

**GENOA CHARTER TOWNSHIP
PLANNING COMMISSION PUBLIC HEARING
SEPTEMBER 9, 2019
6:30 P.M.
AGENDA**

CALL TO ORDER:

PLEDGE OF ALLEGIANCE:

APPROVAL OF AGENDA:

CALL TO THE PUBLIC: *(Note: The Board reserves the right to not begin new business after 10:00 p.m.)*

OLD BUSINESS:

OPEN PUBLIC HEARING #1...Review of a site plan and impact assessment requesting final site condominium approval for a proposed 19 unit site condominium. The property in question is located on approximately 30.8 acres at 4242 Bauer Road (parcel # 4711-26-200-002) on the west side of Bauer Road, between White Pines Drive and Challis Road. The request is petitioned by John Moretti.

- A. Recommendation of Environmental Impact Assessment (8-14-19)
- B. Recommendation of Final Site Condominium Plan (8-20-19)

OPEN PUBLIC HEARING #2... Review of a special use, site plan and environmental impact assessment for outdoor sales, storage and display for Home Depot. The property in question is located at 3330 E. Grand River, Howell. The request is petitioned by Scott A. Mommer.

- A. Recommendation of Special Use Application.
- B. Recommendation of Environmental Impact Assessment. (8-8-19)
- C. Recommendation of Site Plan. (8-7-19)

NEW BUSINESS:

OPEN PUBLIC HEARING #3...Review of a site plan and environmental impact assessment for a proposed 11,000 sq. ft. addition to an existing Brighton Area Fire Department building located at 2755 Dorr Road, Brighton. The request is petitioned by Partners in Architecture, PLC.

- A. Recommendation of Environmental Impact Assessment (8-21-19)
- B. Disposition of Site Plan (9-3-19)

OPEN PUBLIC HEARING #4...Review of a sketch plan for proposed renovations to an existing 11,968 sq. ft. industrial building including new parking, truck well, and waste receptacle enclosure located at 830 Grand Oaks Drive, Howell for Johnstone Supply. The request is petitioned by Ren Rushing.

- A. Disposition of Sketch Plan. (8-21-19)

ADMINISTRATIVE BUSINESS:

- *Staff Report*
- *Approval of August 12, 2019 Planning Commission meeting minutes.*
- *Member discussion*
- *Adjournment*



GENOA CHARTER TOWNSHIP
Application for Site Plan Review

TO THE GENOA TOWNSHIP PLANNING COMMISSION AND TOWNSHIP BOARD:

APPLICANT NAME & ADDRESS: John Moretti, 4242 Bauer Road, Brighton, Michigan 48116
If applicant is not the owner, a letter of Authorization from Property Owner is needed.

OWNER'S NAME & ADDRESS: John Moretti, 4242 Bauer Road, Brighton, Michigan 48116

SITE ADDRESS: 4242 Bauer Road, Brighton, Michigan 48116 PARCEL #(s): 4711-26-200-002

APPLICANT PHONE: (810) 217-4581 OWNER PHONE: (810) 217-4581

OWNER EMAIL: mrmconstruction2244@yahoo.com

LOCATION AND BRIEF DESCRIPTION OF SITE: 1,500 feet south of the Challis Road and Bauer Road intersection. 40.042 Acres. Partially wooded.

On the south side of "Mudd Lake".

BRIEF STATEMENT OF PROPOSED USE: Site Condominium consisting of 19 lots and a Private Road.

THE FOLLOWING BUILDINGS ARE PROPOSED: 19 dwellings

I HEREBY CERTIFY THAT ALL INFORMATION AND DATA ATTACHED TO AND MADE PART OF THIS APPLICATION IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

BY: Monument Engineering Group Associates

ADDRESS: 298 Veterans Drive, Fowlerville, Michigan 48836

Contact Information - Review Letters and Correspondence shall be forwarded to the following:

1.) Philip A. Rasor, Jr. PE of Monument Engineering Group Associates, Inc. at prasor@monumentengineering.com
Name Business Affiliation E-mail Address

FEE EXCEEDANCE AGREEMENT

As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.

SIGNATURE: SEE HARDCOPY DATE: _____
PRINT NAME: John Moretti PHONE: (810) 217-4581
ADDRESS: 4242 Bauer Road, Brighton, Michigan 48116

A private road requiring approval of the Township shall be any road providing access to more than four dwelling units or two non-residential principal buildings. This does not include drives within a multiple family complex or parking lot aisles, but does include collector type roadways within such a development.

RECEIVED

APPLICANT: John Moretti

OWNER ADDRESS: 4242 Bauer Road, Brighton, Michigan 48116

SITE ADDRESS: 4242 Bauer Road, Brighton, Michigan 48116

APPLICABILITY OF PUBLIC VS. PRIVATE ROAD STANDARDS

All private roads in Genoa Township shall be constructed to the standards of the Livingston County Road Commission unless the Planning Commission and Township Board determine your road qualifies under the following ordinance criteria:

1. Explain how there will be no need for the roadway to be dedicated as a public road in the future.

The private road is intended to serve 19 residential lots and intersects Bauer Road. Building the road to the public road standards would result in the removal of more trees more disturbance to the natural topography.

2. Explain how dedication of the road as a public street would not result in continuity in the public street system at the present time or in the future.

There is no connection to Brighton Estates Subdivision. No continuity is available to this roadway system.

3. What uses (number of lots, number of residential units, number of buildings, etc) will have access from the private road. Will the expected traffic volumes along the roadway be below three hundred vehicles per average weekday, based on accepted trip generation figures?

There are 19 Lots to utilize this road, and they generate less than 50 trips per day.

4. Are there any significant natural features such as mature trees, natural slopes, wetlands or other water bodies would be preserved through construction and maintenance as a private road?

The site has natural sloping topography and is partially wooded. Design attempts to minimize impact to trees and natural topography.

5. What financial and administrative mechanisms will be provided to ensure maintenance of the private road?

A private road easement, maintenance agreement and funding requirement will be part of the Deed Documents for this PUD.

AFFIDAVIT

The undersigned says that they are the Owner (owner, lessee, or other specified interest) involved in this petition and that the foregoing answers and statements herein contained and the information herewith submitted are in all respects true and correct to the best of his/her knowledge and belief.

By: JOHN MORETTI

Address: 4242 Bauer Road

Phone: 810-217-4581

Contact Information - Review Letters and Correspondence shall be forwarded to the following:

1.) Philip A. Rasor, Jr. PE of Monument Engineering Group Associates, Inc. at ()
Name Business Affiliation Fax No.
prasor@monumentengineering.com

FEE EXCEEDANCE AGREEMENT

As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.

PROJECT NAME: Moretti Estates

PROJECT LOCATON & DESCRIPTION: 4242 Bauer Road Genoa Township
Livingston County, MI 21 Lots being developed as a LRD/PUD on 40 acres

SIGNATURE: SEE HARDCOPY DATE: _____

PRINT NAME: John Moretti PHONE: 810-217-4581

COMPANY NAME & ADDRESS: John Moretti-4242 Bauer Road, Brighton, MI 48116

**GENOA CHARTER TOWNSHIP
PLANNING COMMISSION
PUBLIC HEARING
AUGUST 12, 2019
6:30 P.M.
MINUTES**

CALL TO ORDER: The meeting of the Genoa Charter Township Planning Commission was called to order at 6:30 p.m. Present were Chairman Doug Brown, Marianne McCreary, Jim Mortensen, Chris Grajek, Eric Rauch, Jeff Dhaenens, and Jill Rickard. Also present was Kelly VanMarter, Community Development Director/Assistant Township Manager, Brian Borden of SafeBuilt Studio, and Gary Markstrom of Tetra Tech. There were seven audience members present.

PLEDGE OF ALLEGIANCE: The pledge of allegiance was recited.

APPROVAL OF AGENDA:

Moved by Commissioner McCreary, seconded by Commissioner Grajek, to approve the agenda as presented.

CALL TO THE PUBLIC: The call to the public was made at 6:31 pm with no response.

NEW BUSINESS:

OPEN PUBLIC HEARING #1... Review of a site plan for a proposed 19-unit site condominium. The property in question is located on approximately 30.8 acres at 4242 Bauer Road (Parcel #4711-26-200-002) on the west side of Bauer Road, between White Pines Drive and Challis Road. The request is petitioned by John Moretti.

A. Recommendation of Environmental Impact Assessment (6-13-19)

B. Recommendation of Final Site Condominium Plan (7-22-19)

Mr. John Moretti and Mr. Bruce Silver, operations manager, were present. Mr. Moretti provided a brief review of the project. It is a site condominium consisting of 19 one-acre plus lots. He has made some changes since he was last before the Planning Commission. The 10-acre parcel is now two five-acre parcels and the detention pond is larger. He noted that the two five-acre parcels will be participating in the association as it relates to road maintenance, but they will not be part of the association.

Commissioner Mortensen noted that both lots will require easements to the proposed private road. Mr. Moretti agreed. There was a discussion on how the enforcement of

Planning Commission Meeting
August 12, 2019 Unapproved Minutes

the payments for the road maintenance will be handled. The Township's attorney will work with Mr. Moretti's attorney to ensure the enforcement language is recorded and included in the road easement.

Mr. Borden reviewed his letter of August 6, 2019.

- The applicant must comply with any conditions included with outside agency approvals, such as the Road Commissioner, Drain Commissioner's Office, etc.
- The applicant must address any comments provided by the Township Attorney with respect to the condominium documents.
- Tree protection fencing must be provided around the existing wooded and natural areas to be preserved prior to the beginning of construction.
- Sample building elevations should be provided.
- Details of the residential entrance signage must be provided and a permit shall be obtained from the Township.
- He is suggesting that the cluster mailbox be separated from the private road via an access drive so that residents accessing their mailbox do not disrupt traffic flow. Mr. Moretti stated they have some flexibility to possibly move it further into the development. He will need to check with the post office to see if they prefer it on one side or the other. Ms. VanMarter stated that the Brighton Postmaster is requiring cluster mailboxes for all residential developments.
- The Impact Assessment still refers to the development as Moretti Estates, as opposed to The Ridge.

Mr. Markstrom reviewed his letter of August 5, 2019.

- The proposed private road is not in the middle of the proposed ROW, and at the entryway, some of the proposed road improvements on the north side of the drive are not within the road ROW. Also, the landscaping plan includes proposed landscaping that is not inside the road ROW. Any proposed landscaping improvements for the entryway should be within a dedicated easement or road easement. There was a discussion that perhaps a landscape easement can be granted for the condominiums by the property to the east.
- The petitioner is proposing to install an asphalt pavement sidewalk. He suggests concrete sidewalks, which will allow for the installation of ADA approaches and approach warning devices. Mr. Moretti agrees.
- The on-site road pavement section shown on the plans should match the road pavement design required in the Genoa Township Engineering Standards. There are other locations where road cross sections are not consistent.
- Over 100 feet of Mountain Ridge Drive is at a 10-percent grade and around 300 feet of Ridge Lake Court is at an 8-percent grade. The maximum grade for local roads is noted as 6 percent in the Genoa Township Engineering Standards and

this deviation from the standard road grades will need to be approved by the Township.

- After site plan approval, the petitioner will need to submit private road construction plans for review and approval.
- The well placement in Lot 1 is within the storm easement for the infiltration structure. This is a concern due to the possibility of having standing water around the well head. The well should be relocated and additional approval from the LCHD should be obtained for this lot. Mr. Moretti agrees to relocate it.
- Instead of running the storm sewer easement through front yards, the petitioner should consider running the storm sewer north through the proposed cul-de-sac and then turning east when the storm sewer reaches the shared drive. This will permit easier access for maintenance and not encumber the lots with additional easements in their front yards.
- The culvert under the driveway in Lot 3 should be designed for the non-typical flow it will see from both Mountain Ridge Drive and the backyard drainage from Lots 4 through 7. This flow suggests that a standard 12-inch culvert will be overwhelmed and block the flow in the ditch line. The petitioner should look at all driveway culverts to ensure they are properly sized.
- The catch basin diameters are not consistent on the plans.
- The plans should be updated to reflect that a storage tank will be used for fire suppression.

Mr. Markstrom noted that these are minor changes and should be corrected before this item goes before the Township Board for approval.

Commissioner Rauch noted that the storm sewer line is encroaching into the required 25-foot setback requirement of the regulated wetland. Mr. Markstrom agrees and Mr. Moretti will make the change.

Commissioner Mortensen noted that the Health Department's letter states that Lot #8 is unbuildable. Mr. Moretti stated this lot did not perk and it will need an engineered field; however, he will not be able to have this information before he goes before the Township Board. Ms. VanMarter stated the Township does not create lots that are not buildable. Commissioner Rickard is not comfortable recommending this item for approval if this lot is not buildable.

He also noted that the by-laws state that two lots can be combined, and one home can be built, but that property owner will only pay road maintenance for one lot. Mr. Moretti stated he will change the document to state that if this occurs, that owner will pay the road maintenance amount equivalent for two lots.

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Commissioner Mortensen would like the Master Deed to state that the ordinances of Genoa Township shall override what is in the document, if the Township's is stricter.

Commissioner Rickard is concerned about the road ROW at the entrance and that the plans are shown with landscaping out of the ROW. She would like the applicant's engineer to address the Township engineer's concerns before the Planning Commission makes a recommendation to the Township Board. Commissioner Rauch agrees. He would like to see a clean set of plans before making a recommendation for approval.

Mr. Moretti stated the biggest issue is with Lot #8, but the other items are easy to address.

The call to the public was made at 7:45 pm with no response.

Moved by Commissioner Mortensen, seconded by Commissioner Rickard, to postpone Agenda Item #1 for The Ridge Subdivision to allow the petitioner to address the following items:

- The need for easements at the entry
- Location of the cluster mailbox
- Storm sewer location
- Buildability of Lot #8

The motion carried unanimously.

OPEN PUBLIC HEARING #2... Review of a site plan and environmental impact assessment for 106 attached residential units within 29 buildings for Westbury Phase II. The property in question is located north of the intersection of Whitehorse Drive and Arundell Drive. This property is located within the Lorenzen Planned Unit Development and was previously approved for 137 apartment units. The request is petitioned by Singh Development Company.

- B. Recommendation of Environmental Impact Assessment. (6-28-19)
- C. Recommendation of Preliminary Site Condominium Plan (7-24-19)

Mr. Vipul Desai, the engineer, and Sunny Grewal from Singh Development, were present. Mr. Desai provided a brief review of the project. It is Phase II of Westbury Development, which is 107 units of attached condominiums for sale. Phase I is apartments.

They received the consultant's comments and addressed their concerns. They are aware that there are additional review letters.

follows: Ledford, Croft, Hunt, Lowe, Mortensen, Skolarus and Rogers. Nays – None. Absent – None.

Moved by Lowe and supported by Ledford to increase application fees for the Zoning Board of Appeals from \$125.00 to \$215.00 for residential, and from \$300.00 to \$395.00 for commercial, with signs \$300.00. The motion carried by roll call vote as follows: Ledford, Croft, Hunt, Lowe, Mortensen, Skolarus and Rogers. Nays – None. Absent – None.

Moved by Hunt and supported by Croft to amend the 2018/2019 budgets for funds 101, 212, 261, 264, 270, and 271 as recommended by the Skolarus. The motion carried by roll call vote as follows: Ledford, Croft, Hunt, Lowe, Mortensen, Skolarus and Rogers. Nays – None. Absent – None.

Moved by Lowe and supported by Mortensen to approve budgets 101, 212, 261, 264, 270, and 271 for the fiscal year beginning April 1, 2019 and ending March 31, 2020 as recommended by the Skolarus. The motion carried by roll call vote as follows: Ledford, Croft, Hunt, Lowe, Mortensen, Skolarus and Rogers. Nays – None. Absent – None.

6. Request for approval of the following Debt Service Fund Budgets for the Fiscal Year ending March 31, 2020: Fund 852, 857-859, 870, 872, and 873 as provided by Treasurer Hunt.

Moved by Skolarus and supported by Ledford to approve Debt Service Funds 852, 857, 859, 870, 872, and 873 as recommended by Hunt. The motion carried unanimously

7. Consideration of a recommendation for approval of a preliminary site condominium plan and impact assessment for a proposed 19 unit site condominium called Moretti Estates. The property in question is located on approximately 30.8 acres at 4242 Bauer Road (parcel # 4711-26-200-002) on the west side of Bauer Road, between White Pines Drive and Challis Road. The request is petitioned by John Moretti.

A. Disposition of Environmental Impact Assessment (02/19/2019)

Moved by Lowe and supported by Ledford, to approve the Impact Assessment dated February 19, 2019 related to preliminary site condominium approval for Moretti Estates. The motion carried unanimously.

B. Disposition Recommendation of Preliminary Site Condominium Plan (02/20/2019)

Moved by Skolarus and supported by Hunt, to approve the preliminary site condominium plan for Moretti Estates dated February 20, 2019, subject to the following:

1. The following documents will be required with a final submittal:
 - a. Condominium documents (Master Deed and By-Laws);
 - b. A detailed landscape plan;
 - c. Building designs/renderings; and
 - d. A detail of the residential entrance signage.
2. With regard to the landscape plan, additional plantings shall be provided to create a buffer north of the entrance drive for the existing home located immediately north of the entrance, which is not part of the condominium
3. The Township attorney shall review the condominium documents.
4. The condominium documents shall include:
 - a. A caution to the homeowners about the extra sensitivity to environmental factors affecting the drainage into Mudd Lake.

- b. Language ensuring protection of the wetlands, natural feature setback and undisturbed wooded areas.
 - c. Private Road Maintenance provisions including the financial and maintenance assurances required by Ordinance.
 - d. Inclusion of the remainder parcel which is not part of the condominium in regard to the private road. The remainder land shall be included in access, maintenance and financial obligations associated with the road. The documents shall also provide for future development of the remainder parcel to be included in the condominium.
5. An easement regarding access, maintenance and financial obligations for the remainder property giving them rights to the private road.
 6. The petitioner shall provide approval by the Health Department regarding the location of the existing septic field on the north property that is to remain relative to its potential impact on Lot #15's well and septic field.
 7. The petitioner should review the landscaping plan to ensure that trees planted will not interfere with septic fields.
 8. The petitioner shall provide approval by the Road Commission regarding the location of the entrance.
 9. The petitioner will follow recommendations made by the Township engineer in the letter dated February 25, 2019 and the Brighton Area Fire Authority letter dated March 4, 2019.
 10. Determination on how refuse will be handled before the petitioner returns for approval of the final site plan.

The motion carried unanimously.

8. Request to enter into a closed session pursuant to state statute MCL. 15.268 (e) for pending litigation regarding Genoa Charter Township vs. Healy Homes.

Moved by Croft and supported by Ledford to move to closed session at 7:05 p.m. to discuss pending litigation. The motion carried by roll call vote as follows: Ledford, Croft, Hunt, Lowe, Mortensen, Skolarus and Rogers. Nays – None. Absent – None.

Move by Ledford and supported by Croft to move to open session at 8:01 p.m. The regular meeting of the Board was opened and adjourned by a motion from Hunt and supported by Croft at 8:02 p.m.

Respectfully submitted,

Paulette A. Skolarus, Clerk
Genoa Charter Township Board

**GENOA CHARTER TOWNSHIP
PLANNING COMMISSION
PUBLIC HEARING
MARCH 11, 2019
6:30 P.M.
MINUTES**

CALL TO ORDER: The meeting of the Genoa Charter Township Planning Commission was called to order at 6:30 p.m. Present were Chairman Doug Brown, Chris Grajek, Jeff Dhaenens, Jill Rickard, Marianne McCreary, and Jim Mortensen. Absent was Eric Rauch. Also present was Kelly VanMarter, Community Development Director/Assistant Township Manager, Brian Borden of Safebuilt Studio, and Gary Markstrom of Tetra Tech. There were twenty seven audience members present.

PLEDGE OF ALLEGIANCE: The pledge of allegiance was recited.

APPROVAL OF AGENDA:

Moved by Commissioner McCreary, seconded by Commissioner Grajek, to approve the agenda as presented.

CALL TO THE PUBLIC: The call to the public was made at 6:31 pm with no response.

OPEN PUBLIC HEARING # 1... Review of a site plan and impact assessment requesting preliminary site condominium approval for a proposed 19 unit site condominium. The property in question is located on approximately 30.8 acres at 4242 Bauer Road (Parcel #4711-26-200-002) on the west side of Bauer Road, between White Pines Drive and Challis Road. The request is petitioned by John Moretti.

- A. Recommendation Environmental Impact Assessment (1-25-19)
- B. Recommendation of Preliminary Site Condominium Plan (2-20-19)

Mr. John Moretti, Jr., representing his father, John Moretti, and Mr. Philip Rasor, the engineer, were present.

Mr. Rasor showed the proposed site plan, which will include 19 dwellings. They have revised the access drives and provided a fire suppression system that now meets the requirements of the Brighton Area Fire Authority.

If they receive preliminary site plan approval, they will work with the Livingston County Drain Commissioner so they can use Mudd Lake for storm-water runoff and the

Livingston County Road Commission for the placement of the private road off of Bauer Road.

Mr. Borden stated that the applicant has addressed all of his concerns. He noted that there are additional items that will need to be submitted when the final site plan is presented for review.

Commissioner Mortensen questioned how the owner, whose home is adjacent to this property but not part of the development, will access his property. Mr. Rasor stated he will obtain an easement granting access to the private road and he will pay his share of the condominium maintenance fees.

Ms. Rickard noted that because the owner's home is located on a large lot, there should be a note in the master deed and bylaws that there may be a time when that property may be divided and developed further and those property owners may need access via the private drive as well.

Mr. Markstrom reviewed his February 25, 2019 letter. He stated that the applicant will address his concerns by working with the Livingston County Health Department, Road Commission, and Drain Commissioner.

Chairman Brown reviewed the Brighton Area Fire Department letter dated March 4, 2019.

1. The applicant is proposing three different alternatives for the 12,000-gallon tank under the cul-de-sac island. All three options are acceptable to the fire authority; the applicant needs to commit to one through further research. The Maintenance requirements for the alternative water supply shall be included in the Condominium By-Laws.
2. The dimensions of the roadway need to be reflected along the road and not just the construction detail. Each side of the one-way entrance shall be a minimum of 20-feet wide and the roadway a minimum of 26-feet wide. When scaled, neither meet this dimension.

Chairman Brown noted a letter was submitted to the Township this morning from Mr. Krebs of 7917 Goldwin Drive. He is concerned with the site distance of the access drive on Bauer Road. Mr. Rasor reiterated that once they receive preliminary site plan approval, they will work with the Livingston County Road Commission to confirm the site distance is acceptable. If it does not meet their approval, they will relocate the driveway.

The call to the public was made at 6:54 pm.

Mr. Todd Krebs of 7917 Goldwin Drive owns the property directly north of this site. He reiterated his concern regarding the site distance of the proposed drive. He is requesting a landscape buffer be placed between his property and the northernmost road of the access drive. He thinks the houses are going to be very nice.

Mr. Bill Rockwell of 4346 Argenta Drive stated that Mudd Lake flows into a stream that runs through his property. He noted that the applicant stated the development will not have a "significant" impact on the flow of Mudd Lake. He wants to make sure that the flow will not increase and possibly wash out the edges of the stream or the trees. He is also concerned that the lawns in this development will be treated with fertilizer and mosquito repellent and that will flow into the lake and then into the stream. He does not want the flow to decrease either.

Mr. Razor explained their proposal for the storm water control. Most of the drainage on the site currently drains into the lake. He noted that the Drain Commissioner will not approve a proposal that will alter the flow of the stream.

Mr. Richard Kettle of 4384 Argenta Drive would also be impacted by any changes to the stream. Two thirds of his property is a wetland and he wants to make sure that there will not be additional flow, or possible surges caused by heavy rains, due to this development. He is also concerned with the access drive off of Bauer Road. There is a lot of traffic on this road and people drive very fast.

Mr. Brian Dunleavy of 6701 Quaint Ridge Trail questioned if there will be an impact on the aquifer's water table due to the additional homes. Mr. Razor stated they had four test wells done and it was determined that there is adequate water on this site; however, they are waiting for the final approval from the Livingston County Health Department. Mr. Dunleavy would like a stewardship program in the by-laws to notify homeowners that what they put on their lawns will flow into the lake.

Mr. Don Baker of 6899 White Pines Drive borders the south side of this property. He noted that one of his neighbor's driveway is on the applicants property. Mr. Moretti stated the roadway doesn't enter onto the property but the ROW does. The applicant will be putting a landscape buffer along this ROW to eliminate the homeowner from accessing their property from White Pines Drive.

He asked if the sediment ponds will hold water. Mr. Razor stated they will hold water during a rain event; however, they are required to be designed to drain within 72 hours.

They are not permanently water filled. Mr. Baker stated there is an economic downturn anticipated in 18 months and he does not want half built houses and piles of dirt on this property in his backyard.

Mr. Steve Tousignant 6712 White Pines stated he agrees with his neighbors. They want to ensure that everything is done correctly. He is also concerned with pulling into and out of the subdivision. He does not want anything that is done on this site to further hinder their site lines exiting off of White Pines Drive. There was a discussion between Mr. Tousignant, the Planning Commission, and Mr. Rasor regarding a possible drop lane into White Pines Drive as well as onto the road entering into the proposed project.

Mr. Kratz questioned if it would be possible to lower the speed limit on Bauer Road. Ms. VanMarter stated it is the Livingston County Road Commission that determines the speed limit.

The call to the public was closed at 7:29 pm.

Moved by Commissioner Grajek, seconded by Commissioner Rickard, to recommend to the Township Board approval of the Environmental Impact revised and dated 2/19/19 as presented. **The motion carried unanimously.**

Moved by Commissioner Mortensen, seconded by Commissioner Dhaenens, to recommend to the Township Board approval of the Preliminary Site Condominium Plan dated 2/20/19 for 4242 Bauer Road, conditioned upon the following:

- The following documents will be required with a final submittal:
 - Condominium documents (Master Deed and By-Laws);
 - A detailed landscape plan;
 - Building designs/renderings
 - A detail of the residential entrance signage
- With regard to the landscape plan, consideration should be given for a buffer on the drive between the entrance drive and the house immediately to the north of the entrance, which is not part of the condominium
- The Township attorney shall review the condominium documents.
- It is recommended that the condominium by-laws include a caution to the homeowners about the extra sensitivity to environmental factors affecting the drainage into Mudd Lake.
- The applicant shall include language ensuring protection of the wetlands, natural feature setback and undisturbed wooded areas.
- The applicant must provide a Private Road Maintenance Agreement, including the financial and maintenance assurances required by Ordinance and the

agreement will cover the access road for the property at the north, which is not part of the condominium development.

- The master deed and/or by-laws should spell out that because of the road easement for the property to the north, future development on that property to the north may occur.
- The petitioner should request review by the Health Department regarding the location of the septic field on the property to the north of the development relative to its location next to Lot #15's well and septic field.
- The petitioner should review the landscaping plan to ensure that trees planted will not interfere with septic fields.
- The petitioner will follow recommendations made by the Township engineer in his letter dated February 25, 2019 and the Brighton Area Fire Authority letter dated March 4, 2019.

The motion carried unanimously.

Commissioner Dhaenens stated he appreciates the applicant listening to the comments made by the Planning Commission and the consultants and presenting a revised plan that was more fitting.

OPEN PUBLIC HEARING # 2... Review of a rezoning application, PUD application, PUD agreement, impact assessment, and conceptual PUD plan for a proposed planned industrial development with a new 67,000 sq. ft. indoor climate controlled storage building. The rezoning requested is from GCD to IND with a Planned Industrial District (PID) overlay located at 2528 Harte Drive, Brighton consisting of 10.62 acres on Parcel #4711-13-300-009. The request is petitioned by James Pappas of Fusco, Shaffer and Pappas, Inc.

- A. Recommendation of Rezoning and PUD Applications - GCD to IND (PUD)
- B. Recommendation of PUD Agreement (2-22-19)
- C. Recommendation of Environmental Impact Assessment (January 2019)
- D. Recommendation of Conceptual Site Plan (2-22-19)

Mr. Jim Pappas, the engineer, and Mr. Harte, the property owner, were present. They are proposing to building a climate controlled storage building with a sales office. There will also be a residential unit on the second story of the building for the caretakers of the storage facility. Mr. Pappas showed the site plan, building elevations, and proposed building materials. He reviewed the drainage plan, landscape plan, site access, and the proposed ground sign.



Monument Engineering Group Associates, Inc.
298 Veterans Drive, Fowlerville, MI 48836
(517) 223-3512
monumentengineering.com
Developing Lifelong Relationships



RECEIVED
By Amy Ruthig at 12:44 pm, Aug 22, 2019

August 19, 2019

MEGA Project No. 18-025

Ms. Kelly VanMarter, AICP
Assistant Township Manager/Community Development Director
Genoa Charter Township
2911 Dorr Road
Brighton, MI 48116

**RE: Final Site Plan for The Ridge Response Letter
a 19 Unit Residential Development on Bauer Road
Genoa Township-Parcel No. 4711-26-200-02**

Dear Ms. VanMarter:

Monument Engineering Group Associates, Inc. (MEGA) understands there were additional revisions requested by the Township Planning Commission (PC) at the PC meeting on Monday August 12, 2019. We offer the following responses to changes made to the plan set.

- Enclosed is a metes and bounds legal description of parcels 26-200-036 & 037. Both parcels will have an access easement for access off of Mountain Ridge Drive. The Master Deed has been updated to include maintenance of Mountain ridge Drive.
- Due to sight distance requirements the current road alignment (offset in the proposed ROW) is the ONLY location that will meet the Livingston County Road Commission's (LCRC) requirements. This alignment has already been approved and permitted by the LCRC. In as such, an easement for offsite improvements (landscaping, drainage, and mailboxes) has been shown.
- A landscape easement has been provided for lot 9.
- A mailbox bank has been provided near the entrance off the development off of Mountain Ridge Drive. This location provides gentler slope for vehicles to pull off and retrieve mail. This location has been coordinated with the local post office and approved by such.
- The walk on either side of Mountain Ridge Drive has been updated to be concrete.
- The Environmental Impact Assessment (EIA) has been updated with the current development name. Attached herein.
- The landscape plan has been adjusted to locate all proposed trees within the common easement along Bauer Road.
- The size of CB-1 has been coordinated amongst the sheets and shown as a 6' dia. structure.

**The Ridge
4242 Bauer Road
Brighton, MI**

- The well on lot 1 has been relocated to be outside the infiltration easement.
- The storm sewer has been realigned to be out of the front yards of the lots it crosses. The storm sewer and corresponding easement are mostly outside of the building setbacks of the lots it crosses.
- The culvert for the driveway of lot 3 is called out as being a 24" dia. culvert. The final location and size will be determined when a specific plot plan for this lot is submitted.
- A proposed 12,000-gallon fire protection tank has been shown in the center island of the cul-de-sac in place of the previously proposed well. Details of the tank will be submitted to the township and fire department for approval and permitting.
- The cover for all pipes and structures is sufficient. The previously shown storm sewer design has been reviewed and fully approved and permitted by the Livingston County Drain Commission (LCDC).
- The storm sewer has been realigned to be outside of the 25' wetland setback.
- The onsite road cross section has been updated to meet the Township engineering standards.
- A new soils evaluation has been performed on lot 8. Soils suitable for a traditional on-site disposal system has been found. The plans have been updated accordingly. A letter from the Livingston County Health Department (LCHD) has been provided indicating lot 8 as a buildable lot.
- The master deed has been updated to indicate the following:
 - Water softeners will not be required.
 - Genoa Township ordinances will be applicable.
 - Each lot to pay association dues on a per lot basis.
- Construction plans will be submitted for review and approval along with a \$5,000 escrow fee.

Enclosed please find ___revised plan sets for review and approval.

Sincerely,
Monument Engineering Group Associates, Inc.

Allan W Pruss, PE, PS
President



September 5, 2019

Planning Commission
Genoa Township
2911 Dorr Road
Brighton, Michigan 48116

Attention:	Kelly Van Marter, AICP Planning Director and Assistant Township Manager
Subject:	The Ridge (formerly Moretti Estates) – Final Condominium Plan Review #3
Location:	4242 Bauer Road – west side of Bauer Road, between Brighton and Challis Roads
Zoning:	LDR Low Density Residential District

Dear Commissioners:

At the Township’s request, we have reviewed the revised final condominium plan submittal (plans dated 8/21/19) for The Ridge, a 30.8-acre site on the west side of Bauer Road. The applicant proposes a 19-unit residential development with minimum 1-acre lots along a new private road.

We have reviewed the proposal in accordance with the applicable provisions of the Genoa Township Zoning Ordinance.

A. SUMMARY

1. The landscape plan must be amended to incorporate the mailbox cluster/drive.
2. A landscape easement must be obtained from the adjacent property owner to the north.
3. Road Commission approval must be obtained for the 6 trees depicted in the Bauer Road right-of-way.
4. The revised submittal still does not include details of the residential entrance signage/decorative wall, though walls are not permitted.
5. The applicant must obtain a sign permit prior to installation of any signage.
6. The applicant must ensure that the entrance easement language incorporates a provision for the mailbox cluster/drive, as well as its maintenance.
7. The Township may wish to request a more formal approval letter for the mailbox cluster.
8. The applicant must address any comments provided by the Township Engineer and/or Brighton Area Fire Authority.

B. PROPOSAL/PROCESS

The applicant proposes a 19-unit site condominium development along a new private road. The project includes lots that meet or exceed the minimum dimensional standards of the LDR District (1-acre lot area and 150 feet of lot width).

Section 12.07 requires both preliminary and final approval for condominium plans. Procedurally, both reviews go through the Planning Commission for a recommendation to the Township Board, who has final approval authority.

A final condominium plan was presented to the Commission at their August 12, 2019 meeting. Following discussion, the plan was tabled so the applicant could address several issues, including easements, mailbox cluster location, storm sewer location and the buildability of proposed Unit 8.

The current plan was prepared in response to the Commission’s tabling.



Aerial view of site and surroundings (looking north)

C. CONDOMINIUM PLAN REVIEW

- 1. Outside Agencies.** The materials included with the previous submittal indicated that outside agency approvals have been obtained from the Livingston County Road Commission, Drain Commissioner and Health Department. However, a condition of the Health Department approval was that Unit 8 was deemed unbuildable (at that time) due to soil conditions.

The revised submittal includes a new report from the Health Department indicating that additional soil evaluations were conducted, and that Lot 8 is no longer deemed unbuildable.

- 2. Condominium Documents.** The cover letter included with the revised submittal indicates that the condominium documents were updated to include comments previously provided by the Township Attorney.
- 3. Dimensional Requirements.** The final condominium plan matches the approved preliminary plan with respect to density, dimensions and lot layout.
- 4. Private Road/Shared Residential Driveways.** The final condominium plan matches the approved preliminary plan with respect to the private roadway and the two shared driveway extensions.

As required by Ordinance, the master deed includes a Private Road Maintenance Agreement demonstrating that necessary financial and maintenance assurances are provided.

The revised submittal also includes an updated roadway cross section (Sheet C-10.0), per comments provided by the Township Engineer.

- 5. Landscaping.** The current submittal includes a revised landscape plan. Similar to the previous submittal, the plan depicts tree, shrub and decorative plantings throughout the site, including at the entranceway, along the private road and along both Bauer Road and White Pines Drive.

However, the revised plan does not incorporate the mailbox cluster now proposed along the north side of the private road. The presence of the mailbox will impact the landscaping depicted.

Additionally, some of the plantings proposed are not within the roadway easement. This includes encroachment onto Lot 9, as well as the adjacent residential property to the north. Easements are proposed in both instances; however, failure to obtain an easement from the adjacent resident will also impact the landscape plan.

The landscape plan must be amended to reflect the changes made to the site condominium plan and an easement must be obtained from the adjacent property owner.

Lastly, Road Commission approval must be obtained for the 6 trees depicted in the Bauer Road right-of-way.

6. **Buildings.** As previously discussed, the condominium documents include architectural controls and requirements (Section 11.1 of the Master Deed), though sample elevation drawings have not been provided.
7. **Entrance Features.** The landscape plan identifies a proposed entrance wall on each side of the driveway accessing Bauer Road and notes that signage is included; however, the revised plan still does not provide details. Furthermore, the walls are not allowed by Ordinance.

The applicant should be aware that 1 residential entry sign per driveway is allowed. Such signs are limited to 6 feet in height and 36 square feet in area. A sign permit must also be obtained from the Township prior to installation.

8. **Mailboxes.** The revised submittal includes a mailbox cluster along the north side of the private road, within the entrance easement for Parcels B and C. The design includes room for 1 vehicle to pull off the road, so as to not disrupt traffic. The applicant must ensure that the easement language incorporates a provision for the mailbox cluster/drive, as well as its maintenance.

A separate mark-up of the plan indicates that this location was approved by the Brighton Postmaster. The Township may wish to request a more formal approval letter.

9. **Grading, Drainage, and Utilities.** We defer to the Township Engineer for review and comment on the site engineering elements of the proposal.
10. **Impact Assessment.** The revised submittal includes a revised Impact Assessment (dated June 13, 2019). The Assessment is now consistent in terms of the development name (The Ridge as opposed to Moretti Estates).

Should you have any questions concerning this matter, please do not hesitate to contact our office. I can be reached by phone at (248) 586-0505, or via e-mail at bborden@safebuilt.com.

Respectfully,
SAFEBUILT STUDIO



Brian V. Borden, AICP
Planning Manager



August 26, 2019

Ms. Kelly Van Marter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

Re: The Ridge (Formerly Moretti Estates) Final Site Plan Review No. 3

Dear Ms. Van Marter:

Tetra Tech conducted a third site plan review of the Ridge Site Condominium (formally Moretti Estates) final plans last dated August 21, 2019. The plans were submitted by Monument Engineering Group Associates, Inc. on behalf of John Moretti. The development includes 30.84 acres located on the west side of Bauer Road, 1,500 feet south of Challis Road. The petitioner is proposing to develop 19 lots as a site condominium with a private road.

The site plan dated August 21, 2019 addressed all comments from our letter dated August 5, 2019. We have no further engineering related concerns for the proposed site plan. The applicant should confirm that approval letters from the LCHD, LCDC, and LCRC are submitted and on file with the Township.

The next review will be of the private road construction plans once the applicant receives final site plan approval. The provided site plan notes that further detail is forthcoming for the proposed fire protection tank in the cul-de-sac. Those details should be provided along with the private road construction plans for review and approval.

Please call or email if you have any questions.

Sincerely,

A blue ink signature of Gary J. Markstrom, written in a cursive style.

Gary J. Markstrom, P.E.
Vice President

A blue ink signature of Shelby Scherdt, written in a cursive style.

Shelby Scherdt
Project Engineer

Tetra Tech

401 South Washington Square, Suite 100, Lansing, MI 48933
Tel 517.316.3930 Fax 517.484.8140 www.tetrattech.com



BRIGHTON AREA FIRE AUTHORITY

615 W. Grand River Ave.
Brighton, MI 48116
o: 810-229-6640 f: 810-229-1619

August 29, 2019

Kelly VanMarter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

RE: The Ridge Site Condominiums A.K.A. Moretti Estates
4242 Bauer Road
Genoa Twp., MI

Dear Kelly:

The Brighton Area Fire Department has reviewed the above-mentioned site plan. The plans were received for review on August 22, 2019, and the latest revised drawings are dated August 21, 2019. The project is based on an existing 40.042 acre parcel to be subdivided into a 20-lot site condo development (19 new homes).

The plan review is based on the requirements of the International Fire Code (IFC) 2018 edition.

The developer has agreed to replace the proposed fire protection well with a 12,000-gallon underground storage tank equipped with adapters for the fire department to draft water from. **Location of underground storage tank has been identified on sheet C-1.0. Further submittals for tank specifications have been submitted separately.**

Additional comments will be given during the building plan review process (specific to the building plans and occupancy). The applicant is reminded that the fire authority must review the fire protection systems submittals (sprinkler & alarm) prior to permit issuance by the Building Department and that the authority will also review the building plans for life safety requirements in conjunction with the Building Department. If you have any questions about the comments on this plan review please contact me at 810-229-6640.

Cordially,

A handwritten signature in black ink that reads "D Bunge".

Derrick Bunge
Captain Fire Inspector



Livingston County Health Department
Environmental Health Division
 2300 E. Grand River - Suite 200 - Howell, MI 48843
 Fax (517) 546-9853 - Phone (517) 546-9858
 www.lchd.org
Soils Evaluation For Sub-Surface Sewage Disposal System

PSEV2019-00296

Case No.

11-26-200-002

Current Desc. #

Genoa Township

Township

Location: BAUER RD

Lot:

Subdivision:

Acerage: 1.636

Parcel: 8

Applicant

MORETTI JOHN
 4242 BAUER RD
 BRIGHTON MI 48116
 (810) 217 4581

Owner

MORETTI JOHN
 4242 BAUER RD
 BRIGHTON MI 48116
 (810) 217 4581

Soil Description

<u>Date</u>	<u>Boring #</u>	<u>Soil Type</u>	<u>Soil Desc</u>	<u>Beg Depth</u>	<u>End Depth</u>	<u>SWT Depth</u>	<u>WT Depth</u>
08/14/2019	01	Clay Loam	Topsoil	0.00	0.50	None	None
08/14/2019	01	Clay Loam		0.50	6.00	None	None
08/14/2019	01	Medium Sand	Dry	6.00	10.00	None	None
08/14/2019	02	Sandy Clay Loam	Topsoil	0.00	0.50	None	None
08/14/2019	02	Sandy Clay Loam		0.50	3.00	None	None
08/14/2019	02	Fine Sand		3.00	7.00	None	None
08/14/2019	02	Medium Sand	Dry	7.00	11.00	None	None

Suitable with Special Restrictions

Within 800 of a potential or known source of contamination: No

Alternative Review: No

Oversize: No

Conditions:

Soil evaluation for Lot # 8 at "The Ridge" Site Condominium.

Locate the system in the exact area of the approved soil borings # 1 & # 2.

100% cutdown to sand at +/- 6 ft., then backfill with a clean sharp sand, then lay stone and tile. Max. cover 24", Min. cover 12".

**Note: Maintain enough area for a future replacement septic area.

Install a septic tank filter on the outlet end of the septic tank.

Aaron Aumock

Environmental Health Representative

08/15/2019

Date

Soils Evaluation based on criteria stated in Livingston County Sanitary Code, effective January 4th, 1993.

This is NOT a permit. A suitable soils rating is NOT a guarantee that a permit to construct an on-site subsurface sewage disposal system will be granted. Changing conditions that might result in a permit denial are explained in more detail on the reverse side.



Livingston County Health Department
Environmental Health Division
2300 E. Grand River - Suite 200 - Howell, MI 48843
Fax (517) 546-9853 - Phone (517) 546-9858
www.lchd.org
Soils Evaluation For Sub-Surface Sewage Disposal System

PSEV2019-00296
Case No.
11-26-200-002
Current Desc. #
Genoa Township
Township

Location: BAUER RD **Lot:** **Subdivision:** **Acerage:** 1.636 **Parcel:** 8

A soil evaluation is conducted by the Environmental Health Division of the Livingston County Health Department to determine the suitability of utilizing onsite subsurface sewage treatment for a particular parcel of property. Comments might be made regarding the utilization of an onsite water well supply based on historical information in the general area, but in no instance can the information on this evaluation be specific for any particular parcel. We advise any prospective buyer to contact a licensed well driller, familiar with the area, for more specific information on water quality, yield, depth of wells, etc. The following discussion describes those factors which are evaluated during a soil evaluation and their effect on the operation of subsurface sewage treatment systems.

1. Soil type and permeability is a quality of a soil that enables it to transmit water or air. Slow permeable soils, such as clays and silts, are not suitable for utilizing onsite subsurface sewage treatment. Wetland soils such as muck and marl are poorly drained and therefore unsuitable for subsurface sewage treatment.
2. Highest known groundwater evaluation is an important consideration in determining if a site is suitable for the utilization of subsurface sewage treatment. In addition to the problems associated with saturated conditions, bacteria and viruses can survive if allowed to move in a water medium. Groundwater is our drinking water and must be protected from contamination by maintaining adequate isolation distances. Where the highest zone of groundwater saturation is less than 24 inches below the original ground surface the site will be considered unsuitable.
3. Deep excavations or cut-down systems can only be accepted under the following conditions:
 - a. Adequate and suitable material is within 20 ft. of the original grade.
 - b. The soils encountered shall not be saturated.
 - c. The drinking water aquifer will not become contaminated as a result of the wastewater discharge.
4. Other considerations evaluated during a soils evaluation include but are not limited to:
 - a. Adequate suitable area for a replacement system.
 - b. Isolation distances to water well supplies, surface waters, severe slopes, and property lines.
 - c. If the site is subject to flooding.

A determination of "suitable" soils does not guarantee that this property will be approved for development. It is the responsibility of the owner/purchaser to perform their due diligence with respect to other local, county, state, or federal requirements and/or restrictions that may impact the development potential of this property. These requirements and/or restrictions may void or restrict this soil evaluation.

This soil evaluation is valid for a specific building site. Any change in the legal description or a division of the original parcel into smaller parcels may void the original soils evaluation. A suitable soils evaluation does not necessarily mean that a permit to construct a subsurface sewage treatment system will automatically be issued. Some factors that might change the rating for permit approval include:

- a. Revisions to the current Sanitary Code Requirements for Permit Approval. This soils evaluation was conducted under the criteria for Permit Approval stated in the Livingston County Sanitary Code effective April 1, 2009.
- b. Grading, filling or excavation on the parcel.
- c. Construction on neighboring properties where location of water wells and/or sewage treatment systems encroach on required isolation distances.
- d. A soils evaluation for commercial property is only valid if specific wastewater flow is stated.
- e. Should some other condition of the property become known after the date of this soil evaluation that could impact the feasibility of development, or impact the quality of drinking water due to the discovery of a previously unknown source of contamination, the potential development of the property could be impacted. These discoveries may void or restrict this soil evaluation.

SWT - Seasonal Water Table
GW - Ground Water
WT - Water Table

LEGEND - Soil Description

MOT	Mottled	SAT	Saturated
GRE	Grey	LIG	Light
HEA	Heavy	DRY	Dry
WET	Wet		

Aaron Aumock
Environmental Health Representative

08/15/2019
Date

Soils Evaluation based on criteria stated in Livingston County Sanitary Code, effective January 4th, 1993.

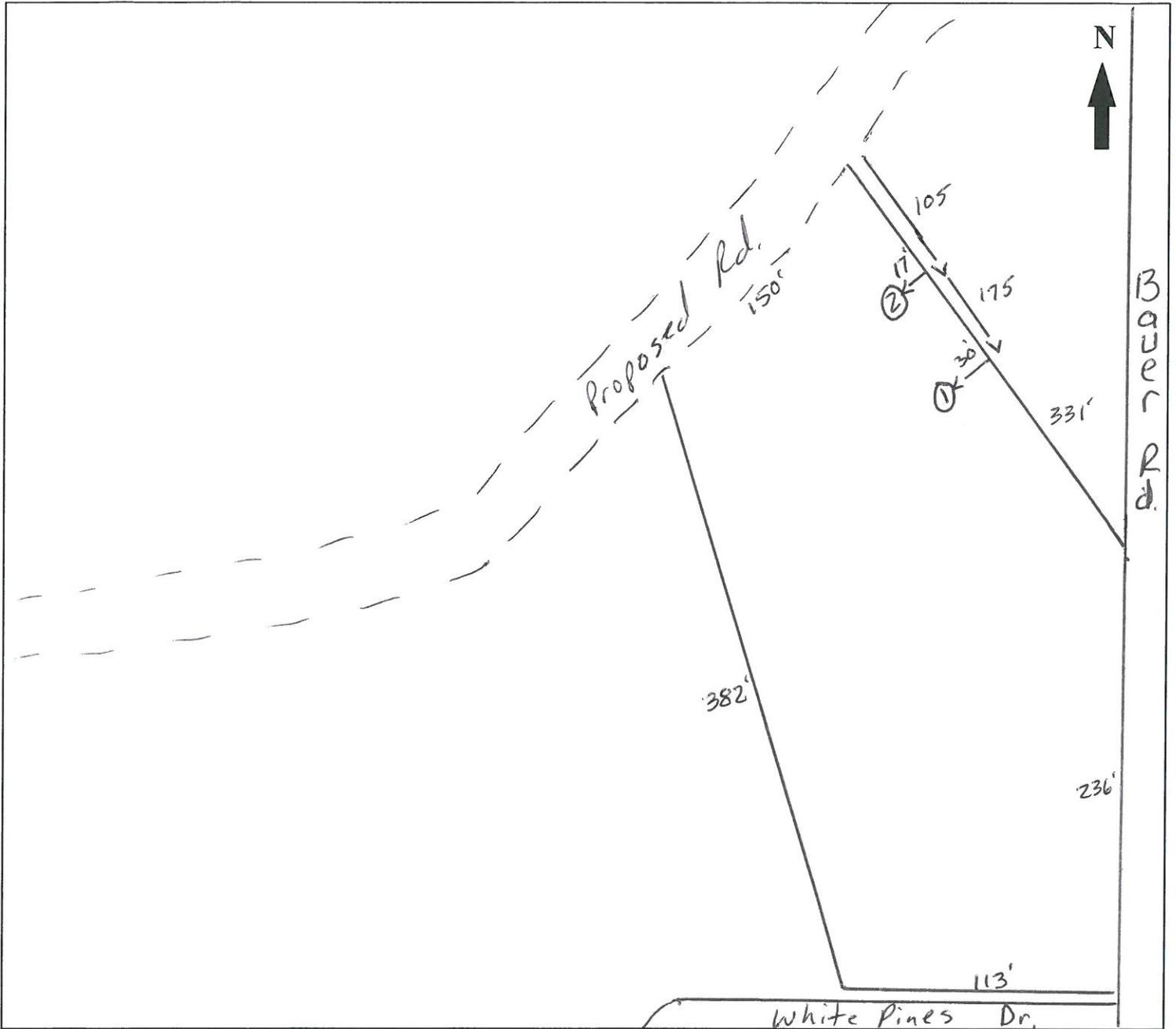
This is NOT a permit. A suitable soils rating is NOT a guarantee that a permit to construct an on-site subsurface sewage disposal system will be granted. Changing conditions that might result in a permit denial are explained in more detail on the reverse side.



Livingston County Health Department
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 2300 E. Grand River - Suite 200 - Howell, MI 48843
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Soils Evaluation For Sub-Surface Sewage Disposal System

PSEV2019-00296
 Case No.
11-26-200-002
 Current Desc. #
Genoa Township
 Township

Location: BAUER RD Lot: Subdivision: Acentage: 1.636 Parcel: 8



Aaron Aumock
 Environmental Health Representative

08/15/2019
 Date

Soils Evaluation based on criteria stated in Livingston County Sanitary Code, effective January 4th, 1993.

This is NOT a permit. A suitable soils rating is NOT a guarantee that a permit to construct an on-site subsurface sewage disposal system will be granted. Changing conditions that might result in a permit denial are explained in more detail on the reverse side.



LIVINGSTON COUNTY HEALTH DEPARTMENT

2300 East Grand River Avenue, Suite 102

Howell, Michigan 48843-7578

(517) 546-9850

www.lchd.org

PERSONAL/PREVENTIVE HEALTH SERVICES

P: (517) 546-9850

F: (517) 546-6995



ENVIRONMENTAL HEALTH SERVICES

P: (517) 546-9858

F: (517) 546-9853

August 1, 2019

Monument Engineering Group Associates, Inc.

Attn.: Allan W. Pruss, P.E

298 Veterans Drive

Fowlerville, MI 48836

RE: Preliminary Approval for “The Ridge” Site Condominium Community located in Section 26, Genoa Township, Livingston County, Michigan.

Dear Mr. Pruss:

In accordance with Section 71A of Act 59, P.A. 1978 as amended, and the Environmental Health Division of the Livingston County Health Department (LCHD) has reviewed the information submitted for onsite sewage treatment and onsite water supply for the above mentioned site condominium and is granting preliminary Health Department approval in accordance with the restrictions included in this letter.

The proposed “The Ridge” Site Condominium consists of 19 single-family units with a minimum size of 43,560 sq. ft. per unit. There is no availability to sanitary waste disposal or community water supply system proposed at this time and none in the foreseeable future. Therefore, each unit will be entirely dependent upon individual onsite water and sewage treatment for long-term use. At the time of this letter, unit # 8 does not have a suitable soil evaluation and is therefore considered unbuildable at this point in time.

The site report and soil data has been submitted, reviewed, and soil conditions confirmed on site. The soil conditions encountered were predominantly sandy clay loam to coarse sand soil conditions, which is acceptable for the disposal of onsite wastewater.

Monument Engineering Group Associates, Inc. have provided the water supply information to us with an assessment of the aquifer proposed to serve the individual wells. As indicated in their report, a total of 3 test wells were drilled on proposed units 8 and 11 and 1 located on parcel # 47-11-26-200-037.

Based on information obtained on the test well records along with neighboring well logs, the wells will most likely be completed at depths ranging between 114 and 138 ft. in strata identified as gray sand. Therefore, the wells within this development shall be drilled to a depth that will penetrate a minimum of 10 ft. thick impervious layer if possible and the well shall be drilled to a depth that will maintain a minimum of 50 ft. from the static water level to the bottom of the casing or top of the screen in an unconfined aquifer.

In addition, water samples have been received from the test wells indicating no coliform bacteria present and nitrates were well below the acceptable State limits. Water analysis revealed objectionable manganese, iron and hardness results and serious consideration should be given to installing a filtering and/or water softener system.

Therefore, pursuant to Section 71A of Act 59 of P.A. 1978, as amended, the proposed “The Ridge” Site Condominium located in Section 26, Genoa Township is granted preliminary approval by this Department contingent upon the following restrictions:

*** Represents all issues that shall be submitted prior to final master deed approval.**

1. No unit shall be used for other than a single-family dwelling.
2. There shall be no future subdividing of any building units, which would utilize individual onsite sewage treatment and/or water supply systems.
3. “The Ridge” Site Condominium has been approved for 19 individual units as described in Monument Engineering Group Associates, Inc., Project # 18-025 site plan dated January 2, 2019, last revision dated July 22, 2019.
4. The wells and septic systems shall be located in the exact area as indicated on the preliminary site plan. There shall be no deviations to these locations due to the potential of making neighboring building sites within this development un-buildable. In the future and ensuring the approvals included in this letter; if for any reason modifications to the originally approved septic areas are considered necessary a written request along with an application for soil evaluation and the associated fees shall be submitted to LCHD for review and approvals.
5. All wells shall be drilled by a Michigan licensed well driller and be drilled to a depth that will penetrate a minimum of a 10 ft. impervious clay layer and/or shall maintain a minimum of 50 ft. from the static water level to the bottom of the casing or top of the screen in an unconfined formation.
6. The water softener and/or water conditioning discharge waters shall not be connected or discharged into the onsite sewage treatment system.
7. The test wells used to determine onsite water supply adequacy have been drilled on Units 8 & 11 and 1 located on parcel # 47-11-26-200-037. **Prior to Final Master Deed**

Approval, any test well not to be used, as the potable water supply system shall be properly abandoned in according to Part 127, Act 368 of the Groundwater Quality Control Act.

8. Due to the geology encountered onsite, there does not appear to be sufficient clay to protect the underlying unconsolidated aquifer. **Therefore, all wells shall maintain a minimum setback of 75 ft. to all onsite sewage treatment systems.**
9. The individual unit owners shall be responsible for the maintenance and repair of their individual potable water supply and onsite sewage treatment systems.
10. The reserve septic locations as designated on the preliminary plan on file at the Livingston County Health Department must be maintained vacant and accessible for future sewage treatment uses.
11. There shall be no underground utility lines located within the areas designated as active and reserve sewage treatment system areas.
12. Unit 8 does not have a suitable soil evaluation and therefore is considered unbuildable until demonstrated otherwise.
13. The onsite sewage treatment systems for Units 6, 7, 9, 10, 12 - 16, & 18 will require the excavation of slow permeable soils to a more permeable soil ranging between 3.5 to 10 ft. in depth. Due to the fact that unsuitable soils will be excavated in the area and replaced with clean, sharp sand, the cost of the system may be higher than a conventional sewage treatment system.
14. Units 3 & 4 will require the bottom of the stone bed to be no deeper than the highest original grade.
15. Units 1, 3, 4, 13, & 17 will require an enlarged onsite sewage treatment system due to the heavy soil structure witnessed on these units. Please refer to the soil conditions on file at LCHD.
16. The engineer must give written certification that any additional grades, filling and/or land balancing that has taken place, as part of the construction of the development has not affected the placement for either the active or reserve sewage treatment systems. This certification must be given stating that there have been no changes on any units affected **prior to master deed approval**.
17. **Prior to master deed approval**, written engineer certification must be given which indicates that all storm drains which are within 50 ft. (greater than 25 ft.) to the proposed active or reserve sewage treatment areas have been sealed with a watertight premium joint material. All onsite sewage treatment systems shall maintain no less than 50 ft. from any detention/retention pond

18. A 1400 sq. ft. area has been designated on each unit for the active and reserve sewage treatment systems to accommodate a typical three bedroom single family home. Proposed homes exceeding three bedrooms must show that sufficient area exists for both the active and reserve sewage treatment systems, which meet all acceptable isolation distances.
19. There shall be no activity within the regulated wetlands unless permits have been obtained from the Michigan Department of Environment, Great Lakes, and Energy (EGLE).
20. All restrictions placed on “The Ridge” Site Condominium by the Livingston County Health Department are not severable and shall not expire under any circumstances unless otherwise amended or approved by the Livingston County Health Department.

All deed restrictions along with a copy of the Final Master Deed and Bylaws shall be submitted to the Livingston County Health Department for review and approval prior to being submitted to the Livingston County Register of Deed.

All restrictions established by the Livingston County Health Department must be incorporated into the Deeds for recording. **Any changes within this development from what has been reviewed by the Livingston County Health Department will make this approval null and void.**

If you have any further questions, please do not hesitate to contact me at (517) 552-6873.

Sincerely,

Aaron Aumock, REHS, PEM
Field Program Coordinator

cc: EGLE, Attn.: Dale Ladouceur
Genoa Township Zoning
Genoa Township Engineer
Developer, John Moretti

From: Ken Recker [mailto:KRecker@livgov.com]

Sent: Wednesday, July 31, 2019 4:58 PM

To: Kelly VanMarter

Cc: johnm@mrmconstruction.com; 'John Moretti'; Al Pruss; pjlewsley@envengrs.com; Robert Quigley; Shelly Messing; Gary.Markstrom@tetrattech.com

Subject: RE: 18-025 The Ridge

Kelly,

We have reviewed revised plans submitted by MEGA with a revision date of July 22, 2019, received July 25, 2019.

The plans address our previous review comments, as outlined in a letter from our consultant dated July 23, 2019.

We hereby grant approval of the construction plans for The Ridge Site Condominium. As mentioned previously, an agreement adding the lands in this development to the Brighton Estates Drainage District will be required prior to the sale of lots within the condominium.

If you have any questions regarding this email please give me a call.

Sincerely,

Kenneth E. Recker, II, P.E.

Chief Deputy Drain Commissioner

From: Al Pruss [mailto:apruss@monumentengineering.com]

Sent: Tuesday, July 23, 2019 2:22 PM

To: pjlewsley@envengrs.com; Ken Recker <KRecker@livgov.com>

Cc: johnm@mrmconstruction.com; 'John Moretti' <mrmconstruction2244@yahoo.com>

Subject: [EXT] RE: 18-025 The Ridge

"The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin."

Ken

Any chance of getting an approval for storm water and soil erosion on this ?

We'll address the changes asap.

Thanks

Allan W Pruss, PE, PS

President

Monument Engineering Group Associates, Inc. (MEGA)

A Service Disabled Veteran Owned Small Business (SDVOSB)

298 Veterans Drive

Livingston County Road Commission

3535 Grand Oaks Drive • Howell, Michigan 48843-8575
Telephone: (517) 546-4250 • Facsimile: (517) 546-9628
Internet Address: www.livingstonroads.org

June 24, 2019

Allan Pruss, P.E.
Monument Engineering Group Associates
298 Veterans Drive
Fowlerville, MI 48836

Re: Mountain Ridge Drive, The Ridge Site Condominium, Genoa Township, Section 26
LCRC# P-19-04

Dear Mr. Pruss:

I have completed the review of the revised plans, dated June 21, 2019, for the above-referenced project and have determined the plans to be in substantial compliance with our specifications.

The following road names have been reserved for this development:

- Mountain Ridge Drive
- Ridge Lake Court

Private road approach permits are valid for a six (6) month period. Please contact me when you are ready for the permit to be issued and allow for a minimum of two (2) business days for preparing the permit for signatures.

If you have any questions, please do not hesitate to contact me.

Sincerely,



Kim Hiller, P.E.
Utilities and Permits Engineer

Cc: File

Amy Ruthig, Genoa Township (via email)
Ken Recker, Livingston County Drain Commissioner's office (via email)
John Moretti, Proprietor (via email)

THE RIDGE SITE CONDOMINIUM
PROPOSED
MAILBOX LOCATIONS

8/15/19
BRIGHTON POSTMASTER
APPROVED LOCATION
#1.)

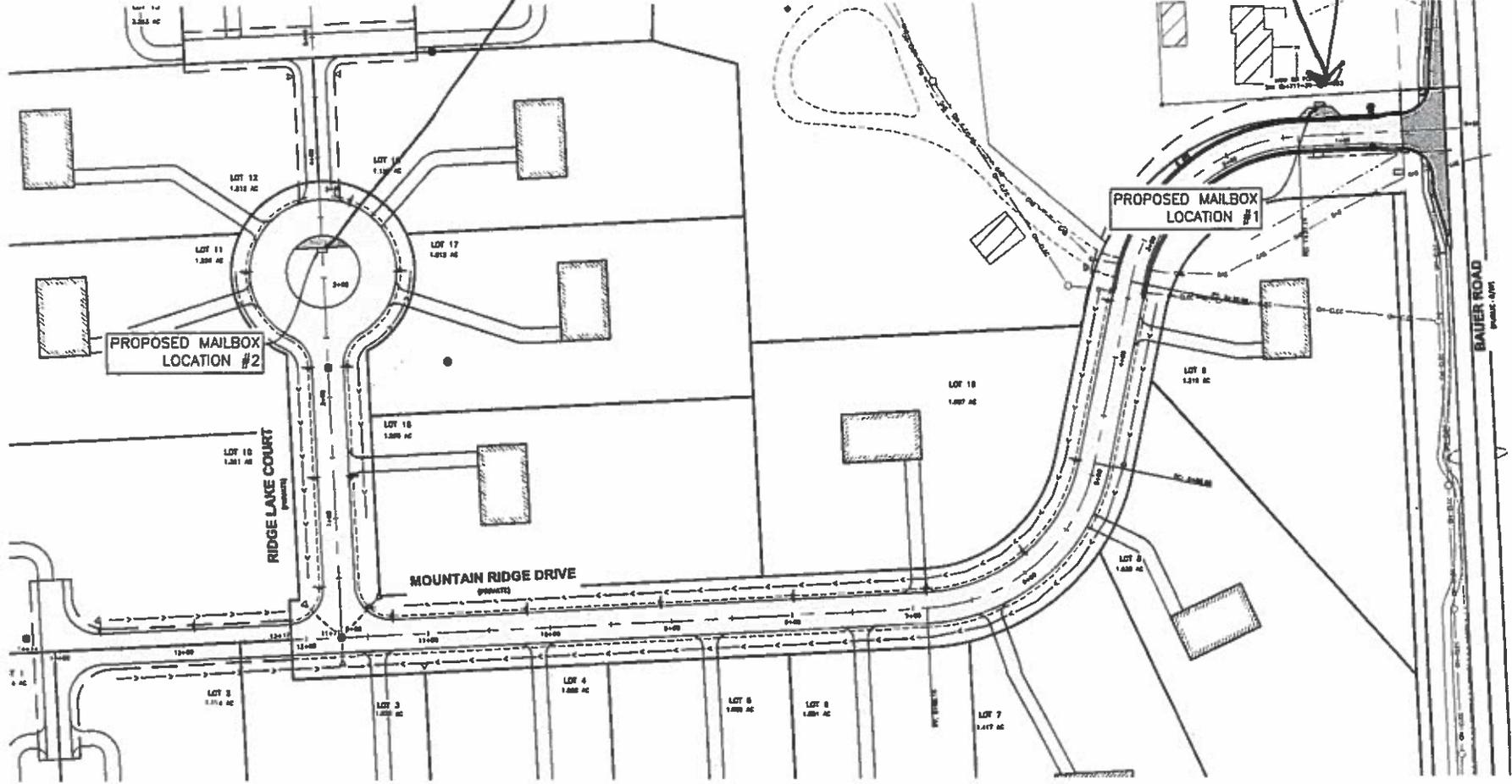
810-522-1090

T. D. Fry

3

PROPOSED MAILBOX
LOCATION #1

PROPOSED MAILBOX
LOCATION #2



PROJECT NAME:
THE RIDGE SITE CONDO
PROJECT NO: 18-005
DATE: 8/14/2018

MEGA

NOT FOR CONSTRUCTION

**IMPACT ASSESSMENT
FOR
THE RIDGE SITE CONDOMINIUM
GENOA CHARTER TOWNSHIP
LIVINGSTON COUNTY, MICHIGAN**

PREPARED BY

MONUMENT ENGINEERING GROUP ASSOCIATES, INC.
298 VETERANS DRIVE
FOWLerville, MI 48836
517-223-3512

December 18, 2018
Revised January 25, 2019
Revised February 19, 2019
Revised June 13, 2019

Revised 8/14/19



In accordance with Genoa Charter Township Ordinance Section 18.07, this Impact Assessment has been prepared to assist the Township in their review of the Site Plan for this Project. This report will detail the required information and give a project overview of the development demonstrating its compliance with current Township regulations.

1. PARTY RESPONSIBLE FOR PREPARATION OF IMPACT STATEMENT:

Prepared for John Moretti:

Moretti Construction Services
2244 Euler Road, Suite 102
Brighton, MI 48114
810-217-4581

Prepared by:

Monument Engineering Group Associates, Inc.
298 Veterans Drive
Fowlerville, MI 48836
517-223-3512

Monument Engineering Groups Associates, Inc. (MEGA), has prepared this impact assessment. MEGA is a professional consulting services corporation offering land surveying, civil engineering, and site planning services throughout the State of Michigan and the mid-west. We are licensed to provide engineering and surveying services in Michigan, as well as in Ohio, Indiana, Pennsylvania, Florida and Virginia. We have been providing these services for nearly 40 years to both public and private sector clients.

2. PROJECT SITE LOCATION:

The subject site contains approximately 30.842 acres for The Ridge Site Condominium (The Ridge). The original single Parcel 4711-26-200-002 contains approximately 40.04 acres of land which will now be split into two parcels, the larger one for The Ridge and the other retained by the current owner. The original parcel that contains The Ridge site is in the S ½ of the NE ¼ of Section 26, T2N-R5 of Genoa Chartered Township, Livingston County, Michigan. This parcel is located along the western side of Bauer Road between the intersections of Bauer Road with Brighton Road to the south, and Bauer Road and Challis Road to the north. To the north of this parcel, it is bordered by Mudd Lake and Parcel 4711-26-200-005, owned by the Livingston County Road Commission (LCRC) and Parcel 4711-26-200-012 a private residence. Along its eastern edge, it is predominantly bordered by Bauer Road and its right-of-way, again owned by LCRC and a private residence Parcel 4711-26-200-003. To the south and west, the subject site is bounded by Brighton Estates Subdivision, a platted subdivision.

Currently, the site is zoned as LDR (low density residential) and is immediately surrounded by LDR on the north, south and western boundaries. Across Bauer Road, a PRF zoning for Mt. Brighton Skiing Facility is present (PRF is public and recreational facilities). No change in zoning is required for this development.

Included in Exhibit A is a location map, Exhibit B is an aerial photograph, and Exhibit C is the Genoa Charter Township's current Zoning Map for this area. Exhibit D is the Soil Map for the area and Exhibit E is the Existing Drainage Characteristics Map. The final exhibit, Exhibit F, is the delineated Wetland's map for the site's area.

3. PROJECT IMPACT on NATURAL FEATURES:

The proposed site is 30.846 acres of mostly wooded land with about 25% of the land open grasslands. Bounded on the north by Mudd Lake, the east by Bauer Road and to the south and west by the existing Brighton Estates Subdivision, the developer is endeavoring to maintain as much natural vegetation and trees as possible. The regulated wetland along the shoreline of Mudd Lake (identified as Wetland A) will be maintained and not encroached upon, and the larger unregulated wetland (Wetland B) is no longer part of the subject parcel for The Ridge. Wetland C, upland, will be filled-in as part of this project and a permit is in process with MDEQ to allow for this construction. The developer is currently in process with obtaining the necessary permits and concurrence from both the Livingston County Drain Commissioner (LCDC) and MDEQ for these activities.

Soils on the site consist primarily of Fox Sandy Loam and Fox-Boyer Complex Loams. These are best described as very deep, well drained soils. A soil map is included as Exhibit D.

As illustrated in Exhibit E, the site tends to drain towards the north to Mudd Lake with only the southwestern corner of the parcel draining towards Brighton Estates Subdivision. Storm water from the roadway system and some areas will be collected and directed to on-site sedimentation forebays, with an outlet structure that conveys this water to Mudd Lake. As was noted earlier in this document, the proposed method for both water quality and detention is to use the sedimentation forebay and the lake as the detention basin. To this end, the Developer is working with both MDEQ and LCDC to accomplish this proposed method of treatment.

Landscape treatments will be utilized along the entrance to the site from Bauer Road and canopy trees will be provided to the individual lots that are not currently wooded themselves. In general, the developer intends to preserve much of the existing woodlands and the natural wetland features on the site. These will be used to enhance the natural aesthetic component of the proposed development.

4. PROJECT STORM WATER MANAGEMENT IMPACTS:

To effectively manage the proposed change to the stormwater pattern currently encountered on the site, the Developer is working with the Livingston County Drain Commissioner's (LCDC) Office to maintain the natural look and feel for this site. The site will be developed in accordance with the LCDC requirements for storm water management. All storm water will be conveyed either via roadside ditches or underground storm sewer. Water will flow into a sedimentation basin and overflow into a detention basin. The detention basin will discharge at the agriculture rate into Mudd Lake.

While the site is under construction, soil erosion and dust control measures will be implemented, and Best Management Practices followed. For dust control, water tankers will maintain the optimum moisture content of the soil to prevent dust from occurring to the greatest extent possible. For erosion control, silt fencing, check dams and inlet filter mechanisms will be installed and utilized during this time. Permanent restoration including top soiling and seeding with mulching and watering will occur after all mass grading and earthmoving activities are substantially complete.

For the Final Site Plan Submission, the Developer will also be securing LCDC's Soil Erosion and Sedimentation Control Permit to be in place prior to the start of any construction activities.

5. PROJECT IMPACT ON SURROUNDING LAND USES:

The development is in conformance with the future land use map and current zoning established for this portion of the township. The area is currently zoned for LDR and the proposed development meets this criterion with all lots exceeding 1.0 acre in area and minimum of 150 feet in width of the lot.

Access to this site has now been revised to allow use of the private roadway for residents and guests from Bauer Road on the eastern side of the property with the western side access via Brighton Estates' Quaint Ridge Trail's cul-de-sac. Access will be controlled by vehicle activated gates, egress will always be available to any The Ridge resident or visitor without need for access code or key card.

Noise Levels are expected to be typical of a single-family residential community and within Genoa Township Standards. No site lighting is proposed for this development.

6. PROJECT IMPACT ON PUBLIC FACILITIES and SERVICES:

The development proposes 19 single family residential lots after approval of the site plan. The addition of 19 new single-family homes is likely to have a mix of buyers due to the Developer’s more upscale approach to managing the existing site and retaining woodlands and other natural features. Consequently, the anticipated mix will include empty nesters and those with no children in addition to families with children. The overall impact to public facilities, schools, police and fire service is expected to be minimal.

7. PROJECT IMPACT ON PUBLIC UTILITIES:

The development proposes all lots will be serviced by well and septic field systems. Soil Investigations for suitability of septic systems were performed in August of 2018 under the supervision of the Livingston County Health Department personnel and 3 test wells as required by LCHD standards were also drilled and tested. Final approval from the LCHD is anticipated soon for the use of well and septic within this development. Electric, Telephone and Natural Gas Services will be extended underground to the site from Bauer Road and provided for all lots within the development.

8. STORAGE and HANDLING of HAZARDOUS MATERIALS:

The storage and handling of hazardous materials within the site is not anticipated and will be noted as not permitted in the condominium documents for the development.

9. PROJECT IMPACT ON TRAFFIC:

The development proposed for The Ridge is to accommodate 19 lots in place of the current 1 large parcel with 1 residence. Bauer Road is an existing two (2) lane cross section with a north bound and a south bound lane. Using ITE Trip Generation Manual, 7th ed. for Single Family Detached Housing based on the number of proposed dwelling units, the calculated trip generation using the average rate for A.M. and P.M. peak hours of traffic is calculated herein:

A.M. Peak Hour:

$$0.70 \times (19 \text{ residences}) + 12.05 = 25.35 \text{ trips}$$

$$\text{Exiting is 74\% so } (.74 \times 25.35) = 18.76 \text{ directional trips}$$

P.M. Peak Hour:

$$\text{Ln(T)} = 0.89 \times \text{Ln}(19 \text{ residences}) + 0.61 = 3.23$$

$$e^{(3.23)} = 25.27 \text{ trips} \times 64\% \text{ (entering)} = 16.17 \text{ directional trips}$$

As shown from the above calculations, under fully developed conditions, this site will generate less than 20 directional trips in both A.M. and P.M. Peak Hours of Traffic. Reviewing the Township Zoning requirements of 18.07.09 with less than 50 directional trips during peak hour, no Traffic Impact Study is required.

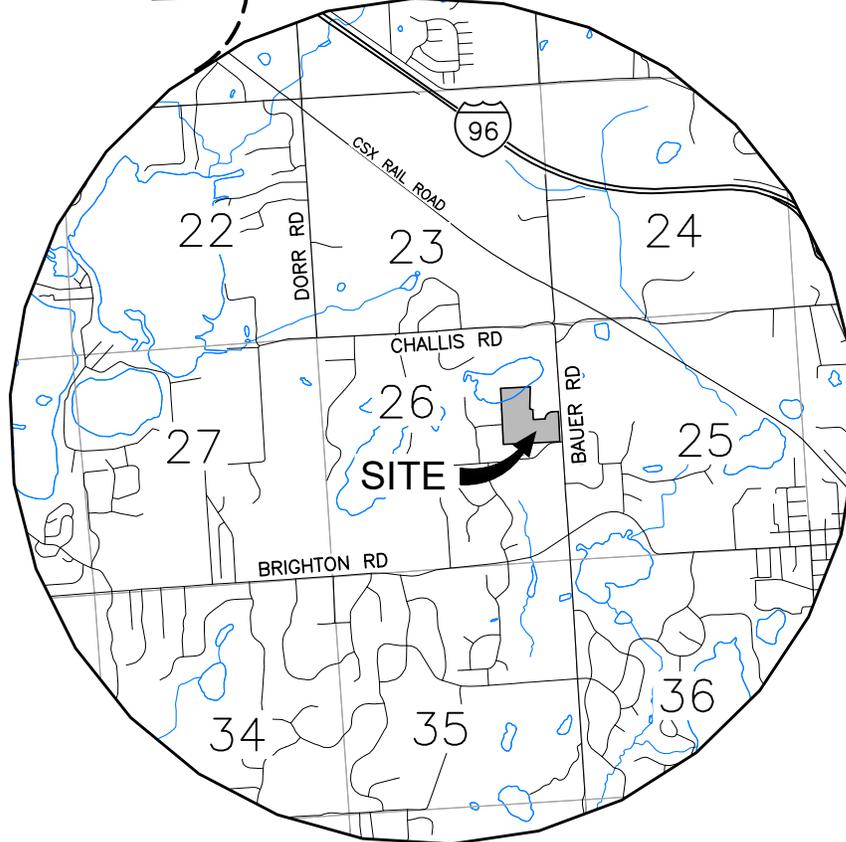
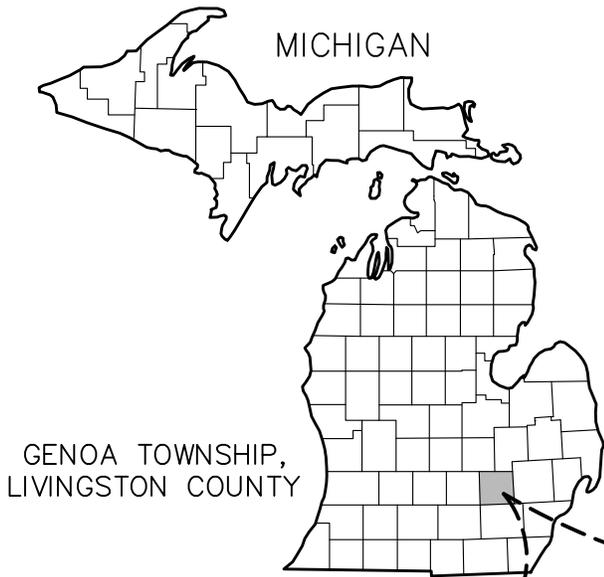
10. PROJECT IMPACT ON HISTORICAL and CULTURAL RESOURCES:

The development is not known to have any historic or cultural resources on this site, and it is not believed any historic or cultural resources will be affected by the proposed development. Mudd Lake is not a natural lake, so no anticipated cultural resources are expected around its shoreline.

11. SPECIAL PROVISIONS:

The development will need no special provisions as part of its development.

EXHIBIT A LOCATION MAP



ENGINEERS · SURVEYORS · CONSULTANTS · LANDSCAPE
ARCHITECTS · LAND PLANNERS

298 VETERANS DRIVE
FOWLerville,
MICHIGAN 48836
(OFFICE) 517-223-3512

PROJECT:

**THE RIDGE
SITE CONDOMINIUM**

NE 1/4, SEC. 26, T2N-R5E GENOA TWP

SCALE: NTS		DATE: 8/14/2019	DR. BY: DD	CHK: AP
SHEET: 1 of 7		FILE : 18-025_IMPACT EXH	JOB No. 18-025	

EXHIBIT B AERIAL



ENGINEERS · SURVEYORS · CONSULTANTS · LANDSCAPE
ARCHITECTS · LAND PLANNERS

298 VETERANS DRIVE
FOWLerville,
MICHIGAN 48836
(OFFICE) 517-223-3512

PROJECT:

**THE RIDGE
SITE CONDOMINIUM**

NE 1/4, SEC. 26, T2N-R5E GENOA TWP

	DATE: 1/25/2019	DR. BY: DD	CHK: AP
SCALE: 1" = 1,000'	SHEET: 2 of 7	FILE : 18-025_IMPACT EXH	JOB No. 18-025

EXHIBIT D SOIL MAP



ENGINEERS · SURVEYORS · CONSULTANTS · LANDSCAPE
ARCHITECTS · LAND PLANNERS

298 VETERANS DRIVE
FOWLerville,
MICHIGAN 48836
(OFFICE) 517-223-3512

PROJECT:

**THE RIDGE
SITE CONDOMINIUM**

NE 1/4, SEC. 26, T2N-R5E GENOA TWP

SCALE: 1" = 250'		DATE: 1/25/2019	DR. BY: DD	CHK: AP
SHEET: 3 of 7		FILE : 18-025_IMPACT EXH	JOB No. 18-025	

EXHIBIT D

SOIL MAP UNIT LEGEND

Livingston County, Michigan (MI093)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BtB	Boyer-Oshtemo loamy sands, 2 to 6 percent slopes	1.75	4.38%
FoA	Fox sandy loam, 0 to 2 percent slopes	0.17	0.42%
FoB	Fox sandy loam, 2 to 6 percent slopes	6.56	16.39%
FoC	Fox sandy loam, 6 to 12 percent slopes	4.12	10.30%
FrB	Fox-Boyer complex, 2 to 6 percent slopes	6.18	15.45%

FrD	Fox-Boyer complex, 12 to 18 percent slopes	7.22	18.03%
FrE	Fox-Boyer complex, 18 to 25 percent slopes	4.89	12.20%
FrF	Fox-Boyer complex, 25 to 40 percent slopes	2.79	6.96%
Ho	Houghton muck, 0 to 1 percent slopes	1.96	4.89%
Md	Made land	1.32	3.29%
MoD	Miami loam, 12 to 18 percent slopes	0.02	0.04%
W	Water	3.07	7.66%
Totals for Area of Interest		40.04	100.00%



**ENGINEERS · SURVEYORS · CONSULTANTS · LANDSCAPE
ARCHITECTS · LAND PLANNERS**

298 VETERANS DRIVE
FOWLERVILLE,
MICHIGAN 48836
(OFFICE) 517-223-3512

PROJECT:

**THE RIDGE
SITE CONDOMINIUM**

NE 1/4, SEC. 26, T2N-R5E GENOA TWP



DATE: 1/25/2019

DR. BY: DD

CHK: AP

SCALE: 1" = 250'

SHEET: 4 of 7

FILE : 18-025_IMPACT EXH

JOB No. 18-025

EXHIBIT E EXISTING DRAINAGE



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ARCHITECTS · LAND PLANNERS**

298 VETERANS DRIVE
FOWLerville,
MICHIGAN 48836
(OFFICE) 517-223-3512

PROJECT:

**THE RIDGE
SITE CONDOMINIUM**

NE 1/4, SEC. 26, T2N-R5E GENOA TWP

	DATE: 1/25/2019	DR. BY: DD	CHK: AP
SCALE: 1" = 250'	SHEET: 5 of 7	FILE : 18-025_JMPACT EXH	JOB No. 18-025

EXHIBIT F WETLAND MAP



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298 VETERANS DRIVE
FOWLerville,
MICHIGAN 48836
(OFFICE) 517-223-3512

PROJECT:

**THE RIDGE
SITE CONDOMINIUM**

NE 1/4, SEC. 26, T2N-R5E GENOA TWP

	DATE: 1/25/2019	DR. BY: DD	CHK: AP
SCALE: 1" = 250'	SHEET: 6 of 7	FILE : 18-025_IMPACT EXH	JOB No. 18-025

Kelly VanMarter

From: Cathy Riesterer <cathy@crlaw.biz>
Sent: Thursday, August 15, 2019 5:59 PM
To: Kelly VanMarter
Cc: John Moretti
Subject: The Ridge
Attachments: MASTER DEED 8.15 marked.docx; Agree for shared driveway easement.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Kelly,

Bruce Silver called me today to discuss certain changes that were required in the Master Deed for The Ridge Site Condominium Project pursuant to a recent planning commission meeting.

Essentially, he indicated that the Township wanted to see:

1. Removal of any requirement to soften water in a sprinkler system (this had been removed previously)
2. Clarity that if units were combined they still had to pay fees for each Unit. – I added language in Section 5.2 to clarify this.
3. A specific statement that Genoa's ordinances apply – I added this to the requirement to comply with all laws and ordinances in the into to Section XI

The other comment he passed along was a concern regarding the meets and bounds parcels and their contribution to the roads. This is covered in the easement section of the Master Deed, section 6.8. This will be made binding on the parcels through the recording of an easement document on their parcels that runs with the land that includes this obligation (Section 2) and clarifies that the Association can lien their property if they do not pay.

I have attached an updated Master Deed with the marked changes, along with a copy of the Easement Agreement for the metes and bounds parcels.

If I have missed anything or misunderstood anything, please let me know and I can make the additions/corrections.



Catherine A. Riesterer
COOPER & RIESTERER PLC
810-227-3103 ext. 112
cathy@crlaw.biz

SHARED DRIVEWAY EASEMENT

The undersigned, being all of the owners of the two Parcels of real estate described in EXHIBIT A, attached hereafter and incorporated by reference (referred to as a “Parcel” or the “Parcels”), situated in Genoa Township, Livingston County, Michigan and which each abut a Shared Driveway that is more fully described in EXHIBIT B, attached hereafter and incorporated by reference, hereby enter into the following agreement for maintenance of the Shared Driveway for the benefit of the Parcels and to acknowledge their obligations related to an access easement granted to them by an adjacent parcel of real property as described herein.

Section 1: SHARED DRIVEWAY EASEMENT DECLARATION. The parties hereto hereby grant, transfer, establish, and declare a nonexclusive, perpetual shared driveway easement for ingress and egress, improved or unimproved, and for the location of public and private utilities, over and across and for the benefit of the Parcels over the land described in EXHIBIT B, attached hereto and made a part hereof (the “Shared Driveway”).

Section 2: ROAD ACCESS EASEMENT ACKNOWLEDGMENT. The Parcels are adjacent to a condominium development known as The Ridge Site Condominium (the “Condominium Project”). The Developer of the Condominium Project has granted an ingress egress and public utility easement to the Parcels to allow them to have access from the road in the Condominium Project (the “Ridge Road Access”). This Ridge Road Access will be granted in the Master Deed recorded for the Condominium Project. In exchange, the Parcels will be required annually to pay a prorated share of the costs of the maintenance, repair and restoration of the roads in the Condominium Project. The Condominium Project shall initially be administered by the Developer of the Condominium Project, but will eventually be administered by the Association for the Condominium Project as set forth in the Bylaws for the Condominium Project. The Developer and the Association shall have sole control over the roads in the Condominium Project and the administration thereof and shall submit an annual statement to the Parcels setting forth their pro rata share of the cost for the roads. The cost shall be paid within thirty (30) days of receipt of the statement. The owners of the Parcels shall be entitled to see receipts establishing the costs incurred for the road. No Parcel will be required to pay more than a fractional share of the total costs which is one divided by the total number of units and Parcels. The Developer or Association shall be entitled to lien the Parcels for any unpaid costs in the same manner as they could lien units in the Condominium Project, as set forth in the Bylaws for the Condominium Project. The Parcels are not subject to any other provisions or restrictions in the Master Deed or Bylaws for the Condominium Project.

Section 3: TERMS. This agreement shall be a covenant running with all of the land comprising the Parcels described in EXHIBIT A, and shall irrevocably bind the Parcels and the heirs, assigns, or personal representatives of the undersigned with respect to all of this agreement’s terms and obligations.

Section 4: INTENT FOR SHARED DRIVEWAY. It is the intent of this agreement to provide an effective and convenient mechanism for the afore described real estate owners to maintain the Shared Driveway in a reasonably safe condition suitable for safe and efficient travel by the undersigned, their guests, governmental agencies, emergency services providers and public utilities. It is the intent of this agreement to maintain the Shared Driveway in a reasonably suitable condition for travel. The undersigned agree that the driveway shall from time to time require maintenance that could include grading, paving, restoration of the gravel base, restoration of the crown, cleaning or replacement of drainage improvements, maintenance of Livingston County Road Commission approved sight distance, and removal of snow and other hazards to safe travel on the driveway.

Section 5: VOTING. Each Parcel of property covered by this agreement which has a separate tax code number, assigned by the Assessor for the Township of Genoa, Livingston County, Michigan, shall have one vote for any voting purposes pursuant to this agreement. The vote for each Parcel may be exercised by any owner of that property with preference given to the owner in possession. In the event of any dispute as to whom should properly exercise the vote for a Parcel, the Parcel shall have no vote until the contesting parties unanimously agree as to whom shall properly exercise the vote for the Parcel. In the event of a tie vote or other outcome so that a decision by the owners cannot be determined, the voting owners shall request the Township to make a determination regarding required maintenance. The township decision shall be final and shall bind the Parcel owners to proceed with maintenance as though the decision was made by the Parcel owners. Further, any costs associated with the Township's decision shall be shared among the Parcel owners.

Section 6: MAINTENANCE OF SHARED DRIVEWAY. In order to maintain the Shared Driveway in a safe condition suitable for safe and efficient travel by the undersigned, their guests, governmental agencies, emergency services providers and public utilities, each Parcel owner is responsible for maintaining and improving the Shared Driveway. It shall also be the responsibility of each Parcel owner to ensure that regular maintenance and improvements to the Shared Driveway intersection with the private road is maintained in a safe condition. All Parcels shall share equally the cost of maintaining the Shared Driveway. Such share of the cost shall be based upon the total number of Parcels of property where each Parcel shall have one vote, subject to the conditions and definitions established herein. Prior to any costs being incurred for normal maintenance or major improvements of the Shared Driveway, the owners shall agree to such normal maintenance being performed and the cost thereof. Major improvements are considered improvements with a cost exceeding \$5,000 (as adjusted for inflation). Normal maintenance costs should be expected by the parties. Any Parcel that does not respond to a written request for approval of normal maintenance costs within 30 days shall be deemed to have approved the maintenance. Cost alone shall not be a valid ground for objection to normal maintenance, provided the total costs for maintenance do not exceed \$5,000 in any twelve-month period. Any costs incurred for maintenance or other improvements of the Shared Driveway as described herein shall be a burden upon the land with a lien therefore against any Parcel for which the costs of maintenance or improvements have not been paid by the owner of such Parcel. Any such lien shall be attached upon the filing and recording of an affidavit by which the owners of the remaining Parcels which are subject to and liable for such cost. Such affidavit shall set forth the description of the Parcel or property against which the lien is claimed, what the expenditure is for, the total amount of the expenditure, the portion attributable to such Parcel or property, and the date or dates of expenditures. A copy of the affidavit shall be sent to the owner or owners of the Parcel against which the lien is claimed by regular mail, which postage prepaid, at the last known address of the owner.

Section 8. DAMAGE. The owner of each Parcel shall be separately responsible to repair and for the costs thereof, of any damage caused to the Shared Driveway due to extraordinary use. Extraordinary

use shall include, but is not limited to: movement of construction equipment, moving vans, commercial trucks, or other heavy loads; movement of recreational vehicles, or increased usage not ordinarily consistent with normal passenger vehicle automobile traffic. The owner of such Parcel or Parcels, whether improved or unimproved, shall not be responsible for repairs or costs until such time as said Shared Driveway is used by them or construction is commenced on their Parcel. In the event that any owner or their agents, employees or guests cause the type of damage described herein and fail to make the necessary repairs within ninety (90) days, the remaining Parcel owners may do so after notice to such owner, and any costs so expended shall be a burden upon the land of such owners with a lien enforceable as set forth herein.

Section 9: SUBDIVISION. If any Parcel is subdivided, all repairs and maintenance charges that would have been levied in respect to the Parcels shall be reallocated among all property abutting the Shared Driveway so that each existing and new Parcel shares equally in the cost of repair and maintenance. Any costs or expenses relating to the improvement or upgrading of the Shared Driveway and all other costs resulting from the subdivision shall be borne by the owners of the Parcel(s) being subdivided. It shall also be the responsibility of the Parcel owner to notify the Genoa Township officials, and all other agencies that may have specific requirements or review authority over the proposed subdivision in order to determine the appropriate procedures for subdivision of a Parcel.

Section 10: ACCESS. Any Parcel abutting and responsible for the Shared Driveway shall only access the Parcel from the Shared Driveway.

