

**SUPERIOR CHARTER TOWNSHIP PLANNING COMMISSION
SUPERIOR TOWNSHIP HALL
3040 N. PROSPECT, SUPERIOR TOWNSHIP, MI 48198
AGENDA
FEBRUARY 23, 2022
7:00 p.m.**

1. CALL TO ORDER
2. ROLL CALL
3. DETERMINATION OF QUORUM
4. ADOPTION OF AGENDA
5. APPROVAL OF MINUTES
 - A. Approval of the December 15, 2021 regular meeting minutes
6. CITIZEN PARTICIPATION
7. CORRESPONDENCE
8. PUBLIC HEARINGS, DELIBERATIONS AND ACTIONS
9. REPORTS
 - A. Ordinance Officer Report
 - B. Building Department Report
 - C. Zoning Administrator
10. OLD BUSINESS
 - A. STPC 21-04 Arbor Hills Animal Clinic Final Site Plan
11. NEW BUSINESS
 - A. STPC 21-05 Hyundai Site Expansion Preliminary Site Plan
12. POLICY DISCUSSION
13. ADJOURNMENT

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

Laura Bennett, Planning Clerk
734-482-6099

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DECEMBER 15, 2021
DRAFT MINUTES
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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 were Benjamin Carlisle, Carlisle Wortman and Rick Mayernik, Building/Zoning Administrator.

3. DETERMINATION OF QUORUM

A quorum was present.

4. ADOPTION OF AGENDA

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

5. APPROVAL OF MINUTES

A. Minutes of the October 27, 2021 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

A. STPC 21-05 Hyundai Site Expansion Area Plan Amendment

1. Public Hearing

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Motion by Commissioner Findley, supported by Commissioner Brennan to open the public hearing.

Mark Torrigain stated that the proposed plan is consistent with what is happening at Hyundai.

Brian Latouf, Vice President of Safety at Hyundai, stated the applicant wants to create an engineering center and safety office that is fully functional and 160 people will work at the new site. He also explained that the proposed test track does not mean crashing cars and squealing tires.

Alexander Taylor 3715 Prospect Road asked if batteries would be created at the site and what the plan was if there was a spill, especially being close to the Snidecar Drain. He noted concerns with batteries holding toxic heavy metals. He also stated that the site plan shows there are 1,284 trees on site, but it is unclear which trees will be removed. He also inquired about the endangered species on the site

Mr. Torrigian replied with the follow items:

- No batteries are created onsite and there have been no spills since 2005.
- He is unsure which trees will be removed but the applicant is making sure to minimize tree removal.
- Regarding the test track – no vehicles will be crashed together on the site.
- The roosting period of the threatened bat species will be taken into account since there are restrictions during that time.
- The intent of this lab is not for battery testing. They are also working on technology that does not need the heavy metals.

Mr. Latouf stated that the goal is to be safer to the environment.

Mr. Kassab, IBI Group, noted that the applicant is trying to prove that they are going above and beyond when it comes to endangered species and wetlands. He added there is a focus on the due diligence.

Commissioner Gardner stated that as part of the Preliminary Site Plan the applicant will need to identify which trees will be removed.

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If any heritage trees are removed, they'll need to be replaced based on a ratio.

Asa Wilson, 1846 Superior Road, stated there will many trees removed based on the site plan and location of building. He feels that many of trees on site are landmark.

The applicant was questioned about the asphalt pad and its purpose, as well as a future roll over test area.

Mr. Wilson noted problems with phragmites. He added that they are not hard to control and would like to see the applicant commit to phragmites control.

Commissioner Gardner shares the concerns about the trees. He stated that the trees to be removed will need to be identified in subsequent submittals.

Mr. Torrigian stated that the pad is called a Vehicle Dynamic Assessment (VDA). It is for cars spinning and seeing the dynamics of it. The ponds will deal with the runoff from the pad. Also, a fence will be placed around the track for deer prevention. He continued to state the phragmite issue is being looked at and he has talked to the Supervisor regarding it. Mr. Torrigian cannot commit to anything on the phragmite issue now.

Motion by Commissioner Brennan supported by Commissioner Steele to close the public hearing.

2. Deliberation

Mr. Carlisle stated that the comments brought up will be looked at during Preliminary and Final Site Plan stages. He reviewed the Planner's Review dated December 2, 2021.

Commissioner Gardner inquired about the area east of LeForge Road that will be across from the VDA pad as well as lighting. He asked how the applicant will minimize the impact to adjacent properties.

Mr. Torrigian stated that the property across LeForge Road is also zoned Planned Manufacturing (PM). He doesn't believe there will be

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many lights, and there will no lighting at the VDA pad. Also, the retention pond is between the VDA pad and LeForge Road.

George Tsakoff reviewed the Engineer's Report dated November 10, 2021.

Commissioner Steele inquired about the 1,200 regulated and 2,000 tagged trees.

Mr. Kassab explained that a majority of the trees are not landmark or heritage trees. Also, the condition of the trees are noted on the site plan and dead trees are not included in the tree count.

Commissioner Gardner asked the applicant to elaborate on the gravel boneyard, shown on the site plan.

Mr. Torrigian explained that a gravel boneyard is a gravel area where cars are parked that are done being tested and awaiting being moved to a scrap yard.

3. Action

Motion to recommend approval of STPC 21-05 Hyundai Site Expansion Plan Amendment after review of the standards set forth in section 7.102, for the following reasons:

1. Planned future land uses in the Master Plan include research and development (R & D) operations. The expansion of the Hyundai facility is noted in the Master Plan and consistent with Growth Management Policies.
2. The applicant's addition will require the removal of standing trees, which will be mitigated, but the addition is avoiding any work in a flood plain or the Snidecar Drain. The applicant has attempted to design the site to limit impacts upon natural features. A detailed review of natural future impact will be conducted during site plan review.
3. Provided the applicant is able to mitigate noise and lighting impact through site plan improvements, the impact upon adjacent properties shall be minimal.
4. Through thoughtful site planning, the site expansion can be compatible with surrounding lands uses.

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5. The site is encumbered with wetlands, tree stands, and two streams. The layout and location of the proposed expansion seem logical in order to reduce impact upon those natural features.

Roll Call:

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

The motion carried.

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 Findley and supported by Commissioner Sanii-Yahyai to receive the report. The motion carried.

10. OLD BUSINESS

None.

11. NEW BUSINESS

A. STPC 21-05 Hyundai Site Plan Major/Minor Site Plan Determination

Commissioner Gardner stated that there is an addition of approximately 50% of the ground floor coverage. Mark Torrigian stated he understands this is a major change to the area plan.

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Motion by Commissioner Brennan, supported by Commission McGill, to find that STPC 21-05 Hyundai Site Expansion is a major site plan amendment for the following reasons:

1. The applicant proposes an increase in the number structures.
2. The applicant proposes an increase in non-residential floor area of over five percent (5%).
3. The applicant proposes an increase in GFC or FAR of the entire Special District of more than one percent (1%).

Roll Call:

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

The motion carried.

12. POLICY DISCUSSION

None.

13. ADJOURNMENT

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

Motion Carried.

The meeting was adjourned at 8:11 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 Monthly Report

January/February 2022

Resident Complaints/ Debris:

8317 N Warwick- Furniture on Extension - **(Tagged)**
931 Stamford Rd- Leaf Bags on Extension - **(Tagged)**
928 Stamford Rd.- Leaf Bags on Extension - **(Tagged)**
9001 Arlington Dr.- Chair on Extension - **(Tagged)**
1574 Harvest Ln.- Debris on Extension - **(Tagged)**
1531 Harvest Ln.- Furniture on Extension - **(Tagged)(Owner Informed)**
1532 Harvest Ln.- Chest on Extension - **(Tagged)**
8824 Somerset- Chair on Extension - **(Tagged)**
1709 Sheffield- Bags of Debris on Extension - **(Tagged)**
1812 Hamlet- Bags of Leaves on Extension - **(Tagged)**
8695 Hemlock Ct.- Cabinet & Carpet on Extension - **(Tagged)**
9867 High Meadow- Cabinet on Extension - **(Tagged)**
9216 Ascot Dr.- Cabinet on Extension - **(Tagged)**
1390 Stamford Rd.- Mattress & B/spr. on Extension - **(Tagged)**
8650 Cedar Ct.- Refuse on Extension - **(Tagged)(Spoke with Owner)**
1631 Harvest Ln.- Washer & Dryer on Extension - **(Tagged)**
8287 Berkshire- Cabinet on Extension - **(Tagged)**
9745 Ravenshire- Chest on Extension - **(Tagged)**

Vehicle Complaints:

7631 Abigal- Trailer on Street- **(Tagged for Removal)**
1780 Sheffield- Vehicle Blocking Mailbox- **(Tagged for Removal)**

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

January 2022 To Date

Category	Estimated Cost	Permit Fee	Number of Permits
Electrical	<i>\$0.00</i>	<i>\$2,905.00</i>	<i>22</i>
Mechanical	<i>\$0.00</i>	<i>\$4,739.00</i>	<i>36</i>
Plumbing	<i>\$0.00</i>	<i>\$2,078.00</i>	<i>13</i>
PRIVATE ROAD	<i>\$0.00</i>	<i>\$100.00</i>	<i>1</i>
Res-Additions (Inc. Garages)	<i>\$774,000.00</i>	<i>\$1,472.00</i>	<i>2</i>
Res-Manufactured/Modular	<i>\$70,000.00</i>	<i>\$450.00</i>	<i>3</i>
Res-New Building	<i>\$884,112.00</i>	<i>\$5,944.00</i>	<i>4</i>
Res-New Building (Attached SFD)	<i>\$816,124.00</i>	<i>\$5,304.00</i>	<i>4</i>
Res-Other Building	<i>\$4,950.00</i>	<i>\$100.00</i>	<i>1</i>
Res-Renovations	<i>\$281,820.00</i>	<i>\$1,445.00</i>	<i>6</i>
Totals	<i>\$2,831,006.00</i>	<i>\$24,537.00</i>	<i>92</i>

SUPERIOR TOWNSHIP BUILDING DEPARTMENT
MONTH-END REPORT
January 2022

Category	Estimated Cost	Permit Fee	Number of Permits
Electrical	<i>\$0.00</i>	<i>\$2,905.00</i>	<i>22</i>
Mechanical	<i>\$0.00</i>	<i>\$4,739.00</i>	<i>36</i>
Plumbing	<i>\$0.00</i>	<i>\$2,078.00</i>	<i>13</i>
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Zoning Report

February 15, 2022

Masterplan Update- The Master Plan Committee will meet on Thursday, February 17th. The main agenda items will be committee review of draft Master Plan Policies and a draft Master Plan Outline.

Zoning Board of Appeals- The Township has received an application requesting a setback variance relating to the location of a parking lot on Berry Road for the Southeast Michigan Land Conservancy. Additionally, the ZBA needs to address the interpretation requests and an appeal of a Zoning Official decision heard and postponed at the ZBA's January 12, 2022, meeting. I would anticipate a ZBA meeting in late March or early April to address these appeals.

6595 Plymouth- Ann Arbor Road- The Township has received a request to rezone two parcels near the Plymouth Road/M-14 connector intersection. The properties back up to the M-14 off ramp and are currently zoned R-1 (2 acre minimum). The applicant (SE Michigan Land Holdings) requests a rezoning to the R-2 (1 acre minimum) district. You may recall, these are the same properties proposed for Champion Sports recreation center and sports fields in 2019.

Richard Mayernik

Building/Zoning Official

ARBOR HILLS ANIMAL CLINIC



**5347 Plymouth Road
Final Site Plan Documents
January 26, 2022**

To: Washtenaw County Planning Department
From: Mark Wilson, Arbor Hills Animal Clinic
Date: 12/13/2021
RE: 5347 Plymouth Road, Ann Arbor MI 48105

We are very much looking forward to attending the January 2022 meeting in the hopes of receiving our Final Site Plan Approval on this property. As part of today's submission, you are receiving the following:

1. Copy of the original Site Plan Review Application
2. Updated Interior Plans
3. Updated civil drawings which reflect a slight modification of the parking area to accommodate that actual location (different from drawings obtained earlier in the process) following our site inspection by the WC Health Department (Jonathon Pelukas).
4. Updated civil drawings that reflect the lighting planned for this location.
5. A copy of the GeoTechnical study, conducted by the PEA group, reflecting the results of the field infiltration testing as required by the WCWRC. (Appendix A)
6. Updated civil plans reflecting a detailed landscape plan for the property.
7. Updated civil plans reflecting Storm Water Management as required by Superior Township based upon the results of the Water Infiltration Study and completed in cooperation with the WCWRC.
8. Update civil drawings which reflect the taper lanes requested by George Streight, representing the WCRC.
9. An email from Gary Streight, of the WCRC, including a marked-up copy of the prior civil drawings requiring all of the following which are reflected on the new civil plans: (Appendix B)
 - a. A 4' shoulder is required. 6" 23A limestone
 - b. The pavement cross section for the approach and tapers shall be 1.5" 5E1, 1.5" 4E1, 2" 3C, 10" 21AA Limestone
 - c. Inclusion of the storm water management plan (which is included in the new civil drawings)
 - d. Show existing and proposed grades at 50' intervals along the edge of existing pavement, proposed pavement edge and shoulder.
10. An email from Jonathon Pelukas, of the Washtenaw County Health Department, indicating that the septic field meets all requirements but that the location of the septic tanks must change based upon the location of the foundation of the corridor attaching the two existing buildings. Mr. Pelukas has included a drawing of where he wishes to have the new tanks placed. A contract has been signed with Jack Black Septic to complete this work and we are awaiting an opening in the calendar to have the work completed. (Appendix C)
11. Approval letter from Superior Township Fire Department...all "Review Comments and Requirements" are included by the architect in both the plans and the contractor instructions (bid-book) as part of this project. (Appendix D)

12. Termination of "Maintenance Agreement for Easement and Right of Way" between the previous owners of this property and the current owners of the parcel bordering this property on the East. This document terminates the prior easement that existed on previous drawings. This document was filed with the county by E-Title following our closing. (Appendix E)
13. A document titled "Easement" which provides an easement agreement, on the property bordering this property on the East side, giving the owners at 5347 Plymouth Road the ability to make modification to the tree line (as needed for sight lines) or to encroach on the neighboring property, if needed, to create the needed taper lanes on Plymouth Road. (Appendix F)

To: Superior Township Planning & Zoning
From: Mark Wilson
Date: 12/17/2021
RE: Exterior Lighting & Hours of Operation

As we go through the final phases of the approval process for this property, I want to assure that we are all on the same page in terms of the hours of operation of the clinic as well our plans regarding the exterior lighting (light poles) in the Arbor Hills Parking Lot.

First, in terms of the hours of operation, Arbor Hills is currently open (this time of year) from 8am - 7pm daily. Our general hours of operation will vary from 8am - 9pm daily, depending upon the time of year and needs of the community. Although our office may be designated to close at a particular time, veterinary emergencies can cause the clinic to stay late while treating or stabilizing a family companion. These situations are both unpredictable and unavoidable in the veterinary profession. While we are not an emergency clinic, there are situations where we will make the decision to come in, after hours, to provide emergency treatment on one of our clients' companions. This has become especially true, during the pandemic, when emergency centers are routinely closing their ER's and leaving clients with no other option. Therefore, it is altogether possible that the clinic could be operating, in a limited capacity beyond the normal scheduled hours. This could include Saturday and Sunday hours, outside of our regularly scheduled weekend hours, as well.

In terms of exterior lighting, the safety of our staff and clients is paramount. Because of the unpredictable nature of the schedule of a veterinary hospital, I want to be sure people are not exiting the clinic into a dark parking lot. When people stay late, for whatever reason, they should still be exiting into a well illuminated parking lot. Therefore, instead of the agreement being for the lights to turn off 60 minutes after our scheduled close, I would like the agreement to be that the lights will go off within 30 minutes after the final staff member exits the building. While this will generally be within 60 minutes of our end of day, I want to plan for the exceptional situation.

As I have stated at every meeting, it is important to us that we be good neighbors for the community surrounding Arbor Hills. In my experience, clearly defined parameters and expectations lead to positive relationships and uncertainty creates conflict. I think it is in everyone's best interest to iron out these details early in the process.

Table of Contents

- Section 1: Site Plan Review Application
- Section 2: Updated Interior Plans
- Section 3: Updated Civil Drawings - Exterior Site Plan.

Appendix A: GeoTechnical Study - GroundWater Infiltration

Appendix B: Scope of Work and Emails between Arbor Hills Animal Clinic and Gary Streight, WCRC, regarding the taper lane requirements and the need for a Left turn lane study and vision line study to be completed.

Appendix C: Information regarding Well & Septic including email from Jonathan Pelukas regarding the acceptability of the well and the septic and the requirement to relocate the septic tanks prior to construction of the addition. Also, in this section, is a copy of the contract with Jack Black Septic to complete this work.

Appendix D: Letter from Superior Township Fire Department granting approval with conditions. All conditions are included within the scope of the work outlined by our architect in the building documents.

Appendix E: Termination of Easement Agreement

Appendix F: Easement Agreement allowing AHAC use of the property bordering AHAC on the east, as required by WCRC, if necessary.

SITE PLAN REVIEW APPLICATION

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

APPLICANT NAME Mark & Kristin Wilson, DBA Arbor Hills Animal Clinic, PLLC

NAME OF PROPOSED DEVELOPMENT Arbor Hills Animal Clinic

- 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

9/30/2021
Date of Receipt of Application

\$5,900.00
Amount of Fee

GENERAL INFORMATION

- Name of Proposed Development Arbor Hills Animal Clinic PLLC
- Address of Property 5347 Plymouth Road, Ann Arbor MI 48105
- Current Zoning District Classification of Property VC

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 No

- Tax ID Number(s) of property 10-18-155-013
- Site Location - Property is located on (circle one) N S E W side of Plymouth Road between Church Road and Short Street 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: There are two buildings on the property. One is a 2 story structure of about 3,600 square feet. The second is a one story structure of approximately 500 square feet.
-

PROPOSED LAND USE

- Residential Office Commercial Other

If other, please specify _____

- Number of units 1
- Total floor area of each unit approximately 4,000
- Give a complete description of the proposed development.
Use as a veterinary clinic. The clinic is a day practice open during normal
business hours (8a-7p). There are no late evening or overnight hours at
this practice. We are an animal healthcare facility.

ESTIMATED COSTS

- Buildings and other structures \$625,000
- Site improvements \$500,000
- Landscaping \$100,000
- Total \$1,250,000

ESTIMATED DATES OF CONSTRUCTION

- Initial construction January, 2022
- Project completion April, 2022
- Initial construction of phases (IF APPLICABLE) _____
- Completion of subsequent phases. (IF APPLICABLE) _____
- Estimated date of first occupancy May, 2022

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

C1 Stonefield Cover Sheet

C3 Stonefield Site Plan

C2 Stonefield Demolition Plan

C4 Stonefield Grading & Drainage Plan

APPLICANT INFORMATION

• APPLICANTS NAME Mark Wilson
Company Arbor Hills Animal Clinic
Address 2717 Plymouth Road, Ann Arbor MI 48105
Telephone Number 248-763-2936 Email markwilson@arborhillsvet.com

• PROPERTY OWNER'S NAME Karla Groesbeck & Paula Weber
Company NA
Address 5347 Plymouth Road, Ann Arbor MI 48105
Telephone Number _____ Email _____

• DEVELOPER'S NAME NA
Company _____
Address _____
Telephone Number _____ Email _____

• ENGINEER'S NAME Renata Garbarino (contact)
Company Kem-Tec/Stonefield Engineering/Design
Address 22556 Gratiot Avenue, Eastpoint MI 48021
Telephone Number 586-772-2222 Email rgarbarino@kemtec-survey.com

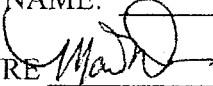
• ARCHITECT/PLANNER'S NAME Peter Hill
Company HDA Associates
Address 101 E 2nd Avenue Suite 350, Rome GA 30161
Telephone Number 888-221-9232 Email pete@hda-architects.com

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: Mark T Wilson/Kristin L Wilson

APPLICANT'S SIGNATURE  DATE 9/30/2021

PROPERTY OWNER'S PRINTED NAME _____

PROPERTY OWNER'S SIGNATURE _____ DATE _____

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

C5 Stonefield Construction Details	Septic Plot & Elevations 6/3/1996
1 Kem Tech Draft Site Plan	Certificate of Survey 4/3/1995
A 2.0 HDA First Floor Interior Floor Plan	
A 2.1 HDA Second Floor Interior Floor Plan	
A 6.0 HDA Exterior Elevation Views	



Construction Documents
for the
ARBOR HILLS ANIMAL CLINIC

5347 PLYMOUTH ROAD
ANN ARBOR, MI 48105

HDA
ARCHITECTS
HDA
ARCHITECTS,
INC.
101 East 2nd Ave.
Suite 350
Rome, Georgia
30161
Tel: 706.531.9998
Toll: 888.221.9232
hda.architect.com

GENERAL NOTES

- THIS PROJECT CONSISTS OF THE CONSTRUCTION OF ARBOR HILLS ANIMAL CLINIC ALONG WITH ALL ASSOCIATED SITE WORK AND EQUIPMENT INSTALLATION.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL CODES AND REGULATIONS, INCLUDING THE AMERICANS WITH DISABILITIES ACT.
- CONTRACTOR SHALL VERIFY ALL CLEARANCES DIMENSIONS AND SIZES PRIOR TO ORDERING OR PURCHASING ASSEMBLIES OR FIXTURES FOR CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY CONSTRUCTION AND ALL STAGING, SCHEDULING MATERIAL, DELIVERIES AND OTHER ITEMS THAT AFFECT THE SEQUENCE OF CONSTRUCTION OR SCHEDULING THE CONSTRUCTION PROJECT.
- DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ARCHITECT BEFORE CONTINUING WITH CONSTRUCTION.
- NOTE THAT ALL DIMENSIONS ARE TO CENTER LINE OF STUD OR FACE OF MASONRY UNIT, U.O.N. DIMENSIONS FOLLOWED BY "CLR." OR "CLEAR" INDICATE CLEARANCES REQUIRED FROM FACE OF FINISH TO FACE OF FINISH.
- CONCEALED INSULATION SHALL HAVE FLAME SPREAD OF 0-25 AND A SMOKE-DEVELOPED INDEX OF 0-450 AS DETERMINED IN ACCORDANCE WITH ASTM E 84.
- CONCEAL ALL PIPING IN WALLS. WHERE PIPING IS TOO LARGE, WALLS ARE TO BE FURRED OUT TO THE MINIMUM DISTANCE NECESSARY TO CONCEAL PIPING.
- ALL GYPSUM BOARD ADJUTTING OTHER MATERIALS IS TO BE FINISHED WITH METAL EDGES.
- DOORS IN EXITS SHALL NOT BE SUBJECT TO THE USE OF A KEY FOR OPERATION FROM THE INSIDE OF THE BUILDING.
- ALL INTERIOR AND EXTERIOR DOORS SHALL HAVE HANDICAP HARDWARE (LEVERS, PANIC HARDWARE, OR U SHAPE DESIGNED DEVICES, ETC.) NO KNOBS OR HARDWARE THAT REQUIRES TWISTING OF THE WRIST.
- ALL WELDING SHALL BE IN ACCORDANCE WITH THE AWS STRUCTURAL WELDING CODE. PROOF OF WELDERS CERTIFICATE SHALL BE AVAILABLE AT THE JOB SITE.
- ALL EXTERIOR GLASS DOORS AND GLASS PANELS ADJACENT TO THE DOORS SHALL BE TEMPERED. ALL GLASS PANELS EXTENDING TO FINISH FLOOR SHALL HAVE HORIZONTAL FRAME MEMBERS 3 FEET ABOVE FINISH FLOOR. ALL EXTERIOR GLAZING SHALL BE INSULATED.
- CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROVIDING ALL NECESSARY WOOD BLOCKING WITHIN ANY WALLS FOR ANY WALL MOUNTED CABINETS, MILLWORK, EQUIPMENT, ETC. COORDINATE LOCATION AND BLOCKING WITH THE ARCHITECT OR SUPPLIER WHERE NECESSARY.
- PENETRATIONS INTO OR THROUGH, EITHER VERTICAL OR HORIZONTAL FIRE RATED BARRIERS SHALL BE PROTECTED BY A SYSTEM LISTED BY A RECOGNIZED TESTING AGENCY.
- FIRE EXTINGUISHERS IN BUSINESS OCCUPANCIES AND OFFICE AREAS SHALL BE LOCATED PER THE REQUIREMENTS OF NFPA 10 AND THE LOCAL FIRE MARSHAL. THE SIZE SHALL BE A MINIMUM OF 2-A-10-BC, 4 F.E. ARE REQUIRED AND SHALL BE INSTALLED AT A MAXIMUM OF 48' A.F.F. TO THE TOP OF THE HANDLE. 4 SURFACE MOUNTED FIRE EXTINGUISHERS SHALL BE PROVIDED FOR THIS PROJECT.
- THESE DRAWINGS ALONG WITH THE PROJECT MANUAL & SPECIFICATIONS COMPRISE THE CONTRACT DOCUMENTS & ARE NOT TO BE CONSIDERED SEPARATELY BUT AS COMPLIMENTARY. WHAT IS REQUIRED BY ONE IS TO BE CONSIDERED REQUIRED BY ALL.
- IN THE CASE OF AN INCONSISTENCY BETWEEN THE DRAWINGS AND SPECIFICATIONS, OR WITHIN EITHER DOCUMENT NOT CLARIFIED BY ADDENDUM, THE BETTER QUALITY OR GREATER QUANTITY OF WORK SHALL BE PROVIDED IN ACCORDANCE WITH THE ARCHITECTS INTERPRETATION.
- ALL H.C. EXITS SHALL BE ZERO STEP ENTRY AND LEAD TO AN ACCESSIBLE ROUTE TO A PUBLIC WAY.
- TOILET ROOM AND OTHER EXHAUSTS MUST EXHAUST TO THE OUTDOORS AT LEAST 3' HORIZONTALLY AND VERTICALLY FROM OPENINGS AND INTAKES, NOT TO SOFFITS PER IMC 501.2.

PROJECT CODE CRITERIA

WASHTENSAW COUNTY, MICHIGAN

- Building: 2015 Michigan Building Code
- 2015 Michigan Rehabilitation Code For Existing Buildings
- Mechanical: 2015 Michigan Mechanical Code
- Gas Piping: 2015 International Fuel Gas Code
- Plumbing: 2015 Michigan Plumbing Code
- Electrical: 2017 Michigan Electrical Code Base on the 2017 National Electrical Code w/ Part 8 State Amendments
- Energy: 2015 International Energy Conservation Code Part 10 w/ ANSVASHRAE/RESNA Standard 90.1-2013
- Fire Safety: 2015 International Fire Code
- ICC/ANSI A117.1 - 2009 & Michigan Barrier-Free Design Law of Public Act 1 of 1986 as Amended.
- 2010 NFPA 13, 130 & 19R
- 2013 NFPA 72 Fire Alarm Code

BUILDING CODE SUMMARY

BOARDING BUILDING

BUILDING OCCUPANCY CLASSIFICATION: BUSINESS
TYPE OF CONSTRUCTION: SB
SPRINKLED OR NOT SPRINKLED: NOT SPRINKLED
BUILDING AREA PROVIDED: 4,129 SF
NUMBER OF STORIES: TWO STORY
EXISTING BUILDING HEIGHT: 24'-0"
OCCUPANT LOAD:
FIRST FLOOR EXISTING AREA - 2,485/100 OCCUPANTS= 25 OCCUPANTS
FIRST FLOOR NEW AREA - 2811/100 OCCUPANTS= 28 OCCUPANTS
SECOND FLOOR EXISTING AREA - 1,353/100 OCCUPANTS=14 OCCUPANTS
TOTAL OCCUPANTS=42 OCCUPANTS

PROJECT LOCATION



PROJECT DIRECTORY

PROPERTY OWNER:
MARK AND KRISTIN WILSON
2707 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105
PHONE: 248-765-2936
EMAIL: MARK.WILSON@ARBORHELLSVET.COM

CIVIL ENGINEERING CONSULTANT:
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22356 GRATIOT AVENUE
EASTPOINTE, MICHIGAN 48021
ENGINEER: RENATA GAGSIBARD
586.772.2222
EMAIL: RGARBARD@KEMTEC-SURVEY.COM

ARCHITECT:
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ROME, GA 30161
706.531.9998
EMAIL: PETE@HDA-ARCHITECTS.COM
ARCHITECT OF RECORD: DANNY CLARK

MEP CONSULTANT:
CORNERSTONE DESIGN SERVICES, LLC
5740 DA VINCI COURT, STE 100
FEATHERTREE CORNERS, GA 30092
ENGINEER: JAMIE NYGAARD, P.E.
PHONE: 770-707-0040
EMAIL: JNYGAARD@CSDESIGNSERVICES.NET

DRAWING INDEX

- CS COVER SHEET, INDEX, & NOTES
- LS-1 LIFE SAFETY PLAN
- AS-10 OVERALL SITE PLAN
- A-0.1 DEMOLITION PLANS
- A-1.1 DIMENSION PLANS
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COVER SHEET,
INDEX, & NOTES
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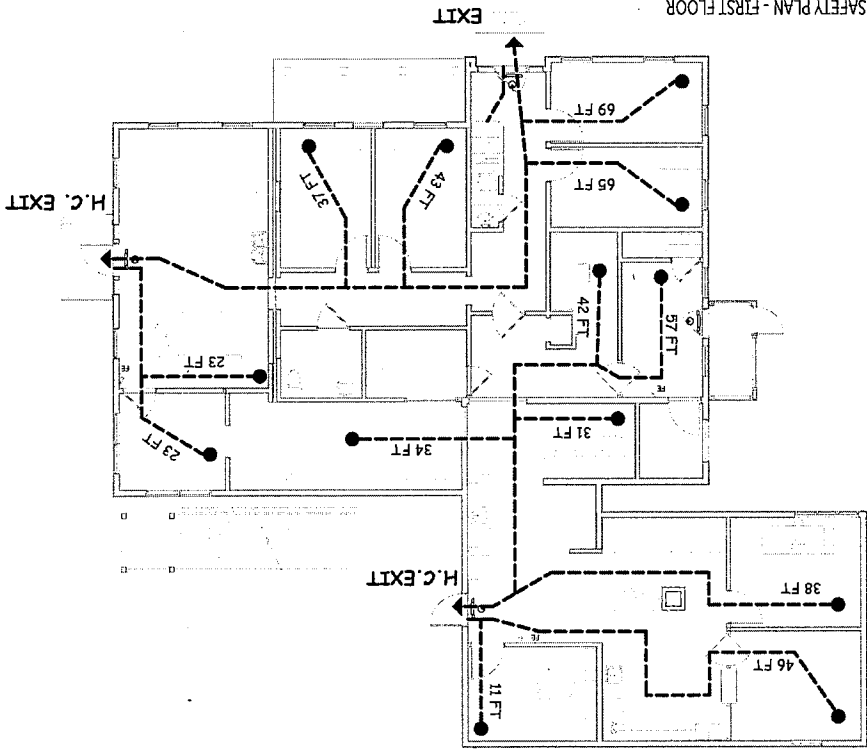
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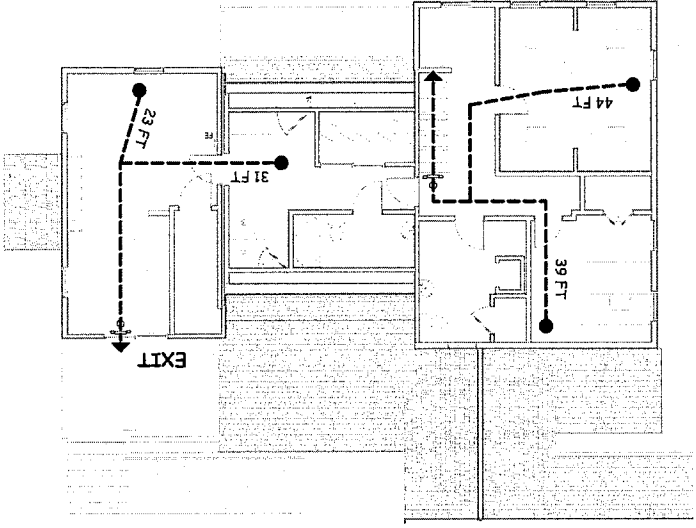
LIFE SAFETY PLAN - FIRST FLOOR



FIRE EXTINGUISHERS

1. PORTABLE FIRE EXTINGUISHERS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 10.
2. PROVIDE CLASS 2A-10B-C FIRE EXTINGUISHERS TO BE MOUNTED ON WALL BRACKET WHERE READILY VISIBLE AND ACCESSIBLE. FINAL NUMBER AND LOCATIONS TO BE DETERMINED BY LOCAL GOVERNING JURISDICTION, MOUNTED WITH HANDLE NO HIGHER THAN 48" A.F.F.

LIFE SAFETY PLAN - SECOND FLOOR



FIRE NOTES

1. FIRE BARRIERS SHALL BE CONTINUOUS FROM OUTSIDE WALL TO OUTSIDE WALL FROM ANOTHER FIRE BARRIER TO A FIRE BARRIER OR A CORNER, INCLUDING PENETRATIONS THROUGH ALL CONCEALED SPACES SUCH AS THOSE FOUND ABOVE A CEILING, INCLUDING TESTERIAL SPACES.
2. BUILDING SERVICES EQUIPMENT THROUGH FIRE BARRIERS SHALL BE PROTECTED AS FOLLOWS:
 3. THE SPACE BETWEEN THE PENETRATING ITEM AND FIRE BARRIER SHALL BE FILLED WITH A MATERIAL CAPABLE OF MAINTAINING THE FIRE RESISTANCE RATING OF THE BARRIER PRODUCT.
 4. FIRE BARRIERS SHALL BE PERMANENTLY IDENTIFIED WITH "1" STENOILING MARKS WITH THE FOLLOWING: FIRE-SMOKE BARRIER PROTECT ALL OPENINGS
 5. ALL FIRE-RATED PARTITIONS AND WALLS SHALL EXTEND TO BOTTOM OF ROOF DECKING OR RATED FLOOR/CEILING ASSEMBLIES
 6. WHEN A BEAM OR COLUMN BECOMES PART OF THE FIRE RATED WALL OR CEILING IT MUST BE PROTECTED AND BE FIRE RATED AS IS THE WALL OR CEILING.
 7. NO HAZARDOUS MATERIALS ARE TO BE STORED ON PREMISES.
 8. RETURN AIR SYSTEM: SMOKE DETECTORS SHALL BE INSTALLED IN SUPPLY AIR SYSTEMS WITH A DESIGN CAPACITY GREATER THAN 2,000 CFM (0.9 CMV), IN THE RETURN AIR DUCT OR PLENUM UPSTREAM OF ANY FILTER, EXHAUST AIR CONNECTIONS, OR DISCONNECT/MANAGEMENT EQUIPMENT AND APPLIANCES, 2012 INTERNATIONAL MECHANICAL CODE, SECTION 606.2.2.
 9. COMMON SUPPLY AND RETURN AIR SYSTEMS, WHERE MULTIPLE AIR-HANDLING SYSTEMS WITH A DESIGN CAPACITY GREATER THAN 2,000 CFM (0.9 CMV), THE RETURN AIR SYSTEM SHALL BE PROVIDED WITH SMOKE DETECTORS IN ACCORDANCE WITH SECTION 606.2.1, 2012 INTERNATIONAL MECHANICAL CODE, SECTION 606.2.3.
 10. RETURN AIR RISERS: WHERE RETURN AIR RISERS SERVE TWO OR MORE STORIES, AND ARE PART OF A RETURN AIR SYSTEM HAVING A DESIGN CAPACITY GREATER THAN 15,000 CFM (7.1 CMV), SMOKE DETECTORS SHALL BE INSTALLED AT EACH STORY, SUCH SMOKE DETECTORS SHALL BE LOCATED UPSTREAM OF THE CONNECTION BETWEEN THE RETURN AIR RISER AND ANY DUCTS OR PLENUMS, 2012 INTERNATIONAL MECHANICAL CODE, SECTION 606.2.3.
 11. COMBUSTIBLE INTERIOR FINISH PRODUCTS SHALL BE PROVIDED PER REQUIREMENTS OF THE RESPECTIVE OCCUPANCY CHAPTER OF THE NFPA 101 LIFE SAFETY CODE 2012 EDITION, THAT THE PROJECT IS BEING PERMITTED UNDER, CONTRACTOR TO PROVIDE VERIFICATION AT THE TIME OF FINAL INSPECTION THAT THE PRODUCTS COMPLY WITH THE REQUIREMENTS.
 12. ROOMS ENCLOSED AIR HANDLING EQUIPMENT, COMPRESSOR EQUIPMENT, FINANCES, OR OTHER HEATING EQUIPMENT WITH A TOTAL AGGREGATE HEATING CAPACITY LESS THAN 200,000 BTU INPUT - SUCH ROOMS SHALL NOT BE USED FOR COMBUSTIBLE STORAGE. A MINIMUM OF 30 INCHES UNOBSTRUCTED ACCESS SHALL BE PROVIDED AND MAINTAINED TO EQUIPMENT AND ELECTRICAL OR EMERGENCY CONTROL PANELS OR DEVICES FOR EMERGENCY RESPONSE PURPOSES.
 13. ALL H.C. EXITS SHALL BE ZERO STEP ENTRY AND LEAD TO AN ACCESSIBLE ROUTE TO A PUBLIC WAY.

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LS-1

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Release	Description
Life Safety Plan	Life Safety Plan
Drawn By:	SAW
Checked By:	PJH

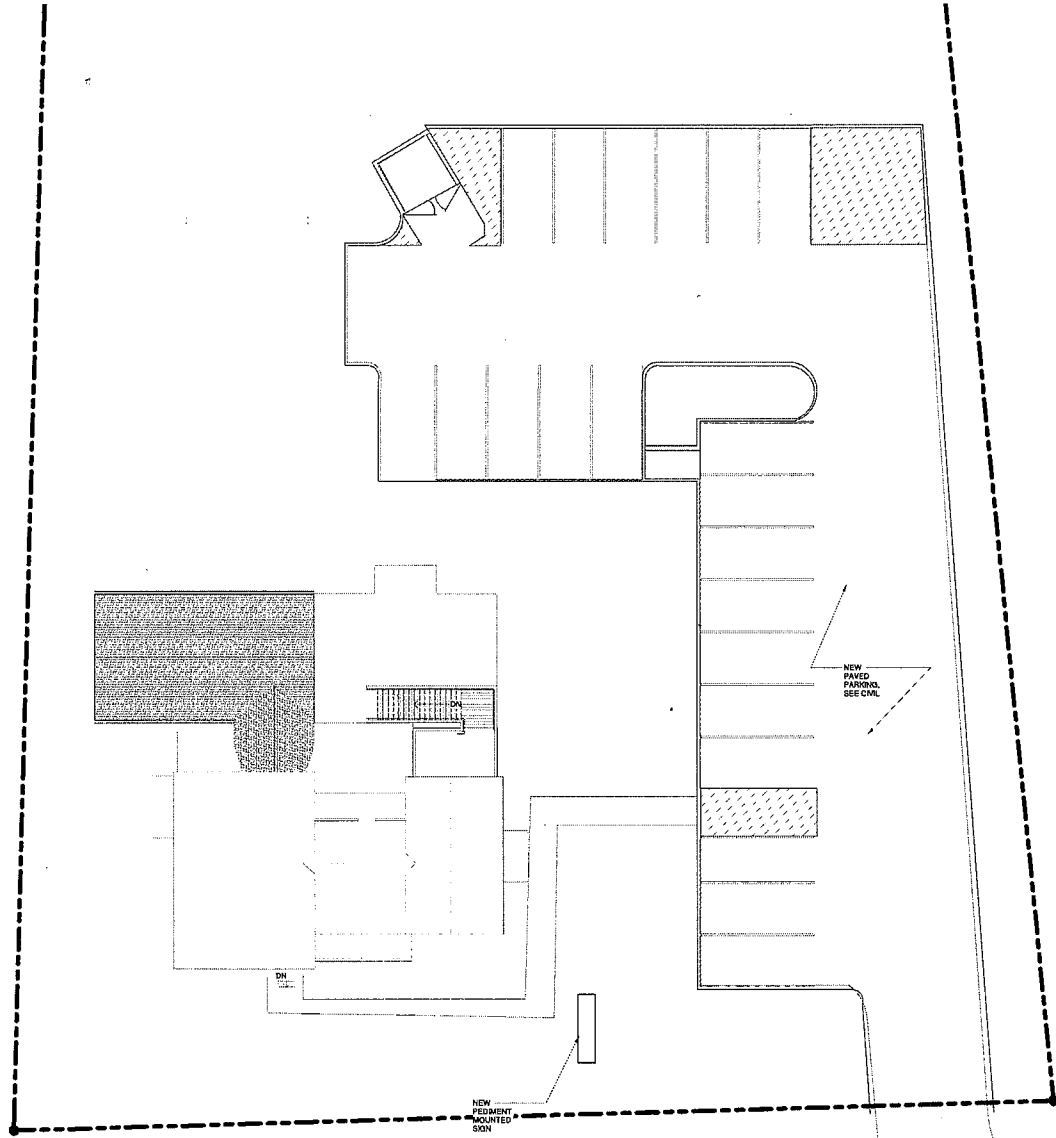
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 Fax: 706.531.7222
 hda@hdaarch.com



SITE PLAN NOTES

1. ALL GRADES SHALL BE 6" BELOW FINISH FLOOR ELEVATION & SLOPE AWAY FROM BUILDING.



S. 88° 24' 06" W - 183.35'

NEW
FURNISHMENT
MOUNTED
SIGN

NEW
PAVED
PARKING
SEE CIVIL

ARCHITECTURAL SITE PLAN
SCALE: 1" = 10'-0"



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OVERALL SITE
PLAN

Drawn By: MBH
Checked By: PJH

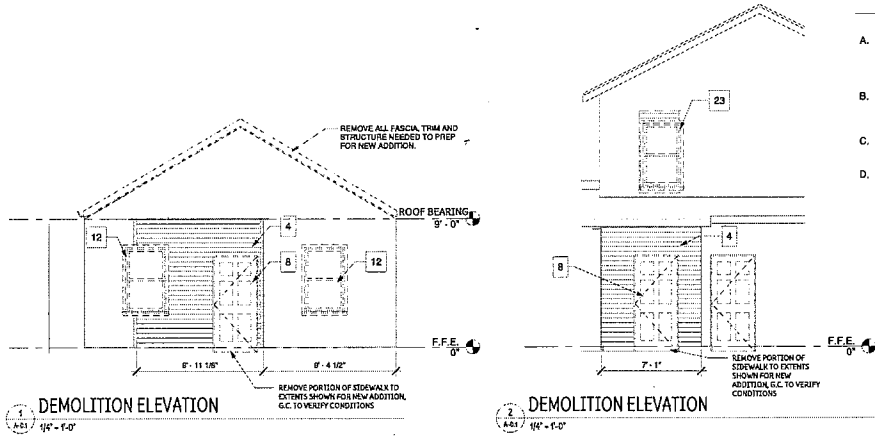
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1
A-01
1/8" = 1'-0"
DEMOLITION ELEVATION

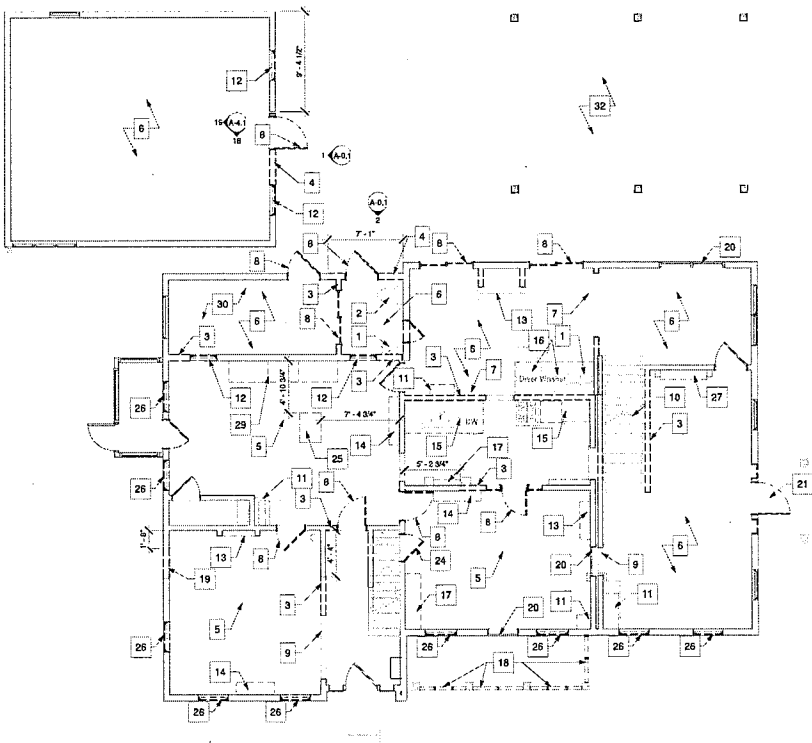
2
A-01
1/8" = 1'-0"
DEMOLITION ELEVATION

GENERAL DEMOLITION NOTES

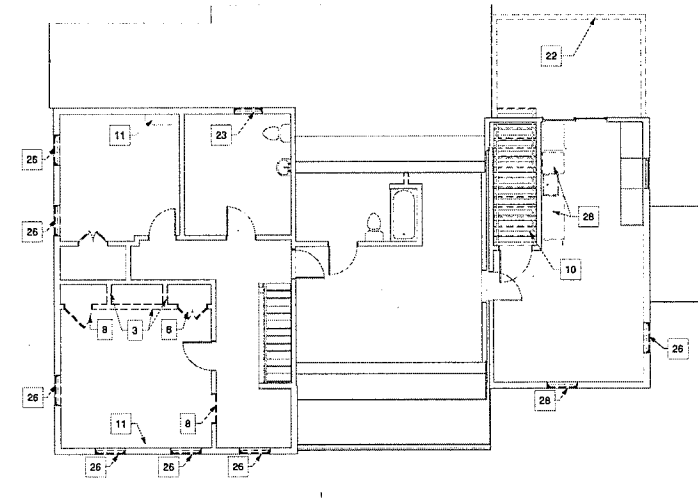
- A. THE CONTRACTOR SHALL INVESTIGATE THE EXISTING STRUCTURE PRIOR TO THE DEMOLITION OF ANY WALLS, COLUMNS, BEAMS, ETC., AND SHALL SHORE ALL ITEMS TO REMAIN AS REQUIRED DURING DEMOLITION AND NEW CONSTRUCTION.
- B. ALL DEMOLISHED MATERIALS AND ITEMS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE OF ALL DEMOLISHED MATERIALS AND ITEMS OFF-SITE.
- C. ALL ITEMS INDICATED TO BE DEMOLISHED SHALL BE AS REQUIRED FOR INSTALLATION OF NEW CONSTRUCTION AS SHOWN IN THE CONTRACT DOCUMENTS.
- D. ALL EXISTING SURFACES TO REMAIN THAT ARE DAMAGED BY DEMOLITION SHALL BE PATCHED AND / OR REPAIRED AS REQUIRED TO PROVIDE A FINISHED SURFACE.

