

**SUPERIOR CHARTER TOWNSHIP PLANNING COMMISSION  
SUPERIOR TOWNSHIP HALL  
3040 N. PROSPECT, SUPERIOR TOWNSHIP, MI 48198  
AGENDA  
MARCH 22, 2023**

1. CALL TO ORDER
2. ROLL CALL
3. DETERMINATION OF QUORUM
4. ADOPTION OF AGENDA
5. APPROVAL OF MINUTES
  - A. Approval of the February 22, 2023, Regular Meeting Minutes
6. CITIZEN PARTICIPATION
7. CORRESPONDENCE
8. PUBLIC HEARINGS, DELIBERATIONS AND ACTIONS
9. REPORTS
  - A. Building Department Report
  - B. Zoning Administrator Report
10. OLD BUSINESS
11. NEW BUSINESS
  - A. STPC 23-01 Huron Dental – Preliminary Site Plan
  - B. STPC 23-02 Huron Gastro Center for Digestive Care – Minor Site Plan Amendment
12. POLICY DISCUSSION
  - A. OHM Presentation of Preliminary Design for Plymouth Road Pathway
13. ADJOURNMENT

Thomas Brennan III, Commission Secretary  
3040 N. Prospect, Ypsilanti, MI 48198

Laura Bennett, Planning & Zoning Administrator  
734-482-6099

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1. CALL TO ORDER

Chairman Gardner called the regular meeting to order at 7:00 p.m.

2. ROLL CALL

The following members were present: Brennan, Dabish-Yahkind, Findley, Gardner, McGill, Sanii-Yahyai, Steele. Also present was Ben Carlisle, Carlisle Wortman; and George Tsakoff, OHM.

3. DETERMINATION OF QUORUM

A quorum was present.

4. ADOPTION OF AGENDA

A motion was made by Commissioner Brennan and supported by Commissioner Sanii-Yahyai to adopt the agenda as presented. The motion carried.

5. APPROVAL OF MINUTES

A. Minutes of the November 16, 2022 Meeting

A motion was made by Commissioner Brennan and supported by Commissioner Sanii-Yahyai to approve the minutes as presented. The motion carried.

6. CITIZEN PARTICIPATION

None.

7. CORRESPONDENCE

None.

8. PUBLIC HEARINGS, DELIBERATIONS AND ACTIONS

None.

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9. REPORTS

A. Ordinance Officer Report

A motion was made by Commissioner Brennan and supported by Commissioner Sanii-Yahyai to receive the report. The motion carried.

B. Building Department Report

A motion was made by Commissioner Brennan and supported by Commissioner Sanii-Yahyai to receive the report. The motion carried.

C. Zoning Administrator Report

A motion was made by Commissioner Brennan and supported by Commissioner Sanii-Yahyai to receive the report. The motion carried.

10. OLD BUSINESS

None.

11. NEW BUSINESS

A. STPC 23-01 Huron Dental Mixed-Use Development Pre-Application Conference.

Brent LaVanway, Boss Engineering, presented an overview of the site, located at 5387 Plymouth-Ann Arbor Road, to the Commissioners. Mr. LaVanway explained the main use for the building will be the dental office. There will also be two residential units above the dental office and two small commercial units on the ground floor.

Mr. LaVanway added the dental office has worked with the Washtenaw County Road Commission and the neighboring Arbor Hills Animal Clinic to have a shared driveway for the two businesses. Additionally, the Health Department has perk tested the site and given feedback for the septic location.

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Mario Evangelista, Cassino Building, presented renderings of the proposed building to the Commissioners. This included elevations and floor plan.

Mr. Evangelista added the dental office is proposing significant landscape buffering along Church Street as well as an underground detention system to culvert under the road.

Ben Carlisle reviewed the Planner's Report dated January 19, 2023.

Commissioner Brennan asked if the residential units would be general leasing.

Mr. Evangelista replied the units would be general leasing.

Commissioner Dabish-Yahkind understands it is a complicated site but wondered if the applicant could orient the building toward the street for more of a village feel.

The owner of the practice, Shyroze Rehemtulla, explained the building has many architectural elements so that the side facing Plymouth-Ann Arbor Road does not look like a blank wall.

Commissioner Dabish-Yahkind asked if the applicant had reached out to residents and business owners in the Dixboro Village area. She suggested they do reach out.

Mr. Evangelista reiterated that the property along Church Street will be heavily landscaped, with neighboring residents in mind.

Commissioner Brennan remarked favorably on the architecture of the building.

Commissioner Findley inquired about what kind of retail would be in the commercial offices attached to the dental office.

Dr. Rehemtulla replied there would be medical-based office in one, and she would like the other office to have a retail-based shop with "giftables."

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Commissioner Dabish-Yahkind noted in the Planner's report there was mention of the reduction of parking spaces. She inquired about how many spaces the parking could be reduced.

Mr. Carlisle replied parking could potentially be reduced by five to six parking spaces, but the Planning Commission would need to know more about what kind of businesses would occupy the retail component of the building. Different commercial uses require a different amount of parking spaces based on the Zoning Ordinance.

Commissioner Dabish-Yahkind asked if there were concerns about elevations.

Mr. Carlisle replied building frontage on Plymouth Road needs to look like a front of a building and not the side.

George Tsakoff asked the applicant's engineer if he talked to the Washtenaw County Water Resources Commissioner's Office about storm water piping and detention.

Mr. LaVanway replied they had. He added that next steps have not been discussed, just infiltration. Mr. LaVanway also noted the applicant has met with the Washtenaw County Road Commission and items have been agreed upon, but there are no formal permits, yet.

Commissioner Gardner noted the plan shows the removal of some regulated trees. He asked the applicant if they had considered an alternative parking lot layout to avoid the removal of the regulated trees.

Mr. LaVanway stated they did look at other layouts, but the layout depicted on the site plan made the most sense with the building configuration and shared driveway. He added parking will be reduced if they have the ability to do so, especially near the trees in the northwest portion of the parking area.

Commissioner Dabish-Yahkind shared concerns that the side of the building fronting Plymouth Road gives the look of a small country club. She understands the lot is very tricky topographically, but she doesn't want the building to create a wall as drivers come around the curve of Plymouth-Ann Arbor Road.

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Mr. Evangelista explained he feels he was receiving mixed messages from the Township. He noted the Dixboro Design Review Board responded favorably to the proposed project, but it is sounding like the Planning Commission has some reservations.

Commissioner Sanii-Yahyai recommended the applicant talk to surrounding property owners to inform them of the project and get feedback.

Commissioner Findley, who also is on the Dixboro Design Review Board (DDRB), explained the DDRB overwhelmingly enjoyed the proposed project and drawings. She does not want the applicant to feel like they're receiving mixed messages.

Mr. Carlisle commented that the applicant did not "miss the mark" with their site plan. He stated the applicant now has comments from the Planning Commission they can take into consideration before submitting for preliminary site plan.

TC Collins asked if the walnut trees currently at the site could be transplanted. He indicated he would be very interested in them for the community garden.

Mr. LaVanway replied he will speak to the landscape architect for the project but believes they may be too large to transplant.

Commissioner Steele stated the replacement trees needed for the site could be placed on Township-owned property if the applicant is unable to put all of the trees back on the site. Additionally, money can be placed into a tree fund managed by Superior Township.

Mr. Evangelista inquired about the preliminary and final site plan process.

Mr. Carlisle recommend the applicant does not combine preliminary and final site plan due to the necessity of outside agency approvals by the final site plan stage.

It was noted staff could assist the applicant through the next steps and meet virtually prior to their submittal of preliminary site plan.

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- B. TC Collins – Community Garden Presentation  
TC Collins, Willow Run Acres, presented his idea for a community garden located across three Township-owned parcels at the corner of Harris Road and MacArthur Blvd.

Mr. Collins explained the Watch Me Grow Center Garden and went on to speak on how he started a garden at Danbury Green Apartments.

He additionally explained Willow Run Acres is a non-profit organization that is community led and driven. One of his goals is to make a new model of the traditional farmer's markets.

Mr. Collins reiterated his organization would love to have the Black Walnut trees that are slated to be cut down from the Dental Office site, if they are able to be transplanted.

Commissioner Gardner asked Mr. Collins if residents would have individual plots at the community garden.

Mr. Collins replied there will be small plots available for rent, but the goal is to have people also working and volunteering at the farm. He really wants to get people interested in all steps, from planting to harvesting.

Mr. Gardner inquired about financial viability and sustainability.

Commissioner Findley replied the Board of Trustees are very interested in the project, and the organization will likely receive funds through American Rescue Plan Act (ARPA).

Jan Piert, who is also assisting with the startup of the community garden, stated the organization is asking for startup funding from the Township. Also, Washtenaw County officials have shown interest in the project and a willingness to help find additional funding and grant money.

Commissioner McGill asked what would happen at the community garden during the off season, whether there would be classes or canning of fruits and vegetables.

Mr. Collins replied there would be classes throughout the off season, including education on canning and seed saving. He added there would

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be beehives at the back of the property, with proper fencing to keep individuals safe.

Commissioner Brennan added it is a great project and feels it would be very welcome into the community.

Commissioner Sanii-Yahyai agreed it is a great project. She asked the applicant to explain the role of Parks and Recreation with the project.

Mr. Collins explained Parks & Recreation would own and manage the land, but he would tend to the land and teach the classes.

Commissioner Gardner asked if any portion of the site would require a rezoning.

Mr. Carlisle replied the property directly at the corner is zoned PSP, and the northern parcel is zoned A-2, which are both fine. The interior lot to the south is currently zoned C-1, and depending on further details and the layout of the lot, a rezoning may be required.

Mr. Collins stated in three to five years he'd like to bring small alpacas and goats to the property for educational opportunities.

Mr. Carlisle noted staff can work through the details with the applicant to determine the proper zoning for the parcel.

Commissioner Gardner inquired about the former uses of the C-1 property.

It was explained the property was a former convenience store.

Commissioner Steele mentioned St. Joe's hospital has a similar garden project at The Farm, located on their campus. He added it might be worth the applicant checking out.

Commissioner McGill asked the total acreage of the sites.

Mr. Collins replied there are 3.1 acres total, but the usable acreage is about two acres.

The applicant also explained the garden would be a hands-on experience and a destination for families.



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Mr. Collins discussed plans for an orchard and the variety of the trees he hopes to plant.

Ms. Piert explained the Board of Trustees would like a memo of support from the Planning Commission since they are seeking ARPA funds for the startup.

Motion by Commissioner Brennan and supported by Commissioner Findley to direct Township staff to draft a memo on behalf of the Planning Commission in support of the Willow Run Acres community garden project to be located at the corner of Harris Road and MacArthur Boulevard, to be provided to the Board of Trustees at their meeting on February 21, 2023.

Roll Call Vote:

Yes: Brennan, Dabish-Yahkind, Findley, Gardner, McGill, Sanii-Yahyai, Steele.  
No: None.  
Abstain: None.  
Absent: None.

The motion carried.

**12. POLICY DISCUSSION**

**A. Adoption of the 2023 Meeting Schedule**

A motion was made by Commissioner Brennan and supported by Commissioner Sanii-Yahyai to adopt the 2023 Planning Commission Meeting Schedule.

The motion carried.

**B. Election of Officers for 2023**

Motion by Commissioner Sanii-Yahyai and supported by Commissioner Findley to nominate Jay Gardner as Chair of the Planning Commission.

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Motion by Commissioner Sanii-Yahyai and supported by Commissioner Brennan to nominate Dr. Rob Steele as Vice-Chair of the Planning Commission.

Motion by Commissioner Sanii-Yahyai and supported by Commissioner Gardner to nominate Tom Brennan as the Secretary of the Planning Commission.

The nominations carried by voice vote.

C. Dixboro Corridor Pedestrian/Road Safety

Commissioner Dabish-Yahkind reported she's heard many concerns about pedestrian safety in the Dixboro area. She is interested in hosting a policy discussion about the issue or recommending such a discussion to the Board of Trustees. She added she has spoken to the Washtenaw County Road Commission, and they have been unresponsive.

Mr. Tsakoff replied to Commissioner Dabish-Yahkind, stating the Plymouth Road pathway is currently being designed and permits should be issued this summer. He added the pathway will be installed next year at the latest.

Commissioner Gardner noted the Planning Commission has discussed the issue at their meetings before and they've always run up against the Washtenaw County Road Commission.

Commissioner Dabish-Yahkind feels there are options to calm traffic in the Dixboro Area.

Mr. Tsakoff agreed there are many traffic calming options, but although the County may issue permits, they may not pay for any of it. He stated he can look for grant opportunities.

Mr. Carlisle explained the Washtenaw County Road Commission is more likely to respond if the Township comes to them with a plan. The Master Plan is close to being adopted, and once that happens the Township can take the plan to the Road Commission. He added that one whole section of the Master Plan addresses improvements in the Dixboro area.

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D. Master Plan Update

Mr. Carlisle reported the goal is to have a draft of the Master Plan ready to review by March. He explained census data is slated to be released by June, but it could be pushed back again. He further explained it is not generally good practice to adopt a Master Plan without the new census data. He suggested the Township move forward adopting the Master Plan with the data that is currently available and do an analysis once the new data is released.

Commissioner Findley added the Southeast Michigan Council of Governments (SEMCOG) provides local census data and has been made available for some time.

Commissioner Gardner inquired about the process for approving the Master Plan.

Mr. Carlisle explained the Master Plan Steering Committee would review the documents first, and then it would be presented to the Planning Commission for review. Additionally, a special meeting of the Planning Commission could be held just to discuss the Master Plan draft.

13. ADJOURNMENT

Motion by Commissioner Brennan, supported by Commissioner Findley to adjourn.

Motion Carried.

The meeting was adjourned at 8:50 pm.

Respectfully submitted,  
Thomas Brennan III, Planning Commission Secretary

Laura Bennett, Recording Secretary  
Superior Charter Township  
3040 N. Prospect Rd.  
Ypsilanti, MI 48198 (734) 482-6099

**SUPERIOR TOWNSHIP BUILDING DEPARTMENT**  
**MONTH-END REPORT**  
**Feb 2023**

Category	Estimated Cost	Permit Fee	Number of Permits
<b>Com/Multi-Family Renovations</b>	<i>\$42,338.00</i>	<i>\$275.00</i>	<i>1</i>
<b>Electrical</b>	<i>\$0.00</i>	<i>\$2,515.00</i>	<i>18</i>
<b>Mechanical</b>	<i>\$0.00</i>	<i>\$4,856.00</i>	<i>37</i>
<b>Plumbing</b>	<i>\$0.00</i>	<i>\$2,809.00</i>	<i>16</i>
<b>Res-Additions (Inc. Garages)</b>	<i>\$29,678.00</i>	<i>\$193.00</i>	<i>1</i>
<b>Res-Manufactured/Modular</b>	<i>\$100,000.00</i>	<i>\$300.00</i>	<i>2</i>
<b>Res-Renovations</b>	<i>\$189,195.00</i>	<i>\$1,277.00</i>	<i>5</i>
<b>Totals</b>	<b><i>\$361,211.00</i></b>	<b><i>\$12,225.00</i></b>	<b><i>80</i></b>

**SUPERIOR TOWNSHIP BUILDING DEPARTMENT  
YEAR-TO-DATE REPORT**

**January 2022 To Date**

Category	Estimated Cost	Permit Fee	Number of Permits
<b>Com/Multi-Family Renovations</b>	<i>\$42,338.00</i>	<i>\$275.00</i>	<i>1</i>
<b>Com-Other Non-Building</b>	<i>\$10,000.00</i>	<i>\$100.00</i>	<i>1</i>
<b>Electrical</b>	<i>\$0.00</i>	<i>\$5,364.00</i>	<i>46</i>
<b>Mechanical</b>	<i>\$0.00</i>	<i>\$10,484.00</i>	<i>79</i>
<b>Plumbing</b>	<i>\$0.00</i>	<i>\$4,297.00</i>	<i>29</i>
<b>Res-Additions (Inc. Garages)</b>	<i>\$189,678.00</i>	<i>\$1,233.00</i>	<i>4</i>
<b>Res-Manufactured/Modular</b>	<i>\$100,000.00</i>	<i>\$300.00</i>	<i>2</i>
<b>Res-Other Building</b>	<i>\$18,391.00</i>	<i>\$200.00</i>	<i>2</i>
<b>Res-Renovations</b>	<i>\$568,750.00</i>	<i>\$3,897.00</i>	<i>12</i>
<b>Totals</b>	<b><i>\$929,157.00</i></b>	<b><i>\$26,150.00</i></b>	<b><i>176</i></b>

# **Zoning Report**

3/22/2023

Laura Bennett, Planning & Zoning Administrator

## **Superior Storage**

Paul Montagno and I met virtually with Rob Lucas, the owner of 10190 Plymouth-Ann Arbor Road. He informed us that he is considering continuing with plans for RV storage and mini storage at the site. His goal is to be able to repurpose existing buildings on the site, and this project would require a rezoning to C-2. We recommended Mr. Lucas come to the Planning Commission in April or May for a Pre-Application Conference to present his idea.

## **Garrett's Space**

Garrett's Space engineers have informed me that they will be submitting for combined Area Plan/Rezoning in mid-March. If the plans are satisfactory, we will bring the project to the Planning Commission for a public hearing in April.

## **Clay Hill Farm Market**

We have met with TC Collins and his group for the proposed community garden located at the corner of Harris Road and MacArthur Blvd. They are moving forward with the rezoning of the three township-owned parcels, and we will likely have an application to review at the April Planning Commission meeting.

## **Prospect Pointe West – Phase 1**

PPW Phase 1 has received EGLE permits, and Atwell will be submitting a final site plan for review soon. This phase includes 39 homes.

## SITE PLAN REVIEW APPLICATION

(This application must be typewritten or printed. All questions must be answered.)

**APPLICANT NAME** \_\_\_\_\_

**NAME OF PROPOSED  
DEVELOPMENT** \_\_\_\_\_

- APPLYING FOR**
- PRELIMINARY SITE PLAN
  - FINAL SITE PLAN
  - COMBINED PRELIMINARY AND FINAL SITE PLAN  
(Combination is at discretion of Planning Commission)
  - MINOR SITE PLAN
  - MAJOR/MINOR CHANGE DETERMINATION
  - ADMINISTRATIVE REVIEW

WILL PROJECT BE PHASED?  YES  NO

IF PROJECT IS PHASED COMPLETE THE FOLLOWING:

- Total number of phases \_\_\_\_\_
- Phase number of current application \_\_\_\_\_
- Name and date of preliminary site plan approval \_\_\_\_\_

- Date of Previous Phase Approvals:
  - Phase # \_\_\_\_\_ Date \_\_\_\_\_
  - Phase # \_\_\_\_\_ Date \_\_\_\_\_
  - Phase # \_\_\_\_\_ Date \_\_\_\_\_
  - Phase # \_\_\_\_\_ Date \_\_\_\_\_

**SEEKING ADDITIONAL APPROVAL FOR A CONDITIONAL USE**  YES  NO

\_\_\_\_\_  
Signature of the Clerk or Designee

\_\_\_\_\_  
Date of Receipt of Application

\_\_\_\_\_  
Amount of Fee

**GENERAL INFORMATION**

- Name of Proposed Development \_\_\_\_\_
- Address of Property \_\_\_\_\_
- Current Zoning District Classification of Property \_\_\_\_\_

Is the zoning classification a Special District as defined by Article 7 ?  YES  NO

- Has this property been the subject of a rezoning request, Zoning Board of Appeals petition or other Township action with the past five (5) years?  YES  NO

Please explain \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- Tax ID Number(s) of property \_\_\_\_\_
- Site Location - Property is located on (circle one) N S E W side of \_\_\_\_\_ Road between \_\_\_\_\_ and \_\_\_\_\_ Roads.
- Legal Description of Property (please attach a separate sheet)  
*Where a metes and bounds description is used, lot line angles or bearings shall be indicated on the plan. Lot line dimensions and angles or bearings shall be based upon a boundary survey prepared by a registered surveyor and shall correlate with the legal description.*

**Site Area (Acreage) and Dimensions**

- Are there any existing structures on the property?  YES  NO  
Please explain: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**PROPOSED LAND USE**

- Residential                       Office                       Commercial                       Other

If other, please specify \_\_\_\_\_

- Number of units \_\_\_\_\_
- Total floor area of each unit \_\_\_\_\_
- Give a complete description of the proposed development.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**ESTIMATED COSTS**

- Buildings and other structures \_\_\_\_\_
- Site improvements \_\_\_\_\_
- Landscaping \_\_\_\_\_
- Total \_\_\_\_\_

**ESTIMATED DATES OF CONSTRUCTION**

- Initial construction \_\_\_\_\_
- Project completion \_\_\_\_\_
- Initial construction of phases (IF APPLICABLE) \_\_\_\_\_  
\_\_\_\_\_
- Completion of subsequent phases. (IF APPLICABLE) \_\_\_\_\_  
\_\_\_\_\_
- Estimated date of first occupancy \_\_\_\_\_

**IDENTIFY EACH DRAWING SUBMITTED BY NAME OF PLAN OR DRAWING, DATE AND DRAWING NUMBER (ATTACH ADDITIONAL SHEET IF NECESSARY)**

\_\_\_\_\_  
\_\_\_\_\_

**APPLICANT INFORMATION**

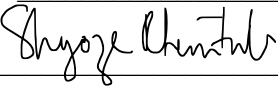
- APPLICANTS NAME \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone Number \_\_\_\_\_ Email \_\_\_\_\_
  
- PROPERTY OWNER'S NAME \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone Number \_\_\_\_\_ Email \_\_\_\_\_
  
- DEVELOPER'S NAME \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone Number \_\_\_\_\_ Email \_\_\_\_\_
  
- ENGINEER'S NAME \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone Number \_\_\_\_\_ Email \_\_\_\_\_
  
- ARCHITECT/PLANNER'S NAME \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone Number \_\_\_\_\_ Email \_\_\_\_\_

**The applicant indicated on page 4 must sign this application. All correspondence regarding the application and plan will be directed to the applicant. If the applicant is not the property owner, the owner's signed consent must also be provided with this application.**

**APPLICANT'S DEPOSITION**

I hereby depose and certify that all information contained in this application, all accompanying plans and all attachments are complete and accurate to the best of my knowledge.

APPLICANT'S PRINTED NAME: Shyroze Rehemtulla

APPLICANT'S SIGNATURE  DATE 2/21/2023

PROPERTY OWNER'S PRINTED NAME Ben Colmery

PROPERTY OWNER'S SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

**The applicant indicated on page 4 must sign this application. All correspondence regarding the application and plan will be directed to the applicant. If the applicant is not the property owner, the owner's signed consent must also be provided with this application.**


**APPLICANT'S DEPOSITION**

I hereby depose and certify that all information contained in this application, all accompanying plans and all attachments are complete and accurate to the best of my knowledge.

APPLICANT'S PRINTED NAME: Shyroze Rehemtulla

APPLICANT'S SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

PROPERTY OWNER'S PRINTED NAME Ben Colmery

PROPERTY OWNER'S SIGNATURE  \_\_\_\_\_ DATE 2/21/2023



42732 Van Dyke Avenue  
Sterling Heights, MI 48314  
Phone: 586-323-4462  
Fax: 586-323-3138

To whom it may concern,

I, BEN H. COLMERY III current property owner of 5387 Plymouth Rd, Superior Township, MI, give Dr. Shyroze Rehemtulla, Cassino Building and Development, and Boss Engineering consent to submit a site plan for approval to Superior Charter Township Planning Commission for the address listed above.

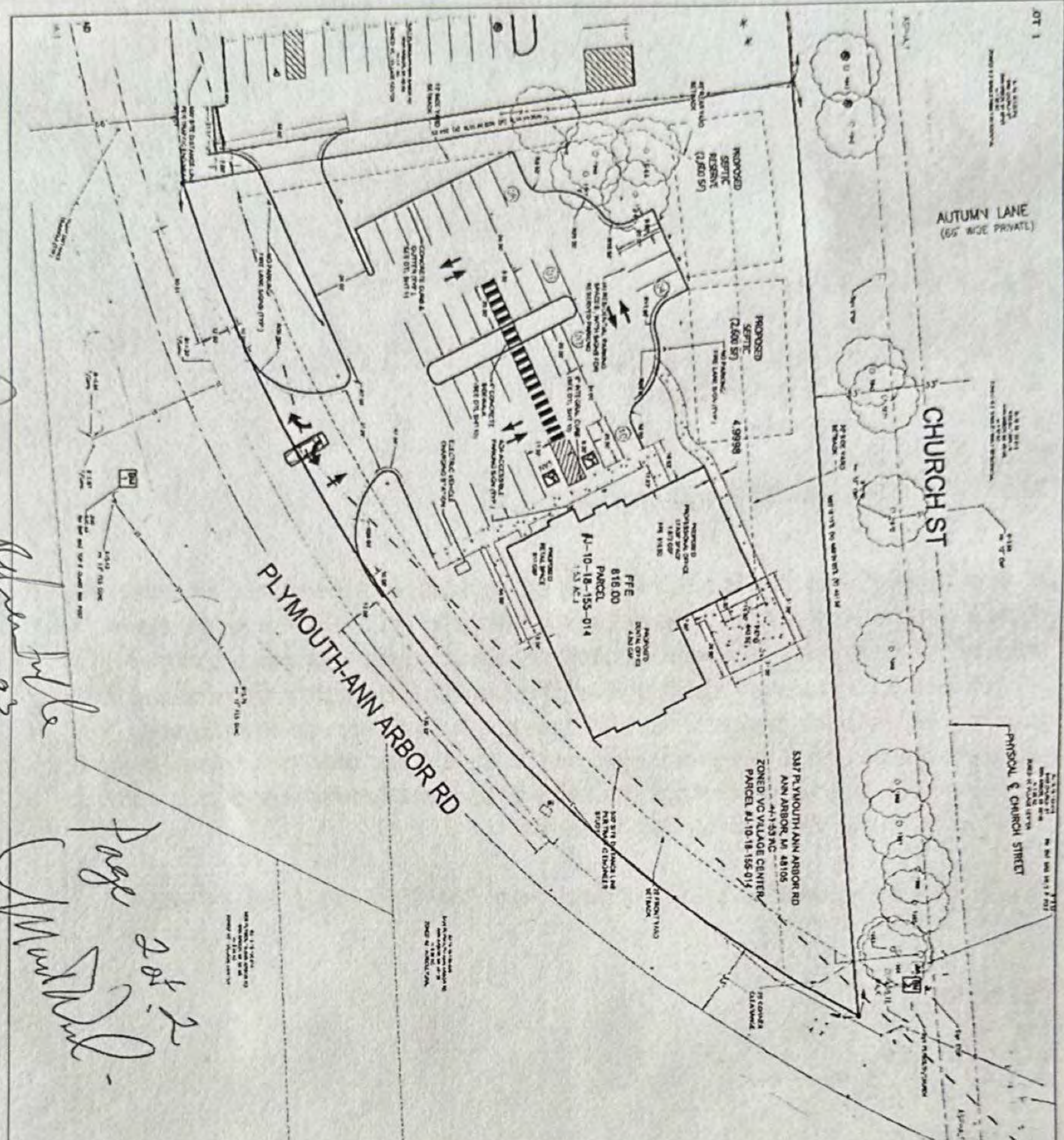
Sign: \_\_\_\_\_

Print: BEN H. COLMERY III

Date: 2/6/2023

Property Owner Address: 5740 PLYMOUTH RD, ANN ARBOR 48105

Property Owner Phone #: 734 645 9162



*Design job 10, 2023*

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C. M. ...*

NO.	DESCRIPTION	AREA (SQ FT)	REMARKS
1	EXISTING LOT AREA	133,000	
2	EXISTING BUILDING FOOTPRINT	10,000	
3	EXISTING DRIVEWAY	2,000	
4	EXISTING DRIVEWAY	2,000	
5	EXISTING DRIVEWAY	2,000	
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37	EXISTING DRIVEWAY	2,000	
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98	EXISTING DRIVEWAY	2,000	
99	EXISTING DRIVEWAY	2,000	
100	EXISTING DRIVEWAY	2,000	

**DENTAL OFFICE & MIXED USE**

CASSINO BUILDING AND DEVELOPMENT

6700 ...

**DRAFT SITE PLAN**

**BOSS Engineering**

Engineers, Architects, Planners, Landscape Architects

3121 E. GRAND RIVER AVE.

HONOLULU, HI 96843

517.546.4836 FAX 517.548.1670

DATE: 10/20/23

SCALE: 1" = 20'

PROJECT NO: 23-003

SHEET NO: 4



To: Mr. Mario Evangelista Jr.  
Cassino Building & Development

Re: Mixed-Use Development – Superior Twp., MI  
Traffic Memo

From: Steven J. Russo, PE  
Transportation Engineer

Date: August 19, 2022

---

## INTRODUCTION

This memorandum presents the results of a turn lane warrant and sight distance evaluation for the proposed mixed-use development project at 5387 Plymouth Road in Superior Township, Washtenaw County, Michigan. The project site is located in the southwest quadrant of the Plymouth Road & Church Road intersection and is currently vacant. The proposed development project involves construction of a 4,070 SF dental office, 1,486 SF of retail space, and two apartment units. Site access is proposed via one driveway to Plymouth Road aligned with the Dixboro Project Restaurant Drive.

In the vicinity of the site, Plymouth Road is a two-lane road under jurisdiction of the Washtenaw County Road Commission (WCRC); whereby access permitting will be subject to WCRC review and standards. In accordance with WCRC standards, a turn lane warrant analysis and sight distance evaluation has been requested for the proposed site driveway as a requirement for project approval. Additionally, the project will be subject to Township review and standards through the site plan approval process. The purpose of this study is to determine if right-turn deceleration lanes and/or passing lanes are warranted at the site driveway based on the warranting criteria outlined in the WCRC *Procedures & Regulations for Permit Activities*.