Section 11: AMENDMENT. With the exception of the provisions relating to the Ridge Road Access, the provisions of this agreement may be amended, but only with the consent of owners of all Parcels described in EXHIBIT A. The provisions relating to the Ridge Road Access may only be amended with the consent of the Association.

Section 12: FILING WITH TOWNSHIP. A copy of the executed and recorded agreement shall be filed with the Office of the Township of Genoa.

s/ _____
print name:

s/ _____
print name:

STATE OF MICHIGAN
COUNTY OF LIVINGSTON

On this ____ day of _____, 2019, before me, a notary public, personally came the above named _____ and _____, known to me to be the persons who executed the foregoing agreement and acknowledged the same to be their free act and deed.

Notary Public

Livingston County, MI
My commission expires:

Drafted by and when recorded return to:
Catherine A. Riesterer, Cooper & Riesterer
7900 Grand River Ave, Brighton, MI 48116

MASTER DEED

THE RIDGE SITE CONDOMINIUM

A 19 UNIT SITE CONDOMINIUM PROJECT LOCATED IN
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

Tax ID #: 4711-26-200-002

MASTER DEED
THE RIDGE SITE CONDOMINIUM

This Master Deed is made and executed on this _____ day of _____, 2019, by THE RIDGE AT BRIGHTON, LLC (hereinafter referred to as the “Developer”), whose office address is 2244 Euler Road, Ste. 102, Brighton, Michigan 48114, pursuant to the provisions of the Michigan Condominium Act (Act 59 of the Public Acts of 1978, as amended), hereinafter referred to as the “Act.”

WHEREAS, the Developer desires by recording this Master Deed, together with the Bylaws attached hereto as Exhibit A, the Condominium Subdivision Plan attached hereto as Exhibit B (said exhibits are hereby incorporated herein by reference and made a part hereof), to establish the real property described in Article II below, together with the improvements located and to be located thereon, and the appurtenances thereto, as a residential site condominium project under the provisions of the Act.

NOW, THEREFORE, the Developer, by recording this Master Deed, hereby establishes The Ridge Site Condominium as a condominium project, as defined in Section 4 of the Act, and declares that The Ridge Site Condominium shall be held, conveyed, hypothecated, encumbered, leased, rented, occupied, improved, and otherwise utilized, subject to the provisions of the Act, and the covenants, conditions, restrictions, uses, limitations, and affirmative obligations set forth in this Master Deed and Exhibits A, B and C hereto, all of which shall be deemed to run with the land and be a burden and a benefit to the Developer, its successors, and its assigns, and any persons acquiring or owning an interest in the Condominium Premises and their grantees, successors, heirs, personal representatives, and assigns, together with the other governing documents as described herein.

ARTICLE I
OVERVIEW

The Condominium Project shall be known as The Ridge Site Condominium, Livingston County Condominium Subdivision Plan No. _____. The Condominium Project is established in accordance with the Act. And in accordance with the laws of the Township of Genoa, the approved plans of which are on file with the Township. The Condominium Project is established in accordance with the Act as a site condominium. The Units contained in the Condominium Project, including the number, boundaries, dimensions, area, and volume of each Unit, are set forth completely in the Condominium Subdivision Plan attached to this Master Deed as Exhibit B. Each Unit is a residential building site capable of individual utilization by virtue of having its own entrance from and exit to either a public road or a General Common Element of the Condominium Project. Each Co-Owner in the Condominium shall have an exclusive right to the Unit owned by said Co-Owner and shall have an undivided and inseparable right to share with other Co-Owners in the General Common Elements of the Condominium Project.

ARTICLE II LEGAL DESCRIPTION

The land that comprises the Condominium Premises established by this Master Deed is located in Genoa Township, Livingston County, Michigan, and is described as follows:

SEC 26 T2N R5E BEG AT THE E 1/4 COR, TH S 89*24'43"W 1332.50 FT, TH N00*33'49"W 1320.93 FT, TH N 89*02'01"E 1039.53 FT, TH N89*02'01"E 293 FT TO C.L. BAUER RD, TH S00*33'49"E 510.13 FT, TH S 89*02'01"W 250 FT, S00*33'49"E 87 FT, N 89*02'01"E 250 FT, TH S00*33'49"E 732.60 FT TO POB, CORRECTED LEGAL 6/17 40.04AC M/L

Tax ID #: 4711-26-200-002

Together with and subject to easements, restrictions, and governmental limitations of record, and the rights of the public or any governmental unit in any part of the subject property taken or used for road, street, or highway purpose. The obligations of the Developer under the foregoing instruments are or shall be assigned to, and thereafter performed by, the Association on behalf of the Co-Owners. Also subject to the easements and reservations established and reserved in Article VI.

ARTICLE III DEFINITIONS

Certain terms are utilized in this Master Deed and Exhibits A and B, and are or may be used in various other instruments such as, by way of example and not limitation, the Articles of Incorporation, Association Bylaws, and rules and regulations of the The Ridge Site Condominium Association, a Michigan nonprofit corporation, and various deeds, mortgages, land contracts, easements, and other instruments affecting the establishment or transfer of interests in The Ridge Site Condominium. Whenever used in such documents or any other pertinent Instruments, the terms set forth below shall be defined as follows:

Section 3.1 "Act" means the Michigan Condominium Act, Act 59 of the Public Acts of Michigan of 1978, as amended.

Section 3.2 "Association" means the The Ridge Site Condominium Association, which is the nonprofit corporation organized under Michigan law of which all Co-Owners shall be members and which shall administer, operate, manage, and maintain the Condominium Project in accordance with the Condominium Documents.

Section 3.3 "Board of Directors" or "Directors" shall mean the board of directors of the Association. The Board of Directors will initially be those individuals selected by the Developer and later it will be elected by the Co-Owners, as provided in the Association Bylaws.

Section 3.4 "Bylaws" means Exhibit A, attached to this Master Deed, which sets forth the substantive rights and obligations of the Co-Owners and which is required by Section 53 of the Act to be recorded as part of the Master Deed. The Bylaws shall also constitute the corporate

bylaws of the Association, as allowed under the Michigan Nonprofit Corporation Act.

Section 3.5 “Common Elements,” where used without modification, means both the General Common Elements and Limited Common Elements described in Article IV below.

Section 3.6 “Condominium Documents” means this Master Deed and Exhibits A, B and C attached hereto, the Articles of Incorporation of the Association, and the rules and regulations, if any, of the Association, as any or all of the foregoing may be amended from time to time.

Section 3.7 “Condominium Premises” means the land described in Article II above, all improvements and structures thereon, and all easements, rights, and appurtenances belonging to The Ridge Site Condominium.

Section 3.8 “Condominium Project,” “Condominium,” “Project,” or “The Ridge Site Condominium” are used synonymously to refer to The Ridge Site Condominium, as shown in the attached Exhibit B, and which is established by the recording of this Master Deed.

Section 3.9 “Condominium Subdivision Plan” means Exhibit B to this Master Deed. The Condominium Subdivision Plan depicts and assigns a number to each Condominium Unit and describes the nature, location, and approximate dimensions of certain Common Elements.

Section 3.10 “Consolidating Master Deed” means the amended Master Deed that shall describe The Ridge Site Condominium as a completed condominium project, as defined in Section 4 of the Act, and shall reflect all Units and Common Elements therein and the percentage of value applicable to each Unit as finally readjusted. Such Consolidating Master Deed, if and when recorded in the office of the Livingston County Register of Deeds, shall supersede this recorded Master Deed for the Condominium and all amendments thereto. In the event the Units and Common Elements in the Condominium are constructed in substantial conformance with the proposed Condominium Subdivision Plan attached as Exhibit B to this Master Deed, the Developer shall be able to satisfy the foregoing obligation by filing a certificate in the office of the Livingston County Register of Deeds confirming that the Units and Common Elements “as built” are in substantial conformity with the proposed Condominium Subdivision Plan and that no Consolidating Master Deed need be recorded.

Section 3.11 “Construction and Sales Period” means the period commencing with the recordation of this Master Deed and continuing during the period that the Developer owns (in fee simple, as a land contract purchaser, or as an optionee) any Unit in The Ridge Site Condominium.

Section 3.12 “Co-Owner” means an individual, firm, corporation, partnership, association, trust, or other legal entity (or any combination thereof) who or which owns or is purchasing by land contract one or more Units in the Condominium. Unless the context indicates otherwise, the term “Owner,” wherever used, shall be synonymous with the term “Co-Owner.”

Section 3.13 “Developer” means The Ridge at Brighton, LLC, an organization that made and executed this Master Deed, and its successors and assigns. Both successors and assigns shall

always be deemed to be included within the term “Developer” whenever, however, and wherever such terms are used in the Condominium Documents. However, the word “successor,” as used in this Section 3.13, shall not be interpreted to mean a “Successor Developer” as defined in Section 135 of the Act.

Section 3.14 “First Annual Meeting” means the initial meeting at which non-Developer Co-Owners are permitted to vote for the election of all Directors and upon all other matters that properly may be brought before the meeting.

Section 3.15 “General Common Elements” means those Common Elements of the Condominium described in Article IV, Section 4.1, of this Master Deed, which are for the use and enjoyment of all Unit Owners within the Condominium Project, subject to such charges as may be assessed to defray the cost of the operation thereof.

Section 3.16 “Limited Common Elements” means those Common Elements of the Condominium described in Article IV, Section 4.2, of this Master Deed, which are reserved for the exclusive use of the Co-Owners of a specified Unit or Units.

Section 3.17 “Township” means the Charter Township of Genoa, located in the County of Livingston, State of Michigan.

Section 3.18 “Transitional Control Date” means the date on which a Board of Directors of the Association takes office pursuant to an election in which the votes that may be cast by eligible owners within the Condominium Project unaffiliated with the Developer exceed the votes that may be cast by the Developer.

Section 3.19 “Unit” or “Condominium Unit” each mean a single condominium unit in The Ridge Site Condominium, as the same is described in Section 5.1 of this Master Deed and on Exhibit B hereto, and each shall have the same definition as the term “Condominium Unit” has in the Act. All structures and improvements now or hereafter located within the boundaries of the Unit, including, by way of illustration only, dwelling, water well, septic system, and appurtenances, shall be owned in their entirety by the Co-Owner of the Unit within which they are located and shall not, unless otherwise expressly provided in the Condominium Documents, constitute Common Elements.

Wherever any reference is made to one gender, the reference shall include a reference to any and all genders where the same would be appropriate; similarly, whenever a reference is made to the singular, a reference shall also be included to the plural where that reference would be appropriate, and vice versa.

ARTICLE IV COMMON ELEMENTS

The Common Elements of the Condominium described in Exhibit B to this Master Deed and the respective responsibilities for maintenance, decoration, repair, replacement, restoration, or renovation thereof are as follows:

Section 4.1 General Common Elements. All General Common Elements for the Condominium Project will be maintained by the Association, and an easement for the use and enjoyment of all General Common Elements of the Condominium will be granted to the Association for the use and benefit of such General Common Elements by all Co-Owners. The General Common Elements for the Project include:

(a) The private roadway leading from Bauer Road into the Condominium Project (the Condominium Roadway”), together with the entrance area depicted on the Condominium Subdivision Plan attached as Exhibit B, if any, and all signage installed by the Developer and/or the Association in connection therewith; all easement interests appurtenant to the Condominium Project, including, but not limited to, easements for ingress, egress, and utility installation over, across, and through non-Condominium Project property or individual Units in the Condominium Project; and the lawns, trees, shrubs, and other improvements not located within the boundaries of a Unit in the Condominium Project. There is no obligation on the part of the Developer to install an entrance gate or other limited access facility at the entrance of the Condominium Project, but Developer reserves the right to do so in its sole discretion. Any entrance gate or other limited access facility needs to be approved by the Township and by the Brighton Area fire Authority before it is constructed. Any entrance area facilities, including any facilities limiting access, shall be maintained, repaired, and replaced by the Association.

(b) The electrical transmission mains and wiring throughout the Condominium Project up to the point of lateral connection for Unit service, which is located at the boundary of the Unit, together with common lighting for the Condominium Project, if any, installed by the Developer or Association in its/their sole discretion. There is no obligation on the part of the Developer to install any particular common lighting, but Developer reserves the right to do so, either within the Common Elements or within any one or more Units. Any common lighting installed within a Unit and designated as such by the Developer shall be maintained, repaired, and replaced by the Association, except that the costs of electrical power consumption therefor shall be paid by each Co-Owner to whose Unit such designated common light is metered. Any street light or other lighting installed within the General Common Elements shall be metered to and paid by the Association unless the Developer determines otherwise.

(c) The telephone system throughout the Condominium Project up to the ancillary connection for Unit service, which is located at the boundary of the Unit.

(d) The gas distribution system throughout the Condominium Project, if and when it may be installed, up to the point of lateral connection for Unit service, which is located at the boundary of the Unit, but excluding the gas meter for each Unit.

(e) The cable television and any other telecommunications systems throughout the Condominium Project, if and when it may be installed, up to the point of the ancillary connection for Unit service, which is located at the boundary of the Unit.

(f) The sidewalks, bike paths, and walking paths (collectively, “Walkways”), if any, installed by the Developer or the Association.

(g) The storm water drainage system throughout the Condominium Project, including open-ditch drainage, below-ground and above-ground drainage systems, retention ponds, and detention ponds, if any, up to the point of Unit service, which is located at the boundary of the Unit.

(h) The landscaped islands, within the roads in the Condominium Project, including all items installed within such islands, subject, however, to the rights therein of the public and any governmental unit.

(i) The community fire suppression well to be installed within the Condominium Project for easy access by the local fire authority.

(j) All easements (if any) that are appurtenant to and that benefit the Condominium Project pursuant to recorded easement agreements, reciprocal or otherwise.

(k) Such other elements of the Condominium Project not designated as a Common Element that are not enclosed within the boundaries of a Unit and that are intended for common use or are necessary for the existence, upkeep, or safety of all Co-Owners within the Condominium Project. Developer reserves the right to establish such mailbox system as Developer may elect or as may be required to be installed by a public authority or service agency having jurisdiction and, to that end, may establish an individual mailbox system or may consolidate or cluster the same in such manner as Developer may deem appropriate. If the mailboxes are clustered or consolidated, the Developer or the Association may designate individual compartments in the clustering structure or structures as Limited Common Elements or may assign or reassign the same from time to time for use by Co-Owners on an equitable basis without such designation. Developer may elect, however, to require that Co-Owners install individual mailboxes of a nature and design as required by Developer, and that the same be installed by each Co-Owner at such Co-Owner's personal expense. Developer also reserves the right, in its sole discretion, to install street signs, traffic control signs, street address signs, and other signage at any location or location as Developer deems appropriate within the General Common Element road rights of way.

Section 4.2 Limited Common Elements. Limited Common Elements shall be subject to the exclusive use and enjoyment of the Co-Owner of the Unit to which the Limited Common Elements are appurtenant. The Limited Common Elements are:

(a) *Driveways.* The shared "T" driveways connecting certain Units to the Condominium Roadway shall be a Limited Common Element limited in use to the Units of corresponding number using such shared driveways to access their Units as depicted and designated in the Condominium Subdivision Plan attached as Exhibit B to this Master Deed. In addition, any portion of a driveway leading from the Condominium Roadway to a Unit that extends into the Condominium Roadway shall be a Limited Common Element limited in use to such Unit.

Section 4.3 Responsibilities. The respective responsibilities for the installations within and the maintenance, decoration, repair, replacement, renovation, and restoration of the Units and Common Elements are as follows:

(a) Co-Owner Responsibility for Units and Express Exceptions for Limited Common Elements. It is anticipated that a separate residential dwelling (including attached garage) will be constructed within each Unit depicted on Exhibit B. The responsibility for and the costs of maintenance, decoration, repair, and replacement of each dwelling and any additional appurtenances constructed or contained therein, including driveways, the well water and water distribution system and the septic system, and all other improvements thereto, shall be borne by the Co-Owner of such Unit; provided, however, that the exterior appearance of the dwellings within the Units, to the extent visible from any other dwelling within a Unit or Common Element within the Project, shall be subject at all times to the approval of the Association and to reasonable aesthetic and maintenance standards prescribed by the Association in duly adopted rules and regulations. Each Co-Owner shall be responsible for paying all costs in connection with the extension of utilities from the mains or such other facilities, as are located at the boundary of the Common Element appurtenant to such Co-Owner's Unit to the dwelling or other structures located within the Unit. All costs of electricity, telephone, natural gas, storm drainage, cable television, other telecommunications system, and any other utility services shall be borne by the Co-Owner of the Unit to which the services are furnished. All utility meters, laterals, leads, and other such facilities located or to be located within the Co-Owner's Unit shall be installed, maintained, repaired, renovated, restored, and replaced at the expense of the Co-Owner whose Unit they service, except to the extent that such expenses are borne by a utility company or a public authority, and the Association shall have no responsibility with respect to such installation, maintenance, repair, renovation, restoration, or replacement. In addition, certain Units shall be accessed by shared driveways as depicted in the Condominium Subdivision Plans. Such Units utilizing the shared driveways shall be jointly responsible for the maintenance of such shared driveways. The Association, acting through its Board of Directors, may (but has no obligation to) undertake the maintenance, repair, renovation, restoration, or replacement of the shared driveways to the extent that said Co-Owners cannot agree upon appropriate maintenance or have not performed such obligations, and the cost thereof shall be assessed against said Co-Owner's using the shared driveway. In connection with any amendment made by the Developer pursuant to Article VII of this Master Deed, the Developer may designate additional Limited Common Elements that are to be installed, maintained, decorated, repaired, renovated, restored, and replaced at Co-Owner expense or, in proper cases, at Association expense.

(b) Association Responsibility for Units and Common Elements. Except as provided for in Section 4.3(c), the Association, acting through its Board of Directors, shall undertake regularly recurring, reasonably uniform, periodic exterior maintenance, repair, renovation, restoration, and replacement functions with respect to General Common Elements, as it may deem appropriate. All responsibilities undertaken by the Association in accordance with this section shall be charged to any affected Co-Owner on a reasonably uniform basis and collected in accordance with the assessment procedures established under Article II of the Bylaws. The Developer, in the initial maintenance budget for the Association, shall be entitled to determine the nature and extent of such services and reasonable rules and regulations may be promulgated in connection therewith. It is also anticipated that certain improvements and structures appurtenant to each such dwelling will or may also be constructed within the Unit and may extend into the General Common Elements appurtenant to the Unit, which improvements

and structures (collectively, “Appurtenances”) may include, but are not limited to, a driveway. The Association, acting through its Board of Directors, may also (but has no obligation to) undertake any maintenance, repair, renovation, restoration, or replacement obligation of the Co-Owner of a Unit with respect to said Unit, and the dwelling, Appurtenances, and other Limited Common Elements associated therewith, to the extent that said Co-Owner has not performed such obligation, and the cost thereof shall be assessed against said Co-Owner. The Association in such case shall not be responsible for any damage thereto arising as a result of the Association performing said Co-Owner's unperformed obligations.

(c) *Residual Damage.* Except as otherwise specifically provided in this Master Deed, any damage to any Unit or the dwelling, Appurtenances, or other Limited Common Elements associated therewith arising as a result of the Association undertaking its rights or responsibilities as set forth in this Section 4.3 shall be repaired at the Association's expense.

Section 4.4 Use of Units and Common Elements. No Co-Owner shall use its Unit or the Common Elements in any manner inconsistent with the purposes of the Condominium or in any manner that will interfere with or impair the rights of any other Co-Owner in the use and enjoyment of its Unit or the Common Elements.

ARTICLE V UNIT DESCRIPTION AND PERCENTAGE OF VALUE

Section 5.1 Description. Each Unit in the Condominium is described in the Condominium Subdivision Plan attached to this Master Deed as Exhibit B. Each Unit shall consist of the area contained within the Unit boundaries as shown on Exhibit B and delineated with heavy outlines, together with all Appurtenances located within such Unit boundaries. Detailed architectural plans for the Condominium Project will be placed on file with the Township of Genoa, Livingston County, Michigan.

Section 5.2 Condominium Percentage of Value. The Percentage of Value for each Unit within the Condominium shall be equal. The determination that the Percentages of Value should be equal was made after reviewing the comparative characteristics of each Unit in the Condominium and concluding that there are no material differences among the Units that affect the allocation of Percentages of Value. The percentage of value assigned to each Unit shall be determinative of each Co-Owner’s respective share of the General Common Elements of the Condominium Project, the proportionate share of each respective Co-Owner in the proceeds and expenses of administration and the value of such Co-Owner’s vote at meetings of the Association. The total value of the Condominium is 100%. This Percentage of Value shall not change even in the event one Co-Owner owns two or more Units and occupies them for one single family home.

If the Condominium convertible space is converted, and this expectation becomes untrue with respect to additional Units, or if a substantial disparity in size exists, the Percentages of Value may be readjusted by the Developer, in its discretion, so long as reasonable recognition is given to the method of original determination of Percentages of Value for the Condominium. All of the Co-Owners and mortgagees of Units and other persons interested or to become

interested in the Condominium from time to time shall be deemed to have unanimously consented to such amendment or amendments to this Master Deed to effectuate the foregoing and, subject to the limitations set forth herein, proportionate reallocation of Percentages of Value of existing Units that Developer or its successor may determine necessary in conjunction with such amendment or amendments. All such interested persons irrevocably appoint Developer or its successors as agent and attorney for the purpose of execution of such amendment or amendments to this Master Deed and all other documents necessary to effectuate the foregoing.

ARTICLE VI EASEMENTS AND RESERVATIONS

Section 6.1 Easement for Utilities and Maintenance of Encroachment. In the event any portion of a Unit (or dwelling or Appurtenances constructed therein) or Common Element (or Appurtenances constructed therein) encroaches upon another Unit or Common Element due to shifting, settling, or moving of the dwelling or the Appurtenances or other Limited Common Elements associated therewith, or due to survey errors, construction deviations, replacement, restoration, or repair, or due to the requirements of the Livingston County Health Department or the Township, reciprocal easements shall exist for such encroachment, and for the installation, maintenance, repair, restoration, and replacement of the encroaching property, dwelling, and/or Appurtenances or other Limited Common Elements associated therewith. In the event of damage or destruction, there shall be easements to, through, under, and over those portions of the land, dwellings, and Appurtenances and other Limited Common Elements associated therewith for the continuing maintenance, repair, renovation, restoration, and replacement of all utilities in the Condominium. One of the purposes of this Section is to clarify that Co-Owners have the right to maintain these Appurtenances and other Limited Common Elements that project into the Common Elements surrounding each Unit.

Section 6.2 Easements Retained by Developer.

(a) Utility and Ingress/Egress Easements. The Developer reserves for itself and its agents, employees, representatives, guests, invitees, independent contractors, successors, assigns, the Township, and all future owners of any land contiguous to the Condominium, easements to enter upon the Condominium Premises to utilize, tap, tie into, extend and enlarge, and otherwise install, maintain, repair, restore, renovate, and replace all utility improvements located within the Condominium Premises, including, but not limited to, gas, storm drains (including retention and detention ponds), telephone, electrical, and cable television and other telecommunications, and all improvements, as identified in the approved final site plan for the Condominium Project and all plans and specifications approved in writing by the Township, as well as any amendments thereto approved in writing by the Township. The Developer also reserves for itself and its agents, employees, representatives, guests, invitees, independent contractors, successors, and assigns a perpetual, non-exclusive easement for ingress and egress for pedestrian and vehicular use, including construction machinery and equipment, over certain private roadways within the Condominium Project depicted as the “Developer’s Easement” in the attached Exhibit B. If any portion of the Condominium Premises shall be disturbed by reason of the exercise of any of the rights granted to Developer, its successors, or its assigns under this Section 6.2(a) or Section 6.2(b), Developer shall restore the disturbed portion of the

Condominium Premises to substantially the condition that existed prior to the disturbance.

(b) Additional Easements. The Developer reserves for itself, its successors, and its assigns the right, at any time prior to the expiration of the Construction and Sales Period, to reserve, dedicate, and/or grant public or private easements over, under, and across the Condominium Premises for the installation, utilization, repair, maintenance, decoration, renovation, restoration, and replacement of rights-of-way, walkways, the storm water drainage system, including retention or detention ponds, a water system, a sanitary sewer system, electrical transmission mains and wiring, telephone system, gas distribution system, cable television and other telecommunication system, and other public and private utilities, including all equipment, facilities, and Appurtenances relating thereto, as identified in the approved final site plan for the Condominium Project, and all plans approved in writing by the Township, as well as any amendments thereto approved by the Township. The Developer reserves the right to assign any such easements to governmental units or public utilities or, as to the storm water drainage system, Co-Owners of affected Units, and to enter into maintenance agreements with respect thereto. Any of the foregoing easements or transfers of title may be conveyed by the Developer without the consent of any Co-Owner, mortgagee, or other person who now or hereafter shall have any interest in the Condominium by the recordation of an appropriate amendment to this Master Deed and Exhibit B hereto. All of the Co-Owners and mortgagees of Units and other persons now or hereafter interested in the Condominium from time to time shall be deemed to have unanimously consented to any amendments of this Master Deed to effectuate the foregoing easements or transfers of title. All such interested persons irrevocably appoint the Developer as agent and attorney to execute such amendments to the Master Deed and all other documents necessary to effectuate the foregoing.

Section 6.3 Grant of Easements by Association. The Association, acting through its Board of Directors, shall be empowered and obligated to grant such easements, licenses, rights-of-entry, and rights-of-way over, under, and across the Condominium Premises as are reasonably necessary or advisable for utility purposes, access purposes, or other lawful purposes, subject, however, to the approval of the Developer during the Construction and Sales Period and subject to the written approval of the Township. No easements created under the Condominium Documents may be modified, nor may any of the obligations with respect to such easements be varied, without the consent of each person benefited or burdened thereby.

Section 6.4 Grant of Easements and License to Association. The Association, acting through its Board of Directors, and all Co-Owners are hereby granted easements, licenses, rights-of-entry, and rights-of-way to and over, under, and across the Common Elements and the Condominium Premises for such purposes as are reasonably necessary or advisable for the full use and enjoyment and the construction, maintenance, repair or replacement of the Common Elements for the benefit of all Co-Owners. No easements created under the Condominium Documents may be modified, nor may any of the obligations with respect to such easements be varied, without the consent of each person benefited or burdened thereby.

Section 6.5 Easements for Maintenance, Repair, Restoration, Renovation, and Replacement. The Developer, the Association, the Township, and all public and private utilities and public authorities responsible for publicly dedicated roads shall have such easements over,

under, and across the Condominium, including all Units and Common Elements, as may be necessary to fulfill any installation, maintenance, repair, decoration, renovation, restoration, or replacement responsibilities that are required or permitted to perform under the Condominium Documents, by law, or as may be necessary to respond to any emergency. The foregoing easements include, without limitation, the right of the Association to obtain access during reasonable hours and upon reasonable notice, for purposes of inspecting the dwelling constructed on a Unit and/or other Limited Common Elements and/or Appurtenances constructed therein to ascertain that they have been designed and constructed in conformity with standards imposed and/or specific approvals granted by the Developer (during the Construction and Sales Period) and thereafter by the Association.

Section 6.6 Telecommunications Agreements. The Association, acting through its Board of Directors and subject to the Developer's approval during the Construction and Sales Period, shall have the power to grant such easements, licenses, and other rights-of-entry, use, and access, and to enter into any contract or agreement, including wiring agreements, right-of-way agreements, access agreements, and multi-unit agreements, and, to the extent allowed by law, contracts for sharing of any installation or periodic subscriber service fees, as may be necessary, convenient, or desirable to provide for telecommunications, videotext, broad band cable, satellite dish, earth antenna, and similar services to the Condominium or any Unit therein. Notwithstanding the foregoing, in no event shall the Association, through its Board of Directors, enter into any contract or agreement or grant any easement, license, or right-of-entry or do any other act that will violate any provision of any federal, state, or local law or ordinance. Any and all sums paid by any telecommunications or other company or entity in connection with such service, including fees, if any, for the privilege of installing any telecommunications related equipment or improvements or sharing periodic subscriber service fees shall be receipts affecting the administration of the Condominium within the meaning of the Act and shall be paid over to and shall be the property of the Association except for funds previously advanced by Developer, for which the Developer has a right of reimbursement from the Association.

Section 6.7 School Bus, Refuse Collection Vehicles, and Emergency Vehicle Access Easement. Developer reserves for the benefit of the Township, any private or public school system, refuse collection service, and any emergency service agency an easement over all roads in the Condominium for use by the Township, private or public school busses, refuse collection vehicles, and/or emergency vehicles. Said easement shall be for purposes of ingress and egress to provide, without limitation, school bus services, fire and police protection, ambulances, refuse collection vehicles, and rescue services, and other lawful governmental or private emergency services to the Condominium Project and Co-Owners thereof. The foregoing easement shall in no way be construed as a dedication of any streets, roads, or driveways to the public. In addition, the Developer specifically grants all emergency service agencies access to any fire suppression wells that may have been constructed within the Condominium Project. All such wells will be maintained by the Association in accordance with the rules and requirements of the local fire department or emergency services agency, including all required inspections.

Section 6.8 Road Easement. The Developer has granted an ingress egress and public utility easement to two parcels of real property located adjacent to the Condominium Project for the roads in the Project (the "Outlot Parcels"). The Outlot Parcels are depicted on Exhibit B as

Parcels B and C and have tax identification numbers _____ and _____ respectively. The Outlot Parcels will have access to the roads in the Condominium Project for ingress/egress including recreational access for biking or walking. In exchange, the Outlot Parcels will be required annually to pay a prorated share of the costs of maintenance, repair and restoration of the roads in the Condominium Project, based upon one share per parcel or Unit. The Association shall send the Outlot Parcels a statement of these costs annually, payable in thirty (30) days. The Association shall be entitled to collect these costs from the Outlot Parcels and to lien them for any unpaid costs in the same manner as the Units, as set forth in the Bylaws. The Outlot Parcels are not subject to any other provisions or restrictions in the Master Deed or Bylaws.

Section 6.9 Association Assumption of Obligations. The Association, on behalf of the Co-Owners, shall assume and perform all of the Developer's obligations under any easement pertaining to the Condominium Project or Common Elements.

Section 6.10 Termination of Easements. Developer reserves the right to terminate and revoke any utility or other easement granted in or pursuant to this Master Deed at such time as the particular easement has become unnecessary. (This may occur, by way of illustration only, when a utility easement is relocated to coordinate development of property adjacent to the Condominium Project.) No easement for a utility may be terminated or revoked unless and until all Units served by it are adequately served by an appropriate substitute or replacement utility. Any termination or relocation of any such easement shall be affected by the recordation of an appropriate termination instrument or, where applicable, amendment to this Master Deed in accordance with the requirements of the Act, provided that any such amendment is first approved in writing by the Township.

ARTICLE VII DEVELOPER'S RIGHT TO USE FACILITIES

The Developer, its agents, representatives, employees, successors, and assigns may, at all times that Developer continues to own any Units, maintain offices; model Units, parking, storage areas, and other facilities within the Condominium; and engage in such other acts as it deems necessary to facilitate the development and sale of the Condominium. Developer shall have such access to, from, and over the Condominium as may be reasonable to enable the development and sale of Units in the Condominium. In connection therewith Developer shall have full and free access to all Common Elements and unsold Units.

ARTICLE VIII CONTRACTABILITY OF CONDOMINIUM

Section 8.1 Limit of Unit Contraction. The Project established by this Master Deed consists of 19 Units and may, at the election of the Developer, be contracted to any number of Units Developer so desires, in Developer's sole discretion.

Section 8.2 Withdrawal of Land. The number of Units in the Project may, at Developer's option, from time to time within a period ending not later than six years after the recording of this Master Deed, be decreased by the withdrawal of all or any portion of the lands described in

Article II. However, no Unit that has been sold or is the subject of a binding purchase agreement may be withdrawn without the consent of the Co-Owner or purchaser and the mortgagee of the Unit. Developer may also, in connection with any contraction, readjust the Percentages of Value for Units in the Project in a manner that gives reasonable recognition to the number of remaining Units, based on the method of original determination of the Percentages of Value. Other than as provided in this Section 9.2, there are no restrictions or limitations on Developer's right to withdraw lands from the Project or on the portion or portions of land that may be withdrawn, the time or order of the withdrawals, or the number of Units or Common Elements that may be withdrawn. However, the lands remaining shall not be reduced to less than that necessary to accommodate the remaining Units in the Project with reasonable access and utility service to the Units.

Section 8.3 Contraction Not Mandatory. There is no obligation on the part of Developer to contract the Project, nor is there any obligation to withdraw portions of the Project in any particular order or to construct particular improvements on any withdrawn lands. Developer may, in its discretion, establish all or a portion of the lands withdrawn from the Project as a separate condominium project (or projects) or as any other form of development. Any development on the withdrawn lands will not be detrimental to the adjoining condominium project.

Section 8.4 Amendments to the Master Deed. A withdrawal of lands from this Project by Developer will be given effect by appropriate amendments to the Master Deed which will not require the consent or approval of any Co-Owner, mortgagee, or other interested person. Amendments will be prepared by and at the sole discretion of Developer and may adjust the Percentages of Value assigned by Article V to preserve a total value of 100 percent for the entire Project resulting from any amendment.

Section 8.5 Additional Provisions. Any amendments to the Master Deed made by Developer to contract the Condominium may also contain provisions as Developer determines are necessary or desirable (i) to create easements burdening or benefiting portions or all of the parcel or parcels being withdrawn from the Project and (ii) to create or change restrictions or other terms and provisions, including designations and definition of Common Elements, affecting the parcel or parcels being withdrawn from the Project or affecting the balance of the Project, as reasonably necessary in Developer's judgment to preserve or enhance the value or desirability of the parcel or parcels being withdrawn from the Project.

ARTICLE IX CONVERTIBLE AREAS

Notwithstanding any other provision in this Master Deed or the Bylaws, Developer retains and may exercise its right of convertibility in accordance with Section 31 of the Act, any applicable local ordinances and regulations, and this Article IX; such changes in the affected Units and/or Common Elements shall be promptly reflected in a duly recorded amendment or amendments to this Master Deed. No such changes shall be made, however, without the approval of the Township. Subject to approval of the Township, Developer reserves the sole right during the Construction and Sales Period and without the consent of any other Co-Owner or any mortgagee of any Unit to do the following:

Section 9.1 Designation of Convertible Areas. All Units and Common Element areas are hereby designated as “Convertible Areas” within which: (a) the individual Units may be expanded or reduced in size, otherwise modified, and/or relocated; (b) Common Elements may be constructed, expanded, or reduced in size, otherwise modified, and/or relocated. Only the Developer or such person or persons to whom it specifically assigns the rights under this Article may exercise convertibility rights hereunder, subject at all times to the approval of the Township.

Section 9.2 The Developer’s Right to Modify Units and/or Common Elements. The Developer reserves the right in Developer's sole discretion, from time to time, during a period ending six years from the date of recording this Master Deed, to enlarge, add, extend, diminish, delete, and/or relocate Units, and to construct private amenities on all or any portion or portions of the Convertible Areas. The Developer shall also be entitled to convert General Common Element areas into Limited Common Elements or Units in such areas as it, in its sole discretion, may determine. The precise number, nature, size and location of Unit and/or Common Element extensions and/or reductions and/or amenities that may be constructed and designated shall be determined by Developer in its sole judgment or any other person to whom it specifically assigns the right to make such determination subject only to necessary public agency approvals. Any private amenity other than a dwelling extension may be assigned by the Developer as a Limited Common Element appurtenant to an individual Unit.

Section 9.3 Additional Amenities. The Developer may, in its sole discretion, construct various amenities including, but not limited to, an entrance gate or other limited access structure (subject to the approval of the Township and the Brighton Area Fire Authority), pedestrian paths, lighting systems, gazebos, picnic areas, or other related or similar amenities (hereinafter called the "Amenities") and hereby reserves the right to do so anywhere within the General Common Element area described on the Condominium Subdivision Plan. Developer shall pay the costs of such amenities, if constructed pursuant to its sole election. The Developer and/or Association shall comply with all township ordinances before starting the construction of any amenities. Upon inclusion of the same in the Condominium, all Co-Owners and all future Co-Owners shall thereafter contribute to the maintenance, repair, and replacement of the Amenities as an expense of administration of the Condominium and the maintenance, repair, and replacement thereof shall be the responsibility of the Association at its expense. If a gated entrance is installed, the Developer and the Association shall provide to all Emergency Service Providers all keys and/or codes necessary to obtain entry to the Condominium Premises. Developer has no obligation to construct any Amenities or include the same in the Condominium except pursuant to its absolute discretionary election to do so. Final determination of the design, layout, and location of any such Amenities, if constructed, will be at the sole discretion of the Developer, subject to compliance with all Township ordinances. After the expiration of the Construction and Sales Period, the foregoing convertibility rights may be exercised by the Association pursuant to the affirmative vote of two-thirds (2/3) of all Co-Owners, which shall bind all Co-Owners to contribute equally to the costs of installation, maintenance, repair, and replacement of any Amenities that may be installed

Section 9.4 Developer’s Right to Grant Specific Right of Convertibility. The Developer shall have the authority to assign to the Co-Owner of a particular Unit the right of future

convertibility for a specific purpose. Such assignment shall be by specific written authority duly executed by the Developer prior to the completion of the Construction and Sales Period and shall be granted only at the sole discretion of the Developer

Section 9.5 Compatibility of Improvements. All improvements constructed within the Convertible Areas described above shall be reasonably compatible with the development and structures on other portions of the Condominium Project, as determined by Developer in its sole discretion

Section 9.6 Amendment of Master Deed. The exercise of rights of modification and/or convertibility in this Condominium Project shall be given effect by appropriate amendments to this Master Deed in the manner provided by law, which amendments shall be prepared by and at the discretion of the Developer or its assigns. The Developer shall be obligated to amend the Condominium Subdivision Plan to show all changes in the Units resulting from exercise of convertibility rights pursuant to this Article IX. The Developer shall, however, have the right to close on the sale of a Unit, notwithstanding the fact that the Unit may not conform in size and/or shape to the depiction of the Unit on the Condominium Subdivision Plan, provided that a Consolidating Master Deed depicting the modified Unit is ultimately recorded as required by the Act and this Master Deed.

Section 9.7 Redefinition of Common Elements. Such amendments to the Master Deed shall also contain such further definitions and redefinitions of Common Elements as may be necessary to adequately describe and service the modified Units, dwellings and appurtenances being included in the Project under this Article IX. In connection with any such amendments, the Developer shall have the right to change the nature of any Common Element previously included in the Project for any purpose reasonably necessary to achieve the purposes of this Article IX. In the event a Co-Owner exercises the right of convertibility described herein subsequent to Developer's final recording of a Consolidating Master Deed or other final amendment to the Master Deed, such Co-Owner shall be responsible, at his expense, to cause the Association to prepare and record an amendment to the Master Deed depicting such changes made by Co-Owner to the Unit and/or Common Elements

Section 9.8 Consent of Interested Persons. All of the Co-Owners and mortgagees of Units and other persons interested or to become interested in the Project from time to time shall be deemed to have irrevocably and unanimously consented to such amendments to this Master Deed as may be proposed by the Developer to effectuate the purposes of this Article IX. All such interested persons irrevocably appoint the Developer as agent and attorney for the purpose of execution of such amendments to the Master Deed and all other documents necessary to effectuate the foregoing. Such amendments may be effected without the necessity of rerecording the entire Master Deed or the Exhibits hereto and may incorporate by reference all or any pertinent portions of this Master Deed and the Exhibits hereto.

ARTICLE X MODIFICATION OF UNITS AND LIMITED COMMON ELEMENTS

Notwithstanding anything to the contrary contained in this Master Deed or the Bylaws,

the Units in the Condominium and other Common Elements may be modified and the boundaries relocated in accordance with Section 48 of the Act and this Article X; such changes in the affected Unit or Units and its/their appurtenant Appurtenances or other Common Elements shall be promptly reflected in duly recorded amendment or amendments to this Master Deed.

Section 10.1 Modification of Units and Common Elements. The Developer may, in its sole discretion and without being required to obtain the consent of any person whatsoever (including Co-Owners and mortgagees of Units), except for the Township, whose written consent must be obtained, modify the size, location, or configuration of Units or Limited Common Elements appurtenant or geographically proximate to any Units as described in the Condominium Subdivision Plan attached hereto as Exhibit B or any recorded amendment or amendments hereof. Any such modifications by the Developer shall be effective upon the recordation of an amendment to the Master Deed. In addition, the Developer may, in connection with any such amendment, re-adjust Percentages of Value for all Units in a manner that gives reasonable recognition to such Unit modifications or Limited Common Element modifications based upon the method by which Percentages of Value were originally determined for the Condominium. All of the Co-Owners and mortgagees of Units and all other persons now or hereafter interested in the Condominium from time to time (except the Township) shall be deemed to have irrevocably and unanimously consented to any amendment or amendments to this Master Deed recorded by the Developer to effectuate the purposes of this Section 10.1 and, subject to the limitations set forth herein, to any proportionate reallocation of Percentages of Value of existing Units that Developer determines are necessary in conjunction with any such amendments. All such interested persons (except the Township) irrevocably appoint the Developer as agent and attorney for the purpose of executing such amendments to the Master Deed and all other documents necessary to effectuate the foregoing.

Section 10.2 Relocation of Boundaries of Units or Common Elements. Subject to the written approval of the Township, the Developer reserves the right during the Construction and Sales Period, and without the consent of any other Co-Owner or any mortgagee of any Unit, to relocate any boundaries between Units. Such relocation of boundaries of Unit(s) and/or Appurtenances shall be given effect by an appropriate amendment or amendments to this Master Deed in the manner provided by law, which amendment or amendments shall be prepared by and at the sole discretion of Developer, its successors, or its assigns. In the event an amendment is recorded in order to accomplish such relocation of boundaries of Units and/or Appurtenances, the amendment shall identify the relocated Unit(s) and/or Appurtenances by Unit number(s) and, when appropriate, the Percentage of Value as set forth herein for the Unit(s) and/or Appurtenances that have been relocated shall be proportionately allocated to the adjusted Unit(s) in order to preserve a total value of one hundred (100%) percent for the entire Condominium following such amendment to this Master Deed. The precise determination of the readjustments and percentages of value shall be within the sole judgment of Developer. However, the adjustments shall reflect a continuing reasonable relationship among percentages of value based upon the original method of determining percentages of value for the Condominium. Any such amendment to the Master Deed shall also contain such further definitions of Common Elements as may be necessary to adequately describe the Units in the Condominium as modified. All of the Co-Owners and mortgagees of Units and all other persons now or hereafter interested in the Condominium from time to time (except the Township) shall be deemed to have irrevocably and

unanimously consented to any amendment or amendments to this Master Deed recorded by the Developer to effectuate the purposes of this Section 10.2 and, subject to the limitations set forth herein, to any proportionate reallocation of percentages of value of Units that the Developer determines are necessary in connection with any such amendment. All such interested persons (except the Township) irrevocably appoint the Developer as agent and attorney for the purpose of executing such amendments to the Master Deed and all other documents necessary to effectuate the foregoing. Any such amendments may be accomplished without re-recording the entire Master Deed or its Exhibits.

Section 10.3 Limited Common Elements. Limited Common Elements shall be subject to assignment and reassignment in accordance with Section 39 of the Act, to accomplish the rights to relocate boundaries described in this Article X, or for other purposes.

ARTICLE XI RESTRICTIONS

In addition to any restrictions or requirements set forth by local, state or federal law, ordinance, rule or regulation, including the ordinances of the Township, all of the Units in the Condominium Project shall be held, used, and enjoyed subject to the following limitations and restrictions:

Section 11.1. Architectural Design Requirements and Unit Restrictions.

(a) *Residential Use and Basic Design Control.* Unless otherwise specifically herein permitted, the only structure that may be constructed and maintained upon a Unit is a single family dwelling with an attached garage that complies with the terms of the Condominium Documents (a "Dwelling"). The architectural style of every Dwelling will be determined by the Developer in its sole discretion. Every Dwelling will otherwise be designed, developed, and constructed to be dignified and to be harmonious and complimentary with every other Dwelling; and the Condominium Project will be developed as a refined and exclusive residential community of the highest architectural, construction, and aesthetic standards. Any other building, structure, or improvement (any of these an "Improvement") may only be constructed or installed or maintained upon a Unit with the prior written consent of Developer, which Developer may withhold in its sole discretion. Generally, the Developer does not intend to allow Improvements, except for the Dwelling, structures necessary in connection with an approved inground pool, and one permanent detached building with a minimum of 400 square feet, if built on a proper concrete foundation and located behind the house within the building envelope for such Unit, with the exterior matching the exterior of the house, or other exterior approved by the Developer. Any improvement that is permitted by Developer will be designed, developed, and constructed to be dignified and to be harmonious and complimentary with every Dwelling and with every other Improvement in order that the Condominium will be developed as a refined and exclusive residential community of the highest architectural, construction, and aesthetic standards. Temporary buildings or structures may not be constructed or erected or installed or maintained upon any Unit and mobile homes, trailers, campers, tents, shacks, tool sheds, barns, tree houses, or any other similar structures may not be located or installed or maintained upon any Unit, whether temporarily or permanently. In addition to the basic requirements set forth

herein, at any time and from time to time, Developer may prepare and distribute architectural and detail guidelines regarding the design, development, and construction of Dwellings and Improvements. Every Dwelling and Improvement must be constructed, installed, and maintained according to the terms and conditions of the Final Approval for that Dwelling or Improvement, pursuant to the terms of *Section 11.2* below. The Developer may at any time appoint one or more agents to perform its reviews and provide its approvals as required in this Article XI.

(b) *Structural and Design Guidelines of Dwelling.* All buildings must comply with all state and local building requirements, regulations and ordinances, and to the extent not inconsistent with such state and local building requirements, regulations and ordinances:

(i) *Height.* The maximum height of any Dwelling is 30 feet, as determined by the Developer in its sole discretion. Developer will in its sole discretion establish the method to determine the height of any Dwelling or Improvement.

(ii) *Square Foot Requirements.* The minimum livable floor area of any Dwelling is 2,200 square feet for a one-story Dwelling and 2,600 for a one and a half or two-story Dwelling, with a minimum of 1,900 square feet on the first floor. The maximum livable floor area of any Dwelling is 8,000 square feet. If an Owner owns two contiguous Units that will be the location of single Dwelling, it shall be treated as one Unit. The number of square feet of livable floor area in a Dwelling will not include the number of square feet contained in any garages, patios, decks, open porches, entrance porches, terraces, basements, lower levels, or any other similar areas (as determined by the Developer), whether or not any of the foregoing areas are attached to a dwelling. The number of square feet of livable floor area in a Dwelling will include the number of square feet contained in an enclosed porch that is attached to that Dwelling, if the roof of that porch is an integral part of the roof line of that Dwelling.

(iii) *Garage.* A garage must be attached to the side of each Dwelling and Developer will determine in its sole discretion the side of each Dwelling to which a garage will be attached and the side of each garage that will be the entrance to the garage. Each garage must contain sufficient space for two and one-half cars but may not be large enough to accommodate more than three cars or to accommodate recreational vehicles that would not be accommodated in a standard size, two car garage.

(iv) *Building Envelopes.* The location upon a Unit of every Dwelling and every improvement must comply with the front, rear, side and 25 feet undisturbed natural features wetland setback requirements of any applicable zoning ordinance; but regardless of the requirements of any applicable zoning ordinance, a Dwelling (including without limitation any overhangs, porches, patios, decks or any other portion of any Dwelling) or any Improvement may not be constructed or installed or maintained in any of the setbacks that are described and depicted in respect of each Unit in the Condominium Subdivision Plan. Developer will in its sole discretion determine the side, rear, and front boundary lines of each Unit and the side, rear, and front of any Dwelling constructed on any Unit; but to the extent deemed appropriate by the Developer in its sole discretion, any requirements or restrictions pertaining to the front of any Unit will be deemed to apply to the rear or to the side of any Unit, in order that any unsightly or inappropriate conditions of any Unit will not be visible from any other Unit or from any road. Without the prior written approval of Developer, a Dwelling or any Improvement may not be

constructed upon any Unit if the proposed location of that Dwelling or Improvement will unreasonably obstruct the view from any other Dwelling.

(v) Walkways and Driveways. Each Dwelling shall have a driveway and walkway adequate to provide access. Walkways shall be paved with brick or concrete. All driveways shall be constructed with hard surfacing of asphalt, stamped colored concrete, concrete or brick paving, and shall be installed prior to occupancy of the residence, weather permitting. If completion of the drive will be delayed by weather until after the owner occupies the premises, the driveway shall be complete by the following June 1. If it is not so completed, the Developer may complete the same and be reimbursed for the cost thereof from the Co-Owner.

(vi) Roof elements. The minimum pitch of the roof over any Dwelling or Improvement is six feet vertical for every 12 feet horizontal; but flat roofs may be installed over "Florida rooms" or porches or patios and with the prior written approval of Developer a flat roof may be installed over particular portions of multiple level dwellings or in certain approved contemporary styles. Green, red, white, silver, gray, or any other off-white or similar color (as determined by Developer in its sole discretion) roofs are prohibited. All roofs must be covered by cedar shake, slate, or asphalt shingles.

(vii) Exterior Design. The exterior of every Dwelling and of every Improvement must be primarily wood, stone or brick, with a minimum of 60% brick or stone on all sides, unless a lesser amount is approved by the Developer, and the color of the exterior of every Dwelling (which color may not be changed without approval of the Developer) is subject to the approval of Developer, which approval Developer may withhold in its sole discretion. The installation of vinyl or aluminum siding, Texture 1-11, or drivet on the exterior of any Dwelling or Improvement is not permitted. The exterior of any Dwelling or any Improvement may not be painted or stained (or repainted or restained) without the prior written approval of Developer. Aluminum or metal windows may not be installed in any Dwelling or Improvement. Chimneys (whether for fires or for furnaces) must have flues which are entirely lined with a standard clay lining or with other fire-resistant material.

(viii) Air Conditioning Location. Any of the components of any air conditioning or similar systems (including without limitation any compressors) that are installed outside of any Dwelling must be screened by a stone or masonry wall in order that those components will not be visible from any other Units or from any road in order that any noise created by those components will be contained within that Unit. Developer will determine at any time and from time to time whether any particular screening is sufficient. Air conditioning or any other heating or cooling or ventilation units may not be installed within any window or attached to the wall of any Dwelling or Improvement.

(c) Additional Unit Restrictions.

(i) Recreational Ramps. Ramps, inclines, or other similar structures to facilitate skate-boarding, roller skating, roller blading, or similar activities (as determined by Developer in its sole discretion) may not be installed or maintained upon any Unit.

(ii) Repellent Devices. Bug lights, "bug zappers", or another bug elimination or repellent devices may not be installed or maintained upon any Unit; but with the prior written approval of Developer (which Developer may withhold in its sole discretion) these devices may

be installed and maintained upon a Unit for a temporary period of time if there is a demonstrated need for that device for a special occasion.

(iii) Pools. Above-ground swimming pools are prohibited. In-ground swimming pools and outdoor, above-ground jacuzzis, hot tubs, or any other similar facilities may not be constructed or maintained upon a Unit without prior written approval of Developer, which Developer may withhold in its sole discretion.

(iv) Antennae and Dishes. Outside radio or television aerials or antennae and satellite dishes or other reception or transmission may be construed or maintained upon a Unit, in a location that has been approved by Developer and that will not be visible from any other Unit or from any road, Developer will not establish any rules regarding the use or location of any satellite dishes, if those rules are prohibited by applicable law or regulation.

(v) Mailboxes and Addresses. Mailboxes and street address designations may not be installed upon any Unit without prior written approval of Developer. At any time and from time to time the Developer may elect that all of the mailboxes in the Condominium Project will be either the same uniform design, and/or clustered at a common location; and in this event all of the mailboxes in the Condominium Project will be installed according to plans and specifications determined by Developer and at a common location that is determined by Developer. The cost of installing these mailboxes will be paid by each Owner and the Association may levy an assessment against each Unit to pay for the cost of installing any of these mailboxes.

(vi) Tennis Courts. Tennis courts may not be constructed or maintained upon a Unit without the prior written approval of Developer, which Developer may withhold in its sole discretion.

(vii) Lawn sculptures and Signs. Lawn ornaments, sculptures, statues, and signs may not be installed or maintained upon any Unit (including without limitation any signs stating that any Unit is for rent or for sale or any signs identifying any architect, builder, contractor, landscaper or landscape architect) without the prior written approval of Developer, which Developer may withhold in its sole discretion.

(viii) Fences. No fence or wall shall be placed, erected or permitted to remain on any Unit without approval of the Developer. Fences which are required by local ordinance to enclose swimming pools shall be allowed provided they are kept in good condition and repair at all times. In general, black wrought iron, aluminum or similar looking fences, ornamental fences, garden walls and similar devices may be approved, provided that if more than two (2) feet above grade in height, they do not extend further toward the front of the Lot than the rear line of the house. No wooden or chain link perimeter fences will be permitted.

(ix) Yards and Landscaping. All Units in the Project, not owned by Developer, shall be kept neat, and free of debris. No Unit shall be used as a dumping ground and all rubbish, trash, garbage or other waste shall be kept in sanitary containers. All brush or other debris piles and accumulations on any Unit or Units must be removed within ninety (90) days of its accumulation. No dirt shall be removed from any parcel without approval from the Developer. All Units shall be landscaped in a suitable manner, including finish grading, seeding or sodding, ornamental planting, and an underground sprinkler system. A minimum of 40 feet

from the road edge and running the length of the property frontage shall be grass routinely cut and maintained. Any fence, wall, tree, hedge, bush, shrub or other planting, or obstacle shall not be placed or maintained within twenty-five (25) feet of any roadway if the same would obstruct sight along the roadway or another roadway at elevations between three (3) and six (6) feet due to curvature of the roadway or intersection with another roadway. However, trees may be planted or maintained within this area if the foliage line is maintained at sufficient height to prevent such obstruction of sight. All Unit owners are encouraged to reduce the use of fertilizers, herbicides and pesticides in maintaining their landscape. Any Unit which includes regulated wetlands shall not grade the area and shall preserve it in its natural state and shall preserve the undisturbed 25 foot natural features setback as required by the Township Ordinances. No living trees greater than three inches in diameter shall be cut or removed from a parcel twelve (12) months after the residence is completed without review and approval of the Developer.

(x) Grade changes. The Units have been left in as natural a state as possible and as a result of the construction of roads, there are low spots and other areas in which water may accumulate and stand temporarily. Neither the Developer nor the Livingston County Drain Commissioner is under any obligation to correct any such condition. The grade of any Unit in the development may not be altered so as to increase or direct water runoff to any other Unit or the development's wetland areas. Surface water runoff shall be directed to the development's storm water system. All water retention areas shall be allowed to remain in a state of nature, except as required for maintenance to ensure function as designed. No structures shall be erected nor shall any bushes, trees or other plants be planted thereon or any fill or other material deposited or placed thereon. No soil or minerals shall be dredged or removed, nor shall any water be drained therefrom.

(xi) Non-Disturbance of Wetlands and Natural Features Set-back. Certain portions of the land within the Condominium contain wetlands which are protected by federal and state law. Any disturbance of a wetland by depositing material in it, dredging or removing material from it or draining water from the wetland may be done only after a permit has been obtained from the Department of Environmental Quality or its administrative successor. The penalties specified in the applicable laws are substantial. To avoid any possibility of violation of such laws and to preserve the inherent beauty and environmental quality of the wetlands for all Co-Owners, neither any Co-Owner nor the Association may disturb in any way (including by pedestrian traffic, chemical sprays or any other intrusion) any wetland depicted as such on the Condominium Subdivision Plan. Additionally, as required by Township Ordinance, there shall be no construction or other disturbance of land or vegetation permitted within 25 feet of the boundary of any wetland as the wetland boundaries have been depicted on the Condominium Subdivision Plan which additional areas shall serve as protective buffers for all wetlands located within the Condominium.

(d) Use Restrictions.

(i) Activities. Use of the common areas shall be restricted to Unit owners and their guests. All Unit owners shall have the right and easement of enjoyment of the common areas and such easement shall be appurtenant to and shall pass with the title of every Unit in the

development. No immoral, improper, unlawful or offensive activity shall be carried on in any Unit or upon the General Common Elements, nor shall anything be done which may be or become an annoyance or a nuisance to the Co-Owners of the Condominium Project. No unreasonably noisy activity shall occur in or on the Common Elements or in any Unit at any time and disputes among Co-Owners, arising as a result of this provision which cannot be amicably resolved, shall be arbitrated by the Association. No Co-Owner shall conduct or permit any activity or keep or permit to be in his Unit or on the Common Elements anything that will increase the rate of insurance on the Condominium, without the written approval of the Association, and, if approved, the Co-Owner shall pay to the Association the increased insurance premiums resulting from any such activity. Activities which are deemed offensive and are expressly prohibited include, but are not limited to, any activity involving the use of firearms, air rifles, pellet guns, BB guns, bows and arrows, or other similar dangerous weapons, projectiles or devices.

(ii) Aesthetics. The Limited and General Common Elements shall not be used for the storage of supplies, materials, personal property or trash or refuse of any kind, except in accordance with the duly adopted rules and regulations of the Association. No unsightly condition shall be maintained on any porch, courtyard or deck and only furniture and equipment consistent with the normal and reasonable use of such areas shall be permitted to remain there during seasons when such areas are reasonably in use, and no furniture or equipment of any kind shall be stored thereon during seasons when such areas are not reasonably in use. Trash receptacles shall at all times be maintained within garages and shall not be permitted to remain elsewhere on the Common Elements except for such short periods of time as may be reasonably necessary to permit the periodic collection of trash. In General, no activity shall be carried on nor any condition maintained by a Co-Owner, either in his Unit or upon the Common Elements, which is detrimental to the overall appearance of the Condominium.

(iii) Vehicle storage. No commercial vehicles, house trailers, boat trailers, boats, camping vehicles or camping trailers may be parked on or stored on any Unit in the development for any period in excess of forty eight hours, unless stored, fully enclosed within an attached garage. Commercial vehicles and trucks shall not be parked in the development on any Unit therein, except while making deliveries or pickups in the normal course of business. This shall not apply to developer's vehicles and structures, or vehicles and equipment used in connection with and during the period of home construction.

(iv) Pets. No animals, livestock or poultry of any kind shall be raised, bred, trapped, injured or killed, or kept in any Unit or other Limited Common Elements, except dogs, cats or other common household pets, and except that a Co-Owner may trap or dispose of any animal which constitutes a nuisance or a threat to health or safety. No animal may be kept or bred for any commercial purpose and every permitted pet shall be cared for and restrained so as not to be obnoxious or offensive to other Co-Owners. If pets are allowed in the yard of a residence, the same shall be controlled and restrained by "invisible fencing." No animal may be permitted to run loose at any time upon the General Common Elements and an animal shall at all times be leashed and accompanied by some responsible person while on the General Common Elements. No dangerous animal shall be kept and any Co-Owner who causes any animal to be brought or kept upon the Condominium Premise shall indemnify and hold harmless the

Association for any loss, damage or liability which the Association may sustain as a result of the presence of such animal on the premises, whether or not the Association has given its permission therefor. No runs, pens or shelters for pets shall be permitted within a Unit or other Limited Common Elements unless such runs, pens or shelters do not exceed 150 square feet in area and are located adjacent to an exterior wall of a dwelling or garage on the opposite side of the Unit from the street. The run or pen shall be fenced and the exterior shall be landscaped or planted so as to screen the view of adjoining Units. No dog or dogs shall be allowed to reside outside of a dwelling or be allowed to remain outside of a dwelling unsupervised for extended periods of time (multiple hours). The Association may charge all Co-Owners maintaining animals a reasonable additional assessment to be collected in the manner provided in Article II of the Bylaws in the event that the Association determines such assessment is necessary to defray the Association's costs of accommodating animals within the Condominium. The Association shall have the right to require that any pets be registered with the Association and may adopt such additional reasonable rules and regulations with respect to animals as it deems proper. In the event of any violation of this Section, the Board of Directors of the Association may assess fines for such violation in accordance with the Bylaws and in accordance with its duly adopted rules and regulations.

(v) Trash Containers. Containers may be placed at the roadside for pick-up but shall not be left there for more than twenty-four (24) hours in any week. Any debris resulting from the damage or destruction of any improvement on a Unit shall be removed with all reasonable dispatch in order to prevent an unsightly or unsafe condition.

(vi) Subletting and leasing. If a Unit is leased or sublet, the Co-Owner shall provide the name and contact information of the tenant or tenants to the Association and shall at all times remain responsible for its tenants' compliance with the obligation of the Project and the Association.

Section 11.2. Design and Architectural Approvals for Dwellings or Improvements.

(a) In order that every Dwelling and every Improvement will be designed and constructed and the Condominium will be developed in a manner that is consistent with the highest standards of a beautiful, serene, first-class, private, residential community, any Dwelling or any Improvement, as the case may be, may not be constructed or installed or maintained, unless Developer, or its designated agent, has granted "Final Approval" in respect of that Dwelling or Improvement. To obtain Final Approval:

(i) The Owner of the Unit upon which the Dwelling or Improvement is proposed to be constructed or installed must first obtain "Concept Approval". To obtain Concept Approval, that Owner (or an authorized representative of that Owner) must submit to Developer (A) a topographical survey of each Unit, prepared by a registered engineer or surveyor and depicting existing grades and the location of all trees having a diameter at ground level of three inches or more; (B) a conceptual site plan, depicting the location of any proposed Dwelling or Improvement; (C) a conceptual floor plan; (D) conceptual front and rear elevation drawings of the proposed Dwelling or Improvement; and (E) a description of all of the colors and

types of exterior materials in respect of the Dwelling or Improvement. Concept Approval will be deemed to have been granted when Developer has approved in writing all of these submissions.

(ii) If an Owner has obtained Concept Approval, that Owner must then obtain "Preliminary Approval". To obtain Preliminary Approval, that Owner (or any authorized representative of that Owner) must submit to Developer (A) a detailed site plan of the Unit, superimposed over the topographical survey described under subparagraph (i) above, depicting proposed grades (including without limitation detailed proposed final grades for landscaping), (B) a dimensioned floor plan; (C) detailed drawings of every elevation, (D) actual samples of cedar shake, slate, or asphalt shingles and stain or paint materials and colors, (E) a conceptual landscape plan, if applicable, and (F) an exterior lighting plan. The location of any proposed Dwelling or Improvement must be staked on the Unit. Preliminary Approval will be deemed to have been granted when Developer has approved in writing all of the foregoing submissions and the location of the Dwelling and all of the proposed Improvements, as the case may be.

(iii) If an Owner has obtained Preliminary Approval, that Owner must then obtain "Final Approval". To obtain Final Approval, that Owner (or any authorized representative of that Owner) must submit to Developer (A) all prints, plans, and other matters that have been submitted or are required to be submitted to obtain a building permit for the Dwelling or Improvement from the appropriate governmental authority, (B) a dimensional site plan, sealed by a registered engineer and depicting all setbacks and all existing and all proposed elevations and all trees located on the Unit and having a diameter at ground level of three inches or more (and an identification of any tree that the Owner of that Unit intends to remove from that Unit), (C) complete building plans for the Dwelling or Improvement, sealed by a registered architect, (D) a final exterior lighting plan that will (without limitation) be designed (I) in order that any exterior lighting will not directly shine into any other Dwelling and (II) to include a timing system that will activate exterior lighting at dusk and deactivate exterior lighting at dawn (which activation system will include both a photo-sensitive activator and a clock activator), (E) a construction schedule specifying completion date for foundations, rough-in, the entire Dwelling or Improvement, and the installation of landscaping, as applicable, (F) a list of exterior materials and colors (including paint and stain colors), including actual samples if not already submitted, (G) the deposit described under Paragraph 10(f)(iii) below, if required by Developer, and (H) any other materials or information required by Developer. Final Approval will be deemed to have been granted when Developer has approved in writing all of the foregoing submissions.

(iv) Each instrument or document submitted to Developer must be accompanied by three copies of that instrument or document. After Final Approval has been granted, two of these copies will be returned to the Owner of the Unit in respect of which these instruments or documents were submitted and any remaining copies will be retained by and be the property of Developer. Any approval hereunder by Developer will not be effective unless that approval is in writing.

(b) Regardless of any other terms of the Condominium Documents, any Dwelling or Improvement (or any alteration, modification, or variance of any Dwelling or Improvement) that is not in strict compliance with the terms of these Bylaws may not be constructed or maintained upon any Unit unless the particular condition of that Dwelling or Improvement that does not

comply with the terms of these Bylaws was identified to Developer in the submissions required under subparagraph (a) above, and unless that condition was specifically recognized by Developer and approved by Developer in writing. Every Dwelling or Improvement and every alteration, modification, or variance of any Improvement must be constructed and installed in strict compliance with the Final Approval for that Dwelling or Improvement or for an alteration, modification or variance or any Dwelling or Improvement.

(c) A Dwelling or an Improvement may not be altered or modified or varied in any manner (including without limitation the materials and colors that will be used in respect of the construction and installation of that Improvement) from the terms of the Final Approval for that Dwelling or Improvement; and Final Approval must be obtained from Developer to alter or modify or vary any Dwelling or Improvement (even if that alteration or modification or variance is required for reasons beyond the control of the Owner of that Dwelling or Improvement); but if a proposed alteration or modification or variance or any Dwelling or Improvement is Immaterial (as determined by Developer), Final Approval is not required in respect of that alteration, modification, or variance. Any Owner requesting Final Approval to alter, modify, or vary any Improvement will first submit to Developer any information requested by Developer (including without limitation material and color samples) to permit Developer to determine whether that alteration, modification, or variance is material or immaterial.

(d) The plans and specifications submitted hereunder to Developer to obtain Concept Approval must be accompanied by a \$500 payment to Developer. This payment will be retained by Developer in respect to any costs or fees incurred by Developer to review any plans or specifications submitted under this Section by the Owner. This payment is not refundable. If an agent is designated by the Developer, this fee may be split with the agent.

Section 11.3 Transfer of Architectural and Design Review. The Developer shall have sole architectural review control through the end of the Construction and Sales Period. At that time, the Developer shall assign all review rights and authority to the Association. Thereafter references to the Developer shall be deemed to be the Association. The Association may appoint an agent or form an architectural review committee to perform the functions set forth in Section 11.2 above. In addition to the rules set forth above, the Association may prescribe from time to time the procedures to be followed and the information to be submitted in conducting such architectural reviews. The committee may refuse to consider any request which does not follow the prescribed procedures. In the event, the Developer ceases to exist or ceases to respond to requests for approvals or perform required responsibilities hereunder, the rights shall have been deemed to be assigned to the Association.

Section 11.4 Association. An Association to administer the Condominium Project shall be created in accordance with the Act which shall operate in accordance with the Bylaws attached hereto as Exhibit A. All Co-Owners are members of the Association, which shall consist of and exist for the benefit of all persons who shall at any given time own Units in the Project. The Association shall have the authority to establish rules, regulations, voting procedures and policies for the betterment of the Association, including the authority to make and enforce regulations pertaining to the use and maintenance of the common areas. Upon establishment of the Association, the Association shall have the authority to enforce building and use restrictions on

the Units that have been sold.

Section 11.5 Association Dues. Co-Owners shall pay assessments to cover taxes, maintenance, improvements, insurance and other costs incurred against the common areas as set forth in the Bylaws. In addition, upon purchase of a Unit, each Co-Owner shall pay a one-time initial capital contribution of One Thousand Dollars \$1,000.00 to the Developer. The Developer is not required to pay association dues for any unsold Units. These initial funds shall be used by the Developer for the purpose of promoting the recreation, health, safety, and welfare of the residents and for the operation and maintenance of common areas.

Section 11.6 Rules and Regulations. It is intended that the Board of Directors of the Association may adopt rules and regulations from time to time to reflect the needs and desires of the majority of the Co-Owners in the Condominium. Reasonable regulations consistent with the Act, this Master Deed and the Bylaws concerning the use of the Common Elements may be adopted and amended from time to time by any Board of Directors prior to the Transitional Control Date. Copies of all such rules, regulations and amendments thereto shall be furnished to all Co-Owners and shall become effective thirty (30) days after mailing or delivery thereof to the designated voting representative of each Co-Owner. Any such regulation or amendment may be revoked at any time by the affirmative vote of greater than 50% of the Co-Owners in number and value, except that the Co-Owners may not revoke any regulation or amendment prior to the First Annual Meeting of the entire Association. Any rules and regulations adopted by the Association shall not limit Developer's construction, sales or rental activities. Notwithstanding the foregoing, any amendment to such rules and regulations which would be inconsistent with the Conditional Zoning Agreement or the approved final site plan for the Condominium shall require the written approval of the Township.

Section 11.7 Right of Access of Association. The Association and its duly authorized agents shall have access to each Unit and other Appurtenances and improvements constructed on such Unit, and any other Limited Common Elements appurtenant thereto from time to time, during reasonable working hours, upon notice to the Co-Owner thereof, as may be necessary for the performance of the maintenance of the Common Elements. In addition, the Association and its agents shall at all times without notice have access to each Unit and Appurtenances, and other improvements constructed thereon, and any Limited Common Elements appurtenant thereto as may be necessary to make emergency repairs to prevent damage to the Common Elements or to another Unit. Each Co-Owner shall be obligated to provide the Association with a means of access to his Unit and other improvements constructed on such Unit and any Limited Common Elements appurtenant thereto during the Co-Owner's absence, and in the event such Co-Owner fails to provide a means of access thereto the Association may gain access in such manner as may be reasonable under the circumstances and shall not be liable to such Co-Owner for any necessary damage thereto or for the repair or replacement of any doors or windows damaged in gaining such access.

Section 11.8 Livingston County Health Department Restrictions. The following restrictions placed on _____ Site Condominium Community by the Livingston County Health Department are not severable and shall not expire under any circumstances unless otherwise amended or approved by the Livingston County Health Department.

(a) There shall be no future subdividing of any building Units which would utilize individual onsite sewage disposal and/or water supply systems.

(b) _____ Site Condominium Project has been approved for 19 individual Units as described in _____ site plan Job # _____ dated _____ 2019. The septic and wells shall be located in the area of the approved soil borings as indicated on said plan, which is on file at the Livingston County Health Department.

(c) All wells shall be drilled by a licensed Michigan well driller and be drilled to a depth that will penetrate a minimum of 10 foot protective clay barrier or be drilled to a depth of 100 feet if adequate clay protection is not encountered. The well shall be grouted the entire length of the casing.

(d) The test wells used to determine onsite water supply adequacy have been drilled on Units ____ and _____. If these wells are not intended for use as potable water supplies, they must be properly abandoned according to Part 127, Act 368 of the Groundwater Quality Control Act.

(e) There shall be no underground utility lines located within the areas designated as active and reserve septic systems areas.

(f) The reserve septic locations as designated on the preliminary plan on file at the Livingston County Health Department must be maintained vacant and accessible for future sewage disposal uses.

(g) A 2800 square foot area has been designated on each Unit for the active and reserve sewage disposal systems to accommodate a typical four bedroom single family home. Proposed homes exceeding four bedrooms must show that sufficient area exists for both active and reserve sewage systems which meet all acceptable isolation distances.

(h) All restrictions placed on the development by the Livingston County Health Department are not severable and shall not expire under any circumstances unless otherwise amended or approved by the Livingston County Health Department.

[include any health dept restrictions]

Section 11.9 Unit division. No Unit may be divided, split or reduced in size by any method, without the proper approval of the Developer and compliance with all applicable local ordinances and state laws. Units may be enlarged by consolidation with one or more adjoining Units under one ownership. If more than one Unit is developed as a Unit, all restrictions shall apply as to a single Unit.

Section 11.10 Reserved Rights of Developer.

(a) *Developer's Rights In Furtherance of Development and Sales.* None of the restrictions contained in this Article XI shall apply to the commercial activities or signs

or billboards, if any, of the Developer during the Construction and Sales Period or of the Association in furtherance of its powers and purposes set forth herein and in the Articles of Incorporation, as the same may be amended from time to time. Notwithstanding anything to the contrary contained elsewhere in this Master Deed or the Bylaws, the Developer shall have the right, during the Construction and Sales Period, to maintain a sales office, a business office, a construction office, model units, construction and/or sales trailers, storage areas and parking incident to the foregoing and such access to, from and over the Project as may be reasonable to enable the development and sale of the entire Project. The Developer shall restore the areas utilized by the Developer to habitable status upon its termination of use.

(b) Enforcement of Restrictions. The Condominium Project shall at all times be maintained in a manner consistent with the highest standards of a beautiful, serene, private, residential community for the benefit of the Co-Owners and all persons interested in the Condominium. If at any time the Association fails or refuses to carry out its obligation to provide maintenance with respect to the Condominium Project in a manner consistent with such high standards, then the Developer, or any entity to which it may assign this right, may elect to provide such maintenance as required by this Master Deed or the Bylaws and to charge the cost thereof to the Association as an expense of administration. The Developer shall have the right to enforce this Master Deed and the Bylaws throughout the Construction and Sales Period regardless of whether or not it owns a Unit in the Condominium. The Developer's enforcement rights under this Section may include, without limitation, an action to restrain the Association or any Co-Owner from performing any activity prohibited by this Master Deed and/or the Bylaws.

(c) Waiver of Restrictions. The purpose of this Article XI is to assure the continued maintenance of the Condominium as a beautiful and harmonious residential development and shall be binding upon all Co-Owners. The Developer may, in the Developer's sole discretion, waive, at any time during the Construction and Sales Period, any part of the restrictions set forth in this Article XI due to unusual topographic, natural, or aesthetic considerations or other circumstances that the Developer deems compelling. Any such waiver must be in writing and shall be limited to the Unit to which it pertains and shall not constitute a waiver as to enforcement of the restrictions as to any other Unit. Developer's rights under this Article XI may, in Developer's discretion, be assigned to the Association or other successor to Developer. Developer may construct any improvements upon the Condominium Premises that Developer may, in Developer's sole discretion, elect to make without the necessity of prior consent from the Association or any other person or entity, subject only to the express limitations contained in the Condominium Documents.

ARTICLE XII AMENDMENT

Except as otherwise expressly provided in this Master Deed or in the Act, the Condominium shall not be terminated, vacated, revoked, or abandoned except as provided in the

Act, nor may any of the provisions of this Master Deed or Exhibit B be amended (but Exhibit A hereto may be amended as therein provided) except as follows:

Section 12.1 Amendments.

(a) *Without Co-Owner and Mortgagee Consent.* The Condominium Documents may be amended by the Developer or the Association without the consent of Co-Owners or mortgagees for any purpose if the amendment does not materially alter or change the rights of a Co-Owner or mortgagee. Amendments modifying the types and sizes of unsold Units and their appurtenant Common Elements, showing minor architectural variances and modifications to a Unit, correcting survey or other errors made in the Condominium Documents, or for the purpose of facilitating mortgage loan financing for existing or prospective Co-Owners and to enable the purchase or insurance of such mortgage loans by the Federal Home Loan Mortgage Corporation, the Federal National Mortgage Association, the Government National Mortgage Association, the Veterans Administration, the Department of Housing and Urban Development, or by any other institutional participant in the secondary mortgage market that purchases or insures mortgages, shall be examples of amendments that do not materially alter or change the rights of a Co-Owner or mortgagee.

(b) *With Co-Owner and Mortgagee Consent.* An amendment may be made, even if it will materially alter or change the rights of the Co-Owners or mortgagees, with the consent of not less than two-thirds (2/3) of the votes of the Co-Owners entitled to vote as of the record date of such vote and two-thirds (2/3) of the votes of the mortgagees; provided, that a Co-Owner's Unit dimensions or Limited Common Elements may not be modified without its consent, nor may the formula used to determine Percentages of Value for the Project or provisions relating to the purpose of usage, ability, or terms under which a Unit currently is leased or may be rented be modified without the consent of the Developer and each affected Co-Owner and mortgagee. Rights reserved by the Developer herein, including without limitation, rights to amend for purposes of expansion and/or modification of Units, shall not be amended without the written consent of the Developer so long as the Developer or its successors or assigns continue to own or to offer for sale any Unit in the Project, have the right to create one or more additional Units, or continues to own any interest in the Condominium Premises. For purposes of this subsection, a mortgagee shall have one vote for each mortgage held.

(c) *Material Amendment By Developer.* A material amendment may also be made unilaterally by the Developer without the consent of any Co-Owner or mortgagee for the specific purpose(s) reserved by the Developer in this Master Deed. During the Construction and Sales Period, this Master Deed shall not be amended nor shall the provisions of this Master Deed be modified in any way without the written consent of the Developer or its successors or assigns.

(d) *Developer's Reserved Amendments.* Notwithstanding any contrary provision of the Condominium Documents, Developer reserves the right to amend materially this Master Deed or any of its exhibits for any of the following purposes:

i. To amend the Condominium Bylaws, subject to any restrictions on amendments stated therein;

ii. To correct arithmetic errors, typographical errors, survey or plan errors, deviations in construction or any similar errors in the Master Deed, Condominium Subdivision Plan, or Condominium Bylaws, or to correct errors in the boundaries or locations of improvements, including revising the Subdivision Plan to fully comply with the applicable regulations;

iii. To clarify or explain the provisions of this Master Deed or its exhibits;

iv. To comply with the Act or rules promulgated thereunder or with any requirements of any governmental or quasi-governmental agency or any financing institution providing mortgages on Units in the Condominium Premises;

v. To create, grant, make, define, or limit easements affecting the Condominium Premises;

vi. To record an “as built” Condominium Subdivision Plan and/or consolidating Master Deed and/or to designate any improvements shown on the Plan as “must be built,” subject to any limitations or obligations imposed by the Act;

vii. To terminate or eliminate reference to any right which Developer has reserved to itself herein; and

viii. To make alterations described in this Master Deed, even if the number of Units in the Condominium would thereby be increased or reduced.

Amendments of the type described in this Subsection 7.1(d) may be made by the Developer without the consent of Co-Owners or mortgagees, and any Co-Owner or mortgagee having an interest in a Unit affected by such an amendment shall join with the Developer in amending this Master Deed.

(e) Costs and Expenses; Notice. A person causing or requesting an amendment to the Condominium Documents shall be responsible for costs and expenses of the amendment, except for amendments based upon a vote of the prescribed majority of Co-Owners and mortgagees, the costs of which are expenses of administration. The Co-Owners and mortgagees of record shall be notified of proposed amendments under this Section not less than ten (10) days before the amendment is recorded.

(f) Developer Consent Required. Articles II, IV, V, VI, VII, VIII, IX, X, XI, XII and XIII shall not be amended, nor shall the provisions thereof be modified by any other amendment to this Master Deed, without the written consent of the Developer, so long as the Developer continues to offer any Unit in the Condominium for sale or so long as there remains any Unit that may be created. Developer’s reservation of easement rights for adjacent property and Developer’s right to consent to all easements affecting the Condominium shall be perpetual and cannot be amended.

(g) Charter Township of Genoa Consent Required. No amendment of this Master Deed or the Condominium Documents may be made without the prior written consent of the Charter Township of Genoa, if such amendment would affect a right of the Charter Township of Genoa set forth or reserved with in this Master Deed or in the Condominium Documents.

Section 12.2 Termination. If there is a Co-Owner other than the Developer, the Condominium may be terminated only with consent of the Developer and not less than 80% of the Co-Owners and mortgagees, as follows:

(a) Execution of Agreement. Agreement of the required number of Co-Owners and mortgagees to termination of the Condominium shall be evidenced by their execution of the termination agreement or of ratifications thereof, and the termination shall become effective only when the agreement is so evidenced of record.

(b) Ownership of Condominium. Upon recordation of an instrument terminating the Condominium, the property constituting the Condominium shall be owned by the Co-Owners as tenants in common in proportion to their Condominium Percentage of Value immediately before recordation. As long as the tenancy in common lasts, each Co-Owner or the heirs, successors, or assigns thereof shall have an exclusive right of occupancy of that portion of the property, which formerly constituted the Unit.

(c) Notice of Termination. Notification of termination by first class mail shall be made to all parties interested in the Condominium, including escrow agents, land contract vendors, creditors, lienholders, and prospective purchasers who deposited funds.

ARTICLE XIII ASSIGNMENT

Subject to the provisions of any land contract or mortgage, any or all of the rights and powers granted or reserved to the Developer in the Condominium Documents or by law, including the power to approve or disapprove any act, use, proposed action, or any other matter or thing, may be assigned by the Developer to and be assumed by any other entity or the Association. Any such assignment or transfer shall be made by appropriate instrument in writing duly recorded in the office of the Livingston County Register of Deeds.

ARTICLE XIV SEVERABILITY

If any provision of this Master Deed shall be determined to be invalid or unenforceable by a court of competent jurisdiction, such determination shall not render this entire Master Deed invalid or unenforceable, and the provisions of this Master Deed not subject to such determination shall survive, unaffected thereby.

ARTICLE XV CONTROLLING LAW

The provisions of the Act, and of the other laws of the State of Michigan, shall be applicable to and govern this Master Deed and all activities related hereto.

IN WITNESS WHEREOF, the undersigned has executed this Master Deed as of the date first written above.

THE RIDGE AT BRIGHTON, LLC

By: John M. Moretti
Its: Managing Member

STATE OF MICHIGAN)
) ss
COUNTY OF LIVINGSTON)

The foregoing instrument was acknowledged before me this _____ day of _____, 2019, by John M. Moretti, Managing Member of The Ridge at Brighton, LLC, a Michigan limited liability company, on behalf of said company.

Catherine A. Riesterer, Notary Public
Livingston County, Michigan
My Commission Expires: 4/6/2021

DRAFTED BY AND WHEN RECORDED RETURN TO:
Catherine A. Riesterer
COOPER & RIESTERER, PLC
7900 Grand River Road
Brighton, MI 48114
810-227-3103

RECEIVED

By Amy Ruthig at 11:29 am, Jun 17, 2019

EXHIBIT A

CONDOMINIUM BYLAWS

THE RIDGE SITE CONDOMINIUM ASSOCIATION

CONDOMINIUM BYLAWS

THE RIDGE SITE CONDOMINIUM ASSOCIATION

ARTICLE I ASSOCIATION OF CO-OWNERS

Section 1.1 Formation; Membership. The Ridge Site Condominium (sometimes referred to herein as “Condominium Project”), a residential Condominium Project located in Genoa Township, Livingston County, Michigan, shall be administered by The Ridge Site Condominium Association, which shall be a non-profit corporation, hereinafter called the “Association,” organized under the applicable laws of the State of Michigan. The Association shall be responsible for the management, maintenance (which term, for purposes of these Bylaws, shall also mean decoration, repair, renovation, restoration, and replacement, unless otherwise specified), operation, and administration of the Common Elements, easements, and affairs of the Condominium Project in accordance with the Condominium Documents and the laws of the State of Michigan. These Bylaws shall constitute both the Condominium Bylaws referred to in the Master Deed and required by Section 53 of the Act and the Association Bylaws provided for under the Michigan Non-Profit Corporation Act. Each Co-Owner shall be a member in the Association and no other person or entity shall be entitled to membership. Co-Owners are sometimes referred to as “Members” in these Bylaws. A Co-Owner’s share of the Association’s funds and assets cannot be assigned, pledged, or transferred in any manner except as an appurtenance to his Unit. The Association shall retain in its files current copies of the Master Deed, all amendments to the Master Deed, and other Condominium Documents for the Condominium Project, all of which shall be available at reasonable hours for review by Co-Owners, prospective purchasers, and prospective mortgagees of Units in the Condominium Project. All Co-Owners in the Condominium Project and all persons using or entering upon or acquiring any interest in any Unit therein or the Common Elements thereof shall be subject to the provisions and terms set forth in the Condominium Documents.

Section 1.2 Definitions. Capitalized terms used in these Bylaws without further definition shall have the meanings ascribed to such terms in the Master Deed or the Act unless the context dictates otherwise.

Section 1.3 Conflicts of Terms and Provisions. In the event there exists any conflict among the terms and provisions contained within the Master Deed or these Bylaws, the terms and provisions of the Master Deed shall control.

ARTICLE II ASSESSMENTS

Section 2.1 Assessments Against Units and Co-Owners. All expenses arising from the management, administration, and operation of the Association in accordance with the authorizations and responsibilities prescribed in the Condominium Documents and the Act shall be levied by the Association against the Units and the Co-Owners thereof in accordance with the provisions of this Article II.

Section 2.2 Assessments for Common Elements; Personal Property Taxes Assessed Against the Association. All costs incurred by the Association to satisfy any liability or obligation arising from, caused by, or connected with the Common Elements or the administration of the Condominium Project shall constitute expenditures affecting the administration of the Project, and all sums received as the proceeds of or pursuant to any policy of insurance securing the interest of the Co-Owners against liabilities or losses arising within, caused by, or connected with the Common Elements or the administration of the Condominium Project shall constitute receipts affecting the administration of the Condominium Project within the meaning of Section 54(4) of the Act.

Section 2.3 Determination of Assessments. Assessments shall be determined in accordance with the following provisions:

(a) *Budget.* The Board of Directors of the Association shall establish an annual budget ("Budget") in advance for each fiscal year and such Budget shall project all expenses for the ensuing year which may be required for the proper operation, management, and maintenance of the Condominium Project, including a reasonable allowance for contingencies and reserves. An adequate reserve fund for maintenance of the Common Elements that must be repaired or replaced on a periodic basis shall be established in the budget and must be funded by regular annual payments as set forth in Section 2.4 below, rather than by special assessments. At a minimum, the reserve fund shall be equal to 20% of the Association's current annual Budget on a non-cumulative basis. Since the minimum standard required by this subparagraph may prove to be inadequate for the Project, the Association of Co-Owners should carefully analyze the Condominium Project to determine if a greater amount should be set aside or if additional reserves should be established for other purposes from time to time. Upon adoption of a Budget by the Board of Directors, copies of the Budget shall be delivered to each Co-Owner and the assessment for said year shall be established based upon said Budget. The applicable annual assessments, as levied, shall constitute a lien against all Units as of the first day of the fiscal year in which the assessments relate. Failure to deliver a copy of the Budget to each Co-Owner shall not affect or in any way diminish such lien or the liability of any Co-Owner for any existing or future assessments. Should the Board of Directors at any time determine, in its sole discretion, that the assessments levied are or may prove to be insufficient: (1) to pay the actual costs of the Condominium Project's operation and management; (2) to provide for maintenance of existing Common Elements; (3) to provide additions, restoration, renovation, and replacement to the Common Elements not exceeding \$5,000.00 annually for the entire Condominium Project; or (4) in the event of emergencies, the Board of Directors shall have the authority to increase the general assessments and to levy such additional assessment or assessments as it shall deem to be necessary. The Board of Directors shall also have the authority, without Co-Owner or mortgagee consent, to levy assessments for repair, restoration, renovation, and replacement in the event of casualty, pursuant to the provisions of Section 5.4 below. The discretionary authority of the Board of Directors to levy assessments pursuant to this subparagraph shall rest solely with the Board of Directors for the benefit of the Association and its Members and shall not be enforceable by any creditors of the Association or its Members.

(b) *Special Assessments.* Special assessments, in addition to those required in Section 2.3(a) above, may be made by the Board of Directors from time to time, subject to Co-Owner approval as hereinafter provided, to meet other needs or requirements of the Association, including, but not limited to: (1) assessments for additions to the Common Elements of a cost exceeding \$5,000.00 for the entire Condominium Project per year; (2) assessments to purchase a Unit upon foreclosure of the lien for assessments described in Section 2.6 below; or (3) assessments

for any other appropriate purpose that could not be covered by the annual assessment. Special assessments referred to in this subparagraph (b) (but not including assessments referred to in Section 2.3(a) above, which shall be levied in the sole discretion of the Board of Directors) shall not be levied without the prior approval of the Co-Owners representing 60% or more of all Co-Owners. The authority to levy assessments pursuant to this subparagraph is solely for the benefit of the Association and its Members and shall not be enforceable by any creditors of the Association or its Members.

(c) Remedial Assessments. If any Co-Owner fails to provide proper maintenance of any Limited Common Element that is appurtenant to his Unit, which failure, in the opinion of the Board of Directors adversely affects the appearance of the Condominium Project as a whole or the safety, health, or welfare of the other Co-Owners of the Condominium Project, the Association may, following notice to such Co-Owner, take any actions reasonably necessary to provide such maintenance for the Unit, and the cost thereof shall be assessed against the Co-Owner who has the responsibility under the Master Deed or these Bylaws to maintain such Unit. The Association may also take the actions permitted under Section 4.3(b) of the Master Deed, and the cost(s) thereof shall be assessed as provided in said Section 4.3(b).

(d) Working Capital Contribution. Any Co-Owner who acquires a Unit from the Developer shall pay to the Association, on the date said Unit is conveyed to the Co-Owner, an amount equal to the then current annual assessment, which sum constitutes a one-time non-refundable contribution to the Association's working capital account.

(e) Limitations on Assessments for Litigation. The Board of Directors shall not have the authority under this Section 2.3 or any other provision of these Bylaws or the Master Deed to levy any assessment or to incur any expense or legal fees with respect to any litigation without the prior approval, by affirmative vote, of not less than two-thirds (2/3) of all Co-Owners entitled to vote. This subsection shall not apply to any litigation commenced by the Association to enforce collection of delinquent assessments pursuant to these Bylaws. In no event shall the Developer be liable for , nor shall any Unit owner by Developer be subject to any lien for, any assessment levied to fund the cost of asserting any claim against the Developer, whether by arbitration, judicial proceeding, or otherwise.

Section 2.4 Apportionment of Assessments and Penalty for Default. Unless otherwise provided in these Bylaws or in the Master Deed, all assessments levied against the Co-Owners to cover management, maintenance, operation, and administration expenses shall be apportioned among and paid by the Co-Owners in accordance with the respective Percentages of Value allocated to each Co-Owner's Unit in Article V of the Master Deed. Annual assessments determined in accordance with Section 2.3(a) above shall be paid by Co-Owners in one (1) installment, commencing with the acceptance of a deed to or a land contract vendee's interest in a Unit, or with the acquisition of fee simple title to a Unit by any other means. A Co-Owner shall be in default of his assessment obligations if he fails to pay any assessment installment when due. A late charge not to exceed \$25.00 per month shall be assessed automatically by the Association upon any assessments in default for ten (10) or more days until the assessment installment(s) together with the applicable late charges are paid in full. Each Co-Owner (whether one or more persons) shall be, and remain, personally liable for the payment of all assessments (including fines for late payments and costs of collection and enforcement of payment) relating to his Unit, which may be levied while such Co-Owner owns the Unit. Payments to satisfy assessment installments in default shall be

applied as follows: first, to the costs of collection and enforcement of payment, including reasonable attorneys' fees; second, to any interest charges and fines for late payment on such installments; and third, to the installments in default in the order of their due dates.

Section 2.5 Waiver of Use or Abandonment of Units. No Co-Owner may exempt himself from liability for his assessment obligations by waiving the use or enjoyment of any of the Common Elements or by abandoning his Unit.