SPECIFIC DEMOLITION NOTES

- 1. REMOVE EXISTING PLUMBING FIXTURES. CAP SUPPLY AND WASTE. CONNECT NEW FIXTURES TO EXISTING PLUMBING IN THIS AREA.
- 2. REMOVE EXISTING TOILET FIXTURE AND RELATED TOILET ACCESSORIES. ABANDON SUPPLY AND WASTE.
- 3. DEMOLISH EXISTING INTERIOR WALL CONSTRUCTION TO EXTENT INDICATED AND AS REQUIRED FOR INSTALLATION OF NEW CONSTRUCTION.
- 4. DEMOLISH EXISTING EXTERIOR WALL CONSTRUCTION TO EXTENT INDICATED AND AS REQUIRED FOR NEW ADDITION.
- 5. DEMOLISH EXISTING ORNATE DECORATIVE CEILING AROUND LIGHT FIXTURES AND LIGHT FIXTURES. PATCH AND REPAIR AS NEEDED.
- 6. DEMOLISH EXISTING FLOORING. THOROUGHLY CLEAN EXISTING STRUCTURE IN PREPARATION TO ACCEPT NEW FLOOR FINISH WITHOUT BLEMISH.
- 7. EDGE OF EXISTING CEILING TO BE SECURED AS REQUIRED.
- 8. DEMOLISH EXISTING DOOR, FRAME AND ALL RELATED HARDWARE AND ADJACENT WALL CONSTRUCTION AS REQUIRED.
- 9. REMOVE EXISTING CASSED OPENING AND INFILL WITH NEW WALL.
- 10. DEMOLISH EXISTING STAIRS.
- 11. ALL EXISTING RADIATORS AND MISCELLANEOUS APPURTENANCES TO BE DEMOLISHED AS PER NEW CONSTRUCTION.
- 12. REMOVE EXISTING WINDOW AND PATCH AND REPAIR AS NEEDED. REPAINT INTERIOR TYP.
- 13. DEMO ALL EXISTING FIREPLACES AND PATCH AND REPAIR AS NEEDED FOR NEW CONSTRUCTION.
- 14. RELOCATE EXISTING SHELVING TO UPSTAIRS OFFICE.
- 15. REMOVE EXISTING KITCHEN EQUIPMENT.
- 16. REMOVE ALL EXISTING APPLIANCES.
- 17. DEMOLISH ALL EXISTING CABINETS/SHELVING AND PATCH AND REPAIR AS NEEDED FOR NEW CONSTRUCTION.
- 18. DEMOLISH EXISTING ACRYLIC ON FRONT PORCH TO ORIGINAL COLUMNS AND FRAMING. PATCH AND PAINT AS NEEDED.
- 19. REMOVE EXISTING WINDOW WALL IN PREPARATION FOR NEW WINDOW.
- 20. SEAL SHUT EXISTING DOOR.
- 21. RAISE DOOR, SIDELIGHTS AND THRESHOLD TO BE AT NEW FINISHED FLOOR. PATCH, PAINT AND REPAIR AS NEEDED. TRIM PEDIMENT AS REQUIRED.
- 22. REPLACE EXISTING RAILING TO MEET ADA REQUIREMENTS AND ACCESS TO NEW STAIRS.
- 23. REMOVE EXISTING WINDOW AND REPLACE WITH NEW SMALL WINDOW. PATCH AND REPAIR AS NEEDED.
- 24. RELOCATE EXISTING DOOR TO NEW LOCATION.
- 25. DEMO EXISTING PORTION OF FLOOR, CEILING AND STRUCTURE AS REQUIRED FOR NEW DUMB WALTER AND PROVIDE BLOCKING AND SUPPORT OF EXISTING STRUCTURE AS NEEDED.
- 26. REMOVE EXISTING WINDOW AND REPLACE WITH NEW WINDOW. GC VERIFY ALL EXISTING OPENINGS AND WINDOW SIZES.
- 27. RELOCATE EXISTING FIREPLACE HEARTH TO NEW LOCATION. PATCH AND REPAIR AS NEEDED.
- 28. REMOVE EXISTING FURNITURE TO PREP FOR NEW CABINETRY.
- 29. RELOCATE EXISTING CABINET UNIT TO NEW UPSTAIRS OFFICE LOCATION.
- 30. REMOVE EXISTING ROOF FRAMING IN ITS ENTIRETY. INSTALL 28 FLOOR FRAMING AT 16" OC W/ 3.4" T&G DECKING.
- 31. DEMOLISH EXISTING RAIL AND PEDESTAL.
- 32. REMOVE EXISTING PERGOLA.



1
A-01
3/16" = 1'-0"
DEMOLITION PLAN - FIRST FLOOR



1
A-01
3/16" = 1'-0"
DEMOLITION PLAN - SECOND FLOOR

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 ANN ARBOR, MI 48105

DEMOLITION PLANS
 Drawn By: SAW
 Checked By: PJH

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DIMENSION
PLANS
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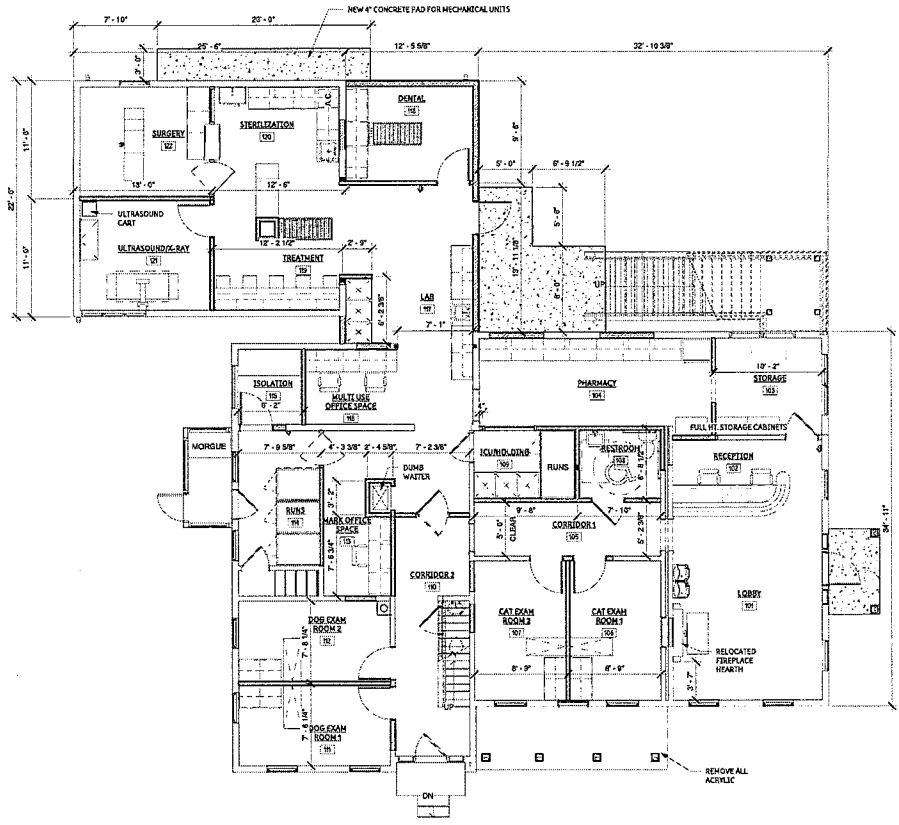
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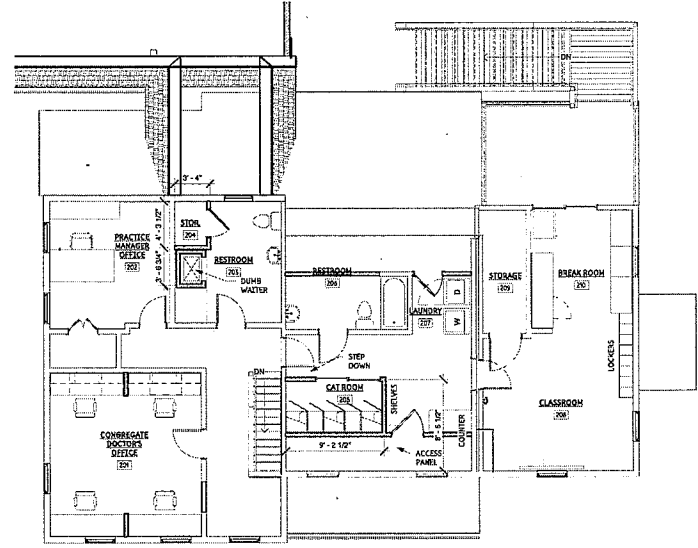
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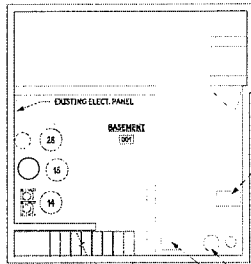
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1 DIMENSION PLAN - FIRST FLOOR
A-1.1 3/8" = 1'-0"



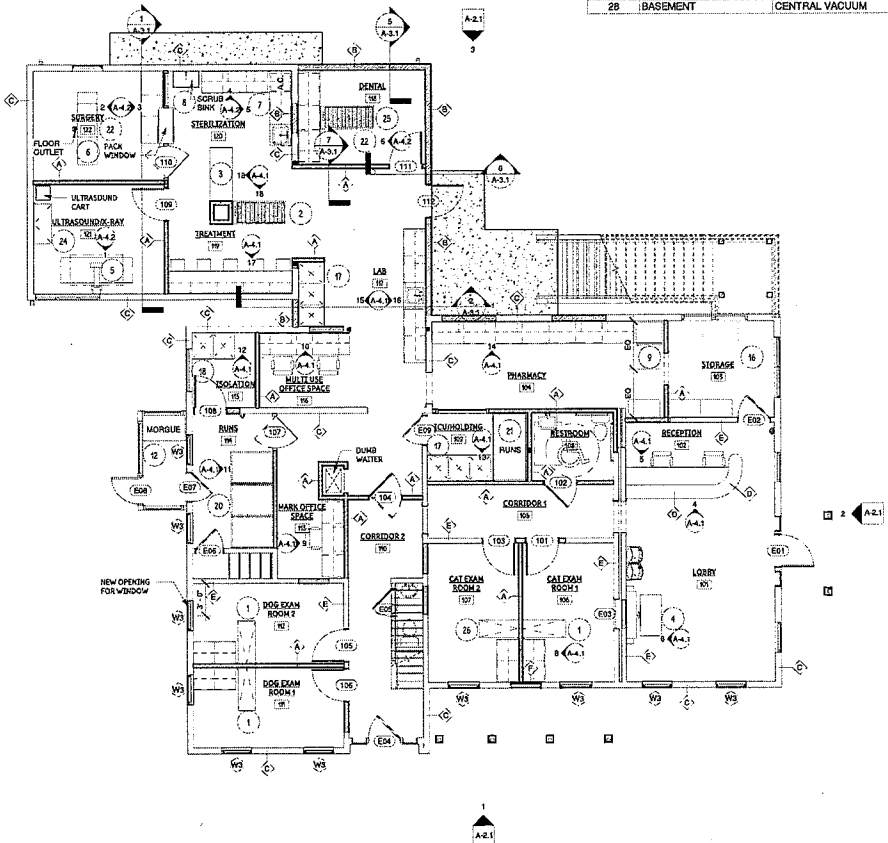
2 DIMENSION PLAN - SECOND FLOOR
A-1.1 3/8" = 1'-0"



REFERENCE PLAN - BASEMENT

3/16" = 1'-0"

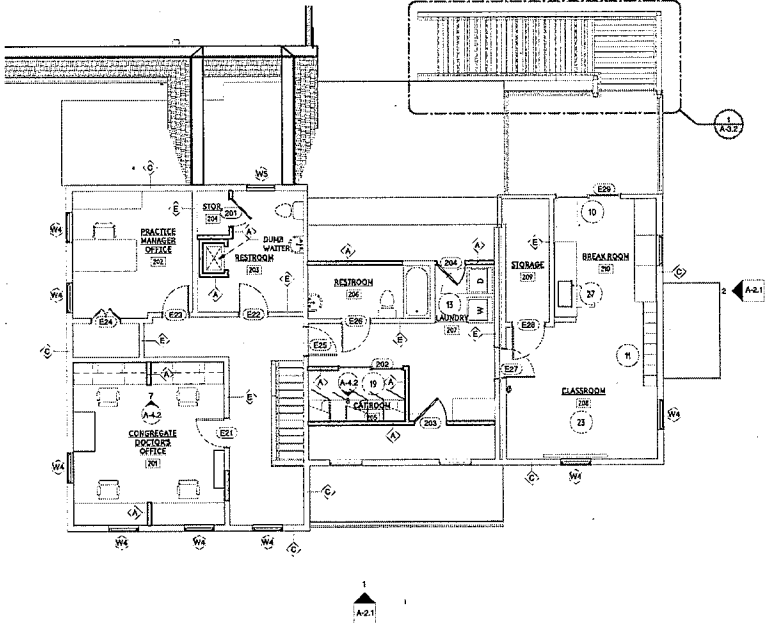
EQUIPMENT SCHEDULE									
NUMBER	ROOM	DESCRIPTION	PROVIDED BY	INSTALLED BY	POWER	WATER	COMMENTS		
1	EXAMS 1, 3, & 4	4'-0" WALL MOUNTED FOLDING EXAM TABLE	OWNER	CONTRACTOR	N/A	N/A	G.C. TO PROVIDE BLOCKING		
2	TREATMENT	6" SS WET TUB INSERT	OWNER	CONTRACTOR	N/A	HOT/COLD			
3	TREATMENT	5' EXAM TABLE	OWNER	CONTRACTOR	N/A	N/A			
4	LOBBY	RECESSED SCALE	OWNER	CONTRACTOR	20/1	N/A			
5	X-RAY	X-RAY MACHINE	EXISTING	CONTRACTOR	20/1	N/A			
6	SURGERY	50" HEATED SURGERY TABLE	OWNER	CONTRACTOR	20/1	N/A	IN SLAB RECEPTACLES		
7	PREP	AUTOClave	EXISTING	CONTRACTOR	20/1	N/A			
8	PREP	SS SCRUB SINK W/ INFRARED EYE	OWNER	CONTRACTOR	20/1	HOT/COLD			
9	PHARMACY	30" REFRIGERATOR	EXISTING	CONTRACTOR	20/1	N/A			
10	BREAKROOM	REFRIGERATOR/FREEZER	EXISTING	CONTRACTOR	20/1	COLD	PROVIDE ICE MAKER LINE OWNER TO SELECT COLOR		
11	BREAKROOM	8' 4 TIER LOCKERS	CONTRACTOR	CONTRACTOR	N/A	N/A			
12	MORGUE	4' FREEZER	EXISTING	CONTRACTOR	20/1	N/A			
13	LAUNDRY	COMMERCIAL GRADE WASHER/DRYER	OWNER	CONTRACTOR	20/1, 30/2	HOT/COLD	VENT DIRECTLY TO OUTSIDE OF BUILDING		
14	BASEMENT	OXYGEN TANKS	OWNER	CONTRACTOR	N/A	N/A			
15	BASEMENT	WASTE ANESTHESIA GAS	OWNER	CONTRACTOR	20/1	N/A	WAG		
16	STORAGE	SUPPLY SHELVING	OWNER	CONTRACTOR	N/A	N/A			
17	LAB, ICU/HOLDING	6" SS CAGE BANK	OWNER	CONTRACTOR	N/A	N/A			
18	ISOLATION	4" SS CAGE BANK	OWNER	CONTRACTOR	N/A	N/A			
19	CAT ROOM	9' CAT CONDO (SINGLE TIER)	OWNER	CONTRACTOR	N/A	N/A			
20	RUNS	3/4" SS RUN GATE AND PANELS	OWNER	CONTRACTOR	N/A	N/A			
21	ICU/HOLDING	3'-270" 4 RUN GATE AND PANELS	OWNER	CONTRACTOR	N/A	N/A			
22	SURGERY DENTAL	PROCEDURE LIGHT	EXISTING	CONTRACTOR	20/1	N/A	PROVIDE ABOVE CEILING BLOCKING TO SUPPORT 200LBS.		
23	CLASSROOM	PROJECTOR	OWNER	CONTRACTOR	20/1	N/A			
24	ULTRASOUND	42" WALL MOUNTED FOLD DOWN EXAM TABLE	EXISTING	CONTRACTOR	N/A	N/A	G.C. TO PROVIDE BLOCKING		
25	DENTAL	5' SS WET TUB ON LEGS (17" DEEP) AND DENTAL MACHINE	EXISTING	CONTRACTOR	N/A	HOT/COLD			
26	CAT EXAM ROOM 2	42" FOLD DOWN EXAM TABLE	EXISTING	CONTRACTOR	N/A	N/A			
27	BREAK ROOM	MICROWAVE	EXISTING	CONTRACTOR	20/1	N/A			
28	BASEMENT	CENTRAL VACUUM	OWNER	CONTRACTOR	20/1	N/A			



REFERENCE PLAN - FIRST FLOOR

3/16" = 1'-0"

PARTITION SCHEDULE	
TYPE	DESCRIPTION
A	INTERIOR PARTITION - 2X4 WOOD STUD w/ 5/8" SHEETROCK PAINTED ON BOTH SIDES (TYP.) LEVEL 5 FINISH EPOXY PAINT AT INTERIOR
B	EXTERIOR WALL - 2x6 WOOD STUDS WITH 1/2" PLYWOOD SHEATHING, TYVEK HOUSE WRAP AND SIDING, NEW 5/8" GYP. BOARD PAINTED WITH LEVEL 5 FINISH EPOXY PAINT AT INTERIOR
C	EXISTING WALL - 2x6 WOOD STUDS WITH 1/2" PLYWOOD SHEATHING, TYVEK HOUSE WRAP AND SIDING, NEW 5/8" GYP. BOARD PAINTED WITH LEVEL 5 FINISH EPOXY PAINT AT INTERIOR
D	2x4 INTERIOR KNEE WALL W/ WOOD STUDS @ 16" O.C. W/ POWDER DRIVEN FASTENERS @ 12" O.C. 5/8" TYPE X GYP. BD. EACH SIDE PAINTED W/ LATEX PAINT
E	EXISTING INTERIOR PARTITION - 2X4 WOOD STUD w/ 5/8" SHEETROCK PAINTED ON BOTH SIDES (TYP.) LEVEL 5 FINISH EPOXY PAINT AT INTERIOR
F	INTERIOR PARTITION - 2X2 WOOD STUD w/ 5/8" SHEETROCK PAINTED WITH LEVEL 5 FINISH EPOXY PAINT
V	INTERIOR PARTITION, 2X4 WOOD STUD FRAME WALL WITH 5/8" GYPSUM BOARD TO 10'-0", BRACE STRUCTURE 4'-0" O.C. MINIMUM, INSULATE W/ 5 1/2" SOUND BATT, LEVEL 5 FINISH & EPOXY PAINT.



REFERENCE PLAN - SECOND FLOOR

3/16" = 1'-0"

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REFERENCE PLANS
 Drawn By: SAW
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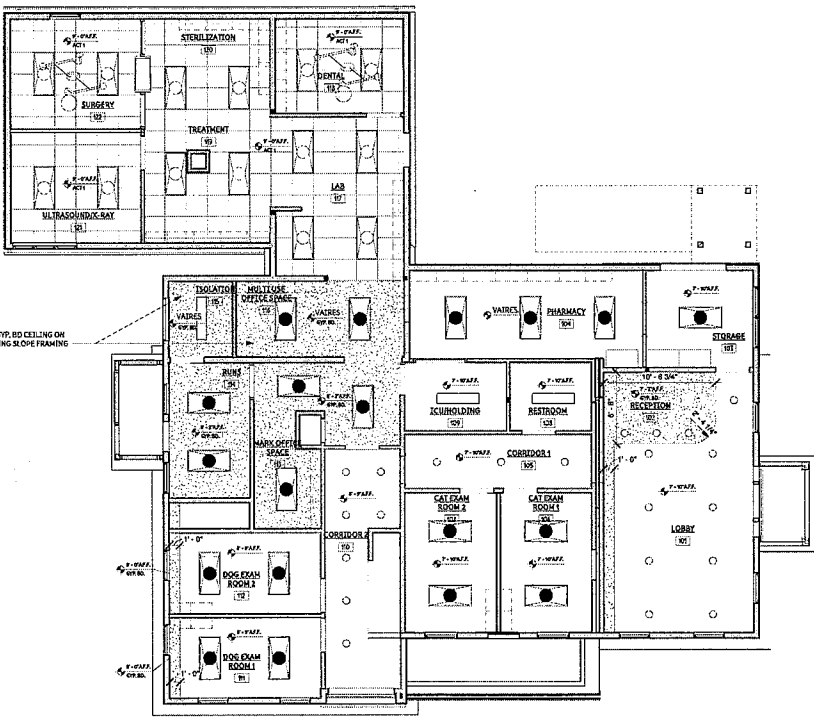
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A-1.3

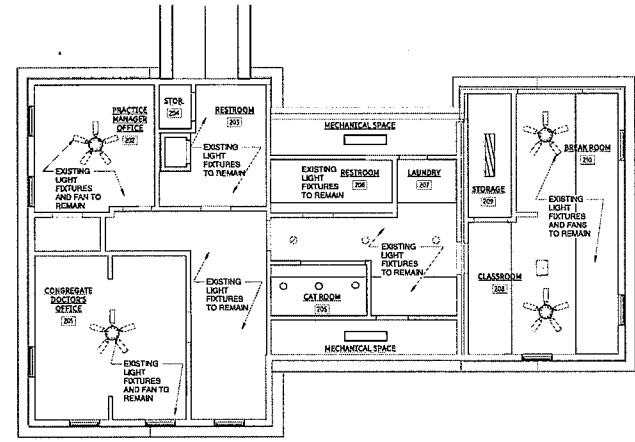
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RCP LEGEND	
	SURFACE MOUNTED LED FLAT PANEL - 2'x4' (2 LAMP)
	SURFACE MOUNTED TROFFER LIGHT - 2'x4' (2 LAMP)
	SURFACE MOUNTED LED FLAT PANEL - 1'x4' (2 LAMP)
	SUSPENDED LINEAR BOX - 1'x4' (2 LAMP)
	DOWNLIGHT - SURFACE MOUNTED LED CAN
	CEILING PROJECTOR
	PROCEDURE LIGHT - GC TO INSTALL CEILING BLOCKING TO SUPPORT UP TO 200 LBS.
	HVAC SUPPLY REGISTER - 12' X 12'
	HVAC RETURN DIFFUSER - 12' X 12'
	HVAC SUPPLY DIFFUSER - 24' X 24'
	HVAC RETURN REGISTER - 24' X 24'
	EXHAUST WITH FAN
	EXIT SIGN WITH EMERGENCY BACK UP LIGHTING
	WALL MOUNTED EMERGENCY LIGHTING
	EXISTING CEILING TO REMAIN
	NEW GYPSUM BOARD CEILING
	NEW 2x2 ACOUSTICAL TILE CEILING

NOTE: PATCH AND REPAIR EXISTING CEILINGS AS REQUIRED



REFLECTED CEILING PLAN - FIRST FLOOR
 A-1.3 3/16" = 1'-0"



REFLECTED CEILING PLAN-SECOND FLOOR
 A-1.3 3/16" = 1'-0"

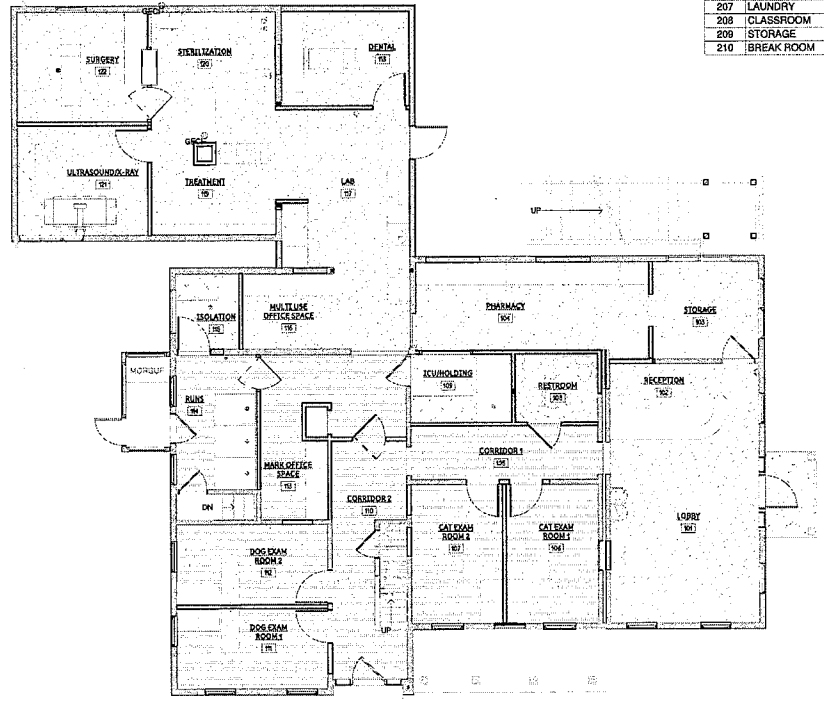
FLOOR FINISH LEGEND

	NEW EPOXY FINISH COVERING EXISTING HARDWOOD FLOORING, REFINISH BEFORE APPLYING EPOXY		EXISTING HARDWOOD FLOORING, REFINISH
	NEW PORCELAIN TILE, GC TO PROVIDE SCHLUTER TRANSITION STRIP		EXISTING LINOLEUM FLOOR
	BUILT UP EPOXY		EXISTING PORCELAIN TILE
	NEW VINYL FLOOR		

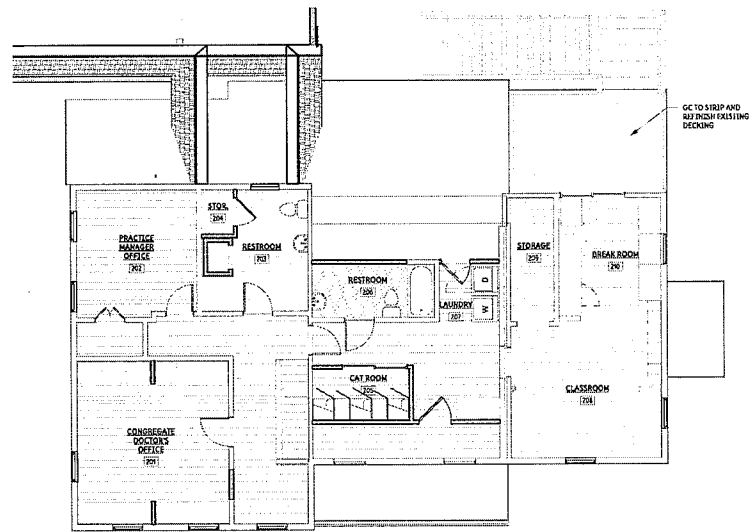
GC TO REFINISH ALL EXISTING HARDWOOD FLOORS

FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS	CEILING	CEILING HEIGHT	COMMENTS
101	LOBBY	PORCELAIN TILE	TILE	EPOXY PAINT	GYP. BD.-EXISTING	7'-10"	
102	RECEPTION	PORCELAIN TILE	TILE	EPOXY PAINT	GYP. BD.-EXISTING	7'-10"	
103	STORAGE	EPOXY	INTEGRAL	EPOXY PAINT	GYP. BD.-EXISTING	7'-10"	
104	PHARMACY	EPOXY	INTEGRAL	EPOXY PAINT	GYP. BD.-EXISTING	7'-10"	
105	CORRIDOR 1	EPOXY COVERING EXISTING HARDWOOD	EXISTING	EPOXY PAINT	GYP. BD.-EXISTING	7'-10"	
106	CAT EXAM ROOM 1	EPOXY COVERING EXISTING HARDWOOD	EXISTING	EPOXY PAINT	GYP. BD.-EXISTING	7'-10"	
107	CAT EXAM ROOM 2	EPOXY COVERING EXISTING HARDWOOD	EXISTING	EPOXY PAINT	GYP. BD.-EXISTING	7'-10"	
108	RESTROOM	PORCELAIN TILE	INTEGRAL	EPOXY PAINT/FRP	GYP. BD.-EXISTING	7'-10"	FRP PANELS ON WALLS BEHIND RUN
109	CUAN/DLDRG	EPOXY	INTEGRAL	EPOXY PAINT	GYP. BD.-EXISTING	8'-9"	
110	CORRIDOR 2	EPOXY COVERING EXISTING HARDWOOD	EXISTING	EPOXY PAINT	GYP. BD.-EXISTING	8'-9"	
111	DOG EXAM ROOM 1	EPOXY COVERING EXISTING HARDWOOD	EXISTING	EPOXY PAINT	GYP. BD.-EXISTING	8'-9"	
112	DOG EXAM ROOM 2	EPOXY COVERING EXISTING HARDWOOD	EXISTING	EPOXY PAINT	GYP. BD.-EXISTING	8'-9"	
113	MARK OFFICE SPACE	EPOXY COVERING EXISTING HARDWOOD	EXISTING	EPOXY PAINT	GYP. BD.-EXISTING	8'-10"	FRP PANELS ON WALLS BEHIND RUNS
114	RUNS	EPOXY COVERING EXISTING HARDWOOD	EXISTING	EPOXY PAINT/FRP	GYP. BD.-EXISTING	8'-10"	
116	ISOLATION	EPOXY	INTEGRAL	EPOXY PAINT	GYP. BD.-EXISTING	7'-6"	
117	MULTI USE OFFICE SPACE	EPOXY	INTEGRAL	EPOXY PAINT	GYP. BD.-EXISTING	7'-6"	
118	DENTAL	EPOXY	INTEGRAL	EPOXY PAINT	ACT-1	9'-0"	
119	TREATMENT	EPOXY	INTEGRAL	EPOXY PAINT	ACT-1	9'-0"	
120	STERILIZATION	EPOXY	INTEGRAL	EPOXY PAINT	ACT-1	9'-0"	
121	ULTRASOUND/X-RAY	EPOXY	INTEGRAL	EPOXY PAINT	ACT-1	9'-0"	
122	SURGERY	EPOXY	INTEGRAL	EPOXY PAINT	ACT-1	9'-0"	
201	CONGREGATE DOCTOR'S OFFICE	EXISTING HARDWOOD	EXISTING	EPOXY PAINT	GYP. BD.-EXISTING		
202	PRACTICE MANAGER OFFICE	EXISTING HARDWOOD	EXISTING	EPOXY PAINT	GYP. BD.-EXISTING		
203	RESTROOM	EXISTING TILE	EXISTING	EPOXY PAINT	GYP. BD.-EXISTING		
204	STOR.	EXISTING TILE	EXISTING	EPOXY PAINT	GYP. BD.-EXISTING		
205	CAT ROOM	EPOXY COVERING EXISTING HARDWOOD	WOOD	EPOXY PAINT	GYP. BD.-EXISTING		
206	RESTROOM	EXISTING LINOLEUM	EXISTING	EPOXY PAINT	GYP. BD.-EXISTING		
207	LAUNDRY	EXISTING HARDWOOD	EXISTING	EPOXY PAINT	GYP. BD.-EXISTING		
208	CLASSROOM	VINYL PLANK	WOOD	EPOXY PAINT	GYP. BD.-EXISTING		
209	STORAGE	VINYL PLANK	WOOD	EPOXY PAINT	GYP. BD.-EXISTING		
210	BREAK ROOM	VINYL PLANK	WOOD	EPOXY PAINT	GYP. BD.-EXISTING		



FINISH PLAN - FIRST FLOOR
1/4" = 1'-0"



FINISH PLAN - SECOND FLOOR
1/4" = 1'-0"

HDA ARCHITECTS
HDA ARCHITECTS, INC.
 101 East 2nd Ave.
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 Rome, Georgia 30161
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 Toll: 888.221.9232
 hda-architects.com

ARBOR HILLS ANIMAL CLINIC
 MARK & KRISTIN WILSON
 5347 PLYMOUTH RD.
 ANN ARBOR, MI 48105

FLOOR FINISH PLAN
 Drawn By: SAW
 P.J.H.
 Checked By:

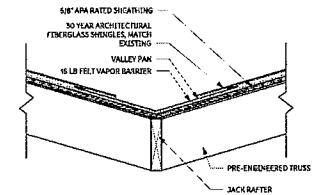
Release	Description
12-17-21	REVIEW SET

HDA Job Number: 2120
 Date: 11-30-2021

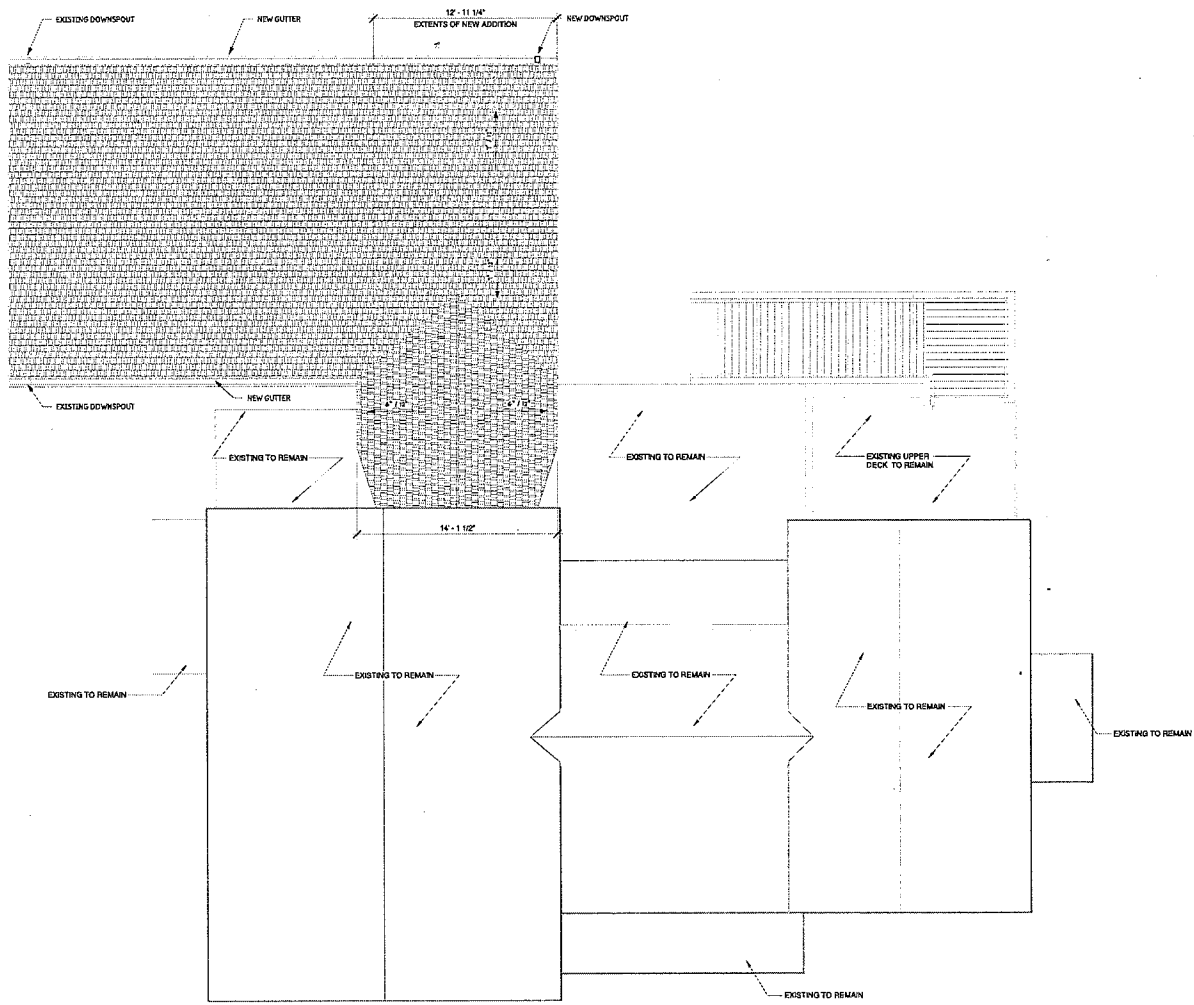
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A-1.4

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2
A-5 VALLEY DETAIL
1/4" = 1'-0"



1
A-5 ROOF PLAN
1/4" = 1'-0"

NOTE:
ALL ROOF PENETRATIONS TO BE
PAINTED TO MATCH ROOF COLOR



**ARBOR HILLS
ANIMAL CLINIC
MARK & KRISTIN WILSON
5347 PLYMOUTH RD
ANN ARBOR, MI 48105**



ROOF PLAN &
DETAILS
Drawn By: SAW
Checked By: P.J.H.

Release	Description
12-17-21	REVIEW SET

HDA Job Number: 2120
Date: 11-30-2021

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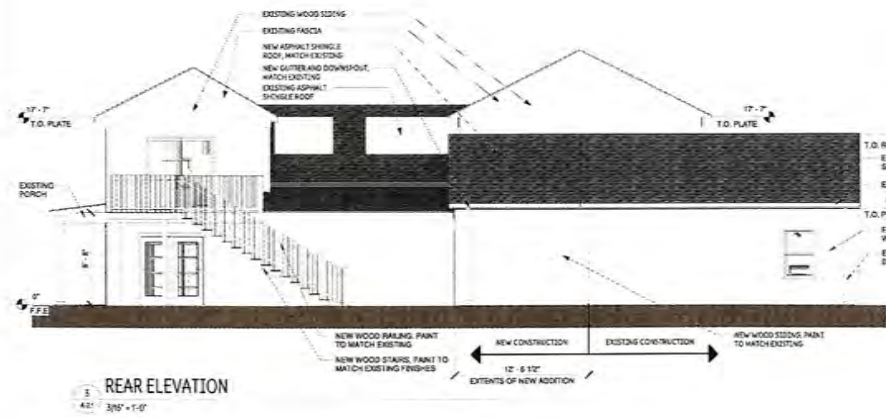
FRONT ELEVATION

NOTE: SEE SHEET A-12 FOR EXACT NUMBER OF NEW WINDOWS TO REPLACE



SIDE ELEVATION

NOTE: SEE SHEET A-12 FOR EXACT NUMBER OF NEW WINDOWS TO REPLACE



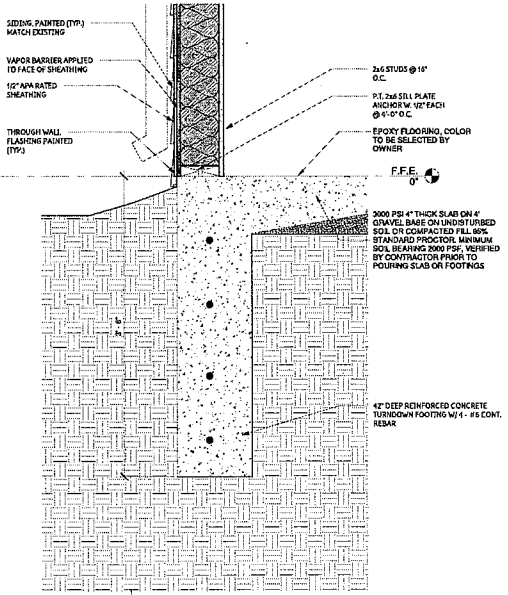
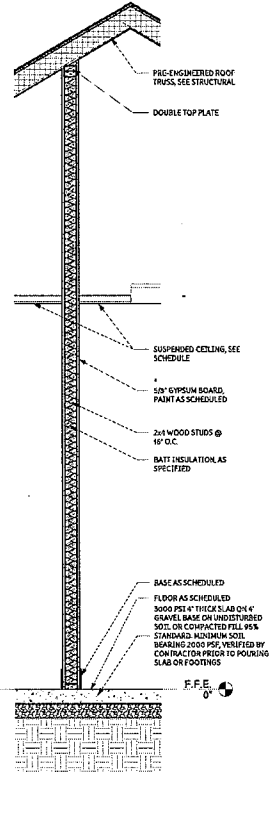
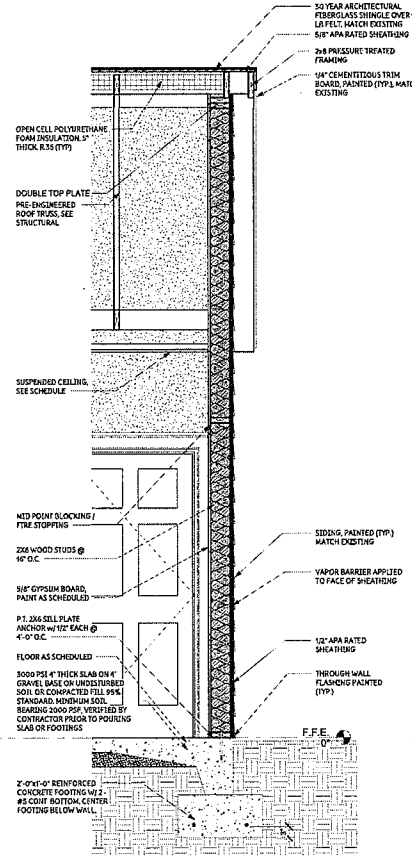
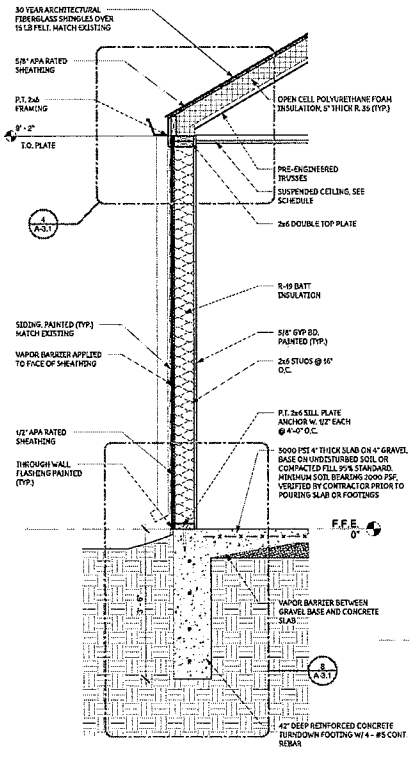
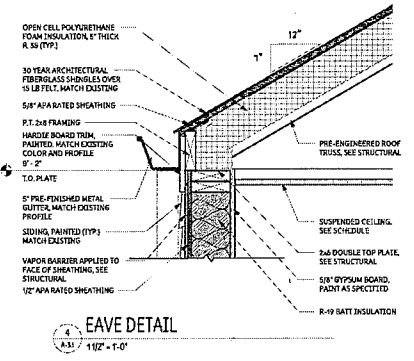
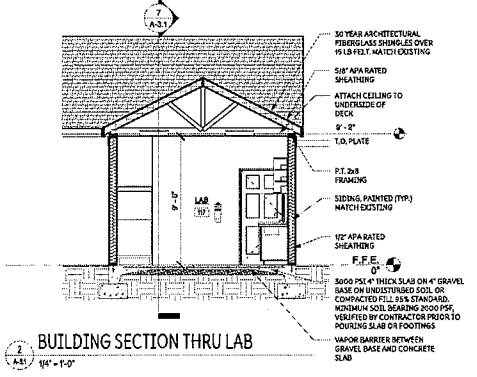
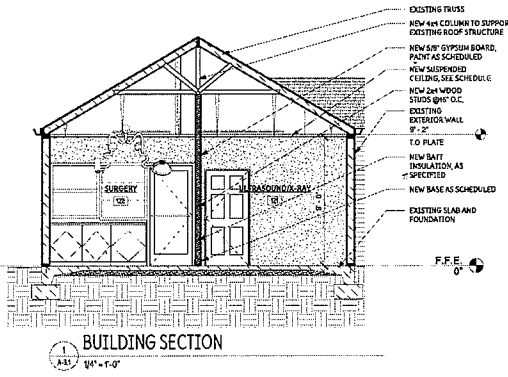
REAR ELEVATION

NOTE: SEE SHEET A-12 FOR EXACT NUMBER OF NEW WINDOWS TO REPLACE



SIDE ELEVATION

NOTE: SEE SHEET A-12 FOR EXACT NUMBER OF NEW WINDOWS TO REPLACE

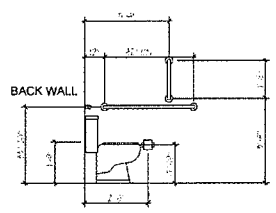


WALL SECTION
5
A-3.1 3/4" x 1'-0"

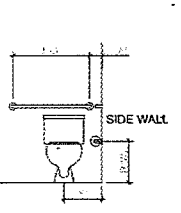
GABLE END WALL
6
A-3.1 3/4" x 1'-0"

INTERIOR WALL (TYP.)
7
A-3.1 3/4" x 1'-0"

FOOTING DETAIL
8
A-3.1 1/2" x 1'-0"



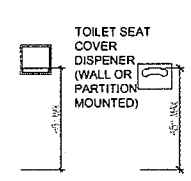
GRAB BARS DETAIL



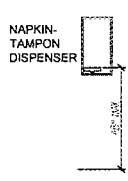
LAVATORY DETAIL

ADA DETAILS 1
NTS

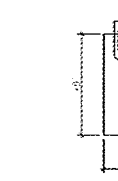
ADA DETAILS 2
NTS



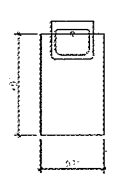
PAPER TOWEL DISPENSER



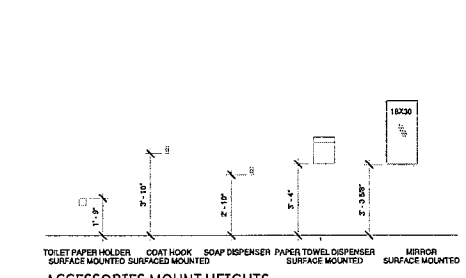
SEAT COVER DISPENSER



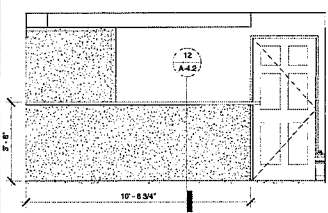
SANITARY NAPKIN DISPENSER



LAVATORY CLEAR FLOOR AREA

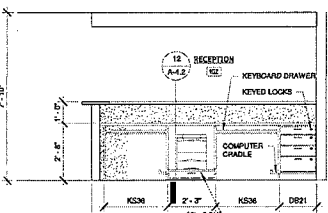


ACCESSORIES MOUNT HEIGHTS



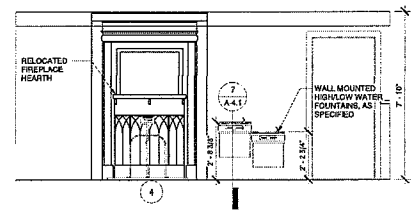
RECEPTION - FRONT

A.4.1 3/8" = 1'-0"



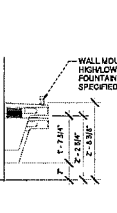
RECEPTION - REAR

A.4.1 3/8" = 1'-0"



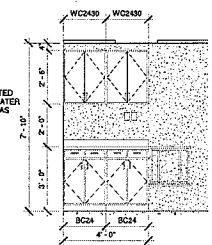
SCALE AND WATER FOUNTAINS

A.4.1 3/8" = 1'-0"



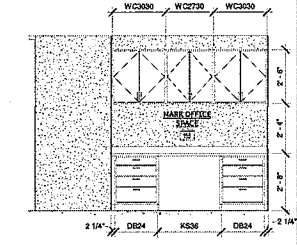
WATER FOUNTAINS

A.4.1 1/2" = 1'-0"



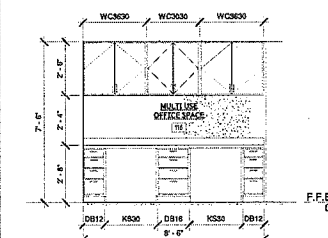
EXAM ROOM (TYP.)

