.1	1401	100.1	
	FL	1134	81.0	1134	81.0	1386	99.0	1386	99.0	
	WF	1067	76.2	1067	76.2	1304	93.1	1304	93.1	
24L	SP	2008	91.3	2008	91.3	2455	111.6	2455	111.6	22
	NF	1989	90.4	1989	90.4	2432	110.5	2432	110.5	
	FL	1969	89.5	1969	89.5	2407	109.4	2407	109.4	
	WF	1852	84.2	1852	84.2	2264	102.9	2264	102.9	

*Electrical Data at 25C (77F)/ Actual Wattage may differ +/-10%

ELECTRICAL DATA (AMPS)*

Lumen Package	120V	208V	240V	277V
14L	0.12	0.07	0.06	0.05
24L	0.18	0.11	0.09	0.08

*LED Chips are frequently updated therefore values may change.

Data is based on Haze Reflector.

LSI Industries Inc. 10000 Alliance Rd. Cincinnati, OH 45242 • (513) 372-3200 • www.lsicorp.com

©LSI Industries Inc. All Rights Reserved. Specifications and dimensions subject to industry standard tolerances. Specifications subject to change without notice.

Page 3/6 Rev. 01/12/24

SPEC.2045.B.0124

Submitted On: Apr 5, 2024

3/6

Page 93 of 148
Index Page

4" Architectural Downlight (LAD4) New Construction

Type : _____

 **Have questions?** Call us at (800) 436-7800

PHOTOMETRICS

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. As specified by IESNA LM-79-08 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

See the individual product page on <https://www.lsicorp.com/> for detailed photometric data.

LAD4-LED-24L-35-SP-TR4R-SF-HAZ

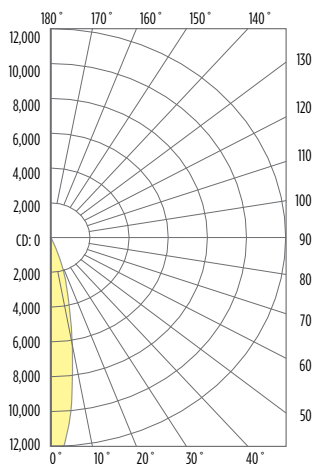
Lumens: 2,455

Watts: 22.2

Efficacy: 111

ZONAL LUMEN SUMMARY			CANDELA TABLE	
Zone	Lumens	%Fixture	Degree Vertical	Candela
0-10	803	32.7%	0	5,756
10-20	892	36.3%	5	5,523
20-30	569	23.2%	10	4,611
30-40	129	5.2%	15	3,473
40-50	43	1.7%	20	2,446
50-60	14	0.6%	25	1,609
60-70	3	0.1%	30	685
70-80	1	0.1%	35	275
80-90	0	0.0%	40	136
90-100	0	0.0%	45	76
0-180	2,455	100.0%	50	39
			55	15
			60	5
			65	3
			70	2
			75	1
			80	0
			85	0
			90	0

Polar Candela Distribution



Illuminance at a Distance

	Center Beam fc	Beam Width	
2 ft.	2,858 fc	0.7 ft	0.7 ft
4 ft.	714 fc	1.4 ft	1.4 ft
6 ft.	318 fc	2.1 ft	2.1 ft
8 ft.	179 fc	2.8 ft	2.8 ft
10 ft.	114 fc	3.5 ft	3.5 ft
12 ft.	79.4 fc	4.2 ft	4.2 ft

■ Vert. Spread: 19.9°

■ Horiz. Spread 20.1°

LAD4-LED-24L-35-NF-TR4R-SF-HAZ

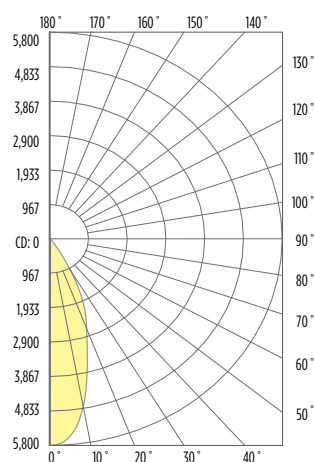
Lumens: 2,432

Watts: 22.2

Efficacy: 110

ZONAL LUMEN SUMMARY			CANDELA TABLE	
Zone	Lumens	%Fixture	Degree Vertical	Candela
0-10	497	20.4%	0	5,756
10-20	949	39.0%	5	5,523
20-30	710	29.2%	10	4,611
30-40	196	8.0%	15	3,473
40-50	60	2.5%	20	2,446
50-60	16	0.6%	25	1,609
60-70	3	0.1%	30	685
70-80	1	0.0%	35	275
80-90	0	0.0%	40	136
90-100	0	0.0%	45	76
0-180	2,432	100.0%	50	39
			55	15
			60	5
			65	3
			70	2
			75	1
			80	0
			85	0
			90	0

Polar Candela Distribution



Illuminance at a Distance

	Center Beam fc	Beam Width	
2 ft.	1,439 fc	1.3 ft	1.3 ft
4 ft.	360 fc	2.5 ft	2.5 ft
6 ft.	160 fc	3.8 ft	3.8 ft
8 ft.	89.9 fc	5.1 ft	5.1 ft
10 ft.	57.6 fc	6.3 ft	6.3 ft
12 ft.	40.0 fc	7.6 ft	7.6 ft

■ Vert. Spread: 35.1°

■ Horiz. Spread 34.9°



4" Architectural Downlight (LAD4) New Construction

Type: _____

Have questions? Call us at (800) 436-7800

PHOTOMETRICS

LAD4-LED-24L-35-FL-TR4R-SF-HAZ

Lumens: 2,407

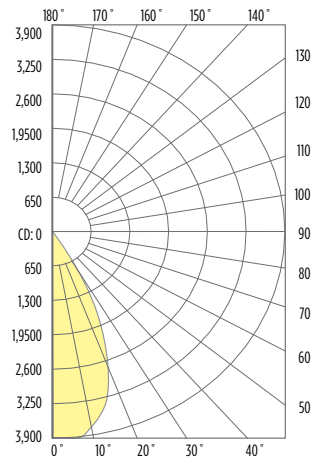
Watts: 22.2

Efficacy: 108

ZONAL LUMEN SUMMARY		
Zone	Lumens	%Fixture
0-10	359	14.9%
10-20	884	36.7%
20-30	792	32.9%
30-40	265	11.0%
40-50	85	3.5%
50-60	18	0.7%
60-70	4	0.1%
70-80	1	0.1%
80-90	0	0.0%
90-100	0	0.0%
0-180	2,407	100.0%

CANDELA TABLE	
Degree Vertical	Candela
0	3,826
5	3,844
10	3,654
15	3,182
20	2,513
25	1,770
30	852
35	391
40	206
45	104
50	45
55	17
60	6
65	3
70	2
75	1
80	1
85	0
90	0

Polar Candela Distribution



Illuminance at a Distance

	Center Beam fc	Beam Width	
2 ft.	957 fc	1.8 ft	1.8 ft
4 ft.	239 fc	3.6 ft	3.6 ft
6 ft.	106 fc	5.3 ft	5.3 ft
8 ft.	59.8 fc	7.1 ft	7.1 ft
10 ft.	38.3 fc	8.9 ft	8.9 ft
12 ft.	26.6 fc	10.7 ft	10.7 ft

■ Vert. Spread: 47.9°

■ Horiz. Spread 47.4°

LAD4R-LED-24L-35-WF-TR4R-SF-HAZ

Lumens: 2,264

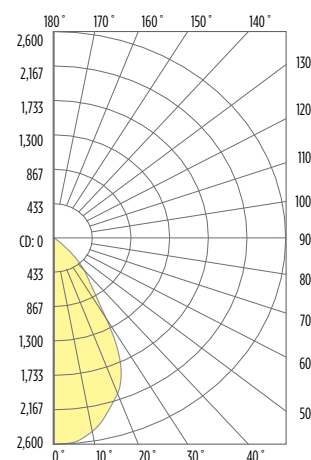
Watts: 22.2

Efficacy: 102

ZONAL LUMEN SUMMARY		
Zone	Lumens	%Fixture
0-10	237	10.5%
10-20	617	27.2%
20-30	722	31.9%
30-40	405	17.9%
40-50	219	9.7%
50-60	53	2.3%
60-70	9	0.4%
70-80	2	0.1%
80-90	0	0.0%
90-100	0	0.0%
0-180	2,264	100.0%

CANDELA TABLE	
Degree Vertical	Candela
0	3,826
5	3,844
10	3,654
15	3,182
20	2,513
25	1,770
30	852
35	391
40	206
45	104
50	45
55	17
60	6
65	3
70	2
75	1
80	1
85	0
90	0

Polar Candela Distribution



Illuminance at a Distance

	Center Beam fc	Beam Width	
2 ft.	633 fc	2.1 ft	2.1 ft
4 ft.	158 fc	4.3 ft	4.3 ft
6 ft.	70.4 fc	6.4 ft	6.4 ft
8 ft.	39.6 fc	8.5 ft	8.5 ft
10 ft.	25.3 fc	10.7 ft	10.7 ft
12 ft.	17.6 fc	12.8 ft	12.8 ft

■ Vert. Spread: 56.3°

■ Horiz. Spread 56.1°

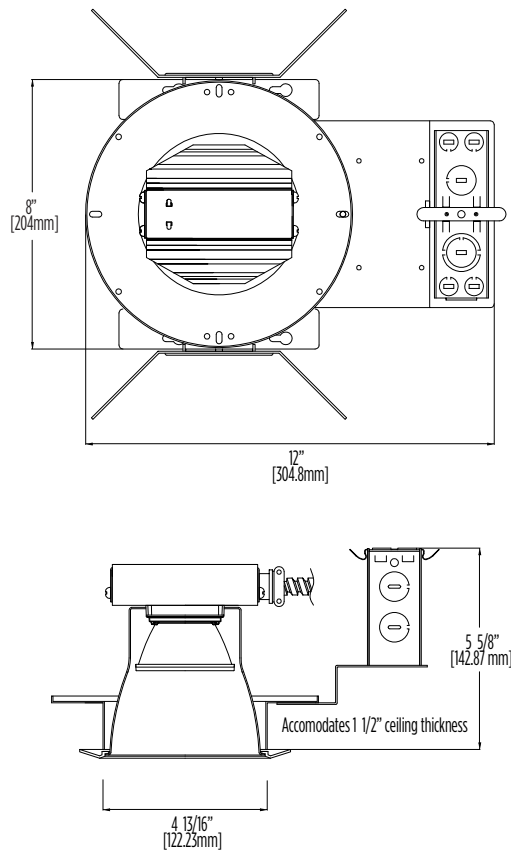


4" Architectural Downlight (LAD4) New Construction

Type : _____

 **Have questions?** Call us at (800) 436-7800

PRODUCT DIMENSIONS



4" RECESSED DOWNLIGHT REFLECTORS



TR4R - Open Reflector

Self-Flange or Flangeless
HAZ - Haze semi-diffused
SPC - Specular clear



TR4RWW - Wall Wash w/ Kick Reflector

Self-Flange or Flangeless
HAZ - Haze semi-diffused



TR4RL - Regressed Lens w/ Specular Clear Reflector

Flangeless
HAZ - Haze semi-diffused
SPC - Specular clear
Wet Location Listed



Staff Meeting Bulletin

Meeting Date: March 27, 2024

Project: Root Road Park, 8949 Root Road, North Ridgeville, OH 44039

Applicant: Kevin Fougrousse, City of North Ridgeville, Park & Recreation, 7307 Avon Belden Rd, North Ridgeville, OH 44039

Zoning: R-1 Residence District

In Attendance: Kevin Corcoran, Mayor
Kim Lieber, Planning & Development Director
Toni Morgan, Assistant Law Director
Mike Uhnak, Assistant Fire Chief
Joe Reitz, Engineer
Eric Brown, Engineer
Tina Wieber, Deputy Clerk of Council
Kevin Fougrousse, Parks & Rec Director
Brent Anderson, PE, Rafter A, Ltd.
Richard Fredrickson, PE, Rafter A, Ltd.

Project Introduction

- Kevin explained that a new Root Road Park parking lot was designed last year and due to needed cost-saving measures, they had to shrink down the parking lot a little. He stated that they now had the financial means to move forward with the project.
- Brent stated that in earlier conversations with Kim they had talked about if there was any way to save some of the trees and bushes on the south side, but in an effort to provide good drainage, having that swale along the driveway was going warrant taking it to the property line. He said that they did put both of those fences in the bid package to provide a little bit of screening for those neighbors and that there was a similar style fence along the back that protected those neighbors from any kind of activity that was going on. He mentioned that they did pull some of the storm drainage in that area back and decided that they could do away with the curbs. He said it would be a nice grass entrance as visitors came in and if they wanted to do some landscaping in that area in the future they could.
- Brent stated that the biggest change was that they were able to bring down the size of the basin to reduce that impact when they removed some of the parking spaces. There are 204 total parking spaces with better traffic flow. He mentioned that currently there wasn't any striping. He explained that they were doing some drainage improvements there as well and that there was an older storm system that was put in at some point in time in the past, that tied into the adjacent subdivision's storm sewer system and went into their basin. He added that from everything that they had been able to research through the Engineering Department and the Service Department, that wasn't necessarily included as part of that development's design. He stated that that was why they were separating the basin out, so that the park would essentially have a basin that controlled storm water on their site versus running off into the neighboring site, to provide a little relief to what they had going on. He mentioned that they had met with the HOA, and they seemed onboard with that.

Staff Comments

- Kim asked if the fence would be 6 feet and wood on both sides. Brent stated that was correct. She asked if there would be any curbing. Brent stated that currently they didn't have any and took it all out. He said that it would all be aprons with a gravel berm going all the way around. Kim asked about the landscaped mound and asked if it was just lawn planted on it. Brent stated that there was a mound there that had some various trees and things, but the idea was to leave the back side the way it was, as to the growth on their side, but maybe just add to the mound but not to just dump dirt. Kim

stated that she didn't want it to be a weed pile but something purposeful with some planting that looked good. Brent agreed and stated that it was a graded mound and would be shaped up.

- Kim asked if they had a new dumpster enclosure. Brent stated that was correct. He explained that there was a drive back there that went to a little bit of parking. He discussed that the idea was to give the public access to walk back to the path. He stated that the path would work as a service access drive and the dumpster that was there would then get relocated closer to where the truck would pick it up. Kim stated that they added a little walk stub to the playground area. Brent stated that was correct and that there was an existing gate that went over there but they would just be paving that out in case emergency vehicles needed to access that gate, to be a little bit closer to it.
- Mayor asked regarding the 6-foot wooden fence, if they were talking about basically creating a tunnel along that path. Brent explained that coming in on the north side, there were power lines and things that were there, and it was kind of overgrown into that, so they would be cleaning that back against the property line a little bit. Kim asked how close to the street they were going to get. Brent stated that it would be out to the setback. Mayor commented that he was questioning the fence to the southside. Kim explained that it would leave that property wide open. She stated that currently there was a pretty dense bush line, and they would go from screening to wide open. Brent explained that it would widen it up there, so that there would be 12 to 15 feet of grass between the fence and the actual road. Mayor stated that they had to be careful with the way that was angled that the fence didn't go too far out. Brent agreed that they had to maintain the visibility for the left-hand turn lane. Kevin stated that they removed 6 feet of the scrub for the sign, to provide visibility for the traffic going in and out.
- Mike asked if there was a hydrant back there. Kevin stated that there was.

Next Steps

- The applicant will provide any updates to the plans prior to the April 9 meeting.

CITY OF NORTH RIDGEVILLE PARKS DEPARTMENT
ROOT ROAD PARK PAVEMENT
& SITE IMPROVEMENTS
8949 ROOT ROAD, NORTH RIDGEVILLE, OHIO 44039

LEGEND OF LINETYPES

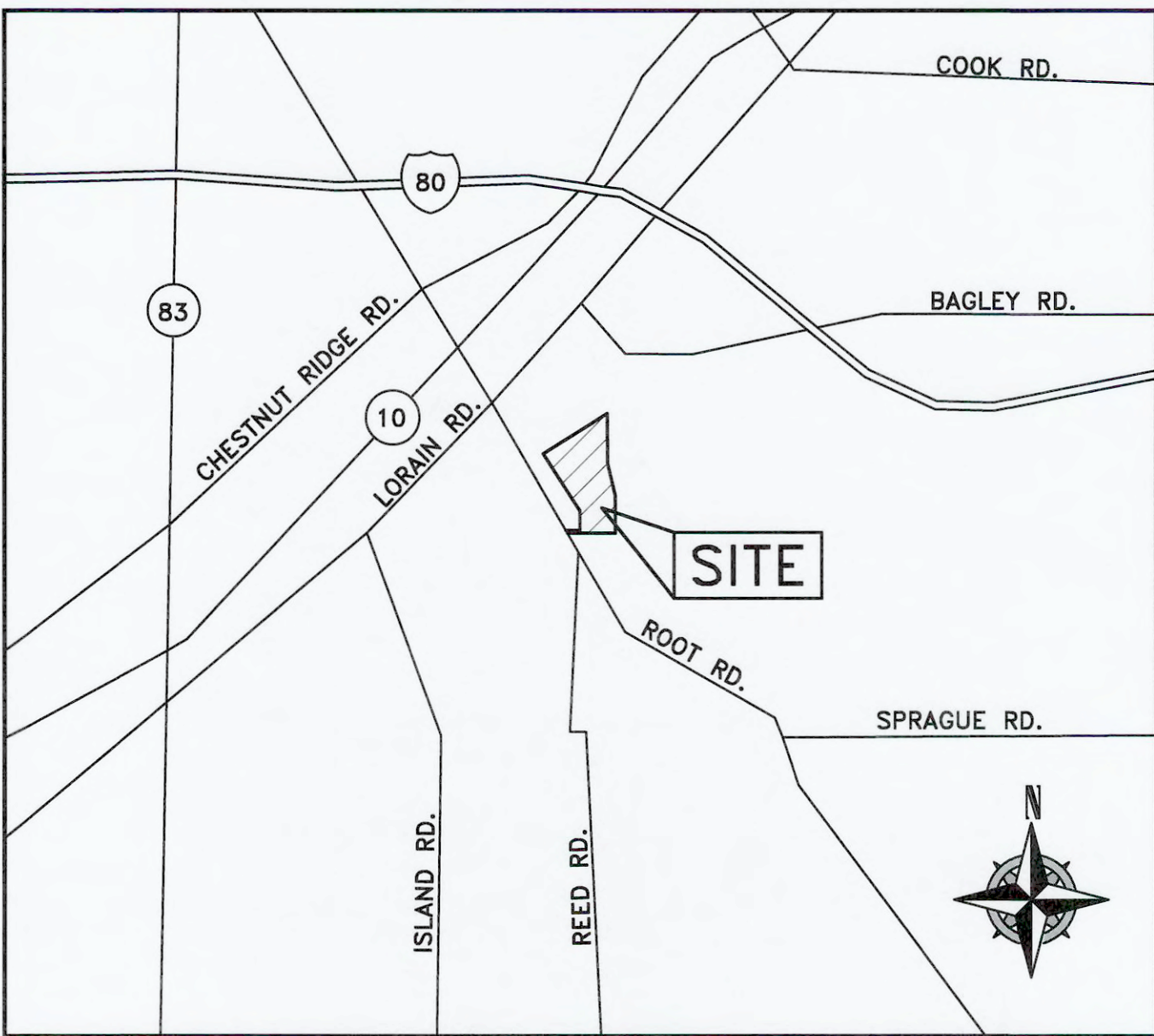
---	CENTERLINE
---	EX. PAVEMENT
---	DITCH/CREEK/SWALE
---	EX. SETBACK LINES
---	EX. MINOR CONTOUR
---	EX. MAJOR CONTOUR
---	EX. STORM
---	EX. SANITARY
---	EX. WATER
---	EX. GAS
---	EX. OVERHEAD UTILITIES
---	EX. TELEPHONE
---	EX. U.G. ELECTRIC
---	PROP. MINOR CONTOUR
---	PROP. MAJOR CONTOUR
---	PROP. STORM
---	PROP. SANITARY
---	PROP. WATER
---	PROP. GAS
---	PROP. OVERHEAD UTILITIES
---	PROP. TELEPHONE
---	PROP. U.G. ELECTRIC
---	CONSTRUCTION LIMITS
---	SILT FENCE

LEGEND OF SYMBOLS

○	CLEAN OUT
○	DOWNSPOUT
○	YARD DRAIN
○	STORM MANHOLE
○	SANITARY MANHOLE
○	CATCH BASIN
○	HYDRANT
○	WATER VALVE
○	GAS REG/METER
○	WATER REG/METER
○	ELECTRICAL METER
○	GAS VALVE
○	UTILITY POLE
○	GUY ANCHOR
○	BOLLARD
○	SIGN
○	SOILS TYPE
○	IRON PIN/PIPE FOUND
○	AS INDICATED
○	IRON PIN/PIPE FOUND IN
○	MONUMENT BOX AS INDICATED
○	INLET PROTECTION
○	DEMOLITION AREA

LIST OF UTILITY COMPANIES IN THE AREA

COMPANY NAME	DESCRIPTION	TELEPHONE	ADDRESS
WIDE OPEN WEST (WOW)	CABLE/INTERNET	(866) 496-9669	105 BLAZE INDUSTRIAL PKWY, BEREA, OH 44017
COLUMBIA GAS OF OHIO	GAS	(800) 344-4077	3101 NORTH RIDGE RD, ELYRIA, OH 44035
SPECTRUM / TIME WARNER	CABLE/INTERNET	(866) 874-2389	576 TERNES AVE, ELYRIA, OH 44035
CENTURYLINK	CABLE/INTERNET	(440) 244-8400	203 W 9TH STREET, LORAIN, OHIO 44052
OHIO EDISON	ELECTRIC	(440) 326-3319	6326 LAKE AVENUE, ELYRIA, OHIO 44035
CITY OF NORTH RIDGEVILLE	WATER, SEWER	(440) 353-0841	7307 AVON BELDEN ROAD, NORTH RIDGEVILLE, OHIO 44039



VICINITY MAP

-NOT TO SCALE-

SITE ADDRESS: 8949 ROOT ROAD, NORTH RIDGEVILLE, OHIO 44039
SCM COORDINATES: N: 618593.49 E: 2108153.40 (NAD83 OHIO NORTH ZONE)
LAT: 41°21'48.89" N LONG: 81°59'28.58" W (WGS 84)

DESIGN ENGINEER:

RICHARD A. FREDRICKSON, P.E., P.S.
OHIO ENGINEER - 61668
OHIO SURVEYOR - 8285
DATE: 02-19-2024

CIVIL SITE DESIGN SHEET LEGEND

TITLE SHEET.....	C0.0
EXISTING CONDITIONS & DEMOLITION PLAN.....	C1.0
EXISTING DRAINAGE MAP.....	C1.1
SITE PLAN.....	C2.0
PROPOSED DRAINAGE MAP.....	C2.1
OVERALL UTILITY PLAN.....	C3.0
OVERALL GRADING PLAN.....	C4.0
ENLARGED GRADING PLAN.....	C4.1 - C4.2
CONSTRUCTION STORM WATER POLLUTION PREVENTION PLAN.....	C5.0
CONSTRUCTION STORM WATER POLLUTION PREVENTION BASIN DETAILS.....	C5.1
CONSTRUCTION STORM WATER POLLUTION PREVENTION NOTES & DETAILS.....	C5.2 - C5.6
PERMANENT COMPREHENSIVE STORM WATER MANAGEMENT PLAN.....	C6.0
PERMANENT COMPREHENSIVE STORM WATER MANAGEMENT BASIN DETAILS.....	C6.1
MISCELLANEOUS DETAILS.....	C7.0 - C7.4

SCOPE OF WORK

THE IMPROVEMENT PLANS ARE FOR THE SITE PARKING AND DRIVE IMPROVEMENTS FROM GRAVEL TO ASPHALT. THE SITE IS CURRENTLY SERVICED BY A STORM SEWER SYSTEM THAT CONVEYS THE STORM WATER OFFSITE TO A NEIGHBORING DEVELOPMENT. A NEW STORM WATER MANAGEMENT SYSTEM WILL BE INSTALLED TO PROVIDE STANDALONE MANAGEMENT AND SEDIMENT CONTROL FOR THE PARK DEVELOPMENT.

CONTRACTORS SWP3 ACKNOWLEDGEMENT:

PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL OBTAIN A STORM WATER POLLUTION PREVENTION PLAN (SWP3) SIGNED BY THE CONTRACTOR AND ALL OF HIS SUBCONTRACTORS.

SEE STORM WATER POLLUTION PREVENTION PLAN DETAIL SHEET C5.2 FOR SIGNATURE STATEMENT AND SIGNATURE LIST.

NOI STORM WATER GENERAL PERMIT NUMBER:

CITY OF NORTH RIDGEVILLE STANDARD DETAILS

CONTRACTOR SHALL ABIDE BY ALL JURISDICTIONAL DETAILS AND SPECIFICATIONS. IN THE CASE WHERE DETAILS CONFLICT THE JURISDICTIONAL DETAIL AND SPECIFICATIONS SHALL BE USED. A LIST OF APPLICABLE STANDARD CITY OF NORTH RIDGEVILLE DETAILS IS PROVIDED HEREON. ADDITIONAL DETAILS AND SPECIFICATIONS MAY BE REQUIRED AND SHALL BE OBTAINED BY THE CONTRACTOR FROM THE CITY OF NORTH RIDGEVILLE ENGINEERING DEPARTMENT.

BASIS OF BEARINGS

BASIS OF BEARING IS ASSUMED AND IS USED TO DESCRIBE ANGLES ONLY. A PORTION OF THE WESTERLY LINE OF RIDGEFIELD HOMES INC. SUBDIVISION No. 2 AS RECORDED IN PLAT VOLUME 57, PAGE 70 OF THE LORAIN COUNTY PLAT RECORDS AND IS ASSUMED TO BE NORTH 01° 38' 05" EAST AS SHOWN HEREON.

THIS SURVEY IS BASED UPON A FIELD SURVEY PERFORMED BY RAFTER A., LTD IN APRIL OF 2023.

UNDERGROUND UTILITIES NOTE:

THE SIZE & LOCATION, BOTH HORIZONTAL AND VERTICAL, OF THE UNDERGROUND UTILITIES SHOWN HEREON, HAVE BEEN OBTAINED BY A SEARCH OF AVAILABLE RECORDS. VERIFICATION BY FIELD OBSERVATION HAS BEEN CONDUCTED WHERE PRACTICAL. HOWEVER, RAFTER A., LTD DOES NOT GUARANTEE THE COMPLETENESS NOR ACCURACY THEREOF.

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764 (Non-members must be called directly)
A228701141-00A; A228701159-00A; A228701221-00A; A228701207-00A

REV.	BY	DATE	DESCRIPTION
1	BDA	11-10-2023	ISSUE FOR CLIENT REVIEW
2	BDA	02-16-2024	ISSUE FOR CITY REVIEW
3	BDA	02-19-2024	ISSUE FOR CITY REVIEW

RAFTER A., LTD
LAND SURVEYING • ENGINEERING • TESTING
42663 Oberlin-Elyria Road, Oberlin, Ohio 44074
440-707-4014 • www.raftera.com • info@raftera.com

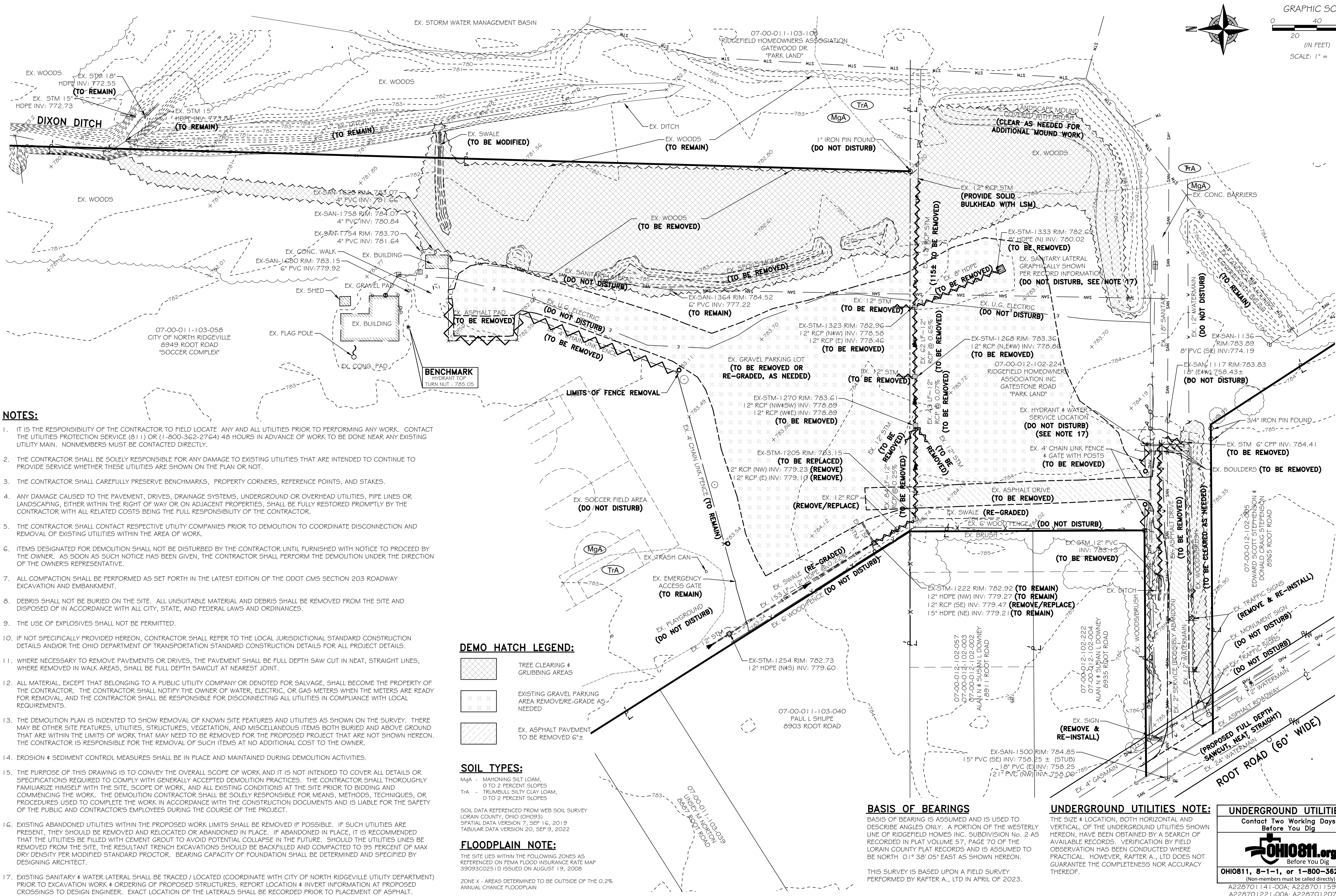
CITY OF NORTH RIDGEVILLE
PARKS & RECREATION DEPARTMENT
7307 AVON BELDEN ROAD
NORTH RIDGEVILLE, OHIO 44039

CITY OF NORTH RIDGEVILLE
PARKS DEPARTMENT
ROOT ROAD PARK PAVEMENT
& SITE IMPROVEMENTS
TITLE SHEET

8949 ROOT ROAD, NORTH RIDGEVILLE, OHIO 44090

DRAWN BY: BDA
CHECKED BY: RAF
RAF JOB No: 3128-23

SHEET: C0.0



NOTES:

- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD LOCATE ANY AND ALL UTILITIES PRIOR TO PERFORMING ANY WORK. CONTACT THE UTILITIES PROTECTION SERVICE (811) OR (1-800-362-2764) 48 HOURS IN ADVANCE OF WORK TO BE DONE NEAR ANY EXISTING UTILITY MAIN. NONMEMBERS MUST BE CONTACTED DIRECTLY.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES THAT ARE INTENDED TO CONTINUE TO PROVIDE SERVICE WHETHER THESE UTILITIES ARE SHOWN ON THE PLAN OR NOT.
- THE CONTRACTOR SHALL CAREFULLY PRESERVE BENCHMARKS, PROPERTY CORNERS, REFERENCE POINTS, AND STAKES.
- ANY DAMAGE CAUSED TO THE PAVEMENT, DRIVES, DRAINAGE SYSTEMS, UNDERGROUND OR OVERHEAD UTILITIES, PIPE LINES OR LANDSCAPING, EITHER WITHIN THE RIGHT OF WAY OR ON ADJACENT PROPERTIES, SHALL BE FULLY RESTORED PROMPTLY BY THE CONTRACTOR WITH ALL RELATED COSTS BEING THE FULL RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL CONTACT RESPECTIVE UTILITY COMPANIES PRIOR TO DEMOLITION TO COORDINATE DISCONNECTION AND REMOVAL OF EXISTING UTILITIES WITHIN THE AREA OF WORK.
- ITEMS DESIGNATED FOR DEMOLITION SHALL NOT BE DISTURBED BY THE CONTRACTOR UNTIL FURNISHED WITH NOTICE TO PROCEED BY THE OWNER. AS SOON AS SUCH NOTICE HAS BEEN GIVEN, THE CONTRACTOR SHALL PERFORM THE DEMOLITION UNDER THE DIRECTION OF THE OWNER'S REPRESENTATIVE.
- ALL COMPACTION SHALL BE PERFORMED AS SET FORTH IN THE LATEST EDITION OF THE ODOT CMS SECTION 203 ROADWAY EXCAVATION AND EMBANKMENT.
- DEBRIS SHALL NOT BE BURIED ON THE SITE. ALL UNSUITABLE MATERIAL AND DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH ALL CITY, STATE, AND FEDERAL LAWS AND ORDINANCES.
- THE USE OF EXPLOSIVES SHALL NOT BE PERMITTED.
- IF NOT SPECIFICALLY PROVIDED HEREON, CONTRACTOR SHALL REFER TO THE LOCAL JURISDICTIONAL STANDARD CONSTRUCTION DETAILS AND/OR THE OHIO DEPARTMENT OF TRANSPORTATION STANDARD CONSTRUCTION DETAILS FOR ALL PROJECT DETAILS.
- WHERE NECESSARY TO REMOVE PAVEMENTS OR DRIVES, THE PAVEMENT SHALL BE FULL DEPTH SAW CUT IN NEAT, STRAIGHT LINES, WHERE REMOVED IN WALK AREAS, SHALL BE FULL DEPTH SAW CUT AT NEAREST JOINT.
- ALL MATERIAL, EXCEPT THAT BELONGING TO A PUBLIC UTILITY COMPANY OR DENOTED FOR SALVAGE, SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE OWNER OF WATER, ELECTRIC, OR GAS METERS WHEN THE METERS ARE READY FOR REMOVAL, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISCONNECTING ALL UTILITIES IN COMPLIANCE WITH LOCAL REQUIREMENTS.
- THE DEMOLITION PLAN IS INDENTED TO SHOW REMOVAL OF KNOWN SITE FEATURES AND UTILITIES AS SHOWN ON THE SURVEY. THERE MAY BE OTHER SITE FEATURES, UTILITIES, STRUCTURES, VEGETATION, AND MISCELLANEOUS ITEMS BOTH BURIED AND ABOVE GROUND THAT ARE WITHIN THE LIMITS OF WORK THAT MAY NEED TO BE REMOVED FOR THE PROPOSED PROJECT THAT ARE NOT SHOWN HEREON. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF SUCH ITEMS AT NO ADDITIONAL COST TO THE OWNER.
- EROSION & SEDIMENT CONTROL MEASURES SHALL BE IN PLACE AND MAINTAINED DURING DEMOLITION ACTIVITIES.
- THE PURPOSE OF THIS DRAWING IS TO CONVEY THE OVERALL SCOPE OF WORK AND IT IS NOT INTENDED TO COVER ALL DETAILS OR SPECIFICATIONS REQUIRED TO COMPLY WITH GENERALLY ACCEPTED DEMOLITION PRACTICES. THE CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THE SITE, SCOPE OF WORK, AND ALL EXISTING CONDITIONS AT THE SITE PRIOR TO BIDDING AND COMMENCING THE WORK. THE DEMOLITION CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, OR PROCEDURES USED TO COMPLETE THE WORK IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND IS LIABLE FOR THE SAFETY OF THE PUBLIC AND CONTRACTORS' EMPLOYEES DURING THE COURSE OF THE PROJECT.
- EXISTING ABANDONED UTILITIES WITHIN THE PROPOSED WORK LIMITS SHALL BE REMOVED IF POSSIBLE. IF SUCH UTILITIES ARE PRESENT, THEY SHOULD BE REMOVED AND RELOCATED OR ABANDONED IN PLACE. IF ABANDONED IN PLACE, IT IS RECOMMENDED THAT THE UTILITIES BE FILLED WITH CEMENT GROUT TO AVOID POTENTIAL COLLAPSE IN THE FUTURE. SHOULD THE UTILITIES LINES BE REMOVED FROM THE SITE, THE RESULTANT TRENCH EXCAVATIONS SHOULD BE BACKFILLED AND COMPACTED TO 95 PERCENT OF MAX DRY DENSITY PER MODIFIED STANDARD PROCTOR. BEARING CAPACITY OF FOUNDATION SHALL BE DETERMINED AND SPECIFIED BY DESIGNING ARCHITECT.
- EXISTING SANITARY & WATER LATERAL SHALL BE TRACED / LOCATED (COORDINATE WITH CITY OF NORTH RIDGEVILLE UTILITY DEPARTMENT) PRIOR TO EXCAVATION WORK & ORDERING OF PROPOSED STRUCTURES. REPORT LOCATION & INVERT INFORMATION AT PROPOSED CROSSINGS TO DESIGN ENGINEER. EXACT LOCATION OF THE LATERALS SHALL BE RECORDED PRIOR TO PLACEMENT OF ASPHALT.