## TURN LANE WARRANT ANALYSIS

Existing weekday AM (7:00 AM to 9:00 AM) and PM (4:00 PM to 6:00 PM) turning movement counts were collected at the intersection of Plymouth Road & Dixboro Project Drive on Wednesday, July 13<sup>th</sup>, 2022. Counts were collected by Bergmann during typical traffic conditions. Data were collected in 15-minute intervals to establish the current peak hour traffic volumes. Major weather events, holidays, and other local special events were avoided. An ambient growth factor was applied to the 2022 traffic volumes to account for future projects in the study area and population increases, as well as growth in regular traffic volumes due to development projects outside the study area. A 1.0% per year growth rate was determined to be appropriate for this study and this rate was therefore applied to the 2022 traffic volumes for a period of one year (2023 Buildout). The resulting no-build traffic volumes are summarized on the attached **Figure 1**.

The volume of peak hour turns was determined based on the number of vehicle trips that would be generated by the proposed development and existing traffic patterns. The number of site-generated trips was forecast based on the rates and equations published by the Institute of Transportation Engineers (ITE) in *Trip Generation, 11<sup>th</sup> Edition*. The proposed apartments are best represented by ITE land use 220 – Multifamily Housing (Low-Rise). Due to the relatively small size of the number of apartment units as compared to the ITE data set, the average trip generation rate was referenced as opposed to the fitted curve equation. The proposed dental office is best represented by ITE land use 720 – Medical-Dental Office Building and the proposed retail space is best represented by ITE land use 822 – Strip Retail Plaza (<40k). For these land uses trip generation was calculated using the fitted curve equations in accordance with ITE methodology.

As is typical of most retail uses, a portion of the site-generated trips are already present on the adjacent road network and are interrupted to visit the site. These trips are known as “pass-by” trips, which create turning movements at the site driveways, but do not increase traffic volumes on the adjacent road network or off-site



intersections. ITE publishes pass-by rates for various retail land uses in the *Trip Generation Handbook, 3<sup>rd</sup> Edition*; however, ITE does not publish data for land use 822. Therefore, the best available data for land use 820 – Shopping Center was utilized and indicates 34% of PM retail traffic is expected to be pass-by in nature. ITE does not publish pass-by data for the AM peak hour. Therefore, conservatively no pass-by trips were assumed to occur during the AM period. The resultant trip generation forecast for the proposed development is shown in **Table 1**.

**Table 1: Site Trip Generation**

Land Use	ITE Code	Amount	Units	Average Daily Traffic	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Multifamily Housing (Low-Rise)	220	2	D.U.	13	0	1	1	1	0	1
Medical Office	720	4,070	SF	147	11	3	14	4	9	13
Retail	822	1,486	SF	81	5	3	8	10	10	20
		<i>Pass-By (34%PM)</i>		28	0	0	0	3	3	6
		New Trips		53	5	3	8	7	7	14
<b>Total Trips</b>				<b>241</b>	<b>16</b>	<b>7</b>	<b>23</b>	<b>15</b>	<b>19</b>	<b>34</b>
<b>Pass-By Trips</b>				<b>28</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>6</b>
<b>New Trips</b>				<b>213</b>	<b>16</b>	<b>7</b>	<b>23</b>	<b>12</b>	<b>16</b>	<b>28</b>

The ITE data indicates that the proposed development will generate a maximum of 16 inbound trips during the peak hour. The vehicle trips that would be generated by the proposed development were assigned to the study road network based on existing peak hour traffic patterns, local population densities, and ITE methodologies. These methods indicate that pass-by trips enter and exit the development in their original direction of travel and new trips will return to their direction of origin. Peak hour traffic volumes on Plymouth Road were reviewed together with local population densities to determine the origin and destinations of new site-generated traffic. Pass-by traffic was assumed to follow existing traffic patterns along Plymouth Road along the site frontage. The resulting trip distribution utilized in this study is summarized in **Table 2** and shown on the attached **Figure 1**.

**Table 2: Site Trip Distribution**

NEW TRIPS			PASS-BY TRIPS				
To/From	Via	AM/PM	From	To	Via	AM	PM
East	Plymouth Road	45%	East	West	Plymouth Road	78%	29%
West	Plymouth Road	55%	West	East	Plymouth Road	22%	71%
<b>Total</b>		<b>100%</b>	<b>Total</b>			<b>100%</b>	<b>100%</b>

In order to determine the configuration of the proposed site driveway with Plymouth Road, WCRC warrants for right and left turn lanes were evaluated. According to WCRC Driveway Standards Section 3.14.1, MDOT warranting criteria shall be utilized in order to determine where turn lanes shall be required. Therefore, warrants for right and left turn lanes were evaluated in accordance with Sections 1.1.4 and 1.1.5 of the MDOT Geometric Design Guidance. The results of the analysis of these standards indicate that ***neither a left turn lane nor right turn lane are warranted at the proposed site driveway.***

**DRIVEWAY SIGHT DISTANCE**

The intersection sight distance at the proposed site access location was evaluated based on current AASHTO guidelines. According to these requirements, the minimum sight distance is 500-feet based on the 45-mph posted speed limit. The sight distance evaluation is summarized on the attached Figure and indicate that the proposed site access location meets the minimum sight distance requirements. Vertical sight distance is adequate and sight triangles are free from obstructions.

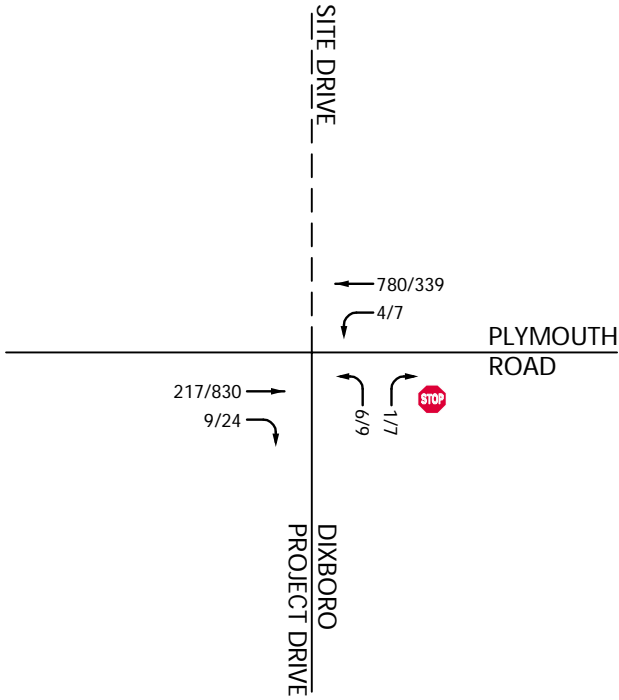




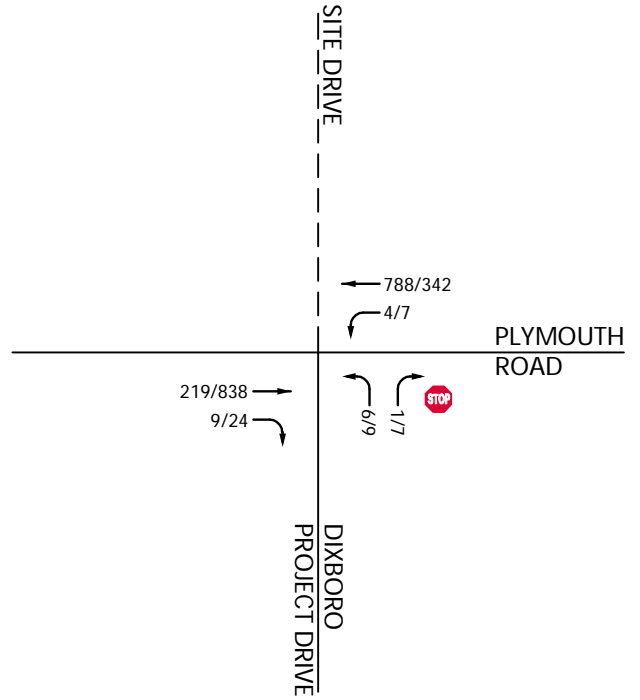
The traffic data and turn lane warrant graphs are attached for reference to this memorandum. Any questions related to this memorandum, analyses, and results should be addressed to Bergmann.

**Attached:**      Figure 1  
Existing Traffic Volume Data  
Turn Lane Warrants  
Sight Distance Figure

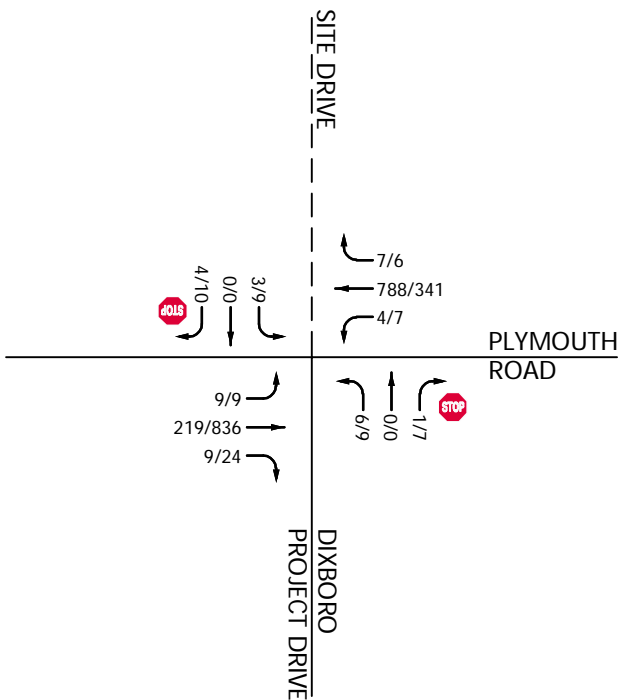
EXISTING



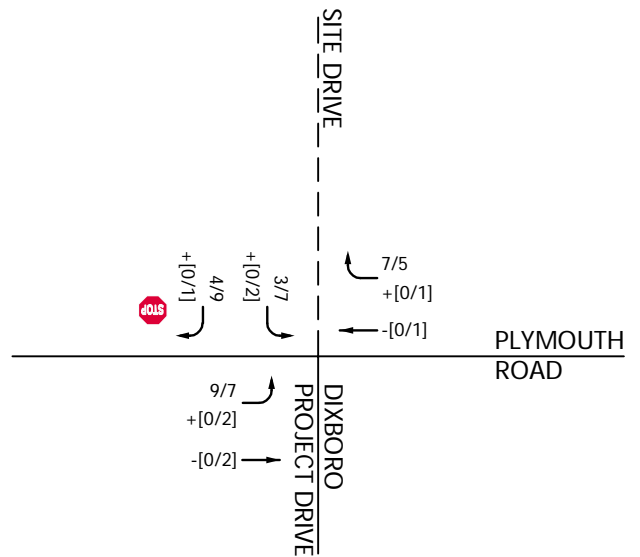
NO-BUILD



BUILD



SITE-GENERATED



Mixed-Use Development  
Superior Township, MI

Figure 1  
Traffic Volumes

###/### AM/PM PEAK HOUR VOLUME

PAGE NO.	SCALE	DATE	BERGMANN ARCHITECTS ENGINEERS PLANNERS
-	No Scale	Jul '22	

Location: Plymouth Road & Dixboro Project Drive

City/Twp: Superior Township, MI

Date: 07/13/2022 (Wednesday)

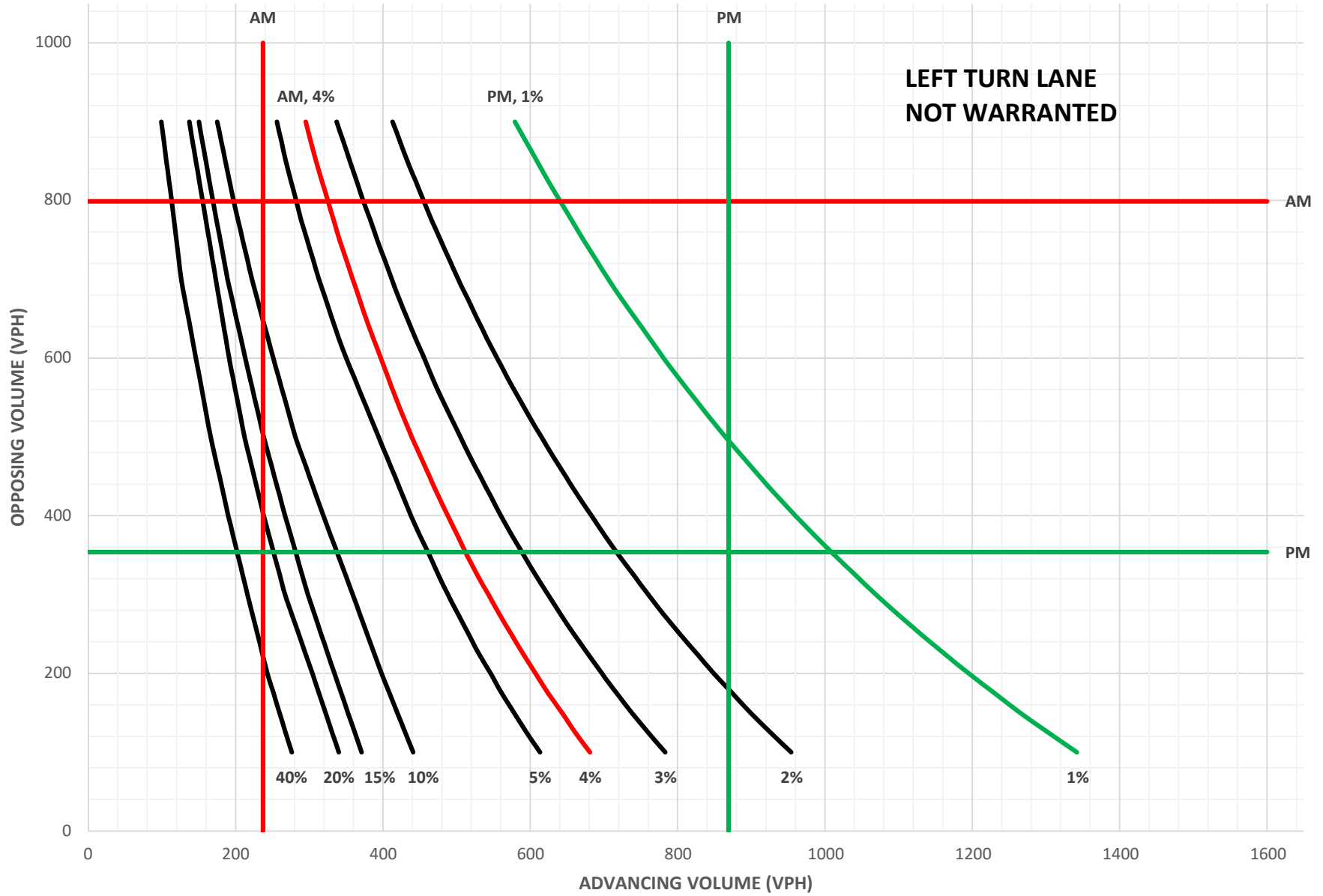
Weather: Clear

Collected By: Bergmann

Start Time	Eastbound Plymouth					Northbound Dixboro Project					Westbound Plymouth					Southbound					Intersection Hourly Summary	
	Left	Thru	Right	Total	Peds	Left	Thru	Right	Total	Peds	Left	Thru	Right	Total	Peds	Left	Thru	Right	Total	Peds	Vehicles	Peak
7:00 AM	0	31	1	32	0	0	0	0	0	0	0	102	0	102	0	0	0	0	0	0		
7:15 AM	0	31	1	32	0	0	0	3	3	0	2	131	0	133	0	0	0	0	0	0		
7:30 AM	0	52	1	53	0	0	0	0	0	0	0	129	0	129	0	0	0	0	0	0		
7:45 AM	0	49	3	52	0	0	0	0	0	0	0	211	0	211	0	0	0	0	0	0	747 Peak	
8:00 AM	0	48	0	48	0	3	0	0	3	0	0	186	0	186	0	0	0	0	0	0	850 1016	
8:15 AM	0	52	2	54	0	2	0	1	3	0	1	204	0	205	0	0	0	0	0	0	944	
8:30 AM	0	68	4	72	0	1	0	0	1	0	2	179	0	181	0	0	0	0	0	0	1016	
8:45 AM	0	55	1	56	0	5	0	0	5	0	4	180	0	184	0	0	0	0	0	0	998	
AM Peak PHF	0	217	9	226	0	6	0	1	7	0	3	780	0	783	0	0	0	0	0	0		
			0.78					0.58					0.93				#DIV/0!					
4:00 PM	0	161	2	163	0	3	0	1	4	0	0	88	0	88	0	0	0	0	0	0		
4:15 PM	0	167	5	172	0	2	0	1	3	0	1	88	0	89	0	0	0	0	0	0		
4:30 PM	0	211	2	213	0	1	0	2	3	0	1	84	0	85	0	0	0	0	0	0		
4:45 PM	0	178	8	186	0	3	0	3	6	0	2	73	0	75	0	0	0	0	0	0	1087 Peak	
5:00 PM	0	197	5	202	0	2	0	2	4	0	3	75	0	78	0	0	0	0	0	0	1116 1216	
5:15 PM	0	239	4	243	0	2	0	1	3	0	1	90	0	91	0	0	0	0	0	0	1189	
5:30 PM	0	216	7	223	0	2	0	1	3	0	1	101	0	102	0	0	0	0	0	0	1216	
5:45 PM	0	116	6	122	0	4	0	2	6	0	0	89	0	89	0	0	0	0	0	0	1166	
PM Peak PHF	0	830	24	854	0	9	0	7	16	0	7	339	0	346	0	0	0	0	0	0		
			0.88					0.67					0.85				#DIV/0!					

# PLYMOUTH ROAD & SITE DRIVE LEFT-TURN LANE WARRANT

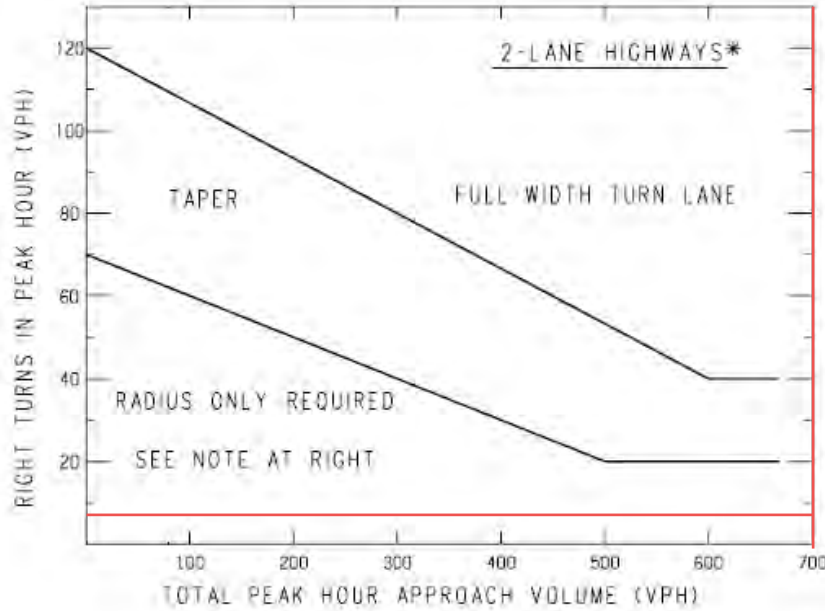
## LEFT TURN LANE WARRANT - TWO-LANE HIGHWAYS WITH POSTED SPEED OF 45 MPH



# PLYMOUTH ROAD & SITE DRIVE RIGHT-TURN LANE WARRANT

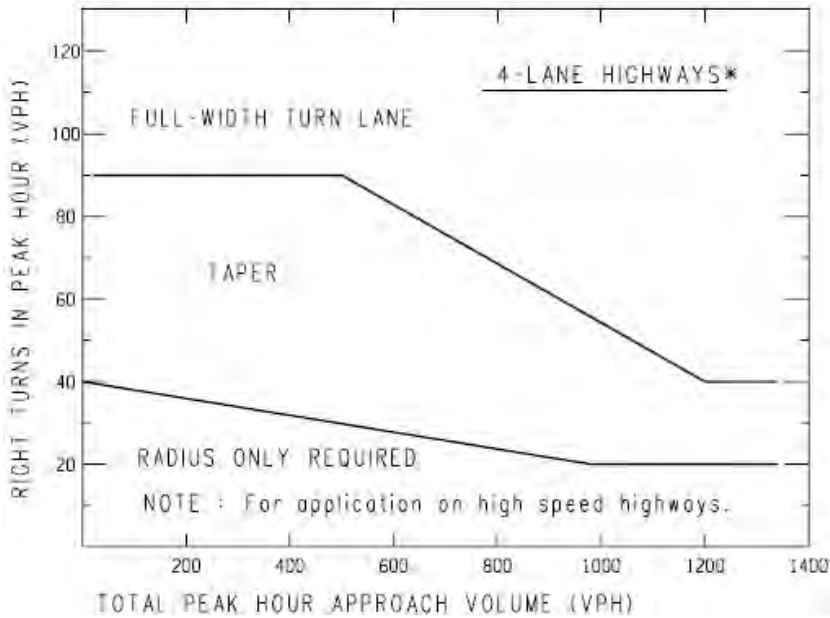
AM: 799

AM: 7



NOTE: For posted speeds at or under 45 mph, peak hour right turns greater than 40 vph, and total peak hour approach less than 300 vph, adjust right turn volumes.

Adjust peak hour  
 Right turns = Peak hour  
 Right turns - 20



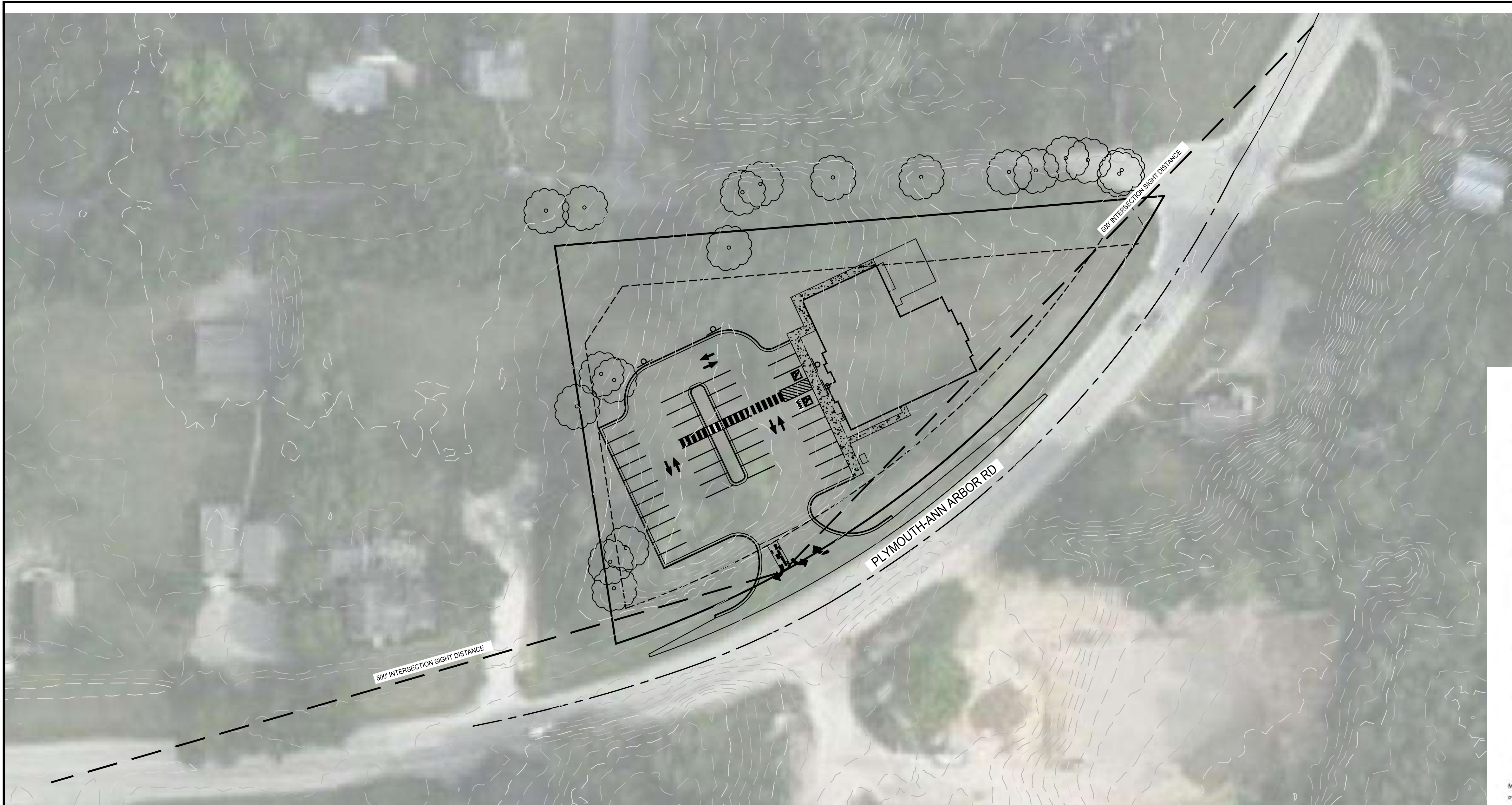
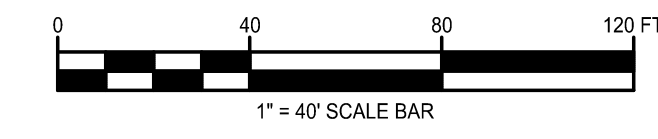
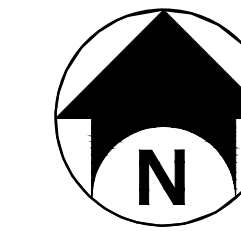
\*If a center left-turn lane exists (ie 3 or 5 lane roadway), subtract the number of left turns in approach volume from the total approach volume to get an adjusted total approach volume.

Sample Problem: The Design Speed is 55 mph. The Peak Hour Approach Volume is 300 vph. The Number of Right Turns in the Peak Hour is 100 vph. Determine if a right turn lane is recommended.

Solution: Figure indicates that the intersection of 300 vph and 100 vph is located above the upper trend line; thus, a right-turn lane may be recommended.

# DENTAL OFFICE DEVELOPMENT

PLYMOUTH ROAD  
SUPERIOR TWP, MI



**Quick Charts for Intersection Sight Distance**

Design Speed (mph)	Stopping Sight Distance (ft)	Intersection Sight Distance for Passenger Cars (ft)	
		Calculated	Design
15	80	165.4	170
20	115	220.5	225
25	155	275.6	280
30	200	330.6	335
35	250	385.9	390
40	305	441.0	445
45	360	496.1	500
50	425	551.3	555
55	495	606.4	610
60	570	661.5	665
65	645	716.6	720
70	730	771.8	775
75	820	826.9	830
80	910	882.0	885

Note: The given intersection sight distance values are for a stopped passenger car to turn left onto a two-lane road with no median and minor road approach grades of 3 percent or less. For other conditions, the sight distance must be recalculated.

**Design Intersection Sight Distance - Case B1 - Left-Turn from Stop**  
(2011 AASHTO, Table 9-6, 9-38)

Design Speed (mph)	Stopping Sight Distance (ft)	Intersection Sight Distance for Passenger Cars (ft)	
		Calculated	Design
15	80	143.3	145
20	115	191.1	195
25	155	238.9	240
30	200	286.7	290
35	250	334.4	335
40	305	382.2	385
45	360	430.0	430
50	425	477.8	480
55	495	525.5	530
60	570	573.3	575
65	645	621.1	625
70	730	668.9	670
75	820	716.6	720
80	910	764.4	765

Note: The given intersection sight distances are for a stopped passenger car to turn right onto, or cross, a two-lane road with no median and minor road approach grades of 3 percent or less. For other conditions, the sight distance must be recalculated.