A.4.1 3/8" = 1'-0"



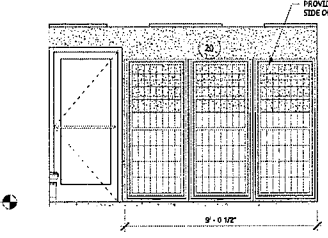
MARK OFFICE SPACE

A.4.1 3/8" = 1'-0"



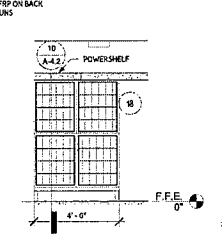
MULTI-USE OFFICE SPACE

A.4.1 3/8" = 1'-0"



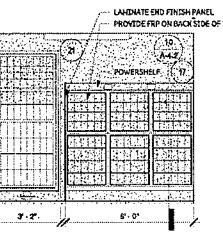
RUNS

A.4.1 3/8" = 1'-0"



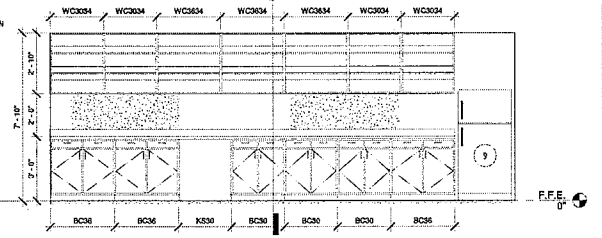
ISOLATION

A.4.1 3/8" = 1'-0"



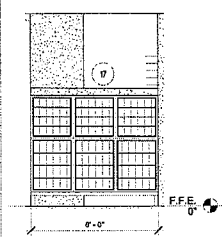
ICU/HOLDING

A.4.1 3/8" = 1'-0"



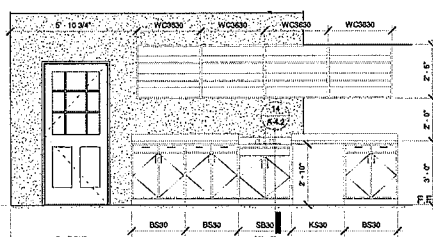
PHARMACY

A.4.1 3/8" = 1'-0"



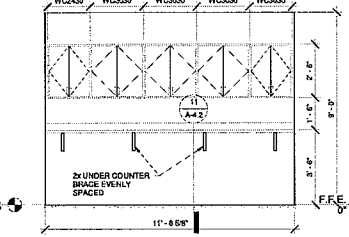
KENNELS AT LAB

A.4.1 3/8" = 1'-0"



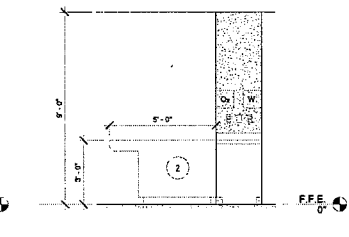
LAB

A.4.1 3/8" = 1'-0"



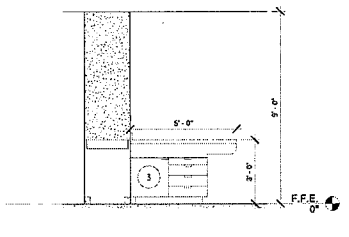
TREATMENT

A.4.1 3/8" = 1'-0"



TREATMENT 2

A.4.1 3/8" = 1'-0"



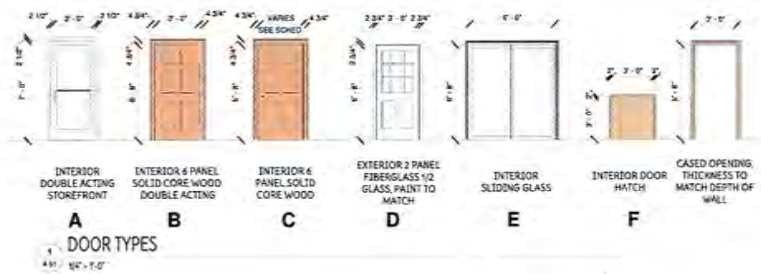
TREATMENT 3

A.4.1 3/8" = 1'-0"

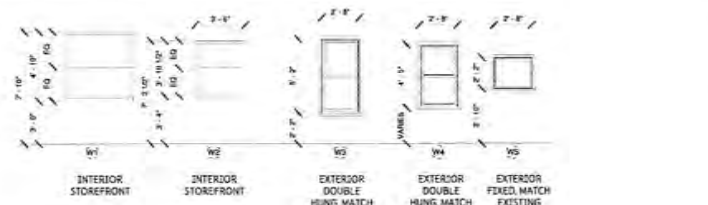
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DOOR SCHEDULE

NO.	TYPE	WIDTH	HEIGHT	THICKNESS	DOOR	MATERIAL	HEAD	JAMB	SILL	FIRE RATING	REMARKS
101	C	3'-0"	6'-8"	1-3/8"	SOLID CORE WOOD	6A/A-5.1	6B/A-5.1	6C/A-5.1			
102	C	3'-0"	6'-8"	1-3/8"	SOLID CORE WOOD	6A/A-5.1	6B/A-5.1	6C/A-5.1			
103	C	3'-0"	6'-8"	1-3/8"	SOLID CORE WOOD	6A/A-5.1	6B/A-5.1	6C/A-5.1			
104	B	3'-0"	6'-8"	1-3/8"	SOLID CORE WOOD	6A/A-5.1	6B/A-5.1	6C/A-5.1			
105	C	3'-0"	6'-8"	1-3/8"	SOLID CORE WOOD	6A/A-5.1	6B/A-5.1	6C/A-5.1			
106	C	3'-0"	6'-8"	1-3/8"	SOLID CORE WOOD	6A/A-5.1	6B/A-5.1	6C/A-5.1			
107	A	3'-0"	7'-0"	1-3/4"	INTERIOR ALUMINUM GLAZED	4A/A-5.1	4B/A-5.1	4C/A-5.1			DOUBLE ACTING / NO THRESHOLD
108	C	3'-0"	6'-8"	1-3/8"	SOLID CORE WOOD	6A/A-5.1	6B/A-5.1	6C/A-5.1			
109	C	3'-0"	6'-8"	1-3/8"	SOLID CORE WOOD	6A/A-5.1	6B/A-5.1	6C/A-5.1			
110	A	3'-0"	7'-0"	1-3/4"	INTERIOR ALUMINUM GLAZED	4A/A-5.1	4B/A-5.1	4C/A-5.1			DOUBLE ACTING / NO THRESHOLD
111	C	3'-0"	6'-8"	1-3/8"	SOLID CORE WOOD	6A/A-5.1	6B/A-5.1	6C/A-5.1			
112	D	3'-0"	6'-8"	1-3/8"	FIBERGLASS, HALF GLASS	3A/A-5.1	3B/A-5.1	3C/A-5.1			
201	C	2'-8"	6'-8"	1-3/8"	SOLID CORE WOOD	6A/A-5.1	6B/A-5.1	6C/A-5.1			
202	E	6'-0"	6'-8"	2"	INTERIOR GLAZED	6A/A-5.1	6B/A-5.1	6C/A-5.1			
203	F	3'-0"	3'-0"	1-3/4"	SOLID CORE WOOD	6A/A-5.1	6B/A-5.1	6C/A-5.1			
204	L	2'-8"	3'-0"	1-3/4"	SOLID CORE WOOD	6A/A-5.1	6B/A-5.1	6C/A-5.1			
E01	EXISTING	3'-0"	6'-8"	1-3/8"	EXISTING						
E02	EXISTING	3'-0"	6'-8"	1-3/8"	EXISTING						
E03	EXISTING	2'-8"	6'-8"	1-3/8"	EXISTING						
E04	EXISTING	3'-0"	6'-8"	1-3/4"	EXISTING						
E05	EXISTING	2'-8"	6'-8"	1-3/8"	EXISTING						RELOCATE DOOR TO OPPOSITE SIDE OF ROOM
E06	EXISTING	2'-7"	6'-8"	1-3/8"	EXISTING						
E07	EXISTING	2'-8"	6'-8"	1-3/8"	EXISTING						
E08	EXISTING	2'-6"	6'-8"	1-3/4"	EXISTING						
E09	EXISTING	2'-8"	6'-8"	1-3/8"	EXISTING						
E21	EXISTING	2'-8"	6'-8"	1-3/8"	EXISTING						
E22	EXISTING	2'-8"	6'-7"	1-3/8"	EXISTING						
E23	EXISTING	2'-6"	6'-8"	1-3/8"	EXISTING						
E24	EXISTING	2'-7"	6'-8"	1-3/8"	EXISTING						
E25	EXISTING	2'-8"	6'-7"	1-3/8"	EXISTING						
E26	EXISTING	2'-8"	6'-8"	1-3/8"	EXISTING						
E27	EXISTING	2'-8"	6'-8"	1-3/8"	EXISTING						
E28	EXISTING	3'-0"	5'-9"	1-3/8"	EXISTING						
E29	EXISTING	6'-0"	7'-0"	2"	EXISTING						

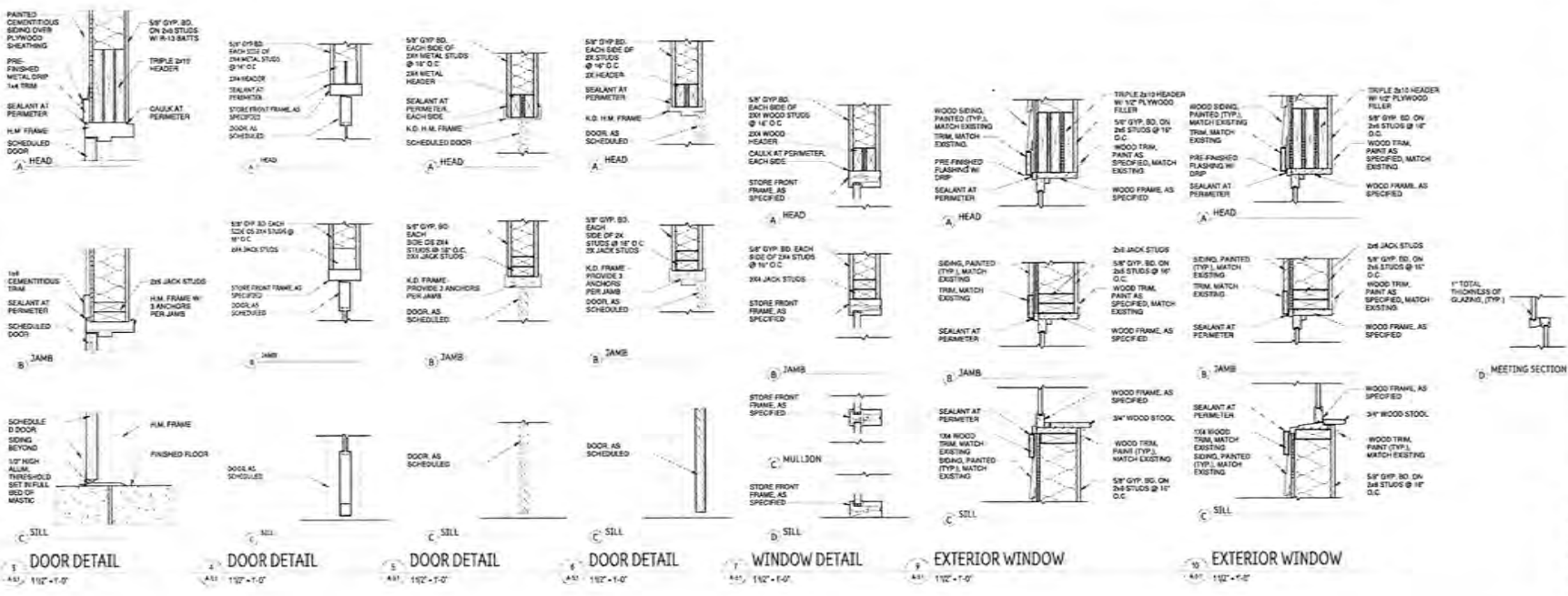


DOOR TYPES
AS₁ 1/2" x 1'-0"



WINDOW TYPES
AS₁ 1/2" x 1'-0"

"O.C. TO FIELD VERIFY ALL EXISTING OPENINGS FOR WINDOW REPLACEMENT"



DOOR DETAIL AS₁ 1/2" x 1'-0" **DOOR DETAIL** AS₁ 1/2" x 1'-0" **DOOR DETAIL** AS₁ 1/2" x 1'-0" **DOOR DETAIL** AS₁ 1/2" x 1'-0" **WINDOW DETAIL** AS₁ 1/2" x 1'-0" **EXTERIOR WINDOW** AS₁ 1/2" x 1'-0" **EXTERIOR WINDOW** AS₁ 1/2" x 1'-0"

HDA ARCHITECTS, INC.
101 East 2nd Ave.
Suite 350
Rome, Georgia
30161
Tel: 706.531.9998
Toll: 888.221.9232
hda-architect.com

ARBOR HILLS ANIMAL CLINIC
MARK & KRISTIN WILSON
5347 PLYMOUTH RD
ANN ARBOR, MI 48105

SCHEDULES & DETAILS
Drawn By: SAW
Checked By: PJH

Release: 12-17-21
Description: REVIEW SET

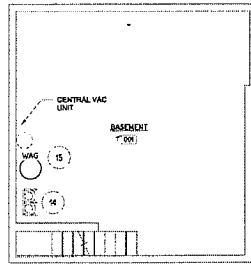
HDA Job Number: 2120
Date: 11-30-2021

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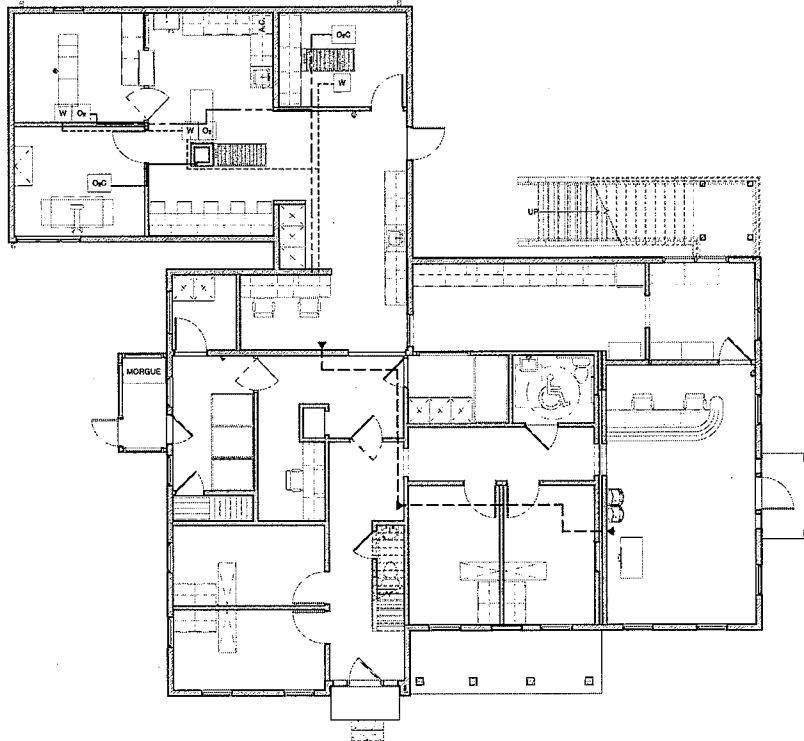
A-5.1

NOT FOR CONSTRUCTION

12/17/2021 9:21:19 AM



1 MED GAS PLAN-BASEMENT
ME-13 3/16" = 1'-0"

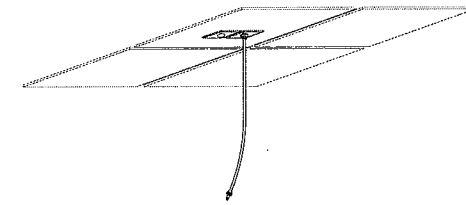


2 MED GAS PLAN
ME-13 3/16" = 1'-0"

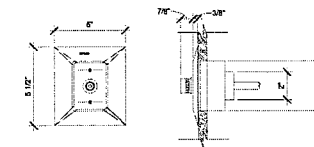
LEGEND		PURCHASED BY
O ₂ C	O ₂ CEILING OUTLET	OWNER
O ₂	O ₂ WALL OUTLET	OWNER
W	WASTE GAS OUTLET	CONTRACTOR
---	WASTE GAS ANESTHESIA	CONTRACTOR
---	O ₂ LINE	CONTRACTOR
---	CENTRAL VACUUM	CONTRACTOR

GENERAL NOTES

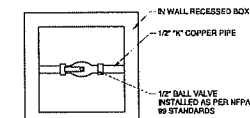
- ALL PIPING, VALVES, FITTINGS AND ALL OTHER COMPONENTS MUST BE THOROUGHLY CLEANED BY THE MFR. TO REMOVE OIL, GREASE AND OTHER READILY OXIDIZABLE MATERIALS. USE PARTICULAR CARE IN STORAGE AND HANDLING. SUCH MATERIALS MUST BE CAPPED TO PREVENT RECONTAMINATION BEFORE FINAL ASSEMBLY. JUST PRIOR TO FINAL ASSEMBLY, ALL MATERIAL MUST BE EXAMINED INTERNALLY FOR CONTAMINATION.
- ALL O₂ PIPING SHALL BE 1/2" N_C COPPER. ALL COPPER-TO-COPPER JOINTS SHALL BE MADE USING ONLY SILVER SOLDER. NO FLUX IS ALLOWED.
- ALL WAG PIPING TO BE 1/2" TYPE N_C COPPER. ALL CONNECTIONS TO USE ONLY SILVER SOLDER. NO FLUX IS ALLOWED. PROVIDE PWD ADAPTER WHERE NEEDED.
- THE OUTSIDE OF ALL PIPING, JOINTS, AND FITTINGS SHALL BE CLEANED WITH HOT WATER AFTER ASSEMBLY TO REMOVE EXCESS SOLDER AND PROVIDE FOR A CLEAR VISUAL INSPECTION OF SOLDERED CONNECTIONS.
- A VISUAL INSPECTION OF EACH SOLDER JOINT SHALL BE MADE TO ASSURE THAT THE ALLOW HAS FLOWED COMPLETELY AROUND THE JOINT AT THE TUBE FITTING. ALL GAS VALVE AREA TO BE INSTALLED ACCORDING TO NFPA 99.
-



3 O₂ CEILING OUTLET, TYP.
ME-13 1" = 1'-0"



4 O₂ WALL PLATE, TYP.
ME-13 3" = 1'-0"



5 BALL VALVE DETAIL
ME-13 3" = 1'-0"

HDA ARCHITECTS

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ARBOR HILLS
ANIMAL CLINIC
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5347 PLYMOUTH RD.
ANN ARBOR, MI 48105

MED GAS/CENTRAL VAC PLAN
Drawn By: SAW
Checked By: P.J.H.

Release	Description

HDA Job Number: 2120
Date: 11-30-2021

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MG-1.1
12/17/2021 9:47:24 AM



Mark from Arbor Hills Animal Clinic <marktwilson@arborhillsvet.com>

5347 Plymouth Rd

2 messages

Mark from Arbor Hills Animal Clinic <marktwilson@arborhillsvet.com> Mon, Dec 20, 2021 at 12:38 PM
To: Peter J Hill <pete@hda-architects.com>, Jim <jim@hda-architects.com>, Susan Wade <susan@hda-architects.com>

I think I sent an email on Friday asking this, but in case I didn't, do you have any exterior drawings that show the placement of any HVAC equipment and the Generator?

Mark T. Wilson, Practice Manager, Arbor Hills Animal Clinic (he/him)

Jim <jim@hda-architects.com> Mon, Dec 20, 2021 at 1:12 PM
To: Mark from Arbor Hills Animal Clinic <marktwilson@arborhillsvet.com>, Peter J Hill <pete@hda-architects.com>, Susan Wade <susan@hda-architects.com>

Hello Mark,
We don't have any exterior shots of these locations, but their locations will be behind the new surgery suite. This equipment will also be behind the fence.
Thanks,
Jim



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Architects, Inc.**
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Dawsonville GA

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[Quoted text hidden]



SOURCE: USGS ONLINE MAPS

LOCATION MAP

SCALE: 1" = 2,000'±

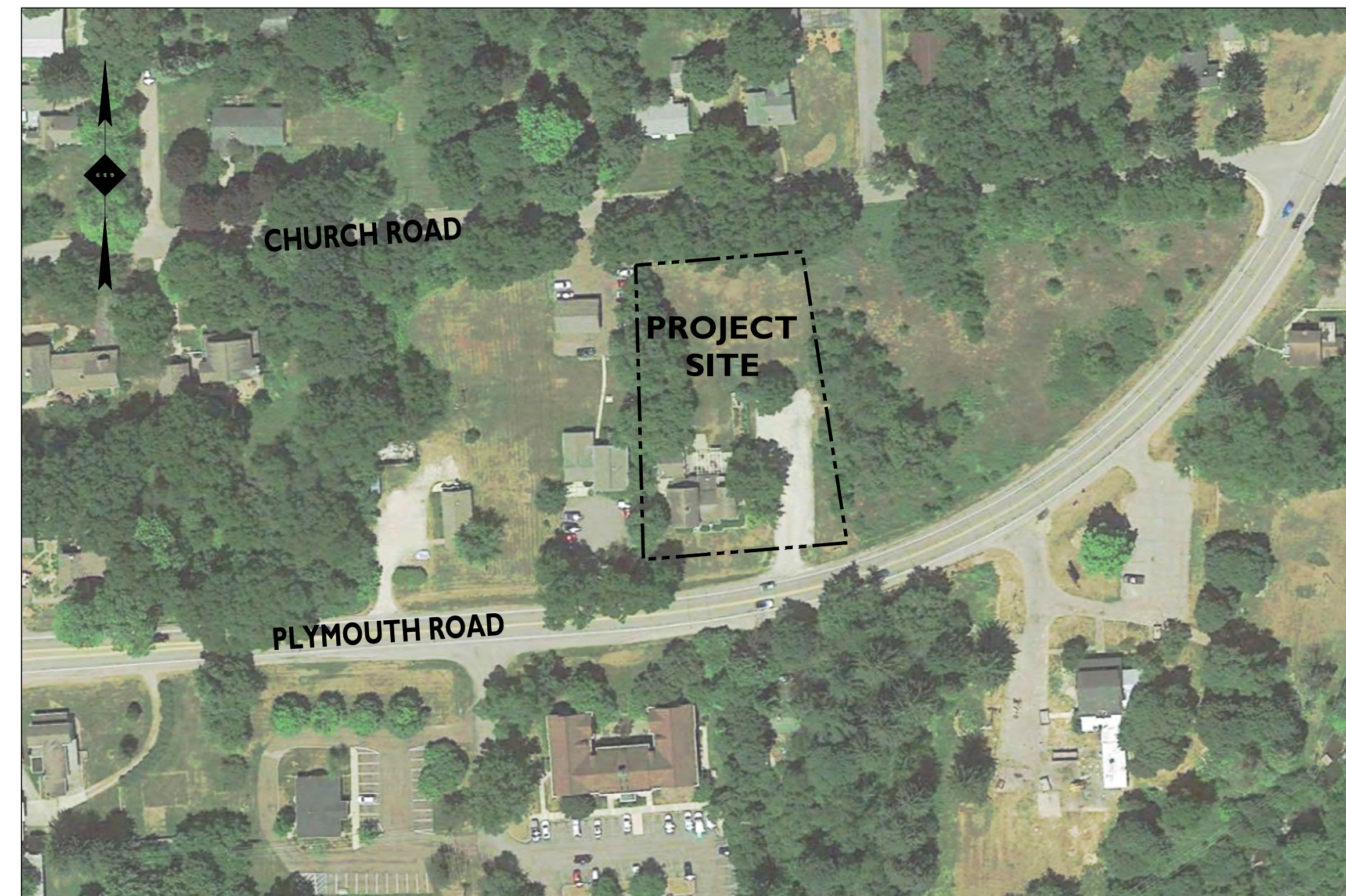
SITE IMPROVEMENT PLANS FOR 5347 PLYMOUTH ROAD PROPOSED VETERINARY CLINIC

PARCEL ID: 10-18-155-013
5347 PLYMOUTH ROAD

SUPERIOR CHARTER TOWNSHIP, WASHTENAW COUNTY, MICHIGAN 48105

APPLICANT

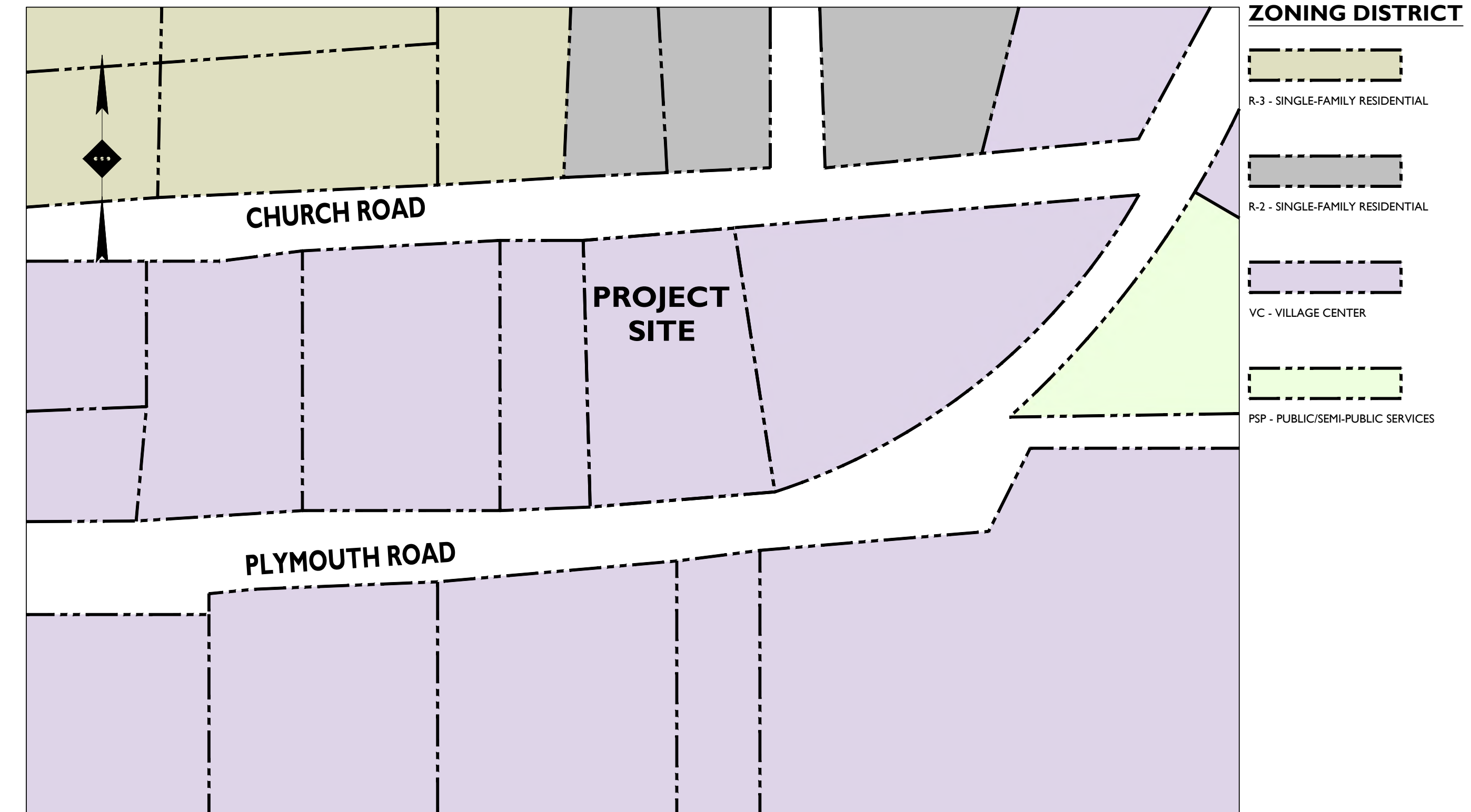
MARK & KRISTIN WILSON
DBA ARBOR HILLS ANIMAL CLINIC PLLC
2717 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105
MARKTWILSON@ARBORHILLSVET.COM



SOURCE: GOOGLE EARTH PRO

AERIAL MAP

SCALE: 1" = 100'±



SOURCE: SUPERIOR CHARTER TOWNSHIP ZONING MAP

ZONING MAP

SCALE: 1" = 100'±

ZONING DISTRICT

- R-3 - SINGLE-FAMILY RESIDENTIAL
- R-2 - SINGLE-FAMILY RESIDENTIAL
- VC - VILLAGE CENTER
- PSP - PUBLIC/SEMI-PUBLIC SERVICES

ISSUE	DATE	BY	DESCRIPTION
6	02/08/2022	AF	FOR ENGINEERING APPROVAL
5	01/28/2022	MG	FOR ENGINEERING APPROVAL
4	12/21/2021	MG	FOR FINAL SITE PLAN SUBMISSION
3	12/16/2021	MG	FOR CLIENT REVIEW
2	10/19/2021	AF	FOR SITE PLAN SUBMISSION
1	09/29/2021	AF/IMG	FOR CLIENT REVIEW

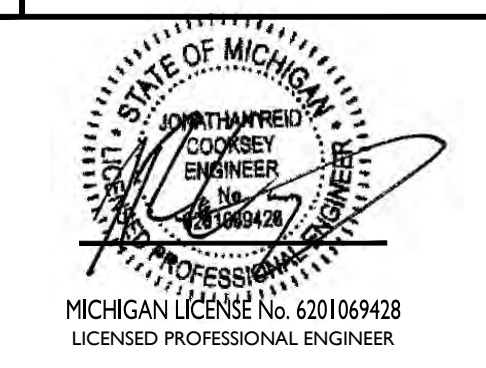
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SITE IMPROVEMENT PLANS
5347 PLYMOUTH ROAD
PROPOSED VETERINARY CLINIC

PARCEL ID: 10-18-155-013
5347 PLYMOUTH ROAD
SUPERIOR CHARTER TOWNSHIP
WASHTENAW COUNTY, MICHIGAN 48105



SCALE: AS SHOWN PROJECT ID: DET-210369

TITLE:
COVER SHEET

DRAWING:
C-1

PLANS PREPARED BY:



Detroit, MI • Rutherford, NJ • New York, NY
Princeton, NJ • Tampa, FL • Boston, MA
www.stonefielddeng.com

607 Shelby Suite 200, Detroit, MI 48226
Phone 248.247.1115

PLAN REFERENCE MATERIALS:

- THIS PLAN SET REFERENCES THE FOLLOWING DOCUMENTS INCLUDING, BUT NOT LIMITED TO:
 - ALTA/NSPS LAND TITLE SURVEY PREPARED BY KEM-TEC A GROUP OF COMPANIES DATED: 12/23/2021
 - AERIAL MAP OBTAINED FROM GOOGLE EARTH PRO
 - LOCATION MAP OBTAINED FROM USGS ONLINE MAPS
- ALL REFERENCE MATERIAL LISTED ABOVE SHALL BE CONSIDERED A PART OF THIS PLAN SET AND ALL INFORMATION CONTAINED WITHIN THESE MATERIALS SHALL BE UTILIZED IN CONJUNCTION WITH THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN A COPY OF EACH REFERENCE AND REVIEW IT THOROUGHLY PRIOR TO THE START OF CONSTRUCTION.

SHEET INDEX	
DRAWING TITLE	SHEET #
COVER SHEET	C-1
DEMOLITION PLAN	C-2
SITE PLAN	C-3
GRADING & DRAINAGE PLAN	C-4
LANDSCAPE PLAN	C-5
LIGHTING PLAN	C-6
SOIL EROSION & SEDIMENT CONTROL PLAN	C-7
STORMWATER DESIGN CALCULATIONS	C-8
CONSTRUCTION DETAILS	C-9 TO C-10
SIGHT DISTANCE EXHIBIT	EX-1

ADDITIONAL SHEETS	
DRAWING TITLE	SHEET #
ALTA/NSPS LAND TITLE SURVEY	I OF I



Know what's below
Call before you dig.

LAND USE AND ZONING		
PARCEL ID: 10-18-155-013		
VILLAGE COMMERCIAL DISTRICT (VC)		
PROPOSED USE	REQUIRED	PROPOSED
VETERINARY CLINIC	CONDITIONAL USE	
ZONING REQUIREMENT	REQUIRED	PROPOSED
MINIMUM LOT AREA	20,000 SF	43,934 SF
MINIMUM LOT WIDTH	100 FT	180.2 FT
MAXIMUM GROUND FLOOR COVERAGE	25% (10,984 SF)	7% (3,086 SF)
MAXIMUM FLOOR AREA RATIO	0.50 (21,968 SF)	.07 (3,086 SF)
MAXIMUM BUILDING HEIGHT	35 FT (2 STORIES)	< 35 FT (2 STORIES)
MINIMUM FRONT YARD SETBACK	20 FT	25.8 FT
MAXIMUM FRONT YARD	35 FT	25.8 FT
MINIMUM SIDE YARD SETBACK (ONE)	10 FT	16.8 FT
MINIMUM SIDE YARD SETBACK (BOTH)	20 FT	106.1 FT
MINIMUM REAR YARD SETBACK	35 FT	169.6 FT
MINIMUM FRONT YARD PARKING SETBACK	20 FT	21.5 FT
MINIMUM SIDE AND REAR PARKING SETBACK	10 FT ⁽¹⁾	10.0 FT

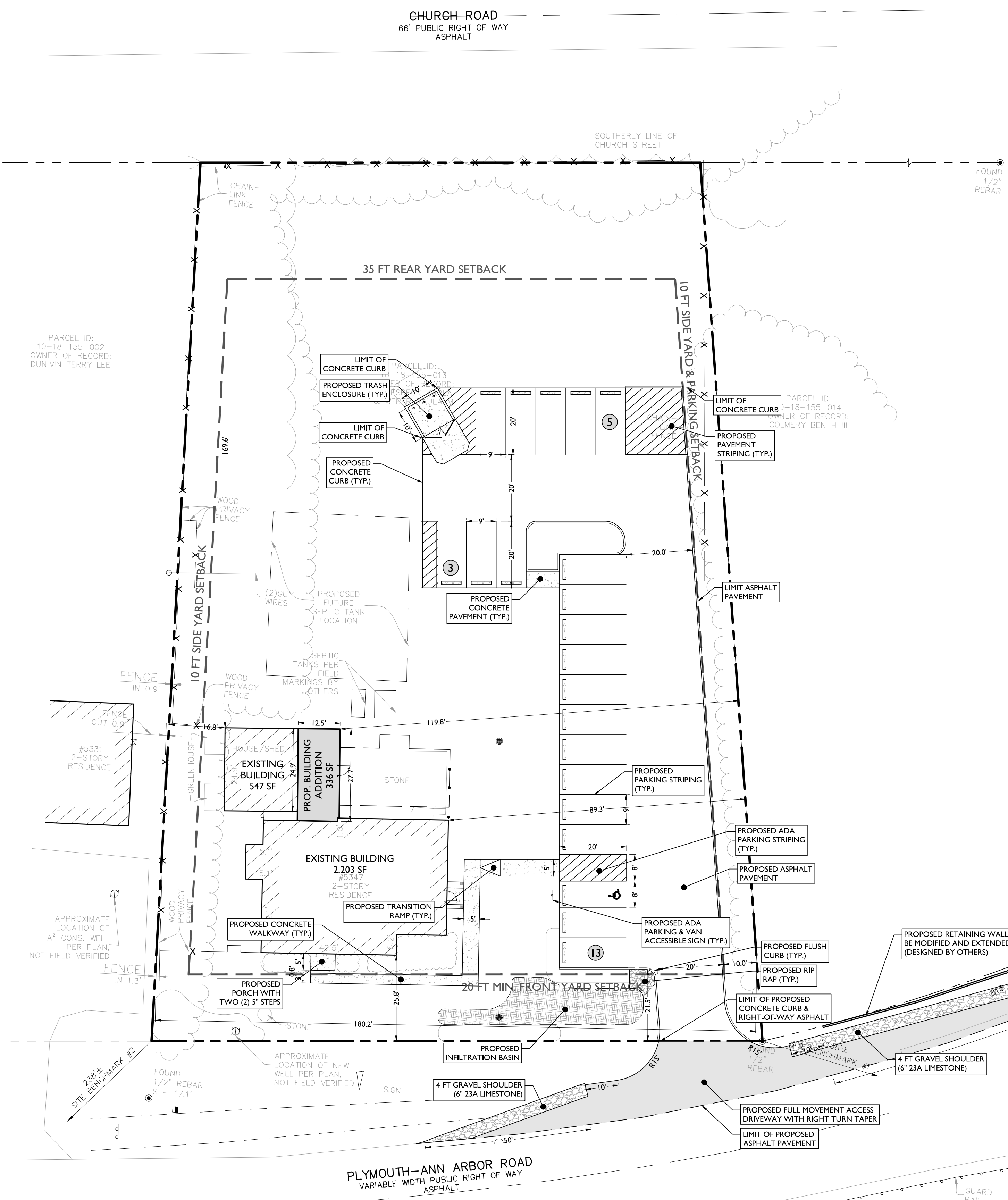
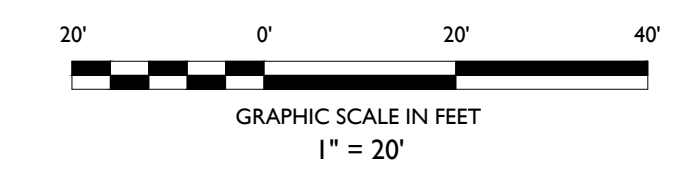
(1) § 806.C.2.a - THE REQUIRED SETBACK MAY BE REDUCED TO A MINIMUM OF TEN (10) FEET WHERE EFFECTIVE SCREENING IS PROVIDED

OFF-STREET PARKING REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
§ 805.C.	VETERINARY CLINIC: 1 SPACE PER 500 SF OF GFA (3,086 SF) / (500 SF) = 7 SPACES 1 SPACE PER EMPLOYEE (12 EMPLOYEES) / (SPACE/EMPLOYEE) = 12 SPACES TOTAL: 7 + 12 = 19 SPACES	21 SPACES
§ 805.C.	MAXIMUM PERMITTED PARKING: 130% OF REQUIRED SPACES (19 SPACES) x 1.30 = 25 SPACES	21 SPACES
§ 805.I.	90° PARKING: 9 FT X 20 FT WITH 20 FT AISLE	9 FT X 20 FT W/ 20 FT AISLE

SYMBOL	DESCRIPTION
---	PROPERTY LINE
- - - -	SETBACK LINE
- · - · -	SAWCUT LINE
=====	PROPOSED CURB
=====	PROPOSED FLUSH CURB
○	PROPOSED SIGNS / BOLLARDS
▭	PROPOSED BUILDING
▭	PROPOSED CONCRETE
▭	PROPOSED RIGHT-OF-WAY ASPHALT

GENERAL NOTES

- THE CONTRACTOR SHALL VERIFY AND FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND THE PROPOSED SCOPE OF WORK (INCLUDING DIMENSIONS, LAYOUT, ETC.) PRIOR TO INITIATING THE IMPROVEMENTS IDENTIFIED WITHIN THESE DOCUMENTS. SHOULD ANY DISCREPANCY BE FOUND BETWEEN THE EXISTING SITE CONDITIONS AND THE PROPOSED WORK THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ENSURE THAT ALL REQUIRED APPROVALS HAVE BEEN OBTAINED PRIOR TO THE START OF CONSTRUCTION. COPIES OF ALL REQUIRED PERMITS AND APPROVALS SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION.
- ALL CONTRACTORS WILL TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS STONEFIELD ENGINEERING & DESIGN, LLC. AND ITS SUB-CONSULTANTS FROM AND AGAINST ANY DAMAGES AND LIABILITIES INCLUDING ATTORNEY'S FEES ARISING OUT OF CLAIMS BY EMPLOYEES OF THE CONTRACTOR IN ADDITION TO CLAIMS CONNECTED TO THE PROJECT AS A RESULT OF NOT CARRYING THE PROPER INSURANCE FOR WORKERS' COMPENSATION, LIABILITY, INSURANCE, AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE.
- THE CONTRACTOR SHALL NOT DEVIATE FROM THE PROPOSED IMPROVEMENTS IDENTIFIED WITHIN THIS PLAN SET UNLESS APPROVAL IS PROVIDED IN WRITING BY STONEFIELD ENGINEERING & DESIGN, LLC.
- THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF CONSTRUCTION.
- THE CONTRACTOR SHALL NOT PERFORM ANY WORK OR CAUSE DISTURBANCE ON A PRIVATE PROPERTY NOT CONTROLLED BY THE PERSON OR ENTITY WHO HAS AUTHORIZED THE WORK WITHOUT PRIOR WRITTEN CONSENT FROM THE OWNER OF THE PRIVATE PROPERTY.
- THE CONTRACTOR IS RESPONSIBLE TO RESTORE ANY DAMAGED OR UNDERMINED STRUCTURE OR SITE FEATURE THAT IS IDENTIFIED TO REMAIN ON THE PLAN SET. ALL REPAIRS SHALL USE NEW MATERIALS TO RESTORE THE FEATURE TO ITS EXISTING CONDITION AT THE CONTRACTORS EXPENSE.
- THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE SHOP DRAWINGS, PRODUCT DATA, AND OTHER REQUIRED SUBMITTALS FOR REVIEW. STONEFIELD ENGINEERING & DESIGN, LLC. WILL REVIEW THE SUBMITTALS IN ACCORDANCE WITH THE DESIGN INTENT AS REFLECTED WITHIN THE PLAN SET.
- THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
- THE CONTRACTOR IS REQUIRED TO PERFORM ALL WORK IN THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE APPROPRIATE GOVERNING AUTHORITY AND SHALL BE RESPONSIBLE FOR THE PROCUREMENT OF STREET OPENING PERMITS.
- THE CONTRACTOR IS REQUIRED TO RETAIN AN OSHA CERTIFIED SAFETY INSPECTOR TO BE PRESENT ON SITE AT ALL TIMES DURING CONSTRUCTION & DEMOLITION ACTIVITIES.
- SHOULD AN EMPLOYEE OF STONEFIELD ENGINEERING & DESIGN, LLC. BE PRESENT ON SITE AT ANY TIME DURING CONSTRUCTION, IT DOES NOT RELIEVE THE CONTRACTOR OF ANY OF THE RESPONSIBILITIES AND REQUIREMENTS LISTED IN THE NOTES WITHIN THIS PLAN SET.



FOR ENGINEERING APPROVAL	FOR ENGINEERING APPROVAL	FOR FINAL SITE PLAN SUBMISSION	FOR CLIENT REVIEW	FOR SITE PLAN SUBMISSION	FOR CLIENT REVIEW	DESCRIPTION
AF	MG	MG	MG	AF	AF	

DATE	BY	ISSUE
02/08/2022	AF	6
01/28/2022	MG	5
12/21/2021	MG	4
12/16/2021	MG	3
10/19/2021	AF	2
09/29/2021	AF	1

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SITE IMPROVEMENT PLANS
5347 PLYMOUTH ROAD
PROPOSED VETERINARY CLINIC

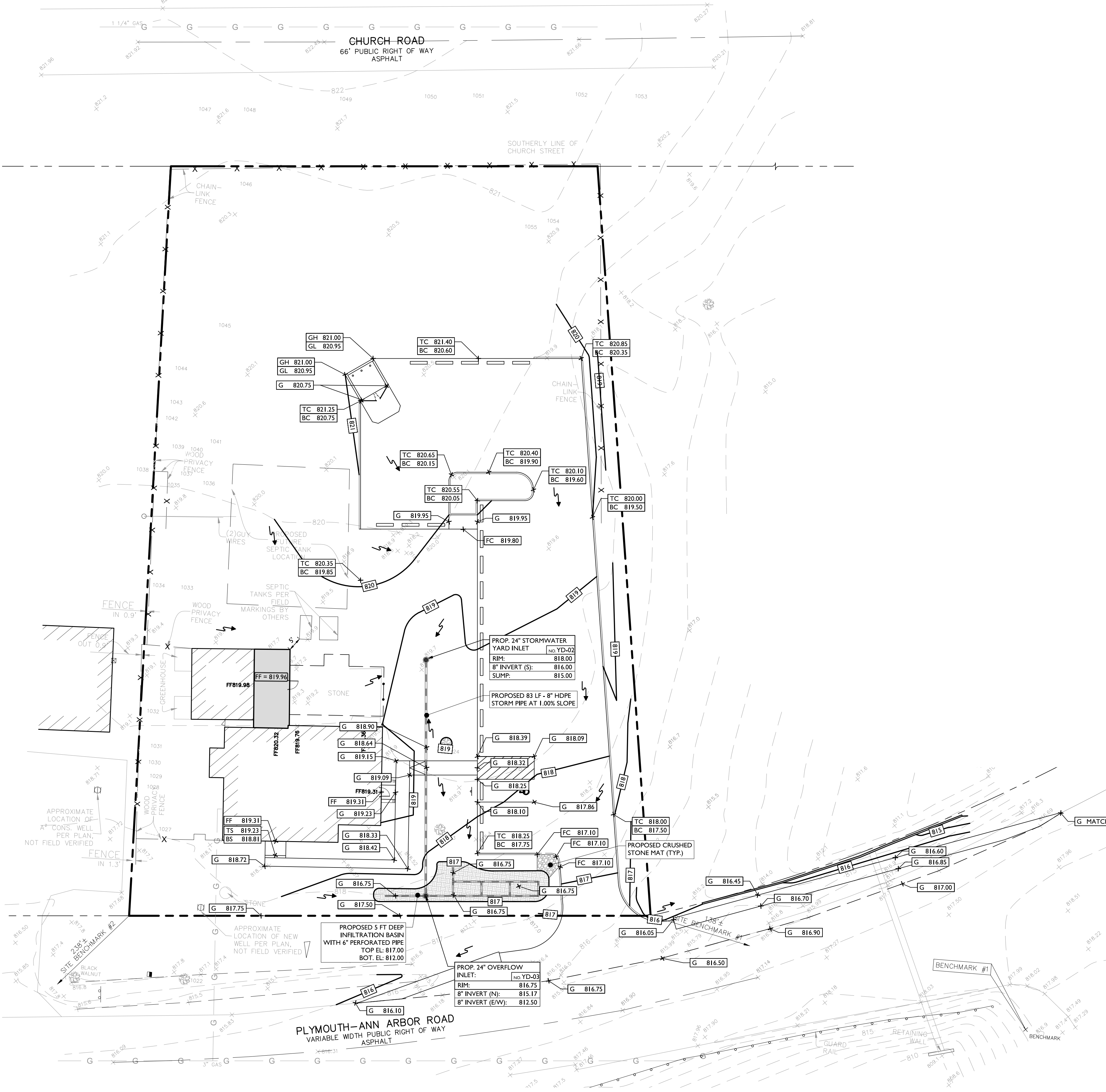
PARCEL ID: 10-18-155-013
5347 PLYMOUTH ROAD
SUPERIOR CHARTER TOWNSHIP
WASHTENAW COUNTY, MICHIGAN 48105

MICHIGAN LICENSE No. 6201069428
LICENSED PROFESSIONAL ENGINEER

SCALE: 1" = 20' PROJECT ID: DET-210369

TITLE: **SITE PLAN**

DRAWING: **C-3**



SYMBOL	DESCRIPTION
---	PROPERTY LINE
100	PROPOSED GRADING CONTOUR
→	PROPOSED DIRECTION OF DRAINAGE FLOW
X G 100.00	PROPOSED GRADE SPOT SHOT
X TC 100.50 BC 100.00	PROPOSED TOP OF CURB / BOTTOM OF CURB SPOT SHOT
X FC 100.00	PROPOSED FLUSH CURB SPOT SHOT
---	PROPOSED STORMWATER PIPING
SAN	PROPOSED SANITARY SEWER
□	PROPOSED SEPTIC TANK LOCATION

- GRADING NOTES**
- ALL SOIL AND MATERIAL REMOVED FROM THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS. ANY GROUNDWATER DEWATERING PRACTICES SHALL BE PERFORMED UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL ENGINEER. THE CONTRACTOR IS REQUIRED TO OBTAIN ALL NECESSARY PERMITS FOR THE DISCHARGE OF DEWATERED GROUNDWATER. ALL SOIL IMPORTED TO THE SITE SHALL BE CERTIFIED CLEAN FILL. CONTRACTOR SHALL MAINTAIN RECORDS OF ALL FILL MATERIALS BROUGHT TO THE SITE.
 - THE CONTRACTOR IS REQUIRED TO PROVIDE TEMPORARY AND/OR PERMANENT SHORING WHERE REQUIRED DURING EXCAVATION ACTIVITIES INCLUDING BUT NOT LIMITED TO UTILITY TRENCHES TO ENSURE THE STRUCTURAL INTEGRITY OF NEARBY STRUCTURES AND STABILITY OF THE SURROUNDING SOILS.
 - PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 4 INCHES TO 7 INCHES ABOVE EXISTING GRADES UNLESS OTHERWISE NOTED. THE CONTRACTOR WILL SUPPLY ALL STAKEOUT CURB GRADE SHEETS TO STONEFIELD ENGINEERING & DESIGN, LLC. FOR REVIEW AND APPROVAL PRIOR TO POURING CURBS.
 - THE CONTRACTOR IS RESPONSIBLE TO SET ALL PROPOSED UTILITY COVERS AND RESET ALL EXISTING UTILITY COVERS WITHIN THE PROJECT LIMITS TO PROPOSED GRADE IN ACCORDANCE WITH ANY APPLICABLE MUNICIPAL COUNTY, STATE AND/OR UTILITY AUTHORITY REGULATIONS.
 - MINIMUM SLOPE REQUIREMENTS TO PREVENT PONDING SHALL BE AS FOLLOWS:
 - CURB GUTTER: 0.50%
 - CONCRETE SURFACES: 1.00%
 - ASPHALT SURFACES: 1.00%
 - A MINIMUM SLOPE OF 1.00% SHALL BE PROVIDED AWAY FROM ALL BUILDINGS. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE FROM THE BUILDING IS ACHIEVED AND SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IF THIS CONDITION CANNOT BE MET.
 - FOR PROJECTS WHERE BASEMENTS ARE PROPOSED, THE DEVELOPER IS RESPONSIBLE TO DETERMINE THE DEPTH TO GROUNDWATER AT THE LOCATION OF THE PROPOSED STRUCTURE. IF GROUNDWATER IS ENCOUNTERED WITHIN THE BASEMENT AREA, SPECIAL CONSTRUCTION METHODS SHALL BE UTILIZED AND REVIEWED/APPROVED BY THE CONSTRUCTION CODE OFFICIAL. IF SWAMP PUMPS ARE UTILIZED, ALL DISCHARGES SHALL BE CONNECTED DIRECTLY TO THE PUBLIC STORM SEWER SYSTEM WITH APPROVAL FROM THE GOVERNING STORM SEWER SYSTEM AUTHORITY.