DEMO HATCH LEGEND:

- TREE CLEARING & GRUBBING AREAS
- EXISTING GRAVEL PARKING AREA REMOVE/RE-GRADE AS NEEDED
- EX. ASPHALT PAVEMENT TO BE REMOVED 6"±

SOIL TYPES:

- MgA - MAHONING SILT LOAM, 0 TO 2 PERCENT SLOPES
 - TrA - TRUMBULL SILTY CLAY LOAM, 0 TO 2 PERCENT SLOPES
- SOIL DATA REFERENCED FROM WEB SOIL SURVEY
LORAIN COUNTY, OHIO (OH093)
SPATIAL DATA VERSION 7, SEP 16, 2019
TABULAR DATA VERSION 20, SEP 9, 2022

FLOODPLAIN NOTE:

- THE SITE LIES WITHIN THE FOLLOWING ZONES AS REFERENCED ON FEMA FLOOD INSURANCE RATE MAP 39093C0251D ISSUED ON AUGUST 19, 2008
- ZONE X - AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN

BASIS OF BEARINGS

BASIS OF BEARING IS ASSUMED AND IS USED TO DESCRIBE ANGLES ONLY. A PORTION OF THE WESTERLY LINE OF RIDGEFIELD HOMES INC. SUBDIVISION No. 2 AS RECORDED IN PLAT VOLUME 57, PAGE 70 OF THE LORAIN COUNTY PLAT RECORDS AND IS ASSUMED TO BE NORTH 01° 38' 05" EAST AS SHOWN HEREON.

THIS SURVEY IS BASED UPON A FIELD SURVEY PERFORMED BY RAFTER A., LTD IN APRIL OF 2023.

UNDERGROUND UTILITIES NOTE:

THE SIZE & LOCATION, BOTH HORIZONTAL AND VERTICAL, OF THE UNDERGROUND UTILITIES SHOWN HEREON, HAVE BEEN OBTAINED BY A SEARCH OF AVAILABLE RECORDS. VERIFICATION BY FIELD OBSERVATION HAS BEEN CONDUCTED WHERE PRACTICAL. HOWEVER, RAFTER A., LTD DOES NOT GUARANTEE THE COMPLETENESS NOR ACCURACY THEREOF.

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)
A228701141-00A; A228701159-00A;
A228701221-00A; A228701207-00A

RAFTER A., LTD
LAND SURVEYING • ENGINEERING • TESTING

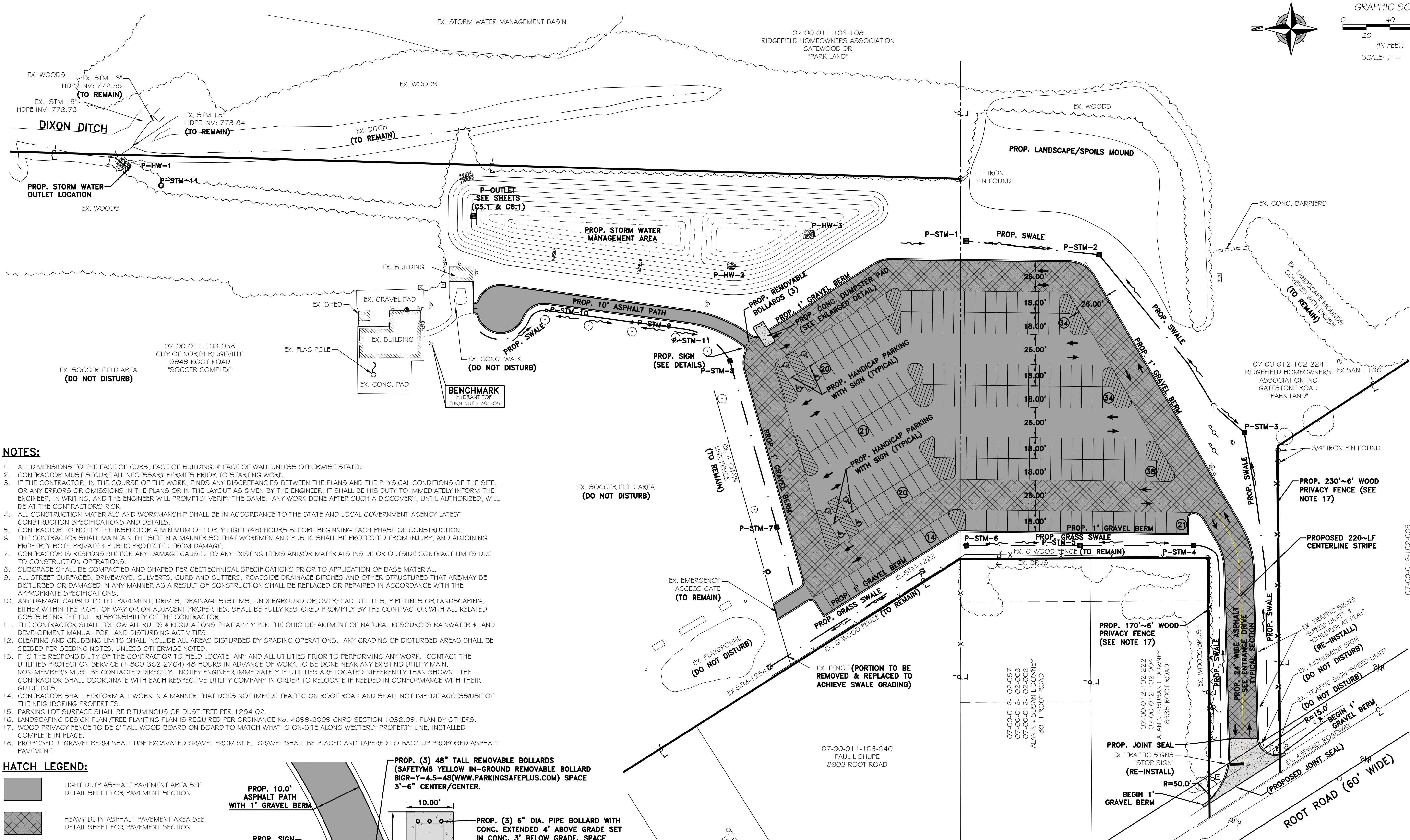
42653 Oberlin-Elyria Road, Oberlin, Ohio 44074
440-707-4014 • www.raftera.com • info@raftera.com

CITY OF NORTH RIDGEVILLE
PARKS & RECREATION DEPARTMENT
7327 AVON BELDEN ROAD
NORTH RIDGEVILLE, OHIO 44039

CITY OF NORTH RIDGEVILLE
PARKS DEPARTMENT
ROOT ROAD PARK PAVEMENT
& SITE IMPROVEMENTS
OVERALL EXISTING
CONDITIONS PLAN

DRAWN BY: BDA
CHECKED BY: RAF
RAF JOB NO: 3128-23

SHEET: **C1.0**



NOTES:

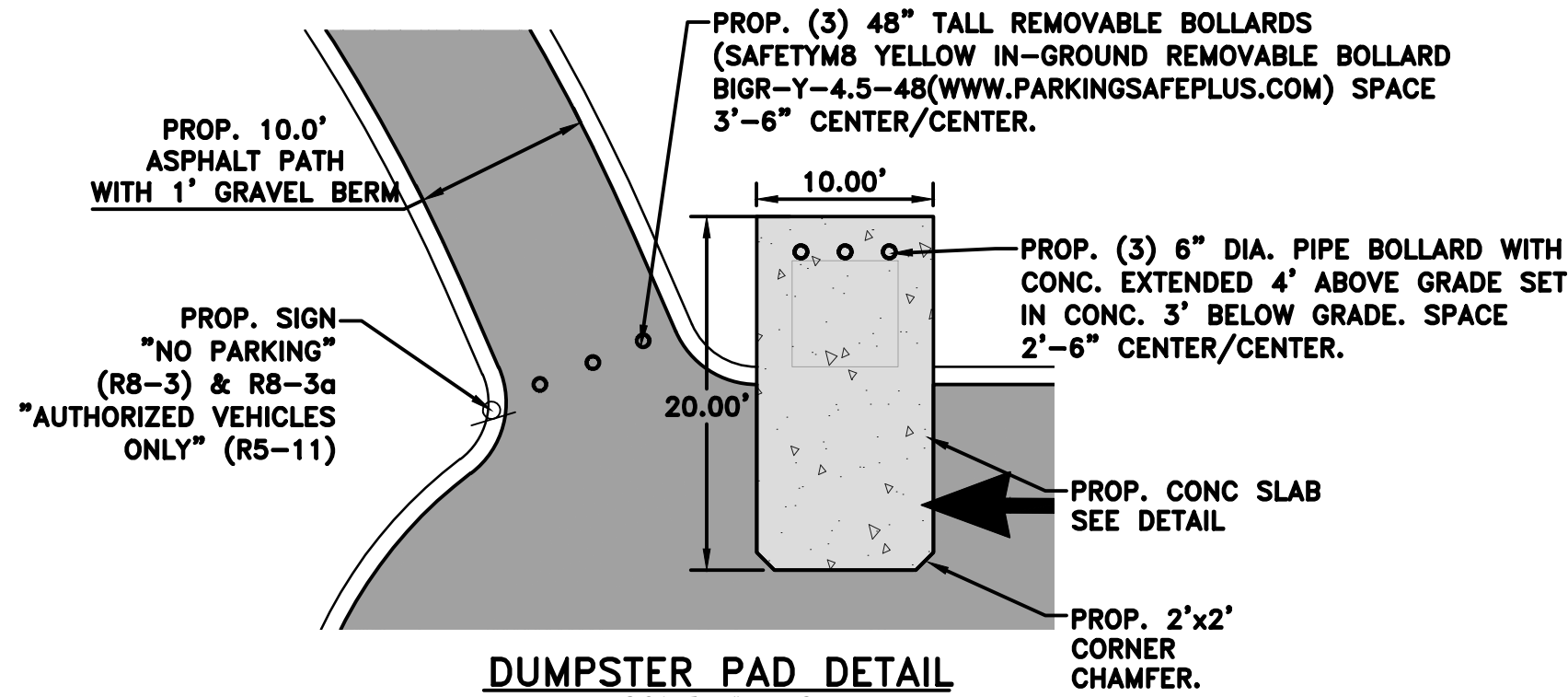
1. ALL DIMENSIONS TO THE FACE OF CURB, FACE OF BUILDING, & FACE OF WALL UNLESS OTHERWISE STATED.
2. CONTRACTOR MUST SECURE ALL NECESSARY PERMITS PRIOR TO STARTING WORK.
3. IF THE CONTRACTOR, IN THE COURSE OF THE WORK, FINDS ANY DISCREPANCIES BETWEEN THE PLANS AND THE PHYSICAL CONDITIONS OF THE SITE, OR ANY ERRORS OR OMISSIONS IN THE PLANS OR IN THE LAYOUT AS GIVEN BY THE ENGINEER, IT SHALL BE HIS DUTY TO IMMEDIATELY INFORM THE ENGINEER, IN WRITING, AND THE ENGINEER WILL PROMPTLY VERIFY THE SAME. ANY WORK DONE AFTER SUCH A DISCOVERY, UNTIL AUTHORIZED, WILL BE AT THE CONTRACTOR'S RISK.
4. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE TO THE STATE AND LOCAL GOVERNMENT AGENCY LATEST CONSTRUCTION SPECIFICATIONS AND DETAILS.
5. CONTRACTOR TO NOTIFY THE INSPECTOR A MINIMUM OF FORTY-EIGHT (48) HOURS BEFORE BEGINNING EACH PHASE OF CONSTRUCTION.
6. THE CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY BOTH PRIVATE & PUBLIC PROTECTED FROM DAMAGE.
7. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO ANY EXISTING ITEMS AND/OR MATERIALS INSIDE OR OUTSIDE CONTRACT LIMITS DUE TO CONSTRUCTION OPERATIONS.
8. SUBGRADE SHALL BE COMPACTED AND SHAPED PER GEOTECHNICAL SPECIFICATIONS PRIOR TO APPLICATION OF BASE MATERIAL.
9. ALL STREET SURFACES, DRIVEWAYS, CULVERTS, CURB AND GUTTERS, ROADSIDE DRAINAGE DITCHES AND OTHER STRUCTURES THAT ARE/MAY BE DISTURBED OR DAMAGED IN ANY MANNER AS A RESULT OF CONSTRUCTION SHALL BE REPLACED OR REPAIRED IN ACCORDANCE WITH THE APPROPRIATE SPECIFICATIONS.
10. ANY DAMAGE CAUSED TO THE PAVEMENT, DRIVES, DRAINAGE SYSTEMS, UNDERGROUND OR OVERHEAD UTILITIES, PIPE LINES OR LANDSCAPING, EITHER WITHIN THE RIGHT OF WAY OR ON ADJACENT PROPERTIES, SHALL BE FULLY RESTORED PROMPTLY BY THE CONTRACTOR WITH ALL RELATED COSTS BEING THE FULL RESPONSIBILITY OF THE CONTRACTOR.
11. THE CONTRACTOR SHALL FOLLOW ALL RULES & REGULATIONS THAT APPLY PER THE OHIO DEPARTMENT OF NATURAL RESOURCES RAINWATER & LAND DEVELOPMENT MANUAL FOR LAND DISTURBING ACTIVITIES.
12. CLEARING AND GRUBBING LIMITS SHALL INCLUDE ALL AREAS DISTURBED BY GRADING OPERATIONS. ANY GRADING OF DISTURBED AREAS SHALL BE SEEDED PER SEEDING NOTES, UNLESS OTHERWISE NOTED.
13. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD LOCATE ANY AND ALL UTILITIES PRIOR TO PERFORMING ANY WORK. CONTACT THE UTILITIES PROTECTION SERVICE (1-800-362-2764) 48 HOURS IN ADVANCE OF WORK TO BE DONE NEAR ANY EXISTING UTILITY MAIN. NON-MEMBERS MUST BE CONTACTED DIRECTLY. NOTIFY ENGINEER IMMEDIATELY IF UTILITIES ARE LOCATED DIFFERENTLY THAN SHOWN. THE CONTRACTOR SHALL COORDINATE WITH EACH RESPECTIVE UTILITY COMPANY IN ORDER TO RELOCATE IF NEEDED IN CONFORMANCE WITH THEIR GUIDELINES.
14. CONTRACTOR SHALL PERFORM ALL WORK IN A MANNER THAT DOES NOT IMPEDE TRAFFIC ON ROOT ROAD AND SHALL NOT IMPEDE ACCESS/USE OF THE NEIGHBORING PROPERTIES.
15. PARKING LOT SURFACE SHALL BE BITUMINIOUS OR DUST FREE PER 1284.02.
16. LANDSCAPING DESIGN PLAN /TREE PLANTING PLAN IS REQUIRED PER ORDINANCE No. 4699-2009 CNRO SECTION 1032.09. PLAN BY OTHERS.
17. WOOD PRIVACY FENCE TO BE 6' TALL WOOD BOARD ON BOARD TO MATCH WHAT IS ON-SITE ALONG WESTERLY PROPERTY LINE, INSTALLED COMPLETE IN PLACE.
18. PROPOSED 1' GRAVEL BERM SHALL USE EXCAVATED GRAVEL FROM SITE. GRAVEL SHALL BE PLACED AND TAPERED TO BACK UP PROPOSED ASPHALT PAVEMENT.

HATCH LEGEND:

- LIGHT DUTY ASPHALT PAVEMENT AREA SEE DETAIL SHEET FOR PAVEMENT SECTION
- HEAVY DUTY ASPHALT PAVEMENT AREA SEE DETAIL SHEET FOR PAVEMENT SECTION
- CONCRETE PAVEMENT AREA

PARKING BREAKDOWN

PARKING SPACES 196 (9x18)
ADA SPACES 8
TOTAL SPACES 204



BASIS OF BEARINGS

BASIS OF BEARING IS ASSUMED AND IS USED TO DESCRIBE ANGLES ONLY. A PORTION OF THE WESTERLY LINE OF RIDGEFIELD HOMES INC. SUBDIVISION No. 2 AS RECORDED IN PLAT VOLUME 57, PAGE 70 OF THE LORAIN COUNTY PLAT RECORDS AND IS ASSUMED TO BE NORTH 01° 38' 05" EAST AS SHOWN HEREON.

THIS SURVEY IS BASED UPON A FIELD SURVEY PERFORMED BY RAFTER A., LTD IN APRIL OF 2023.

UNDERGROUND UTILITIES NOTE:

THE SIZE & LOCATION, BOTH HORIZONTAL AND VERTICAL, OF THE UNDERGROUND UTILITIES SHOWN HEREON, HAVE BEEN OBTAINED BY A SEARCH OF AVAILABLE RECORDS. VERIFICATION BY FIELD OBSERVATION HAS BEEN CONDUCTED WHERE PRACTICAL. HOWEVER, RAFTER A., LTD DOES NOT GUARANTEE THE COMPLETENESS NOR ACCURACY THEREOF.

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)

A228701141-00A; A228701159-00A;
A228701221-00A; A228701207-00A

RAFTER A., LTD
LAND SURVEYING • ENGINEERING • TESTING

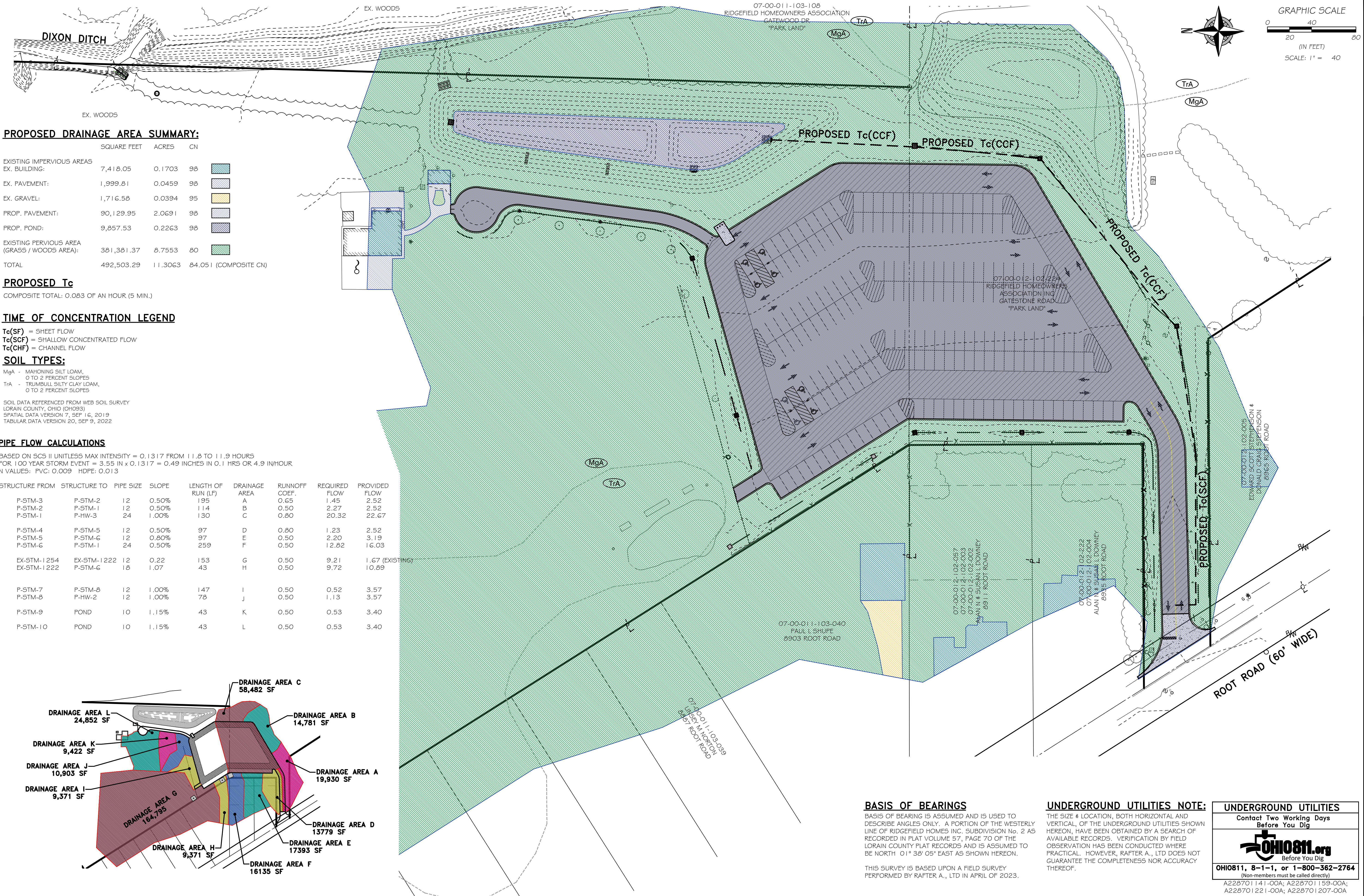
42653 Oberlin-Elyria Road, Oberlin, Ohio 44074
440-707-4014 • www.raftera.com • info@raftera.com

CITY OF NORTH RIDGEVILLE
PARKS & RECREATION DEPARTMENT
7327 AVON BELDEN ROAD
NORTH RIDGEVILLE, OHIO 44039

CITY OF NORTH RIDGEVILLE
PARKS DEPARTMENT
ROOT ROAD PARK PAVEMENT
& SITE IMPROVEMENTS
OVERALL SITE PLAN

DRAWN BY: BDA
CHECKED BY: RAF
RAF JOB NO: 3128-23

SHEET: C2.0



PROPOSED DRAINAGE AREA SUMMARY:

	SQUARE FEET	ACRES	CN
EXISTING IMPERVIOUS AREAS			
EX. BUILDING:	7,418.05	0.1703	98
EX. PAVEMENT:	1,999.81	0.0459	98
EX. GRAVEL:	1,716.58	0.0394	95
PROP. PAVEMENT:	90,129.95	2.0691	98
PROP. POND:	9,857.53	0.2263	98
EXISTING PERVIOUS AREA (GRASS / WOODS AREA):	381,381.37	8.7553	80
TOTAL	492,503.29	11.3063	84.051 (COMPOSITE CN)

PROPOSED Tc

COMPOSITE TOTAL: 0.083 OF AN HOUR (5 MIN.)

TIME OF CONCENTRATION LEGEND

Tc(SF) = SHEET FLOW
Tc(SCF) = SHALLOW CONCENTRATED FLOW
Tc(CHF) = CHANNEL FLOW

SOIL TYPES:

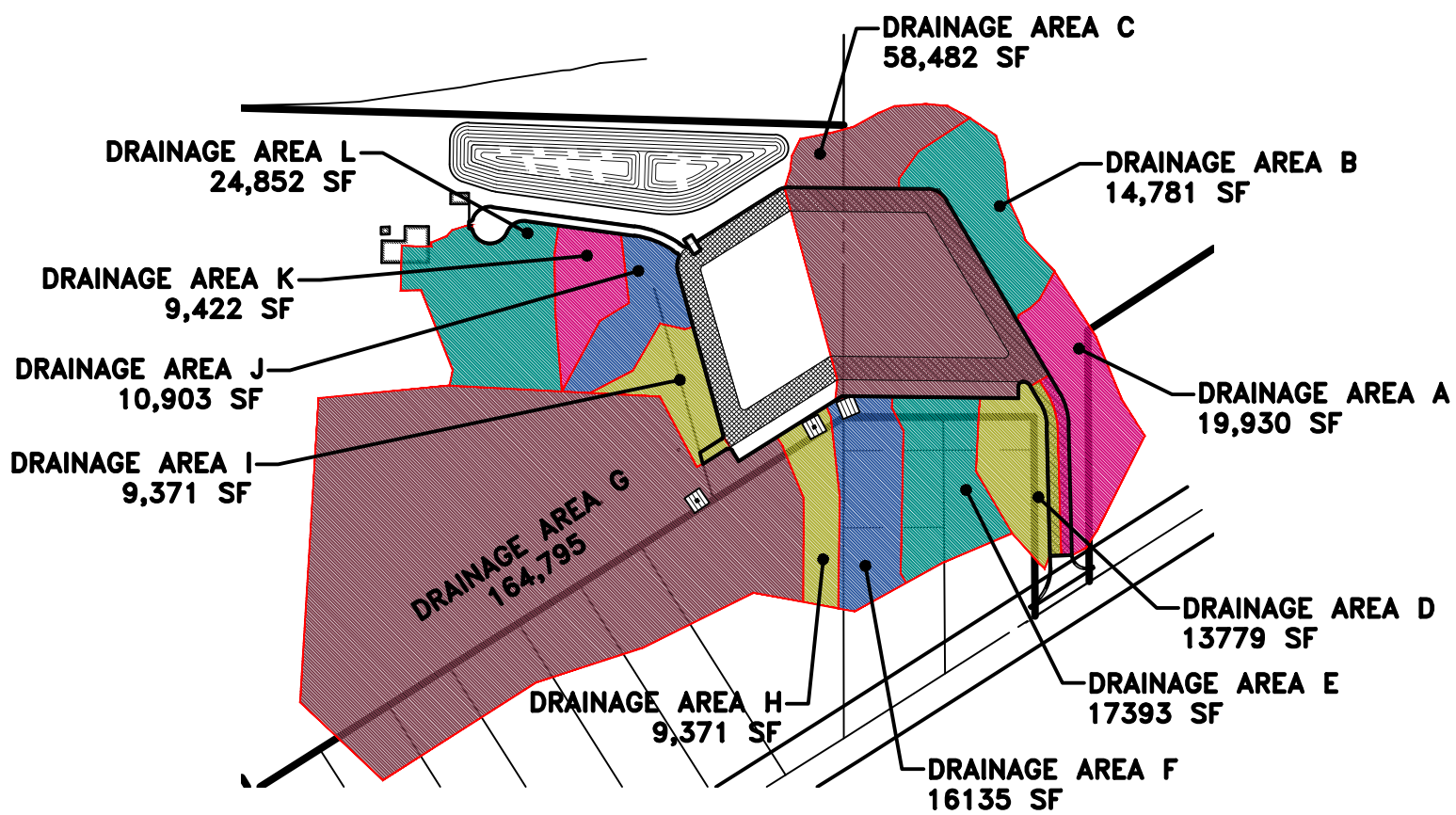
MgA - MAHONING SILT LOAM,
0 TO 2 PERCENT SLOPES
TrA - TRUMBULL SILTY CLAY LOAM,
0 TO 2 PERCENT SLOPES

SOIL DATA REFERENCED FROM WEB SOIL SURVEY
LORAIN COUNTY, OHIO (OH093)
SPATIAL DATA VERSION 7, SEP 16, 2019
TABULAR DATA VERSION 20, SEP 9, 2022

PIPE FLOW CALCULATIONS

BASED ON SCS II UNITLESS MAX INTENSITY = 0.1317 FROM 11.8 TO 11.9 HOURS
FOR 100 YEAR STORM EVENT = 3.55 IN x 0.1317 = 0.49 INCHES IN 0.1 HRS OR 4.9 IN/HOUR
N VALUES: PVC: 0.009 HOPE: 0.013

STRUCTURE FROM	STRUCTURE TO	PIPE SIZE	SLOPE	LENGTH OF RUN (LF)	DRAINAGE AREA	RUNOFF COEF.	REQUIRED FLOW	PROVIDED FLOW
P-STM-3	P-STM-2	12	0.50%	195	A	0.65	1.45	2.52
P-STM-2	P-STM-1	12	0.50%	114	B	0.50	2.27	2.52
P-STM-1	P-HW-3	24	1.00%	130	C	0.80	20.32	22.67
P-STM-4	P-STM-5	12	0.50%	97	D	0.80	1.23	2.52
P-STM-5	P-STM-6	12	0.80%	97	E	0.50	2.20	3.19
P-STM-6	P-STM-1	24	0.50%	259	F	0.50	12.82	16.03
EX-STM-1254	EX-STM-1222	12	0.22	153	G	0.50	9.21	1.67 (EXISTING)
EX-STM-1222	P-STM-6	18	1.07	43	H	0.50	9.72	10.89
P-STM-7	P-STM-8	12	1.00%	147	I	0.50	0.52	3.57
P-STM-8	P-HW-2	12	1.00%	78	J	0.50	1.13	3.57
P-STM-9	POND	10	1.15%	43	K	0.50	0.53	3.40
P-STM-10	POND	10	1.15%	43	L	0.50	0.53	3.40



BASIS OF BEARINGS

BASIS OF BEARING IS ASSUMED AND IS USED TO DESCRIBE ANGLES ONLY. A PORTION OF THE WESTERLY LINE OF RIDGEFIELD HOMES INC. SUBDIVISION No. 2 AS RECORDED IN PLAT VOLUME 57, PAGE 70 OF THE LORAIN COUNTY PLAT RECORDS AND IS ASSUMED TO BE NORTH 01° 38' 05" EAST AS SHOWN HEREON.

THIS SURVEY IS BASED UPON A FIELD SURVEY PERFORMED BY RAFTER A., LTD IN APRIL OF 2023.

UNDERGROUND UTILITIES NOTE:

THE SIZE & LOCATION, BOTH HORIZONTAL AND VERTICAL, OF THE UNDERGROUND UTILITIES SHOWN HEREON, HAVE BEEN OBTAINED BY A SEARCH OF AVAILABLE RECORDS. VERIFICATION BY FIELD OBSERVATION HAS BEEN CONDUCTED WHERE PRACTICAL. HOWEVER, RAFTER A., LTD DOES NOT GUARANTEE THE COMPLETENESS NOR ACCURACY THEREOF.

UNDERGROUND UTILITIES

Contact Two Working Days Before You Dig



OHIO811, 8-1-1, or 1-800-362-2764

(Non-members must be called directly)
A228701141-00A; A228701159-00A;
A228701221-00A; A228701207-00A

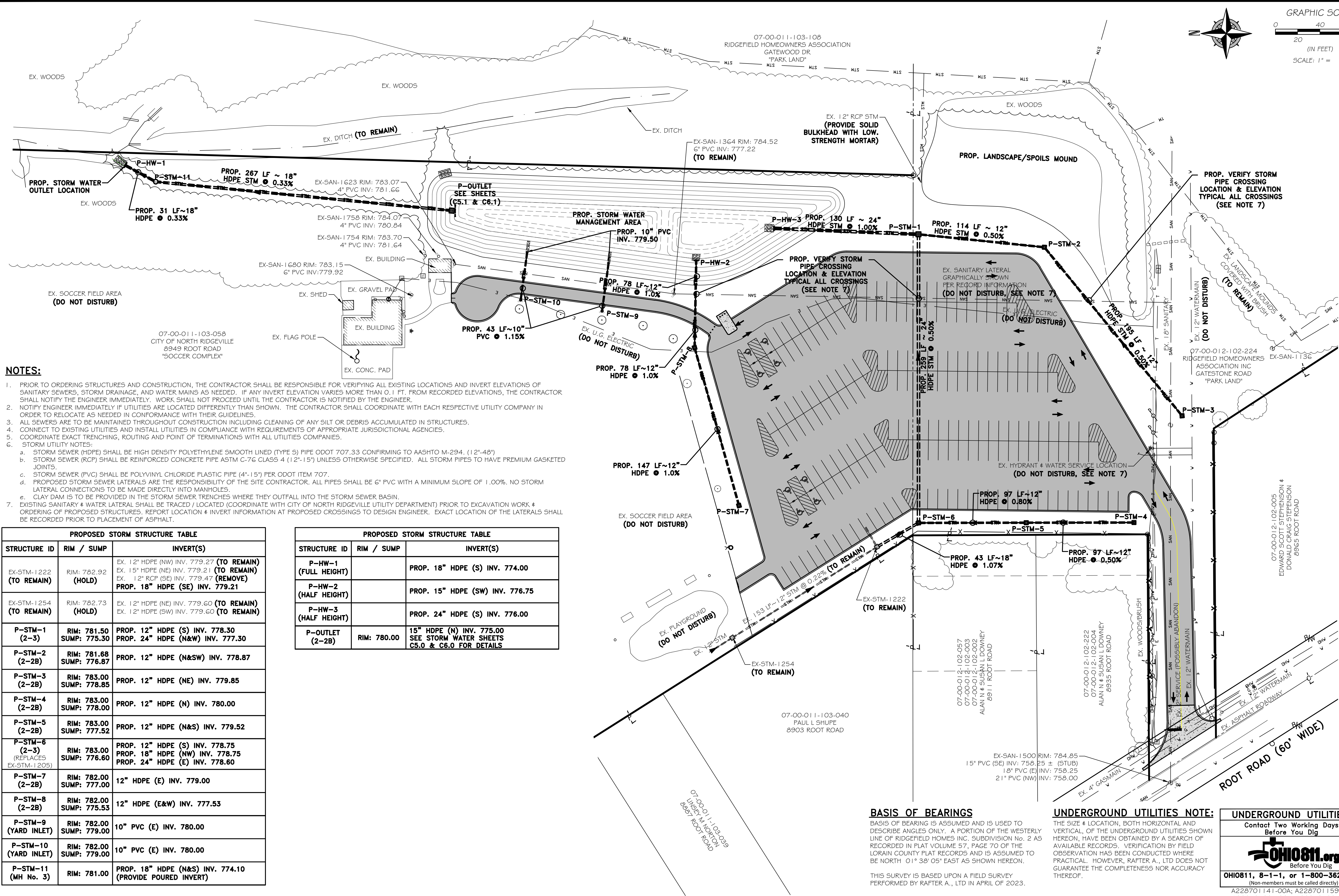
RAFTER A., LTD
LAND SURVEYING • ENGINEERING • TESTING
42653 Oberlin-Elyria Road, Oberlin, Ohio 44074
440-707-4014 • www.raftera.com • info@raftera.com

CITY OF NORTH RIDGEVILLE
PARKS & RECREATION DEPARTMENT
7327 AVON BELDEN ROAD
NORTH RIDGEVILLE, OHIO 44089

CITY OF NORTH RIDGEVILLE
PARKS DEPARTMENT
ROOT ROAD PARK PAVEMENT
& SITE IMPROVEMENTS
PROPOSED DRAINAGE AREA
8949 ROOT ROAD, NORTH RIDGEVILLE, OHIO 44089

DRAWN BY: BDA
CHECKED BY: RAF
RAF JOB NO: 3128-23

SHEET: C2.1



- NOTES:**
- PRIOR TO ORDERING STRUCTURES AND CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING LOCATIONS AND INVERT ELEVATIONS OF SANITARY SEWERS, STORM DRAINAGE, AND WATER MAINS AS NEEDED. IF ANY INVERT ELEVATION VARIES MORE THAN 0.1 FT. FROM RECORDED ELEVATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY. WORK SHALL NOT PROCEED UNTIL THE CONTRACTOR IS NOTIFIED BY THE ENGINEER.
 - NOTIFY ENGINEER IMMEDIATELY IF UTILITIES ARE LOCATED DIFFERENTLY THAN SHOWN. THE CONTRACTOR SHALL COORDINATE WITH EACH RESPECTIVE UTILITY COMPANY IN ORDER TO RELOCATE AS NEEDED IN CONFORMANCE WITH THEIR GUIDELINES.
 - ALL SEWERS ARE TO BE MAINTAINED THROUGHOUT CONSTRUCTION INCLUDING CLEANING OF ANY SILT OR DEBRIS ACCUMULATED IN STRUCTURES.
 - CONNECT TO EXISTING UTILITIES AND INSTALL UTILITIES IN COMPLIANCE WITH REQUIREMENTS OF APPROPRIATE JURISDICTIONAL AGENCIES.
 - COORDINATE EXACT TRENCHING, ROUTING AND POINT OF TERMINATIONS WITH ALL UTILITIES COMPANIES.
 - STORM UTILITY NOTES:
 - STORM SEWER (HDPE) SHALL BE HIGH DENSITY POLYETHYLENE SMOOTH LINED (TYPE S) PIPE ODOT 707.33 CONFIRMING TO AASHTO M-294. (12"-48")
 - STORM SEWER (RCP) SHALL BE REINFORCED CONCRETE PIPE ASTM C-76 CLASS 4 (12"-15") UNLESS OTHERWISE SPECIFIED. ALL STORM PIPES TO HAVE PREMIUM GASKETED JOINTS.
 - STORM SEWER (PVC) SHALL BE POLYVINYL CHLORIDE PLASTIC PIPE (4"-15") PER ODOT ITEM 707.
 - PROPOSED STORM SEWER LATERALS ARE THE RESPONSIBILITY OF THE SITE CONTRACTOR. ALL PIPES SHALL BE 6" PVC WITH A MINIMUM SLOPE OF 1.00%. NO STORM LATERAL CONNECTIONS TO BE MADE DIRECTLY INTO MANHOLES.
 - CLAY DAM IS TO BE PROVIDED IN THE STORM SEWER TRENCHES WHERE THEY OUTFALL INTO THE STORM SEWER BASIN.
 - EXISTING SANITARY & WATER LATERAL SHALL BE TRACED / LOCATED (COORDINATE WITH CITY OF NORTH RIDGEVILLE UTILITY DEPARTMENT) PRIOR TO EXCAVATION WORK & ORDERING OF PROPOSED STRUCTURES. REPORT LOCATION & INVERT INFORMATION AT PROPOSED CROSSINGS TO DESIGN ENGINEER. EXACT LOCATION OF THE LATERALS SHALL BE RECORDED PRIOR TO PLACEMENT OF ASPHALT.