Section 2.6 Liens for Unpaid Assessments. The sums assessed by the Association that remain unpaid, including, but not limited to, regular assessments, special assessments, fines, and late charges, shall constitute a lien upon the Unit or Units in the Project owned by the Co-Owner at the time of the assessment and upon the proceeds of sale of such Unit or Units. Any such unpaid sum shall constitute a lien against the Unit as of the first day of the fiscal year in which the assessment, fine, or law charge relates and shall be a lien prior to all claims except real property taxes and first mortgages of record. All charges that the Association may levy against any Co-Owner shall be deemed to be assessments for purposes of this Section 2.6 and Section 108 of the Act.

Section 2.7 Enforcement.

(a) *Remedies.* In addition to any other remedies available to the Association, the Association may enforce the collection of delinquent assessments by a suit at law or by foreclosure on the statutory lien that secures payment of assessments. In the event any Co-Owner defaults in the payment of any annual assessment installment levied against his Unit, the Association shall have the right to declare all unpaid installments of the annual assessment for the pertinent fiscal year to be immediately due and payable. The Association may also discontinue furnishing any utilities or other services to a Co-Owner in default upon seven (7) days' written notice to such Co-Owner. A Co-Owner in default shall not be entitled to utilize any of the General Common Elements of the Project and shall not be entitled to vote at any meeting of the Association until the default is cured; provided, however, this provision shall not operate to deprive any Co-Owner of ingress or egress to and from his Unit or the dwelling or other improvements constructed thereon or in the appurtenant Limited Common Element(s). In a judicial foreclosure action, a receiver may be appointed to collect a reasonable rental for the Unit from the Co-Owner thereof or any persons claiming under him. The Association may also assess fines for late payment or non-payment of assessments in accordance with the provisions of Section 17.4 of these Bylaws. All of these remedies shall be cumulative and not alternative.

(b) *Foreclosure Proceedings.* Each Co-Owner, and every other person who, from time to time, has any interest in the Project, shall be deemed to have granted to the Association the unqualified right to elect to foreclose the lien securing payment of assessments either by judicial action or by advertisement. The provisions of Michigan law pertaining to foreclosure of mortgages by judicial action and by advertisement, as the same may be amended from time to time, are incorporated herein by reference for the purposes of establishing the alternative procedures to be followed in lien foreclosure actions and the rights and obligations of the parties to such actions. In addition, each Co-Owner and every other person who from time to time has any interest in the Project, shall be deemed to have authorized and empowered the Association to sell or to cause to be sold the Unit with respect to which the assessment(s) is or are delinquent and to receive, hold and distribute the proceeds of such sale in accordance with the priorities established by applicable law. Each Co-Owner of a Unit in the Project acknowledges that at the time of acquiring title to such Unit,

he was notified of the provisions of this subparagraph and he voluntarily, intelligently and knowingly waived notice of any proceedings brought by the Association to foreclose any assessment liens by advertisement and waived the right to a hearing prior to the sale of the applicable Unit.

(c) Notices of Action. Notwithstanding the provisions of Section 2.7(b), the Association shall not commence a judicial foreclosure action or a suit for a money judgment or publish any notice of foreclosure by advertisements until the expiration of 10 days after mailing, by first class mail, postage prepaid, and addressed to the delinquent Co-Owner at his last known address, of a written notice that one or more assessment installments levied against the pertinent Unit is or are delinquent and that the Association may invoke any of its remedies under these Bylaws if the default is not cured within 10 days from the date of mailing. Such written notice shall be accompanied by a written affidavit of an authorized representative of the Association that sets forth: (i) the affiant's capacity to make the affidavit, (ii) the statutory and other authority for the lien, (iii) the amount outstanding (exclusive of interest, costs, attorney fees, and future assessments), (iv) the legal description of the subject Unit(s), and (v) the name(s) of the Co-Owner(s) of record. Such affidavit shall be recorded in the office of the Livingston County Register of Deeds prior to the commencement of any foreclosure proceeding. If the delinquency is not cured within the 10-day period, the Association may take such remedial action as may be available to it under these Bylaws and under Michigan law. In the event the Association elects to foreclose the lien by advertisement, the Association shall notify the delinquent Co-Owner of the Association's election and shall inform him that he may request a judicial hearing by bringing suit against the Association.

(d) Expenses of Collection. The expenses incurred by the Association in collecting unpaid assessments, including interest, costs, actual attorneys' fees (not limited to statutory fees), and advances for taxes or other liens paid by the Association to protect its lien, shall be chargeable to the defaulting Co-Owner and shall be secured by a lien on his Unit.

Section 2.8 Liability of Mortgagees. Notwithstanding any other provisions of the Condominium Documents, the lien holder of any first mortgage covering any Unit in the Project which comes into possession of the Unit pursuant to the remedies provided in the mortgage or by deed (or assignment) in lieu of foreclosure, and any purchaser at a foreclosure sale, shall take the property free of any claims for unpaid assessments or against the mortgaged Unit that accrue prior to the time such holder comes into possession of the Unit (except for claims for a pro rata share of assessments or charges resulting from a pro rata reallocation of assessments or charges to all Units, including the mortgaged Unit).

Section 2.9 Developer's Responsibility for Assessments. The Developer, although a Member of the Association, shall not be responsible at any time for the payment of Association assessments except with respect to Units owned by the Developer that contain a completed and occupied residential dwelling. A residential dwelling is complete when it has received a certificate of occupancy from Genoa Township and a residential dwelling is occupied if it is being utilized as a residence. In addition, in the event Developer is selling a Unit with a completed residential dwelling thereon by land contract to a Co-Owner, the Co-Owner shall be liable for all assessments and the Developer shall not be deemed the owner of the applicable Unit and shall not be liable for any assessments levied up to and including the date, if any, upon which Developer actually retakes possession of the Unit following extinguishment of all rights of the land contract purchaser in the Unit. However, the Developer shall at all times pay the maintenance expenses pertaining to the Units that it owns, together with a proportionate share of all current maintenance expenses actually

incurred by the Association (excluding reserves) for utility maintenance, landscaping, sign lighting, and snow removal, but excluding management fees and expenses related to the maintenance and use of Units in the Project that are not owned by the Developer. For purposes of the foregoing sentence, the Developer's proportionate share of such expenses shall be based upon the ratio of all Units owned by the Developer at the time the expense is incurred to the total number of Units then in the Project. In no event shall the Developer be responsible for assessments for deferred maintenance, reserves for maintenance, capital improvements, or other special assessments except with respect to Units that are owned by the Developer that contain completed and occupied residential dwellings. Any assessments levied by the Association against the Developer for other purposes, without the Developer's prior written consent, shall be void and of no effect. In addition, the Developer shall not be liable for any assessment levied in whole or in part to purchase any Unit from the Developer or to finance any litigation or claims against the Developer, any cost of investigating or preparing such litigation or claim, or any similar or related costs.

Section 2.10 Property Taxes and Special Assessments. All property taxes and special assessments levied by any public taxing authority shall be assessed in accordance with Section 131 of the Act.

Section 2.11 Personal Property Tax Assessment of Association Property. The Association shall be assessed as the person or entity in possession of any tangible personal property of the Condominium owned or possessed in common by the Co-Owners, and personal property taxes based thereon shall be treated as expenses of administration.

Section 2.12 Construction Liens. A construction lien otherwise arising under Act No 497 of the Michigan Public Acts of 1980, as amended, shall be subject to Section 132 of the Act.

Section 2.13 Statement as to Unpaid Assessments. The purchaser of any Unit may request a statement from the Association identifying the amount of any unpaid Association regular or special assessments relating to such Unit. Upon written request to the Association accompanied by a copy of the executed purchase agreement pursuant to which the purchaser holds the right to acquire a Unit, the Association shall provide a written statement identifying any existing unpaid assessments or a written statement that none exist, which statement shall be binding upon the Association for the period stated therein. Upon the payment of the sum identified in the statement within the period identified in the statement, the Association's lien for assessments as to such Unit shall be deemed satisfied; provided, however, if a purchaser fails to request such statement at least five (5) days prior to the closing of the purchase of such Unit, any unpaid assessments and the lien securing them shall be fully enforceable against such purchaser and the Unit itself to the extent provided by the Act. Under the Act, unpaid assessments constitute a lien upon the Unit and the sale proceeds thereof, which has priority over all claims except tax liens in favor of any state or federal taxing authority and sums unpaid on a first mortgage of record, except that past due assessments that are evidenced by a notice of lien, recorded pursuant to Section 2.7, have priority over a first mortgage recorded subsequent to the recording of the notice of the lien.

ARTICLE III ARBITRATION

Section 3.1 Scope and Election. Disputes, claims, or grievances arising out of or relating to the interpretation or the application of the Condominium Documents, or any disputes, claims, or

grievances arising among or between the Co-Owners and the Association, upon the election and written consent of the parties to any such disputes, claims, or grievances (which consent shall include an agreement of the parties that the judgment of any circuit court of the State of Michigan may be rendered upon any award pursuant to such arbitration), and upon written notice to the Association, shall be submitted to arbitration, and the parties shall accept the arbitrator's decision as final and binding, provided that no question affecting the claim of title of any person to any fee or life estate in real estate is involved. The Commercial Arbitration Rules of the American Arbitration Association as amended and in effect from time to time shall be applicable to any such arbitration.

Section 3.2 Judicial Relief. In the absence of the election and written consent of the parties pursuant to Section 3.1 above, any Co-Owner or the Association may petition the courts to resolve any disputes, claims, or grievances.

Section 3.3 Election of Remedies. The election and written consent by the disputing parties to submit any dispute, claim, or grievance to arbitration shall preclude such parties from thereafter litigating such dispute, claim, or grievance in the courts. Nothing contained in this Article III shall limit the rights of the Association or any Co-Owner described in Section 144 of the Act.

ARTICLE IV INSURANCE

Section 4.1 Extent of Coverage. The Association shall, to the extent appropriate in light of the nature of the General Common Elements of the Project, carry fire and extended coverage, vandalism and malicious mischief coverage, and liability insurance (in a minimum amount to be determined by the Developer or the Association in its discretion); officers' and directors liability insurance and workmen's compensation insurance, if applicable; and other insurance the Association may deem applicable, desirable, or necessary pertinent to the ownership, use, and maintenance of the General Common Elements, and such insurance shall be carried and administered in accordance with the following provisions:

(a) *Responsibilities of the Association.* All of the insurance referenced in this Section 4.1 shall be purchased by the Association for the benefit of the Association, the Co-Owners, and their mortgagees, as their interests may appear, and provision shall be made for the issuance of mortgagee endorsements to the mortgagees of Co-Owners.

(b) *Insurance of Common Elements.* All General Common Elements of the Condominium Project shall be insured against fire and other perils covered by a standard extended coverage endorsement in an amount equal to the current insurable replacement value, excluding foundation and excavation costs, if any, as determined annually by the Board of Directors of the Association in consultation with the Association's insurance carrier and/or its representatives, utilizing commonly employed methods for the reasonable determination of replacement costs.

(c) *Premium Expenses.* All premiums on insurance purchased by the Association pursuant to these Bylaws shall be expenses of administration.

(d) *Proceeds of Insurance Policies.* Proceeds of all insurance policies owned by the Association shall be received by the Association, held in a separate account and distributed to the

Association, and the Co-Owners and their mortgagees, as their interest may appear, provided, however, whenever repair, restoration, or replacement of any part of the Condominium shall be required as provided in Article V of these Bylaws, the proceeds of any insurance received by the Association as a result of any loss requiring same shall be retained by the Association and applied for such repair, restoration, or replacement, as applicable.

Section 4.2 Authority of Association to Settle Insurance Claims. Each Co-Owner, by ownership of a Unit in the Condominium Project, shall be deemed to appoint the Association as his true and lawful attorney-in-fact to act in connection with all matters concerning the maintenance of fire and extended coverage, vandalism and malicious mischief coverage, liability insurance, and workman's compensation insurance, if applicable, pertinent to the Condominium Project and the General Common Elements appurtenant thereto. Without limiting the foregoing, the Association shall have full power and authority to purchase and maintain such insurance, to collect and remit premiums thereunder, to collect insurance proceeds, and to distribute the same to the Association, the Co-Owners, and respective mortgagees, as their interest may appear (subject always to the Condominium Documents), and/or to utilize said proceeds for required repairs, restoration, or replacement, to execute releases of liability, and to execute all documents and to do all things on behalf of such Co-Owner and the Condominium as shall be necessary or convenient to accomplish the foregoing purposes.

Section 4.3 Co-Owner Responsibilities. Each Co-Owner shall be responsible for obtaining fire and extended coverage and vandalism and malicious mischief insurance with respect to the dwelling, appurtenances, and all other improvements constructed or to be constructed within the perimeter of his Unit, any Limited Common Elements appurtenant thereto, and for his personal property located therein or thereon or elsewhere in the Condominium Project. The Association shall have no responsibility whatsoever to provide such insurance. In addition, each Co-Owner shall be obligated to obtain insurance coverage for personal liability (and, where applicable, workmen's compensation insurance) for occurrences within the perimeter of his Unit and any other appurtenant Limited Common Elements, naming the Association and the Developer as additional insureds, and also for any other personal insurance coverage that the Co-Owner wishes to carry. Each Co-Owner shall deliver certificates of insurance to the Association from time to time to evidence the continued existence of all insurance required to be maintained by the Co-Owner under this Section 4.3. If a Co-Owner fails to obtain such insurance or to provide evidence of such insurance to the Association, the Association may, but is not obligated to, obtain such insurance on behalf of the Co-Owner, and the premiums for such insurance shall constitute a lien against the Co-Owner's Unit, which may be collected in the same manner that assessments may be collected Under Article II of these Bylaws.

Section 4.4 Waiver of Subrogation. The Association, as to all policies which it obtains, and all Co-Owners, as to all policies which they obtain, shall use their best efforts to see that all property and liability insurance carried by the Association and any Co-Owner shall contain appropriate provisions whereby the insurer waives its right of subrogation as to any claims against any Co-Owner or the Association.

Section 4.5 Indemnification. Each individual Co-Owner shall indemnify and hold harmless every other Co-Owner, the Developer, and the Association for all damages and costs, including attorney's fees, which the other Co-Owners, the Developer, or the Association may suffer as a result of defending any claim arising out of an occurrence on or within an individual Co-Owner's Unit. Each Co-Owner shall carry insurance to secure the indemnity obligations under this Section 4.5, if

required by the Association, or if required by the Developer during the Construction and Sales Period. This Section 4.5 is not intended to give any insurer any subrogation right or any other right or claim against any individual Co-Owner.

ARTICLE V MAINTENANCE, RECONSTRUCTION, OR REPAIR

Section 5.1 Co-Owner Responsibility for Maintenance. Each Co-Owner shall be responsible for all maintenance of the dwelling, driveway, and all personal property within his Unit. If any damage to the dwelling or other improvements constructed within a Co-Owner's Unit adversely affects the appearance of the Condominium Project, the Co-Owner shall proceed to remove, repair, or replace the damaged property without delay.

Section 5.2 Association Responsibility for Maintenance. The Association shall be responsible for the maintenance of the Common Elements unless otherwise provided for in Section 4.3 of the Master Deed or these Bylaws. Immediately following a casualty to property for which the Association has such maintenance responsibility, the Association shall obtain reliable and detailed cost estimates to repair, restore, or replace, as applicable, the damaged property to a condition comparable to that existing before the damage. If the proceeds of insurance are not sufficient to defray the estimated costs of such repair, restoration, or replacement, or if at any time during such repair, restoration, or replacement, or upon completion of such repair, restoration, or replacement, there are insufficient funds for the payment of such repair, restoration, or replacement, the Association shall make an assessment against all Co-Owners for an amount, which when combined with available insurance proceeds, shall be sufficient to fully pay for the cost of such repair, restoration, or replacement of the damaged property. Any such assessment made by the Board of Directors of the Association shall be governed by Section 2.3(a) of these Bylaws. Nothing contained in this Section 5.2 is intended to require the Developer or the Association to replace mature trees and vegetation with equivalent trees or vegetation.

Section 5.3 Timely Repair, Restoration, or Replacement. If any damage to Common Elements or a Unit adversely affects the appearance of the Project, the Association or Co-Owner responsible for the maintenance thereof shall proceed to repair, restore, or replace, as applicable, the damaged property without delay, and shall use its best efforts to complete such action within 6 months from the date upon which the property damage occurred.

Section 5.4 Eminent Domain. Section 133 of the Act and the following provisions shall control in the event all or a portion of the Project is subject to eminent domain:

(a) *Taking of a Unit or Related Improvements.* In the event all or a portion of a Unit are taken by eminent domain, the award for such taking shall be paid to the Co-Owner of such Unit and the mortgagee thereof, as their interest may appear. If the entire Unit is taken by eminent domain, on the acceptance of such award by the Co-Owner and his mortgagee, they shall be divested of all interest in the Condominium Project.

(b) *Taking of Common Elements.* If there is a taking of any portion of the General Common Elements, the condemnation process relative to such taking shall be paid to the Co-Owners and their mortgagees in proportion to their respective undivided interest in the General Common

Elements unless pursuant to the affirmative vote of Co-Owners representing greater than 50% of the total votes of all Co-Owners qualified to vote, at a meeting duly called for such purpose, the Association is directed to repair, restore, or replace the portion so taken or to take such other action as is authorized by a majority vote of the Co-Owners. If the Association is directed by the requisite number of Co-Owners to repair, restore, or replace all or any portion of the General Common Elements taken, the Association shall be entitled to retain the portion of the condemnation proceeds necessary to accomplish the repair, restoration, or replacement of the applicable General Common Elements. The Association, acting through its Board of Directors, may negotiate on behalf of all Co-Owners for any condemnation award for General Common Elements and any negotiated settlement approved by the Co-Owners representing two-thirds (2/3) or more of the total votes of all Co-Owners qualified to vote shall be binding on all Co-Owners.

(c) Continuation of Condominium After Taking. In the event the Condominium Project continues after a taking by eminent domain, then the remaining portion of the Condominium Project shall be re-surveyed, the Master Deed amended accordingly, and, if any Unit shall have been taken, in whole or part, then Article V of the Master Deed shall also be amended to reflect such taking and to proportionately readjust the percentages of value of the remaining Units, based upon the continuing value of the Condominium Project being 100%. Such amendment may be affected by an officer of the Association duly authorized by the Board of Directors without the necessity of obtaining the signature or specific approval of any Co-Owner, mortgagee, or other person

(d) Notification of Mortgagees. In the event all or any portion of a Unit in the Condominium, or all or any portion of the Common Elements is made the subject matter of any condemnation or eminent domain proceeding or is otherwise sought to be acquired by a condemning authority, the Association shall notify each institutional holder of a first mortgage lien on any of the Units in the Condominium that is registered in the Association's book of "Mortgagees of Units" pursuant to Section 6.1 of these Bylaws.

Section 5.5 Notification of FHLMC. In the event any mortgage in the Condominium is held by the Federal Home Loan Mortgage Corporation ("FHLMC") then, upon request therefor by FHLMC, the Association shall give FHLMC written notice, at such address as it may from time to time direct, of any loss to or taking of the Common Elements of the Condominium, if the loss or taking exceeds \$10,000.00 in amount or if the damage or taking relates to a Unit covered by a mortgage purchased in whole or in part by FHLMC and exceeds \$1,000.00.

Section 5.6 Priority of Mortgagee Interests. Nothing contained in the Condominium Documents shall be construed to give a Co-Owner, or any other party, priority over any rights of first mortgagees of Units pursuant to their mortgages with respect to any distribution to Co-Owners of insurance proceeds or condemnation awards for losses to or a taking of Units and/or Common Elements.

ARTICLE VI MORTGAGES

Section 6.1 Notice to Association. Any Co-Owner who mortgages his Unit shall notify the Association of the name and address of the mortgagee, and the Association shall maintain such information in a book entitled "Mortgages of Units." The Association may, at the written request of a mortgagee of any such Unit, report any unpaid assessments due from the Co-Owner of such

Unit. The Association shall give to the holder of any first mortgage covering any Unit written notification of any default in the performance of the obligations of the Co-Owner of such Unit that is not cured within 60 days.

Section 6.2 Insurance. The Association shall notify each mortgagee appearing in the book referenced in Section 6.1 of the name of each company insuring the Condominium Project against fire, perils covered by extended coverage, and vandalism and malicious mischief coverage, and the amounts of such coverage.

Section 6.3 Notification of Meetings. Upon request submitted to the Association, any institutional holder of a first mortgage lien on a Unit shall be entitled to receive written notification of every meeting of the Members of the Association and to designate a representative to attend such meeting.

ARTICLE VII VOTING

Section 7.1 Vote. Except as otherwise specified in those Bylaws, each Co-Owner shall be entitled to one vote for each Condominium Unit owned.

Section 7.2 Eligibility to Vote. No Co-Owner, other than the Developer, shall be entitled to vote at any meeting of the Association until he has presented to the Association evidence that the Co-Owner owns a Unit. Except as provided in Section 10.2 of these Bylaws, no Co-Owner, other than the Developer, shall be entitled to vote prior to the date of the First Annual Meeting of Members held in accordance with Section 10.2. The vote of each Co-Owner may be cast only by the individual representative designated by such Co-Owner in the notice required in Section 7.3 below or by a proxy given by such individual representative. The Developer shall be the only person entitled to vote at a meeting of the Association until the First Annual Meeting of Members and shall be entitled to vote during such period notwithstanding the fact that the Developer may own no Units at some time or from time to time during such period. At the First Annual Meeting and thereafter, the Developer shall be entitled to vote for each Unit which it owns.

Section 7.3 Designation of Voting Representative. Each Co-Owner shall file with the Association a written notice designating the individual representative who shall vote at meetings of the Association and receive all notices and other communications from the Association on behalf of the Co-Owner. If a Co-Owner designates himself as the individual representative, he need not file any written notice with the Association. The failure of any Co-Owner to file any written notice shall create a presumption that the Co-Owner has designated himself as the voting representative. The notice shall state the name and address of the individual representative designated, the address of the Unit or Units owned by the Co-Owner, and the name and address of each person, firm corporation, partnership, association, trust, or other entity who is the Co-Owner. The notice shall be signed and dated by the Co-Owner. An individual representative may be charged by the Co-Owner at any time by filing a new notice in accordance with this Section 7.3. In the event a Unit is owned by multiple Co-Owners who fail to designate an individual voting representative for such Co-Owners, the Co-Owner whose name first appears on record title shall be deemed to be the individual representative authorized to vote on behalf of all the multiple Co-Owners of the Unit(s), and any vote cast in person or by proxy by said individual representative shall be binding upon all such multiple Co-Owners.

Section 7.4 Quorum. The presence in person or by proxy of Co-Owners representing 51% of the total number of votes of all Co-Owners qualified to vote shall constitute a quorum for holding a meeting of the Members of the Association, except for voting on questions specifically required by the Condominium Documents to require a greater quorum. The written vote of any person furnished at or prior to any duly called meeting at which said person is not otherwise present in person or by proxy shall be counted in determining the presence of a quorum with respect to the question upon which the vote is cast.

Section 7.5 Voting. Votes may be cast in person or by proxy by a writing duly signed by the designated voting representative not present at a given meeting in person or by proxy. Proxies and any written votes must be filed with the secretary of the Association at or before the appointed time of each meeting of the Members of the Association. Cumulative voting shall not be permitted.

Section 7.6 Majority. When an action is to be authorized by vote of the Co-Owners of the Association, the action must be authorized by a majority of the votes cast at a meeting duly called for such purpose, unless a greater percentage vote is required by the Master Deed, these Bylaws, or the Act.

ARTICLE VIII MEETINGS

Section 8.1 Place of Meeting. Meetings of the Association shall be held at the principal office of the Association or at such other suitable place convenient to the Co-Owners as may be designated by the Board of Directors. Meetings of the Association shall be conducted in accordance with generally recognized rules of parliamentary procedure that are not in conflict with the Condominium Documents or the laws of the State of Michigan.

Section 8.2 First Annual Meeting. The First Annual Meeting of Members of the Association may be convened by the Developer in its discretion at any time prior to the date the First Annual Meeting is required to be convened pursuant to this Section 8.2. Notwithstanding the foregoing, the First Annual Meeting must be held (i) within 120 days following the conveyance of legal or equitable title to non-developer Co-Owners of 75% of all Units; or (ii) 54 months from the first conveyance to a non-Developer Co-Owner of legal or equitable title to a Unit, whichever is the earlier to occur. The Developer may call meeting of Members for informative or other appropriate purposes prior to the First Annual Meeting of Members and no such meeting shall be construed as the First Annual Meeting of Members. The date, time, and place of such meeting shall be set by the Board of Directors, and at least 10 days written notice thereof shall be given to each Co-Owner's individual representative.

Section 8.3 Annual Meetings. Annual meetings of Association Members shall be held not later than May 30 of each succeeding year following the year in which the First Annual Meeting is held at a time and place determined by the Board of Directors. At each annual meeting, the Co-Owners shall elect members of the Board of Directors in accordance with Article X of these Bylaws. The Co-Owners may also transact at annual meetings such other Association business as may properly come before them.

Section 8.4 Special Meeting. The President shall call a special meeting of Members as directed by resolution of the Board of Directors or upon presentation to the Association's Secretary of a petition signed by Co-Owners representing one-third (1/3) of the votes of all Co-Owners qualified to vote. Notice of any special meeting shall state the time and place of such meeting and the purposes thereof. No business shall be transacted at a special meeting except as stated in the notice.

Section 8.5 Notice of Meetings. The Secretary (or other Association officer in the Secretary's absence) shall provide each Co-Owner of record or, if applicable, a Co-Owner's individual representative with notice of each annual or special meeting, stating the purpose thereof and the time and place where it is to be held. A notice of an annual or special meeting shall be served at least 10 days, but not more than 60 days, prior to each meeting. The mailing, postage prepaid, of a notice to the individual representative of each Co-Owner at the address shown in the notice filed with the Association under Section 7.3 of these Bylaws shall be deemed properly served. Any Co-Owner or individual representative may waive such notice by filing with the Association a written waiver of notice signed by such Co-Owner or individual representative.

Section 8.6 Adjournment. If any meeting of Co-Owners cannot be held because a quorum is not in attendance, the Co-Owners who are present may adjourn the meeting to a time not less than 48 hours from the time the original meeting was called. When a meeting is adjourned to another time or place, it is not necessary to give notice of the adjourned meeting if the time and place to which the meeting is adjourned are announced at the meeting at which the adjournment is taken and only such business is transacted at the adjourned meeting as might have been transacted at the original meeting. However, if after the adjournment, the Board of Directors fixes a new record date for the adjourned meeting, a notice of adjourned meeting shall be given to each Co-Owner or Co-Owner's individual representative.

If a meeting is adjourned in accordance with the provisions of this Section 8.6 due to the lack of a quorum, the required quorum at the subsequent meeting shall be two thirds (2/3) of the required quorum for the meeting that was adjourned, provided that the Board of Directors provides each Co-Owner (or Co-Owner's individual representative) with notice of the adjourned meeting in accordance with Section 8.5 above and provided further the subsequent meeting is held within sixty (60) days from the date of the adjourned meeting.

Section 8.7 Action Without Meeting. Any action required or permitted to be taken at a meeting of Members may be taken without a meeting, without prior notice, and without a vote if all of the Co-Owners (or their individual representatives) entitled to vote thereon consent thereto in writing. If the Association's Articles of Incorporation so provide, any action required or permitted to be taken at any meeting of Members may be taken without a meeting, without prior notice, and without a vote if a written consent setting forth the actions so taken is signed by the Co-Owners (or their individual representatives) having not less than the minimum number of votes that would be necessary to authorize or take the action at a meeting at which all Co-Owners entitled to vote thereon were present and voted. Prompt notice of any action that is taken without a meeting by less than unanimous written consent shall be given to the Co-Owners who have not consented in writing.

Section 8.8 Electronic Participation in a Meeting. A Co-Owner may participate in a meeting by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other if such option is available. If there is a cost

to this option, the Co-Owner(s) utilizing this option shall bear the cost. Participation in a meeting pursuant to this Section 8.8 constitutes presence at the meeting.

ARTICLE IX ADVISORY COMMITTEE

Within one year after the first conveyance to a non-Developer Co-Owner of legal or equitable title to a Unit in the Condominium Project or within 120 days following the conveyance to non-Developer Co-Owners of one-third (1/3) of the total number of Units that may be created, whichever first occurs, the Developer shall cause to be established an Advisory Committee consisting of at least three non-Developer Co-Owners. The Committee shall be established in any manner the Developer deems advisable. The purpose of the Advisory Committee shall be to facilitate communications between the temporary Board of Directors and the non-Developer Co-Owners and to aid in the transition of control of the Association from the Developer to Co-Owners. The Advisory Committee shall automatically cease to exist when a majority of the Board of Directors of the Association is elected by non-Developer Co-Owners. The Developer may at any time remove and replace, at its discretion, any member of the Advisory Committee.

ARTICLE X BOARD OF DIRECTORS

Section 10.1 Number and Qualification of Directors. The Board of Directors shall initially be comprised of three Directors. At such time as the non-Developer Co-Owners are entitled to elect two members of the Board of Directors in accordance with Section 10.2 below, the Board shall automatically be increased in size from three to five persons. At such time as the Board of Directors is increased in size to five persons, all Directors must be Co-Owners (or officers, partners, trustees, or employees of Co-Owners that are entities). In the event that the Association cannot locate five Co-Owners who are willing to serve as Directors, the Board may operate with less than five persons, and such reduced size shall not affect the validity of any decision made by the Board.

Section 10.2 Election of Directors.

(a) *First Board of Directors.* Until such time as the non-Developer Co-Owners are entitled to elect one of the members of the Board of Directors, the Developer shall select all of the Directors, which persons may be removed or replaced by Developer in its discretion.

(b) *Appointment of Non-Developer Co-Owners to Board Prior to First Annual Meeting.* Not later than 120 days following the conveyance to non-Developer Co-Owners of legal or equitable title to 25% of the Units that may be created, one member of the Board of Directors shall be elected by non-Developer Co-Owners. The remaining Members of the Board of Directors shall be selected by Developer. Not later than 120 days following the conveyance to non-Developer Co-Owners of legal or equitable title to 50% of the Units that may be created, the Board of Directors shall be increased to five Members and two of the five Directors shall be elected by non-Developer Co-Owners. The remaining Members of the Board of Directors shall be selected by Developer. When the required percentage levels of conveyance have been reached, the Developer shall notify the non-Developer Co-Owners and request that they hold a meeting to elect the required number of Directors. Upon certification by the Co-Owners to the Developer of the Director or Directors elected, the Developer shall immediately appoint such Director or Directors to the Board, to serve

until the First Annual Meeting of Co-Owners, unless he is removed pursuant to Section 10.7, he resigns, or he becomes incapacitated.

(c) Election of Directors at and after First Annual Meeting

(i) Not later than 120 days following the conveyance to non-Developer Co-Owners of legal or equitable title to 75% of the Units that may be created, the non-developer Co-Owners shall elect all of the Directors on the Board, except that the Developer shall have the right to designate at least one Director so long as the Developer owns and offers for sale at least 10% of the Units in the Condominium Project or as long as the Units that remain to be created and sold equal at least 10% of all Units that may be created in the Project. Whenever the 75% conveyance level is achieved, a meeting of Co-Owners shall promptly be convened to effectuate this provision, even if the First Annual Meeting has already occurred.

(ii) Regardless of the percentage of Units which have been conveyed, upon the elapse of 54 months after the first conveyance to a non-Developer Co-Owner of legal or equitable title to a Unit on the Project, and if title to not less than 75% of the Units that may be created has not been conveyed, the non-Developer Co-Owners have the right to elect a number of members of the Board of Directors in proportion to the percentage of Units they own, and the Developer has the right to elect a number of members of the Board of Directors in proportion to the percentage of Units that are owned by the Developer and for which assessments are payable by the Developer. This election may increase, but shall not reduce, the minimum election and designation rights otherwise established in Section 10.2(b) or 10.2(c)(i) above. Application of this subsection does not require a change in the size of the Board of Directors.

(iii) If the calculation of the percentage of members of the Board of Directors that the non-Developer Co-Owners have the right to elect under subsection (ii) above, or if the product of the number of members of the Board of Directors multiplied by the percentage of Units held by the non-Developer Co-Owners under subsection (b) results in a right of non-Developer Co-Owners to elect a fractional number of members of the Board of Directors, then a fractional election right of 0.5 or greater shall be rounded up to the nearest whole number, which number shall be the number of members of the Board of Directors that the non-Developer Co-Owners have the right to elect. After application of this formula, the Developer shall have the right to elect the remaining members of the Board of Directors. Application of this subsection shall not eliminate the right of the Developer to designate one director as provided in subsection (c)(i), above.

(iv) At such time as the non-Developer Co-Owners are entitled to elect all of the Directors, three Directors shall be elected for a term of two years and two Directors shall be elected for a term of one year. At such meeting, all nominees shall stand for election as one slate and the three persons receiving the highest number of votes shall be elected for a term of two years and the two persons receiving the next highest number of votes shall be elected for a term of one year. At each annual meeting held thereafter, either two or three Directors shall be elected depending upon the number of Directors whose terms expire, and the term of office of each Director shall be two years. The Directors shall hold office until their successors have been elected and hold their first meeting.

Section 10.3 Powers and Duties. The Board of Directors shall have the powers and duties necessary for the administration of the affairs of the Association and may do all acts and things as

are not prohibited by the Condominium Documents or specifically required to be exercised and done by the Co-Owners.

Section 10.4 Specific Powers and Duties. In addition to the duties imposed by these Bylaws or any further duties which may be imposed by resolution of the Co-Owners of the Association, the Board of Directors shall have the following powers and duties:

(a) To manage and administer the affairs of and maintain the Condominium Project and the Common Elements.

(b) To collect assessments from the Co-Owners and to expend the proceeds for the purposes of the Association.

(c) To carry insurance and collect and allocate the proceeds thereof.

(d) To reconstruct or repair improvements after casualty.

(e) To contract for and employ persons, firms, corporations, or other agents to assist in the management, operation, maintenance, and administration of the Condominium Project.

(f) To acquire, maintain, and improve, and to buy, operate, manage, sell, convey, assign, mortgage, or lease any real or personal property (including any Unit in the Condominium Project and easements, rights-of-way, and licenses) on behalf of the Association in furtherance of any of the purposes of the Association.

(g) To borrow money and issue evidences of indebtedness in furtherance of any or all of the purposes of the Association, and to secure the same by mortgage, pledge, or other lien on property owned by the Association; provided, however, that any such action shall also be approved by the affirmative vote of the Co-Owners (or their individual representatives) representing 75% of the total votes of all Co-Owners qualified to vote.

(h) To establish rules and regulations for the General Common Elements.

(I) To establish such committees as the Board of Directors deems necessary, convenient, or desirable, and to appoint persons thereto for the purpose of implementing the administration of the Condominium Project and to delegate to such committees any functions or responsibilities that are not by law or the Condominium Documents required to be exclusively performed by the Board.

(j) To enforce the provisions of the Condominium Documents.

Section 10.5 Management Agent. The Board of Directors may employ for the Association a professional management agent (which may include the Developer or any person or entity related thereto) at a reasonable compensation established by the Board to perform such duties and services as the Board shall authorize, including, but not limited to, the duties listed in Sections 10.3 and 10.4, and the Board may delegate to such management agent any other duties or powers that are not by

law or by the Condominium Documents required to be exclusively performed by or have the approval of the Board of Directors or the Members of the Association.

Section 10.6 Vacancies. Vacancies in the Board of Directors that occur after the Transitional Control Date caused by any reason other than the removal of a Director by a vote of the Co-Owners of the Association shall be filled by vote of the majority of the remaining Directors, even though they may constitute less than a quorum, except that the Developer shall be solely entitled to fill the vacancy of any Director whom it is permitted in the first instance to designate. Each person so elected shall be a Director until a successor is elected at the next annual meeting of the Association. Vacancies among non-Developer Co-Owner elected Directors that occur prior to the Transitional Control Date may be filled only through election by non-Developer Co-Owners and shall be filled in the manner as specified in Section 10.2(b).

Section 10.7 Removal. At any regular or special meeting of the Association duly called with due notice of the removal action proposed to be taken, any one or more of the Directors elected by the non-Developer Co-Owners may be removed with or without cause by the affirmative vote of the Co-Owners (or their individual representatives) who represent greater than 50% of the total votes of all Co-Owners qualified to vote, and a successor may then and there be elected to fill any vacancy thus created. Any Director whose removal has been proposed by a Co-Owner shall be given an opportunity to be heard at the meeting. The Developer may remove and replace any or all of the Directors selected by it at any time or from time to time in its sole discretion. Any Director selected by the non-Developer Co-Owners to serve before the First Annual Meeting may also be removed by such Co-Owners before the First Annual Meeting in the manner described in this Section 10.7.

Section 10.8 First Meeting. The first meeting of the elected Board of Directors shall be held within 10 days of election at a time and place fixed by the Directors at the meeting at which such Directors were elected, and no notice shall be necessary in order to legally convene such meeting, provided a majority of the Board shall be present.

Section 10.9 Regular Meetings. Regular meetings of the Board of Directors may be held at such times and places as shall be deemed from time to time by a majority of the Directors, but at least two such meetings shall be held during each fiscal year of the Association. Notice of regular meetings of the Board of Directors shall be given to each Director, personally, by mail, telephone, or telegraph at least 10 days prior to the date named for such meeting.

Section 10.10 Special Meetings. Special meetings of the Board of Directors may be called by the President on 3 days' notice to each Director, given personally, by mail, telephone, or telegraph, which notice shall state the time, place, and purpose of the meeting. Special meetings of the Board of Directors shall be called by the President or Secretary in like manner on the written request of two or more Directors.

Section 10.11 Quorum and Required Vote of Board of Directors. At all meetings of the Board of Directors, a majority of the members of the Board of Directors then in office shall constitute a quorum. The vote of the majority of Directors at a meeting at which a quorum is present constitutes the action of the Board of Directors, unless a greater plurality is required by the Michigan Non-profit Corporation Act, the Articles of Incorporation, the Master Deed, or these Bylaws. If a quorum is not present at any meeting of the Board of Directors, the Directors present at such meeting

may adjourn the meeting from time to time without notice other than an announcement at the meeting, until the quorum shall be present.

Section 10.12 Consent in Lieu of Meeting. Any action required or permitted to be taken at a meeting of the Board of Directors may be taken without a meeting if all members of the Board of Directors consent in writing. The written consent shall be filed with the minutes of the proceedings of the Board of Directors. The consent has the same effect as a vote of the Board of Directors for all purposes.

Section 10.13 Electronic Participation in a Meeting. A Director may participate in a meeting by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other. Participation in a meeting pursuant to this Section 10.13 constitutes presence at the meeting.

Section 10.14 Fidelity Bonds. The Board of Directors may require that all officers and employees of the Association handling or responsible for Association funds furnish adequate fidelity bonds. The premiums on such bonds shall be expenses of administration.

Section 10.15 Compensation. The Board of Directors shall not receive any compensation for rendering services in their capacity as Directors, unless approved by the Co-Owners (or their individual representatives) who represent 60% or more of the total votes of all Co-Owners qualified to vote.

ARTICLE XI OFFICERS

Section 11.1 Selection of Officers. The Board of Directors, at a meeting called for such purpose, shall appoint a president, secretary, and treasurer. The Board of Directors may also appoint one or more vice-presidents and such other officers, employees, and agents as the Board shall deem necessary, which officers, employees, and agents shall hold their offices for such terms and shall exercise such powers and perform such duties as shall be determined from time to time by the Board of Directors. Two or more offices, except that of president and vice-president, may be held by one person who may also be a Director. An officer shall be a Co-Owner (or shareholder, officer, director, employee, or partner of a Co-Owner that is an entity).

Section 11.2 Term, Removal, and Vacancies. Each officer of the Association shall hold office for the term for which he is appointed until his successor is elected or appointed, or until his resignation or removal. Any officer appointed by the Board of Directors may be removed by the Board of Directors with or without cause at any time. Any officer may resign by written notice to the Board of Directors. Any vacancy occurring in any office may be filled by the Board of Directors.

Section 11.3 President. The President shall be a Member of the Board of Directors and shall act as the chief executive officer of the Association. The President shall preside at all meetings of the Association and of the Board of Directors. He shall have all of the general powers and duties which are usually vested in the office of the President of an Association, subject to Section 11.1 above.

Section 11.4 Vice President. The Vice President shall take the place of the President and his duties whenever the President shall be absent or unable to act. If neither the President nor the Vice President is able to act, the Board of Directors shall appoint some other member of the Board to do so on an interim basis. The Vice President shall also perform such other duties as shall from time to time be imposed upon him by the Board of Directors.

Section 11.5 Secretary. The Secretary shall keep the minutes of all meetings of the Board of Directors and the minutes of all meetings of the Co-Owners of the Association. He shall have charge of the corporate seal, if any, and of such books and papers as the Board of Directors may direct; and he shall, in general, perform all duties incident to the office of the Secretary.

Section 11.6 Treasurer. The Treasurer shall have responsibility for the Association funds and securities and shall be responsible for keeping full and accurate accounts of all receipts and disbursements in books belonging to the Association. He shall be responsible for the deposit of all monies and other valuable effects in the name and to the credit of the Association, in such depositories as may, from time to time, be designated by the Board of Directors.

ARTICLE XII SEAL

The Association may (but need not) have a seal. If the Board determines that the Association shall have a seal, then it shall have inscribed thereon the name of the Association, the word "corporate seal," and the word "Michigan."

ARTICLE XIII FINANCE

Section 13.1 Records. The Association shall keep detailed books of account showing all expenditures and receipts of administration, which shall specify the maintenance and repair expenses of the Common Elements and any other expenses incurred by or on behalf of the Association and the Co-Owners. Such accounts and all other Association records shall be open for inspection by the Co-Owners and their mortgagees during reasonable working hours. The Association shall prepare and distribute to each Co-Owner at least once a year a financial statement, the contents of which shall be determined by the Association. The books of account shall be audited at least annually by qualified independent auditors; provided, however, that such auditors need not be certified public accountants nor does such audit need to be a certified audit, unless the annual revenues of the Association exceed \$20,000. In the event the annual revenues of the Association exceed \$20,000, then the annual audit shall be performed by a certified public accountant unless a majority of the Members vote to opt out of this requirement. Upon request, any institutional holder of a first mortgage lien on any Unit in the Condominium shall be entitled to receive a copy of such annual audited financial statement within 90 days following the end of the Association's fiscal year. The costs of any such audit and any accounting expenses shall be expenses of administration.

Section 13.2 Fiscal Year. The fiscal year of the Association shall be an annual period commencing on the date initially determined by the Directors. The Association's fiscal year may be changed by the Board of Directors in its discretion.

Section 11.3 Bank Accounts. The Association's funds shall initially be deposited in such bank or savings association as may be designated by the Directors. All checks, drafts, and order of payment of money shall be signed in the name of the Association in such manner and by such person or persons as the Board of Directors shall from time to time designate for that purpose. The Association's funds may be invested from time to time in accounts or deposit certificates of such bank or savings association that are insured by the Federal Deposit Insurance Corporation of the Federal Savings and Loan Insurance Corporation and may also be invested in interest-bearing obligations of the United States Government.

ARTICLE XIV INDEMNIFICATION OF OFFICERS AND DIRECTORS

Section 14.1 Third Party Actions. To the fullest extent permitted by the Michigan Non-Profit Corporation Act, the Association shall, subject to Section 14.5 below, indemnify any person who was or is a party defendant or is threatened to be made a party defendant to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative, or investigative (other than an action by or in the right of the Association) by reason of the fact that he is or was a Director or officer of the Association, or is or was serving at the request of the Association as a Director, officer, employee, or agent of another corporation, partnership, joint venture, trust, or other enterprise, against expenses (including actual and reasonable attorney fees), judgments, fines, and amounts reasonably paid in settlement actually and reasonably incurred by him in connection with such action, suit, or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Association or its members, and with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. The termination of any action, suit, or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption (a) that the person did not act in good faith and in a manner which he reasonably believed to be not opposed to the best interests of the Association or its members, and (b) with respect to any criminal action or proceeding, that the person had reasonable cause to believe that his conduct was unlawful.

Section 14.2 Actions in the Right of the Association. To the fullest extent permitted by the Michigan Non-profit Corporation Act, the Association shall, subject to Section 14.5 below, indemnify any person who was or is a party defendant to or is threatened to be made a party defendant of any threatened, pending, or completed action or suit by or in the right of the Association to procure a judgment in its favor by reason of the fact that he is or was a Director or officer of the Association, or is or was serving at the request of the Association as a Director, officer, employee, or agent of another corporation, partnership, joint venture, trust, or other enterprise against expenses (including actual and reasonable attorney fees) actually and reasonably incurred by him in connection with the defense or settlement of such action or suit and amounts reasonably paid in settlement if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Association or its members, except that no indemnification shall be made in respect of any claim, issue, or matter as to which such person shall have been adjudged to be liable to the Association unless, and only to the extent that the court in which such action or suit was brought shall determine upon application that, despite the indication of liability but in view of all circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses that such court shall deem proper.

Section 14.3 Insurance. The Association may purchase and maintain insurance on behalf of any person who is or was a Director, employee, or agent of the Association, or is or was serving at the request of the Association as a Director, officer, employee, or agent against any liability asserted against him and incurred by him in any such capacity or arising out of his status as such, whether or not the Association would have power to indemnify him against such liability under Sections 14.1 and 14.2 above. In addition, the Association may purchase and maintain insurance for its own benefit to indemnify it against any liabilities it may have as a result of its obligations of indemnification made under Sections 14.1 and 14.2 above.

Section 14.4 Expenses of Successful Defense. To the extent that a person has been successful on the merits or otherwise in defense of any action, suit, or proceeding referred to in Sections 14.1 and 14.2 above, or in defense of any claim, issue, or matter therein, or to the extent such person incurs expenses (including actual and reasonable attorney fees) in successfully enforcing the provisions of this Article XIV, he shall be indemnified against expenses (including attorney fees) actually and reasonably incurred by him in connection therewith.

Section 14.5 Determination that Indemnification is Proper. Any indemnification under Sections 14.1 and 14.2 above (unless ordered by a court) shall be made by the Association only as authorized in the specific case upon a determination that indemnification of the person is proper under the circumstances because he has met the applicable standard of conduct set forth in Sections 14.1 or 14.2 above, whichever is applicable. Notwithstanding anything to the contrary contained in this Article XIV, in no event shall any person be entitled to any indemnification under the provisions of this Article XIV if he is adjudged guilty of willful or wanton misconduct or gross negligence in the performance of his duties. The determination to extend such indemnification shall be made in any one (1) of the following ways:

- (a) By a majority vote of a quorum of the Board of Directors consisting of Directors who were not parties to such action, suit, or proceeding; or
- (b) If such quorum described in (a) is not obtainable, then by a majority vote of a committee of Directors who are not parties to the action, suit, or proceeding. The committee shall consist of not less than two (2) disinterested Directors; or
- (c) If such quorum described in (a) is not obtainable (or, even if obtainable, a quorum of disinterested Directors, so directs), by independent legal counsel in a written opinion.

If the Association determines that full indemnification is not proper under Sections 14.1 or 14.2 above, it may nonetheless determine to make whatever partial indemnification it deems proper. At least 10 days prior to the payment of any indemnification claim which is approved, the Board of Directors shall provide all Co-Owners with written notice thereof.

Section 14.6 Expense Advance. Expenses incurred in defending a civil or criminal action, suit, or proceeding described in Sections 14.1 and 14.2 above may be paid by the Association in advance of the final disposition of such action, suit, or proceeding, as provided in Section 14.4 above, upon receipt of an undertaking by or on behalf of the person involved to repay such amount unless it shall ultimately be determined that he is entitled to be indemnified by the Association. At least 10 days prior to advancing any expenses to any person under this Section 14.6, the Board of Directors shall provide all Co-Owners with written notice thereof.

Section 14.7 Former Representatives, Officers, Employees, or Agents. The indemnification provided in this Article XIV shall continue as to a person who has ceased to be a Director, officer, employee, or agent of the Association and shall inure to the benefit of the heirs, executors, and administrators of such person.

Section 14.8 Changes in Michigan Law. In the event of any change of the Michigan statutory provisions applicable to the Association relating to the subject matter of this Article XIV, the indemnification to which any person shall be entitled hereunder arising out of acts or omissions occurring after the effective date of such amendment shall be determined by such changed provisions. No amendment to or repeal of Michigan law with respect to indemnification shall restrict the Association's indemnification undertaking herein with respect to acts or omissions occurring prior to such amendment or repeal. The Board of Directors are authorized to amend this Article XIV to conform to any such changed statutory provisions.

ARTICLE XV AMENDMENTS

Section 15.1 By Developer. In addition to the rights of amendment provided to the Developer in the various Articles of the Master Deed, the Developer may, within two years following the expiration of the Construction and Sales Period, and without the consent of any Co-Owner, mortgagee, or any other person, amend those Bylaws provided such amendment or amendments do not materially alter the rights of Co-Owners or mortgagees.

Section 15.2 Proposal. Amendments to these Bylaws may be proposed by the Board of Directors of the Association upon the vote of the majority of Directors or may be proposed by 1/3 or more in number of the Co-Owners by a written instrument signed by the applicable Co-Owners.

Section 15.3 Meeting. If any amendment to these Bylaws is proposed by the Board of Directors or the Co-Owners, a meeting for consideration of the proposal shall be duly called in accordance with the provisions of these Bylaws.

Section 15.4 Voting. These Bylaws may be amended by the Co-Owners at any regular meeting or a special meeting called for such purpose by an affirmative vote of 66-2/3% or more of the total votes of all Co-Owners qualified to vote. No consent of mortgagees shall be required to amend these Bylaws unless such amendment would materially alter or change the rights of such mortgagees, in which event the approval of 66-2/3% of all mortgagees of Units shall be required. Each mortgagee shall have one vote for each mortgage held. Notwithstanding anything to the contrary contained in this Article XV, during the Construction and Sales Period, these Bylaws shall not be amended in any way without the Prior written consent of the Developer.

Section 15.5 Effective Date of Amendment. Any amendment to the Bylaws shall become effective upon the recording of such amendment in the office of the Livingston County Register of Deeds.

Section 15.6 Binding Effect. A copy of each amendment to the Bylaws shall be furnished to every member of the Association after its adoption; provided, however, that any amendment to these

Bylaws that is adopted in accordance with this Article XV shall be binding upon all persons who have an interest in the Project irrespective of whether such persons actually receive a copy of the amendment.

ARTICLE XVI COMPLIANCE

The Association or any Co-Owners and all present or future Co-Owners, tenants, future tenants, or any other persons acquiring an interest in or using the facilities of the Condominium Project in any manner are subject to and shall comply with the Act, as amended, and the mere acquisition, occupancy, or rental of any Unit or an interest therein or the utilization of or entry upon the Condominium Premises shall signify that the Condominium Documents are accepted and ratified. In the event the Condominium Documents conflict with the provisions of the Act, the Act shall govern.

ARTICLE XVII REMEDIES FOR DEFAULT

Any default by a Co-Owner of its obligations under any of the Condominium Documents shall entitle the Association or another Co-Owner or Co-Owners to the following relief:

Section 17.1 Legal Action. Failure to comply with any of the terms or provisions of the Condominium Documents shall be grounds for relief, which may include, without limitation, an action to recover damages, injunctive relief, foreclosure of lien (if there is a default in the payment of an assessment), or any combination thereof, and such relief may be sought by the Association or, if appropriate, by an aggrieved Co-Owner or Co-Owners.

Section 17.2 Recovery of Costs. In any legal proceeding arising because of an alleged default by any Co-Owner, the Association, if successful, shall be entitled to recover the costs of the proceeding and such reasonable attorneys' fees (not limited to statutory fees) as may be determined by the court, but in no event shall any Co-Owner be entitled to recover such attorneys' fees. In addition, in the event of a default that does not result in a legal proceeding, the Association shall have a right to assess to any Co-Owner all costs and expenses incurred, including all attorneys' fees.

Section 17.3 Removal and Abatement. The violation of any of the provisions of the Condominium Documents shall also give the Association or its duly authorized agents the right, in addition to the rights set forth above, to enter upon the Common Elements, Limited or General, or into any Unit and the improvements thereon, where reasonably necessary, and summarily remove and abate, at the expense of the Co-Owner in violation, any structure or condition existing or maintained in violation of the provisions of the Condominium Documents. The Association shall have no liability to any Co-Owner arising out of the exercise of its rights under this Section 17.3.

Section 17.4 Assessment of Fines. The violation of any of the provisions of the Condominium Documents by any Co-Owner shall be grounds for the assessment by the Association, acting through its duly constituted Board of Directors, of monetary fines against the applicable Co-Owner. No fine shall be levied for the first violation. No fine shall exceed \$25.00 for the second violation, \$50.00 for the third violation, or \$100.00 for any subsequent violation. No greater fine may be assessed unless rules and regulations establishing such increased fines have first been duly

adopted by the Board of Directors of the Association and notice thereof given to all Co-Owners in the same manner as prescribed in Section 8.3 of these Bylaws. Fines may be assessed only upon notice to the offending Co-Owner and an opportunity for such Co-Owner to appear before the Board no less than seven days from the date of the notice and offer evidence in defense of the alleged violation. All fines duly assessed may be collected in the same manner as provided in Article II of these Bylaws.

Section 17.5 Non-waiver of Rights. The failure of the Association or of any Co-Owner to enforce any right, provision, covenant, or condition that may be granted by the Condominium Documents shall not constitute a waiver of the right of the Association or of any such Co-Owner to enforce such right, provision, covenant, or condition in the future.

Section 17.6 Cumulative Rights, Remedies, and Privileges. All rights, remedies, and privileges granted to the Association or any Co-Owner or Co-Owners pursuant to any of the terms, provisions, covenants, or conditions of the Condominium Documents shall be deemed to be cumulative and the exercise of any one or more of such rights or remedies shall not be deemed to constitute an election of remedies, nor shall it preclude the party exercising the same from exercising such other and additional rights, remedies, or privileges as may be available to such party under the Condominium Documents or at law or in equity.

Section 17.7 Enforcement of Provisions of Condominium Documents. A Co-Owner may maintain an action against the Association and its officers and Directors to compel such persons to enforce the terms and provisions of the Condominium Documents. A Co-Owner may maintain an action against any other Co-Owner for injunctive relief or for damages or any combination thereof for noncompliance with the terms and provisions of the Condominium Documents or the Act.

ARTICLE XVIII RIGHTS RESERVED TO DEVELOPER

Any or all of the rights and powers granted or reserved to the Developer in the Condominium Documents or by law, including the right and power to approve or disapprove any act, use, or proposed action or any other matter, may be assigned by the Developer to any other entity or to the Association. Any such assignment or transfer shall be made by an appropriate written instrument in which the assignee or transferee evidences its consent to the acceptance of such powers and rights. Any rights and powers reserved or retained by Developer or its successors and assigns shall expire, at the conclusion of two (2) years following the expiration of the Construction and Sales Period, except as otherwise expressly provided in the Condominium Documents. The immediately preceding sentence dealing with the expiration and termination of certain rights and powers granted or reserved to the Developer are intended to apply, insofar as the Developer is concerned, only to Developer's rights to approve and control the administration of the Condominium and shall not under any circumstances, be construed to apply to or cause the termination and expiration of any real property rights granted or reserved to the Developer or its successors and assigns in the Master Deed or elsewhere (including, but not limited to, access easements, utility easements, and all other easements created and reserved in such documents, which shall not be terminable in any manner hereunder) and which shall be governed only in accordance with the terms of the instruments, documents, or agreements that created or reserved such property rights.

**ARTICLE XIX
SEVERABILITY**

In the event that any of the terms, provisions or covenants of these Bylaws or the Condominium Documents are held to be partially or wholly invalid or unenforceable for any reason whatsoever, such invalidity shall not affect, alter, modify, or impair in any manner whatsoever any of the other terms, provisions or covenants of such documents or the remaining portions of any terms, provisions or covenants held to be partially invalid or unenforceable.

RECEIVED
By Amy Ruthig at 11:30 am, Jun 17, 2019

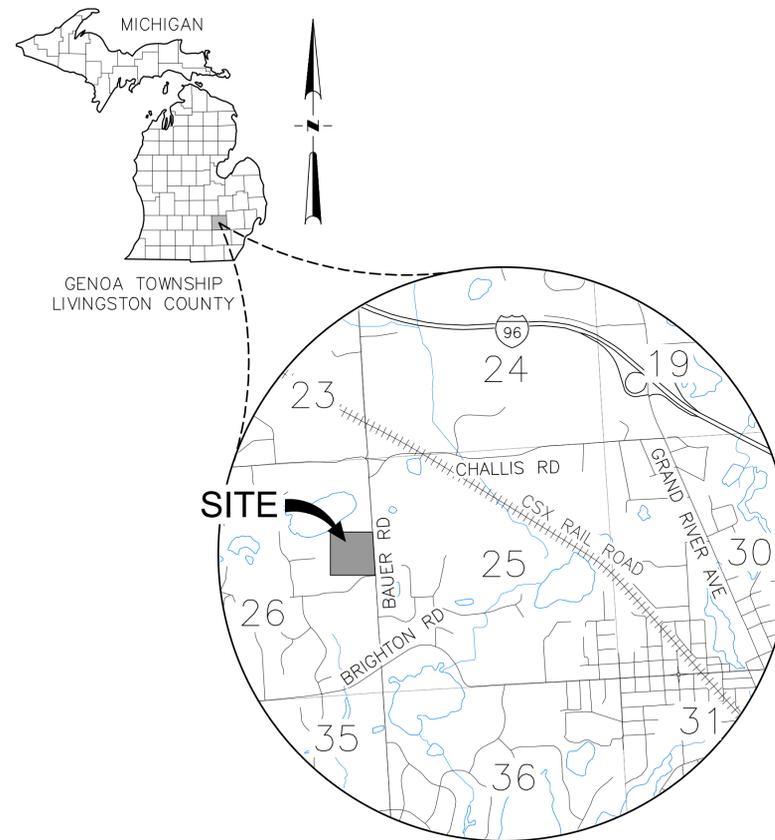
LEGAL DESCRIPTION DEVELOPMENT PARCEL (AS SURVEYED)

A PART OF THE SOUTH 1/2 OF THE NORTHEAST 1/4 OF SECTION 26, TOWN 2 NORTH, RANGE 5 EAST, GENOA TOWNSHIP, LIVINGSTON COUNTY, STATE OF MICHIGAN, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE EAST 1/4 CORNER OF SAID SECTION 26, THENCE ALONG THE EAST-WEST 1/4 LINE OF SAID SECTION 26 (AS MONUMENTED) AND THE NORTH LINE OF BRIGHTON ESTATES SUBDIVISION AS RECORDED IN LIBER 23, PAGE 35 THRU 39 OF THE LIVINGSTON COUNTY RECORDS, S87°17'35"W, 1332.50 FEET;
THENCE ALONG THE EAST LINE OF LOT 30 AND LOT 29 OF SAID BRIGHTON ESTATES SUBDIVISION, N02°40'57"W, 1320.93 FEET TO THE NORTHEAST CORNER OF SAID LOT 29 OF BRIGHTON ESTATES SUBDIVISION;
THENCE N86°54'53"E, 697.77 FEET;
THENCE S01°17'52"W, 520.30 FEET;
THENCE S74°19'35"E, 73.08 FEET;
THENCE PARALLEL WITH SAID EAST LINE OF LOT 30 AND 29, S02°40'57"E, 231.96 FEET;
THENCE N87°17'35"E, 275.70 FEET TO THE NORTH LINE OF A 66 FOOT WIDE INGRESS/EGRESS & PUBLIC/PRIVATE UTILITY EASEMENT;
THENCE ALONG SAID NORTH LINE OF A 66 FOOT WIDE INGRESS/EGRESS & PUBLIC/PRIVATE UTILITY EASEMENT THE FOLLOWING THREE (3) COURSES:
1) N11°35'55"E, 25.22 FEET;
2) 242.46 FEET, ALONG THE ARC OF A CURVE TO THE RIGHT, SAID CURVE HAS A RADIUS OF 183.00 FEET, A CENTRAL ANGLE OF 75°54'45", AND A CHORD WHICH BEARS N49°33'17"E AT A DISTANCE OF 225.11 FEET;
3) N87°30'40"E, 91.61 FEET TO THE WEST RIGHT-OF-WAY LINE OF BAUER ROAD (PUBLIC - RIGHT-OF-WAY);
THENCE ALONG SAID WEST RIGHT-OF-WAY LINE, N02°40'58"W, 18.89 FEET;
THENCE N86°54'53"E, 50.00 FEET TO THE EAST LINE OF SAID SECTION 26 AND CENTERLINE OF BAUER ROAD (PUBLIC - RIGHT-OF-WAY);
THENCE ALONG SAID EAST LINE OF SECTION 26 AND CENTERLINE OF BAUER ROAD, S04°40'58"E, 732.60 FEET TO SAID EAST 1/4 CORNER OF SECTION 26, SAID POINT ALSO BEING THE POINT OF BEGINNING CONTAINING 30.261 ACRES.

SUBJECT TO A 66 FOOT WIDE INGRESS/EGRESS & PUBLIC/PRIVATE UTILITY EASEMENT AS DESCRIBED AS FOLLOWS:
COMMENCING AT THE EAST 1/4 CORNER OF SAID SECTION 26; THENCE ALONG THE EAST LINE OF SAID SECTION 26 AND CENTERLINE BAUER ROAD (PUBLIC - RIGHT-OF-WAY), N02°40'58"W, 647.18 FEET;
THENCE S87°30'40"W, 50.00 FEET TO A POINT ON THE WEST RIGHT-OF-WAY LINE OF SAID BAUER ROAD AS THE POINT OF BEGINNING OF 66 FOOT WIDE INGRESS/EGRESS & PUBLIC/PRIVATE UTILITY EASEMENT;
THENCE CONTINUING S87°30'40"W, 91.83 FEET;
THENCE 155.02 FEET, ALONG THE ARC OF A CURVE TO THE LEFT, SAID CURVE HAS A RADIUS OF 117.00 FEET, A CENTRAL ANGLE OF 75°54'45", AND A CHORD WHICH BEARS S49°33'17"W AT A DISTANCE OF 143.90 FEET;
THENCE N78°24'05"W, 66.00 FEET;
THENCE 242.46 FEET, ALONG THE ARC OF A CURVE TO THE RIGHT, SAID CURVE HAS A RADIUS OF 183.00 FEET, A CENTRAL ANGLE OF 75°54'45", AND A CHORD WHICH BEARS N49°33'17"E AT A DISTANCE OF 225.11 FEET;
THENCE N87°30'40"E, 91.61 FEET TO SAID WEST RIGHT-OF-WAY LINE OF BAUER ROAD;
THENCE ALONG SAID WEST RIGHT-OF-WAY LINE, S02°40'58"E, 66.00 FEET TO THE POINT OF BEGINNING, ALSO SUBJECT TO THE RIGHTS OF THE PUBLIC OVER BAUER ROAD (PUBLIC - RIGHT-OF-WAY), ALSO SUBJECT TO ANY OTHER EASEMENTS OR RESTRICTIONS OF RECORD.

EXHIBIT "B" TO THE MASTER DEED OF
THE RIDGE
SITE CONDOMINIUM
PART OF NE 1/4, SEC. 26, T2N-R5E
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN



LOCATION MAP
N.T.S.

BEARING REFERENCE

BEARINGS ARE BASED ON PROJECT COORDINATE SYSTEM:
MICHIGAN STATE PLANE COORDINATE SYSTEM, NAD83 (CONUS) (MOL) (GRS80), SOUTH ZONE 2113, INTERNATIONAL FEET, GROUND.

DESIGN ENGINEER/SURVEYOR



MONUMENT ENGINEERING GROUP ASSOCIATES, INC

INNOVATIVE GEOSPATIAL & ENGINEERING SOLUTIONS

298 VETERANS DRIVE,
FOWLERVILLE, MI 48836
PHONE: 517-223-3512

OWNER/DEVELOPER

JOHN MORETTI

4242 BAUER ROAD
BRIGHTON, MI 48116

LANDSCAPE ARCHITECT

GREAT OAKS LANDSCAPE

28025 SAMUEL LINDEN COURT
NOVI, MI 48377
PHONE: 248-349-8555

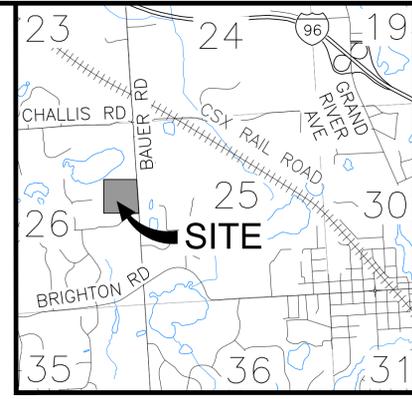
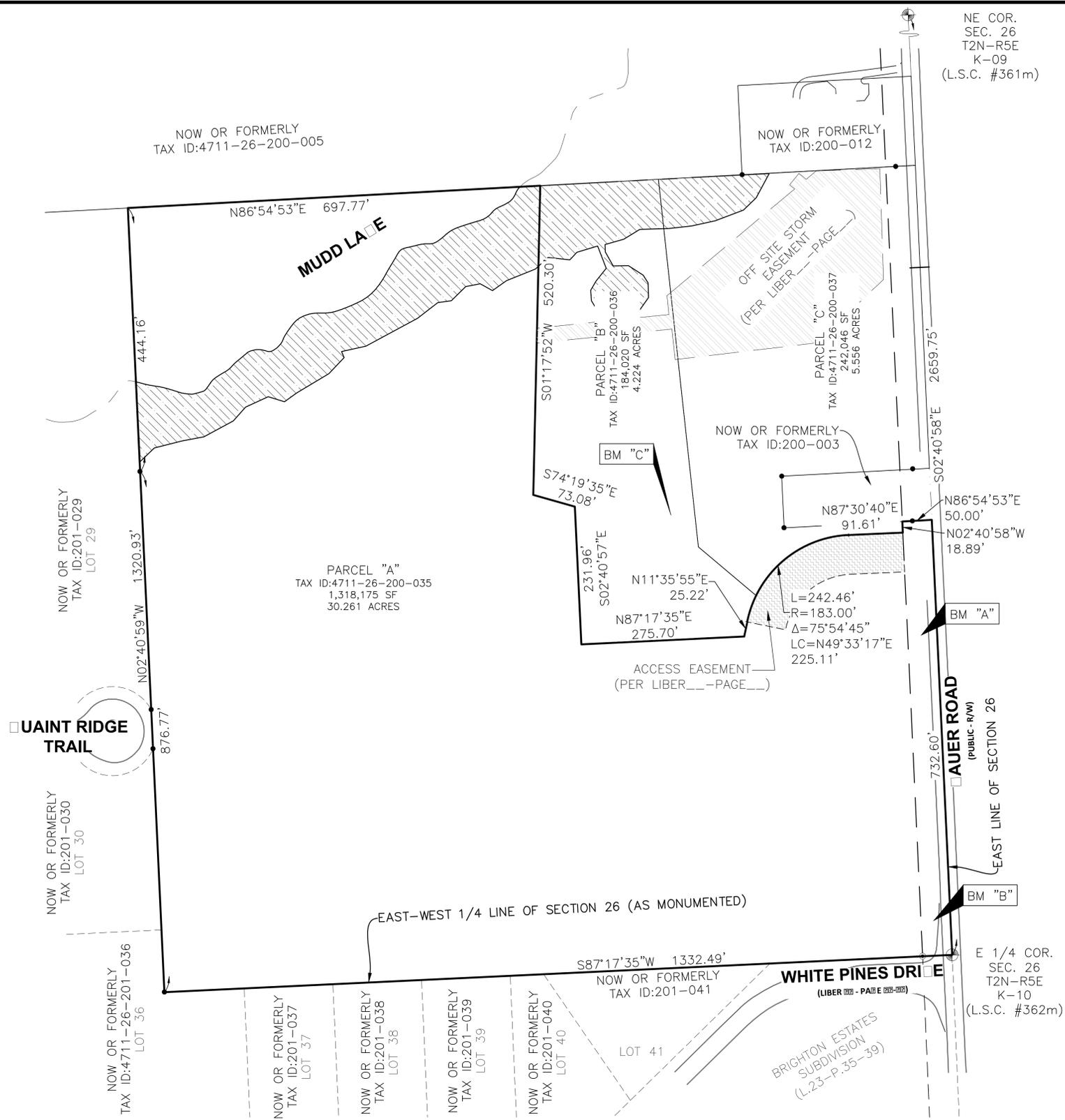
SHEET INDEX		
SHEET	1	COVER SHEET
SHEET	2	SURVEY PLAN
SHEET	3	SITE PLAN COORDINATES
SHEET	4	UNIT PLAN
SHEET	5	UTILITY PLAN

NOTE ATTENTION COUNTY REGISTER OF DEEDS

- THE CONDOMINIUM SUBDIVISION PLAN NUMBER MUST BE ASSIGNED IN CONSECUTIVE SEQUENCE. WHEN A NUMBER HAS BEEN ASSIGNED TO THIS PROJECT, IT MUST BE PROPERLY SHOWN IN THE TITLE, SHEET 1 AND THE SURVEYOR'S CERTIFICATE, SHEET 2.
- THIS CONDOMINIUM SUBDIVISION PLAN IS NOT REQUIRED TO CONTAIN DETAILED PROJECT DESIGN PLANS PREPARED BY THE APPROPRIATE LICENSED DESIGN PROFESSIONAL SUCH PROJECT DESIGN PLANS ARE FILED, AS PART OF THE CONSTRUCTION PERMIT APPLICATION, WITH THE ENFORCING AGENCY FOR THE STATE CONSTRUCTION CODE IN THE RELEVANT GOVERNMENTAL SUBDIVISION. THE ENFORCING AGENCY MAY BE LOCAL BUILDING DEPARTMENT OR THE STATE DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS.
- ALL ROADS AND DRAINAGE SYSTEMS SHOWN HAVE BEEN CONSTRUCTED OR MUST BE BUILT

PROPOSED: _____ AS-BUILT: _____

 INNOVATIVE GEOSPATIAL & ENGINEERING SOLUTIONS Monument Engineering Group Associates, Inc. 298 VETERANS DRIVE FOWLERVILLE, MICHIGAN 48836 (OFFICE) 517-223-3512	OWNER	
	"THE RIDGE SITE CONDOMINIUM" PART OF THE NE 1/4 SEC. 26, T2N-R5E GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN	
	JOHN MORETTI 4242 BAUER ROAD BRIGHTON, MI 48116	
	JOB # : 18-025	DRAWN: DC CHK: MB
SCALE : N/A	SHEET: □	
DATE : 6/13/2019		



LEND

	SECTION LINE, SECTION CORNER
	WETLANDS LIMIT LINE
	GENERAL COMMON AREA
	WETLANDS AREA
	LIMITED COMMON ELEMENT
	ON SITE STORM EASEMENT
	OFF SITE STORM EASEMENT
	ACCESS EASEMENT

BENCHMARKS

DATUM: NAVD88

BM A:
RAIL ROAD SPIKE IN WEST FACE UTILITY POLE, 26'± WEST OF CENTERLINE OF BAUER ROAD & 539'± NORTH FROM SUBJECT'S SOUTH PROPERTY LINE.
ELEV = 986.91

BM B:
RAIL ROAD SPIKE IN WEST FACE UTILITY POLE, 28'± WEST OF CENTERLINE OF BAUER ROAD & 58'± NORTH FROM SUBJECT'S SOUTH PROPERTY LINE.
ELEV = 970.48

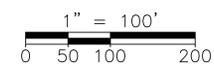
BM C:
RAIL ROAD SPIKE IN WEST FACE UTILITY POLE, 439'± WEST OF CENTERLINE OF BAUER ROAD & 565'± SOUTH FROM SUBJECT'S NORTH PROPERTY LINE.
ELEV = 1013.57

CERTIFICATION

I, MARC E. BUDZINSKI, Professional Land Surveyor of the State of Michigan, hereby certify:
That the subdivision plan known as "THE RIDGE SITE CONDOMINIUM", Livingston County Condominium Plan No. _____, as shown on the accompanying drawings, represents a survey on the ground made under my direction and that there are no existing encroachments upon the lands and property herein described. That the required monuments and iron markers have been located in the ground as required by rules promulgated under Section 142 of Act No. 59 of the Public Acts of 1978. That the accuracy of this survey is within the limits required by the rules Promulgated under Section 142 of Act No. 59 of the Public Acts of 1978. That the bearings, as shown, are noted on survey plan as required by the rules promulgated under Section 142 of Act No. 59 of the Public Acts of 1978.

Signature: _____
Professional Land Surveyor No. 53492 Date: 6/13/2019
Monument Engineering Group & Associates Inc.
298 Veterans Drive Fowlerville, MI

Printed: Marc E. Budzinski
Professional Land Surveyor No. 53492 Date: 6/13/2019



PROPOSED: _____ AS-BUILT: _____

INNOVATIVE GEOSPATIAL & ENGINEERING SOLUTIONS

MEGA
Monument Engineering Group Associates, Inc.

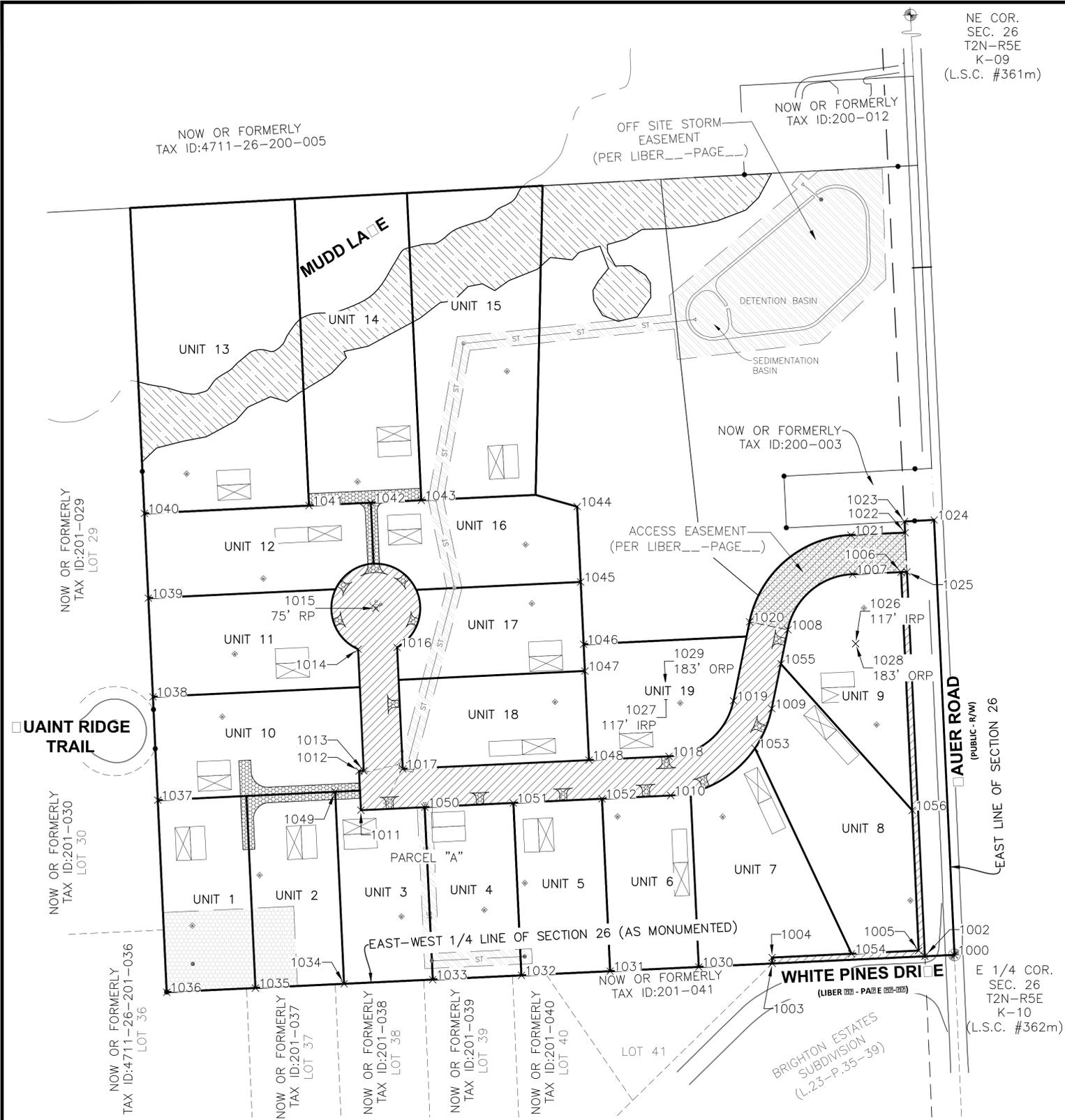
298 VETERANS DRIVE
FOWLerville,
MICHIGAN 48836
(OFFICE) 517-223-3512

RE

"THE RIDGE SITE CONDOMINIUM"
PART OF THE NE 1/4 SEC. 26, T2N-R5E
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

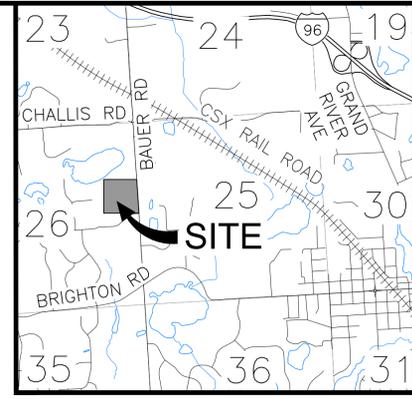
JOHN MORETTI
4242 BAUER ROAD
BRIGHTON, MI 48116

JOB # : 18-025	DRAWN: DC CHK: MB
SCALE : 1"=100'	SHEET: □
DATE : 6/13/2019	



COORDINATE LISTS		
NO.	NORTHING	EASTING
1000	378069.8908	13272637.0269
1002	378067.6755	13272587.0759
1003	378055.4846	13272329.2139
1004	378065.4735	13272328.7416
1005	378077.1936	13272576.6190
1006	378713.8760	13272546.7862
1007	378710.3561	13272465.0295
1008	378616.9898	13272355.4994
1009	378484.2026	13272328.2455
1010	378338.1997	13272157.6253
1011	378313.4409	13271634.0604
1012	378379.3709	13271630.9431
1013	378379.7454	13271638.9304
1014	378584.3340	13271629.3381
1015	378653.0609	13271659.3648
1016	378587.2170	13271695.2754
1017	378382.8657	13271704.8573
1018	378404.1260	13272154.5082
1019	378497.4722	13272263.5933
1020	378630.2593	13272290.8471
1021	378776.2938	13272462.1633
1022	378780.2720	13272553.6861
1023	378799.1430	13272552.8019
1024	378801.8342	13272602.7294
1025	378714.3440	13272556.7753
1026	378593.4665	13272470.1103
1027	378520.9955	13272148.9824
1028	378593.4665	13272470.1103

COORDINATE LISTS		
NO.	NORTHING	EASTING
1029	378520.9955	13272148.9824
1030	378049.6117	13272205.0027
1031	378042.5273	13272055.1701
1032	378035.4429	13271905.3375
1033	378028.3586	13271755.5048
1034	378021.2742	13271605.6722
1035	378014.1898	13271455.8396
1036	378007.1059	13271306.0170
1037	378330.2549	13271290.8736
1038	378504.0641	13271282.7286
1039	378670.1944	13271274.9434
1040	378812.7259	13271268.2755
1041	378825.8724	13271546.3202
1042	378830.8140	13271650.8329
1043	378834.8460	13271736.1082
1044	378824.2301	13271999.5232
1045	378697.4141	13272005.4650
1046	378592.5292	13272010.3793
1047	378547.5785	13272012.4855
1048	378397.7429	13272019.5059
1049	378344.4233	13271590.5313
1050	378318.5402	13271741.9086
1051	378325.6246	13271891.7412
1052	378332.7094	13272041.5738
1053	378417.5443	13272299.9355
1054	378071.8235	13272463.0426
1055	378559.7262	13272343.7464
1056	378313.0671	13272565.5668



LEGEND

- SECTION LINE, SECTION CORNER
- WETLANDS LIMIT LINE
- GENERAL COMMON AREA
- WETLANDS AREA
- LIMITED COMMON ELEMENT
- ON SITE STORM EASEMENT
- OFF SITE STORM EASEMENT
- RETENTION/INFILTRATION EASEMENT
- ACCESS EASEMENT

PROPOSED: _____ AS-BUILT: _____

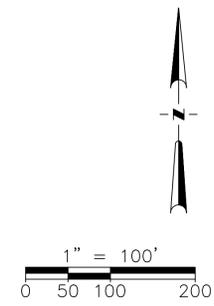
INNOVATIVE GEOSPATIAL & ENGINEERING SOLUTIONS

298 VETERANS DRIVE
FOWLerville,
MICHIGAN 48836
(OFFICE) 517-223-3512

THE RIDGE SITE CONDOMINIUM"
PART OF THE NE 1/4 SEC. 26, T2N-R5E
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

JOHN MORETTI
4242 BAUER ROAD
BRIGHTON, MI 48116

JOB # : 18-025	DRAWN: DC CHK: MB
SCALE : 1"=100'	SHEET: □
DATE : 6/13/2019	





UNIT CURVE TABLE

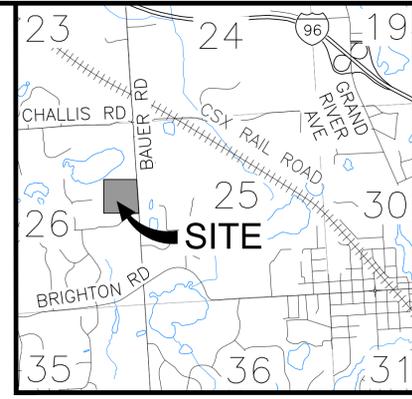
CURVE #	LENGTH	RADIUS	DELTA	CHORD
C1	155.02'	117.00'	75°54'45"	N49°33'17"E 143.92'
C2	72.90'	183.00'	22°49'30"	N23°00'40"E 72.42'
C3	134.85'	183.00'	42°13'10"	N55°32'00"E 131.82'
C4	34.02'	183.00'	10°39'00"	N81°58'05"E 33.97'
C5	119.94'	75.00'	91°37'48"	S20°35'04"E 107.56'
C6	81.07'	75.00'	61°55'54"	S56°11'47"W 77.18'
C7	89.34'	74.96'	68°16'56"	N58°42'56"W 84.14'
C8	112.56'	75.00'	85°59'09"	N18°23'58"E 102.29'
C9	154.57'	117.00'	75°41'40"	S49°26'45"W 143.57'

MOUNTAIN RIDGE DR. LINE TABLE

LINE #	BEARING	DISTANCE
L1	S2°40'58"E	66.00'
L2	S87°30'40"W	91.83'
L3	S11°35'55"W	135.56'
L4	S87°17'33"W	524.15'
L5	N2°42'25"W	66.00'
L6	N87°18'56"E	8.00'
L7	N2°41'04"W	204.81'
L8	S2°41'05"E	204.58'
L9	N87°17'35"E	450.15'
L10	N11°35'55"E	135.56'
L11	N87°30'40"E	91.61'

MOUNTAIN RIDGE DR. CURVE TABLE

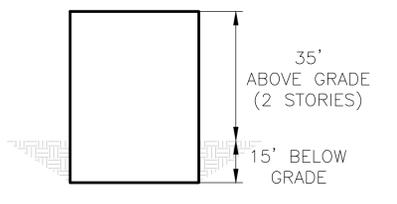
CURVE #	LENGTH	RADIUS	DELTA	CHORD
C10	155.02'	117.00'	75°54'45"	S49°33'17"W 143.92'
C11	241.76'	183.00'	75°41'34"	S49°26'42"W 224.56'
C12	402.90'	75.00'	307°47'31"	N87°29'47"E 66.00'
C13	154.57'	117.00'	75°41'40"	N49°26'45"E 143.57'
C14	242.46'	183.00'	75°54'45"	N49°33'18"E 225.11'



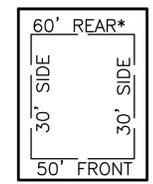
LOCATION MAP NO SCALE

LEGEND

- SECTION LINE, SECTION CORNER
- WETLANDS LIMIT LINE
- GENERAL COMMON AREA
- WETLANDS AREA
- LIMITED COMMON ELEMENT
- ON SITE STORM EASEMENT
- OFF SITE STORM EASEMENT
- RETENTION/INFILTRATION EASEMENT
- ACCESS EASEMENT



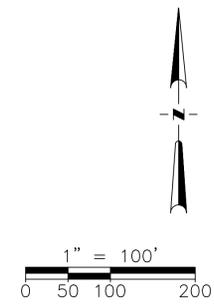
TYPICAL UNIT SECTION NO SCALE



UNIT SETBACKS TYPICAL NO SCALE
REAR SETBACKS ALONG WETLANDS ARE

PROPOSED: _____ AS-BUILT: _____

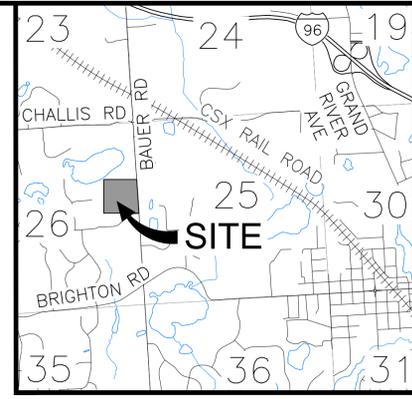
"THE RIDGE SITE CONDOMINIUM"
 PART OF THE NE 1/4 SEC. 26, T2N-R5E
 GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
JOHN MORETTI
 4242 BAUER ROAD
 BRIGHTON, MI 48116
 JOB # : 18-025 DRAWN: DC CHK: MB
 SCALE : 1"=100' SHEET:
 DATE : 6/13/2019



NE COR.
SEC. 26
T2N-R5E
K-09
(L.S.C. #361m)

LEGEND

- SECTION LINE, SECTION CORNER
- WETLANDS LIMIT LINE
- GENERAL COMMON AREA
- WETLANDS AREA
- LIMITED COMMON ELEMENT
- ON SITE STORM EASEMENT
- OFF SITE STORM EASEMENT
- RETENTION/INFILTRATION EASEMENT
- ACCESS EASEMENT



LOCATION MAP NO SCALE

UTILITY LEGEND

- | PROPOSED | EXISTING | |
|----------|----------|---|
| WM | WM | WATER MAIN, MH, VALVE IN BOX, HYDRANT |
| W | W | WATER WELL, METER, STOP BOX, POST INDICATOR VALVE |
| ST | ST | STORM SEWER, MH, CB, INLET, YARD DRAIN |
| S | S | CULVERT/ END SECTION
SANITARY SEWER, MH, CLEAN OUT |
| GAS | GAS | UG GAS, MH, VALVE, LINE MARKER |
| UG-ELEC | UG-ELEC | UG ELEC (ELEC, CABLE, FIBER)
EASEMENTS |

UTILITY NOTE

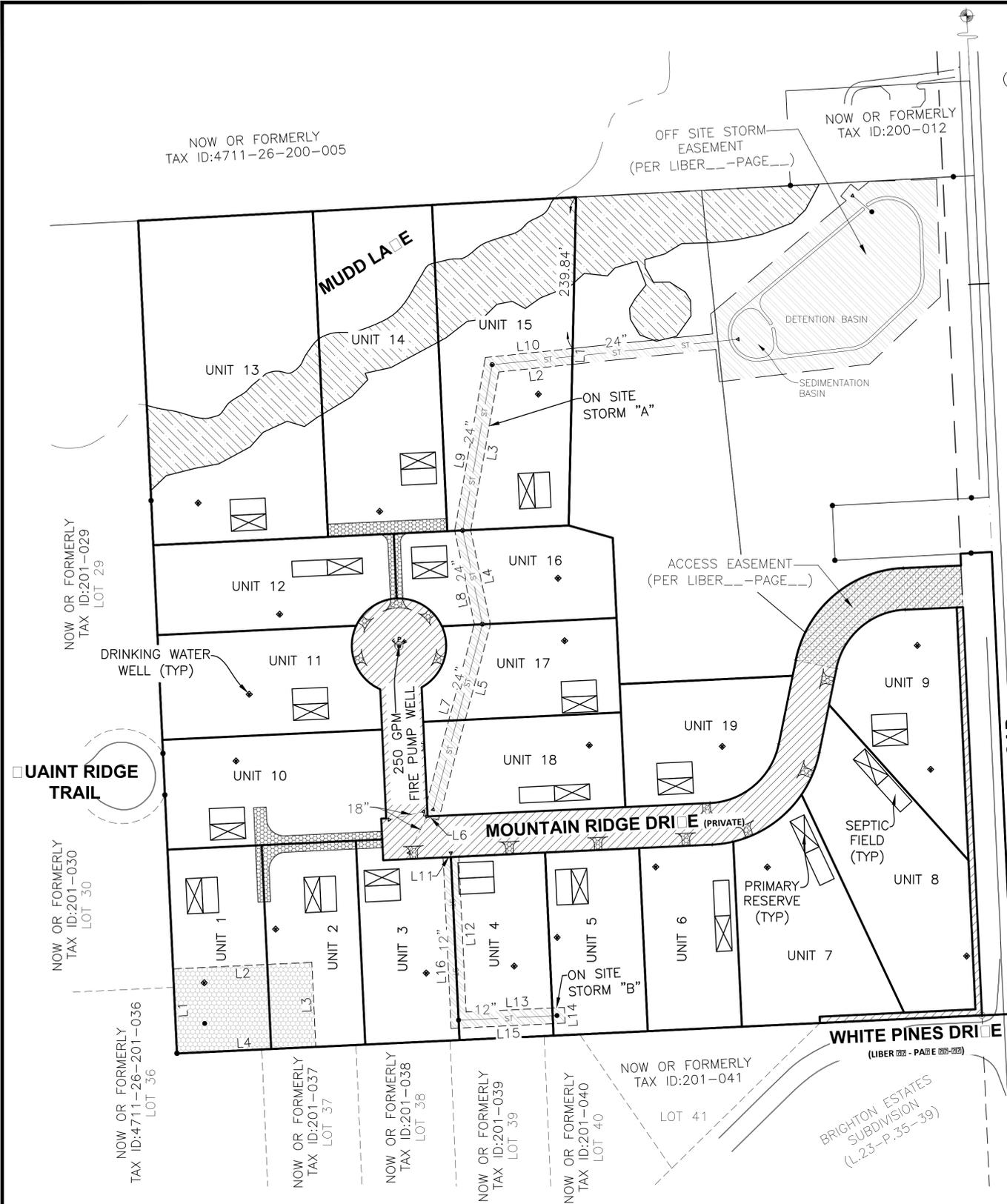
ALL UNITS WILL EACH BE SERVICED WITH INDIVIDUAL WELLS.
ALL UNITS WILL EACH BE SERVICED INDIVIDUALLY WITH SEPTIC FIELDS AND PRIMARY RESERVES.
ST = STORM SEWER PIPE

LINE #	BEARING	DISTANCE
L1	N2°41'16"W	134.26'
L2	N87°19'03"E	221.09'
L3	S2°42'25"E	134.17'
L4	S87°17'35"W	221.14'

LINE #	BEARING	DISTANCE
L1	S1°17'52"W	25.20'
L2	S84°05'14"W	117.40'
L3	S10°08'07"W	254.86'
L4	S11°55'55"E	152.52'
L5	S14°56'50"W	320.73'
L6	N75°03'10"W	25.00'
L7	N14°56'50"E	314.76'
L8	N11°55'55"W	151.42'
L9	N10°08'07"E	278.55'
L10	N84°05'14"E	139.39'

LINE #	BEARING	DISTANCE
L11	N87°17'35"E	25.00'
L12	S2°40'57"E	246.48'
L13	N87°19'03"E	156.85'
L14	S2°40'57"E	25.00'
L15	S87°19'03"W	181.85'
L16	N2°40'57"W	271.47'

E 1/4 COR.
SEC. 26
T2N-R5E
K-10
(L.S.C. #362m)



PROPOSED: _____ AS-BUILT: _____

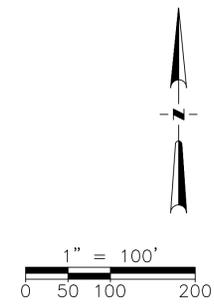
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4242 BAUER ROAD
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JOB # : 18-025	DRAWN: DC CHK: MB
SCALE : 1"=100'	SHEET: □
DATE : 6/13/2019	



LEGAL DESCRIPTION PARENT PARCEL (AS PROVIDED)

(Per survey by: Boss Engineering, Job No.: 16-398, Dated: 12-05-16)

Parcel Tax Number: 4711-26-200-002

PARENT PARCEL:

A part of the S 1/2 of the NE 1/4 of Section 26, T2N-R5E, Genoa Township, Livingston County, Michigan, described as follows: Beginning at the East 1/4 corner of said Section 26; thence S89°24'43"W, 1332.50 feet; thence N00°33'49"W, 876.77 feet to the traverse point "B"; thence continuing N00°33'49"W, 444.16 feet; thence N89°02'01"E, 1039.53 feet to traverse point "A", said point bearing N63°57'38"E, 1133.31 feet from traverse point "B"; thence continuing N89°02'01"E, 293.00 feet to the East line of said Section and the centerline of Bauer Road; thence S00°33'49"E along said line 510.13 feet; thence S89°02'01"W, 250.00 feet; thence S00°33'49"E, 87.00 feet; thence N89°02'01"E, 250.00 feet to the East line of said Section and the centerline of Bauer Road; thence S00°33'49"E along said line 732.60 feet to the Point of Beginning, containing 40.04 acres more or less and subject to the rights of the public over the existing Bauer Road.