DRAINAGE AND UTILITY NOTES

- THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR STORMWATER IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING.
- CONTRACTOR SHALL START CONSTRUCTION OF STORM LINES & GRAVITY SEWER AT THE LOWEST INVERT AND WORK UP GRADIENT.
- THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD SET OF PLANS REFLECTING THE LOCATION OF EXISTING UTILITIES THAT HAVE BEEN CAPPED, ABANDONED, OR RELOCATED BASED ON THE DEMOLITION/REMOVAL ACTIVITIES REQUIRED IN THIS PLAN SET. THIS DOCUMENT SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.
- THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE AS-BUILT LOCATIONS OF ALL PROPOSED UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE LOCATIONS DEPICTED WITHIN THE PLAN SET. THE RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.
- THE CONTRACTOR IS REQUIRED TO CALL THE APPROPRIATE AUTHORITY FOR NOTICE OF CONSTRUCTION/EXCAVATION AND UTILITY MARK OUT PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH STATE LAW. CONTRACTOR IS REQUIRED TO CONFIRM THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN THE FIELD. SHOULD A DISCREPANCY EXIST BETWEEN THE FIELD LOCATION OF A UTILITY AND THE LOCATION SHOWN ON THE PLAN SET OR SURVEY, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IMMEDIATELY IN WRITING.
- THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN IN OPERATION ALL UTILITIES NOT DESIGNATED TO BE REMOVED.
- THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO ANY EXISTING UTILITY IDENTIFIED TO REMAIN WITHIN THE LIMITS OF THE PROPOSED WORK DURING CONSTRUCTION.
- A MINIMUM HORIZONTAL SEPARATION OF 10 FEET IS REQUIRED BETWEEN ANY SANITARY SEWER SERVICE AND ANY WATER LINES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASEMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
- ALL WATER LINES SHALL BE VERTICALLY SEPARATED ABOVE SANITARY SEWER LINES BY A MINIMUM DISTANCE OF 18 INCHES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASEMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.

EXCAVATION, SOIL PREPARATION, AND DEWATERING NOTES

- THE CONTRACTOR IS REQUIRED TO REVIEW THE REFERENCED GEOTECHNICAL DOCUMENTS PRIOR TO CONSTRUCTION. THESE DOCUMENTS SHALL BE CONSIDERED A PART OF THE PLAN SET.
- THE CONTRACTOR IS REQUIRED TO PREPARE SUBGRADE SOILS BENEATH ALL PROPOSED IMPROVEMENTS AND BACKFILL ALL EXCAVATIONS IN ACCORDANCE WITH RECOMMENDATIONS BY THE GEOTECHNICAL ENGINEER OF RECORD.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SHORING FOR ALL EXCAVATIONS AS REQUIRED. CONTRACTOR SHALL HAVE THE SHORING DESIGN PREPARED BY A QUALIFIED PROFESSIONAL SHORING DESIGNER. DESIGNS SHALL BE SUBMITTED TO STONEFIELD ENGINEERING & DESIGN, LLC AND THE OWNER PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL OPEN EXCAVATIONS ARE PERFORMED AND PROTECTED IN ACCORDANCE WITH THE LATEST OSHA REGULATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY DEWATERING DESIGN AND OPERATIONS, AS REQUIRED, TO CONSTRUCT THE PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL OBTAIN ANY REQUIRED PERMITS FOR DEWATERING OPERATIONS AND GROUNDWATER DISPOSAL.

STORMWATER INFILTRATION BMP CONSTRUCTION NOTES

- PRIOR TO THE START OF CONSTRUCTION, ANY AREA DESIGNATED TO BE USED FOR AN INFILTRATION BMP (E.G. BASIN, BIORETENTION AREA, ETC.) SHALL BE FENCED OFF AND SHALL NOT BE UTILIZED AS STORAGE FOR CONSTRUCTION EQUIPMENT OR AS A STOCKPILE AREA FOR CONSTRUCTION MATERIALS. NO ACTIVITY SHALL BE PERMITTED WITHIN THE INFILTRATION BASIN AREA UNLESS RELATED TO THE CONSTRUCTION OF THE INFILTRATION BASIN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ALL SUBCONTRACTORS OF BASIN AREA RESTRICTIONS.
- THE CONTRACTOR SHALL MAKE EVERY EFFORT, WHERE PRACTICAL, TO AVOID SUBGRADE SOIL COMPACTION IN THE AREAS DESIGNATED TO BE USED FOR AN INFILTRATION BMP.
- ALL EXCAVATION WITHIN THE LIMITS OF ANY INFILTRATION BMP SHALL BE PERFORMED WITH THE LIGHTEST PRACTICAL EXCAVATION EQUIPMENT. ALL EXCAVATION EQUIPMENT SHALL BE PLACED OUTSIDE THE LIMITS OF THE BASIN WHERE FEASIBLE. THE USE OF LIGHT-WEIGHT, RUBBER-TIRED EQUIPMENT (LESS THAN 8 PSI APPLIED TO THE GROUND SURFACE) IS RECOMMENDED WITHIN THE BASIN LIMITS.
- THE SEQUENCE OF SITE CONSTRUCTION SHALL BE COORDINATED WITH BASIN CONSTRUCTION TO ADHERE TO SEQUENCING LIMITATIONS.
- DURING THE FINAL GRADING OF AN INFILTRATION BASIN, THE BOTTOM OF THE BASIN SHALL BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW AND THEN SMOOTHED OUT WITH A LEVELING DRAW OR EQUIVALENT GRADING EQUIPMENT. ALL GRADING EQUIPMENT SHALL BE LOCATED OUTSIDE OF THE BASIN LIMITS WHERE FEASIBLE.
- FOLLOWING CONSTRUCTION OF AN INFILTRATION BASIN, SOIL INFILTRATION TESTING BY A LICENSED GEOTECHNICAL ENGINEER IS REQUIRED TO CERTIFY COMPLIANCE WITH THE DESIGN INFILTRATION RATES IN ACCORDANCE WITH WASHINGTON COUNTY WATER RESOURCES COMMISSIONER. IF THE FIELD INFILTRATION RATES ARE LOWER THAN THE RATE USED DURING DESIGN, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING IMMEDIATELY TO DETERMINE THE APPROPRIATE COURSE OF ACTION.
- THE CONTRACTOR SHALL NOTIFY THE MUNICIPALITY TO DETERMINE IF WITNESS TESTING IS REQUIRED DURING INFILTRATION BASIN EXCAVATION AND/OR SOIL INFILTRATION TESTING.

STORMWATER UNDERGROUND BMP CONSTRUCTION NOTES

- THE CONTRACTOR SHALL INSTALL AND BACKFILL THE UNDERGROUND BMP IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION.
- UNDERGROUND BASINS SHALL UTILIZE A STONE BACKFILL WITH A MINIMUM VOID RATIO OF 40%.
- NO CONSTRUCTION LOADING OVER UNDERGROUND BASINS IS PERMITTED UNTIL BACKFILL IS COMPLETE PER THE MANUFACTURER'S SPECIFICATIONS. NO VEHICLES SHALL BE STAGED OR OPERATE FROM A FIXED POSITION OVER THE BASIN.

ISSUE	DATE	BY	DESCRIPTION
1	09/29/2021	AF/IMG	FOR CLIENT REVIEW
2	10/19/2021	AF	FOR SITE PLAN SUBMISSION
3	12/16/2021	MG	FOR CLIENT REVIEW
4	1/21/2022	MG	FOR FINAL SITE PLAN SUBMISSION
5	01/28/2022	MG	FOR ENGINEERING APPROVAL
6	02/08/2022	AF	FOR ENGINEERING APPROVAL

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SITE IMPROVEMENT PLANS
5347 PLYMOUTH ROAD
PROPOSED VETERINARY CLINIC

PARCEL ID: 10-18-155-013
5347 PLYMOUTH ROAD
SUPERIOR CHARTER TOWNSHIP
WASHTENAW COUNTY, MICHIGAN 48105

STATE OF MICHIGAN
JENNIFER M. STONEFIELD
Professional Engineer
No. 6201069428
LICENSED PROFESSIONAL ENGINEER

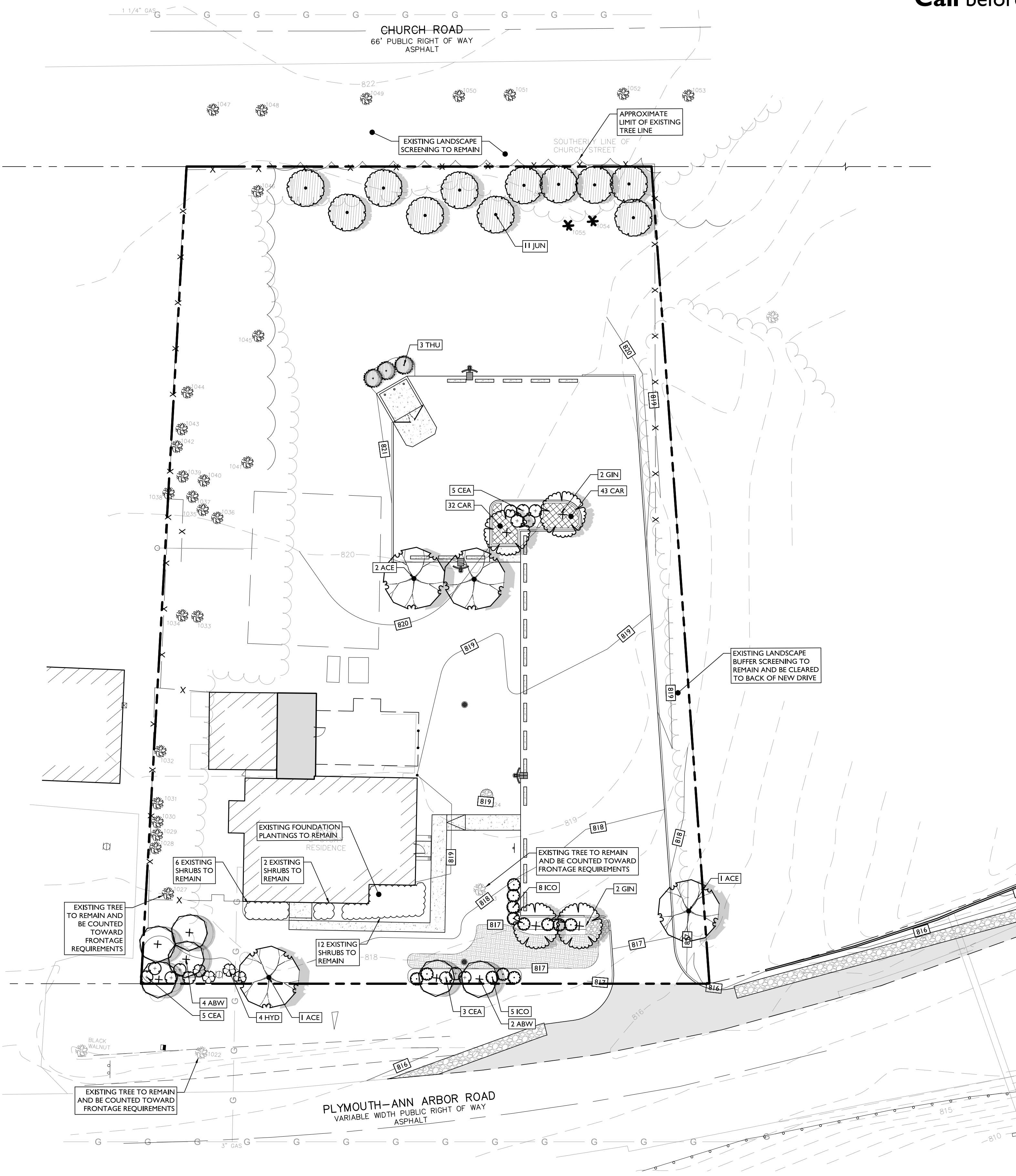
SCALE: 1" = 20' PROJECT ID: DET-210369

TITLE:
GRADING & DRAINAGE PLAN

DRAWING:
C-4

V:\PROJECTS\DET210369\MERITC\5347 PLYMOUTH ROAD ANN ARBOR\PCAD\03210369-GRADING

MAINTENANCE TASK	MONTH											
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
SITE INSPECTION			X				X				X	
DEBRIS AND WEED CONTROL - AS NEEDED			X		X	X	X	X	X	X	X	
IRRIGATION MAINTENANCE				X					X			
MULCHING				X								
SEASONAL PLANTINGS					X	X	X	X	X	X	X	
MOVING OF TURF			X	X	X	X	X	X	X	X	X	
PRUNING			X	X								
PLANTING RENOVATION			X									



Know what's below
Call before you dig.

Tree #	h x dbh (height (ft) x canopy radius)	Category	Botanical Name	Common Name	Condition	Comments	(N) Not Regulated (N = species c = condition)	Landmark (L)
1022	27' x 3"	30'	Juglans spp.	Walnut	good			
1023	34' x 3"	30'	Acer saccharinum	Sugar Maple	poor	- 75% crown dead	N ic sp)	
1024	20' x 3"	30'	Juglans spp.	Walnut	fair	- Rot trunk		L
1025	19' x 3"	20'	Juglans spp.	Walnut	good			
1026	29' x 10"	10'	Ficus glauca	White Spurge	fair	- Staked & thinning skags		
1027	19' x 3"	20'	Acer saccharum	Sugar Maple	fair	- Dead leader		L
1028	23' x 3"	3'	Thuja spp.	Arborvitae	fair	- UT to pruned		
1029	25' x 3"	3'	Thuja spp.	Arborvitae	fair	- UT to pruned		
1030	25' x 3"	3'	Thuja spp.	Arborvitae	fair	- UT to pruned		
1031	13' x 3"	3'	Thuja spp.	Arborvitae	fair	- UT to pruned		
1032	19' x 15"	15'	Acer negundo	Boxelder	poor	- rot leaf - substrate not mass	N ic sp)	
1033	31' x 181' x 11' x 8"	30'	Acer negundo	Boxelder	fair	- Dec. branches	N sp)	
1034	11' x 3"	15'	Acer negundo	Boxelder	fair	- Learning	N sp)	
1035	17' x 3"	15'	Morus spp.	Mulberry	poor	- HAZARD - Broken trunk/leader	N ic)	
1036	11' x 5' x 4"	10'	Acer negundo	Boxelder	poor	- HAZARD - Broken trunk/leader	N ic sp)	
1037	14' x 3"	15'	Acer negundo	Boxelder	fair	- Dec. branches	N sp)	
1038	9' x 3"	10'	Acer negundo	Boxelder	fair	- Control'd crown	N sp)	
1039	13' x 3"	15'	Acer negundo	Boxelder	poor	- rot/leaves & significant dead b.	N ic sp)	
1040	12' x 3"	15'	Ficus spp.	Fig	fair	- Learning	N sp)	
1041	8' x 7' x 4' x 4"	10'	Morus spp.	Mulberry	fair	- Control'd crown	N sp)	
1042	15' x 12' x 3"	20'	Ficus spp.	Fig	fair	- V-shaped crotch/cracks	N sp)	
1043	15' x 3"	20'	Ficus spp.	Fig	good		N sp)	
1044	9' x 7' x 6' x 4"	10'	A. verticillatum	Tree-of-Heaven	fair	- V-shaped crotch/cracks		
1045	8' x 3"	10'	A. verticillatum	Tree-of-Heaven	fair	- Dec. branches		
1046	13' x 3"	5'	F. ves. purpurea	Colorado Spruce	fair	- Staked & thinning skags		
1047	18' x 3"	20'	Juglans spp.	Walnut	fair	- Rot trunk	L	
1048	19' x 3"	20'	Juglans spp.	Walnut	fair	- Rot trunk	L	
1049	24' x 3"	20'	Juglans spp.	Walnut	fair	- Rot trunk	L	
1050	27' x 3"	20'	Juglans spp.	Walnut	fair	- Rot trunk	L	
1051	20' x 3"	20'	Juglans spp.	Walnut	fair	- Rot trunk	L	
1052	31' x 3"	30'	Juglans spp.	Walnut	fair	- Rot trunk	L	
1053	29' x 3"	30'	Juglans spp.	Walnut	fair	- Rot trunk	L	
1054	18' x 3"	5'	F. ves. purpurea	Colorado Spruce	fair	- Staked & thinning skags		

DECIDUOUS TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
	ACE	4	ACER RUBRUM	RED MAPLE	2.5' - 3" CAL	B&B	AS SHOWN
	ABW	6	ACER RUBRUM 'BOWHALL'	BOWHALL RED MAPLE	2.5' - 3" CAL	B&B	AS SHOWN
	GIN	4	GINKGO BILOBA 'PRINCETON SENTRY'	PRINCETON SENTRY MAIDENHAIR TREE	2.5' - 3" CAL	B&B	AS SHOWN
EVERGREEN TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
	JUN	11	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	6' - 7' HT	B&B	AS SHOWN
	THU	3	THUJA X 'GREEN GIANT'	GREEN GIANT ARBORVITAE	6' - 7' HT	B&B	AS SHOWN
SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
	CEA	13	CEANOTHUS AMERICANUS	NEW JERSEY TEA	30" - 36"	POT	AS SHOWN
	HYD	4	HYDRANGEA MACROPHYLLA 'ENDLESS SUMMER'	BAILMER HYDRANGEA	30" - 36"	POT	AS SHOWN
	ICO	13	ILEX GLABRA 'COMPACTA'	COMPACT INKBERRY	18" - 24"	POT	AS SHOWN
SHRUB AREAS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
	CAR	75	CAREX PENNSYLVANICA	PENNSYLVANIA SEDGE	1 GAL	POT	18" o.c.

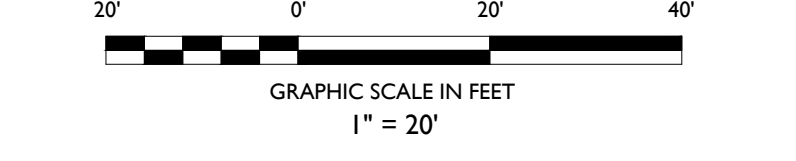
NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN ON THE LANDSCAPE PLAN AND WITHIN THE PLANT LIST, THE PLAN SHALL DICTATE.

CODE SECTION	REQUIRED	PROPOSED
§ 3.203.F	LANDSCAPE STRIP A LANDSCAPE STRIP OF 20 FT ALONG ALL STREET FRONTAGES AND EXTEND ACROSS THE ENTIRE WIDTH OF THE LOT. THE LANDSCAPE STRIP AND FRONT YARD SETBACK AREA SHALL BE IMPROVED WITH PLANTINGS.	45.36 FT
§ 3.203.F.3	GREENBELT BUFFER: MINIMUM WIDTH: 10 FT 1 TREE AND 3 SHRUBS PER 15 LF TREES: (183 FT)/(1 TREE / 15 FT FRONTAGE) = 12 TREES SHRUBS: (183 FT)/(3 SHRUBS / 15 FT FRONTAGE) = 37 SHRUBS	12 TREES 37 SHRUBS
§ 7.304-E	ANY LANDSCAPE STRIP REQUIRED ALONG CHURCH ROAD SHALL BE LANDSCAPED WITH PLANT MATERIALS AND ARCHITECTURAL ELEMENTS TO SCREEN VIEWS OF PARKING LOTS AND SERVICE AREAS FROM CHURCH ROAD AND PROPERTIES FOR THE NORTH	PROVIDED
§ 8.06-B	PARKING AREA LANDSCAPING ANY ON-STREET PARKING AREA PROVIDING 5 OR MORE SPACES SHALL BE LANDSCAPED AND SCREENED FROM ALL LOT BOUNDARIES AND ROAD RIGHTS-OF-WAY. NO MORE THAN 20 PARKING SPACES SHALL BE PERMITTED IN A CONTINUOUS ROW WITHOUT INTERRUPTION BY A LANDSCAPED ISLAND OR SIMILAR ELEMENT.	PROVIDED
§ 8.06-E.4	SCREENING METHODS SPACING BETWEEN INDIVIDUAL PLANTS SHALL NOT EXCEED 3 FT ON-CENTER LOW-HIGHT SHRUBS (2 TO 4 FT) SHALL BE USED TO PROVIDE SCREENING TO LOW-LEVEL IMPACTS.	PROVIDED
§ 14.10-D.2(a)	INTERIOR LANDSCAPE ISLANDS LANDSCAPED ISLANDS SHALL BE PROVIDED AT THE ENDS OF PARKING ROWS.	PROVIDED
§ 14.10-E.3.A	PLANTING ISLANDS SHALL HAVE A WIDTH OF 10 FT AND AREA OF 180 SF	PROVIDED
§ 14.10-E.3.B	2 DECIDUOUS SHADE OR ORNAMENTAL TREES SHALL BE PROVIDED FOR EACH ISLAND. SHRUBS AND LIVE GROUND-COVER PLANTINGS SHALL BE USED TO COVER THE REMAINING AREAS OF THE ISLAND.	3 LANDSCAPE ISLAND: 6 TREES AND GROUND-COVER PROPOSED
§ 5.23.5.D	TREE MITIGATION 16" WALNUT TO BE REMOVED MITIGATION: 50% OF ORIGINAL DBH (16" CAL) * (0.50) = 8" CALIPER INCHES REQUIRED	8" CALIPER INCHES PROPOSED
§ 5.23.6.D	TREE MITIGATION LANDMARK TREE 20" WHITE SPRUCE TO BE REMOVED MITIGATION: 50% OF ORIGINAL DBH (20" CAL) * (0.50) = 10" CALIPER INCHES REQUIRED	10" CALIPER INCHES PROPOSED

- NATURAL FEATURE AND OPEN SPACE NOTES:**
- NO SLOPES 12% TO 25% OR STEEP SLOPES 25% OR GREATER ARE PRESENT ON SITE.
 - PROPERTY OWNER WILL OWN AND MAINTAIN OPEN SPACE FOR LONG-TERM MAINTENANCE PER THE INCLUDED MAINTENANCE PLAN.
 - PER FEMA FIRM FLOOD MAPPING (MAP #26161C0260E) NO INDICATION OF 100-YEAR FLOOD PLAN IS PRESENT ON THE PARCEL.

- IRRIGATION NOTE:**
- IRRIGATION CONTRACTOR TO PROVIDE A DESIGN FOR AN IRRIGATION SYSTEM SEPARATING PLANTING BEDS FROM LAWN AREA. PRIOR TO CONSTRUCTION, DESIGN IS TO BE SUBMITTED TO THE PROJECT LANDSCAPE DESIGNER FOR REVIEW AND APPROVAL. WHERE POSSIBLE, DRIP IRRIGATION AND OTHER WATER CONSERVATION TECHNIQUES SUCH AS RAIN SENSORS SHALL BE IMPLEMENTED. CONTRACTOR TO VERIFY MAXIMUM ON SITE DYNAMIC WATER PRESSURE AVAILABLE MEASURED IN PSI. PRESSURE REDUCING DEVICES OR BOOSTER PUMPS SHALL BE PROVIDED TO MEET SYSTEM PRESSURE REQUIREMENTS. DESIGN TO SHOW ALL VALVES, PIPING, HEADS, BACKFLOW PREVENTION, METERS, CONTROLLERS, AND SLEEVES WITHIN HARDSCAPE AREAS.

- LANDSCAPING NOTES**
- THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRASS AND LANDSCAPED AREAS TO MATCH EXISTING CONDITIONS UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
 - THE CONTRACTOR SHALL RESTORE ALL DISTURBED LAWN AREAS WITH A MINIMUM 4 INCH LAYER OF TOPSOIL AND SEED.
 - THE CONTRACTOR SHALL RESTORE MULCH AREAS WITH A MINIMUM 3 INCH LAYER OF MULCH.
 - THE MAXIMUM SLOPE ALLOWABLE IN LANDSCAPE RESTORATION AREAS SHALL BE 3 FEET HORIZONTAL TO 1 FOOT VERTICAL (3:1 SLOPE) UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
 - THE CONTRACTOR IS REQUIRED TO LOCATE ALL SPRINKLER HEADS IN AREA OF LANDSCAPING DISTURBANCE PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL RELOCATE SPRINKLER HEADS AND LINES IN ACCORDANCE WITH OWNER'S DIRECTION WITHIN AREAS OF DISTURBANCE.
 - THE CONTRACTOR SHALL ENSURE THAT ALL DISTURBED LANDSCAPED AREAS ARE GRADED TO MEET FLUSH AT THE ELEVATION OF WALKWAYS AND TOP OF CURB ELEVATIONS EXCEPT UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET. NO ABRUPT CHANGES IN GRADE ARE PERMITTED IN DISTURBED LANDSCAPING AREAS.
 - A MINIMUM OF (4) INCHES OF TOPSOIL SHALL BE PROVIDED FOR ALL LAWN AREAS, GROUND COVER AND PLANTING BEDS.
 - ALL PLANTING BEDS SHALL CONSIST OF SHREDDED HARDWOOD BARK MULCH OR SIMILAR AT A MINIMUM DEPTH OF (3) INCHES. MULCH AROUND TREES AND SHRUBS SHALL BE A MINIMUM OF (4) INCHES DEEP AND PULLED ONE (1) AWAY FROM TREE TRUNKS.
 - EFFECTIVE EDGE TREATMENT SHALL BE PROVIDED TO CONTAIN AND PREVENT MIGRATION OF THE MULCH.
 - PLANT MATERIAL SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER INSTALLATION.
 - PLANT MATERIALS SHALL BE KEPT IN A NEAT, ORDERLY AND HEALTHY GROWING CONDITION. FREE FROM WEEDS, DEBRIS AND RESURF. TREE STAKES, GUY WIRES AND TREE WRAP SHALL BE REMOVED AFTER ONE (1) YEAR.



DATE	ISSUE	BY	DESCRIPTION
02/08/2022	AF		FOR ENGINEERING APPROVAL
01/28/2022	MG		FOR ENGINEERING APPROVAL
12/21/2021	MG		FOR FINAL SITE PLAN SUBMISSION
12/16/2021	MG		FOR CLIENT REVIEW
10/19/2021	AF		FOR SITE PLAN SUBMISSION
09/29/2021	AF		FOR CLIENT REVIEW

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SITE IMPROVEMENT PLANS

5347 PLYMOUTH ROAD
PROPOSED VETERINARY CLINIC

PARCEL ID: 10-18-155-013
5347 PLYMOUTH ROAD
SUPERIOR CHARTER TOWNSHIP
WASHTENAW COUNTY, MICHIGAN 48105

SCALE: 1" = 20' PROJECT ID: DET-210369

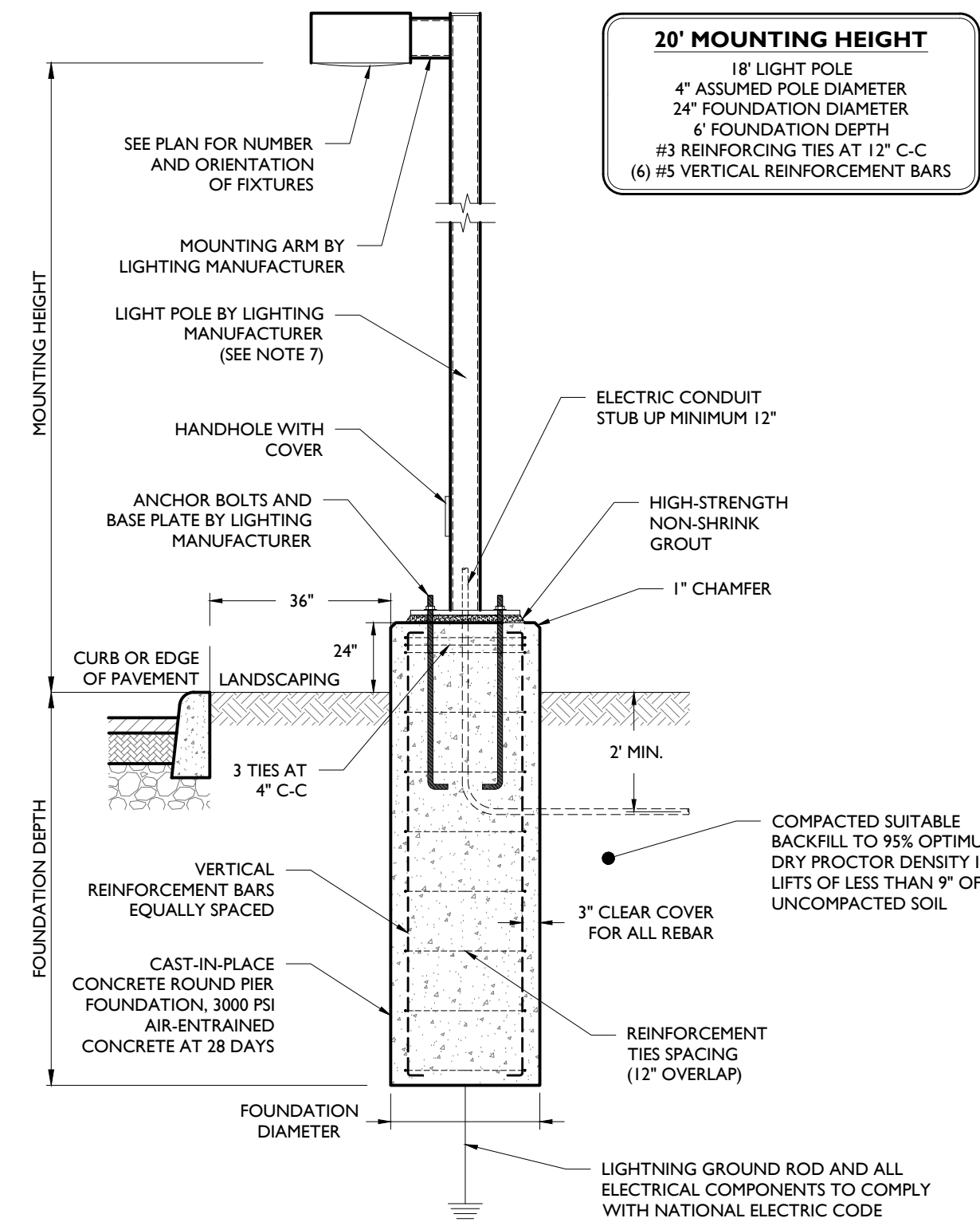
TITLE: **LANDSCAPING PLAN**

DRAWING: **C-5**

PROPOSED LUMINAIRE SCHEDULE							
SYMBOL	LABEL	QUANTITY	SECURITY LIGHTING	DISTRIBUTION	LLF	MANUFACTURER	IES FILE
	A	2	LSI LIGHTING MIRADA MEDIUM OUTDOOR LED AREA LIGHT - 85 WATTS, 3,000K	TYPE II	0.9	LSI LIGHTING	MRM-LED-12L-SIL-2-30-70CRI-IH
	B	1	LSI LIGHTING MIRADA MEDIUM OUTDOOR LED AREA LIGHT - 85 WATTS, 3,000K	TYPE III	0.9	LSI LIGHTING	MRM-LED-12L-SIL-3-30-70CRI-IH

LIGHTING REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
§ 14.11.B.1.	FIXTURE SHIELDING: ALL FIXTURES SHALL BE FULLY SHIELDED	PROVIDED
§ 14.11.B.3.	MAXIMUM WATTAGE: 250 W FOR FIXTURES UP TO 20 FT HEIGHT 400 W FOR FIXTURES ABOVE 20 FT HEIGHT	85 WATTS
§ 14.11.B.4.	MAXIMUM INTENSITY: WITHIN SITE - 10 FC PROPERTY LINE - 0.2 FC (5 FT ABOVE GRADE)	4.7 FC 0.2 FC
§ 14.11.B.4.	MAXIMUM HEIGHT: LESS THAN 50 FT FROM PROPERTY LINE - 15 FT 50 FT TO 300 FT FROM PROPERTY LINE - 20 FT	20 FT

SYMBOL	DESCRIPTION
---	PROPERTY LINE SETBACK
A (XX')	PROPOSED LIGHTING FIXTURE (MOUNTING HEIGHT)
+	PROPOSED LIGHTING INTENSITY (FOOTCANDLES)

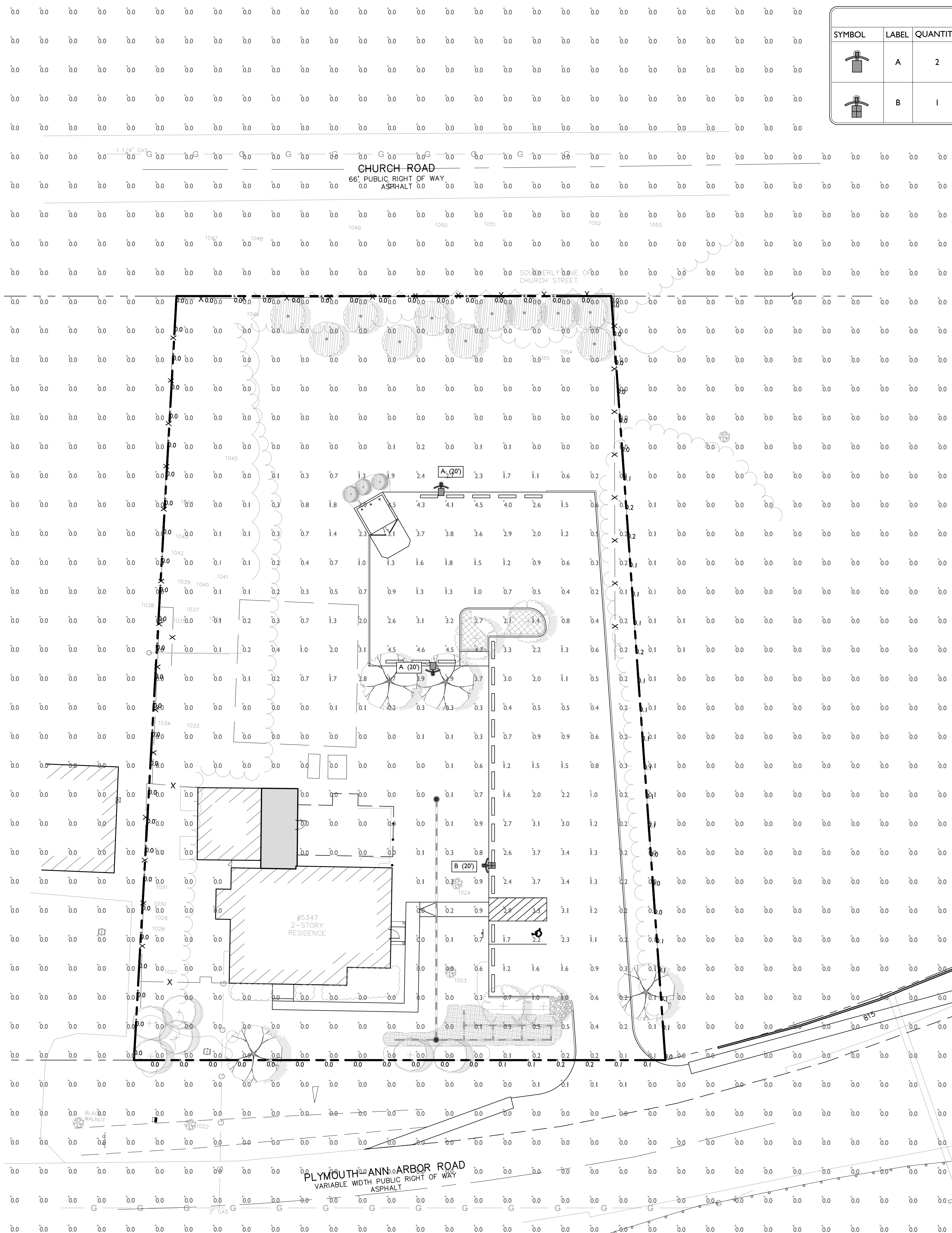
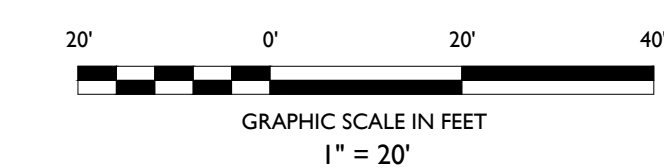


LIGHT POLE INSTALLATION DETAIL

- NOTES:
- MINIMUM SOIL BEARING PRESSURE OF 1500 PSF, SOIL FRICTION ANGLE OF 30 DEGREES, AND SOIL DRY UNIT WEIGHT OF 120 PCF SHALL BE CONFIRMED IN THE FIELD BY A QUALIFIED PROFESSIONAL.
 - CAST-IN-PLACE CONCRETE SHALL BE CONSOLIDATED USING VIBRATOR.
 - ALL REBAR TO BE NEW GRADE 60 STEEL.
 - PRE-CAST PIERS ACCEPTABLE UPON WRITTEN APPROVAL OF SHOP DRAWING BY ENGINEER.
 - CONCRETE TO BE INSTALLED A MINIMUM OF 7 DAYS PRIOR TO INSTALLING LIGHT POLE. POURED CONCRETE MIX REQUIRED TO OBTAIN 80% OF DESIGN STRENGTH PRIOR TO INSTALLING LIGHT POLE.
 - CONCRETE SHALL HAVE A MAXIMUM SLUMP OF 4" (WITHIN 1" TOLERANCE).
 - POLE SHALL BE RATED FOR 10 MPH HIGHER THAN MAXIMUM WIND SPEED 33FT ABOVE GROUND FOR THE AREA BASED ON ANS/ASSE 7-93.
 - POUR TO BE TERMINATED AT A FORM.
 - WORK SHALL CONFORM TO ACI BEST PRACTICES FOR APPROPRIATE TEMPERATURE AND WEATHER CONDITIONS.
 - CONTRACTOR TO TEMPORARILY SUPPORT ADJACENT SOIL AND STRUCTURES DURING EXCAVATION IF REQUIRED.

- GENERAL LIGHTING NOTES**
- THE LIGHTING LEVELS DEPICTED WITHIN THE PLAN SET ARE CALCULATED UTILIZING DATA OBTAINED FROM THE LISTED MANUFACTURER. ACTUAL ILLUMINATION LEVELS AND PERFORMANCE OF ANY PROPOSED LIGHTING FIXTURE MAY VARY DUE TO UNCONTROLLABLE VARIABLES SUCH AS WEATHER, VOLTAGE SUPPLY, LAMP TOLERANCE, EQUIPMENT SERVICE LIFE AND OTHER VARIABLE FIELD CONDITIONS.
 - WHERE APPLICABLE, THE EXISTING LIGHT LEVELS DEPICTED WITHIN THE PLAN SET SHALL BE CONSIDERED APPROXIMATE. THE EXISTING LIGHT LEVELS ARE BASED ON FIELD OBSERVATIONS AND THE MANUFACTURER'S DATA OF THE ASSUMED OR MOST SIMILAR LIGHTING FIXTURE MODEL.
 - UNLESS NOTED ELSEWHERE WITHIN THIS PLAN SET, THE LIGHT LOSS FACTORS USED IN THE LIGHTING ANALYSIS ARE AS FOLLOWS:
 - LIGHT EMITTING DIODES (LED): 0.90
 - HIGH PRESSURE SODIUM: 0.72
 - METAL HALIDE: 0.72
 - THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING, PRIOR TO THE START OF CONSTRUCTION, OF ANY PROPOSED LIGHTING LOCATIONS THAT CONFLICT WITH EXISTING PROPOSED DRAINAGE, UTILITY, OR OTHER IMPROVEMENTS.
 - THE CONTRACTOR IS RESPONSIBLE TO PREPARE A WIRING PLAN AND PROVIDE ELECTRICAL SERVICE TO ALL PROPOSED LIGHTING FIXTURES. THE CONTRACTOR IS REQUIRED TO PREPARE AN AS-BUILT PLAN OF WIRING AND PROVIDE COPIES TO THE OWNER AND STONEFIELD ENGINEERING & DESIGN, LLC.

PEDESTRIAN WALKWAY AND ACCESS TO THE BUILDING TO BE ILLUMINATED BY ARCHITECTURAL FIXTURES.



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PARCEL ID: 10-18-155-013
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WASHTENAW COUNTY, MICHIGAN 48105

STATE OF MICHIGAN
JONATHAN WELLS
REGISTERED PROFESSIONAL ENGINEER
MICHIGAN LICENSE No. 6201069428
LICENSED PROFESSIONAL ENGINEER

SCALE: 1" = 20' PROJECT ID: DET-210369
TITLE: LIGHTING PLAN
DRAWING: C-6

WASHTENAW COUNTY STORMWATER CALCULATIONS
(Based on Washtenaw County Stormwater Management Regulations)

Project: **Arbor Hills Animal Clinic** Designer: **MG** Date: **02/08/22**

W1. DETERMINING POST-DEVELOPMENT COVER TYPES, AREAS, CURVE NUMBERS, AND RUNOFF COEFFICIENTS

RATIONAL METHOD VARIABLES (REQUIRED FOR FIRST FLUSH RUNOFF CALCULATIONS)

Cover	Area (SF)	C-Value*	Weighted Value
Building / Roof	336	0.95	319
Pavement / Hardscape	10,502	0.95	9,977
Open Space	12,834	0.20	2,567
Subtotals	23,672		12,863

*C-values obtained from Washtenaw County Water Resources Commission HGA

Composite C Value, C_c: 0.54
Site Area, A_c: 0.54 AC

NRCS VARIABLES (REQUIRED FOR BANKFULL & 100-YEAR RUNOFF CALCULATIONS)

Cover Type (Pre-Development)	Soil Type	Area (SF)	Curve Number (CN)	Weighted Value
Meadow	A	23,672	30.0	710,160
Subtotals		23,672		710,160

Composite CN Value, CN_c: 30.00

Pervious Cover Type (Post-Development)	Soil Type	Area (SF)	Curve Number (CN)	Weighted Value
Fully Developed Open Space (Good Condition)	A	12,834	39.0	500,526
Subtotals		12,834		500,526

Composite CN Value, CN_c: 39.00

Impervious Cover Type (Post-Development)	Soil Type	Area (SF)	Curve Number (CN)	Weighted Value
Paved Parking Lots, Roofs, Driveways	A	10,838	98.0	1,062,124
Subtotals		10,838		1,062,124

Composite CN Value, CN_c: 98.00

W2. FIRST FLUSH RUNOFF CALCULATION (V_{ff})

V_{ff} = (1 IN) * (1 FT / 12 IN) * (43,560 SF) * A * C

Site Area, A_c: 0.54 AC

First Flush Runoff Volume, V_{ff}: 1,072 CF

W3. PRE-DEVELOPMENT BANKFULL RUNOFF CALCULATION (V_{bdpre})

S = (1000 / CN) - 10

Q = (P - 0.2*S)² / (P + 0.8*S)

*Site Area Excluding "Self-Creeping" BMPs

V_{bdpre} = Q * (1/12) * Area

Rainfall Value (2 Year / 24 Hour Storm Event), P: 2.35 IN

Function of Watershed Soil & Conditions, S: 23.33

Runoff, Q: 0.26 IN

*Total Site Area: 23,672 SF

Pre-Development Bankfull Volume, V_{bdpre}: 504 CF

W4. Pervious COVER POST-DEVELOPMENT BANKFULL RUNOFF CALCULATION (V_{bdpost})

S = (1000 / CN) - 10

Q = (P - 0.2*S)² / (P + 0.8*S)

V_{bdpost} = Q * (1/12) * Area

Rainfall Value (2 Year / 24 Hour Storm Event), P: 2.35 IN

Function of Watershed Soil & Conditions, S: 15.64

Runoff, Q: 0.04 IN

Pervious Cover Area: 12,834 SF

Pervious Cover Post Development Bankfull Volume, V_{bdpost}: 44 CF

W5. IMPERVIOUS COVER POST-DEVELOPMENT BANKFULL RUNOFF CALCULATION (V_{bdimp-post})

S = (1000 / CN) - 10

Q = (P - 0.2*S)² / (P + 0.8*S)

V_{bdimp-post} = Q * (1/12) * Area

Rainfall Value (2 Year / 24 Hour Storm Event), P: 2.35 IN

Function of Watershed Soil & Conditions, S: 0.20 IN

Runoff, Q: 2.12 IN

Impervious Cover Area: 10,838 SF

Impervious Cover Post Development Bankfull Volume, V_{bdimp-post}: 1,916 CF

W6. Pervious COVER POST-DEVELOPMENT 100 YEAR STORM RUNOFF CALCULATION (V_{100-per-post})

S = (1000 / CN) - 10

Q_{100-per} = (P - 0.2*S)² / (P + 0.8*S)

V_{100-per-post} = Q * (1/12) * Area

Rainfall Value (100 Year Storm Event), P: 5.11 IN

Function of Watershed Soil & Conditions, S: 15.64 IN

Runoff, Q_{100-per}: 0.22 IN

Pervious Cover Area: 12,834 SF

Pervious Cover Post Development 100-Year Volume, V_{100-per-post}: 238 CF

W7. IMPERVIOUS COVER POST-DEVELOPMENT 100 YEAR STORM RUNOFF CALCULATION (V_{100-imp-post})

S = (1000 / CN) - 10

Q_{100-imp} = (P - 0.2*S)² / (P + 0.8*S)

V_{100-imp-post} = Q * (1/12) * Area

Rainfall Value (100 Year Storm Event), P: 5.11 IN

Function of Watershed Soil & Conditions, S: 0.20 IN

Runoff, Q_{100-imp}: 4.87 IN

Impervious Cover Area: 10,838 SF

Impervious Cover Post Development 100-Yr Vol, V_{100-imp-post}: 4,401 CF

W8. TIME OF CONCENTRATION FOR APPLICABLE FLOW TYPES (T_{c,app})

Flow Type	K	HEIGHT (H)	LENGTH (L)	SLOPE% (S * 100%)	S ^{0.45}	V _{0.05} (%S) ^{0.2}	T _c = L / (V _{0.05} *3,600) (hr)
Sheet Flow	0.48	1.5	28	5.36	2.31	1.11	0.007
Waterway	1.2	0.75	19	3.95	1.99	2.38	0.002
Waterway	1.2	1.75	47	3.72	1.93	2.32	0.006
Waterway	1.2	1.55	155	1.00	1.00	1.20	0.036

T_c = 0.051

If T_c < 1.5 minutes use minimum T_c below

Minimum T_c: 0.25 hrs = 15 min

W9. RUNOFF SUMMARY

First Flush Runoff Volume, V _{ff} :	1,072 CF
Pre-Development Bankfull Volume, V _{bdpre} :	504 CF
Pervious Cover Post Development Bankfull Volume, V _{bdpost} :	44 CF
Impervious Cover Post Development Bankfull Volume, V _{bdimp-post} :	1,916 CF
Total Bankfull Volume (V_{bd-post}):	1,960 CF
Pervious Cover Post Development 100-Year Storm Volume, V _{100-per-post} :	238 CF
Impervious Cover Post Development 100-Year Storm Volume, V _{100-imp-post} :	4,401 CF
Total 100 Year Volume (V₁₀₀):	4,639 CF

ONSITE INFILTRATION REQUIREMENTS

V_{inf-dif} = V_{bdpost} - V_{bdpre}

Onsite Infiltration Requirement:
Use the greater of Bankfull Volume Difference vs. First Flush Volume

*Basin to include additional 20% volume if required infiltration is not provided

Bankfull Volume Difference, V_{bd-dif}: 1,456 CF

Onsite Infiltration Requirement, V_{inf}: 1,456 CF

Bankfull Volume Difference

W10. DETENTION REQUIREMENTS

Q_p = 238.6 * T_c^{-0.41}

*Site Area Excluding "Self-Creeping" BMPs

Q₁₀₀ = Q_{100-per} + Q_{100-imp}

PF = (Q_p * Q₁₀₀ * Area) / 640

Δ = PF - (0.15 * Area)

V_{det} = (Δ / PF) * V₁₀₀

Peak of the Unit Hydrograph, Q_p: 2,750 CFS / IN-M²

*Total Site Area: 0.54 AC

100 Year Storm Runoff, Q₁₀₀: 5.10 IN

Peak Flow, PF: 11.90 CFS

Δ: 11.82 CFS

Required Detention Volume, V_{det}: 4,608 CF

W11. STANDARD METHOD RUNOFF VOLUME CALCULATIONS

SUBSURFACE STORAGE / INFILTRATION BED VOLUME

Infiltration Bed Area: 575 SF

Subsurface Depth, D: 5.00 FT

Void Ratio: 30%

Subsurface Storage Volume: 863 CF

Top Elevation: 817.00 FT

Bottom Elevation: 812.00 FT

Flow Type	Area (ft ²)	Storage Volume (ft ³) Surface	Storage Volume (ft ³) Soil	Design Infiltration Rate (in/hr)	Infiltration Volume During Storm (ft ³)	Total Volume Reduction (ft ³)
Infiltration Basin	575	0	863	1.78	4,094	4,957

1. Infiltration Rate x 48 hrs x BMP Area x Unit Conversion = Infiltration Volume

Total Volume Reduction: 4,957 CF

Onsite Infiltration Requirement, V_{inf}: 1,456 CF

Runoff Volume Credit: 3,500 CF

W13. SUMMARY

A. STORMWATER MANAGEMENT SUMMARY

Minimum Onsite Infiltration Requirement, V_{inf}: 1,456 CF

Provided Infiltration Volume: 4,957 CF

% Minimum Required Infiltration Provided: 340%

Required Detention Volume, V_{det}: 4,608 CF

Net Required Detention Volume, V_{net}: (349) CF

V_{net} = Designed / Provided Infiltration Volume

B. DETENTION VOLUME INCREASE WITHOUT INFILTRATION

% Required Infiltration NOT Provided: 0%

Net % Penalty (10% * % Required Infiltration NOT Provided): 0%

Total Required Detention Volume, including penalty: (349) CF

[(100% + %Net Penalty) * Net Required Detention Volume]

Section VIII: Appendix

Part L. ENGINEER'S CERTIFICATE OF OUTLET

Date: 02/08/2022

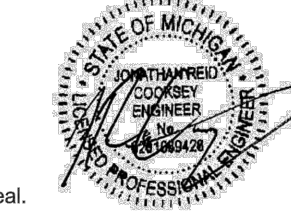
Development Name: 5347 Plymouth Road

City, Village or Township of: Superior Section 18

Washtenaw County, Michigan

I hereby certify that the existing drain is the only reasonably achievable stormwater outlet for the proposed stormwater management system and that the existing drain has sufficient capacity to serve as an adequate outlet for the proposed system, without detriment to or diminution of the drainage serve that the existing outlet presently provides.