PROPOSED STORM STRUCTURE TABLE		
STRUCTURE ID	RIM / SUMP	INVERT(S)
EX-STM-1222 (TO REMAIN)	RIM: 782.92 (HOLD)	EX. 12" HDPE (NW) INV. 779.27 (TO REMAIN) EX. 15" HDPE (NE) INV. 779.21 (TO REMAIN) EX. 12" RCP (SE) INV. 779.47 (REMOVE) PROP. 18" HDPE (SE) INV. 779.21
EX-STM-1254 (TO REMAIN)	RIM: 782.73 (HOLD)	EX. 12" HDPE (NE) INV. 779.60 (TO REMAIN) EX. 12" HDPE (SW) INV. 779.60 (TO REMAIN)
P-STM-1 (2-3)	RIM: 781.50 SUMP: 775.30	PROP. 12" HDPE (S) INV. 778.30 PROP. 24" HDPE (N&W) INV. 777.30
P-STM-2 (2-2B)	RIM: 781.68 SUMP: 776.87	PROP. 12" HDPE (N&SW) INV. 778.87
P-STM-3 (2-2B)	RIM: 783.00 SUMP: 778.85	PROP. 12" HDPE (NE) INV. 779.85
P-STM-4 (2-2B)	RIM: 783.00 SUMP: 778.00	PROP. 12" HDPE (N) INV. 780.00
P-STM-5 (2-2B)	RIM: 783.00 SUMP: 777.52	PROP. 12" HDPE (N&S) INV. 779.52
P-STM-6 (2-3) (REPLACES EX-STM-1205)	RIM: 783.00 SUMP: 776.60	PROP. 12" HDPE (S) INV. 778.75 PROP. 18" HDPE (NW) INV. 778.75 PROP. 24" HDPE (E) INV. 778.60
P-STM-7 (2-2B)	RIM: 782.00 SUMP: 777.00	12" HDPE (E) INV. 779.00
P-STM-8 (2-2B)	RIM: 782.00 SUMP: 775.53	12" HDPE (E&W) INV. 777.53
P-STM-9 (YARD INLET)	RIM: 782.00 SUMP: 779.00	10" PVC (E) INV. 780.00
P-STM-10 (YARD INLET)	RIM: 782.00 SUMP: 779.00	10" PVC (E) INV. 780.00
P-STM-11 (MH No. 3)	RIM: 781.00	PROP. 18" HDPE (N&S) INV. 774.10 (PROVIDE POURED INVERT)

PROPOSED STORM STRUCTURE TABLE		
STRUCTURE ID	RIM / SUMP	INVERT(S)
P-HW-1 (FULL HEIGHT)		PROP. 18" HDPE (S) INV. 774.00
P-HW-2 (HALF HEIGHT)		PROP. 15" HDPE (SW) INV. 776.75
P-HW-3 (HALF HEIGHT)		PROP. 24" HDPE (S) INV. 776.00
P-OUTLET (2-2B)	RIM: 780.00	15" HDPE (N) INV. 775.00 SEE STORM WATER SHEETS C5.0 & C6.0 FOR DETAILS

BASIS OF BEARINGS

BASIS OF BEARING IS ASSUMED AND IS USED TO DESCRIBE ANGLES ONLY. A PORTION OF THE WESTERLY LINE OF RIDGEFIELD HOMES INC. SUBDIVISION No. 2 AS RECORDED IN PLAT VOLUME 57, PAGE 70 OF THE LORAIN COUNTY PLAT RECORDS AND IS ASSUMED TO BE NORTH 01° 38' 05" EAST AS SHOWN HEREON.

THIS SURVEY IS BASED UPON A FIELD SURVEY PERFORMED BY RAFTER A., LTD IN APRIL OF 2023.

UNDERGROUND UTILITIES NOTE:

THE SIZE & LOCATION, BOTH HORIZONTAL AND VERTICAL, OF THE UNDERGROUND UTILITIES SHOWN HEREON, HAVE BEEN OBTAINED BY A SEARCH OF AVAILABLE RECORDS. VERIFICATION BY FIELD OBSERVATION HAS BEEN CONDUCTED WHERE PRACTICAL. HOWEVER, RAFTER A., LTD DOES NOT GUARANTEE THE COMPLETENESS NOR ACCURACY THEREOF.

UNDERGROUND UTILITIES

Contact Two Working Days Before You Dig



OHIO811, 8-1-1, or 1-800-362-2764

(Non-members must be called directly)
A228701141-00A; A228701159-00A;
A228701221-00A; A228701207-00A

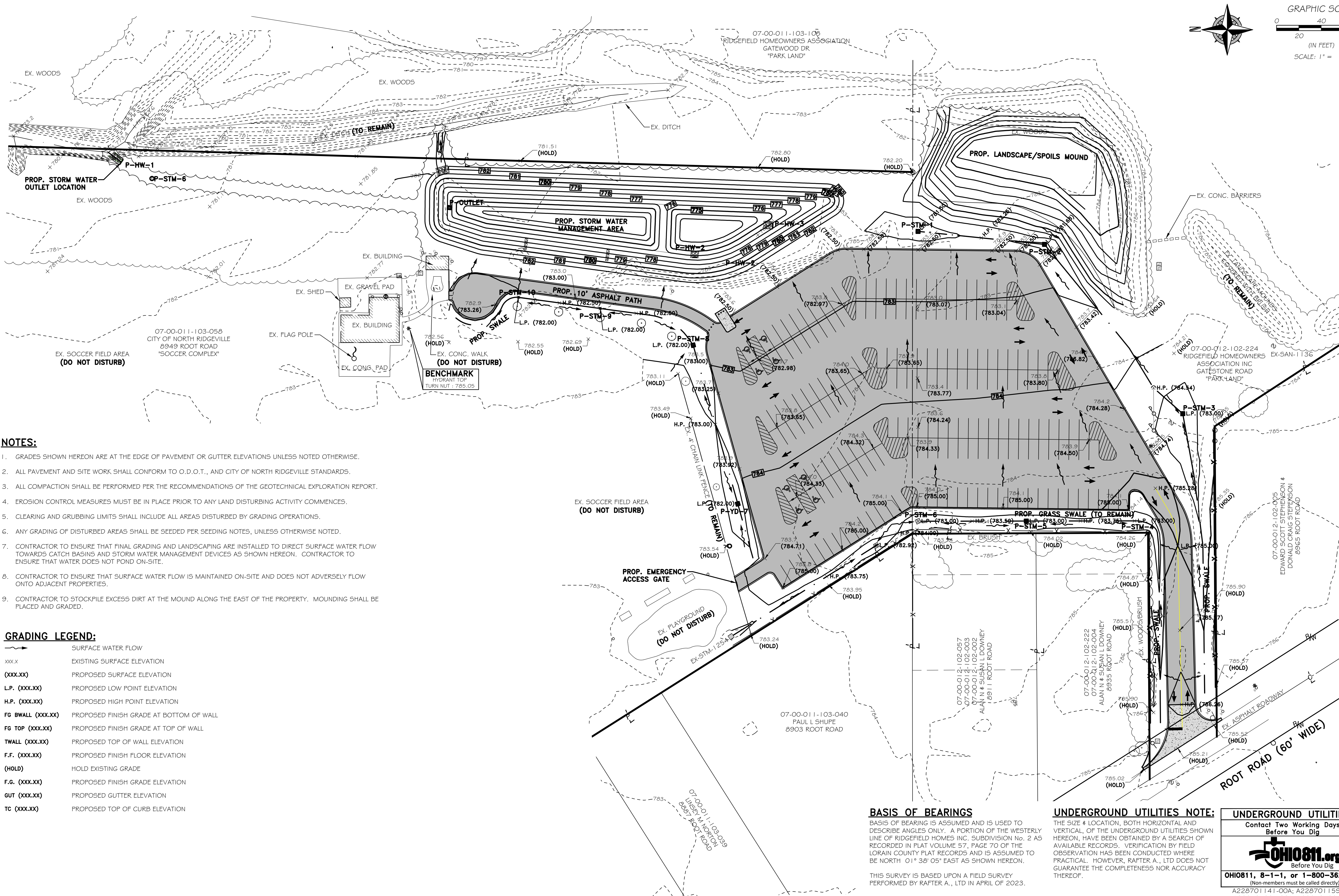
RAFTER A., LTD
LAND SURVEYING • ENGINEERING • TESTING
42653 Oberlin-Elyria Road, Oberlin, Ohio 44074
440-707-4014 • www.raftera.com • info@raftera.com

CITY OF NORTH RIDGEVILLE
PARKS & RECREATION DEPARTMENT
7327 AVON BELDEN ROAD
NORTH RIDGEVILLE, OHIO 44039

CITY OF NORTH RIDGEVILLE
PARKS DEPARTMENT
ROOT ROAD PARK PAVEMENT
& SITE IMPROVEMENTS
OVERALL UTILITY PLAN

DRAWN BY: BDA
CHECKED BY: RAF
RAF JOB NO: 3128-23

SHEET: **C3.0**



- NOTES:**
1. GRADES SHOWN HEREON ARE AT THE EDGE OF PAVEMENT OR GUTTER ELEVATIONS UNLESS NOTED OTHERWISE.
 2. ALL PAVEMENT AND SITE WORK SHALL CONFORM TO O.D.O.T., AND CITY OF NORTH RIDGEVILLE STANDARDS.
 3. ALL COMPACTION SHALL BE PERFORMED PER THE RECOMMENDATIONS OF THE GEOTECHNICAL EXPLORATION REPORT.
 4. EROSION CONTROL MEASURES MUST BE IN PLACE PRIOR TO ANY LAND DISTURBING ACTIVITY COMMENCES.
 5. CLEARING AND GRUBBING LIMITS SHALL INCLUDE ALL AREAS DISTURBED BY GRADING OPERATIONS.
 6. ANY GRADING OF DISTURBED AREAS SHALL BE SEEDED PER SEEDING NOTES, UNLESS OTHERWISE NOTED.
 7. CONTRACTOR TO ENSURE THAT FINAL GRADING AND LANDSCAPING ARE INSTALLED TO DIRECT SURFACE WATER FLOW TOWARDS CATCH BASINS AND STORM WATER MANAGEMENT DEVICES AS SHOWN HEREON. CONTRACTOR TO ENSURE THAT WATER DOES NOT POND ON-SITE.
 8. CONTRACTOR TO ENSURE THAT SURFACE WATER FLOW IS MAINTAINED ON-SITE AND DOES NOT ADVERSELY FLOW ONTO ADJACENT PROPERTIES.
 9. CONTRACTOR TO STOCKPILE EXCESS DIRT AT THE MOUND ALONG THE EAST OF THE PROPERTY. MOUNDING SHALL BE PLACED AND GRADED.

GRADING LEGEND:	
	SURFACE WATER FLOW
xxx.x	EXISTING SURFACE ELEVATION
(xxx.xx)	PROPOSED SURFACE ELEVATION
L.P. (xxx.xx)	PROPOSED LOW POINT ELEVATION
H.P. (xxx.xx)	PROPOSED HIGH POINT ELEVATION
FG B.WALL (xxx.xx)	PROPOSED FINISH GRADE AT BOTTOM OF WALL
FG TOP (xxx.xx)	PROPOSED FINISH GRADE AT TOP OF WALL
T.WALL (xxx.xx)	PROPOSED TOP OF WALL ELEVATION
F.F. (xxx.xx)	PROPOSED FINISH FLOOR ELEVATION
(HOLD)	HOLD EXISTING GRADE
F.G. (xxx.xx)	PROPOSED FINISH GRADE ELEVATION
GUT (xxx.xx)	PROPOSED GUTTER ELEVATION
TC (xxx.xx)	PROPOSED TOP OF CURB ELEVATION

BASIS OF BEARINGS

BASIS OF BEARING IS ASSUMED AND IS USED TO DESCRIBE ANGLES ONLY. A PORTION OF THE WESTERLY LINE OF RIDGEFIELD HOMES INC. SUBDIVISION No. 2 AS RECORDED IN PLAT VOLUME 57, PAGE 70 OF THE LORAIN COUNTY PLAT RECORDS AND IS ASSUMED TO BE NORTH 01° 38' 05" EAST AS SHOWN HEREON.

THIS SURVEY IS BASED UPON A FIELD SURVEY PERFORMED BY RAFTER A., LTD IN APRIL OF 2023.

UNDERGROUND UTILITIES NOTE:

THE SIZE & LOCATION, BOTH HORIZONTAL AND VERTICAL, OF THE UNDERGROUND UTILITIES SHOWN HEREON, HAVE BEEN OBTAINED BY A SEARCH OF AVAILABLE RECORDS. VERIFICATION BY FIELD OBSERVATION HAS BEEN CONDUCTED WHERE PRACTICAL. HOWEVER, RAFTER A., LTD DOES NOT GUARANTEE THE COMPLETENESS NOR ACCURACY THEREOF.

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig



OHIO811, 8-1-1, or 1-800-362-2764

(Non-members must be called directly)
A228701141-00A; A228701159-00A;
A228701221-00A; A228701207-00A

RAFTER A., LTD
LAND SURVEYING • ENGINEERING • TESTING
42653 Oberlin-Elyria Road, Oberlin, Ohio 44074
440-707-4014 • www.raftera.com • info@raftera.com

CITY OF NORTH RIDGEVILLE
PARKS & RECREATION DEPARTMENT
7327 AVON BELDEN ROAD
NORTH RIDGEVILLE, OHIO 44099

CITY OF NORTH RIDGEVILLE
PARKS DEPARTMENT
ROOT ROAD PARK PAVEMENT
& SITE IMPROVEMENTS

DRAWN BY: BDA
CHECKED BY: RAF
RAF JOB NO: 3128-23

SHEET: **C4.0**

OVERALL GRADING PLAN
8949 ROOT ROAD, NORTH RIDGEVILLE, OHIO 44099

MATCHLINE SEE SHEET C4.2

07-00-011-103-040
PAUL L SHUPE
8903 ROOT ROAD

07-00-012-102-057
07-00-012-102-003
07-00-012-102-002
ALAN N & SUSAN L DOWNEY
8911 ROOT ROAD

07-00-012-102-222
07-00-012-102-004
ALAN N & SUSAN L DOWNEY
8935 ROOT ROAD

07-00-012-102-005
EDWARD SCOTT STEPHENSON &
DONALD CRAIG STEPHENSON
8965 ROOT ROAD

07-00-012-102-224
RIDGEFIELD HOMEOWNERS
ASSOCIATION INC.
GATESTONE ROAD
"PARK LAND"

PROP. SWALE (F/L 784.15)

PROP. SWALE (F/L 785.28)

PROP. SWALE (F/L 784.73)

PROP. LANDSCAPE SPOILS MOUND

EX. WOODS/BRUSH

EX. WOODS

EX. CONC. BARRIERS

GRAPHIC SCALE
0 20'
(IN FEET)
SCALE: 1" = 20'

N

BASIS OF BEARINGS

BASIS OF BEARING IS ASSUMED AND IS USED TO DESCRIBE ANGLES ONLY. A PORTION OF THE WESTERLY LINE OF RIDGEFIELD HOMES INC. SUBDIVISION No. 2 AS RECORDED IN PLAT VOLUME 57, PAGE 70 OF THE LORAIN COUNTY PLAT RECORDS AND IS ASSUMED TO BE NORTH 01° 38' 05" EAST AS SHOWN HEREON.

THIS SURVEY IS BASED UPON A FIELD SURVEY PERFORMED BY RAFTER A., LTD IN APRIL OF 2023.

UNDERGROUND UTILITIES NOTE:

THE SIZE & LOCATION, BOTH HORIZONTAL AND VERTICAL, OF THE UNDERGROUND UTILITIES SHOWN HEREON, HAVE BEEN OBTAINED BY A SEARCH OF AVAILABLE RECORDS. VERIFICATION BY FIELD OBSERVATION HAS BEEN CONDUCTED WHERE PRACTICAL. HOWEVER, RAFTER A., LTD DOES NOT GUARANTEE THE COMPLETENESS NOR ACCURACY THEREOF.

UNDERGROUND UTILITIES

Contact Two Working Days
Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764

(Non-members must be called directly)
A228701141-00A; A228701159-00A;
A228701221-00A; A228701207-00A

CITY OF NORTH RIDGEVILLE
PARKS DEPARTMENT
ROOT ROAD PARK PAVEMENT
& SITE IMPROVEMENTS

ENLARGED GRADING PLAN

8949 ROOT ROAD, NORTH RIDGEVILLE, OHIO 44090

DRAWN BY: BDA
CHECKED BY: RAF
RAF JOB No: 3128-23

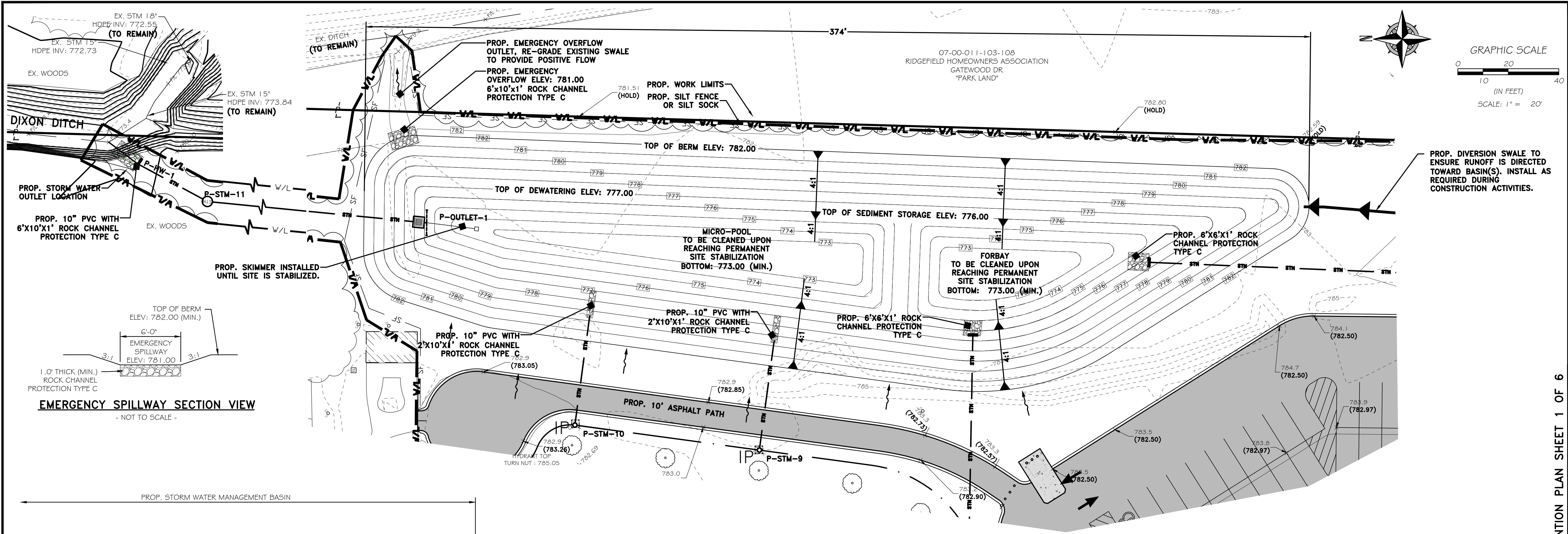
SHEET: C4.1

RAFTER A., LTD
LAND SURVEYING • ENGINEERING • TESTING
42653 Oberlin-Elyria Road, Oberlin, Ohio 44074
440-707-4014 • www.raftera.com • info@raftera.com

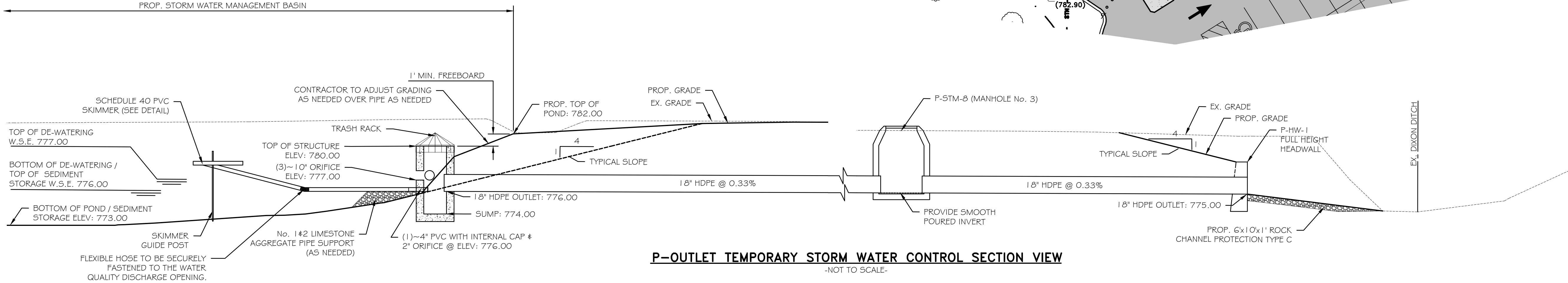
CITY OF NORTH RIDGEVILLE
PARKS & RECREATION DEPARTMENT
7327 AVON BELDEN ROAD
NORTH RIDGEVILLE, OHIO 44039

REV.	BY	DATE	DESCRIPTION
1	BDA	11-10-2023	ISSUE FOR CLIENT REVIEW
2	BDA	02-16-2024	ISSUE FOR CITY REVIEW
3	BDA	02-19-2024	ISSUE FOR CITY REVIEW

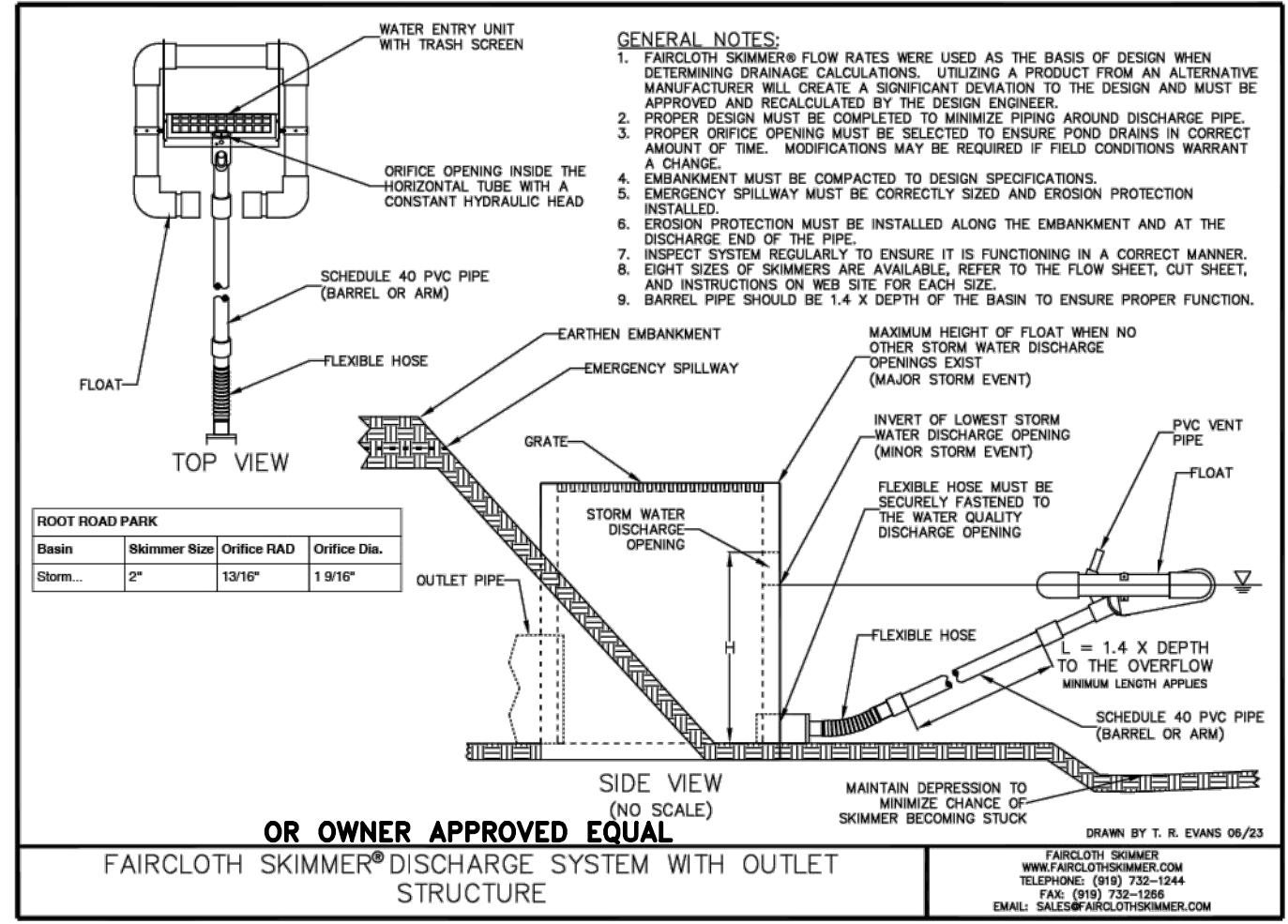
CITY OF NORTH RIDGEVILLE PARKS DEPARTMENT ROOT ROAD PARK PAVEMENT & SITE IMPROVEMENTS DRAWN BY: BDA CHECKED BY: RAF RAF JOB No: 3128-23 SHEET: C4.1	CITY OF NORTH RIDGEVILLE PARKS & RECREATION DEPARTMENT 7327 AVON BELDEN ROAD NORTH RIDGEVILLE, OHIO 44039 ENLARGED GRADING PLAN 8949 ROOT ROAD, NORTH RIDGEVILLE, OHIO 44090	 RAFTER A, LTD LAND SURVEYING • ENGINEERING • TESTING 42653 Oberlin-Elyria Road, Oberlin, Ohio 44074 440-707-4014 • www.raftera.com • info@raftera.com	REV.	BY	DATE	DESCRIPTION
			1	BDA	11-10-2023	ISSUE FOR CLIENT REVIEW
			2	BDA	02-16-2024	ISSUE FOR CITY REVIEW
			3	BDA	02-19-2024	ISSUE FOR CITY REVIEW



EMERGENCY SPILLWAY SECTION VIEW
- NOT TO SCALE -



P-OUTLET TEMPORARY STORM WATER CONTROL SECTION VIEW
-NOT TO SCALE-



TEMPORARY WATER QUALITY VOLUME CALCULATIONS

PROVIDE TEMPORARY SEDIMENT STORAGE IN STORM WATER MANAGEMENT POND
AREA OF DISTURBANCE: 212,498.18 S.F. 4.8783 ACRES

UTILIZE TEMPORARY POND SKIMMER FOR SEDIMENT CONTROL OF DISTURBED AREA

TEMPORARY SEDIMENT STORAGE VOLUME SUMMARY
REQUIRED = 4.8783 AC X 1000 = 4,878.30 CU. FT. (CALCULATED)
PROVIDED = 17,254 CU. FT. (ELEVATION 773.00 TO 776.00)

DE-WATERING VOLUME SUMMARY
REQUIRED = 4.8783 AC X 1800 = 8,780.92 CU. FT. (CALCULATED)
PROVIDED = 11,164 CU. FT. (ELEVATION 776.00 TO 777.00)

PROVIDED SEDIMENT STORAGE TABLE

SEDIMENT AREA	VOLUME	ELEVATION
FORBAY A	6,288 CU. FT.	773.00 TO 776.00
MICRO POOL	10,966 CU. FT.	773.00 TO 776.00
TOTAL	17,254 CU. FT. (0.1145 AC-FT)	

PROVIDED DEWATERING TABLE

VOLUME	ELEVATION
11,164 CU. FT.	776.00 TO 777.00

BASIS OF BEARINGS

BASIS OF BEARING IS ASSUMED AND IS USED TO DESCRIBE ANGLES ONLY. A PORTION OF THE WESTERLY LINE OF RIDGEFIELD HOMES INC. SUBDIVISION No. 2 AS RECORDED IN PLAT VOLUME 57, PAGE 70 OF THE LORAIN COUNTY PLAT RECORDS AND IS ASSUMED TO BE NORTH 01° 38' 05" EAST AS SHOWN HEREON.

THIS SURVEY IS BASED UPON A FIELD SURVEY PERFORMED BY RAFTER A., LTD IN APRIL OF 2023.

UNDERGROUND UTILITIES NOTE:

THE SIZE & LOCATION, BOTH HORIZONTAL AND VERTICAL, OF THE UNDERGROUND UTILITIES SHOWN HEREON, HAVE BEEN OBTAINED BY A SEARCH OF AVAILABLE RECORDS. VERIFICATION BY FIELD OBSERVATION HAS BEEN CONDUCTED WHERE PRACTICAL. HOWEVER, RAFTER A., LTD DOES NOT GUARANTEE THE COMPLETENESS NOR ACCURACY THEREOF.

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)
A228701141-00A; A228701159-00A;
A228701221-00A; A228701207-00A

RAFTER A., LTD
LAND SURVEYING • ENGINEERING • TESTING
42653 Oberlin-Elyria Road, Oberlin, Ohio 44074
440-707-4014 • www.raftera.com • info@raftera.com

CITY OF NORTH RIDGEVILLE
PARKS & RECREATION DEPARTMENT
7327 AVON BELDEN ROAD
NORTH RIDGEVILLE, OHIO 44099

CITY OF NORTH RIDGEVILLE
PARKS DEPARTMENT
ROOT ROAD PARK PAVEMENT
& SITE IMPROVEMENTS
CONSTRUCTION SWPPP
BASIN DETAILS

DRAWN BY: BDA
CHECKED BY: RAF
RAF JOB NO: 3128-23

CONSTRUCTION SITE POLLUTION CONTROLS:

1.

CONSTRUCTION PERSONNEL, INCLUDING SUBCONTRACTORS WHO MAY USE OR HANDLE HAZARDOUS OR TOXIC MATERIALS, SHALL BE MADE AWARE OF THE FOLLOWING GENERAL GUIDELINES REGARDING DISPOSAL AND HANDLING OF HAZARDOUS AND CONSTRUCTION WASTES:
- A)

PREVENT SPILLS
- B)

USE PRODUCTS UP
- C)

FOLLOW LABEL DIRECTIONS OF DISPOSAL
- D)

REMOVE LIDS FROM EMPTY BOTTLES AND CANS WHEN DISPOSING IN TRASH
- E)

RECYCLE WASTES WHENEVER POSSIBLE
- F)

DO NOT POUR INTO WATERWAYS, STORM DRAINS, OR ONTO THE GROUND.
- G)

DO NOT POUR DOWN THE SINK, FLOOR DRAIN, OR SEPTIC TANKS.
- H)

DO NOT BURY CHEMICALS OR CONTAINERS
- I)

DO NOT BURN CHEMICALS OR CONTAINERS
- J)

DO NOT MIX CHEMICALS TOGETHER
2.

CONTAINERS SHALL BE PROVIDED FOR THE PROPER COLLECTION OF ALL WASTE MATERIAL INCLUDING CONSTRUCTION DEBRIS, TRASH, PETROLEUM PRODUCTS AND ANY HAZARDOUS MATERIALS USED ON-SITE. CONTAINERS SHALL BE COVERED AND NOT LEAKING. ALL WASTE MATERIAL SHALL BE DISPOSED OF AT FACILITIES APPROVED FOR THAT MATERIAL. CONSTRUCTION DEMOLITION AND DEBRIS (CD&D) WASTE MUST BE DISPOSED OF AT AN OHIO EPA APPROVED CD&D LANDFILL.
3.

NO CONSTRUCTION RELATED WASTE MATERIALS ARE TO BE BURIED ON-SITE. BY EXCEPTION, CLEAN FILL (BRICKS, HARDENED CONCRETE, SOIL) MAY BE UTILIZED IN A WAY WHICH DOES NOT ENCROACH UPON NATURAL WETLANDS, STREAMS, OR FLOODPLAINS, OR RESULT IN THE CONTAMINATION OF WATERS OF THE STATE.
4.

HANDLING CONSTRUCTION CHEMICALS. MIXING, PUMPING, TRANSFERRING, OR OTHER HANDLING OF 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.
5.

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. SECONDARY CONTAINMENT SHALL BE PROVIDED FOR ALL FUEL AND OIL STORAGE TANKS. THESE AREA MUST BE INSPECTED EVERY SEVEN (7) DAYS AND WITHIN TWENTY-FOUR (24) HOURS OF A 0.5 INCH OR GREATER RAIN EVENT TO ENSURE THAT THERE ARE NO EXPOSED MATERIALS WHICH WOULD CONTAMINATE STORM WATER. SITE OPERATORS MUST BE AWARE THAT SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) REQUIREMENTS MAY APPLY. AN SPCC PLAN IS REQUIRED FOR SITES WITH ONE SINGLE ABOVE GROUND TANK OF SIX HUNDRED SIXTY (660) GALLONS OR MORE, ACCUMULATIVE ABOVE GROUND STORAGE OF ONE THOUSAND THREE HUNDRED THIRTY (1,330) GALLONS OR MORE, OR FORTY-TWO THOUSAND (42,000) GALLONS OF UNDERGROUND STORAGE. CONTAMINATED SOILS MUST BE DISPOSED OF IN ACCORDANCE WITH ITEM NO. 8.
6.

CONCRETE WASH WATER SHALL NOT BE ALLOWED TO FLOW TO STREAMS, DITCHES, STORM DRAINS, OR ANY OTHER WATER CONVEYANCE. A SUMP OR PIT WITH NO POTENTIAL FOR DISCHARGE SHALL BE CONSTRUCTED IF NEEDED TO CONTAIN CONCRETE WASH WATER. FIELD TILE OR OTHER SUBSURFACE DRAINAGE STRUCTURES WITHIN TEN (10) FEET OF THE SUMP SHALL BE CUT AND PLUGGED. FOR SMALL PROJECTS, TRUCK CHUTES MAY BE RINSED AWAY FROM ANY WATER CONVEYANCES. PRIOR TO PUMPING WATER FROM CONCRETE WASHOUT PIT, CONTRACTOR SHALL TEST PH TO ENSURE THE WATER IS ACCEPTABLE TO DISCHARGE TO NATURAL WATER COURSE PER OHIO EPA STANDARDS. IF PH IS GREATER THAN OHIO EPA RECOMMENDED DISCHARGE, CONTRACTOR SHALL USE PH LOWERING ACIDS AS RECOMMENDED BY OHIO EPA TO REACH ACCEPTABLE PH DISCHARGE LEVELS PRIOR TO DISCHARGING OFF-SITE.
7.