**Design Intersection Sight Distance - Case B2 - Right-Turn from Stop and Case B3 - Crossing Maneuver** (2011 AASHTO, Table 9-8, 9-41)

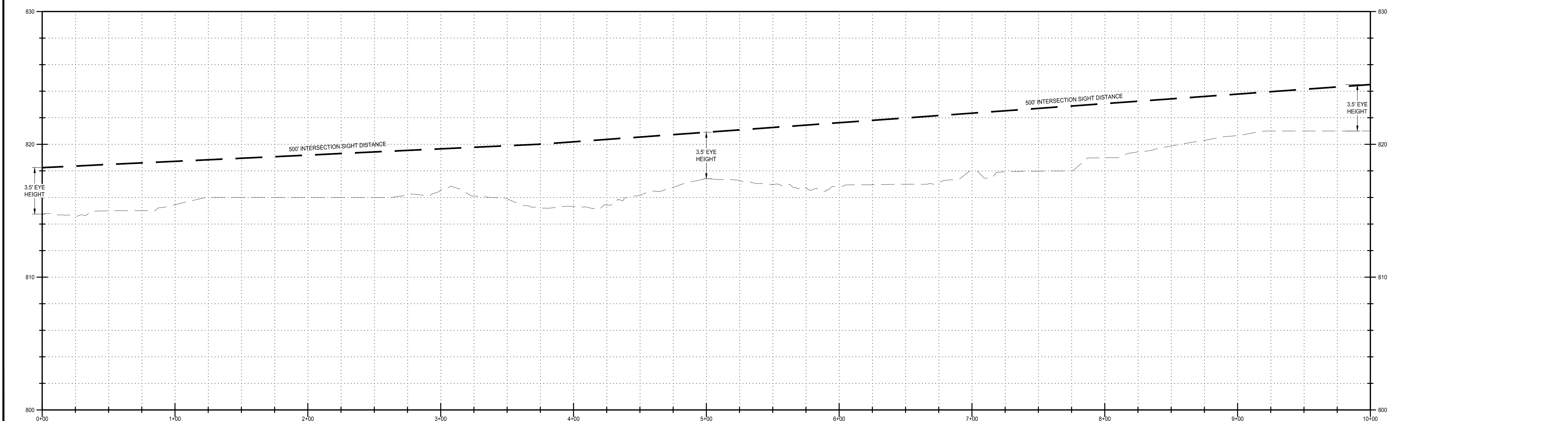
MDOT Traffic & Safety Page 39 of 52 April 22, 2015.  
PW Ref Doc:TRB/Typical/Final/Geometric/Stand\_Guidelines\_Sight\_Distance.doc



Bergmann Associates, Architects, Engineers, Landscape Architects & Surveyors, D.P.C.  
7050 West Saginaw Hwy., Suite 200  
Lansing, MI 48917

office: 517.272.9835  
fax: 517.272.9836  
www.bergmannpc.com

DATE	DESCRIPTION
08/18/22	REVISED FLOORPLAN



**INTERSECTION SIGHT DISTANCE  
MAIN ENTRANCE - PLAN AND PROFILE**  
45 MPH DESIGN SPEED  
1" = 4' VERT.; 1" = 40' HORZ.  
STA 0+00 TO STA 9+29

*Not For Construction*

Copyright © Bergmann Associates, Architects, Engineers, Landscape Architects & Surveyors, D.P.C.

Project Manager L. WHITEHEAD	Checked By R. BLASEY, PE
Designed By J. SMITH	Drawn By J. SMITH
Date Issued AUG 18, 2022	Project Number 016339.00

## SIGHT DISTANCE PLAN

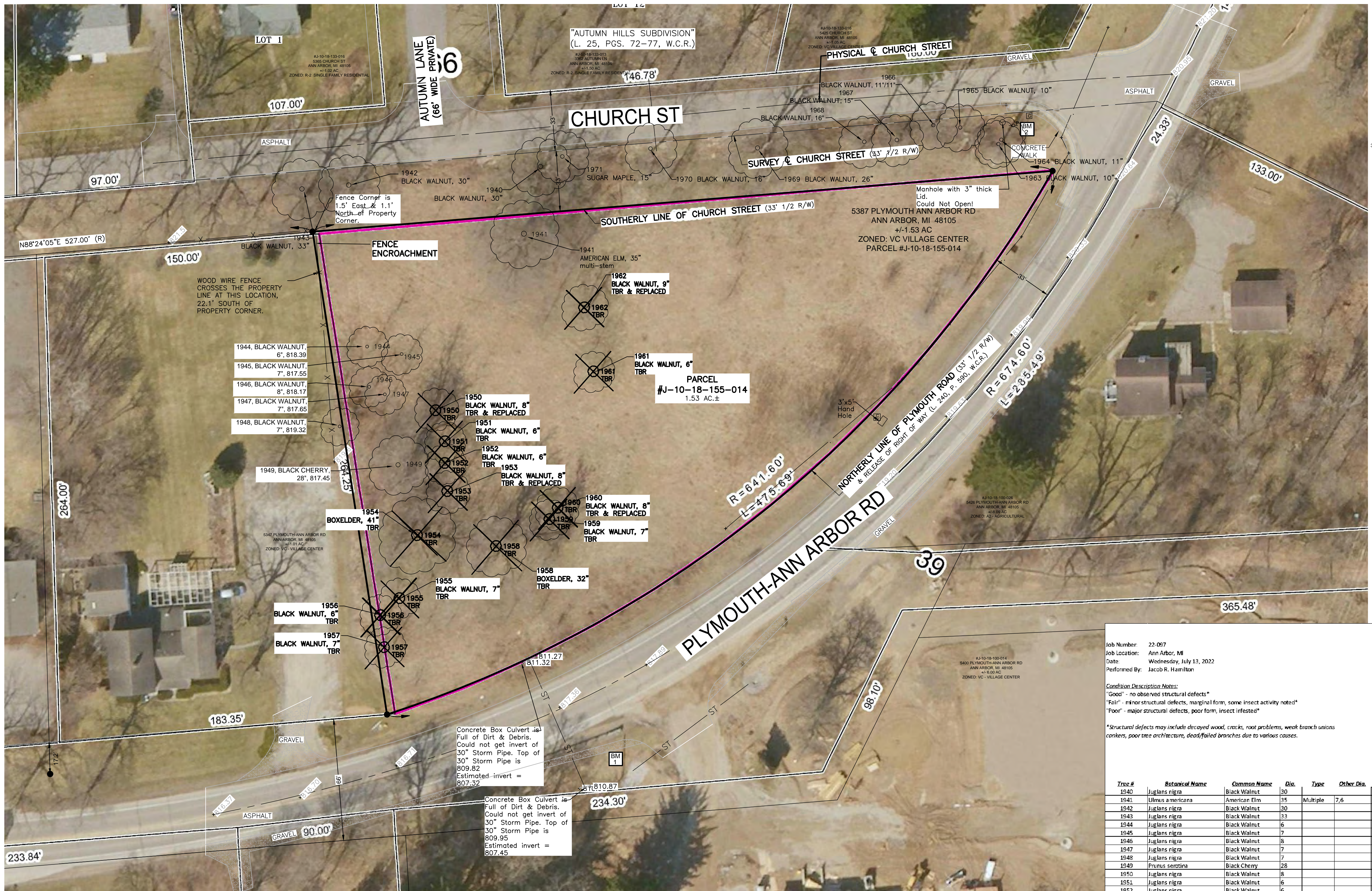
**C100**

8/18/2022 1:42 PM \\mtns\cad\0\Casino Building\016339.00\Casino-TIA for Dental Office.dwg\016339.00 Design\04 Civil\Traffic\Sight Distance Plan.dwg



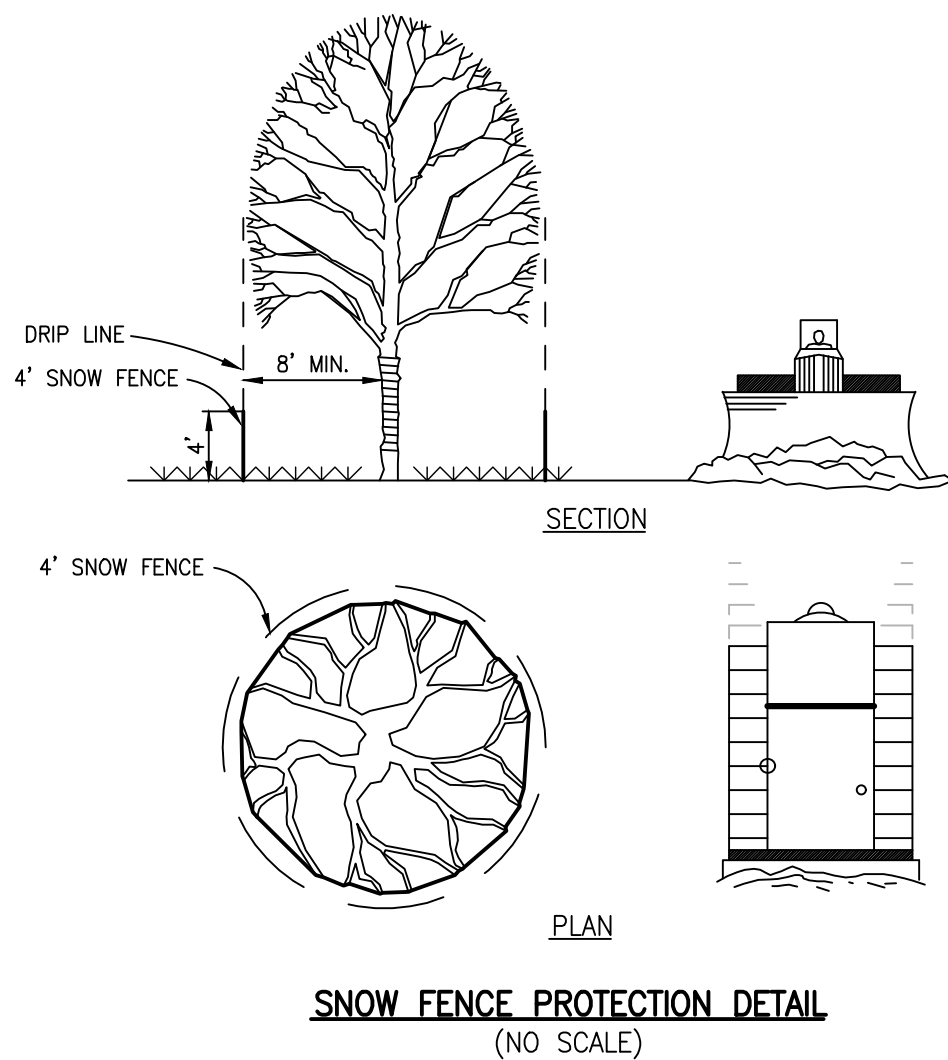






**TREE PROTECTION NOTES:**

- THE LANDSCAPE ARCHITECT SHALL SUPERVISE THE TAGGING OF TREES TO BE TRANSPLANTED, TREES TO REMAIN, AND TREES TO BE REMOVED. FOR IDENTIFICATION OF PROPOSED ACTION FOR EXISTING TREES, THE FOLLOWING METHODS WILL BE USED: AN ORANGE PAINTED "X" FOR TREES TO BE REMOVED; YELLOW FLAGGING FOR TREES TO BE TRANSPLANTED; AND SNOW FENCE PROTECTION AS SHOWN IN THE DETAIL FOR TREES TO REMAIN.
- EXISTING TREES WITHIN FIFTEEN FEET (15') OF BUILDINGS ARE TO BE PRUNED AFTER CONSTRUCTION BY A PROFESSIONAL TREE CONTRACTOR AS SPECIFIED BY THE LANDSCAPE ARCHITECT.
- NO DAMAGING ATTACHMENTS SUCH AS WIRES (OTHER THAN CABLE WIRES FOR TREES) SIGNS, OR PERMITS MAY BE FASTENED TO ANY TREE PROTECTED BY THE ORDINANCE.
- FOR TREES TO BE SAVED, A FOUR FOOT (4') HIGH SNOW FENCE IS TO BE ERECTED AROUND THE TREE DRIP LINE PRIOR TO LAND CLEARING AND CONSTRUCTION AND MAINTAINED THROUGHOUT SITE DEVELOPMENT. NO CUTTING, FILING, OR TRESPASSING SHALL OCCUR INSIDE THE FENCED AREA WITH OUT APPROVAL OF THE CITY/TOWNSHIP. THE SNOW FENCING SHALL REMAIN IN ITS APPROVED LOCATION UNTIL SUCH TIME AS IT IS AUTHORIZED TO BE REMOVED BY THE CITY OR ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY.
- NO ACTIVITY SHALL BE CONDUCTED WITHIN THE DRIP LINE OF ANY TREE DESIGNATED TO BE RETAINED, INCLUDING BUT NOT LIMITED TO THE PLACING OF ANY SOLVENTS, MATERIAL, CONSTRUCTION MACHINERY, OR SOIL WITHIN SUCH DRIP LINE.
- THE DEVELOPER AND/OR THE BUILDER SHALL ERECT SIGNS THROUGHOUT THE PROJECT THAT ARE CLEARLY VISIBLE STATING WORDS TO THE EFFECT THAT ALL SUBCONTRACTORS, SUPPLIERS AND TRADESMEN ARE TO HELP MAINTAIN THE TREES AND WILL BE HELD RESPONSIBLE FOR ANY UNAUTHORIZED DAMAGE TO TREES AND WOODLANDS.
- ALL PURCHASED REPLACEMENT TREES SHALL SATISFY AMERICAN ASSOCIATION OF NURSERYMAN STANDARDS, SUCH AS:
  - NURSERY GROWN;
  - STATE DEPARTMENT OF AGRICULTURE INSPECTED;
  - NO. 1 GRADE WITH STRAIGHT, UNSCARRED TRUNK AND WELL DEVELOPED UNIFORM CROWN (PARK GRADE TREES WILL NOT BE ACCEPTED);
  - STAKED, WRAPPED, WATERED AND MULCHED IN ACCORDANCE WITH STANDARD PLANTING PRACTICES;
  - GUARANTEED FOR ONE (1) YEAR, INCLUDING LABOR, TO REMOVE AND DISPOSE OF DEAD MATERIALS.
- SEE NOTES PER SUPERIOR TOWNSHIP ZONING ORDINANCE ARTICLE 14.F.6.: WOODLANDS AND TREE PRESERVATION: INSTALLATION AND MAINTENANCE REQUIREMENTS, PAGES 28-37.



Job Number: 22-097  
 Job Location: Ann Arbor, MI  
 Date: Wednesday, July 13, 2022  
 Performed By: Jacob R. Hamilton

Condition Description Notes:  
 "Good" - no observed structural defects  
 "Fair" - minor structural defects, marginal form, some insect activity noted  
 "Poor" - major structural defects, poor form, insect infested

\*Structural defects may include decayed wood, cracks, root problems, weak branch unions, cankers, poor tree architecture, dead/failed branches due to various causes.

Tree #	Botanical Name	Common Name	Dia.	Type	Other Dia.	Condition	Tree	Comments	ON-SITE REGULATED		Tree to Be Removed	REPLACEMENT RATIO: Replacement Required Per Ordinance?	Number of Replacements Trees Required Per
									Regulated	Tree			
1940	Juglans nigra	Black Walnut	30			Good	REGULATED		NO	NO, OFF SITE			
1941	Ulmus americana	American Elm	15	Multiple	7.6	Good	REGULATED		NO	NO, OFF SITE			
1942	Juglans nigra	Black Walnut	30			Good	NO, OFF SITE		NO	NO, OFF SITE			
1943	Juglans nigra	Black Walnut	33			Good	NO, OFF SITE		NO	NO, OFF SITE			
1944	Juglans nigra	Black Walnut	6			Good	REGULATED		NO	NO, OFF SITE			
1945	Juglans nigra	Black Walnut	7			Good	REGULATED		NO	NO, OFF SITE			
1946	Juglans nigra	Black Walnut	8			Good	REGULATED		NO	NO, OFF SITE			
1947	Juglans nigra	Black Walnut	7			Good	REGULATED		NO	NO, OFF SITE			
1948	Juglans nigra	Black Walnut	7			Good	NO, OFF SITE		NO	NO, OFF SITE			
1949	Prunus serotina	Black Cherry	28			Good	REGULATED		NO	NO, OFF SITE			
1950	Juglans nigra	Black Walnut	8			Good	REGULATED		YES	Yes, Replacement Ratio 1:1	(1) 2 5" Caliper		
1951	Juglans nigra	Black Walnut	6			Good	NO, OFF SITE		YES	No, below 8" D.B.H. per Ordinance			
1952	Juglans nigra	Black Walnut	6			Good	NO, OFF SITE		YES	No, below 8" D.B.H. per Ordinance			
1953	Juglans nigra	Black Walnut	8			Good	REGULATED		YES	Yes, Replacement Ratio 1:1	(1) 2 5" Caliper		
1954	Acer negundo	Boxelder	41			Poor		Lost leader, broken large limb, rot	YES	No, species not valuable per Ordinance			
1955	Juglans nigra	Black Walnut	7			Good	NO, OFF SITE		YES	No, below 8" D.B.H. per Ordinance			
1956	Juglans nigra	Black Walnut	6			Good	NO, OFF SITE		YES	No, below 8" D.B.H. per Ordinance			
1957	Juglans nigra	Black Walnut	7			Good	NO, OFF SITE		YES	No, below 8" D.B.H. per Ordinance			
1958	Acer negundo	Boxelder	32			Good	NO, OFF SITE		YES	No, species not valuable per Ordinance			
1959	Juglans nigra	Black Walnut	7			Good	NO, OFF SITE		YES	No, below 8" D.B.H. per Ordinance			
1960	Juglans nigra	Black Walnut	8			Good	REGULATED		YES	Yes, Replacement Ratio 1:1	(1) 2 5" Caliper		
1961	Juglans nigra	Black Walnut	6			Good	NO, OFF SITE		YES	No, below 8" D.B.H. per Ordinance			
1962	Juglans nigra	Black Walnut	6			Good	REGULATED		YES	Yes, Replacement Ratio 1:1	(1) 2 5" Caliper		
1963	Juglans nigra	Black Walnut	10			Good			NO, OFF SITE				
1964	Juglans nigra	Black Walnut	11			Fair		Girdled by wire fence	NO, OFF SITE				
1965	Juglans nigra	Black Walnut	10			Good			NO, OFF SITE				
1966	Juglans nigra	Black Walnut	11			Good			NO, OFF SITE				
1967	Juglans nigra	Black Walnut	15	Twin	11	Good			NO, OFF SITE				
1968	Juglans nigra	Black Walnut	16			Fair		Heavy vines	NO, OFF SITE				
1969	Juglans nigra	Black Walnut	26			Good			NO, OFF SITE				
1970	Juglans nigra	Black Walnut	16			Good			NO, OFF SITE				
1971	Acer saccharum	Sugar Maple	15			Good			NO, OFF SITE				

**SUMMARY**

TOTAL NUMBER OF REGULATED TREES TO BE PRESERVED	6
TOTAL NUMBER OF REGULATED TREES TO BE REMOVED	4
NUMBER OF REGULATED TREES ON SITE BEFORE REMOVAL	10
PERCENTAGE OF REGULATED TREES ON SITE AFTER REMOVAL	60%
TOTAL NUMBER OF REPLACEMENT TREES REQUIRED	4
PERCENTAGE OF REPLACEMENT TREE REQUIREMENT SATISFIED BY UP TO 50% OF BUFFERING AND SCREENING TREES ON SITE	50%

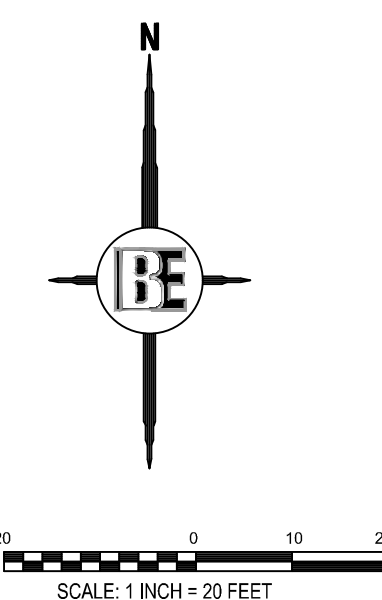
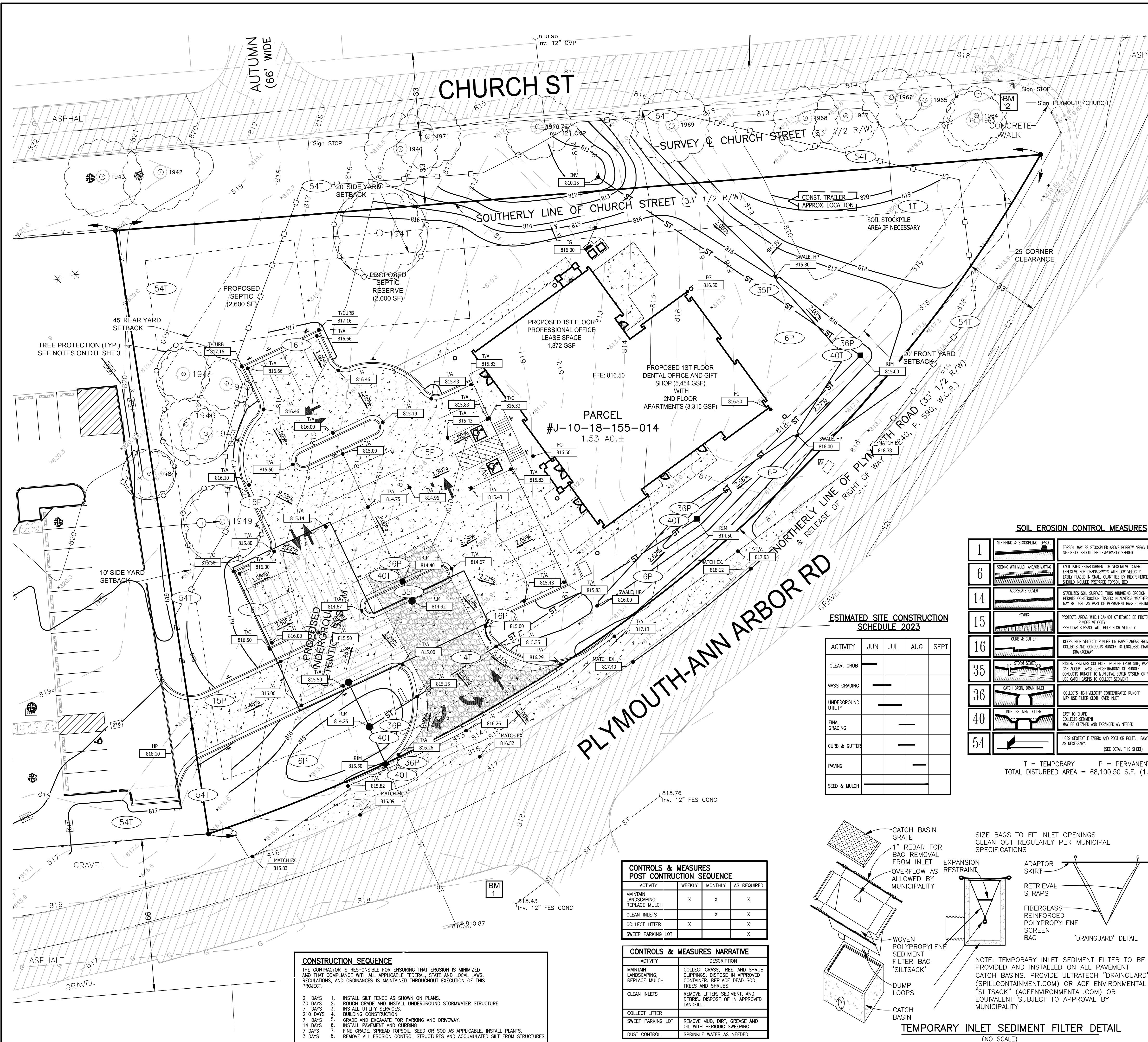
**LEGEND**

PROPOSED (PR) EXISTING (EX)

FF FF FINISHED FLOOR ELEVATION  
 T/A T/A FINISHED GRADE ELEVATION  
 T/C T/C TOP OF CURB / CONCRETE  
 T/W T/W TOP OF WALK  
 F/L F/L FLOW LINE  
 T/P T/P TOP OF PIPE  
 B/P B/P BOTTOM OF PIPE  
 RM RM RM ELEVATION  
 INV INV INVERT ELEVATION  
 MH MH MANHOLE STRUCTURE  
 IN IN INLET STRUCTURE  
 CB CB CATCHBASIN STRUCTURE  
 RY RY REARWARD STRUCTURE  
 ES ES END-SECTION  
 GV GV GATEVALVE STRUCTURE  
 HY HY HYDRANT  
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 SN SN SANITARY SEWER  
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 T T TELEPHONE  
 X X FENCE  
 HY HY HYDRANT  
 UP UP UTILITY POLE  
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 PS PS PRESSURE SEWER  
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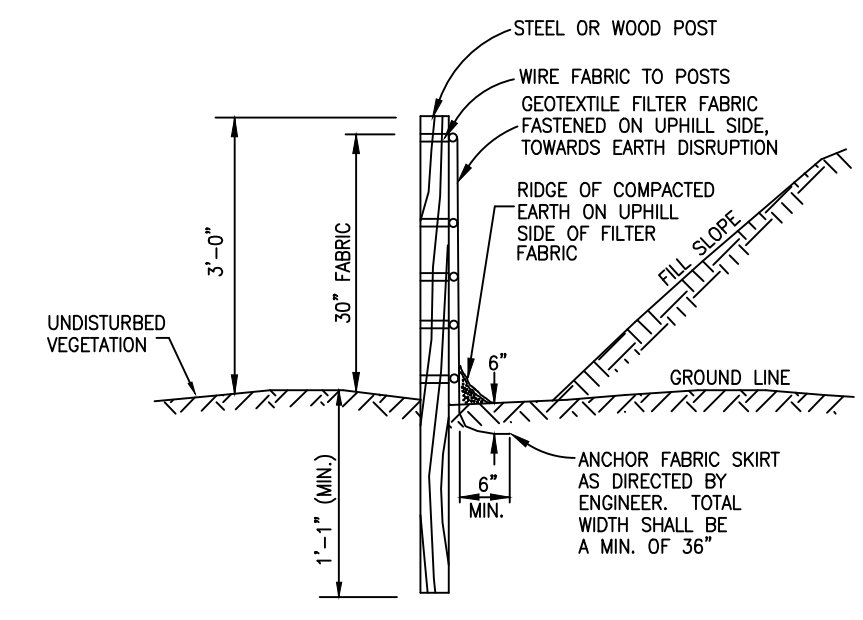
LEGEND	
PROPOSED (PR)	EXISTING (EX)
000	+922.08
T/C	CONTOUR
XXXXXX	SPOT ELEVATION
FF	FINISHED FLOOR ELEVATION
FG	FINISHED GRADE ELEVATION
T/A	TOP OF ASPHALT
T/C	TOP OF CURB / CONCRETE
T/W	TOP OF WALK
F/L	FLOW LINE
T/P	TOP OF PIPE
RIM	RIM ELEVATION
B/P	BOTTOM OF PIPE
INV	INVERT ELEVATION
MH	MANHOLE STRUCTURE
IN	INLET STRUCTURE
CB	CATCHBASIN STRUCTURE
RY	REAR YARD STRUCTURE
ES	END-SECTION
OV	GATEVALVE STRUCTURE
HY	HYDRANT
UP	UTILITY POLE
SN	SANITARY SEWER
SL	SANITARY LEAD
FM	FORCE MAIN
PS	PRESSURE SEWER
SS	STORM SEWER
WM	WATER MAIN
WL	WATER LEAD
FO	FIBER OPTIC
OH	OVERHEAD WIRE
C	CABLE
E	ELECTRIC
G	GAS
T	TELEPHONE
F	FENCE
WF	WETLAND BOUNDARY
L	LIMITS OF GRADING/CLEARING
M	MANHOLE
I	INLET / CATCHBASIN
FL	FLARED END-SECTION
H	HYDRANT
U	UTILITY POLE
N	NOT FIELD VERIFIED TO BE REMOVED
S	SANITARY SEWER LABEL
SS	STORM SEWER LABEL
WM	WATER MAIN LABEL
SEM	SOIL EROSION CONTROL MEASURE (P=PERMANENT, T=TEMPORARY)
CON	CONCRETE
ASP	ASPHALT
MC	MODIFIED CURB
LGR	LIMITS OF GRADING

**SITE BENCHMARKS (NAVD88 DATUM):**  
 -BM 1 = BM BNT MAG TOP E GUARD RAIL POST  
 ELEV = 820.49 (NAVD88)  
 -BM 2 = 30 BNT MAG NW/S P POLE  
 ELEV = 819.52 (NAVD88)

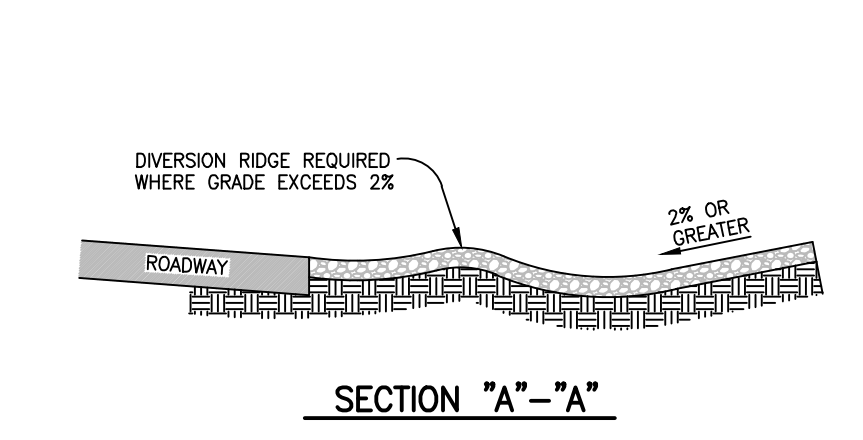
SOIL EROSION CONTROL MEASURES	
1	STRIPPING & STOCKPILING TOPSOIL TOPSOIL MAY BE STOCKPILED ABOVE BORROW AREAS TO ACT AS A DIVERSION STOCKPILE SHOULD BE TEMPORARILY SEVERED
6	SEEDING WITH MULCH AND/OR MATING FACILITATES ESTABLISHMENT OF VEGETATIVE COVER EFFECTIVE FOR DRAINAGES WITH LOW VELOCITY (SOIL PLACED IN SMALL QUANTITIES BY EXPERIENCED PERSONNEL SHOULD INCLUDE PREPARED TOPSOIL AND)
14	AGGREGATE COVER STABILIZES SOIL SURFACE, THIS WINNING EROSION PERMITS CONSTRUCTION TRAFFIC IN ADVERSE WEATHER MAY BE USED AS PART OF PERMANENT BASE CONSTRUCTION OF PAVED AREAS
15	PAVING PROTECTS AREAS WHICH CANNOT OTHERWISE BE PROTECTED, BUT INCREASES RUNOFF VELOCITY IRREGULAR SURFACE WILL HELP SLOW VELOCITY
16	CURB & GUTTER KEEPS HIGH VELOCITY RUNOFF ON PAVED AREAS FROM LEAKING PAVED SURFACE COLLECTS AND CONDUCTS RUNOFF TO ENCLOSED DRAINAGE SYSTEM OR PREPARED DRAINWAY
35	STORM CHENNA SYSTEM CHANNELS COLLECTED RUNOFF FROM SITE, PARTICULAR FROM PAVED AREAS CAN ACCEPT LARGE CONCENTRATIONS OF RUNOFF CONDUCTS RUNOFF TO MUNICIPAL SEWER SYSTEM OR STABILIZED OUTFALL LOCATION USE CHECK BASINS TO COLLECT SEDIMENT
36	CATCH BASIN CRAN INLET COLLECTS HIGH VELOCITY CONCENTRATED RUNOFF MAY USE FILTER CLOTH OVER INLET
40	INLET SEDIMENT FILTER EASY TO SHARP COLLECTS SEDIMENT MAY BE CLEANED AND EXPANDED AS NEEDED
54	DRAINGUARD USES GEOTEXTILE FABRIC AND POST OR POLES. EASY TO CONSTRUCT AND LOCATE AS NECESSARY. (SEE DETAIL THIS SHEET)