Signed: J. Reid Cooksey - No. 6201069428
Registered Professional Engineer



NOTE: The engineer's certificate must be stamped with the engineer's seal. The certificate submitted must be the original. The engineer's certificate should be accompanied by supporting calculations and documentation.

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5347 PLYMOUTH ROAD PROPOSED VETERINARY CLINIC

SITE IMPROVEMENT PLANS

SCALE: AS SHOWN PROJECT ID: DET-210369

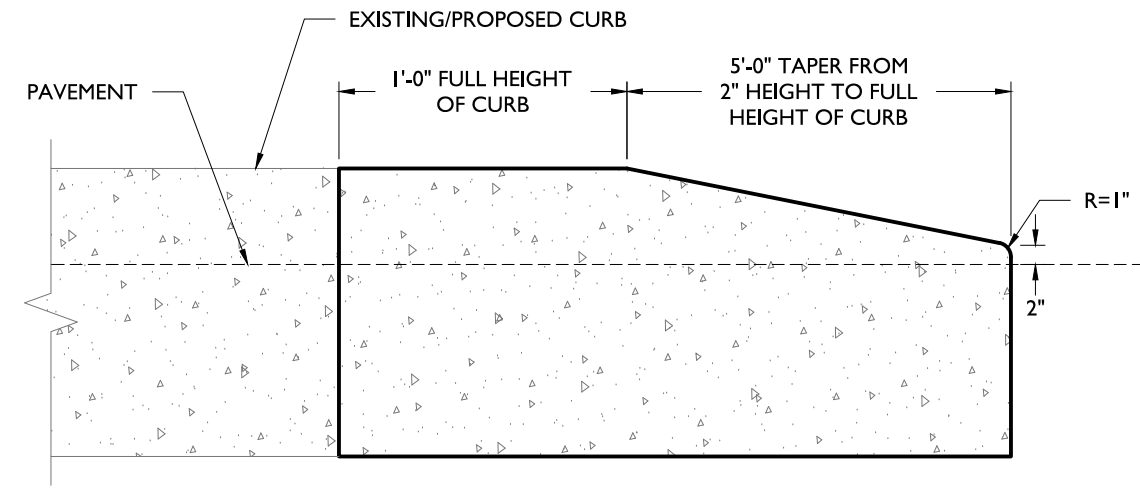
TITLE: **STORMWATER DESIGN CALCULATIONS**

DRAWING: **C-8**

FOR ENGINEERING APPROVAL: AF 02/08/2022
FOR ENGINEERING APPROVAL: MG 01/28/2022
FOR FINAL SITE PLAN SUBMISSION: MG 12/21/2021
FOR CLIENT REVIEW: MG 12/16/2021
FOR SITE PLAN SUBMISSION: AF 10/19/2021
FOR CLIENT REVIEW: AF 09/29/2021

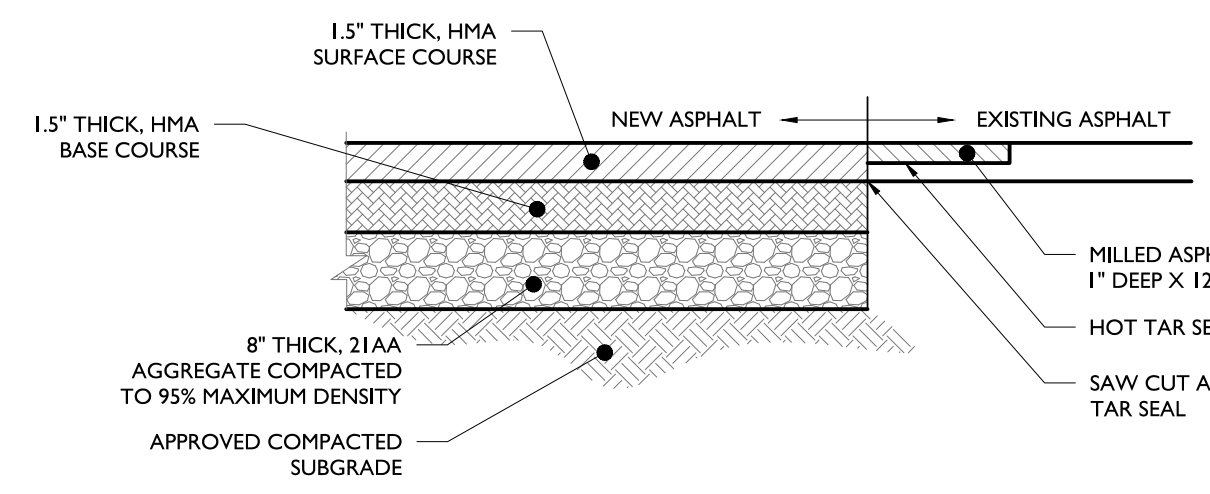
NOT APPROVED FOR CONSTRUCTION

PARCEL ID: 10-18-155-013
5347 PLYMOUTH ROAD
SUPERIOR CHARTER TOWNSHIP
WASHTENAW COUNTY, MICHIGAN 48105



CURB TAPER DETAIL

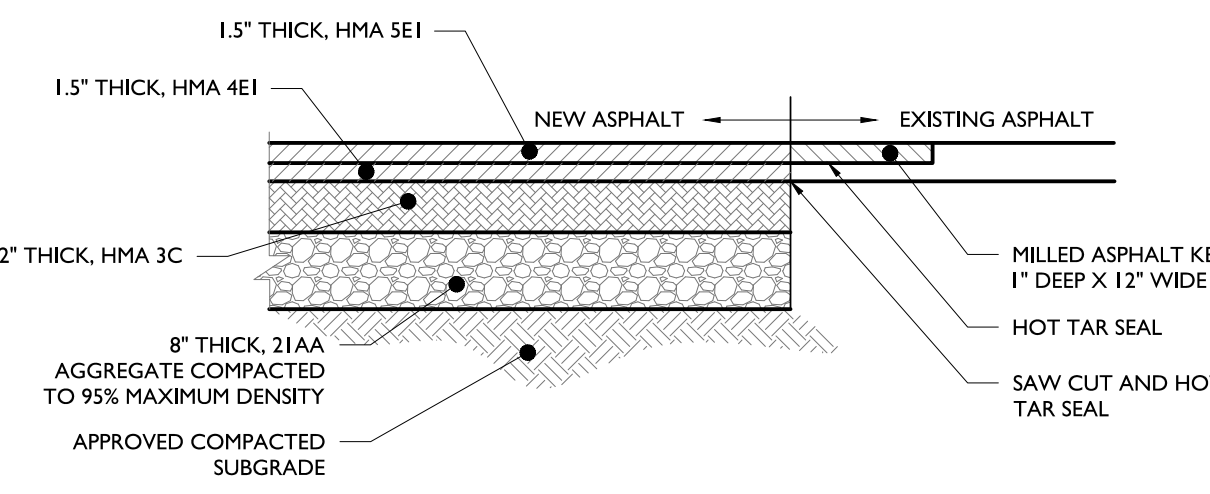
NOT TO SCALE



FULL DEPTH ASPHALT PAVEMENT DETAIL

NOT TO SCALE

- NOTE:
- MIX DESIGN 13A WITH PG58-22 PER MDOT STANDARDS SHALL BE USED FOR THE SURFACE AND BASE COURSE.
 - CONTRACTOR TO REFER TO GEOTECHNICAL REPORT FOR PAVEMENT CROSS SECTION.



DRIVE APPROACH PAVEMENT CROSS SECTION

NOT TO SCALE

- NOTE:
- PAVEMENT CROSS SECTION TO CONFORM TO WASHTENAW COUNTY ROAD COMMISSION STANDARDS

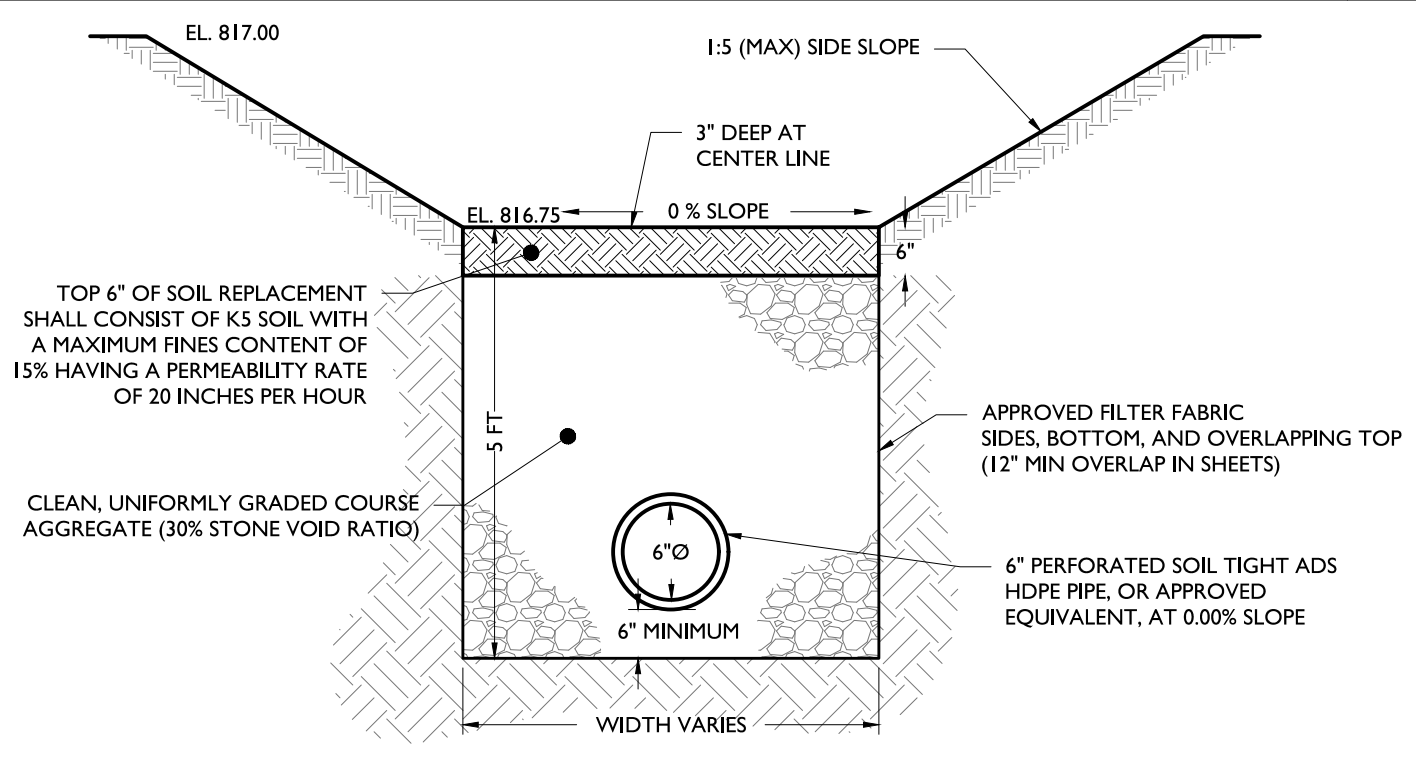
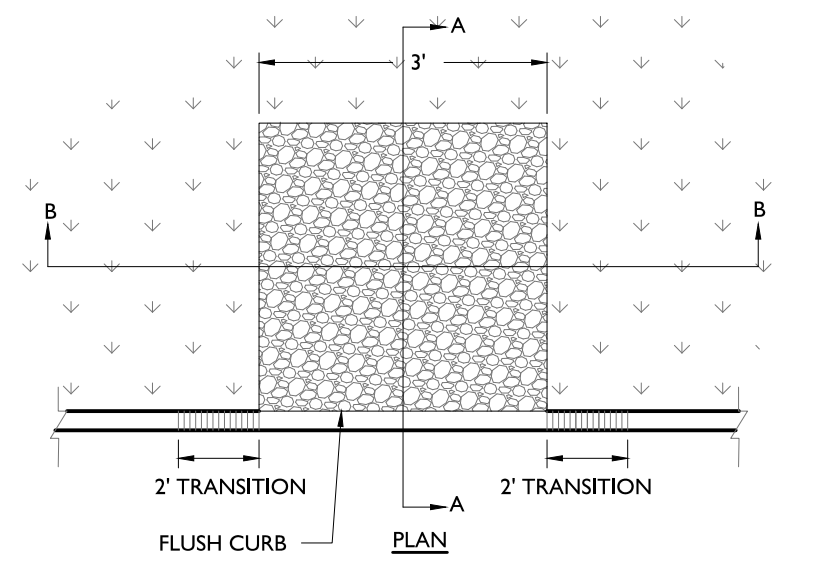
AUXILIARY LANE TAPER TABLE
Not to be used for transitioning through traffic. The taper rate is the same for both curbed and uncurbed roadways.

Posted Speed MPH (kph)	Taper Ft (m)
≤ 35 (≤ 60)	75 (23)
40 (64)	100 (30)
45 (72)	130 (40)
50 (80)	180 (55)
55 (90)	225 (70)

TYPE 2: RIGHT TURN TAPER
See Traffic & Safety Note 604A (7.5) for Guidelines

Extend to match ex shoulder surfacing

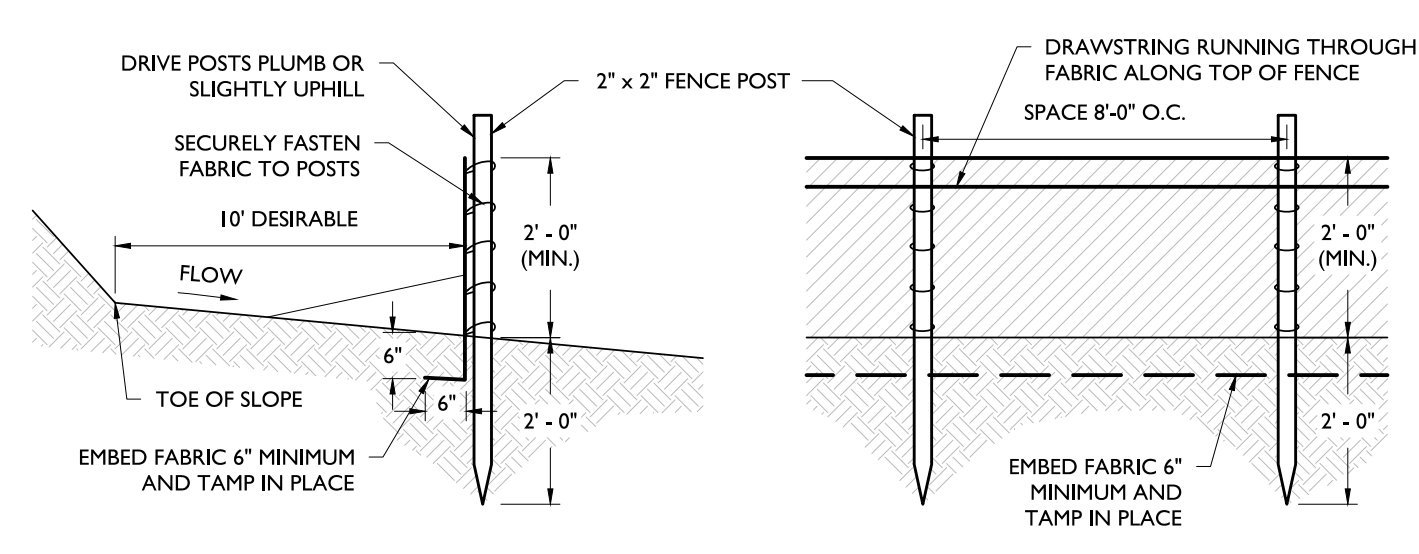
NOT TO SCALE
MICHIGAN DEPARTMENT OF TRANSPORTATION TRAFFIC AND SAFETY GEOMETRIC DESIGN GUIDE 06/03/2010 SHEET 2 OF 1
FILE: P:\RD TS_Geom\rdct_traf_GEO-650-0.dgn REV. 05/03/2017 PLAN DATE: GEO-650-D



INFILTRATION TRENCH DETAIL

NOT TO SCALE

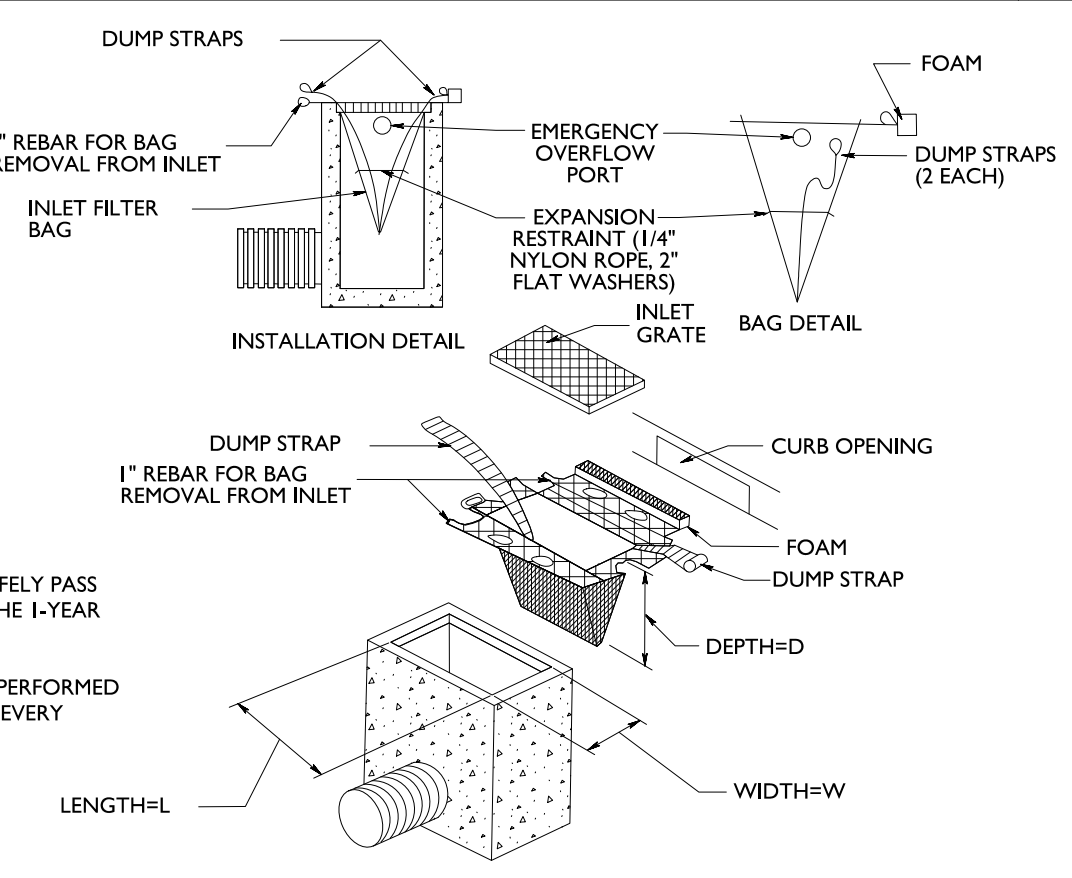
- NOTES:
- CONSTRUCTION MUST NOT COMPACT SOILS BELOW SOIL BED BOTTOM.



SILT FENCE DETAIL

NOT TO SCALE

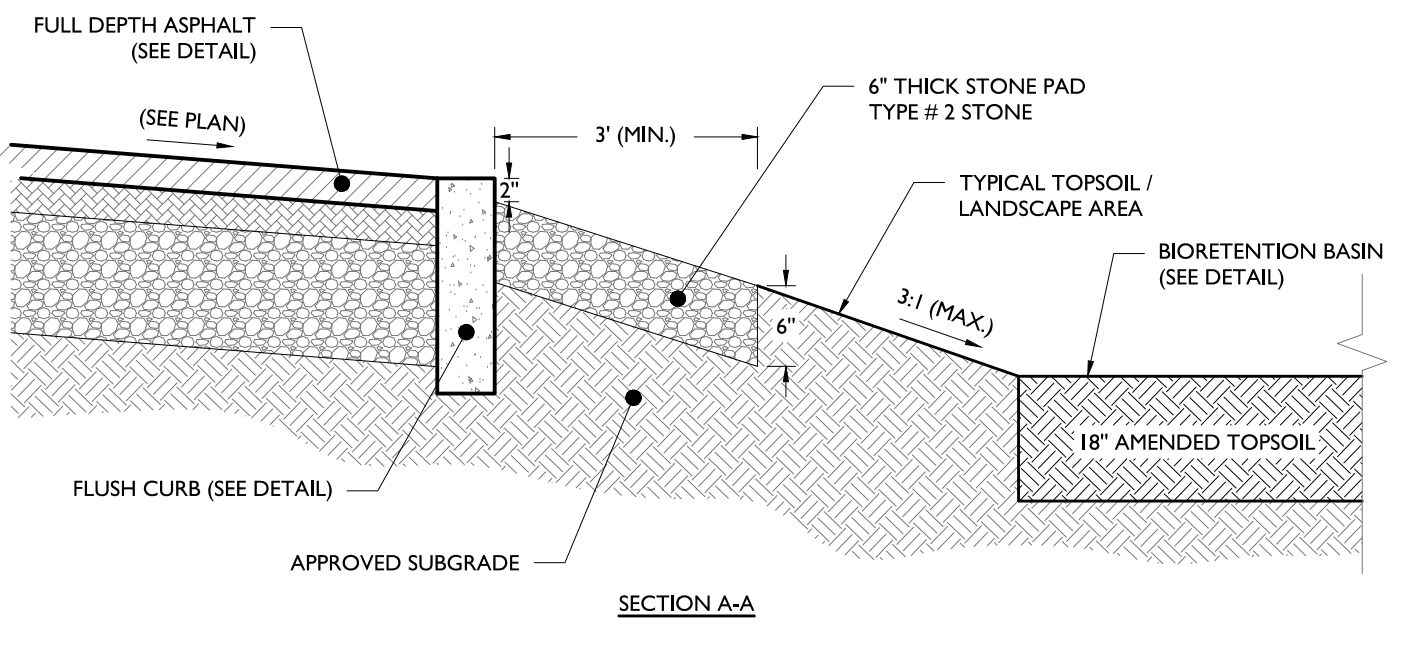
- NOTES:
- SECURELY FASTEN GEOTEXTILE TO FENCE POST BY USE OF WIRE TIES, HOG RINGS, STAPLES OR POCKETS. FOUR TO SIX FASTENERS PER POST.
 - GEOTEXTILE FABRIC TO BE EMBEDDED 6\"/>



INLET FILTER BAG DETAIL

NOT TO SCALE

- NOTES:
- THE FILTER BAG SHALL SAFELY PASS FLOWS GREATER THAN THE 1-YEAR 24-HOUR STORM EVENT.
 - SEDIMENT REMOVAL AND MAINTENANCE SHALL BE PERFORMED FREQUENTLY AND AFTER EVERY STORM EVENT.



CRUSHED STONE MAT DETAIL

NOT TO SCALE

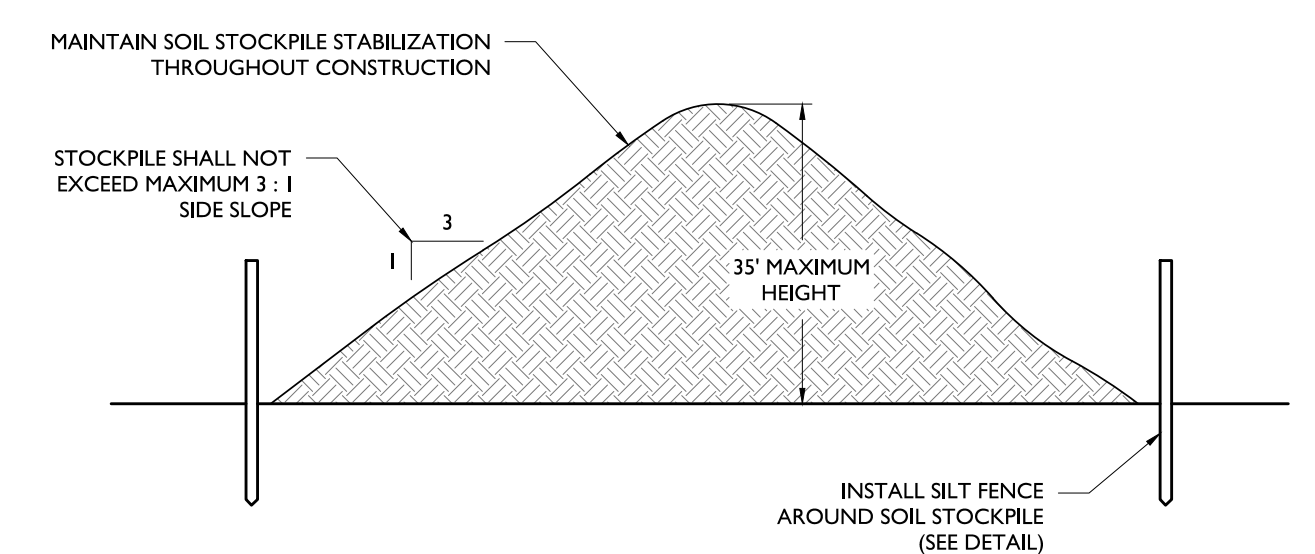
SLOPE OF PUBLIC ROADWAY	LENGTH OF STONE REQ'D	
	COARSE GRAINED SOILS	FINE GRAINED SOILS
0% TO 2%	50 FEET	100 FEET
2% TO 5%	100 FEET	200 FEET
> 5%	SEE NOTE 4	

NOTES:

- STONE SHALL BE ASTM C-33, SIZE No. 2 (2.5\"/>

STABILIZED CONSTRUCTION ACCESS DETAIL

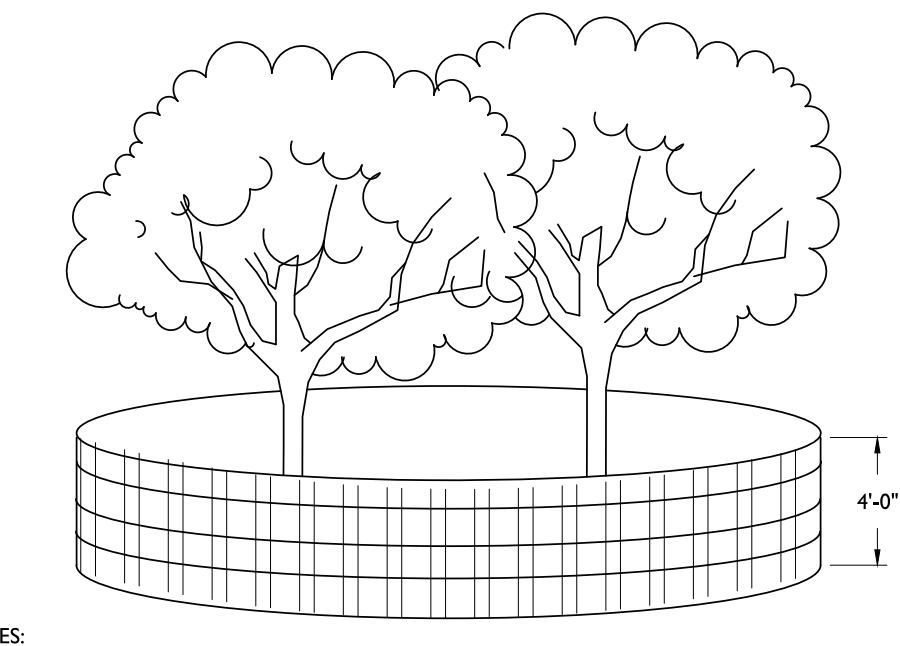
NOT TO SCALE



SOIL STOCKPILE DETAIL

NOT TO SCALE

- NOTES:
- STOCKPILES SHALL BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF-SITE ENVIRONMENTAL DAMAGE.
 - STOCKPILES SHALL BE STABILIZED IN ACCORDANCE WITH THE STANDARDS FOR PERMANENT OR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION, AS APPROPRIATE (SEE SOIL EROSION NOTES).



TREE PROTECTION DETAIL

NOT TO SCALE

- NOTES:
- SNOW FENCING IS TO BE 4'-0\"/>

V:\02101021\5347 PLYMOUTH ROAD\KEM-TEC.dwg, ANK, ARND, MICHAEL, 07/18/2018, 09:14:21

DATE	ISSUE	BY	DESCRIPTION
02/08/2022	6	AF	FOR ENGINEERING APPROVAL
01/28/2022	5	MG	FOR ENGINEERING APPROVAL
12/21/2021	4	MG	FOR FINAL SITE PLAN SUBMISSION
12/16/2021	3	MG	FOR CLIENT REVIEW
10/19/2021	2	AF	FOR SITE PLAN SUBMISSION
09/29/2021	1	AF	FOR CLIENT REVIEW

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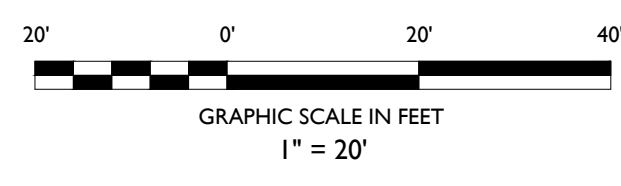
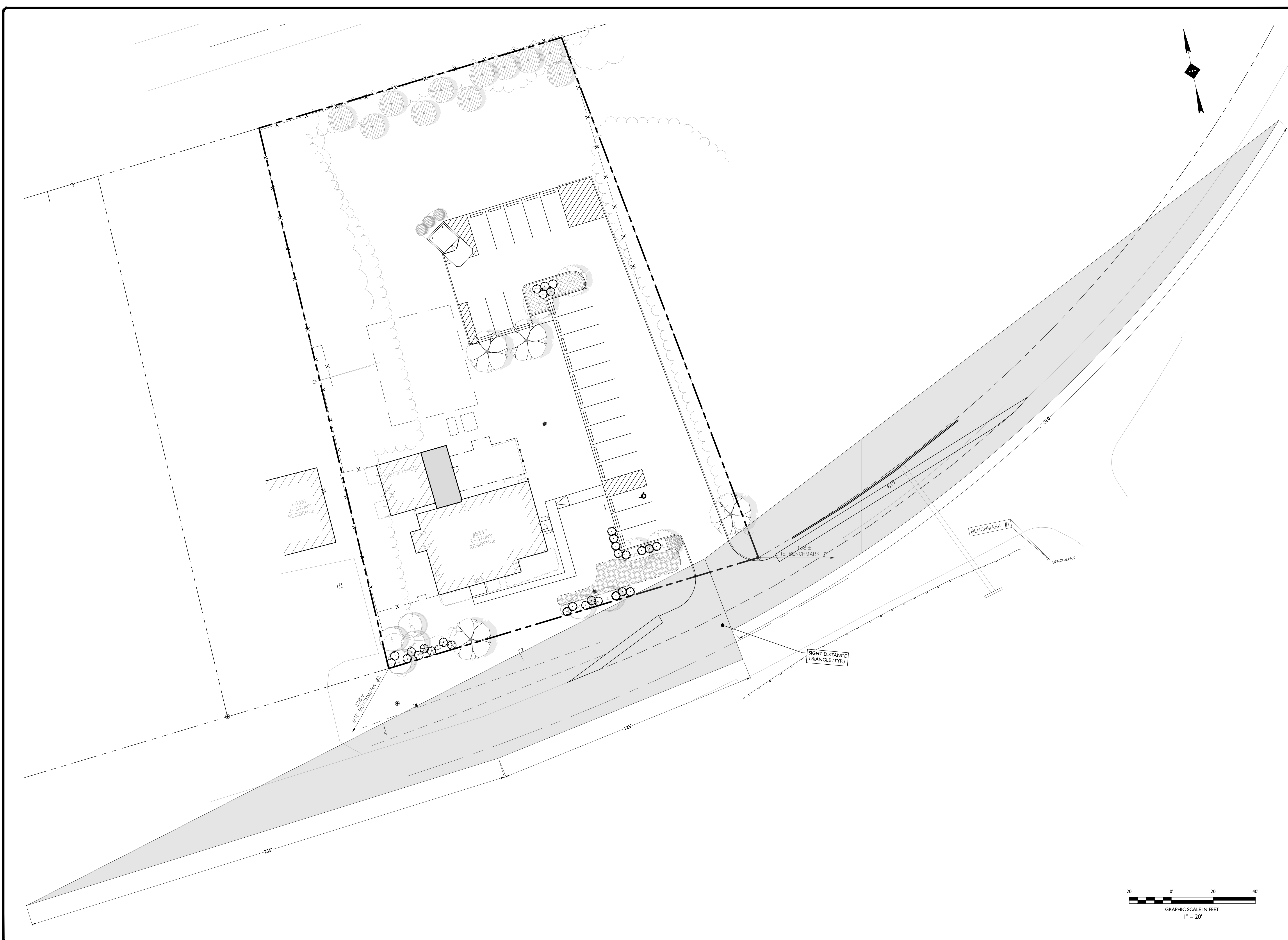
SITE IMPROVEMENT PLANS
5347 PLYMOUTH ROAD
PROPOSED VETERINARY CLINIC

PARCEL ID: 10-1B-155-013
5347 PLYMOUTH ROAD
SUPERIOR CHARTER TOWNSHIP
WASHTENAW COUNTY, MICHIGAN 48105

MICHIGAN LICENSE No. 6201069428
LICENSED PROFESSIONAL ENGINEER

SCALE: AS SHOWN PROJECT ID: DET-210369
TITLE: CONSTRUCTION DETAILS
DRAWING: C-10

V:\023\01021\210369\METEC_5347 PLYMOUTH ROAD_AIAA.AMDA_MFC\2023\01021\210369\SITE.DWG



ISSUE	DATE	BY	DESCRIPTION
6	02/08/2022	AF	FOR ENGINEERING APPROVAL
5	01/28/2022	MG	FOR ENGINEERING APPROVAL
4	12/17/2021	MG	FOR FINAL SITE PLAN SUBMISSION
3	12/16/2021	MG	FOR CLIENT REVIEW
2	10/19/2021	AF	FOR SITE PLAN SUBMISSION
1	09/29/2021	AF/MJM	FOR CLIENT REVIEW

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SITE IMPROVEMENT PLANS
5347 PLYMOUTH ROAD
PROPOSED VETERINARY CLINIC

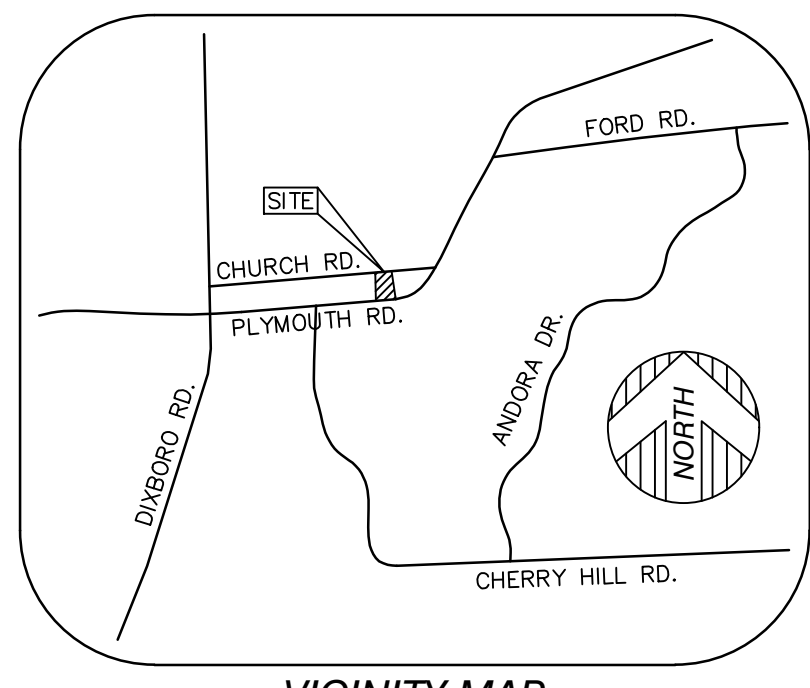
PARCEL ID: 10-18-155-013
 5347 PLYMOUTH ROAD
 SUPERIOR CHARTER TOWNSHIP
 WASHTENAW COUNTY, MICHIGAN 48105



SCALE: 1" = 20' PROJECT ID: DET-210369

TITLE:
SIGHT DISTANCE EXHIBIT

DRAWING:
EX-1



VICINITY MAP
(NOT TO SCALE)

PARKING
NO MARKED PARKING ON SITE.

PARCEL AREA
43,934± SQUARE FEET = 1.01± ACRES

BASIS OF BEARING
NORTH 88°24'05" EAST, BEING THE SOUTHERLY RIGHT OF WAY LINE OF CHURCH ROAD, AS DESCRIBED.

TREE INVENTORY TABLE

Tree #	h.h. (d.)	Canopy	Radius	Botanical Name	Common Name	Condition	Comments	(N) Not Regulated (sp. = species, e. = condition)	Landmark (L)
1022	27 d.	30'	Juglans spp.	Walnut	good				L
1023	34 d.	30'	Acer saccharinum	Silver Maple	poor	-75% or more dead		N (c, sp)	
1024	30 d.	35'	Juglans spp.	Walnut	fair	-Rot in trunk			L
1025	16 d.	20'	Juglans spp.	Walnut	good				
1026	20 h.	10'	Picea glauca	White Spruce	fair	-Stunted & thinning foliage			
1027	19 d.	20'	Acer saccharum	Sugar Maple	fair	-Dead leader			L
1028	20 h.	3'	Thuja spp.	Arbovitae	fair	-Utility-pruned			
1029	25 h.	3'	Thuja spp.	Arbovitae	fair	-Utility-pruned			
1030	25 h.	3'	Thuja spp.	Arbovitae	fair	-Utility-pruned			
1031	10 h.	3'	Thuja spp.	Arbovitae	fair	-Utility-pruned			
1032	19 d.	15'	Acer negundo	Boxelder	poor	-Substantial lean, substantial rot, missing leader		N (c, sp)	
1033	31 / 19 / 11 f.. d.	35'	Acer negundo	Boxelder	fair	-Dead branch(es)		N (sp)	
1034	11 d.	15'	Acer negundo	Boxelder	fair	-Leaning		N (sp)	
1035	17 d.	15'	Morus spp.	Mulberry	poor	-HAZARD - Broken trunk/leader		N (c)	
1036	11 / 14 d.	10'	Acer negundo	Boxelder	poor	-HAZARD - Broken trunk/leader		N (c, sp)	
1037	14 d.	15'	Acer negundo	Boxelder	fair	-Dead branch(es)		N (sp)	
1038	9 f.. d.	10'	Acer negundo	Boxelder	fair	-Contorted crown		N (sp)	
1039	13 d.	15'	Acer negundo	Boxelder	poor	-Severe rot/hollow & significantly dead branches		N (c, sp)	
1040	12 d.	15'	Populus spp.	Poplar	fair	-Leaning		N (sp)	
1041	8 / 7 / 4 d.	10'	Morus spp.	Mulberry	fair	-Contorted crown		N (sp)	
1042	15 / 12 d.	20'	Populus spp.	Poplar	fair	-V-shaped crotch(es)		N (sp)	
1043	15 d.	20'	Populus spp.	Poplar	good			N (sp)	
1044	9 / 7 / 6 d.	10'	Ailanthus altissima	Tree-of-Heaven	fair	-V-shaped crotch(es)			
1045	8 d.	10'	Ailanthus altissima	Tree-of-Heaven	fair	-Dead branch(es)			
1046	10 h.	5'	Picea pungens	Colorado Spruce	fair	-Stunted & thinning foliage			
1047	18 d.	20'	Juglans spp.	Walnut	fair	-Rot in trunk			L
1048	19 d.	20'	Juglans spp.	Walnut	fair	-Rot in trunk			L
1049	24 d.	25'	Juglans spp.	Walnut	fair	-Rot in trunk			L
1050	27 d.	30'	Juglans spp.	Walnut	fair	-Rot in trunk			L
1051	20 d.	25'	Juglans spp.	Walnut	fair	-Rot in trunk			L
1052	31 d.	35'	Juglans spp.	Walnut	good				L
1053	29 d.	30'	Juglans spp.	Walnut	fair	-Rot in trunk			L
1054	18 h.	5'	Picea pungens	Colorado Spruce	fair	-Stunted & thinning foliage			
1055	15 h.	5'	Picea pungens	Colorado Spruce	fair	-Stunted & thinning foliage			

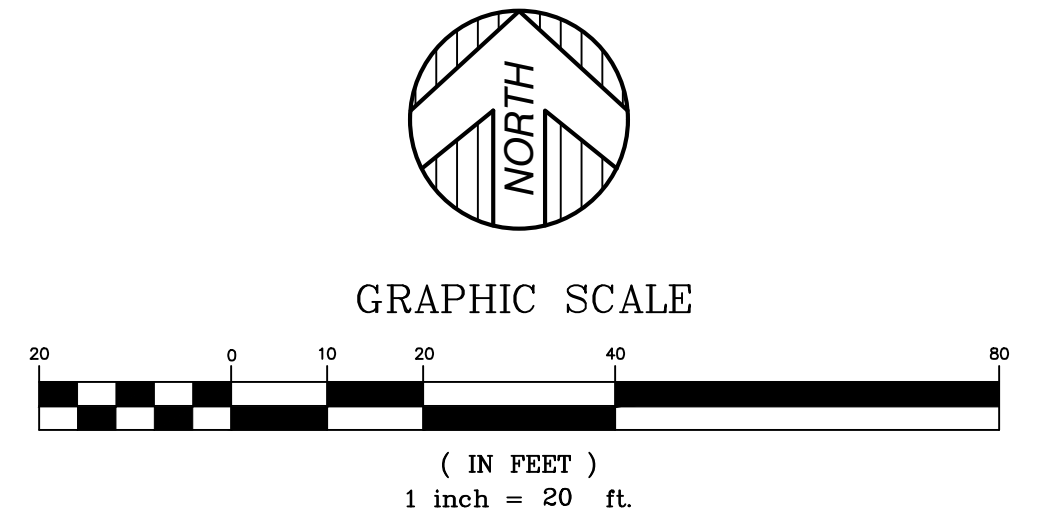
BENCHMARK
SITE BENCHMARK #1
TOP OF A CULVERT 140'± SOUTHEAST OF THE SOUTHEAST CORNER OF SUBJECT PROPERTY.
ELEVATION = 816.88' (NAVD 88)
SITE BENCHMARK #2
TOP OF A CULVERT 238'± SOUTHWEST OF THE SOUTHWEST CORNER OF SUBJECT PROPERTY.
ELEVATION = 812.97' (NAVD 88)

LEGEND

●	FOUND MONUMENT (AS NOTED)
(R&M)	RECORD AND MEASURED DIMENSION
(R)	RECORD DIMENSION
(M)	MEASURED DIMENSION
X 0.00	GROUND ELEVATION
⊗	ELECTRIC METER
○	UTILITY POLE
⊕	TELEPHONE RISER
●	BOLLARD
■	FENCE POST
○	DOUBLE POST SIGN
⊗	DECIDUOUS TREE (AS NOTED)
⊗	CONIFEROUS TREE (AS NOTED)
---	PARCEL BOUNDARY LINE
---	ADJOINER PARCEL LINE
---	BUILDING
---	AWNING
---	CENTERLINE DITCH
---	EDGE OF CONCRETE (CONC.)
---	EDGE OF ASPHALT (ASPH.)
---	EDGE OF BRICK
---	EDGE OF GRAVEL
---	FENCE (AS NOTED)
---	TREE / BRUSH LINE
---	OVERHEAD UTILITY LINE
---	GAS LINE
---	EDGE OF WATER (AS NOTED)
---	MINOR CONTOUR LINE
---	MAJOR CONTOUR LINE
---	BUILDING AREA
---	ASPHALT
---	CONCRETE

SURVEYOR'S NOTE
THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES OTHER THAN THE STRUCTURE INVENTORY SHOWN HEREON.

FLOOD NOTE
SUBJECT PARCEL LIES WITHIN:
OTHER AREA (ZONE X); AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.
AS SHOWN ON FLOOD INSURANCE RATE MAP: MAP NUMBER 26161C0260E, DATED 4/3/2012, PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.



PROPERTY DESCRIPTION
LAND SITUATED IN THE TOWNSHIP OF SUPERIOR, COUNTY OF WASHTENAW, STATE OF MICHIGAN, DESCRIBED AS:
PART OF THE NORTH 1/2 OF SECTION 18, TOWN 2 SOUTH, RANGE 7 EAST, SUPERIOR TOWNSHIP, WASHTENAW COUNTY, MICHIGAN, DESCRIBED AS BEGINNING AT A POINT ON THE SOUTHERLY LINE OF CHURCH STREET (1/2 ROW=33.00 FEET) DISTANT NORTH 88°24'05" EAST 377.00 FEET FROM THE NORTHEAST CORNER OF LOT 5, NORTHEAST SECTION OF DIXBORO, ACCORDING TO THE RECORDED PLAT THEREOF, AS RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS FEBRUARY 28, 1828, IN LIBER "A" OF DEEDS, PAGE 273, WASHTENAW COUNTY RECORDS; THENCE CONTINUING NORTH 88°24'05" EAST 150.00 FEET ALONG THE SOUTH RIGHT OF WAY LINE OF SAID CHURCH STREET; THENCE SOUTH 05°38'55" EAST 264.25 FEET; THENCE SOUTH 88°24'05" WEST 183.35 FEET AND NORTH 01°35'26" EAST 264.00 FEET TO THE POINT OF BEGINNING.
SUBJECT TO A CERTAIN EASEMENT ON, OVER AND ACROSS THE ABOVE DESCRIBED PROPERTY TO CREATE A RIGHT-OF-WAY FOR INGRESS AND EGRESS FOR THE BENEFIT OF THE ABOVE DESCRIBED PROPERTY AND PROPERTY IMMEDIATELY ADJACENT TO THE EAST THEREOF, SAID EASEMENT BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: TO WIT: COMMENCING AT THE NORTHEAST CORNER OF LOT 5, NORTHEAST SECTION OF DIXBORO, ACCORDING TO THE RECORDED PLAT THEREOF, AS RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS FEBRUARY 28, 1828, IN LIBER "A" OF DEEDS, PAGE 273, WASHTENAW COUNTY RECORDS; THENCE NORTH 88°24'05" EAST 496.92 FEET ALONG THE SOUTHERLY LINE OF CHURCH STREET (1/2 ROW=33 FEET); THENCE S 05°38'55" EAST 60.00 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING S 05°38'55" E 204.25 FEET; THENCE S 88°24'05" W 30.08 FEET; THENCE N 05°38'55" W 169.25 FEET; THENCE N 36°43'57" E 44.51 FEET TO THE POINT OF BEGINNING.
THE PROPERTY ADJACENT TO THE EAST AND WHICH SHALL BE BENEFITED BY THE ABOVE DESCRIBED EASEMENT IS MORE PARTICULARLY DESCRIBED AS FOLLOWS: TO WIT: COMMENCING AT THE NORTHEAST CORNER OF LOT 5, NORTHEAST SECTION VILLAGE OF DIXBORO; THENCE NORTH 88°24'05" EAST 257.00 FEET TO THE PLACE OF BEGINNING; THENCE CONTINUE NORTH 88°24'05" EAST 401.58 FEET; THENCE 475.10 FEET ALONG ARC OF A CURVE, RT RADIUS OF 641.60 FEET, CHORD SOUTH 53°51'52" W 464.87 FEET, THENCE NORTH 05°38'55" WEST 264.25 FEET TO PLACE OF BEGINNING, BEING PART OF THE NORTHEAST 1/4 OF SECTION 18, T2S, R7E.