Also including the use of a 66 foot wide easement over part of White Pines Drive, as recorded in Liber 1115, Page 564, Livingston County Records

LEGAL DESCRIPTION DEVELOPMENT PARCEL (AS SURVEYED)

A part of the South 1/2 of the Northeast 1/4 of Section 26, Town 2 North, Range 5 East, Genoa Township, Livingston County, State of Michigan, more particularly described as follows:

BEGINNING at the East 1/4 corner of said Section 26, thence along the East-West 1/4 line of said Section 26 (As Monumented) and the North line of Brighton Estates Subdivision as recorded in Liber 23, Page 35 thru 39 of the Livingston County Records, S87°17'35"W, 1332.50 feet; thence along the East line of Lot 30 and Lot 29 of said Brighton Estates Subdivision, N02°40'57"W, 1320.93 feet to the Northeast corner of said Lot 29 of Brighton Estates Subdivision; thence N86°54'53"E, 697.77 feet; thence S01°17'52"W, 520.30 feet; thence S74°19'35"E, 73.08 feet; thence parallel with said East line of Lot 30 and 29, S02°40'57"E, 231.96 feet; thence N87°17'35"E, 275.70 feet to the North line of a 66 Foot Wide Ingress/Egress & Public/Private Utility Easement; thence along said North line of a 66 Foot Wide Ingress/Egress & Public/Private Utility Easement the following three (3) courses:
 1) N11°35'55"E, 25.22 feet;
 2) 242.46 feet, along the arc of a curve to the right, said curve has a radius of 183.00 feet, a central angle of 75°54'45", and a chord which bears N49°33'17"E at a distance of 225.11 feet;
 3) N87°30'40"E, 91.61 feet to the West Right-of-Way line of Bauer Road (Public - Right-of-Way); thence along said West Right-of-Way line, N02°40'58"W, 18.89 feet; thence N86°54'53"E, 50.00 feet to the East line of said Section 26 and centerline of Bauer Road (Public - Right-of-Way); thence along said East line of Section 26 and centerline of Bauer Road, S04°40'58"E, 732.60 feet to said East 1/4 corner of Section 26, said point also being the POINT OF BEGINNING containing 30.261 acres, also including the use of a 66 Foot Wide Easement over part of White Pines Drive, as recorded in Liber 1115, Page 564 of the Livingston County Records, also subject to a 66 Foot Wide Ingress/Egress & Public/Private Utility Easement as described as follows:
 Commencing at the East 1/4 corner of said Section 26; thence along the East line of said Section 26 and centerline Bauer Road (Public - Right-of-Way), N02°40'58"W, 647.18 feet; thence S87°30'40"W, 50.00 feet to a point on the West Right-of-Way line of said Bauer Road as the POINT OF BEGINNING of 66 Foot Wide Ingress/Egress & Public/Private Utility Easement; thence continuing S87°30'40"W, 91.83 feet; thence 155.02 feet, along the arc of a curve to the left, said curve has a radius of 117.00 feet, a central angle of 75°54'45", and a chord which bears S49°33'17"W at a distance of 143.90 feet; thence N78°24'05"W, 66.00 feet; thence 242.46 feet, along the arc of a curve to the right, said curve has a radius of 183.00 feet, a central angle of 75°54'45", and a chord which bears N49°33'17"E at a distance of 225.11 feet; thence N87°30'40"E, 91.61 feet to said West Right-of-Way line of Bauer Road; thence along said West Right-of-Way line, S02°40'58"E, 66.00 feet to the POINT OF BEGINNING, also subject to the rights of the public over Bauer Road (Public - Right-of-Way), also subject to any other easements or restrictions of record.

BEARING REFERENCE

BEARINGS ARE BASED ON PROJECT COORDINATE SYSTEM:
 MICHIGAN STATE PLANE COORDINATE SYSTEM, NAD83 (CONUS) (MOL) (GRS80), SOUTH ZONE 2113, INTERNATIONAL FEET, GROUND.

DESIGN ENGINEER/SURVEYOR

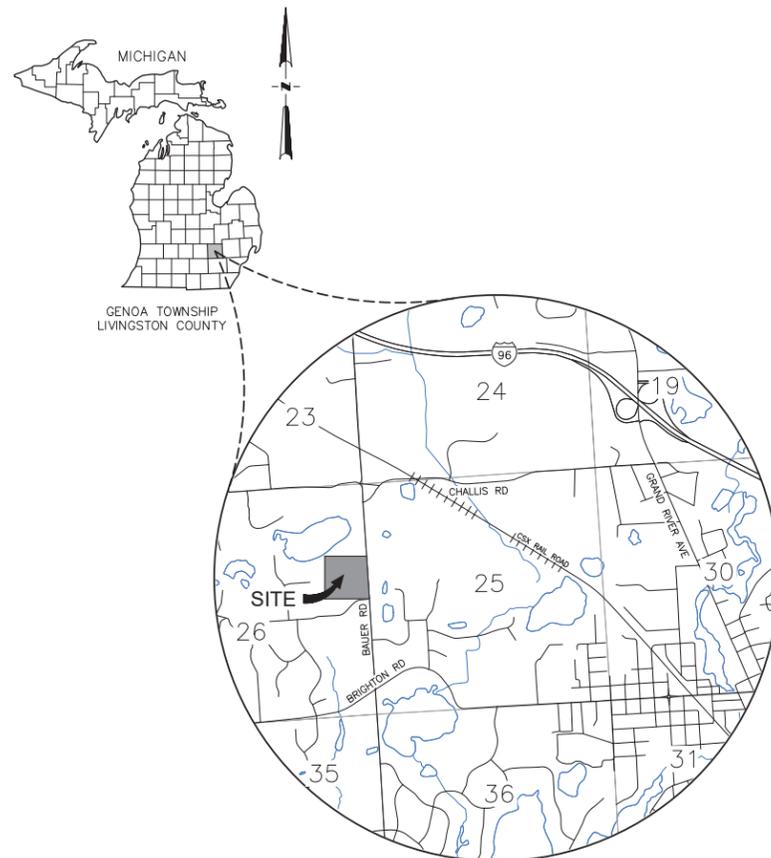


MONUMENT ENGINEERING GROUP ASSOCIATES, INC

ENGINEERS - SURVEYORS - CONSULTANTS
 LANDSCAPE ARCHITECTS - LAND PLANNERS

298 VETERANS DR.,
 FOWLERVILLE, MI 48836
 PHONE: 517-223-3512

FINAL SITE PLAN FOR THE RIDGE SITE CONDOMINIUM



LOCATION MAP
 N.T.S.

OWNER

JOHN MORETTI
 4242 BAUER RD
 BRIGHTON, MI 48116

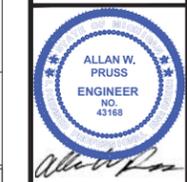
LANDSCAPE ARCHITECT

GREAT OAKS LANDSCAPE
 28025 SAMUEL LINDEN COURT
 NOVI, MICHIGAN 48377
 PHONE: 248-349-8555

NOTE:

THE PROPOSED DRAINAGE SYSTEMS ARE PRIVATELY OWNED AND WILL BE PROPERLY MAINTAINED BY THE PROPERTY OWNER'S ASSOCIATION.

		PLAN SUBMITTALS									
		1/21/2019	1/25/2019	2/20/2019	4/3/2019	4/24/2019	5/22/2019	6/21/2019	7/3/2019	7/22/2019	8/21/2019
INCLUDED SHEETS											
GENERAL											
SHEET	G-1.0	COVER	●	●	●	●	●	●	●	●	●
SURVEY											
SHEET	V-1.0	TOPOGRAPHIC SURVEY (EXISTING CONDITIONS)	●	●	●	●	●	●	●	●	●
SHEET	V-1.1	SITE AERIAL	●	●	●	●	●	●	●	●	●
SHEET	V-1.2	SOILS EVALUATION	●	●	●	●	●	●	●	●	●
SHEET	V-1.3	SOIL BORING LOGS	●	●	●	●	●	●	●	●	●
SITE PLAN											
SHEET	C-1.0	OVERALL SITE PLAN	●	●	●	●	●	●	●	●	●
SHEET	C-1.1	ENTRANCE DETAILS	●	●	●	●	●	●	●	●	●
SHEET	C-1.2	CUL-DE-SAC & INTERSECTION DETAILS	●	●	●	●	●	●	●	●	●
SHEET	C-1.3	SHARED DRIVEWAY DETAILS	●	●	●	●	●	●	●	●	●
VEHICLE CIRCULATION											
SHEET	C-2.0	EMERGENCY VEHICLE CIRCULATION PLAN	●	●	●	●	●	●	●	●	●
GRADING, SOIL EROSION & SEDIMENTATION CONTROL PLAN											
SHEET	C-7.0	GRADING, SOIL EROSION & SEDIMENTATION CONTROL PLAN	●	●	●	●	●	●	●	●	●
SHEET	C-7.1	GRADING, SOIL EROSION & SEDIMENTATION CONTROL DETAILS	●	●	●	●	●	●	●	●	●
STORM WATER MANAGEMENT											
SHEET	C-9.0	SITE STORM WATER MANAGEMENT PLAN	●	●	●	●	●	●	●	●	●
SHEET	C-9.1	REGIONAL STORM WATER MANAGEMENT PLAN	●	●	●	●	●	●	●	●	●
SHEET	C-9.2	STORM SEWER PLAN & PROFILE	●	●	●	●	●	●	●	●	●
SHEET	C-9.3	STORM SEWER PLAN & PROFILE	●	●	●	●	●	●	●	●	●
SHEET	C-9.4	STORM SEWER PLAN & PROFILE	●	●	●	●	●	●	●	●	●
SHEET	C-9.5	STORM WATER MANAGEMENT DETAILS	●	●	●	●	●	●	●	●	●
ROAD PLANS											
SHEET	C-10.0	ROAD ALIGNMENT PLAN	●	●	●	●	●	●	●	●	●
SHEET	C-10.1	MOUNTAIN RIDGE DRIVE STA. 10+00 TO 0+00 PLAN & PROFILE	●	●	●	●	●	●	●	●	●
SHEET	C-10.2	MOUNTAIN RIDGE DRIVE STA. 15+00 TO 10+00 PLAN & PROFILE	●	●	●	●	●	●	●	●	●
SHEET	C-10.3	MOUNTAIN RIDGE COURT STA. 0+00 TO 6+00 PLAN & PROFILE	●	●	●	●	●	●	●	●	●
LANDSCAPE											
SHEET	L-1	LANDSCAPE PLAN - SITE	●	●	●	●	●	●	●	●	●
SHEET	L-2	LANDSCAPE PLAN - BAUER ROAD FRONTAGE	●	●	●	●	●	●	●	●	●
SHEET	L-3	LANDSCAPE PLAN - FRONT ENTRANCE	●	●	●	●	●	●	●	●	●
SHEET	L-4	LANDSCAPE NOTES	●	●	●	●	●	●	●	●	●
SPECIFICATIONS											
SHEET	C-11.0	SPECIFICATIONS	●	●	●	●	●	●	●	●	●
SHEET	C-11.1	SPECIFICATIONS	●	●	●	●	●	●	●	●	●
GENOA TOWNSHIP, LIVINGSTON COUNTY STANDARD DETAILS											



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CLIENT:
JOHN MORETTI
 4242 BAUER ROAD
 BRIGHTON, MI 48116

COVER
 THE RIDGE SITE CONDOMINIUM
 4242 BAUER ROAD
 PART OF NE 1/4, SEC. 26, T2N-R5E
 GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISION	DATE	DESCRIPTION
1	1/21/2019	PRELIMINARY SITE PLAN TO TOWNSHIP
2	1/25/2019	REVISED SITE PLAN TO TOWNSHIP
3	2/20/2019	REVISED SITE PLAN TO TOWNSHIP
4	4/3/2019	FINAL SITE PLAN TO TOWNSHIP
5	4/24/2019	REVISED FINAL SITE PLAN TO TOWNSHIP
6	6/21/2019	REVISED FINAL SITE PLAN TO TOWNSHIP
7	7/3/2019	REVISED FINAL SITE PLAN PER LCDC
8	7/22/2019	REVISED FINAL SITE PLAN PER LCDC

ORIGINAL ISSUE DATE:
 1/2/2019
 PROJECT NO: 18-025
 SCALE: N/A
 FIELD: SE
 DRAWN BY: DC
 DESIGN BY: DD
 CHECK BY: AP

G-10

NOT FOR CONSTRUCTION



**THE RIDGE SITE CONDOMINIUM
TOPOGRAPHIC SURVEY
(EXISTING CONDITIONS)**

NE COR.
SEC. 26
T2N-R5E
K-09
(L.S.C. #361m)



REFERENCE INFO

WM: GENOA TOWNSHIP
Received: N/A

SAN: GENOA TOWNSHIP
Received: N/A

STORM: TOWNSHIP/COUNTY
Received: N/A

GAS: CONSUMERS GAS
Received: 4/9/18

ELEC: DTE ENERGY
Received: 4/25/18

PHONE/CABLE: AT&T - COMCAST
Received: 4/12/18 ~ 4/10/18

DRAIN: LIVINGSTON CO. DRAIN COMMISSIONER
Received: 4/9/18

AERIAL PHOTOGRAMMETRY

TOPOGRAPHIC DATA COLLECTED FOR THE ENTIRE SITE.

TOPOGRAPHIC CONTOURS BASED ON AERIAL
CONTOUR INTERVAL: 2 FOOT
VERTICAL DATUM: NAVD88
DATE OF PHOTOGRAPHY: 4/24/2018

EXISTING LEGEND

DECIDUOUS TREE, CONIFEROUS TREE, SHRUB
TREE LINE/ CANOPY
DITCH/ DRAINING COURSE
UG TELE, MH, TELE PED, CABLE PED
UG FIBER, PED, LINE MARKER, VAULT
UG ELEC, MH, TRANSFORMER, AC UNIT, METER
OH ELEC, UTIL POLE, GUY WIRE
GROUND LIGHT, POLE, POLE W/ ARM LT
LIGHT MH, LT CTRL BOX, PH. BOOTH, PARK. METER
ELEC HAND HOLE, OUTLET, SIGNAL MH, SIGNAL BOX
UG GAS, MH, VALVE, LINE MARKER
GAS WELL, METER, VENT
WATER MAIN, MH, VALVE IN BOX, HYDRANT, FDC
WATER WELL, METER, STOP BOX, POST INDICATOR VALVE
IRRIGATION CONTROL VALVE, SPRINKLER HEAD
STORM SEWER, MH, CB, INLET, YARD DRAIN
CULVERT/ END SECTION
SANITARY SEWER, MH, CLEAN OUT
COMBINED SEWER, MH
STEAM LINE, MH
MISC. MANHOLE, HAND HOLE, HAND BOX
SIGN, FLAG POLE, GUARD POST, ROCK
SECTION LINE, SECTION CORNER
SURVEY CONTROL POINT, BENCHMARK
FOUND IRON ROD (FIR), FD MON, FD PK
SET IRON ROD (SIR), SET PK, MAG NAIL
SPOT ELEVATION
CONTOUR
FENCE
GUARD RAIL
RAILROAD SIGNAL, SIGNAL BOX
ROW MARKER

EX. ASPHALT
EX. CONCRETE
EX. GRAVEL

SOIL BORING LEGEND

- SOIL BORINGS (SB#)
- TEST WELLS (TW#)
- PERCOLATION TEST SITE (#)

SOILS CLASSIFICATIONS

- BtB BOYER-OSHTEMO LOAM, 2-6% SLOPES
- FoA FOX SANDY LOAM, 0-2% SLOPES
- FoB FOX SANDY LOAM, 2-6% SLOPES
- FoC FOX SANDY LOAM, 6-12% SLOPES
- FRB FOX-BOYER COMPLEX, 2-6% SLOPES
- FRD FOX-BOYER COMPLEX, 12-18% SLOPES
- FRE FOX-BOYER COMPLEX, 18-25% SLOPES
- FRF FOX-BOYER COMPLEX, 25-40% SLOPES
- Ho HOUGHTON MUCK, 0-1% SLOPES
- Md MADE LAND
- MoD MIAMI LOAM, 12-18% SLOPES
- W WATER

BENCHMARKS

Datum: NAVD88

BM A:
RAIL ROAD SPIKE IN WEST FACE UTILITY POLE, 26'± WEST OF CENTERLINE OF BAUER ROAD & 539'± NORTH FROM SUBJECT'S SOUTH PROPERTY LINE.
Elev = 986.91

BM B:
RAIL ROAD SPIKE IN WEST FACE UTILITY POLE, 28'± WEST OF CENTERLINE OF BAUER ROAD & 58'± NORTH FROM SUBJECT'S SOUTH PROPERTY LINE.
Elev = 970.48

BM C:
RAIL ROAD SPIKE IN WEST FACE UTILITY POLE, 439'± WEST OF CENTERLINE OF BAUER ROAD & 565'± SOUTH FROM SUBJECT'S NORTH PROPERTY LINE.
Elev = 1013.57

FLOOD ZONE

FEMA map scales do not supply sufficient level of detail to plot accurately. Zones if plotted herein are approximate.

By scaled map location and graphic plotting only, the subject property appears to lie entirely in Zone (X) Area determined to be outside of the 0.2% annual chance flood plain according to the Flood Insurance Rate Map for the County of Livingston, Community Panel No. (26093CD340D), Effective Date 9/17/2008.

ENGINEERS - SURVEYORS
CONSULTANTS - LAND PLANNERS

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CLIENT :

JOHN MORETTI
4242 BAUER ROAD
BRIGHTON, MI 48116

TOPOGRAPHIC SURVEY (EX. COND.)

THE RIDGE SITE CONDOMINIUM
4242 BAUER ROAD
PART OF NE 1/4, SEC. 26, T2N-R5E
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS	DATE	DESCRIPTION
PRELIMINARY SITE PLAN TO TOWNSHIP	1/2/2019	
REVISED SITE PLAN TO TOWNSHIP	1/25/2019	
FINAL SITE PLAN TO TOWNSHIP	2/20/2019	
REVISED FINAL SITE PLAN TO TOWNSHIP	4/2/2019	
REVISED FINAL SITE PLAN TO TOWNSHIP	4/24/2019	
REVISED FINAL SITE PLAN PER LCDC	7/2/2019	
REVISED FINAL SITE PLAN PER LCDC	7/22/2019	

ORIGINAL ISSUE DATE:
1/2/2019

PROJECT NO: 18-025

SCALE: 1" = 100'

FIELD: SE
DRAWN BY: DC
DESIGN BY: DD
CHECK BY: AP

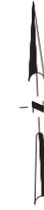
V-10

NOT FOR CONSTRUCTION



THE RIDGE SITE CONDOMINIUM
SITE AERIAL

NE COR.
SEC. 26
T2N-R5E
K-09
(L.S.C. #361m)



E 1/4 COR.
SEC. 26
T2N-R13E
K-10
(L.S.C. #362m)

AERIAL REFERENCE

FLOWN BY MONUMENT ENGINEERING GROUP ASSOCIATES
200' AGL DATE OF PHOTOGRAPHY: 4/24/2018

ENGINEERS - SURVEYORS
CONSULTANTS - LAND PLANNERS

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CLIENT :

JOHN MORETTI
4242 BAUER ROAD
BRIGHTON, MI 48116

SITE AERIAL

THE RIDGE SITE CONDOMINIUM
4242 BAUER ROAD
PART OF NE 1/4, SEC. 26, T2N-R5E
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS	DATE
REVISOR	8/21/2019
PLAN SUBMITTALS/REVISIONS	
PRELIMINARY SITE PLAN TO TOWNSHIP	1/2/2019
REVISED SITE PLAN TO TOWNSHIP	1/25/2019
REVISED SITE PLAN TO TOWNSHIP	2/20/2019
FINAL SITE PLAN TO TOWNSHIP	4/2/2019
REVISED FINAL SITE PLAN TO TOWNSHIP	4/24/2019
REVISED FINAL SITE PLAN TO TOWNSHIP	6/21/2019
REVISED FINAL SITE PLAN PER LCHD	7/2/2019
REVISED FINAL SITE PLAN PER LCDC	7/22/2019

ORIGINAL ISSUE DATE:
1/2/2019

PROJECT NO: 18-025

SCALE: 1" = 100'

FIELD: SE
DRAWN BY: DC
DESIGN BY: DD
CHECK BY: AP

V-1.1

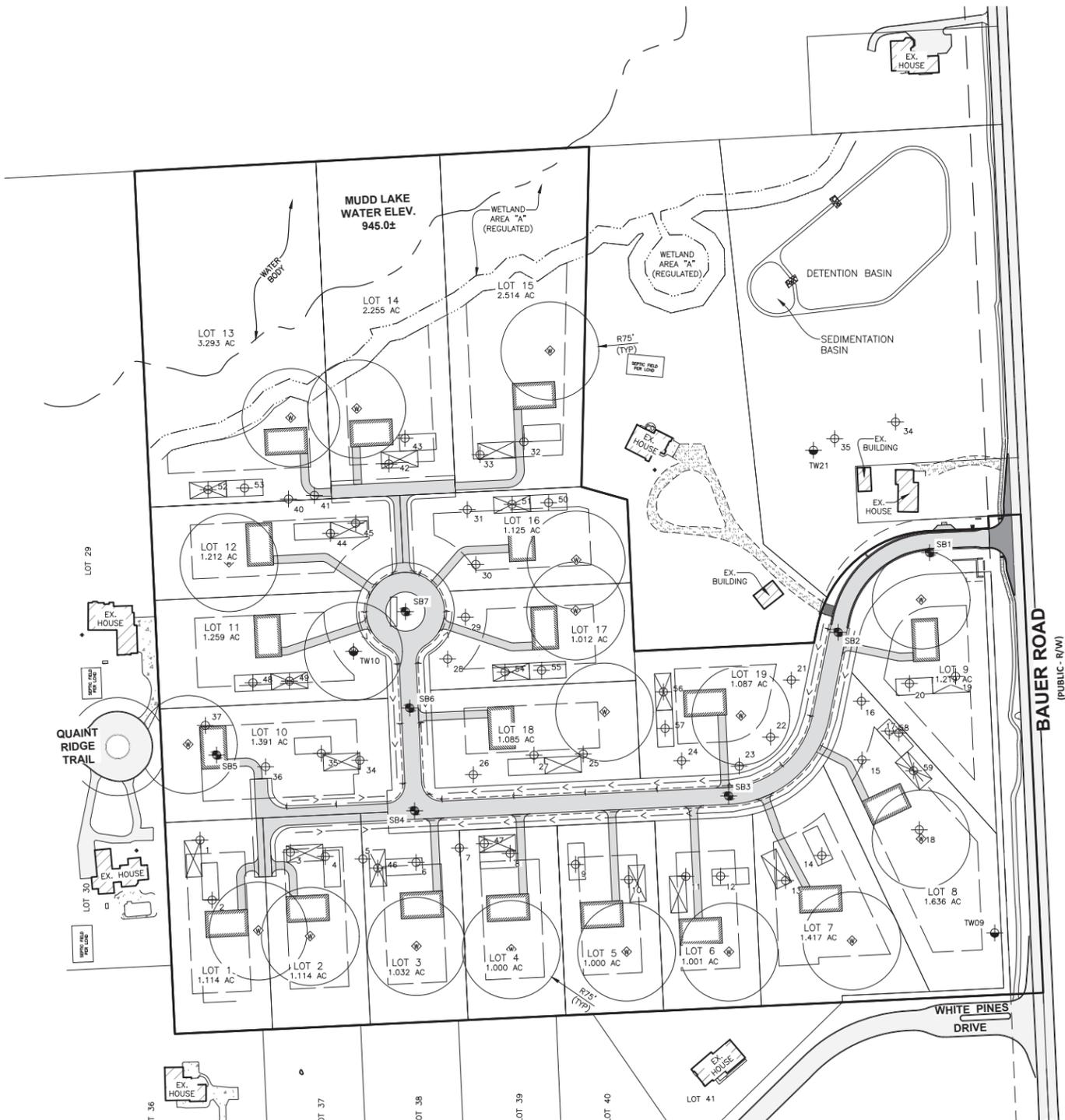
NOT FOR CONSTRUCTION

**THE RIDGE SITE CONDOMINIUM
SOILS EVALUATION**

SOIL BORING LEGEND

- SOIL BORINGS (SB#)
- TEST WELLS (TW#)
- PERCOLATION TEST SITE (#)
- SEPTIC FIELD - MAIN
- SEPTIC FIELD - RESERVE

NOTE:
- MAINTAIN MIN 75'
SEPARATION BETWEEN WELL
AND DISPOSAL FIELDS



The Ridge

Westside of Bauer Rd. Between Challis and White Pines Dr.
Genoa Township, Section 26

Soils Logged by: Aaron Aumock, LCHD
Miranda, Monument Engineering
David, Monument Engineering

Developer: John Moretti

Conducted on: August 22, 2018, August 29, 2018 & June 24, 2019

PERCOLATION TEST SITES

1) 0 - .5' .5' - 2.5' 2.5' - 4.5' 4.5' - 8.5'	Topsoil Sandy Loam Loamy Sand Sandy Loam	7) 0 - .5' .5' - 4' 4' - 9'	Topsoil Sandy Loam Sandy Clay Loam	34) 0 - .5' .5' - 3' 3' - 9'	Topsoil Sandy Loam Loamy Sand	44) 0 - .5' .5' - 2' 2' - 8'	Topsoil Sandy Clay Loam Medium Sand
2) 0 - .5' .5' - 9'	Topsoil Loamy Sand	8) 0 - .5' .5' - 2' 2' - 6' 6' - 9'	Topsoil Sandy Clay Loam Sandy Loam Loam	35) 0 - .5' .5' - 4' 4' - 7' 7' - 10'	Topsoil Sandy Loam Sandy Clay Loam Coarse Sand	45) 0 - .5' .5' - 5' 5' - 8'	Topsoil Sandy Clay Loam Medium Sand
3) 0 - .5' .5 - 8.5'	Topsoil Loamy Sand	9) 0 - .5' .5' - 3' 3' - 8'	Topsoil Sandy Clay Loam Medium Sand	36) 0 - .5' .5' - 3' 3' - 5' 5' - 9'	Topsoil Sandy Clay Loam Medium Sand Sandy Loam	46) 0 - .5' .5' - 5' 5' - 10' 10' - 11' 11' - 12'	Topsoil Sandy Clay Loam Loam Coarse Sand (wet) Clay Loam
4) 0 - .5' .5 - 7' 7' - 9.5'	Topsoil Loamy Sand Sandy Loam	10) 0 - .5' .5 - 8'	Topsoil Loamy Sand	37) 0 - .5' .5' - 4' 4' - 9'	Topsoil Sandy Clay Loam Loamy Sand	47) 0 - .5' .5' - 2' 2' - 10' 10' - 11'	Topsoil Clay Loam Loam Clay Loam
5) 0 - .5' .5' - 3' 3' - 9'	Topsoil Loam Sandy Loam	11) 0 - .5' .5' - 5.5' 5.5' - 9.5'	Topsoil Clay Loam Loamy Sand	38) 0 - .5' .5' - 4' 4' - 8'	Topsoil Sandy Clay Loam Loamy Sand	48) 0 - .5' .5' - 4.5' 4.5' - 8'	Topsoil Loamy Sand Fine Sand
6) 0 - .5' .5 - 2' 2' - 6' 6' - 8' 8' - 9.5'	Topsoil Loam Sandy Loam Sandy Clay Loam Clay Loam	12) 0 - .5' .5' - 6' 6' - 10'	Topsoil Clay Loam Loamy Sand	39) 0 - .5' .5' - 4' 4' - 8'	Topsoil Clay Loam Sandy Loam	49) 0 - .5' .5' - 6' 6' - 8'	Topsoil Loamy Sand Fine Sand
13) 0 - .5' .5' - 6' 6' - 10'	Topsoil Clay Loam Loamy Sand	24) 0 - .5' .5' - 7' 7' - 10'	Topsoil Clay Loam Sandy Loam	40) 0 - .5' .5' - 6' 6' - 9'	Topsoil Clay Loam Fine Sand	50) 0 - .5' .5' - 3' 3' - 9'	Topsoil Sandy Clay Loam Fine Sand
14) 0 - .5' .5' - 3' 3' - 9'	Topsoil Clay Loam Medium Sand	25) 0 - .5' .5' - 5.5' 5.5' - 9'	Topsoil Sandy Clay Loam Loamy Sand	41) 0 - .5' .5' - 4' 4' - 8'	Topsoil Clay Loam Sandy Loam	51) 0 - .5' .5' - 4' 4' - 9'	Topsoil Sandy Clay Loam Fine Sand
15) 0 - .5' .5' - 8'	Topsoil Clay Loam	26) 0 - .5' .5' - 3' 3' - 4' 4' - 8.5'	Topsoil Clay Loam (Fill) Peat Marl	42) 0 - .5' .5' - 4' 4' - 9'	Topsoil Sandy Loam Fine Sand		
16) 0 - .5' .5' - 9'	Topsoil Clay Loam	27) 0 - .5' .5' - 4' 4' - 8'	Topsoil Clay Loam Loamy Sand	43) 0 - .5' .5 - 3.5' 3.5' - 8'	Topsoil Sandy Loam Loamy Sand		
17) 0 - .5' .5' - 9'	Topsoil Clay Loam	28) 0 - .5' .5' - 4' 4' - 9'	Topsoil Sandy Loam Loamy Sand	52) 0 - .5' .5' - 5' 5' - 9' 9' - 12'	Topsoil Sandy Clay Loam Sandy Loam Medium Sand		
18) 0 - .5' .5' - 11'	Topsoil Clay Loam	29) 0 - .5' .5' - 4' 4' - 9'	Topsoil Sandy Loam Loamy Sand	53) 0 - .5' .5' - 3.5' 3.5' - 7' 7' - 10.5'	Topsoil Sandy Clay Loam Sandy Loam Medium Sand		
19) 0 - .5' .5' - 3' 3' - 8'	Topsoil Sandy Clay Loam Coarse Sand	30) 0 - .5' .5' - 2' 2' - 9'	Topsoil Sandy Loam Loamy Sand	54) 0 - .5' .5' - 3.5' 3.5' - 8'	Topsoil Sandy Loam Fine Sand		
20) 0 - .5' .5' - 4.5' 4.5' - 9'	Topsoil Sandy Clay Loam Medium Sand	31) 0 - .5' .5' - 2' 2' - 9'	Topsoil Sandy Loam Loamy Sand	55) 0 - .5' .5' - 8' 8' - 9' Seasonal Water Table @ 8'	Topsoil Sandy Loam Silt Loam (mottled) Loamy Sand		
21) 0 - .5' .5 - 2' 2' - 5' 5' - 7' 7' - 9'	Topsoil Sandy Clay Loam Coarse Sand Sandy Loam Loamy Sand	32) 0 - .5' .5' - 2' 2' - 8'	Topsoil Sandy Loam Coarse Sand	56) 0 - .5' .5' - 2.5' 2.5' - 8'	Topsoil Sandy Loam Medium Sand		
22) 0 - .5' .5' - 4' 4' - 8.5'	Topsoil Clay Loam Loamy Sand	33) 0 - .5' .5 - 3.5' 3.5' - 8.5'	Topsoil Sandy Clay Loam Loamy Sand	57) 0 - .5' .5' - 3' 3' - 8'	Topsoil Sandy Clay Loam Medium Sand		
23) 0 - .5' .5 - 6' 6' - 10'	Topsoil Clay Loam Sandy Loam			58) 0 - .5' .5' - 6' 6' - 10'	Topsoil Clay Loam Medium Sand		
				59) 0 - .5' .5' - 3' 3' - 7' 7' - 11'	Topsoil Sandy Clay Loam Fine Sand Medium Sand		

*No Seasonal or actual water table found at time of Soil Evaluation unless noted.

ENGINEERS - SURVEYORS
CONSULTANTS - LAND PLANNERS

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AND ELEVATIONS PRIOR TO THE START OF
CONSTRUCTION.

CLIENT :

JOHN MORETTI
4242 BAUER ROAD
BRIGHTON, MI 48116

SOILS EVALUATION

THE RIDGE SITE CONDOMINIUM
4242 BAUER ROAD
PART OF NE 1/4, SEC. 26, T2N-R5E
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS	DATE
REVISION 1	8/21/2019
PLAN SUBMITTALS/REVISIONS	
PRELIMINARY SITE PLAN TO TOWNSHIP	1/2/2019
REVISED SITE PLAN TO TOWNSHIP	1/25/2019
REVISED SITE PLAN TO TOWNSHIP	2/20/2019
FINAL SITE PLAN TO TOWNSHIP	4/2/2019
REVISED FINAL SITE PLAN TO TOWNSHIP	4/24/2019
REVISED FINAL SITE PLAN TO TOWNSHIP	6/21/2019
REVISED FINAL SITE PLAN PER LCHD	7/2/2019
REVISED FINAL SITE PLAN PER LCOG	7/22/2019

ORIGINAL ISSUE DATE:
1/2/2019

PROJECT NO: 18-025

SCALE: 1" = 100'
0 1/2" 1"

FIELD: SE
DRAWN BY: DC
DESIGN BY: DD
CHECK BY: AP

V-12

NOT FOR CONSTRUCTION

THE RIDGE SITE CONDOMINIUM
SOIL BORING LOGS

MA McDOWELL & ASSOCIATES
Geotechnical, Environmental, & Hydrogeologic Services
21355 Hancher Avenue • Farmdale, MI 48320
Phone: (248) 399-2064 • Fax: (248) 399-2117

LOG OF SOIL BORING NO. 1
PROJECT: Soils Investigation
LOCATION: 4242 Bauer Road, Brighton, Michigan
JOB NO. 18-350 DATE: 11/20/2018

Sample #	Depth	Log	SOIL DESCRIPTION	Penetration (Blows/ft)	Moisture %	Natural Moist. Wt. P.C.T.	Dry-Den. (lb./ft. ³)	U.C. Comp. Strength (PSF)	S _u (%)
1	0.0'		Most dark brown sandy TOPSOIL						
A	2		Slightly compact moist brown fine SAND with trace of gravel	2					
SS	3		Soft moist brown silty CLAY with traces of sand and pebbles and moist fine sand seams	2	13.7		(1500)		
	4								
B	5		Very stiff moist brown silty CLAY with sand and pebbles and moist silt lenses	8	7.0		(6000)		
	6								
C	7		Extremely compact moist brown clayey SILT with traces of sand and gravel	12					
	8								
D	9		Extremely stiff moist brown silty CLAY with sand and pebbles and occasional moist fine sand seams	16					
	10								
	11								
	12								
	13								
	14								
	15								
	16								
	17								
	18								
	19								
	20								
	21								
	22								
	23								
	24								
	25								

REMARKS: *Calibrated Penetrometer
Standard Penetration Test - Driving 2' OD Sampler 1 With 140# Hammer Falling 30" Count Made at 8' Intervals
G.W. VOLUMES None

GROUND WATER OBSERVATIONS:
G.W. ENCOUNTERED AT FT. INS.
S1 - SHALLOW G.W. ENCOUNTERED AT FT. INS.
S2 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S3 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S4 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S5 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S6 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S7 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S8 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S9 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S10 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S11 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S12 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S13 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S14 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S15 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S16 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S17 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S18 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S19 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S20 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S21 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S22 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S23 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S24 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S25 - DEEPER G.W. ENCOUNTERED AT FT. INS.

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LOG OF SOIL BORING NO. 2
PROJECT: Soils Investigation
LOCATION: 4242 Bauer Road, Brighton, Michigan
JOB NO. 18-350 DATE: 11/20/2018

Sample #	Depth	Log	SOIL DESCRIPTION	Penetration (Blows/ft)	Moisture %	Natural Moist. Wt. P.C.T.	Dry-Den. (lb./ft. ³)	U.C. Comp. Strength (PSF)	S _u (%)
1	0.0'		Most dark brown sandy TOPSOIL						
A	2		Most gray CRUSHED STONE fill	3					
SS	3		Most dark brown fine sandy TOPSOIL with vegetation	4	13.5		(2500)		
	4		Compact moist brown fine SAND						
B	5		Stiff moist brown silty CLAY with sand and pebbles and occasional moist fine sand seams	6					
	6								
C	7		Compact moist brown clayey SILT with traces of sand and gravel	4	10.8				
	8								
D	9		Very compact moist brown fine SAND with moist silt seams	8					
	10								
	11								
	12								
	13								
	14								
	15								
	16								
	17								
	18								
	19								
	20								
	21								
	22								
	23								
	24								
	25								

REMARKS: *Calibrated Penetrometer
Standard Penetration Test - Driving 2' OD Sampler 1 With 140# Hammer Falling 30" Count Made at 8' Intervals
G.W. VOLUMES None

GROUND WATER OBSERVATIONS:
G.W. ENCOUNTERED AT FT. INS.
S1 - SHALLOW G.W. ENCOUNTERED AT FT. INS.
S2 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S3 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S4 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S5 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S6 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S7 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S8 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S9 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S10 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S11 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S12 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S13 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S14 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S15 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S16 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S17 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S18 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S19 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S20 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S21 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S22 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S23 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S24 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S25 - DEEPER G.W. ENCOUNTERED AT FT. INS.

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LOG OF SOIL BORING NO. 3
PROJECT: Soils Investigation
LOCATION: 4242 Bauer Road, Brighton, Michigan
JOB NO. 18-350 DATE: 11/20/2018

Sample #	Depth	Log	SOIL DESCRIPTION	Penetration (Blows/ft)	Moisture %	Natural Moist. Wt. P.C.T.	Dry-Den. (lb./ft. ³)	U.C. Comp. Strength (PSF)	S _u (%)
1	0.0'		Most dark brown sandy TOPSOIL						
A	2		Slightly compact moist brown fine SAND with trace of gravel	1	7.0				
	3								
B	4		Compact moist brown fine to medium SAND with traces of silt and gravel	3	8.7				
	5								
C	6		Very compact moist brown fine SAND with moist silt seams	5					
	7								
D	8		Stiff moist brown sandy CLAY with silt, and pebbles and occasional stones	7					
	9								
	10		Extremely compact moist brown fine SAND with trace of gravel	7					
	11								
	12								
	13								
	14								
	15								
	16								
	17								
	18								
	19								
	20								
	21								
	22								
	23								
	24								
	25								

REMARKS: *Calibrated Penetrometer
Standard Penetration Test - Driving 2' OD Sampler 1 With 140# Hammer Falling 30" Count Made at 8' Intervals
G.W. VOLUMES None

GROUND WATER OBSERVATIONS:
G.W. ENCOUNTERED AT FT. INS.
S1 - SHALLOW G.W. ENCOUNTERED AT FT. INS.
S2 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S3 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S4 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S5 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S6 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S7 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S8 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S9 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S10 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S11 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S12 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S13 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S14 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S15 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S16 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S17 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S18 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S19 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S20 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S21 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S22 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S23 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S24 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S25 - DEEPER G.W. ENCOUNTERED AT FT. INS.

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LOG OF SOIL BORING NO. 4
PROJECT: Soils Investigation
LOCATION: 4242 Bauer Road, Brighton, Michigan
JOB NO. 18-350 DATE: 11/20/2018

Sample #	Depth	Log	SOIL DESCRIPTION	Penetration (Blows/ft)	Moisture %	Natural Moist. Wt. P.C.T.	Dry-Den. (lb./ft. ³)	U.C. Comp. Strength (PSF)	S _u (%)
1	0.0'		Most dark brown sandy TOPSOIL, fill						
A	2		Slightly compact moist to wet brown fine SAND, fill	2	28.9		(500)		
	3								
B	4		Soft moist brown silty CLAY with wet fine sand lenses, fill	1					
	5								
C	6		Soft moist dark brown clayey TOPSOIL with organics, fill	3	21.7				
	7								
D	8		Slightly compact wet clayey brown fine SAND with trace of gravel, and wet fine sand lenses, fill	2					
	9								
	10		Soft moist dark brown clayey MARL with some organics	1/12"	82.9		(500)		
	11								
	12								
	13								
	14								
	15								
	16								
	17								
	18								
	19								
	20								
	21								
	22								
	23								
	24								
	25								

REMARKS: *Calibrated Penetrometer
Standard Penetration Test - Driving 2' OD Sampler 1 With 140# Hammer Falling 30" Count Made at 8' Intervals
G.W. VOLUMES None

GROUND WATER OBSERVATIONS:
G.W. ENCOUNTERED AT 2 FT. 4 INS.
S1 - SHALLOW G.W. ENCOUNTERED AT 3 FT. 0 INS.
S2 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.
S3 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.
S4 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.
S5 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.
S6 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.
S7 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.
S8 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.
S9 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.
S10 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.
S11 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.
S12 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.
S13 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.
S14 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.
S15 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.
S16 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.
S17 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.
S18 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.
S19 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.
S20 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.
S21 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.
S22 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.
S23 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.
S24 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.
S25 - DEEPER G.W. ENCOUNTERED AT 3 FT. 0 INS.

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LOG OF SOIL BORING NO. 5
PROJECT: Soils Investigation
LOCATION: 4242 Bauer Road, Brighton, Michigan
JOB NO. 18-350 DATE: 11/20/2018

Sample #	Depth	Log	SOIL DESCRIPTION	Penetration (Blows/ft)	Moisture %	Natural Moist. Wt. P.C.T.	Dry-Den. (lb./ft. ³)	U.C. Comp. Strength (PSF)	S _u (%)
1	0.0'		Most dark brown sandy TOPSOIL						
A	2		Compact moist brown fine to medium SAND with traces of silt and gravel	2	19.1				
	3								
B	4		Extremely compact moist brown fine SAND	8					
	5								
C	6		Very compact moist brown fine SAND with trace of gravel	12	2.7				
	7								
D	8		Very compact moist brown fine SAND with trace of gravel, occasional stones and moist silty sand seams	8					
	9								
	10								
	11								
	12								
	13								
	14								
	15								
	16								
	17								
	18								
	19								
	20								
	21								
	22								
	23								
	24								
	25								

REMARKS: *Calibrated Penetrometer
Standard Penetration Test - Driving 2' OD Sampler 1 With 140# Hammer Falling 30" Count Made at 8' Intervals
G.W. VOLUMES None

GROUND WATER OBSERVATIONS:
G.W. ENCOUNTERED AT FT. INS.
S1 - SHALLOW G.W. ENCOUNTERED AT FT. INS.
S2 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S3 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S4 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S5 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S6 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S7 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S8 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S9 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S10 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S11 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S12 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S13 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S14 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S15 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S16 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S17 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S18 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S19 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S20 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S21 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S22 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S23 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S24 - DEEPER G.W. ENCOUNTERED AT FT. INS.
S25 - DEEPER G.W. ENCOUNTERED AT FT. INS.

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Geotechnical, Environmental, & Hydrogeologic Services
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LOG OF SOIL BORING NO. 6
PROJECT: Soils Investigation
LOCATION: 4242 Bauer Road, Brighton, Michigan
JOB NO. 18-350 DATE: 11/20/2018

Sample #	Depth	Log	SOIL DESCRIPTION	Penetration (Blows/ft)	Moisture %	Natural Moist. Wt. P.C.T.	Dry-Den. (lb./ft. ³)	U.C. Comp. Strength (PSF)	S _u (%)
1	0.0'		Most dark brown sandy TOPSOIL						
A	2		Medium compact moist brown fine SAND with trace of gravel, and moist clayey sand seams	3	9.4				
	3								
B	4		Medium compact moist brown fine SAND with trace of gravel	3					
	5								
C	6		Medium compact moist brown fine to medium SAND with trace of silt	3	5.3				
	7								
D	8		Compact moist brown fine SAND	2					
	9								
	10		Very compact moist brown fine SAND with trace of gravel	7					
	11								
	12								
	13								
	14								
	15								



THE RIDGE SITE CONDOMINIUM
ENTRANCE
DETAILS



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ON THIS DRAWING ARE ONLY APPROXIMATE
AND NOT GUARANTEED. IT IS THE CONTRACTOR'S
RESPONSIBILITY TO VERIFY THE COMPLETENESS OR
ACCURACY THEREOF. THE CONTRACTOR
SHALL BE EXCLUSIVELY RESPONSIBLE FOR
DETERMINING THE EXACT UTILITY LOCATIONS
AND ELEVATIONS PRIOR TO THE START OF
CONSTRUCTION.

CLIENT :

JOHN MORETTI
4242 BAUER ROAD
BRIGHTON, MI 48116

ENTRANCE DETAILS

THE RIDGE SITE CONDOMINIUM
4242 BAUER ROAD
PART OF NE 1/4, SEC. 26, T2N-R5E
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS	DATE
PRELIMINARY SITE PLAN TO TOWNSHIP	1/27/2019
REVISED SITE PLAN TO TOWNSHIP	1/25/2019
REVISED SITE PLAN TO TOWNSHIP	2/20/2019
FINAL SITE PLAN TO TOWNSHIP	4/2/2019
REVISED FINAL SITE PLAN TO TOWNSHIP	4/24/2019
REVISED FINAL SITE PLAN PER LCHD	6/21/2019
REVISED FINAL SITE PLAN PER LCCO	7/22/2019

ORIGINAL ISSUE DATE:
1/2/2019

PROJECT NO: 18-025

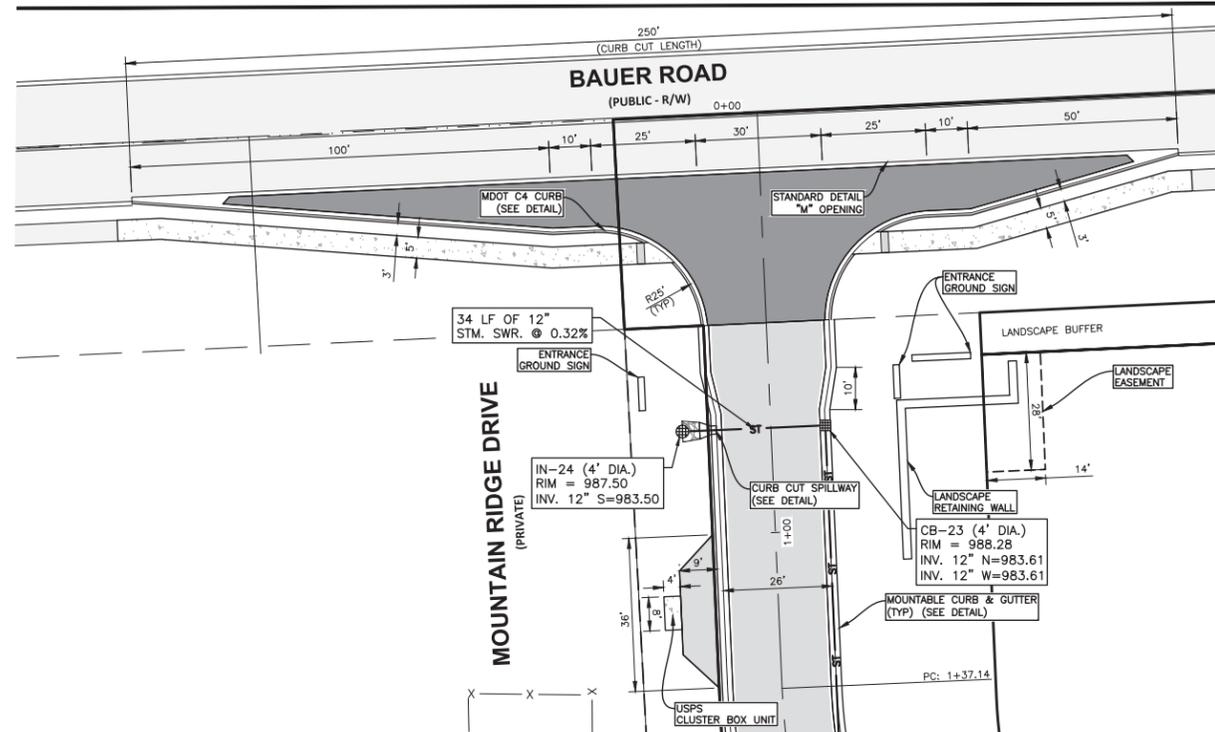
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DRAWN BY: DC
DESIGN BY: DD
CHECK BY: AP

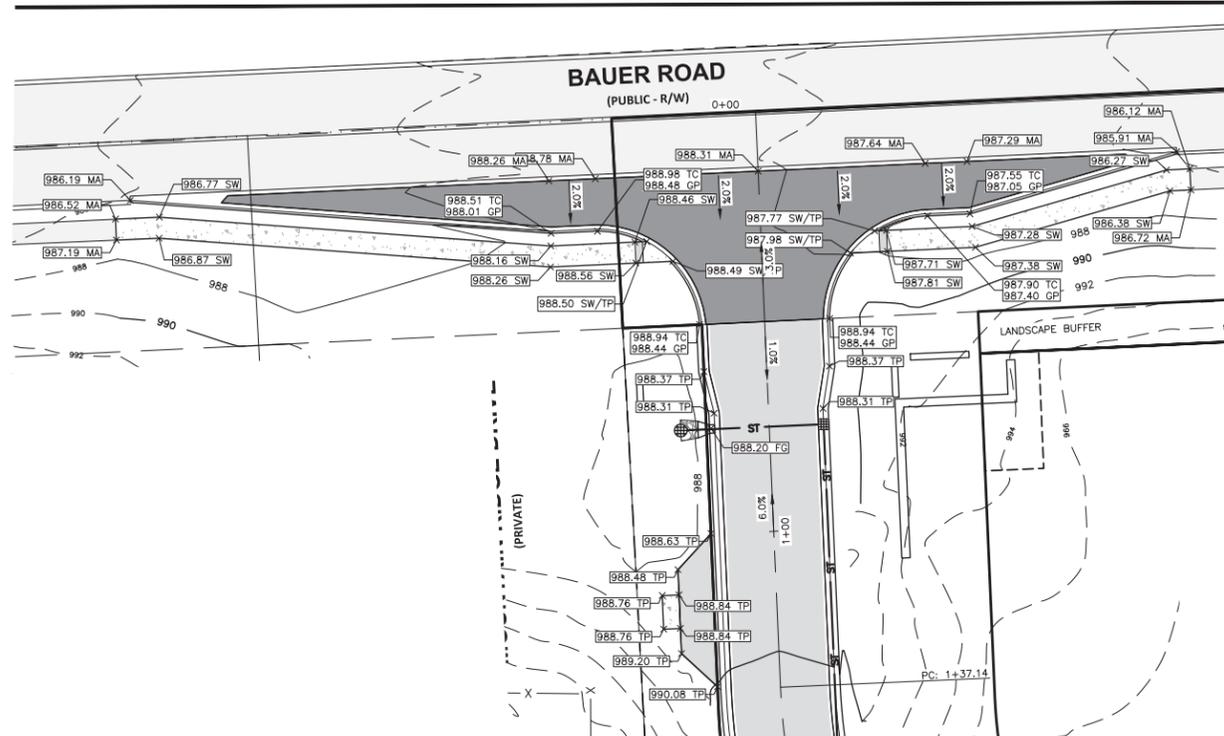
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NOT FOR CONSTRUCTION

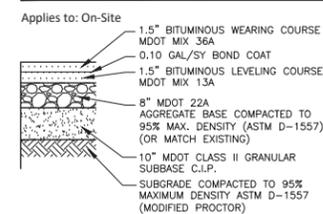
MOUNTAIN RIDGE DRIVE /BAUER ROAD PLAN



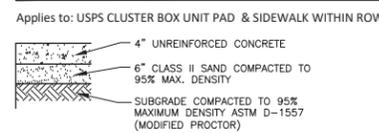
MOUNTAIN RIDGE DRIVE/BAUER ROAD. GRADING PLAN



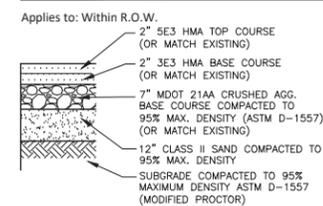
ON-SITE ROAD
PAVEMENT SECTION



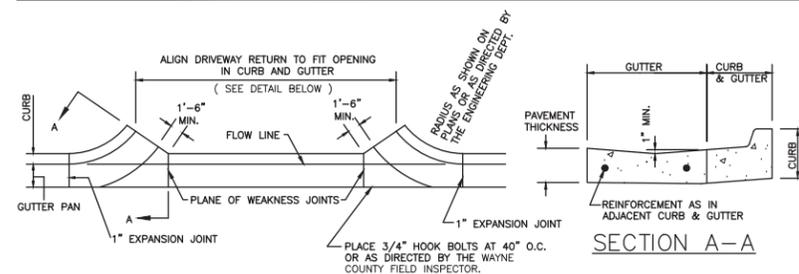
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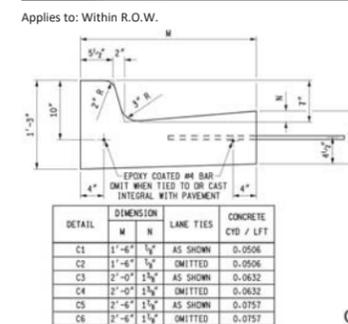
RIGHT-OF-WAY
PAVEMENT SECTION



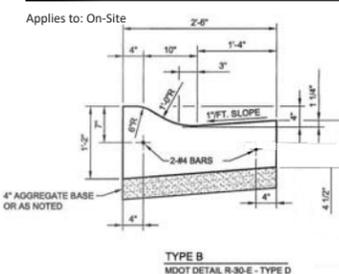
M.D.O.T. DRIVEWAY OPENING DETAIL 'M'



MDOT C4 CURB DETAIL



MOUNTABLE CURB & GUTTER

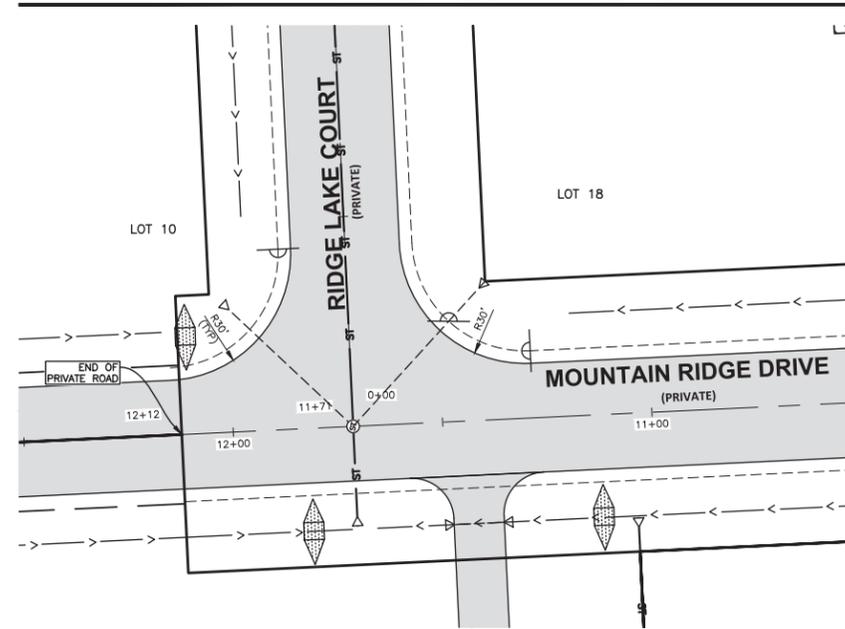




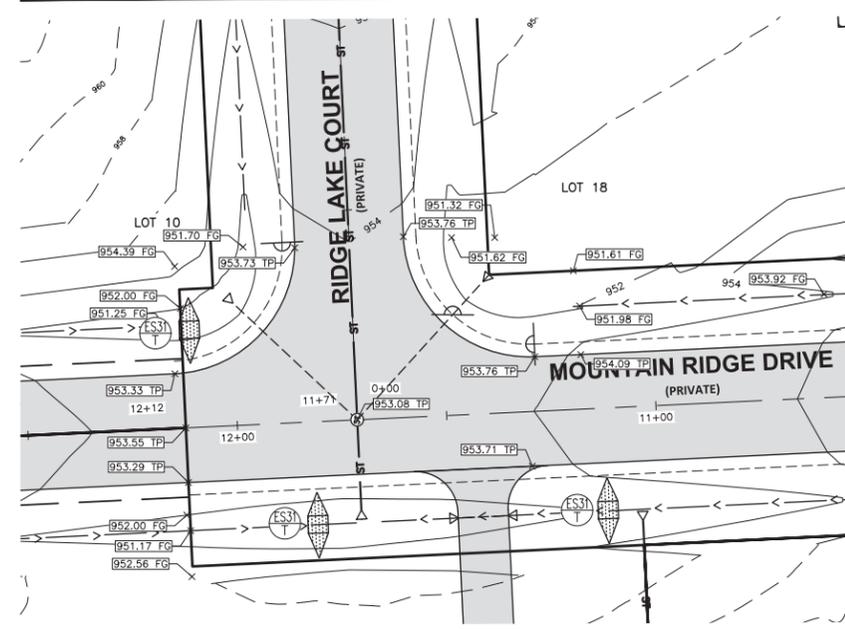
THE RIDGE SITE CONDOMINIUM
CUL-DE-SAC & INTERSECTION
DETAILS



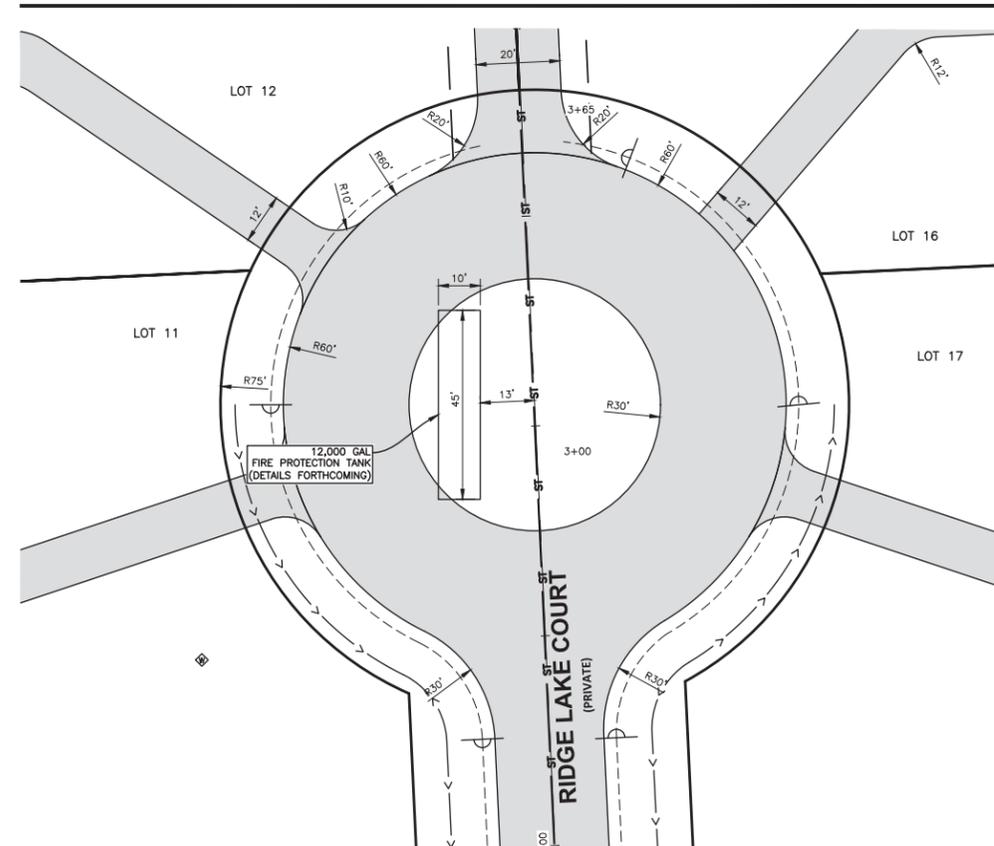
MOUNTAIN RIDGE DRIVE/RIDGE LAKE COURT PLAN



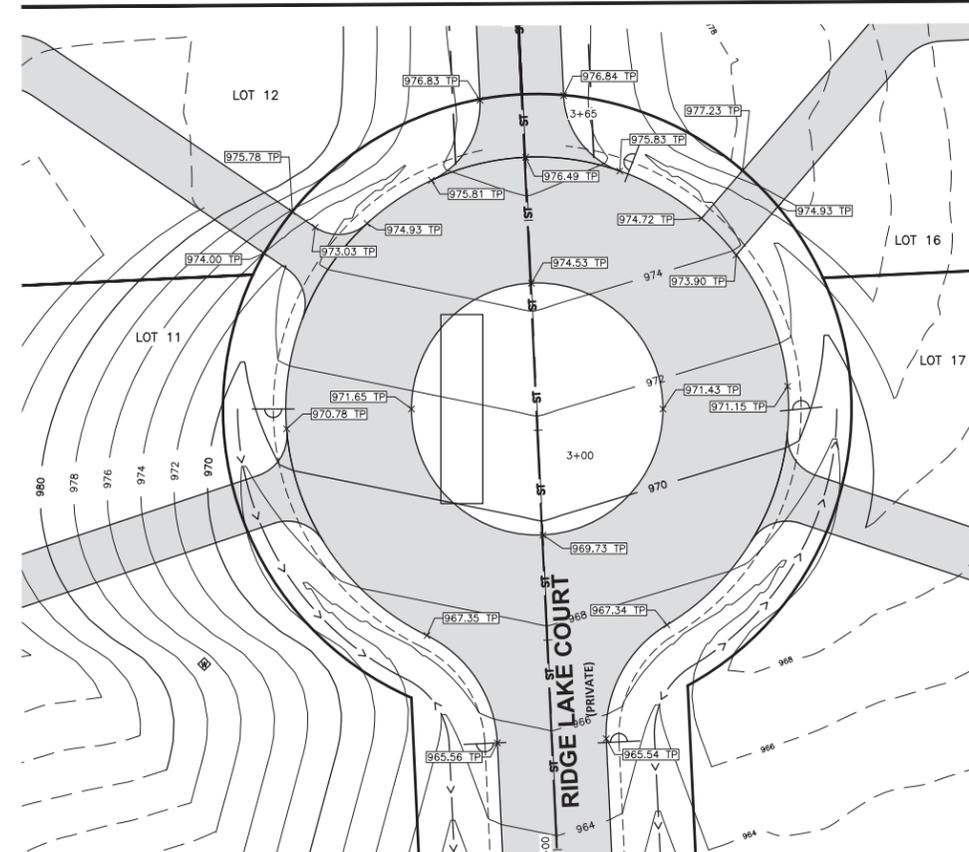
MOUNTAIN RIDGE DRIVE/RIDGE LAKE COURT GRADING PLAN



RIDGE LAKE COURT PLAN



RIDGE LAKE COURT GRADING PLAN



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AND GUARANTEED BY THE CONTRACTOR.
THE CONTRACTOR SHALL BE RESPONSIBLE FOR
DETERMINING THE EXACT UTILITY LOCATIONS
AND ELEVATIONS PRIOR TO THE START OF
CONSTRUCTION.

CLIENT :

JOHN MORETTI
4242 BAUER ROAD
BRIGHTON, MI 48116

CUL-DE-SAC & INTERSECTION DETAILS

THE RIDGE SITE CONDOMINIUM
4242 BAUER ROAD
PART OF NE 1/4, SEC. 26, T2N-R5E
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISION	DATE	DESCRIPTION
1	8/21/2019 <td>REVISED FINAL SITE PLAN TO TOWNSHIP</td>	REVISED FINAL SITE PLAN TO TOWNSHIP
2	1/2/2019 <td>PLAN SUBMITTALS/REVISIONS</td>	PLAN SUBMITTALS/REVISIONS
3	1/25/2019 <td>PRELIMINARY SITE PLAN TO TOWNSHIP</td>	PRELIMINARY SITE PLAN TO TOWNSHIP
4	2/20/2019 <td>REVISED SITE PLAN TO TOWNSHIP</td>	REVISED SITE PLAN TO TOWNSHIP
5	4/2/2019 <td>FINAL SITE PLAN TO TOWNSHIP</td>	FINAL SITE PLAN TO TOWNSHIP
6	4/24/2019 <td>REVISED FINAL SITE PLAN TO TOWNSHIP</td>	REVISED FINAL SITE PLAN TO TOWNSHIP
7	6/21/2019 <td>REVISED FINAL SITE PLAN TO TOWNSHIP</td>	REVISED FINAL SITE PLAN TO TOWNSHIP
8	7/23/2019 <td>REVISED FINAL SITE PLAN PER LCHD</td>	REVISED FINAL SITE PLAN PER LCHD
9	7/22/2019 <td>REVISED FINAL SITE PLAN PER LCDC</td>	REVISED FINAL SITE PLAN PER LCDC

ORIGINAL ISSUE DATE:
1/2/2019

PROJECT NO: 18-025

SCALE: 1" = 20'
0 1/2" 1"

FIELD: SE
DRAWN BY: DC
DESIGN BY: DD
CHECK BY: AP

C-12

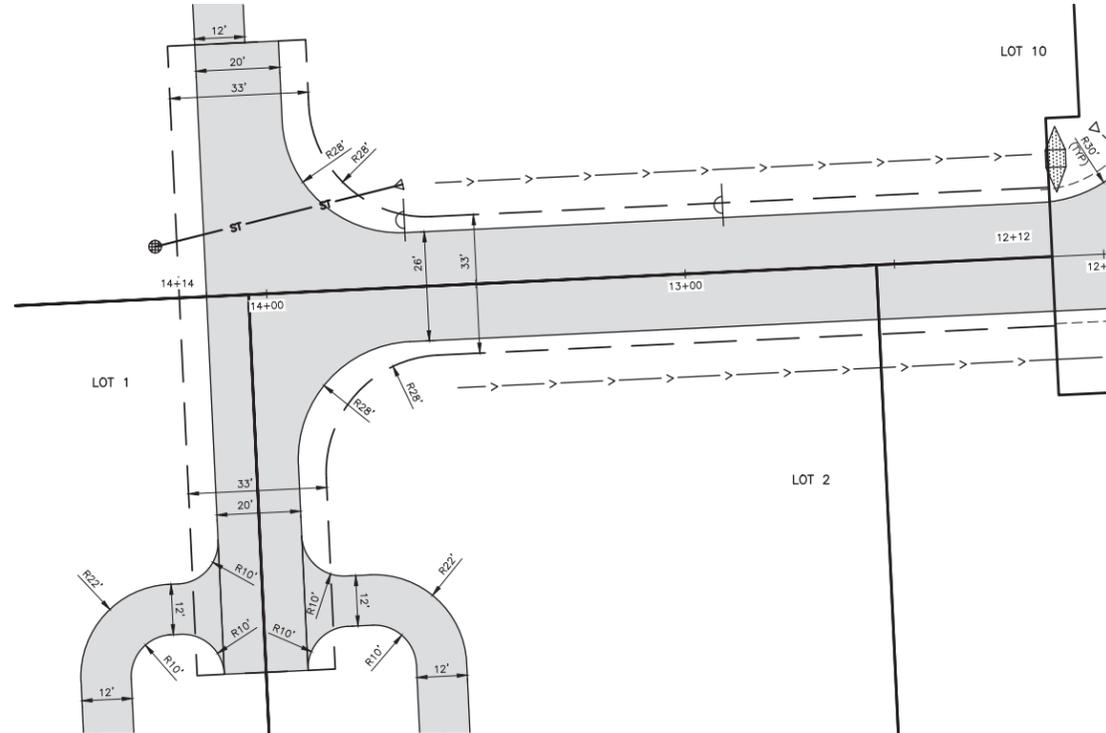
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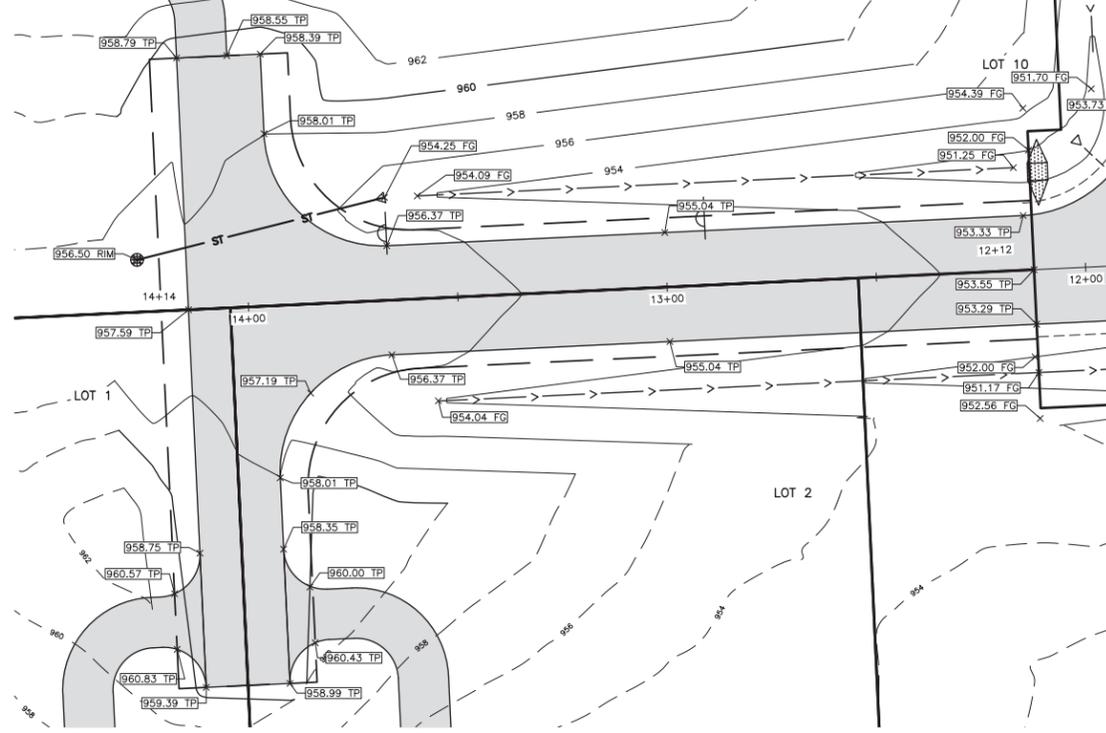


THE RIDGE SITE CONDOMINIUM
SHARED DRIVEWAY
DETAILS

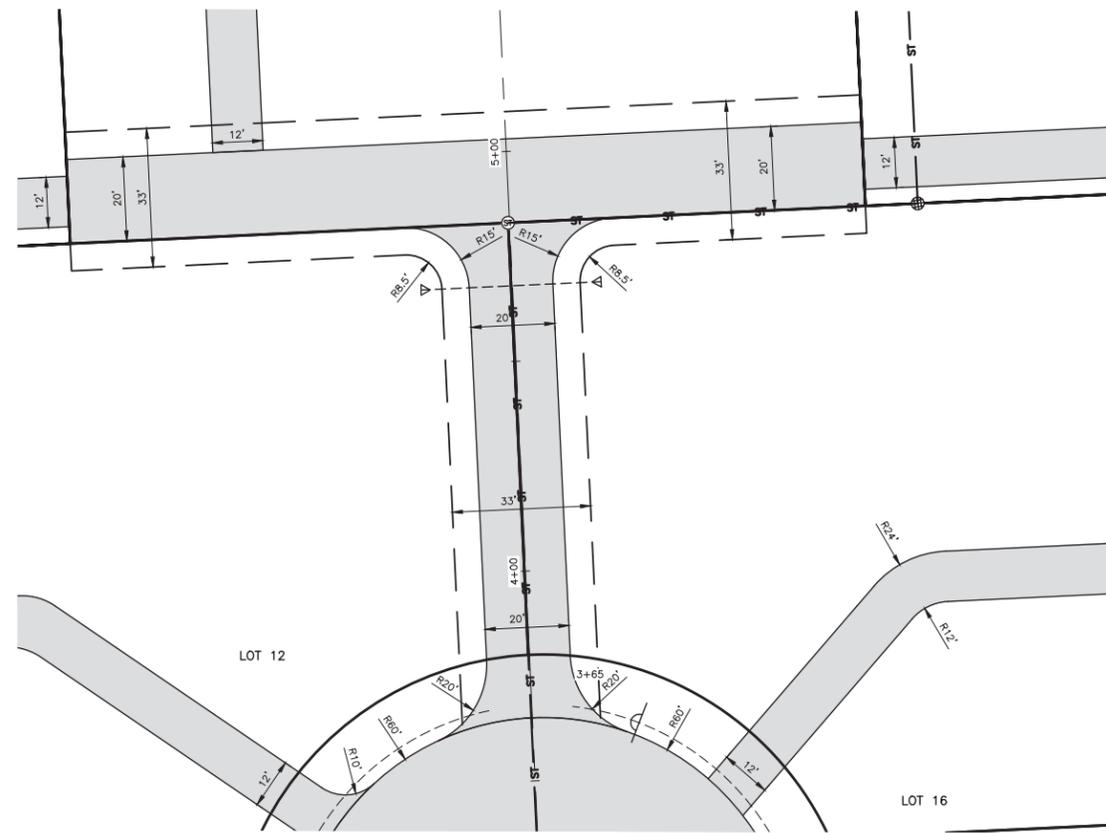
MOUNTAIN RIDGE DRIVE SHARED DRIVEWAY PLAN



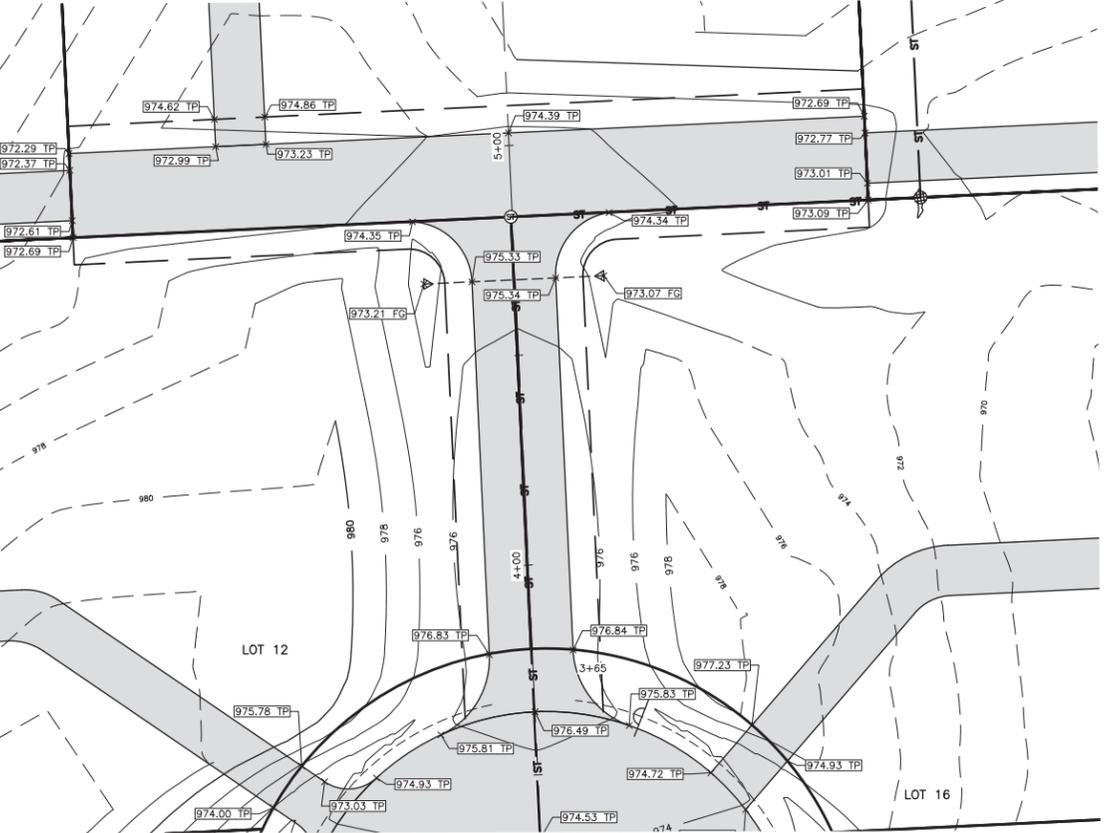
MOUNTAIN RIDGE DRIVE SHARED DRIVEWAY GRADING PLAN



RIDGE LAKE COURT SHARED DRIVEWAY PLAN



RIDGE LAKE COURT GRADING PLAN



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CONSULTANTS - LAND PLANNERS

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DETERMINING THE EXACT UTILITY LOCATIONS
AND ELEVATIONS PRIOR TO THE START OF
CONSTRUCTION.

CLIENT :

JOHN MORETTI
4242 BAUER ROAD
BRIGHTON, MI 48116

SHARED DRIVEWAY DETAILS

THE RIDGE SITE CONDOMINIUM
4242 BAUER ROAD
PART OF NE 1/4, SEC. 26, T2N-R5E
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS	DATE	DESCRIPTION
REVISED FINAL SITE PLAN TO TOWNSHIP	8/21/2019	
PLAN SUBMITTALS/REVISIONS		
PRELIMINARY SITE PLAN TO TOWNSHIP	1/2/2019	
REVISED SITE PLAN TO TOWNSHIP	1/25/2019	
REVISED SITE PLAN TO TOWNSHIP	2/20/2019	
FINAL SITE PLAN TO TOWNSHIP	4/2/2019	
REVISED FINAL SITE PLAN TO TOWNSHIP	4/24/2019	
REVISED FINAL SITE PLAN TO TOWNSHIP	6/21/2019	
REVISED FINAL SITE PLAN PER LCHD	7/2/2019	
REVISED FINAL SITE PLAN PER LCDC	7/22/2019	

ORIGINAL ISSUE DATE:
1/2/2019

PROJECT NO: 18-025

SCALE: 1" = 20'
0 1/2" 1"

FIELD: SE
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CHECK BY: AP

C-13

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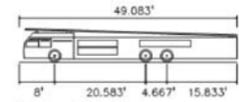




MORETTI ESTATES
EMERGENCY VEHICLE
CIRCULATION



EMERGENCY VEHICLE



Brighton 49' Fire Truck
Overall Length 49.083ft
Overall Width 8.00ft
Min Body Ground Clearance 4.667ft
Track Width 15.833ft
Lock-to-lock time 5.00s
Max Steering Angle (Virtual) 45.00°

FIRE TRUCK DETAIL
NOT TO SCALE

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CLIENT :

JOHN MORETTI
4242 BAUER ROAD
BRIGHTON, MI 48116

EMERGENCY VEHICLE CIRCULATION

THE RIDGE SITE CONDOMINIUM
4242 BAUER ROAD
PART OF NE 1/4, SEC. 26, T2N-R5E
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS	DATE
PLAN SUBMITTALS/REVISIONS	8/21/2019
PRELIMINARY SITE PLAN TO TOWNSHIP	1/2/2019
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REVISED FINAL SITE PLAN PER LCDD	7/2/2019
REVISED FINAL SITE PLAN PER LCDD	7/22/2019

ORIGINAL ISSUE DATE:
1/2/2019

PROJECT NO: 18-025

SCALE: 1" = 100'

FIELD: SE
DRAWN BY: DC
DESIGN BY: DD
CHECK BY: AP

C-2.0

NOT FOR CONSTRUCTION



SOIL EROSION AND SEDIMENTATION CONTROL SEQUENCE OF CONSTRUCTION

1. THE CONTRACTOR SHALL INSTALL SILT FENCE AS SHOWN ON APPROVED PLANS.
2. REMOVE ALL TOPSOIL AND ORGANIC MATTER. TOPSOIL MAY BE STORED ON SITE IN DESIGNATED AREA TO BE USED FOR FUTURE PLANTING AND FILL AREAS. TRUCK REMAINING TOP SOIL OFFSITE AND PROPERLY DISPOSE.
3. THE CONTRACTOR SHALL PROVIDE TREE PROTECTION FOR TREES OUTSIDE THE LIMITS OF DISTURBANCE.
4. ROUGH GRADE AND INSTALL NEW UNDERGROUND UTILITIES INCLUDING SEDIMENTATION FOREBAY. PLACE INLET FILTERS AT PROPOSED CATCH BASINS THROUGHOUT SITE.
5. SEDIMENTATION FOREBAY SHALL BE EXCAVATED, TOP SOILED, AND SEEDED IMMEDIATELY AFTER DEMOLITION WORK IS COMPLETED.
6. CONSTRUCT ROAD.
7. FINISH GRADE AROUND ROAD AND STABILIZE AS SOON AS POSSIBLE. STABILIZE ALL DISTURBED AREAS WITH CLASS A SEED AND MULCH. IN AREAS OF SLOPES OF 1:4 OR STEEPER, CONTRACTOR TO SEED AND INSTALL PEGGED IN PLACE EROSION CONTROL BLANKETS.
8. REPAIR/CLEAN INLET FILTERS AS REQUIRED.
9. INSTALL FINAL LANDSCAPING PER SEPARATE LANDSCAPE PLAN.
10. STONE AROUND OUTLET STANDPIPE STRUCTURE SHALL BE REFRESHED.
11. REMOVE TEMPORARY SOIL EROSION MEASURES ONCE SEEDED VEGETATION HAS ESTABLISHED. CLEAN ALL AFFECTED STORM STRUCTURES AS NECESSARY.

GRADING LEGEND

- 900--- EXISTING CONTOUR
- 900— PROPOSED CONTOUR
- ▬▬▬▬▬ LIMITS OF DISTURBANCE

THE RIDGE SITE CONDOMINIUM GRADING, SOIL EROSION & SEDIMENTATION CONTROL PLAN

AERIAL PHOTOGRAMMETRY

TOPOGRAPHIC CONTOURS BASED ON MEGA AERIAL.
CONTOUR INTERVAL: 2 FOOT
VERTICAL DATUM: NAVD88
DATE OF PHOTOGRAPHY: 4/24/2018

SESC LEGEND

- ○ ○ ○ ○ SILT FENCE
- ▨ MUD MAT

EROSION CONTROL QUANTITIES

Disturbed Area: 15.894 Acres

QTY	UNIT	ITEM
3,455	LF	SILT FENCE
4	EA	INLET FILTER
40	EA	CHECK DAM

MDMB SOIL EROSION & SEDIMENTATION CONTROL MEASURES

MICHIGAN DEPARTMENT OF MANAGEMENT AND BUDGET (MDMB)

EROSION CONTROLS			
KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
E6	MULCH		FOR USE IN AREAS SUBJECT TO EROSION, SURFACE FLOWS OR SEVERE WIND OR ON NEWLY SEEDED AREAS.
E8	PERMANENT SEEDING		STABILIZATION METHOD UTILIZED ON SITES WHERE EARTH CHANGE HAS BEEN COMPLETED (FINAL GRADING ATTAINED).

SEDIMENT CONTROLS			
KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
SS1	SILT FENCE		USE ADJACENT TO CRITICAL AREAS, TO PREVENT SEDIMENT LADEN SHEET FLOW FROM ENTERING THESE AREAS.
SS3	STABILIZED CONSTRUCTION ACCESS		USED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE.
SS5	SEDIMENT BASIN		AT THE OUTLET OF DISTURBED AREAS AND AT THE LOCATION OF A PERMANENT DETENTION BASIN.
SS8	INLET PROTECTION FABRIC DROP		USE AT STORMWATER INLETS, ESPECIALLY AT CONSTRUCTION SITES.

EROSION & SEDIMENT CONTROLS			
KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
ES31	CHECK DAM		USED TO REDUCE SURFACE FLOW VELOCITIES WITHIN CONSTRUCTED AND EXISTING FLOW CORRIDORS.

ⓧ T TEMPORARY ⓧ P PERMANENT

EROSION CONTROL STANDARDS

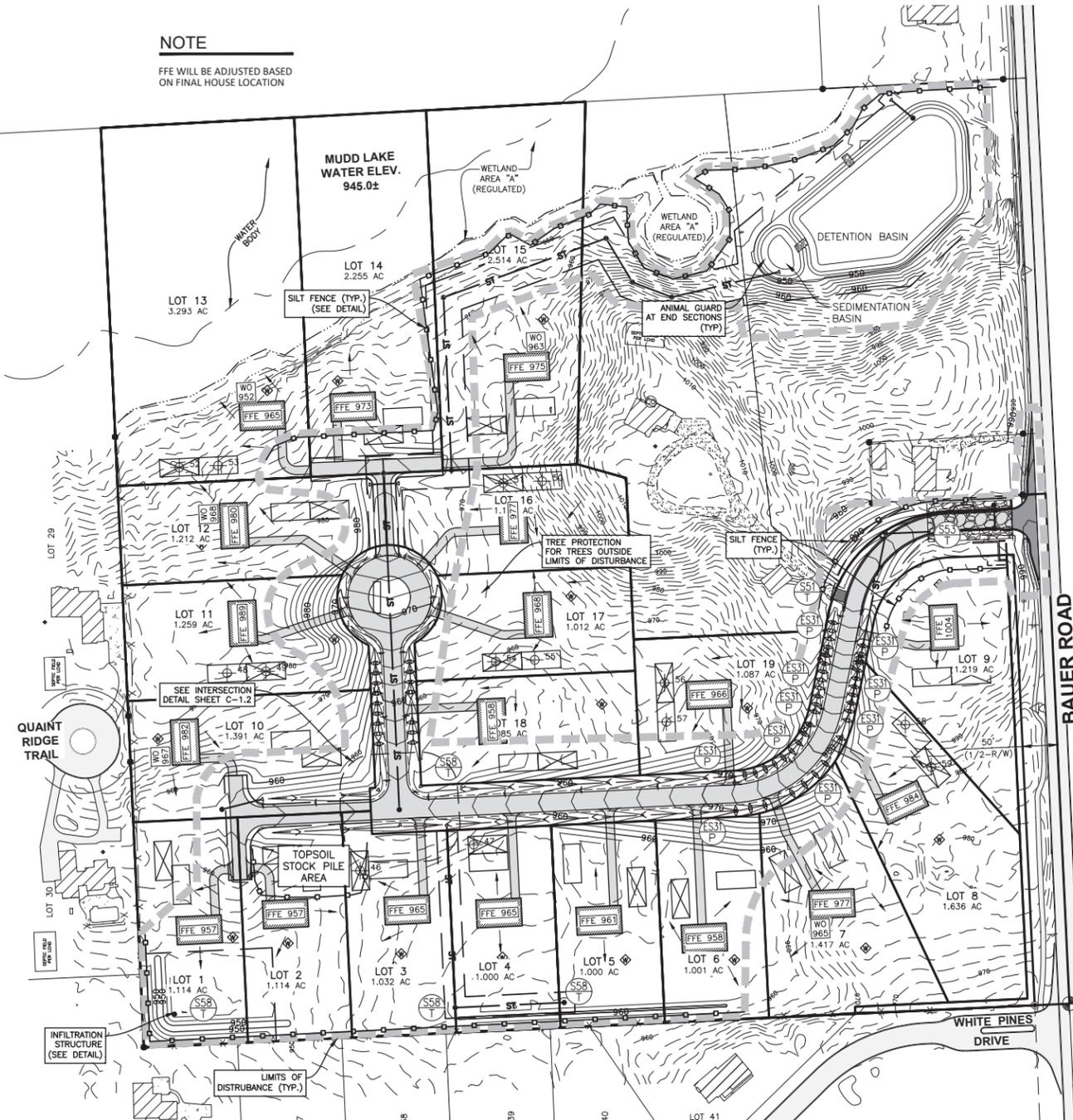
1. ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE.
2. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR FOR EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES, AND ANY NECESSARY REPAIRS SHALL BE PERFORMED WITHOUT DELAY.
3. EROSION AND ANY SEDIMENTATION FROM WORK ON THIS SITE SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MAN-MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES AND PONDS.
4. CONTRACTOR SHALL APPLY TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES WHEN REQUIRED AND AS DIRECTED ON THESE PLANS. CONTRACTOR SHALL REMOVE TEMPORARY MEASURES AS SOON AS PERMANENT STABILIZATION OF SLOPES, DITCHES AND OTHER CHANGES HAS BEEN ACCOMPLISHED.
5. STAGING OF THE WORK WILL BE DONE BY THE CONTRACTOR AS DIRECTED IN THESE PLACES AND AS REQUIRED TO INSURE PROGRESSIVE STABILIZATION OF DISTURBED AREAS.
6. SOIL EROSION CONTROL PRACTICES WILL BE ESTABLISHED IN EARLY STAGES OF CONSTRUCTION BY THE CONTRACTOR. SEDIMENT CONTROL PRACTICES WILL BE APPLIED AS A PERIMETER DEFENSE AGAINST ANY TRANSPORTING OF SILT OFF THE SITE.
7. A CERTIFIED STORM WATER OPERATOR WILL BE NAMED ON THE MDEQ NOTICE OF COVERAGE FOR NPDES AS REQUIRED.