**ESTIMATED SITE CONSTRUCTION SCHEDULE 2023**

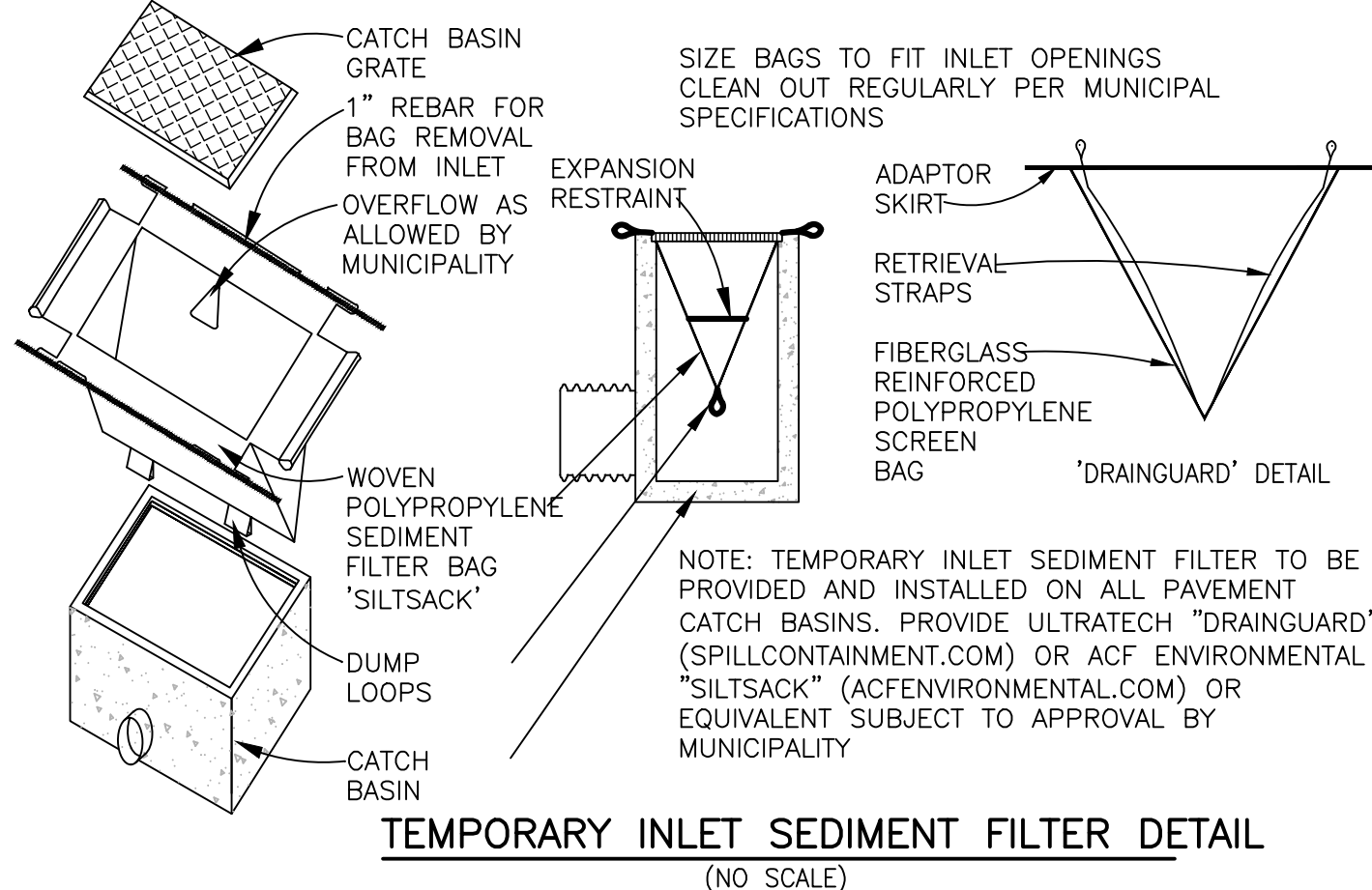
ACTIVITY	JUN	JUL	AUG	SEPT
CLEAR, GRUB	—	—	—	—
MASS GRADING	—	—	—	—
UNDERGROUND UTILITY	—	—	—	—
FINAL GRADING	—	—	—	—
CURB & GUTTER	—	—	—	—
PAVING	—	—	—	—
SEED & MULCH	—	—	—	—



**SILT FENCE DETAIL**  
NO SCALE



**TEMPORARY GRAVEL TRACKING MAT DETAIL**  
NO SCALE



**TEMPORARY INLET SEDIMENT FILTER DETAIL**  
(NO SCALE)

CONTROLS & MEASURES POST CONSTRUCTION SEQUENCE			
ACTIVITY	WEEKLY	MONTHLY	AS REQUIRED
MAINTAIN LANDSCAPING, REPLACE MULCH	X	X	X
CLEAN INLETS	X	X	X
COLLECT LITTER	X	X	X
SWEEP PARKING LOT			X

CONTROLS & MEASURES NARRATIVE	
ACTIVITY	DESCRIPTION
MAINTAIN LANDSCAPING, REPLACE MULCH	COLLECT GRASS, TREE, AND SHRUB CLIPPINGS; DISPOSE IN APPROVED CONTAINER, REPLACE DEAD SOIL, TREES AND SHRUBS.
CLEAN INLETS	REMOVE LITTER, SEDIMENT, AND DEBRIS; DISPOSE OF IN APPROVED LANDFILL.
COLLECT LITTER	REMOVE LITTER, SEDIMENT, AND DEBRIS; DISPOSE OF IN APPROVED LANDFILL.
SWEEP PARKING LOT	REMOVE MUD, DIRT, GREASE AND OIL WITH PERIODIC SWEEPING.
DUST CONTROL	SPRINKLE WATER AS NEEDED

CONSTRUCTION SEQUENCE	
2 DAYS	1. INSTALL SILT FENCE AS SHOWN ON PLANS.
30 DAYS	2. ROUGH GRADE AND INSTALL UNDERGROUND STORMWATER STRUCTURE
7 DAYS	3. INSTALL UTILITY SERVICES.
210 DAYS	4. BUILDING CONSTRUCTION
7 DAYS	5. GRADE AND EXCAVATE FOR PARKING AND DRIVEWAY.
14 DAYS	6. INSTALL PAVEMENT AND CURBING.
7 DAYS	7. FINE GRADE, SPREAD TOPSOIL, SEED OR SOD AS APPLICABLE, INSTALL PLANTS.
3 DAYS	8. REMOVE ALL EROSION CONTROL STRUCTURES AND ACCUMULATED SILT FROM STRUCTURES.

**BEBOSS Engineering**  
 Planners Landscape Architects  
 3121 E. GRAND RIVER AVE.  
 HOWELL, MI. 48843  
 517.546.4836 FAX 517.548.1670

PROJECT: DENTAL OFFICE & MIXED USE  
 PREPARED FOR: CASSINO BUILDING AND DEVELOPMENT  
 42732 VAN DYKE AVE  
 STERLING HEIGHTS, MI 48314  
 586-232-4462

TITLE: GRADING, DRAINAGE, & SECC PLAN

NO.	REVISION	PER	DATE
1			

DESIGNED BY: JS  
 DRAWN BY: JS  
 CHECKED BY:  
 SCALE: 1" = 20'  
 JOB NO: 22-097  
 DATE: 02/22/2023  
 SHEET NO. 6

FOR SITE PLAN APPROVAL ONLY!  
 NOT FOR CONSTRUCTION



**GENERAL LANDSCAPE SPECIFICATIONS:**

- ALL PLANT MATERIAL SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF THE GOVERNING MUNICIPALITY. ALL STOCK SHALL BE NURSERY GROWN, CONFORMING TO ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK", AND IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICE. STOCK SHALL EXHIBIT NORMAL GROWTH HABIT AND BE FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN-SCALD, INJURIES, ABRASIONS, OR DISFIGUREMENT. ALL PLANT MATERIAL SHALL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT.
- ALL PLANT MATERIALS SHALL BE BALLED AND BURLAPPED OR CONTAINER STOCK. NO BARE ROOT STOCK IS PERMITTED. ALL PLANT BALLS SHALL BE FIRM, INTACT, AND SECURELY WRAPPED AND BOUND.
- ALL PLANT BED MATERIALS SHALL BE EXCAVATED OF ALL BUILDING MATERIALS, OTHER EXTRANEUS OBJECTS, AND POOR SOILS TO A MINIMUM DEPTH OF 12-INCHES AND BACKFILLED TO GRADE WITH SPECIFIED PLANTING MIX (SEE BELOW).
- PLANTING MIXTURE SHALL CONSIST OF 5 PARTS TOPSOIL FROM ON-SITE (AS APPROVED), 4 PARTS COARSE SAND, 1 PART SPHAGNUM PEAT MOSS (OR APPROVED COMPOST), AND 5 LBS OF SUPERPHOSPHATE FERTILIZER PER CU. YD. OF MIX. INGREDIENTS SHALL BE THOROUGHLY BLENDED FOR UNIFORM CONSISTENCY.
- ALL PLANT BEDS AND INDIVIDUAL PLANTS, NOT OTHERWISE NOTED SHALL BE MULCHED WITH A 4-INCH LAYER OF SHREDED BARK MULCH. EDGE OF MULCH BEDS AS SHOWN, DECIDUOUS TREES IN LAWN AREAS SHALL RECEIVE A 5-FIT DIAMETER CIRCLE OF MULCH AND CONIFER TREES 8-FIT (PLANTED CROWN OF TREE) UNLESS OTHERWISE NOTED.
- LANDSCAPE STONE SHALL BE INSTALLED WHERE NOTED OR INDICATED (HATCHED). STONE SHALL BE 3/4"-1 1/4" WASHED RIVER GRAVEL OR AS SELECTED AND SHALL BE INSTALLED TO A MINIMUM DEPTH OF 3-INCHES.
- ALL LANDSCAPE BEDS, UNLESS OTHERWISE NOTED SHALL BE INSTALLED OVER WEED BARRIER FABRIC - WATER PERMEABLE FILTRATION FABRIC OF NON-WOVEN POLYPROPYLENE OR POLYESTER FABRIC. FABRIC SHALL BE OF SUITABLE THICKNESS FOR APPLICATION.
- ALL PLANTS AND PLANT BEDS SHALL BE THOROUGHLY WATERED UPON COMPLETION OF PLANTING AND STAKING OPERATIONS.
- THE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR A PERIOD OF 1 YEAR FROM THE DATE OF ACCEPTANCE. IN WRITING, BY THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL REPLACE, WITHOUT COST TO THE OWNER, WITHIN A SPECIFIED PERIOD OF TIME, ALL DEAD PLANTS, AND ALL PLANTS NOT IN A VIGOROUS, THRIVING CONDITION, AS DETERMINED BY THE LANDSCAPE ARCHITECT DURING AND AT THE END OF THE GUARANTEE PERIOD. REPLACEMENT STOCK SHALL CONFORM TO THE ORIGINAL SPECIFICATIONS.
- EDGING SHALL BE PROVIDED FOR ALL LANDSCAPE BEDS NOT ADJACENT TO CONCRETE PAVEMENT. EDGING SHALL BE BLACK ALUMINUM EDGING, 3/16"-INCH X 4"-INCH. INSTALL PER MANUFACTURER'S INSTRUCTIONS. ALL EDGING SHALL BE INSTALLED IN STRAIGHT LINES OR SMOOTH CURVES WITHOUT IRREGULARITIES.
- SOD SHALL BE DENSE, WELL ROOTED TURF, FREE OF WEEDS. IT SHALL BE COMPRISED OF A BLEND OF AT LEAST TWO KENTUCKY BLUE GRASSES AND ONE FESCUE. IT SHALL HAVE A UNIFORM THICKNESS OF 3/4"-INCH AT TIME OF PLANTING, AND CUT IN UNIFORM STRIPS NOT LESS THAN 10-INCHES BY 18-INCHES. SOD SHALL BE KEPT MOIST AND LAID WITHIN 36-HOURS AFTER CUTTING.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A DENSE LAWN OF PERMANENT GRASSES, FREE OF LUMPS AND DEPRESSIONS. ALL SODDED AREAS THAT BROWN-OUT OR HAVE NOT FIRMLY KNITTED TO THE SOIL BASE WITHIN A PERIOD OF 1 MONTH SHALL BE REPLACED BY THE CONTRACTOR, AT NO COST TO THE OWNER.

12. ALL AREAS OF THE SITE THAT BECOME DISTURBED DURING CONSTRUCTION AND ARE NOT TO BE PAVED, STONED, LANDSCAPED, OR SODDED SHALL BE SEEDING AND MULCHED.

SEE MIXTURE SHALL BE AS FOLLOWS:  
 KENTUCKY BLUEGRASS (CHOOSE 3 VARIETIES -  
 ADELPHI, RUGBY, GLADE, OR PARADE) 30%  
 RUBY RED OR DAWSON RED FINE FESCUE 30%  
 ATLANTA RED FESCUE 20%  
 PENNINE PERENNIAL RYE 20%

THE ABOVE SEED MIXTURE SHALL BE SOWN AT A RATE OF 250 LBS PER ACRE. PRIOR TO SEEDING, THE TOPSOIL SHALL BE FERTILIZED WITH A COMMERCIAL FERTILIZER WITH A 10-0-10 ANALYSIS:  
 10% NITROGEN - MIN 25% FROM A UREA FORMALDEHYDE SOURCE  
 0 3/4% PHOSPHATE  
 10% POTASH - SOURCE POTASSIUM SULFATE OR POTASSIUM NITRATE

THE FIRST FERTILIZER APPLICATION SHALL BE AT A RATE OF 10 LBS PER 1000 SQ FT OF BULK FERTILIZER.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A DENSE LAWN OF PERMANENT GRASSES, FREE OF LUMPS AND DEPRESSIONS. ANY PART OF THE AREA THAT FAILS TO SHOW A UNIFORM GERMINATION SHALL BE RE-SEEDING AND SUCH RE-SEEDING SHALL CONTINUE UNTIL A DENSE LAWN IS ESTABLISHED. DAMAGE TO SEEDING AREAS RESULTING FROM EROSION SHALL BE REPAIRED BY THE CONTRACTOR.

13. ALL AREAS OF THE SITE SCHEDULED FOR SEEDING OR SODDING SHALL FIRST RECEIVE A 6-INCH LAYER OF CLEAN, FRAGILE TOPSOIL. THE SOIL SHALL BE DISCED AND SHALL BE GRADED IN CONFORMANCE WITH THE GRADING PLAN.

14. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL UTILITIES AND TO INFORM THE LANDSCAPE ARCHITECT OF ANY CONFLICTS PRIOR TO COMMENCING LANDSCAPING.

**LANDSCAPE CALCULATIONS:**  
 PER SUPERIOR TOWNSHIP ZONING ORDINANCE  
 LANDSCAPING:  
 TRANSITION BUFFER REQUIRED WHERE OFFICE AND COMMERCIAL USES ADJUT A LOT IN A RESIDENTIAL ZONING DISTRICT  
 20 FT MIN. WIDTH TRANSITION STRIP  
 IN VILLAGE CENTER DISTRICT, THIS BUFFER CAN BE 50% OF THE WIDTH REQUIRED = 10 FT WIDE  
 BUFFER SHALL BE PROVIDED ALONG EVERY LOT LINE, EXCEPT A FRONT LOT LINE WHICH IS CONTIGUOUS TO OR ACROSS THE STREET FROM A LOT IN SUCH DISTRICT (THIS PARCEL: ALONG CHURCH STREET)

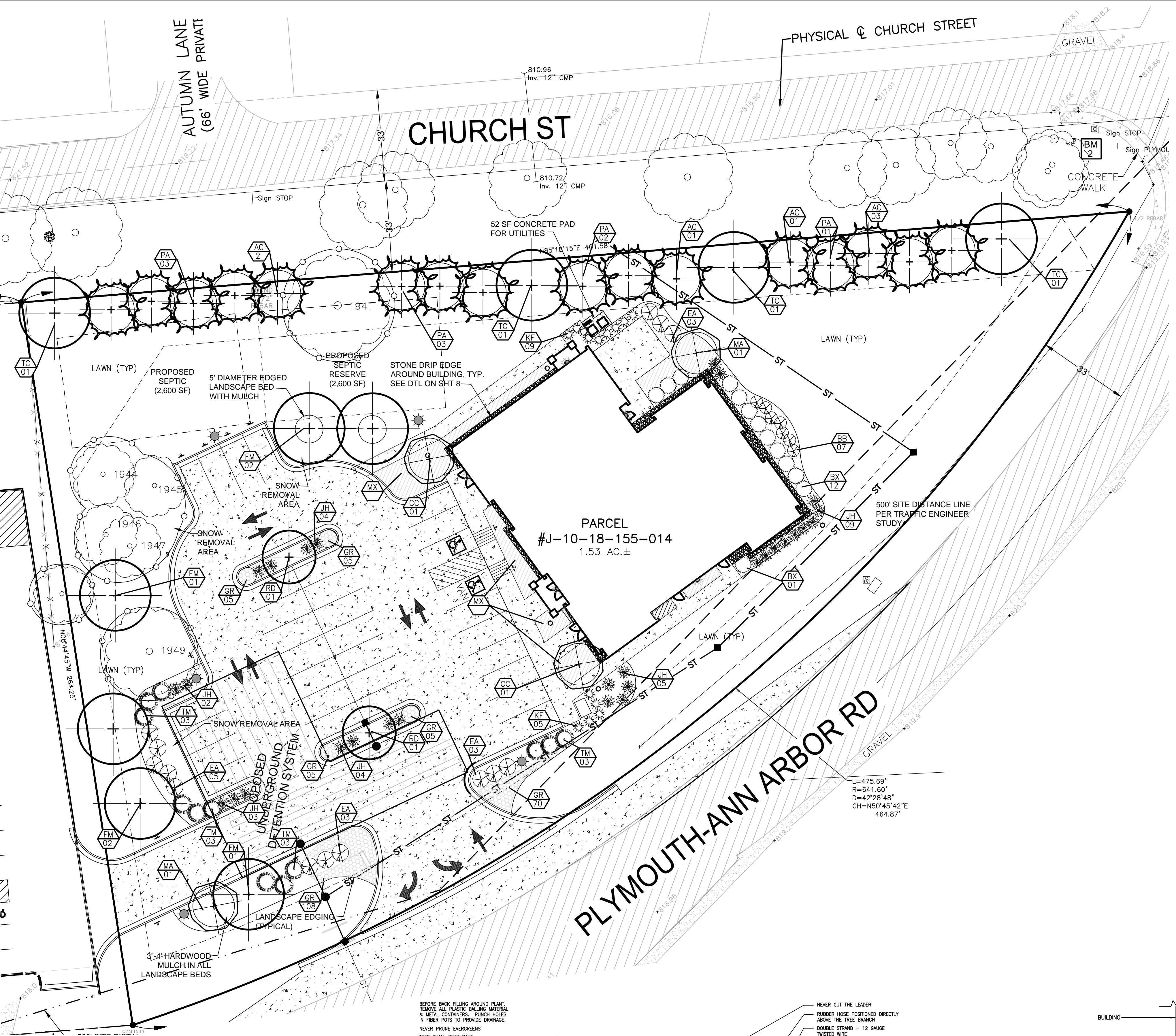
LANDSCAPING STRIP AT LEAST 20 FT WIDE SHALL BE PROVIDED ALONG AND ADJACENT TO THE FRONT PROPERTY LINE, ALONG ALL STREET FRONTS, AND SHALL EXTEND ACROSS THE ENTIRE WIDTH OF THE LOT, SUBJECT TO THE FOLLOWING:  
 - NO PARKING AREA, SIDEWALK OR SIMILAR IMPROVEMENT LOCATED IN THIS AREA  
 GREENBELTS:  
 REQUIRED WITHIN THE FRONT SETBACK AREA FOR PARKING LOTS AND AROUND NON-RESIDENTIAL PARKING LOT WITHIN 100' OF A RESIDENTIAL DISTRICT:  
 - WIDTH: 15' WIDE IN FRONT YARD SETBACK, AND NOT LESS THAN 10' ELSEWHERE  
 - ONE TREE PER 20' OF STREET FRONTAGE: 265 LF/20 = 14 TREES REQUIRED, 19 PROVIDED  
 - 1/2 OF THE TREES SHALL BE EVERGREENS  
 - ONE SHRUB 24" HIGH (MIN) PER 10' OF STREET FRONTAGE: 265 LF/10 = 27 SHRUBS REQUIRED, 28 SHRUBS PROVIDED AROUND PARKING

WITHIN PARKING LOTS WHICH CONTAIN 20 OR MORE PARKING SPACES  
 15 SF PER PARKING SPACE: 32 SPACES \* 15 SF = 480 SF  
 REQUIRED AREA PER ISLAND: 180 SF WITH ONE DECIDUOUS TREE PLANTING REQUIRED  
 PROVIDED: TOTAL AREA PROVIDED WITHIN PARKING LOT 549 SF AND 2 DECIDUOUS TREES

GREENBELT PROVIDED ON NORTH PROPERTY LINE: EVERGREEN SCREENING WITH 16 PROPOSED EVERGREEN TREES AND 4 PROPOSED DECIDUOUS TREES AND 1 EXISTING ELM TREE.

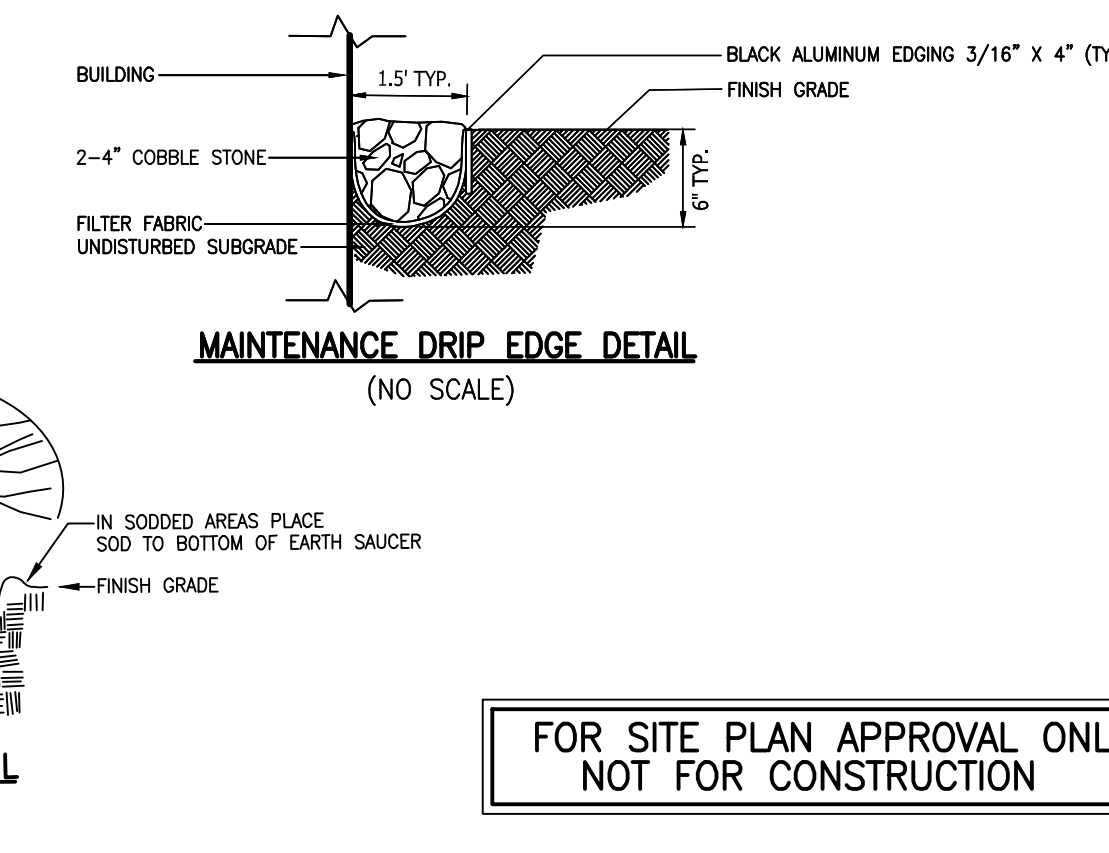
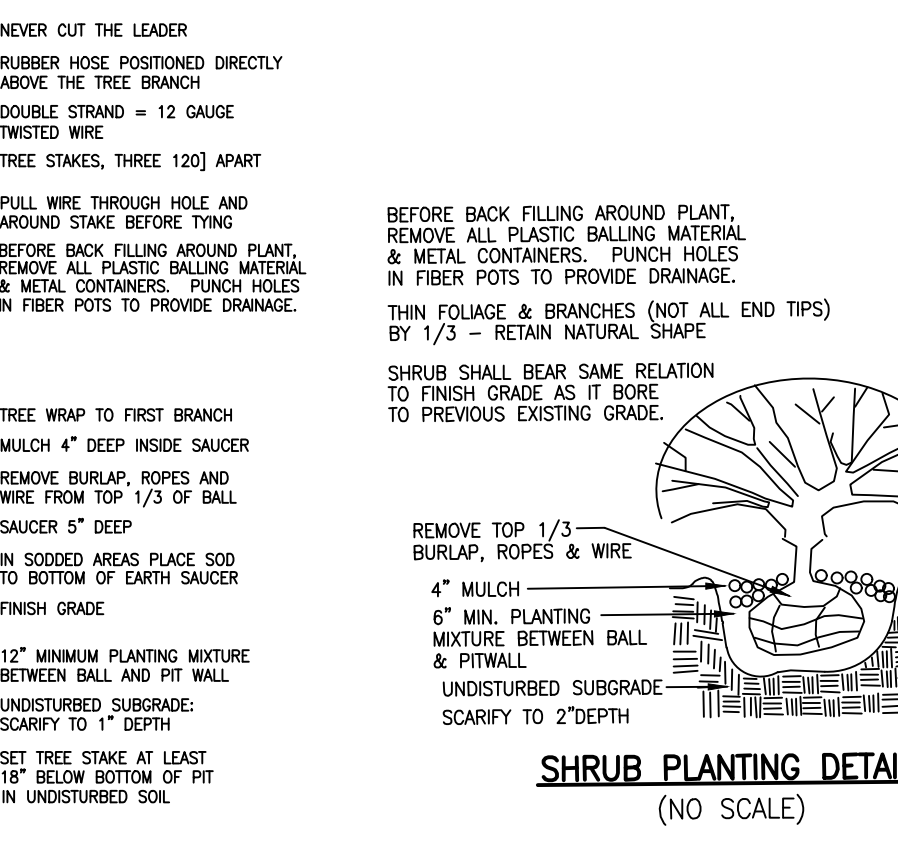
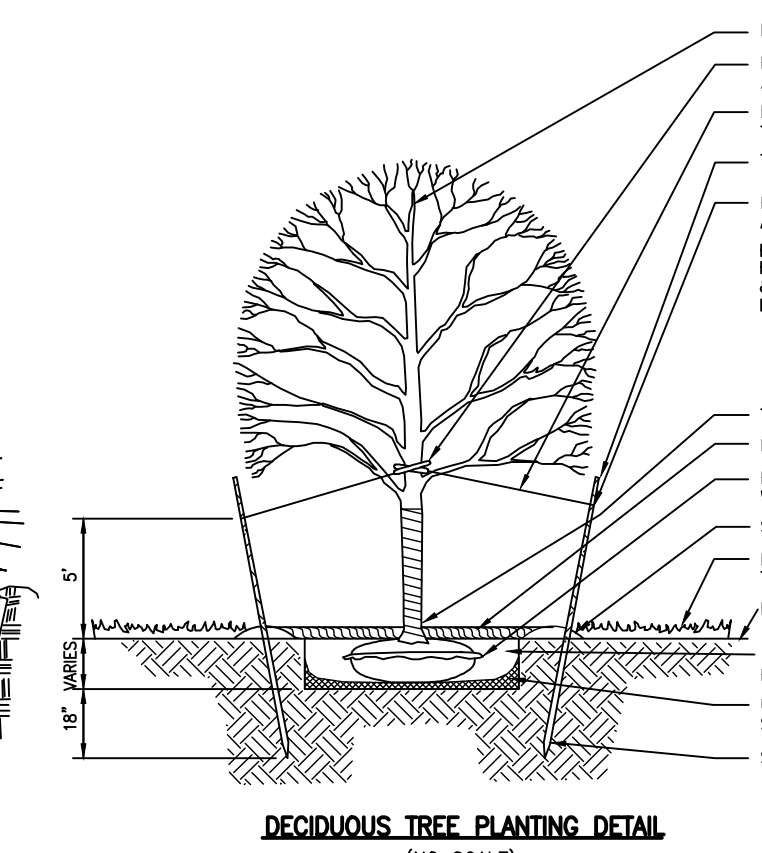
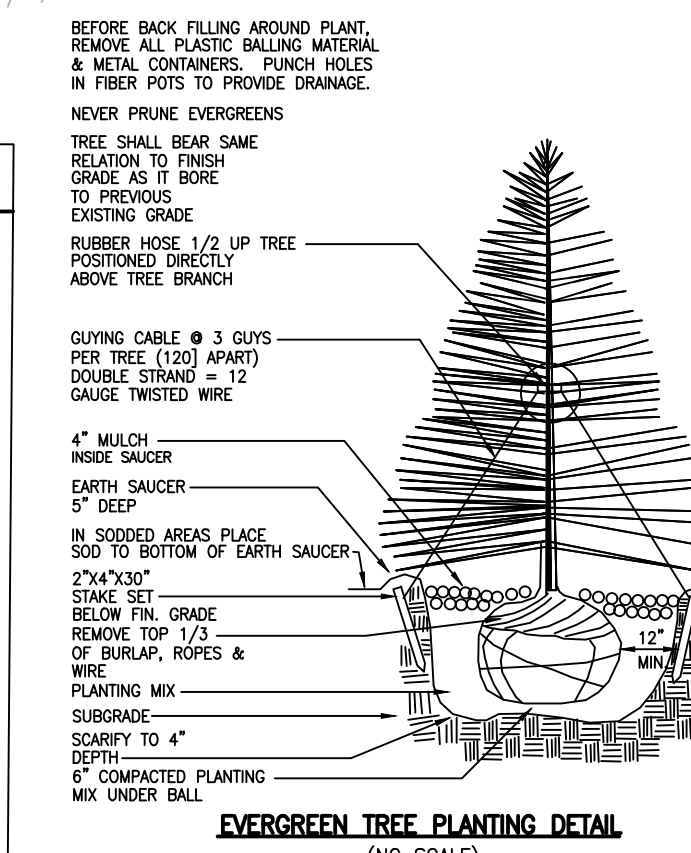
REPLACEMENT TREES REQUIRED: (4)  
 50% OF (4) REQUIRED REPLACEMENT TREES ARE SATISFIED BY SCREENING/BUFFER REQUIREMENTS ABOVE = (2) DECIDUOUS TREES OUTSIDE OF PARKING LOT; REMAINING 2 REPLACEMENT TREES PROVIDED OUTSIDE OF PARKING LOT

REPLACEMENT TREE REQUIREMENT IS SATISFIED.