TITLE REPORT NOTE
ONLY THOSE EXCEPTIONS CONTAINED WITHIN THE STEWART TITLE GUARANTY COMPANY COMMITMENT NO. LIB159002, DATED JULY 16, 2021, AND RELISTED BELOW WERE CONSIDERED FOR THIS SURVEY. NO OTHER RECORDS RESEARCH WAS PERFORMED BY THE CERTIFYING SURVEYOR.
10. MAINTENANCE AGREEMENT FOR EASEMENT AND RIGHT OF WAY, AS RECORDED IN LIBER 3583, PAGE 734, WASHTENAW COUNTY RECORDS. (NOT SHOWN, TERMINATED PER AGREEMENT DATED 11/01/21)

SURVEYOR'S CERTIFICATION
TO ARBOR HILLS ANIMAL CLINIC PLLC, A MICHIGAN DOMESTIC PROFESSIONAL LIMITED LIABILITY COMPANY, MERCANTILE BANK OF MICHIGAN, LIBERTY TITLE AGENCY; AND STEWART TITLE GUARANTY COMPANY.
THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 4, 7A, 8, AND 9 OF TABLE A, THEREOF. THE FIELD WORK WAS COMPLETED ON AUGUST 09, 2021.
DATE OF PLAT OR MAP: AUGUST 12, 2021
ANTHONY T. SYCKO, JR., P.S.
PROFESSIONAL SURVEYOR
MICHIGAN LICENSE NO. 47976
22556 GRATIOT AVE., EASTPOINTE, MI 48021
TSycko@kemttec-survey.com

KEM-TEC
PROFESSIONAL ENGINEERING, SURVEYING & ENVIRONMENTAL SERVICES
A GROUP OF COMPANIES
Eastpointe, Michigan
Ann Arbor, Michigan
Detroit, Michigan
(800) 255-7222 (519) 758-9977 (734) 954-0888
www.kemttecgroupofcompanies.com

ALTA / NSPS LAND TITLE SURVEY
PREPARED FOR: ARBOR HILLS VET
5347 PLYMOUTH-ANN ARBOR ROAD, SUPERIOR TOWNSHIP, MICHIGAN,
PART OF SECTION 18,
TOWN 2 SOUTH, RANGE 7 EAST

DATE	BY	REVISION	DESCRIPTION
12/23/21	ATS	8	TERMINATED EASEMENTS
12/22/21	MRJ	7	ADDITIONAL TOPO
11/17/21	MRJ	6	REVISED LOCATION OF SEPTIC FIELD AND TANKS
10/18/21	MRJ	5	ADDED FLOOD NOTE
10/17/21	JV	4	EDITED SURVEYOR'S CERTIFICATION
10/15/21	JVM	3	ADDED TREE INVENTORY TABLE & TREE NUMBERS
10/08/21	JVM	2	ADDED EASEMENT
09/17/21	ATS	1	DATE

SCALE: 1" = 20'
1
1 OF 1 SHEETS

PEA GROUP

844.813.2949
PEAGROUP.COM

November 18, 2021
PEA Project No: 2021-0587

Mr. Mark Wilson
Practice Manager
Arbor Hills Animal Clinic
5347 Plymouth Road
Superior Charter Township, Washtenaw County, Michigan 48105

**RE: Infiltration Testing
Arbor Hills Animal Clinic
5347 Plymouth Road
Superior Charter Township, Michigan**

PEA Group is pleased to submit this summary of our field infiltration testing at the above referenced project site. We performed infiltration tests at three locations provided by Mark Wilson of Arbor Hills Animal Clinic. The locations were approved by the Washtenaw County Water Resources Commissioner's Office. The test locations can be found on the Test Location Diagram attached to this report.

At the test locations we encountered approximately 24 inches of clayey topsoil and debris, underlain by clayey sand. The clayey sand extended to depths ranging from 4 to 6.5 feet below the ground surface (bgs.) Underlying the clayey sand, silty sand with varying amounts of gravel was encountered to test pit termination depths of 8 to 14.5 feet. Test location TP-3 was excavated to 14.5 feet, the extent of the mini-excavator onsite, in search of the water table at the site. Ground water was not encountered within the upper 14.5 feet of TP-3.

Infiltration tests were performed within the silty sand soils 6 feet bgs at locations TP-1 and TP-2, and 6.5 feet bgs at TP-3. The tests were conducted at the locations shown on our location plan in granular soils. At the infiltration testing locations, we embedded a 6" inner diameter double ring infiltrometer apparatus approximately 2 inches into the granular soil per the Washtenaw County Stormwater Standards. We observed that the apparatus was embedded with a good seal around both the inner and outer rings so that the percolation was limited to the 6-inch plug of soil within the inner ring. Water was then added to the pipe to approximately 3 inches above the soil. The water level was then measured with a tape to the nearest 1/16" with reference to a fixed point marked on the inner ring. Using 1 minute test increments, we recorded the water level within the inner ring. This process was repeated until all the water had infiltrated into the soil. The results of each test were tabulated on data sheets. The average infiltration rate over the last test interval was used to calculate the reported infiltration rate at the test locations. At test locations TP-1 and TP-2 the infiltration rate was calculated to be 3.56 inches per hour (in./hr.). Using a safety factor of 2, we recommend an allowable infiltration rate of 1.78 (in./hr.). At test location TP-3 the infiltration rate was calculated to be 5.8 in./hr. Using our typical safety of 2, the infiltration rate at TP-3 would be 2.9 (in./hr.). However, we typically don't recommend infiltration rates greater than 2 in./hr. be used for design purposes. Thus, we recommend an allowable infiltration rate of 2 (in./hr.) at location TP-3.

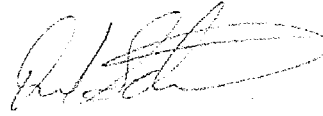
If you have any questions regarding this report, or if we may be of further assistance to you in any respect, please feel free to contact us. We appreciate the opportunity to have been of service to you.

Sincerely,

PEA Group



Kevin Bennett
Geotechnical Staff Engineer



D. Jack Sattelmeier, PE
Director of Geotechnical Engineering

Attachments: Log of Test Pits
 Location Plan
 Infiltration Data Worksheets

PEA GROUP

LOG OF TEST PIT

PEA GROUP JOB NO: 2021-0587

PEA GROUP PROJECT NAME: Arbor Hills Animal Clinic

TEST PIT #	ELEV. (Feet)	DEPTH (Feet)	DESCRIPTION	REMARKS
TP-1	819	0' - 2' 2' - 5' 5' - 8'	TOPSOIL: Black Clayey Sand, Trace Debris Brown CLAYEY SAND Brown SILTY SAND	Infiltration performed at 6'.
TP-2	818	0' - 2' 2' - 4' 4' - 9'	TOPSOIL: Black Clayey Sand Brown CLAYEY SAND Brown SILTY SAND, Trace to Little Gravel	Infiltration performed at 6'.
TP-3	821	0' - 2' 2' - 6.5' 6.5' - 14.5'	Brown/Gray GRAVEL, Some Sand Brown CLAYEY SAND Brown SILTY SAND	Infiltration performed at 6.5'.
<p>NOTES: No groundwater encountered above 14.5 Ft.</p>				
BY:KB		DATE: 11/9/2021		FIGURE:1

Field Infiltration Testing

PEA Proj #: 2021-0587

Proj Name: Arbor Hills Animal Clinic

Date: 11/9/2021

Diameter of
Casings (in): 6

Test Pit #1				Test Pit #2			
Depth to test:	6'		Length of pipe above ground - 2 (in.)	Depth to test:	6'		Length of pipe above ground - 2 (in.)
Test Elevation:	813'			Test Elevation:	812'		
Rf	1.05	k (in./hr)	3.56	Rf	1.05	k (in./hr.)	3.56
Reading Time	Elapsed Time, min	Depth below Top of Casing, in	Percolation Rate, in/hr	Reading Time	Elapsed Time, min	Depth below Top of Casing, in	Percolation Rate, in/hr
0	0	0.1875	NA	0	0	0.1875	NA
1	1	0.3125	7.50	1	1	0.25	3.75
2	1	0.4375	7.50	2	1	0.5	15.00
3	1	0.5625	7.50	3	1	0.625	7.50
4	1	0.625	3.75	4	1	0.75	7.50
5	1	0.75	7.50	5	1	0.8125	3.75
6	1	0.8125	3.75	6	1	0.875	3.75
7	1	0.875	3.75	7	1	0.9375	3.75
8	1	0.9375	3.75	8	1	1	3.75
9	1	1	3.75	9	1	1.0625	3.75
10	1	1.0625	3.75	10	1	1.125	3.75
11	1	1.125	3.75	11	1	1.1875	3.75
12	1	1.1875	3.75	12	1	1.25	3.75
13	1	1.25	3.75	13	1	1.3125	3.75
14	1	1.3125	3.75	14	1	1.375	3.75
				15	1	1.4375	3.75

Test Pit #3			
Depth to test:	6.5'		Length of pipe above ground (in.)
Test Elevation:	815.5		
Rf	1.29	k (in./hr.)	5.8
Reading Time	Elapsed Time, min	Depth below Top of Casing, in	Infiltration Rate, in/hr
0	0	0.9375	NA
1	1	1	3.75
2	1	1.1875	11.25
3	1	1.375	11.25
4	1	1.5	7.50
5	1	1.5625	3.75
6	1	1.6875	7.50
7	1	1.8125	7.50
8	1	1.9375	7.50
9	1	2.0625	7.50
10	1	2.1875	7.50
11	1	2.375	11.25
12	1	2.5625	11.25
13	1	2.6875	7.50
14	1	2.8125	7.50
15	1	2.9375	7.50
16	1	3.0625	7.50

CLIENT: ARBOR HILLS ANIMAL CLINIC

Thursday, December 16, 2021

PROJECT: 5347 PLYMOUTH ROAD - PROPOSED VETERINARY CLINIC

DET-210369



RIGHT-OF-WAY WORK COST ESTIMATE

PROJECT: 5347 PLYMOUTH ROAD - PROPOSED VETERINARY CLINIC

ID	LINE ITEM	QUANTITY	UNIT	UNIT COST	ITEM COST
1.0 SITE WORK					
1	Aggregate Shoulder	705	SF	\$3.00	\$2,115.00
2	Asphalt Pavement	1,869	SF	\$5.00	\$9,345.00
				SUBTOTAL	\$11,460.00
				GRAND TOTAL	\$11,460.00

NOTES:

1. This Cost Estimate has been prepared based upon the site development plans entitled "5347 PLYMOUTH ROAD - PROPOSED VETERINARY CLINIC", prepared by Stonefield Engineering And Design, LLC., dated 12/16/2021

This Cost Estimate has been prepared for Municipal Bonding Only. Contractor bids should be obtained for formal construction cost budgeting and financing.

3. This Cost Estimate is preliminary only and subject to modification upon consultation with the Project Team and/or relevant jurisdictional agencies.

4. This Cost Estimate does not include utility authority fees, construction stakeout, environmental soil and/or groundwater conditions, inspection fees, bonds, building construction, tenant signage, permit fees, as-built survey, insurance fees, union labor, or any unforeseen subsurface conditions. Costs for excluded items should be considered when preparing a comprehensive construction budget.

5. This Cost Estimate has been prepared without the benefit of a Topographic Survey or Geotechnical Report.

STONEFIELD

December 14, 2021

Gary Streight, PE
Project Manager
Washtenaw County Road Commission
555 North Zeeb Road
Ann Arbor, Michigan 48103

**RE: Left-Turn Lane Warrant Analysis
Proposed Veterinary Clinic
5347 Plymouth Road
Parcel ID: 10-18-155-013
City of Ann Arbor, Washtenaw County, Michigan
SE&D Job No. DET-210369**

Dear Mr. Streight:

Stonefield Engineering and Design, LLC ("Stonefield") has prepared this analysis to examine if a left-turn lane is warranted for the proposed development. The subject property is located along the northerly side of Plymouth Road in the City of Ann Arbor, Washtenaw County, Michigan. The existing site contains a 2,203-square-foot two (2)-story frame dwelling and a 546-square-foot building previously used as a small wedding and elopement venue. Existing access is provided via one (1) full-movement driveway along Plymouth Road. Under the proposed development program, the existing structure would be moderately expanded and retentanted as a veterinary clinic. Access is proposed to remain.

Trip generation projections for the proposed veterinary clinic were prepared utilizing the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition. Trip generation rates associated with Land Use 640 "Animal Hospital/Veterinary Clinic" were cited for the 3,086-square-foot veterinary clinic. Table I provides the weekday morning and weekday evening peak hour trip generation volumes associated with the proposed development.

TABLE I – PROPOSED TRIP GENERATION

Land Use	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
3,086 SF Veterinary Clinic <i>ITE Land Use 640</i>	7	4	11	7	3	10

The trips generated by the proposed development were distributed according to the existing travel patterns along the adjacent roadway. A trip distribution of 50% eastbound trips and 50% westbound trips along Plymouth Road, was utilized.

The Michigan Department of Transportation (MDOT) provides guidelines for when left-turn lanes should be constructed. At any unsignalized intersection on a two-lane urban or rural highway which satisfies the direction hourly volume criteria between left-turning volumes and opposing volumes.

A curve representing the percentage of left turns in the advancing volume during the weekday morning and weekday evening, was calculated. Plymouth Road northbound has an advancing volume of 113 vehicles during

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607 SHELBY STREET, SUITE 200 DETROIT, MI 48226 248.247.1115 T.

STONEFIELD

Proposed Veterinary Clinic
City of Ann Arbor, Washtenaw County, Michigan
December 14, 2021
Page 2 of 2

the weekday morning peak hour and 539 vehicles during the weekday evening peak hour. The proposed development is expected to generate a total of four (4) left-turn ingress-movements during the weekday morning peak hour and a total of four (4) left-turn ingress-movements during the weekday evening peak hour. This equates to 3.5% and 0.7% of the advancing volume during the weekday morning and weekday evening peak hour, respectively. The figure indicates for Plymouth Road with a posted speed limit of 45 mph that a left-turn lane is not warranted during any of the weekday peak periods. The MDOT chart for the determination of left-turn lane warrants on a two (2) lane, 45 mph roadway is enclosed as part of this memorandum.

Please do not hesitate to contact our office if there are any questions.

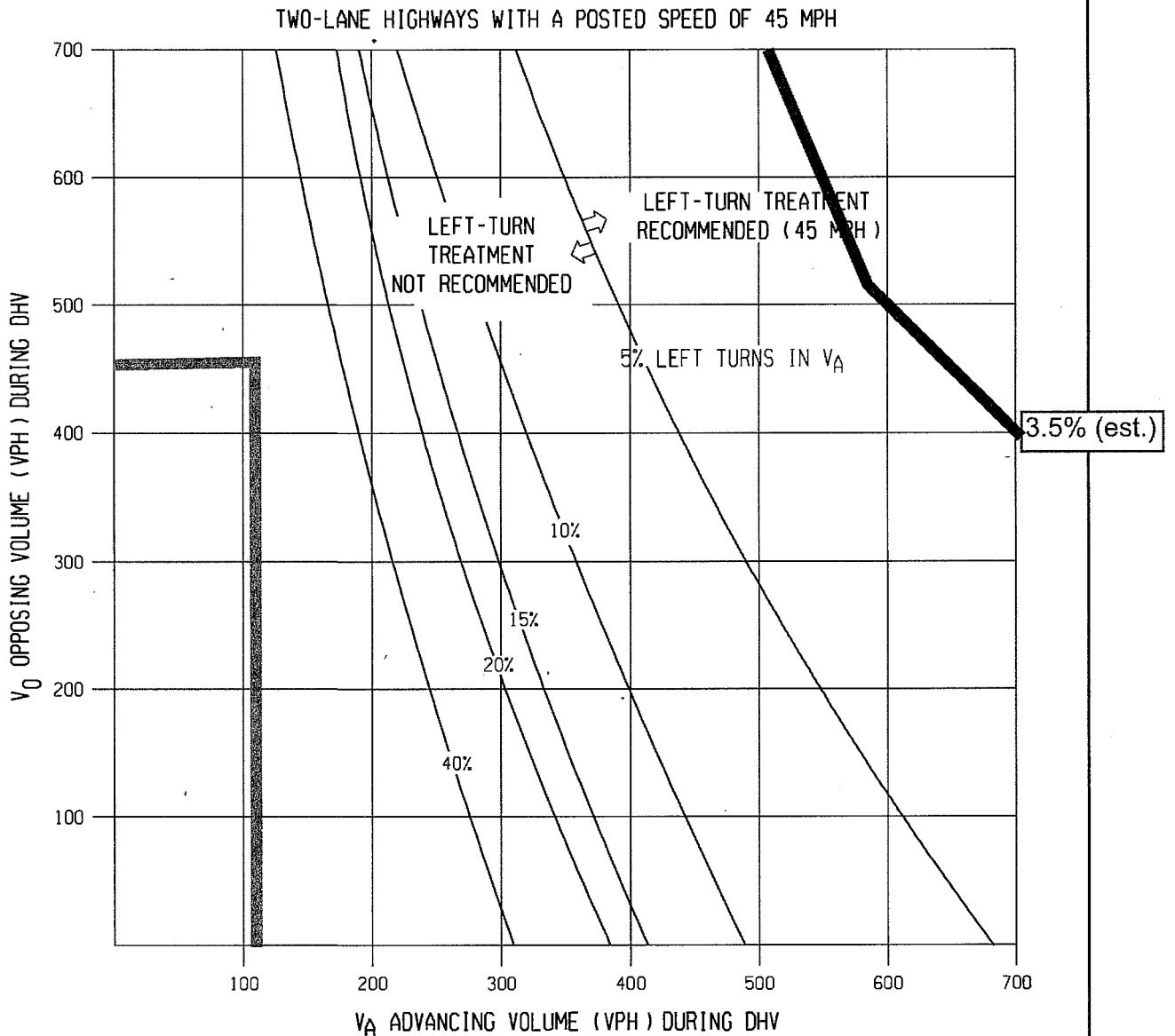
Best regards,



John R. Corak, PE
Stonefield Engineering and Design, LLC


via FedEx with Enclosures

Weekday Morning Left-Turn Lane Warrant

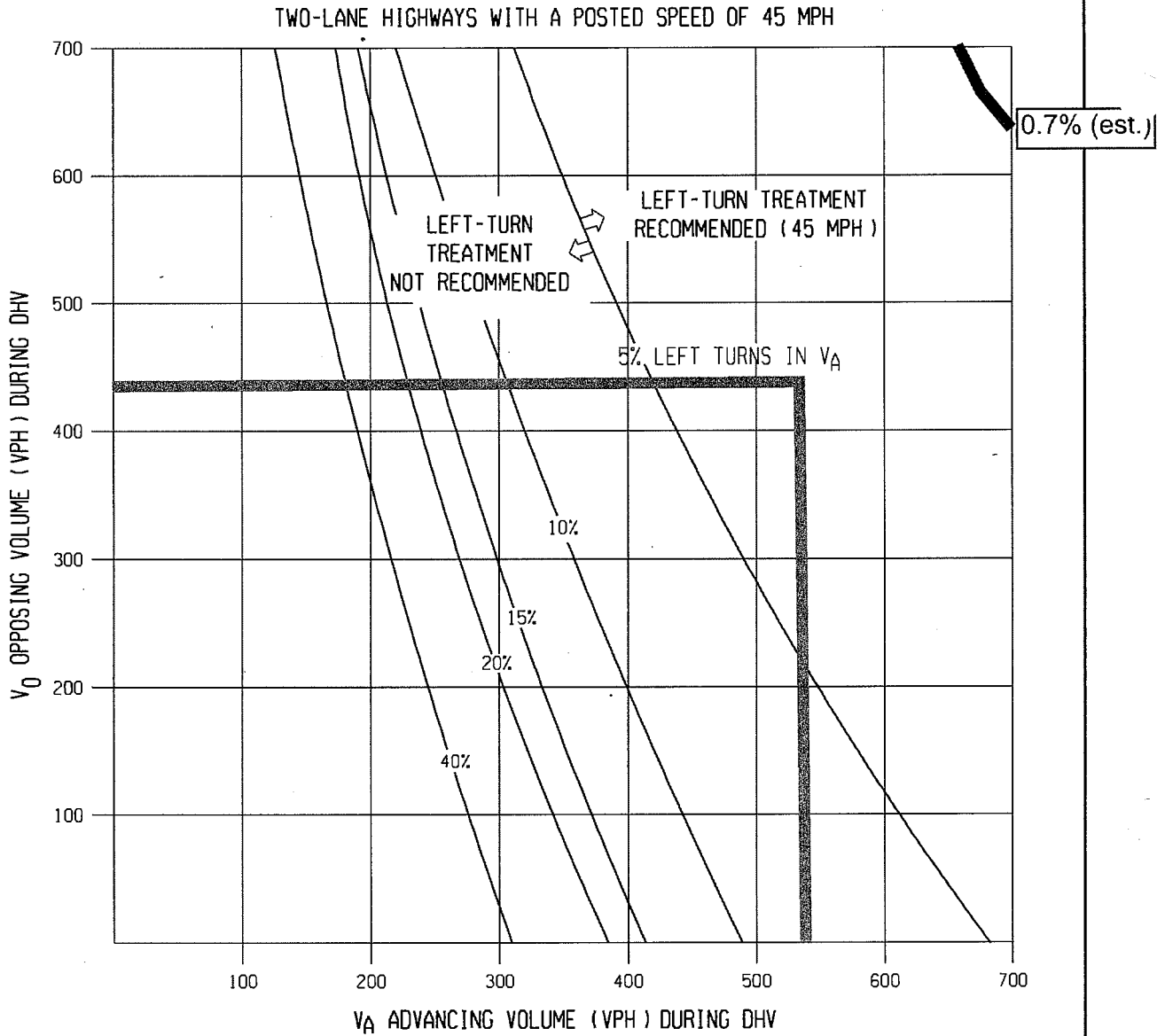


Instructions:

1. The family of curves represent the percentage of left turns in the advancing volume (V_A). The designer should locate the curve for the actual percentage of left turns. When this is not an even increment of 5, the designer should estimate where the curve lies.
2. Read V_A and V_O into the chart and locate the intersection of the two volumes.
3. Note the location of the point in #2 relative to the line in #1. If the point is to the right of the line, then a left-turn lane is recommended. If the point is to the left of the line, then a left-turn is not recommended based on traffic volumes.


 TRAFFIC AND SAFETY NOTE	TRAFFIC VOLUME GUIDELINES FOR LEFT-TURN LANES AT UNSIGNALIZED INTERSECTIONS	
DRAWN BY: MTS	08/05/2004	605A
CHECKED BY: JAT	PLAN DATE:	
FILE: K:\DGN\ts notes\Note605A tsn.dgn		SHEET 4 OF 6 REV. 08/05/2004

Weekday Evening Left-Turn Lane Warrant



Instructions:

1. The family of curves represent the percentage of left turns in the advancing volume (V_A). The designer should locate the curve for the actual percentage of left turns. When this is not an even increment of 5, the designer should estimate where the curve lies.
2. Read V_A and V_O into the chart and locate the intersection of the two volumes.
3. Note the location of the point in #2 relative to the line in #1. If the point is to the right of the line, then a left-turn lane is recommended. If the point is to the left of the line, then a left-turn is not recommended based on traffic volumes.

 MDOT Michigan Department of Transportation TRAFFIC AND SAFETY NOTE	TRAFFIC VOLUME GUIDELINES FOR LEFT-TURN LANES AT UNSIGNALIZED INTERSECTIONS		
	DRAWN BY: MTS	08/05/2004	605A
CHECKED BY: JAT	PLAN DATE:	4 OF 6	
FILE: K:/DGN/ts notes/Note605A tsn.dgn			REV. 08/05/2004

Location Info	
Location ID	0100710011_NB
Type	I-SECTION
Functional Class	-
Located On	Plymouth Rd
NORTH OF	Ford Rd
Direction	NB
Community	Superior Twp
MPO_ID	855705629
HPMS ID	
Agency	Washtenaw County Road Commission

Count Data Info	
Start Date	5/23/2019
End Date	5/24/2019
Start Time	1:00 PM
End Time	1:00 PM
Direction	
Notes	
Count Source	0100710011_NB
File Name	0100710011_NB.txt
Weather	
Study	
Owner	pcawley
QC Status	Accepted

Interval: 15 mins					
Time	15 Min				Hourly Count
	1st	2nd	3rd	4th	
00:00 - 01:00	4	3	4	3	14
01:00 - 02:00	2	1	1	0	4
02:00 - 03:00	1	0	1	0	2
03:00 - 04:00	1	0	0	0	1
04:00 - 05:00	1	1	1	2	5
05:00 - 06:00	2	6	5	4	17
06:00 - 07:00	6	7	21	19	53
07:00 - 08:00	21	20	34	38	113
08:00 - 09:00	42	43	29	37	151
09:00 - 10:00	35	32	30	28	125
10:00 - 11:00	31	42	36	37	146
11:00 - 12:00	30	48	45	53	176
12:00 - 13:00	55	33	51	40	179
13:00 - 14:00	45	40	42	46	173
14:00 - 15:00	54	65	46	63	228
15:00 - 16:00	84	94	92	100	370
16:00 - 17:00	94	127	152	109	482
17:00 - 18:00	145	142	144	108	539
18:00 - 19:00	68	65	60	33	226
19:00 - 20:00	42	39	19	32	132
20:00 - 21:00	34	32	19	29	114
21:00 - 22:00	28	26	19	14	87
22:00 - 23:00	12	20	13	8	53
23:00 - 24:00	9	9	3	7	28
TOTAL					3418

Location Info	
Location ID	0100710011_SB
Type	I-SECTION
Functional Class	-
Located On	Plymouth Rd
NORTH OF	Ford Rd
Direction	SB
Community	Superior Twp
MPO_ID	855705630
HPMS ID	
Agency	Washtenaw County Road Commission

Count Data Info	
Start Date	5/23/2019
End Date	5/24/2019
Start Time	1:00 PM
End Time	1:00 PM
Direction	
Notes	
Count Source	0100710011_SB
File Name	0100710011_SB.txt
Weather	
Study	
Owner	pcawley
QC Status	Accepted

Interval: 15 mins					
Time	15 Min				Hourly Count
	1st	2nd	3rd	4th	
00:00 - 01:00	4	1	1	0	6
01:00 - 02:00	1	2	1	0	4
02:00 - 03:00	2	0	3	2	7
03:00 - 04:00	0	0	1	1	2
04:00 - 05:00	1	3	2	5	11
05:00 - 06:00	8	7	25	21	61
06:00 - 07:00	33	39	68	92	232
07:00 - 08:00	77	123	133	116	449
08:00 - 09:00	80	100	118	76	374
09:00 - 10:00	59	74	48	35	216
10:00 - 11:00	40	28	46	50	164
11:00 - 12:00	31	45	42	50	168
12:00 - 13:00	32	63	49	58	202
13:00 - 14:00	48	48	59	37	192
14:00 - 15:00	50	56	69	64	239
15:00 - 16:00	56	52	51	59	218
16:00 - 17:00	91	92	95	84	362
17:00 - 18:00	135	110	106	81	432
18:00 - 19:00	81	78	58	33	250
19:00 - 20:00	25	28	23	7	83
20:00 - 21:00	25	20	8	16	69
21:00 - 22:00	17	20	10	17	64
22:00 - 23:00	12	14	18	6	50
23:00 - 24:00	6	3	4	6	19
TOTAL					3874



Mark from Arbor Hills Animal Clinic <marktwilson@arborhillsvet.com>

RE: WCRC App. 18005 - Arbor Hills Vet 21-02389

3 messages

Renata Garbarino <RGarbarino@kemtec-survey.com>

Fri, Dec 10, 2021 at 12:31 PM

To: Mark from Arbor Hills Animal Clinic <marktwilson@arborhillsvet.com>, Peter J Hill <pete@hda-architects.com>, Jim <jim@hda-architects.com>

Mark,

Our fee for left turn warrant analysis is \$1,200.00

Let us know if we should include within our scope when addressing all comments.

Thank you,

Renata Garbarino



A GROUP OF COMPANIES

ENGINEERING . SURVEYING . ENVIRONMENTAL SERVICES

22556 Gratiot Avenue

Eastpointe, MI 48021

Phone: (586) 772-2222

Fax: (586) 772-4048

From: Mark from Arbor Hills Animal Clinic <marktwilson@arborhillsvet.com>

Sent: Thursday, December 09, 2021 10:59 AM

To: Renata Garbarino <RGarbarino@kemtec-survey.com>; Peter J Hill <pete@hda-architects.com>; Jim <jim@hda-architects.com>

Subject: Fwd: WCRC App. 18005 - Arbor Hills Vet

RE: RE: Kem-Tech Reference: 5347 Plymouth Rd., Superior Twp. 21-02389

Renata,

Attached are the comments from the road commission as well as a marked-up drawing. Please share these with Civil as they finalize their work on this project.

Mark T. Wilson, Practice Manager, Arbor Hills Animal Clinic (he/him)

cc: Pete & Jim

----- Forwarded message -----

From: **Streight, Gary** <streightg@wcroads.org>

Date: Wed, Dec 8, 2021 at 10:03 AM

Subject: WCRC App. 18005 - Arbor Hills Vet

To: Mark from Arbor Hills Animal Clinic <marktwilson@arborhillsvet.com>

Cc: kenschwartz@superior-twp.org <kenschwartz@superior-twp.org>, Jones, Lisa <jonesl@wcroads.org>

Mark,

I have reviewed the submitted plan for the above project and offer the following comments for your use in addition to the attached plan markups:

- Provide a cost estimate for all work within the Plymouth Road right of way for approval.
- An Inspection fee equal to 3% of the approved cost estimate is required.
- A deposit equal to the full amount of the cost estimate must be provided in the form of a letter of credit or cashier's check.
- Provide the name, contact info and certificate of insurance for the contractor performing the work.

Once you have addressed the above comments and plan comments, please submit a set of plans to permits@wcroads.org for review. No work within the right of way shall occur until a permit has been issued. If you have any questions feel free to contact me.

Gary Streight, P.E.

Project Manager



Washtenaw County Road Commission

555 N. Zeeb Road, Ann Arbor, Michigan

Direct: (734) 327-6692 | Main: (734) 761-1500

wcroads.org | Follow us on Facebook

Mark from Arbor Hills Animal Clinic <marktwilson@arborhillsvet.com>
To: Renata Garbarino <RGarbarino@kemtec-survey.com>

Fri, Dec 10, 2021 at 12:51 PM

Please. Invoice me at your convenience. Thank you.

Mark T. Wilson, Practice Manager, Arbor Hills Animal Clinic (he/him)

[Quoted text hidden]

Renata Garbarino <RGarbarino@kemtec-survey.com>
To: Mark from Arbor Hills Animal Clinic <marktwilson@arborhillsvet.com>

Fri, Dec 10, 2021 at 1:04 PM

Will do.

[Quoted text hidden]



Mark from Arbor Hills Animal Clinic <marktwilson@arborhillsvet.com>

WCRC App. 18005 - Arbor Hills Vet

4 messages

Streight, Gary <streightg@wcroads.org>

Wed, Dec 8, 2021 at 10:03 AM

To: Mark from Arbor Hills Animal Clinic <marktwilson@arborhillsvet.com>

Cc: "kenschwartz@superior-twp.org" <kenschwartz@superior-twp.org>, "Jones, Lisa" <jonesl@wcroads.org>

Mark,

I have reviewed the submitted plan for the above project and offer the following comments for your use in addition to the attached plan markups:

- Provide a cost estimate for all work within the Plymouth Road right of way for approval.
- An Inspection fee equal to 3% of the approved cost estimate is required.
- A deposit equal to the full amount of the cost estimate must be provided in the form of a letter of credit or cashier's check.
- Provide the name, contact info and certificate of insurance for the contractor performing the work.

Once you have addressed the above comments and plan comments, please submit a set of plans to permits@wcroads.org for review. No work within the right of way shall occur until a permit has been issued. If you have any questions feel free to contact me.

Gary Streight, P.E.

Project Manager



Washtenaw County Road Commission

555 N. Zeeb Road, Ann Arbor, Michigan

Direct: (734) 327-6692 | Main: (734) 761-1500

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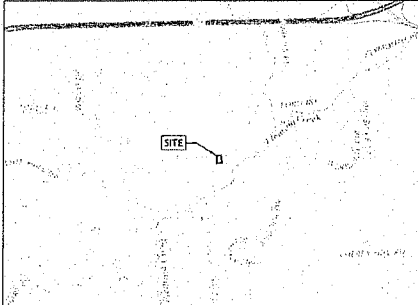
Plan Markups.pdf

10411K

Mark from Arbor Hills Animal Clinic <marktwilson@arborhillsvet.com>

Wed, Dec 8, 2021 at 11:01 AM

To: Jim <jim@hda-architects.com>, Peter J Hill <pete@hda-architects.com>



LOCATION MAP
SCALE: 1" = 2,000'±



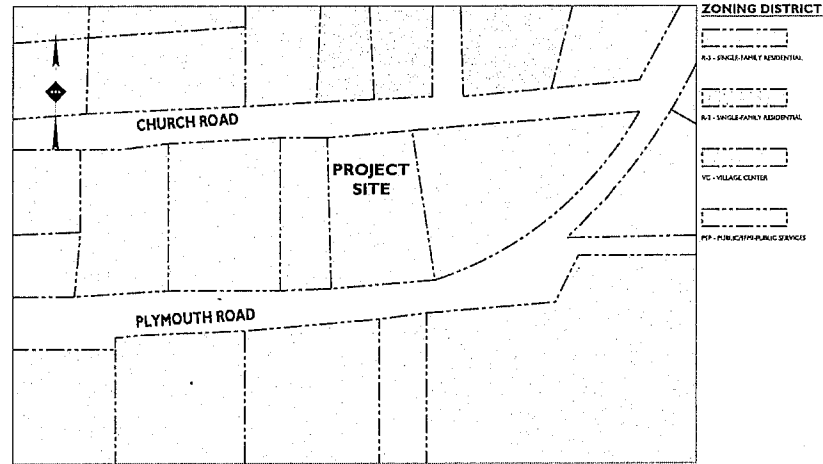
AERIAL MAP
SCALE: 1" = 100'±

SITE IMPROVEMENT PLANS FOR 5347 PLYMOUTH ROAD PROPOSED VETERINARY CLINIC

PARCEL ID: 10-18-155-013
5347 PLYMOUTH ROAD
SUPERIOR CHARTER TOWNSHIP, WASHTENAW COUNTY, MICHIGAN 48105

APPLICANT

MARK & KRISTIN WILSON
DBA ARBOR HILLS ANIMAL CLINIC PLLC
2717 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105
MARKWILSON@ARBORHILLSVET.COM



ZONING MAP
SCALE: 1" = 100'±

ZONING DISTRICT

R3 - SINGLE-FAMILY RESIDENTIAL
R1.5 - SINGLE-FAMILY RESIDENTIAL
VC - VILLAGE CENTER
POP - PUBLIC PUBLIC SERVICES

PLANS PREPARED BY:



Detroit, MI · Rutherford, NJ · New York, NY
Princeton, NJ · Tampa, FL · Boston, MA
www.stonefielddeng.com

607 Shelby Suite 200, Detroit, MI 48226
Phone 248.247.1115

PLAN REFERENCE MATERIALS:

- THIS PLAN SET REFERENCES THE FOLLOWING DOCUMENTS INCLUDING, BUT NOT LIMITED TO:
 - ALTAIR'S LAND TITLE SURVEY PREPARED BY KEM-TEC A GROUP OF COMPANIES DATED 10/15/2021
 - AERIAL MAP OBTAINED FROM GOOGLE EARTH PRO
 - LOCATION MAP OBTAINED FROM URS ONLINE MAPS
- ALL REFERENCE MATERIAL LISTED ABOVE SHALL BE CONSIDERED A PART OF THIS PLAN SET AND ALL INFORMATION CONTAINED WITHIN THESE MATERIALS SHALL BE UTILIZED IN CONJUNCTION WITH THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN A COPY OF EACH REFERENCE AND REVIEW IT THOROUGHLY PRIOR TO THE START OF CONSTRUCTION.

SHEET INDEX	
DRAWING TITLE	SHEET #
COVER SHEET	C-1
DEMOLITION PLAN	C-2
SITE PLAN	C-3
GRADING & DRAINAGE PLAN	C-4
LANDSCAPE PLAN	C-5
LIGHTING PLAN	C-6
CONSTRUCTION DETAILS	C-7

ADDITIONAL SHEETS	
DRAWING TITLE	SHEET #
ALTAIR'S LAND TITLE SURVEY	1 OF 1



Know what's below
Call before you dig.

NOT APPROVED FOR CONSTRUCTION

STONEFIELD
engineering & design
10000 E. Grand Ave., Suite 200
Ann Arbor, MI 48106
Phone: 248.247.1115
www.stonefielddeng.com

KEM-TEC
Engineering & Surveying
10000 E. Grand Ave., Suite 200
Ann Arbor, MI 48106
Phone: 248.247.1115
www.kem-tec.com

APPROVED FOR CONSTRUCTION

APPROVED

FOR SITE PLAN SUBMISSION

FOR CLIENT REVIEW

DATE: _____

BY: _____

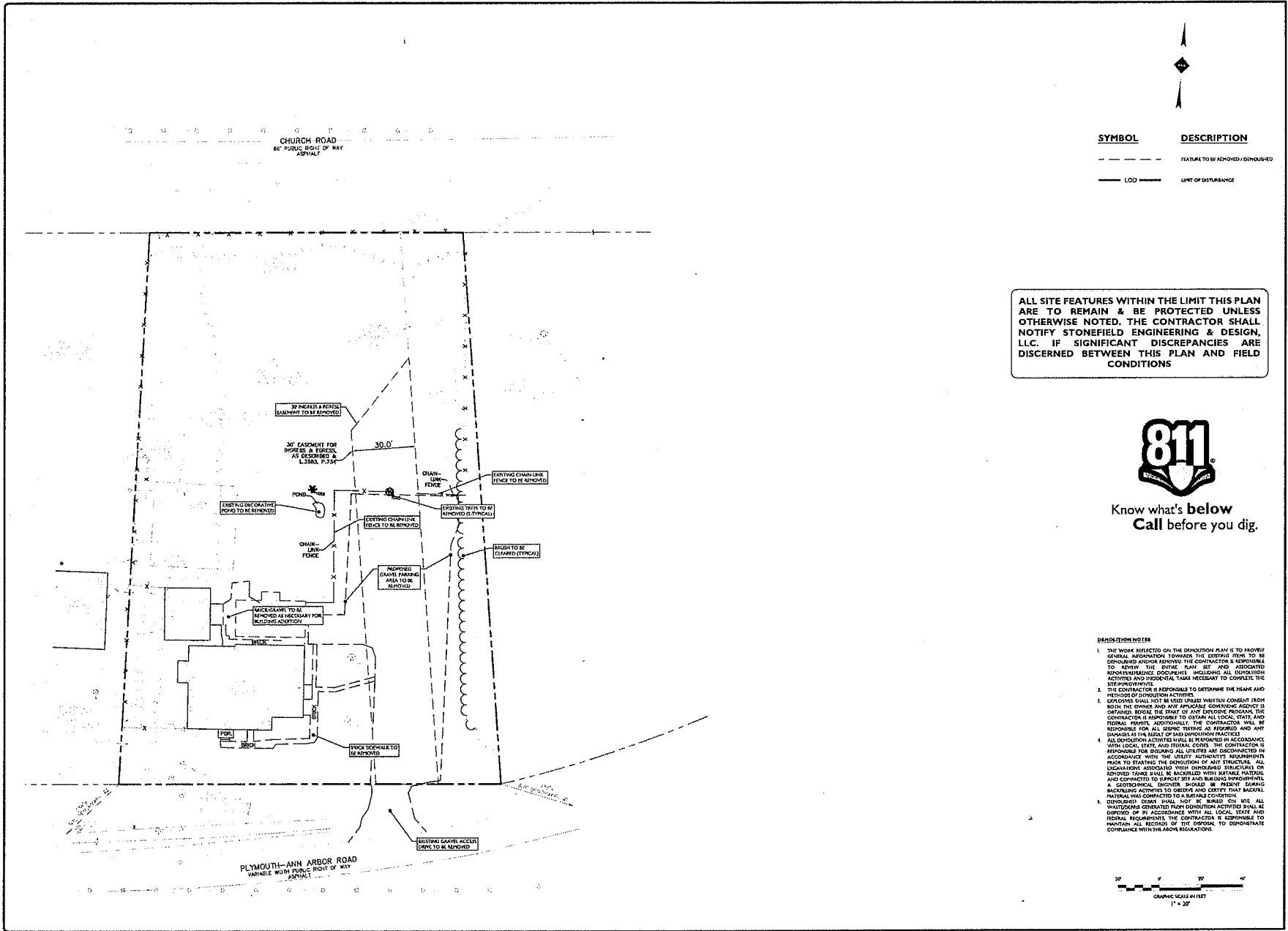
ISSUE: _____

SCALE: AS SHOWN PROJECT ID: DET-31041

TITLE: COVER SHEET

DRAWING: C-1

PARCEL ID: 10-18-155-013
5347 PLYMOUTH ROAD
SUPERIOR CHARTER TOWNSHIP
WASHTENAW COUNTY, MICHIGAN 48105



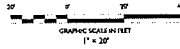
SYMBOL	DESCRIPTION
---	FEATURE TO BE DEMOLISHED / DEMOUNTED
---	LIMIT OF DISTURBANCE

ALL SITE FEATURES WITHIN THE LIMIT THIS PLAN ARE TO REMAIN & BE PROTECTED UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IF SIGNIFICANT DISCREPANCIES ARE DISCERNED BETWEEN THIS PLAN AND FIELD CONDITIONS



Know what's below
Call before you dig.

- DEMOLITION NOTES**
1. THE WORK REFLECTED ON THE DEMOLITION PLAN IS TO FACILITATE GENERAL RECONSTRUCTION TOWARDS THE EXISTING FENCE TO BE DEMOLISHED AND/OR REMOVE THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE ENTIRE PLAN SET AND ASSOCIATED APPROPRIATE DOCUMENTS INCLUDING ALL DEMOLITION ACTIVITIES AND SPECIAL TASKS NECESSARY TO COMPLETE THE SITE RECONSTRUCTION.
 2. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE NAME AND ADDRESS OF THE PROPERTY OWNER.
 3. EMPLOYEES SHALL NOT BE USED UNLESS WITHIN CONSENT FROM BOTH THE OWNER AND ANY APPLICABLE GOVERNING AGENCY IS OBTAINED. BEFORE THE START OF ANY DEMOLITION PROGRAM, THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL LOCAL, STATE, AND FEDERAL PERMITS. ADDITIONALLY, THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL TESTING AS REQUIRED AND ANY DAMAGES AS THE RESULT OF SAID DEMOLITION PRACTICES.
 4. ALL DEMOLITION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL CODES. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL UTILITIES ARE DISCONNECTED IN ACCORDANCE WITH THE UTILITY AUTHORITY'S REQUIREMENTS PRIOR TO STARTING THE DEMOLITION OF ANY STRUCTURE. ALL DISCONNECTED UTILITIES WITH EXPOSED STRUCTURES OR REMOVED TANKS SHALL BE BACKFILLED WITH SUITABLE MATERIALS AND COMPACTED TO SURFACE AND BEARING APPROXIMATELY A GEOTECHNICAL ENGINEER SHOULD BE PRESENT DURING BACKFILLING ACTIVITIES TO OBSERVE AND CERTIFY THAT BACKFILL MATERIAL WAS COMPACTED TO A SUITABLE CONDITION.
 5. DEMOLISHED ITEMS SHALL NOT BE REUSED ON SITE. ALL WASTEWATER GENERATED FROM DEMOLITION ACTIVITIES SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN ALL RECORDS OF THE DISPOSAL TO DEMONSTRATE COMPLIANCE WITH THE ABOVE REGULATIONS.