SPILL REPORTING REQUIREMENTS: 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. SPILLS SHALL BE REPORTED TO THE OHIO EPA (1-800-262-9378). SPILLS OF TWENTY-FIVE (25) GALLONS OR MORE OF PETROLEUM PRODUCTS SHALL BE REPORTED TO THE OHIO EPA, LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE WITHIN THIRTY (30) MINUTES OF THE DISCOVERY OF THE RELEASE. ALL SPILLS WHICH CONTACT WATERS OF THE STATE MUST BE REPORTED TO THE OHIO EPA.
8.

CONTAMINATED SOILS: IF 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 AT A LICENSED SANITARY LANDFILL OR OTHER APPROVED PETROLEUM CONTAMINATED SOLID REMEDIATION FACILITY, NOT A CONSTRUCTION OR DEMOLITION DEBRIS LANDFILL. NOTE THAT STORM WATER RUNOFF ASSOCIATED WITH CONTAMINATED SOILS ARE NOT AUTHORIZED UNDER THE OHIO EPA'S GENERAL STORM WATER PERMIT ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
9.

OPEN BURNING: NO MATERIALS CONTAINING RUBBER, GREASE, ASPHALT, OR PETROLEUM PRODUCTS, SUCH AS TIRES, AUTOPARTS, PLASTICS OR PLASTIC COATED WIRE MAY BE BURNED (OAC 3745-1-19). OPEN BURNING IS NOT ALLOWED IN RESTRICTED AREAS, WHICH ARE DEFINED AS: 1) WITHIN CORPORATION LIMITS; 2) WITHIN ONE THOUSAND (1,000) FEET OUTSIDE A MUNICIPAL CORPORATION HAVING A POPULATION OF ONE THOUSAND (1,000) TO TEN THOUSAND (10,000); AND 3) A ONE (1) MILE ZONE OUTSIDE A CORPORATION OF TEN THOUSAND (10,000) OR MORE. OUTSIDE OF RESTRICTED AREAS, NO OPEN BURNING IS ALLOWED WITHIN A ONE THOUSAND (1,000) FEET OF AN INHABITED BUILDING ON ANOTHER PROPERTY. OPEN BURNING IS PERMISSIBLE IN A RESTRICTED AREA FOR: HEATING TAR, WELDING, SMUDGE POTS, AND SIMILAR OCCUPATIONAL NEEDS, AND HEATING FOR WARMTH OR OUTDOOR BARBECUES. OUTSIDE OF RESTRICTED AREAS, OPEN BURNING IS PERMISSIBLE FOR LANDSCAPE OR LAND-CLEARING WASTES (PLANT MATERIAL, WITH PRIOR WRITTEN PERMISSION FROM THE OHIO EPA), AND AGRICULTURAL WASTES, EXCLUDING BUILDINGS.
10.

DUST CONTROL OR DUST SUPPRESSANTS SHALL BE USED TO PREVENT NUISANCE CONDITIONS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND IN A MANNER, WHICH PREVENT A DISCHARGE TO WATERS OF THE STATE. SUFFICIENT DISTANCE MUST BE PROVIDED BETWEEN APPLICATIONS AND NEARBY BRIDGES, CATCH BASINS, AND OTHER WATERWAYS. APPLICATION (EXCLUDING WATER) MAY NOT OCCUR WHEN RAIN IS IMMINENT AS NOTED IN THE SHORT TERM FORECAST. USED OIL MAY NOT BE APPLIED FOR DUST CONTROL.
11.

OTHER AIR PERMITTING REQUIREMENTS' CERTAIN ACTIVITIES ASSOCIATED WITH CONSTRUCTION WILL REQUIRE AIR PERMITS INCLUDING BUT NOT LIMITED TO: MOBILE CONCRETE BATCH PLANTS, MOBILE ASPHALT PLANTS, CONCRETE CRUSHERS, LARGE GENERATORS, ETC. THESE ACTIVITIES WILL REQUIRE SPECIFIC OHIO EPA AIR PERMITS FOR INSTALLATION AND OPERATION. OPERATORS MUST SEEK AUTHORIZATION FROM THE CORRESPONDING DISTRICT OF THE OHIO EPA. FOR DEMOLITION OF ALL COMMERCIAL SITES, A NOTIFICATION FOR RESTORATION AND DEMOLITION MUST BE SUBMITTED TO THE OHIO EPA TO DETERMINE IF ASBESTOS CORRECTIVE ACTIONS ARE REQUIRED.
12.

PROCESS WASTE WATER/LEACHATE MANAGEMENT. THE OHIO EPA CONSTRUCTION GENERAL PERMIT ONLY ALLOWS THE DISCHARGE OF STORM WATER AND DOES NOT INCLUDE OTHER WASTE STREAMS/DISCHARGES SUCH AS VEHICLE AND/OR EQUIPMENT WASHING, ON-SITE SEPTIC LEACHATE, CONCRETE WASH OUTS, WHICH ARE CONSIDERED PROCESS WASTE WATERS. ALL PROCESS WASTE WATERS MUST BE COLLECTED AND PROPERLY DISPOSED AT AN APPROVED DISPOSAL FACILITY. IN THE EVENT, LEACHATE OR SEEPAGE IS DISCHARGE; IT MUST BE ISOLATED FOR COLLECTION AND PROPER DISPOSAL. CORRECTIVE ACTIONS SHALL BE TAKEN TO ELIMINATE THE SOURCE OF WASTE WATER.

STORM WATER POLLUTION PREVENTION GENERAL NOTES:

1.

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES MUST BE IMPLEMENTED AS A FIRST STEP OF GRADING AND WITHIN SEVEN (7) DAYS FROM THE START OF CLEARING AND GRUBBING. THESE MEASURES AND PROCEDURES SHALL CONTINUE TO FUNCTION UNTIL THE ENTIRE PROJECT SITE IS STABILIZED.
2.

DITCHES WITH GRADES GREATER THAN 1.5% SHALL HAVE EROSION CONTROL BLANKETS/MATTING INSTALLED AS PART OF STABILIZATION MEASURES.
3.

REGULAR INSPECTION AND MAINTENANCE SHALL BE PROVIDED FOR ALL EROSION AND SEDIMENT CONTROL PRACTICES. PERMANENT RECORDS OF MAINTENANCE AND INSPECTIONS MUST BE KEPT THROUGHOUT THE CONSTRUCTION PERIOD. INSPECTIONS MUST BE MADE A MINIMUM OF ONCE EVERY 7 DAYS AND IMMEDIATELY AFTER STORM EVENTS GREATER THAT 0.5 INCHES OF RAIN IN A 24 HOUR PERIOD. PROVIDED WILL BE: NAME OF INSPECTOR, MAJOR OBSERVATIONS, DATE OF INSPECTION AND CORRECTIVE MEASURE TAKEN.
4.

ALL EROSION AND SEDIMENT CONTROL PRACTICES MUST CONFORM TO THE LATEST EDITION OF RAINWATER AND LAND DEVELOPMENT, OHIO'S STANDARDS FOR STORM WATER MANAGEMENT, LAND DEVELOPMENT AND URBAN STREAM PROTECTION.
5.

CONTRACTOR TO COORDINATE THE EXCAVATION AND EMBANKMENT WITH CLIENT & ENGINEER PRIOR TO CONSTRUCTION TO INSURE ADEQUATE STORM WATER POLLUTION PREVENTION MEASURES ARE INCORPORATED WITH THE CONSTRUCTION PROCESS.
6.

ANY REQUIRED MODIFICATIONS AS DETERMINED BY THE OWNER/DEVELOPER, CONTRACTOR, OHIO EPA, OR SWPPP ENGINEER SHALL BE APPROVED BY THE SWP3 ENGINEER.
7.

ANY APPROVED REVISIONS SHALL BE MADE IMMEDIATELY BY THE SWP3 ENGINEER AND IMPLEMENTED BY THE OWNER, DEVELOPER, AND/OR CONTRACTOR.
8.

ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH THE PROJECT SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND BECOME FAMILIAR WITH ITS CONTENTS & REQUIREMENTS.
9.

ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ECT.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
10.

ALTHOUGH THE PLAN SHOWS A BASIC AREA FOR MATERIAL STORAGE, THE CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING, OTHER REQUIRED STORAGE AREAS, EQUIPMENT MAINTENANCE AREAS, CLEANING AREAS, EMPLOYEE PARKING AREAS, PORTABLE FACILITIES, OFFICE TRAILER AREAS, AND TOILET FACILITIES.
11.

SUFFICIENT OIL AND GREASE ABSORBING MATERIALS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN UP FUEL OR CHEMICAL SPILLS/LEAKS.
12.

DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OF TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
13.

REFUSE AND DEBRIS GENERATED DURING THE CONSTRUCTION PROCESS SHALL BE DISPOSED IN AN ACCEPTABLE TRASH RECEPTACLE AND/OR OTHER ACCEPTABLE MANNERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE.
14.

ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN SHALL BE INITIATED AS SOON AS PRACTICABLE.
15.

ANY SEDIMENT LADEN GROUND WATER ENCOUNTERED DURING TRENCHING EXCAVATIONS SHALL BE TREATED PRIOR TO DISCHARGE FROM THE SITE IN A MANNER ACCEPTABLE WITH THE RAINWATER AND LAND DEVELOPMENT MANUAL.
16.

ANY CATCH BASIN GRATE LOCATED IN PAVEMENT SHALL BE PROTECTED WITH A SILTSACK OR APPROVED EQUAL. THIS STORM WATER POLLUTION PREVENTION CONTROL SHALL REMAIN IN EFFECT UNTIL THE PERMANENT SEEDING OF THE UPLAND AREAS HAS BEEN ESTABLISHED.
13.

NO TOXIC OR HAZARDOUS WASTES SHALL BE DISPOSED INTO STORM DRAINS, SEPTIC TANKS, OR BY BURYING, BURNING, OR MIXING THE WASTES.
14.

DEMOLITION DEBRIS MUST BE DISPOSED INTO AN OHIO EPA APPROVED LANDFILL. MATERIALS WHICH CONTAIN ASBESTOS MUST COMPLY WITH AIR POLLUTION REGULATIONS AS PER OHIO ADMINISTRATIVE CODE (OAC) 3745-20.
15.

ALL EROSION MEASURES SHALL REMAIN IN PLACE UNTIL THE SITE IS STABILIZED. ALL AREAS OF VEGETATIVE SURFACE STABILIZATION, WHETHER TEMPORARY OR PERMANENT, SHALL BE CONSIDERED TO BE IN PLACE AND FUNCTIONAL WHEN THE REQUIRED UNIFORM RATE OF COVERAGE (70%) IS OBTAINED.
16.

DISTURBED AREAS WHICH WILL REMAIN UNWORKED FOR A PERIOD OF FOURTEEN (14) DAYS OR MORE, SHALL BE STABILIZED WITH TEMPORARY AND/OR PERMANENT SEEDING AND MULCHING OR OTHER APPROVED MEANS WITHIN TWO (2) DAYS.
17.

IF FOR ANY REASON THE PROJECT IS SUSPENDED, THE CONTRACTOR SHALL INSURE THAT ALL INSTALLED EROSION MEASURES ARE FUNCTIONING AND PROPERLY MAINTAINED DURING THIS PERIOD, AND THAT ALL DISTURBED SOILS ARE SEEDED AND MULCHED WITH TEMPORARY SEED MIXTURE.
18.

ALL EROSION AND SEDIMENT CONTROL PRACTICES MUST CONFORM TO THE LATEST EDITION OF RAINWATER AND LAND DEVELOPMENT, OHIO'S STANDARDS FOR STORM WATER MANAGEMENT, LAND DEVELOPMENT AND URBAN STREAM PROTECTION.
19.

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES MUST BE IMPLEMENTED AS A FIRST STEP OF GRADING AND WITHIN SEVEN (7) DAYS FROM THE START OF CLEARING AND GRUBBING. THESE MEASURES AND PROCEDURES SHALL CONTINUE TO FUNCTION UNTIL THE ENTIRE PROJECT SITE IS STABILIZED.
20.

NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER RUNOFF.
21.

WEEKLY INSPECTION AND MAINTENANCE SHALL BE PROVIDED FOR ALL EROSION AND SEDIMENT CONTROL DEVICES.
22.

ON-SITE & OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BMPS. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP.
23.

THE CONTRACTOR SHALL NOT CAUSE STORM WATER BACKUP IN THE STREET RIGHT-OF-WAY OR STORM SEWERS DUE TO EROSION CONTROL BMPS EMPLOYED DURING CONSTRUCTION.
24.

NO APPARENT WELLS, STREAMS, BODIES OF WATER, OR WETLANDS OBSERVED UNLESS SHOWN HEREON, 200ft. BOUNDARY NOT TO SCALE.
25.

IT IS NOT ANTICIPATED THAT THIS PLAN WILL REQUIRE FUEL OR FLAMMABLE LIQUIDS STORAGE ON SITE. HOWEVER, IF CONTRACTOR MEANS & METHODS REQUIRE FUEL STORAGE IT SHALL BE PROVIDED IN THE AREA INDICATED ON THIS PLAN.

POST CONSTRUCTION STORM WATER MANAGEMENT MAINTENANCE REQUIREMENTS

1.

THIS SITE SHALL REQUIRE A COMPREHENSIVE STORMWATER MANAGEMENT PLAN (CSM PLAN) AND AN INSPECTION AND MAINTENANCE AGREEMENT.
2.

IT SHALL BE THE RESPONSIBILITY OF THE OWNER THE PARCEL, TO PERFORM THE NECESSARY MAINTENANCE AND REPAIR TO THE STORM WATER MANAGEMENT FACILITY TO INSURE IT IS PROPERLY FUNCTIONING.
3.

THE STORMWATER MANAGEMENT SYSTEM SHALL BE INSPECTED FOR DAMAGE AND INSURE PROPER FLOW. **SEE COMPREHENSIVE STORMWATER MANAGEMENT PLAN & INSPECTION & MAINTENANCE AGREEMENT.**
4.

WRITTEN RECORDS SHALL BE KEPT AND SUBMITTED TO THE CITY OF NORTH RIDGEVILLE FOR A MINIMUM OF THREE YEARS (OR AS OUTLINED IN THE CSM PLAN & INSPECTION & MAINTENANCE AGREEMENT) AFTER THE TERMINATION OF CONSTRUCTION ACTIVITIES. ITEMS THAT SHALL BE INCLUDED, BUT NOT LIMITED TO:

A.

NAME OF THE CERTIFIED PROFESSIONAL STORMWATER QUALITY (C.P.S.W.Q) PERSON(S) PERFORMING THE INSPECTION;

B.

DATE AND WEATHER CONDITIONS OF THE INSPECTION;

C.

CONDITION OF THE EMBANKMENT AND OUTLET STRUCTURE;

D.

NOTE ANY REPAIRS THAT ARE MADE.

SEQUENCE OF CONSTRUCTION:

1.

A MANDATORY PRE-CONSTRUCTION MEETING WITH APPROPRIATE CITY OF NORTH RIDGEVILLE REPRESENTATIVES.
2.

STAKEOUT LIMITS OF DISTURBANCE.
3.

INSTALL TEMPORARY PROTECTION ON ANY EXISTING CATCH BASINS. PREPARE CONSTRUCTION ENTRANCE.
4.

INSTALL SILT FENCE (OR SILT SOCK) WHERE INDICATED ON THE PLANS.
5.

VERIFY EXISTING CONDITION ITEMS, BEGIN SITE CLEARING & DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE CITY AND/OR COUNTY CONSERVATION DISTRICT OF THE LOCATION OF ANY AND ALL EROSION AND SEDIMENTATION CONTROL MEASURES IMPLEMENTED AT ANY BORROW OR SPOIL SITE OF IMPORT/EXPORT MATERIAL.
6.

BEGIN MASS EARTH MOVING OPERATIONS. INSURE THAT OUTLET STRUCTURE IS OUTFITTED WITH TEMPORARY SKIMMER DEVICE.
7.

MAINTAIN TEMPORARY DRAINAGE SWALES AS REQUIRED TO ENSURE THAT RUNOFF IS DIRECTED TOWARDS STORM WATER MANAGEMENT POND.
8.

CONTRACTOR TO ENSURE THAT ALL ROADWAYS ARE CLEAR OF DEBRIS, MUD AND GRAVEL. CONTRACTOR SHALL REMOVE SUCH AS REQUIRED.
9.

TEMPORARY STABILIZE AREAS OF DISTURBANCE (AS NEEDED).
10.

INSTALL UTILITIES, PROTECT AS NEEDED WITH SILT FENCE AND/OR SILT SOCK. STABILIZE ALL UTILITY TRENCHES AT THE END OF EACH WORKDAY BY MEANS OF GRAVEL BACKFILL TO SURFACE, RE-PAVING, OR MULCHING.

11.

EXCAVATE AND INSTALL BASE FOR PARKING.
12.

INSTALL PAVEMENT.
13.

REPLACE TOPSOIL, FINE GRADE AND SEED AREAS AS REQUIRED.
14.

STABILIZE ALL DISTURBED AREAS WITH PERMANENT SEED AND MULCHING OR CROWNVECH SEEDING IMMEDIATELY UPON REACHING FINAL GRADE.
15.

COMPLETE SITE WORK. FINAL LANDSCAPING AND CLEAN UP.

16.

RESEED AND REDRESS ANY AREAS THAT MAY REQUIRE ATTENTION IMMEDIATELY. NOTE THAN LAWN AREAS WILL NOT BE DEEMED STABLE UNTIL A UNIFORM SEVENTY (70%) PERCENT SHALL BE CONSIDERED TO BE IN PLACE AND FUNCTIONAL WHEN THE REQUIRED UNIFORM RATE OF COVERAGE (70%) IS OBTAINED.
17.

UPON COMPLETION AND PERMANENT SITE STABILIZATION, REMOVE ALL TEMPORARY SEDIMENT CONTROL DEVICE(S) (INLET PROTECTION & SILT FENCE). ENSURE THAT ANY REQUIRED PERMANENT EROSION CONTROL DEVICES ARE INSTALLED IF CALLED FOR ON THE PLANS.
18.

REMOVE CONSTRUCTION SEDIMENT FROM BASIN AND PROVIDE AS-BUILT OF SITE FOR REFERENCE IN THE COMPREHENSIVE STORM WATER MANAGEMENT PLAN.
19.

IF FOR ANY REASON THE PROJECT IS SUSPENDED, THE CONTRACTOR SHALL INSURE THAT ALL INSTALLED EROSION MEASURES ARE FUNCTIONING AND PROPERLY MAINTAINED DURING THE PERIOD. ALL BARE SOILS ARE TO BE SEEDED AND MULCHED WITH THE TEMPORARY SEED MIXTURE.
20.

CONTRACTOR SHALL SELF INSPECT THE STORM WATER POLLUTION DURING CONSTRUCTION ACTIVITIES AND PROVIDE THE APPROPRIATE JURISDICTIONAL ENTITY WITH WEEKLY REPORTS.

SWP3 AMENDMENT LOG

AMENDMENT NUMBER	DESCRIPTION OF AMENDMENT	AMENDMENT PREPARED BY	DATE

SWP3 CORRECTIVE ACTIONS LOG

INSPECTOR NAME	DESCRIPTION OF CORRECTIVE ACTION NEEDED	CORRECTIVE ACTION TAKEN	DATE ACTION TAKEN
INSPECTION DATE			

SWP3 GRADING AND STABILIZATION ACTIVITIES LOG

DATE OF ACTIVITY INITIATED	DATE ACTIVITY CEASED	DESCRIPTION OF ACTIVITY	DATE STABILIZATION MEASURE INITIATED	DESCRIPTION OF STABILIZATION MEASURE & LOCATION

CONTRACTOR & SUBCONTRACTOR SIGNATURE LIST

PRIOR TO BEGINNING CONSTRUCTION THE ANY/ALL CONTRACTORS AND/OR SUBCONTRACTORS THAT WILL PROVIDE SERVICES FOR IMPROVEMENT OF THE SITE AS SHOWN ON THE PLAN SET SHALL SIGN BELOW:

I (WE) UNDERSTAND OUR ROLE AND RESPONSIBILITY IN COMPLYING WITH THE STORM WATER POLLUTION PREVENTION PLAN.

COMPANY NAME & REPRESENTATIVE	TITLE	SIGNATURE	DATE

BASIS OF BEARINGS

BASIS OF BEARING IS ASSUMED AND IS USED TO DESCRIBE ANGLES ONLY. A PORTION OF THE WESTERLY LINE OF RIDGEFIELD HOMES INC. SUBDIVISION No. 2 AS RECORDED IN PLAT VOLUME 57, PAGE 70 OF THE LORAIN COUNTY PLAT RECORDS AND IS ASSUMED TO BE NORTH 01° 38' 05" EAST AS SHOWN HEREON.

THIS SURVEY IS BASED UPON A FIELD SURVEY PERFORMED BY RAFTER A., LTD IN APRIL OF 2023.

UNDERGROUND UTILITIES NOTE:

THE SIZE & LOCATION, BOTH HORIZONTAL AND VERTICAL, OF THE UNDERGROUND UTILITIES SHOWN HEREON, HAVE BEEN OBTAINED BY A SEARCH OF AVAILABLE RECORDS. VERIFICATION BY FIELD OBSERVATION HAS BEEN CONDUCTED WHERE PRACTICAL. HOWEVER, RAFTER A., LTD DOES NOT GUARANTEE THE COMPLETENESS NOR ACCURACY THEREOF.

UNDERGROUND UTILITIES

Contact Two Working Days Before You Dig


Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)
A228701141-00A; A228701159-00A;
A228701221-00A; A228701207-00A

CITY OF NORTH RIDGEVILLE
PARKS DEPARTMENT
ROOT ROAD PARK PAVEMENT
& SITE IMPROVEMENTS

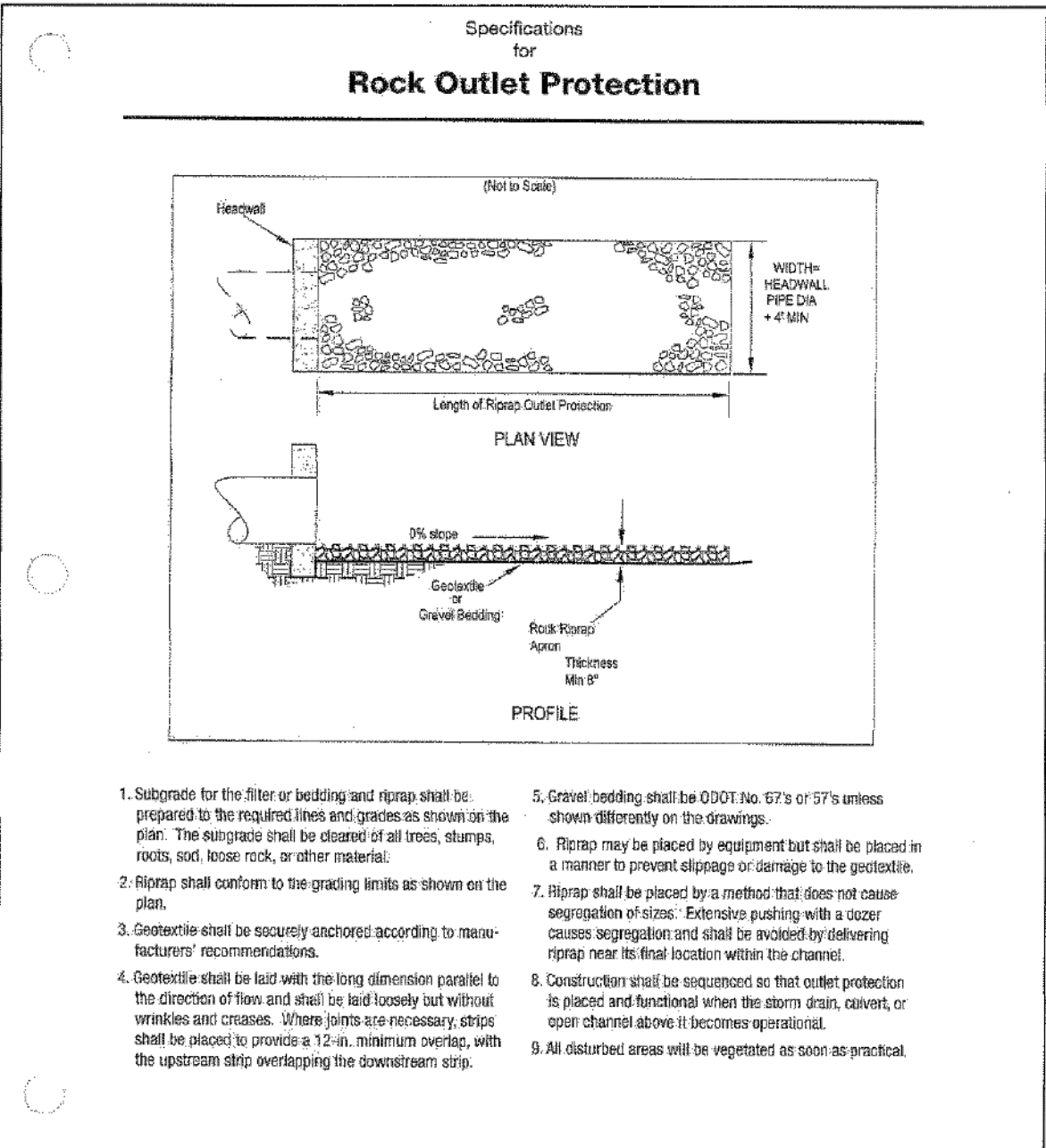

RAFTER A, LTD
LAND SURVEYING • ENGINEERING • TESTING
42653 Oberlin-Elyria Road, Oberlin, Ohio 44074
440-707-4014 • info@raftera.com

CITY OF NORTH RIDGEVILLE
PARKS & RECREATION DEPARTMENT
7327 AVON BELDEN ROAD
NORTH RIDGEVILLE, OHIO 44039

**CONSTRUCTION STORM WATER POLLUTION
PREVENTION NOTES & DETAILS**
8949 ROOT ROAD, NORTH RIDGEVILLE, OHIO 44090

DRAWN BY: BDA
CHECKED BY: RAF
RAF JOB NO: 3128-23

SHEET: **C5.2**



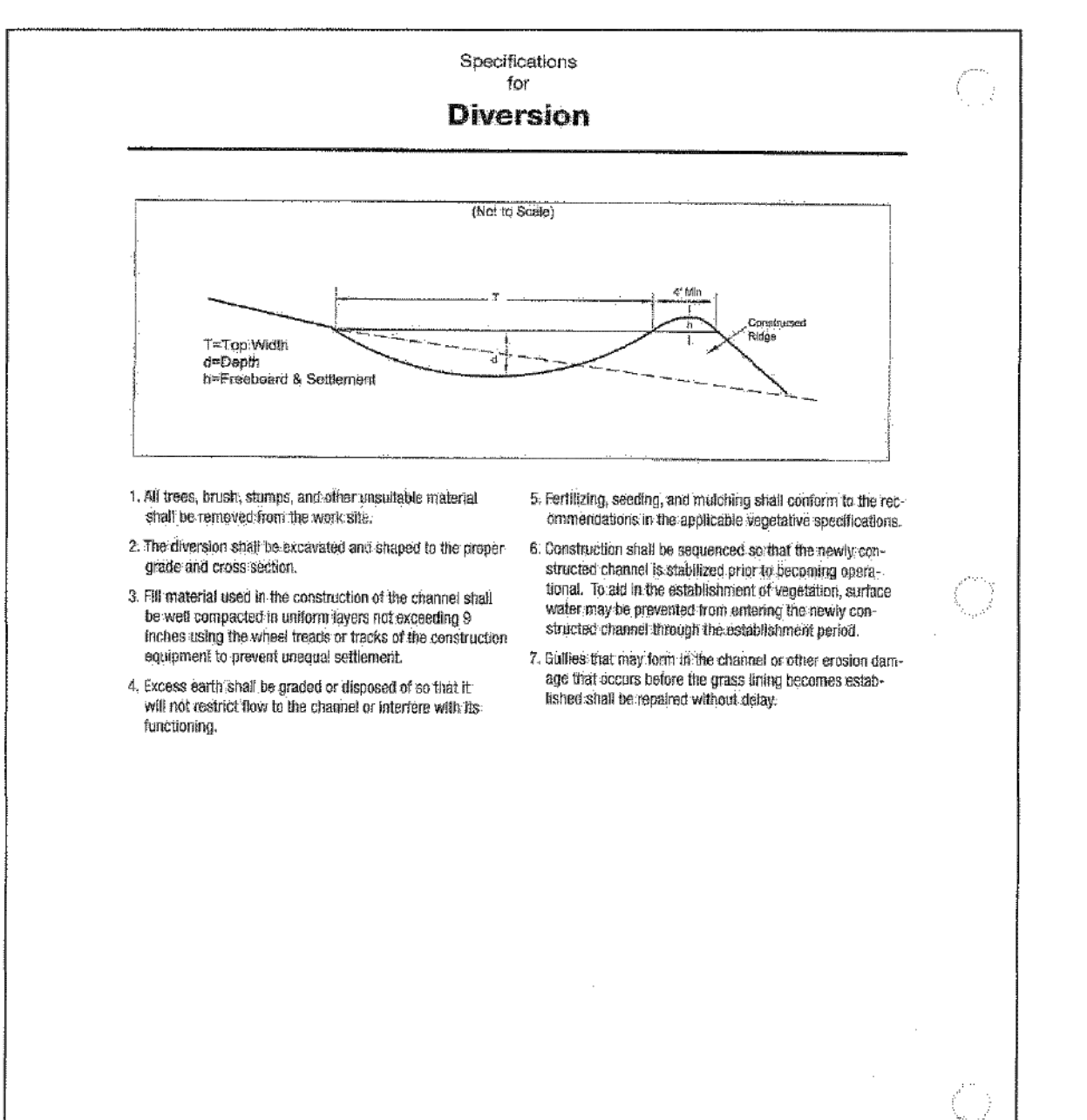
INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

ROCK OUTLET PROTECTION

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-7



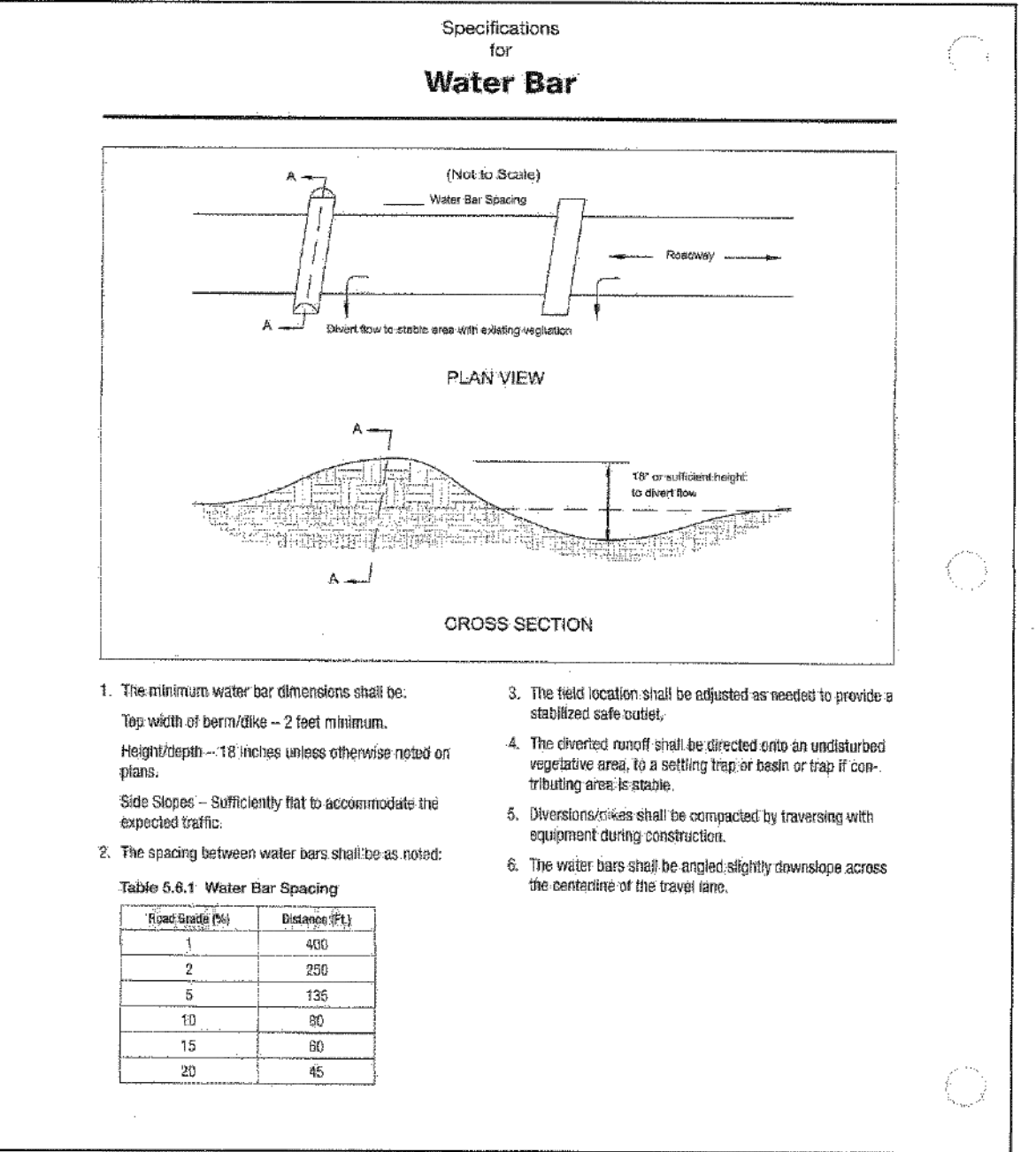
INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

DIVERSION

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-8



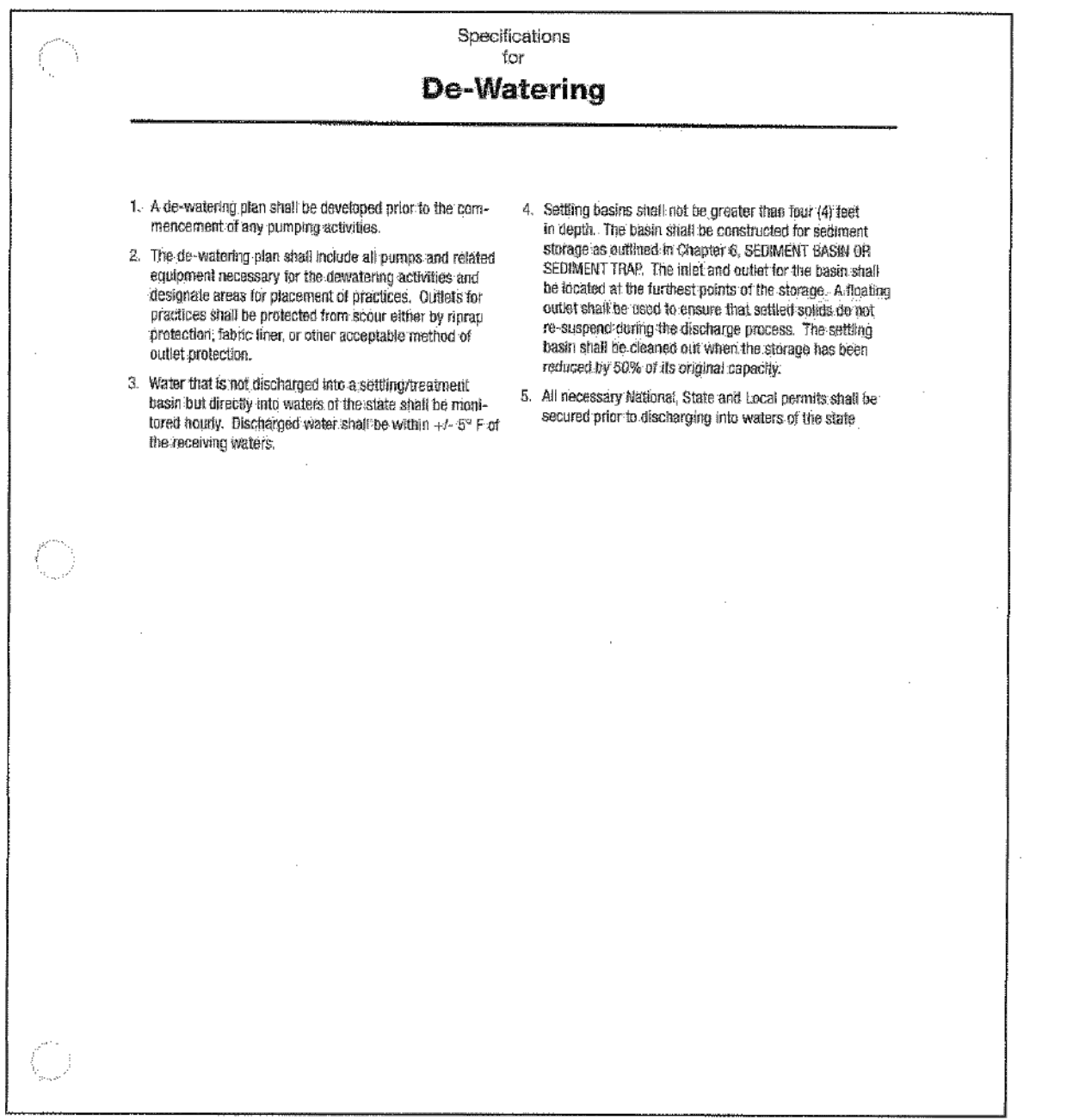
INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14



INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

DE-WATERING

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-15

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TJB	ISSUED FOR CITY REVIEW
2	02/16/2024	BDA	ISSUE FOR CITY REVIEW
3	02/19/2024	BDA	ISSUE FOR CITY REVIEW

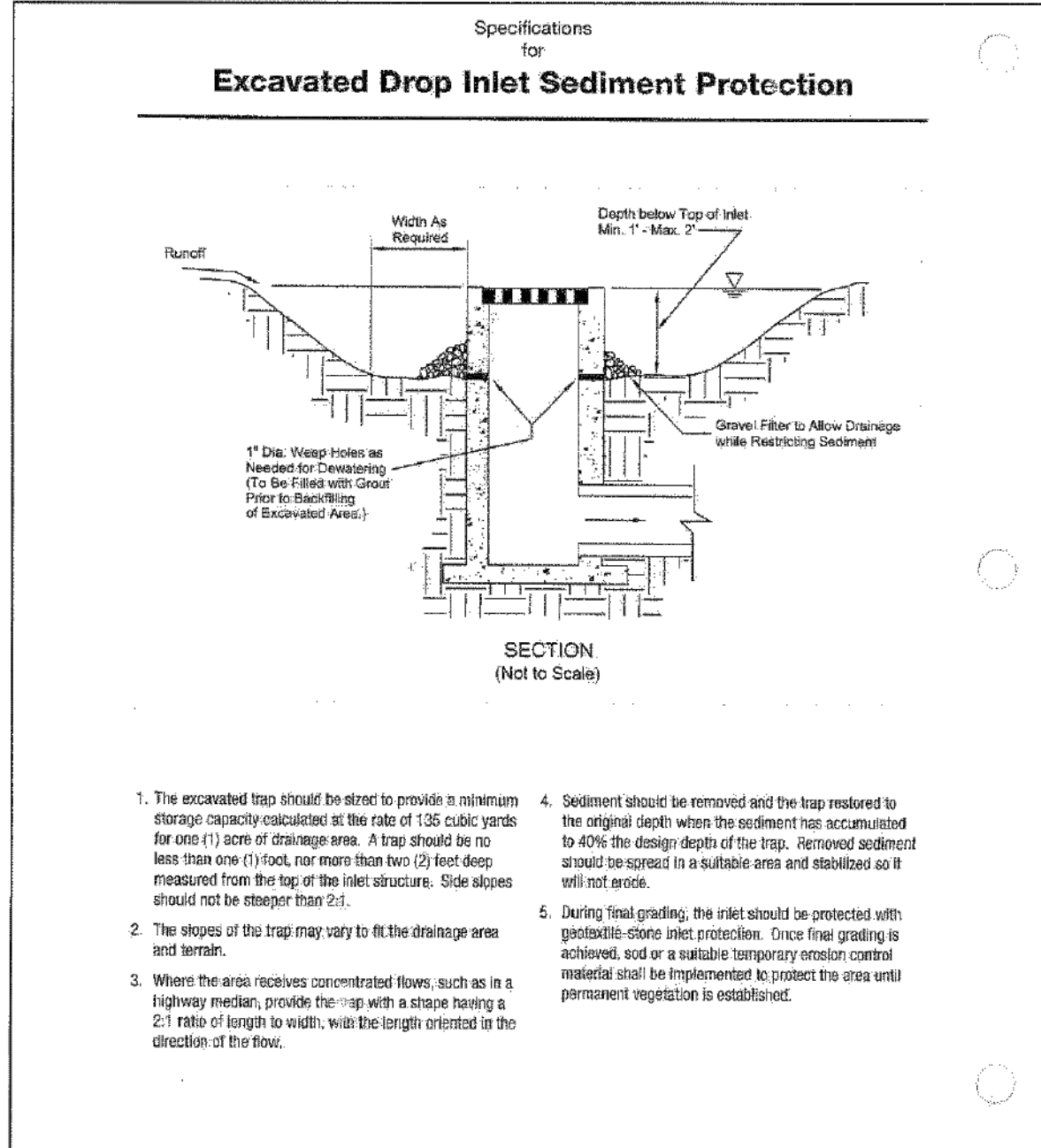
CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

WATER BAR

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRAWN BY: JAB/TJB | SWP-14

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

SCALE: NOT TO SCALE		SWP-14
DATE: 10/01/08	DRWN BY: JAB/TEB	



INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

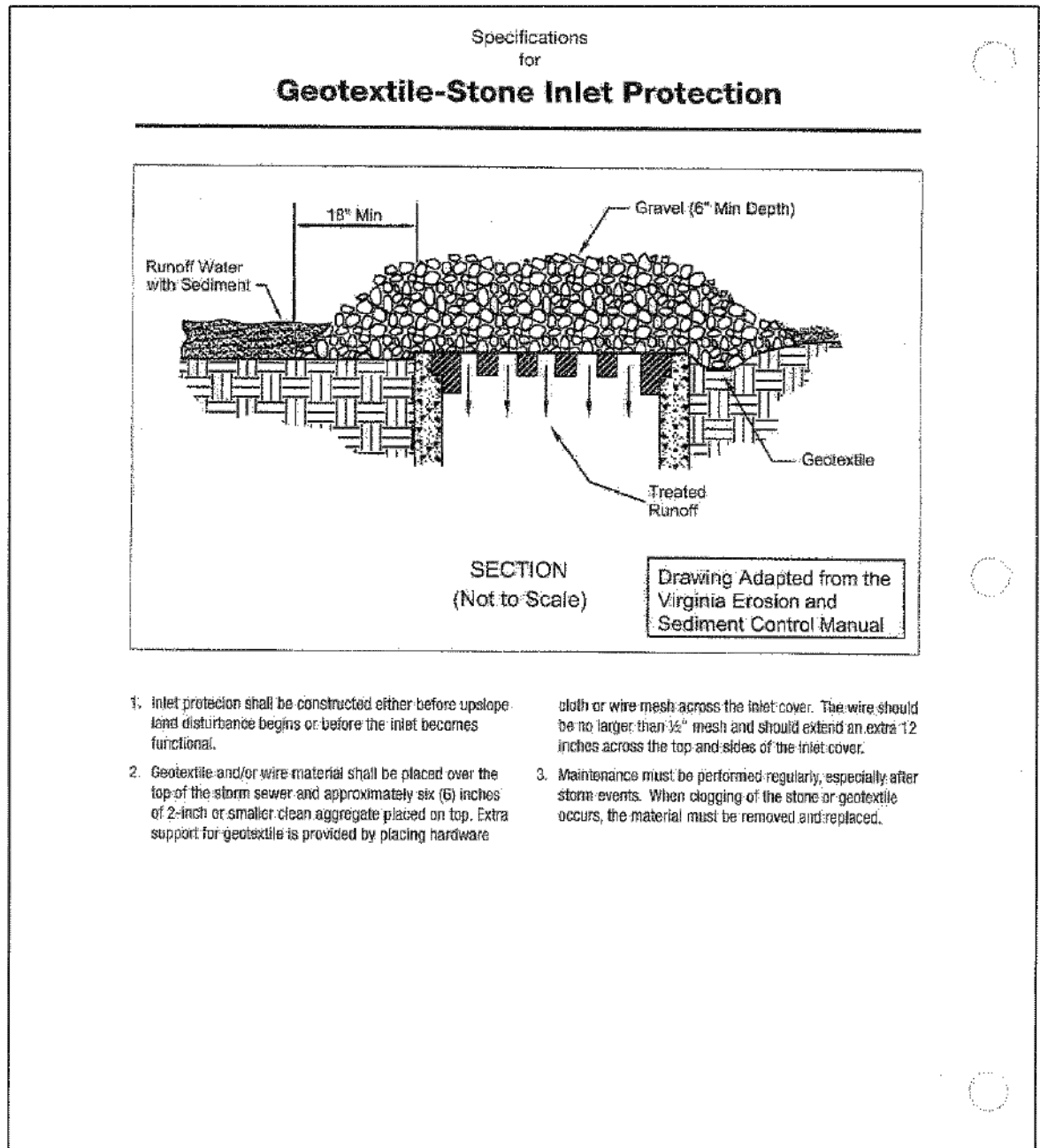
REV. No.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TEB	Excavated Drop Inlet Sediment Protection

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

EXCAVATED DROP INLET
SEDIMENT PROTECTION

SCALE: NOT TO SCALE
DATE: 10/01/08
DRAWN BY: JAB/TEB
SWP-19

Larry Luffich
CITY OF NORTH RIDGEVILLE, ENGINEER



INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

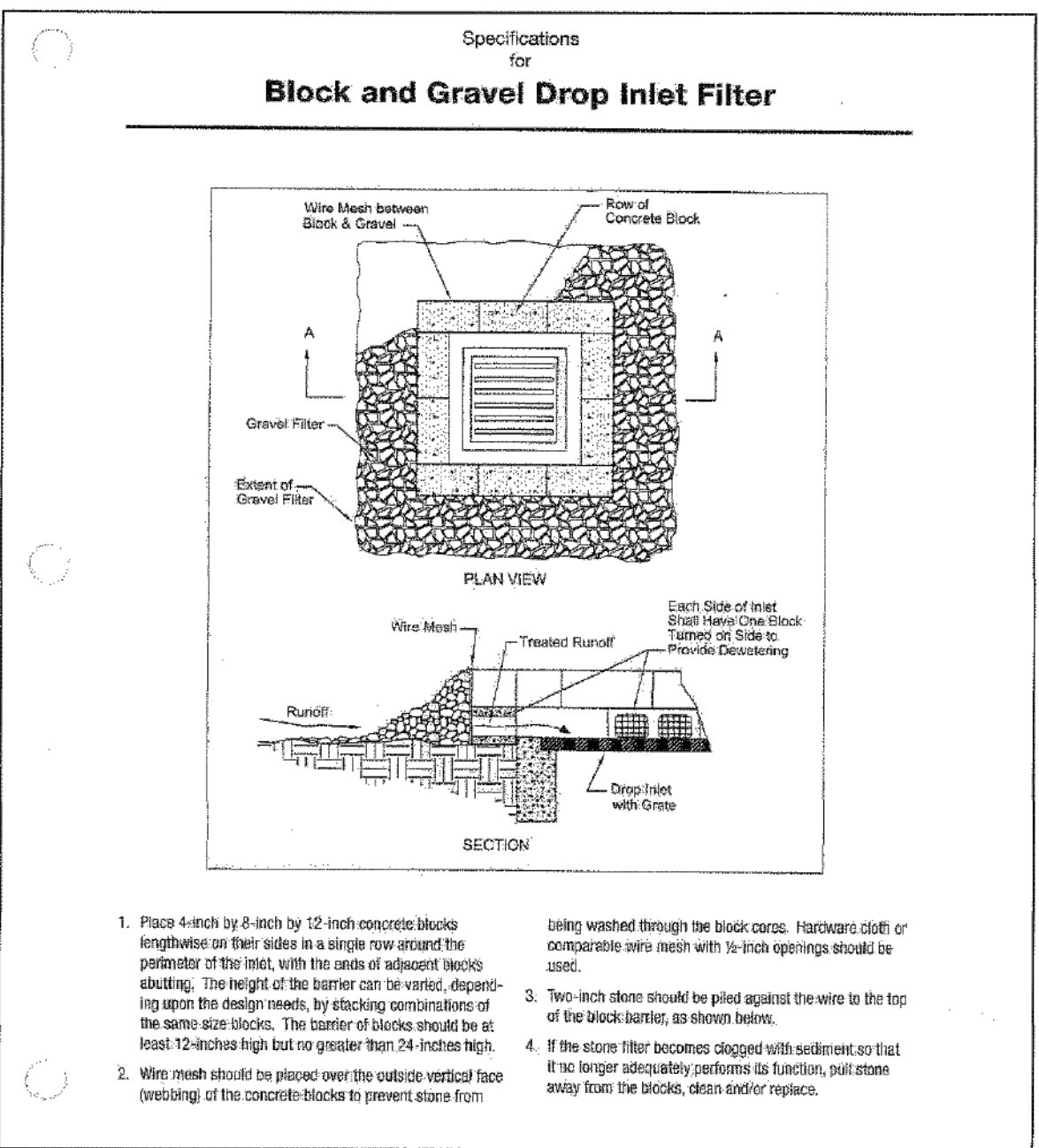
REV. No.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TEB	Geotextile-Stone Inlet Protection

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

GEOTEXTILE-STONE
INLET PROTECTION

SCALE: NOT TO SCALE
DATE: 10/01/08
DRAWN BY: JAB/TEB
SWP-20

Larry Luffich
CITY OF NORTH RIDGEVILLE, ENGINEER



INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

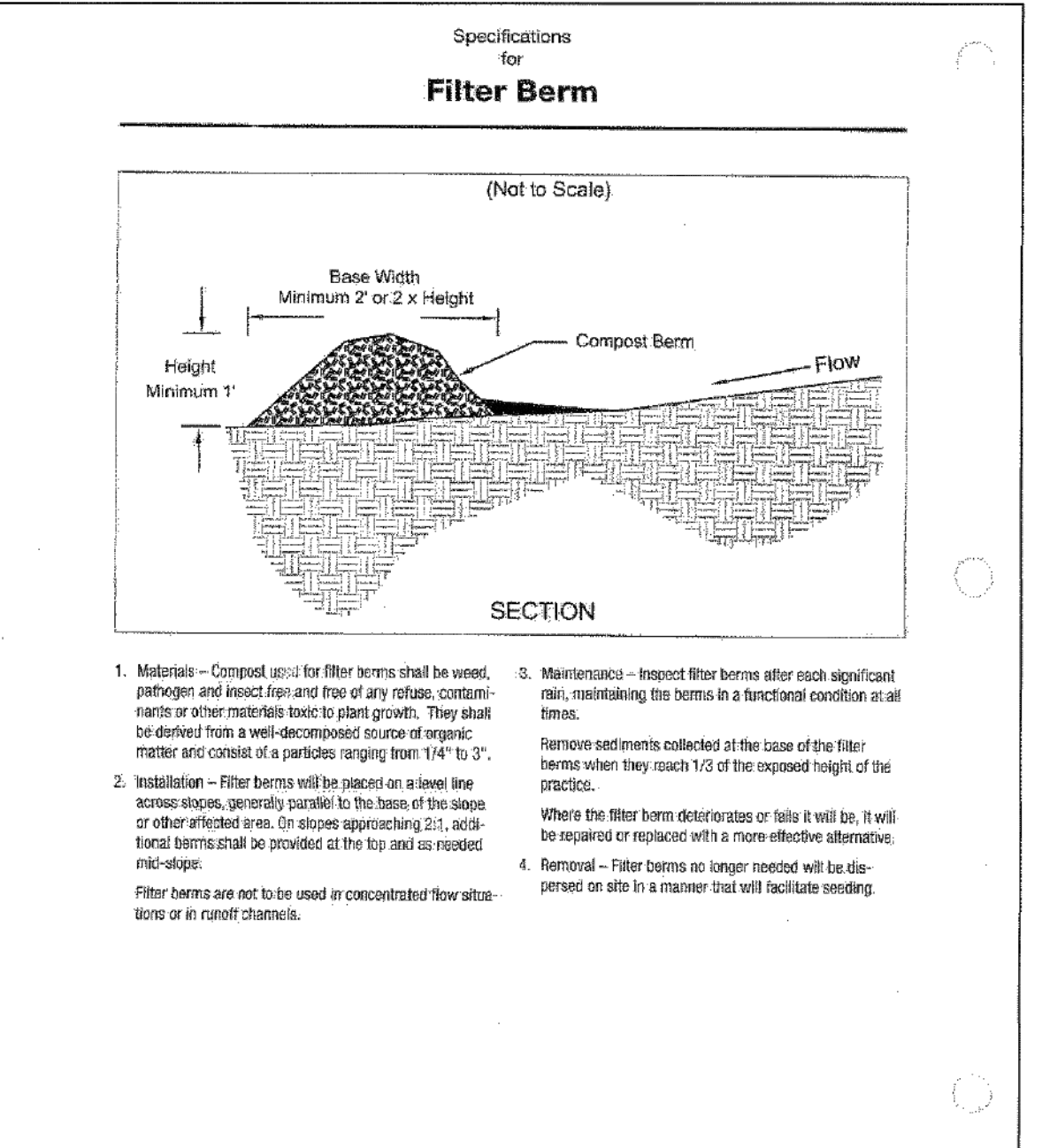
REV. No.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TEB	Block and Gravel Drop Inlet Filter

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

BLOCK AND GRAVEL
DROP INLET FILTER

SCALE: NOT TO SCALE
DATE: 10/01/08
DRAWN BY: JAB/TEB
SWP-23

Larry Luffich
CITY OF NORTH RIDGEVILLE, ENGINEER



INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

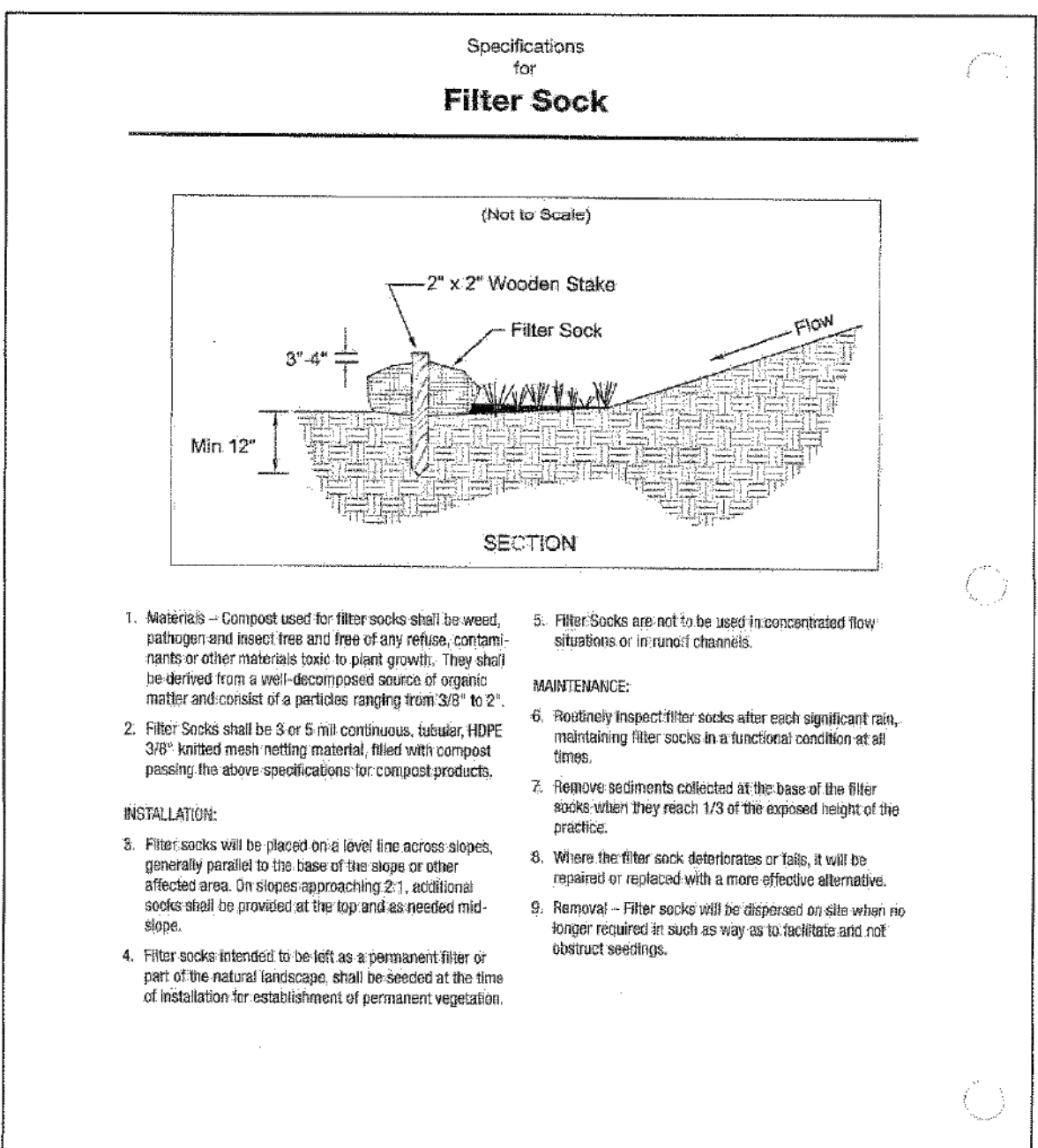
REV. No.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TEB	Filter Berm

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

FILTER BERM

SCALE: NOT TO SCALE
DATE: 10/01/08
DRAWN BY: JAB/TEB
SWP-24

Larry Luffich
CITY OF NORTH RIDGEVILLE, ENGINEER



INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

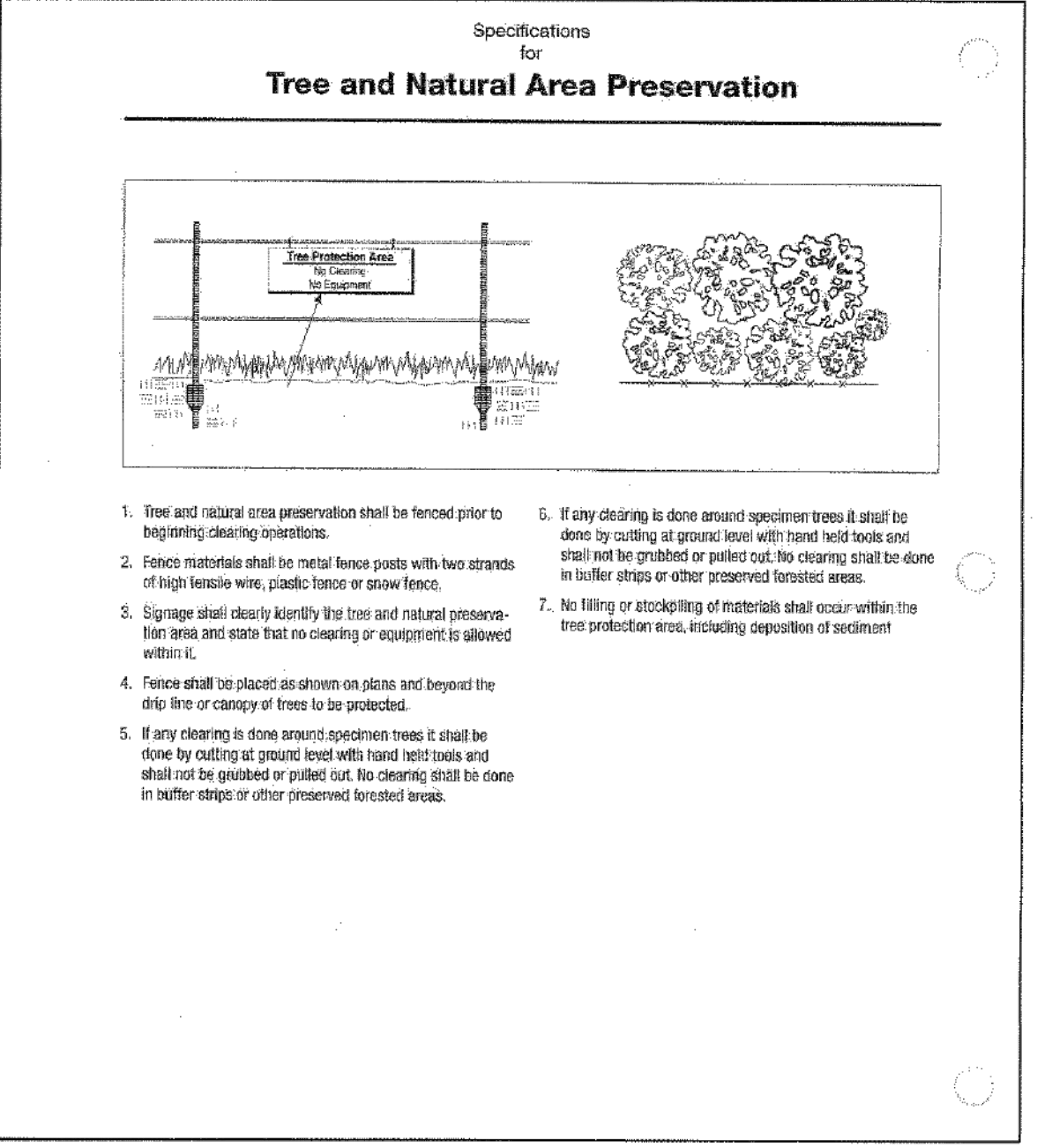
REV. No.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TEB	Filter Sock

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

FILTER SOCK

SCALE: NOT TO SCALE
DATE: 10/01/08
DRAWN BY: JAB/TEB
SWP-25

Larry Luffich
CITY OF NORTH RIDGEVILLE, ENGINEER



INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

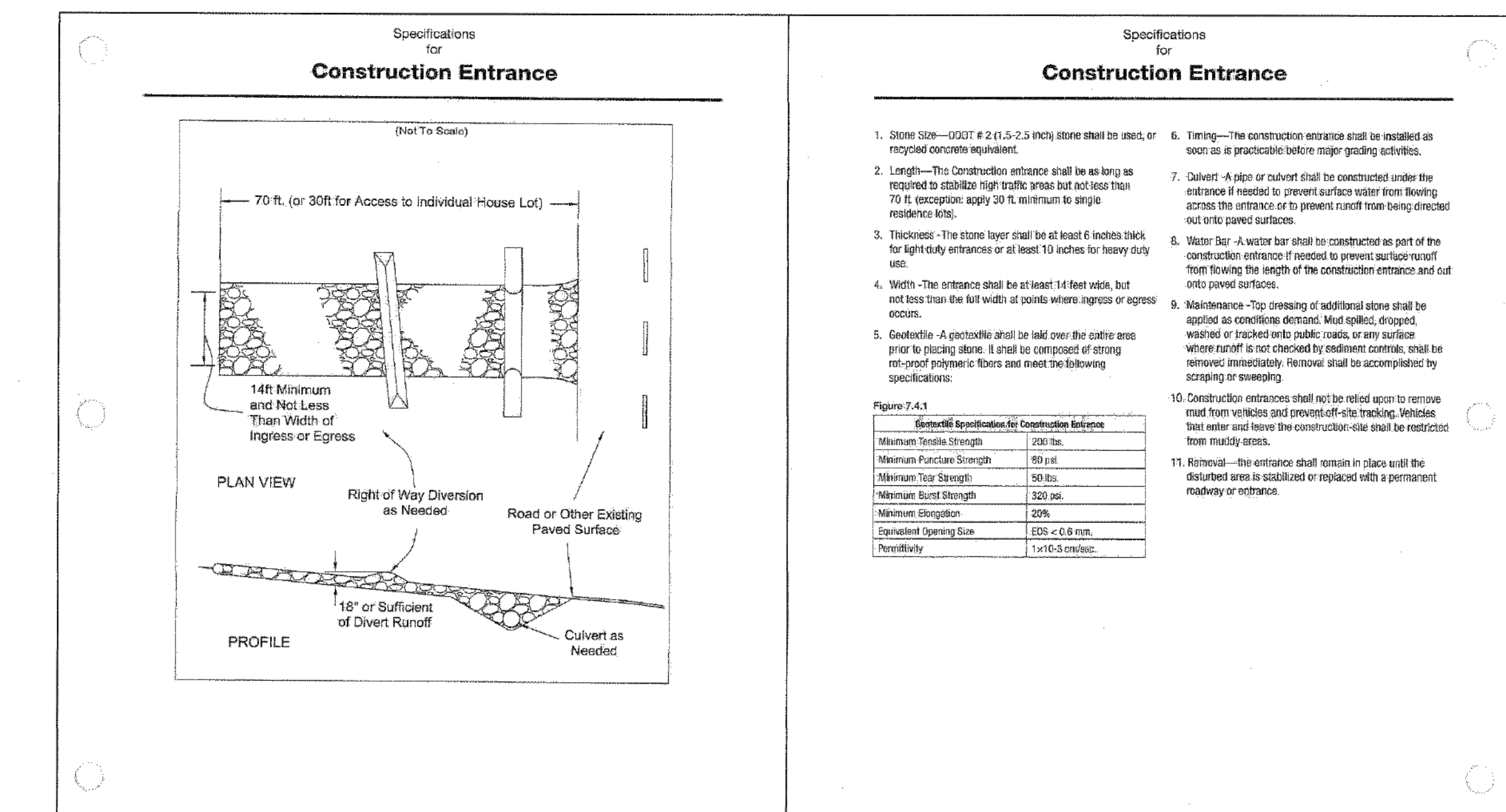
REV. No.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TEB	Tree and Natural Area Preservation

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

TREE AND NATURAL
AREA PRESERVATION

SCALE: NOT TO SCALE
DATE: 10/01/08
DRAWN BY: JAB/TEB
SWP-26

Larry Luffich
CITY OF NORTH RIDGEVILLE, ENGINEER



INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

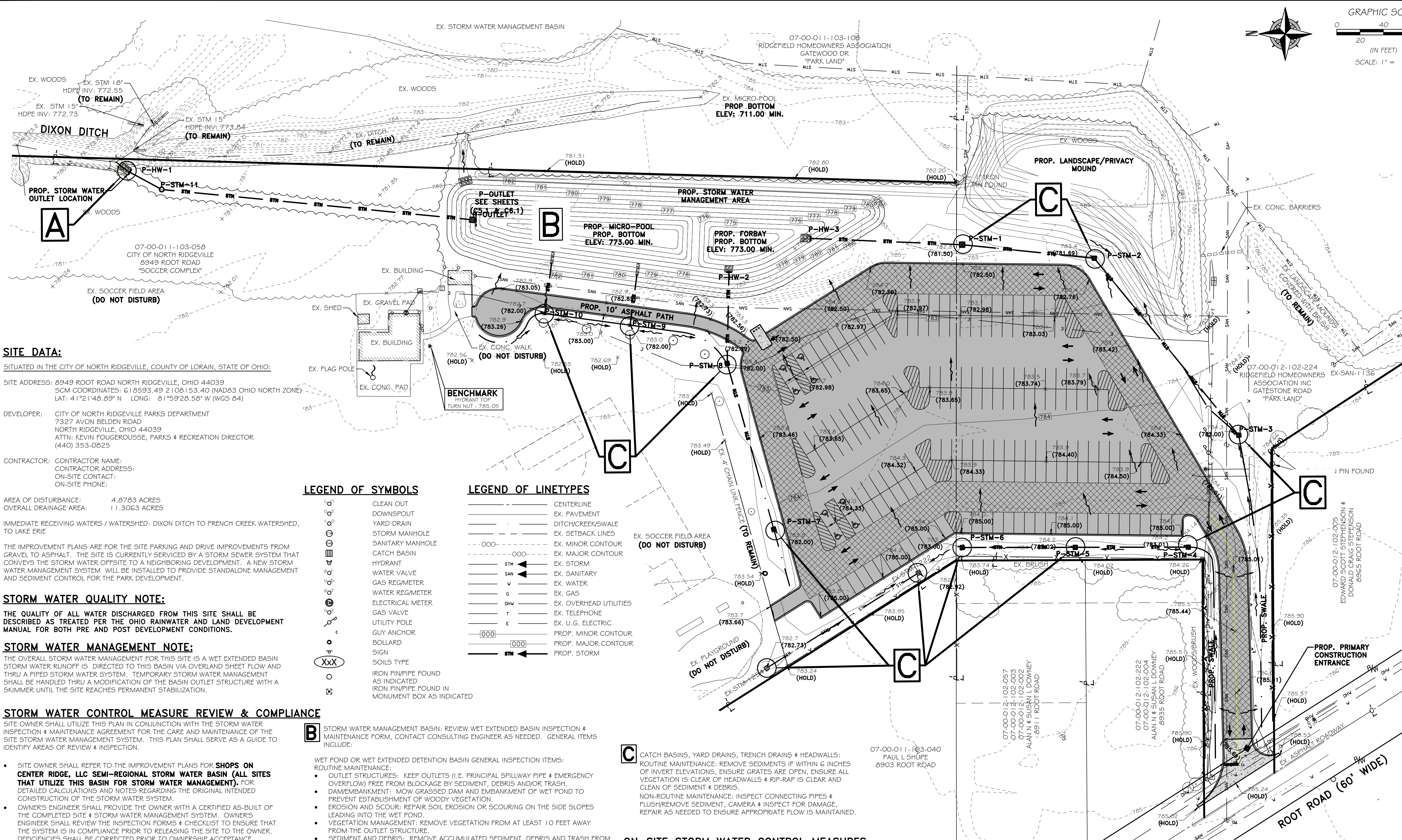
REV. No.	DATE	BY	DESCRIPTION
1	10/01/08	JAB/TEB	Construction Entrance

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

CONSTRUCTION
ENTRANCE

SCALE: NOT TO SCALE
DATE: 10/01/08
DRAWN BY: JAB/TEB
SWP-27

Larry Luffich
CITY OF NORTH RIDGEVILLE, ENGINEER



SITE DATA:

SITUATED IN THE CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO:

SITE ADDRESS: 8949 ROOT ROAD NORTH RIDGEVILLE, OHIO 44039
SCM COORDINATES: 618593.49 2108153.40 (NAD83 OHIO NORTH ZONE)
LAT: 41°21'48.89" N LONG: 81°59'28.58" W (WGS 84)

DEVELOPER: CITY OF NORTH RIDGEVILLE PARKS DEPARTMENT
7327 AVON BELDEN ROAD
NORTH RIDGEVILLE, OHIO 44039
ATTN: KEVIN FOUGEROUSSE, PARKS & RECREATION DIRECTOR
(440) 353-0825

CONTRACTOR: CONTRACTOR NAME:
CONTRACTOR ADDRESS:
ON-SITE CONTACT:
ON-SITE PHONE:

AREA OF DISTURBANCE: 4.8783 ACRES
OVERALL DRAINAGE AREA: 11.3063 ACRES

IMMEDIATE RECEIVING WATERS / WATERSHED: DIXON DITCH TO FRENCH CREEK WATERSHED, TO LAKE ERIE

THE IMPROVEMENT PLANS ARE FOR THE SITE PARKING AND DRIVE IMPROVEMENTS FROM GRAVEL TO ASPHALT. THE SITE IS CURRENTLY SERVICED BY A STORM SEWER SYSTEM THAT CONVEYS THE STORM WATER OFFSITE TO A NEIGHBORING DEVELOPMENT. A NEW STORM WATER MANAGEMENT SYSTEM WILL BE INSTALLED TO PROVIDE STANDALONE MANAGEMENT AND SEDIMENT CONTROL FOR THE PARK DEVELOPMENT.

STORM WATER QUALITY NOTE:

THE QUALITY OF ALL WATER DISCHARGED FROM THIS SITE SHALL BE DESCRIBED AS TREATED PER THE OHIO RAINWATER AND LAND DEVELOPMENT MANUAL FOR BOTH PRE AND POST DEVELOPMENT CONDITIONS.