SOIL EROSION CONTROL MAINTENANCE SCHEDULE AND NOTES.

1. CONTRACTOR MUST OBTAIN A SOIL EROSION AND SEDIMENTATION CONTROL PERMIT FROM LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE PRIOR TO COMMENCING WORK.
2. EARTHWORK SHALL BE LIMITED TO THE PROPOSED SITE AS SHOWN ON THE PLAN.
3. CONTRACTOR SHALL INSPECT THE SOIL EROSION/SEDIMENTATION CONTROL DEVICES ONCE A WEEK AND/OR WITHIN 24 HOURS OF A RAINFALL EVENT WHICH RESULTS IN A STORM WATER DISCHARGE FROM THE SITE. ANY DAMAGE TO EROSION CONTROL MEASURES MUST BE REPAIRED IMMEDIATELY.
4. ALL MUD OR DEBRIS TRACKED ONTO EXISTING PUBLIC ROADS FROM THE SITE DUE TO CONSTRUCTION SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
5. SILT FENCE MAINTENANCE SHALL INCLUDE THE REMOVAL OF ANY BUILT-UP SEDIMENT WHEN THE SEDIMENT HEIGHT ACCUMULATES TO 1/3 TO 1/2 OF THE HEIGHT OF THE FENCE. THE CONTRACTOR IS RESPONSIBLE TO REMOVE, REPLACE, RETRENCH OR RE-BACKFILL THE SILTATION FENCE SHOULD IT FAIL OR BE DAMAGED DURING CONSTRUCTION.
6. PERMANENT STABILIZATION MUST BE COMPLETED WITHIN 30 DAYS OF FINAL GRADING.
7. ACCESS ROADS MUST BE MAINTAINED AS NECESSARY, TO KEEP THEM EFFECTIVE. NEW LAYERS OF STONE MAY BE ADDED AS OLD LAYERS BECOME COMPACTED. STEPS SHOULD ALSO BE TAKEN TO REPAIR THE ACCESS ROADS IF RUTS OR PONDING WATER APPEARS.
8. INLET FILTERS SHOULD BE INSPECTED FOR BUILDUP OF SILT AND OTHER DEBRIS. THIS IS EVIDENT IF GEOTEXTILE/SOD STRUCTURE IS CAUSING FLOODING. MAINTENANCE WOULD CONSIST OF REMOVING OF SEDIMENTS WITH A STIFF BRISTLE BROOM OR SQUARE POINT SHOVEL. IF INLET FILTER IS BEYOND THIS LEVEL OF REPAIR, IT MAY BE NECESSARY TO REPLACE BOTH THE SOD AND GEOTEXTILE FILTER.
9. IF SOIL EROSION/SEDIMENT CONTROL MEASURES ARE INADEQUATE FOR THE SITE. THE PROPER EROSION CONTROL AUTHORITY MUST BE NOTIFIED.
10. HYDRO-SEEDING - HYDRO-SEEDING IS NOT ACCEPTABLE FOR SLOPES EXCEEDING 1%. ON SLOPES OVER 1%, STABILIZATION SHALL BE DONE WITH SEED AND STRAW MULCH WITH A TACKIFIER, OR STRAW BLANKETS PEGGED IN PLACE.
11. STRAW MULCH - 3" IN DEPTH, 1.5 TO 2 TONS PER ACRE (ALL MULCH MUST HAVE A TIE DOWN, SUCH AS TACKIFIER, NET BINDING, ETC.)
12. FERTILIZER - 150 LBS. PER ACRE.
13. GRASS SEED - 210 LBS. PER ACRE.
14. TOP-SOIL - 3 INCHES IN DEPTH.
15. ALL RIP-RAP MUST BE PLACED OVER KEYED IN GEO-FABRIC

NOTE

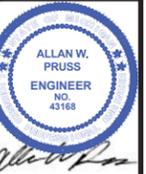
FFE WILL BE ADJUSTED BASED ON FINAL HOUSE LOCATION



BENCHMARKS

Datum: NAVD88

- BM A:
RAIL ROAD SPIKE IN WEST FACE UTILITY POLE, 26'± WEST OF CENTERLINE OF BAUER ROAD & 539'± NORTH FROM SUBJECT'S SOUTH PROPERTY LINE.
Elev = 986.91
- BM B:
RAIL ROAD SPIKE IN WEST FACE UTILITY POLE, 28'± WEST OF CENTERLINE OF BAUER ROAD & 58'± NORTH FROM SUBJECT'S SOUTH PROPERTY LINE.
Elev = 970.48
- BM C:
RAIL ROAD SPIKE IN WEST FACE UTILITY POLE, 439'± WEST OF CENTERLINE OF BAUER ROAD & 565'± SOUTH FROM SUBJECT'S NORTH PROPERTY LINE.
Elev = 1013.57



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CLIENT :

JOHN MORETTI
4242 BAUER ROAD
BRIGHTON, MI 48116

GRADING, SESC PLAN

THE RIDGE SITE CONDOMINIUM
4242 BAUER ROAD
PART OF NE 1/4, SEC. 26, T2N-R5E
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISION	DATE	DESCRIPTION
1	8/21/2019 <td>REVISED FINAL SITE PLAN TO TOWNSHIP</td>	REVISED FINAL SITE PLAN TO TOWNSHIP
2	1/2/2019 <td>PLAN SUBMITTALS/REVISIONS</td>	PLAN SUBMITTALS/REVISIONS
3	1/25/2019 <td>PRELIMINARY SITE PLAN TO TOWNSHIP</td>	PRELIMINARY SITE PLAN TO TOWNSHIP
4	2/20/2019 <td>REVISED SITE PLAN TO TOWNSHIP</td>	REVISED SITE PLAN TO TOWNSHIP
5	4/2/2019 <td>FINAL SITE PLAN TO TOWNSHIP</td>	FINAL SITE PLAN TO TOWNSHIP
6	4/24/2019 <td>REVISED FINAL SITE PLAN TO TOWNSHIP</td>	REVISED FINAL SITE PLAN TO TOWNSHIP
7	6/21/2019 <td>REVISED FINAL SITE PLAN PER LCHD</td>	REVISED FINAL SITE PLAN PER LCHD
8	7/22/2019 <td>REVISED FINAL SITE PLAN PER LCCD</td>	REVISED FINAL SITE PLAN PER LCCD

ORIGINAL ISSUE DATE:
1/2/2019

PROJECT NO: 18-025

SCALE: 1" = 100'



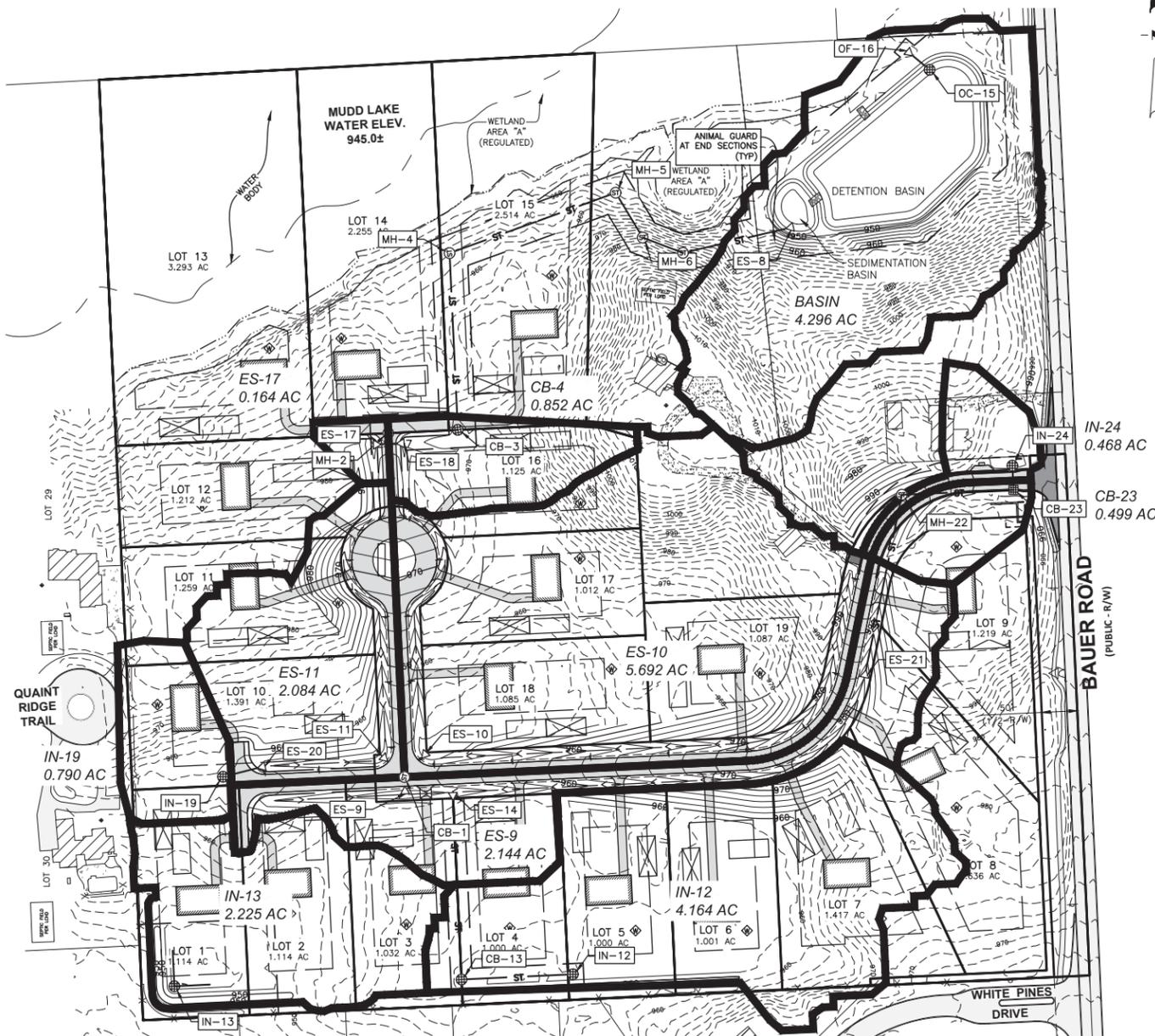
FIELD: SE
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DESIGN BY: DD
CHECK BY: AP

C-7.0

NOT FOR CONSTRUCTION



THE RIDGE SITE CONDOMINIUM STORM WATER MANAGEMENT PLAN



OUTLET CONTROL STRUCTURE ORIFICE CALCULATIONS

FIRST FLUSH RUNOFF
AVERAGE ALLOWABLE RELEASE RATE FOR RUNOFF IS 0.5" OVER THE SITE IN 24 HOURS

$$Q_{ff} = \frac{V_{ff}}{T_{ff}} = \frac{V_{ff}}{24 \times 3600} = 0.155 \text{ CFS}$$

OPENINGS IN BOTTOM OF BASIN

$$H_{avg} = \frac{2}{3} \times (Z_{ff} - Z_{bms}) = 0.475 \text{ FT}$$

$$A_{ff} = \frac{Q_{ff}}{0.62 \sqrt{2 \times 32.2 \times H_{avg}}} = 0.045 \text{ SF}$$

1" DIA HOLE HAS AN AREA OF 1 0.083 = 0.0055 SF

0.75" DIA HOLE HAS AN AREA OF 0.75 0.063 = 0.0031 SF

DETENTION TIME FOR ONE (1) 0.75" DIA HOLE 0.75" = 0.0108 CFS

$$T_{ff} = \frac{V_{ff}}{Q_{ff}} = \frac{V_{ff}}{Q_{ff} \times 3600} = 24.00 \text{ HRS}$$

DETENTION TIME OF 44 HOURS = 24667 CF

$V_{rem} = V_{ff} - V_{ff}$ = 20.00 HRS

$T_{rem} = T_{tot} - T_{ff}$ = 20.00 HRS

VOLUME THROUGH ONE (1) 0.75" DIA HOLE IN 20 HOURS = 0.942 FT

$$H_{ff} = \frac{2}{3} (Z_{ff} - Z_{ff}) + (Z_{ff} - Z_{bms}) = 0.218 \text{ CFS}$$

$$Q_1 = 0.62 \times A_{ff} \sqrt{2 \times g \times H_{ff}} = 15704.08 \text{ CF}$$

$$V_1 = T_{rem} \times Q_1 = 8963.11 \text{ CF}$$

$$V_2 = V_{rem} - V_1 = 0.124 \text{ CFS}$$

$$Q_2 = \frac{V_2}{T_{rem}} = 0.229 \text{ FT}$$

$$H_{ff} = \frac{2}{3} (Z_{ff} - Z_{ff}) = 0.052 \text{ SF}$$

$$A_2 = \frac{Q_2}{0.62 \sqrt{2 \times g \times H_{ff}}} = 0.005 \text{ SF}$$

1" DIA HOLE HAS AN AREA OF 1 0.083 = 9.588 EA

NUMBER OF HOLES = $\frac{A_2}{\text{NOMINAL HOLE AREA}}$

USE TEN (10) 1" DIAMETER HOLE AT ELEVATION 947.69

100-YEAR FLOOD Q_{100} (ALLOWABLE) = 0.155 CFS

$$Q_{ff} + Q_{ff} = 0.043 \text{ CFS}$$

$$Q_{100} = Q_{ff} - (Q_{ff} + Q_{ff}) = 0.112 \text{ CFS}$$

$$A_{100} = \frac{Q_{100}}{0.62 \sqrt{2 \times g \times (Z_{100} - Z_{ff})}} = 0.034 \text{ SF}$$

1" DIA HOLE HAS AN AREA OF 1 0.083 = 6.20 EA

NUMBER OF HOLES = $\frac{A_{100}}{\text{NOMINAL HOLE AREA}}$

USE SIX (6) 1" DIAMETER HOLES AT ELEVATION 948.28

SUMMARY

NINE (9) 1" DIAMETER HOLE AT = 947.00

FOUR (4) 1" DIAMETER HOLE AT = 947.40

EIGHTEEN (18) 3" DIAMETER HOLES AT = 948.12

DETENTION VOLUME CALCULATIONS

PROPOSED SITE DATA

Tributary Area (A):	23.39 Acres
Compound Runoff Coefficient (C):	0.32
Design Constant (K _d):	7.37
Maximum Permission Unit Outflow Rate:	0.20 CFS/Acre
Allowable Outflow Rate (Q _a):	4.68 CFS

PROPOSED COMPOUND RUNOFF COEFFICIENT

Surface	Area (Square Feet)	Area (Acres)	Runoff Coef. (C)	A x C
Ex Pavement	6,767	0.16	0.90	6,090
Pr Building	24,795	0.57	0.90	22,315
Pr Pavement	80,272	1.84	0.90	72,245
Pr Det. Pond	48,916	1.12	1.00	48,916
Natural Area	858,302	19.70	0.20	171,660

$$\text{Compound (C)} = \frac{\text{Total A} \times \text{C}}{\text{TRIBUTARY AREA}} = 0.32$$

REQUIRED DETENTION VOLUME (LIVINGSTON COUNTY METHOD)

Duration (Minutes)	Duration (Seconds)	Intensity (100-yr Storm) (Inch/Hour)	Col. #2 x Col. #3 (Inches)	Inflow Volume Col. #4 x K _d (Cubic Feet)	Outflow Volume Col. #2 x Q _a (Cubic Feet)	Storage Volume Col. 5 - Col. 6 (Cubic Feet)
5	300	9.167	2.750	20,279	1,404	18,876
10	600	7.857	4.714	34,765	2,807	31,957
15	900	6.875	6.188	45,629	4,211	41,418
20	1,200	6.111	7.333	54,079	5,615	48,464
30	1,800	5.000	9.000	66,369	8,422	57,947
60	3,600	3.285	11.647	85,889	16,844	69,045
90	5,400	2.391	12.913	95,225	25,266	69,960
120	7,200	1.897	13.655	100,698	33,688	67,010
180	10,800	1.341	14.488	106,838	50,531	56,307

$$\text{Intensity (I)} = \frac{275}{t + 25}$$

REQUIRED VOLUME SUMMARY

100-Year Volume V_{100} = 69,960 Cubic Feet

First Flush Volume $V_{ff} = 1,815 \times A \times C = 13,384$ Cubic Feet

Bankfull Flood Volume $V_{bf} = 5,160 \times A \times C = 38,052$ Cubic Feet

Sedimentation Volume $V_{sed} = 5\% \times V_{100} = 3,498$ Cubic Feet

PROVIDED SEDIMENTATION STORAGE VOLUME

Elevation (Feet)	Area (Square Feet)	Average Area (Square Feet)	Increment Volume (Cubic Feet)	Volume (Cubic Feet)
947	2,070			0
948	2,982	2,526	2,526	2,526
949	4,052	3,517	3,517	6,043

PROVIDED DETENTION STORAGE VOLUME

Elevation (Feet)	Area (Square Feet)	Average Area (Square Feet)	Increment Volume (Cubic Feet)	Total Volume (Cubic Feet)
947	32,185			
948	35,844	34,015	34,015	34,015
949	39,660	37,752	37,752	71,767

Total Storage Volume $V_{sed} + V_{det} = V_{total} = 77,810$ Cubic Feet

PROVIDED STORAGE ELEVATIONS

First Flush Storage Elevation	Elevation	Volume 1	Volume 2
Elevation 1	948.00	34,015	
Elevation 2	949.00	71,767	
FF ELEVATION (Zff)		V_{ff}	13,384

Bankfull Storage Elevation	Elevation	Volume 1	Volume 2
Elevation 1	948.00	34,015	
Elevation 2	949.00	71,767	
BF ELEVATION (Zbf)		V_{bf}	38,052

100-Year Storage Elevation	Elevation	Volume 1	Volume 2
Elevation 1	948.00	34,015	
Elevation 2	949.00	71,767	
100 ELEVATION (Z100)		V_{100}	69,960

Sedimentation Storage Elevation	Elevation	Volume 1	Volume 2
Elevation 1	948.00	2,526	
Elevation 2	949.00	6,043	
SED ELEVATION (Zsed)		V_{sed}	3,498

NOTE:

THE PROPOSED DRAINAGE SYSTEM IS PRIVATELY OWNED AND WILL BE PROPERLY MAINTAINED BY THE PROPERTY OWNER'S ASSOCIATION.

STORM SEWER PIPE NETWORK CALCULATIONS

FROM STR TO STR	AREA A	COEFF. C	A x C	AREA TOTAL At	TOTAL C x A	TIME t	INT. I	FLOW Q	PIPE CAP.	PIPE AREA	PIPE LENGTH	PIPE DIA.	PIPE SLOPE	MIN PIPE SLOPE	H.G. SLOPE	VEL. FULL	TIME FULL	H.G. ELEV. UP STREAM	H.G. ELEV. DOWN STREAM	INVERT ELEV. UP STREAM	INVERT ELEV. DOWN STREAM	RIM ELEV. UP STREAM	RIM ELEV. DOWN STREAM	
MAIN RUN	ES10-MH1	5.692	0.32	1.821	5.692	2.488	20.00	3.89	9.68	12.17	3.14	47	24	0.29	0.12	0.29	3.88	0.20	952.50	952.36	950.90	950.76	950.90	953.08
	MH1-MH2	0.000	0.32	0.000	15.841	5.736	20.28	3.86	22.17	23.09	7.07	483	36	0.12	0.07	0.12	3.27	2.46	950.93	950.35	948.53	947.95	953.08	968.60
	MH2-CB3	0.000	0.32	0.000	15.841	5.736	22.75	3.67	21.02	22.11	7.07	98	36	0.11	0.07	0.11	3.13	0.52	950.35	950.24	947.95	947.84	953.08	965.00
	CB3-MH4	0.000	0.32	0.000	15.841	5.736	23.27	3.63	20.79	22.11	7.07	248	36	0.11	0.07	0.11	3.13	1.32	950.24	949.97	947.84	947.57	953.08	972.40
	MH4-MH5	1.290	0.32	0.413	17.131	6.148	24.59	3.53	21.70	22.11	7.07	249	36	0.11	0.07	0.11	3.13	1.33	949.97	949.69	947.57	947.29	953.08	954.71
	MH5-MH6	0.000	0.32	0.000	17.131	6.148	25.92	3.44	21.13	22.11	7.07	73	36	0.11	0.07	0.11	3.13	0.39	949.69	949.61	947.29	947.21	953.08	953.04
	MH6-MH7	0.000	0.32	0.000	17.131	6.148	26.30	3.41	20.97	22.11	7.07	36	36	0.11	0.07	0.11	3.13	0.19	949.61	949.57	947.21	947.17	953.08	968.00
	MH7-ES8	0.000	0.32	0.000	17.131	6.148	26.50	3.40	20.89	22.11	7.07	159	36	0.11	0.07	0.11	3.13	0.85	949.57	949.40	947.17	947.00	953.08	968.00
LATERAL	IN12-CB13	4.164	0.32	1.332	4.164	1.332	20.00	3.89	5.18	5.03	1.77	157	18	0.23	0.18	0.24	2.85	0.92	954.57	954.19	953.31	952.95	957.00	959.54
	CB13-ES14	0.000	0.32	0.000	4.164	1.332	20.92	3.81	5.08	4.92	1.77	267	18	0.22	0.18	0.23	2.79	1.60	954.19	953.56	952.95	952.36	959.54	952.36
LATERAL	ES9-MH1	2.144	0.32	0.686	7.275	2.328	20.00	3.89	9.05	9.32	3.14	24	24	0.17	0.12	0.17	2.97	0.13	952.26	952.22	950.66	950.62	950.65	953.08
LATERAL	ES11-MH1	2.084	0.32	0.667	2.874	0.920	20.00	3.89	3.58	3.10	1.23	43	15	0.23	0.23	0.31	2.52	0.28	952.09	951.96	951.06	950.96	951.06	953.08
LATERAL	ES17-ES18	0.164	0.32	0.052	0.164	0.052	20.00	3.89	0.20	2.01	0.79	43	12	0.32	0.30	0.32	2.56	0.28	974.01	973.87	973.21	973.07	973.21	973.07
LATERAL	IN19-ES20	0.790	0.32	0.253	0.790	0.253	20.00	3.89	0.98	2.01	0.79	61	12	0.32	0.30	0.32	2.56	0.40	955.25	955.05	954.45	954.25	957.62	952.85
LATERAL	IN24-CB23	0.499	0.32	0.160	0.499	0.160	20.00	3.89	0.62	2.01	0.79	34	12	0.32	0.30	0.32	2.56	0.22	984.66	984.55	983.61	983.50	988.47	987.50
	CB23-MH22	0.468	0.32	0.150	0.967	0.309	20.22	3.87	1.20	2.01	0.79	200	12	0.32	0.30	0.32	2.56	1.30	984.55	983.91	983.50	982.86	987.50	995.33
	MH22-ES21	0.000	0.00	0.000	0.967	0.309	21.52	3.76	1.16	2.01	0.79	262	12	0.32	0.30	0.32	2.56	1.70	983.91	983.07	983.11	982.27	995.33	0.00

ENGINEERS - SURVEYORS
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CLIENT:

JOHN MORETTI
4242 BAUER ROAD
BRIGHTON, MI 48116

SITE SW MANAGEMENT PLAN

THE RIDGE SITE CONDOMINIUM
4242 BAUER ROAD
PART OF NE 1/4, SEC. 26, T2N-R5E
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

DATE	REVISIONS
8/21/2019	REVISED FINAL SITE PLAN TO TOWNSHIP
1/2/2019	PRELIMINARY SITE PLAN TO TOWNSHIP
1/25/2019	REVISED SITE PLAN TO TOWNSHIP
2/20/2019	REVISED SITE PLAN TO TOWNSHIP
4/2/2019	FINAL SITE PLAN TO TOWNSHIP
4/24/2019	REVISED FINAL SITE PLAN TO TOWNSHIP
6/21/2019	REVISED FINAL SITE PLAN TO TOWNSHIP
7/12/2019	REVISED FINAL SITE PLAN PER LCHD
7/22/2019	REVISED FINAL SITE PLAN PER LCCO

ORIGINAL ISSUE DATE:
1/2/2019

PROJECT NO: 18-025

SCALE: 1" = 100'

FIELD: SE
DRAWN BY: DC
DESIGN BY: DD
CHECK BY: AP

C-9.0

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THE RIDGE SITE CONDOMINIUM
STORM SEWER PLAN & PROFILE
IN-1 TO MH-5

NOTES

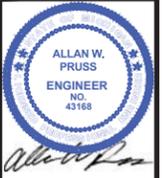
1. STORM SEWER TO BE A MINIMUM OF 10 FEET FROM BUILDINGS.
2. STORM SEWER TO BE A MINIMUM OF 10 FEET FROM DISPOSAL FIELDS.

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CONSTRUCTION.

CLIENT :

JOHN MORETTI
4242 BAUER ROAD
BRIGHTON, MI 48116

STORM SEWER PLAN & PROFILE

THE RIDGE SITE CONDOMINIUM
4242 BAUER ROAD
PART OF NE 1/4, SEC. 26, T2N-R5E
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISION	DATE
REVISED FINAL SITE PLAN TO TOWNSHIP	8/21/2019
PLAN SUBMITTALS/REVISIONS	
PRELIMINARY SITE PLAN TO TOWNSHIP	1/2/2019
REVISED SITE PLAN TO TOWNSHIP	1/25/2019
REVISED SITE PLAN TO TOWNSHIP	2/20/2019
FINAL SITE PLAN TO TOWNSHIP	4/2/2019
REVISED FINAL SITE PLAN TO TOWNSHIP	4/24/2019
REVISED FINAL SITE PLAN TO TOWNSHIP	6/21/2019
REVISED FINAL SITE PLAN PER LCDC	7/31/2019
REVISED FINAL SITE PLAN PER LCDC	7/22/2019

ORIGINAL ISSUE DATE:
1/2/2019

PROJECT NO: 18-025

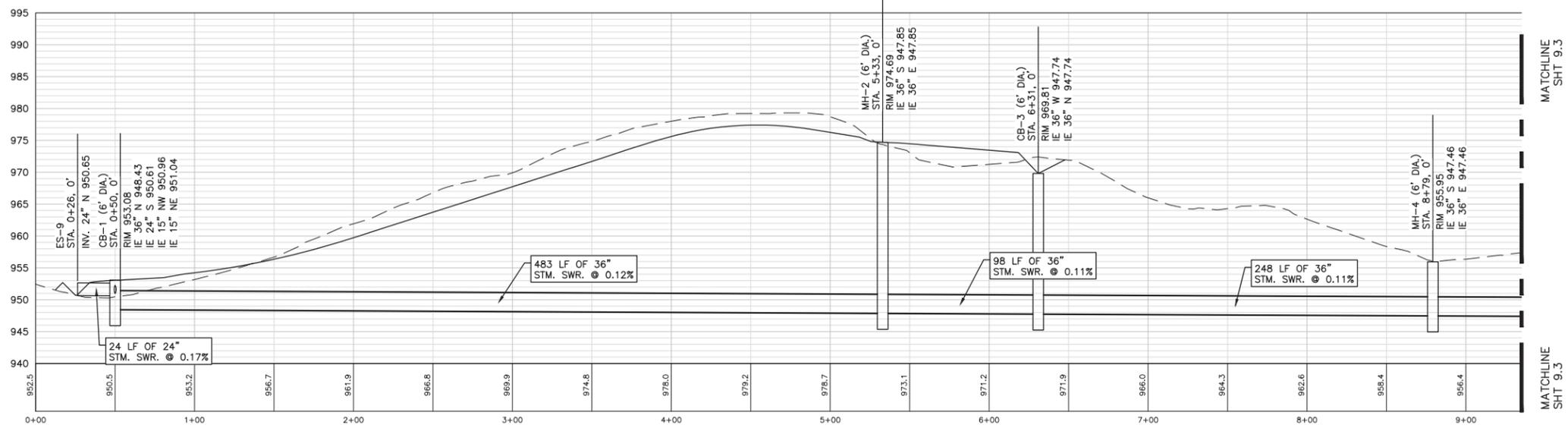
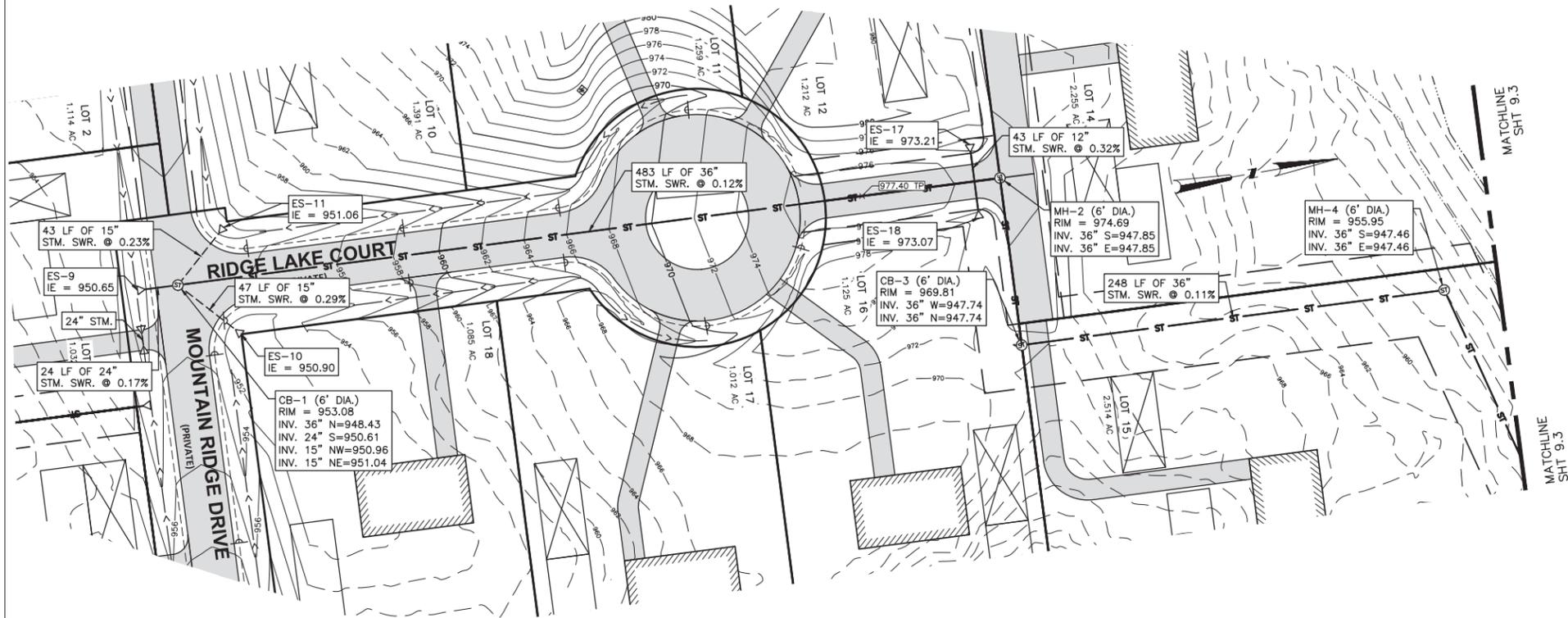
SCALE: 1" = 40'

0 1/2" 1"

FIELD: SE
DRAWN BY: DC
DESIGN BY: DD
CHECK BY: AP

C-9.2

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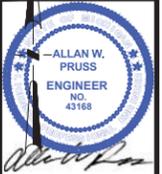
THE RIDGE SITE CONDOMINIUM
STORM SEWER PLAN & PROFILE
 MH-5 TO ES-8 & ES-21 TO IN-24

NOTES

1. STORM SEWER TO BE A MINIMUM OF 10 FEET FROM BUILDINGS.
2. STORM SEWER TO BE A MINIMUM OF 10 FEET FROM DISPOSAL FIELDS.

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 CONSULTANTS - LAND PLANNERS

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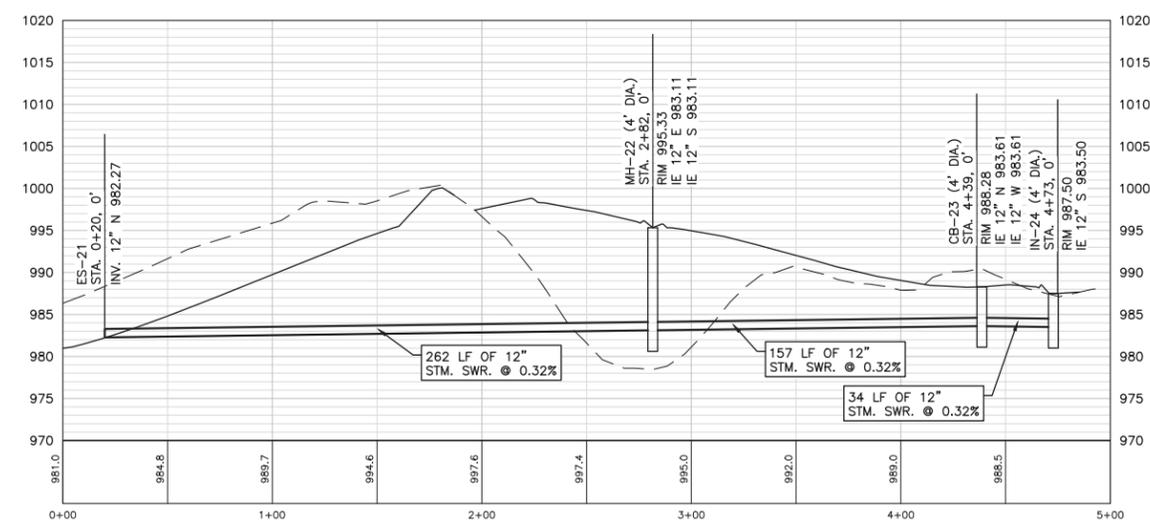
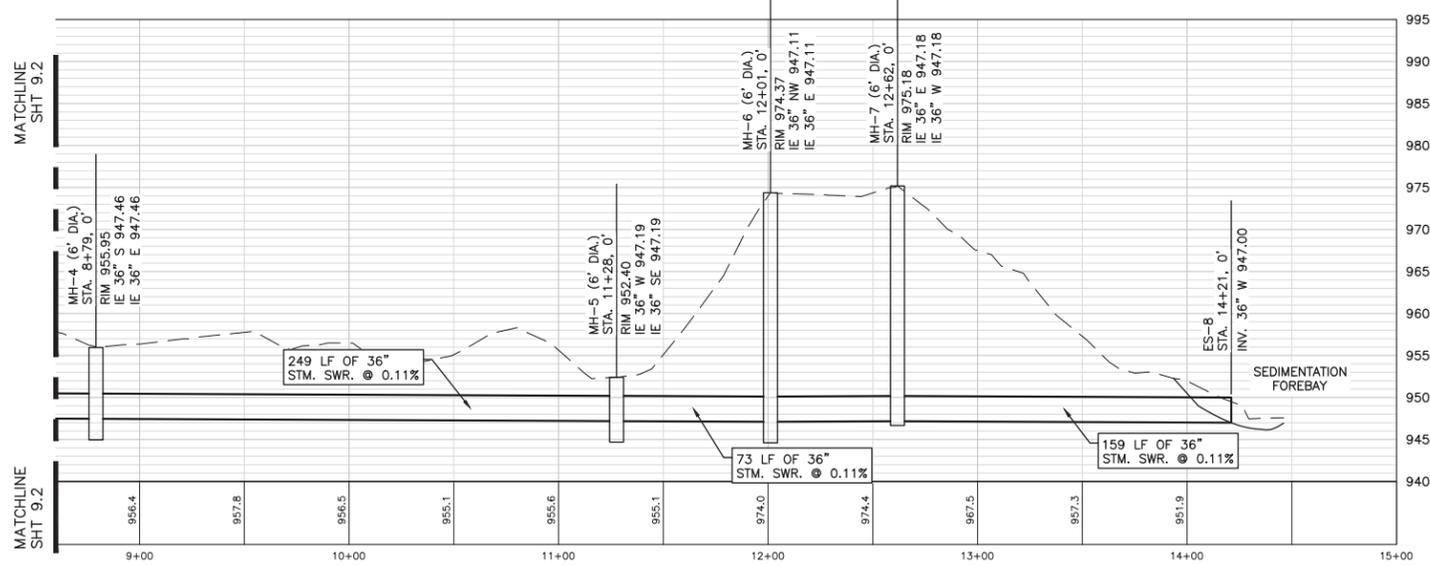
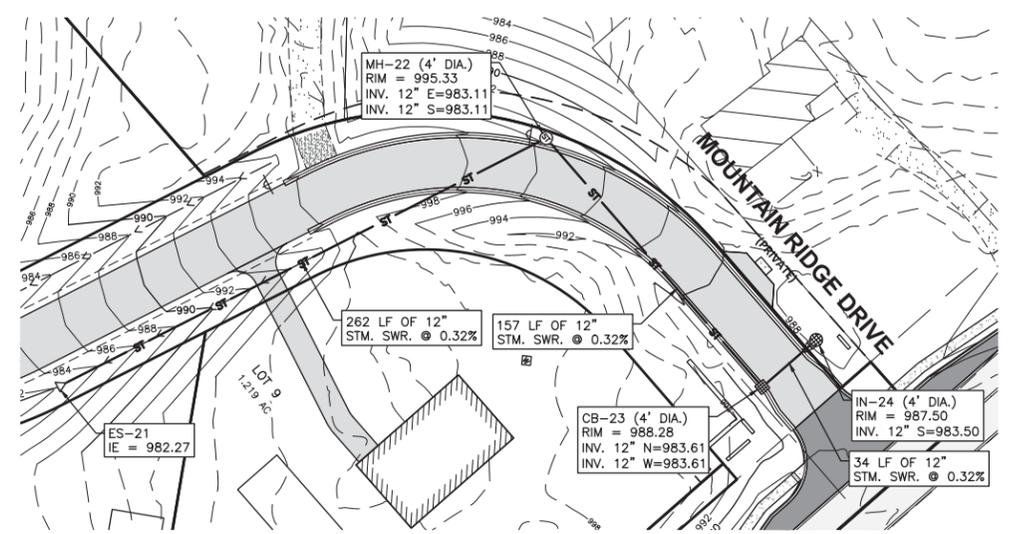
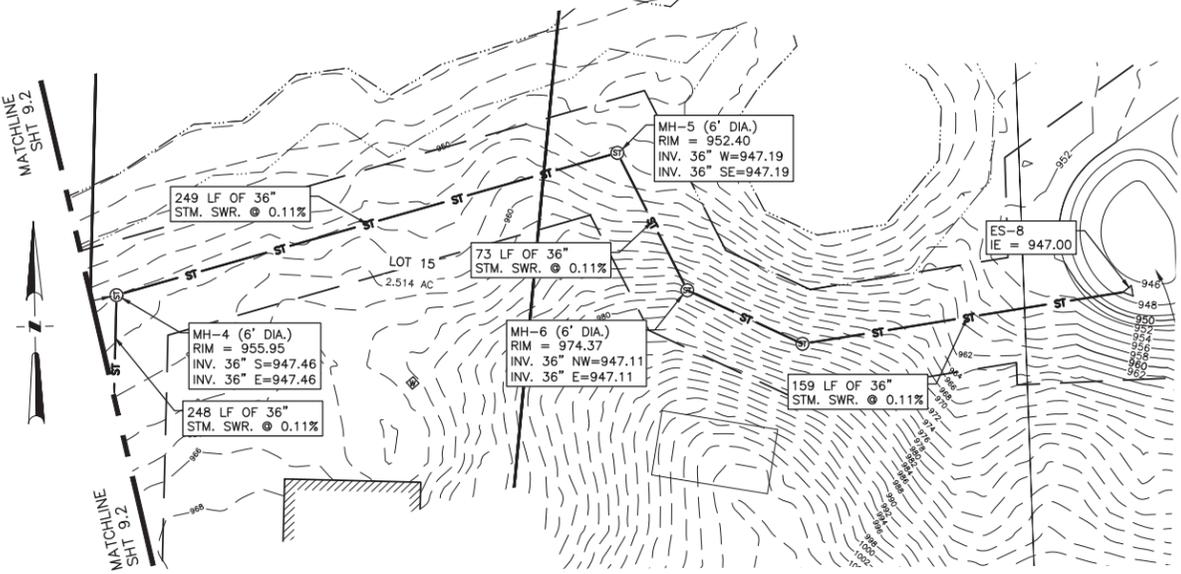


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CLIENT :

JOHN MORETTI
 4242 BAUER ROAD
 BRIGHTON, MI 48116



STORM SEWER PLAN & PROFILE

THE RIDGE SITE CONDOMINIUM
 4242 BAUER ROAD
 PART OF NE 1/4, SEC. 26, T2N-R5E
 GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS	DATE
PLAN SUBMITTALS/REVISIONS	8/21/2019
PRELIMINARY SITE PLAN TO TOWNSHIP	1/2/2019
REVISED SITE PLAN TO TOWNSHIP	1/25/2019
FINAL SITE PLAN TO TOWNSHIP	2/20/2019
FINAL SITE PLAN TO TOWNSHIP	4/2/2019
REVISED FINAL SITE PLAN TO TOWNSHIP	4/24/2019
REVISED FINAL SITE PLAN TO TOWNSHIP	6/21/2019
REVISED FINAL SITE PLAN PER LCHD	7/17/2019
REVISED FINAL SITE PLAN PER LCDC	7/22/2019

ORIGINAL ISSUE DATE:
 1/2/2019

PROJECT NO: 18-025

SCALE: 1" = 40'

FIELD: SE
 DRAWN BY: DC
 DESIGN BY: DD
 CHECK BY: AP

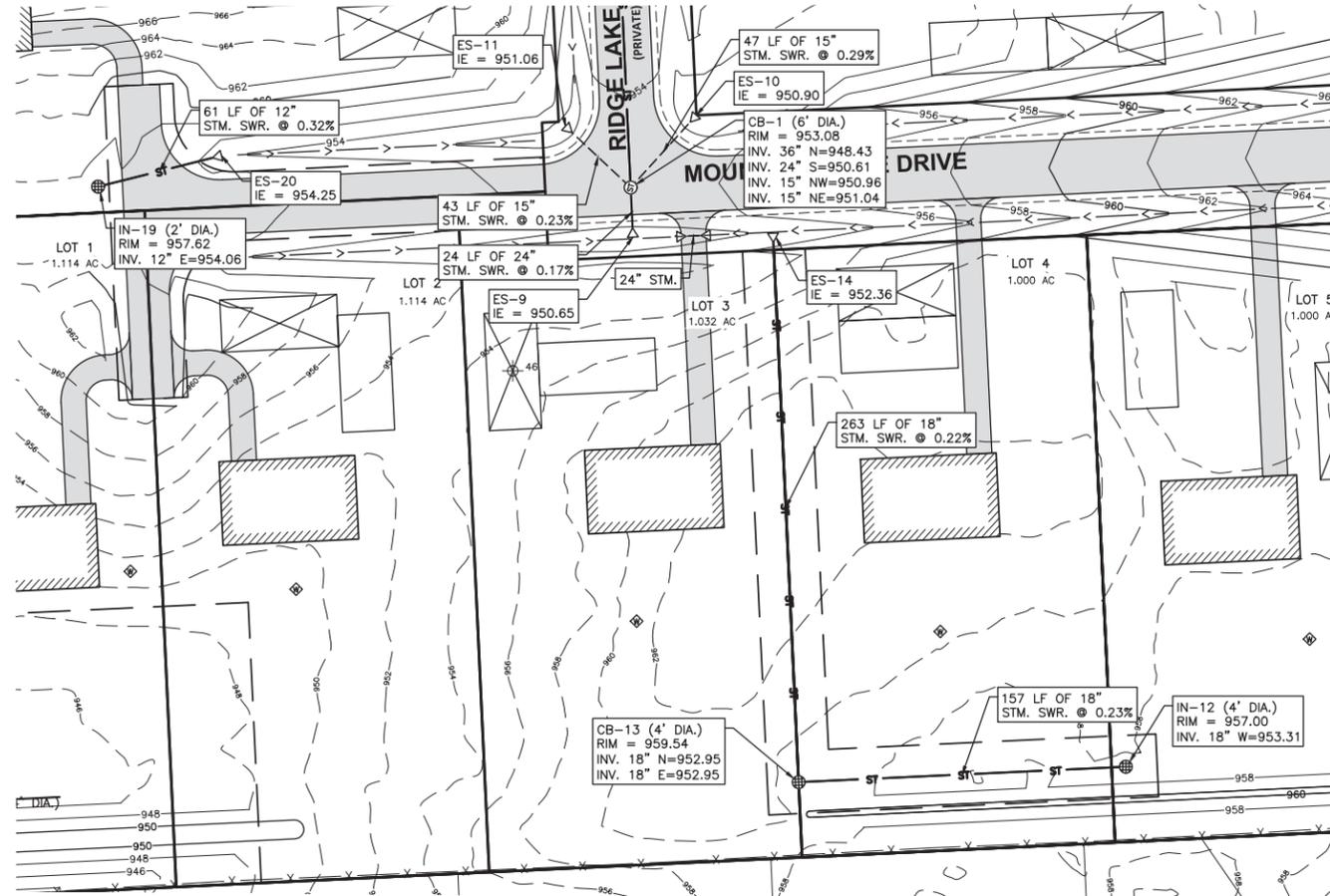
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THE RIDGE SITE CONDOMINIUM
STORM SEWER PLAN & PROFILE
 IN-12 to ES-14



NOTES

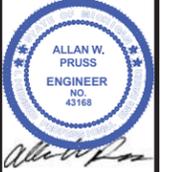
1. STORM SEWER TO BE A MINIMUM OF 10 FEET FROM BUILDINGS.
2. STORM SEWER TO BE A MINIMUM OF 10 FEET FROM DISPOSAL FIELDS.

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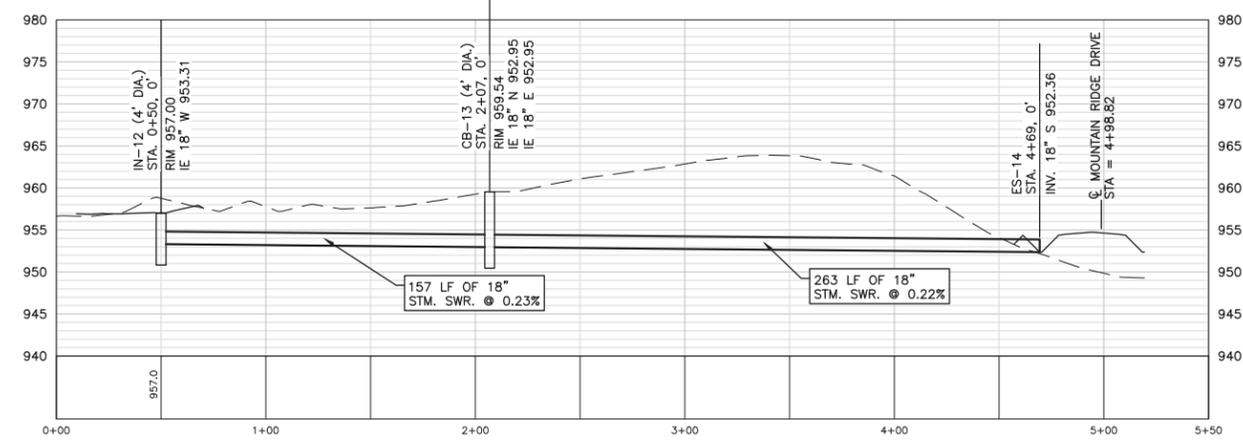
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CLIENT :

JOHN MORETTI
 4242 BAUER ROAD
 BRIGHTON, MI 48116

STORM SEWER PLAN & PROFILE

THE RIDGE SITE CONDOMINIUM
 4242 BAUER ROAD
 PART OF NE 1/4, SEC. 26, T2N-R5E
 GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN



REVISIONS	DATE
PLAN SUBMITTALS/REVISIONS	8/21/2019
PRELIMINARY SITE PLAN TO TOWNSHIP	1/2/2019
REVISED SITE PLAN TO TOWNSHIP	1/25/2019
REVISED SITE PLAN TO TOWNSHIP	2/20/2019
FINAL SITE PLAN TO TOWNSHIP	4/2/2019
REVISED FINAL SITE PLAN TO TOWNSHIP	4/24/2019
REVISED FINAL SITE PLAN TO TOWNSHIP	6/21/2019
REVISED FINAL SITE PLAN PER LCDD	7/2/2019
REVISED FINAL SITE PLAN PER LCDD	7/22/2019

ORIGINAL ISSUE DATE:
 1/2/2019

PROJECT NO: 18-025

SCALE: 1" = 40'

FIELD: SE
 DRAWN BY: DC
 DESIGN BY: DD
 CHECK BY: AP

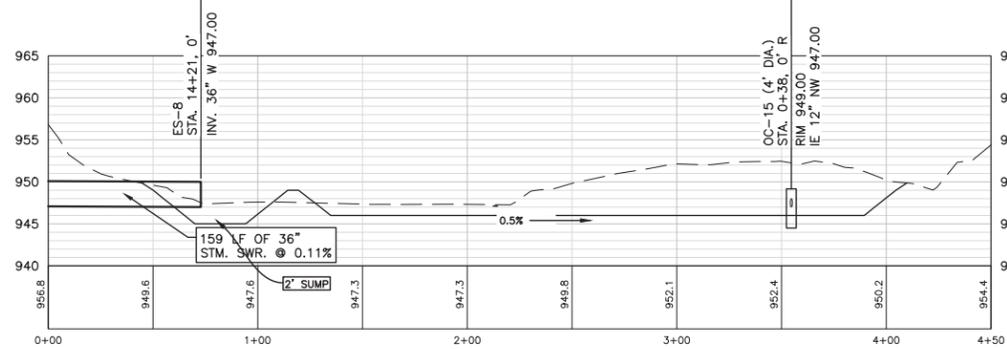
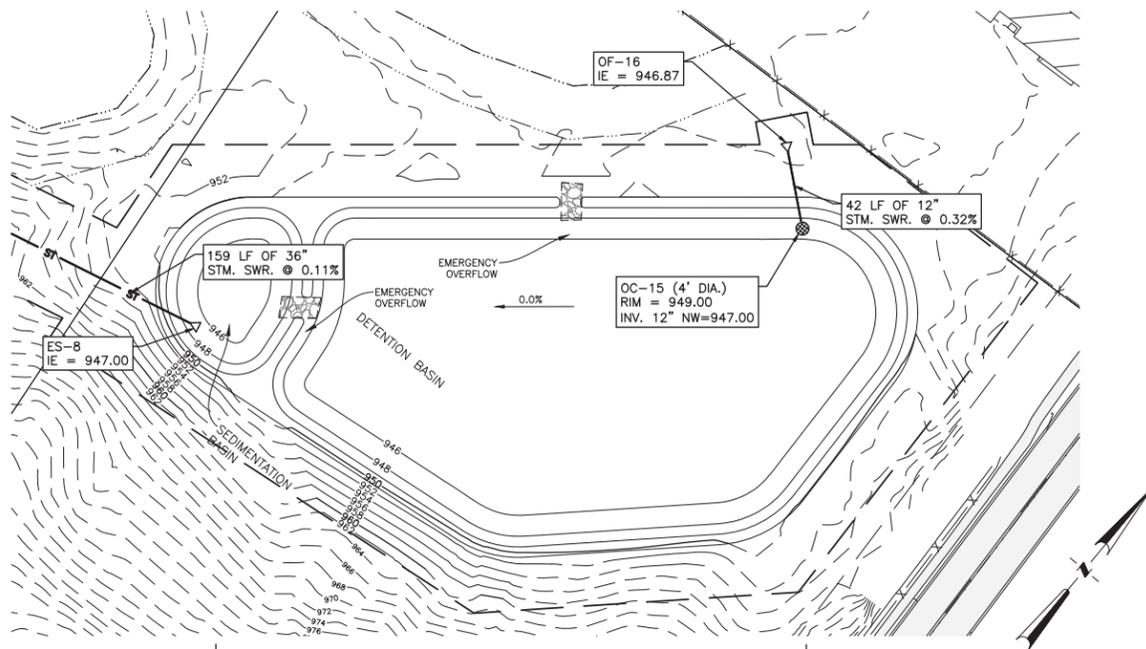
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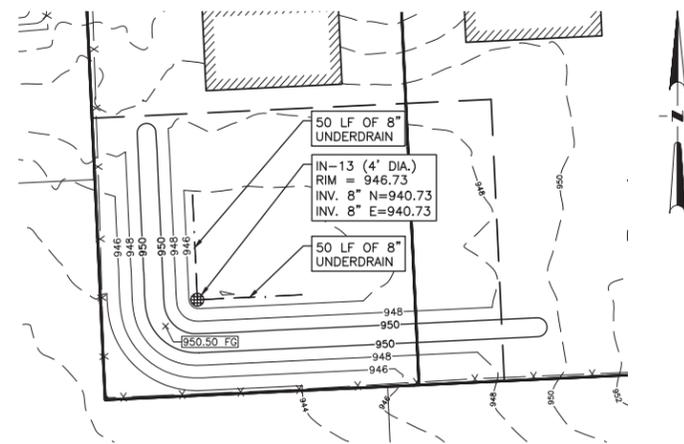


DETENTION BASIN PLAN & PROFILE



THE RIDGE SITE CONDOMINIUM STORM WATER MANAGEMENT DETAILS

INFILTRATION BASIN DETAIL



INFILTRATION BASIN VOLUME CALCULATIONS

Tributary Area (A): 96,356 SF
 2.212 Acres

Runoff Coefficient (C): 0.25

Required Infiltration Volume
 $2 \times 16,500 \times A \times C = V_{req}$ 18,249 CF

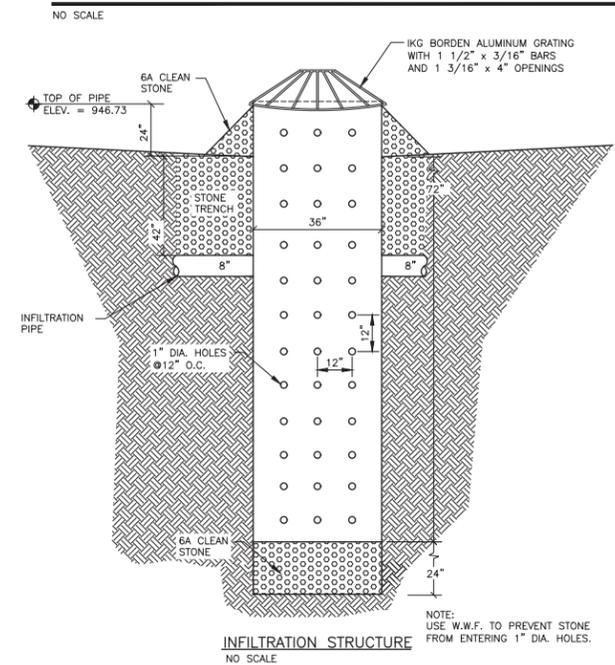
Elevation (Feet)	Area (Square Feet)	Average Area (Square Feet)	Incent Volume (Cubic Feet)	Total Volume (Cubic Feet)
945	1,345			
946	4,433	2,889	2,889	2,889
947	8,849	6,641	6,641	9,530
948	13,433	11,141	11,141	20,671
949	18,362	15,898	15,898	36,569
950	23,699	21,030	21,030	57,599

Infiltration Volume Storage Elevation
 Elevation 1 = 947.00
 Elevation 2 = 948.00

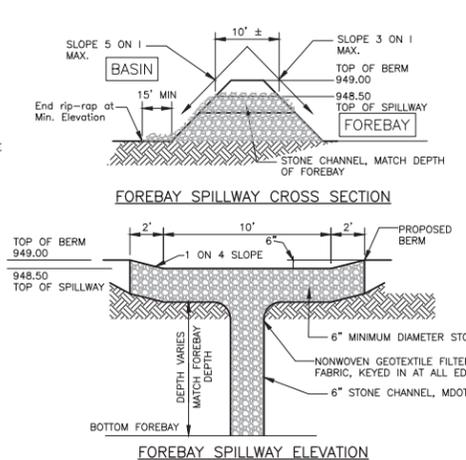
Volume 1 = 9,530
 Volume 2 = 20,671
 V_{if} = 18,249

IN ELEVATION (Z_{in}) = 947.24

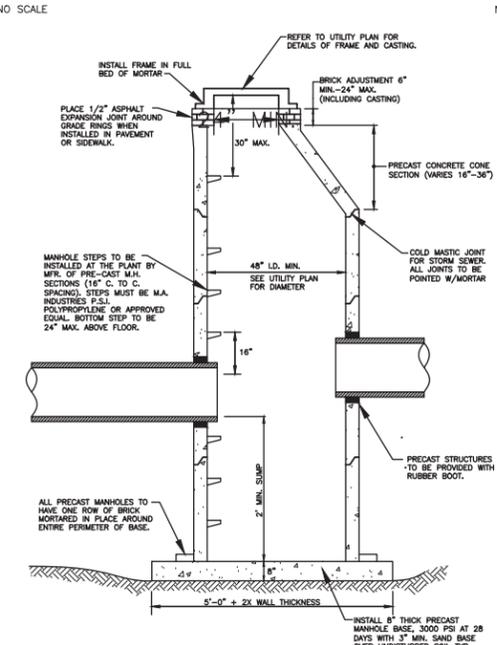
INFILTRATION STRUCTURE (IN-13) DETAIL



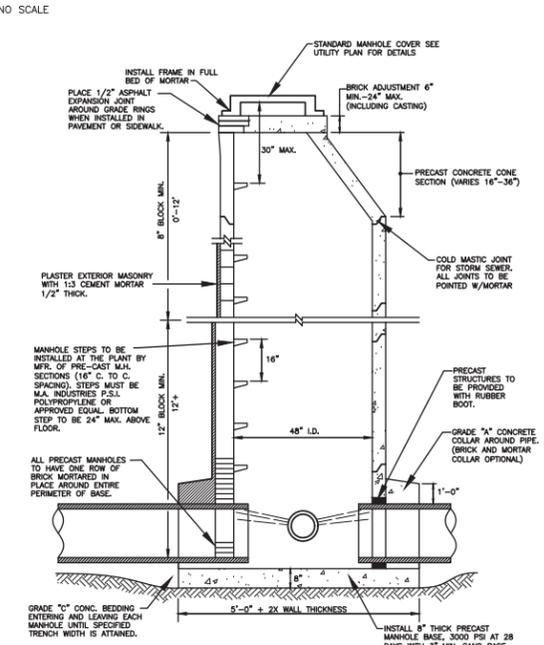
SEDIMENTATION BASIN SPILLWAY DETAIL



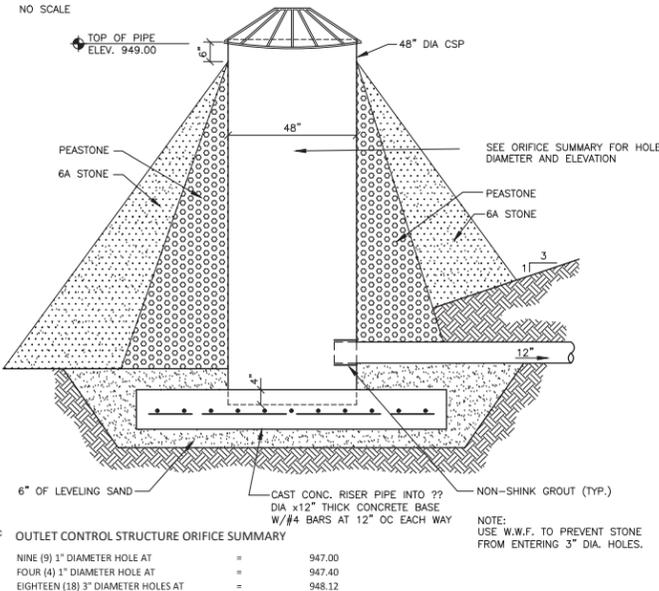
CATCH BASIN DETAIL



MANHOLE DETAIL



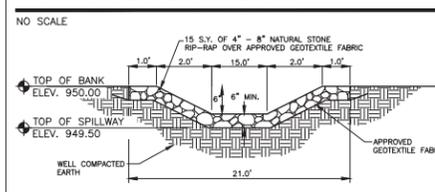
OUTLET CONTROL STRUCTURE DETAIL



PROVIDED STORAGE ELEVATIONS

Storage Type	Elevation 1	Elevation 2	Volume 1	Volume 2
First Flush Storage	948.00	949.00	34,015	71,767
Bankfull Storage	948.00	949.00	34,015	71,767
100-Year Storage	948.00	949.00	34,015	71,767
Sedimentation Storage	948.00	949.00	2,526	6,043

RIPRAP OVERFLOW DETAIL



ENGINEERS - SURVEYORS
CONSULTANTS - LAND PLANNERS

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 4242 BAUER ROAD
 BRIGHTON, MI 48116

STORM WATER MANAGEMENT DETAILS

THE RIDGE SITE CONDOMINIUM
 4242 BAUER ROAD
 PART OF NE 1/4, SEC. 26, T2N-R5E
 GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

DATE	DESCRIPTION
8/21/2019 <td>REVISED FINAL SITE PLAN TO TOWNSHIP</td>	REVISED FINAL SITE PLAN TO TOWNSHIP
1/2/2019 <td>PRELIMINARY SITE PLAN TO TOWNSHIP</td>	PRELIMINARY SITE PLAN TO TOWNSHIP
1/25/2019 <td>REVISED SITE PLAN TO TOWNSHIP</td>	REVISED SITE PLAN TO TOWNSHIP
2/20/2019 <td>REVISED SITE PLAN TO TOWNSHIP</td>	REVISED SITE PLAN TO TOWNSHIP
4/2/2019 <td>REVISED FINAL SITE PLAN TO TOWNSHIP</td>	REVISED FINAL SITE PLAN TO TOWNSHIP
4/24/2019 <td>REVISED FINAL SITE PLAN TO TOWNSHIP</td>	REVISED FINAL SITE PLAN TO TOWNSHIP
6/21/2019 <td>REVISED FINAL SITE PLAN TO TOWNSHIP</td>	REVISED FINAL SITE PLAN TO TOWNSHIP
7/17/2019 <td>REVISED FINAL SITE PLAN TO TOWNSHIP</td>	REVISED FINAL SITE PLAN TO TOWNSHIP
7/22/2019 <td>REVISED FINAL SITE PLAN PER LCDC</td>	REVISED FINAL SITE PLAN PER LCDC

ORIGINAL ISSUE DATE: 1/2/2019

PROJECT NO: 18-025

SCALE: 1" = 40'

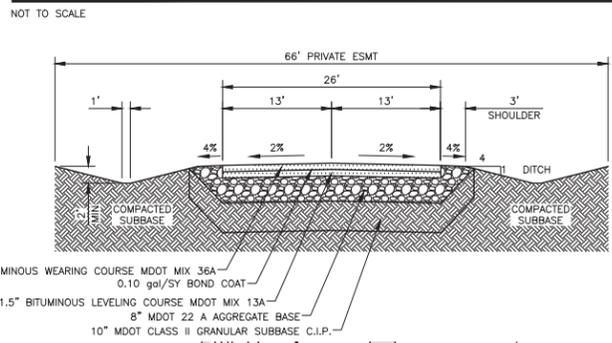
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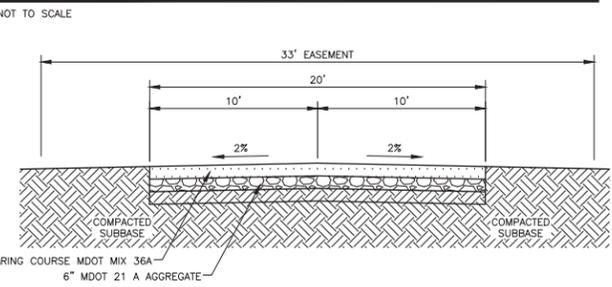
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THE RIDGE SITE CONDOMINIUM
ROAD
ALIGNMENT PLAN

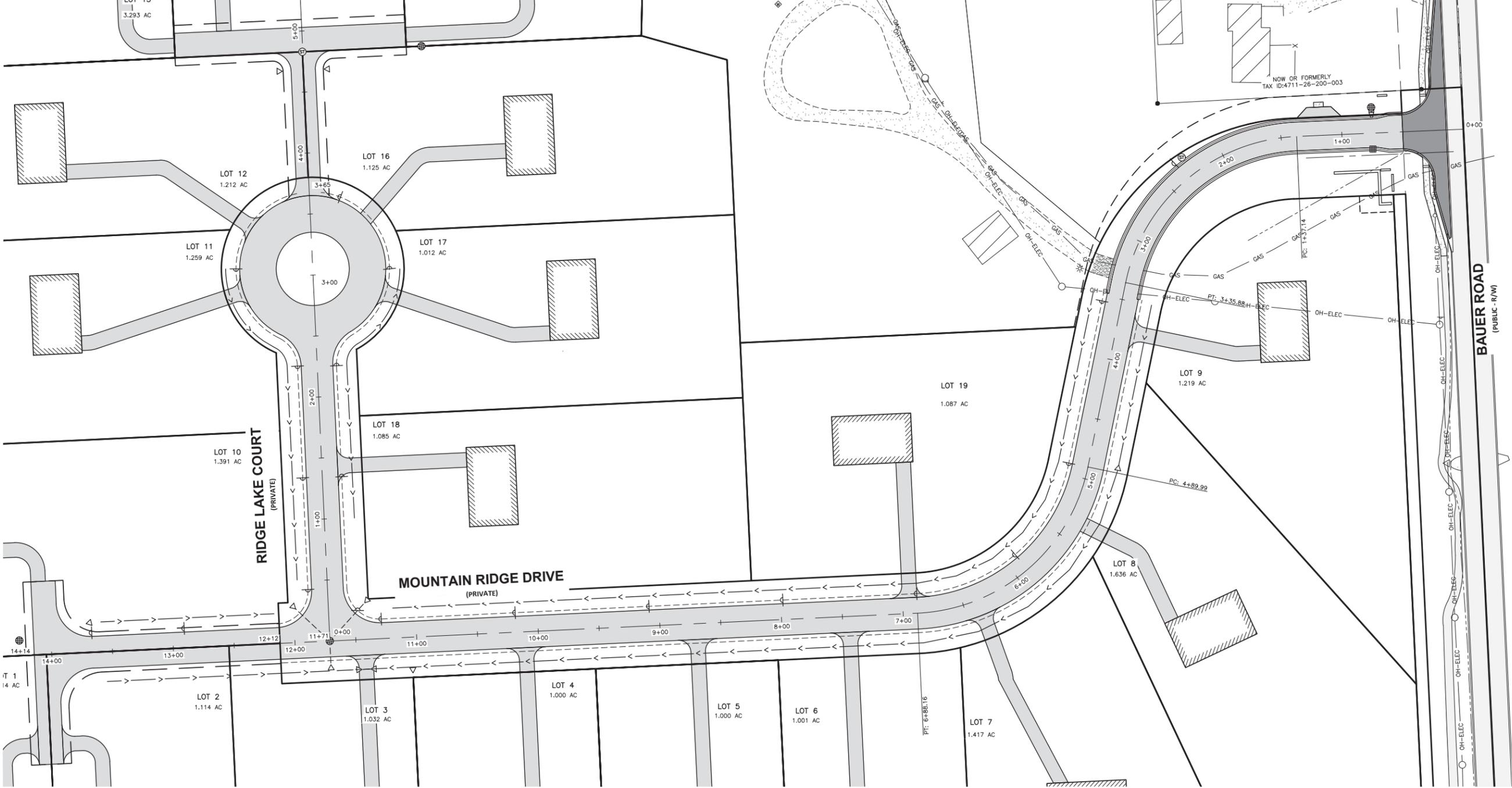
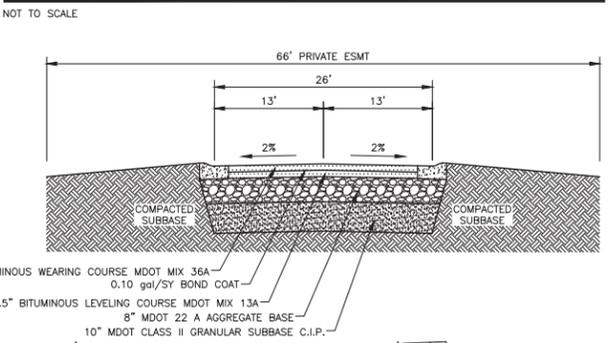
TYPICAL ROAD CROSS SECTION



TYPICAL SHARED DRIVEWAY SECTION



TYPICAL ROAD CROSS SECTION WITH CURB & GUTTER



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AND GUARANTEED BY THEIR EXPRESSES OR
IMPLIED WARRANTIES. THE CONTRACTOR
SHALL BE EXCLUSIVELY RESPONSIBLE FOR
DETERMINING THE EXACT UTILITY LOCATIONS
AND ELEVATIONS PRIOR TO THE START OF
CONSTRUCTION.

CLIENT :

JOHN MORETTI
4242 BAUER ROAD
BRIGHTON, MI 48116

ROAD ALIGNMENT PLAN

THE RIDGE SITE CONDOMINIUM
4242 BAUER ROAD
PART OF NE 1/4, SEC. 26, T2N-R5E
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS	DATE
REVISOR: [Signature]	8/21/2019
PLAN SUBMITTALS/REVISIONS	
PRELIMINARY SITE PLAN TO TOWNSHIP	1/2/2019
REVISED SITE PLAN TO TOWNSHIP	1/25/2019
REVISED SITE PLAN TO TOWNSHIP	2/20/2019
FINAL SITE PLAN TO TOWNSHIP	4/2/2019
REVISED FINAL SITE PLAN TO TOWNSHIP	4/24/2019
REVISED FINAL SITE PLAN TO TOWNSHIP	6/21/2019
REVISED FINAL SITE PLAN PER LCHD	7/2/2019
REVISED FINAL SITE PLAN PER LCDC	7/22/2019

ORIGINAL ISSUE DATE:
1/2/2019

PROJECT NO: 18-025

SCALE: 1" = 40'

0 1/2" 1"

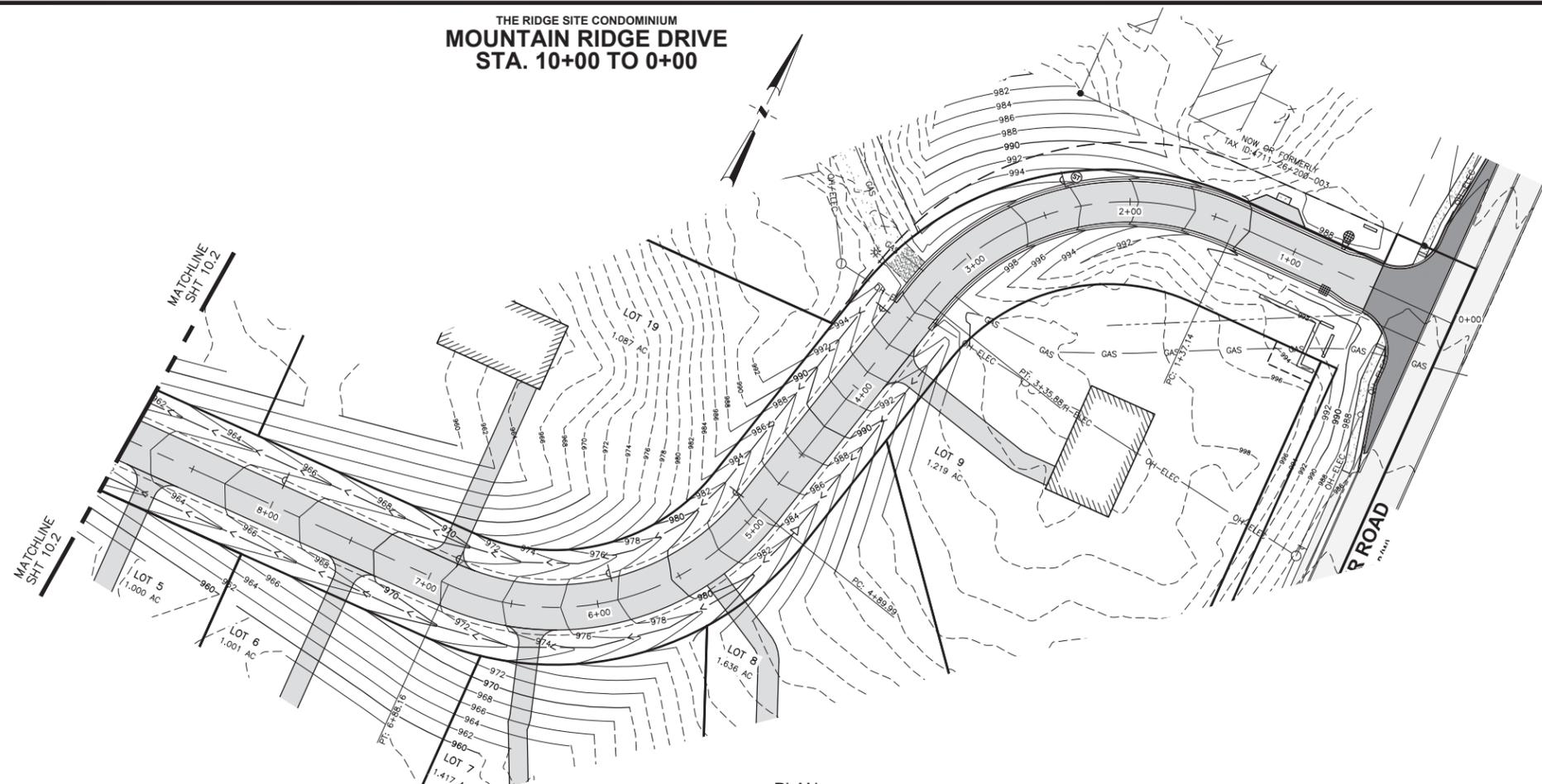
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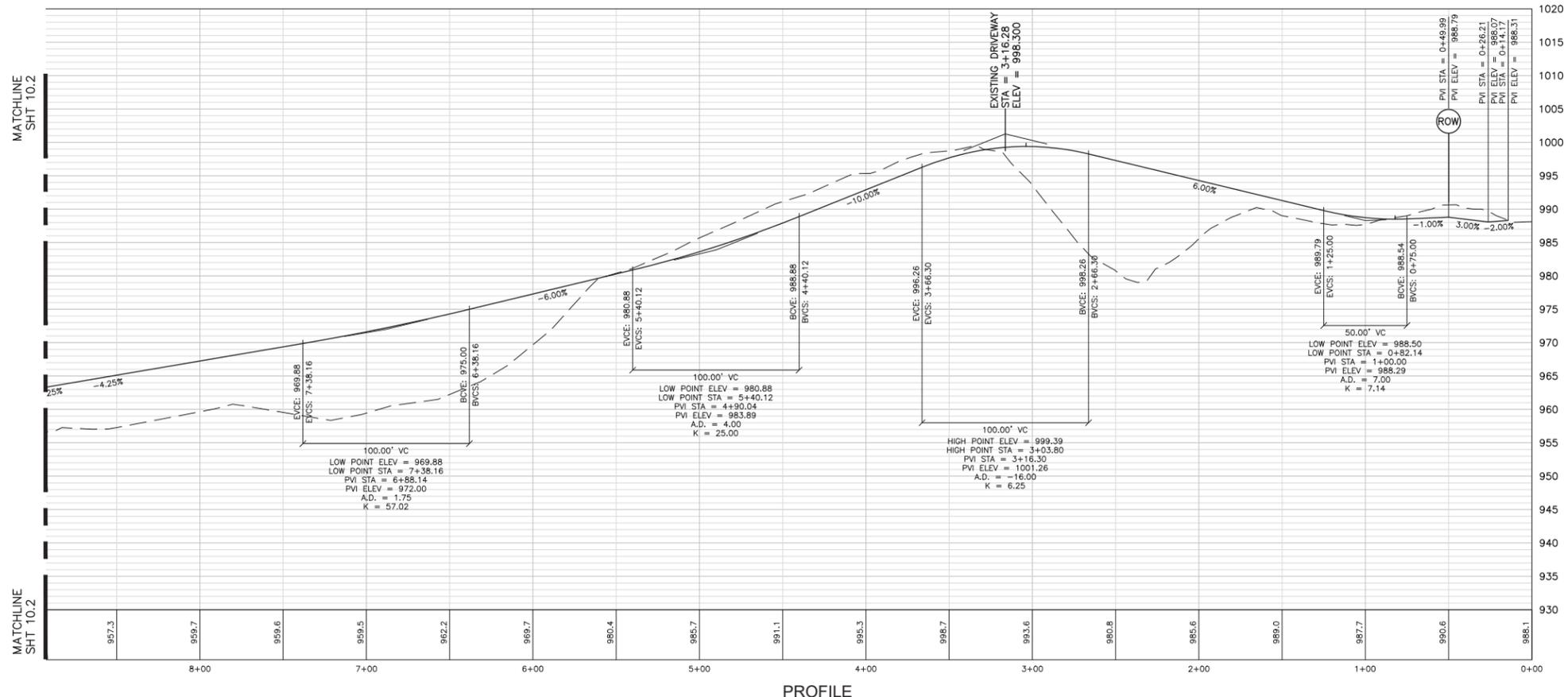
NOT FOR CONSTRUCTION



THE RIDGE SITE CONDOMINIUM
MOUNTAIN RIDGE DRIVE
STA. 10+00 TO 0+00



PLAN



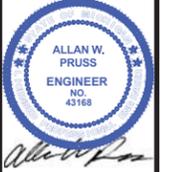
PROFILE

ENGINEERS - SURVEYORS
CONSULTANTS - LAND PLANNERS

MEGA
MONUMENT ENGINEERING GROUP ASSOCIATES, INC.

298 VETERANS DRIVE
FOWLERVILLE
MICHIGAN 48836
(OFFICE) 517-223-3512
MONUMENTENGINEERING.COM

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SMALL BUSINESS (50VOSB)



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CLIENT :

JOHN MORETTI
4242 BAUER ROAD
BRIGHTON, MI 48116

MOUNTAIN RIDGE DRIVE PROFILE

THE RIDGE SITE CONDOMINIUM
4242 BAUER ROAD
PART OF NE 1/4, SEC. 26, T2N-R5E
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS	DATE
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REVISED FINAL SITE PLAN TO TOWNSHIP	6/21/2019
REVISED FINAL SITE PLAN PER LCOD	7/2/2019
REVISED FINAL SITE PLAN PER LCOD	7/22/2019

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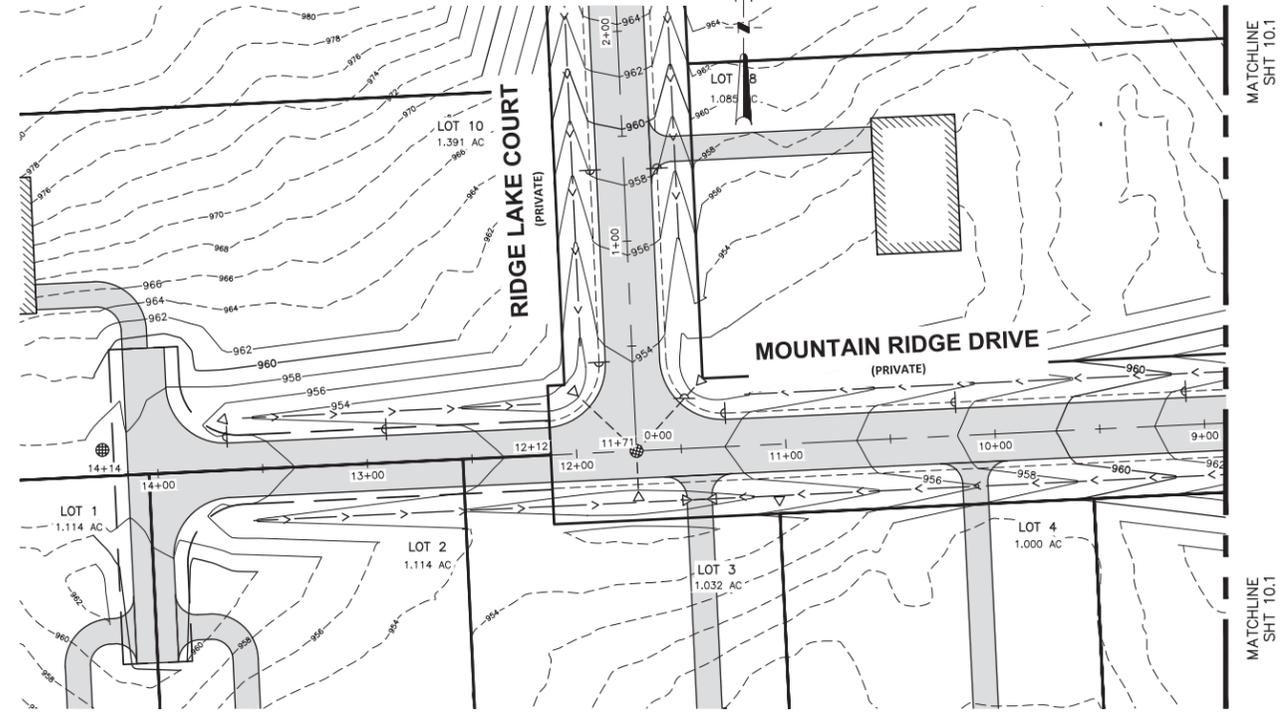
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NOT FOR CONSTRUCTION

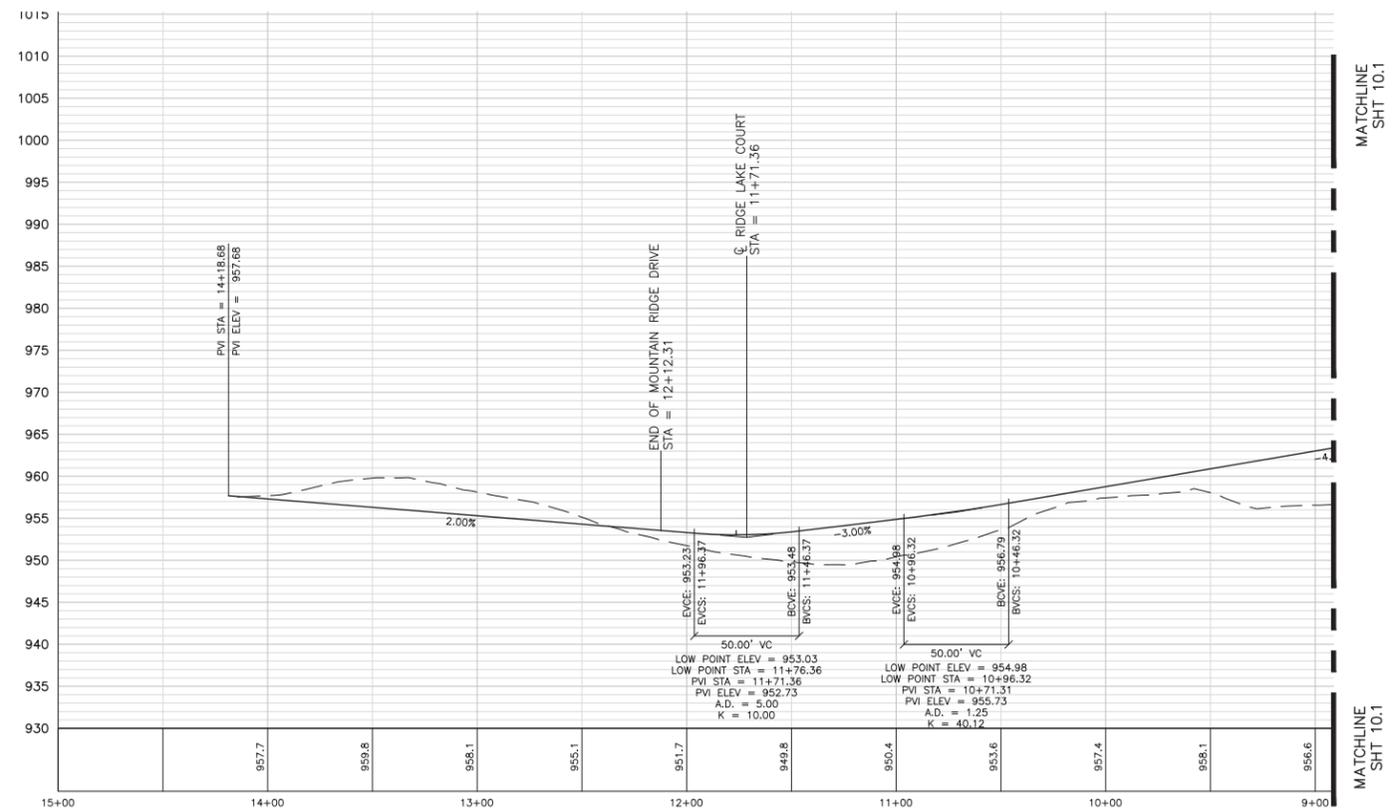




THE RIDGE SITE CONDOMINIUM
MOUNTAIN RIDGE DRIVE
STA. 15+00 TO 10+00



PLAN



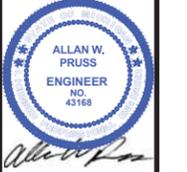
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CONSULTANTS - LAND PLANNERS

MEGA
Mounting Group Associates, Inc.

298 VETERANS DRIVE
FOWLERVILLE
MICHIGAN 48836
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CONSTRUCTION.

CLIENT :

JOHN MORETTI
4242 BAUER ROAD
BRIGHTON, MI 48116

MOUNTAIN RIDGE DRIVE P & P

THE RIDGE SITE CONDOMINIUM
4242 BAUER ROAD
PART OF NE 1/4, SEC. 26, T2N-R5E
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

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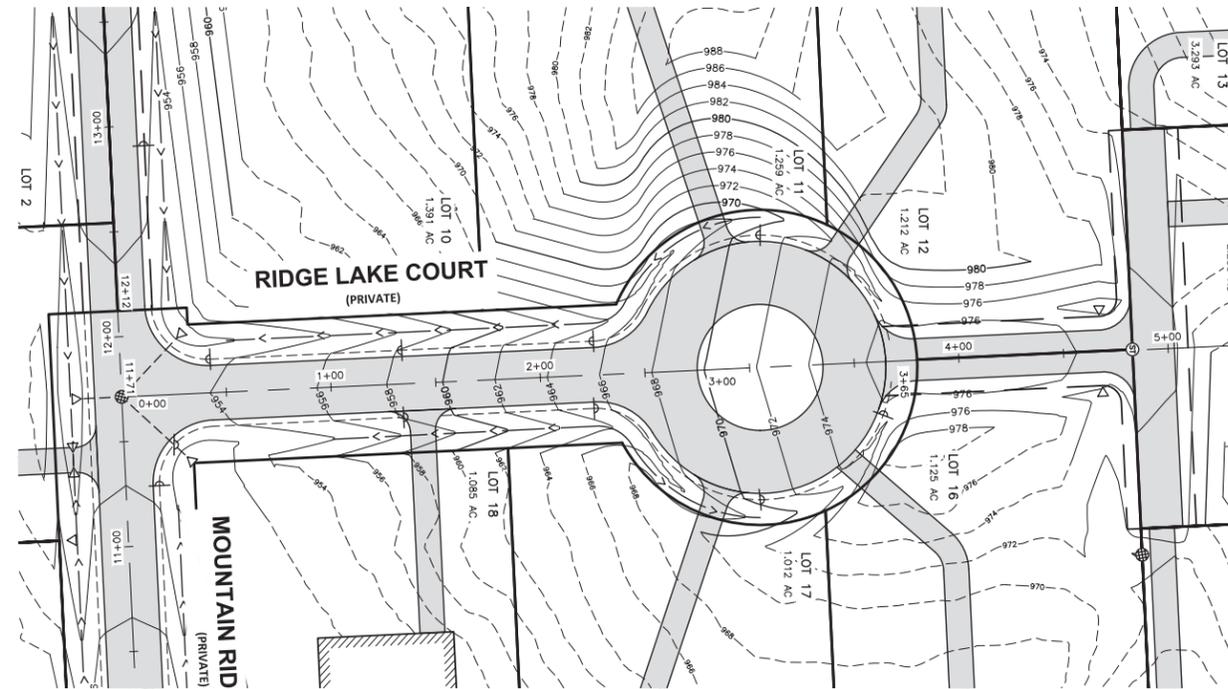
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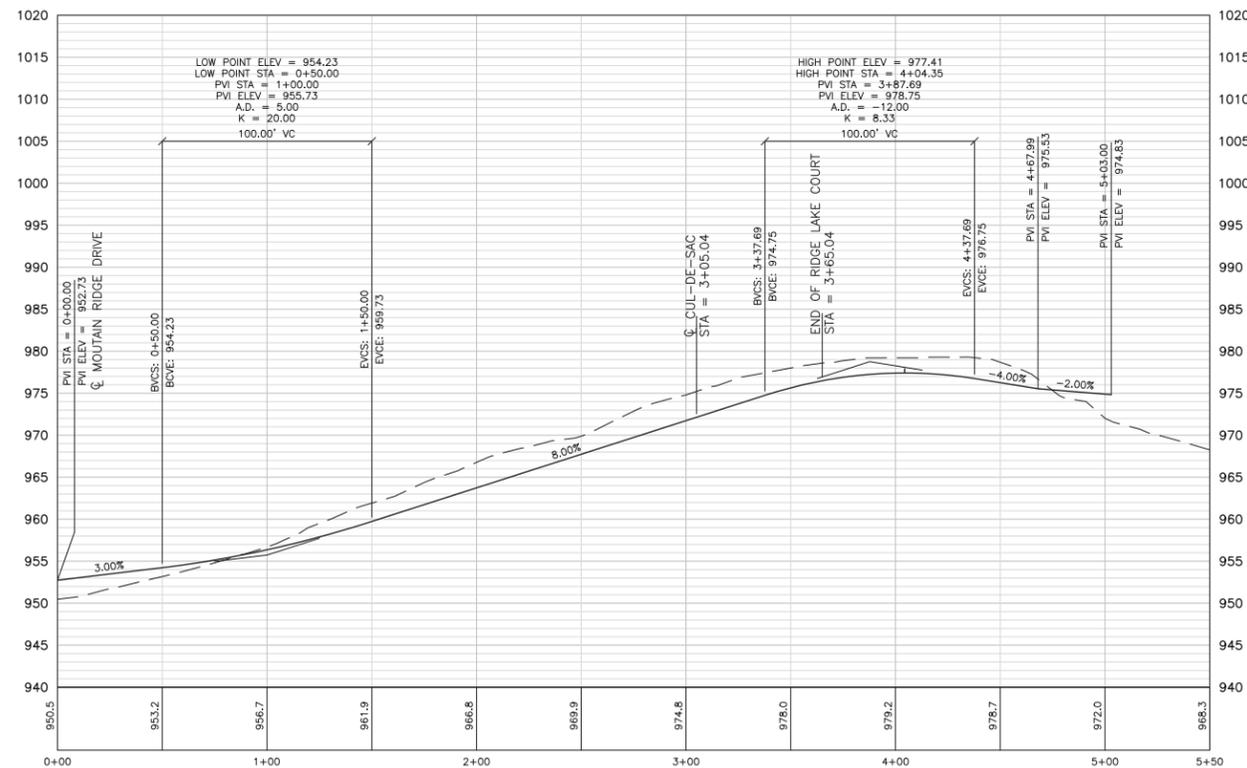




THE RIDGE SITE CONDOMINIUM
RIDGE LAKE COURT
 STA. 0+00 TO 5+00



PLAN



PROFILE

ENGINEERS - SURVEYORS
 CONSULTANTS - LAND PLANNERS

MEGA
 Monument Engineering Group Associates, Inc.