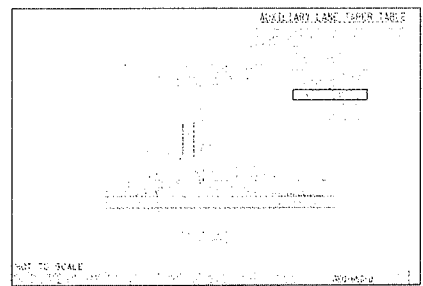


<p>5347 PLYMOUTH ROAD PROPOSED VETERINARY CLINIC</p>	
<p>SCALE: 1" = 30' PROJECT ID: DET-218941</p>	
<p>TITLE: DEMOLITION PLAN</p>	
<p>DRAWING: C-2</p>	
<p>DATE: 11/11/2021</p>	<p>BY: [Signature]</p>
<p>ISSUE: 1</p>	<p>DATE: 11/11/2021</p>
<p>NOT APPROVED FOR CONSTRUCTION</p>	
<p>THE 811-TEC PROGRAM IS A SERVICE PROVIDED BY THE STATE OF MICHIGAN. FOR MORE INFORMATION, VISIT 811.MI.GOV</p>	

LAND USE AND ZONING		
PARCEL ID: 15-14-155411		
VILLAGE COMMERCIAL DISTRICT (V-C)		
PROPOSED USE	ACQUIRED	PROPOSED
VETERINARY CLINIC	20,000 SF	20,144 SF
ZONING REQUIREMENT	100 FT	103.3 FT
MINIMUM LOT WIDTH	150 FT	150 FT
MAXIMUM GROUND FLOOR COVERAGE	51% (2,554 SF)	7% (2,261 SF)
MAXIMUM FLOOR AREA RATIO	0.50 (2,500 SF)	0.27 (2,084 SF)
MAXIMUM BUILDING HEIGHT	35 FT (STORIES)	25 FT (STORIES)
MINIMUM FRONT YARD SETBACK	30 FT	35 FT
MINIMUM FRONT YARD	35 FT	35 FT
MINIMUM SIDE YARD SETBACK (SIDE)	10 FT	10 FT
MINIMUM SIDE YARD SETBACK (REAR)	30 FT	30 FT
MINIMUM REAR YARD SETBACK	35 FT	35 FT
MINIMUM FRONT YARD PARKING SETBACK	30 FT	35 FT
MINIMUM SIDE AND REAR PARKING SETBACK	10 FT	10 FT

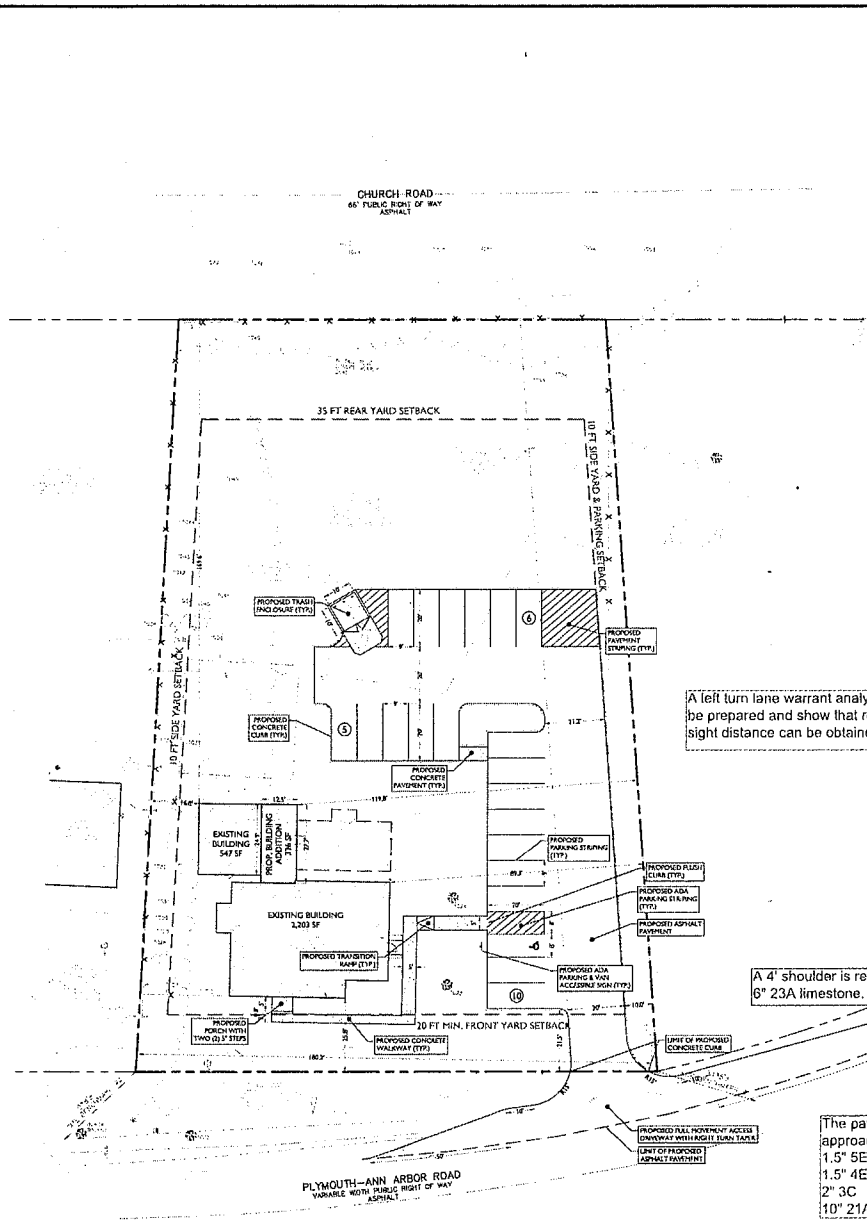
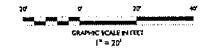
1) 1:4"=1' - THE REQUIRED SETBACKS MAY BE REDUCED TO A MINIMUM OF 10' (10' SET) WHERE EFFECTIVE SCREENING IS PROVIDED

OFF-STREET PARKING REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
155C	VETERINARY CLINIC 1 SPACE PER 100 SF OF GFA (1,000 SF/1000 SF) = 10 SPACES 1 SPACE PER DRIVEWAY (2 EMPLOYEES/SPACES PROVIDED) = 12 SPACES TOTAL = 22 = 12 SPACES	21 SPACES
155C	10% OF REQUIRED SPACES (10 SPACES) = 10 SPACES	
155C	22' MINIMUM W/ 6' SIDE WITH 10' FT AHEAD	9' FT x 20' FT W/ 5' FT AHEAD



SYMBOL	DESCRIPTION
---	PROPERTY LINE
---	SETBACK LINE
---	SETBACK LINE
---	SETBACK LINE
---	PROPOSED CURB
---	PROPOSED FLUSH CURB
---	PROPOSED SLOPE / ROLLBACK
---	PROPOSED SIDEWALK
---	PROPOSED CONCRETE

- GENERAL NOTES**
- THE CONTRACTOR SHALL VERIFY AND FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND THE PROPOSED SCOPE OF WORK (INCLUDING DIMENSIONAL LAYOUT, ETC) PRIOR TO INITIATING THE IMPROVEMENTS IDENTIFIED WITHIN THESE DOCUMENTS. SHOULD ANY DISCREPANCY BE FOUND BETWEEN THE EXISTING SITE CONDITIONS AND THE PROPOSED WORK, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC PRIOR TO THE START OF CONSTRUCTION. COPIES OF ALL REQUIRED PERMITS AND APPROVALS SHALL BE KEPT ON SITE AT ALL TIMES THROUGHOUT CONSTRUCTION.
 - THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS THAT ALL REQUIRED APPROVALS HAVE BEEN OBTAINED PRIOR TO THE START OF CONSTRUCTION. COPIES OF ALL REQUIRED PERMITS AND APPROVALS SHALL BE KEPT ON SITE AT ALL TIMES THROUGHOUT CONSTRUCTION.
 - ALL IMPROVEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE DESIGN, L.C. AND ITS SUB-CONSULTANTS' PLAN AND AGAINST ANY EXISTING AND UNRECORDED EASEMENTS, ENCUMBRANCES, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL GOVERNMENT AND THE STATE OF MICHIGAN PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL GOVERNMENT AND THE STATE OF MICHIGAN PRIOR TO THE START OF CONSTRUCTION.
 - THE CONTRACTOR SHALL NOT DEVIATE FROM THE PROPOSED IMPROVEMENTS IDENTIFIED WITHIN THE PLAN SET UNLESS APPROVAL IS PROVIDED BY STONEFIELD ENGINEERING & DESIGN, LLC.
 - THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE HEAVY AND MEDIUM TRAFFIC VOLUMES.
 - THE CONTRACTOR SHALL NOT REMOVE ANY WORK OR CAUSE OBSTRUCTION ON A PRIVATE PROPERTY NOT CONTROLLED BY THE REGION OR CITY/STATE HAS AUTHORIZED THE WORK WITHOUT PRIOR WRITTEN CONSENT FROM THE OWNER OF THE PRIVATE PROPERTY.
 - THE CONTRACTOR IS RESPONSIBLE TO REMOVE ANY DAMAGE TO EXISTING UTILITIES OR STRUCTURES THAT IS IDENTIFIED TO REMAIN ON THE SITE TO ITS EXISTING CONDITION AT THE COMPLETION OF THE WORK.
 - THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE SHOP DRAWINGS, PRODUCT SPECIFICATIONS AND OTHER REQUIRED SUBMITTALS FOR REVIEW. STONEFIELD ENGINEERING & DESIGN, LLC WILL REVIEW THE SUBMITTALS AND RECOMMENDATIONS TO THE DESIGN INTENT AS REFLECTED WITHIN THE PLAN SET.
 - THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
 - THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL WORK IN THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE APPROPRIATE GOVERNING AUTHORITY AND SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE PUBLIC RIGHT-OF-WAY.
 - THE CONTRACTOR IS REQUIRED TO MAINTAIN AN OSHA TRAINED SAFETY PERSONNEL TO BE PRESENT ON SITE AT ALL TIMES THROUGHOUT CONSTRUCTION & OPERATION ACTIVITIES.
 - IF AN UNEXPECTED OBSTRUCTION OR OTHER CONDITION IS IDENTIFIED ON SITE AT ANY TIME DURING CONSTRUCTION, IT DOES NOT RELIEVE THE CONTRACTOR OF ANY OF THE RESPONSIBILITIES AND REQUIREMENTS LISTED IN THE NOTES WITHIN THE PLAN SET.



A left turn lane warrant analysis shall be prepared and show that required sight distance can be obtained.

A 4' shoulder is required, 6" 23A limestone.

The pavement cross section for the approach and tapers shall be:
 1.5" 5E1
 1.5" 4E1
 2" 3C
 10" 21AA limestone

STONEFIELD ENGINEERING & DESIGN, LLC
 1500 N. ZEEB RD., SUITE 100, ANN ARBOR, MI 48106
 (734) 769-1111
 www.stonefielddesign.com

THE NEW-TEC GROUP, INC.
 1000 N. ZEEB RD., SUITE 100, ANN ARBOR, MI 48106
 (734) 769-1111
 www.newtecgroup.com

SITE IMPROVEMENT PLANS
5347 PLYMOUTH ROAD
PROPOSED VETERINARY CLINIC

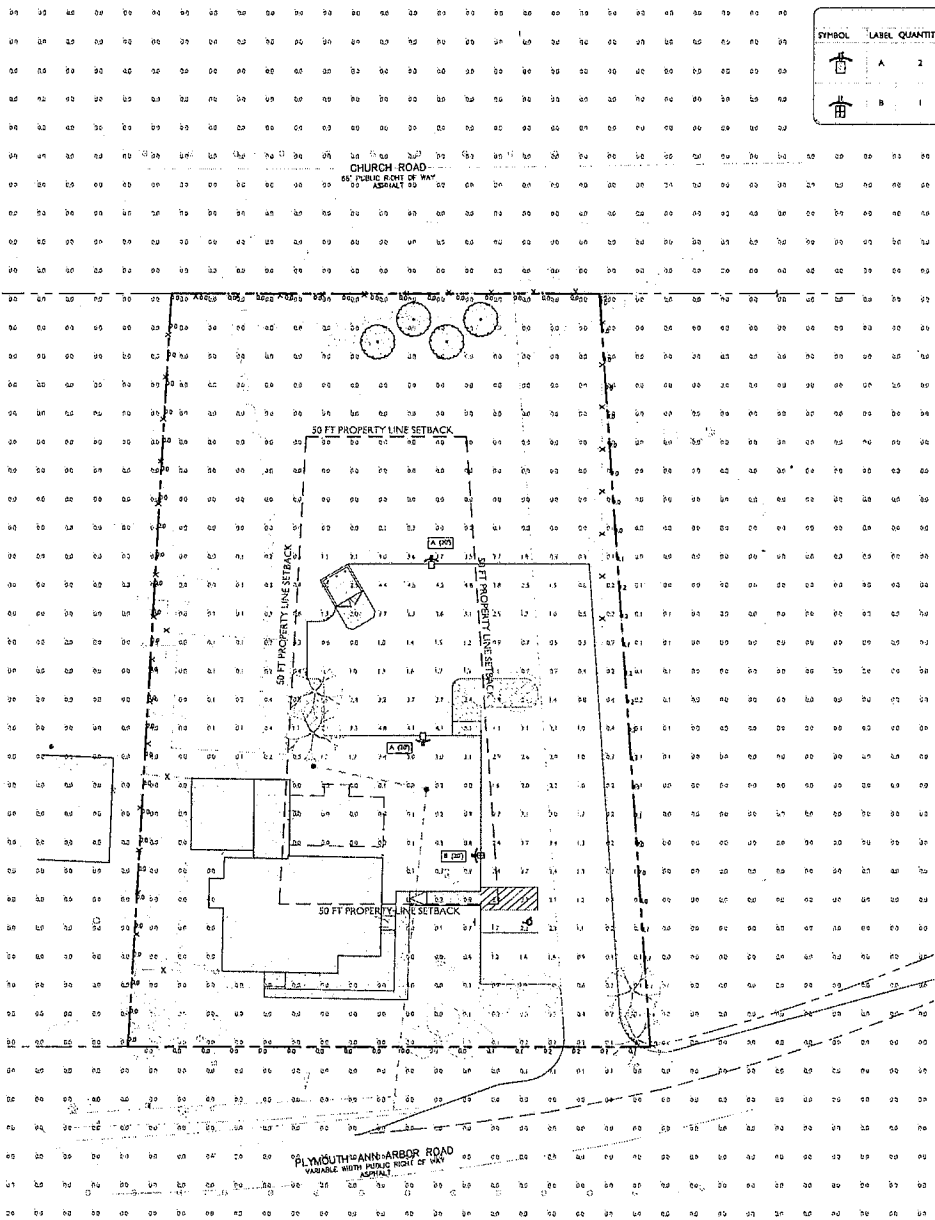
SCALE: 1" = 10'
 PROJECT ID: DET-10391

SITE PLAN
 DRAWING: C-3

FOR THE PLAN SUBMISSION FOR CLIENT REVIEW
 BY: [Signature]
 DATE: [Date]
 ISSUE: [Issue]

NOT APPROVED FOR CONSTRUCTION

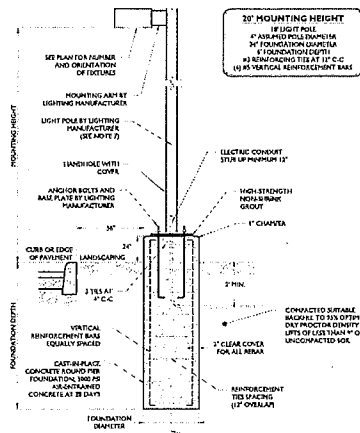
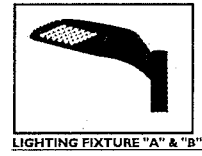
PARCEL ID: 15-14-155411
 SUPERIOR QUARTER TOWNSHIP
 WASHINGTON COUNTY, MICHIGAN 48105



PROPOSED LUMINAIRE SCHEDULE							
SYMBOL	LABEL	QUANTITY	SECURITY LIGHTING	DISTRIBUTION	LF	MANUFACTURER	IES FILE
A	LS LIGHTING MIRADA MEDIUM OUTDOOR LED AREA LIGHT - 85 WATTS 3000K	2		TYPE II	0.9	LS LIGHTING	MIR-LED-12L-5L-3-10-70C4LH
B	LS LIGHTING MIRADA MEDIUM OUTDOOR LED AREA LIGHT - 85 WATTS 3000K	1		TYPE II	0.9	LS LIGHTING	MIR-LED-12L-5L-3-10-70C4LH

LIGHTING REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
§14.01.A.1	BEFORE BUILDING	PROVIDED
§14.01.B.1	ALL FIXTURES SHALL BE FULLY SHIELDED (EXCEPT ENTRANCE)	85 WATTS
§14.01.B.2	30' FOR FIXTURES UP TO 30' FT HEIGHT	
§14.01.B.3	40' W FOR FIXTURES ABOVE 30' FT HEIGHT	
§14.01.B.4	MAXIMUM FOOTCANDLES WITHIN SITE: 18 FC	33 FC
§14.01.B.5	PROPERTY LINE - 12 FC (5 FT ABOVE GRADE)	23 FC
§14.01.B.6	ROADSIDE (EDGE) 12 FC	30 FT
§14.01.B.7	LESS THAN 50 FT FROM PROPERTY LINE - 12 FT	
§14.01.B.8	10 FT TO 30 FT FROM PROPERTY LINE - 20 FT	

SYMBOL	DESCRIPTION
A (XXX)	PROPOSED LIGHTING FIXTURE (MOUNTING HEIGHT)
XXX	PROPOSED LIGHTING INTENSITY (FOOT-CANDLES)
[Light Pole Icon]	PROPOSED AREA LIGHT

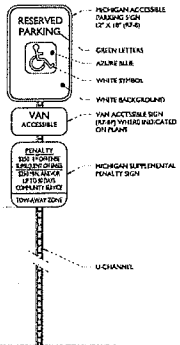


PEDESTRIAN WALKWAY AND ACCESS TO THE BUILDING TO BE ILLUMINATED BY ARCHITECTURAL FIXTURES.

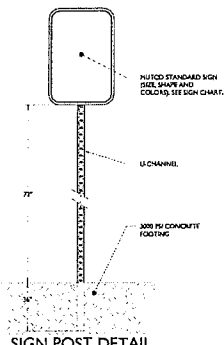
- NOT TO SCALE**
- MINIMUM SOIL BEARING CAPACITY OF 100 PSF, SOIL FACTOR ANGLE OF 30 DEGREES AND SOIL DRY UNIT WEIGHT OF 120 PCF SHALL BE CONFIRMED BY THE CLIENT AT QUALIFIED PROFESSIONAL.
 - CAST-IN-PLACE CONCRETE SHALL BE CONSOLIDATED USING VIBRATION.
 - ALL REBAR TO BE MINIMUM #4 OR 5 STEEL.
 - CONCRETE TO BE INSTALLED A MINIMUM OF 7 DAYS PRIOR TO INSTALLING LIGHT POLE. FORMED CONCRETE REBAR EXPOSED TO OR FROM ARE TO BE PROTECTED FROM TO BE INSTALLING LIGHT POLE.
 - CONCRETE SHALL HAVE A MINIMUM SLUMP OF 4" OVER THE 1" TOLERANCE.
 - POLE TO BE INSTALLED AT A POINT.
 - WORK SHALL COMPLY TO ALL BEST PRACTICES FOR APPROPRIATE TEMPERATURE AND WINDY CONDITIONS.
 - CONTRACTOR TO TEMPORARILY SUPPORT ADJACENT SOIL AND STRUCTURES DURING EXCAVATION IF REQUIRED.

- GENERAL LIGHTING NOTES**
- THE LIGHTING LEVELS DEPICTED WITHIN THE PLAN SET ARE CALCULATED USING DATA OBTAINED FROM THE LATEST MANUFACTURER ACTUAL ILLUMINATION LEVELS AND PERFORMANCE OF ANY PROPOSED LIGHTING FIXTURES THAT CORRELATE WITH UNCONTROLLABLE VARIABLES SUCH AS WEATHER, VOLTAGE SWELL, LAMP TOLERANCE EQUIPMENT SERVICE LIFE AND OTHER VARIABLE FIELD CONDITIONS.
 - VALUES AND/OR THE EXISTING LIGHT LEVELS DEPICTED WITHIN THE PLAN SET SHALL BE CONSIDERED APPROPRIATE THE EXISTING LIGHT LEVELS ARE BASED ON FIELD OBSERVATIONS AND THE MANUFACTURER'S DATA OF THE ASSEMBLED OR PORT BUREAU LIGHTING FIXTURES AND/OR.
 - VALUES NOT TO EXCEED WHERE WITHIN THE PLAN SET, THE LIGHT LOSS FACTOR IN THE LIGHTING ANALYSIS ARE AS FOLLOWS:
 + LIGHT SHEDDING DICHROIC (LED) = 80%
 + HIGH PRESSURE SODIUM = 87%
 + METAL HALIDE = 92%
 - THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING A DESIGN LLC 30 DAYS PRIOR TO THE START OF CONSTRUCTION OF ANY PROPOSED LIGHTING FIXTURES THAT CORRELATE WITH EXISTING PROPOSED ARCHITECTURAL LIGHTING OR OTHER INFRASTRUCTURE. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE A WIRING PLAN AND PROTECT EXISTING SERVICES. ALL PROPOSED LIGHTING FIXTURES THE CONTRACTOR IS REQUIRED TO PREPARE AN AS-BUILT PLAN OF WIRING AND PROVIDE COPIES TO THE OWNER AND STONEFIELD ENGINEERING A DESIGN LLC.

PROJECT NO: 2024-001 DATE: 10/20/2024		PROJECT NO: 2024-001 DATE: 10/20/2024	
NOT APPROVED FOR CONSTRUCTION		NOT APPROVED FOR CONSTRUCTION	
5347 PLYMOUTH ROAD PROPOSED VETERINARY CLINIC		5347 PLYMOUTH ROAD PROPOSED VETERINARY CLINIC	
SCALE: 1" = 10' PROJECT ID: DET-10199F		SCALE: 1" = 10' PROJECT ID: DET-10199F	
LIGHTING PLAN		LIGHTING PLAN	
DRAWING:		DRAWING:	
C-6		C-6	



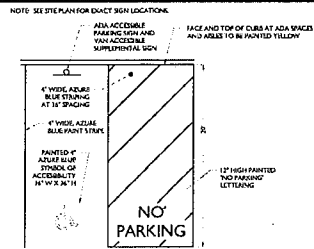
ACCESSIBLE PARKING SIGN DETAIL
NOT TO SCALE



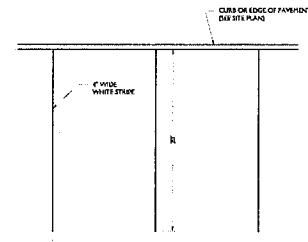
SIGN DATA TABLE
NOT TO SCALE

SIGN NUMBER	TEXT	COLOR	LEGEND	BACKGROUND	SIZE OF SIGN (INCHES HEIGHT)	TYPE OF POST
STOP SIGN	STOP	RED	NO	WHITE	36\"/>	

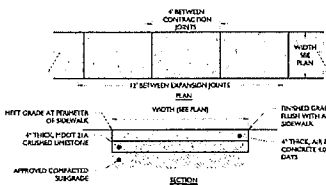
SIGN DATA TABLE
NOT TO SCALE



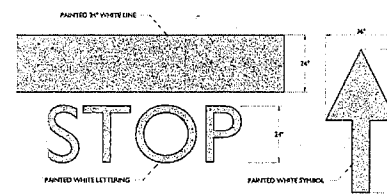
ACCESSIBLE PARKING STALL MARKINGS
NOT TO SCALE



PARKING STALL MARKINGS
NOT TO SCALE



CONCRETE WALKWAY DETAIL
NOT TO SCALE

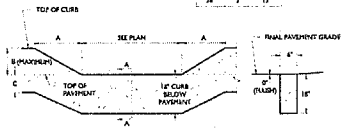


STOP BAR & ARROW DETAILS
NOT TO SCALE

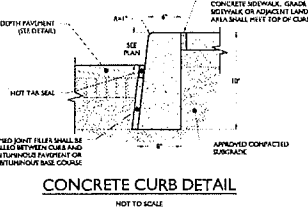
- NOTES:
1. MAXIMUM CROSS SLOPE SHALL BE 1% PER FOOT.
 2. EXPANSION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS WITH PRE-HOURED BUTYRUBBER JOINT FILLER, ACCESSIBLE 1/2\"/>

FLUSH CURB DIMENSIONS

A	B	C
72\"/>		

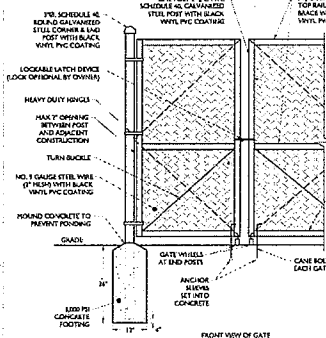


FLUSH CURB DETAIL
NOT TO SCALE

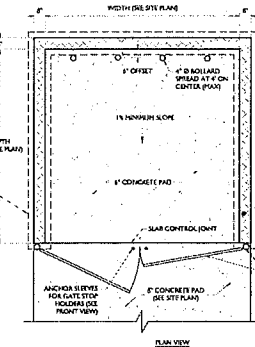


CONCRETE CURB DETAIL
NOT TO SCALE

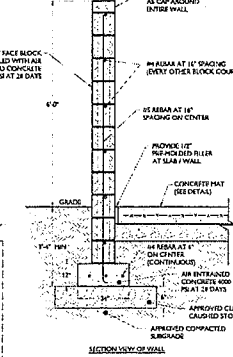
- NOTES:
1. CONCRETE SHALL BE 3000 PSI AT 28 DAYS, AIR ENTRAINED.
 2. TRANSVERSE REINFORCING SHALL BE PROVIDED AT 20 FOOT INTERVALS WITH PRE-HOURED BUTYRUBBER JOINT FILLER, ACCESSIBLE 1/2\"/>



FRONT VIEW OF GATE



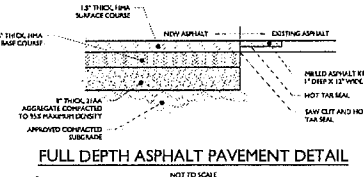
TRASH / RECYCLE ENCLOSURE DETAIL
NOT TO SCALE



SECTION VIEW OF WALL

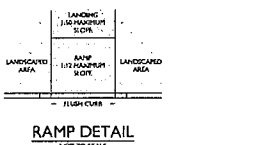


GATE AND POST (SEE FRONT VIEW)



FULL DEPTH ASPHALT PAVEMENT DETAIL
NOT TO SCALE

- NOTES:
1. PAV DENSITY (BA WITH PCA) OR PER HOOT STANDARDS SHALL BE USED FOR THE SURFACE AND BASE COURSE.
 2. CONTRACTOR TO REFER TO GEOTECHNICAL REPORT FOR PAVEMENT CROSS SECTION.



RAMP DETAIL
NOT TO SCALE

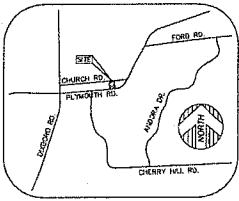
- NOTES:
1. GRADE SLOPE ON RAMP SHALL NOT EXCEED 2%.
 2. A FLUSH CURB SHALL HAVE A MINIMUM WIDTH OF 36\"/>

STONEFIELD
5347 PLYMOUTH ROAD
PROPOSED VETERINARY CLINIC

HEM-TEC
PROFESSIONAL ARCHITECTS

CONSTRUCTION DETAILS

C-7



VICINITY MAP
(NOT TO SCALE)

PARKING
NO MARKED PARKING ON SITE.

PARCEL AREA
43,344 SQUARE FEET = 1.016 ACRES

BASIS OF BEARING
NORTH $86^{\circ}24'00''$ EAST, BEING THE SOUTHWEST CORNER OF WAY LINE OF CHURCH ROAD, AS DESCRIBED.

TREE INVENTORY TABLE

Tree No.	Species	Height	DBH	Condition	Remarks
0001	Red Maple	12	4.5	Good	
0002	White Birch	10	3.8	Good	
0003	Red Maple	15	5.2	Good	
0004	White Birch	11	4.1	Good	
0005	Red Maple	13	4.8	Good	
0006	White Birch	9	3.5	Good	
0007	Red Maple	14	5.0	Good	
0008	White Birch	10	4.0	Good	
0009	Red Maple	16	5.5	Good	
0010	White Birch	11	4.2	Good	
0011	Red Maple	13	4.9	Good	
0012	White Birch	10	3.9	Good	
0013	Red Maple	14	5.1	Good	
0014	White Birch	11	4.3	Good	
0015	Red Maple	15	5.3	Good	
0016	White Birch	10	4.1	Good	
0017	Red Maple	13	4.7	Good	
0018	White Birch	9	3.6	Good	
0019	Red Maple	14	5.0	Good	
0020	White Birch	10	4.0	Good	

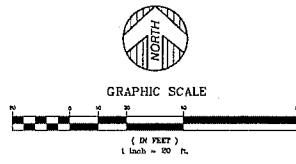
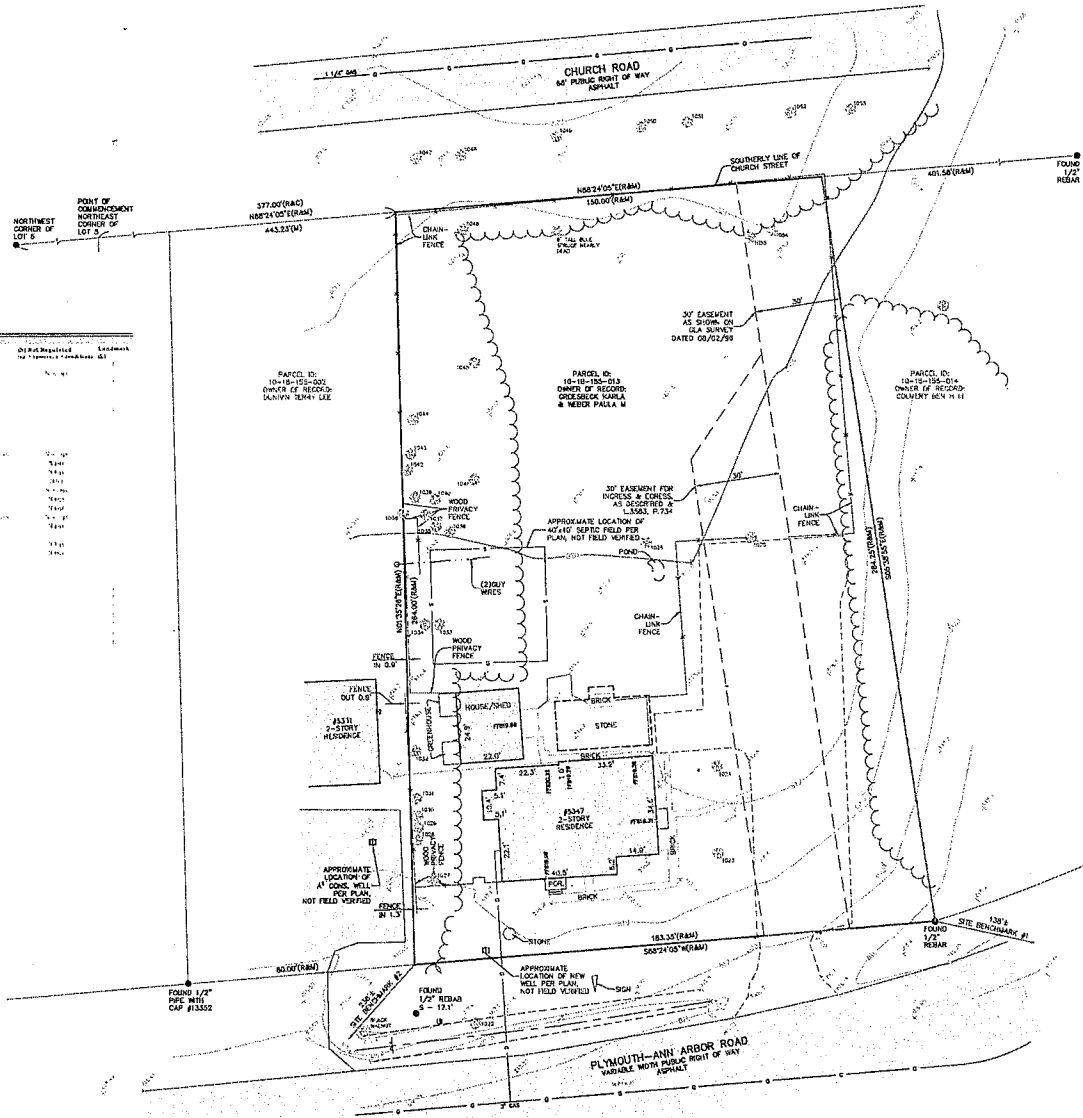
BENCHMARK

BENCH. 1
TOP OF A SQUARE 140" SOUTH-EAST OF THE SOUTHWEST CORNER OF SUBJECT PROPERTY.
ELEVATION = 816.08' (NAVD 83)

BENCH. 2
TOP OF A SQUARE 230" SOUTH-EAST OF THE SOUTHWEST CORNER OF SUBJECT PROPERTY.
ELEVATION = 815.97' (NAVD 83)

LEGEND

- FOUND POINT (AS NOTED)
- (DIM) RECORD AND MEASURED DIMENSION
- (DIM) RECORD DIMENSION
- (DIM) MEASURED DIMENSION
- GROUND ELEVATION
- ELECTRIC METER
- UTILITY POLE
- TELEPHONE RISER
- FOLIAGE
- FENCE POST
- GROUND POST SIGN
- DECIDUOUS TREE (AS NOTED)
- CONIFEROUS TREE (AS NOTED)
- PARCEL BOUNDARY LINE
- ADJACENT PARCEL LINE
- BUILDING
- DRIVEWAY
- CENTERLINE DITCH
- COUL. OF CONCRETE (CONCL)
- COUL. OF ASPHALT (ASPH)
- EDGE OF BRICK
- EDGE OF GRAVEL
- FENCE (AS NOTED)
- TREE / BRUSH LINE
- OVERHEAD UTILITY LINE
- GAS LINE
- EDGE OF WATER (AS NOTED)
- MAJOR CONTOUR LINE
- MAJOR CONTOUR LINE
- BUILDING AREA
- ASPHALT
- CONCRETE



PROPERTY DESCRIPTION
LAND SITUATE IN THE TOWNSHIP OF SUPERIOR, COUNTY OF WASHINGTON, STATE OF MICHIGAN, DESCRIBED AS:

PART OF THE NORTH 1/2 OF SECTION 18, TOWNSHIP 2 SOUTH, RANGE 7 EAST, SUPERIOR TOWNSHIP, WASHINGTON COUNTY, MICHIGAN, DESCRIBED AS BEGINNING AT A POINT ON THE SOUTHWEST CORNER OF CHURCH STREET (1/2 R.O.W. - 33.00 FEET) BEING NORTH 86°24'00" EAST 377.00 FEET FROM THE NORTHEAST CORNER OF LOT 5, NORTHEAST SECTION 18, SUPERIOR, MICHIGAN, ACCORDING TO THE RECORDED PLAT THEREOF, AS RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS (COMBINED 26, 1828 IN LIBER "A" OF DEEDS, PAGE 273, WASHINGTON COUNTY RECORDS; THENCE CONTINUED EAST 184.00 FEET ALONG THE SOUTH SIDE OF WAY LINE OF SAID CHURCH STREET; THENCE SOUTH 69°24'00" EAST 248.25 FEET; THENCE SOUTH 69°24'00" WEST 184.35 FEET AND NORTH 01°52'29" EAST 284.00 FEET TO THE POINT OF BEGINNING.

SUBJECT TO A EASEMENT ON, OVER AND ACROSS THE ABOVE DESCRIBED PROPERTY TO GREAT A RIGHT-OF-WAY FOR HIGHWAY AND CROSS FOR THE BENEFIT OF THE ABOVE DESCRIBED PROPERTY AND PROPERTY IMMEDIATELY ADJACENT TO THE EAST THEREOF, SAID EASEMENT BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: TO BE COMMENCED AT THE NORTHEAST CORNER OF LOT 5 OF THE NORTHEAST SECTION OF THE VILLAGE OF OSHTON AS DESCRIBED IN LIBER "A" OF DEEDS, PAGE 273, WASHINGTON COUNTY RECORDS; THENCE IN S87°24'00" EAST 458.32 FEET ALONG THE SOUTH SIDE OF CHURCH STREET (1/2 R.O.W. - 33.00 FEET); THENCE S 05°28'53" EAST 84.00 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 69°24'00" WEST 184.35 FEET; THENCE N 05°28'53" WEST 188.26 FEET; THENCE N 35°45'27" E 44.81 FEET TO THE POINT OF BEGINNING.

THE PROPERTY ADJACENT TO THE EAST AND WHICH SHALL BE IDENTIFIED BY THE ABOVE DESCRIBED EASEMENT IS MORE PARTICULARLY DESCRIBED AS FOLLOWS: TO BE COMMENCED AT THE NORTHEAST CORNER OF LOT 4, NORTHEAST SECTION VILLAGE OF OSHTON; THENCE NORTH 06°00'00" EAST 352.00 FEET TO THE PLACE OF BEGINNING; THENCE NORTH 86°24'00" EAST 401.58 FEET; THENCE 475.10 FEET ALONG THE LINE OF CENTER OF RAILROADS OF 66 FEET WIDTH; THENCE SOUTH 53°10'33" W 464.87 FEET; THENCE NORTH 05°46'59" WEST 264.25 FEET TO PLACE OF BEGINNING, BEING PART OF THE NORTHEAST 1/4 OF SECTION 18, T2S, R7E.

TITLE REPORT NOTE

THIS TITLE REPORT WAS PREPARED WITHIN THE STANDARD TITLE GUARANTEE COMPANY COMMITMENT NO. 18150000, DATED JULY 18, 2021, AND SELECTED ITEMS WERE CONSIDERED FOR THIS SURVEY AND OTHER RECORDS RESEARCH WAS PERFORMED BY THE CERTIFYING SURVEYOR.

10. MAINTENANCE AGREEMENT FOR EASEMENT AND RIGHT OF WAY, AS RECORDED IN LIBER 3083, PAGE 734, WASHINGTON COUNTY RECORDS, (AS SHOWN).

SURVEYOR'S NOTE

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR CERTIFIES THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE, HIGH INFORMATION AVAILABLE, BUT SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES OTHER THAN THE STRUCTURES INDENTIFIED SHOWN HEREON.

FLOOD NOTE

SUBJECT PARCELS, LIES WITHIN OTHER AREA (DEAL VS) AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN. AS SHOWN ON FLOOD INSURANCE RATE MAP: MAP NUMBER 28161C2020, DATED 4/23/2019, PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

SURVEYOR'S CERTIFICATION

TO ABBEY HILLS ANIMAL CLING PELLE, A MICHIGAN DOMESTIC PROFESSIONAL LIMITED LIABILITY COMPANY, BENEFITARY BANK OF WISCONSIN, LIBERTY TITLE AGENCY, AND STANDARD TITLE GUARANTEE COMPANY.

THIS IS TO CERTIFY THAT THIS MAP OR PLAN AND THE SURVEY ON WHICH IT IS BASED WERE MADE AND CONDUCTED IN ACCORDANCE WITH THE 2021 MICHIGAN STANDARD PRACTICE REQUIREMENTS FOR ALLI/NSPS LAND TITLE SURVEYS, JOINTLY DEVELOPED BY THE MICHIGAN SURVEYORS AND LAND SURVEYORS ASSOCIATION, INC., AND THE MICHIGAN SURVEYORS AND LAND SURVEYORS ASSOCIATION, INC., AND IS A PART OF TABLE A, THEREOF. THE FIELD WORK WAS COMPLETED ON AUGUST 10, 2021.

DATE OF PLAT OR MAP: AUGUST 12, 2021

ANTHONY J. SYKES, JR., P.E.
PROFESSIONAL SURVEYOR
MICHIGAN LICENSE NO. 47676
23204 GRANDVIEW AVE., EASTLANSING, MI 48203
TSykes@antec-survey.com

ANTHONY J. SYKES, JR., P.E.
PROFESSIONAL SURVEYOR
MICHIGAN LICENSE NO. 47676
23204 GRANDVIEW AVE., EASTLANSING, MI 48203
TSykes@antec-survey.com

ALTA / NSPS LAND TITLE SURVEY
PREPARED FOR: ABBEY HILLS, LLC
5347 PLYMOUTH-ANN ARBOR ROAD, SUPERIOR TOWNSHIP, MICHIGAN,
TOWNSHIP 2 SOUTH, RANGE 7 EAST

NO.	DATE	REVISION
1	08/12/21	AS NOTED
2	08/12/21	AS NOTED
3	08/12/21	AS NOTED
4	08/12/21	AS NOTED
5	08/12/21	AS NOTED
6	08/12/21	AS NOTED
7	08/12/21	AS NOTED
8	08/12/21	AS NOTED
9	08/12/21	AS NOTED
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49	08/12/21	AS NOTED
50	08/12/21	AS NOTED



Mark from Arbor Hills Animal Clinic <marktwilson@arborhillsvet.com>

5347 Plymouth

1 message

Brandi Moreland <brandi@boltonseptic.com>
To: marktwilson@arborhillsvet.com

Thu, Dec 16, 2021 at 2:05 PM

To Whom it may concern,

Mark Wilson signed a contract with us to replace his septic tanks located at 5347 Plymouth Rd. in Ann Arbor, MI on 11/16/21. The permit for the work was issued by Washtenaw County on 11/23/21. Everything is in order to complete this work. We are only waiting on our schedule to open up in order to get this job completed.

Please feel free to contact me if you have any questions or concerns.

Regards.

Brandi Moreland
Bolton Septic dba Jack Spack Septic
7035 E. M36 Ste #B
Whitmore Lake, MI 48189
248-852-0440
Boltonseptic.com

Thu, Dec 9,
12:40 PM (4
days ago)

Jonathon Pelukas

Hi Mark

There really is no other "approval" I can provide at this point. The proposed addition approval is predicated on moving the existing tanks. The existing drainfield was found to be properly functioning and sized appropriately.

Thanks

From: **Jonathon Pelukas** <pelukasj@washtenaw.org>

Date: Tue, Nov 16, 2021 at 1:36 PM

Subject: RE: One more question

To: Mark from Arbor Hills Animal Clinic <marktwilson@arborhillsvet.com>

Hi Mark

I have attached 2 drawings. One is with where I think the existing septic tanks are and the other is with where I suggest they should go. I also included my estimate of the location of the drainfield in relation to the existing structures. The plan is to 1" to 40' scale but I also wrote down my estimation of ~28' to the property line and ~12 to the chapel/proposed corridor.

I hope this helps...

Jonathan Pelukas, REHS, RS

Senior Sanitarian

Washtenaw County Health Department

Environmental Health Division

P: 734-222-6861 • F: 734-222-3930

705 N Zeeb Road, Ann Arbor, MI 48107

Please note my email address has changed to pelukasj@washtenaw.org

(6) EXIST 1" TO 2" WALNUTS

church 31

4

PLAN APPROVED

Permit No. 96-02488

Washtenaw County Health
Department

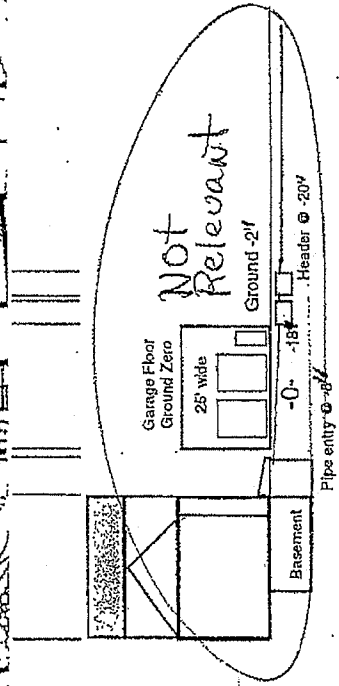
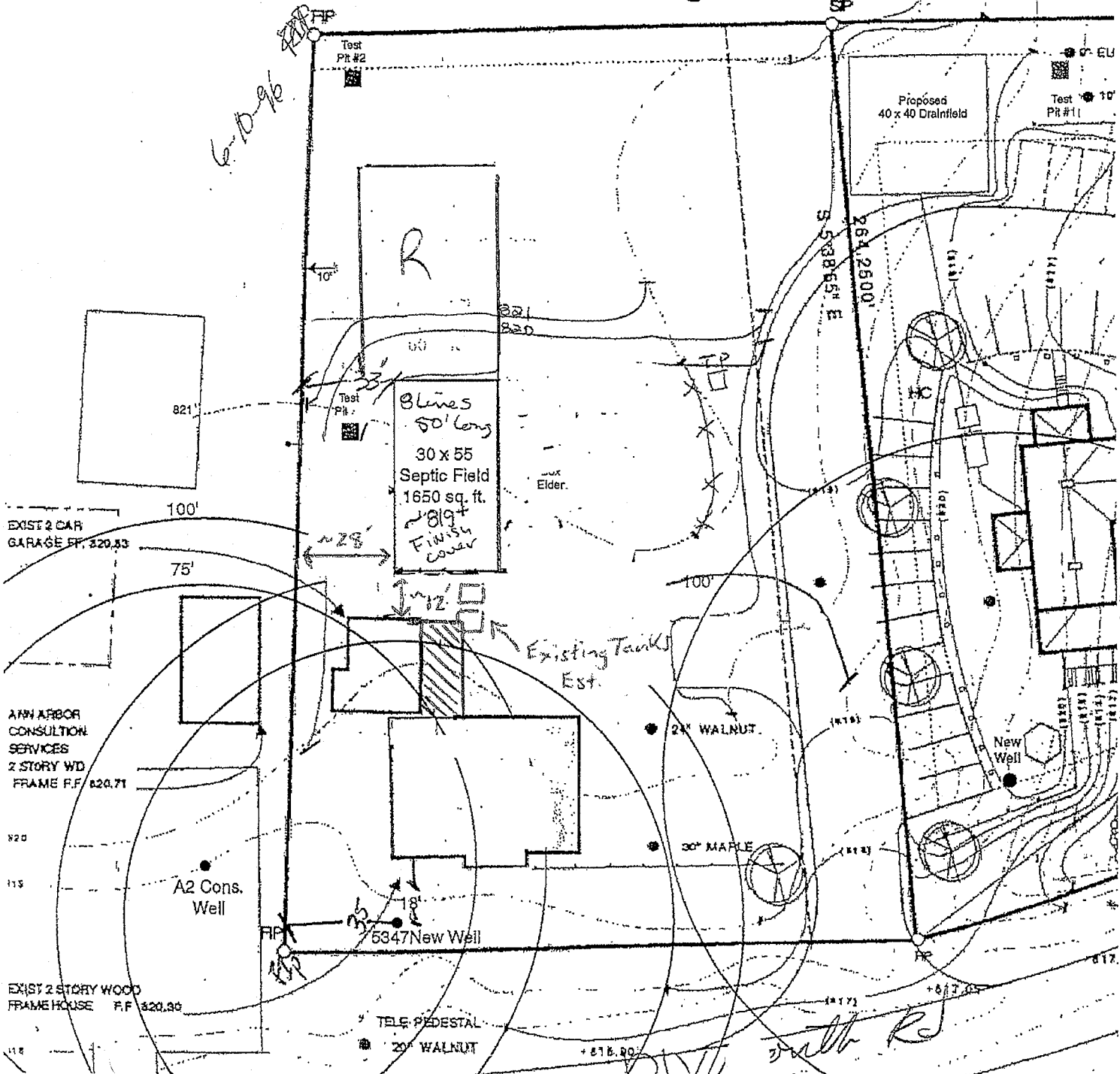
This plan has been
approved this 3 day of

6, 1996 and no

changes will be made
without written approval.

Signed: _____

[Signature]



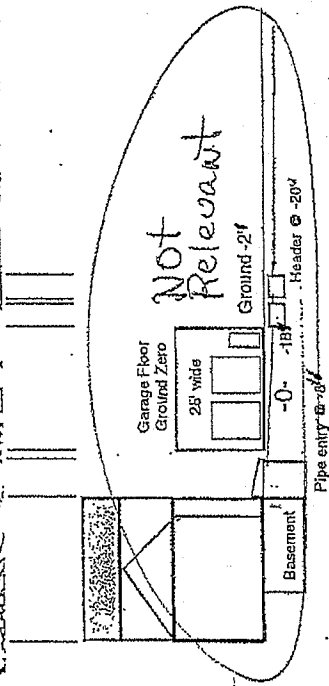
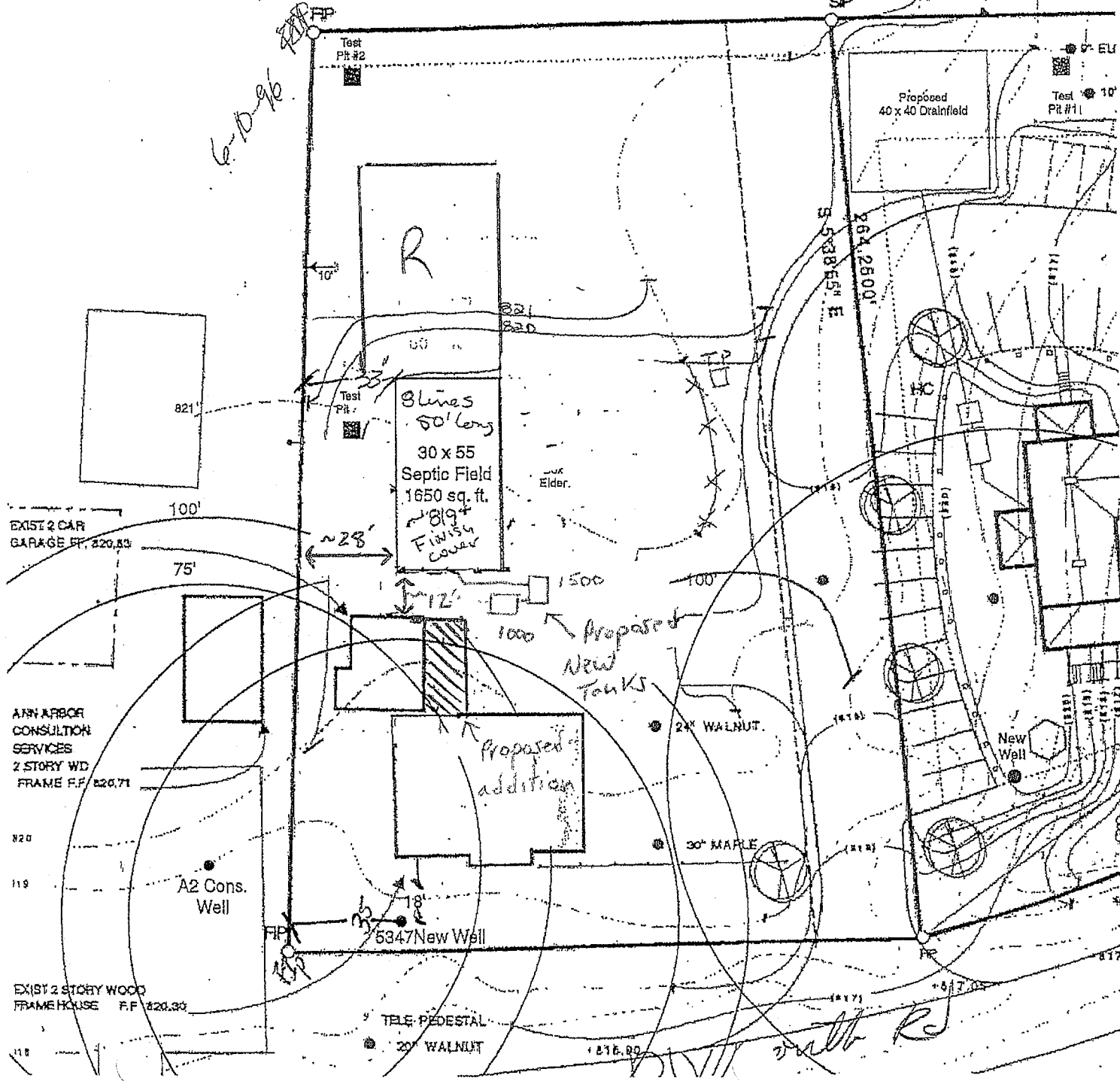
1" = 40'

Septic Plot Plan & Elevations		N ↑
5347 Plymouth Rd.		Scale
Dixboro, Superior Tow		1" = 40'

(5) EXIST 16" TO 20" WALNUTS *church 31*

4
PLAN-APPROVED
Permit No. 96-02488
Washtenaw County Health
Department
This plan has been
approved this 3 day of
6, 1996 and no
changes will be made
without written approval.