STORM WATER MANAGEMENT NOTE:

THE OVERALL STORM WATER MANAGEMENT FOR THIS SITE IS A WET EXTENDED BASIN STORM WATER RUNOFF IS DIRECTED TO THIS BASIN VIA OVERLAND SHEET FLOW AND THRU A PIPED STORM WATER SYSTEM. TEMPORARY STORM WATER MANAGEMENT SHALL BE HANDLED THRU A MODIFICATION OF THE BASIN OUTLET STRUCTURE WITH A SKIMMER UNTIL THE SITE REACHES PERMANENT STABILIZATION.

STORM WATER CONTROL MEASURE REVIEW & COMPLIANCE

SITE OWNER SHALL UTILIZE THIS PLAN IN CONJUNCTION WITH THE STORM WATER INSPECTION & MAINTENANCE AGREEMENT FOR THE CARE AND MAINTENANCE OF THE SITE STORM WATER MANAGEMENT SYSTEM. THIS PLAN SHALL SERVE AS A GUIDE TO IDENTIFY AREAS OF REVIEW & INSPECTION.

- SITE OWNER SHALL REFER TO THE IMPROVEMENT PLANS FOR **SHOPS ON CENTER RIDGE, LLC SEMI-REGIONAL STORM WATER BASIN (ALL SITES THAT UTILIZE THIS BASIN FOR STORM WATER MANAGEMENT)**. FOR DETAILED CALCULATIONS AND NOTES REGARDING THE ORIGINAL INTENDED CONSTRUCTION OF THE STORM WATER SYSTEM.
- OWNER'S ENGINEER SHALL PROVIDE THE OWNER WITH A CERTIFIED AS-BUILT OF THE COMPLETED SITE & STORM WATER MANAGEMENT SYSTEM. OWNER'S ENGINEER SHALL REVIEW THE INSPECTION FORMS & CHECKLIST TO ENSURE THAT THE SYSTEM IS IN COMPLIANCE PRIOR TO RELEASING THE SITE TO THE OWNER. DEFICIENCIES SHALL BE CORRECTED PRIOR TO OWNERSHIP ACCEPTANCE.
- THE OWNER SHALL MAINTAIN INSPECTION REPORTS. THE REPORTS SHALL INCLUDE THE FOLLOWING:

A P-OUTLET: CLEAR DEBRIS FROM STRUCTURE, CHECK ORIFICES, REMOVE SEDIMENTS IF WITHIN 6-INCHES OF LOWEST ORIFICE ELEVATION

LEGEND OF SYMBOLS

- CLEAN OUT
- DOWNSPOUT
- YARD DRAIN
- STORM MANHOLE
- SANITARY MANHOLE
- CATCH BASIN
- HYDRANT
- WATER VALVE
- GAS REG/METER
- WATER REG/METER
- ELECTRICAL METER
- GAS VALVE
- UTILITY POLE
- GUY ANCHOR
- BOLLARD
- SIGN
- SOILS TYPE
- IRON PIN/PIPE FOUND AS INDICATED
- IRON PIN/PIPE FOUND IN MONUMENT BOX AS INDICATED

LEGEND OF LINETYPES

- CENTERLINE
- EX. PAVEMENT
- DITCH/CREEK/SWALE
- EX. SETBACK LINES
- EX. MINOR CONTOUR
- EX. MAJOR CONTOUR
- EX. STORM
- EX. SANITARY
- EX. WATER
- EX. GAS
- EX. OVERHEAD UTILITIES
- EX. TELEPHONE
- EX. U.G. ELECTRIC
- PROP. MINOR CONTOUR
- PROP. MAJOR CONTOUR
- PROP. STORM

B STORM WATER MANAGEMENT BASIN: REVIEW WET EXTENDED BASIN INSPECTION & MAINTENANCE FORM, CONTACT CONSULTING ENGINEER AS NEEDED. GENERAL ITEMS INCLUDE:

- WET POND OR WET EXTENDED DETENTION BASIN GENERAL INSPECTION ITEMS:
- ROUTINE MAINTENANCE:
- OUTLET STRUCTURES: KEEP OUTLETS (I.E. PRINCIPAL SPILLWAY PIPE & EMERGENCY OVERFLOW) FREE FROM BLOCKAGE BY SEDIMENT, DEBRIS AND/OR TRASH.
 - DAM/EMBANKMENT: MOW GRASSSED DAM AND EMBANKMENT OF WET POND TO PREVENT ESTABLISHMENT OF WOODY VEGETATION.
 - EROSION AND SCOUR: REPAIR SOIL EROSION OR SCOURING ON THE SIDE SLOPES LEADING INTO THE WET POND.
 - VEGETATION MANAGEMENT: REMOVE VEGETATION FROM AT LEAST 10 FEET AWAY FROM THE OUTLET STRUCTURE.
 - SEDIMENT AND DEBRIS: REMOVE ACCUMULATED SEDIMENT, DEBRIS AND TRASH FROM THE WET POND AREA. REMOVE SEDIMENTS WHEN THE POOL VOLUME HAS BECOME SIGNIFICANTLY REDUCED OR THE POND BEGINS TO BECOME EUTROPHIC.
- NON-ROUTINE MAINTENANCE:
- EXCESSIVE SEDIMENT: REMOVE SEDIMENT ACCUMULATION FROM THE AREA PRIOR TO 25% OF THE PONDING STORAGE VOLUME BEING LOST WITHIN THE WET POND.
 - INVASIVE VEGETATION: TREAT AND REMOVE INVASIVE VEGETATION FROM PONDING AREA, SIDE SLOPES AND EMERGENCY SPILLWAY.
 - OUTLET STRUCTURE: REPAIR OR REPLACE DAMAGED OUTLET STRUCTURE.
 - EROSION PROTECTION: REPAIR OR REPLACE RIP-RAP, FILTER FABRIC AND/OR No. 4 LIMESTONE AT PIPE INLETS/PIPE OUTLETS.
 - DAM/EMBANKMENT AREAS: SEEK PROFESSIONAL CONSULTATION IF SEEPAGE, LEAKS OR EROSION IS DISCOVERED ON THE DAM OR EMBANKMENT OF THE WET POND.

C CATCH BASINS, YARD DRAINS, TRENCH DRAINS & HEADWALLS: ROUTINE MAINTENANCE: REMOVE SEDIMENTS IF WITHIN 6 INCHES OF INVERT ELEVATIONS, ENSURE GRATES ARE OPEN, ENSURE ALL VEGETATION IS CLEAR OF HEADWALLS & RIP-RAP IS CLEAR AND CLEAN OF SEDIMENT & DEBRIS. NON-ROUTINE MAINTENANCE: INSPECT CONNECTING PIPES & FLUSH/REMOVE SEDIMENT, CAMERA & INSPECT FOR DAMAGE, REPAIR AS NEEDED TO ENSURE APPROPRIATE FLOW IS MAINTAINED.

ON-SITE STORM WATER CONTROL MEASURES

SCM-1: STORMWATER BASIN

SCM COORDINATES: N: 618554.08 E: 2108363.44 (NAD83 OHIO NORTH ZONE)
LAT: N41°21'47.57" LONG: W81°59'25.24" (WGS 84)

BASIS OF BEARINGS

BASIS OF BEARING IS ASSUMED AND IS USED TO DESCRIBE ANGLES ONLY. A PORTION OF THE WESTERLY LINE OF RIDGEFIELD HOMES INC. SUBDIVISION No. 2 AS RECORDED IN PLAT VOLUME 57, PAGE 70 OF THE LORAIN COUNTY PLAT RECORDS AND IS ASSUMED TO BE NORTH 01° 38' 05" EAST AS SHOWN HEREON.

THIS SURVEY IS BASED UPON A FIELD SURVEY PERFORMED BY RAFTER A., LTD IN APRIL OF 2023.

UNDERGROUND UTILITIES NOTE:

THE SIZE & LOCATION, BOTH HORIZONTAL AND VERTICAL, OF THE UNDERGROUND UTILITIES SHOWN HEREON, HAVE BEEN OBTAINED BY A SEARCH OF AVAILABLE RECORDS. VERIFICATION BY FIELD OBSERVATION HAS BEEN CONDUCTED WHERE PRACTICAL. HOWEVER, RAFTER A., LTD DOES NOT GUARANTEE THE COMPLETENESS NOR ACCURACY THEREOF.

UNDERGROUND UTILITIES

Contact Two Working Days Before You Dig



OHIO811, 8-1-1, or 1-800-362-2764

(Non-members must be called directly)
A228701141-00A; A228701159-00A;
A228701221-00A; A228701207-00A

RAFTER A., LTD
LAND SURVEYING • ENGINEERING • TESTING
42653 Oberlin-Elyria Road, Oberlin, Ohio 44074
440-707-4014 • www.raftera.com • info@raftera.com

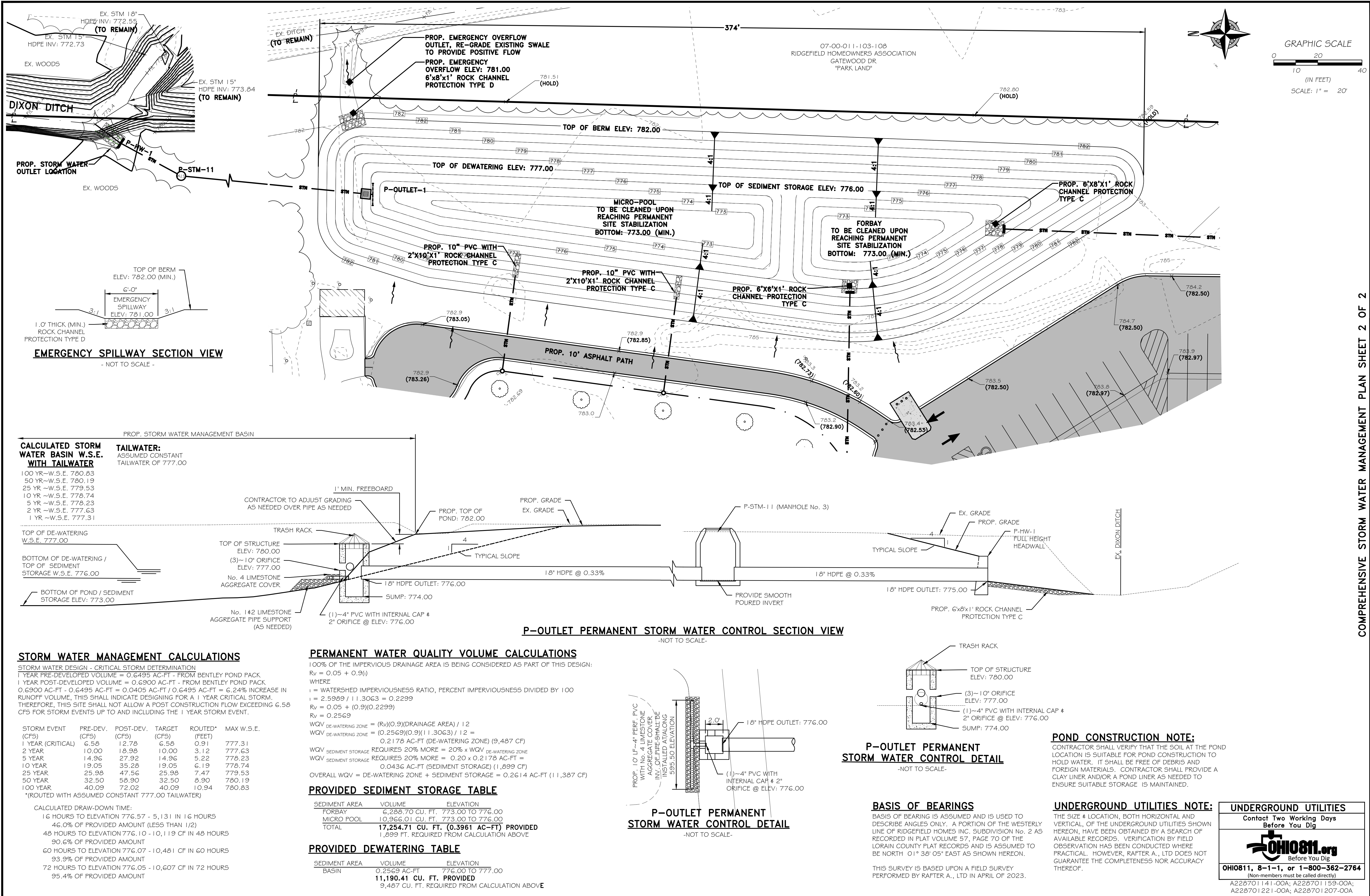


CITY OF NORTH RIDGEVILLE
PARKS & RECREATION DEPARTMENT
7327 AVON BELDEN ROAD
NORTH RIDGEVILLE, OHIO 44039

CITY OF NORTH RIDGEVILLE
PARKS DEPARTMENT
ROOT ROAD PARK PAVEMENT
& SITE IMPROVEMENTS
PERMANENT COMPREHENSIVE
STORM WATER MANAGEMENT PLAN
8949 ROOT ROAD, NORTH RIDGEVILLE, OHIO 44080

DRAWN BY: BDA
CHECKED BY: RAF
RAF JOB NO: 3128-23

SHEET: **C6.0**





- NOT TO SCALE -

- CONTRACTOR SHALL PROOF ROLL SUBGRADE PRIOR TO PLACING STONE
- PROOF ROLL SHALL BE OBSERVED BY CITY APPROVED REPRESENTATIVE
- RECYCLED 304 LIMESTONE SHALL NOT BE PERMITTED



- NOT TO SCALE -

- CONTRACTOR SHALL PROOF ROLL SUBGRADE PRIOR TO PLACING STONE
- PROOF ROLL SHALL BE OBSERVED BY CITY APPROVED REPRESENTATIVE
- RECYCLED 304 LIMESTONE SHALL NOT BE PERMITTED



- NOT TO SCALE -

OR AS APPROVED BY GEOTECHNICAL ENGINEER



- NOT TO SCALE -



- NOT TO SCALE -



- NOT TO SCALE -



- NOT TO SCALE -

OR AS APPROVED BY GEOTECHNICAL ENGINEER



- NOT TO SCALE -



- NOT TO SCALE -



- NOT TO SCALE -

AREAS THAT DO NOT PASS PROOF ROLL
AND ARE DETERMINED TO BE UNSUITABLE
BY GEOTECHNICAL ENGINEER

- RECYCLED 304 LIMESTONE SHALL NOT BE PERMITTED

REV.	BY	DATE	DESCRIPTION
1	BDA	11-10-2023	ISSUE FOR CLIENT REVIEW
2	BDA	02-16-2024	ISSUE FOR CITY REVIEW
3	BDA	02-19-2024	ISSUE FOR CITY REVIEW



RAFTER A, LTD
LAND SURVEYING • ENGINEERING • TESTING
 42653 Oberlin-Elyria Road, Oberlin, Ohio 44074
 440-707-4014 • www.raftera.com • info@raftera.com

CITY OF NORTH RIDGEVILLE
PARKS & RECREATION DEPARTMENT
7327 AVON BELDEN ROAD
NORTH RIDGEVILLE, OHIO 44039

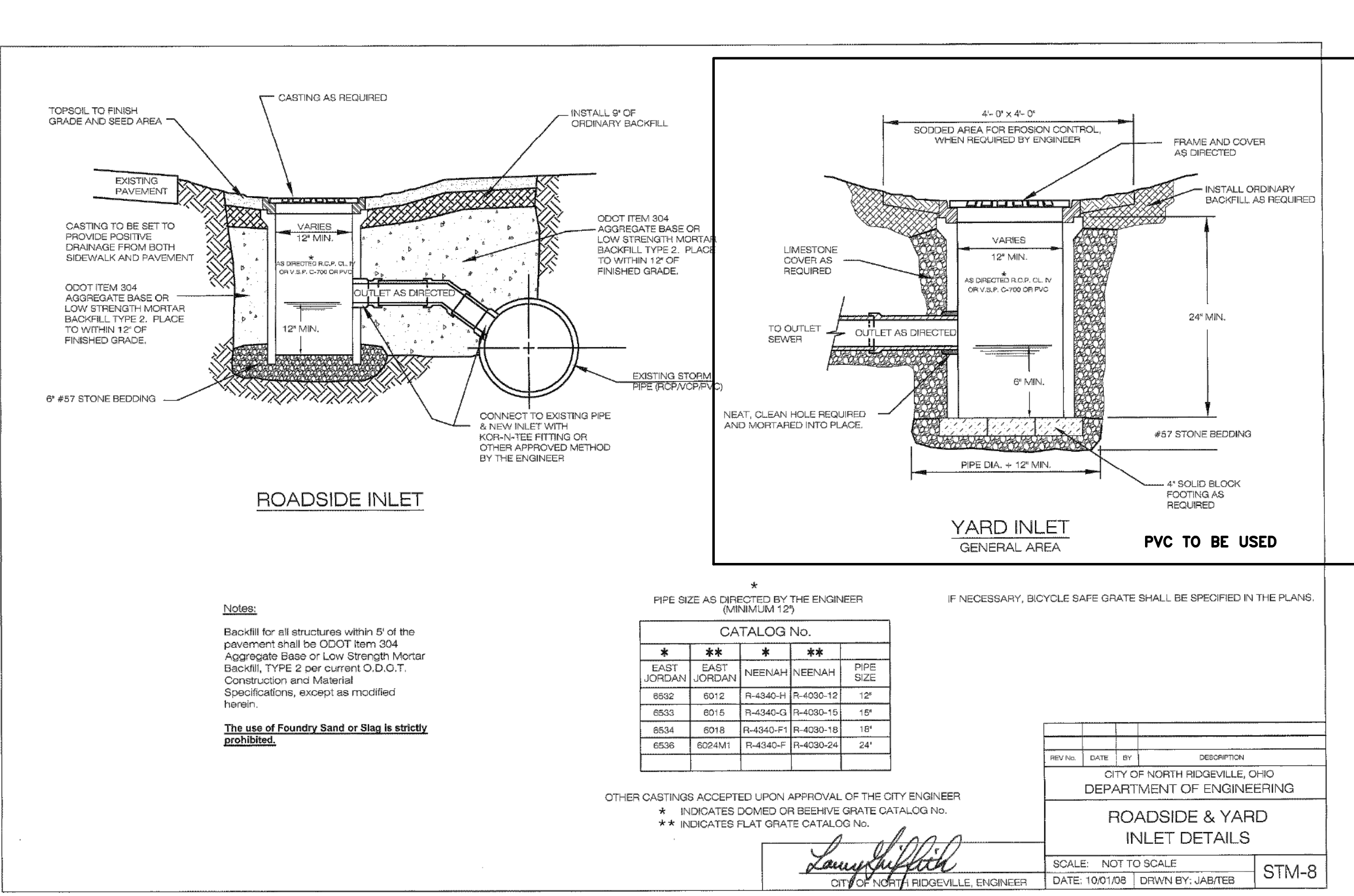
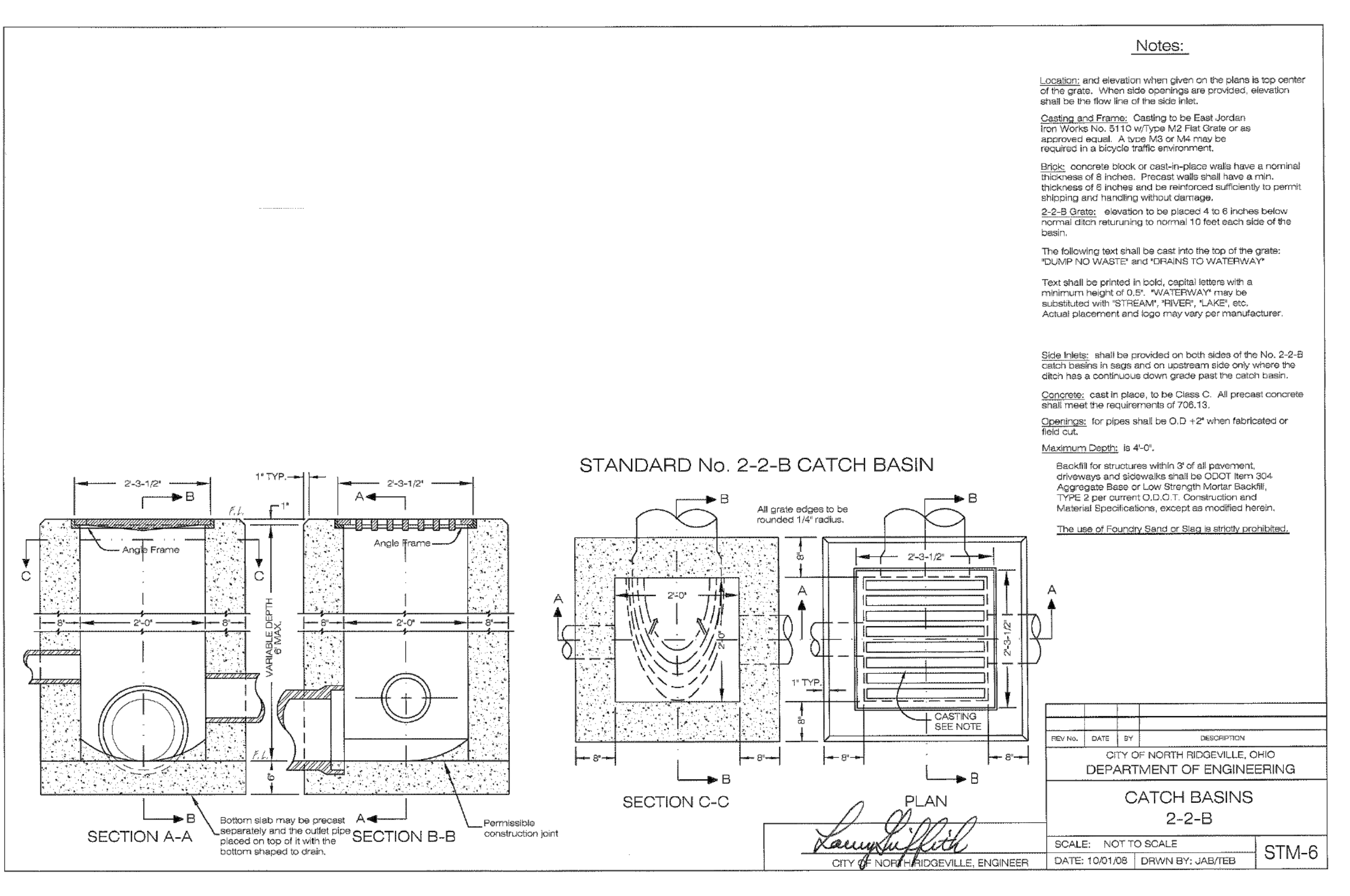
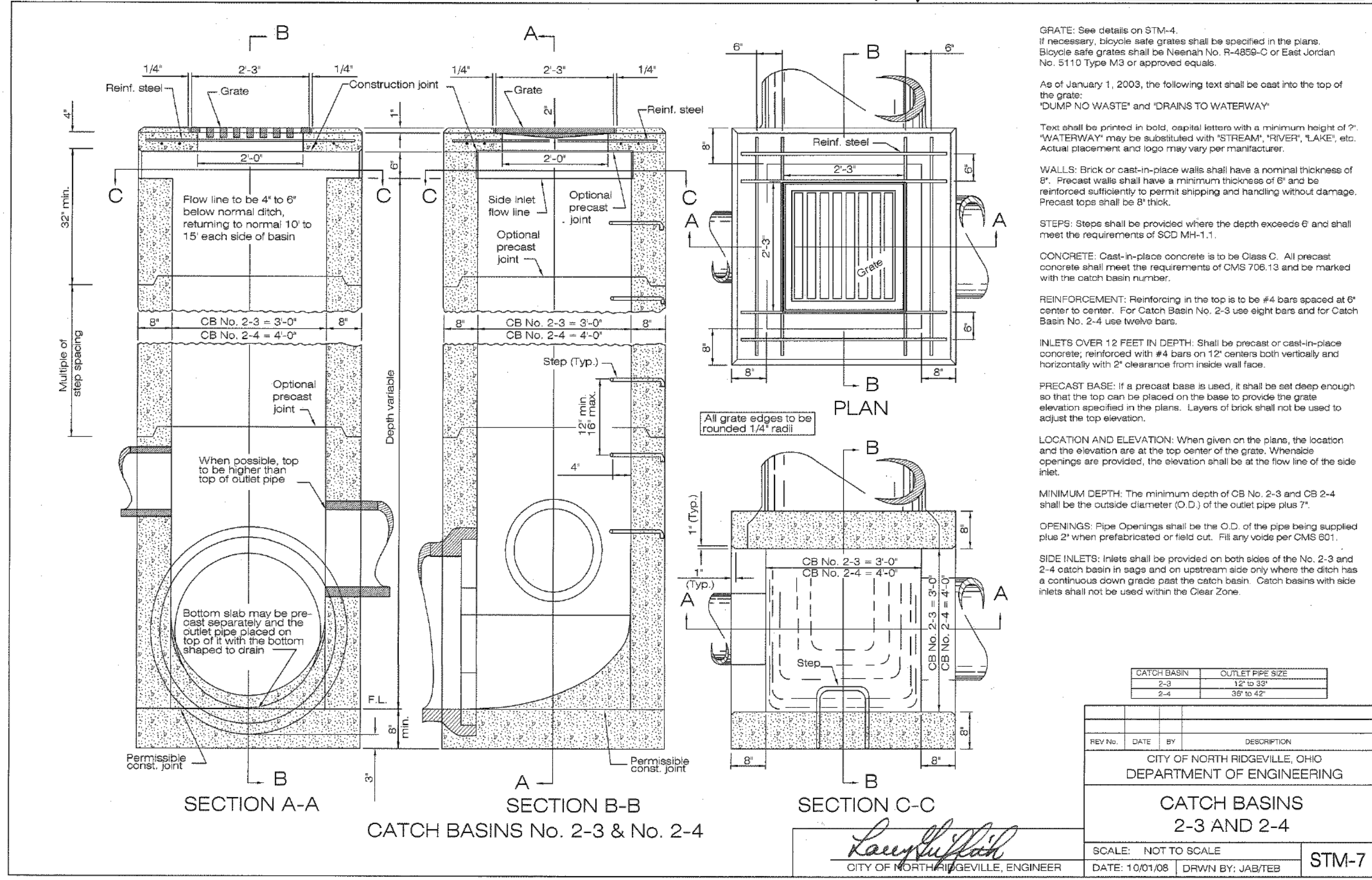
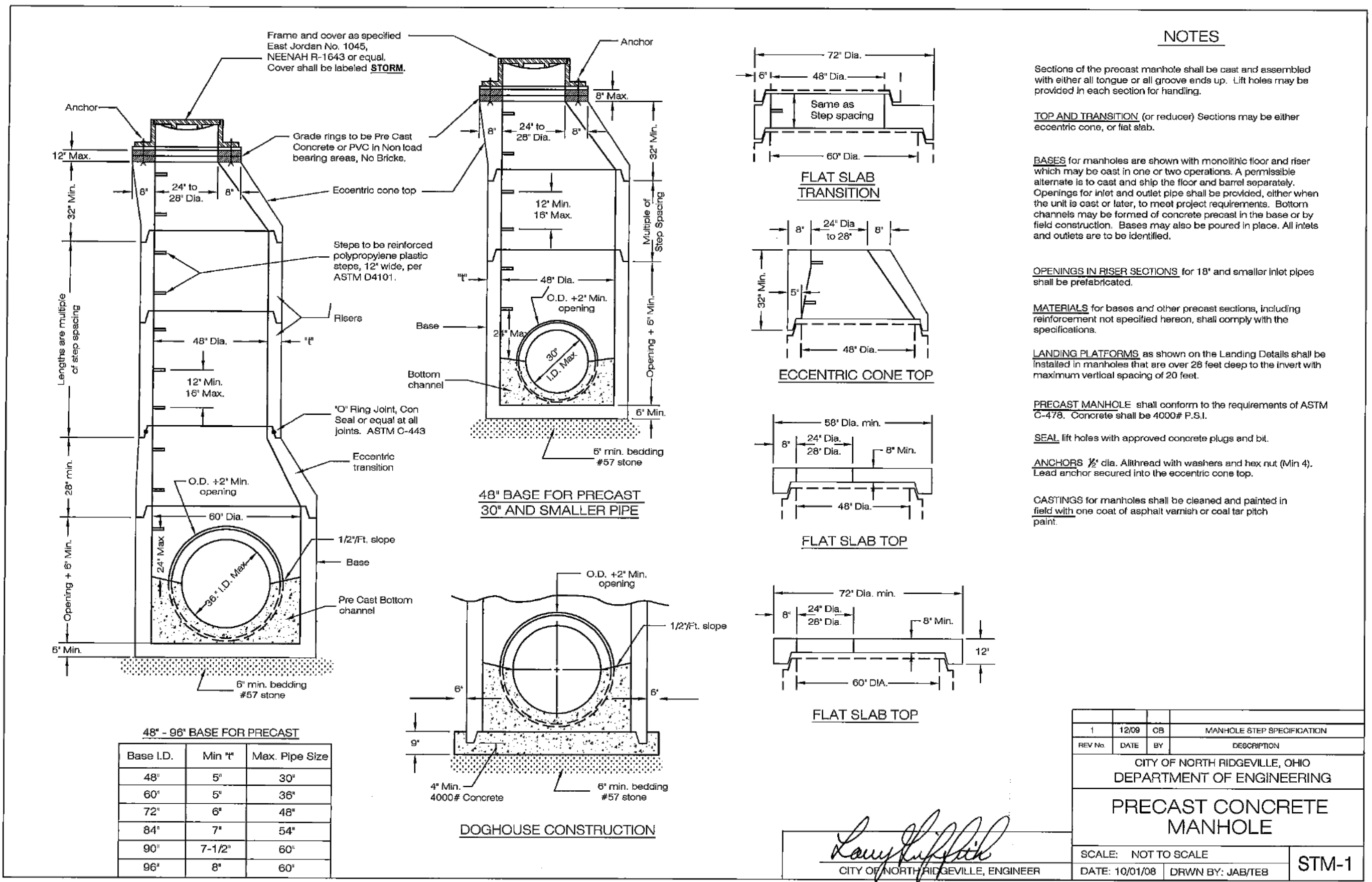
CITY OF NORTH RIDGEVILLE
PARKS DEPARTMENT
ROOT ROAD PARK PAVEMENT
& SITE IMPROVEMENTS

MISCELLANEOUS DETAILS

8949 ROOT ROAD, NORTH RIDGEVILLE, OHIO 44090

DRAWN BY: BDA
CHECKED BY: RAF
RAF JOB No: 3128-23

SHEET: **C7.0**



RAFTER A, LTD
LAND SURVEYING • ENGINEERING • TESTING
42653 Oberlin-Elyria Road, Oberlin, Ohio 44074
440-707-4014 • www.raftera.com • info@raftera.com

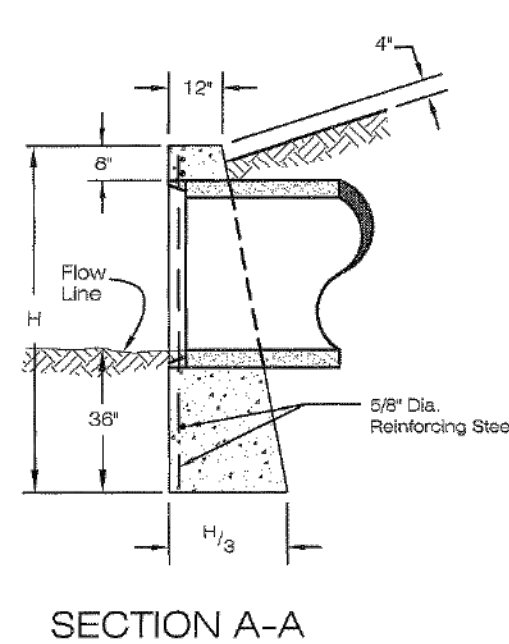
CITY OF NORTH RIDGEVILLE
PARKS DEPARTMENT
ROOT ROAD PARK PAVEMENT & SITE IMPROVEMENTS

MISCELLANEOUS DETAILS

9849 ROOT ROAD, NORTH RIDGEVILLE, OHIO 44090

DRAWN BY: BDA
CHECKED BY: RAF
RAF JOB NO: 3128-23

SHEET: C7.1



NOTES

No 1 headwall, where required, will be provided for nonsewaked culverts having a diameter or rise of 36" or less.

Concrete shall be class "C".

Reinforcing steel bars shall be 5/8" round.

Dimension and quantities are shown for circular sections only. It will be necessary to determine dimensions for the No. 1 headwall required for other pipe shapes in accordance with the equations listed on this drawing.

Full height headwalls are required for all ditches.

Chamber all exposed corners 3/4 of an inch.

Foundation. Where the soil borings indicate a bearing capacity of less than 2600 pounds per square foot, it will be necessary to increase the width of the base.

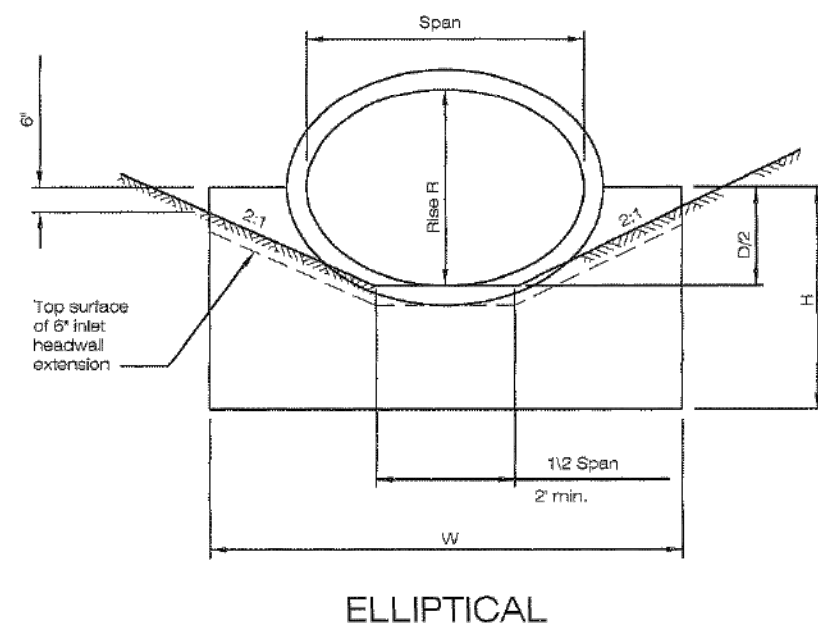
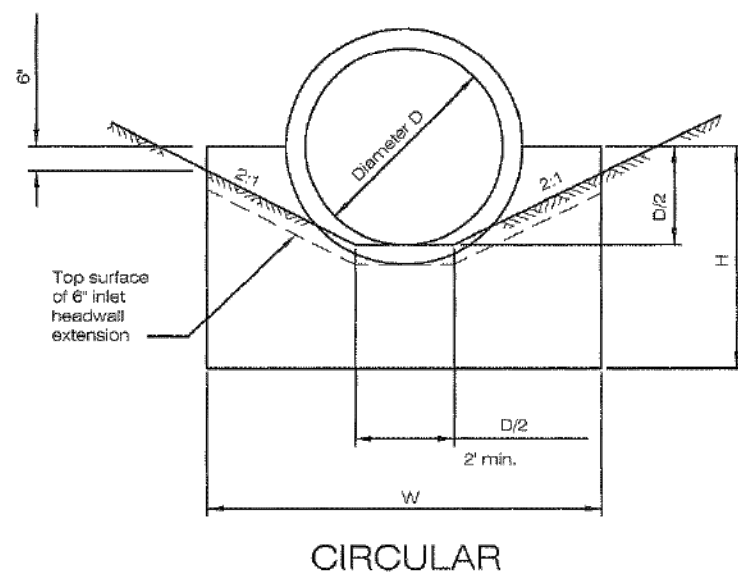
For headwall outlet protection, see STM-13.

All cast in place headwalls shall have a cement wash.

All cast in place headwalls shall have a cement wash.