298 VETERANS DRIVE
 FOWLERVILLE
 MICHIGAN 48836
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CLIENT :

JOHN MORETTI
 4242 BAUER ROAD
 BRIGHTON, MI 48116

MOUNTAIN RIDGE COURT P & P

THE RIDGE SITE CONDOMINIUM
 4242 BAUER ROAD
 PART OF NE 1/4, SEC. 26, T2N-R5E
 GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

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C-10.3

NOT FOR CONSTRUCTION

GENERAL NOTES

- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE LOCAL MUNICIPALITY, THE COUNTY D.P.W., THE COUNTY DRAIN COMMISSIONER, DETROIT METRO WATER & SEWERAGE DEPARTMENT, MICHIGAN DEPARTMENT OF TRANSPORTATION, MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY, THE STATE OF MICHIGAN, AND THE COUNTY ROAD COMMISSION WHERE APPLICABLE.
- RULES, REGULATIONS OR LAWS OF ANY CONTROLLING GOVERNMENTAL AGENCY SHALL APPLY WHEN THEY ARE MORE STRINGENT THAN THE REQUIREMENTS OF THESE SPECIFICATIONS.
- SHOULD THE CONTRACTOR ENCOUNTER A CONFLICT BETWEEN THESE PLANS AND SPECIFICATIONS, EITHER AMONG THEMSELVES OR WITH THE REQUIREMENTS OF ANY AND ALL REVIEWING AND PERMIT-ISSUING AGENCIES, HE SHALL SEEK CLARIFICATION IN WRITING FROM THE ENGINEER BEFORE COMMENCEMENT OF CONSTRUCTION. FAILURE TO DO SO SHALL BE AT SOLE EXPENSE TO THE CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR AND EQUIPMENT TO COMPLETE THE TYPE OF WORK WHICH IS BID, IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS, DETAILS AND TO THE SATISFACTION OF THE OWNER AND OWNER'S REPRESENTATIVE.
- CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, IN CONNECTION WITH THE PERFORMANCE WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.
- ANY WORK WITHIN STREET OR HIGHWAY RIGHT-OF-WAYS SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE GOVERNMENTAL AGENCIES HAVING JURISDICTION AND SHALL NOT BEGIN UNTIL PERMITS HAVE BEEN ISSUED BY THESE GOVERNING AUTHORITIES.
- ALL NECESSARY PERMITS, BONDS, INSURANCES, ETC., SHALL BE PAID FOR BY THE CONTRACTOR.
- ALL ELEVATIONS SHOWN ARE BASED ON BENCHMARKS PROVIDED BY THE LOCAL MUNICIPALITY UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- ALL ITEMS OF WORK NOT SPECIFICALLY INDICATED AS PAY ITEMS ON THE DRAWINGS OR IN THE BID PACKAGE SHALL BE CONSIDERED INCIDENTAL ITEMS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL DURING THE PERIODS OF CONSTRUCTION.
- AT LEAST THREE (3) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT MISS DIG (1-800-482-7171) TO VERIFY THE LOCATION OF ANY EXISTING UNDERGROUND UTILITIES AND SHALL NOTIFY REPRESENTATIVES OF OTHER UTILITIES IN THE VICINITY OF THE WORK.
- ALL PROPERTIES OR FACILITIES IN THE SURROUNDING AREAS, PUBLIC OR PRIVATE, DESTROYED OR OTHERWISE DISTURBED DUE TO CONSTRUCTION, SHALL BE REPLACED AND RETURNED TO THE ORIGINAL CONDITION BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THE OWNER.
- MANHOLE, CATCH BASIN, GATE WELL RIMS AND HYDRANT FINISH GRADE ELEVATIONS MUST BE AS-BUILT AND APPROVED BY THE ENGINEER BEFORE THE CONTRACTOR'S WORK IS CONSIDERED COMPLETE. AGENCY REQUIREMENTS FOR RECORD DRAWINGS ALSO APPLY.
- CONTRACTOR SHALL REMOVE AND DISPOSE OF OFF-SITE ANY TREES, BRUSH, STUMPS, TRASH OR OTHER UNWANTED DEBRIS, AT THE OWNER'S DIRECTION, INCLUDING OLD BUILDING FOUNDATIONS AND FLOORS, THE BURNING OR BURYING OF TRASH, STUMPS OR OTHER DEBRIS WILL NOT BE ALLOWED.
- ALL REFERENCES TO M.D.O.T. SPECIFICATIONS REFER TO THE MOST CURRENT STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- ALL CONTRACTORS BIDDING THIS PROJECT SHALL HAVE VISITED THE SITE TO BECOME THOROUGHLY FAMILIAR WITH THE SITE AND THE CONDITIONS IN WHICH THEY WILL BE CONDUCTING THEIR OPERATIONS. ANY VARIANCE FOUND BETWEEN THE PLANS AND EXISTING CONDITIONS SHALL BE REPORTED IMMEDIATELY TO THE DESIGN ENGINEER.
- THE LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS FOR EXISTING UNDERGROUND FACILITIES ARE IN ACCORDANCE WITH AVAILABLE INFORMATION PROVIDED BY THE UTILITY COMPANIES AND GOVERNMENTAL AGENCIES WITHOUT UNCOVERING AND THE DESIGN ENGINEER DOES NOT GUARANTEE THE ACCURACY OF THIS INFORMATION OR THAT ALL EXISTING UNDERGROUND FACILITIES ARE SHOWN.
- THE OWNER MAY EMPLOY AND PAY FOR THE SERVICES OF AN ENGINEER TO PROVIDE ON-SITE INSPECTION AND VERIFY IN THE FIELD THAT ALL BACKFILL, PAYMENTS AND CONCRETE CURB AND GUTTER HAVE BEEN PLACED AND COMPACTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. IF, IN THE OPINION OF THE ENGINEER, THE WORK DOES NOT MEET THE TECHNICAL OR DESIGN REQUIREMENTS STIPULATED FOR THE WORK, THE CONTRACTOR SHALL MAKE ALL NECESSARY ADJUSTMENTS AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL MAKE NO DEVIATIONS FROM THE CONTRACT DOCUMENTS WITHOUT SPECIFIC WRITTEN APPROVAL OF THE OWNER.
- ALL EXCAVATED MATERIAL REMOVED FROM THE SANITARY SEWER, STORM SEWER AND WATER MAIN TRENCHES UNDER, THROUGH AND WITHIN 3 FEET OF THE 45° ZONE OF INFLUENCE LINE OF EXISTING OR PROPOSED PAVING, SIDEWALK AREAS AND PER PLANS, NOT SUITABLE FOR BACKFILL, SHALL BE REMOVED FROM THESE AREAS AND DISPOSED OF.
- THE CONTRACTOR SHALL RESTORE TO THEIR PRESENT CONDITIONS ANY PAVEMENT OR PUBLIC RIGHTS-OF-WAY THAT IS DISTURBED BY THE OPERATIONS OF THE CONTRACTOR. ALL RESTORATION WORK IN PUBLIC RIGHTS-OF-WAY SHALL BE PERFORMED TO THE SATISFACTION OF THE GOVERNMENT AGENCIES HAVING JURISDICTION.
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BARRICADES, SIGNAGE AND LIGHTS TO PROTECT THE WORK AND SAFELY MAINTAIN TRAFFIC, IN ACCORDANCE WITH LOCAL REQUIREMENTS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION).
- O.S.H.A. SAFETY REQUIREMENTS - ALL WORK, WORK PRACTICE, AND MATERIALS SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL SAFETY, OCCUPATIONAL, HEALTH AND ENVIRONMENTAL REGULATIONS AND ALSO NFPA AND ANSI CODES AS APPLICABLE. ALL WORK INSIDE A CONFINED SPACE SUCH AS MANHOLES OR UNDERGROUND STRUCTURES SHALL BE COORDINATED WITH UTILITY OWNER AND ALL WORKER SAFETY REQUIREMENTS STRICTLY ENFORCED. LAND SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY.
- CONTRACTOR SHALL PROVIDE FOR THE CONTINUOUS OPERATION OF EXISTING FACILITIES WITHOUT INTERRUPTION DURING CONSTRUCTION UNLESS SPECIFICALLY AUTHORIZED OTHERWISE BY THE RESPECTIVE AUTHORITY.
- THE CONTRACTOR SHALL NOTE EXISTING UNDERGROUND UTILITIES IN THE PROJECT PLANS. BACKFILL FOR EXISTING UTILITIES SHALL BE EXAMINED CRITICALLY. ANY TRENCH WHICH, IN THE OPINION OF THE SOILS ENGINEER ARE FOUND TO BE SOFT, UNSTABLE, OR UNSUITABLE MATERIAL SHALL BE COMPLETELY EXCAVATED AND BACKFILL WITH SUITABLE MATERIAL. SAND BACKFILL SHALL BE USED UNDER PAVEMENT OR WITHIN THE 1 ON 1 LAND INFLUENCE OF PAVEMENT OR STRUCTURES.

EROSION CONTROL STANDARDS

- ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO STANDARDS AND SPECIFICATIONS OF THE JURISDICTIONAL AGENCY UNDER PART 91 OF ACT 451 OF 1994.
- UNDER "MICHIGAN'S PERMIT-BY-RULE FOR CONSTRUCTION ACTIVITIES" PROMULGATED UNDER ACT 245, PUBLIC ACTS 1929 AS AMENDED, AN NPDES STORM WATER DISCHARGE COVERAGE PERMIT IS REQUIRED FOR ANY CONSTRUCTION ACTIVITY THAT DISTURBS 1 ACRES OR MORE OF LAND. A CERTIFIED STORM WATER OPERATOR IS REQUIRED FOR THE SUPERVISION AND INSPECTION OF THE SOIL EROSION CONTROL MEASURES AT THE CONSTRUCTION SITE IN ACCORDANCE WITH THE PROVISIONS OF THESE RULES.
- DAILY INSPECTIONS SHALL BE MADE BY CONTRACTOR WHILE WORKING TO DETERMINE THE EFFECTIVENESS OF EROSION AND SEDIMENT CONTROL MEASURES. ANY CORRECTIVE REPAIRS SHALL BE MADE IMMEDIATELY TO MAINTAIN THE EROSION CONTROL PROVISIONS SHALL BE PROPERLY MAINTAINED DURING CONSTRUCTION.
- EROSION AND ANY SEDIMENTATION FROM WORK ON THIS SITE SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MAN-MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES, AND PONDS.
- CONTRACTOR SHALL APPLY TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES WHEN REQUIRED AND AS DIRECTED ON THESE PLANS. CONTRACTOR SHALL REMOVE TEMPORARY MEASURES AS SOON AS PERMANENT STABILIZATION OF SOILS, DITCHES, AND OTHER EARTH CHANGE AREAS HAVE BEEN COMPLETED.
- STAGING THE WORK WILL BE DONE BY THE CONTRACTOR AS DIRECTED IN THESE PLANS AND AS REQUIRED TO ENSURE PROGRESSIVE STABILIZATION OF DISTURBED EARTH.
- SOIL EROSION CONTROL PRACTICES WILL BE ESTABLISHED IN EARLY STAGES OF CONSTRUCTION BY THE CONTRACTOR. SEDIMENT CONTROL PRACTICES WILL BE APPLIED AS A PERIMETER DEFENSE AGAINST ANY TRANSPORTING OF SILT OFF THE SITE.
- DUST SHALL BE CONTROLLED BY WATERING OR BY OTHER APPROVED MEANS THROUGHOUT ALL CONSTRUCTION OPERATIONS.
- PERMANENT SOIL EROSION CONTROL MEASURES FOR SLOPES, CHANNELS, DITCHES OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 5 CALENDAR DAYS AFTER FINAL GRADING OR THE FINAL GRADE HAS BEEN COMPLETED. WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER AN EARTH CHANGE HAS BEEN COMPLETED OR WHERE SIGNIFICANT EARTH CHANGE ACTIVITY CEASES, TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED WITHIN 5 CALENDAR DAYS. ALL TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND ESTABLISHED BEFORE A CERTIFICATE OF COMPLIANCE IS ISSUED.

STORM SEWER SPECIFICATIONS

- THESE SPECIFICATIONS SHALL BE USED IN CONJUNCTION WITH THE GENERAL SPECIFICATIONS AND THE SPECIFICATIONS AND DETAIL SHEETS OF THE GOVERNING AGENCIES IF ANY CONFLICT BETWEEN THE SPECIFICATIONS, THE STRICTER SPECIFICATIONS SHALL BE FOLLOWED.
- CONTRACTOR SHALL FURNISH CERTIFIED EVIDENCE THAT ALL MATERIAL TESTS AND INSPECTIONS HAVE BEEN PERFORMED AND THAT THE PRODUCT HAS BEEN MANUFACTURED IN COMPLIANCE WITH THE APPLICABLE SPECIFICATIONS.
- PROPER IMPLEMENTS, TOOLS AND FACILITIES SHALL BE PROVIDED AND USED FOR UNLOADING AND DISTRIBUTING MATERIALS ALONG THE LINE OF WORK. ANY PIPE OR FITTING DAMAGED IN TRANSPORTATION OR HANDLING SHALL BE REJECTED AND IMMEDIATELY REMOVED FROM THE JOB SITE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFE STORAGE OF ALL MATERIAL INTENDED FOR THE WORK. HE SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO MATERIALS, EQUIPMENT AND WORK.
- PIPE BEDDING, UNLESS OTHERWISE INDICATED, SHALL BE CL. II SAND, CRUSHED STONE OR ROUNDED GRAVEL. BEDDING MATERIAL SHALL BE 95% PASSING A 3/4" SIEVE AND RETAINED ON A NO. 4 SIEVE.
- POROUS FILTER MATERIAL FOR PERFORATED SUBSURFACE DRAINS SHALL BE CRUSHED ROCK OR GRAVEL GRADED BETWEEN 1-1/2" AND 3/4" OR PER PLANS AND DETAILS.
- BACKFILL, UNLESS OTHERWISE NOTED, SHALL BE COARSE SAND, FINE GRAVEL OR EARTH HAVING A LOW PLASTICITY INDEX, FREE OF ROCKS, DEBRIS AND OTHER FOREIGN MATERIALS AND DESIGN ENGINEER DOES NOT GUARANTEE THE ACCURACY OF THIS INFORMATION OR THAT ALL EXISTING UNDERGROUND FACILITIES ARE SHOWN.
- STORM SEWER PIPING AND FITTINGS SHALL BE OF THE SIZE AND TYPE INDICATED ON THE DRAWINGS AND SHALL CONFORM TO THE FOLLOWING:
 - POLYVINYL CHLORIDE (PVC) AND ACRYLONITRILE BUTADIENE STYRENE ABS FOR PIPE UP TO AND INCLUDING 10" IN DIAMETER, SHALL CONFORM TO ASTM D3034, SDR 23.5 FOR PVC PIPE AND ASTM D2751 FOR ABS PIPE WITH ELASTOMETRIC GASKET JOINTS CONFORMING TO ASTM D3212 OR CHEMICALLY WELDED PIPE JOINTS CONFORMING TO ASTM F345.
 - REINFORCED CONCRETE PIPE, FOR PIPE 12" IN DIAMETER AND UP, SHALL CONFORM TO ASTM C-75 CLASS III IN CLASS IV WITH THE REQUIRED DRAWINGS. JOINTS SHALL BE MODIFIED GROoved TONGUE WITH RUBBER GASKET CONFORMING TO ASTM C-443.
 - PERFORATED SUBSURFACE DRAIN PIPE SHALL BE PVC CONFORMING TO ASTM D-2729 OR ADS PERFORATED, CORRUGATED POLYETHYLENE PIPE CONFORMING TO AASHTO M-294 OR CORRUGATED STEEL PIPE JOINTS FOR PVC AND POLYETHYLENE PIPE SHALL BE PREFABRICATED COUPLING WITH SOLVENT WELD.
- MANHOLES, CATCH BASINS, AND INLETS SHALL BE OF THE SIZE AND TYPE INDICATED ON THE DRAWINGS AND SHALL BE CONSTRUCTED OF THE FOLLOWING:
 - REINFORCED PRE-CAST CONCRETE MANHOLE SECTIONS INCLUDING CONCENTRIC OR ECCENTRIC CONES AND GRADE RINGS SHALL BE 4000 PSI CONCRETE AND CONFORM TO ASTM C-478-64T.
 - BRICK SHALL BE SOUND, HARD-BURNED THROUGHOUT AND OF UNIFORM SIZE AND QUALITY AND SHALL BE IN ACCORDANCE WITH ASTM C-32, GRADE MS.
 - CONCRETE MASONRY SHALL BE SOLID PRE-CAST SEGMENTAL UNITS CONFORMING TO ASTM C-139.
- IRON CASTINGS SHALL CONFORM TO ASTM A-48, CLASS 30. BEARING SURFACES BETWEEN CAST IRON FRAMES, COVERS AND GRATES SHALL BE MACHINED, FITTED TOGETHER AND MATCHED-MARKED TO PREVENT ROCKING. SYSTEM IDENTIFYING LETTERS 2" HIGH SHALL BE STAMPED OR CAST INTO ALL COVERS SO THAT THEY MAY BE PLAINLY VISIBLE.
- CASTINGS SHALL BE MANUFACTURED BY EAST JORDAN IRON WORKS, INC., NEENAH FOUNDRY COMPANY OR EQUAL.
- CONCRETE AND MASONRY MATERIALS FOR CONSTRUCTION OF STORM DRAINAGE STRUCTURES SHALL CONSIST OF THE FOLLOWING:
 - PORTLAND CEMENT SHALL BE STANDARD BRAND OF PORTLAND CEMENT CONFORMING TO ASTM C-150, TYPE 1 OR IA.
 - FINE AND COARSE AGGREGATES FOR CONCRETE SHALL BE PER ASTM C-33.
 - AGGREGATE FOR CEMENT MORTAR SHALL BE CLEAN, SHARP SAND CONFORMING TO ASTM C-144.
 - HYDRATED LIME SHALL COMPLY WITH ASTM C-207, TYPE S.
 - WATER SHALL BE CLEAN AND FREE FROM DELETERIOUS MATERIALS.
 - REINFORCING STEEL FOR CONCRETE SHALL BE INTERMEDIATE-GRADE NEW BILLET STEEL CONFORMING TO ASTM A-615, GRADE 40.
- CONCRETE, UNLESS OTHERWISE NOTED, SHALL HAVE COMPRESSIVE STRENGTH AFTER 28 DAYS OF 3000 PSI MINIMUM WITH 3" MAXIMUM SLUMP.
 - CONCRETE FILL BELOW GRADE MAY BE 2500 PSI AT 28 DAYS.
 - CONCRETE, WHERE EXPOSED TO THE WEATHER, SHALL BE AIR-ENTRAINED. AIR ENTRAINMENT SHALL BE ACCOMPLISHED BY THE USE OF ADDITIVES CONFORMING TO ASTM C-260. AIR CONTENT SHALL BE 6% ± 1% ADDITIVE SHALL BE USED STRICTLY IN ACCORDANCE WITH MANUFACTURER'S PRINTED DIRECTIONS.
 - READY-MIX CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-94.

STORM SEWER SPECIFICATIONS, CONTINUED

- MORTAR SHALL BE SPECIFIED HEREINAFTER. USE METHOD OF MIXING MORTAR AT JOB SO THAT SPECIFIED PROPORTIONS OF MORTAR MATERIALS CAN BE CONTROLLED AND ACCURATELY MAINTAINED DURING WORK PROGRESS. MORTAR SHALL NOT BE MIXED IN GREATER QUANTITIES THAN REQUIRED FOR IMMEDIATE USE. AMOUNT OF WATER CONSISTENT WITH SATISFACTORY WORKABILITY. RE-TAMPING OF MORTAR IS NOT PERMITTED.
 - MORTAR FOR LAYING BRICK OR CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C-270, TYPE M, AVERAGE COMPRESSIVE STRENGTH 2500 PSI MINIMUM AT 28 DAYS. MORTAR MIX SHALL BE PROPORTIONED BY VOLUME.
 - MORTAR FOR PLASTERING SHALL CONSIST OF 1 PART PORTLAND CEMENT AND 2-1/2 PARTS SAND.
 - MORTAR FOR GROUTING OF RIP-RAP SHALL CONSIST OF 1 PART PORTLAND CEMENT AND 3-1/2 PARTS SAND.
- PERFORM ALL EXCAVATING AND TRENCHING TO DIMENSIONS AND ELEVATIONS INDICATED ON DRAWINGS.
- OPEN NO MORE TRENCH IN ADVANCE OF PIPE LAYING THAN IS NECESSARY TO EXPEDITE THE WORK.
- CARE SHALL BE TAKEN NOT TO EXCAVATE BELOW THE DEPTHS INDICATED ON DRAWINGS. WHERE EXCESSIVE OR UNAUTHORIZED EXCAVATION TAKES PLACE, THE CONTRACTOR SHALL BE RESPONSIBLE TO BRACE AND PROTECT THE EXCAVATION WITH BEDDING MATERIAL, AT NO EXPENSE TO THE OWNER.
- WHERE UNSTABLE SOIL IS ENCOUNTERED, CONTRACTOR SHALL NOT PLACE PIPE UNTIL A SOLID BED HAS BEEN PROVIDED.
- EXCAVATION FOR DRAINAGE STRUCTURES SHALL EXTEND A SUFFICIENT DISTANCE FROM THE WALLS AND FOOTINGS TO ALLOW FOR FORMS, CONSTRUCTION OF WALLS, CONNECTIONS AND FOR INSPECTION.
- PROVIDE REQUIRED TIMBER SHEETING, BRACING AND SHORING TO PROTECT SIDES OF EXCAVATION. DO NOT BRACE SHEETING AGAINST PIPE. PROVIDE SUITABLE LADDERS FOR SAFE ENTRY TO AND EXIT FROM EXCAVATION.
- DURING EXCAVATION, MATERIAL SUITABLE FOR BACKFILLING SHALL BE PILED IN AN ORDERLY MANNER A SUFFICIENT DISTANCE FROM THE BANKS OF TRENCHES TO AVOID OVERLOADING, AND TO PREVENT SLIDES OR CAVE-INS.
- WHEN EXCAVATION IS ENCOUNTERED, THE TRENCH SHALL BE DE-WATERED UNTIL THE PIPE HAS BEEN LAID AND BACKFILLED TO A POINT AT LEAST 1 FOOT ABOVE TOP OF PIPE.
- MANHOLES AND CATCH BASINS SHALL BE CONSTRUCTED OF BRICK, CONCRETE MASONRY UNITS OR PRE-CAST CONCRETE WITH CAST IRON FRAMES, COVERS AND MANHOLE STEPS.
- THE WALL THICKNESS OF MANHOLES AND CATCH BASINS CONSTRUCTED OF VARIOUS MATERIALS AND SET AT VARIOUS DEPTHS SHALL MEET THESE MINIMUMS. ADHERE TO REQUIREMENTS OF THE GOVERNING AGENCY IF THEY EXCEED THESE THICKNESSES:

DEPTH	BRICK	CONCRETE BLOCK	PRE-CAST CONCRETE
0' - 10'	8"	6"	6"
10' - 16'	12"	8"	8"
16' - 25'	16"	12"	12"
- WHENEVER EXISTING MANHOLES OR SEWER PIPE ARE TO BE TAPPED, DRILL HOLES 4" CENTER, TO CENTER, AROUND THE PERIPHERY OF OPENINGS TO CREATE A PLANE OF WEAKNESS JOINT BEFORE BREAKING SECTION OUT.
- MANHOLE STEPS SHALL BE BUILT INTO AND THOROUGHLY ANCHORED TO WALLS. STEPS SHALL BE FACTORY INSTALLED IN PRE-CAST STRUCTURES.
- ALL PIPING ENTERING OR LEAVING DRAINAGE STRUCTURES SHALL BE ADEQUATELY SUPPORTED BY POURED-IN-PLACE CONCRETE FILL FROM PIPE CENTER TO UNDISTURBED GROUND.
- SET FRAMES IN FULL BED OF STIFF MORTAR OR BITUMINOUS MASTIC JOINTING COMPOUND AT FINAL ELEVATION.
- ALL TIMBER SHEETING BELOW A PLANE 12" ABOVE TOP OF PIPE SHALL REMAIN IN PLACE IN ORDER NOT TO DISTURB PIPE GRADING. BEFORE BACKFILLING, REMOVE OTHER SHEETING BRACING AND SHORING.
- BEDDING USED FOR TRENCH BOTTOM SHALL BE EXTENDED UP THE SIDES AND CAREFULLY PLACED AROUND AND OVER PIPE IN 6" MAXIMUM LAYERS. EACH LAYER SHALL BE THOROUGHLY AND CAREFULLY COMPACTED TO 95% OF MAXIMUM DRY DENSITY AS PER ASTM D-1557 (MODIFIED PROCTOR) UNTIL 12" OF COVER EXISTS OVER PIPE.
- REMAINDER OF TRENCH SHALL BE BACKFILLED WITH SPECIFIED BACKFILL MATERIAL TO SPECIFIED SUBGRADE ELEVATION. BACKFILLING SHALL BE COMPACTED TO 90% OF MAXIMUM DRY DENSITY PER ASTM D-1557.
- IN STREETS, DRIVES, PARKING LOTS AND OTHER AREAS TO HAVE OR HAVING IMPROVED HARD SURFACES, BACKFILL SHALL BE MATERIAL SPECIFIED AND SHALL BE DEPOSITED IN 6" LOOSE LAYERS AT OPTIMUM MOISTURE CONTENT (±2%) COMPACTED TO 95% OF MAXIMUM DRY DENSITY PER ASTM D1557. (MODIFIED PROCTOR) SUITABLE MATERIALS FOUND ON SITE MAY BE USED.
- BEFORE BACKFILLING AROUND DRAINAGE STRUCTURES, ALL FORMS, TRASH AND DEBRIS SHALL BE REMOVED AND CLEARED AWAY. SELECTED EXCAVATED MATERIAL SHALL BE PLACED SYMMETRICALLY ON ALL SIDES IN 6" MAXIMUM LAYERS; EACH LAYER SHALL BE MOISTENED AND COMPACTED WITH MECHANICAL OR HAND TAMPERS.
- AFTER INSTALLATION OF PIPES AND DRAINAGE STRUCTURES, CLEAN THEM, AND ADJUST TOPS TO FINISH GRADE. PIPE SHALL BE STRAIGHT BETWEEN STRUCTURES, WITH THE FULL INSIDE DIAMETER VISIBLE WHEN SIGHTING BETWEEN STRUCTURES.
- ENDS OF HEADWALL AND END SECTIONS SHALL BE FITTED WITH A #4 ROUNDED MINIMUM WELDED STEEL ROD GRATING. RODS SHALL BE SPACED 6" O.C. MAXIMUM. WELD ROD AT ALL INTERSECTIONS. GRATE SHALL BE REMOVABLE FOR ACCESS AND CLEANING.
- RIP-RAP SHALL BE LAID FROM THE BOTTOM UPWARD; STONES SHALL BE LAID BY HAND WITH 8" MINIMUM DIMENSION PERPENDICULAR TO GRADE WITH WELL-BROKEN JOINTS, COMPACTED AS IT GOES, TRUE TO LINE. ALL JOINTS SHALL BE FILLED WITH CEMENT MORTAR. SURFACE STONE TO BE EXPOSED. CLEAN JOINTS WITH WIRE BRUSH.
- THE CONTRACTOR SHALL DO ALL REQUIRED EXCAVATION AND TRENCHING WORK AND THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR THE COMPLETION OF THE WORKS HEREIN REGARDLESS OF THE NATURE OF MATERIALS ENCOUNTERED DURING THE COURSE OF THE WORK. THE OWNER WILL NOT BE LIABLE FOR ANY COSTS WHATSOEVER ASSOCIATED WITH, BUT NOT LIMITED TO, THE PRESENCE OF ROCK, PEAT, SUBTERRANEAN STREAMS, EXCESSIVE WATER OR OTHER DIFFICULT OR UNANTICIPATED SUB-SURFACE PHENOMENA.
- ALL CONNECTIONS TO EXISTING SEWERS SHALL BE INCIDENTAL TO THE JOB.

GRADING AND EARTHWORK SPECIFICATIONS

- ALTHOUGH A SUB-SURFACE INVESTIGATION MAY HAVE BEEN MADE BY THE OWNER, THE BIDDER AND ANY SUB-CONTRACTORS SHALL MAKE A PERSONAL INVESTIGATION OF SITE AND EXISTING SURFACE AND SUB-SURFACE CONDITIONS. THE CONTRACTOR IS RESPONSIBLE TO ACQUAINT HIMSELF WITH CONDITIONS OF THE WORK AREA. THE CONTRACTOR IS ADVISED TO DETERMINE THE SUB-SURFACE SOIL CONDITIONS AND GROUND WATER CONDITIONS TO HIS OWN SATISFACTION PRIOR TO BIDDING. NO MODIFICATIONS TO THE UNIT PRICES BID FOR ANY ITEM WILL BE MADE DUE TO VARIABLE SUB-SURFACE CONDITIONS. DETAILING, IF DETERMINED NECESSARY BY THE CONTRACTOR, BY WELL POINTING OR DEEP WELLS WILL BE INCIDENTAL TO THE INSTALLATION COST OF THE ITEM.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING DETERMINED TO HIS SATISFACTION THE PERCENTAGE OF SUBGRADE TO BE REMOVED OR THE CHARACTER AND QUALITY OF THE SUBSTRATA, THE TYPES AND QUANTITIES OF MATERIALS TO BE ENCOUNTERED, THE NATURE OF THE GROUNDWATER CONDITIONS, THE PROTECTION OF THE WORK, THE GENERAL AND LOCAL CONDITIONS INCLUDING RECENT CLIMATIC CHANGES, THE TIME OF YEAR IN WHICH CONSTRUCTION WILL TAKE PLACE AND ALL OTHER MATTERS WHICH CAN IN ANY WAY AFFECT THE WORK UNDER THIS CONTRACT.
- PRIOR TO COMMENCING THE EXCAVATION THE CONTRACTOR SHALL SUBMIT A PLAN OF HIS PROPOSED OPERATIONS AND TIME SCHEDULE TO THE OWNER & OWNERS REPRESENTATIVE FOR THEIR APPROVAL.
- THE CONTRACTOR SHALL CONSIDER, AND HIS PLAN FOR EXCAVATION SHALL REFLECT, THE EQUIPMENT AND METHODS TO BE EMPLOYED IN THE EXCAVATION AND WHAT METHODS WILL BE USED WHEN WET CONDITIONS ARE ENCOUNTERED REQUIRING GROUNDWATER CONTROL OR OTHER MOISTURE CONDITIONING. THE CONTRACTOR SHALL SUBMIT AN OUTLINE OF HIS EARTHWORK METHODS WHICH SHALL TAKE INTO ACCOUNT THE OVERALL CONSTRUCTION SCHEDULE. THE PRICES ESTABLISHED IN THE PROPOSAL FOR THE WORK TO BE DONE SHALL REFLECT ALL COSTS PERTAINING TO THE WORK, NO CLAIM FOR EXTRA BASED ON SUBSTRATA OR GROUNDWATER TABLE CONDITIONS OR MOISTURE CONDITIONING WILL BE ALLOWED.
- THE CONTRACTOR SHALL KEEP INFORMED AND THE OWNER'S REPRESENTATIVE INFORMED AT ALL TIMES AS TO A "FILL SURPLUS OR SHORTAGE" SITUATION. SHORTAGE OR SURPLUS SITUATIONS SHALL BE IMMEDIATELY REPORTED TO THE GRADING AND EARTHWORK OPERATION SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND HE WILL BE REQUIRED TO SUPPLY THE DEFICIENCY OR DISPOSE OF THE SURPLUS WITHOUT ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL REMOVE VEGETATION, DEBRIS, UNSATISFACTORY SOIL MATERIALS, OBSTRUCTIONS, AND OTHER DELETERIOUS MATERIALS FROM GROUND SURFACE PRIOR TO CUT OR FILL OPERATION.
- MATERIALS FOR FILL OR BACKFILL REQUIRED TO GRADE THE SITE AND ACHIEVE DESIGN ELEVATIONS SHALL BE EITHER ON OR OFF-SITE SOILS WHICH ARE FREE OF ORGANIC MATTER AND DEBRIS. NO TOPSOIL SHALL BE USED AS ENGINEERED FILL.
- NO FILL MAY BE PLACED UNTIL THE EXPOSED SURFACES HAVE BEEN APPROVED BY THE GEOTECHNICAL ENGINEER. ALL FILL MATERIALS SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.
- IF ANY UNKNOWN SUBSURFACE STRUCTURES ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ATTENTION OF THE OWNER'S REPRESENTATIVE AND DESIGN ENGINEER PRIOR TO PROCEEDING.
- ALL FILL MATERIAL SHALL BE PLACED AND COMPACTED AT THE OPTIMUM MOISTURE CONTENT OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
- NO FROZEN MATERIAL SHALL BE USED AS FILL NOR WILL ANY FILL BE PLACED ON A FROZEN BASE.
- NO ROCK OR SIMILAR MATERIAL GREATER THAN 6" DIAMETER SHALL BE PLACED IN THE FILL UNLESS RECOMMENDATIONS FOR SUCH PLACEMENT HAVE BEEN SUBMITTED BY THE GEOTECHNICAL ENGINEER IN ADVANCE AND APPROVED BY THE OWNER AND OWNER'S REPRESENTATIVE.
- COMPACT FILL MATERIAL TO AT LEAST THE FOLLOWING PERCENTAGE OF MAXIMUM DRY DENSITY, AS DETERMINED BY ASTM D-1557 (MODIFIED PROCTOR). NO DEVIATION FROM THESE COMPACTATION REQUIREMENTS SHALL BE ALLOWED UNLESS SPECIFICALLY RECOMMENDED BY THE GEOTECHNICAL ENGINEER AND APPROVED BY THE OWNER AND OWNER'S REPRESENTATIVE.

FILL AREAS	% OF MAXIMUM DRY DENSITY
FILL UNDER BUILDING (EXTENDING BEYOND FOOTINGS AT A SLOPE OF 1 ON 1)	95%
FILL IN THE UPPER 18" UNDER PAVEMENT OR SIDEWALKS	95%
FILL PLACED UNDER OR BEHIND RETAINING WALLS	95%
ALL OTHER FILL	90%
- ALL FILL MATERIAL SHALL BE PLACED AND COMPACTED IN LIFTS, THAT WILL NOT EXCEED THE DEPTH IN WHICH THE COMPACTATION EQUIPMENT CAN ACHIEVE THE MAXIMUM DENSITY REQUIRED FOR THE ENTIRE DEPTH OF THE MATERIAL PLACED IN THE LIFT.
- ALL AREAS WHERE FILL HAS BEEN PLACED OR THE EXISTING SOILS HAVE BEEN DISTURBED SHALL BE SUBJECT TO COMPACTION TESTING BY THE GEOTECHNICAL ENGINEER AND SHALL BE TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER, OWNER AND OWNER'S REPRESENTATIVE.
- FILL MATERIAL UNDER PAVEMENTS OR STRUCTURES SHALL BE FREE OF ORGANIC OR DELETERIOUS MATERIALS. IT SHALL BE SUBSTITUTED WITH CLEAN, FREE OF SAND, PAVEMENTS AND STRUCTURES WITHOUT ADVERSE SHRINKING OR SWELLING.
- FILL MATERIAL IN BERMS AND LANDSCAPE AREAS SHALL BE SUITABLE TO SUPPORT GROWTH OF THE LANDSCAPING MATERIALS (TYPICAL FOR THE LOCAL CLIMATE) AND AS PROPOSED BY THE LANDSCAPE ARCHITECT.
- THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF, IN A LEGAL MANNER, ANY TREES, BRUSH OR DEBRIS THAT ARE WITHIN THE DESIGNATED CUTTING AND FILLING AREAS TO BRING THE SITE TO PROPOSED GRADES.
- THE CONTRACTOR SHALL STOCKPILE EXCAVATED MATERIAL ONLY IN DESIGNATED AREAS AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
- DURING THE PERFORMANCE OF SITE GRADING OPERATIONS, THE SUBGRADE SHALL BE EXAMINED CRITICALLY, AND ANY AREAS DISCOVERED WHICH, IN THE OPINION OF THE OWNER'S REPRESENTATIVE OR GEOTECHNICAL ENGINEER, ARE SOFT AND UNSTABLE, SHALL BE EXCAVATED TO SUCH DEPTHS AS MAY BE NECESSARY TO INSURE SATISFACTORY SUPPORTING PROPERTIES AS DETERMINED BY THE GEOTECHNICAL ENGINEER. THESE AREAS OF EXCAVATION SHALL BE BACKFILLED IMMEDIATELY AND SHALL BE BROUGHT BACK TO THE ELEVATION OF THE SURROUNDING AREAS WITH APPROVED FILL MATERIAL AND IN ACCORDANCE WITH THE EARTH FILL CONSTRUCTION PROCEDURE.
- NEWLY GRADED AREAS SHALL BE PROTECTED FROM THE ACTION OF THE ELEMENTS. DISPLACEMENT, PONDING OR WASHING OUT THAT MAY OCCUR PRIOR TO COMMENCING THE NEXT PHASE OF CONSTRUCTION SHALL BE REPAIRED, AND GRADES REESTABLISHED TO THE REQUIRED ELEVATIONS AND SLOPES.
- THE FINISHED SUBGRADE SURFACE SHALL BE SHAPED TO INDICATED PROFILES AND SHALL BE REASONABLY SMOOTH, PONDING OR WASHING OUT THAT MAY OCCUR PRIOR TO COMMENCING THE NEXT PHASE OF CONSTRUCTION SHALL BE REPAIRED, AND GRADES REESTABLISHED TO THE REQUIRED ELEVATIONS AND SLOPES.
- THE GRADING CONTRACTOR SHALL BACKFILL ALL PARKING LOT PLANTERS AND LAWN AREAS TO WITHIN 2 INCHES OF THE TOP ADJACENT CURB GRADES. THE TOP 4 INCHES MINIMUM SHALL BE TOPSOIL, FREE FROM DEBRIS AND STONES LARGER THAN 1 INCH IN DIAMETER.
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PUMPS, DITCHING, WELL POINT SYSTEMS AND OTHER MEANS FOR REMOVING WATER FROM EXCAVATIONS, TRENCHES, SUBGRADES AND OTHER PARTS OF THE WORK. THE CONTRACTOR SHALL CONTINUE DE-WATERING OPERATIONS UNTIL THE WATER HAS BEEN REMOVED ENTIRELY. UPON COMPLETION OF WATER REMOVAL, THE CONTRACTOR SHALL TAKE APPROPRIATE ACTION TO DRY THE SOILS, REGRADE TO PROPOSED ELEVATIONS AND COMPACT SOILS TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER AND OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL DISPOSE OF WATER IN A SAFE AND SANITARY WAY TO PREVENT FLOODING OR INJURY TO PUBLIC OR PRIVATE PROPERTY AND SHALL OBTAIN APPROVAL OF THE LOCAL GOVERNING AUTHORITY BEFORE DISCHARGING RUN-OFF WATER TO THEIR SYSTEM.
- THE CONTRACTOR SHALL PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING GRADES AND NEW GRADES.

BITUMINOUS PAVING SPECIFICATIONS

- REFERENCE SPECIFICATIONS WHERE APPLICABLE TO WORK UNDER THIS SECTION ARE REFERRED TO BY ABBREVIATION AS FOLLOWS:
 - AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO).
 - THE ASPHALT INSTITUTE (TAI)
 - MICHIGAN DEPARTMENT OF TRANSPORTATION/ CURRENT STANDARD SPECIFICATIONS FOR CONSTRUCTION (M.D.O.T.)
 - AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM)
- CRUSHED AGGREGATE BASE COURSE (CABC) SHALL MEET THE REQUIREMENTS OF SECTION 8.02 OF THE MDT STANDARD SPECIFICATION FOR CONSTRUCTION AND SHALL CONSIST OF 21AA CRUSHED AGGREGATE. THE USE OF SLAG IS PROHIBITED.
- TACK COAT SHALL BE EMULSIFIED ASPHALT MEETING REQUIREMENTS OF AASHTO M140 AND TAI SS-1H.
- AGGREGATE SHALL CONSIST OF CRUSHED STONE, CRUSHED GRAVEL, A MIXTURE OF UNCRUSHED GRAVEL WITH EITHER CRUSHED STONE OR CRUSHED GRAVEL, OR OTHER INERT MATERIAL HAVING SIMILAR CHARACTERISTICS. IT SHALL BE COMPOSED OF CLEAN, TIGHT, DURABLE FRAGMENTS FROM AN EXCESS OF FLAT OR ELONGATED PIECES, AND SHALL BE FREE OF ORGANIC MATTER AND DELETERIOUS SUBSTANCES AND MEET THE REQUIREMENTS OF MDT STANDARD SPECIFICATIONS, SECTION 8.02.
- FINE AGGREGATE SHALL BE WELL GRADED FROM COARSE TO FINE AND CONSIST OF NATURAL SAND, STONE SCREENINGS, OR A BLEND OF NATURAL SAND AND STONE SCREENINGS. IT SHALL BE COMPOSED OF ROUGH SURFACED AND ANGULAR GRAINS OF QUARTZ OR OTHER HARD DURABLE ROCK AND MEET THE REQUIREMENTS OF MDT STANDARD SPECIFICATIONS, SECTION 8.02.
- ASPHALT CEMENT SHALL COMPLY WITH THE REQUIREMENTS OF AASHTO M226 (ASTM 3381) FOR BITUMINOUS CONCRETE SURFACE COURSE AND SURFACE TREATMENT.
- BITUMINOUS CONCRETE SHALL COMPLY WITH MDT SECTION 7.10 OF STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- BITUMINOUS LEVELING COURSE SHALL BE MDT 1100L, 20AA MIX.
- BITUMINOUS WEARING COURSE SHALL BE MDT 1100T, 20AA MIX.
- THE CONTRACTOR SHALL SUBMIT, TO THE OWNER, TWO COPIES OF MATERIALS CERTIFICATES SIGNED BY MATERIAL PRODUCER AND CONTRACTOR. CERTIFICATES SHALL STATE THAT EACH MATERIAL ITEM MEETS SPECIFIED REQUIREMENTS.
- THE CONTRACTOR SHALL SUBMIT TO THE GEOTECHNICAL ENGINEER, JOB-MIX FORMULAS FOR EACH REQUIRED ASPHALT AGGREGATE MIXTURE. MIX DESIGNS SHALL BE WITHIN ALLOWABLE TOLERANCES AS SPECIFIED FOR THE PARTICULAR APPLICATION.
- SUBGRADE PREPARATIONS SHALL CONSIST OF THE FINAL MACHINING OF THE SUBGRADE IMMEDIATELY PRIOR TO PLACING THE BITUMINOUS BASE COURSE. THE SUBGRADE SHALL BE COMPACTED PER PLANS AND DETAILS. THE SUBGRADE SHALL BE TRUE TO LINE AND GRADE.
- CRUSHED AGGREGATE BASE COURSE SHALL BE COMPACTED TO A DENSITY EQUAL TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557 (MODIFIED PROCTOR).
- BITUMINOUS CONCRETE PAVEMENT CONSTRUCTION METHODS SHALL CONFORM TO APPLICABLE PORTIONS OF SECTION 4.00 OF THE MDT STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- THE CONTRACTOR SHALL NOT PLACE THE AGGREGATE BASE COURSE OR THE BITUMINOUS BASE COURSE PRIOR TO THE APPROVAL OF THE SUBGRADE BY THE GEOTECHNICAL ENGINEER.
- EACH LIFT AND COURSE OF BITUMINOUS CONCRETE SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER, PRIOR TO THE PLACEMENT OF A SUCCEEDING COURSE OR LIFT.
- APPLY BITUMINOUS TACK COATS ONLY WHEN TEMPERATURE HAS NOT BEEN BELOW 35 DEGREES F, FOR 12 HOURS IMMEDIATELY PRIOR TO APPLICATION. CONSTRUCT BITUMINOUS CONCRETE WEARING COURSE ONLY WHEN ATMOSPHERIC TEMPERATURE IS ABOVE 40-DEGREES F, AND PROCEEDING COURSE OR LIFT IS CLEAN AND DRY. BASE COURSE MAY BE LAID WHEN TEMPERATURE IS ABOVE 35 DEGREES F AND RISES TO 40 DEGREES F.
- THE BITUMINOUS CONCRETE SHALL BE TRANSPORTED FROM THE MIXING PLANT TO THE POINT OF USE IN VEHICLES CONFORMING TO THE REQUIREMENTS OF SECTION 4.00 OF THE MDT STANDARD SPECIFICATIONS FOR CONSTRUCTION. DELIVERIES SHALL BE SCHEDULED SO THAT SPREADING AND ROLLING OF ALL BITUMINOUS CONCRETE PREPARED FOR ONE DAY'S RUN CAN BE COMPLETED DURING DAYLIGHT, UNLESS ADEQUATE ARTIFICIAL LIGHTING IS PROVIDED. HAULING OVER FRESHLY PLACED BITUMINOUS MAT SHALL NOT BE PERMITTED UNTIL THE BITUMINOUS CONCRETE HAS BROWNED AND DRIED, AS SPECIFIED, AND ALLOWED TO COOL TO ATMOSPHERIC TEMPERATURE.
- UPON ARRIVAL, THE BITUMINOUS CONCRETE SHALL BE SPREAD TO A THICKNESS NOT TO EXCEED 3-INCHES AND TO THE FULL WIDTH BY AN APPROVED BITUMINOUS PAVER. IT SHALL BE STRUCK OFF IN A UNIFORM LAYER OF SUCH THICKNESS WHEN THE WORK IS COMPLETED, IT SHALL HAVE THE REQUIRED THICKNESS AND CONFORM TO THE GRADE AND CONTOUR INDICATED. THE SPEED OF THE PAVER SHALL BE REGULATED TO ELIMINATE PULLING AND TEARING OF THE BITUMINOUS MAT, UNLESS OTHERWISE DIRECTED. PLACEMENT OF THE BITUMINOUS CONCRETE SHALL BE DONE ALONG THE CENTERLINE OR CROWNED SECTION OR ON THE HIGH SIDE OF AREAS WITH A ONE-WAY SLOPE. THE BITUMINOUS CONCRETE SHALL BE PLACED IN CONSECUTIVE ADJACENT STRIPS HAVING A MINIMUM WIDTH OF 10 FEET, EXCEPT WHERE EDGE LANES REQUIRE LESS WIDTH TO COMPLETE THE AREA. TRANSVERSE JOINTS IN ADJACENT LANES SHALL BE OFFSET A MINIMUM OF 10 FEET.
- ON AREAS WHERE IRREGULARITIES OR UNAVOIDABLE OBSTACLES MAKE THE USE OF MECHANICAL SPREADING AND FINISHING EQUIPMENT IMPRACTICAL, THE BITUMINOUS CONCRETE MAY BE SPREAD AND RAKED BY HAND TOOLS.
- THE BITUMINOUS CONCRETE SHALL BE PLACED AT A TEMPERATURE OF NOT LESS THAN 250 NOR HIGHER THAN 350 DEGREES F OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
- THE BITUMINOUS CONCRETE MIXTURE SHALL BE THOROUGHLY AND UNIFORMLY COMPACTED BY ROLLING. THE SURFACE SHALL BE ROLLED WHEN THE BITUMINOUS MAT HAS ATTAINED SUFFICIENT STABILITY SO THAT THE ROLLING DOES NOT CAUSE UNDESIRABLE DISPLACEMENT, CRACKING AND SHORING. THE SEQUENCE OF ROLLING OPERATIONS SHALL BE AT THE DISCRETION OF THE CONTRACTOR.
- THE SPEED OF THE ROLLER SHALL, AT ALL TIMES, BE SUFFICIENTLY SLOW TO AVOID DISPLACEMENT OF THE HOT BITUMINOUS CONCRETE. ANY DISPLACEMENT OCCURRING AS A RESULT OF REVERSING THE DIRECTION OF THE ROLLER, OR FROM ANY OTHER CAUSE, SHALL BE CORRECTED AT ONCE.
- SUFFICIENT ROLLERS SHALL BE FURNISHED TO HANDLE THE OUTPUT OF THE PLANT. ROLLING SHALL CONTINUE UNTIL ALL ROLLER MARKS ARE ELIMINATED, THE SURFACE IS OF UNIFORM TEXTURE AND TRUE TO GRADE AND CROSS-SECTION, AND THE REQUIRED FIELD DENSITY IS OBTAINED.
- TACK COAT SHALL BE APPLIED TO THE SURFACE OF PREVIOUS LIFTS AND COURSES OF BITUMINOUS CONCRETE AND TO SURFACES ABUTTING OR PROJECTING INTO THE BITUMINOUS CONCRETE.
- IMMEDIATELY BEFORE PLACING A SUCCEEDING LIFT OR COURSE OF BITUMINOUS CONCRETE THE PRECEDING LIFT OR COURSE SHALL BE CLEARED OF ANY DEBRIS BY APPROPRIATE METHODS.
- TO PREVENT ADHESION OF THE BITUMINOUS CONCRETE TO THE ROLLER, THE WHEELS SHALL BE KEPT PROPERLY MOISTENED, BUT EXCESSIVE WATER WILL NOT BE PERMITTED.
- IN AREAS NOT ACCESSIBLE TO THE ROLLER, THE BITUMINOUS CONCRETE SHALL BE THOROUGHLY COMPACTED WITH HOT HAND TAMPERS.
- ANY BITUMINOUS CONCRETE THAT BECOMES LOOSE AND BROKEN, MIXED WITH DIRT, OR IN ANY WAY DEFECTIVE SHALL BE REMOVED AND REPLACED WITH FRESH HOT BITUMINOUS CONCRETE AND IMMEDIATELY COMPACTED TO CONFORM TO THE SURROUNDING AREA. THIS WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE. SKIN PATCHING SHALL NOT BE ALLOWED.
- THE CONTRACTOR SHALL PROVIDE AT LEAST TWO ROLLERS FOR EACH PAYER OPERATING ON THE WORK. THE CONTRACTOR SHALL USE ADDITIONAL ROLLERS AS REQUIRED TO OBTAIN THE SPECIFIED PAVEMENT DENSITY.

ENGINEERS - SURVEYORS
CONSULTANTS - LAND PLANNERS



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THE LOCATIONS AND ELEVATIONS SHOWN ON THESE UNDERGROUND UTILITIES ARE PROVIDED AS GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACCURACY OF THIS INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND DEPTHS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

CLIENT :

JOHN MORETTI
4242 BAUER ROAD
BRIGHTON, MI 48116

SPECIFICATIONS

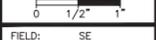
THE RIDGE SITE CONDOMINIUM
4242 BAUER ROAD
PART OF NE 1/4, SEC. 26, T2N-1-R5E
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISION	DATE	DESCRIPTION
1	6/21/2019	REVISED FINAL SITE PLAN TO TOWNSHIP
2	1/2/2019	PRELIMINARY SITE PLAN TO TOWNSHIP
3	1/25/2019	REVISED SITE PLAN TO TOWNSHIP
4	2/20/2019	REVISED SITE PLAN TO TOWNSHIP
5	4/3/2019	FINAL SITE PLAN TO TOWNSHIP
6	4/24/2019	REVISED FINAL SITE PLAN TO TOWNSHIP
7	6/21/2019	REVISED FINAL SITE PLAN TO TOWNSHIP
8	7/21/2019	REVISED FINAL SITE PLAN PER LCHD
9	7/22/2019	REVISED FINAL SITE PLAN PER LCCD

ORIGINAL ISSUE DATE:
1/2/2019

PROJECT NO: 18-025

SCALE: N/A



FIELD: DC
DRAWN BY: SE
DESIGN BY: DP
CHECK BY: AD



LOCATION MAP
NOT TO SCALE



LEGAL DESCRIPTION

(Per survey by: Boss Engineering, Job No.: 16-398, Dated: 12-05-16)

Parcel Tax Number: 4711-26-200-002

PARCEL 1:

A part of the S 1/2 of the NE 1/4 of Section 26, T2N-R5E, Genoa Township, Livingston County, Michigan, described as follows: Beginning at the East 1/4 corner of said Section 26; thence S89°24'43"W, 1332.50 feet; thence N00°33'49"W, 876.77 feet to the traverse point "B"; thence continuing N00°33'49"W, 444.16 feet; thence N89°02'01"E, 1039.53 feet to traverse point "A", said point bearing N63°57'38"E, 1133.31 feet from traverse point "B"; thence continuing N89°02'01"E, 293.00 feet to the East line of said Section and the centerline of Bauer Road; thence S00°33'49"E along said line 510.13 feet; thence S89°02'01"W, 250.00 feet; thence S00°33'49"E, 87.00 feet; thence N89°02'01"E, 250.00 feet to the East line of said Section and the centerline of Bauer Road; thence S00°33'49"E along said line 732.60 feet to the Point of Beginning, containing 40.04 acres more or less and subject to the rights of the public over the existing Bauer Road.

Also including the use of a 66 foot wide easement over part of White Pines Drive, as recorded in Liber 1115, Page 564, Livingston County Records



THE RIDGE SITE CONDOMINIUMS

BAUER ROAD, BRIGHTON, MI 48116

LANDSCAPE PLAN - SITE

JOHN MORETTIE/MRM CONSTRUCTION

PROJECT:

SUBJECT:

Client:

LANDSCAPE ARCHITECTURE
ARCHITECTURE
CONTRACTORS
ALL RIGHTS RESERVED

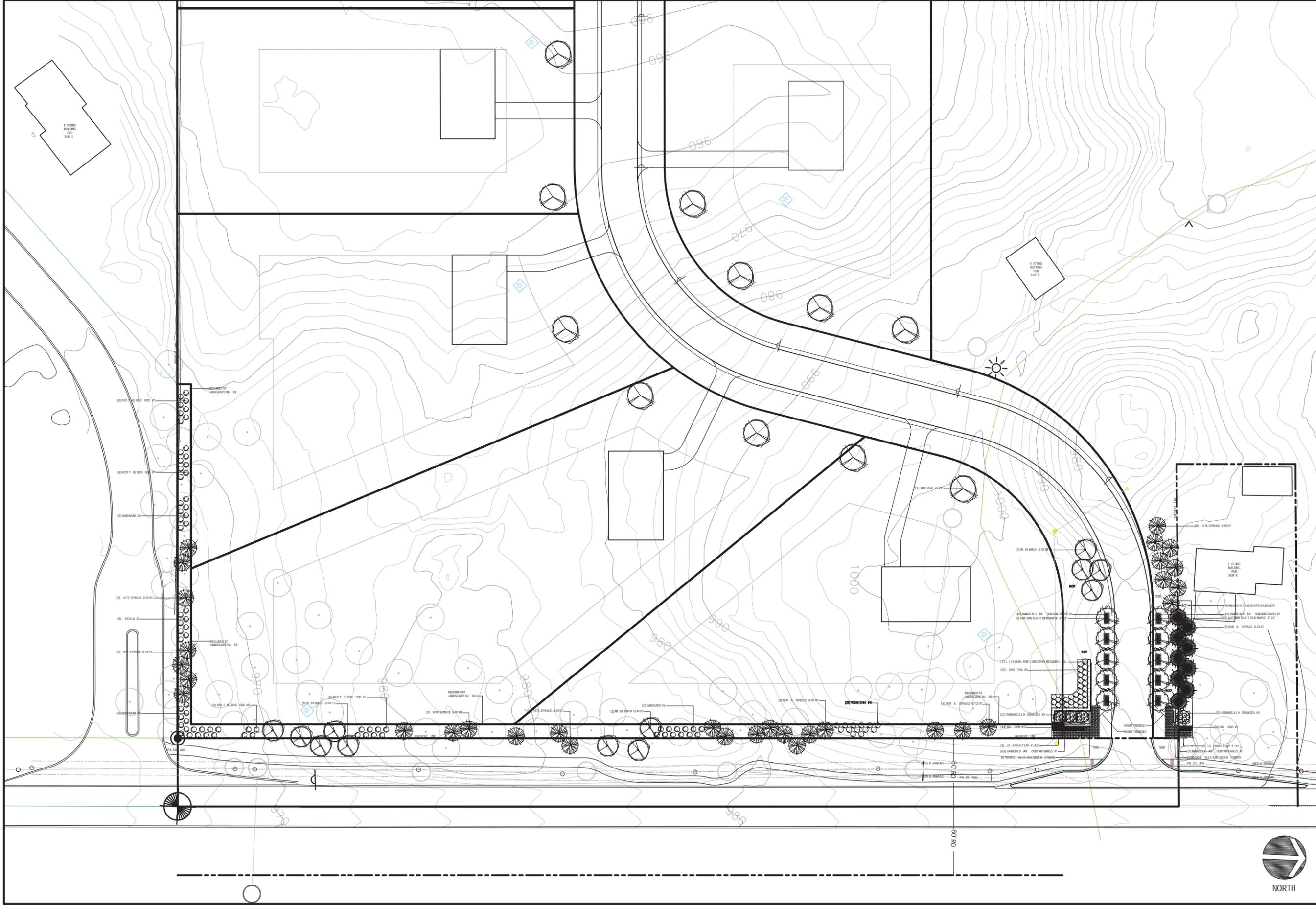


2880 SUMMIT DRIVE, SUITE 1000, BRIGHTON, MI 48116
PH: 248.350.0000
WWW.GREATOAKSLANDSCAPE.COM

Project #:	20170001	Date:	APRIL 01, 2019
Scale:	1" = 100'	Revisions:	APRIL 21, 2019 AUGUST 19, 2019
Drawn by:	GH/SA/A		
Checked by:	RT		

This plan is a landscape concept and it is intended that the designer be involved to consider on-site decisions. The plans and specifications herein remain the property of Great Oaks Landscape Associates, Inc. for its sole use. Unauthorized use of this plan is prohibited.

c:\users\slabj\my\great_oaks_landscape\projects\design\landscapes\20190819-landscapelanmoretestes(20190819)-su.dwg



This plan is a landscape concept and it is intended that the designer be involved to consider on-site decisions. The plans and specifications herein remain the property of Great Oaks Landscape Associates, Inc. for its sole use. Unauthorized use of this plan is prohibited.

Project #:	20190001	Date:	APRIL 01, 2019
Scale:	1" = 30'	Revisions:	APRIL 21, 2019 AUGUST 19, 2019
Drawn by:	GM/SA/A	Checked by:	RT

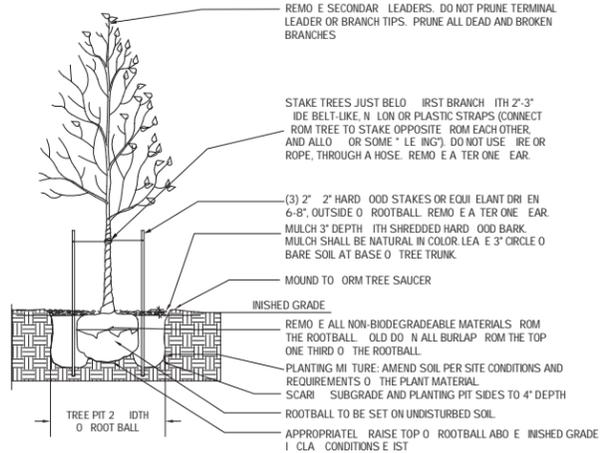
THE RIDGE SITE CONDOMINIUMS
 BAUER ROAD, BRIGHTON, MI 48116
LANDSCAPE PLAN - BAUER ROAD RONTAGE
 Client: JOHN MORETTIE/MRM CONSTRUCTION

GREAT OAKS LANDSCAPE
 2885 SUMMIT DRIVE, SUITE 100, BRIGHTON, MI 48116
 313.483.8000
 www.greatoakslandscape.com

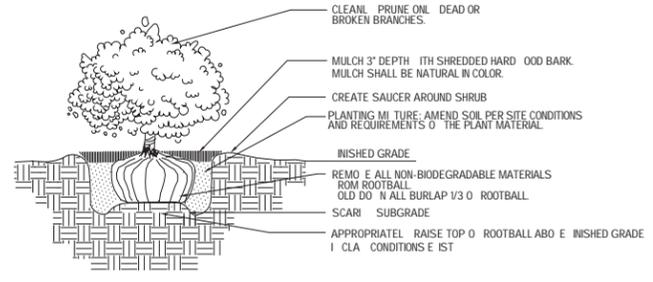


LANDSCAPE NOTES:

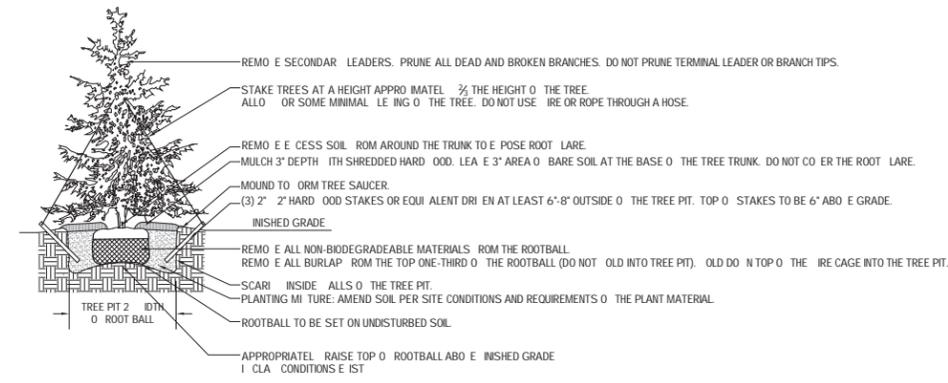
- ALL CONSTRUCTION AND PLANT MATERIAL LOCATIONS TO BE ADJUSTED ON SITE IF NECESSARY.
- ANY SUBSTITUTIONS OF PLANT MATERIAL OR ALTERATION IN PLANT SIZES OR SPECIFICATIONS TO BE CONFIRMED BY THE LANDSCAPE ARCHITECT.
- PLANT BEDS TO BE MULCHED AND DRESSED WITH SHREDDED HARDWOOD BARK OR AS SPECIFIED ON THE LANDSCAPE PLAN.
- ALL PLANTINGS SHALL CONFORM TO GENOA TOWNSHIP REQUIREMENTS/ORDINANCES.
- REMOVE ALL TRUNKS AND BRANCHES FROM AROUND TREE TRUNKS.
- LANDSCAPE TREES TO BE MULCHED WITH 4" DEEP SHREDDED BARK RING.
- PROVIDE SOOD OR LANDSCAPE SEED OR ALL NEARBY AREAS AS INDICATED.
- INSTALLATION OF PLANT MATERIAL SHALL BE IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF NURSERYMEN LANDSCAPE STANDARDS.
- PLANT MATERIAL, ESPECIALLY EVERGREENS, TO BE PLANTED HIGHER THAN NORMAL WHEN HEAVY SOIL CONDITIONS (CLAY, ETC.) EXIST.
- CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH ALL PERTINENT UTILITIES COMPANIES 72 HOURS IN ADVANCE OF ANY DIGGING TO MAKE THEMSELVES AWARE WITH ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES, ELECTRIC, GAS, TELEPHONE, CABLE TELEVISION MAY BE LOCATED BY CALLING MISS DIG (1-800-482-7171). ANY DAMAGE OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL NOT UNLESS PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBSERVED THAT UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST. SUCH CONDITIONS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH CONSTRUCTION INSTALLATION OPERATIONS.
- CONTRACTOR SHALL PROVIDE AND MAINTAIN POSITIVE SURFACE DRAINAGE.
- ALL TREES SHALL HAVE A CLAY LOAM OR CLAY ROOTBALL. TREES WITH SAND ROOTBALLS WILL NOT BE ACCEPTED.
- LANDSCAPE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING SITE CONDITIONS AND REVIEW PROPOSED PLANTING AND RELATED WORK IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, PLAN SHALL GOVERN QUANTITIES. CONTACT LANDSCAPE ARCHITECT WITH ANY CONCERNS.
- ALL PLANT MATERIAL TO BE PREMIUM GRADE NURSERY STOCK AND SHALL SATISFY AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS OR NURSERY STOCK. ALL LANDSCAPE MATERIALS SHALL BE NORTHERN GROWN - NO. 1 GRADE.
- ENTRANCE LANDSCAPE TO BE IRRIGATED WITH AN AUTOMATIC IRRIGATION SYSTEM.
- LANDSCAPE BUFFER TO BE PLANTED IN ACCORDANCE TO SECTION 12.02.03 OF GENOA TOWNSHIP ZONING ORDINANCE.



DECIDUOUS TREE PLANTING DETAIL
NO SCALE

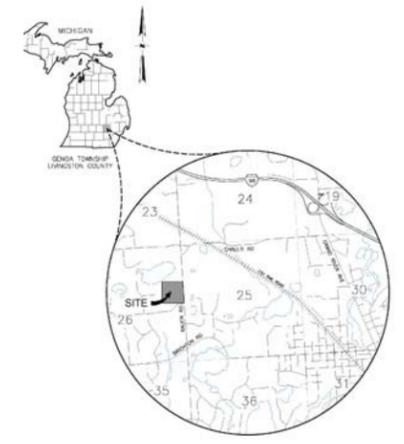


SHRUB PERENNIAL PLANTING DETAIL
NO SCALE



EVERGREEN TREE PLANTING DETAIL - GREATER THAN 8' HEIGHT
NO SCALE

LOCATION MAP
NOT TO SCALE



LEGAL DESCRIPTION

(Per survey by: Boss Engineering, Job No.: 16-398, Dated: 12-05-16)

Parcel Tax Number: 4711-26-200-002

PARCEL 1:

A part of the S 1/2 of the NE 1/4 of Section 26, T2N-R5E, Genoa Township, Livingston County, Michigan, described as follows: Beginning at the East 1/4 corner of said Section 26; thence S89°24'43"W, 1332.50 feet; thence N00°33'49"W, 876.77 feet to the traverse point "B"; thence continuing N00°33'49"W, 444.16 feet; thence N89°02'01"E, 1039.53 feet to traverse point "A"; said point bearing N63°57'38"E, 1133.31 feet from traverse point "B"; thence continuing N89°02'01"E, 293.00 feet to the East line of said Section and the centerline of Bauer Road; thence S00°33'49"E along said line 510.13 feet; thence S89°02'01"W, 250.00 feet; thence S00°33'49"E, 87.00 feet; thence N89°02'01"E, 250.00 feet to the East line of said Section and the centerline of Bauer Road; thence S00°33'49"E along said line 732.60 feet to the Point of Beginning, containing 40.04 acres more or less and subject to the rights of the public over the existing Bauer Road.

Also including the use of a 66 foot wide easement over part of White Pines Drive, as recorded in Liber 1115, Page 564, Livingston County Records

PLANT SCHEDULE

QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	TYPE
FRONT ENTRANCE				
10	<i>Acer x fremantii 'Jeffersred'</i>	Autumn Blaze Red Maple	3"-3.5"	B&B
4	<i>Betula nigra</i>	River Birch	12-14'	Multi-Trunk
56	<i>Buxus x 'Green Mountain'</i>	Boxwood	#5	container
30	<i>Forsythia x intermedia</i>	Forsythia	#5	container
34	<i>Hydrangea arborescens 'Annabelle'</i>	Annabelle Hydrangea	#5	container
116	<i>Pennisetum alopecuroides 'Hamel'</i>	Dwarf Fountain Grass	#1	container
9	<i>Picea abies</i>	Norway Spruce	8-10'	B&B
8	<i>Picea glauca</i>	White Spruce	8-10'	B&B
4	<i>Pyrus calleryana 'Cleveland Select'</i>	Flowering Pear	4"-4.5"	B&B
LANDSCAPE BUFFER**				
8	<i>Betula nigra</i>	River Birch	12-14'	B&B
28	<i>Cornus sericea 'Cardinal'</i>	Red Twig Dogwood	#5	container
13	<i>Forsythia x intermedia</i>	Forsythia	#5	container
28	<i>Physocarpus opulifolius</i>	Ninebark	#5	container
11	<i>Picea abies</i>	Norway Spruce	8-10'	B&B
13	<i>Picea glauca</i>	White Spruce	8-10'	B&B
16	<i>Weigela florida 'Alexandra' Can</i>	Weigela	#5	container
STREET TREES				
33	<i>Quercus rubra</i>	Red Oak	4"-4.5"	B&B

**LANDSCAPE BUFFER TOTALS 906 LINEAR FEET OF FRONTAGE ALONG BAUER ROAD, AND WHITE PINES DRIVE. PROPOSED PLANTINGS PROVIDE 85 SHRUBS (4 PER 20 LINEAR FEET) FOR 425 LINEAR FEET, AND 32 TREES FOR 640 LINEAR FEET. FOR A TOTAL OF 1065 LINEAR FEET OF COVERAGE.

THE RIDGE SITE CONDOMINIUMS

PROJECT: BAUER ROAD, BRIGHTON, MI 48116
SUBJECT: LANDSCAPE NOTES
Client: JOHN MORETTIE/MRM CONSTRUCTION



GREAT OAKS LANDSCAPE ARCHITECTURE, INC.
2805 S. MAIN STREET, SUITE 400, BRIGHTON, MI 48116
PH: 313.381.4177
WWW.GREATOAKSLANDSCAPE.COM

This plan is a landscape concept and it is intended that the designer be involved to consider on-site decisions. The plans and specifications herein remain the property of Great Oaks Landscape Associates, Inc. for its sole use. Unauthorized use of this plan is prohibited.

Project #: 2070001
Scale: NTS
Drawn by: QM/SAJ
Checked by: RT

Date: AUGUST 19, 2019
Revisions:



RECEIVED

By Amy Ruthig at 10:50 am, May 09, 2019

GENOA CHARTER TOWNSHIP Special Land Use Application

This application **must** be accompanied by a site plan review application and the associated submittal requirements. (The Zoning Official may allow a less detailed sketch plan for a change in use.)

APPLICANT NAME & ADDRESS: _____
Submit a letter of Authorization from Property Owner if application is signed by Acting Agent.

APPLICANT PHONE: (____) _____ EMAIL: _____

OWNER NAME & ADDRESS: _____

SITE ADDRESS: _____ PARCEL #(s): _____

OWNER PHONE: (____) _____ EMAIL: _____

Location and brief description of site and surroundings:

Proposed Use:

Describe how your request meets the Zoning Ordinance General Review Standards (section 19.03):

a. Describe how the use will be compatible and in accordance with the goals, objectives, and policies of the Genoa Township Comprehensive Plan and subarea plans, and will promote the Statement of Purpose of the zoning district in which the use is proposed.

b. Describe how the use will be designed, constructed, operated, and maintained to be compatible with, and not significantly alter, the existing or intended character of the general vicinity.

c. How will the use be served adequately by essential public facilities and services such as highways, streets, police and fire protection, drainage structures, water and sewage facilities, refuse disposal and schools?

d. Will the use involve any uses, activities, processes, or materials potentially detrimental to the natural environment, public health, safety, or welfare by reason of excessive production of traffic, noise, vibration, smoke, fumes, odors, glare, or other such nuisance? If so, how will the impacts be mitigated?

e. Does the use have specific criteria as listed in the Zoning Ordinance (sections 3.03.02, 7.02.02, & 8.02.02)? If so, describe how the criteria are met.

I HEREBY CERTIFY THAT ALL INFORMATION AND DATA ATTACHED TO AND MADE PART OF THIS APPLICATION ARE TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF. I AGREE TO DESIGN, CONSTRUCT AND OPERATE, AND MAINTAIN THESE PREMISES AND THE BUILDINGS, STRUCTURES, AND FACILITIES WHICH ARE GOVERNED BY THIS PERMIT IN ACCORDANCE WITH THE STATED REQUIREMENTS OF THE GENOA TOWNSHIP ZONING ORDINANCE, AND SUCH ADDITIONAL LIMITS AND SAFEGUARDS AS MAY BE MADE A PART OF THIS PERMIT.

THE UNDERSIGNED _____ STATES THAT THEY ARE THE FREE OWNER OF THE PROPERTY OF PROPERTIES DESCRIBED ABOVE AND MAKES APPLICATION FOR THIS SPECIAL LAND USE PERMIT.

BY: Scott A. Mommer

ADDRESS: _____

<p>Contact Information - Review Letters and Correspondence shall be forwarded to the following:</p> <p>_____ of _____ at _____ Name Business Affiliation Email</p>

<p align="center">FEE EXCEEDANCE AGREEMENT</p> <p>As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.</p> <p>SIGNATURE: <u>Scott A. Mommer</u> DATE: _____</p> <p>PRINT NAME: _____ PHONE: _____</p>

RECEIVED

By Amy Ruthig at 10:49 am, May 09, 2019



GENOA CHARTER TOWNSHIP
Application for Site Plan Review

TO THE GENOA TOWNSHIP PLANNING COMMISSION AND TOWNSHIP BOARD:

APPLICANT NAME & ADDRESS: Scott A. Mommer; 4694 W. Jacquelyn Ave, Fresno, CA 93722
If applicant is not the owner, a letter of Authorization from Property Owner is needed.

OWNER'S NAME & ADDRESS: Home Depot U.S.A., Inc.; 2455 Paces Ferry Rd., Atlanta, GA 30339

SITE ADDRESS: 3330 E. Grand Ave, Howell, MI PARCEL #(s): 11-05-300-027

APPLICANT PHONE: (559) 978-7060 OWNER PHONE: (770) 384-3364

OWNER EMAIL: smommer@larsandersen.com

LOCATION AND BRIEF DESCRIPTION OF SITE: The site is an existing Home Depot store located
at Grand Oaks Drive and Grand River Ave. The site is currently Zoned RCD - Regional Commercial District.

BRIEF STATEMENT OF PROPOSED USE: The proposed Use is for additional storage areas per the
submitted Site Plan. The proposed request is for area for display of three (3) rental trailers, rental equipment display,
a 12' fence at the south end of the site for large equipment storage, seasonal sales display areas, and staging areas.

THE FOLLOWING BUILDINGS ARE PROPOSED: No buildings are being proposed.

I HEREBY CERTIFY THAT ALL INFORMATION AND DATA ATTACHED TO AND MADE PART OF THIS APPLICATION IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

BY: Scott A. Mommer

ADDRESS: 4694 W. Jacquelyn Ave, Fresno, CA 93722

Contact Information - Review Letters and Correspondence shall be forwarded to the following:

1.) Scott A. Mommer of Scott A. Mommer Consulting at smommer@larsandersen.com
Name Business Affiliation E-mail Address

FEE EXCEEDANCE AGREEMENT

As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.

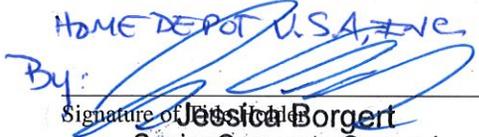
SIGNATURE: *Scott A. Mommer* DATE: 5/3/2019
PRINT NAME: Scott A. Mommer PHONE: 559-978-7060
ADDRESS: 4694 W. Jacquelyn Ave., Fresno, CA 93722

AFFIDAVIT

I, Jessica Borgert certify by my signature below that I hereby authorize Scott A. Mommer to act as my agent regarding the Special Land Use Application of the below described property.

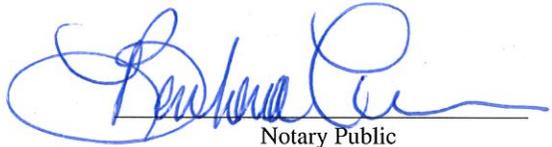
Property described

as: See attached Legal Description.

By: HOME DEPOT U.S.A., INC.

Signature of Jessica Borgert
Senior Corporate Counsel

Date

Subscribed and sworn to me a Notary Public on this 19 day of April 2019.



Notary Public

My Commission Expires:
9/10/22

Barbara Turner
NOTARY PUBLIC
Fulton County, GEORGIA
My Commission Expires 09/10/2022

#2751

EXHIBIT A

Legal Description

Part of the Southwest $\frac{1}{4}$ of Section 5, T2N—R5E, Genoa Township, Livingston County, Michigan, more particularly described as follows: Commencing at the West $\frac{1}{4}$ Corner of said Section 5: thence along the East-West $\frac{1}{4}$ line of said Section 5, N 87°09'05" E, 272.34 feet; thence along Easterly line of Victory Drive (66 foot wide Right-of-Way), as recorded in the Plat of "Grand Oaks West Industrial Park", Liber 30 of Plats, pages 1-5, Livingston County Records, S 01°04'09" E, 8.88 feet; thence along the South line of Lot 1 of said Plat, S 77°41'07" E, 148.07 feet; thence S 86°26'47" E, 226.20 feet; thence S 73°13'50" E, 20.78 feet; thence N 25°07'05" E (previously recorded as N 27°04'E), 240.92 feet; thence along the Southerly line of Grand River Avenue (50 foot wide and 70 foot wide $\frac{1}{2}$ Right-of-Way), on the following three (3) courses; 1) S 64°54'26" E, 93.60 feet, 2) S 25°05'34" W, 20.00 feet, 3) S 64°54'26" E, 157.49 feet to the POINT OF BEGINNING of the Parcel to be described; thence continuing along the Southerly line of Grand River Avenue on the following four (4) courses: 1) S 64°54'26" E, 117.51 feet, 2) N 25°05'34" E, 20.00 feet, 3) S 64°54'26" E, 61.15 feet, 4) S 64°41'56" E, 657.17 feet; thence S 25°10'07" W, 233.14 feet; thence S 41°41'17" E, 115.37 feet; thence S 52°21'03" E, 57.81 feet; thence S 64°41'56" E, 278.96 feet; thence N 87°53'27" E, 46.62 feet; thence along the Westerly line of Grand Oaks Drive (100 foot wide Right-of-Way), as recorded in the Plat of "Grand Oaks Commercial Park", Liber 21 of Plats, pages 45-47, Livingston County Records, Southwesterly on an arc left, having a length of 70.72 feet, a radius of 500.00 feet, a central angle of 08°06'15", and a long chord which bears S 05°43'50" W, 70.66 feet; thence S 87°53'37" W, 1101.09 feet; thence N 71°04'09" W, 170.00 feet (previously recorded as 169.43); thence N 20°20'51" E, 285.83 feet (previously recorded as 282.65 feet), thence N 02°44'46" E, 405.20 feet (previously recorded as 407.10), thence N 08°08'15" E, 169.00 feet, thence N 84°00'24" E, 39.14 feet to the POINT OF BEGINNING; Containing 15.10 acres, more or less, and subject to the rights of the Public over the existing Grand River Avenue. Also including the use of Grand Oaks Drive, as recorded in the Plat of "Grand Oaks Commercial Park", Liber 21 of Plats, pages 45-47, Livingston County Records.

TAX PARCEL ID NO:

4711-05-300-027

Planning Commission Meeting
July 8, 2019 Approved Minutes

1. The Commission may allow building materials that do not comply with Section 12.01 (too much vinyl siding) since they will match the existing building.
2. The parking calculations on Sheet C2.0 need to be corrected and 2 additional barrier-free parking spaces are required. Mr. Rudolph stated he can add the spaces per his suggestion.
3. The applicant should provide specification sheets for the proposed light fixtures.
4. The landscape plan is deficient in buffer zone B and detention pond plantings. The applicant did make modifications to the original plan; however, they are still missing the required amount of plantings. The Planning Commission can modify this requirement; however, he recommends that the buffer zone plantings be required. Mr. Rudolph noted that there are existing plantings in that area; however, they can add additional plantings as required.

The call to the public was made at 6:45 pm with no response.

Moved by Commissioner Grajek, seconded by Commissioner Rauch, to recommend to the Township Board approval of the Environmental Impact Assessment dated March 26, 2019 as written. **The motion carried unanimously.**

Moved by Commissioner Grajek, seconded by Commissioner Dhaenens, to approve the Site Plan dated July 2, 2019 with the following conditions:

- Allowing the use of vinyl siding, which does not meet ordinance, due to the existing siding used on the building.
- Two barrier free spaces shall be added and approved by staff.
- Lighting will be converted to LED lighting throughout the development and spec sheets shall be provided.
- Additional plantings shall be included in the buffer zone to the rear, which can be approved by staff.
- Compliance with the Engineer's review letter July 2, 2019.

The motion carried unanimously.

NEW BUSINESS:

OPEN PUBLIC HEARING #2... Review of a special use, site plan and environmental impact assessment for outdoor sales, storage and display for Home Depot. The

property in question is located at 3330 E. Grand River Howell. The request is petitioned by Scott A. Mommer.

- A. Recommendation of Special Use Application.
- B. Recommendation of Environmental Impact Assessment. (6-12-19)
- C. Recommendation of Site Plan. (6-10-19)

Brent LaVanway of Boss Engineering was present. There are three types of storage areas for which they are requesting approval. One is a temporary storage area for materials prior to being brought into the building, permanent product display areas in the front, and then the temporary seasonal storage area, which includes the outside plant and flower area in part of the parking lot.

Mr. Borden reviewed the outstanding issues of his letter dated July 2, 2019.

The revised submittal does not demonstrate full compliance with the landscaping/screening conditions of Section 7.02.02(d). There is not a full Buffer Zone B shown on the plans. The applicant is required to screen the entire height of the outdoor storage.

The applicant should identify the dimensions and square footage of each outdoor area proposed, with an understanding that they will be limited to such areas.

He noted that the reason this item is on the agenda this evening is because the Township has dealt with many years of outdoor storage enforcement issues.

Commissioner Mortensen agrees that this has been an ongoing issue for years and Home Depot is simply doing what they want. He definitely wants the storage in the rear to have screening and what is being proposed is not sufficient.

Commissioner Dhaenens agrees that the specific sizes of the areas for the storage should be noted on the plans. He does not agree with the storage in the middle of the parking lot.

Commissioner Grajek would like to have the sheds moved from the front of the building. He understands that the grade drops and there are trees screening the site, so they can't be seen from the road anyway. He stated that if the items are kept where they are supposed to be and kept organized and neat then there would not be a problem with it, but he agrees with Commissioner Mortensen's comment that it seems Home Depot is doing what they want.

Mr. LaVanway believes that the trees along Grand River provide appropriate screening for the site.

Commissioner Rauch does not agree with the 12-foot chain link fence that is providing security for the rental equipment. He is not in favor of this proposal. He does not want to approve permanent outdoor displays. He suggested that this type of outdoor seasonal storage be reviewed and approved each year as it is done with other uses of this type.

Commissioner McCreary agrees with Commissioner Rauch and she does not approve of the sheds being displayed in the front of the store.

Chairman Brown was surprised when he saw the number of violations that have been issued to Home Depot over many years and that they have not done anything to comply with the ordinance.

Ms. VanMarter referenced Commissioner Rauch's suggestion about the administrative process to obtain a seasonal display. Seasonal display permits area only valid for 28 days, which is why staff recommended that the applicant obtain approval for a formal plan.

She suggested that if the areas are approved, they should be delineated in some way (pavement markings, bollard posts, etc.). When staff is enforcing the site plan, it is difficult to determine if they are staying within the allowable area.

They do receive complaints from drive by traffic due to the staging of the material in the northwest corner of the building.

Commissioner Grajek understands that Home Depot needs to have outdoor storage and seasonal displays in order to do business, but they are good members of the community. He would like the Township to be able to meet with them and come to an agreement. Ms. VanMarter will coordinate a meeting.

Commissioner Rauch noted that the site has over 100 extra parking spaces and suggested that they develop an outdoor and seasonal display area that can be delineated and screened properly.

The call to the public was made at 7:25 pm with no response.

Ms. VanMarter suggested postponing this item until the August 12 Planning Commission meeting.

Moved by Commissioner Grajek, seconded by Commissioner Mortensen, to postpone Open Public Hearing #2, at the applicant's request, until the August 12, 2019 Planning Commission meeting. **The motion carried unanimously.**

OPEN PUBLIC HEARING #3...Review of a special use, site plan and environmental impact assessment for outdoor sales, storage and display for Lowe's. The property in question is located at 1100 S. Latson Road, Howell. The request is petitioned by Lowe's Home Centers, LLC.

- A. Recommendation of Special Use Application.
- B. Recommendation of Environmental Impact Assessment (6-18-19)
- C. Recommendation of Site Plan. (6-18-19)

Mr. Todd Simmons of Freeland & Kauffman, the engineer for Lowe's, was present. He is aware of the ongoing issues with the outdoor storage and display at Lowe's. He met with Township staff and developed the plan that was submitted for review this evening. He reviewed the plan, specifically the screening of the areas. Some areas may not have completely met the ordinance; however, they believe their proposal meets the intent of the ordinance.

As it relates to the engineer's concerns that these areas are on utility easements, they understand that if any maintenance needs to be done on the utilities, their items would need to be removed.

Commissioner Mortensen stated he has the same concerns with Lowe's and the numerous violations that they have received that he did with Home Depot.

Mr. Borden reviewed his letter dated July 2.

1. Because this is a PUD, it is suggested that the Township require the applicant to provide a cross-access easement to the outlot adjacent to the east.
2. Aside from the screening requirements (Buffer Zone B), the revised submittal is generally compliant with the conditions of Section 7.02.02(d). There is not a full Buffer Zone B shown on the plans.



Scott A. Mommer Consulting

Land Development Services

4694 W. Jacquelyn Avenue, Fresno CA 93722
Phone: (559) 978-1000
Texas Registered Engineering Firm F-18451

Thursday August 8, 2019

RECEIVED

By Amy Ruthig at 2:46 pm, Aug 15, 2019

Amy Ruthing
Zoning Official
2911 Dorr Road
Brighton, MI 48116
810-227-5225 Ext. 114
amy@genoa.org

RE: Home Depot – Special Land Use Application – Planning Commission Hearing Response
3330 E. Grand River Ave

Amy,

Please find below and attached the resubmittal package for the Home Depot Special Land Use Application. Below are the responses to the Planning Commission Hearing Comments and Staff Comments provided on the Site Plan Mark-up:

1. The northern most rear staging area has been removed to eliminate visual impacts from Grand River Avenue.
2. Sheds have been relocated to the southern portion of the site near Grand River Oaks Drive.
3. Seasonal Sales area in the parking lot has been designated with temporary drive aisles and barricades to direct flow of traffic.
4. The rental equipment enclosure has been removed and the location of the rental equipment revised to the parking stalls and the southerly most end of the site.
5. The Site Plan has been updated to note possible material that could be placed in the rear staging area and the square-footage of. The rear staging areas will be striped in green to designate the defined area that product can only be within. The purpose for the staging area is to allow for product to be brought in and taken off the flat-bed trucks to be brought into the store or garden center within 72 hours. This is to allow for available merchandise during heavy sale periods to keep product on-site and avoid additional trucking, which helps on the carbon footprint. Below is a list of possible items that could be placed in the rear staging area. Please note that this is not a defined list of products

that will be there all of the time; but it is a comprehensive list of possible items that the store could have:

- a. Lumber products including but not limited to drywall, fencing, ladders, rebar, foam board, duroc, shingles, concrete, plywood, white wood, and pressure-treated lumber.
- b. Garden products including but not limited to mulch, soil, paved stone, bagged rock, riders, live good carts, sod, and edging rolls.
- c. Plumbing products including but not limited to black piping and PVC sticks.
- d. Equipment- carts, ladders, and pallets.
- e. Special orders waiting for delivery/pick-up.

Our Firm greatly appreciates the Townships efforts on this project.

Sincerely,
SCOTT A. MOMMER CONSULTING

Scott A. Mommer
Scott A. Mommer, PE



September 4, 2019

Planning Commission
Genoa Township
2911 Dorr Road
Brighton, Michigan 48116

Attention:	Kelly Van Marter, AICP Planning Director and Assistant Township Manager
Subject:	Home Depot – Special Land Use and Site Plan Review #3
Location:	3330 E. Grand River Avenue – south side of Grand River, west of Grand Oaks Drive
Zoning:	RCD Regional Commercial District

Dear Commissioners:

At the Township’s request, we have reviewed the revised special land use and site plan submittal from Home Depot (plans dated 8/7/19) to allow outdoor sales/storage/display areas for the existing business.

As discussed at the July 8, 2019 Planning Commission meeting, there has been a lengthy Ordinance enforcement history for outdoor sales/storage/display at this site. Township staff tracked this history (provided in a separate document with the July agenda packet) noting issues dating back to 2001. As a result, the Township revoked the applicant’s special land use permit for outdoor sales/storage/display in 2015.

Action on the request was postponed at the July 8, 2019 meeting due to several concerns raised by the Commission and Township staff. Concerns included visibility of storage areas from Grand River, a lack of screening required by the Ordinance, and the lack of clear demarcations of these areas.

A. Summary

1. In order to make a favorable finding on the general special land use standards of Section 19.03, the applicant must demonstrate full compliance with the use conditions of Section 7.02.02(d).
2. The applicant must also address any concerns provided by the Township Engineer and/or Brighton Area Fire Authority.
3. The submittal does not demonstrate full compliance with the landscaping/screening conditions of Section 7.02.02(d). Additional details/information are necessary.
4. Based on our review, the proposal will result in a slight parking deficiency. The applicant must provide updated calculations/additional detail with respect to parking or some of the banked parking may need to be constructed to mitigate the apparent deficiency.
5. At least 2 of the areas proposed appear to block/disrupt pedestrian circulation to/from the building.

B. Proposal/Process

The revised submittal includes 13 areas of outdoor display/storage/sales accessory to a permitted commercial use (Home Depot). Such uses are allowed with special land use approval (Section 7.02).

Section 7.02.02(d) also includes use conditions for commercial outdoor display, storage and sales.

Procedurally, following the required public hearing, the Planning Commission is to put forth a recommendation to the Township Board on the special land use, site plan review and Impact Assessment.

The Board has the final review/approval authority over the project.



Aerial view of site and surroundings (looking north)

C. Special Land Use Review

Special land uses are subject to the review criteria of Section 19.03, as follows:

- 1. Master Plan.** The Master Plan identifies the site and adjacent properties as Regional Commercial, which is intended for “higher intensity commercial uses that serve the comparison shopping needs of the entire community and the regional market.”

While the Plan does not specifically address outdoor uses within Regional Commercial, it does note the intent to allow for “big box retail,” which is consistent with the principal use of this site.

Given the nature of the request and the planned uses for the subject area, the proposal is generally compatible with the Master Plan and Future Land Use Map.

- 2. Compatibility.** The inclusion of some outdoor components associated with a big box retailer is not generally expected to adversely impact nearby uses. However, such uses are subject to the conditions of Section 7.02.02(d) to ensure compatibility. In our opinion, the use conditions must be met in order to make a favorable finding under this criterion.
- 3. Public Facilities and Services.** As a developed site, we do not anticipate issues with public facilities and services. However, the applicant must address any concerns raised by the Township Engineer and/or Brighton Area Fire Authority with respect to this criterion.
- 4. Impacts.** Similar to the comment in paragraph 2 above, provided the use conditions are met, the project would not be expected to result in adverse impacts upon surrounding properties.
- 5. Mitigation.** If additional concerns arise as part of the review process, the Township may require mitigation efforts to alleviate/eliminate potential adverse impacts.