**LANDSCAPE PLANT LIST**

KEY	QUAN.	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
<b>SHRUBS</b>					
BB	07	Hydrangea paniculata 'Bobo'	Bobo Panicle Hydrangea	24" ht.	Cont.
BX	13	Buxus microphylla 'Wintergem'	Wintergem Boxwood	30" ht.	Cont.
EA	14	Euonymus alatus 'Compactus'	Dwarf Burning Bush	24" ht.	Cont.
JH	29	Juniperus horizontalis	Creeeping Juniper	18" ht.	Cont.
TM	12	Toxus x media 'Denifolmis'	Dense Japanese Yew	30" ht.	Cont.
<b>DECIDUOUS AND EVERGREEN TREES</b>					
AC	06	Abies concolor	White Fir	8' ht.	B & B
CC	02	Cercis canadensis	Eastern Redbud	2.0' col.	B & B
FM	05	Acer x freemontii 'Jefferson'	Autumn Blaze Maple	2.5' col.	B & B
RD	02	Acer rubrum 'Armstrong'	'Armstrong' Red Maple	2.5' col.	B & B
MA	02	Morus x 'JFS-KW5'	Royal Raindrops Flowering Crabapple	2.0' col.	B & B
PA	09	Picea abies	Norway Spruce	8' ht.	B & B
TC	04	Tilia cordata 'Greenspire'	Greenspire Littleleaf Linden	2.5' col.	B & B
<b>PERENNIALS</b>					
KF	14	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass	1 gal.	Cont.
GR	178	Geranium 'Rozanne'	Hardy Geranium, Cranestill, planted 18" O.C.	1 gal.	Cont.
MX	660	Perennial Mix (TBD), 1,475 SF	Mix of perennials suitable to the site, planted 18" O.C. and selected by landscape contractor	1 gal.	Cont.



**FOR SITE PLAN APPROVAL ONLY!  
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**LEGEND**

PROPOSED (PR)	EXISTING (EX)	CONTOUR
FF	FF	SPOT ELEVATION
T/A	T/A	FINISHED FLOOR ELEVATION
T/W	T/W	TOP OF ASPHALT
F/L	F/L	TOP OF CURB / CONCRETE
T/P	T/P	TOP OF WALK
B/P	B/P	FLOW LINE
RM	RM	TOP OF PIPE
RV	RV	BOTTOM OF PIPE
MH	MH	RIM ELEVATION
IN	IN	INVERT ELEVATION
CS	CS	MANHOLE STRUCTURE
RY	RY	INLET STRUCTURE
ES	ES	CATCH-BASIN STRUCTURE
GV	GV	REAR-YARD STRUCTURE
HY	HY	END-SECTION
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SN	SN	UTILITY POLE
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WL	WL	STORM SEWER
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OH	OH	WATER LEAD
C	C	FIBER OPTIC
E	E	OVERHEAD WIRE
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X	X	ELECTRIC
		GAS
		TELEPHONE
		FENCE
		SILT FENCE
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		HYDRANT
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		WATER MAIN LABEL
		SOIL EROSION CONTROL MEASURE (P=PERMANENT, T=TEMPORARY)
		CONCRETE
		ASPHALT
		MODIFIED CURB

**LANDSCAPE LEGEND**

EXISTING DECIDUOUS TREE	PROPOSED DECIDUOUS TREE
PROPOSED CONIFER TREE	PROPOSED ORNAMENTAL TREE
PROPOSED CONIFER SHRUB	PROPOSED DECIDUOUS SHRUB
PROPOSED PERENNIAL GRASS	PROPOSED LOW EVERGREEN SHRUB
PROPOSED LOW DECIDUOUS SHRUB	PROPOSED TREE PROTECTION
PROPOSED PERENNIAL MIX	PROPOSED STONE DRIP EDGE (SEE DTL FOR INSTALLATION)
PROPOSED GERANIUM 'ROZANNE' GROUNDCOVER	

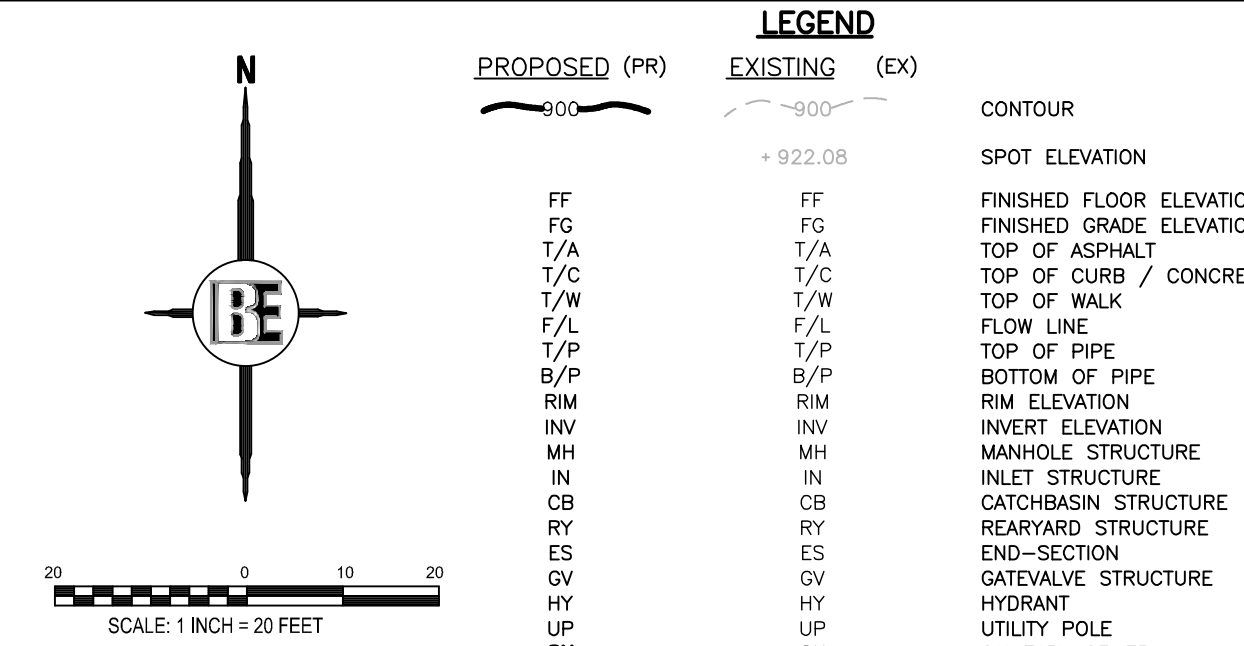
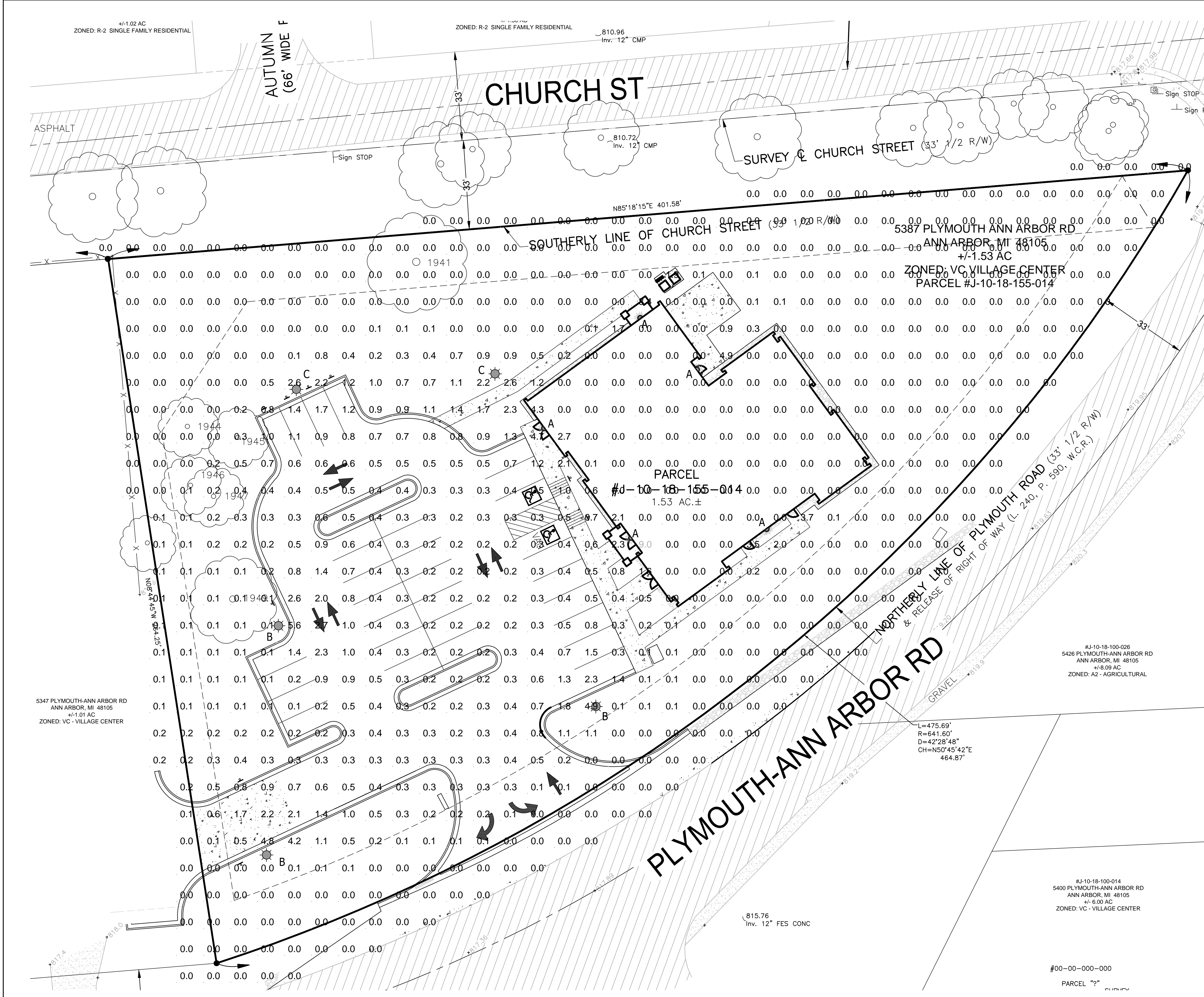
**BEBOSS Engineering**  
 Engineers Surveyors Planners Landscape Architects  
 3121 E. GRAND RIVER AVE.  
 HOWELL, MI. 48843  
 517.546.4836 FAX 517.548.1670

**PROJECT:** DENTAL OFFICE & MIXED USE  
**PREPARED FOR:** CASSINO BUILDING AND DEVELOPMENT  
 47723 VAN DYKE AVE  
 STERLING HEIGHTS, MI 48314  
 586-332-4602

**TITLE:** LANDSCAPE PLAN

NO.	BY	DATE	REVISION PER
1	JA		
2	JA		
3	JA		
4	JA		
5	JA		
6	JA		
7	JA		
8	JA		

DESIGNED BY: JA  
 DRAWN BY: JA  
 CHECKED BY:  
 SCALE: 1" = 20'  
 JOB NO: 22-097  
 DATE: 2/22/2023  
 SHEET NO. 8



**LEGEND**

PROPOSED (PR)	EXISTING (EX)	CONTOUR
FF	FF	SPOT ELEVATION
FG	FG	FINISHED GRADE ELEVATION
T/A	T/A	TOP OF ASPHALT
T/C	T/C	TOP OF CURB / CONCRETE
T/W	T/W	TOP OF WALK
F/L	F/L	FLOW LINE
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G	G	GAS
T	T	TELEPHONE
X	X	FENCE
D	D	SILT FENCE
W	W	WETLAND BOUNDARY
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G	G	GATE VALVE
H	H	HYDRANT
U	U	UTILITY POLE
S	S	SIGN
N	N	NOT FIELD VERIFIED
R	R	TO BE REMOVED
SS	SS	SANITARY SEWER LABEL
SSS	SSS	STORM SEWER LABEL
WM	WM	WATER MAIN LABEL
SE	SE	SOIL EROSION CONTROL MEASURE (P=PERMANENT, T=TEMPORARY)
CON	CON	CONCRETE
ASP	ASP	ASPHALT
M	M	MODIFIED CURB
S	S	SINGLE FIXTURE LIGHT FIXTURE
W	W	WALL MOUNTED LIGHT FIXTURE
F	F	FOOT CANDLES

**SITE LIGHTING REQUIREMENTS FOR SUPERIOR TOWNSHIP**

PARKING LOTS - FIXTURES 20 FEET IN HEIGHT ABOVE GRADE MAX, 15 FEET WHEN CLOSER THAN 50 FEET TO A PROPERTY LINE.

DECORATIVE EXTERIOR FIXTURES LIMITED TO LAMPS WITH MAX WATTAGE OF 100 WATTS PER FIXTURE

MAX INTENSITY OF LIGHT WITHIN ANY SITE SHALL NOT EXCEED:  
 AT ANY POINT WITHIN THE SITE - 10.0 FC  
 AT ANY LOT BOUNDARY OR ROAD RIGHT-OF-WAY LINE - 0.2 FC AT 5 FEET ABOVE GRADE

ARCHITECTURAL LIGHTING ON BUILDING FACADES SHALL BE LIMITED TO FULLY SHIELDED FIXTURES DIRECTED TOWARD THE FACADE AND CONCENTRATED ON THE WALL SURFACE.

**GENERAL LIGHTING NOTES**

1. THE LIGHTING PATTERN REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS.

**SITE LIGHTING SUMMARY**

AVERAGE LIGHTING LEVEL: 0.3 FC  
 MAXIMUM LIGHT LEVEL: 9.0 FC  
 MINIMUM LIGHT LEVEL: 0.0 FC

SYMBOL	LABEL	QTY	DESCRIPTION	CATALOG NUMBER	LAMP	LUMENS	LF	BASE HGT	POLE HGT	TOTAL HGT
	A	05	LITHONIA LIGHTING WSQ LED WITH P1-PERFORMANCE PACKAGE, 3000K, AND SR2 OPTIC TYPE	WSQ LED P1 SR2 30K MVOLT	LED	ABSOLUTE	.93	N/A	10' WALL MOUNTED	10.0'
	B	03	LITHONIA LIGHTING EML17XT GCF LED, 1 MODULE, ONE 74-WATT LED, 63 LED'S 350mA 4000K, TYPE 2, DOWNLIGHT POS. OPTIC	EML17 GCF XT 63LED 350 mA 40K R2	LED	ABSOLUTE	.93	2.5'	12.5'	15.0'
	C	02	LITHONIA LIGHTING EML17XT GCF LED, 1 MODULE, ONE 74-WATT LED, 63 LED'S 350mA 4000K, TYPE 2, DOWNLIGHT POS. OPTIC	EML17 GCF XT 63LED 350 mA 40K R2	LED	ABSOLUTE	.93	2.5'	17.5'	20.0'

ALL IES FILES PROVIDED BY MANUFACTURER FOR CALCULATION OF LIGHTING LEVEL

**EAJ Series**  
Eurotique Family Wall Bracket

**Specifications**  
EPA: 2.76W

EAJ: Fits on 3.375" dia. X 11" tall bracket  
 EAJ-S: Fits on 4.375" dia. X 11" tall bracket  
 EAJ-M: Luminaire mounts via plug/socket housing  
 EAJ-S: Luminaire mounts via 1.5" NPT swivel nipple

**EML17**  
Munich Pendant Eurotique Family

**Specifications**  
EPA: 2.76W  
Height: 17"  
Diameter: 17"  
Weight: 60 lbs

**WSQ LED**  
Architectural Wall Sconce

**Specifications Luminaire**  
Height: 9.59"  
Width: 18"  
Depth: 4"  
Weight: 17 lbs

**Optional Back Box (BBW)**  
Height: 4"  
Width: 5.12"  
Depth: 3.125"  
Weight: 1.2 lbs



SIMILAR PARKING LOT LIGHTING IN NEIGHBORHOOD AT 5263 PLYMOUTH ANN ARBOR ROAD

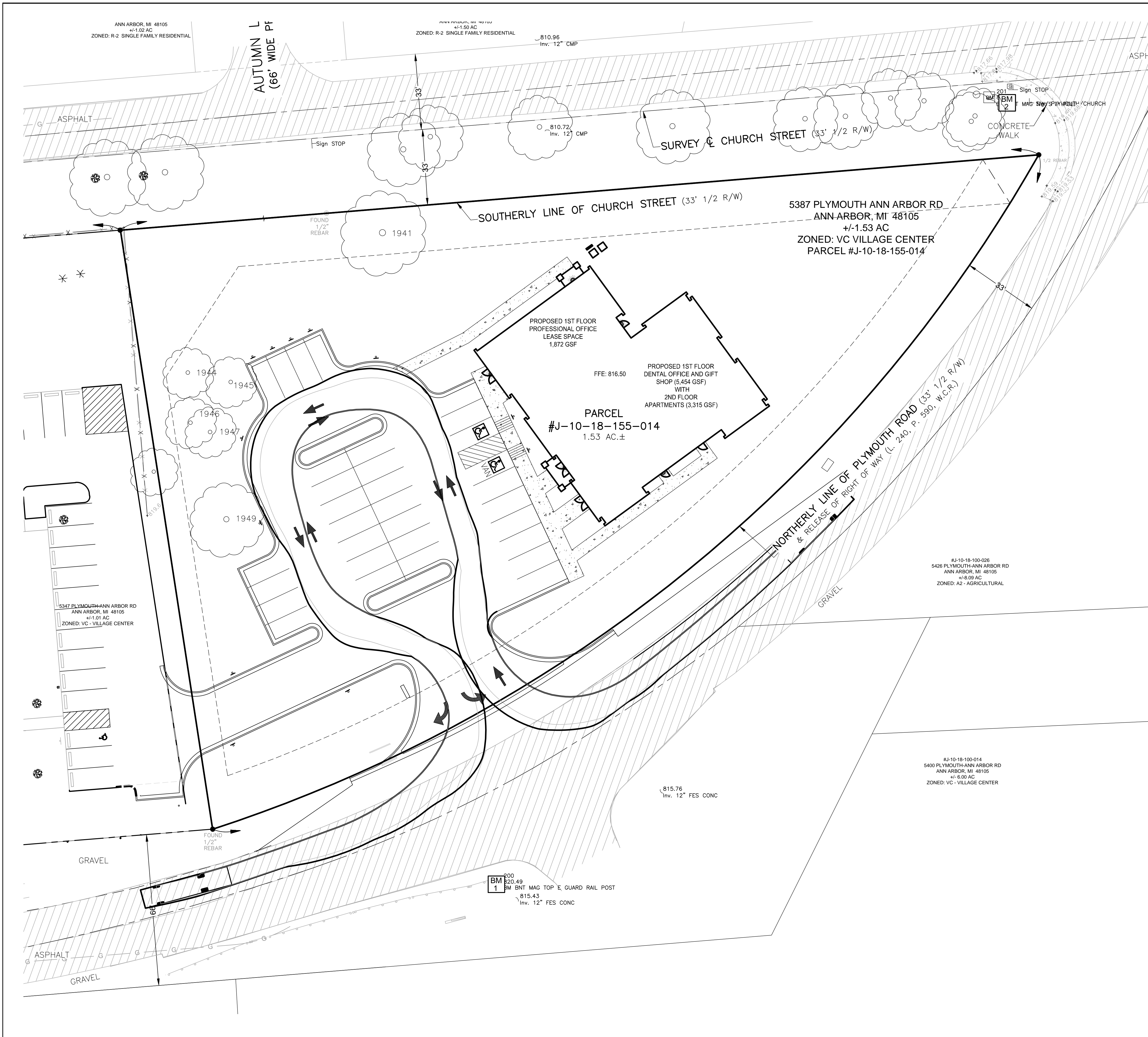
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Engineers Surveyors Planners Landscape Architects  
3121 E. GRAND RIVER AVE.  
HOWELL, MI. 48843  
517.546.4836 FAX 517.548.1670

**DENTAL OFFICE & MIXED USE**  
CASSINO BUILDING AND DEVELOPMENT  
47233 VAN DYKE AVE  
STERLING HEIGHTS, MI 48314  
586-332-462

**LIGHTING PLAN**

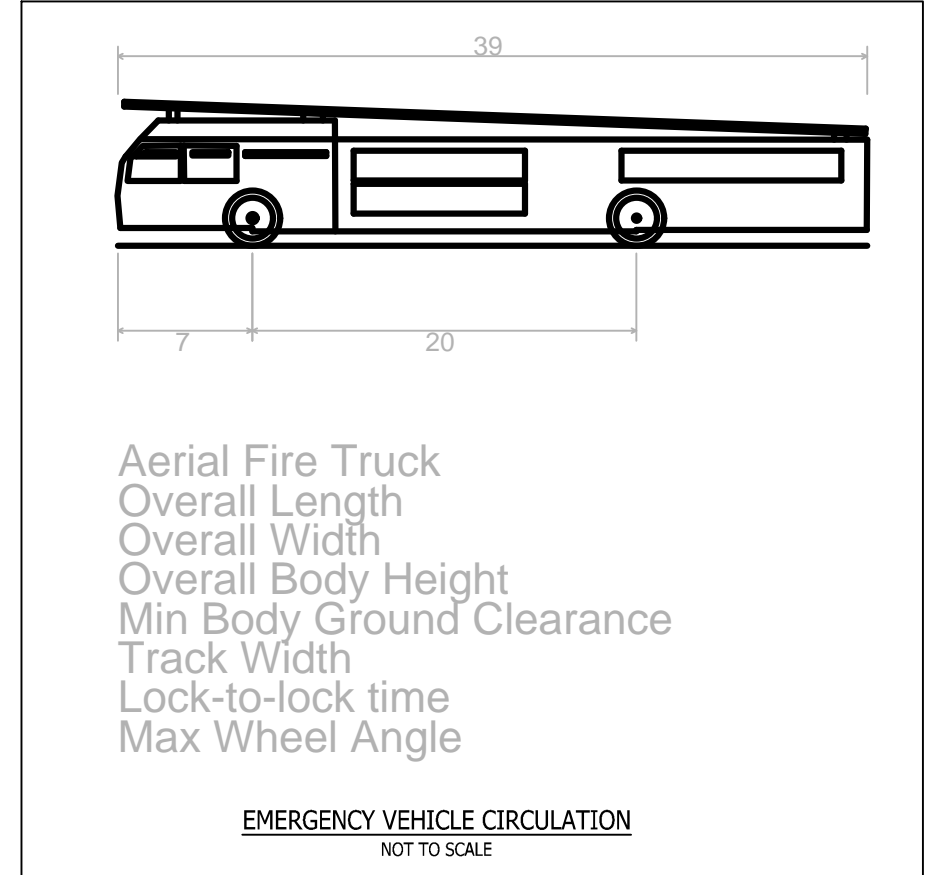
DESIGNED BY: JA  
 DRAWN BY: JA  
 CHECKED BY:  
 SCALE: 1" = 20'  
 JOB NO: 22-097  
 DATE: 2/22/2023  
 SHEET NO. 9

FOR SITE PLAN APPROVAL ONLY!  
NOT FOR CONSTRUCTION



**LEGEND**

PROPOSED (PR)	EXISTING (EX)	CONTOUR
FF	FF	SPOT ELEVATION
FG	FG	FINISHED FLOOR ELEVATION
T/A	T/A	FINISHED GRADE ELEVATION
T/W	T/W	TOP OF ASPHALT
F/L	F/L	TOP OF CURB / CONCRETE
T/P	T/P	TOP OF WALK
B/P	B/P	TOP OF PIPE
RM	RM	BOTTOM OF PIPE
INV	INV	RIM ELEVATION
MH	MH	INVERT ELEVATION
IN	IN	MANHOLE STRUCTURE
CB	CB	CATCHBASIN STRUCTURE
RY	RY	REAR-YARD STRUCTURE
ES	ES	END-SECTION
OV	OV	GATEVALVE STRUCTURE
HY	HY	HYDRANT
UP	UP	UTILITY POLE
SN	SN	SANITARY SEWER
SL	SL	SANITARY LEAD
FM	FM	FORCE MAIN
PS	PS	PRESSURE SEWER
ST	ST	STORM SEWER
WM	WM	WATER MAIN
WL	WL	WATER LEAD
FO	FO	FIBER OPTIC
OH	OH	OVERHEAD WIRE
C	C	CABLE
E	E	ELECTRIC
G	G	GAS
T	T	TELEPHONE
X	X	FENCE
L	L	SILT FENCE
D	D	WETLAND BOUNDARY
---	---	LIMITS OF GRADING/CLEARING
○	○	MANHOLE
□	□	INLET / CATCHBASIN
○	○	FLARED END-SECTION
○	○	GATE VALVE
○	○	HYDRANT
○	○	UTILITY POLE
○	○	SIGN
○	○	NOT FIELD VERIFIED
○	○	TO BE REMOVED
○	○	SANITARY SEWER LABEL
○	○	STORM SEWER LABEL
○	○	WATER MAIN LABEL
○	○	SOIL EROSION CONTROL MEASURE
○	○	(P=PERMANENT, T=TEMPORARY)
○	○	CONCRETE
○	○	ASPHALT
○	○	MODIFIED CURB
○	○	LIMITS OF GRADING



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**PROJECT:** DENTAL OFFICE & MIXED USE  
**PREPARED FOR:** CASSINO BUILDING AND DEVELOPMENT  
4723 VAN DYKE AVE  
STERLING HEIGHTS, MI 48314  
586-332-462