REV NO.	DATE	BY	DESCRIPTION	
CITY OF NORTH RIDGEVILLE, OHIO				
DEPARTMENT OF ENGINEERING				
STANDARD				
No. 1 HEADWALL				
SCALE: NOT TO SCALE				STM-10
DATE: 10/01/08	DRAWN BY: JAB/TER			

C.I.P. HEADWALL FOR CONCRETE PIPE										
CIRCULAR					ELLIPTICAL					
D	W	H	T	Conc. (in. yds)	Span	Rise	W	H	T	Conc. (in. yds)
12"	2-5/8"	3-5/8"	1/2"	1.28	30"	14"	3-5/8"	5-1/2"	1/2"	0.92
14"	3-1/8"	4-1/8"	1/2"	1.53	30"	19"	5-1/8"	6-3/4"	1/2"	1.12
18"	5-3/8"	6-3/8"	1/2"	2.01	34"	22"	8-11/16"	9-1/2"	1/2"	1.48
24"	7-1/8"	8-1/8"	1/2"	2.75	40"	28"	10-1/2"	11-1/2"	1/2"	1.96
30"	8-7/8"	9-7/8"	1/2"	3.43	46"	34"	12-1/2"	13-7/8"	1/2"	2.44
36"	9-5/8"	10-1/2"	1/2"	4.08	52"	40"	14-1/2"	15-1/2"	1/2"	2.88
42"	10-1/8"	11-1/8"	1/2"	4.76	58"	46"	16-1/2"	17-1/8"	1/2"	3.32
48"	10-5/8"	11-5/8"	1/2"	5.43	64"	52"	18-1/2"	19-1/8"	1/2"	3.76
54"	11-1/8"	12-1/8"	1/2"	6.11	70"	58"	20-1/2"	21-1/8"	1/2"	4.20
60"	11-5/8"	12-5/8"	1/2"	6.78	76"	64"	22-1/2"	23-1/8"	1/2"	4.64
66"	12-1/8"	13-1/8"	1/2"	7.46	82"	70"	24-1/2"	25-1/8"	1/2"	5.08
72"	12-5/8"	13-5/8"	1/2"	8.14	88"	76"	26-1/2"	27-1/8"	1/2"	5.52
78"	13-1/8"	14-1/8"	1/2"	8.82	94"	82"	28-1/2"	29-1/8"	1/2"	5.96
84"	13-5/8"	14-5/8"	1/2"	9.50	100"	88"	30-1/2"	31-1/8"	1/2"	6.40
90"	14-1/8"	15-1/8"	1/2"	10.18	106"	94"	32-1/2"	33-1/8"	1/2"	6.84
96"	14-5/8"	15-5/8"	1/2"	10.86	112"	100"	34-1/2"	35-1/8"	1/2"	7.28
102"	15-1/8"	16-1/8"	1/2"	11.54	118"	106"	36-1/2"	37-1/8"	1/2"	7.72
108"	15-5/8"	16-5/8"	1/2"	12.22	124"	112"	38-1/2"	39-1/8"	1/2"	8.16
114"	16-1/8"	17-1/8"	1/2"	12.90	130"	118"	40-1/2"	41-1/8"	1/2"	8.60
120"	16-5/8"	17-5/8"	1/2"	13.58	136"	124"	42-1/2"	43-1/8"	1/2"	9.04
126"	17-1/8"	18-1/8"	1/2"	14.26	142"	130"	44-1/2"	45-1/8"	1/2"	9.48
132"	17-5/8"	18-5/8"	1/2"	14.94	148"	136"	46-1/2"	47-1/8"	1/2"	9.92
138"	18-1/8"	19-1/8"	1/2"	15.62	154"	142"	48-1/2"	49-1/8"	1/2"	10.36
144"	18-5/8"	19-5/8"	1/2"	16.30	160"	148"	50-1/2"	51-1/8"	1/2"	10.80
150"	19-1/8"	20-1/8"	1/2"	16.98	166"	154"	52-1/2"	53-1/8"	1/2"	11.24
156"	19-5/8"	20-5/8"	1/2"	17.66	172"	160"	54-1/2"	55-1/8"	1/2"	11.68
162"	20-1/8"	21-1/8"	1/2"	18.34	178"	166"	56-1/2"	57-1/8"	1/2"	12.12
168"	20-5/8"	21-5/8"	1/2"	19.02	184"	172"	58-1/2"	59-1/8"	1/2"	12.56
174"	21-1/8"	22-1/8"	1/2"	19.70	190"	178"	60-1/2"	61-1/8"	1/2"	13.00
180"	21-5/8"	22-5/8"	1/2"	20.38	196"	184"	62-1/2"	63-1/8"	1/2"	13.44
186"	22-1/8"	23-1/8"	1/2"	21.06	202"	190"	64-1/2"	65-1/8"	1/2"	13.88

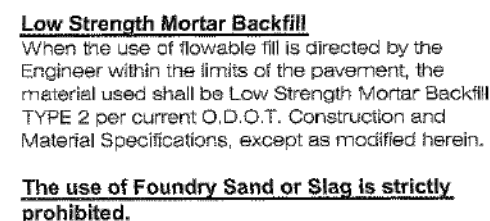


GENERAL: This drawing is for cast in place half-height concrete headwalls. When furnishing precast half-height headwalls, submit shop drawings for approval prior to manufacture. Precast half-height headwalls are only approved for round conduits with a maximum conduit diameter of 78"

CONCRETE: Concrete for headwalls shall be Class C.

For headwall outlet protection, see STM-13.

REV. NO.	DATE	BY	DESCRIPTION
CITY OF NORTH RIDGEVILLE, OHIO			
DEPARTMENT OF ENGINEERING			
STANDARD			
No. 3 HEADWALL			
SCALE: NOT TO SCALE			
DATE: 10/16/89 DRAWN BY: JARPER			
			STM-12

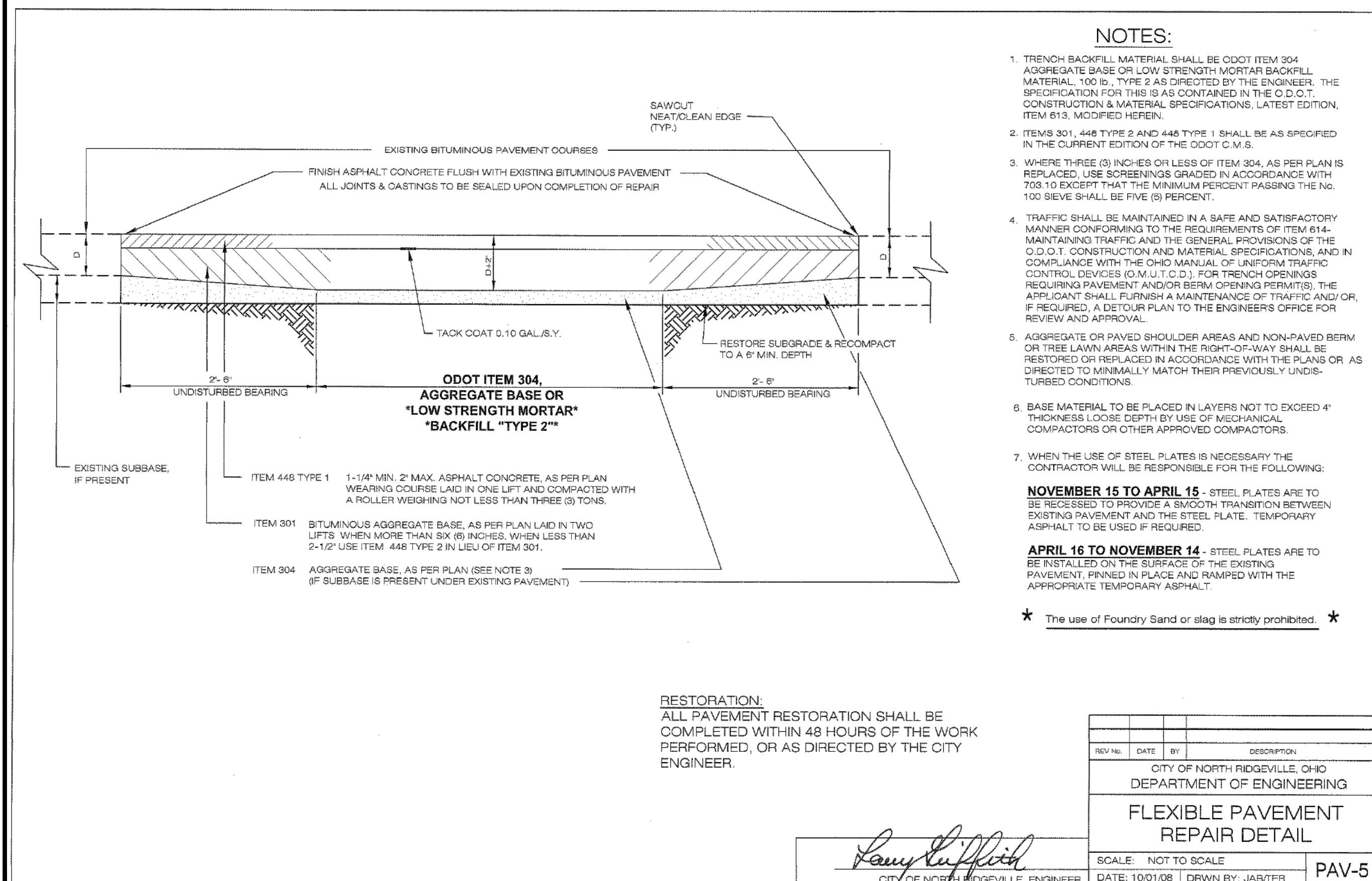
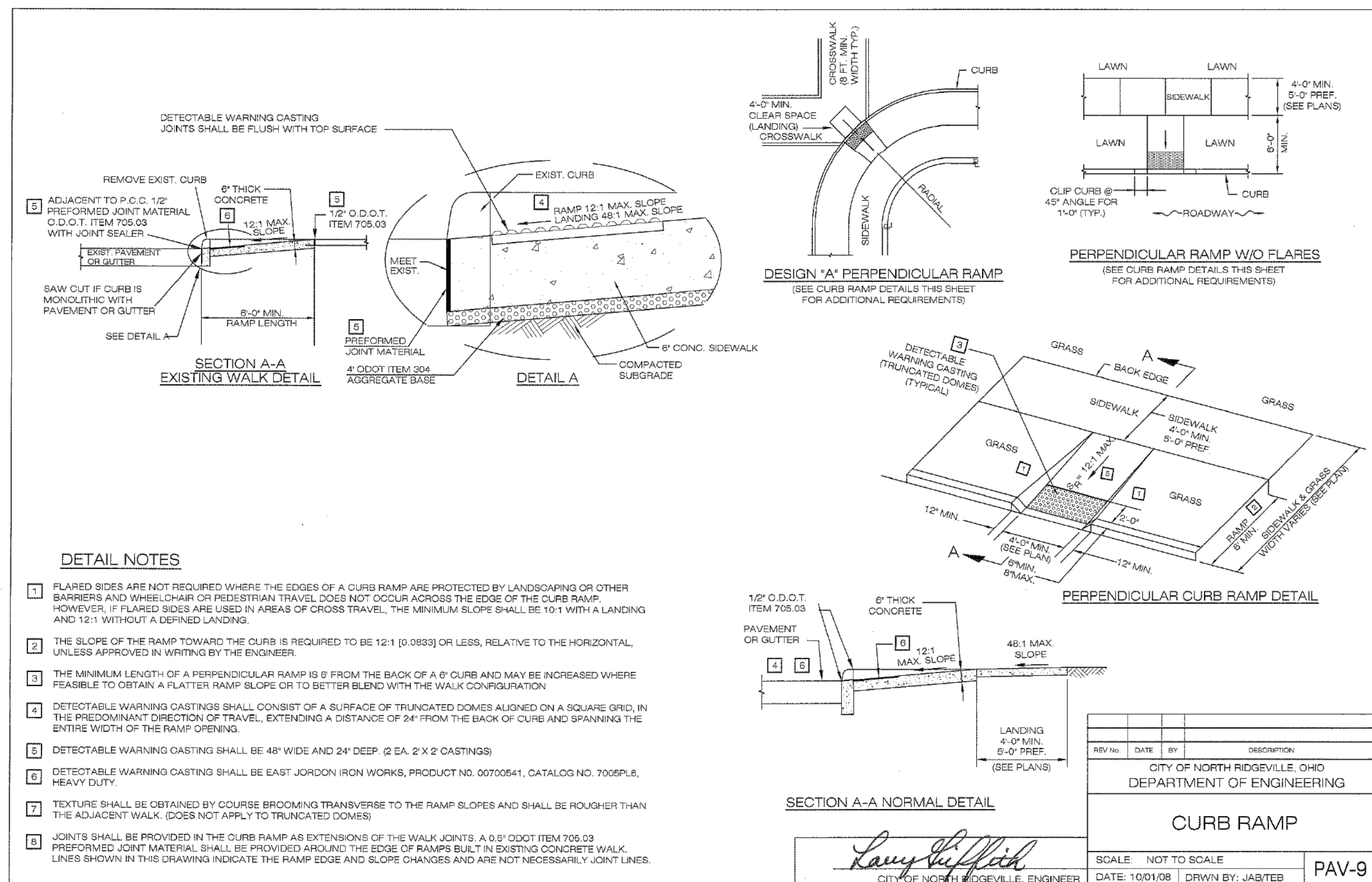


Notes:

- * Lateral connections to have a minimum bedding depth of 6" coarse aggregate.

A clay dam shall be installed as directed by the City of North Ridgeville inspector for all sanitary and storm connections.

REV NO.	DATE	BY	DESCRIPTION
CITY OF NORTH RIDGEVILLE, OHIO			
DEPARTMENT OF ENGINEERING			
TRENCH DETAIL			
SCALE: NOT TO SCALE			MIS-1
DATE: 10/01/08 DRAWN BY: JAB/TEB			



GENERA

- OCTOBER 1, 2008 — REV. 5/11/09, 9/29/09, 12/7/09, 8/18/16

5/9/17, 6/28/17, 6/5/20

GATE VALVE

- | | |
|----------------|---------|
| 4" THROUGH 12" | 175 PSI |
| 14" AND UP | 150 PSI |

IN ADDITION A 300 PSI HYDROSTATIC TEST SHALL BE GIVEN TO THE ASSEMBLED VALVE. THIS 300 PSI PRESSURE SHALL ALSO BE APPLIED AGAINST THE FULLY CLOSED VANE OF EACH VALVE TO PROVE STRUCTURAL SOUNDNESS AND ASSURE COMPATIBILITY WITH FIELD LINE TEST PROCEDURES.

HYDROSTATIC TESTING

- CHILD CONVERSION

1. THE SIZE OF SERVICE CONNECTIONS SHALL BE THREE-QUARTER INCH (3/4") DIAMETER MINIMUM.
2. SERVICE CONNECTIONS SHALL BE K COPPER. ALTERNATIVELY, 200 PSI PLASTIC PIPE APPROVED FOR POTABLE WATER, WITH TRACER WIRE, MAY BE USED PROVIDED THE 50 FEET OF CONNECTION ADJACENT TO THE SERVED STRUCTURE IS K COPPER AND THE STRUCTURE SERVED IS MORE THAN 200 FEET FROM THE ROADWAY RIGHT OF WAY LINE.
3. FOR STRUCTURES GREATER THAN 200 FEET FROM THE CENTERLINE OF THE ROADWAY, THE SERVICE ENTRY MUST BE PROVIDED NEAR THE RIGHT OF WAY LINE OF THE ROADWAY.

OCTOBER 1, 2008 REVISED 9/29/09, 2/19/10
7/22/14



RAFTER A, LTD
LAND SURVEYING • ENGINEERING • TESTING
 42653 Oberlin-Elyria Road, Oberlin, Ohio 44074
 440-707-4014 • www.raftera.com • info@raftera.com



RAFTER A, LTD

LAND SURVEYING • ENGINEERING • TESTING

42653 Oberlin-Elyria Road, Oberlin, Ohio 44074

440-707-4014 • www.raftera.com • info@raftera.com

**Storm Water Management Summary
City of North Ridgeville Parks Department
Root Road Park Pavement & Site Improvements**

for

**City of North Ridgeville
Parks & Recreation Department
7327 Avon Belden Road
North Ridgeville, Ohio 44039**

February 19, 2024

Prepared by: Richard A. Fredrickson, P.E., P.S.

Introduction

This report has been written to describe the methods and procedures used in estimating storm water run-off and the design features incorporated therein for a new parking lot.

Pre-Construction Drainage Area: 11.3063 Acres

Type of Area	Area	CN
Impervious - Existing Building	0.1703	98
Impervious - Pavement Areas	0.3221	98
Impervious - Existing Gravel Area	1.7962	95
Pervious - Existing Grass/Woods Area	9.0177	80

Computed CN – 83.167 computed from Bentley Pond Pack
Tc = 0.467 hours (28 Minutes)

1 Year peak discharge =	6.58 CFS - from Bentley Pond Pack
2 Year peak discharge =	10.00 CFS - from Bentley Pond Pack
5 Year peak discharge =	14.96 CFS - from Bentley Pond Pack
10 Year peak discharge =	19.05 CFS - from Bentley Pond Pack
25 Year peak discharge =	25.98 CFS - from Bentley Pond Pack
50 Year peak discharge =	32.50 CFS - from Bentley Pond Pack
100 Year peak discharge =	49.09 CFS - from Bentley Pond Pack

Post-Construction Drainage Area: 11.3063 Acres

Type of Area	Area	CN
Impervious - Existing Building	0.1703	98
Impervious - Pavement Area	0.0459	98
Impervious - Existing Gravel Area	0.0394	95
Impervious - Proposed Pavement Area	2.0691	98
Impervious - Proposed Pond Area	0.2263	98
Pervious – Grass/Woods Area (after development)	8.7553	80

Computed CN – 84.051 computed from Bentley Pond Pack
Tc = 0.085 hours (5 Minutes)

1 Year peak discharge =	12.78 CFS - from Bentley Pond Pack
2 Year peak discharge =	18.98 CFS - from Bentley Pond Pack
5 Year peak discharge =	27.92 CFS - from Bentley Pond Pack
10 Year peak discharge =	35.28 CFS - from Bentley Pond Pack
25 Year peak discharge =	47.56 CFS - from Bentley Pond Pack
50 Year peak discharge =	58.90 CFS - from Bentley Pond Pack
100 Year peak discharge =	72.02 CFS - from Bentley Pond Pack

Storm Water Design - Critical Storm Determination

1 Year Pre-Developed Volume = 0.6495 AC-FT - from Bentley Pond Pack
1 Year Post-Developed Volume = 0.6900 AC-FT – from Bentley Pond Pack
 $0.6900 \text{ AC-FT} - 0.6495 \text{ AC-FT} = 0.0405 \text{ AC-FT} / 0.0624 \text{ AC-FT} = 6.24\%$ increase in runoff volume, this shall indicate designing for a **1 Year Critical Storm**. Therefore, this site shall not allow a post construction flow exceeding **6.58 CFS** for storm events up to and including the 1 Year storm event.

The following is a summary:

Storm Event	Pre-Dev. - CFS	Post-Dev. - CFS	Target - CFS
1 Year (Critical)	6.58	12.78	6.58
2 Year	10.00	18.98	10.00
5 Year	14.96	27.92	14.96
10 Year	19.05	35.28	19.05
25 Year	25.98	47.56	25.98
50 Year	32.50	58.90	32.50
100 Year	40.09	72.02	40.09

The outlet of the storm water management system is located north of our pond at the beginning point of Dixon Ditch. We have assumed that the tailwater of this ditch would have a maximum elevation of 777.00 and to provide a conservative design we have assumed this as a constant. This equates to a constant tailwater 2.5 feet above the invert of the outlet in the ditch and 1.5 feet higher than the pond outlet for the design.

Controlling Outlet Structure P-OUTLET

- 1 – (Each) – P-Outlet 1 (2x2) – Rim Elev. 780.00
- 1 – (Each) – 18” HDPE Outlet – Inv. Elev. 776.00 (298 LF @ 0.33% slope)
- 3 – (Each) – 10” orifice at Elev. 777.00 (top of dewatering)
- 1 - (Each) – 4” PVC with 2” Dia orifice at Elev. 776.00

Pond Dimensions

Contour	Area (Acres)
776.00	0.2263 (Top of Sediment Storage, Bottom of Dewatering)
777.00	0.2875 (Top of Dewatering)
778.00	0.3526
779.00	0.4214
780.00	0.4922 (Top of Outlet Structure)
781.00	0.5653
782.00	0.6406 (Top of Berm)

The following is a summary of the Storm Events routed through the pond and outlet structure with a constant tailwater elevation from Dixon Ditch of 777.00.

Storm Event	Target - CFS	Routed - CFS	Max WSE
1 Year (Critical)	6.58	0.91	777.31
2 Year	10.00	3.12	777.63
5 Year	14.96	5.22	778.23
10 Year	19.05	6.19	778.74
25 Year	25.98	7.47	779.53
50 Year	32.50	8.90	780.19
100 Year	40.09	10.94	780.83

The following is a summary of the Storm Events routed through the pond and outlet structure with no tailwater elevation:

Storm Event	Target - CFS	Routed - CFS	Max WSE
1 Year (Critical)	6.58	0.91	777.30
2 Year	10.00	3.09	777.62
5 Year	14.96	6.62	778.17
10 Year	19.05	7.38	778.66
25 Year	25.98	8.35	779.44
50 Year	32.50	9.34	780.10
100 Year	40.09	11.64	780.74

Permanent Water Quality

100% of the impervious drainage area is being considered as part of this design:

$$R_v = 0.05 + 0.9(i)$$

where

i = watershed imperviousness ratio, percent imperviousness divided by 100

$$i = 2.3247 / 11.3063 = 0.2056$$

$$R_v = 0.05 + (0.9)(0.2056)$$

$$R_v = 0.2351$$

$$WQV = (R_v)(0.9)(\text{Drainage Area}) / 12$$

$$WQV = (0.2351)(0.9)(11.3063) / 12 = 0.1993 \text{ AC-FT (De-watering Zone) (8,682 CF)}$$

WQV Sediment Storage Requires 20% More = 20% x WQV De-Watering Zone

$$WQV \text{ Sediment Storage Requires 20\% More} = 0.20 \times 0.1993 \text{ AC-FT} = 0.0399 \text{ AC-FT (Sediment Storage) (1,738 CF)}$$

$$\text{Overall WQV} = \text{De-Watering Zone} + \text{Sediment Storage} = 0.2392 \text{ AC-FT (10,420 CF)}$$

Sediment Storage Volume Summary

Required = 1,738 CF (Calculated Above)

Provided = 6,288 CF Forbay (Elevation: 773.00 To 776.00)

Provided = 10,966 CF Micro-Pool (Elevation: 773.00 To 776.00)

Provided = 17,254 CF Total (Elevation: 773.00 To 776.00)

De-Watering Volume Summary

Required = 8,682 CF (Calculated Above)

Provided = 11,164 CF (Elevation: 776.00 To 777.00)

Calculated Drawdown Time:

16 hours to elevation 776.57 – 5,131 CF in 16 hours – 46.0% of Provided = Less Than 1/2

48 hours to elevation 776.10 – 10,119 CF in 48 hours – 90.6% of Provided

60 hours to elevation 776.07 – 10,481 CF in 60 hours – 93.9% of Provided

72 hours to elevation 776.05 – 10,607 CF in 72 hours – 95.4% of Provided

Temporary Water Quality

This will be detailed on the plans.

Staff Meeting Bulletin

Meeting Date: March 27, 2024

Project: 37077 Shady Drive, North Ridgeville, OH 44039

Applicant: Kevin Fougrousse, City of North Ridgeville, Park & Recreation, 7307 Avon Belden Rd, North Ridgeville, OH 44039

Zoning: R-1 Residence District

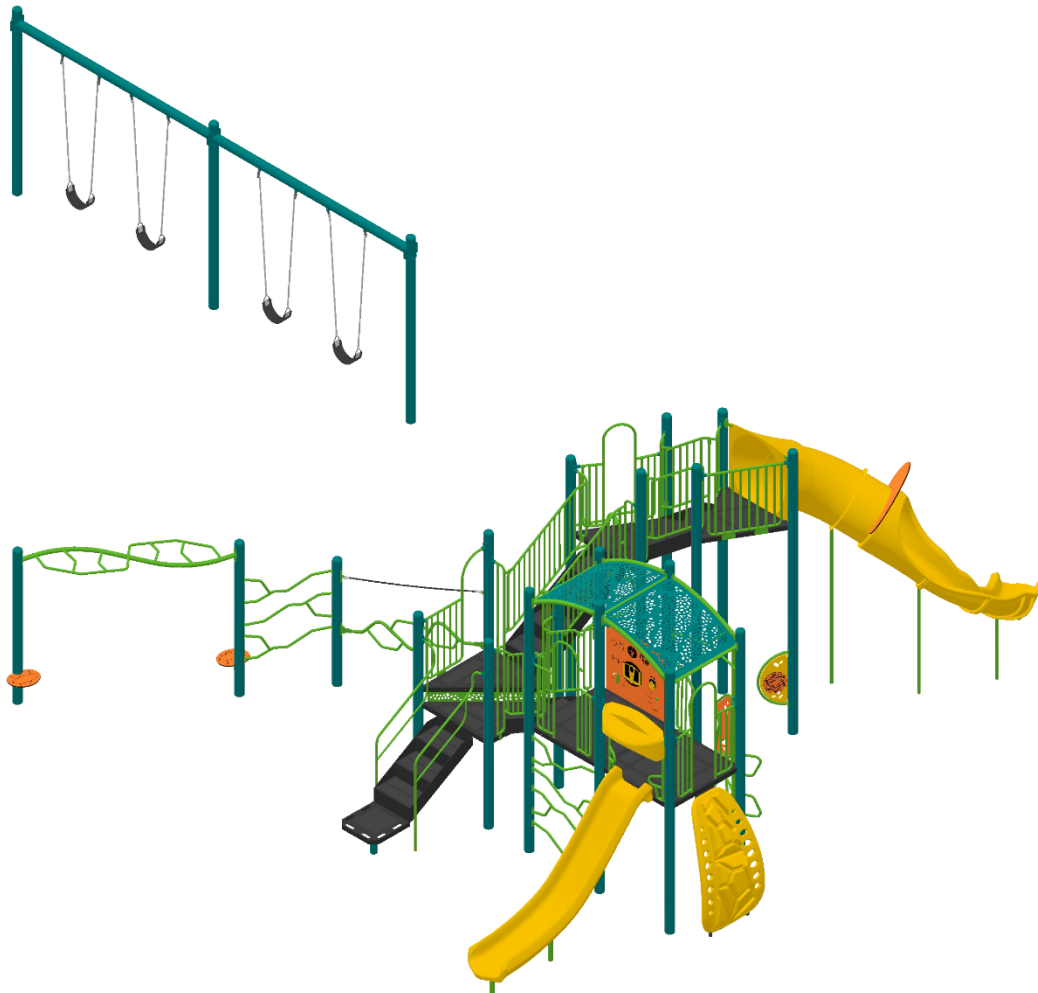
In Attendance: Kevin Corcoran, Mayor
Kim Lieber, Planning & Development Director
Toni Morgan, Assistant Law Director
Mike Uhnak, Assistant Fire Chief
Joe Reitz, Engineer
Eric Brown, Engineer
Tina Wieber, Deputy Clerk of Council
Kevin Fougrousse, Parks & Rec Director

Project Introduction

- Kevin explained that they were looking to install a new playground at Shady Drive Complex. He stated that it currently had one that was all the way at the back of the complex by diamonds 10 to 13 that was 20 years old. He discussed that the goal was to centralize the new playground between diamonds 6 and 7 for more accessibility right off the trail system. He stated that Snyder Recreation would be doing the installation, and that Public Works would tear out the existing one in the back and then grade and seed grass back in that area. He stated that now that they had a trail system, the new playground would be easy and accessible for everyone to get to it.

Staff Comments

- Kim asked what would be put around the edge to keep the wood fibers in. Kevin stated that it would be a plastic border. She asked what the age group was for the playground. Kevin said that it was 5 to 12.
- Mayor asked if the old playground was in that area because of T-ball. Kevin thought that was the reason for building it in that location.



Snider Recreation, Inc.

10139 Royalton Road Suite K | North Royalton, OH 44133 | 440-877-9151



Snider Recreation
800-888-2889
www.cvsnyder.com

DESIGN SUMMARY

Snider Recreation, Inc. is very pleased to present this Proposal for consideration for the Shady Drive Complex located in North Ridgeville. BCI Burke Company, LLC has been providing recreational playground equipment for over 100 years and has developed the right mix of world-class capabilities to meet the initial and continuing needs of City of North Ridgeville. We believe our proposal will meet or exceed your project's requirements and will deliver the greatest value to you.

The following is a summary of some of the key elements of our Proposal:

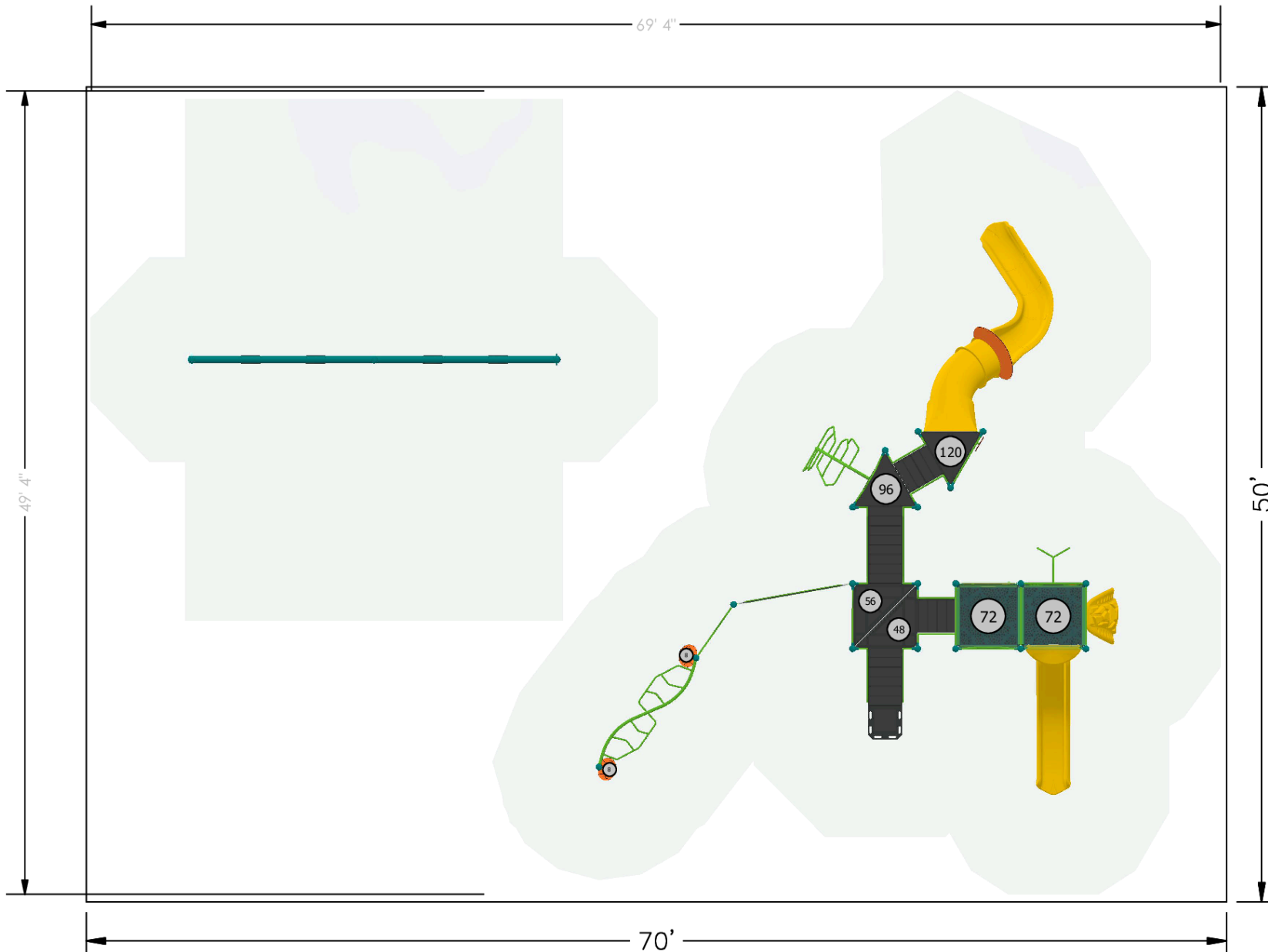
- Project Name: Shady Drive Complex
- Project Number: 127-172564-2
- User Capacity: 77
- Age Groups: 5 to 12
- Dimensions: 69' 3"x49' 3"
- Designer Name: Leah Kirssin

Snider Recreation, Inc. has developed a custom playground configuration based on the requirements as they have been presented for the Shady Drive Complex playground project. Our custom design will provide a safe and affordable playground environment that is aesthetically pleasing, full of fun for all users and uniquely satisfies your specific requirements. In addition, proposal # 127-172564-2 has been designed with a focus on safety, and is fully compliant with ASTM F1487 and CPSC playground safety standards.

We invite you to review this proposal for the Shady Drive Complex playground project and to contact us with any questions that you may have.

Thank you in advance for giving us the opportunity to make this project a success.





OVERALL BOUNDING OF USE ZONES
 Area: 3417.5 sq.ft.
 Perimeter: 237.2 ft.
STRUCTURE SIZE: 49' 4" x 69' 4"
POST SIZE(S): 5"

**The space requirements shown here are to ASTM standards. Requirements for other standards may be different.

PLAYGROUND ACCESSIBILITY (Provided/Required)					
TOTAL EVENTS	ELEVATED EVENTS	TRANSFER ACCESSIBLE EVENTS	RAMP ACCESSIBLE EVENTS	GROUND EVENTS	TYPES OF GROUND EVENTS
13	8 / 4	8 / 0	0 / 0	7 / 3	4 / 3

The use and layout of play components identified in this plan conform to the CPSC guidelines. U.S. CPSC recommends the separation of age groups in playground layouts.

Warning: Accessible safety surfacing material is required beneath and around this equipment that is compliant with ASTM, CPSC, and ADAAG requirements.

SERIES LINE: Nucleus | Intensity | Burke Basics

GROUP:

Structure | Freestanding

DESIGNED FOR AGES:

5 to 12

Shady Drive Complex

North Ridgeville, OH 44039

Burke
PLAY THAT MOVES YOU.

SITE PLAN VIEW

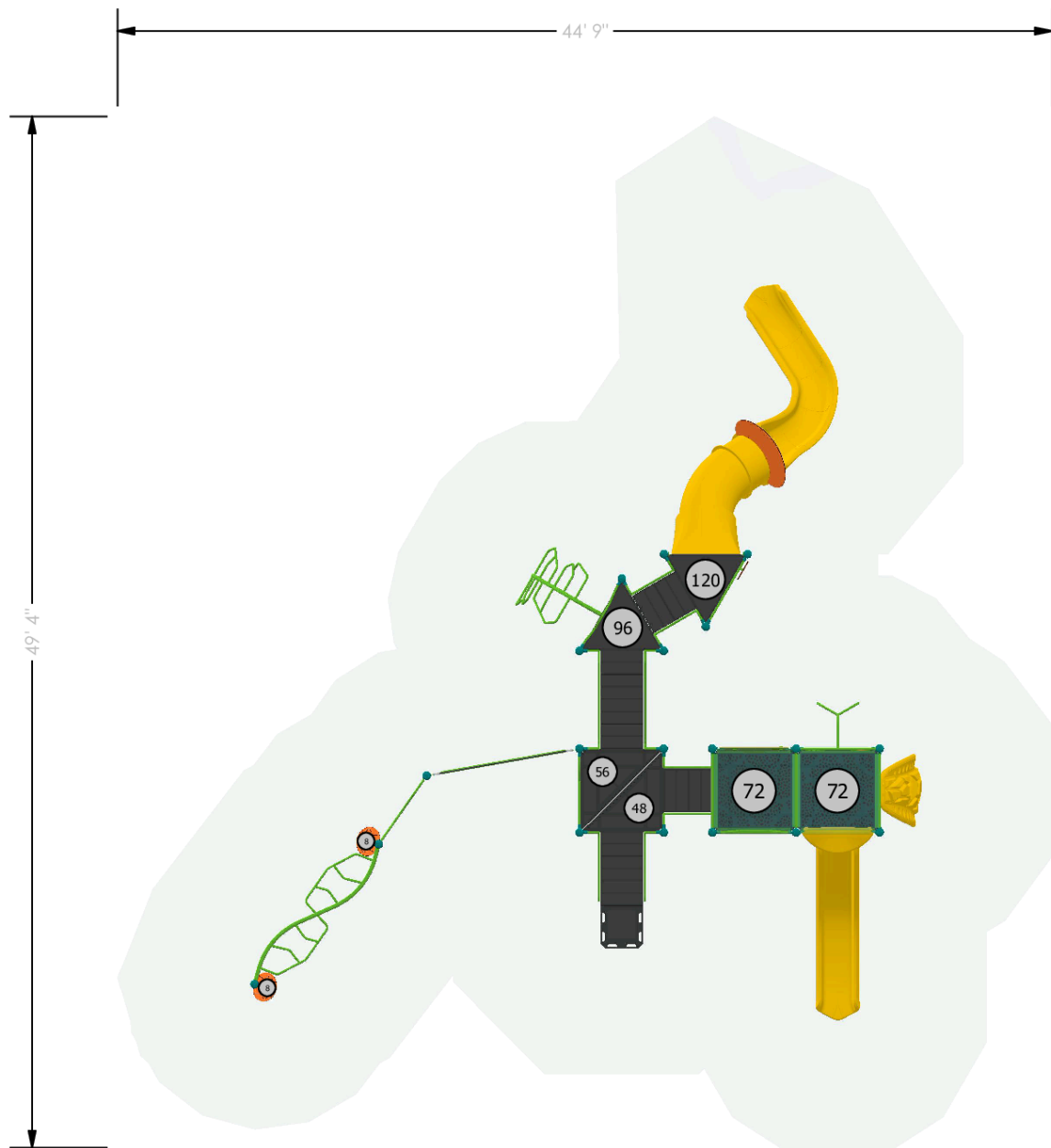
08/09/2023

Snider Recreation, Inc.