D. Use Conditions

As previously noted, the proposal is subject to the use conditions of Section 7.02.02(d), as follows:

- 1. Minimum lot area shall be one (1) acre.**

The notes on Sheet 1 of 3 identify a lot area of 15.1 acres.

- 2. Any stockpiles of soils, fertilizer or similar loosely packaged materials shall be sufficiently covered or contained to prevent dust or blowing of materials.**

The Impact Assessment states that “any stockpiles of soils, fertilizer or similar loosely packaged materials will be wrapped in visqueen for not only protection of the material, but to the environment.”

- 3. All outdoor storage areas shall be paved with a permanent, durable and dustless surface and shall be graded and drained to dispose stormwater without negatively impact adjacent property. The Township Board, following a recommendation of the Planning Commission and the Township Engineer, may approve a gravel surface for all or part of the display or storage area for low intensity activities, upon a finding that neighboring properties and the environment will not be negatively impacted.**

All 13 of the proposed outdoor display/storage/sales areas are located on an existing paved surface.

- 4. No outdoor storage shall be permitted in any required yard (setback) of buildings for the district in which the commercial outdoor display, sales or storage use is located. Any approved outdoor sales or display within a parking lot shall meet the required parking lot setback; provided the Planning Commission may require additional landscaping screening or ornamental fencing.**

The current site plan complies with this standard.

- 5. The site shall include a building of at least five hundred (500) feet of gross floor area for office use in conjunction with the use.**

The existing building contains 121,265 square feet of floor area.

- 6. All loading and truck maneuvering shall be accommodated on-site.**

This standard is met.

- 7. All outdoor storage area property lines adjacent to a residential district shall provide a buffer zone A as described in Section 12.02. A buffer zone B shall be provided on all other sides. The Planning Commission may approve a six (6) foot high screen wall or fence, or a four (4) foot high landscaped berm as an alternative.**

The current plan notes a 20-foot greenbelt area along Grand Oaks, a 20-foot buffer zone B along Grand River and a 10-foot buffer zone C along a portion of the west side lot line. However, there is no indication of the landscaping/screening contained within these areas.

The applicant must provide additional detail demonstrating compliance with this standard.

- 8. The height of all material and equipment stored in an outdoor storage area shall not exceed the height of any landscape screening, wall or fence. Boats and recreational vehicles may exceed the height of the fence provided that they are setback from the fence a distance equal to their height. Storage of materials up to the height of the adjacent building wall may be permitted in the rear yard if it is illustrated on the site plan, the rear yard does not abut a residential district, will not be visible from an expressway and such storage is confined to within twenty (20) feet of the building.**

The primary concern under this standard is the height of material/equipment in relation to screening for the 3 proposed areas within the current parking lot.

The applicant must provide additional information/details demonstrating compliance with this standard.

E. Site Plan Review

- 1. Dimensional Requirements.** The current submittal complies with the dimensional requirements of the Zoning Ordinance.

Additionally, the plans now include dimensions for each of the 13 areas proposed, as requested by the Commission. If approved, the applicant will be held to these locations/dimensions and any expansion will be treated as a violation or will require submittal of an amended site plan in accordance with the provisions of the Township Zoning Ordinance.

- 2. Parking.** We found several discrepancies between the parking calculations and site plan. The following instances are of note:

- There are 452 existing spaces for Home Depot, though 488 are noted;
- The temporary seasonal sales display area will result in the loss of 51 spaces, as opposed to the 39 noted; and
- The expanded outdoor areas result in the need for 8 spaces, as opposed to the 5 noted.

It is also unclear whether the square footage of the Garden Center and Seasonal Sales Area are included in the building area of 121,263.

Based on our counts, the loss of parking for this proposal will take the site below the minimum parking requirements of the Ordinance. More specifically, the site would end up with 376 spaces, while 389 appear to be required.

Pending revised calculations/additional detail from the applicant, some of the banked parking may need to be constructed to accommodate the proposal.

- 3. Pedestrian Circulation.** The “plant seasonal display area” towards the south end of the building is situated in front of doors, while the “S/O fence display area” towards the north end is located immediately outside of the exit doors. The remaining areas do not appear to block/disrupt pedestrian circulation.
- 4. Vehicular Circulation.** The current plan provides sufficient drive aisle widths per Ordinance requirements (24-foot minimum).
- 5. Impact Assessment.** The submittal includes a revised Impact Assessment (dated 8/8/19), which states that the project is not anticipated to adversely impact natural features, public services/utilities, surrounding land uses or traffic.

Should you have any questions concerning this matter, please do not hesitate to contact our office. I can be reached by phone at (248) 586-0505, or via e-mail at bborden@safebuilt.com.

Respectfully,
SAFE BUILT STUDIO



Brian V. Borden, AICP
Planning Manager



August 30, 2019

Ms. Kelly Van Marter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

Re: Home Depot Outdoor Storage Site Plan Review No. 3

Dear Ms. Van Marter:

Tetra Tech has conducted a third site plan review of the Home Depot site plan and special land use application submitted on August 15, 2019. The site plans last dated August 7, 2019, were prepared by Scott A. Mommer Consulting on behalf of Home Depot U.S.A., Inc. The development includes 15.1 acres at 3330 East Grand River Avenue. The petitioner is requesting a special land use for additional outdoor storage areas totaling 5,898 square feet.

The Petitioner revised their site plan to include a temporary drive aisle next to the proposed temporary seasonal sales display area to replace the existing aisle and maintain flow of traffic. This revision addresses the comment from our previous letter, and we have no further engineering related concerns to the proposed outdoor storage plans.

Please call or email if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Gary Markstrom'.

Gary J. Markstrom, P.E.
Vice President

A handwritten signature in blue ink, appearing to read 'Shelby Scherdt'.

Shelby Scherdt
Project Engineer

Tetra Tech

401 South Washington Square, Suite 100, Lansing, MI 48933
Tel 517.316.3930 Fax 517.484.8140 www.tetrattech.com



BRIGHTON AREA FIRE AUTHORITY

615 W. Grand River Ave.
Brighton, MI 48116
o: 810-229-6640 f: 810-229-1619

August 19, 2019

Kelly VanMarter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

RE: Home Depot (outdoor storage)
3330 E. Grand River
Genoa Twp., MI

Dear Kelly:

The Brighton Area Fire Department has reviewed the above-mentioned site plan. The plans were received for review on August 16, 2019, and the drawings are dated June 10, 2019, with a revision date of August 7, 2019. The project is based on an existing Mercantile-use. The facility has applied for a special land-use permit to increase the quantity of outside storage in the front and rear of the store.

The plan review is based on the requirements of the International Fire Code (IFC) 2018 edition.

All areas of concern have been substantially addressed and revisions made to reflect them.

The fire authority has no further comments regarding the proposal as submitted.

Additional comments will be given during the building plan review process (specific to the building plans and occupancy). The applicant is reminded that the fire authority must review the fire protection systems submittals (sprinkler & alarm) prior to permit issuance by the Building Department and that the authority will also review the building plans for life safety requirements in conjunction with the Building Department. If you have any questions about the comments on this plan review please contact me at 810-229-6640.

Cordially,

A handwritten signature in black ink, appearing to read "R. Boisvert".

Rick Boisvert, CFPS
Fire Marshal

Environmental Impact Assessment
For
Home Depot – Special Land Use Application

- a. **Name(s) and address(es) of person(s) responsible for preparation** of the impact assessment and a brief statement of their qualifications.

Scott A. Mommer

4694 W. Jacquelyn Ave.

Fresno, CA 93722

Scott Mommer is a Professional Engineer and has been involved with the industry for over 30 years. He has prepared Environmental Impact Assessments and Initial Studies for a broad range of projects from commercial, industrial, and residential. He has also prepared and assisted in EIR Assessments related to ground water contamination of heavy metals and gasoline to meet various State requirements. Mr. Mommer has also been responsible for preparing Permits of storage of hazardous materials, tractor repairs on soils, and Discharge Permits (SWPPP).

- b. **Map(s) and written description/analysis of the project site** including all existing structures, manmade facilities, and natural features. The analysis shall also include information for areas within 10 feet of the property. An aerial photograph or drawing may be used to delineate these areas.

The site is an existing Home Depot building. Within 10 feet of the property is E Grand River Avenue to the North, Discount Tire to the East, a commercial/industrial building the South, and vacant land to the West.



c. **Impact on natural features:** A written description of the environmental characteristics of the site prior to development and following development, i.e., topography, soils, wildlife, woodlands, mature trees (eight-inch caliper or greater), wetlands, drainage, lakes, streams, creeks or ponds. Documentation by a qualified wetland specialist shall be required wherever the Township determines that there is a potential regulated wetland. Reduced copies of the Existing Conditions Map(s) or aerial photographs may accompany written material.

There will not an impact to natural features with the proposed Use, as the Home Depot property is fully developed. The request is for additional display areas to the existing Home Depot.

d. **Impact on stormwater management:** Description of measures to control soil erosion and sedimentation during grading and construction operations and until a permanent ground cover is established. Recommendations for such measures may be obtained from the Livingston County Drain Commission at (517) 546-0040.

There will be no grading or construction operations that would create soil erosion or sedimentation.

e. **Impact on surrounding land used:** Description of the types of proposed uses and other man-made facilities, including any project phasing, and an indication of how the proposed use conforms or conflicts with existing and potential development patterns. A description shall be provided of any increases of light, noise or air pollution which could negatively impact adjacent properties.

The proposed Use is consistent with the Commercial nature of the surrounding land uses. The proposed Use is for additional display areas for rental equipment and staging areas for deliveries. The equipment will not be used or maintained on the property.

f. **Impact on public facilities and services:** Describe the number of expected residents, employees, visitors, or patrons, and the anticipated impact on public schools, police protection and fire protection. Letters from the appropriate agencies may be provided, as appropriate.

The site is an existing Home Depot and the proposed Use would be for rental for customers. The site will not impact the existing fire, police, and EVA's; therefore, there will be no change to the site conditions affecting these services. No effect to the School District.

g. **Impact on public utilities:** Describe the method to be used to service the development with water and sanitary sewer facilities, the method to be used to control drainage on the site and from the site, including runoff control during periods of construction. For sites serviced with sanitary sewer, calculations for pre- and post development flows shall be provided in comparison with sewer line capacity. Expected sewage rates shall be provided in equivalents to a single family home. Where septic systems are proposed, documentation or permits from the Livingston County Health Department shall be provided.

Existing services for water, sewer, and refuse will not be altered and no additional services being proposed or requested.

h. **Storage and handling of any hazardous materials:** A description of any hazardous substances expected to be used, stored or disposed of on the site. The information shall describe the type of materials, location within the site and method of containment. Documentation of compliance with federal and state requirements, and a Pollution Incident Prevention Plan (PIPP) shall be submitted.

There will be no storage or handling of hazardous material.

Any stockpiles of soils, fertilizer or similar loosely packaged materials will be wrapped in visqueen for not only protection of the material, but to the environment.

- i. **Impact on Traffic and Pedestrians:** A description of the traffic volumes to be generated based on national reference documents, such as the most recent edition of the *Institute of Transportation Engineers Trip Generation Manual*, other published studies or actual counts of similar uses in Michigan. A detailed traffic impact study shall be submitted for any site over ten (10) acres in size which would be expected to generate 100 directional vehicle trips (i.e. 100 inbound or 100 outbound trips) during the peak hour of traffic of the generator or on the adjacent streets. The contents of the detailed study shall include:
The total proposed square footage display areas are 5,898.5 SF. Therefore, the proposed uses are expected create seven (9) AM peak trips and twelve (14) PM peak trips (91 inbound and 91 outbound).
Source: ITE Trip Generation Rates - 9th Edition

The proposed display areas will not disrupt proper and safe vehicular access. The proposed display areas are either on existing paved surface or are to be within existing parking stalls; the display areas will not impact aiseways or driveway paths. The proposed temporary seasonal sales area in the parking lot will be surrounded by temporary fencing to ensure safe access and walkway for pedestrian and prohibit access through the aisles to vehicles.

- j. **Special Provisions:** General description of any deed restrictions, protective covenants, master deed or association bylaws.
N/A.

RECEIVED
By Amy Ruthig at 2:45 pm, Aug 15, 2019 GC

OUTDOOR STORAGE PLAN FOR TOOL RENTAL EQUIPMENT AREA HOWELL, MI

SCOTT A. MOMMER CONSULTING
LAND DEVELOPMENT SERVICES
4694 WEST JACQUELYN AVENUE - FRESNO, CA 93722
TEL: 559 978-1000 FAX: 559 276-0850 SMOMMER@SCOTTMOMMER.COM

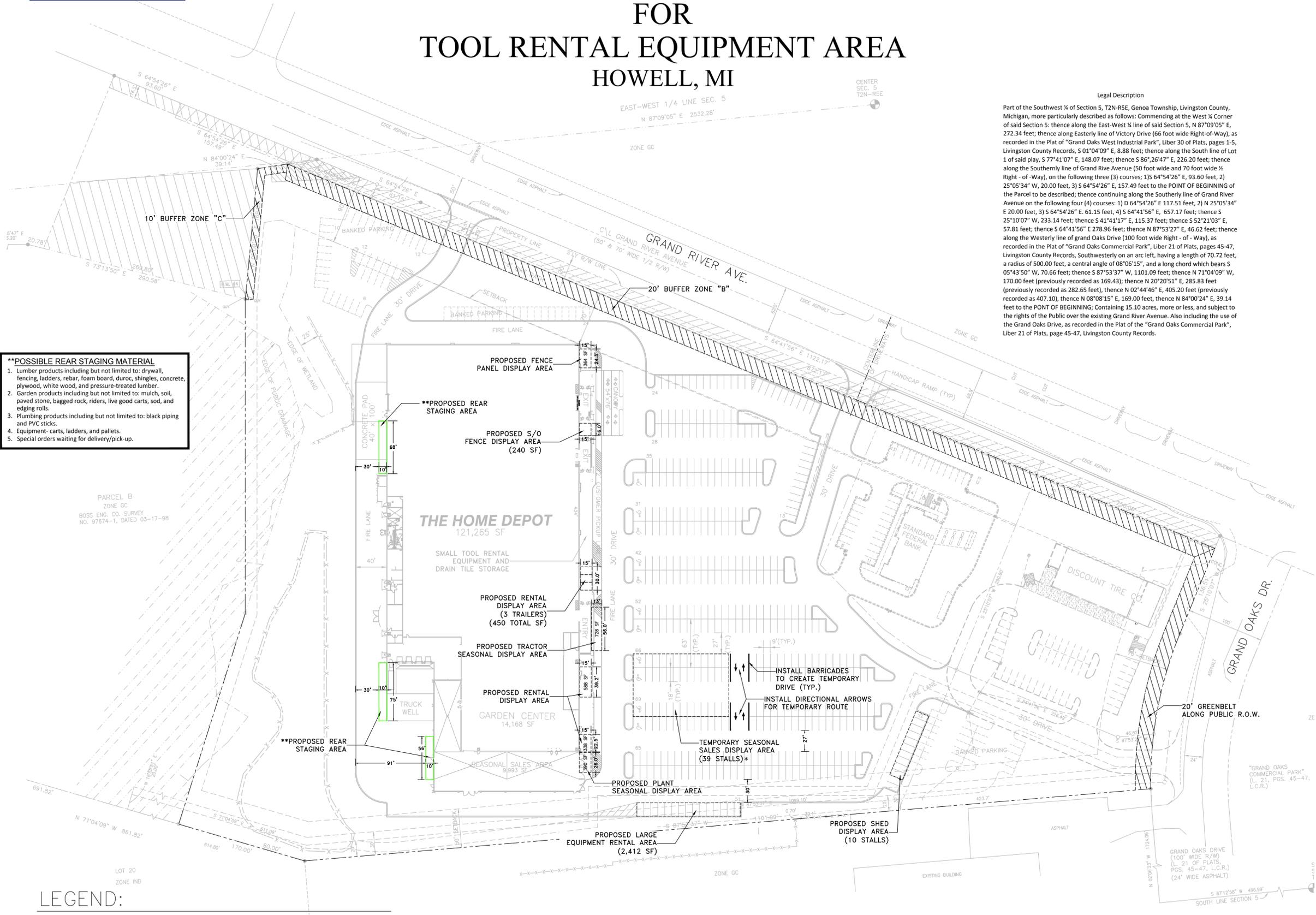


VICINITY MAP
NOT TO SCALE

PROJECT INFORMATION

HOME DEPOT SITE DATA	
HOME DEPOT AREA	15.10 AC
HOME DEPOT BUILDING AREAS	
HOME DEPOT BUILDING	121,265 SF
GARDEN CENTER	+14,168 SF
TOTAL HD BUILDING AREA	135,433 SF
ZONING INFORMATION	
APN:	11-05-300-027
ZONING:	RCD (REGIONAL COMMERCIAL DISTRICT)
LAND USE:	REGIONAL COMMERCIAL

Legal Description
Part of the Southwest ¼ of Section 5, T2N-R5E, Genoa Township, Livingston County, Michigan, more particularly described as follows: Commencing at the West ¼ Corner of said Section 5; thence along the East-West ¼ line of said Section 5, N 87°09'05" E, 272.34 feet; thence along Easterly line of Victory Drive (66 foot wide Right-of-Way), as recorded in the Plat of "Grand Oaks West Industrial Park", Liber 30 of Plats, pages 1-5, Livingston County Records, S 01°04'09" E, 8.88 feet; thence along the South line of Lot 1 of said plat, S 77°41'07" E, 148.07 feet; thence S 86°26'47" E, 226.20 feet; thence along the Southernly line of Grand River Avenue (50 foot wide and 70 foot wide ½ Right-of-Way), on the following three (3) courses; 1) S 64°54'26" E, 93.60 feet, 2) 25°05'34" W, 20.00 feet, 3) S 64°54'26" E, 157.49 feet to the POINT OF BEGINNING of the Parcel to be described; thence continuing along the Southernly line of Grand River Avenue on the following four (4) courses: 1) D 64°54'26" E 117.51 feet, 2) N 25°05'34" E 20.00 feet, 3) S 64°54'26" E, 61.15 feet, 4) S 64°41'56" E, 657.17 feet; thence S 25°10'07" W, 233.14 feet; thence S 41°41'17" E, 115.37 feet; thence S 52°21'03" E, 57.81 feet; thence S 64°41'56" E 278.96 feet; thence N 87°53'27" E, 46.62 feet; thence along the Westerly line of Grand Oaks Drive (100 foot wide Right-of-Way), as recorded in the Plat of "Grand Oaks Commercial Park", Liber 21 of Plats, pages 45-47, Livingston County Records, Southwesterly on an arc left, having a length of 70.72 feet, a radius of 500.00 feet, a central angle of 08°06'15", and a long chord which bears S 05°43'50" W, 70.66 feet; thence S 87°53'37" W, 1101.09 feet; thence N 71°04'09" W, 170.00 feet (previously recorded as 169.43); thence N 20°20'51" E, 285.83 feet (previously recorded as 282.65 feet), thence N 02°44'46" E, 405.20 feet (previously recorded as 407.10), thence N 08°08'15" E, 169.00 feet, thence N 84°00'24" E, 39.14 feet to the POINT OF BEGINNING; Containing 15.10 acres, more or less, and subject to the rights of the Public over the existing Grand River Avenue. Also including the use of the Grand Oaks Drive, as recorded in the Plat of the "Grand Oaks Commercial Park", Liber 21 of Plats, page 45-47, Livingston County Records.



- **POSSIBLE REAR STAGING MATERIAL**
- Lumber products including but not limited to: drywall, fencing, ladders, rebar, foam board, duroc, shingles, concrete, plywood, white wood, and pressure-treated lumber.
 - Garden products including but not limited to: mulch, soil, paved stone, bagged rock, riders, live good carts, sod, and edging rolls.
 - Plumbing products including but not limited to: black piping and PVC sticks.
 - Equipment- carts, ladders, and pallets.
 - Special orders waiting for delivery/pick-up.

LEGEND:

- TOOL RENTAL CENTER DISPLAY AREA
- 6" WIDE GREEN PAINT STRIPING

* AREA DESIGNATED IN PARKING LOT THROUGH SPRING/SUMMER SEASON TO CREATE A PLANT LAYDOWN & MULCH RUN.

SITE PLAN NOTES:

REVISION NOTES:

COVER SHEET

DATE: 6/10/2019
REVISION DATES: 8/7/2019
SITE PLANNER: DEREK FINNEGAN
SITE DEV. COORDINATOR: SCOTT MOMMER
R. E. MARKET
R. E. AGENDA NAME
R. E. MANAGER



**MI - HOWELL
STORE #2751**

ADDRESS: 3330 E GRAND RIVER AVE
HOWELL, MI 48843

LA PROJECT NUMBER 19029.00



PLAN VIEW
SHEET 1 OF 3

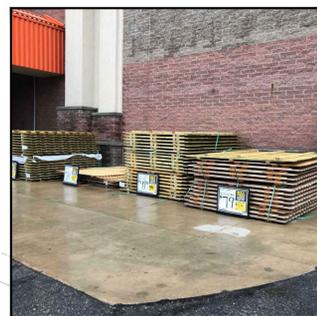


VICINITY MAP
NOT TO SCALE

PROJECT INFORMATION

HOME DEPOT SITE DATA	
HOME DEPOT AREA	15.10 AC
HOME DEPOT BUILDING AREAS	
HOME DEPOT BUILDING	121,265 SF
GARDEN CENTER	+ 14,168 SF
TOTAL HD BUILDING AREA	135,433 SF
PARKING REQUIRED PER CITY CODE	381 STALLS
*HOME DEPOT (@ 1/300 SF) GFA	
OUTDOOR COMMERCIAL DISPLAY AND SALE (@ 1/800 SF OF DISPLAY AREA)	+ 5 STALLS
TOTAL PARKING REQUIRED	386 STALLS
* BASED ON GLA PER ZONING ORDINANCE = 114,424 SF	
PARKING PROVIDED	
SPACES PROVIDED	488 STALLS
BANKED PARKING SPACES	84 STALLS
LESS SHED DISPLAY	- 10 STALLS
LESS EQUIPMENT RENTAL AREA	- 15 STALLS
LESS TEMPORARY SEASONAL SALES	- 39 STALLS
TOTAL PROVIDED	508 STALLS
ZONING INFORMATION	
APN:	11-05-300-027
ZONING:	RCD (REGIONAL COMMERCIAL DISTRICT)
LAND USE:	REGIONAL COMMERCIAL
BUILDING COVERAGE (35% MAX):	20.6%
IMPERVIOUS SURFACE RATIO (75% MAX):	66.3%

- **POSSIBLE REAR STAGING MATERIAL**
- Lumber products including but not limited to: drywall, fencing, ladders, rebar, foam board, duroc, shingles, concrete, plywood, white wood, and pressure-treated lumber.
 - Garden products including but not limited to: mulch, soil, paved stone, bagged rock, riders, live good carts, sod, and edging rolls.
 - Plumbing products including but not limited to: black piping and PVC sticks.
 - Equipment- carts, ladders, and pallets.
 - Special orders waiting for delivery/pick-up.



FENCE PANELS STORED OUTSIDE

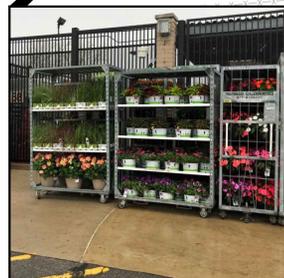


S/O FENCE DISPLAY WHICH IS LOCATED UNDER THE CANOPY BY THE PRO DOORS



TRACTORS TO BE STORED ON DISPLAY OUTSIDE THE FRONT ENTRANCE DURING THE SPRING/SUMMER SEASON.

- LEGEND:**
- TOOL RENTAL CENTER DISPLAY AREA
 - 6" WIDE GREEN PAINT STRIPING



PLANT RACKS & TABLES TO BE DISPLAYED OUTDOORS DURING SPRING/SUMMER SEASON.

* AREA DESIGNATED IN PARKING LOT THROUGH SPRING/SUMMER SEASON TO CREATE A PLANT LAYDOWN & MULCH RUN.



AREA DESIGNATED IN PARKING LOT TO DISPLAY SHEDS ALL YEAR ROUND.

PROPOSED OUTDOOR STORAGE AREA

DATE: 6/10/2019
 REVISION DATES: 8/7/2019
 SITE PLANNER: DEREK FINNEGAN
 SITE DEV. COORDINATOR: SCOTT MOMMER
 R. E. MARKET
 R. E. AGENDA NAME
 R. E. MANAGER



MI - HOWELL STORE #2751

ADDRESS: 3330 E GRAND RIVER AVE HOWELL, MI 48843

LA PROJECT NUMBER 19029.00





GENOA CHARTER TOWNSHIP
Application for Site Plan Review

TO THE GENOA TOWNSHIP PLANNING COMMISSION AND TOWNSHIP BOARD:

Partners in Architecture, PLC

APPLICANT NAME & ADDRESS: 65 Market Street, Mount Clemens, MI 48043

If applicant is not the owner, a letter of Authorization from Property Owner is needed.

Brighton Area Fire Department

OWNER'S NAME & ADDRESS: 615 W Grand River Avenue, Brighton, MI 48116

SITE ADDRESS: 2755 Dorr Road, Genoa Township, MI 48116 PARCEL #(s): 4711-14-300-022 TRACT "A"

APPLICANT PHONE: (586) 469-3600 OWNER PHONE: (810) 229-6640

OWNER EMAIL: mobrian@brightonareafire.com

LOCATION AND BRIEF DESCRIPTION OF SITE: Genoa Township fire station fronting Dorr Road

north of Crooked Lake Road, located on the southeast corner of Dorr Road and I-96.

BRIEF STATEMENT OF PROPOSED USE: A new addition to expand the capabilities of the existing

fire station located on the site and accommodate a Fire Academy.

THE FOLLOWING BUILDINGS ARE PROPOSED: An approximately 2,000 sq. ft. addition to the

north side of the existing fire station, and an approximately 9,000 sq. ft. addition to the south side.

I HEREBY CERTIFY THAT ALL INFORMATION AND DATA ATTACHED TO AND MADE PART OF THIS APPLICATION IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

BY: Dan Gwozdz, AIA, NCARB

ADDRESS: 65 Market Street, Mount Clemens, MI 48043

Contact Information - Review Letters and Correspondence shall be forwarded to the following:

1.) Dan Gwozdz, AIA, NCARB of Partners in Architecture, PLC at dgwozdz@partnersinarch.com
Name Business Affiliation E-mail Address

FEE EXCEEDANCE AGREEMENT

As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.

SIGNATURE:  DATE: 08/02/2019
PRINT NAME: Dan Gwozdz, AIA, NCARB PHONE: (586) 256-0869
ADDRESS: 65 Market Street, Mount Clemens MI 48043

September 3, 2019

Planning Commission
Genoa Township
2911 Dorr Road
Brighton, Michigan 48116

Attention:	Kelly Van Marter, AICP Planning Director and Assistant Township Manager
Subject:	Brighton Area Fire Authority – Site Plan Review #2
Location:	2755 Dorr Road – east side of Dorr Road, between Herbst and Crooked Lake Roads
Zoning:	PRF Public and Recreational Facilities District

Dear Commissioners:

At the Township’s request, we have reviewed the revised site plan submittal for a building expansion of the existing Township Fire Station on Dorr Road (plans dated 8/21/19).

A. Summary

1. If the land-banked parking is constructed, 1 additional barrier-free space will be required.
2. Once completed, the applicant must submit the lighting plan, including fixture cut sheets and photometric readings.
3. Once completed, the applicant must submit a more detailed landscape plan.
4. The proposed sign appears to be located in the Dorr Road right-of-way, which is not permitted.
5. Sign details must be provided.
6. The applicant must follow the standards for electronic changeable message (ECM) signs.
7. We are concerned about an ECM sign being located immediately across the street from a residence.

B. Proposal/Process

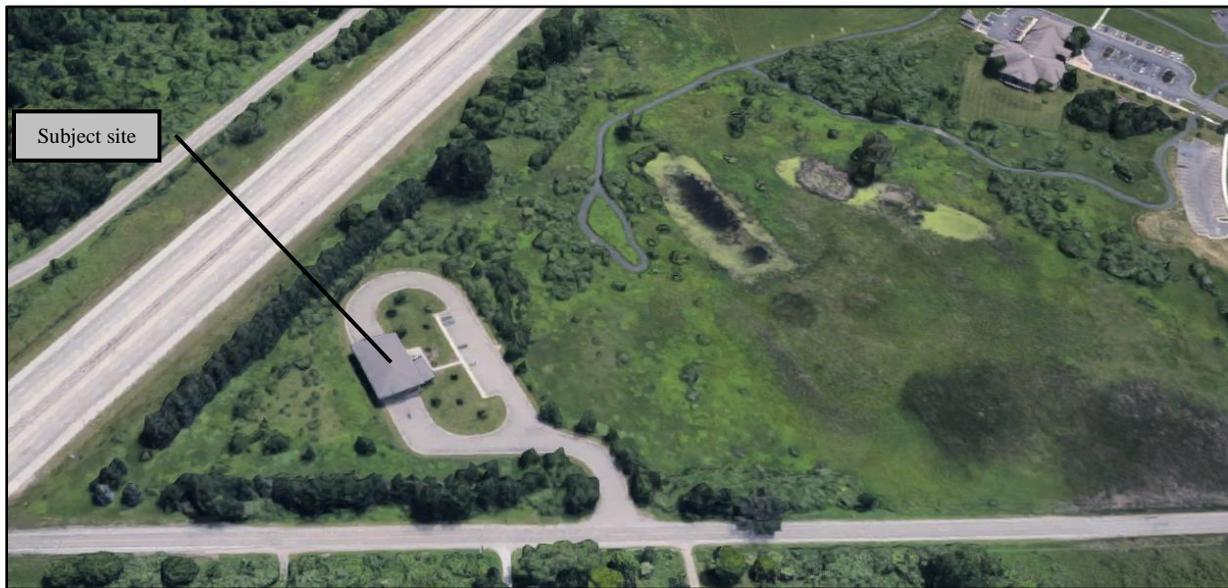
The applicant proposes approximately 11,000 square feet of addition to the existing Fire Station building on Dorr Road. The proposal also includes improvements to other exterior site elements (parking, landscaping, lighting, signage, etc.).

Township buildings are permitted by right in the PRF. As such, the proposal requires only site plan review/approval by the Planning Commission.

C. Site Plan Review

- 1. Dimensional Requirements.** Dimensional standards in the PRF District (Section 6.03) are tied to the most restrictive requirement of an adjacent land use/zoning. In this instance, the property across Dorr Road to the west is zoned LDR, while the properties to the southeast, and adjacent to the other side of the Township Hall property, are zoned AG.

The property contains approximately 8.1 acres of lot area and the proposed building exceeds minimum setback requirements from each lot line, as well as from existing wetlands. Proposed building heights are also well within that allowed by Ordinance.



Aerial view of site and surroundings (looking east)

- 2. Building Materials and Design.** The revised building elevation drawings include color renderings, as well as building material calculations. The proposed building utilizes several materials, including brick, metal panels, fiber cement siding, plain CMU, split-face CMU and cast stone.

The building is predominantly brick and the calculations provided demonstrate compliance with the standards of Section 12.01.

The Planning Commission has review/approval authority over building design, including materials and colors.

- 3. Pedestrian Circulation.** A 7-foot wide concrete sidewalk is depicted around 3 sides of the main (south of the apparatus bay) building, providing connections between the parking lot and building entrances.

Public sidewalks are not currently provided, nor are they required (Section 12.05) or planned (Pathway Plan), along this portion of Dorr Road.

- 4. Vehicular Circulation.** The property will retain the existing curb cut and a 2nd is proposed 195 feet to the north. The existing drive will provide access to the entire site, while the new drive will primarily be intended for emergency vehicles to quickly exit the site.

Drive aisles throughout the site exceed minimum Ordinance standards and a turning radius plan has been included demonstrating that larger emergency vehicles can adequately navigate the site.

- 5. Parking.** The parking calculations included with the submittal indicate that 43 spaces are required. The plan provides 43 spaces and 9 land-banked spaces.

The layout of the proposed parking meets or exceeds the dimensional standards of Section 14.06, and the revised plan incorporates double-striped spaces.

If the land-banked parking is constructed, the lot will need to provide 1 additional barrier-free space to remain in compliance with Ordinance standards. The applicant has acknowledged this requirement.

- 6. Exterior Lighting.** The site plan identifies 6 parking lot light poles. There are 2 additional poles associated with the land-banked parking between Dorr Road and the building. The Impact Assessment also notes that wall mounted fixtures will be provided.

The cover letter included with the revised submittal indicates that a full lighting plan is being prepared, though the Impact Assessment notes that the proposed lighting includes LED fixtures that are downward directed and shielded. Parking lot light poles are noted at a height of 25 feet, which complies with Section 12.03.

- 7. Landscaping.** The site contains large, tightly spaced rows of evergreen trees along the Dorr Road and I-96 frontages. The plan preserves the vast majority of these existing trees, although the area between the driveways will be cleared and replanted with 5 trees.

The plan also depicts 4 trees in the landscaped areas between the building and parking lot. The cover letter included with the revised submittal indicates that a more detailed landscape plan is being prepared.

- 8. Signage.** The site plan identifies a proposed monument/electronic sign along Dorr Road; however, no details are provided. For the applicant's reference, Table 16.01 provides the conventional regulations for monument signs, while Section 16.07.02 provides specific requirements for electronic changeable message signs.

The sign appears to be located in the Dorr Road right-of-way, which is not allowed.

Additionally, understanding the potential benefit of an electronic changeable message sign for a municipal facility, we are somewhat concerned over this type of sign being located directly across the street from an existing single-family residence.

- 9. Impact Assessment.** The submittal includes a revised Environmental Impact Assessment (dated August 21, 2019). In general, the document states that the proposed project is not expected to adversely impact natural features, public services/utilities, traffic or surrounding land uses.

Should you have any questions concerning this matter, please do not hesitate to contact our office. I can be reached by phone at (248) 586-0505, or via e-mail at bborden@safebuilt.com.

Respectfully,
SAFEBUILT STUDIO



Brian V. Borden, AICP
Planning Manager



September 3, 2019

Ms. Kelly Van Marter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

**Re: Brighton Area Fire Department Addition
Site Plan Review No. 2**

Dear Ms. Van Marter:

Tetra Tech conducted a second site plan review of the Brighton Area Fire Department Addition site plan last dated September 3, 2019. The plans were prepared by Partners in Architecture, PLC on behalf of Brighton Area Fire Department. The property includes 8.1 acres located on Dorr Road just south of I-96. The petitioner is proposing a 2,000 square foot addition to the north side of the existing fire station, and a 9,000 square foot addition to the south side. We offer the following comments:

GENERAL NOTES

1. Overall the plans should include more dimensioning of the proposed drive and parking lot including widths and radii of the drive.

SANITARY AND WATER SERVICES

1. The site plan should show the existing on-site sanitary sewer, as the building addition will interfere with the current connection and grinder pump location. The plans note that the existing grinder pump will be relocated, and the plans should show where the grinder pump will be relocated.
2. The demolition plan shows the removal/relocation of a sanitary manhole on the east corner of the property. If this manhole is to be relocated it should be shown on the plans.
3. The plans note that a new well will be designed for the fire station. The plans should show the proposed location and isolation radius of the well on the plans and should clearly show what will happen to the existing well. The Petitioner will need to provide approval from the Livingston County Health Department of the proposed well to the Township prior to approval. If it is decided that adequate well production will not be able to be achieved by the proposed well, the Petitioner may need to utilize a water tank instead and if so, the tank will need to be shown on the plans.

DRAINAGE AND GRADING

1. The proposed parking lot should include curb and gutter around the entire parking lot and drive, not just on the southern portion of the drive. The edge of the future training pad does not need to be curbed, but the training pad will need curb when it is eventually constructed.

Ms. Kelly Van Marter
Re: Brighton Fire Department Building Addition
Site Plan Review No. 2
September 3, 2019
Page 2

We recommend the Petitioner address the above comments and resubmit the site plan for review and approval.

Please call or email if you have any questions.

Sincerely,



Gary J. Markstrom, P.E.
Vice President



Shelby Scherdt
Project Engineer



BRIGHTON AREA FIRE AUTHORITY

615 W. Grand River Ave.
Brighton, MI 48116
o: 810-229-6640 f: 810-229-1619

August 29, 2019

Kelly VanMarter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

RE: BAFA Fire Station 34
2755 Dorr Road
Genoa Twp., MI

Dear Kelly:

The Brighton Area Fire Department has reviewed the above-mentioned site plan. The plans were received for review on August 22, 2019, and the drawings are dated August 21, 2019. The project is based on an existing S-2 Occupancy used as a fire station. The current structure is located on an approximately 8.105-acre parcel. The site plan calls for two additions to the existing structure, one to the north and one to the south. The north addition will be approximately 2,00 square feet and the south addition will be approximately 9,000 square feet. The plan review is based on the requirements of the International Fire Code (IFC) 2018 edition.

1. The area is not provided with municipal water, therefore, an alternative means of fire flow will be provided through a fire suppression tank. The location, size, and details of the tank shall be provided and approved by the fire authority. **This item has been addressed in the review comments paperwork included in the latest submittal. Future submittals will be made referencing the addition of a 20,000 gallon onsite water supply.**
2. The building shall be provided with an automatic sprinkler system in accordance with NFPA 13, *Standard for the Installation of Automatic Sprinkler Systems*. **This item has been addressed and the building will be equipped with an automatic sprinkler system.**

IFC 903

 - A. The FDC shall be located on the front of the building (Dorr Rd). **FDC has been noted to be placed on the Dorr Rd side of the building.**
3. The building shall include the building address on the building. The address shall be a **minimum of 6"** high letters of contrasting colors and be clearly visible from the street. The location and size shall be verified prior to installation. **Updated plan set shows 2 proposed address locations. Final design is currently in progress.**

IFC 505.1
4. The access roads are provided are compliant with width requirements. The building side to the north shall be marked as a fire lane. Include the location of the proposed fire lane signage and include a detail of the fire lane sign in the submittal. Access roads to the site shall be provided and maintained during construction. Access roads shall be constructed to be capable of supporting the imposed load of fire apparatus weighing at least 84,000 pounds. **This has been addressed in review comments letter.**

IFC D 103.6
IFC D 103.1
IFC D 102.1



August 29, 2019

Page 2

BAFA Station 34

2755 Dorr Rd.

Site Plan Review

IFC D 103.3

5. Access around building shall provide emergency vehicles with an inside turning radius of 30-feet and an outside radius of 50-feet. Provide an emergency vehicle circulation based on the provided details. **An apparatus turning radius plan has been added to the site submittal package. The radius plan shows the access from the south drive into the parking lot and into the apparatus bay. There is currently no vehicle circulation shown for the drives on the north side of the property.**

IFC 506.1

Additional comments will be given during the building plan review process (specific to the building plans and occupancy). The applicant is reminded that the fire authority must review the fire protection systems submittals (sprinkler & alarm) prior to permit issuance by the Building Department and that the authority will also review the building plans for life safety requirements in conjunction with the Building Department. If you have any questions about the comments on this plan review please contact me at 810-229-6640.

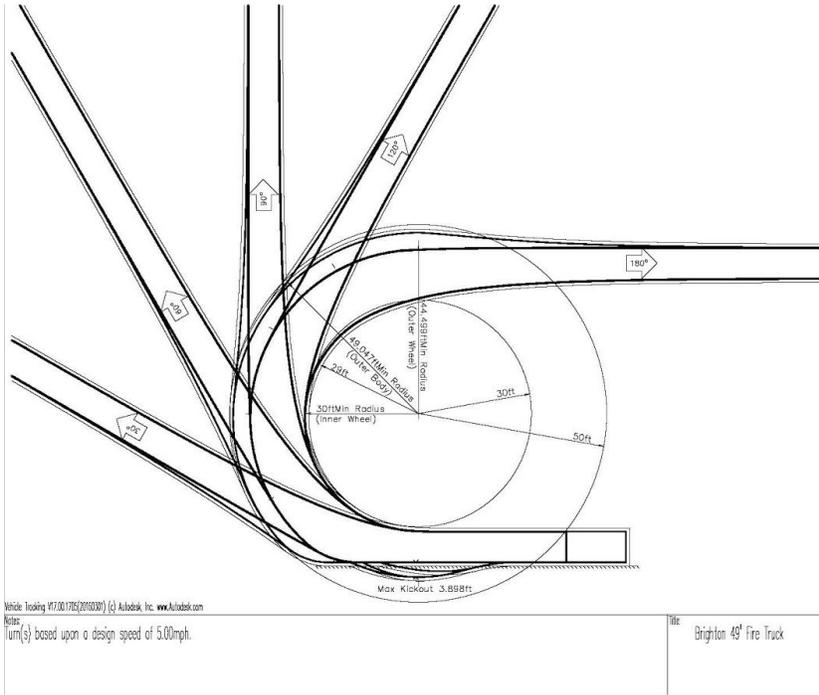
Cordially,

A handwritten signature in black ink that reads "D Bunge".

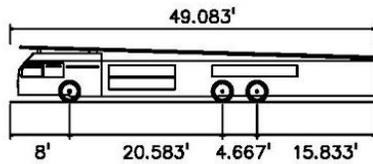
Derrick Bunge
Captain Fire Inspector



August 29, 2019
 Page 3
 BAFA Station 34
 2755 Dorr Rd.
 Site Plan Review



FIRE TRUCK TURNING RADII
 1"=30'



Brighton 49' Fire Truck	49.083ft
Overall Length	49.083ft
Overall Width	8.167ft
Overall Body Height	7.500ft
Min Body Ground Clearance	0.750ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Steering Angle (Virtual)	45.00°

FIRE TRUCK DETAIL
 NOT TO SCALE



August 29, 2019

Page 4

BAFA Station 34

2755 Dorr Rd.

Site Plan Review

IMPACT ASSESSMENT

GENOA TOWNSHIP FIRE STATION

SW ¼, SECTION 14, T2N-R5E,
GENOA TOWNSHIP, LIVINGSTON COUNTY

Prepared for:

Genoa Township

2911 Dorr Road

Brighton, Michigan 48116

(810) 227-5225

Prepared by:

Partners in Architecture, PLC

65 Market Street

Mount Clemens, Michigan 48043

(586) 469-3600

August 21, 2019

INTRODUCTION

The purpose of this Impact Assessment (IA) report is to show the effect that this proposed construction may have on various factors in the general vicinity of the subject parcel. Potential items of concern will be noted in this report along with the proposed methods for addressing each noted item. The format used for the preparation of this IA report conforms to the Submittal Requirement for Impact Assessment/Impact Statement guidelines in accordance with Section 13.05 of the published Zoning Ordinance for Genoa Township, Livingston County, Michigan.

A. Name and address of person responsible for preparation of the Impact Assessment and a brief statement of the qualifications.

Prepared by:
Partners in Architecture, PLC
Dan Gwozdz, AIA, NCARB
65 Market Street
Mount Clemens, Michigan 48043
(586) 469-3600

Prepared for:
GENOA TOWNSHIP
2911 Dorr Road
Brighton, Michigan 48116
(810) 227-5225

B. Description of the site, including existing structures, manmade facilities and natural features, all-inclusive to within 10' of the property boundary.

The site is located at the east side of Dorr Road, north of Crooked Lake Road and south of 1-96 in the west ½ of the southwest ¼ of Section 14, T2N-R5E, Genoa Township, Livingston County, Michigan. The proposed construction will be an approximately 11,000 sq. ft. addition to the existing fire station located at the northwest corner of a 8.1± acre parcel just north of the Genoa Township Hall site. The area between the two parcels is wetland. The area proposed for the fire station addition slopes from the north, elevation 990, to the wetlands to the south, elevation 957. The wetland drains through a culvert under Dorr Road.

Dorr Road is a 2-lane paved public road with ditches. A pine tree row exists parallel to the east side of Dorr Road; however, a portion of pine tree row prohibits a street presence for the Fire Station. It is proposed to eliminate a portion of the pine tree row between the existing curb cut and new to allow a visual connection between the public and Station 34. There is also a pine tree row parallel to 1-96 and the northerly property line extending from the northwest property corner 700' southeasterly. Several other species of trees dot the perimeter of the parcel, the interior of the parcel is open field.

C. Impact on Natural Features: A written description of the environmental characteristics of the site prior to development and following development, i.e., topography, soils, vegetative cover, drainage, streams, creeks or ponds.

As mentioned, the site slopes from elevation 990 at the northwest corner south to the wetlands at elevation 957. As shown on the U.S.DA Soil Conservation service "Soil Survey of Livingston County, Michigan", the on-site soils consist of:

Miami Loam (MOB) - Typically well-drained soils found on till plains and moraines; with soil slopes of 2-6%. Surface runoff is slow, permeability is moderate and soil erosion hazard is slight.

Miami Loam (MOC) - Typically well-drained soils found on till plains and moraines, with soil slopes of 6-12%. Surface runoff is medium, permeability is moderate and soil erosion hazard is moderate.

Fox-Boyer Complex (FrB) - Typically well-drained soils found on outwash plains, valley trains and moraines with slopes of 2-6%. Surface runoff is slow, permeability is moderate and soil erosion hazard is slight.

Carlisle Muck (Cc) - Typically very poorly drained soils found in depressed areas of till plains, moraines, glacial drainage ways and lake plains. Surface runoff is slow to ponded, permeability is moderately rapid and the hazard of soil blowing is severe.

The National Wetlands Inventory Plan prepared by the United States Department of the Interior, Fish and Wildlife Service indicates there is (1) Palustrine open water wetland near the center of the 46±acre parcel. All building construction and grading will be north of this wetland. The west and northerly property lines are lined by pine tree rows mixed with several other species. The balance of the site is open grassland. Stormwater drains from north to south by sheet flow and the ditch parallel to Dorr Road to the on-site wetland and through the culvert under Dorr Road. A retention pond is being utilized to control runoff per the Livingston County Drain Commission standards.

D. Impact on Stormwater Management: Description of Soil Erosion Control Measures During Construction.

Surface runoff during periods of construction will be controlled by proper methods set forth by the Livingston County Drain Commissioner, including silt fence and seed and mulch.

E. Impact on Surrounding Land Use: Description of proposed usage and other man-made facilities; how it conforms to existing and potential development patterns. Effects of added lighting, noise or air pollution, any proposed phasing.

The proposed usage will be an approximately 11,000 sq. ft. addition to the existing Township fire station. The proposed use is consistent with the Genoa Township Master Plan. In addition to the building, this fire station addition is proposed to contain an expanded parking lot and circulation drives and aisle ways and the expected impact will be minimized because of the following:

1. There are no major woodlands or other significant features on the site to be disturbed as is necessary to construct the site improvements.
2. The layout was prepared taking into account the topography to minimize the amount of earthwork required for the buildings and parking areas that will preserve the existing lay of the land. The site will be landscaped in accordance with Genoa Township standards and to provide an aesthetically pleasing site.
3. Soil erosion control measures such as silt fence and straw bale filters will be utilized during construction to control siltation and sedimentation from entering the wetland area.

The fire department is a paid-on-call service. During fire runs and drills there will be an increase in noise as volunteers arrive and fire vehicles leave. The station will be manned by full-time staff sometime in the future. The station will also house a training facility for academy recruits. During training there will be an increase in noise as trainees enter and exit the site and during outdoor training sessions.

The parking lighting will be 25' high poles with LED luminaries. Exterior building lights will be LED luminaries mounted on the building face. All lights will be shielded and directed down to eliminate glare off-site.

F. Impact on Public Facilities and Services: Description of number of residents, employees, patrons and the impact on general services, i.e., schools, police, fire.

No impact is anticipated on public facilities. To the contrary, this development will be an improvement to the existing public facilities and services.

G. Impacts on Public Utilities: Description of all public utilities serving the project, i.e., water, sanitary sewer and storm drainage control. Expected flows projected in residential equivalents.

The fire station addition will be serviced by a private well and the public sewer. The existing septic system will be modified as necessary to accommodate the additional needs and code requirements. The retention pond located south of the proposed building collects runoff from the site in accordance with the Livingston County Drain Commission standards.

H. Storage or Handling of Any Hazardous Materials: Description of any hazardous materials used, stored or disposed of on-site.

No hazardous materials are to be stored on-site.

I. Impact on Traffic and Pedestrians: Description of traffic volumes to be generated and their effect on the area.

Traffic impact aside from fire runs and drills will be minimal. During fire runs and drills, traffic will be temporarily halted to allow volunteers to enter and emergency vehicles to exit.

J. Special Provisions: Deed restrictions, protective covenants, etc.

None.

K. Description of all Sources

- GENOA TOWNSHIP ZONING ORDINANCE
- "SOIL SURVEY OF LIVINGSTON COUNTY, MICHIGAN", SOIL CONSERVATION SERVICE, U.S.D.A
- NATIONAL WETLANDS INVENTORY, U.S. DEPARTMENT OF INTERIOR FISH AND WILDLIFE SERVICE TRIP GENERATION, 5TH EDITION, INSTITUTE OF TRANSPORTATION ENGINEERS

FIRE STATION #34

BRIGHTON AREA FIRE AUTHORITY

PARTNERS



Architect:
Partners in Architecture, PLC
65 Market Street
Mount Clemens, MI 48043
(Phone) 586-469-3600

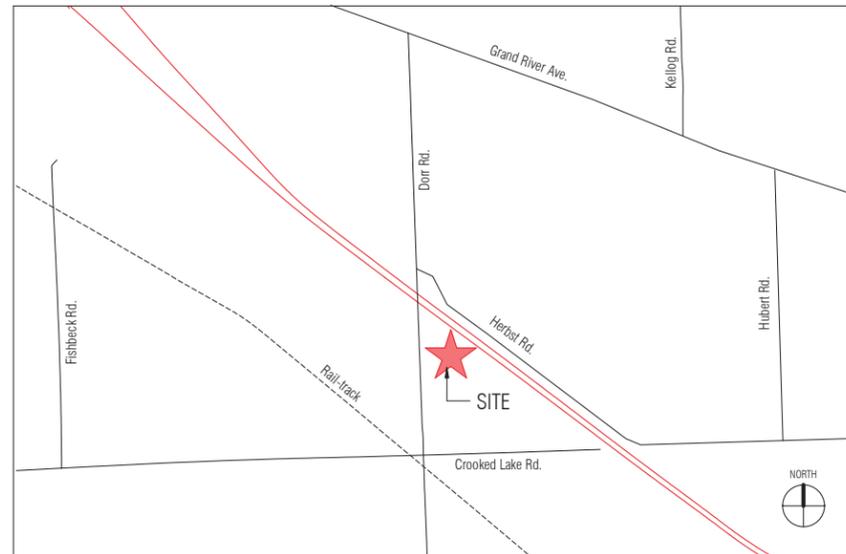
Owner:
Brighton Area Fire Authority
615 W Grand River Avenue
Brighton, MI 48116
(Phone) 810-229-6640

Landscape Architect:
J Eppink Partners, Inc.
9336 Shashabaw Road
Clarkston, MI 48348

Structural Engineer:
Shymanski & Associates, LLC.
33426 Five Mile Road
Livonia, MI 48154

Surveyor:
Boss Engineering
3121 E. Grand River
Howell, MI 48843

Civil Engineer:
Civil Engineering Solutions, Inc.
1150 Corporate Office Drive, Suite 210
Milford, MI 48381



LOCATION MAP

LEGAL DESCRIPTION:

The site is located at the east side of Dorr Road, north of Crooked Lake Road and south of 1-96 in the west 1/2 of the southwest 1/4 of Section 14, T2N-R5E, Genoa Township, Livingston County, Michigan. The proposed construction will be an approximately 11,000 sq. ft. addition to the existing fire station located at the northwest corner of a 8.1 ± acre parcel just north of the Genoa Township Hall site. The area between the two parcels is wetland. The area proposed for the fire station addition slopes from the north, elevation 990, to the wetlands to the south, elevation 957. The wetland drains through a culvert under Dorr Road.



3D VIEW - SOUTHWEST



3D VIEW - SOUTHEAST

Station 34 Addition		
2755 Dorr Road, Brighton MI 48116		
Zone:	PRF	Public & Recreational Facilities district
Land Use:	Governmental	Township Building
	The area or parcel of land for a permitted public facility shall be not less than required to provide adequate space for the principal and accessory buildings, off-street parking and other accessory uses, yards and open spaces to accommodate the facility and maintain the character of the neighborhood.	
Area:		Parcel is 8.105 acres
Max height:	35 ft or 2 stories	
Setback (Body of Water):	75 ft from wetlands	Building to be served by public sewer
Front Yard:	Equals most restrictive adjacent zoning	75 ft Agricultural (AG)
Side & Rear Yard:	Governmental	75 ft
	Wetlands	25 ft
	ROW	20 ft
Parking area setbacks:	Property lines	10 ft
Supplementary height regulations:	Flag poles	40 ft
	North	Rural Residential
	South	PRF
Zoning adjacencies	East	Agricultural (AG)
	West	Low Density Residential (LDR)
		1 per 250 sq. ft.
Parking totals:	Municipal office building	Gross floor area minus Apparatus Bay = 10,555 sq. ft. 10555/250 = 42.22 = 43

SHEET INDEX:

- A0-00S - COVER SHEET
- 1 - TOPOGRAPHICAL SURVEY
- C1 - LEGEND
- C2 - DEMOLITION PLAN
- C3 - LAYOUT AND UTILITY PLAN
- C4 - PAVING AND GRADING PLAN
- C5 - STORMWATER MANAGEMENT PLAN
- C6 - STORM SEWER PROFILES
- C7 - SOIL EROSION AND SEDIMENTATION CONTROL PLAN
- C8 - MISCELLANEOUS DETAILS
- C9 - ADJACENT ZONING PARCEL MAP
- L1-01 - LANDSCAPE PLANTING PLAN
- A2-01 - ARCHITECTURAL SITE PLAN
- A2-02 - TRUCK TURNING RADIUS PLAN
- A3-01 - GROUND FLOOR PLAN
- A3-02 - MEZZANINE FLOOR PLAN
- A5-01 - EXTERIOR ELEVATIONS
- A5-02 - EXTERIOR ELEVATIONS

PARTNERS



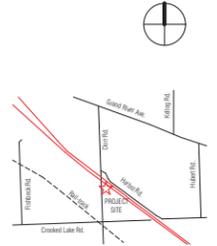
PARTNERS in Architecture, PLC
65 Market Street
Mount Clemens, MI 48043
P 586.469.3600
F 586.469.3607

Statement of Intellectual Property

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LOCATION MAP



OWNER

Brighton Area Fire Department

PROJECT NAME

Station #34 Addition and Renovation

2755 Dorr Road,
Genoa Township, MI 48116

PROJECT NO.

19-128

ISSUES / REVISIONS

ISSUES / REVISIONS	DATE
SITE PLAN REVIEW	08-02-2019
SITE PLAN REVIEW	08-21-2019
SITE PLAN REVIEW	09-03-2019

DRAWN BY

DJG

CHECKED BY

APPROVED BY

SHEET NAME

Site Plan Approval -
Cover Sheet

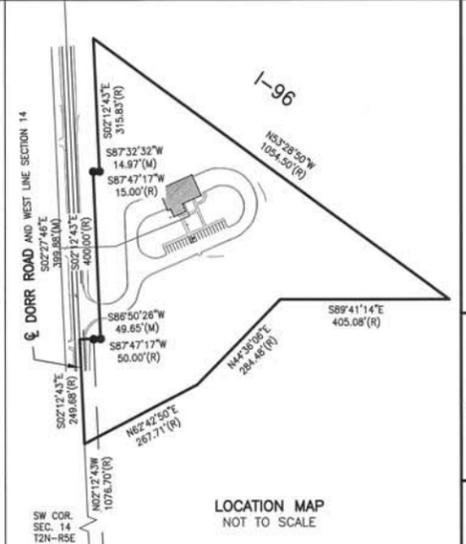
SHEET NO.

A0-00S

TOPOGRAPHICAL SURVEY

PROPERTY DESCRIPTION PER TETRA TECH SURVEY FOR GENOA CHARTER TOWNSHIP, DATED 6-17-19:

TRACT "A" DESCRIPTION (Fire Hall Parcel)
 A parcel of land in the Southwest Quarter of Section 14, Town 2 North, Range 5 East (Genoa Twp.), Livingston County, Michigan; Commencing at the Southwest Quarter Corner of Section 14 (0-7), and the approximate centerline of intersection of Dorr Road (variable width) and Crooked Lake Road (66-ft. wide); thence along the west line of the Southwest Quarter of Section 14, and the centerline of Dorr Road, North 2°12'43" West, 1076.70 feet to the Point of Beginning (said point being distant South 2°12'43" East, 1575.60 feet from the West 1/4 Corner of Section 14); thence leaving said section line, and road centerline, North 62°42'50" East, 36.44 feet to the east right-of-way line of Dorr Road, and a set 1/2" iron & cap #56048; thence continuing North 62°42'50" East, 287.71 feet to a set 1/2" iron & cap #56048; thence North 44°38'06" East, 284.48 feet to a set 1/2" iron & cap #56048; thence South 89°41'14" East, 405.08 feet to a set 1/2" iron & cap #56048 on the south right-of-way line of 1-96; thence along said right-of-way line, North 53°28'50" West, 1054.50 feet to a found 1/2" iron & cap #47055 on the east right-of-way line of Dorr Road; thence along said east right-of-way the following four courses: 1. South 2°12'43" East, 315.83 feet; 2. South 87°47'17" West, 15.00 feet to a found 1/2" iron & cap #47055; 3. South 2°12'43" East, 400.00 feet to a point 0.4' southeast of a found 1/2" iron & cap #56048; 4. South 87°47'17" West, 17.00 feet to a set 1/2" iron & cap #56048; Thence continuing South 87°47'17" West, 33.00 feet to a point on the west line of the Southwest Quarter of Section 14, and the approximate centerline of Dorr Road; thence along said section line and road centerline, South 2°12'43" East, 249.68 feet to the Point of Beginning, containing 8.105 acres (353071.9 sq. ft.) more or less.



BOSS Engineering
 Engineers Surveyors Planners Landscape Architects
 3121 E. GRAND RIVER AVE.
 HOWELL, MI. 48843
 517-546-4836 FAX 517-548-1670

Tag #	Botanical Name	Common Name	Size DBH	Condition	TBR
201	Ostrya virginiana	American Hophornbeam	5"	good	
202	Malus spp	Crabapple	6.4 3"	good	
203	Acer saccharum	Sugar Maple	7"	good	
204	Alnus glutinosa 'rassmattaz'	Variegated Alder	6-12"	good	
205	Malus spp	Crabapple	5"	good	
206	Malus spp	Crabapple	6"	poor	
207	Quercus alba	White Oak	9"	good	
208	Betula nigra	River Birch	6.6 7"	good	
209	Malus spp	Crabapple	6"	good	
210	Lilium americana	American Elm	6"	fair	
211	Lilium americana	American Elm	4"	fair	
212	Lilium americana	American Elm	8"	fair	
213	Robinia pseudoacacia	Black Locust	9.9 7 1/2"	poor	
214	Morus alba	White Mulberry	5"	good	
215	Populus deltoides	Cottonwood	6"	good	
216	Populus deltoides	Cottonwood	6"	good	
217	Populus deltoides	Cottonwood	8"	good	
218	Populus deltoides	Cottonwood	6"	good	
219	Populus deltoides	Cottonwood	6"	good	
220	Populus deltoides	Cottonwood	6"	good	
221	Populus deltoides	Cottonwood	6"	good	
222	Robinia pseudoacacia	Black Locust	13"	fair	
223	Populus deltoides	Cottonwood	8"	good	
224	Populus deltoides	Cottonwood	6"	fair	
225	Robinia pseudoacacia	Black Locust	6.5 4"	fair	
226	Populus deltoides	Cottonwood	9"	good	
227	Populus deltoides	Cottonwood	8"	good	
228	Populus deltoides	Cottonwood	8"	good	
229	Populus deltoides	Cottonwood	14"	good	
230	Populus deltoides	Cottonwood	8-12"	good	
231	Populus deltoides	Cottonwood	9"	good	
232	Populus deltoides	Cottonwood	9"	good	
233	Robinia pseudoacacia	Black Locust	9"	fair	
234	Robinia pseudoacacia	Black Locust	14"	fair	
235	Populus deltoides	Cottonwood	14"	good	
236	Populus deltoides	Cottonwood	12"	good	
237	Populus deltoides	Cottonwood	10"	good	
238	Populus deltoides	Cottonwood	7"	fair	
239	Populus deltoides	Cottonwood	6"	fair	
240	Populus deltoides	Cottonwood	6"	fair	
241	Populus deltoides	Cottonwood	9"	fair	
242	Populus deltoides	Cottonwood	10"	fair	
243	Populus deltoides	Cottonwood	7"	good	
244	Populus deltoides	Cottonwood	9"	good	
245	Populus deltoides	Cottonwood	7"	fair	
246	Populus deltoides	Cottonwood	6"	fair	
247	Pseudotsuga menziesii	Douglas Fir	7"	fair	
248	Populus deltoides	Cottonwood	9.5-12"	fair	
249	Populus deltoides	Cottonwood	6"	fair	
250	Populus deltoides	Cottonwood	7"	fair	
251	Populus deltoides	Cottonwood	10"	good	
252	Pinus strobus	White Pine	17"	good	
253	picea pungens	Blue Spruce	10"	good	
254	picea pungens	Blue Spruce	12 7"	fair	
255	picea pungens	Blue Spruce	9.7-12"	fair	
256	picea pungens	Blue Spruce	8-12"	fair	
257	picea pungens	Blue Spruce	13.15"	fair	
258	picea pungens	Blue Spruce	9"	fair	
259	picea pungens	Blue Spruce	10"	fair	
260	picea pungens	Blue Spruce	12"	good	
261	Pinus strobus	White Pine	14"	poor	
262	Populus deltoides	Cottonwood	16"	fair	
263	Pinus strobus	White Pine	9"	fair	
264	Pinus strobus	White Pine	7"	fair	
265	Pinus strobus	White Pine	8"	fair	
266	carya glabra	Pignut Hickory	9"	good	
267	carya glabra	Pignut Hickory	12"	good	
268	Pinus strobus	White Pine	7"	good	
269	Pinus strobus	White Pine	12"	good	
270	Pinus strobus	White Pine	12"	good	
271	Pinus strobus	White Pine	7"	good	
272	picea pungens	Blue Spruce	4.6 7"	fair	
273	picea pungens	Blue Spruce	9.6"	fair	
274	Pinus strobus	White Pine	8"	dead	
275	Pinus strobus	White Pine	15"	poor	

2755 DORR ROAD
BRIGHTON AREA FIRE AUTHORITY
 615 WEST GRAND RIVER
 BRIGHTON, MI 48116
 810-229-6640

PROJECT	PREPARED FOR	TITLE
2755 DORR ROAD	BRIGHTON AREA FIRE AUTHORITY	TOPOGRAPHICAL SURVEY

NO	BY	REVISION PER	DATE

DESIGNED BY: _____
 DRAWN BY: TG
 CHECKED BY: _____
 SCALE: 1" = 30'
 JOB NO. 19-264
 DATE: 8-20-19
 SHEET NO. 1

- LEGEND**
- 900 PROPOSED CONTOUR
 - 900 EXISTING CONTOUR
 - EXISTING SPOT ELEVATION
 - POWER POLE
 - TRANSFORMER PAD
 - ELECTRICAL METER
 - AIR CONDITIONING UNIT
 - LIGHT POLE
 - WELL
 - HYDRANT
 - MANHOLE
 - STORM INVERT
 - GAS METER
 - MAILBOX
 - SIGN
 - TRAFFIC SIGN
 - DECIDUOUS TREE
 - CONIFEROUS TREE
 - SN SANITARY SEWER
 - WM WATER MAIN
 - ST STORM SEWER
 - G GAS MAIN
 - E ELECTRIC
 - T TELEPHONE
 - OH OVERHEAD WIRES
 - FENCE
 - PUMP CHAMBER
 - HANDICAP SYMBOL
 - CONC. CONCRETE
 - SAN. CON. SANITARY MANHOLE
 - ST MH STORM MANHOLE
 - C CENTERLINE
 - L LIBER
 - P PAGE
 - L.C.R. LIVINGSTON COUNTY RECORDS
 - (M&R) MEASURED AND RECORD
 - P.O.B. POINT OF BEGINNING
 - FFE FINISHED FIRST FLOOR ELEVATION
 - GFE GARAGE FLOOR ELEVATION
 - CMP CORRUGATED METAL PIPE
 - CPP CORRUGATED PLASTIC PIPE
 - STEEL ROD OR PIPE FOUND
 - SECTION CORNER
 - oDS DOWNSPOUT

GENERAL SURVEY NOTES:

- BEARINGS ARE BASED ON MICHIGAN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE. RECORD BEARINGS WERE ESTABLISHED FROM A PREVIOUS SURVEY BY TETRA TECH.
- SUBSURFACE UTILITIES NOT LOCATED FOR THIS SURVEY MAY EXIST. IT IS THE RESPONSIBILITY OF THE OWNER OF THE RESPECTIVE UTILITY TO ACCURATELY LOCATE SUCH UTILITIES.
- EASEMENTS OR RESTRICTIONS OF RECORD NOT DEPICTED ON THIS DRAWING MAY EXIST.
- ELEVATIONS WERE ESTABLISHED WITH GPS USING OPUS (NAVDS8 DATUM)
- CONTOURS ARE SHOWN AT 1 FOOT INTERVALS.
- SUBJECT PROPERTY IS DESIGNATED AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN (ZONE X) ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), FLOOD INSURANCE RATE MAP (FIRM), FOR THE TOWNSHIP OF GENOA, LIVINGSTON COUNTY, MICHIGAN, MAP NUMBER 26093C03300, PANEL 340 OF 495, WITH AN EFFECTIVE DATE OF SEPTEMBER 15, 2008.
- THE LOCATIONS OF STORM SEWER, SANITARY SEWER & WATERMAIN, AS SHOWN ON THIS DRAWING ARE APPROXIMATE. THE LOCATIONS ARE BASED ON PHYSICAL FIELD LOCATIONS OF STRUCTURES ALONG WITH RECORD DRAWINGS.
- OWNER OF SUBJECT PROPERTY AT TIME OF REFERENCED TITLE COMMITMENT: BRIGHTON AREA FIRE AUTHORITY
- ALL WORK SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY, THE COUNTY, AND THE STATE OF MICHIGAN.
- ALLOW THREE WORKING DAYS BEFORE YOU DIG, CALL MISS DIG TOLL FREE 1-800-482-7171.

EXISTING LEGEND

GROUND TOPO

- EX BOULDER
- EX STUMP
- EX TREE DECIDUOUS
- EX TREE CONIFEROUS
- EX WOODS
- EX FLAG POLE
- EX FENCE POST
- EX GROUND SHOT
- EX GRAVE MARKER
- EX POST
- EX C. OF DITCH
- EX TOP OF BANK
- EX BOTTOM OF BANK
- EX FENCE
- EX WALL
- EX MAJOR CONTOUR
- EX MINOR CONTOUR

BUILDING

- EX AIR CONDITIONER
- EX FINISHED FLOOR
- EX DECK EDGE
- EX BUILDING
- EX BUILDING OVERHANG

SURVEY MARKER

- EX BENCHMARK
- EX CALCULATED POINT
- EX CONTROL POINT
- EX FOUND BRASS DISC
- EX FOUND CAPPED IRON
- EX FOUND IRON PIPE
- EX FOUND IRON ROD
- EX FOUND PINCH PIPE
- EX FOUND T IRON
- EX HUB
- EX HUB W/MAG NAIL
- EX LATH
- EX MONUMENT
- EX NAIL W/TAG
- EX PK NAIL
- EX TRAVERSE POINT
- EX SECTION CORNER

ELECTRIC / GAS / MEDIA

- EX RADIO ANTENNA
- EX SATELLITE DISH
- EX ELECTRICAL OUTLET
- EX ELECTRICAL PULL BOX
- EX GUY ANCHOR
- EX GUY POLE
- EX GAS PUMP
- EX GAS VALVE
- EX LIGHT POLE
- EX MH ELECTRIC
- EX MH GAS
- EX MH TELEPHONE
- EX MH UTILITY
- EX METER ELECTRIC
- EX METER GAS
- EX METER PIT
- EX UTILITY POLE
- EX GROUND LIGHT
- EX ELECTRIC TRANSFORMER
- EX TELEPHONE PULL BOX
- EX RISER CABLE
- EX RISER ELECTRIC
- EX RISER GAS
- EX RISER TELEPHONE
- EX MARKER ELECTRIC
- EX MARKER GAS
- EX MARKER MEDIA
- EX MARKER FIBER OPTIC
- EX OVERHEAD WIRE
- EX GAS LINE
- EX TELEPHONE UNDERGROUND
- EX FIBER OPTIC

STORM

- EX CATCH BASIN
- EX CATCH BASIN (BEEHIVE)
- EX CATCH BASIN (ROUND)
- EX CLEAN OUT (STORM)
- EX DOWN SPOUT
- EX END SECTION
- EX INLET
- EX OVERFLOW STRUCTURE
- EX STORM MANHOLE
- EX HEADWALL/WINGWALL
- EX C. OF SPILLWAY
- EX STORM PIPE
- EX STORM LEAD

SANITARY

- EX CLEAN OUT
- EX LIFT STATION
- EX SANITARY MARKER
- EX SANITARY MANHOLE
- EX SANITARY LINE
- EX SANITARY SERVICE

WATER

- EX FIRE DEPT CONNECTION
- EX HYDRANT VALVE BOX
- EX HYDRANT
- EX IRRIGATION CONTROL VALVE
- EX METER (WATER)
- EX POST INDICATOR VALVE
- EX STAND PIPE
- EX SPRINKLER HEAD
- EX MARKER (WATER)

- EX GATE VALVE
- EX GATE VALVE & WELL
- EX WATER WELL
- EX WATER ELEVATION

- EX WATER EDGE
- EX WATER MAIN
- EX WATER SERVICE

ENVIRONMENTAL

- EX MONITORING WELL
- EX WETLAND FLAG
- EX SOIL BORING
- EX SOIL BORING
- EX RIP-RAP EDGE
- EX WETLAND EDGE

PAVEMENT ROADS / WALKS

- EX GUTTER
- EX HANDICAP MARKER
- EX TURN ARROW LEFT
- EX TURN ARROW RIGHT
- EX TRAFFIC ARROW
- EX TRAFFIC CONTROL BOX
- EX TOP OF PAVEMENT
- EX TOP OF CONCRETE
- EX TOP OF GRAVEL
- EX MAILBOX
- EX PARKING METER
- EX BOLLARD
- EX TOP OF BRICK
- EX TOP OF WALK

- EX CROSS-WALK SIGNAL
- EX TRAFFIC LIGHT
- EX DETECTABLE WARN DEVICE
- EX SIGN
- EX PARKING BUMPER
- EX ROAD C.
- EX BACK OF CURB (STANDARD)
- EX BACK OF CURB (REVERSE)
- EX GUARDRAIL
- EX MAILBOX ROW
- EX CROSSWALK
- EX ASPHALT
- EX CONCRETE
- EX RIP-RAP
- SUBJECT PROPERTY LINE
- ADJACENT PROPERTY LINE

PROPOSED LEGEND

SURVEY MARKER

- PR BENCHMARK
- PR CALCULATED POINT
- PR CONTROL POINT
- PR CAPPED IRON
- PR HUB
- PR HUB W/MAGNETIC NAIL
- PR LATH
- PR NAIL W/TAG
- PR PK NAIL
- PR TRAVERSE POINT

ABBREVIATIONS

- EX EXISTING
- PR PROPOSED
- MAG MAGNETIC
- CI CAPPED IRON
- FI FOUND IRON
- SEC SECTION
- PK MAGNETIC NAIL
- W/ WITH
- FF FINISH FLOOR
- MH MANHOLE
- ES END SECTION
- CB CATCH BASIN
- C. CENTER LINE
- CO CLEAN OUT
- RR RAIL ROAD
- GU GUTTER
- TB TOP OF BANK
- BB BOTTOM OF BANK
- TC TOP OF CURB
- EM EDGE OF METAL
- FG FINISH GRADE
- INV INVERT

BUILDING

- PR FINISHED FLOOR
- PR BUILDING
- PR BUILDING OVERHANG

ENVIRONMENTAL

- PR SOIL BORING
- PR RIP-RAP EDGE
- PR SILT FENCE
- PR SILT SACK

GROUND TOPO

- PR ELEVATION
- PR C. OF DITCH
- PR TOP OF BANK
- PR BOTTOM OF BANK
- PR FENCE
- PR MAJOR CONTOUR
- PR MIN CONTOUR

VEGETATION

- PR TREE DECIDUOUS
- PR TREE CONIFEROUS
- PR BUSH
- PR LANDSCAPE EDGE

STORM

- PR CATCH BASIN
- PR CATCH BASIN (BEEHIVE)
- PR CATCH BASIN (ROUND)
- PR CLEAN OUT (STORM)
- PR END SECTION
- PR INLET
- PR OVERFLOW STRUCTURE
- PR STORM MANHOLE
- PR DRAINAGE ARROW
- PR STORM LINE
- PR STORM SERVICE

SANITARY

- PR CLEAN OUT
- PR SANITARY MH
- PR SANITARY LINE
- PR SANITARY SERVICE

WATER

- PR HYDRANT VALVE BOX
- PR HYDRANT
- PR POST INDICATOR VALVE
- PR STAND PIPE
- PR VALVE
- PR GATE VALVE & WELL
- PR WATERMAIN
- PR WATER SERVICE
- PR WELL

PAVEMENT ROADS / WALKS

- PR HANDICAP MARKER
- PR TURN ARROW LEFT
- PR TURN ARROW RIGHT
- PR TRAFFIC ARROW
- PR GUTTER GRADE
- PR TOP OF PAVEMENT GRADE
- PR TOP OF CONCRETE GRADE
- PR TOP OF WALK GRADE
- PR TOP OF BRICK GRADE
- PR TOP OF WALL GRADE
- PR BOTTOM OF WALL GRADE
- PR TOP OF BANK
- PR BOLLARD
- PR MAILBOX
- PR CROSS-WALK SIGNAL
- PR DETECTABLE WARN DEVICE
- PR SIGN
- PR HANDICAP PARKING SIGN
- PARKING BUMPER BLOCK
- PR BACK OF CURB (STANDARD)
- PR BACK OF CURB (REVERSE)
- PR GUARDRAIL
- PR HANDRAIL
- PR CROSSWALK
- PR ASPHALT
- PR CONCRETE
- PR EASEMENT LINE
- PR GRADING LIMIT LINE
- PR CLEARING LIMITS
- PR CONSTRUCTION SNOW FENCE

P:\PROJECTS\2019-0040-BAFA STATION 34\PLANS\AUTOCAD\SITE PLANS\2019-0040-C1-LEGEND.DWG



1150 CORPORATE OFFICE DR.
SUITE 210
MILFORD, MI 48381
PH: (248)264-6906
FAX: (810)448-5903
Izawada@civilengineeringsolutions.us



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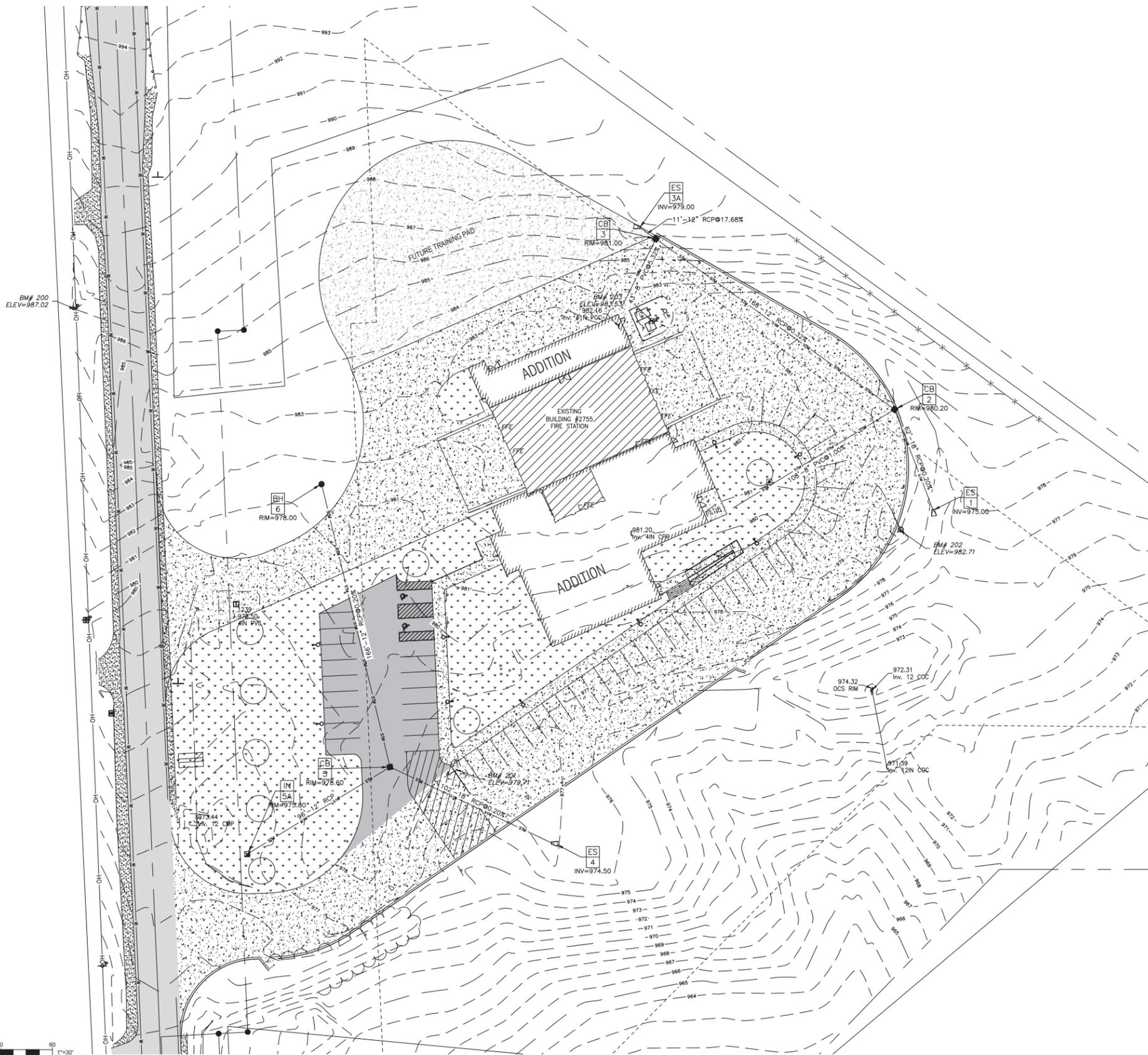
BRIGHTON AREA FIRE DEPARTMENT
STATION #34 ADDITION AND RENOVATION
LEGEND

NO.	DATE	SUBMITTAL	NO.	DATE	REVISION
1	08-20-2019	PRELIMINARY SITE PLAN SUBMITTAL	8	-	-
2	09-03-2019	REVISED SITE PLAN	9	-	-
3	-	-	10	-	-
4	-	-	11	-	-
5	-	-	12	-	-
6	-	-	13	-	-
7	-	-	14	-	-

PROJECT NO.: 2019-0040	SCALE: NTS
DRAWING NO.: -	DATE: 2019-08-20
DRAWN BY: S. MOHAMMED	DATE: 2019-08-20
CHECKED BY: LZ	DATE: 2019-08-20
SECTION 14	TOWN 2N
RANGE 3E	
CITY/TOWNSHIP: GENOA TOWNSHIP	LIVINGSTON COUNTY, MI

SHEET NO.

C1

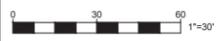


LAYOUT QUANTITIES		
PAY ITEM	QTY	UNITS
PR ASPHALT	7564	SFT
PR CONCRETE	50394	SFT
PR STD CURB AND GUTTER	756	LF
PR LANDSCAPE	26306	SFT
PR SIGN ADA	3	EA
PR LIGHT POLE	9	EA
PR REGULATORY SIGN	2	EA

UTILITIES QUANTITIES		
PAY ITEM	QTY	UNITS
PR 8" PVC SDR 23.5	151	LF
PR 12" RCP CL IV	430	LF
PR 18" RCP CL IV	162	LF
PR 2' DIA INLET	1	EA
PR 4' DIA CATCH BASIN	3	EA
PR 4' DIA BEEHIVE	1	EA
PR 12" END-SECTION	1	EA
PR 18" END-SECTION	2	EA

- NOTES:**
1. WELL FOR FIRE STATION TO BE DESIGNED BY FIRE SUPPRESSION/ MECHANICAL ENGINEER.
 2. GRINDER PUMP TO BE RELOCATED BY MHOG.
 3. OIL/GAS SEPARATOR TO BE PROPOSED ON APPARATUS BAY PLUMBING LINE PRIOR TO GRINDER PUMP.

P:\PROJECTS\2019-0040_BAFA STATION_34\PLANS\AUTOCAD\SITE PLANS\2019-0040_C3_LAYOUT AND UTILITY PLAN.DWG



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SUITE 210
MILFORD, MI 48381
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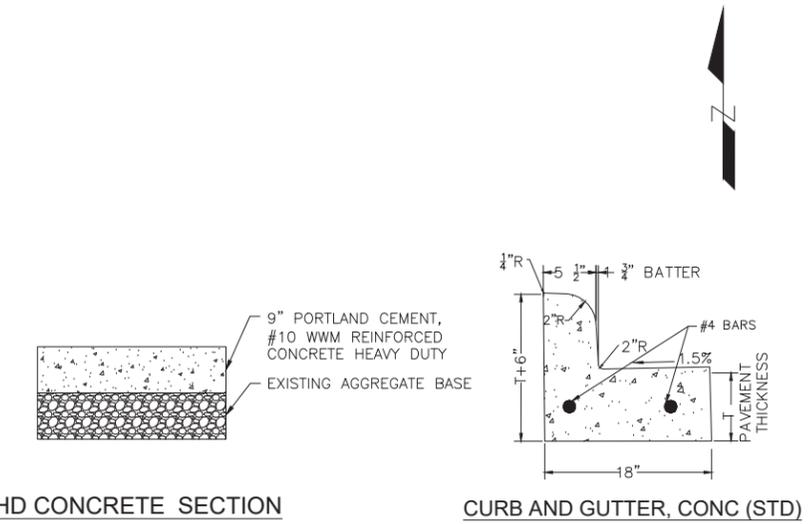
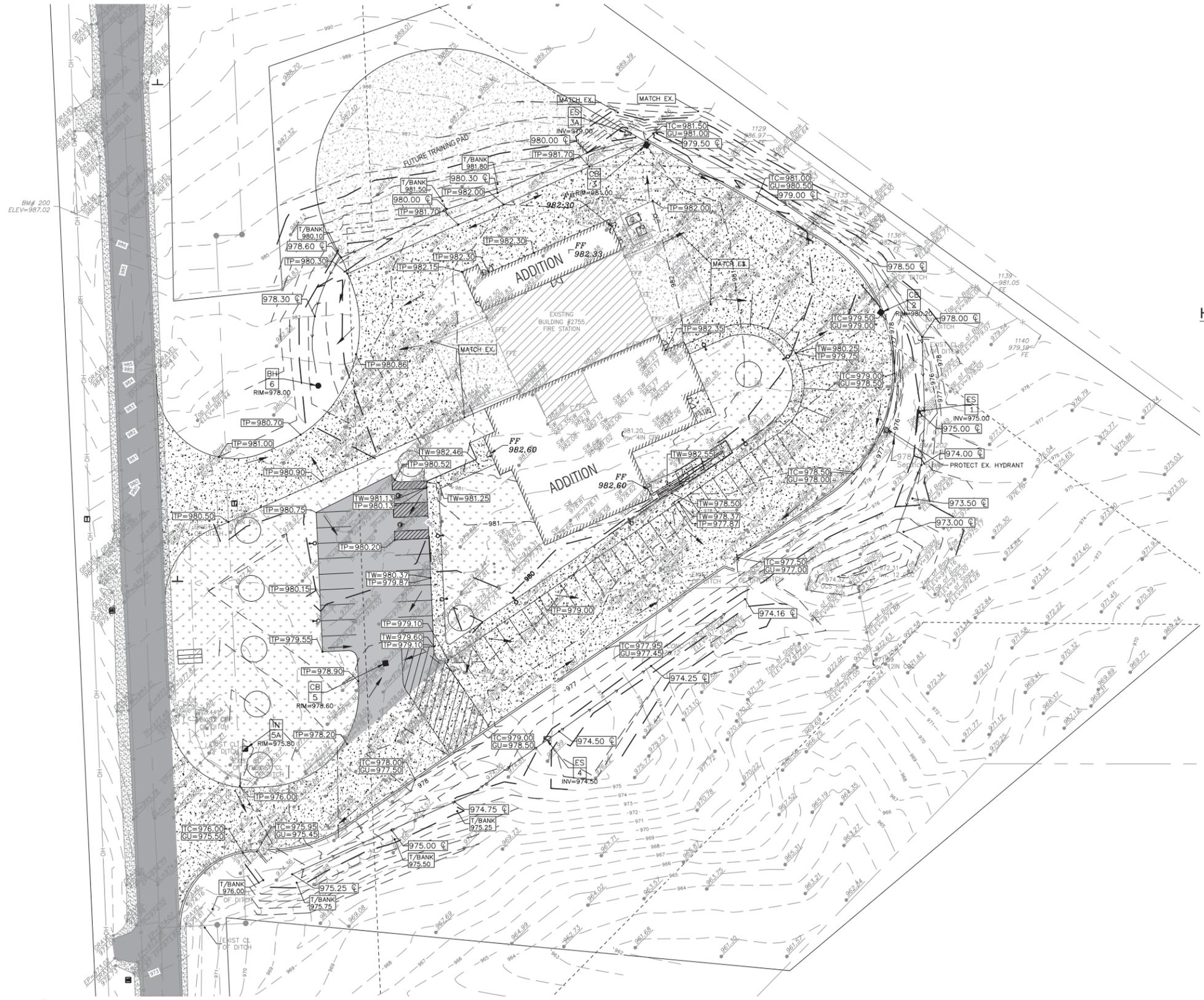
BRIGHTON AREA FIRE DEPARTMENT
STATION #34 ADDITION AND RENOVATION
LAYOUT AND UTILITY PLAN

NO.	DATE	SUBMITTAL	NO.	DATE	REVISION
1	08-20-2019	PRELIMINARY SITE PLAN SUBMITTAL	8	-	-
2	09-03-2019	REVISED SITE PLAN	9	-	-
3	-	-	10	-	-
4	-	-	11	-	-
5	-	-	12	-	-
6	-	-	13	-	-
7	-	-	14	-	-

PROJECT NO.: 2019-0040	SCALE: 1"=30'
DRAWING NO.: -	DATE: 2019-08-20
DRAWN BY: S. MOHAMMED	DATE: 2019-08-20
CHECKED BY: LZ	DATE: 2019-08-20
SECTION 14 TOWN 2N RANGE 3E	
CITY/TOWNSHIP: GENOA TOWNSHIP	LIVINGSTON COUNTY, MI

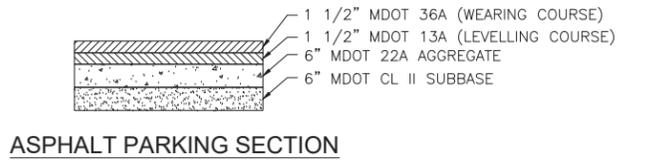
SHEET NO.
C3

P:\PROJECTS\2019-0040_BAFA STATION 34\PLANS\AUTOCAD\SITE PLANS\2019-0040_C4_PAVING AND GRADING PLAN.DWG

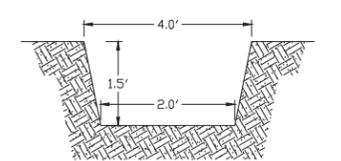


HD CONCRETE SECTION

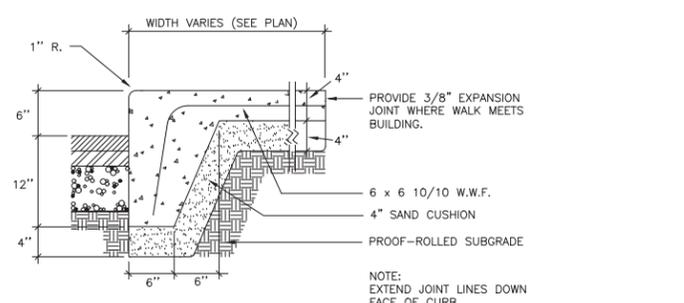
CURB AND GUTTER, CONC (STD)



ASPHALT PARKING SECTION



SWALE CROSS-SECTION



MONOLITHIC CONC. CURB & WALK

NO SCALE

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SUITE 210
MILFORD, MI 48381
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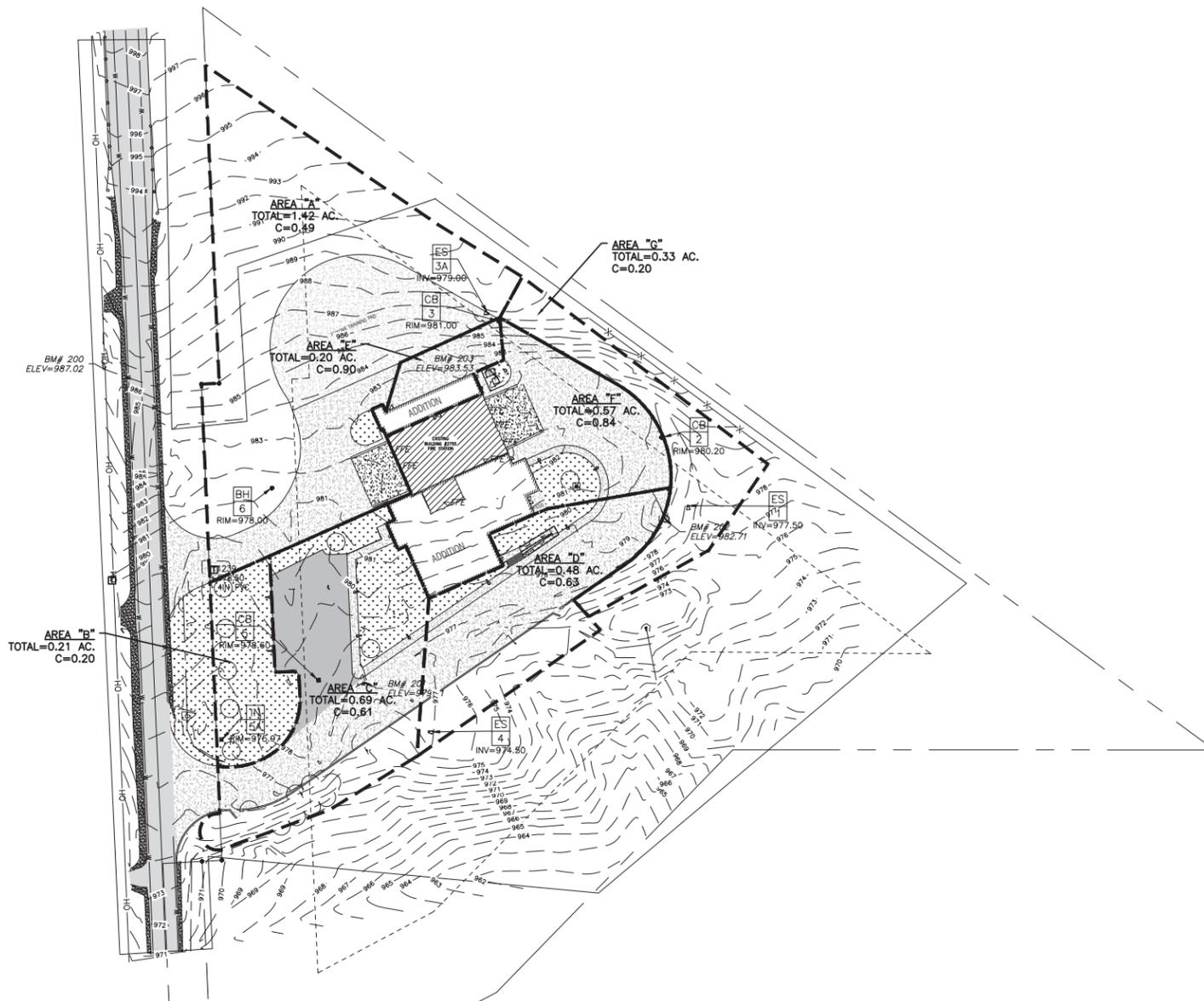
BRIGHTON AREA FIRE DEPARTMENT
STATION #34 ADDITION AND RENOVATION
PAVING AND GRADING PLAN

NO.	DATE	SUBMITTAL	NO.	DATE	REVISION
1	08-20-2019	PRELIMINARY SITE PLAN SUBMITTAL	8	-	-
2	09-03-2019	REVISED SITE PLAN	9	-	-
3	-	-	10	-	-
4	-	-	11	-	-
5	-	-	12	-	-
6	-	-	13	-	-
7	-	-	14	-	-

PROJECT NO.: 2019-0040
DRAWING NO.: -
SCALE: 1"=30'
DRAWN BY: S. MOHAMMED
DATE: 2019-08-20
CHECKED BY: LZ
DATE: 2019-08-20
SECTION 14 TOWN 2N RANGE 3E
CITY/TOWNSHIP: GENOA TOWNSHIP LIVINGSTON COUNTY, MI

SHEET NO. **C4**

P:\PROJECTS\2019-0040-BAFA STATION 34\PLANS\AUTOCAD\SITE PLANS\2019-0040_C5 STORM MANAGEMENT PLAN.DWG



STORMWATER MANAGEMENT PLAN

EXISTING PAVEMENT :0.87 AC.
 EXISTING BUILDING :0.12 AC.
 EXISTING POND :0.11 AC.