Signed: [Signature]



1" = 40'

Septic Plot Plan & Elevations	N ↑
5347 Plymouth Rd. Dixboro, Superior Tow.	Scale 1" = 40'

**Jack Spack Septic
7415 Carpenter Rd.
Ypsilanti, MI 48197
734-434-3220**

SEPTIC SYSTEM INSTALLATION CONTRACT

The undersigned, Mark Wilson, is/are the legal representative(s) for property located at 5347 Plymouth Rd., Ann Arbor, Washtenaw County, Michigan.

The authorized agent does hereby authorize Jack Spack Septic to install on-site an approved septic tank(s). Installation to have Washtenaw County Health Department Permit and involvement of all applicable inspections.

TOTAL PRICE: \$7,200.00

PAYMENT TERMS: 50% Payment is due day work begins. Balance is due within 24 hours of final inspection taking place. **3% added to all payments made via credit card.**

CONTRACT TERMS: This contract is for a specific performance, namely to supply the necessary materials and labor to install septic tank(s). Once all inspections and final health department approval is obtained, Jack Spack Septic is deemed to have completed its part of the contract.

SCOPE OF WORK: Obtain Septic Tank Only permit from Washtenaw County, install new septic system per Washtenaw permit #TBD. Provide final rough grade once work is approved by county. Refer to permit for specific septic system details/specs. Scope to include coordinating all county inspections.

IMPORTANT NOTICE: Reasonable caution will be exercised during construction. However, we are not responsible for any direct or indirect damage to trees, driveways, fences, roads, sidewalk, brick pavers, stamped concrete, underground dog fencing, private utilities, sprinkler lines/system or remediation expense arising from the disturbing of any onsite ground contamination. Settling is a common natural occurrence after excavation/backfilling. We caution against reinstalling sod/landscaping/etc. without giving appropriate time for settling to take place. Settling can take up to a year (or more) depending on soil conditions.

LIMITED WARRANTY: We warranty our workmanship to be free from defect for **3 years** from date of installation. Warranty is limited to the manufacturer's warranty on all electric/mechanical components (if applicable). Warranty is limited to actual replacement cost of any defective materials/workmanship. Bolton Septic LLC has the sole right to repair/replace defective materials and/or workmanship directly or contract a licensed third party to make necessary warranty repairs. Landscaping/sprinkler repair following warranty work is not included in warranty.

ADDITIONAL REMARKS / SPECIFICATIONS (if none, write none): Additional cost may be added if line from house to tanks need to be replaced (tbd).

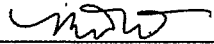
Authorized Signature

X *Brandi Moreland* Date 11/12/21

Brandi Moreland, Representative

Jack Spack Septic

Authorized Signature



Mark T Wilson (Nov 16, 2021 08:02 EST)

Property Representative




Jack Spack Septic Contract

Final Audit Report

2021-11-16

Created:	2021-11-12
By:	brandi moreland (brandi@mmseptic.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAI0RiDuKxxTZ8N3eWKPPRgHkyabO2IRfB

"Jack Spack Septic Contract" History

-  Document created by brandi moreland (brandi@mmseptic.com)
2021-11-12 - 2:13:14 PM GMT
-  Document emailed to Mark T Wilson (marktwilson@arborhillsvet.com) for signature
2021-11-15 - 3:39:04 PM GMT
-  Email viewed by Mark T Wilson (marktwilson@arborhillsvet.com)
2021-11-16 - 1:00:51 PM GMT
-  Document e-signed by Mark T Wilson (marktwilson@arborhillsvet.com)
Signature Date: 2021-11-16 - 1:02:51 PM GMT - Time Source: server
-  Agreement completed.
2021-11-16 - 1:02:51 PM GMT

Superior Township Fire Department
Bureau of Fire Prevention
7999 Ford Road
Ypsilanti, MI 48198

Site Plan Review Report

Date: 20 Oct. 2021
Business Name: Arbor Hills Animal Clinic
Business Address: 5347 Plymouth Rd., Ann Arbor, MI 48105
Contractor: Stonefield Engineering
607 Shelby, Suite 200, Detroit, MI 48226 Tel: 248-247-1115
Applicable Codes: IFC 2015
Reviewed By: Victor G. Chevrette, Fire Chief
Plans Dated: 9-29-2021
Job No: DET-210369

Review Comments and Requirements

1. IFC 2015, chapter 5, section 506.1, Key box (KNOX) shall be installed.
2. IFC 2015, Interior Finish, all interior finishes shall apply according to code.
3. IFC 2015, chapter 9, section 906. If extinguishers shall be installed according to code.
4. IFC 2015, chapter 11 Existing Buildings, section 1104.3 and 1104.10 shall be complied according Code.
5. IFC 2015, chapter 10, section 1008, means of egress illumination shall apply according to code.

Status of Plans:

- Approved as submitted – pending field inspection and final testing
 Approved conditionally – see remarks
 Denied – see remarks

Remarks: See review comments and also HVAC systems not shown on plans. Business Group B.

Respectfully Submitted,



Victor G. Chevrette, Fire Chief
Superior Township Fire Department

One (1) set of these plans will be retained by the Fire Department, one (1) set forwarded to the mechanical inspector, three (3) sets are available for pickup with the permit.

Termination of "Maintenance Agreement for Easement and Right-of-Way"

Karla N. Groesbeck and Paula M. Weber, whose address is 5347 Plymouth Road, Ann Arbor, MI 48105 (Groesbeck/Weber); Ben H. Colmery, III, whose address is 5300 Plymouth Road, Ann Arbor, MI 48105 (Colmery); and Goode Investments, LLC, a Michigan limited liability company, whose address is 7887 Curtis Road, Northville, MI 48168 (Goode), make this Termination of "Maintenance Agreement for Easement and Right-of-Way", dated 11/01, 2021 (the Termination). Together, the above-referenced persons and entities are the Parties, or individually, a Party.

Recitals:

- A. In 1997, Groesbeck/Weber and the predecessor in interest to Colmery and Goode entered into a "Maintenance Agreement for Easement and Right-of-Way," recorded at Liber 3583, Page 734, Washtenaw County Records (WCR).
- B. The property owned by Groesbeck/Weber is described as Part 1 on the attached Exhibit A. The property owned by the predecessor in interest to Colmery and Goode is described as Part 2 on Exhibit A. The easement which is subject of the "Maintenance Agreement for Easement and Right-of-Way" is described as Part 3 on Exhibit A.
- C. In 2007, Goode sold to Colmery on land contract, as evidenced by the Affidavit of Land Contract recorded at Liber 4600, Page 246, WCR. The property sold to Colmery is described in the attached Exhibit B.
- D. Groesbeck/Weber have entered into a sales agreement to sell Part 1 to a third party, who desires to terminate the "Maintenance Agreement for Easement and Right-of-Way" given changed circumstances affecting the various properties, and the Parties are willing to do so.

Agreement:

Based on the Recitals, and other valuable consideration, the Parties agree as follows:

- 1. The "Maintenance Agreement for Easement and Right-of-Way," recorded at Liber 3583, Page 734, WCR, is terminated and discharged, and no parties

STATE OF MICHIGAN)
)SS.
COUNTY OF WASHTENAW)

The foregoing instrument was acknowledged before me on November 1,
2021, in Washtenaw County, Michigan, by Ben H. Colmery, III.

S HUMPHREY
NOTARY PUBLIC - MICHIGAN
WAYNE COUNTY
ACTING IN THE COUNTY OF Washtenaw
MY COMMISSION EXPIRES JULY 18, 2027

S. Humphrey

S. Humphrey, Notary Public
Acting in Washtenaw County
Washtenaw County, State of Michigan
My Commission expires: July 18, 2027

STATE OF MICHIGAN)
)SS.
COUNTY OF WASHTENAW)

The foregoing instrument was acknowledged before me on _____,
2021, in Washtenaw County, Michigan, by _____, the Authorized
Member of Goode Investments, LLC, on behalf of Goode Investments, LLC.

_____, Notary Public
Acting in Washtenaw County
Washtenaw County, State of Michigan
My Commission expires: _____

Tax Parcel Nos. J 10 18 155 014 and J 10 18 155 013
Commonly known as 5347 Plymouth Road

Prepared by and when recorded return to: Scott E. Munzel (P39818), 9 Jefferson Court,
Ann Arbor, MI 48103 (734) 994 6610

Exhibit A- page containing legal descriptions
Exhibit B- Colmery property

under the "Maintenance Agreement for Easement and Right-of-Way" have any further rights or obligations under it.

2. This Termination shall be recorded, and its terms shall be binding on the Parties and their successors and assigns. In the event that any of the terms of this Termination are held to be partially or wholly invalid or unenforceable, the other terms shall remain in effect. The laws of the State of Michigan apply to this Termination. This Termination may be signed in counterparts, which taken together shall constitute an original document.

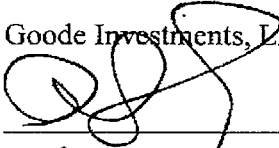
3. This transaction is exempt pursuant to MCL 207.505(a) and MCL 207.526(a).

Karla N. Groesbeck
Date:

Paula M. Weber
Date:

Ben H. Colmery, III
Date:

Goode Investments, LLC



By: ALLAN L. GOODE
Its: Authorized Member
Date: 10/31/2021

STATE OF MICHIGAN)
)SS.
COUNTY OF WASHTENAW)

The foregoing instrument was acknowledged before me on ~~10/31~~, 2021, in Washtenaw County, Michigan, by Karla N. Groesbeck and Paula M. Weber.

_____, Notary Public
Acting in Washtenaw County
Washtenaw County, State of Michigan
My Commission expires: _____

STATE OF MICHIGAN)
)SS.
COUNTY OF WASHTENAW)

The foregoing instrument was acknowledged before me on _____,
2021, in Washtenaw County, Michigan, by Ben H. Colmery, III.

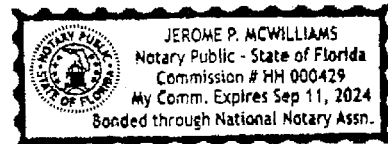
_____, Notary Public
Acting in Washtenaw County
Washtenaw County, State of Michigan
My Commission expires: _____

STATE OF MICHIGAN)
)SS.
COUNTY OF WASHTENAW)

The foregoing instrument was acknowledged before me on 10/31/2021,
2021, in Washtenaw County, Michigan, by ALLAN L. GOODE, the Authorized
Member of Goode Investments, LLC, on behalf of Goode Investments, LLC.

J. Williams
_____, Notary Public
Acting in ~~Washtenaw~~ Florida County
~~Washtenaw County, State of Michigan~~
My Commission expires: _____

Tax Parcel Nos. J 10 18 155 014 and J 10 18 155 013
Commonly known as 5347 Plymouth Road



Prepared by and when recorded return to: Scott E. Munzel (P39818), 9 Jefferson Court,
Ann Arbor, MI 48103 (734) 994 6610

Exhibit A- page containing legal descriptions
Exhibit B- Colmery property

Easement

MK Wilson Holdings, LLC, whose address is 5347 Plymouth Road, Ann Arbor, MI 48105 (Wilson); Ben H. Colmery, III, whose address is 5300 Plymouth Road, Ann Arbor, MI 48105 (Colmery); and Goode Investments, LLC, a Michigan limited liability company, whose address is 7887 Curtis Road, Northville, MI 48168 (Goode), make this Easement, dated 11/01, 2021 (the Easement). Together, the above-referenced persons and entities are the Parties, or individually, a Party.

Recitals:

- A. Wilson purchased the property described in the attached Exhibit A (the Property). Wilson desires to insure that they can use the driveway located on Plymouth Road to access the Property.
- B. Colmery and Goode are land contract purchaser and land contract seller under a land contract for the property described in the attached Exhibit B (the Colmery Property).
- C. To insure access to the Property, the Washtenaw County Road Commission (WCRC) or Superior Township (the Township) may require that the purchaser be able to remove vegetation or foliage along Plymouth Road, either in the public right of way or extending on to the Colmery Property. Furthermore, the WCRC or Township may require the construction of a deceleration lane within the Plymouth Road right of way, that could encroach upon the Colmery Property.
- D. The Parties desire to enter into this Easement to allow for the potential removal of vegetation and potential construction of a deceleration lane, on the Colmery Property.

Agreement:

Based on the Recitals, and for \$10.00, the Parties agree as follows:

1. Colmery and Goode convey to Wilson, its assigns or successors in interest, a non-exclusive easement to enter upon the Colmery Property and to remove vegetation and foliage, if so required by the WCRC or the Township, or by the rules or regulations of either the WCRC or the Township. The area that Wilson may remove vegetation or foliage shall extend to only the minimum distance required by the WCRC, the Township, or their rules and regulations, so as to maintain a commercial driveway entrance from Plymouth Road to the Property, and any such removal shall be done with due care to remove the minimum amount of vegetation and foliage, in a manner that is designed to cause the least harm to the vegetation.
2. Colmery and Good convey to Wilson, its assigns or successors in interest, a non-exclusive easement to construct a deceleration lane upon the Colmery Property, if so required by the WCRC or the Township, or by the rules or regulations of either the WCRC or the Township, for access by a commercial driveway from Plymouth Road to the Property. The area that Wilson may use shall be the least possible area in order to comply with the requirements of the WCRC, the Township, or their rules and regulations, so as to maintain a commercial driveway entrance from Plymouth Road to the Property.
3. Any such activities to remove vegetation or foliage, or to construct and maintain a deceleration lane, shall be at the sole cost and expense of Wilson. Moreover, Wilson shall insure that no liens based on Wilson's work shall attach to the Colmery Property, and shall bond over any such liens within 15 days upon notice from Colmery or Goode of such a lien, or otherwise becoming aware of such a lien.
4. Wilson shall defend, indemnify, and hold the current or future owners of the Colmery Property (the Owners) harmless from any loss, expense, claim, or damage incurred by the Owners, arising out of the use of the Colmery Property by Wilson, its tenants, guests, contractors, agents, or delivery persons, except if caused by the Owners' negligence.
5. This Easement shall be recorded, shall run with the land, and its terms shall be binding on the Parties and their successors and assigns. In the event that any of the terms of this Easement are held to be partially or wholly invalid or unenforceable, the other terms shall remain in effect. The laws of the State of Michigan apply to this Easement. This Easement may be signed in counterparts, which taken together shall constitute an original document.

6. This transaction is exempt pursuant to MCL 207.505(a) and MCL 207.526(a).

MK Wilson Holdings, LLC

Goode Investments, LLC

By: Mark T. Wilson
Its: Authorized Member
Date: 11/3/2021

By:
Its: Authorized Member
Date:

Ben H. Colmery, III
Date: 11/1/2021

STATE OF MICHIGAN)
)SS.
COUNTY OF WASHTENAW)

The foregoing instrument was acknowledged before me on 11/3, 2021, in Washtenaw County, Michigan, by Mark T. Wilson, Authorized Member of MK Wilson Holdings, LLC, on behalf of MK Wilson Holdings, LLC.

DANA M. LEMKE
Notary Public, State of Michigan
County of Wayne
My Commission Expires 06-30-2027
Acting in the County of ~~Washtenaw~~

Dana M. Lemke
DANA M. Lemke, Notary Public
Acting in Washtenaw County
~~Washtenaw~~ County, State of Michigan
My Commission expires: 06-30-2027

STATE OF MICHIGAN)
)SS.
COUNTY OF WASHTENAW)


The foregoing instrument was acknowledged before me on November 1, 2021, in Washtenaw County, Michigan, by Ben H. Colmery, III.

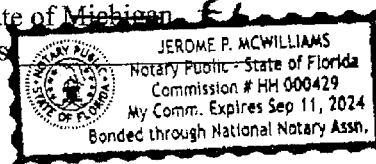
S. HUMPHREY
NOTARY PUBLIC - MICHIGAN
WAYNE COUNTY
ACTING IN THE COUNTY OF ~~Washtenaw~~
MY COMMISSION EXPIRES JULY 18, 2027

S. Humphrey
S. Humphrey, Notary Public
Acting in Washtenaw County
Washtenaw County, State of Michigan
My Commission expires: July 18, 2027

STATE OF MICHIGAN)
)SS.
COUNTY OF WASHTENAW)

The foregoing instrument was acknowledged before me on 10/31/2021,
2021, in ^{MARTIN} Washtenaw County, Michigan, by Alexis Goode the Authorized
Member of Goode Investments, LLC, on behalf of Goode Investments, LLC.


_____, Notary Public
Acting in ~~Washtenaw~~ County
^{MARTIN} Washtenaw County, State of Michigan
My Commission expires _____



Tax Parcel Nos. J 10 18 155 014 and J 10 18 155 013.
Commonly known as 5387 Plymouth Road (vacant land)

Prepared by and when recorded return to: Scott E. Munzel (P39818), 9 Jefferson Court,
Ann Arbor, MI 48103 (734) 994 6610

Exhibit A

Premises situated in Superior Township, Washtenaw County, Michigan, described as:

Part of the North ½ of Section 18, Town 2 South, Range 7 East, Superior Township,
Washtenaw County, Michigan, described as beginning at a point on the Southerly line
of Church Street (1/2 ROW= 33.00 feet) distant North 88° 24' 05" East 337.00 feet
from the Northeast corner of Lot 5, Northeast Section of Dixboro, according to the
recorded plat thereof, as recorded in the Office of the Register of Deeds February 28,
1828, in Liber "A" of Deeds, Page 273, Washtenaw County Records; thence
continuing North 88° 24' 05" East 150.00 feet along the South right of way line of said
Church Street; thence South 05° 38' 55" East 264.25 feet; thence South 88° 24' 05"
East 183.35 feet and North 01° 35' 26" East 264.00 feet to the point of beginning.

Exhibit B

Premises situated in Superior Township, Washtenaw County, Michigan, described as:

Part of the North ½ of Section 18, Town 2 South, Range 7 East, Superior Township,
Washtenaw County, Michigan, described as: Beginning at a point on the Southerly line
of Church Street (1/2 ROW= 33.00 feet) distant N 88° 24' 05" E 527.00 feet from the
Northeast corner of Lot 5 of the Northeast Section of the Village of Dixboro, according

to the recorded Plat thereof, as recorded in Liber A of Deeds, Page 273, Washtenaw County Records; thence continuing N 88° 24' 05" E 401.58 feet along said South right of way line of Church Street to a point on the Northerly right of way line of Plymouth Road (66 feet wide); thence 475.70 feet along the arc of a curve to the right, having a radius of 641.60 feet, a central angle of 42° 28' 48" and a long chord bearing S 53° 51' 32" W 464.87 feet; and thence N 05° 38' 55" 264.25 feet to the Point of Beginning.



Carlisle | Wortman
ASSOCIATES, INC.

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

Date: October 15, 2021
January 13, 2022

**Preliminary Site Plan and Conditional Use Review
For
Superior Township, Michigan**

Applicant: Kristin and Mark Wilson
Project Name: Arbor Hills Animal Clinic
Location: 5347 Plymouth Road
Plan Date: December 21, 2021
Zoning: VC, Village Center District
Action Requested: Preliminary Site Plan and Conditional Use

PROJECT DESCRIPTION

The applicant has submitted a conditional use application for a proposed animal clinic at 5347 Plymouth Road. The applicant proposes to maintain and convert the existing structure to the animal clinic. The site is zoned VC, Village Center District. Animal Clinic is a Conditional Use in the VC District and subject to Section 5.110. The site is adjacent to the yoga practice center, and across Plymouth Road from the Boro Restaurant and the Landau Building. The building has been used as a single-family home, an in-home daycare facility, and a wedding venue.



According to the information provided by the applicant, Arbor Hills Animal Clinic has been in operation for more than 35 years. They serve both “companion” animals (cats and dogs), “small furry animals” (hamsters, gerbils, guinea pigs), and small farm animals (sheep, goats, and miniature horses). Hours of operation would be Monday through Friday from 9 a.m to 6 p.m, and Saturday from 8 a.m to 2 p.m. There is no boarding of overnight animals. The operation does not provide emergency hours.

PLANNING COMMISSION APPROVAL

The preliminary site plan was approved by the Planning Commission on following conditions:

1. Provide landscaping plan.

CWA comment: The applicant has provided a landscape plan that is compliant with ordinance requirements.

2. Provide additional landscape screening at the rear of the site.

CWA comment: The applicant has added additional landscaping at the rear of their site.

3. Provide lighting plan in compliance with Section 14.11.

CWA comment: The applicant has provided a photometric plan that is compliant with ordinance requirements. The applicant is proposing three (3) pole mounted lights.

4. Obtain outside agency approvals.

CWA comment: The applicant has obtained all outside agency approvals.

5. Address any outstanding comments from Township Engineer.

CWA comment: see Township Engineer memo.

Items to be Addressed: *None*

CONDITIONAL USE STANDARDS

Conditional use standards are set forth in Section 11.05.

No Conditional Use Permit shall be granted unless the Planning Commission makes affirmative findings of fact and records adequate data, information, and evidence showing that:

- a. The proposed use will be harmonious, and in accordance with the objectives, intent, and purposes of this Ordinance;*
- b. The proposed use will be compatible with the natural environment and existing and future land uses in the vicinity;*
- c. The proposed use will be compatible with the Growth Management Plan;*
- d. The proposed use will be served adequately by essential public facilities and services, such as highways, streets, police and fire protection, drainage ways and structures, refuse disposal, or that the persons or agencies responsible for the establishment of the proposed use shall be able to provide adequately for any such services;*
- e. The proposed use will not be detrimental, hazardous, or disturbing to existing or future neighboring uses, persons, property, or the public welfare;*
- f. The proposed use will not create additional requirements at public cost for public facilities and services that will be detrimental to the economic welfare of the community.*

We find that the required standards have been met:

1. The applicant is repurposing an existing building for a use recognized in the Master Plan.
2. The repurposing of the existing building is consistent with the growth management plan.
3. The Village Center subarea notes a goal to gradually convert to a mixed-use area. Existing residential structures should be retained but may be converted to the non-residential uses. Though animal clinic is not a listed use, it could be considered consistent with the listed use of a small professional office.
4. Provided the applicant meet the noted conditions of increased landscaping and providing a lighting plan in compliance with ordinance requirements, the use shall have no impact upon adjacent properties.
5. The use will not create additional requirements at public cost for public facilities and services that will be detrimental to the economic welfare of the community.
6. The conditional use process permits the Township to put reasonable conditions upon the application including no outdoor dog run, no overnight boarding of animals, no onsite cremation, and no farm animals, that ensures protection to adjacent properties.

Arbor Hills Animal Clinic
January 13, 2022

We've attached a resolution of approval for the Conditional Use, codifying the conditions of approval

RECOMMENDATION

We recommend approval of the final site plan approval and the Conditional Use resolution.

I look forward to meeting with the Planning Commission to discuss my memo.

Sincerely,



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

cc: Ken Schwartz, Township Supervisor
Lynette Findley, Township Clerk
Richard Mayernik, CBO, Building Department
Laura Bennett, Planning Coordinator
George Tsakoff, Township engineer



February 16, 2022

CHARTER TOWNSHIP OF SUPERIOR

3040 N. Prospect Road
Ypsilanti, MI 48198

Attention: **Lynette Findley, Township Clerk**

Regarding: **Arbor Hills Animal Clinic
Final Site Plan - Review No. 2
OHM Job No. 0140-21-0100**

Dear Ms. Findley,

On behalf of the Township, we have reviewed the revised Final Site Plan submittal for the above referenced project dated February 8, 2022. In our opinion, this plan is ready for further consideration by the Planning Commission at their February meeting regarding final site plan approval. We do offer the following comments related to engineering aspects of the submittal that would still need to be addressed by the Applicant during the engineering plan review stage. Our comments are as follows:

Grading, Stormwater Management and Utilities

1. On Sheet C-3, *Site Plan*, the leader line from the note at the northeast corner of the parking lot (“LIMIT OF CONCRETE CURB”) should point further west to the end of the curb at the end of the striped area of the parking lot. Also, the “LIMIT ASPHALT PAVEMENT” note on the east side of the parking lot should be deleted as this side of the parking lot will have concrete curb and gutter. This should be addressed on the future engineering plan submittal.
2. The background notation of “Proposed Future Septic Tank Location” is directed at the existing septic field location and should point to the septic tanks currently noted as “Septic Tanks Per Field Markings By Others” or the notes combined (e.g., Proposed Future Septic Tank Locations Per Field Markings By Others”). This should be addressed on the future engineering plan submittal.
3. Review of the stormwater management facilities and calculations by the Washtenaw County Water Resources Commissioner’s Office (WCWRC) is still ongoing. Recent comments were issued by WCWRC that the Applicant’s Engineer will need to resolve during the engineering plan submittal. This is assuming that the Planning Commission agrees to have the WCWRC comments resolved administratively after final site plan approval. We can provide more detail on these comments at the February PC Meeting.

Status of Permits Required

4. Permit from the Washtenaw County Health Department (WCHD) for modifications to the on-site septic system has been issued.
5. Permit from the Washtenaw County Road Commission (WCRC) is required for the paving of the access drive within the public Right-of-way of Plymouth Rd.
6. Permit from the WCWRC for soil erosion and sedimentation control (SESC) measures is required.
7. Permit from Township Building Department is required.



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

Sincerely,
OHM Advisors

George Tsakoff, PE
Principal

cc: Ken Schwartz, Township Supervisor (via e-mail)
Richard Mayernik, CBO, Building Department (via e-mail)
Laura Bennett, Planning Coordinator (via e-mail)
Ben Carlisle, CWA, Twp Planner (via email)
Cresson Slotten, OHM
file



Arbor Hills Animal Clinic

Arbor Hills Animal Clinic
2717 Plymouth Road
Ann Arbor MI 48105
(734) 668-1466

1/28/2022

Superior Township Planning Department
Attn: Laura
3040 North Prospect
Superior Township, MI 48198

Dear Planning Department Representatives:

This letter is to indicate our intent to modify the curb design during the engineering review stage. We have notified our contractor, Ann Arbor Asphalt that we are required to have a curb on the West side of the parking lot adjacent to the area where the septic field is located on the property. Our contractor has modified the scope of this project to include the curb within this area.

Please let me know if you need any additional information prior to the February meeting at which we will be seeking Site Plan Approval.

Sincerely,

Mark T. Wilson
Arbor Hills Animal Clinic

Kristin Wilson, Owner & DVM,
Audrey Lownsbery DVM Associate Veterinarian



EVAN N. PRATT, P.E.

WATER RESOURCES COMMISSIONER
705 North Zeeb Road
P.O. Box 8645
Ann Arbor, MI 48107-8645

email: drains@washtenaw.org
<https://www.washtenaw.org/drains>

HARRY SHEEHAN
Chief Deputy Water Resources Commissioner

SCOTT A. MILLER, P.E.
Deputy Water Resources Commissioner

Telephone 734.222.6860
Fax 734.222.6803

February 8, 2022

Mr. Jonathan Reid Cooksey, P.E.
Stonefield Engineering & Design
607 Shelby, Suite 200
Detroit, Michigan 48226

RE: Arbor Hills Veterinary Clinic
5347 Plymouth Road
Superior Township, Michigan
WCWRC Project No. 8162

Dear Mr. Cooksey:

This office has reviewed the site plans for the above-referenced project to be located in Superior Township. These plans have a job number of DET-210369, a date of December 21, 2021, and were received on January 13, 2022. As a result of our review, we would like to offer the following comments:

1. The engineer's certificate of outlet, accompanied by corresponding calculations and documentation, should be submitted to our office for review.
2. A storm water narrative, describing the proposed stormwater management system, should be prepared and submitted to our office for review.
3. A detail for an infiltration trench is shown on plan sheet C-10, but no infiltration trench is identified on the site plans.
4. The crushed stone mat detail shown on plan sheet C-10 identifies the bioretention retention area as having 18 inches of amended topsoil and references a detail. No additional detail is included for the bioretention basin, and the composition of the amended topsoil is not defined.
 - a. The recommended soil blend for amended soils used as planting soil includes 20 to 30 percent composted organic material and less than 10 percent clay.
5. A storage volume chart for each basin and BMP should be included.
6. The grading plan does not clearly show how the runoff from the pavement will enter the proposed bioretention basin.

7. On Worksheet W11, the “infiltration volume during storm” should be based on a 6-hour storm, not a 48-hour storm.
8. A long-term stormwater maintenance plan, including budget and responsible party, should be designed and included with the plan set. The maintenance plan shown on plan sheet C-5 is not specific to the stormwater features.
9. Inspection of the infiltration basins following storms of 1 inch or more should be included in the long-term stormwater maintenance plan.
10. Mowing of the stormwater features and buffer area is allowed a maximum of twice per year.
11. A note should be included to indicate that no chemicals are allowed in stormwater features or buffer zones with the following exception: invasive species may be treated with chemicals by a certified applicator.
12. Within areas above the maximum ponding elevation of the proposed bioretention basin, seeding and/or live plantings are allowed. Only native seeds (as defined by Michigan Flora, michiganflora.net) are allowed for permanent soil stabilization. Annual seeds are allowed in an amount necessary to temporarily stabilize the limits of disturbance. Include the species list and quantity for the Native Grass seed mix.
13. Below the maximum ponding elevation of the proposed bioretention basin, live plantings must cover the entire area. The first flush elevation should be noted on the details. Native plants are preferred. Cultivars and non-native perennials are allowable if approved by WCWRC. Plants listed on the WCWRC Rain Garden Plant List are acceptable. Invasive species are not allowed (see the City of Ann Arbor’s invasive species list).
14. Plantings should be locally adapted and appropriate to the hydric conditions proposed. For more information on individual species, see “Plants for Stormwater Design: Species Selection for the Upper Midwest” by Daniel Shaw & Rusty Schmidt.
15. Plantings should be spaced according to each species size and growth potential to allow for sufficient coverage as required by the soil erosion permit.
16. Please see the attached invoice for the current fees and remit these fees upon receipt. As requested, the invoice is being submitted directly to Arbor Hills Animal Clinic, PLLC.

Mr. Jonathan Reid Cooksey, P.E.
Stonefield Engineering & Design
Arbor Hills Veterinary Clinic
WCWRC Project No. 8162
Page 3 of 3

At your convenience, please send us a complete set of revised plans and the additional information requested above so that we may continue our review. If you have any questions, please contact our office.

Sincerely,



Theresa M. Marsik, P.E.
Stormwater Engineer
(approval\Arbor Hills Veterinary Clinic rev1)

cc: Mark Wilson, Arbor Hills Animal Clinic, PLLC
Lynette Findley, Superior Township Clerk
Laura Bennett, Superior Township Planning Department
George Tsakoff, Superior Township Engineer (OHM Advisors)

**FINDINGS OF REQUIRED STANDARDS
AND RESOLUTION OF APPROVAL
ANN ARBOR ANIMAL CLINIC, LLC
January 13, 2022**

WHEREAS an application for a Conditional Use Permit for a commercial veterinary clinic on the premises located at 5437 Plymouth Road, Ann Arbor, MI 48105, tax parcel L- J -10-18-155-013 in Section 18, Superior Charter Township, Washtenaw County, Michigan, was submitted; and

WHEREAS in accordance with Article 11.03.F of the Township Zoning Ordinance, the Superior Township Planning Commission held a public hearing on September 22, 2021, and public comments were received and considered; and

WHEREAS the Superior Township Planning Commission reviewed the Conditional Use Permit application for this use and per the requirements of Article 11.05.C of the Township Zoning Ordinance finds the following:

- 1. The proposed use will be harmonious, and in accordance with the objectives, intent, and purposes of this Ordinance.**

The proposed use is harmonious and in accordance with the objectives, intent, and purposes of this Ordinance. The Village Center subarea notes a goal to gradually convert to a mixed-use area. Existing residential structures should be retained but may be converted to the non-residential uses. Though animal clinic is not a listed use, it could be considered consistent with the listed use of a small professional office.

- 2. The proposed use will be compatible with the natural environment and existing and future land uses in the vicinity.**

The repurposing of an existing building is compatible with the natural environment and land uses in the vicinity.

- 3. The proposed use will be compatible with the Growth Management Plan.**

The applicant is repurposing an existing building for a use recognized in the Master Plan. The repurposing of the existing building is consistent with the growth management plan.

- 4. The proposed use will be served adequately by essential public facilities and services, such as highways, streets, police and fire protection, drainage ways and structures, refuse disposal, or that the persons or agencies responsible for the establishment of the proposed use shall be able to provide adequately for any such services.**

The proposed use can be adequately served by public facilities and services.

- 5. The proposed use will not be detrimental, hazardous, or disturbing to existing or future neighboring uses, persons, property, or the public welfare.**

Provided the applicant meet the noted conditions of increased landscaping and providing a lighting plan in compliance with ordinance requirements, the use shall have no impact upon adjacent properties. The conditional use process permits the Township to put reasonable

conditions upon the application including no outdoor dog run, no overnight boarding of animals, no onsite cremation, and no farm animals, that ensures protection to adjacent properties.

6. The proposed use will not create additional requirements at public cost for public facilities and services that will be detrimental to the economic welfare of the community.

The use will not create additional requirements at public cost for public facilities and services that will be detrimental to the economic welfare of the community.

NOW THEREFORE BE IT RESOLVED, that the Superior Township Planning Commission hereby approves the Conditional Use Permit for the Ann Arbor Animal Clinic with the following conditions:

1. There shall be no overnight boarding of animals or emergency animal clinic hours.
2. There shall be no outdoor dog run.
3. All parking lot lighting shall be turned off no later than 30 minutes after closing of business.
4. No onsite cremation.
5. No unsupervised outdoor care of animals..

SITE PLAN REVIEW APPLICATION

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

APPLICANT NAME David Kassab

NAME OF PROPOSED DEVELOPMENT Hyundai Safety Testing and Inspection Lab (STIL)

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

PROPOSED LAND USE

- Residential Office Commercial Other

If other, please specify Industrial - Automotive

- Number of units N/A
- Total floor area of each unit N/A
- Give a complete description of the proposed development.
STIL building will be approx. 100,000SF and contain offices, workshops, and lab areas.
FCIL building will be approx. 36,000SF and contain observation labs and crash hall.
Site improvements include 400 meter straight track, vehicle test pad, and battery lab.

ESTIMATED COSTS

- Buildings and other structures \$28,000,000.00
- Site improvements \$7,000,000.00
- Landscaping \$600,000.00
- Total \$35,600,000.00

ESTIMATED DATES OF CONSTRUCTION

- Initial construction May 2022
- Project completion August 2023
- Initial construction of phases (IF APPLICABLE) _____
- Completion of subsequent phases. (IF APPLICABLE) _____
- Estimated date of first occupancy May 2023

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

134894_Preliminary Site Plan_2022-01-26

APPLICANT INFORMATION

- APPLICANTS NAME David Kassab
Company IBI Group
Address 25200 Telegraph Rd. Suite 300 Southfield, MI 48033
Telephone Number 585-747-9125 Email david.kassab@ibigroup.com
- PROPERTY OWNER'S NAME Mark Torigian
Company Hyundai Motor America
Address 10550 Talbert Ave. Fountain Valley, CA 92708
Telephone Number 734-337-2298 Email MTORIGIAN@HATCI.COM
- DEVELOPER'S NAME Mark Torigian
Company Hyundai America Technical Center, Inc.
Address 6800 Geddes Rd. Ypsilanti, MI 48198
Telephone Number 734-337-2298 Email MTORIGIAN@HATCI.COM
- ENGINEER'S NAME Gregg Tannar
Company IBI Group
Address 25200 Telegraph Rd. Suite 300 Southfield, MI 48033
Telephone Number 248-936-8000 Email gregg.tannar@ibigroup.com
- ARCHITECT/PLANNER'S NAME Gregg Stouder
Company IBI Group
Address 25200 Telegraph Rd. Suite 300 Southfield, MI 48033
Telephone Number 248-936-8000 Email gregg.stouder@ibigroup.com

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: David Kassab

APPLICANT'S SIGNATURE _____ DATE 2022-02-07

PROPERTY OWNER'S PRINTED NAME Mark Torigian

PROPERTY OWNER'S SIGNATURE Mark A Torigian DATE 2.1.2022

Legal Descriptions of Parcels:

- Parcel Number: J -10-32-100-003: ASSR REQ QCD L4621 P837 06/08/04 SU 32-1A PCL "I" COM AT NE COR OF SEC 32, TH S 87-03-35 W 60.00 FT TO A POB, TH S 02-12-36 E 2118.18 FT, TH S 87-03-35 W 1140.10 FT, TH N 02-12-36 W 2118.18 FT, TH N 87-03-35 E 1140.10 FT TO THE POB. PT OF NE 1/4 SEC 32, T2S-R7E. 55.44 AC. SPLIT ON 06/09/2004 FROM J -10-32-100-001;
- Parcel Number: J -10-32-100-007: OWNER REQUEST SU 32-1B-1A PCL " II-A " COM AT NE COR OF SEC 32, TH S 02-12-36 E 2178.18 FT TO A POB, TH CONT S 02-12-36 E 369.59 FT, TH S 87-33-10 W 1803.00 FT, TH S 02-12-36 E 108.00 FT, TH S 87-33-10 W 504.33 FT, TH N 02-00-37 W 2636.05 FT, TH N 87-03-35 E 1098.21 FT, TH S 02-12-36 E 2178.18 FT, TH N 87-03-35 E 1200.10 FT TO THE POB. PT OF NE 1/4 SEC 32, T2S-R7E. 75.40 AC. SPLIT ON 03/06/2007 FROM J -10-32-100-005, J -10-32-100-006;



Carlisle | Wortman
ASSOCIATES, INC.

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

Date: February 8, 2022

**Combined Preliminary and Final Site Plan Review
For
Superior Township, Michigan**

Applicant:	David Kassab, IBI Group
Project Name:	Hyundai Safety Testing and Inspection Laboratory
Location:	6800 Geddes Rd
Plan Date:	January 26, 2022
Zoning:	PM / Planned Manufacturing
Action Requested:	Preliminary Site Plan

PROJECT DESCRIPTION

The applicant has submitted a preliminary site plan to expand the existing Hyundai America facility on Geddes Road. The 121-acre site is currently improved with 157,804 square feet of buildings. The proposed expansion of site facilities is for research and development operations. The proposed improvements include:

- STIL Building: +/- 58,000 sq.ft of office, vehicle workshops, crash labs, and electronic labs
- FCIL Building: +/- 36,500 sq.ft of office, crash hall, observation lab, control lab and analysis lab
- Substation House: +/- 4,400 sq.ft
- Battery Lab: +/- 2,100 sq.ft
- Outdoor testing area: outdoor gravel testing area and post-crash vehicle storage area and 400-meter straight test track.
- 213 parking spaces for employee and visitor parking

In December 2021, the Township Board based on a recommendation from the Planning Commission, approved an amendment to the existing Area Plan.

SITE



Area of proposed work:



Size of Subject Property:

The parcel is 121 acres

Proposed Uses of Subject Parcel:

Construction of R and D and testing facilities

Current Use of Subject Property:

R and D and Office

Current Zoning:

The property is currently zoned PD, Planned Manufacturing District.

Surrounding Property Details:

Direction	Zoning	Use
North	A2, Agricultural District,	Vacant
South	A2, Agricultural District, R-4 Single-Family Residential District	Vacant
East	PD, Planned Manufacturing District	Vacant
West	A2, Agricultural District	Vacant

NATURAL FEATURES

Topography: The site has a slight peak in the middle of the proposed construction area. The work will require significant grading.

Woodlands/Landmark Trees: Portions of the southern end of the site are covered with significant woodlands. The applicant has provided a detailed tree survey, which surveyed approximately 1,300 trees. The survey identified 231 landmark trees and 1 sovereign tree.

Landmark Trees		Sovereign Trees	
Preserved	Removed	Preserved	Removed
164	67	1	0

As part of the final site plan, the applicant shall provide a detailed tree mitigation/replacement schedule as part of the landscape plan.

Wetlands/Snidecar drain: The applicant has indicated the location of wetlands on the site adjacent to the Snidecar drain. The applicant has sited the proposed new improvements to avoid any impacts upon site wetland and the Snidecar drain.

Items to be Addressed: Provide a detailed tree mitigation/replacement schedule for the landscape plan for the final site plan.



Wetland Map

SITE LAYOUT, ACCESS, AND CIRCULATION

The expanded site improvements are located on the south side of the property. There are no additional changes to site access, as the new facilities will be accessed by extending existing parking lots and drive-aisles. Access and circulation are sufficient. The applicant sited the building, test track, and outdoor testing facilities to reduce impact upon natural features.

Items to be Addressed: None

AREA, WIDTH, HEIGHT, SETBACKS

The following table summarizes the Density, Placement, and Height Regulations for the PM, Planned Manufacturing District.

Density, Placement, and Height Regulations

	Required	Provided	Compliance
Lot Area	2.0	121	Complies
Lot Width	150 feet	+150 feet	Complies
Front Setback (min/max)	50 Feet /	+50 Feet	Complies
Side Setback	10 Feet combine total of 20 Feet	+ 20 Feet	Complies
Rear Setback	35 Feet	+ 35 Feet	Complies
Lot Coverage	20 % Max	5.94%	Complies
Floor area Ratio	0.40 Max	4.91%	Complies
Building Height	35 Feet/ 3 Stories	STIL: 31 feet FCIL: 31 feet Battery Lab: 16 feet Substation: 22 feet	Complies

The site meets all PM, Planned Manufacturing District requirements.

Items to be Addressed: None

PARKING

Parking requirement for the new additions. The parking table does consider parking for existing site facilities, as those were reviewed and approved as a part of a previous submittal.

	Required	Provided
Industrial, research and laboratory uses: Five (5) plus (1) per on-duty employee, plus parking for any other accessory office or other use	156 on-duty employees = 156 spaces 4 visitors = 4 spaces	160
Barrier Free	6	6
Total	160 automobile	160 automobile

Please note that there is additional parking for automobiles being tested. Parking complies with ordinance requirements.

Items to be Addressed: None

LANDSCAPING

A concept landscape plan has been provided on sheet L-100 and are supplemented by tree protection and planting details on sheet L-200. The applicant didn't include a landscape calculation table to determine if all landscape calculations have been met.

For the final site plan applicant shall provide a more detailed landscape plan including species type and size, tree mitigation requirements, and table of landscape requirements.

Items to be Addressed: *For the final site plan applicant shall provide a more detailed landscape plan including species type and size, tree mitigation requirements, and table of landscape requirements.*

LIGHTING

No lighting plan has been provided. A lighting plan will be required for final site plan approval. All parking lot lighting and building mounted lighting should be fully shielded and down directed.

Items to be Addressed: *For final site plan submit a lighting and photometric plan.*

FLOOR PLANS AND ELEVATIONS

Elevations have been provided for four buildings. Buildings STIL and FCIL are primarily insulated metal panels with store front glass on select elevations. The Battery Lab and Substation buildings are entirely CMU. Color for all buildings have not been determined.

It is difficult to assess the architecture, and material and color selection based on the information submitted by the applicant. The applicant should provide a color rendering, and a perspective of the building from Leforge Road. In addition, the applicant should provide material samples at the Planning Commission meeting.

Items to be Addressed: *1). Provide a color rendering; 2). Provide a rendering of the building from Leforge Road; and 3). Provide material samples at the Planning Commission meeting.*

SUMMARY

Overall we support the investment and improvements on this site. As part of the preliminary site plan review, we asked the Planning Commission to discuss the proposed elevations based on additional requested information from the applicant.

We recommend preliminary final site plan approval with the following conditions to be submitted as part of the final site plan:

Hyundai Safety Testing and Inspections Laboratory
February 8, 2022

1. *Detailed landscape plan including species type and size, tree mitigation requirements, and table of landscape requirements.*
2. *Provide a detailed tree mitigation/replacement schedule for the landscape plan for the final site plan.*
3. *Lighting and photometric plan.*
4. *Any additional architectural changes based on Planning Commission discussion.*



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

cc: Ken Schwartz, Township Supervisor
Lynette Findley, Township Clerk
Richard Mayernik, CBO, Building Department
Laura Bennett, Planning Coordinator
George Tsakof, Township engineer



February 16, 2022

CHARTER TOWNSHIP OF SUPERIOR

3040 N. Prospect Road
Ypsilanti, MI 48198

Attention: **Lynette Findley, Township Clerk**

Regarding: **Hyundai Site Expansion
Preliminary Site Plan - Review No. 1
OHM Job No. 0140-21-0120**

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 January 27, 2022. In our opinion, this plan is ready for action by the Planning Commission at their February meeting regarding preliminary site plan approval. We do offer the following comments related to the submittal to be addressed by the Applicant's Engineer at later stages of the project during final site plan and engineering plan preparation.

1. Consistent with past development on this site, the 4" domestic water main will be private, with no easement dedication to Superior Township, and will be the maintenance responsibility of the owner. A meter pit should be placed near the LeForge Rd Right-of-way line to meter the water usage for this private water main. This should be noted on the future Final Site Plan by the Applicant's Engineer. At the engineering plan submittal stage, a detailed meter pit design, signed and sealed by a design engineer licensed in the State of Michigan would be required by the Applicant.
2. The 4" domestic water main should be adjusted to the north to connect to the Superior Township 16" ductile iron water main. This Township water main transitions to a 12" asbestos concrete water main south of the drive to the electrical substation. This water main transition location is shown on the "Geddes and LeForge Right-of-Way Improvements As-Built Drawing" (sheet 13) which will be provided to the Applicant's Engineer for future reference. This modification should be included in the Final Site Plan.
3. The proposed 8" sanitary sewer(s) will be private, with no easement dedication to Superior Township, and will be the maintenance responsibility of the owner. This should be noted on the Final Site Plan. The new manhole being constructed on the Township's LaForge Road sanitary sewer for the connection of the new private sanitary sewer will be a Superior Township owned manhole. The property owner will need to notify Superior Township Utilities Department when they need to access this manhole for maintenance of their private sewers in the future.
4. On sheet CE-001, note #1 and #3 under "Civil General Notes" include references to the Detroit Water & Sewerage Department (DWSD) and Washtenaw County Water Resources Commissioner (WCWRC) for sanitary sewer and potable water permits and approvals. These agency references should be deleted for sanitary sewer and potable water as they do not have jurisdiction. Also, the Michigan Department of Environment, Great Lakes, and Energy (EGLE) should be added as one of the potential approval agencies. These revisions should be addressed on the Final Site Plan by the Applicant's Engineer.



5. On Sheet CD-100, there are two different styles of cross hatching used in plan view that both appear like the style identified in the legend as “existing impervious area/building to be removed.” The Applicant’s Engineer should include all cross-hatching styles in the legend on the future final site plan.
6. The stormwater management design on the site plan should be consistent with WCWRC Standards. Review and approval from WCWRC will be required at the Final Site Plan stage of the project.
7. The proposed outlet from the easterly detention facility is shown connecting to the LeForge Road ditch. Review and approval from the Washtenaw County Road Commission (WCRC) will be required at final site plan stage for this stormwater discharge and ROW disturbance.
8. It is anticipated that the proposed outlet from the westerly detention facility will need an NPDES discharge permit at the final site plan stage, since it will discharge to waters of the state. Also, if there will be impact to the 100-year floodplain, an EGLE permit would be required during final site plan stage.
9. The soil erosion and sedimentation control (SESC) measures on the site plan should meet the requirements of the WCWRC Standards and will be required to be shown on the future final site plan.

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

Sincerely,
OHM Advisors

George Tsakoff, PE
Principal

cc: Ken Schwartz, Township Supervisor (via e-mail)
Richard Mayernik, CBO, Building Department (via e-mail)
Laura Bennett, Planning Coordinator (via e-mail)
Ben Carlisle, CWA, Twp Planner (via email)
Paul Montagno, CWA
Cresson Slotten, OHM
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