127-172564-2

Designer: Leah Kirssin

BCI BURKE COMPANY, LLC | PO BOX 549 FOND DU LAC, WI 54936-0549 | 920.921.9220 | BCI@BURKE.COM



SERIES LINE: Nucleus | Intensity

GROUP:
Structure

DESIGNED FOR AGES:
5 to 12

Shady Drive Complex
North Ridgeville, OH 44039

Burke
PLAY THAT MOVES YOU.

BCI BURKE COMPANY, LLC | PO BOX 549 FOND DU LAC, WI 54936-0549 | 920.921.9220 | BCI@BURKE.COM

SITE PLAN VIEW

08/09/2023

Snider Recreation, Inc.

127-172564-2

Designer: Leah Kirssin

OVERALL BOUNDING OF USE ZONES
Area: 2202.6 sq.ft.
Perimeter: 188 ft.
STRUCTURE SIZE: 49' 4" x 44' 9"
POST SIZE(S): 5"

**The space requirements shown here are to ASTM standards. Requirements for other standards may be different.

PLAYGROUND ACCESSIBILITY (Provided/Required)

TOTAL EVENTS	ELEVATED EVENTS	TRANSFER ACCESSIBLE EVENTS	RAMP ACCESSIBLE EVENTS	GROUND EVENTS	TYPES OF GROUND EVENTS
13	8 / 4	8 / 0	0 / 0	7 / 3	4 / 3

The use and layout of play components identified in this plan conform to the CPSC guidelines. U.S. CPSC recommends the separation of age groups in playground layouts.

Warning: Accessible safety surfacing material is required beneath and around this equipment that is compliant with ASTM, CPSC, and ADAAG requirements.

SERIES LINE:Burke Basics

GROUP:
Freestanding

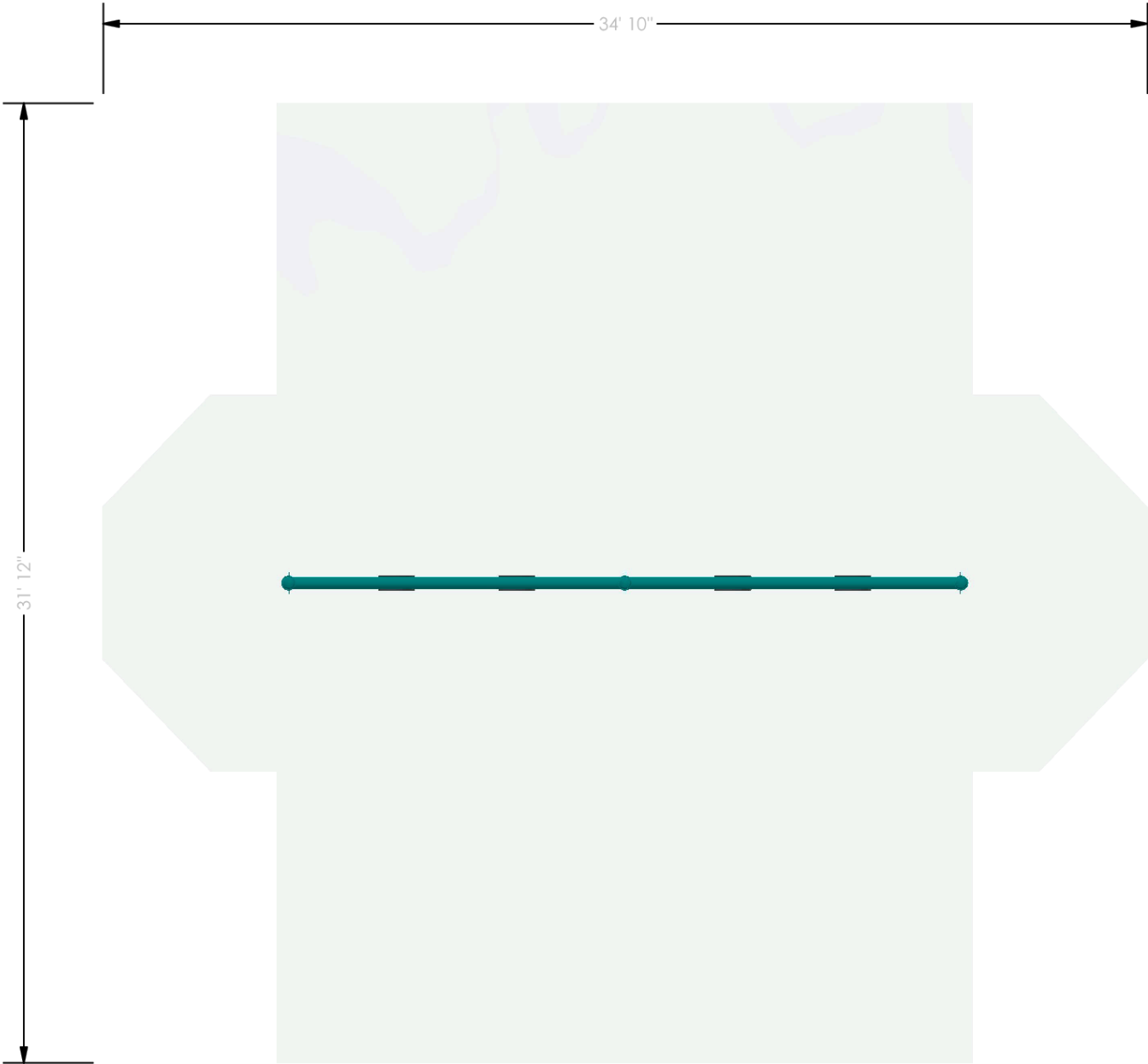
DESIGNED FOR AGES:
5 to 12

Shady Drive Complex
North Ridgeville, OH 44039

Burke
PLAY THAT MOVES YOU

Snider Recreation, Inc.
127-172564-2
Designer: Leah Kirssin

BCI BURKE COMPANY, LLC | PO BOX 549 FOND DU LAC, WI 54936-0549 | 920.921.9220 | BCI@BURKE.COM



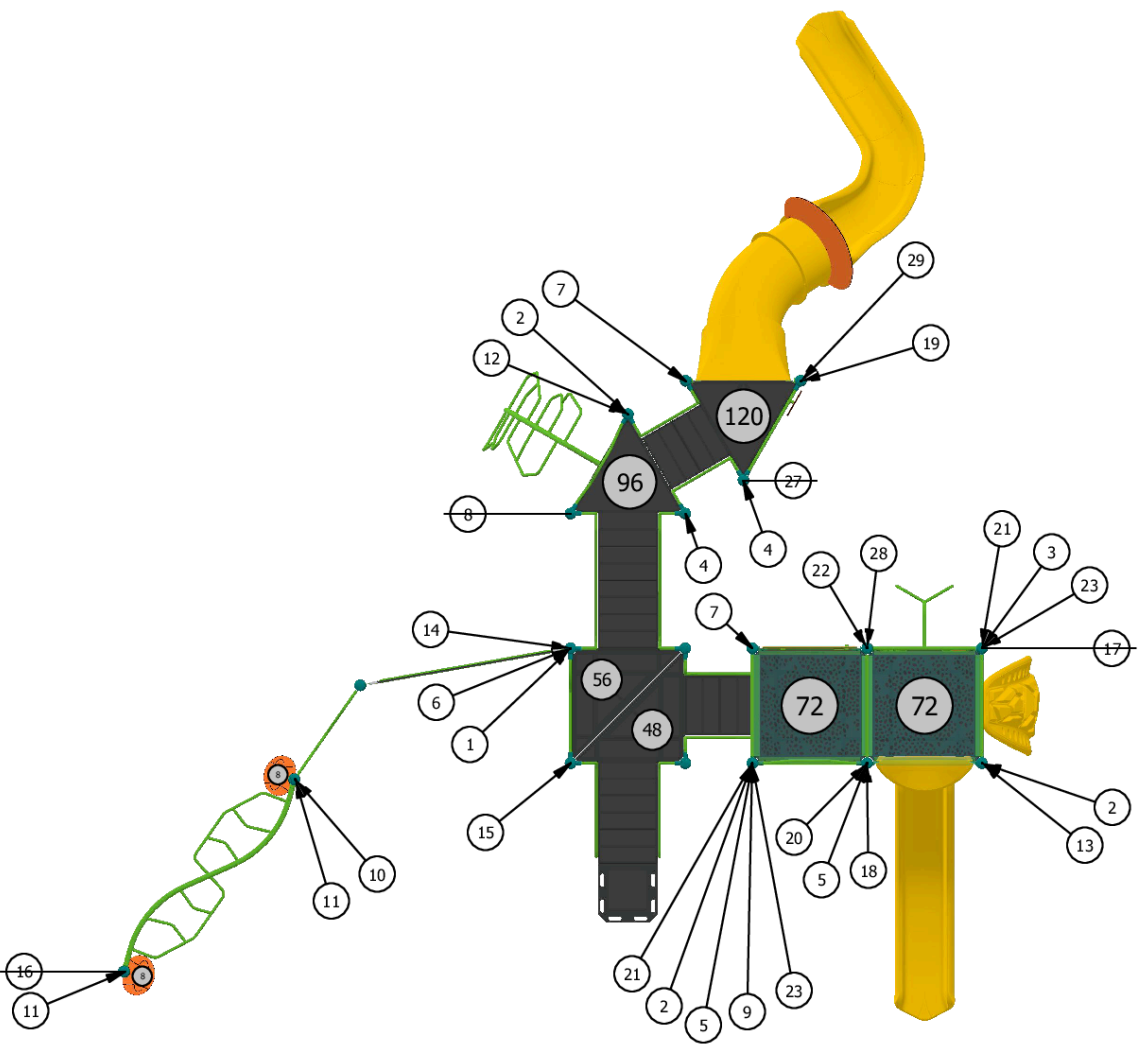
OVERALL BOUNDING OF USE ZONES
Area:1114.4 sq.ft.
Perimeter:133.7 ft.
STRUCTURE SIZE:32' 0"x34' 10"
POST SIZE(S):5"

****The space requirements shown here are to ASTM standards. Requirements for other standards may be different.**

PLAYGROUND ACCESSIBILITY (Provided/Required)					
TOTAL EVENTS	ELEVATED EVENTS	TRANSFER ACCESSIBLE EVENTS	RAMP ACCESSIBLE EVENTS	GROUND EVENTS	TYPES OF GROUND EVENTS
13	8 / 4	8 / 0	0 / 0	7 / 3	4 / 3

The use and layout of play components identified in this plan conform to the CPSC guidelines. U.S. CPSC recommends the separation of age groups in playground layouts.

Warning: Accessible safety surfacing material is required beneath and around this equipment that is compliant with ASTM, CPSC, and ADAAG requirements.



SERIES LINE: Nucleus | Intensity

GROUP:

Structure

DESIGNED FOR AGES:

5 to 12

COMPONENT VIEW

08/09/2023

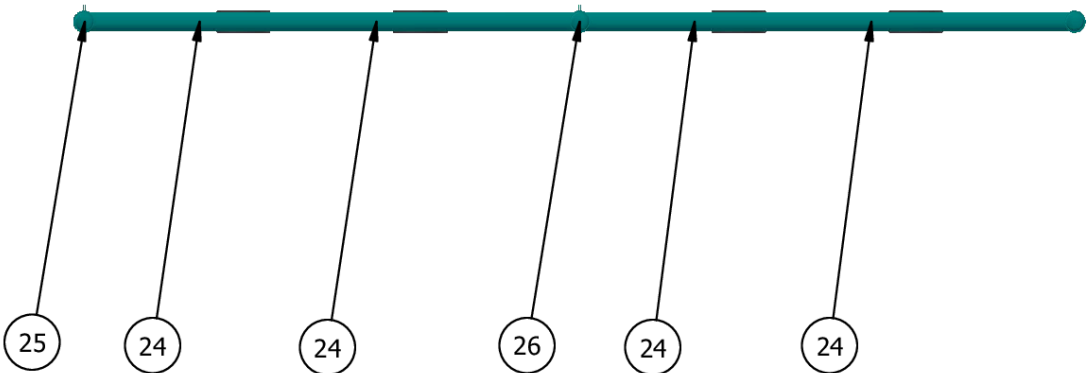
Shady Drive Complex
North Ridgeville, OH 44039

Burke
PLAY THAT MOVES YOU.

Snider Recreation, Inc.
127-172564-2

Designer: Leah Kirsin

BCI BURKE COMPANY, LLC | PO BOX 549 FOND DU LAC, WI 54936-0549 | 920.921.9220 | BCI@BURKE.COM



SERIES LINE: Burke Basics

GROUP:

Freestanding

DESIGNED FOR AGES:

5 to 12

Shady Drive Complex

North Ridgeville, OH 44039



COMPONENT VIEW

08/09/2023

Snider Recreation, Inc.

127-172564-2

Designer: Leah Krssin

ITEM	COMP.	DESCRIPTION
1	270-0001	OFFSET ENCLOSURE
2	270-0112	UNITARY ENCLOSURE
3	270-0121	EVOLUTION STANCHION
4	270-0129	TRIANGLE PLATFORM
5	270-0130	SQUARE PLATFORM
6	270-0301	SPLIT SQUARE PLATFORMCLOSURE PLATE
7	370-0467	24" TRANSITION STAIR W/BARRIERS
8	370-0469	40" TRANSITION STAIR W/BARRIERS
9	370-0865	TREE BRANCH CLIMBER 72"
10	370-0867	TREE BRANCH CLIMBER-3
11	370-1608	OVSTEP LAUNCH PAD
12	370-1642	VERVE CLIMBER 96" DK
13	370-1648	MANITOU CLIMBER 72"
14	370-1651	TRANGO CLIMBER, POST TO POST
15	370-1659	TRANSFER STATION, HANDRAIL 48"
16	370-1683	S HORIZONTAL LADDER, NUCLEUS
17	370-1711	ATOM CLIMBER 56"-72"
18	470-0754	VELO SLIDE 64"-72", W/O HOOD
19	470-0787	COBRA SLIDE FUSION "S" LEFT 120"
20	470-0804	SLIDE HOOD, LOW SIDE WALL
21	470-0808	EVOLUTION ROOF BOTTOM EDGE
22	470-0810	SQUARE ROOF TOP EDGE, TWO SIDES
23	470-0867	EVOLUTION SQUARE ROOF
24	550-0111	BELT SEAT, 8' SINGLE, STD CHAIN
25	550-0201	SINGLE POST SWING ASSEMBLY 5" OD
26	550-0202	SINGLE POST SWING ADD-ON 5" OD
27	570-0394	PIPE WALL
28	570-1816	JET PANEL
29	570-2705	SPINNER CRESCENT PANEL
30	600-0104	NPPS SUPERVISION SAFETY KIT
31	660-0101	INSTALL KIT, BURKE BASICS - PAINT
32	660-0103	MAINTENANCE KIT, STRUCTURE
33	660-0104	INSTALLATION KIT, STRUCTURE

SERIES LINE:

COMPONENT VIEW

GROUP:

Structure | Freestanding

DESIGNED FOR AGES:

Shady Drive Complex

North Ridgeville, OH 44039

08/09/2023

Snider Recreation, Inc.

127-172564-2

Designer: Leah Kirsin

BCI BURKE COMPANY, LLC | PO BOX 549 FOND DU LAC, WI 54936-0549 | 920.921.9220 | BCI@BURKE.COM

Burke

PLAT THAT MOVES YOU



SERIES LINE: Nucleus | Intensity | Burke Basics

GROUP:

Structure | Freestanding

DESIGNED FOR AGES:

5 to 12

ELEVATION VIEW

08/09/2023

Shady Drive Complex

North Ridgeville, OH 44039

Snider Recreation, Inc.

127-172564-2

Designer: Leah Krssin

Burke
PLAY THAT MOVES YOU

BCI BURKE COMPANY, LLC | PO BOX 549 FOND DU LAC, WI 54936-0549 | 920.921.9220 | BCI.BURKE.COM



SERIES LINE: Nucleus | Intensity

GROUP:

Structure

DESIGNED FOR AGES:

5 to 12

ELEVATION VIEW

Shady Drive Complex

North Ridgeville, OH 44039

08/09/2023

Snider Recreation, Inc.

127-172564-2

Designer: Leah Krssin





SERIES LINE: Burke Basics		ELEVATION VIEW	
GROUP: Freestanding	DESIGNED FOR AGES: 5 to 12	08/09/2023	
		Shady Drive Complex North Ridgeville, OH 44039	
Burke PLAY THAT MOVES YOU			
		Snider Recreation, Inc. 127-172564-2 Designer: Leah Kirssin	
BCI BURKE COMPANY, LLC PO BOX 549 FOND DU LAC, WI 54936-0549 920.921.9220 BCI.BURKE.COM			



SERIES LINE: Nucleus | Intensity | Burke Basics

ISOMETRIC VIEW

GROUP:

Structure | Freestanding

DESIGNED FOR AGES:

5 to 12

Shady Drive Complex

North Ridgeville, OH 44039

08/09/2023

Snider Recreation, Inc.

127-172564-2

Designer: Leah Krssin

Burke
PLAY THAT MOVES YOU

BCI BURKE COMPANY, LLC | PO BOX 549 FOND DU LAC, WI 54936-0549 | 920.921.9220 | BCI@BURKE.COM



SERIES LINE: Nucleus | Intensity

ISOMETRIC VIEW

GROUP:

Structure

Shady Drive Complex

North Ridgeville, OH 44039

08/09/2023

DESIGNED FOR AGES:

5 to 12

Snider Recreation, Inc.

127-172564-2

Designer: Leah Kirsin

Burke
PLAY THAT MOVES YOU

BCI BURKE COMPANY, LLC | PO BOX 549 FOND DU LAC, WI 54936-0549 | 920.921.9220 | BCI@BURKE.COM



SERIES LINE: Burke Basics

GROUP:

Freestanding

DESIGNED FOR AGES:

5 to 12

ISOMETRIC VIEW

08/09/2023

Shady Drive Complex

North Ridgeville, OH 44039

Snider Recreation, Inc.

127-172564-2

Designer: Leah Kirsin

Burke
PLAY THAT MOVES YOU

The play components identified in this proposal are IPEMA certified. The use and layout of these components conform to the requirements of ASTM F1487. To verify product certification, visit www.ipema.org.



The space requirements shown in this proposal are to ASTM standards. Requirements for other standards may be different.

Component No.	Description	Qty	User Cap	Ext. User Cap	Weight	Ext. Weight
Structure						
Nucleus						
072-0500-104C	5" OD X 104" CAPPED POST	1	0	0	55	55
072-0500-120C	5" OD X 120" CAPPED POST	2	0	0	63	126
072-0500-132C	5" OD X 132" CAPPED POST	1	0	0	69	69
072-0500-140C	5" OD X 140" CAPPED POST	1	0	0	74	74
072-0500-148C	5" OD X 148" CAPPED POST	1	0	0	78	78
072-0500-156C	5" OD X 156" CAPPED POST	1	0	0	82	82
072-0500-172C	5" OD X 172" CAPPED POST	1	0	0	90	90
072-0500-184C	5" OD X 184" CAPPED POST	4	0	0	96	384
072-0500-188C	5" OD X 188" CAPPED POST	2	0	0	99	198
072-0500-196C	5" OD X 196" CAPPED POST	3	0	0	103	309
072-0500-200C	5" OD X 200" CAPPED POST	2	0	0	105	210
270-0001	OFFSET ENCLOSURE	1	0	0	30	30
270-0112	UNITARY ENCLOSURE	3	0	0	34	102
270-0121	EVOLUTION STANCHION	1	0	0	43	43
270-0129	TRIANGLE PLATFORM	2	2	4	48	96
270-0130	SQUARE PLATFORM	2	6	12	106	212
270-0301	SPLIT SQUARE PLATFORMCLOSURE ...	1	4	4	108	108
370-0467	24" TRANSITION STAIR W/BARRIERS	2	2	4	164	328
370-0469	40" TRANSITION STAIR W/BARRIERS	1	4	4	279	279
370-0865	TREE BRANCH CLIMBER 72"	1	4	4	33	33
370-1642	VERVE CLIMBER 96" DK	1	6	6	67	67
370-1648	MANITOU CLIMBER 72"	1	4	4	86	86
370-1651	TRANGO CLIMBER, POST TO POST	1	5	5	32	32
370-1659	TRANSFER STATION, HANDRAIL 48"	1	6	6	210	210
370-1711	ATOM CLIMBER 56"-72"	1	3	3	48	48
470-0754	VELO SLIDE 64"-72", W/O HOOD	1	2	2	111	111
470-0787	COBRA SLIDE FUSION "S" LEFT 120"	1	2	2	324	324
470-0804	SLIDE HOOD, LOW SIDE WALL	1	0	0	32	32
470-0808	EVOLUTION ROOF BOTTOM EDGE	2	0	0	13	26
470-0810	SQUARE ROOF TOP EDGE, TWO SIDES	1	0	0	14	14
470-0867	EVOLUTION SQUARE ROOF	2	0	0	76	152
570-0394	PIPE WALL	1	0	0	36	36
570-1816	JET PANEL	1	2	2	48	48
570-2705	SPINNER CRESCENT PANEL	1	1	1	17	17
600-0104	NPPS SUPERVISION SAFETY KIT	1	0	0	3	3
660-0103	MAINTENANCE KIT, STRUCTURE	1	0	0	7	7
660-0104	INSTALLATION KIT, STRUCTURE	1	0	0	5	5

Structure

370-0867	TREE BRANCH CLIMBER-3	1	2	2	24.45	24.45
370-1608	OVISTEP LAUNCH PAD	2	1	2	10	20
370-1683	S HORIZONTAL LADDER, NUCLEUS	1	6	6	56	56

Freestanding

Burke Basics

550-0111	BELT SEAT, 8' SINGLE, STD CHAIN	4	1	4	10	40
550-0201	SINGLE POST SWING ASSEMBLY 5" OD	1	0	0	220	220
550-0202	SINGLE POST SWING ADD-ON 5" OD	1	0	0	145	145
660-0101	INSTALL KIT, BURKE BASICS - P...	1	0	0	2	2

COLOR SELECTION LIST | Default Color Option

GROUP 1 (Structure)

Acc: Lime
Deck: Gray
Post: Aqua
Panel: Orange-Black-Orange | Yellow-Black-Yellow
Plastic: Yellow
Flat: Orange | Lime | Yellow

GROUP 2 (Freestanding)

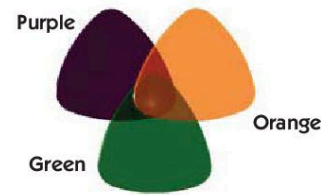
Post: Aqua

COLORS THAT MOVE YOU

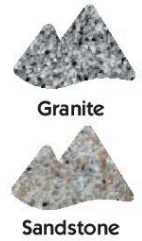
POWDER COAT PAINT



SOLIS HUE TOPPERS



ROCKIT CLIMBERS



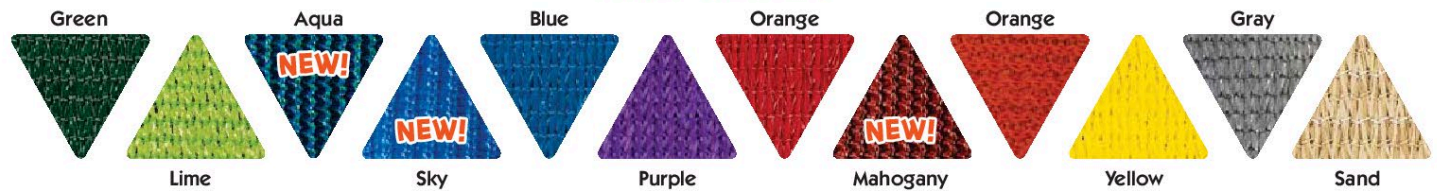
PLATFORMS



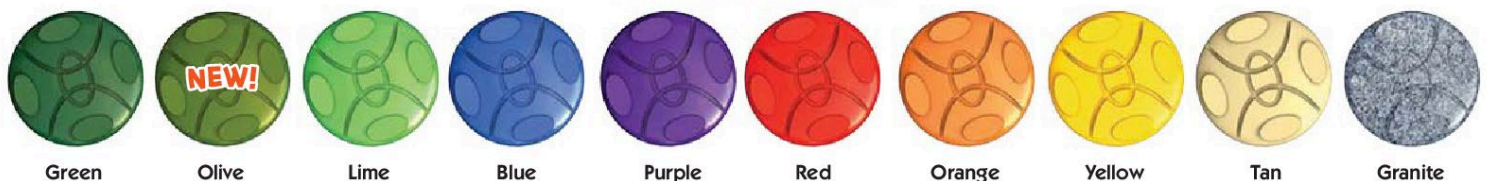
HDPE PLASTIC PANELS



SHADE CANOPIES



ROTOMOLD PLASTIC



VISIT BCIBURKE.COM/COLOR TO CUSTOMIZE YOUR PLAYGROUND COLORS!

BCIBURKE.COM

Burke

800.266.1250

BURKE GENERATIONS WARRANTY®

The Longest and Strongest warranty in the industry

BCI Burke Company, LLC ("Burke") warrants that all standard products are warranted to be free from defects in materials and workmanship, under normal use and service, for a period of one (1) year from the date of shipment.

We stand behind our products. In addition, the following products are warranted, under normal use and service from the date of shipment as follows:

- One Hundred (100) Year Limited Warranty on aluminum and steel upright posts (including Intensity®, Synergy™, Nucleus®, Voltage®, Little Buddies®, ELEVATE®, ACTIVATE®, INVIGORATE™) against structural failure due to corrosion, deterioration or workmanship.
- One Hundred (100) Year Limited Warranty on KoreKonnecT® clamps against structural failure due to corrosion, deterioration or workmanship.
- One Hundred (100) Year Limited Warranty on Hardware (nuts, bolts, washers)
- One Hundred (100) Year Limited Warranty on bolt-through fastening and clamp systems (Synergy™, Intensity®, Nucleus®, Voltage®, Little Buddies®, ELEVATE®).
- Twenty-Five (25) Year Limited Warranty on spring assemblies and aluminum cast animals.
- Fifteen (15) Year Limited Warranty on structure platforms and decks, metal roofs, table tops, bench tops, railings and barriers against structural failure due to materials or workmanship.
- Fifteen (15) Year Limited Warranty on all plastic components including StoneBorders against structural failure due to materials or workmanship.
- Ten (10) Year Limited Warranty on ShadePlay Canopies fabric, threads, and cables against degradation, cracking or material breakdown resulting from ultra-violet exposure, natural deterioration or manufacturing defects. This warranty is limited to the design loads as stated in the specifications.
- Ten (10) Year Limited Warranty on NaturePlay® Boulders and GFRC products against structural failure due to natural deterioration or workmanship. Natural wear, which may occur with any concrete product with age, is excluded from this warranty.
- Ten (10) Year Limited Warranty on Full Color Custom Signage against manufacturing defects that cause delamination or degradation of the sign. Full Color Custom Signs also carry a two (2) year warranty against premature fading of the print and graphics on the signs.
- Five (5) Year Limited Warranty on Intensity® and RopeVenture® cables and LEVEL X® flex bridge against premature wear due to natural deterioration or manufacturing defects. Determination of premature wear will be at the manufacturer's discretion.
- Five (5) Year Limited Warranty on moving parts, including swing components, against structural failure due to materials or workmanship.
- Five (5) Year Limited Warranty on PlayEnsemble® cables and mallets against defects in materials and workmanship.
- Three (3) Year Limited Warranty on electronic panel speakers, sound chips and circuit boards against electronic failure caused by manufacturing defects.

The warranty stated above is valid only if the equipment is erected in conformity with the layout plan and/or installation instructions furnished by BCI Burke Company, LLC using approved parts; have been maintained and inspected in accordance with BCI Burke Company, LLC instructions. Burke's liability and your exclusive remedy hereunder will be limited to repair or replacement of those parts found in Burke's reasonable judgment to be defective. Any claim made within the above stated warranty periods must be made promptly after discovery of the defect. A part is covered only for the original warranty period of the applicable part. Replacement parts carry the applicable warranty from the date of shipment of the replacement from Burke. After the expiration of the warranty period, you must pay for all parts, transportation and service charges.

Burke reserves the right to accept or reject any claim in whole or in part. Burke will not accept the return of any product without its prior written approval. Burke will assume transportation charges for shipment of the returned product if it is returned in strict compliance with Burke's written instructions.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IF THE FOREGOING DISCLAIMER OF ADDITIONAL WARRANTIES IS NOT GIVEN FULL FORCE AND EFFECT, ANY RESULTING ADDITIONAL WARRANTY SHALL BE LIMITED IN DURATION TO THE EXPRESS WARRANTIES AND BE OTHERWISE SUBJECT TO AND LIMITED BY THE TERMS OF BURKE'S PRODUCT WARRANTY. SOME STATES DO NOT ALLOW THE EXCLUSION OF CERTAIN IMPLIED WARRANTIES, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

Warranty Exclusions: The above stated warranties do not cover: "cosmetic" defects, such as scratches, dents, marring, or fading; damage due to incorrect installation, vandalism, misuse, accident, wear and tear from normal use, exposure to extreme weather; immersion in salt or chlorine water, unauthorized repair or modification, abnormal use, lack of maintenance, or other cause not within Burke's control; and

Limitation of Remedies: Burke is not liable for consequential or incidental damages, including but not limited to labor costs or lost profits resulting from the use of or inability to use the products or from the products being incorporated in or becoming a component of any other product. If, after a reasonable number of repeated efforts, Burke is unable to repair or replace a defective or nonconforming product, Burke shall have the option to accept return of the product, or part thereof, if such does not substantially impair its value, and return the purchase price as the buyer's entire and exclusive remedy. Without limiting the generality of the foregoing, Burke will not be responsible for labor costs involved in the removal of products or the installation of replacement products. Some states do not allow the exclusion of incidental damages, so the above exclusion may not apply to you.

The environment near a saltwater coast can be extremely corrosive. Some corrosion and/or deterioration is considered "normal wear" in this environment. Product installed within 500 yards of a saltwater shoreline will only be covered for half the period of the standard product warranty, up to a maximum of five years, for defects caused by corrosion. Products installed in direct contact with saltwater or that are subjected to salt spray are not covered by the standard warranty for any defects caused by corrosion.

Contact your local Burke Representative for warranty information regarding Burke Turf® and Burke Tile products.

Terms of Sale

Pricing: Prices published in this catalog are in USD, are approximate and do not include shipping & handling, surfacing, installation nor applicable taxes. All prices are subject to change without notice. Contact your Burke representative for current pricing. Payments are to be made in USD.

Weights: Weights are approximate and may vary with actual orders.

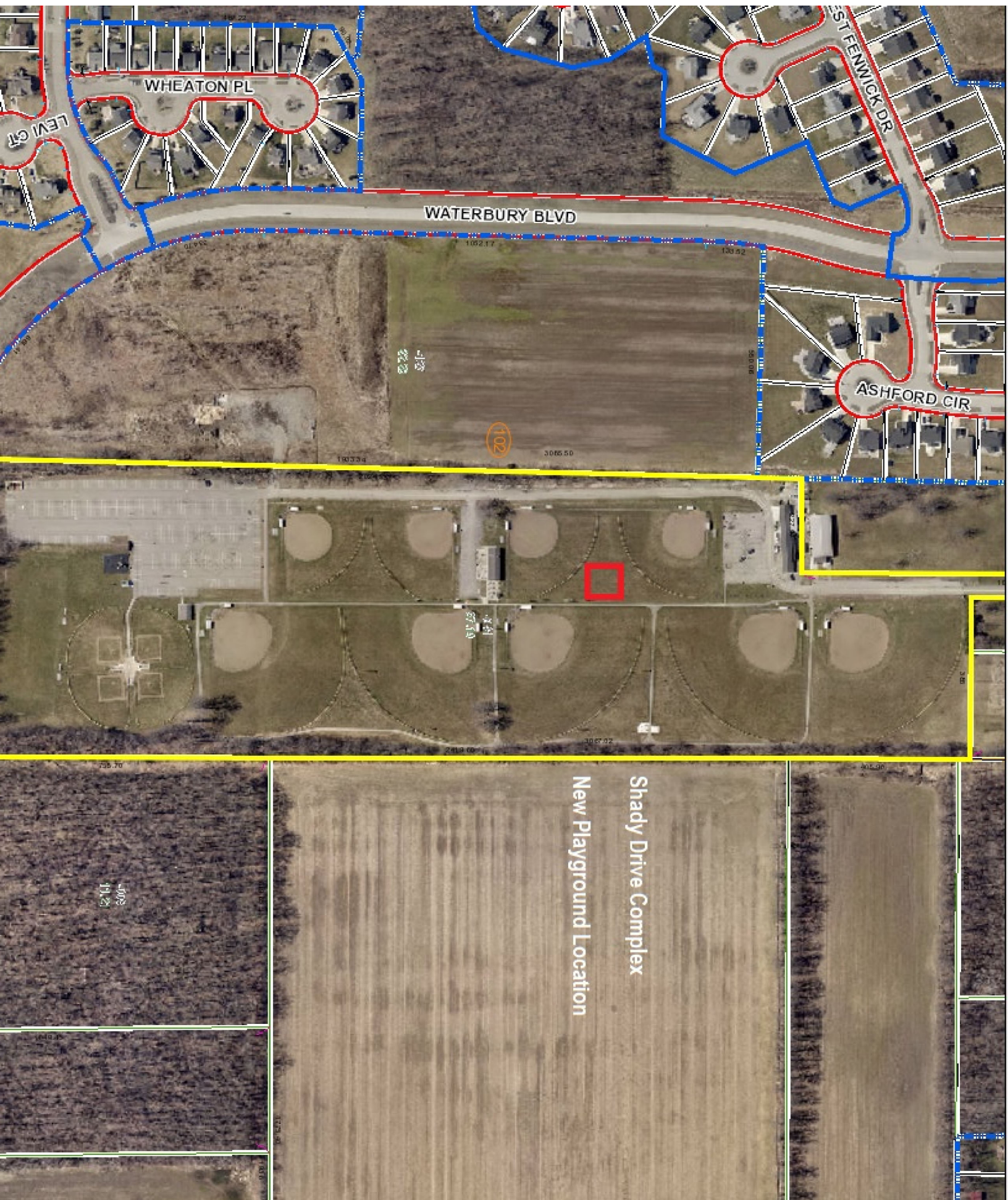
Installation: All equipment is shipped unassembled. For a list of factory-certified installers in your area, please contact your Burke representative.

Specifications: Product specifications in this catalog were correct at the time of publication. However, product improvements are ongoing at Burke, and we reserve the right to change or discontinue specifications without notice.

Loss or Damage in Transit: A signed bill of lading is our receipt from a carrier that our shipment to you was complete and in good condition upon arrival. Before you sign, please check the Bill of Lading carefully when the shipment arrives to make sure nothing is missing and there are no damages. Once the shipment leaves our plant, we are no longer responsible for any damage, loss or shortage.

For more information regarding the warranty, call Customer Service at 920-921-9220 or 1-800-356-2070.

01/2021





COLOR KEY	
	AQUA
	YELLOW
	ORANGE
	LIME
	ORANGE/BLACK
	YELLOW/BLACK