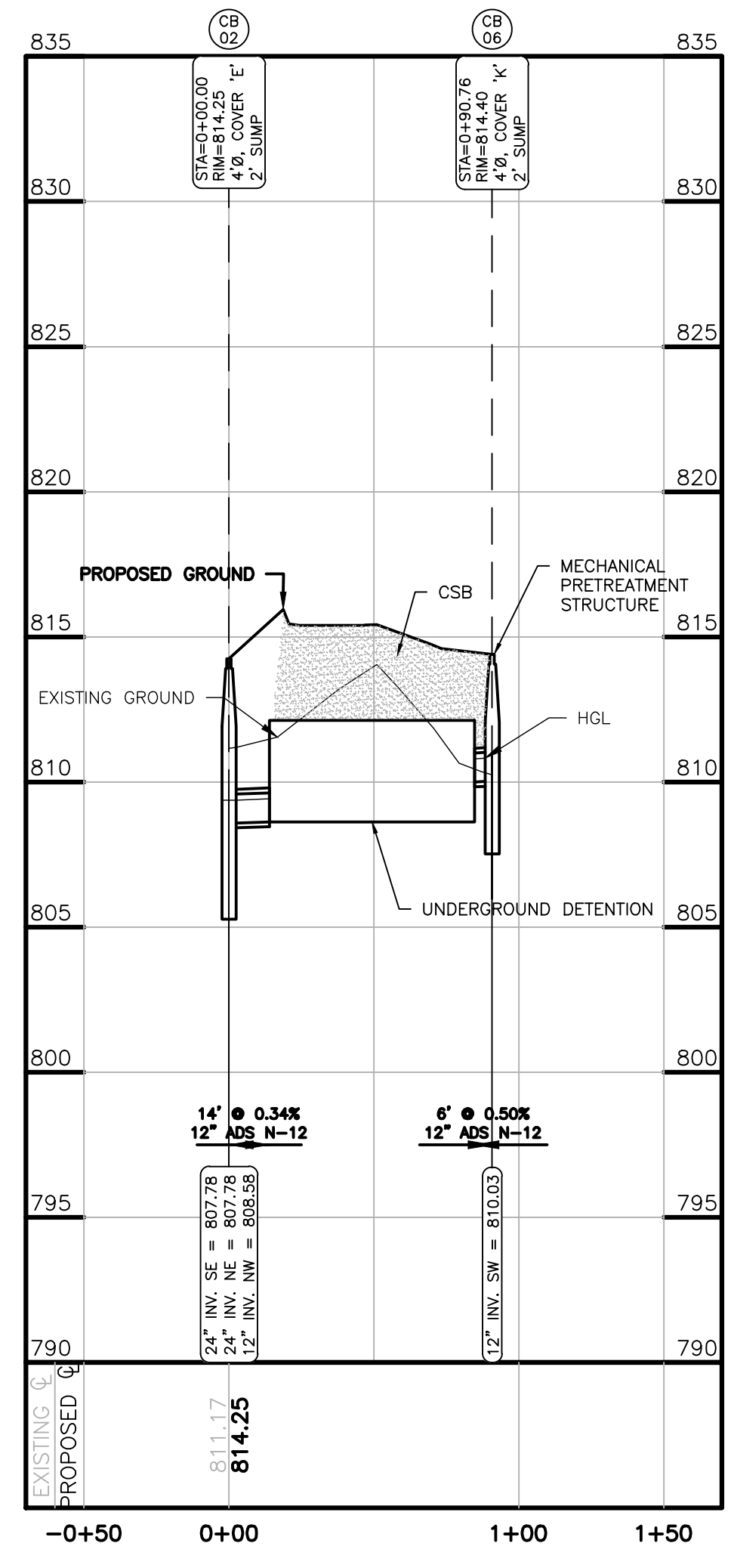
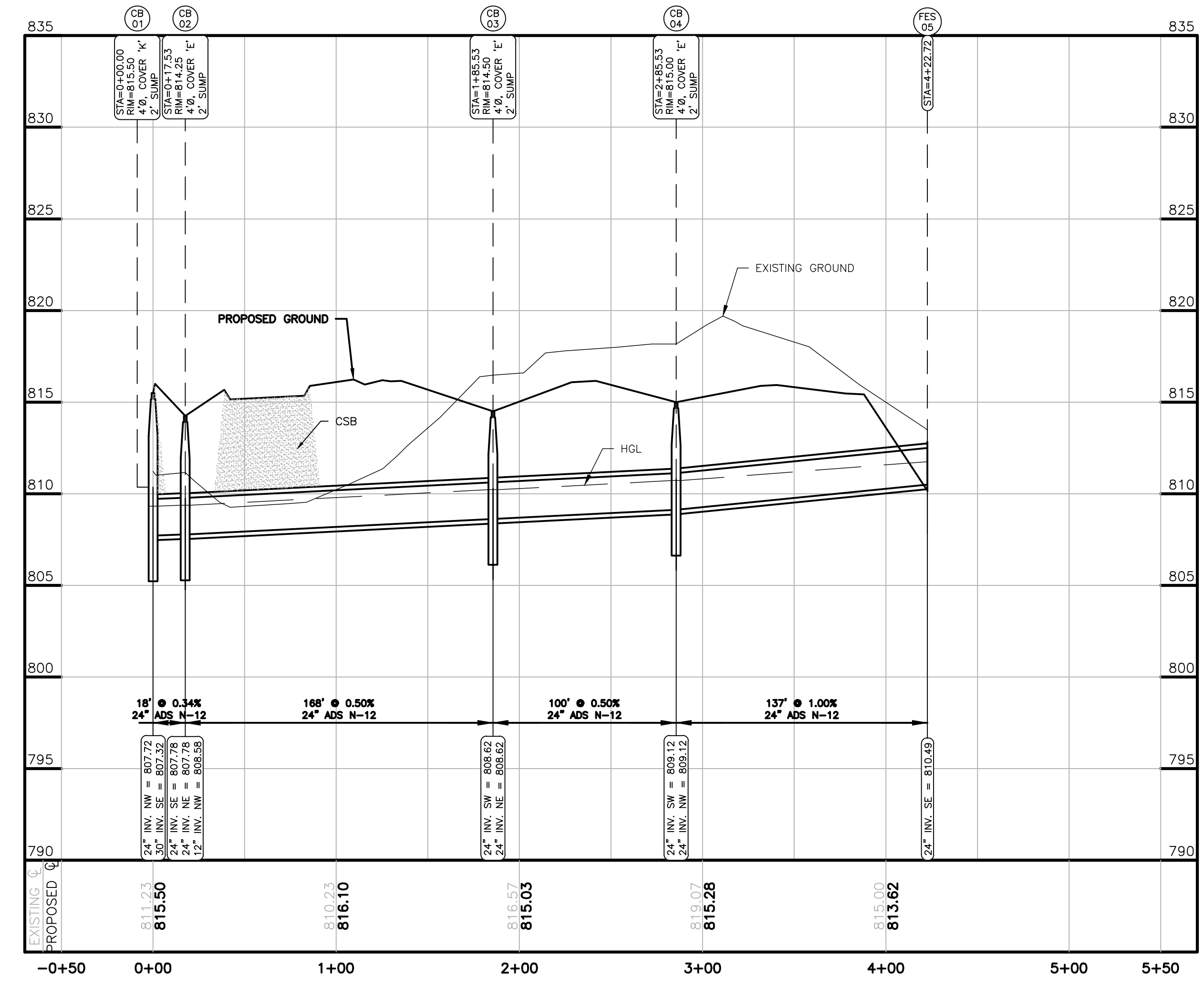
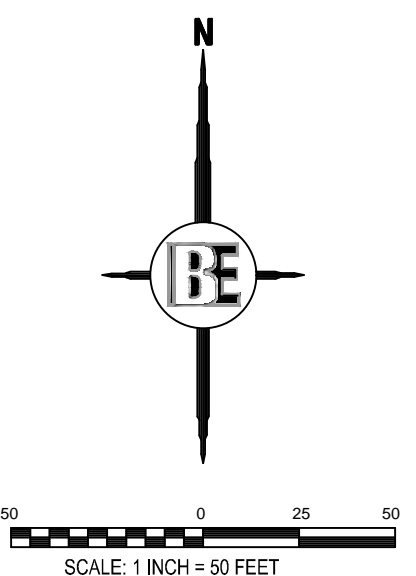
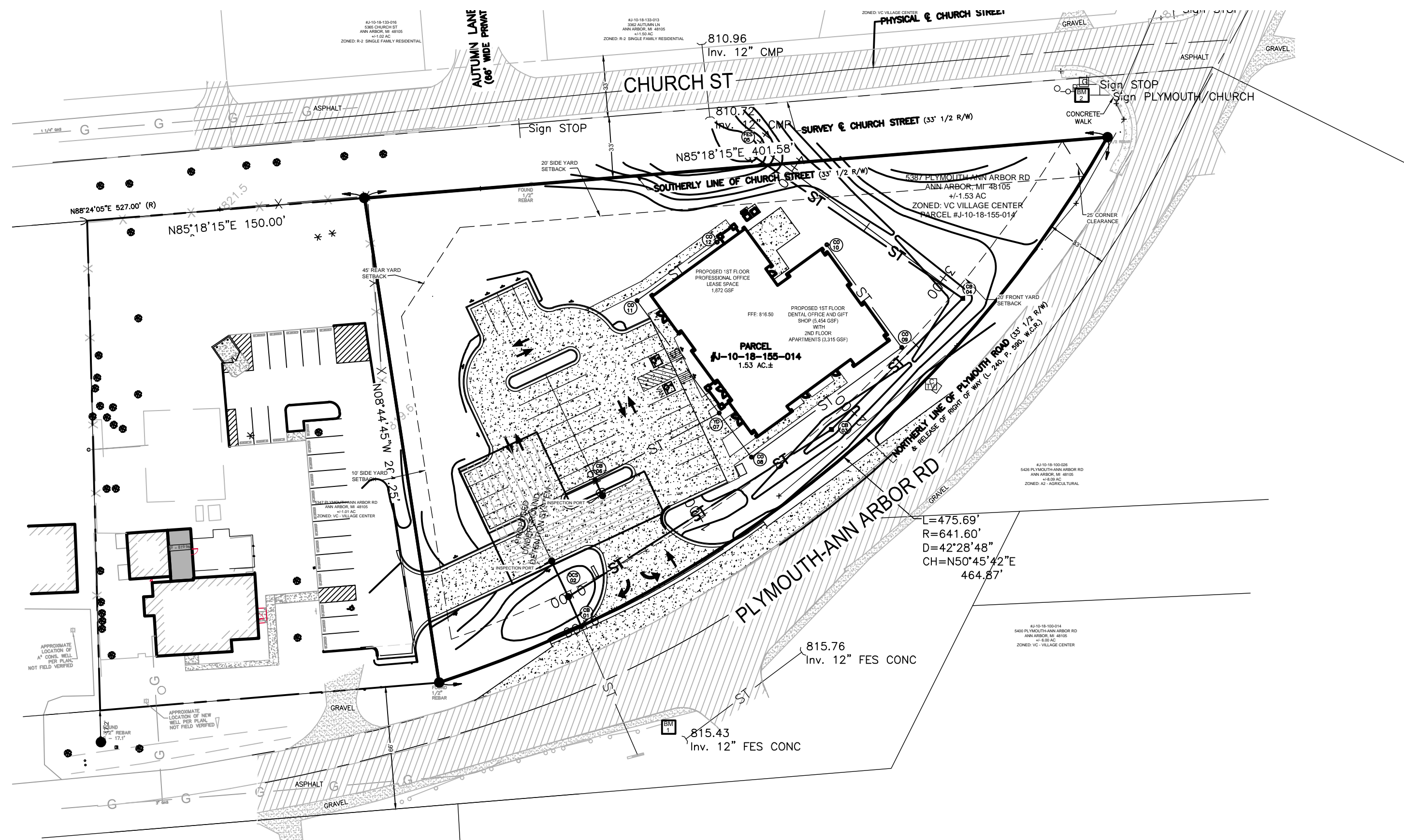
**TITLE:** CIRCULATION PLAN

NO	BY	REVISION PER	DATE

DESIGNED BY: JA  
DRAWN BY: JA  
CHECKED BY: BL  
SCALE: 1" = 20'  
JOB NO: 22-097  
DATE: 02/22/2023  
SHEET NO. 10

**FOR SITE PLAN APPROVAL ONLY!  
NOT FOR CONSTRUCTION**



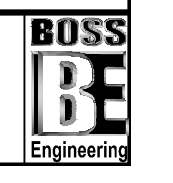


THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO LIABILITY SHALL BE ASSUMED BY THE CONTRACTOR FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED HEREON. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND DEPTH OF ALL UTILITIES CROSSING IN THE FIELD PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF UTILITIES SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF UTILITIES SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF UTILITIES SHOWN ON THESE DRAWINGS.

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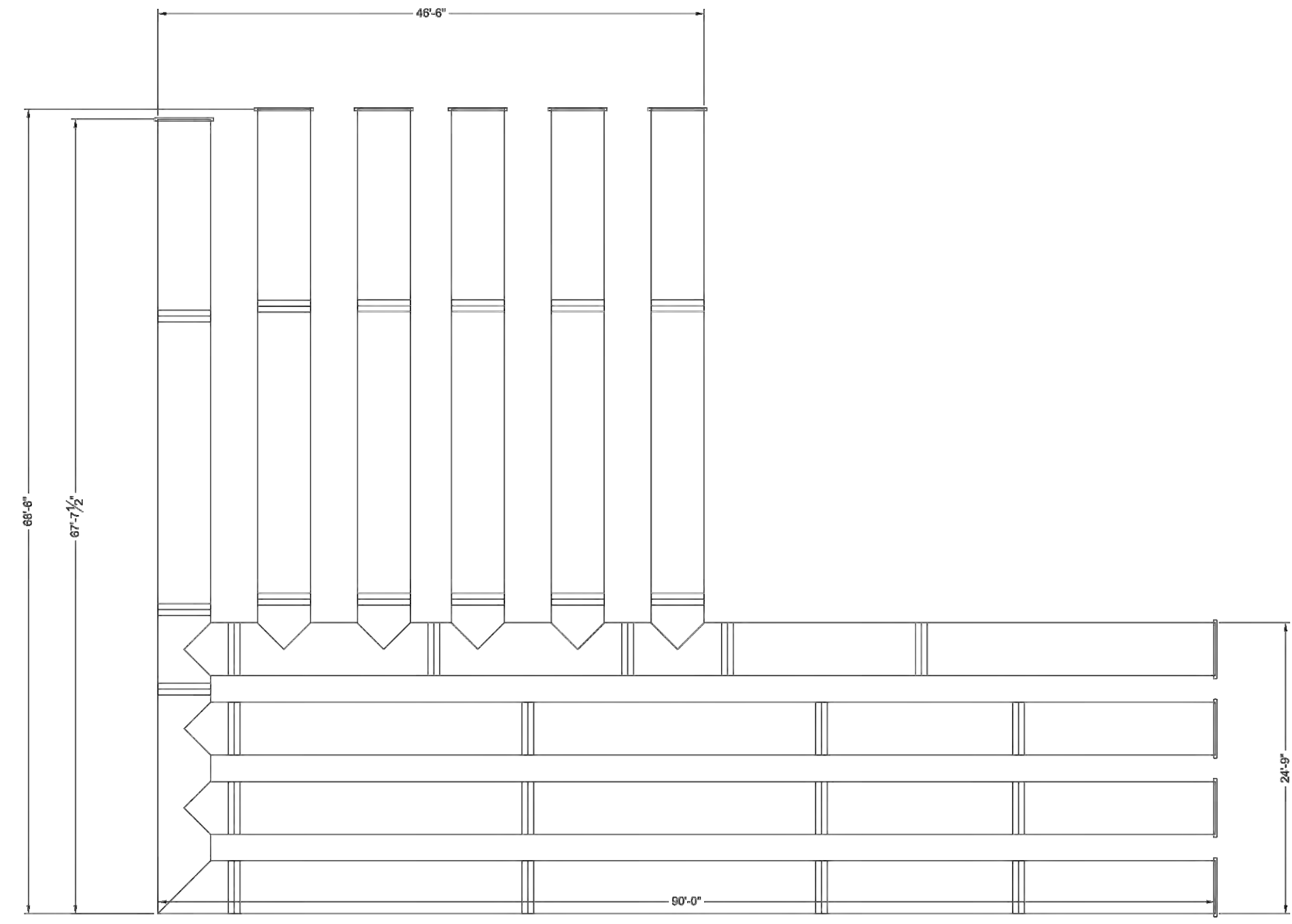
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PROJECT	DENTAL OFFICE & MIXED USE
PREPARED FOR	CASSINO BUILDING AND DEVELOPMENT 42723 VAN DYKE AVE STERLING HEIGHTS, MI 48314 586-332-462
TITLE	STORM PROFILE
DESIGNED BY:	ST
DRAWN BY:	MJD
CHECKED BY:	
SCALE:	1" = 50'
JOB NO:	22-097
DATE:	02/22/2023
SHEET NO.	11



**PROJECT SUMMARY**

- CALCULATION DETAILS**
- LOADING = H20/S16S
  - APPROX. LINEAR FOOTAGE = 629 LF
- STORAGE SUMMARY**
- STORAGE VOLUME REQUIRED = 12,867 CF
  - PIPE STORAGE VOLUME = 10,022 CF
  - BACKFILL STORAGE VOLUME = 3,826 CF
  - TOTAL STORAGE PROVIDED = 13,628 CF
- PIPE DETAILS**
- DIAMETER = 54"
  - CORROSION = S1
  - GAGE = 16
  - COATING = ALT2
  - WALL TYPE = RIFORMATED
  - BARREL SPACING = 2"
- BACKFILL DETAILS**
- WIDTH AT SIDES = 24"
  - ABOVE PIPE = 0"
  - WIDTH AT SIDES = 24"
  - BELOW PIPE = 0"



- NOTES**
- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO BEGINNING FABRICATION.
  - ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A888.
  - ALL RISERS AND STUBS ARE 2 1/2" x 1/2" CORRUGATION AND 18 GAGE UNLESS OTHERWISE NOTED.
  - RISERS TO BE FIELD TRIMMED TO GRADE.
  - QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAIL PROVIDES NOMINAL INLET RISING CURB OR STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
  - HAND TYPE TO BE DETERMINED UPON FINAL DESIGN.
  - THE PROJECT SUMMARY IS REFLECTIVE OF THE DYEING DESIGN. QUANTITIES ARE APPROX. AND SHOULD BE VERIFIED UPON FINAL DESIGN AND APPROVAL. FOR EXAMPLE, TOTAL EXCAVATION DOES NOT CONSIDER ALL VARIABLES SUCH AS SHORING AND ONLY ACCOUNTS FOR MATERIAL WITHIN THE ESTIMATED EXCAVATION FOOTPRINT.
  - THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.

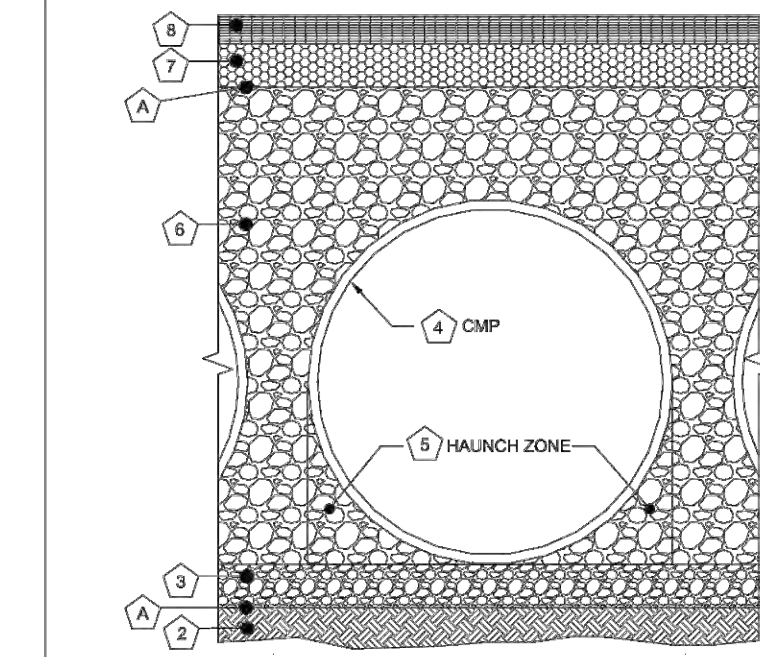
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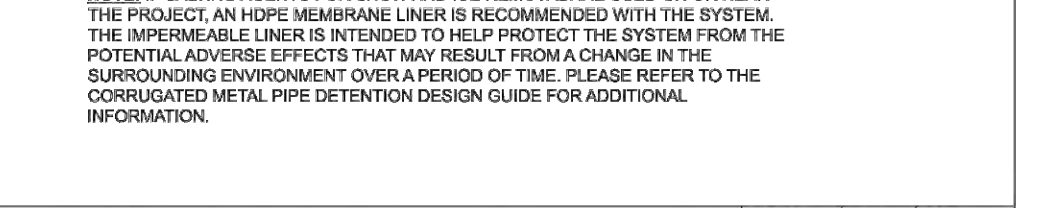
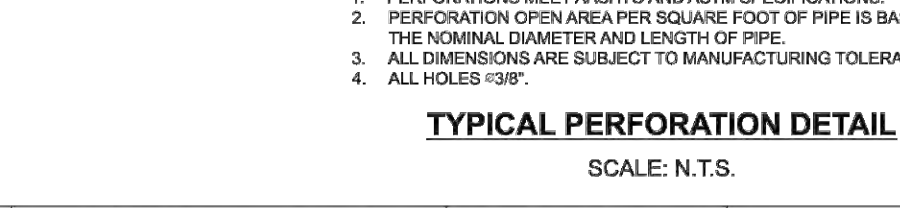
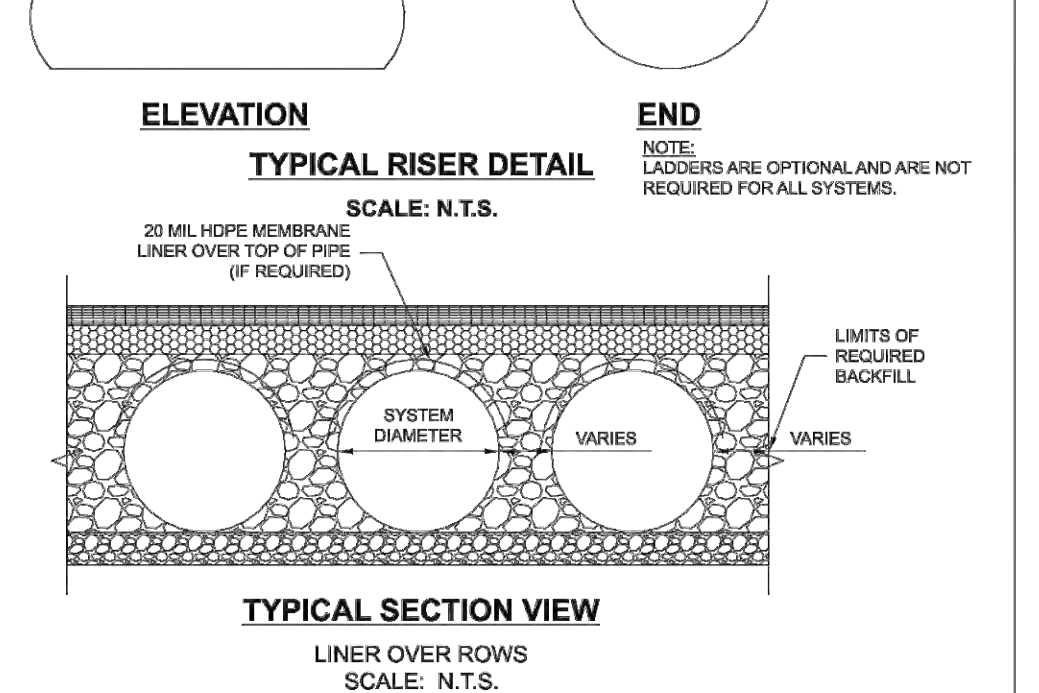
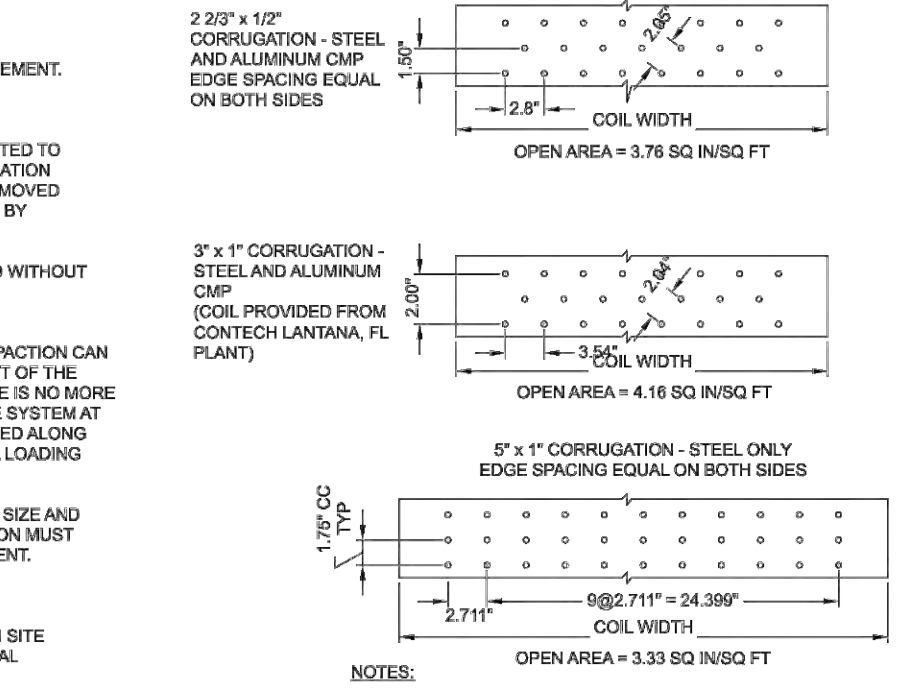
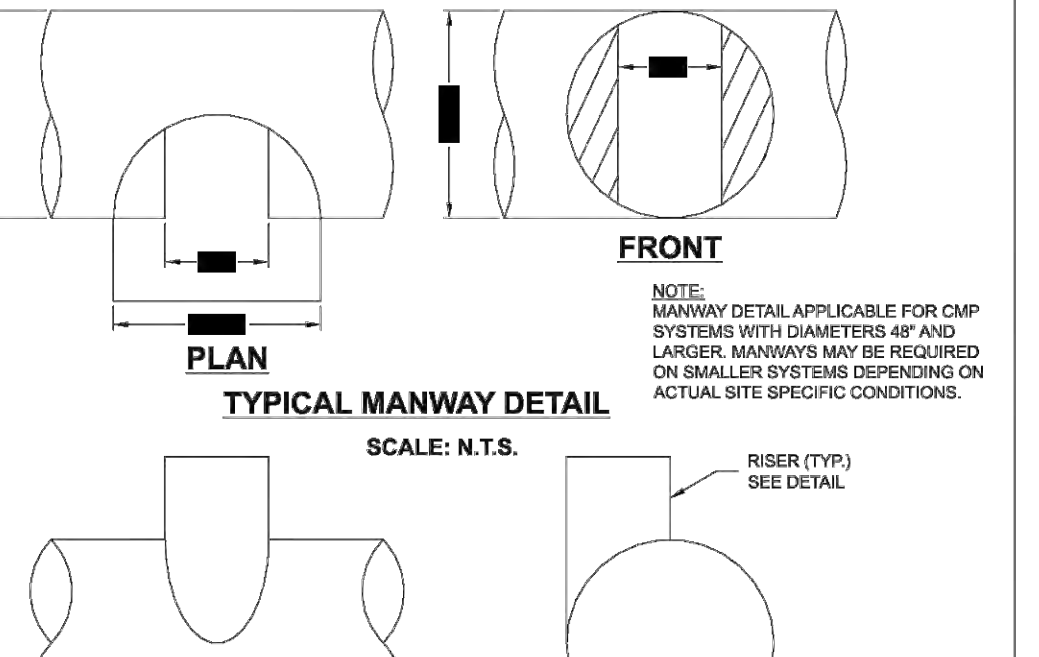
**CONTECH DYEING**  
 DRAWING

DYO27543 Dental Office and Mixed Use  
 Underground Detention  
 Ann Arbor, MI  
 DETENTION SYSTEM

PROJECT NO.	DESIGN NO.	DATE
1807	0343	03/20/2023
DESIGNED BY	DRAWN BY	DATE
DYD	DYD	DYD
CHECKED BY	APPROVED BY	
DYD	DYD	
DATE	REVISION DESCRIPTION	BY



Material Location	Description	Material Designation	Designation
Riser or Flexible Pavement (if applicable)			
Concave Layer	Non-Woven Geotextile	CONTECH C-40 or C-42	Engineer Decision for consideration to prevent soil infiltration into varying soil types. Wrap the trench only, however shall extend into the pipe trench by 12 inches.
Bedding	Infiltration pipe system with a pipe perforation rate of 10% or greater, free draining stone, with a particle size of 3/4" to 1 1/2" diameter is recommended.	ASHTO #57 or AASHTO #43 or #34	ASHTO #57 or AASHTO #43 or #34
Bedding Stone	Well graded granular bedding material maximum particle size of 3/4"	ASHTO #57-1, 5.57, 1.467, 5. 56, 57	ASHTO #57-1, 5.57, 1.467, 5. 56, 57
Geotextile Layer	None	None	Control shall not recommend geotextiles be placed under the level of infiltration systems due to the propensity for geotextiles to clog over time.



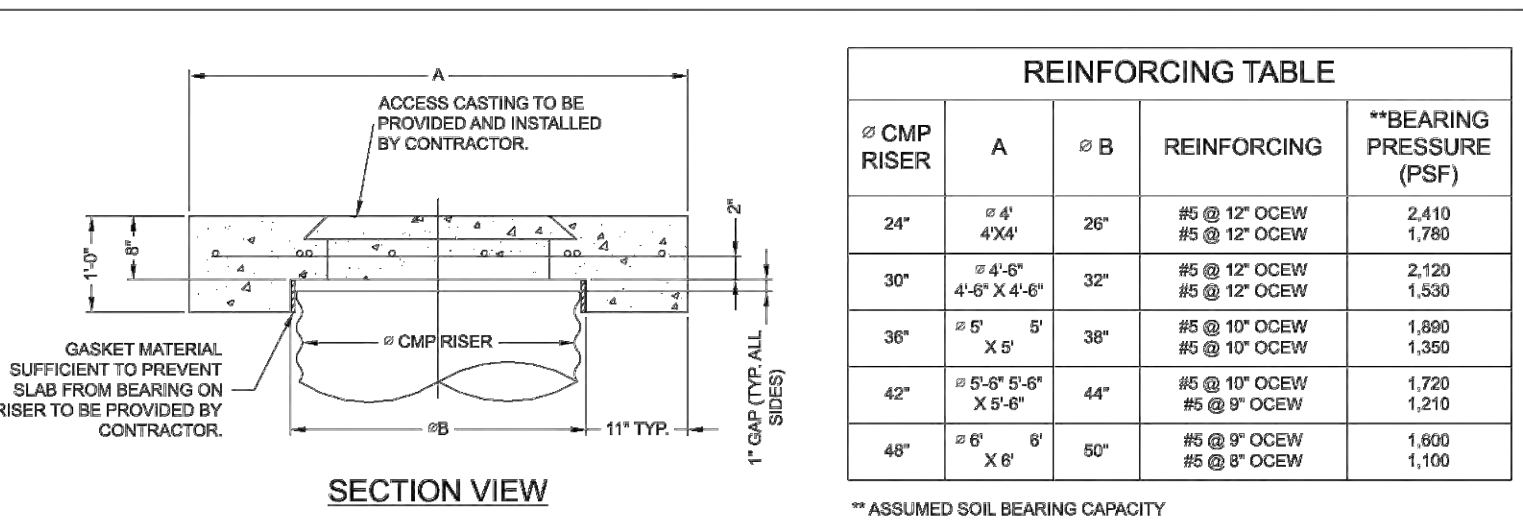
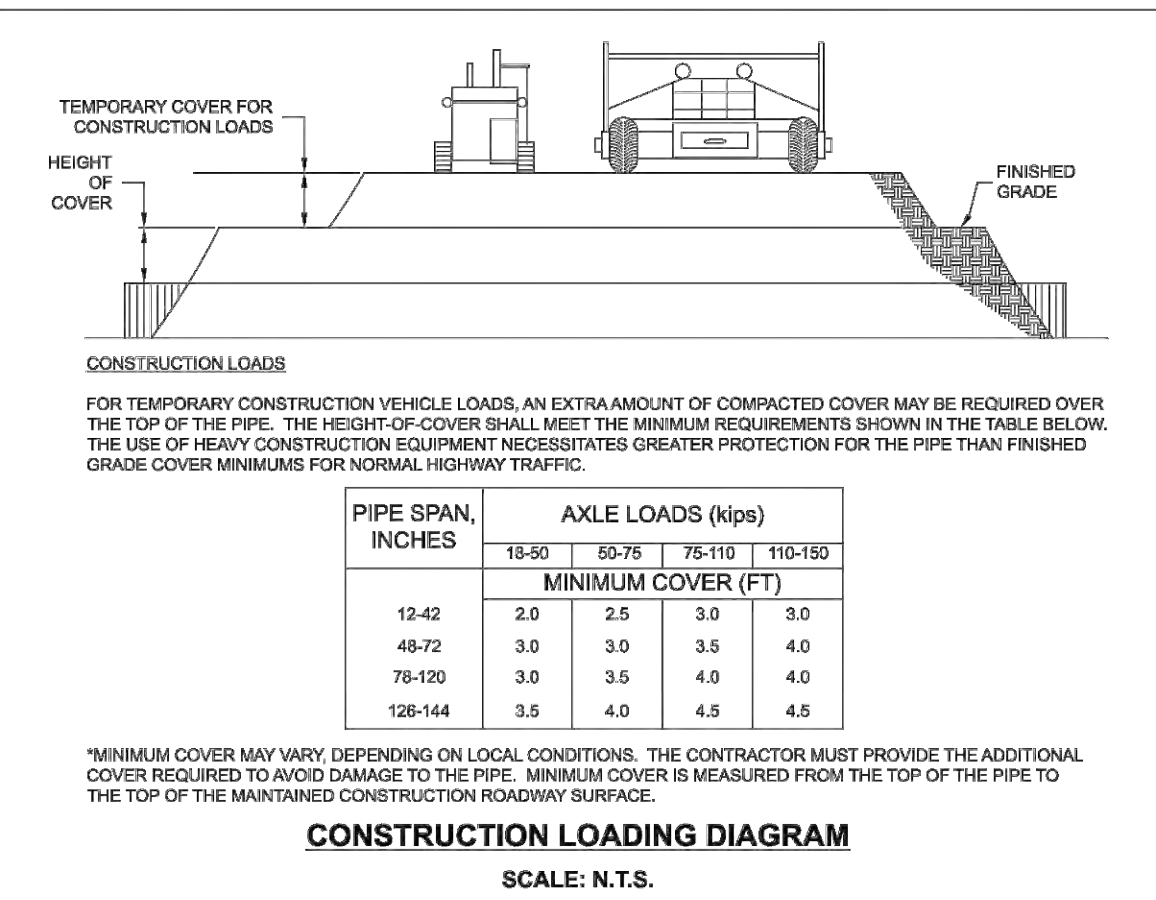
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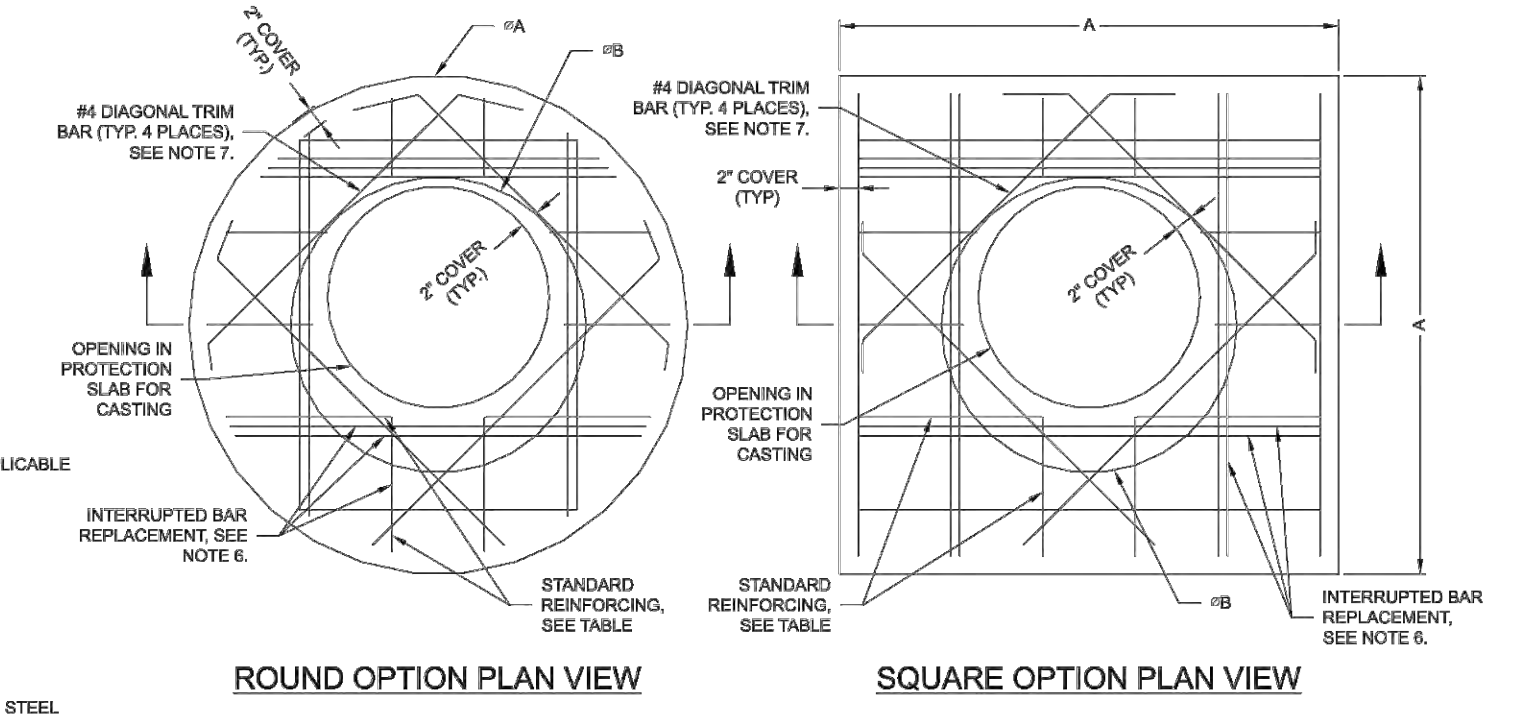
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# CMP RISER	A	B	REINFORCING	*BEARING PRESSURE (PSF)
24"	48"	20"	#5 @ 12" OCEW #5 @ 12" OCEW	2,410 1,780
30"	48"	32"	#5 @ 12" OCEW #5 @ 12" OCEW	2,120 1,500
36"	48"	32"	#5 @ 12" OCEW #5 @ 12" OCEW	1,830 1,350
42"	48"	44"	#5 @ 12" OCEW #5 @ 12" OCEW	1,720 1,210
48"	48"	50"	#5 @ 12" OCEW #5 @ 12" OCEW	1,600 1,100

\* ASSUMED SOIL BEARING CAPACITY



- NOTES:**
- DESIGN IN ACCORDANCE WITH ASHTO, 17th EDITION.
  - DESIGN LOAD HS25.
  - EARTH COVER = 1' MAX.
  - CONCRETE STRENGTH = 3,500 psi
  - REINFORCING STEEL = ASTM A615, GRADE 60.
  - PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.
  - TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING. BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
  - PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
  - DETAIL DESIGN BY DELTA ENGINEERING, BINGHAMTON, NY.



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DYD	DYD	
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**CMP DETENTION INSTALLATION GUIDE**

PROPER INSTALLATION OF A FLEXIBLE UNDERGROUND DETENTION SYSTEM WILL ENSURE LONG TERM PERFORMANCE. THE CONFIGURATION OF THESE SYSTEMS OFTEN REQUIRES SPECIAL CONSTRUCTION PRACTICES THAT DIFFER FROM CONVENTIONAL FLEXIBLE PIPE CONSTRUCTION. CONTECH ENGINEERED SOLUTIONS THROUGHOUT SUGGESTS SCHEDULING A PRE-CONSTRUCTION MEETING WITH YOUR LOCAL SALES ENGINEER TO DETERMINE IF ADDITIONAL MEASURES, NOT COVERED IN THIS GUIDE, ARE APPROPRIATE FOR YOUR SITE.

**FOUNDATION**

CONSTRUCT A FOUNDATION THAT CAN SUPPORT THE DESIGN LOADS APPLIED BY THE PIPE AND ADJACENT BACKFILL WEIGHT AS WELL AS MAINTAIN ITS INTEGRITY DURING CONSTRUCTION.

**BACKFILL PLACEMENT**

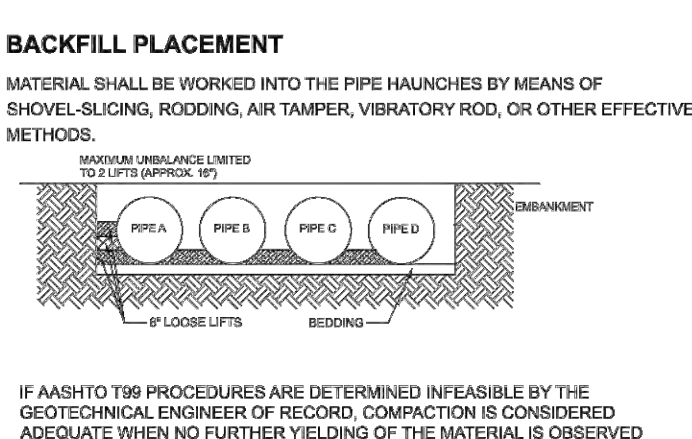
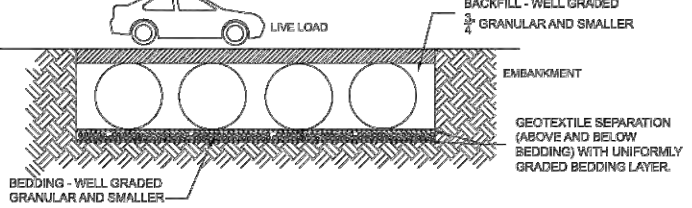
MATERIAL SHALL BE WORKED INTO THE PIPE HAUNCHES BY MEANS OF SHOVEL, SLICING, RODDING, AIR TAMPER, VIBRATORY ROD, OR OTHER EFFECTIVE METHODS.

**GEOMEMBRANE BARRIER**

A GATES RESISTIVITY MAY CHANGE OVER TIME WHEN VARIOUS TYPES OF SALTING AGENTS ARE USED, SUCH AS ROAD SALTS FOR DEICING AGENTS. IF SALTING AGENTS ARE USED ON OR NEAR THE PROJECT SITE, A GEOMEMBRANE BARRIER IS RECOMMENDED WITH THE SYSTEM. THE GEOMEMBRANE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM THE USE OF SUCH AGENTS INCLUDING PREMATURE CORROSION AND REDUCED ACTUAL SERVICE LIFE.

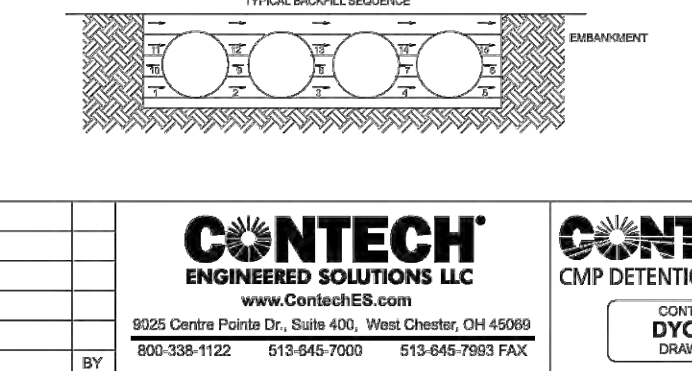
**IN-SITU TRENCH WALL**

IF EXCAVATION IS REQUIRED, THE TRENCH WALL NEEDS TO BE CAPABLE OF SUPPORTING THE LOAD THAT THE PIPE SHARES AS THE SYSTEM IS LOADED. IF SOILS ARE NOT CAPABLE OF SUPPORTING THESE LOADS, THE PIPE CAN DEFLECT PERFORM A SIMPLE SOIL PRESSURE CHECK USING THE APPLIED LOADS TO DETERMINE THE LIMITS OF EXCAVATION BEFORE THE SPRING LINE OF THE OUTER MOST PIPES.



**ADDITIONAL CONSIDERATIONS**

BECAUSE MOST SYSTEMS ARE CONSTRUCTED BELOW-GRADE, RAINFALL CAN RAPIDLY FILL THE EXCAVATION, POTENTIALLY CAUSING FLOATION AND MOVEMENT OF THE PREVIOUSLY PLACED PIPES. TO HELP MITIGATE POTENTIAL PROBLEMS, IT IS BEST TO START THE INSTALLATION AT THE DOWNSTREAM END WITH THE OUTLET ALREADY CONSTRUCTED TO ALLOW A ROUTE FOR THE WATER TO ESCAPE. TEMPORARY DIVERSION MEASURES MAY BE REQUIRED FOR HIGH FLOWS DUE TO THE RESTRICTED NATURE OF THE OUTLET PIPE.



**CMP DETENTION SYSTEM INSPECTION AND MAINTENANCE**

UNDERGROUND STORMWATER DETENTION AND INFILTRATION SYSTEMS MUST BE INSPECTED AND MAINTAINED AT REGULAR INTERVALS FOR PURPOSES OF PERFORMANCE AND LONGEVITY.

**INSPECTION**

INSPECTION IS THE KEY TO EFFECTIVE MAINTENANCE OF CMP DETENTION SYSTEMS AND IS EASILY PERFORMED. CONTECH RECOMMENDS ONGOING, ANNUAL, INSPECTIONS. SITES WITH HIGH TRAFFIC LOAD OR SMALL OUTLET CONTROL ORIFICES MAY NEED MORE FREQUENT INSPECTIONS. THE RATE AT WHICH THE SYSTEM COLLECTS POLLUTANTS WILL VARY DEPENDING ON THE SPECIFIC ACTIVITIES RATHER THAN THE SIZE OR CONFIGURATION OF THE SYSTEM.

**MAINTENANCE**

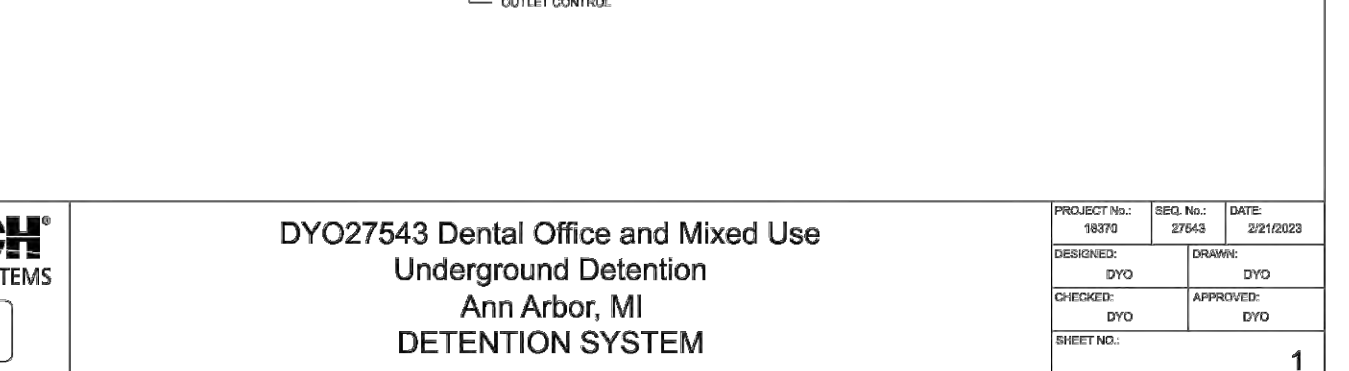
CMP DETENTION SYSTEMS SHOULD BE CLEANED WHEN AN INSPECTION REVEALS ACCUMULATED SEDIMENT OR TRASH IS CLOGGING THE DISCHARGE ORIFICE.

**ADDITIONAL CONSIDERATIONS**

ACCUMULATED SEDIMENT AND TRASH CAN TYPICALLY BE EVACUATED THROUGH THE MANHOLE OVER THE OUTLET ORIFICE. IF MAINTENANCE IS NOT PERFORMED AS RECOMMENDED, SEDIMENT AND TRASH MAY ACCUMULATE IN FRONT OF THE MANHOLE COVERING THE MANHOLE COVERING SHOULD BE SECURED FOLLOWING CLEANING ACTIVITIES. CONTECH SUGGESTS THAT ALL SYSTEMS BE DESIGNED WITH AN ACCESS/INSPECTION MANHOLE SITUATED AT OR NEAR THE INLET AND THE OUTLET ORIFICE. SHOULD IT BE NECESSARY TO GET INSIDE THE SYSTEM TO PERFORM MAINTENANCE ACTIVITIES, ALL APPROPRIATE PRECAUTIONS REGARDING CONFINED SPACE ENTRY AND OSHA REGULATIONS SHOULD BE FOLLOWED.

**ADDITIONAL CONSIDERATIONS**

BECAUSE MOST SYSTEMS ARE CONSTRUCTED BELOW-GRADE, RAINFALL CAN RAPIDLY FILL THE EXCAVATION, POTENTIALLY CAUSING FLOATION AND MOVEMENT OF THE PREVIOUSLY PLACED PIPES. TO HELP MITIGATE POTENTIAL PROBLEMS, IT IS BEST TO START THE INSTALLATION AT THE DOWNSTREAM END WITH THE OUTLET ALREADY CONSTRUCTED TO ALLOW A ROUTE FOR THE WATER TO ESCAPE. TEMPORARY DIVERSION MEASURES MAY BE REQUIRED FOR HIGH FLOWS DUE TO THE RESTRICTED NATURE OF THE OUTLET PIPE.



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 DRAWING

DYO27543 Dental Office and Mixed Use  
 Underground Detention  
 Ann Arbor, MI  
 DETENTION SYSTEM

PROJECT NO.	DESIGN NO.	DATE
1807	0343	03/20/2023
DESIGNED BY	DRAWN BY	DATE
DYD	DYD	DYD
CHECKED BY	APPROVED BY	
DYD	DYD	
DATE	REVISION DESCRIPTION	BY

**BEBOSS Engineering**  
 Engineers Surveyors Planners Landscape Architects  
 3121 E. GRAND RIVER AVE.  
 HOWELL, MI. 48843  
 517.546.4836 FAX 517.548.1670

**DENTAL OFFICE & MIXED USE**  
 CASINO BUILDING AND DEVELOPMENT  
 47232 VAN DYKE AVE  
 STEELING HEIGHTS, MI 48314  
 586-323-4462

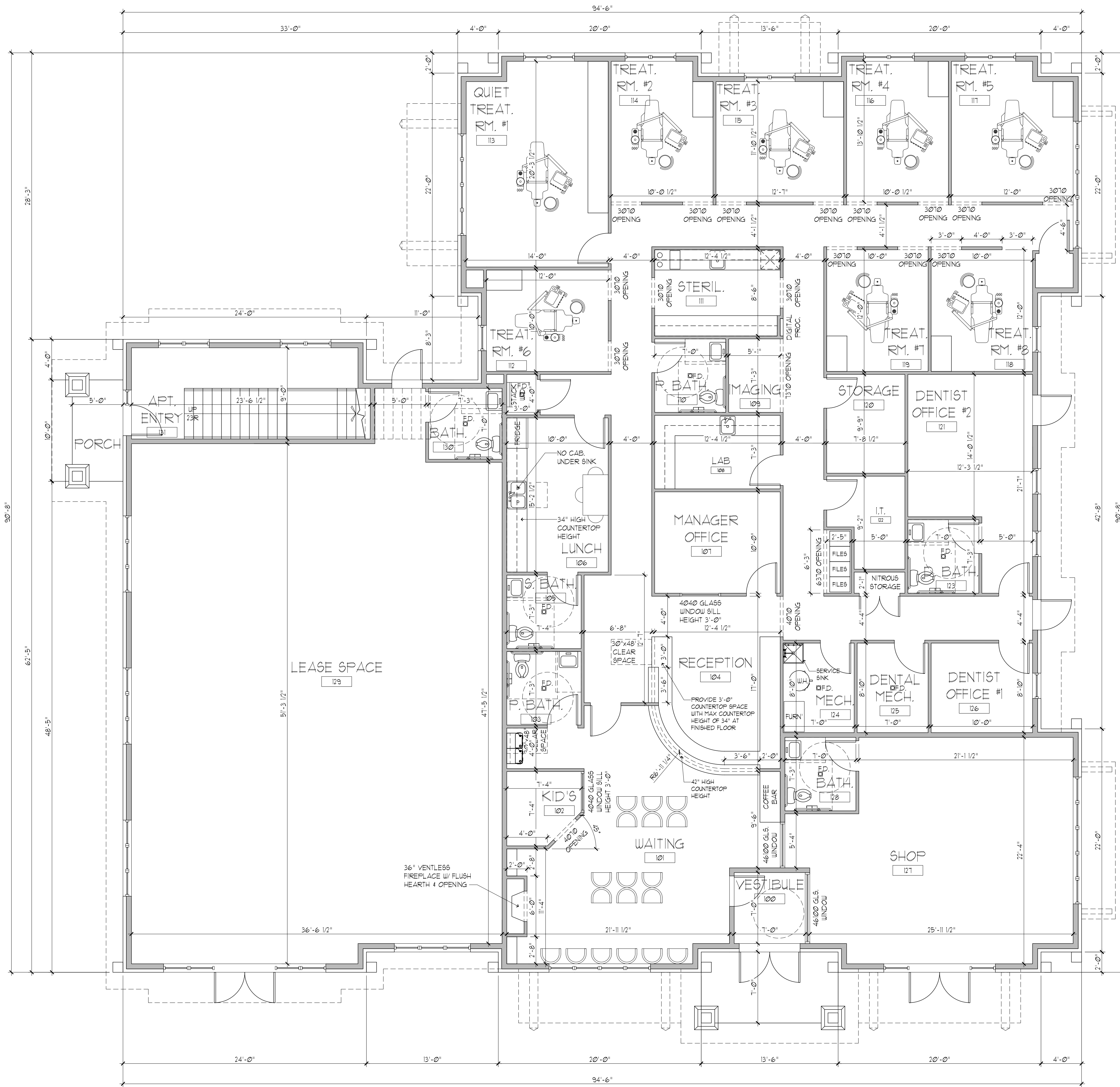
**UNDERGROUND DETENTION DETAILS**

PROJECT	PREPARED FOR	TITLE	DATE
DESIGNED BY:	ST	DATE:	02/22/2023
DRAWN BY:	MJD	SCALE:	NOT TO SCALE
CHECKED BY:		JOB NO.:	22-097
		DATE:	02/22/2023
		SHEET NO.:	12

FOR SITE PLAN APPROVAL ONLY!  
 NOT FOR CONSTRUCTION

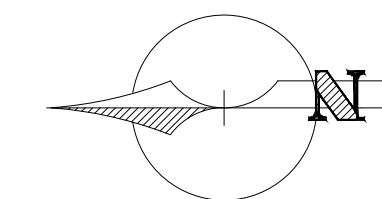
**BOSS Engineering**





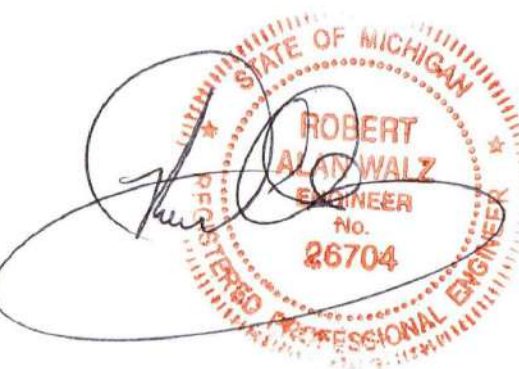
DENTAL OFFICE: 4,393 SQ. FT.  
 SHOP: 650 SQ. FT.  
 LEASE SPACE: 2,020 SQ. FT.  
 TOTAL SQUARE FOOTAGE: 7,063 SQ. FT.

GROUND FLOOR: 7,063 SQ. FT.  
 SECOND FLOOR: 3,552 SQ. FT.  
 TOTAL BUILDING SQUARE FOOTAGE: 10,615 SQ. FT.



**GROUND FLOOR PLAN**

DENTAL OFFICE: 4,393 SQ. FT. SCALE 3/16" = 1'-0"  
 SHOP: 650 SQ. FT.  
 LEASE SPACE: 2,020 SQ. FT.  
 TOTAL SQUARE FOOTAGE: 7,063 SQ. FT.



ROBERT WALZ ENGINEERING  
 14899 TOWERING OAKS DRIVE  
 SHELBY TWP., MI 48315  
 (586) 770-6814



920 EAST LONG LAKE RD.  
 SUITE 200  
 TROY MI 48065  
 P. 248.524.0445  
 F. 248.524.0447

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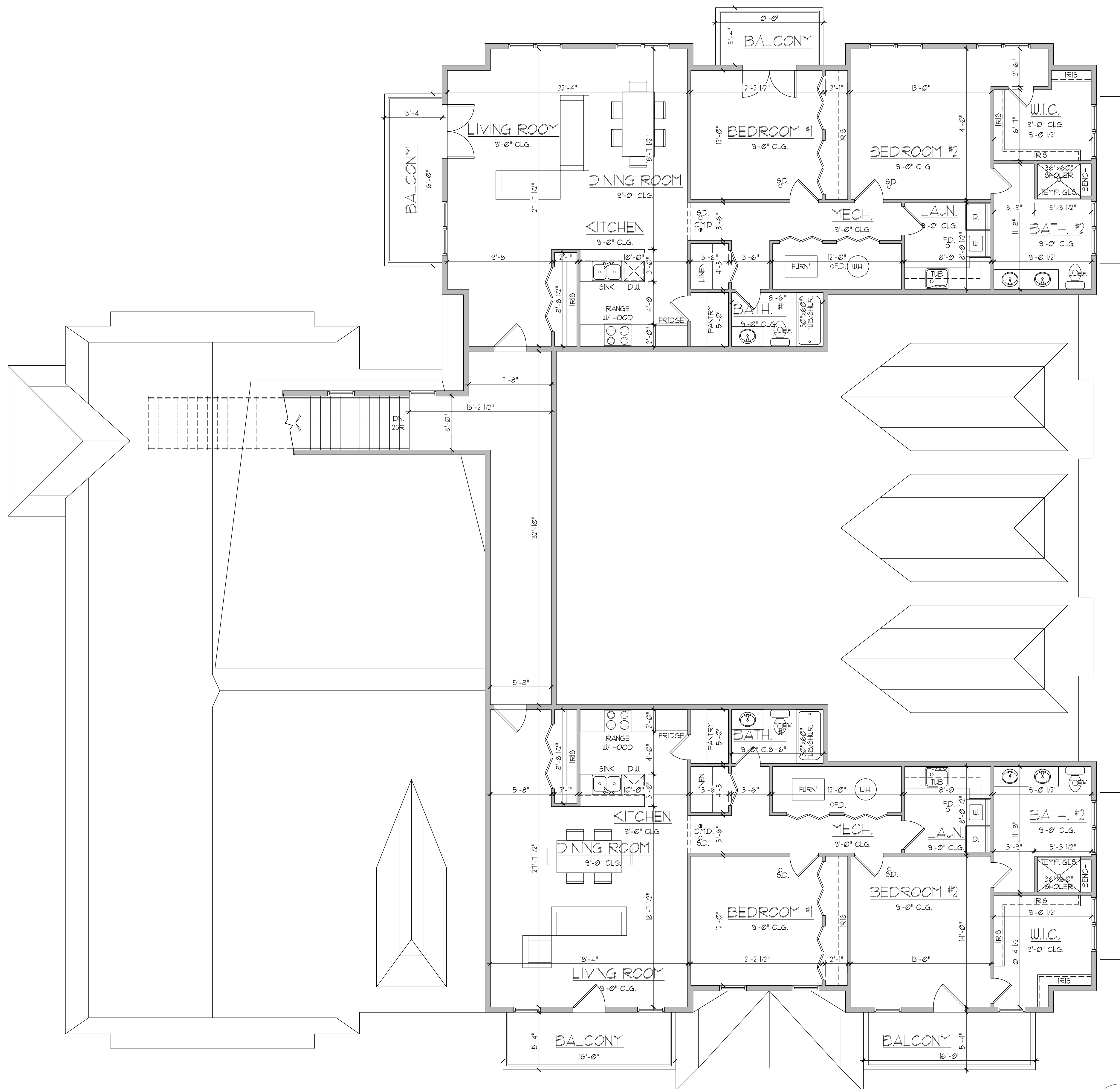
REHEMULLA DENTAL  
 OFFICE

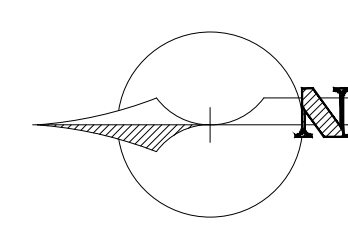
5387 PLYMOUTH ROAD  
 ANN ARBOR, MI. 48105

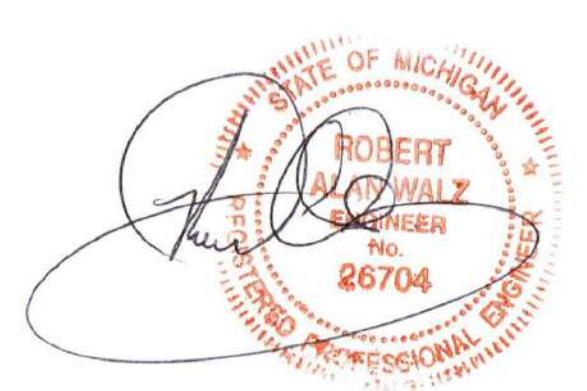
Site Plan Approval: 02-15-2023
Permit Set:
Revisions:
Final Set:
Drawn By: B.J.
Checked By: D.D.

Job No:  
**22-241**

Sheet No:  
**A1 OF 4**




**SECOND FLOOR PLAN**  
 APARTMENT 1: 1820 SQ. FT. SCALE 3/16" = 1'-0"  
 APARTMENT 2: 1732 SQ. FT.  
 TOTAL SQUARE FOOTAGE: 3552 SQ. FT.



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 14899 TOWERING OAKS DRIVE  
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REHEMULLA DENTAL  
 OFFICE

5387 PLYMOUTH ROAD  
 ANN ARBOR, MI. 48105

Site Plan Approval: 02-15-2023
Permit Set:
Revisions:
Final Set:
Drawn By: B.J.
Checked By: D.D.

Job No:  
**22-241**

Sheet No:  
**A2 OF 4**





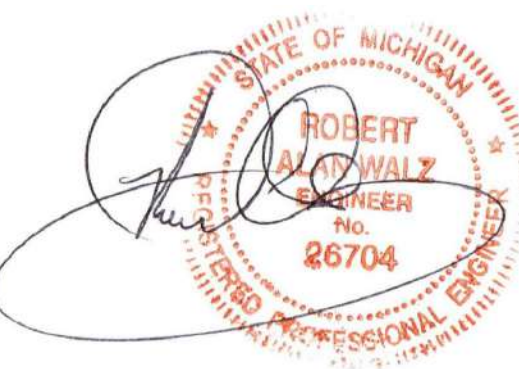
**EAST ELEVATION**

SCALE 1/4" = 1'-0"



**SOUTH ELEVATION (PLYMOUTH - ANN ARBOR ROAD)**

SCALE 1/4" = 1'-0"



ROBERT WALZ ENGINEERING  
14899 TOWERING OAKS DRIVE  
SHELBY TWP., MI 48315  
(586) 770-8814



920 EAST LONG LAKE RD.  
SUITE 200  
TROY MI 48065  
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REHEMULLA DENTAL  
OFFICE

5387 PLYMOUTH ROAD  
ANN ARBOR, MI. 48105

Site Plan Approval: 02-15-2023
Permit Set:
Revisions:
Final Set:
Drawn By: B.J.
Checked By: D.D.

Job No:  
**22-241**

Sheet No:  
**A4 OF 4**





















**Carlisle | Wortman**  
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

Date: March 13, 2023

**Preliminary Site Plan Review  
For  
Superior Township, Michigan**

<b>Applicant:</b>	Dr. Shyroze Rehemtulla
<b>Project Name:</b>	Huron Dental Mixed Use Development
<b>Location:</b>	5387 Plymouth Road
<b>Plan Date:</b>	February 22, 2023
<b>Zoning:</b>	VC, Village Center
<b>Action Requested:</b>	Preliminary Site Plan Approval

**PROJECT DESCRIPTION**

The applicant is proposing the development of a multiple use site at 5387 Plymouth-Ann Arbor Road. The 1.53-acre site is located at the corner of Church Street and Plymouth-Ann Arbor. The applicant proposes to improve the site with a +/10,500 sq/ft building and 32 space parking lot. The proposed uses include first floor dental office, gift shop, office space, and second floor two apartment units.

The site is zoned VC, Village Center. All uses proposed are permitted uses.



### Aerial Photograph



The Zoning and existing land uses for the subject site and surrounding parcels are identified in the following table:

Direction	Zoning	Existing Use
North	VC and R-2	Single Family Residential
South	VC	Restaurant
East	R-1	Single Family Residential
West	VC	Vet

### NATURAL RESOURCES

**Topography:** The site slopes towards the center of the site.

**Woodlands:** The site includes a number of large black walnuts, ten (10) of which are regulated. Of the ten (10) regulated trees, six (6) are proposed for protection, and four (4) will be removed. The applicant is providing all mitigation on site.

**Wetlands:** There are no delineated wetlands onsite.

**Items to be Addressed:** None

**PREVIOUS PLANNING COMMISSION REVIEW**

This project was reviewed as a concept by the Planning Commission on January 25, 2023. There were two points of discussion at that meeting:

1. Elevations, specifically the elevation that fronts on Plymouth Road.
2. Tree preservation, specifically preserving the black walnut trees adjacent to the parking lot.

**CHANGES SINCE PLANNING CONCEPT REVIEW**

The applicant made the following significant changes to the site plan:

1. Added architectural details to the Plymouth Road elevation to provide additional visual relief.
2. Reconfigured parking lot to preserve six (6) regulated trees.

**ACCESS, AND CIRCULATION**

The site will be accessed by one (1) point off Plymouth-Ann Arbor Road. The newly approved vet, just west of the site, will also be accessed off this point on Plymouth-Ann Arbor Road. Access and circulation seem sufficient. A cross-access easement shall be executed and recorded.

**Items to be Addressed:** *A cross-access easement shall be executed and recorded.*

**AREA, WIDTH, HEIGHT, SETBACKS**

The following table summarizes the Density, Placement, and Height Regulations for the site plan associated with this use. The table will use the typical or smallest dimensions provided for any lot.

**Density, Placement, and Height Regulations**

	<b>Required</b>	<b>Provided</b>	<b>Compliance</b>
<b>Lot Area</b>	20,000 sq/ft	66,647 Square Feet	Complies
<b>Lot Width</b>	100 Feet	150 Feet	Complies
<b>Front Setback (Min)</b>	20 Feet	28 Feet	Complies
<b>Front Setback (Max)</b>	35 feet	28 feet	Complies
<b>Side Setback</b>	10 Feet	144 feet	Complies
<b>Rear Setback</b>	25 Feet	30 Feet	Complies
<b>Ground Floor Coverage</b>	25% Max	11%	Complies
<b>Floor area Ratio</b>	50% Max	Less than 50%	Complies
<b>Building Height</b>	35 Feet/2.5 Stories	34.5 Feet/2.5 Stories	Complies

The building complies with all VC, Village Center bulk requirements.

**Items to be Addressed:** *None*

**PARKING**

Parking Requirements	Number of Spaces Required	Number of Spaces Required	Number of Spaces Proposed
Medical, Osteopathic, Chiropractic, Optical or Dental Office, Clinic or Laboratory; Massage Therapist, or Physical Therapy Facility	One (1) per on-duty employee, plus one (1) per examination or treatment room.	28	32
Multiple-Family Housing, Town-houses, and Stacked Flats	One and one-half (1.5) per dwelling unit with up to two bedrooms, and two (2) per three-bedroom or larger dwelling unit.		
Retail Stores and Commercial Uses	One (1) per 250 square feet of floor area.		
Barrier-Free Spaces	2 spaces	2 space	Compliant
Loading spaces	0 spaces	0 spaces	Compliant

Parking is sufficient. We note that the drive-aisles are 24-feet wide, when 20-feet is required. Reducing the width of drive-aisles to 20-feet will reduce the onsite impervious surface and perhaps allow for additional tree preservation. Unless required by the Township Engineer or Fire Marshall, the applicant should reduce drive-width to 20-feet.

**Items to be Addressed:** *Unless required by the Township Engineer or Fire Marshall, the applicant should reduce drive-width to 20-feet.*

**LANDSCAPING**

The applicant has submitted a landscape plan. The Plan is compliant with ordinance requirements.

**Items to be Addressed:** *None*

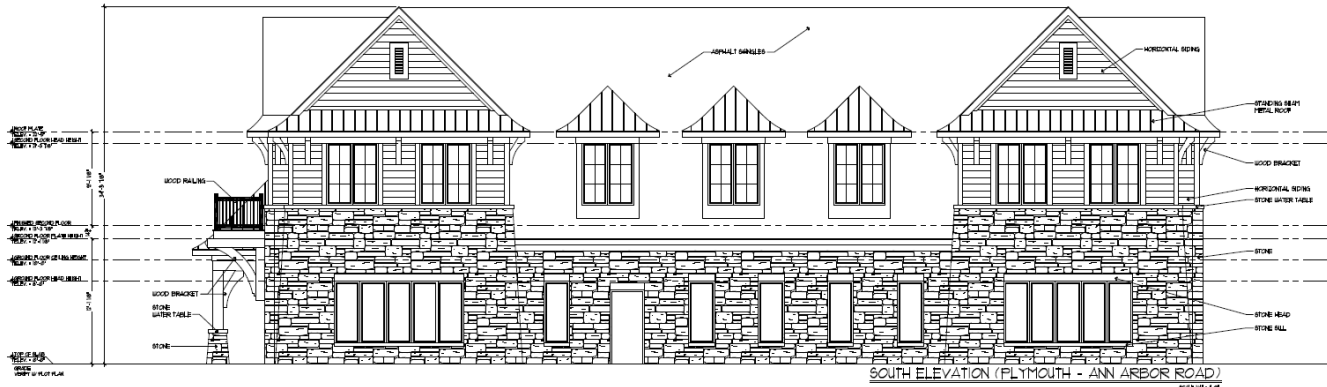
**LIGHTING**

The applicant proposes five (5) parking lot lights and five (5) building lights. The proposed pole heights for fixtures C, should be reduced to 15-feet in height.

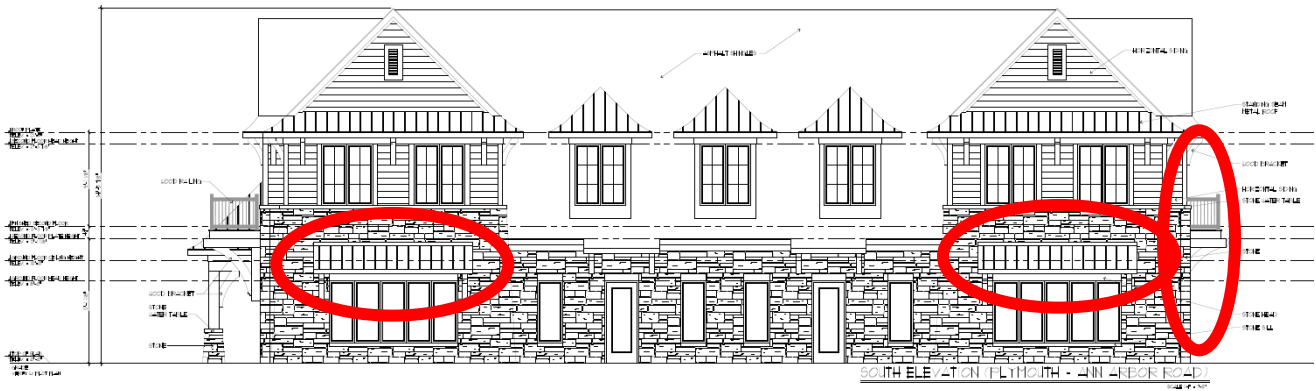
**Items to be Addressed:** *Reduce height for Fixture C to 15-feet.*

## FLOOR PLANS AND ELEVATIONS

The proposed material includes stone on the first floor and second floor siding. The siding material is not indicated. The applicant has added architectural details to the Plymouth Road elevation to provide visual relief.



January 2023 Submittal



March 2023 Submittal

**Items to be Addressed:** Indicate horizontal siding material.

## RECOMONDATION

We recommend preliminary site plan with the following conditions to be addressed in the final site plan submittal:

1. Unless required by the Township Engineer or Fire Marshall, the applicant should reduce drive-width to 20-feet.
2. Reduce height for Fixture C to 15-feet.
3. Indicate horizontal siding material.

Huron Dental  
March 13, 2023



---

**CARLISLE/WORTMAN ASSOC., INC.**  
**Benjamin R. Carlisle, AICP, LEED AP**  
**Principal**

cc: Ken Schwartz, Township Supervisor  
Lynette Findley, Township Clerk  
Laura Bennett, Planning & Zoning Administrator  
George Tsakof, Township Engineer  
Cresson Slotten, Township Engineer



March 15, 2023

**CHARTER TOWNSHIP OF SUPERIOR**

3040 N. Prospect Road  
Ypsilanti, MI 48198

Attention: **Lynette Findley, Township Clerk**

Regarding: **Huron Dental Mixed-Use Development  
Preliminary Site Plan - Review No. 1  
OHM Job No. 0140-23-1010**

Dear Ms. Findley,

On behalf of the Township, we have reviewed the Preliminary Site Plan submittal for the above referenced project, as submitted to the Township on February 22, 2023. In our opinion, this plan is ready for consideration by the Planning Commission at their March meeting regarding Preliminary Site Plan approval. We do offer the following comments that will need to be addressed by the Applicant at the Final Site Plan review stage.

1. On Sheet 2, we have the following comments:
  - a. The existing conditions plan should be sealed with the surveyor's professional stamp.
  - b. The existing conditions plan should include a note about the presence or absence of wetlands and floodplains on the subject parcel.
  - c. The surveyed property lines shown in plan view should identify the Point of Beginning that is described in the property's legal description.
  - d. The dimensions described in the legal description do not match those shown in plan view. For example, the northern property line is dimensioned in the plan view as N85°18'15"E 401.58' while the legal description describes a line continuing "North 88 degrees 24 minutes 05 seconds East 401.58 feet." The plan and/or the legal description should be updated to be consistent with each other.
  - e. The easement described next to the legal description under "Schedule B – Section II..." does not appear in plan view. If the described easement exists on the subject parcel, it should be shown on the plans.
2. There is a line along the easterly side of the property that extends north across Church Street that based on the legend appears to be a fence line. If this is a fence it needs to be removed from Church Street and from the public right-of-way. If this line work represents something different, the line type should be changed to match the appropriate item in the legend. This comment applies to Sheets 2 through 8, and 11.
3. On Sheet 6, there are multiple proposed spot grades in the parking lot area identified as Top of Asphalt grades. These should be updated to identify Top of Concrete grades where concrete pavement is proposed.



4. There are two similar line types defined in the legend as “Limits of Grading/Clearing” and “Limits of Grading.” It is suggested that one be called out at “Limits of Clearing” and the other as “Limits of Grading.”
5. It is noted that Sheet 6 (Grading) and Sheet 7 (Utilities) indicate grading in the Church Street Right-of-way. Approval of grading in the public right-of-way must be obtained from the Washtenaw County Road Commission.
6. On Sheet 7, the proposed storm sewer surrounding the building and connecting to the underground detention system should be shown with the proposed storm sewer line type rather than the existing line type.
7. The stormwater narrative on Sheet 7 identifies the existing culvert near the southwest corner of the property as the ultimate outlet for site drainage. On the existing conditions plan on Sheet 2, it is noted that that this culvert is full of dirt and debris and is slightly sloped towards the property (from south to north) indicating that the culvert may have settled slightly. It is suggested that the Applicant make contact with the Washtenaw County Road Commission as the agency with jurisdiction of this culvert to have this culvert jetted (cleaned) and inspected to ensure that it is in proper condition to accept the outlet flow from this site.

Also, the Stormwater Narrative refers to “FES 05” and based on the plan it appears that this should be ES (End Section) 05.

8. The stormwater management design on the site plan should be consistent with Washtenaw County Water Resources Commissioner (WCWRC) Standards. Review and approval from WCWRC will be required at the Final Site Plan stage of the project. If the applicant has not already contacted the WCWRC regarding this project, they are encouraged to schedule a pre-application meeting with the WCWRC and follow-up with the required infiltration testing to facilitate their stormwater management design for WCWRC review and approval for the Final Site Plan stage of the project.
9. The soil erosion and sedimentation control (SESC) measures on the site plan should meet the requirements of the WCWRC Standards and will require review and approval from WCWRC at the Final Site Plan stage of the project.
10. The work proposed in the Church Street and Plymouth-Ann Arbor Road Rights-of-way should meet the requirements of the Washtenaw County Road Commission (WCRC). Review and approval from WCRC will be required at the Final Site Plan stage of the project.
11. The individual well and septic systems for the proposed development are to meet all requirements of the Washtenaw County Health Department’s Environmental Health Division.



If you have any questions regarding our review, please do not hesitate to contact me at (734) 466-4585, or George Tsakoff at (734) 466-4439.

Sincerely,  
**OHM Advisors**

---

Cresson Sloten, PE  
Senior Project Manager

cc: Ken Schwartz, Township Supervisor (via e-mail)  
Bill Balmes, Building Department (via e-mail)  
Laura Bennett, Planning Coordinator (via e-mail)  
Ben Carlisle, CWA, Twp Planner (via email)  
Paul Montagno, CWA (via email)  
George Tsakoff, OHM  
file



# CHARTER TOWNSHIP OF SUPERIOR FIRE DEPARTMENT

## FIRE MARSHAL DIVISION

7999 Ford Rd, Ypsilanti, MI 48198

March 15, 2023

Laura Bennett, Planning and Zoning Administrator  
Charter Township of Superior  
3040 North Prospect Rd.  
Ypsilanti, MI 48198

RE: Preliminary (non-residential) Site Plan Review #1  
Project Name: Huron Dental Mixed-Use Development  
Project Location: J-10-18-155-014  
Plan Date: 2/22/2023  
Project Job Number: 22-097  
Applicable Codes: IFC 2015  
Architect: Martini Samartino Design Group  
Engineer Address: 920 East Long Lake Road, Ste. 200B Troy, MI 48085

### Status of Review

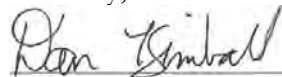
**Status of review:** Approved Conditionally (see comments)

### Site Coverage - Access

**Comments:** On sheet 10 a 39' aerial truck was used for the circulation plan. A plan showing a 43' long and 8' 3" wide truck needs to be used for the circulation plan.

Looking forward to reviewing the architectural plans for this building and just as a reminder this building, will need fire suppression.

Sincerely,



Dan Kimball, Fire Marshal  
Charter Township of Superior Fire Department  
CFPS, CFI II, CFPE

## SITE PLAN REVIEW APPLICATION

(This application must be typewritten or printed. All questions must be answered.)

**APPLICANT NAME** Shaw Construction - Jaimie Provagna

**NAME OF PROPOSED  
DEVELOPMENT** HURON GASTRO CENTER FOR DIGESTIVE CARE

**APPLYING FOR**

- PRELIMINARY SITE PLAN
- FINAL SITE PLAN
- COMBINED PRELIMINARY AND FINAL SITE PLAN  
(Combination is at discretion of Planning Commission)
- MINOR SITE PLAN
- MAJOR/MINOR CHANGE DETERMINATION
- ADMINISTRATIVE REVIEW

WILL PROJECT BE PHASED?  YES  NO

IF PROJECT IS PHASED COMPLETE THE FOLLOWING:

- Total number of phases N/A
- Phase number of current application N/A
- Name and date of preliminary site plan approval

• Date of Previous Phase Approvals:

Phase #	<u>N/A</u>	Date	<u>                    </u>
Phase #	<u>                    </u>	Date	<u>                    </u>
Phase #	<u>                    </u>	Date	<u>                    </u>
Phase #	<u>                    </u>	Date	<u>                    </u>

SEEKING ADDITIONAL APPROVAL FOR A CONDITIONAL USE  YES  NO

*Janna Bennett*  
Signature of the Clerk or Designee

Jan 19, 2023  
Date of Receipt of Application

\$ 2,800.00  
Amount of Fee

**GENERAL INFORMATION**

- Name of Proposed Development HURON GASTRO CENTER FOR DIGESTIVE
- Address of Property 5300 ELLIOTT DRIVE, YPSILANTI, MI 48197
- Current Zoning District Classification of Property MS - MEDICAL SERVICES DIS

Is the zoning classification a Special District as defined by Article 7 ?  YES  NO

- Has this property been the subject of a rezoning request, Zoning Board of Appeals petition or other Township action with the past five (5) years?  YES  NO

Please explain \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- Tax ID Number(s) of property 38-2073464

- Site Location - Property is located on (circle one) N S E W side of Elliott Drive Road between Geddes and Clark Roads.

- Legal Description of Property (please attach a separate sheet)  
*Where a metes and bounds description is used, lot line angles or bearings shall be indicated on the plan. Lot line dimensions and angles or bearings shall be based upon a boundary survey prepared by a registered surveyor and shall correlate with the legal description.*

**Site Area (Acreage) and Dimensions**

- Are there any existing structures on the property?  YES  NO  
Please explain: Building is existing  
\_\_\_\_\_  
\_\_\_\_\_

**PROPOSED LAND USE**

- Residential       Office       Commercial       Other

If other, please specify MEDICAL SERVICES

- Number of units 1
- Total floor area of each unit \_\_\_\_\_
- Give a complete description of the proposed development.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**ESTIMATED COSTS**

- Buildings and other structures \_\_\_\_\_
- Site improvements \$???? + permits + fees \_\_\_\_\_
- Landscaping \_\_\_\_\_
- Total \$???? + permits + fees \_\_\_\_\_

**ESTIMATED DATES OF CONSTRUCTION**

- Initial construction March/April 2023
- Project completion Completed in (1) business day
- Initial construction of phases (IF APPLICABLE) \_\_\_\_\_  
\_\_\_\_\_
- Completion of subsequent phases. (IF APPLICABLE) \_\_\_\_\_  
\_\_\_\_\_
- Estimated date of first occupancy \_\_\_\_\_

**IDENTIFY EACH DRAWING SUBMITTED BY NAME OF PLAN OR  
DRAWING, DATE AND DRAWING NUMBER (ATTACH ADDITIONAL  
SHEET IF NECESSARY)**

**APPLICANT INFORMATION**

- APPLICANTS NAME Jaimie Provacny  
Company Huron Gastro Center for Digestive Care  
Address 5300 Elliott Drive, Ypsilanti, MI 48197  
Telephone Number 248-302-3858 Email deborahm@hurongastro.com

- PROPERTY OWNER'S NAME \_\_\_\_\_  
Company Golfside Holdings LLC  
Address 5300 Elliott Dr  
Telephone Number \_\_\_\_\_ Email carolg@hurongastro.com

- DEVELOPER'S NAME \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone Number \_\_\_\_\_ Email \_\_\_\_\_

- ENGINEER'S NAME \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone Number \_\_\_\_\_ Email \_\_\_\_\_

- ARCHITECT/PLANNER'S NAME \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone Number \_\_\_\_\_ Email \_\_\_\_\_

**The applicant indicated on page 4 must sign this application. All correspondence regarding the application and plan will be directed to the applicant. If the applicant is not the property owner, the owner's signed consent must also be provided with this application.**

**APPLICANT'S DEPOSITION**

I hereby depose and certify that all information contained in this application, all accompanying plans and all attachments are complete and accurate to the best of my knowledge.

APPLICANT'S PRINTED NAME: Jaimie Prougns

APPLICANT'S SIGNATURE [Signature] DATE 1.16.2023

PROPERTY OWNER'S PRINTED NAME Deborah McNeilance

PROPERTY OWNER'S SIGNATURE Deborah McNeilance DATE 1.16.2023



huron gastro

center for digestive care

Huron Gastro  
Center for Digestive Care  
5300 Elliott Drive  
Ypsilanti, Michigan 48197  
T: 734.528.1417  
F: 734.712.2820  
www.hurongastro.com

January 16, 2023

RE: Additional Signage Request

To whom it may concern:

The patients of Huron Gastro have expressed difficulty finding the Huron Gastro practice because the name of the practice is not located on the building or signage. Huron Gastro is requesting to add their name on the East and West sides of the building located at 5300 Elliott Drive, Ypsilanti, Mi.

The Golfside and HG Boards have provided their approval for the signage. As a condition of the ground lease between Golfside Holdings LLC and Trinity Health this request was presented to the legal team at Trinity Health. This request was approved by the legal team.

Sincerely,

Deborah McNeilance, COO

dsm

Larry A. Adler, M.D.  
Robert L. Stoler, M.D.  
M. Patricia Mortell, M.D.  
John W. Walsh, M.D.  
Naresh T. Gunaratnam, M.D.  
Andrew T. Catanzaro, M.D.  
Ali Yazdani, M.D.  
Najm M. Soofi, M.D.  
Mark D. Zeglis, M.D.  
Stevany L. Peters, M.D.  
Michael R. Fine, M.D.  
Anthony T. DeBenedet, M.D.  
Stephen Berger, M.D.  
Paul Corsello, M.D.  
Miriam R. Thomas, M.D.  
Lisa M. Glass, M.D.  
Timothy M. McGorisk, M.D.  
Jill Duda, P.A.-C  
Fred Kominars, P.A.-C  
Mark J. Velarde, P.A.-C  
Kristin Minnema, P.A.-C  
Jessica E. Borchert, NP

Location: 5300 Elliott Drive, Ypsilanti, MI 48197

(A) FRONT MAIN ENTRANCE ADJACENT TO PARKING LOT • Install: to right of existing lettering

(B) REAR PATIENT PICKUP / EXIT ONLY • Install: to left of existing lettering

Qty. (2) Sets of 1/4" thick Aluminum, Flat-cut Dimensional Lettering, Painted Satin Black

Mount: Stud mount to brick (and adhesive where necessary) • Add to existing lettering per allowable

SCALE: 3/4"=1'-0"

# OPTION A



Font: Palatino Bold  
(no modifications)



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Location: 5300 Elliott Drive, Ypsilanti, MI 48197

(A) FRONT MAIN ENTRANCE ADJACENT TO PARKING LOT • Install: to left of existing lettering

(B) REAR PATIENT PICKUP / EXIT ONLY • Install: to left of existing lettering

Qty. (2) Sets of 1/4" thick Aluminum, Flat-cut Dimensional Lettering, Painted Satin Black

Mount: Stud mount to brick (and adhesive where necessary) • Add to existing lettering per allowable

SCALE: 3/4"=1'-0"

# OPTION B



Font: Palatino Bold  
(no modifications)



WEST ELEVATION



EAST ELEVATION



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**Carlisle | Wortman**  
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

Date: February 15, 2023

**Minor Site Plan Amendment - Sign  
For  
Superior Township, Michigan**

<b>Project Name:</b>	Huron Gastro
<b>Location:</b>	5300 Elliott Drive
<b>Plan Date:</b>	January 16, 2023
<b>Zoning:</b>	MS, Medical Service
<b>Action Requested:</b>	Minor Site Plan Amendment – Sign

**PROJECT DESCRIPTION**

The owner of Huron Gastro is seeking to amend their site plan to add a sign to both the east and west elevations of the building located at 5300 Elliott Drive. The applicant notes that patients have difficulty finding the Huron Gastro practice because the name of the practice is not located on the building or signage.

**SIGNS IN MS, MEDICAL SERVICE DISTRICT**

As set forth in Section 9.07, any sign in the MS Special Districts that seeks an increase by over 10% requires a minor amendment to the approved site plan approval by the Planning Commission.

**SIGN**

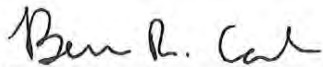
On both the east and west elevation there is a current “Center for Digestive Care” sign that is +/- 312 sq.ft. The applicant is seeking approval to add “Huron Gastro” to the existing “Center for Digestive Care” for both elevations. The proposed “Huron Gastro” sign is 13.5 feet x 15 feet, which is 202.5 square feet. The applicant seeks to increase the total sign area by +/-54%. The “Huron Gastro” addition matches the existing lettering size, font, and color.

The applicant has presented two options for consideration. The only difference between Option A and Option B is that the "Huron Gastro" is located to the right of the existing door for Option A along the west elevation and is located adjacent to the Center for Digestive Care for Option B along the west elevation. The proposed sign size, font, and color are the same for both options.

The maximum size of walls signs is 10% of the signable area of the building space occupied by the use. Even with the proposed addition, the total sign area is less than 10% of the building space.

**PLANNING COMMISSION ACTION**

Minor changes, as determined by the Planning Commission per Section 7.106C (Minor Changes), shall require Planning Commission approval, including, at the Commission's discretion, revised site plan drawings. The Planning Commission shall notify the Township Board and other applicable agencies if it approves a minor change.



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**CARLISLE/WORTMAN ASSOC., INC.**  
**Benjamin R. Carlisle, AICP, LEED AP**  
**Principal**

- cc: Ken Schwartz, Township Supervisor  
Lynette Findley, Township Clerk  
Laura Bennett, Planning Coordinator  
George Tsakoff, Township engineer