EXISTING TRIBUTARY AREA :2.65 AC. (PER RECORD DRAWINGS)
 C-FACTOR :0.49 CFS/ACRE

PROPOSED BUILDING ADDITION :0.23 AC.
 PROPOSED PAVEMENT :1.50 AC.
 PROPOSED PAVEMENT(FUTURE) :0.33 AC.
 PROPOSED OPEN SPACE :1.89 AC.
 EXISTING POND :0.11 AC.

PROPOSED TRIBUTARY AREA :3.91 AC.
 C-FACTOR :0.59 CFS/ACRE

Existing	
Tributary Area [A]	2.65
Compound Run-off Coefficient [C]	0.5 (Attach computations)
Design Constant [K _i] = A X C	1.33
Allowable Outflow Rate [Q ₀]	0.3975 cfs

Proposed + Future	
Tributary Area [A]	4.01
Compound Run-off Coefficient [C]	0.59 (Attach computations)
Design Constant [K _i] = A X C	2.37
Allowable Outflow Rate [Q ₀]	0.6015 cfs

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Duration (Minutes)	Duration (Seconds)	Intensity (100-yr storm) (In/Hr)	Col. #2 x Col. #3 (Inches)	Inflow Volume = Col. #4 x K _i (FT ³)	Outflow Volume = Col. #2 x Q ₀ (FT ³)	Storage Volume = Col. #5 - Col. #6 (FT ³)
5	300	9.17	2751	3645.08	119.25	3525.83
10	600	7.86	4716	6248.70	238.50	6010.20
15	900	6.88	6192	8204.40	357.75	7846.65
20	1,200	6.11	7332	9714.90	477.00	9237.90
30	1,800	5	9000	11925.00	715.50	11209.50
60	3,600	3.24	11664	15454.80	1431.00	14023.80
90	5,400	2.39	12906	17100.45	2146.50	14953.95
120	7,200	1.9	13680	18126.00	2862.00	15264.00
180	10,800	1.34	14472	19175.40	4293.00	14882.40

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Duration (Minutes)	Duration (Seconds)	Intensity (100-yr storm) (In/Hr)	Col. #2 x Col. #3 (Inches)	Inflow Volume = Col. #4 x K _i (FT ³)	Outflow Volume = Col. #2 x Q ₀ (FT ³)	Storage Volume = Col. #5 - Col. #6 (FT ³)
5	300	9.17	2751	6508.59	180.45	6328.14
10	600	7.86	4716	11157.58	360.90	10796.68
15	900	6.88	6192	14649.65	541.35	14108.30
20	1,200	6.11	7332	17346.78	721.80	16624.98
30	1,800	5	9000	21293.10	1082.70	20210.40
60	3,600	3.24	11664	27595.86	2165.40	25430.46
90	5,400	2.39	12906	30534.31	3248.10	27286.21
120	7,200	1.9	13680	32365.51	4330.80	28034.71
180	10,800	1.34	14472	34239.30	6496.20	27743.10

Note: Figures in Columns (3) and (4) are valid where the intensity is computed by the formula $I = 275/t + 25$ (i.e., 100-yr curve), appropriate revisions shall be made for geographical areas where this formula does not apply.

Note: Figures in Columns (3) and (4) are valid where the intensity is computed by the formula $I = 275/t + 25$ (i.e., 100-yr curve), appropriate revisions shall be made for geographical areas where this formula does not apply.

* Allowable outflow rate Q₀ to be one of the following:
 Case 1: Q₀ = capacity of existing discharge conduit or channel.
 Q₀ = q x A where q = Permissible Discharge Rate per Acre of Tributary Area = 0.15 cfs/Acre

* Allowable outflow rate Q₀ to be one of the following:
 Case 1: Q₀ = capacity of existing discharge conduit or channel.
 Q₀ = q x A where q = Permissible Discharge Rate per Acre of Tributary Area = 0.15 cfs/Acre

SEDIMENT FOREBAY VOLUME CALCULATIONS: (5% OF 100 YR)

EXISTING VOLUME : 15,264 X 0.05 = 763 CU.FT.
 PROPOSED VOLUME : 28,035 X 0.05 = 1402 CU.FT. (REQUIRED)

EXISTING SEDIMENT FOREBAY VOLUME:

ELEV.	AREA	VOLUME
975	4730	3789.5
974	2849	2134.0
973	1419	

EXISTING FOREBAY VOLUME = 5923.5 CU.FT. (MEETS REQUIREMENT)

DETENTION VOLUME REQUIRED

DIFFERENCE BET. VOL. = PROPOSED VOL. - EXISTING VOL.
 = 28,034.71 - 15,264 = 12,770.71 CF

DETENTION CURRENTLY STORED IN WELTAND:
 WATER SURFACE ELEVATION = 957.40 (PER BOSS PLAN DATED 9/16/02)
 WATER SURFACE AREA = 291,092.4 SFT

THEREFORE, THE ADDITIONAL DETENTION FOR EXPANSION WOULD CAUSE 0.04FT. = 0.48" RISE.

CES

I = 275(t+25) C = 0.55 T = 15 MIN

SHEET 1 OF 1 DATE: 06/20/19
 REVISED: 09/03/19

PROJECT: Brighton Area Fire Authority Station #34 JOB NO. 2019-0040 COMMUNITY: Genoa Township COUNTY: Livingston

STRUCTURE NUMBER	UP STREAM	DOWN STREAM	INCREMENT ACRES		C	EQUIV. AREA 100% ACRES	TOTAL AREA 100% ACRES	T TIME (MIN.)	I (IN PER HOUR)	Q-CIA C.F.S. FLOW	CAPAC-ITY OF SEWER (C.F.S.)	DIAM. OF PIPE (IN.)	LENGTH OF LINE (FT.)	SLOPE OF PIPE (%)	MIN HG BASED ON "Q" (%)	HG FOR 2.5 FPS GIVEN "D" (%)	ACTUAL HG (%)	VEL. FLOW FULL (FT./SEC)	TIME OF FLOW (MIN.)	HYDRAULIC GRADE		INVERT ELEVATION		RIM ELEVATION		COVER		HW CLEARANCE	
			UP STREAM	DOWN STREAM																UP STREAM	DOWN STREAM	UP STREAM	DOWN STREAM	UPPER COVER	LOWER COVER	UPPER CLEAR	LOWER CLEAR		
BH 6	CB 5	A	1.42	0.49	0.70	0.70	15.00	4.33	3.01	2.17	12	166	0.37	0.71	0.30	0.71	2.8	1.00	976.69	975.50	975.03	974.70	978.00	978.50	1.80	2.63	1.31	3.00	
IN 5A	CB 5	B	0.21	0.20	0.04	0.04	15.00	4.33	0.18	1.13	12	96	0.10	0.00	0.30	0.00	1.4	1.11	975.50	975.50	974.80	974.70	975.80	978.60	0.00	2.73	0.30	3.10	
CB 5	ES 4	C	0.69	0.61	0.42	1.16	17.12	4.08	4.73	4.70	18	102	0.20	0.20	0.18	0.20	2.7	0.64	975.91	975.70	974.70	974.50	978.60	NA	2.19	NA	2.69	NA	
DS	CB 3	E	0.20	0.90	0.18	0.18	15.00	4.33	0.78	1.21	8	43	1.00	0.42	0.52	0.42	3.5	0.21	976.71	976.53	976.43	976.00	NA	981.00	NA	4.19	NA	4.47	
CB 3	CB 2	F	0.57	0.84	0.48	0.48	15.21	4.30	2.06	2.02	12	168	0.32	0.33	0.30	0.33	2.6	1.09	976.56	976.00	975.74	975.20	981.00	980.20	4.10	3.83	4.44	4.20	
CB 2	ES 1	G	0.33	0.20	0.07	0.72	16.30	4.17	3.02	4.70	18	62	0.20	0.08	0.18	0.08	2.7	0.39	976.25	976.20	975.12	975.00	980.20	NA	3.37	NA	3.95	NA	

Design of swale along south side of fire station
 Prepared by: S. Mohammed
 Checked by: Leslie Zawada, P.E.
 As of 8/30/19

DRAINAGE AREA D=(A+B+C)

t = 15
 A = area of drainage district = 121968 SF = 2.8 Ac
 Impervious area = 56192 SF = 1.289991
 C-factor = 0.460711

Design is based on a 100yr storm event
 $I = 275/(t+25) = 6.875$
 $Q = CIA = 8.868687 \text{ cfs}$

$Q = VA = (1.00/n)A(R^{2/3})^{2/3} \text{ SQ RT SLOPE}$ n=0.025 for natural channel
 $Q = 8.869 = (0.025/1)^{2/3} (w^{2/2})^{2/3} (w/4)^{2/3} \text{ SQ RT } 0.07$
 $4.223 = w^{8/3}$
 $w = 1.716$ at the bottom of ditch
 $d = 0.858$
 width of top of ditch = 3.433

Swale provided - w = 2', d = 1.5', and width at top = 4'

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 1150 CORPORATE OFFICE DR. SUITE 210
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 PH: (248)264-6906
 FAX: (810)448-5903
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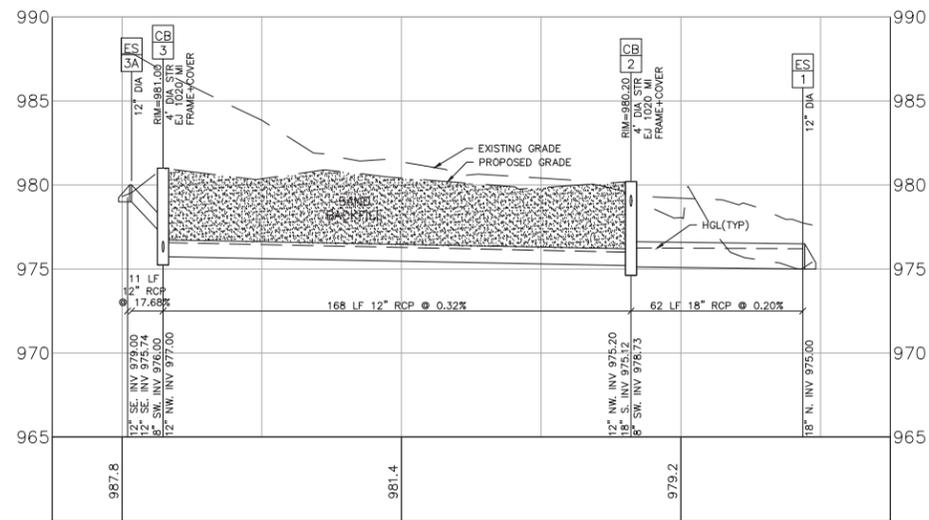
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**BRIGHTON AREA FIRE DEPARTMENT
 STATION #34 ADDITION AND RENOVATION
 STORMWATER MANAGEMENT PLAN**

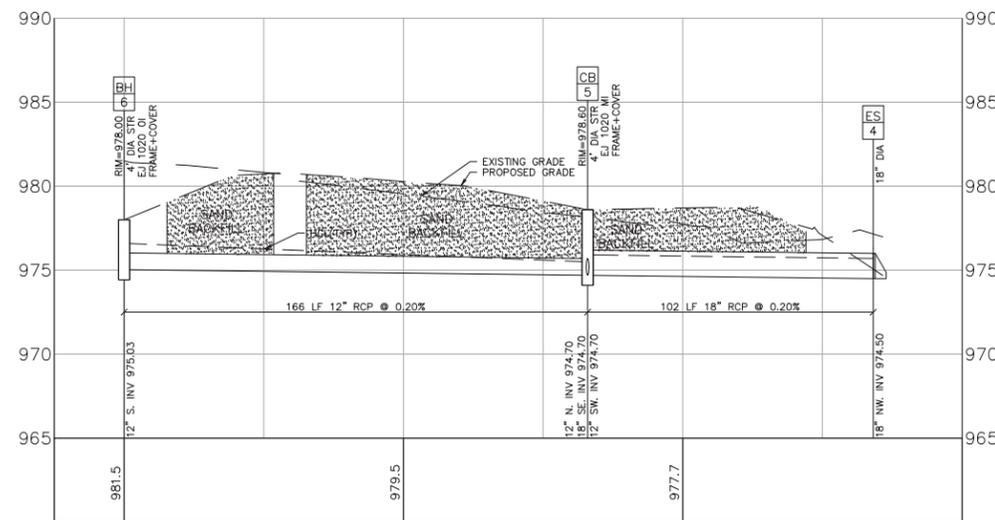
NO.	DATE	SUBMITTAL	NO.	DATE	REVISION
1	08-20-2019	PRELIMINARY SITE PLAN SUBMITTAL	8	-	-
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4	-	-	11	-	-
5	-	-	12	-	-
6	-	-	13	-	-
7	-	-	14	-	-

PROJECT NO.: 2019-0040 SCALE: 1"=60'
 DRAWING NO.: -
 DRAWN BY: S. MOHAMMED DATE: 2019-08-20
 CHECKED BY: LZ DATE: 2019-08-20
 SECTION 14 TOWN 2N RANGE 3E
 CITY/TOWN: GENOA TOWNSHIP LIVINGSTON COUNTY, MI

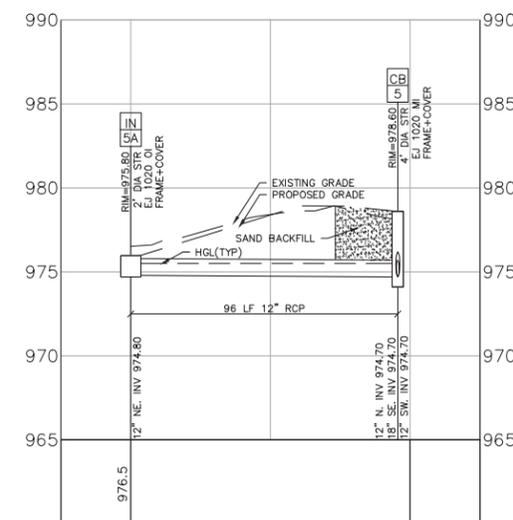
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CB 3 TO ES 1
HORIZ: 1"=30'
VERT: 1"=5'



BH 6 TO ES 4
HORIZ: 1"=30'
VERT: 1"=5'



BH 5A TO CB 5
HORIZ: 1"=30'
VERT: 1"=5'



1150 CORPORATE OFFICE DR.
SUITE 210
MILFORD, MI 48381
PH: (248)264-6906
FAX: (810)448-5903
Izawada@civilengineeringsolutions.us



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BRIGHTON AREA FIRE DEPARTMENT
STATION #34 ADDITION AND RENOVATION
STORM SEWER PROFILES

NO.	DATE	SUBMITTAL	NO.	DATE	REVISION
1	08-20-2019	PRELIMINARY SITE PLAN SUBMITTAL	8	-	-
2	09-03-2019	REVISED SITE PLAN	9	-	-
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4	-	-	11	-	-
5	-	-	12	-	-
6	-	-	13	-	-
7	-	-	14	-	-

PROJECT NO.: 2019-0040	SCALE: 1"=30'
DRAWING NO.: -	DRAWN BY: S. MOHAMMED DATE: 2019-08-20
CHECKED BY: LZ	DATE: 2019-08-20
SECTION 14 TOWN 2N	RANGE 3E
CITY/TOWNSHIP: GENOA TOWNSHIP	LIVINGSTON COUNTY, MI

SHEET NO.

C6



SOIL-SURVEY PER SCS

- BtB BOYER-OSHTEMO LOAMY SANDS
- Cc CARLISLE MUCK
- FrB FOX-BOYER COMPLEX
- FrC FOX-BOYER COMPLEX
- FrD FOX-BOYER COMPLEX
- FrE FOX-BOYER COMPLEX
- Gr GRAVEL PITS
- HIC HILLSDALE SANDY LOAM
- MoB WAWASEE LOAM
- MoC WAWASEE LOAM

SESC QUANTITIES		
PAY ITEM	QTY	UNITS
PR INLET FILTER	5	EA
PR SILT FENCE	1363	LF
PR TRACKING MAT	1505	SFT

SOIL EROSION CONTROL MEASURES

- STAGING OF THE WORK WILL BE DONE BY THE LANDOWNER OR LANDOWNER'S REPRESENTATIVE AS DIRECTED IN THESE PLANS, AND AS REQUIRED TO ENSURE PROGRESSIVE STABILIZATION OF DISTURBED EARTH CHANGE.
- THE LANDOWNER OR LANDOWNER'S REPRESENTATIVE SHALL BE RESPONSIBLE FOR INSTALLATIONS AND MAINTENANCE OF SOIL EROSION AND SEDIMENTATION DEVICES.
- INSTALL CRUSHED CONCRETE ACCESS DRIVE.
- INSTALL SILT FENCE AS INDICATED ON THE PLANS. SILT FENCE SHALL BE INSTALLED PER DETAIL.
- INSTALL SILT SACKS ON ALL PAVEMENT CATCH BASINS PER DETAIL. SILT SACKS SHALL BE INSPECTED WEEKLY UNDER NORMAL CONDITIONS, WITHIN 24 HOURS OF A RAINFALL AND DAILY DURING A PROLONG RAIN EVENT. BUILDUP OF SEDIMENT AND DEBRIS SHALL BE REMOVED PROMPTLY.
- DEMOLITION OF SITE WORK AND BUILDING.
- IMMEDIATELY AFTER SEEDING, MULCH ALL SEEDED AREAS WITH UNWEATHERED SMALL GRAIN STRAW, SPREAD UNIFORMLY AT THE RATE OF 1 TO 2 TONS PER ACRE OR 100 POUNDS (2-3 BALES) PER 1,000 SQUARE FEET.
- ALL DIRT TRACKED ONTO ANY ROADWAY SHALL BE REMOVED IMMEDIATELY.
- STREETS AND OR PARKING AREAS WILL BE SCRAPPED ON A DAILY BASIS AND SWEEPED AT A MINIMUM OF ONCE PER WEEK BY THE LANDOWNER OF LANDOWNER'S REPRESENTATIVE.
- DURING DRY PERIODS, ALL DISTURBED AREAS SHALL BE WATERED FOR DUST CONTROL.
- PERMANENT SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 5 CALENDAR DAYS AFTER FINAL GRADING OR THE FINAL EARTH CHANGE HAS BEEN COMPLETED.
- FINAL GRADE, ESTABLISH VEGETATION AND OR LANDSCAPE ALL DISTURBED AREAS NOT BUILT OR PAVED UPON.

MAINTENANCE SCHEDULE

- SITE SUPERINTENDENT SHALL INSPECT SITE AFTER EVERY RAINFALL AND RESTORE SOIL EROSION SEDIMENTATION CONTROL MEASURES AS NECESSARY AND AT DIRECTION OF INSPECTOR.

SOIL EROSION AND SEDIMENTATION CONTROL NOTES

- ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO STANDARDS AND SPECIFICATIONS OF LIVINGSTON COUNTY AND THE STATE OF MICHIGAN.
- INSPECTIONS BY CONTRACTOR SHALL BE MADE WEEKLY AND AFTER EVERY STORM EVENT TO VERIFY THAT THE SOIL EROSION AND SEDIMENTATION CONTROLS (SESC) ARE STILL EFFECTIVE AND IN PLACE. ANY NECESSARY REPAIRS TO SESC SHALL HAPPEN IMMEDIATELY.
- EROSION AND SEDIMENTATION FROM WORK ON THIS PROJECT SHALL BE CONTAINED AND SHALL NOT BE ALLOWED TO ENTER INTO ANY BODIES OF WATER, STORM SEWERS, WETLANDS OR OFF-SITE LOCATIONS.
- TEMPORARY STABILIZATION OF ALL DISTURBED AREAS SHALL BEGIN WITHIN 5 DAYS OF THE DATE OF PIPE INSTALLATION IN ANY ONE LOCATION AND SHALL BE COMPLETED WITHIN 15 DAYS OR PER THE SOIL EROSION PERMIT, WHICHEVER IS LESS.
- TEMPORARY STABILIZATION SHALL BE PROVIDED DURING THE NON-GROWING SEASON FOR ALL AREAS TO BE SEEDED. THIS TIME PERIOD IS CONSIDERED TO BE OCTOBER 1 THROUGH APRIL 20.
- IF FOR ANY REASON PERMANENT STABILIZATION CANNOT BE PROVIDED WITHIN 15 DAYS OF THE COMPLETION OF PIPE INSTALLATION TEMPORARY STABILIZATION SHALL BE PROVIDED AT NO COST TO THE OWNER.
- TEMPORARY STABILIZATION SHALL CONSIST OF SMALL GRAIN STRAW OR GRASS HAY SPREAD AT THE RATE OF 1.5 TO 2 TONS PER ACRE WHICH SHALL BE ANCHORED IN PLACE TO PREVENT IT FROM BEING WASHED AWAY.
- TEMPORARY STABILIZATION SHALL BE REPAIRED AT THE DIRECTION OF THE FIELD INSPECTOR AND/OR LIVINGSTON COUNTY.
- CONTRACTOR SHALL APPLY TEMPORARY SESC MEASURES AS SOON AS PERMANENT STABILIZATION OF SLOPES, DITCHES, AND OTHER CHANGES HAVE BEEN ACCOMPLISHED.
- STAGING THE WORK WILL BE DONE BY THE CONTRACTOR TO ENSURE PROGRESSIVE STABILIZATION OF ALL DISTURBED AREAS.

SEQUENCE OF CONSTRUCTION

- CONTRACTOR TO INSTALL ALL SOIL EROSION AND SEDIMENTATION CONTROLS (SESC) MEASURES AS SHOWN ON THE PLANS AND AS DESCRIBED IN THE SPECIFICATIONS AND PERMITS PRIOR TO ANY EARTH DISRUPTION.
- CONTACT GENOA TOWNSHIP TO SCHEDULE INSPECTION OF SESC MEASURES.
- REMOVE EXISTING PAVEMENT, CURBS, ETC, REQUIRED TO COMPLETE THE PROJECT PER THE PLANS.
- COMPLETE GRADING FOR BUILDING PAD.
- COMPLETE BUILDING AND UTILITY INSTALLATION ASSOCIATED WITH BUILDING.
- COMPLETE PAVING, SIDEWALKS, ETC.
- RE-GRADE ANY AREAS DISTURBED BY CONSTRUCTION AND COMPLETE RESTORATION PER PLANS, SPECIFICATIONS AND PERMITS.
- REMOVE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ONCE VEGETATION HAS BEEN ESTABLISHED AND AS DIRECTED BY THE CITY OF FARMINGTON HILLS OFFICE OF ENGINEERING.

P:\PROJECTS\2019-0040_BAFA STATION_34\PLANS\AUTOCAD\SITE PLANS\2019-0040_C7_SESC PLAN.DWG

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CIVIL ENGINEERING SOLUTIONS, Inc.
 1150 CORPORATE OFFICE DR. SUITE 210
 MILFORD, MI 48381
 PH: (248)264-6906
 FAX: (810)448-5903
 IZAWADA@civilengineeringsolutions.us

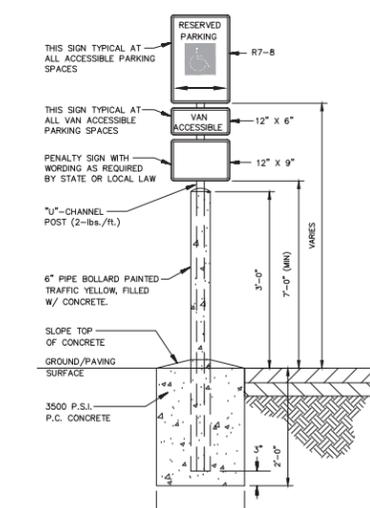
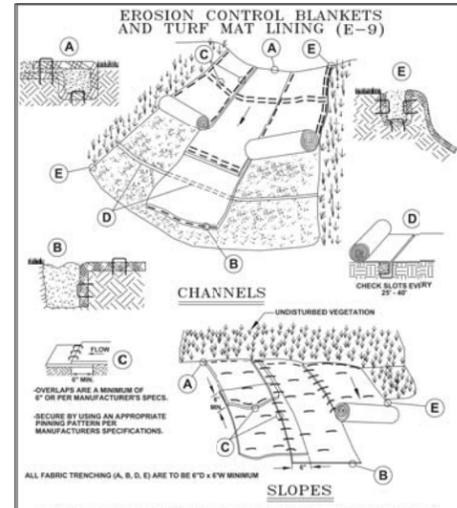
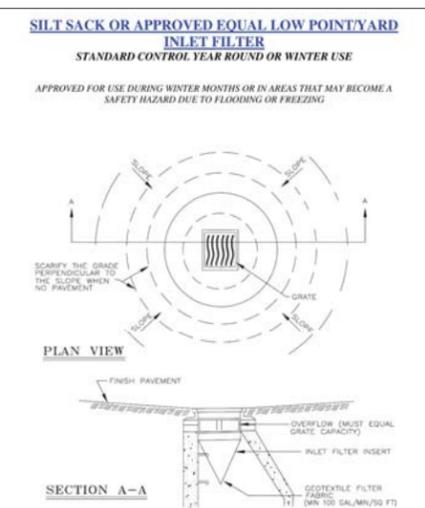
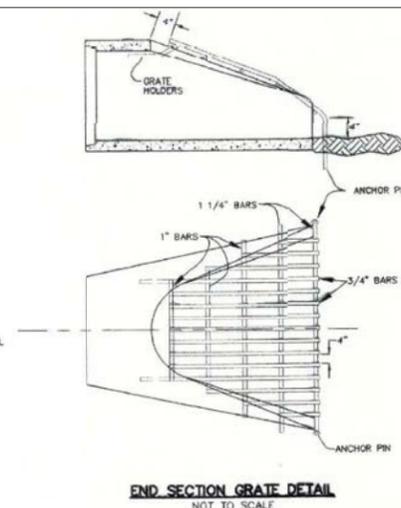
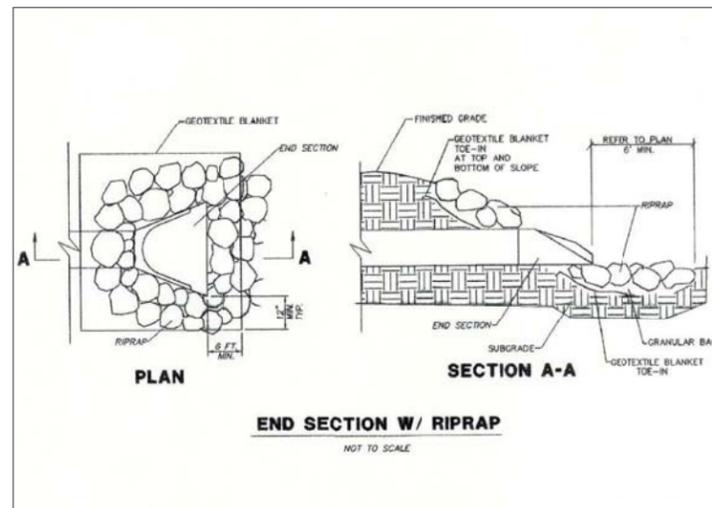
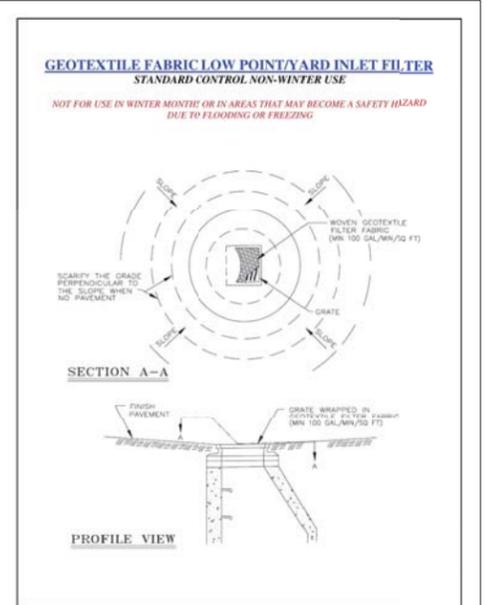
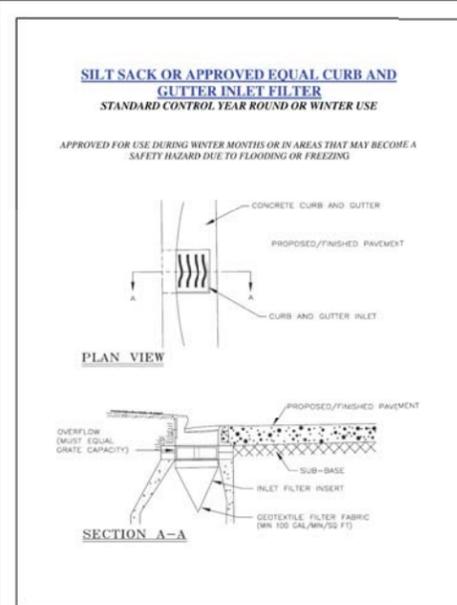
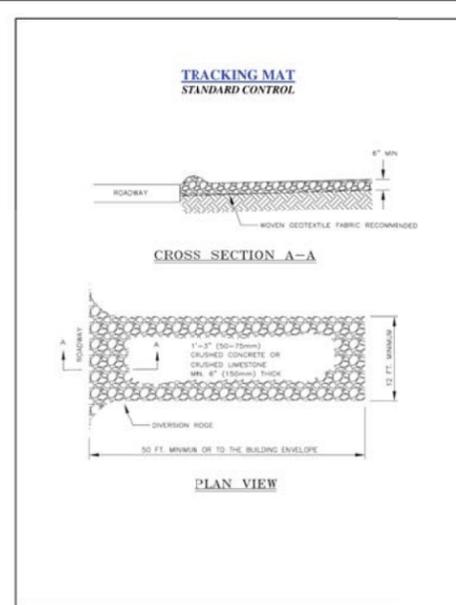
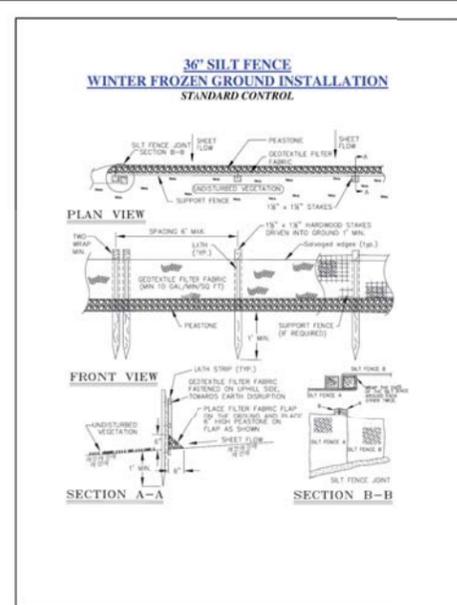
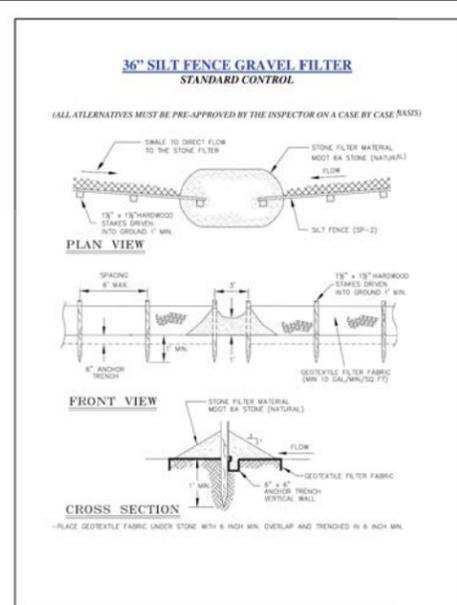
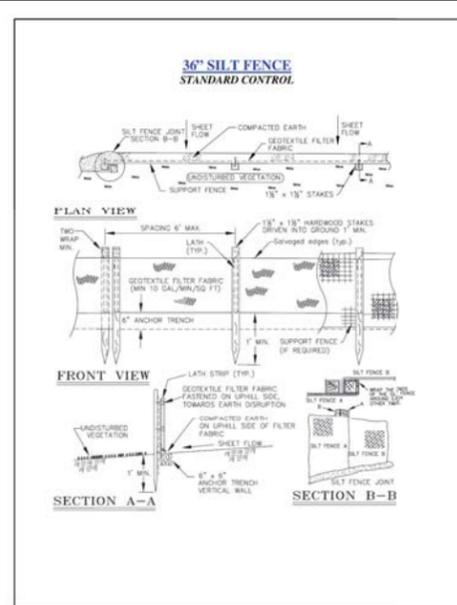
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**BRIGHTON AREA FIRE DEPARTMENT
 STATION #34 ADDITION AND RENOVATION
 SESC PLAN**

NO.	DATE	SUBMITTAL	NO.	DATE	REVISION
1	08-20-2019	PRELIMINARY SITE PLAN SUBMITTAL	8	-	-
2	09-03-2019	REVISED SITE PLAN	9	-	-
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4	-	-	11	-	-
5	-	-	12	-	-
6	-	-	13	-	-
7	-	-	14	-	-

PROJECT NO.: 2019-0040	SCALE: 1"=30'
DRAWING NO.:	
DRAWN BY: S. MOHAMMED	DATE: 2019-08-20
CHECKED BY: LZ	DATE: 2019-08-20
SECTION 14	TOWN 2N RANGE 3E
CITY/TOWNSHIP: GENOA TOWNSHIP	LIVINGSTON COUNTY, MI

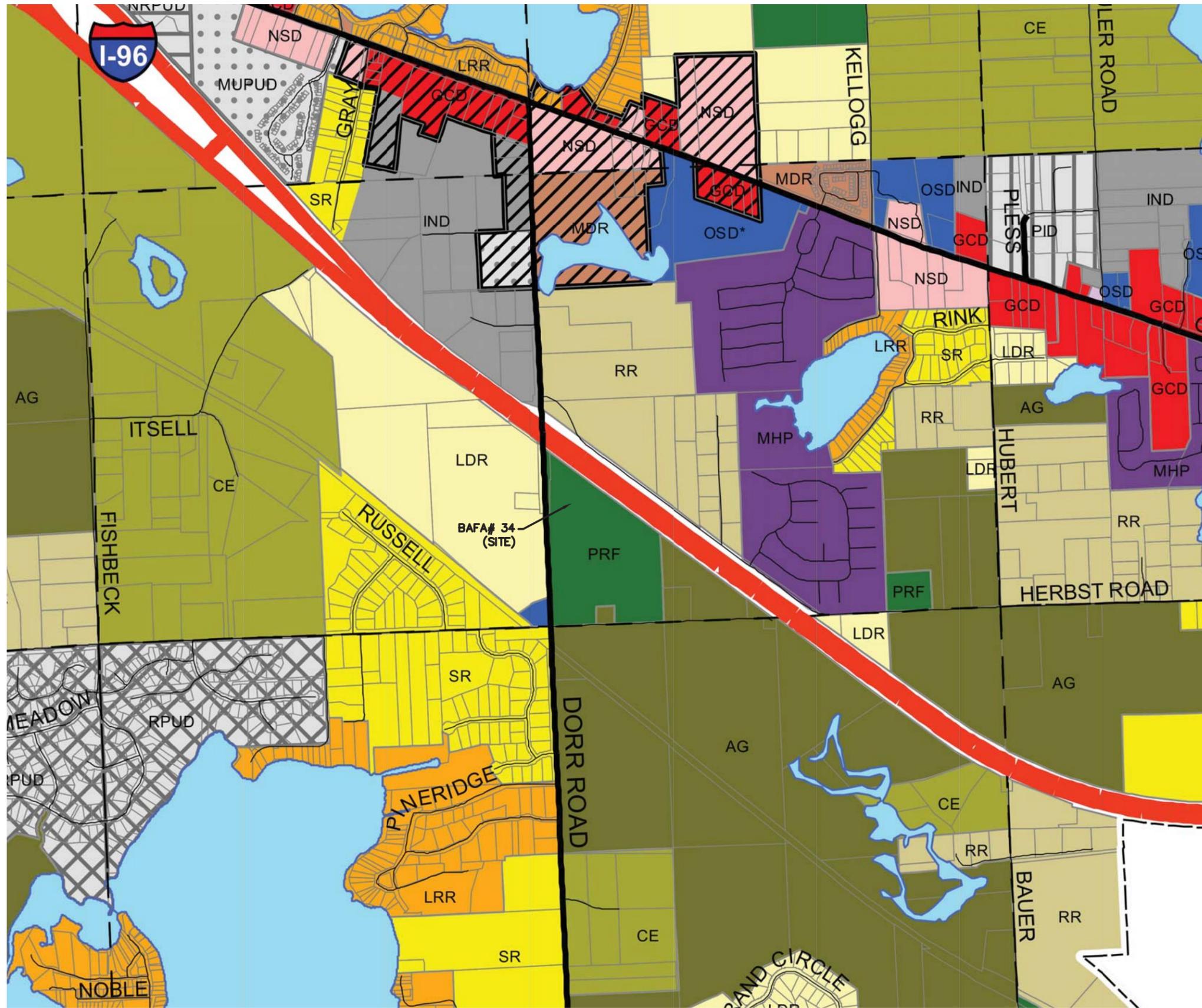
P:\PROJECTS\2019-0040_BAFA STATION 34\PLANS\AUTOCAD\SITE PLANS\2019-0040_C8 MISCELLANEOUS DETAILS.DWG



NO.	DATE	SUBMITTAL	NO.	DATE	REVISION
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SECTION 14 TOWN 2N	RANGE 3E
CITY/TOWNSHIP: GENOA TOWNSHIP	LIVINGSTON COUNTY, MI

P:\PROJECTS\2019-0040_BAFA STATION_34\PLANS\AUTOCAD\SITE PLANS\2019-0040_C9_ADJACENT ZONING PARCEL MAP.DWG



Zoning Map

Genoa Charter Township
Livingston County, Michigan

Legend

- AG
- CE
- RR
- LDR
- SR
- LRR
- UR
- MDR
- HDR
- RPUD
- MHP
- RC
- GC
- NS
- OS
- NRPUD
- IND
- PID
- PRF
- MUPUD
- RDPUD
- Town Center



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SUITE 210
MILFORD, MI 48381
PH: (248)264-6906
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izawada@civilengineeringsolutions.us

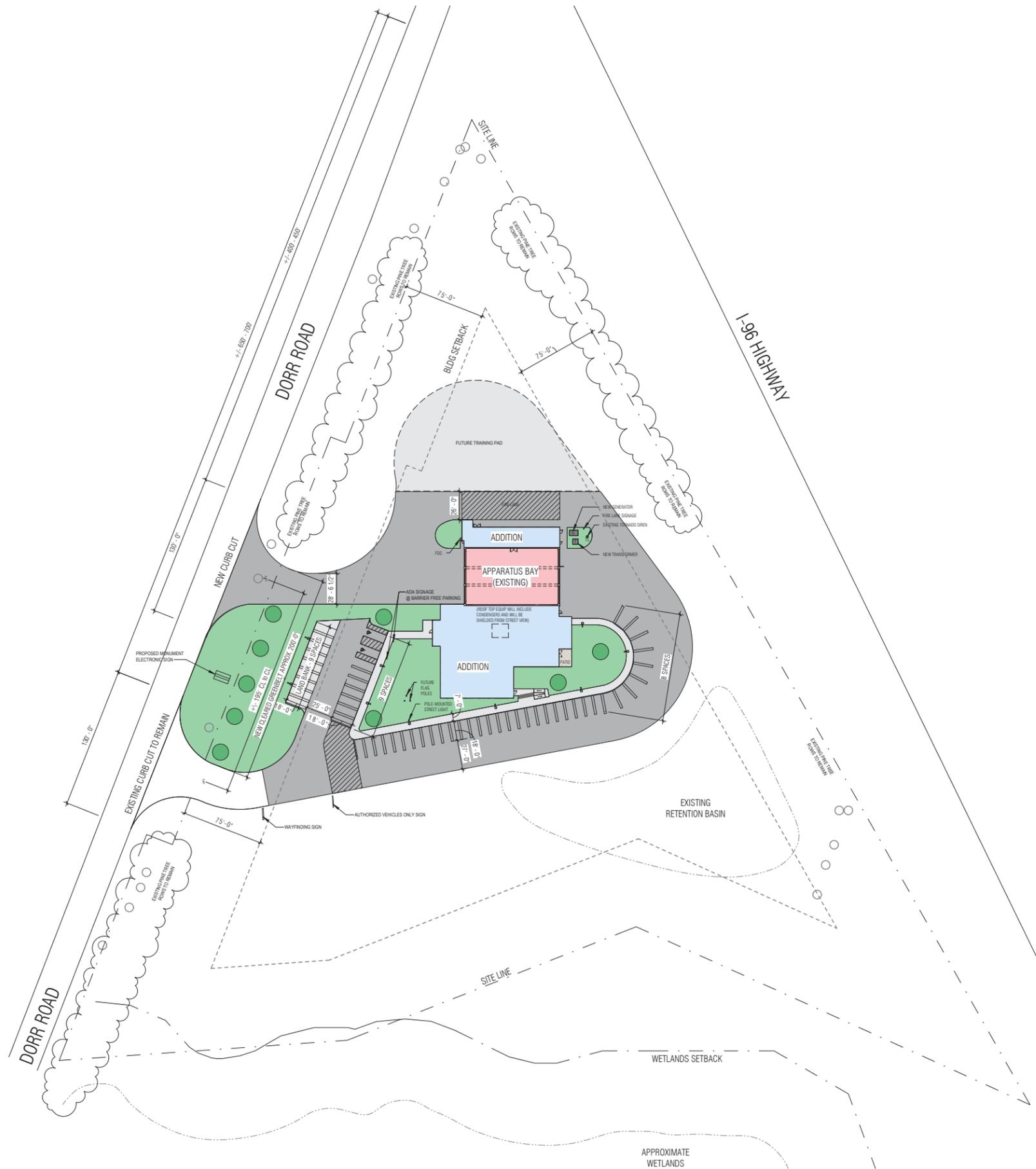


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BRIGHTON AREA FIRE DEPARTMENT STATION #34 ADDITION AND RENOVATION ADJACENT ZONING PARCEL MAP

NO.	DATE	SUBMITTAL	NO.	DATE	REVISION
1	08-20-2019	PRELIMINARY SITE PLAN SUBMITTAL	8	-	-
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PROJECT NO.: 2019-0040	SCALE: 1"=30'
DRAWING NO.: -	
DRAWN BY: S. MOHAMMED	DATE: 2019-08-20
CHECKED BY: LZ	DATE: 2019-08-20
SECTION 14	TOWN 2N RANGE 3E
CITY/TOWNSHIP: GENOA TOWNSHIP	LIVINGSTON COUNTY, MI



SITE PLAN KEYNOTES

BUILDING AND LOT COVERAGE (TABLE 4.05.01)

BUILDING:
15,323 SQ. FT. / LOT: 352,836 SQ. FT. = **4.3%**

IMPERVIOUS SURFACES:
72,725 SQ. FT. / LOT: 352,836 SQ. FT. = **20.6%**

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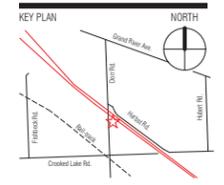
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CONSULTANT



OWNER

Brighton Area Fire Department

PROJECT NAME

Station #34 Addition and Renovation

2755 Dorr Road,
Genoa Township, MI 48116

PROJECT NO.

19-128

ISSUES / REVISIONS

SITE PLAN REVIEW	08/02/19
SITE PLAN REVIEW	08/21/19
SITE PLAN REVIEW	09/03/19

DRAWN BY

DJG

CHECKED BY

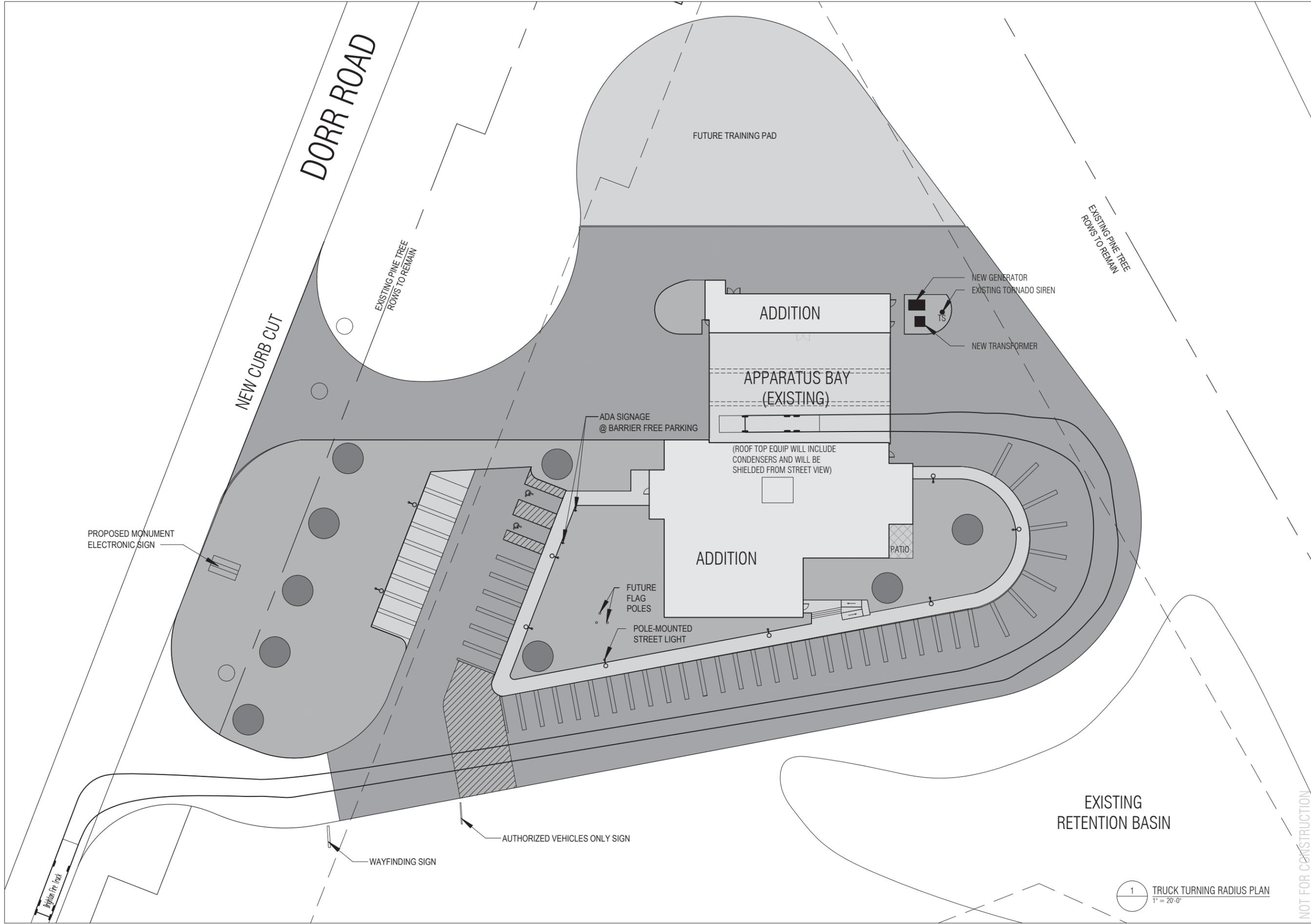
APPROVED BY

SHEET NAME

Architectural Site Plan

SHEET NO.

A2-01



EXISTING
 RETENTION BASIN

NOT FOR CONSTRUCTION

Publicly Visible Exterior Building Wall Material Calculations

WEST ELEVATION - 2,154 sq. ft. Building Material		
Building Material	Proposed Addition	Max % Allowed (PRF)
Brick	54.1%	100%
Metal Wall Panel/Fiber Cement Siding	11.2%	25%
Plain CMU w/ Integral Color	20.4%	25%
Split face/Ground face CMU	6.3%	25%
Cast Stone	4.8%	100%
Metal Coping and Frieze	1.2%	25%

SOUTH ELEVATION - 1,854 sq. ft. Building Material		
Building Material	Proposed Addition	Max % Allowed (PRF)
Brick	52.3%	100%
Metal Wall Panel/Fiber Cement Siding	25%	25%
Split face/Ground face CMU	11.7%	25%
Cast Stone	5.7%	100%
Metal Coping and Frieze	4.7%	25%

EXTERIOR ELEVATION KEYNOTES

- 1 EXISTING METAL FASCIA AND GUTTER TO REMAIN
- 2 EXISTING ROOF TO REMAIN
- 3 EXISTING BRICK - DARK
- 4 EXISTING BRICK - LIGHT
- 5 ASPHALT SHINGLE ROOF
- 6 CAST STONE HEADER
- 7 CAST STONE COPING
- 8 PAINTED METAL FRIEZE
- 9 PAINTED METAL COPING
- 10 EXTERIOR LIGHT FIXTURE
- 11 ALUM. DOOR & FRAME WITH INSUL. GLASS
- 12 EXPOSED FASTENER METAL WALL PANEL - RED
- 13 EXPOSED FASTENER METAL WALL PANEL - GRAY
- 14 SPLIT FACE OR GROUND FACE MASONRY BLOCK WITH INTEGRAL COLOR
- 15 CAST STONE SILL
- 16 ALUM. WINDOW WITH INSUL. GLASS
- 17 HALF HEIGHT MASONRY BLOCK WITH INTEGRAL COLOR
- 18 GRADE
- 19 HALF HEIGHT GLAZED CMU - RED
- 20 BRICK
- 22 ALUM. STOREFRONT WITH INSUL. GLASS
- 23 ALL-GLASS OVERHEAD DOOR TO MATCH EXISTING
- 24 BUILDING SIGNAGE LOCATION
- 25 PAINTED CANOPY SUPPORT ROD
- 26 PAINTED METAL WINDOW HEADER
- 29 PAINTED METAL CANOPY
- 30 PAINTED METAL FASCIA AND GUTTER
- 31 CMU BOND BEAM WITH INTEGRAL COLOR

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CONSULTANT

KEY PLAN



OWNER

Brighton Area Fire Department

PROJECT NAME

Station #34 Addition and Renovation

2755 Dorr Road,
 Genoa Township, MI 48116

PROJECT NO.

19-128

ISSUES / REVISIONS

DATE	DESCRIPTION
08/02/19	SITE PLAN REVIEW
08/21/19	SITE PLAN REVIEW
09/03/19	SITE PLAN REVIEW

DRAWN BY

DJG

CHECKED BY

APPROVED BY

SHEET NAME

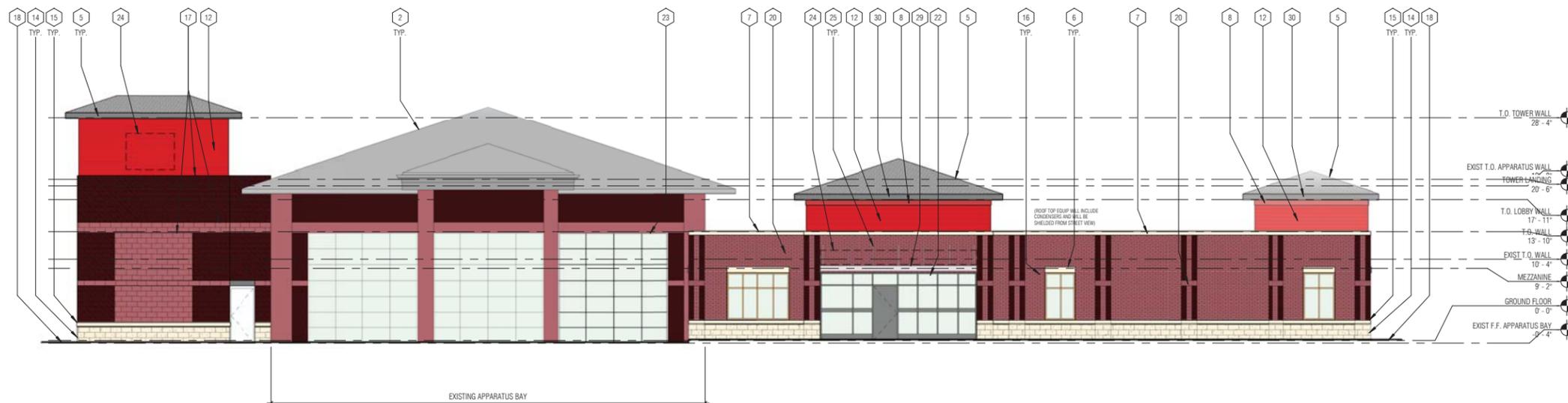
Exterior Elevations

SHEET NO.

A5-01



2 EAST ELEVATION
 A3-01 1/8" = 1'-0"



1 WEST ELEVATION
 A3-01 1/8" = 1'-0"

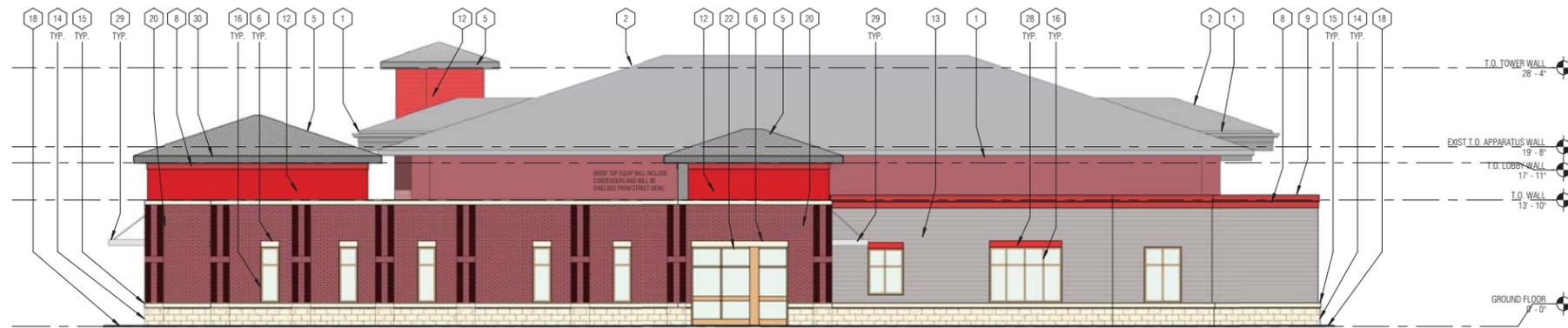
Publicly Visible Exterior Building Wall Material Calculations

WEST ELEVATION - 2,154 sq. ft.		
Building Material	Proposed Addition	Max % Allowed (PRF)
Brick	54.1%	100%
Metal Wall Panel/Fiber Cement Siding	11.2%	25%
Plain CMU w/ Integral Color	20.4%	25%
Split Face/Ground Face CMU	8.3%	25%
Cast Stone	4.8%	100%
Metal Coping and Frieze	1.2%	25%

SOUTH ELEVATION - 1,854 sq. ft.		
Building Material	Proposed Addition	Max % Allowed (PRF)
Brick	52.3%	100%
Metal Wall Panel/Fiber Cement Siding	25%	25%
Split Face/Ground Face CMU	11.7%	25%
Cast Stone	5.7%	100%
Metal Coping and Frieze	4.7%	25%

EXTERIOR ELEVATION KEYNOTES

- 1 EXISTING METAL FASCIA AND GUTTER TO REMAIN
- 2 EXISTING ROOF TO REMAIN
- 3 EXISTING BRICK - DARK
- 4 EXISTING BRICK - LIGHT
- 5 ASPHALT SHINGLE ROOF
- 6 CAST STONE HEADER
- 7 CAST STONE COPING
- 8 PAINTED METAL FRIEZE
- 9 PAINTED METAL COPING
- 10 EXTERIOR LIGHT FIXTURE
- 11 ALUM. DOOR & FRAME WITH INSUL. GLASS
- 12 EXPOSED FASTENER METAL WALL PANEL - RED
- 13 EXPOSED FASTENER METAL WALL PANEL - GRAY
- 14 SPLIT FACE OR GROUND FACE MASONRY BLOCK WITH INTEGRAL COLOR
- 15 CAST STONE SILL
- 16 ALUM. WINDOW WITH INSUL. GLASS
- 17 HALF HEIGHT MASONRY BLOCK WITH INTEGRAL COLOR
- 18 GRADE
- 19 HALF HEIGHT GLAZED CMU - RED
- 20 BRICK
- 22 ALUM. STOREFRONT WITH INSUL. GLASS
- 23 ALL-GLASS OVERHEAD DOOR TO MATCH EXISTING
- 24 BUILDING SIGNAGE LOCATION
- 25 PAINTED CANOPY SUPPORT ROD
- 26 PAINTED METAL WINDOW HEADER
- 29 PAINTED METAL CANOPY
- 30 PAINTED METAL FASCIA AND GUTTER
- 31 CMU BOND BEAM WITH INTEGRAL COLOR



2 SOUTH ELEVATION
A3-01 1/8" = 1'-0"



1 NORTH ELEVATION
A3-01 1/8" = 1'-0"

PARTNERS



PARTNERS in Architecture, PLC

65 Market Street
Mount Clemens, MI 48043
P 586.469.3600
F 586.469.3607

Statement of Intellectual Property

The ideas, concepts, drawings and thoughts conveyed herein are the intellectual property of PARTNERS in Architecture, PLC, 65 Market Street, Mount Clemens, MI, 48043 (P586.469.3600). This set of drawings, in whole or in part, may not be reproduced, without the written consent of PARTNERS in Architecture, PLC. This information is protected under U.S. Copyright Law, all rights reserved.

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CONSULTANT

KEY PLAN



OWNER

Brighton Area Fire
Department

PROJECT NAME

Station #34 Addition
and Renovation

2755 Dorr Road,
Genoa Township, MI 48116

PROJECT NO.

19-128

ISSUES / REVISIONS

REVISION	DATE
SITE PLAN REVIEW	08/02/19
SITE PLAN REVIEW	08/21/19
SITE PLAN REVIEW	09/03/19

DRAWN BY

DJG

CHECKED BY

APPROVED BY

SHEET NAME

Exterior Elevations

SHEET NO.

A5-02



GENOA CHARTER TOWNSHIP APPLICATION
Sketch Plan Review

TO THE GENOA TOWNSHIP PLANNING COMMISSION:

APPLICANT NAME & ADDRESS: Ken Rushing, PO Box 210639 Auburn Hills, MI 48321
If applicant is not the owner, a letter of Authorization from Property Owner is needed.

OWNER'S NAME & ADDRESS: Chester Limited XXI LLC, 341 Ridgewood Rd Rochester, MI 48306

SITE ADDRESS: 830 Grand Oaks Dr. Howell, MI 48843 PARCEL #(s): 4711-05-300-051

APPLICANT PHONE: (586) 914-4433 OWNER PHONE: (313) 363-1336

LOCATION AND BRIEF DESCRIPTION OF SITE: 830 Grand Oaks Dr. Howell, MI 48843.

The property is a 10 acre industrial site with two buildings.

Building 1 Unit A - 32,160 sqft. / Building 2 Unit B - 12,320 sqft.

BRIEF STATEMENT OF PROPOSED USE: _____

HVAC-R Wholesale, Warehouse that only sells to HVAC contractors. We are not open to the public.

THE FOLLOWING IMPROVEMENTS ARE PROPOSED: _____

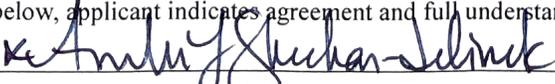
Building 2 - Add 1 Office, 2 Bathrooms, 1 Janitor Closet and 1 Truck Well.

I HEREBY CERTIFY THAT ALL INFORMATION AND DATA ATTACHED TO AND MADE PART OF THIS APPLICATION IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

BY: Amber Sheehan Jelinek 

ADDRESS: 341 Ridgewood Rd Rochester, MI 48306

Contact Information - Review Letters and Correspondence shall be forwarded to the following:		
1.) <u>Amber Sheen Jelinek</u>	of <u>Chester Limited XXI LLC</u>	at <u>amber.sheehan@johnstonesupply.com</u>
Name	Business Affiliation	Email Address

FEE EXCEEDANCE AGREEMENT	
All sketch plans are allocated one (1) consultant review and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal for a Land Use Permit. By signing below, applicant indicates agreement and full understanding of this policy.	
SIGNATURE: 	DATE: <u>8/20/2019</u>
PRINT NAME: <u>Amber Sheehan Jelinek</u>	PHONE: <u>313-363-1336</u>

From: [Michael Bartlett](#)
To: [Amy Ruthig](#)
Subject: Application for sketch plan for review of 830 Grand Oaks Dr.
Date: Thursday, August 22, 2019 3:40:47 PM

I authorize Amber Sheehan Jelinek of Chester Limited XXI, LLC to submit sketch plan, for 830 Grand Oaks Dr., Howell, MI for review. Any questions contact Michael or Christine Bartlett, ph. 248-770-4588 or email.

Amy please acknowledge receipt of this email

Sincerely
Christine Bartlett – General Partner
DeChris Limited Partnership

Sent from [Mail](#) for Windows 10

Chester Limited XXI, LLC
PO Box 210639
Auburn Hills, MI 48321

August 20, 2019

Genoa Charter Township

Re: Authorization for Application Sketch Plan Review

To whom it may concern:

I am authorizing, Kenneth Rushing, our manager, to act on behalf of: Chester Limited XXI, LLC in regards to submitting an Authorization for Application Sketch Plan Review

Please contact me if you have any questions, at 313.971.7955.

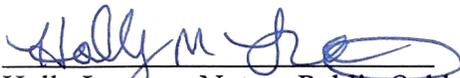
Sincerely,



Amber Sheehan-Jelinek
Chester Limited XXI, LLC
PO Box 210639 Auburn Hills, MI 48321

State of Michigan
County of Oakland

The forgoing instrument was acknowledged before me this 20th day of August 2019 by Amber Sheehan-Jelinek,



Holly Lemons, Notary Public Oakland County Michigan
My Commission Expires: November 10, 2022

HOLLY M. LEMONS
Notary Public, State of Michigan
County of Oakland
My Commission Expires 11-10-2022
Acting in the County of Oakland



September 3, 2019

Planning Commission
Genoa Township
2911 Dorr Road
Brighton, Michigan 48116

Attention:	Kelly Van Marter, AICP Planning Director and Assistant Township Manager
Subject:	Johnstone Supply – Sketch Plan Review #1
Location:	830 Grand Oaks Drive – west side of Grand Oaks, south of Grand River Avenue
Zoning:	IND Industrial District

Dear Commissioners:

At the Township’s request, we have reviewed the sketch plan submittal proposing renovations to the existing building and exterior site improvements for the developed property at 830 Grand Oaks Drive (plans dated 8/21/19). The site contains 2 industrial building and the renovations are related to the smaller building (labeled on the plans as Building B), while the improvements are throughout the site.

A. Summary

1. We request clarification on outdoor storage – did the site previously obtain approval/does the applicant intend to use it?
2. If exterior building improvements are proposed, details must be provided.
3. The existing gate opening does not provide the required width for two-way travel.
4. We request the applicant provide a truck turning movement detail to ensure that refuse removal vehicles can safely access the waste receptacle.
5. We suggest the Brighton Area Fire Authority review the gated entrance.
6. The parking areas do not include curbing, as required by Ordinance. In lieu of curbing, bumper blocks are proposed, which are only allowed with Planning Commission approval upon a finding that they are necessary.
7. If new lighting is proposed, details must be provided. Alternatively, the Commission may wish to request details of existing lighting to ensure current Ordinance standards are met.
8. The applicant must either provide the required parking lot landscaping, or request that the Commission waive/modify Ordinance requirements per Section 12.02.13.
9. The applicant must identify the exterior material for the waste receptacle enclosure. Additionally, the proposed gate (chain link with opaque slats) does not comply with Ordinance standards.
10. The applicant must obtain a sign permit from the Township prior to installation.

B. Proposal/Process

The applicant proposes internal renovations to an existing 11,968 square foot industrial building, as well as installation of new parking, a waste receptacle/enclosure, landscaping, and signage.

The proposed use of this building is for wholesale/warehousing for HVAC equipment with the only sales being to contractors (not the general public). There also appears to be existing outdoor storage on the site for both buildings. We do not know if this was previously approved or if the applicant intends to use outdoor storage. We request clarification on this aspect of the project.

Contractors offices and warehousing are permitted uses in the IND. Given the nature of the proposal, it qualifies for sketch plan review, as opposed to a full site plan review. As such, the proposal requires only review/approval by the Planning Commission.



Aerial view of site and surroundings (looking north)

C. Sketch Plan Review

- 1. Dimensional Requirements.** Both of the existing buildings meet IND setback requirements and no changes are proposed.

The notes on Sheet C3 indicate lot coverages (building and impervious surface) that are also well within Ordinance requirements. Proposed parking spaces, as well as the waste receptacle/enclosure also comply with setback requirements.

- 2. Building Materials and Design.** The submittal does not include building elevation drawings. We are under the impression that no exterior building improvements are proposed; however, if improvements are proposed, details must be provided.
- 3. Vehicular Circulation.** The existing curb cut to/from Grand Oaks will remain with no changes proposed. There do not appear to be any changes proposed to the existing circulation pattern; however, the existing gate opening for access to Building B is less than the 24-foot width required for two-way travel.

Additionally, access to the waste receptacle will require refuse removal vehicles to drive around a retaining wall. There appears to be sufficient width to accommodate this movement; however, we request the applicant provide a truck turning template for the Commission's consideration.

Lastly, though the fence/gate enclosure is an existing condition, we suggest review and comment on this site element by the Brighton Area Fire Authority to ensure proper emergency access is provided.

- 5. Parking.** The parking calculations on Sheet C3 indicate that a total of 34 spaces are required for both buildings (26 for Building A and 8 for Building B). The parking space detail depicts compliant space dimensions/design; however, these areas do not include curbing per Ordinance requirements.

Bumper blocks are proposed to keep vehicles within the confines of the parking spaces, though they are only allowed when deemed necessary by the Planning Commission.

6. **Exterior Lighting.** The submittal does not identify any existing or proposed exterior site lighting. Details must be provided for any proposed lighting. If no new lighting is proposed, the Commission may wish to request details of existing fixtures to ensure compliance with current standards.
7. **Landscaping.** The site currently contains 6 canopy trees within the front yard greenbelt, though 3 are in the right-of-way. The proposal includes 7 additional canopy trees in the greenbelt, which brings this element into compliance with current standards.

The plan also proposes a 3-foot landscaped berm along the north side property line, behind Building A. The berm, which will fill in an open area between the site and the Home Depot parking lot, includes 7 canopy trees, 9 evergreen trees, and 34 shrubs.

The Ordinance also requires parking lot landscaping – 4 canopy trees and 340 square feet of landscaped area – though no such plantings are provided (existing or proposed).

The applicant must either provide these plantings, or request that the Commission waive/modify Ordinance requirements per Section 12.02.13.

8. **Waste Receptacle.** The proposed waste receptacle/enclosure complies with the location, height and base pad requirements of Section 12.04, though we request the applicant identify the exterior material on the enclosure.

As previously noted, we also suggest additional information to ensure the receptacle can be safely accessed by refuse removal vehicles.

Lastly, the Ordinance requires use of a wooden gate; however, the proposal entails chain link fencing with opaque slats.

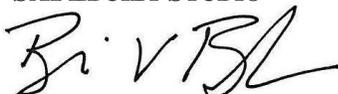
9. **Signage.** The submittal identifies a new ground sign on the south side of the driveway. Details of the proposed sign (Sheet C3) indicate a compliant location, height and area.

The applicant should be aware that a sign permit is required from the Township prior to installation of any new signage.

10. **Impact Assessment.** The submittal includes an Environmental Impact Assessment (dated August 21, 2019). In general, the Assessment states that the proposed project is not expected to adversely impact natural features, public services/utilities, traffic or surrounding land uses.

Should you have any questions concerning this matter, please do not hesitate to contact our office. I can be reached by phone at (248) 586-0505, or via e-mail at bborden@safebuilt.com.

Respectfully,
SAFEBUILT STUDIO


Brian V. Borden, AICP
Planning Manager



August 30, 2019

Ms. Kelly Van Marter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

**Re: Johnstone Supply
Site Plan Review No. 1**

Dear Ms. Van Marter:

Tetra Tech conducted a site plan review of the Johnstone Supply sketch plan last dated August 21, 2019. The plans were prepared by Boss Engineering on behalf of Chester Limited XXI LLC. The property includes 10 acres located on the west side of Grand Oaks Drive just south of Grand River Avenue. The petitioner is proposing site improvements to accommodate the addition of an office, two bathrooms and a janitor closet in their existing 12,320 square foot building plus the addition of a truck well adjacent to the building. Improvements will include extending municipal water and sanitary sewer services to the existing building. We offer the following comments:

GENERAL NOTES

1. There are already sanitary sewer and water services to the existing 32,160 square foot building on the property and the Petitioner is proposing additional sanitary sewer and water serviced to the second building on site. These two buildings appear to be on the same address and the Petitioner will need to discuss how two services at the same address will be accomplished with the Township.

TRAFFIC AND ROADWAYS

1. The Petitioner is proposing the addition of an on-site truck well and should provide a traffic plan which shows how trucks will access and navigate the site. With the existing fence there is only a 20-foot access to building B which will need to be reviewed and approved by the Brighton Area Fire Authority.
2. The existing parking lot does not appear to have curb and gutter. We suggest that parking lot improvements be included in the proposed site improvements, especially in the location of the proposed additional parking spaces.

SANITARY AND WATER SERVICES

1. The site doesn't appear to have adequate hydrant coverage of their existing buildings or the proposed new use building. The entire structure should be within a 250-foot radius of a hydrant. A hydrant lead should be extended onto the site to provide the required fire protection. The Petitioner should obtain approval from the Brighton Area Fire Authority prior to site plan approval.

Tetra Tech

401 South Washington Square, Suite 100, Lansing, MI 48933
Tel 517.316.3930 Fax 517.484.8140 www.tetrattech.com

DRAINAGE AND GRADING

1. The Petitioner is proposing a 6-inch pipe to drain stormwater from the proposed truck well. The Genoa Township Engineering Standards require a minimum storm sewer size of 12 inches for private storm sewers in paved areas.
2. The petitioner should provide more information on the current storm drainage on the site and proposed storm drainage control measures. Elevations should be provided for the proposed truck well as well as invert elevations for the proposed storm drain to ensure there will be proper drainage. The proposed improvements increase the area of impervious surface and it may be necessary to provide onsite detention or retention.

We suggest the Petitioner address the above comments and resubmit a revised sketch plan for review and approval.

Please call or email if you have any questions.

Sincerely,



Gary J. Markstrom, P.E.
Vice President



Shelby Scherdt
Project Engineer



BRIGHTON AREA FIRE AUTHORITY

615 W. Grand River Ave.
Brighton, MI 48116
o: 810-229-6640 f: 810-229-1619

September 3, 2019

Kelly VanMarter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

RE: Johnstone Supply
830 Grand Oaks Drive
Genoa Twp., MI

Dear Kelly:

The Brighton Area Fire Department has reviewed the above-mentioned site plan. The plans were received for review on August 22, 2019, and the drawings are dated August 21, 2019. The project is based on an existing 1-acre parcel that includes two structures; a 32,160 square foot warehouse and a 12,320 square foot vacant storage building. The buildings were built in approximately 1990, prior to the adoption of current model codes and prior to utility infrastructure being provided in the area. The submittal is for the alteration of the smaller building that is not currently occupied and is provided with no public utilities, mechanical, or plumbing. The proposed site plan will change the use of the structure to an S-2 storage facility that is to be occupied daily by the staff of the new ownership company. There will be alteration requiring sanitary sewer and domestic water brought to the building.

The plan review is based on the requirements of the International Fire Code (IFC) 2018 edition.

1. The utility plan indicates a new sanitary sewer lead and a 1-inch copper line for domestic water. A conversation was had with the owner representative Ken Rushing in late July/early August in reference to this project. He was advised that a new fire hydrant would be required to be installed in accordance with the fire code requirement of a fire hydrant located within 400-feet of all parts of the building. The 1-inch copper line must be replaced with an 8-inch water lead. The hydrant shall be located a minimum of 40-feet from the structure, adjacent to the dumpster enclosure. The 1-inch copper line can then come off of the 8-inch water line. The hydrant shall be installed to MHOG standards.
2. The address provided in the title block is for another business located on the premises. The fire authority recommends that a new address be provided for this structure. Once granted, all subsequent submittals shall be provided with the correct address in the title block.
3. The address numbers shall be placed on the structure and be a **minimum of 6"** high letters of contrasting colors and be clearly visible from the street. The location and size shall be verified prior to installation. If the distance from a roadway inhibits visibility, the numbers may be provided on a sign closer to the roadway so long as the building is provided with the numbers in the format described above.

IFC 105.4.2

IFC 505.1



September 3, 2019
Page 2
Johnstone Supply
830 Grand Oaks Dr.
Site Plan Review

4. The access drive into the site shall be maintained at a minimum of 26' wide. With a width of 26' wide, one side of the street shall be marked as a fire lane. This should be marked along the fence line and the retaining wall to prohibit parking in these areas. Include the location of the proposed fire lane signage and include a detail of the fire lane sign in the submittal. Access roads to the site shall be provided and maintained during construction. Access roads shall be constructed to be capable of supporting the imposed load of fire apparatus weighing at least 84,000 pounds.

IFC D 103.6
IFC D 103.1
IFC D 102.1
IFC D 103.3

5. Access around building shall provide emergency vehicles with a turning radius of 30-feet inside and 50-feet outside.
6. A minimum vertical clearance of 13½ feet shall be maintained throughout the site.
7. The access gate shall have a minimum clear width of 20-feet. If the gate is to be secured, it shall be provided with a Knox Padlock interconnected with the owner's lock to allow access.
8. The location of a Knox Box shall be indicated on future submittals. The Knox box shall be located adjacent to the front door of the structure.

IFC 506.1

Additional comments will be given during the building plan review process (specific to the building plans and occupancy). The applicant is reminded that the fire authority must review the fire protection systems submittals (sprinkler & alarm) prior to permit issuance by the Building Department and that the authority will also review the building plans for life safety requirements in conjunction with the Building Department. If you have any questions about the comments on this plan review please contact me at 810-229-6640.

Cordially,

A handwritten signature in black ink, appearing to read "R. Boisvert".

Rick Boisvert, CFPS
Fire Marshal

Applicant supplied an impact assessment that was not required for sketch plan review. I have provided the impact assessment for your review.

**IMPACT ASSESSMENT
FOR
SKETCH PLAN PETITION
"JOHNSTONE SUPPLY"
830 GRAND OAKS DRIVE
GENOA TOWNSHIP, LIVINGSTON COUNTY
MICHIGAN**

Prepared for:

**Chester Limited XXI, LLC
341 Ridgewood Road
Rochester, Mi. 48306**

Prepared by:

**BOSS ENGINEERING COMPANY
3121 E. GRAND RIVER
HOWELL, MI 48843
(517) 546-4836**

August 21, 2019

19-292 EIA

INTRODUCTION

The purpose of this Impact Assessment (IA) report is to show the effect that this proposed development may have on various factors in the general vicinity of the project. The format used for presentation of this report conforms to the *Submittal Requirements For Impact Assessment* guidelines in accordance with Section 18.07 of the published Zoning Ordinance for Genoa Township, Livingston County, Michigan.

DISCUSSION ITEMS

A. Name(s) and address(es) of person(s) responsible for preparation of the impact assessment and a brief statement of their qualifications.

Prepared By :
Brent W. LaVanway, P.E.
BOSS ENGINEERING COMPANY
Civil Engineers, Land Surveyors, Landscape Architects and Planners
3121 E. Grand River
Howell, MI 48843
(517) 546-4836

Prepared For :
Johnstone Supply/Chester Limited XXI, LLC
341 Ridgewood Road
Rochester, MI. 48306

B. Map(s) and written description / analysis of the project site including all existing structures, manmade facilities, and natural features. The analysis shall also include information for areas within 10 feet of the property. An aerial photograph or drawing may be used to delineate these areas.

The 10+ acre site at 830 Grand Oaks Drive is located on the west side of Grand Oaks Drive immediately south of Home Depot. The subject property is currently a lease space for Merchant Metals wholesale fence company. There are two existing buildings, paved and gravel parking lot and outdoor storage area. The west portion of the property contains a natural area with shrub/scrub vegetation. There are scattered trees along the south, east and west property lines.

C. Impact on natural features: A written description of the environmental characteristics of the site prior to development and following development, i.e., topography, soils, wildlife, woodlands, mature trees (eight inch caliper or greater), wetlands, drainage, lakes, streams, creeks or ponds. Documentation by a qualified wetland specialist shall be required wherever the Township determines that there is a potential regulated wetland. Reduced copies of the Existing Conditions Map(s) or aerial photographs may accompany written material.

Resources utilized to study the natural features of the site included a on-site visit, aerial photos from Google Earth, a web soil survey prepared by the USDA, Wetlands Inventory Maps prepared by the MDEQ as well as resources prepared by the Huron River Watershed Council and other Livingston County Natural resources agencies.

The front (east) portion of the site is the existing Merchants Metals facility and associated parking while the south, west and north contains the parking lots and outdoor storage areas. The second building is located in the middle of the property towards the south property line. The site slopes generally east to west. The soils on site consist of Miami Loam with 6-12% slopes. The land cover identified in the field is also consistent with the soils which consist of impervious surface, compacted lawn area and wooded shrub scrub areas. Existing vegetation on the site will remain with the exception of a few trees that will be removed for site improvements. Given that the site has already been developed tree removal and natural features disturbance will be minimal.

D. Impact on storm water management: Description of measures to control soil erosion and sedimentation during grading and construction operations and until a permanent ground cover is established. Recommendations for such measures may be obtained from County Soil Conservation Service.

Topography on the site ranges from the highest elevation at Grand Oaks Drive to the lowest elevation at the west property line.

The land cover found in the field consisted of two different types; impervious surface (parking lot, building) as well as wooded area including shrub scrub and compacted lawn areas.

The stormwater pattern will remain as it is today with the drainage sheet flowing through the gravel storage area to the natural area at the rear of the property. A storm drain will be installed to drain the truck well.

Soil erosion measures will be minimal due to the very limited disturbance to the property. This will be accomplished through the use of silt fence installed along the low area to the west of the existing outdoor storage yard. Weekly inspections of the silt fence will be required.

E. Impact on surrounding land use: Description of the types of proposed uses and other man made facilities, including any project phasing, and an indication of how the proposed use conforms or conflicts with existing and potential development patterns. A description shall be provided of any increases of light, noise or air pollution which could negatively impact adjacent properties.

As previously stated the site is the current home of Merchant Metals. Johnstone Supply will renovate and occupy the smaller building on site. The use of the site conforms with development patterns of the surrounding area and the industrial zoning.

In general the site will see an increase in use due to the renovation of the smaller building. Anticipated hours will be 8 a.m. to 5 p.m. up to six days per week. Both Merchant Metals and Johnstone Supply are wholesale suppliers thus are limited to contractor pick ups and will not provide retail services to the public.

F. Impact on public facilities and services: Description of number of expected residents, employees, visitors, or patrons, and the anticipated impact on public schools, police protection and fire protection. Letters from the appropriate agencies may be provided, as appropriate.

With the renovation of the smaller building the impacts on public facilities and services are anticipated to be minimal.

Local school districts won't be affected by the addition, and the only change in impact to emergency services such as police protection and fire is the increase of three employees and contractor traffic generated by Johnstone Supply.

G. Impact on public utilities: Description of the method to be used to service the development with water and sanitary sewer facilities, the method to be used to control drainage on the site and from the site, including runoff control during periods of construction. For sites service with sanitary sewer, calculations for pre- and post development flows shall be provided in equivalents to a single family home. Where septic systems are proposed, documentation or permits from the Livingston County Health Department shall be provided.

The existing Merchant Metals is currently served by M.H.O.G public water and Genoa Township public sanitary sewer. With the renovation of the second building new public sewer and water leads will be required. The renovated building will be warehouse and wholesale distribution of HVAC equipment having a total of three employees and one bathroom.

The proposed uses will have minimal impact on sanitary and water.

H. Storage or handling of any hazardous materials: Description of any hazardous substances expected to be used, stored or disposed of on the site. The information shall describe the type of materials, location within the site and method of containment. Documentation of compliance with federal and state requirements, and a Pollution Incident Prevention Plan (PIPP) shall be submitted, as appropriate.

There will be no hazardous materials used or disposed of on this site.

I. Impact on traffic and pedestrians: A description of the traffic volumes to be generated based on national reference documents, such as the most recent edition of the Institute of Transportation Engineers Trip Generation Manual, other published studies or actual counts of similar uses in Michigan.

As previously noted there will only be three new employees for the site resulting in an addition of potentially three trips during the a.m. peak and three trips during the p.m. peak. There will be limited truck traffic for drop off of equipment and pick up by individual contractors.

J. A detailed traffic impact study shall be submitted for any site over ten (10) acres in size which would be expected to generate 100 directional vehicle trips (i.e. 100 inbound or 100 outbound trips) during the peak hour of traffic of the generator or on the adjacent streets.

A traffic study is not required for this site.

K. Special Provisions: General description of any deed restrictions, protective covenants, master deed or association bylaws.

None

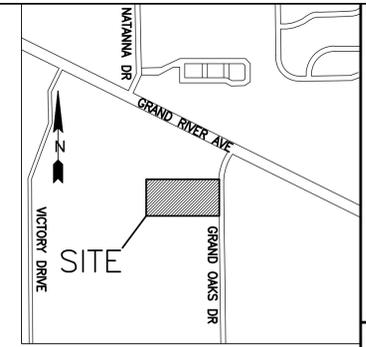
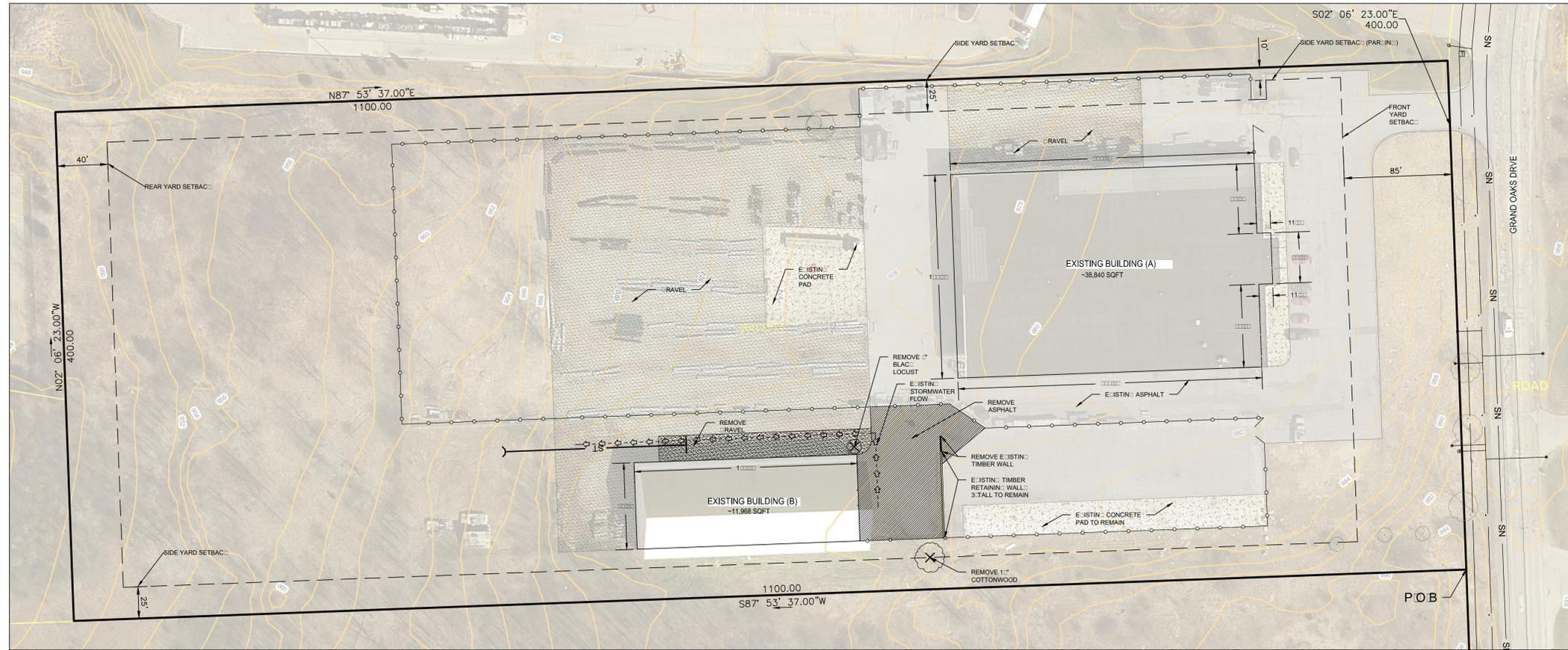
L. A list of all sources shall be provided.

Genoa Township's *Submittal Requirements For Impact Assessment*

Genoa Township Zoning Ordinances

Soil Survey of Livingston County, Michigan, U.S.D.A. Soil Conservation Service

National Wetland Inventory Plan, United States Department of the Interior, Fish and Wildlife Service



LOCATION MAP
NOT TO SCALE

GENERAL SURVEY NOTES:

- CURRENT ZONING: IND (INDUSTRIAL)
- MINIMUM SETBACK REQUIREMENTS:
FRONT = 85 FEET (IF PARKING IN THE FRONT YARD; 50 FEET WITHOUT PARKING
SIDES = 25 FEET
REAR = 40 FEET
PARKING = 10 FEET SIDE AND REAR
- BEARINGS WERE ESTABLISHED FROM LIVINGSTON COUNTY TAX DESCRIPTION RECORDS.
- SUBSURFACE UTILITIES ARE DRAWN PER RECORD; OTHER UTILITIES MAY EXIST. IT IS THE RESPONSIBILITY OF THE OWNER OF THE RESPECTIVE UTILITY TO ACCURATELY LOCATE SUCH UTILITIES.
- EASEMENTS OR RESTRICTIONS OF RECORD NOT DEPICTED ON THIS DRAWING MAY EXIST.
- CONTOURS ARE SHOWN AT 2 FOOT INTERVALS.
- SUBJECT PROPERTY IS DESIGNATED AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN (ZONE X) ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), FLOOD INSURANCE RATE MAP (FIRM), FOR GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN, MAP NUMBER XXXXXCXXXX, PANEL XXX OF 495, WITH AN EFFECTIVE DATE OF SEPTEMBER XX, 2009.
- THE LOCATIONS OF STORM SEWER, SANITARY SEWER & WATERMAIN, AS SHOWN ON THIS DRAWING ARE APPROXIMATE. THE LOCATIONS ARE BASED ON PHYSICAL FIELD LOCATIONS ALONG WITH DRAWINGS SUPPLIED BY GENOA TOWNSHIP.
- OWNER OF SUBJECT PROPERTY: CHESTER LIMITED XXI LLC
- ALL WORK SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY, THE COUNTY, AND THE STATE OF MICHIGAN.
- ALLOW THREE WORKING DAYS BEFORE YOU DIG, CALL MISS DIG TOLL FREE 1-800-482-7171.

EXISTING CONDITIONS NOTES:

- DUE TO EXISTING UTILITY SERVICES TO BUILDING CONTRACTOR IS TO USE EXTREME CARE WHEN WORKING ON SITE.
- ROOF DOWNSPOUTS ARE TO BE REPAIRED AND MODIFIED AS NECESSARY TO DISCHARGE AT GRADE.

LEGEND

- ⊙ HYDRANT
- ⊗ GATE VALVE
- ⊙ DECIDUOUS TREE
- SN— SANITARY SEWER
- WM— WATER MAIN
- ST— STORM SEWER
- T— TELEPHONE
- O— FENCE



SCALE: 1 INCH = 50 FEET

THE LOCATION AND DEPTH OF UTILITIES SHOWN ON THIS DRAWING ARE APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE EXACT LOCATION OR DEPTH OF UTILITIES. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS ARE FOUND ON THE JOB PRIOR TO CONSTRUCTION. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE LOCATION OR DEPTH OF UTILITIES SHOWN ON THIS DRAWING. BEFORE YOU DIG CALL MISS DIG 1-800-482-7171

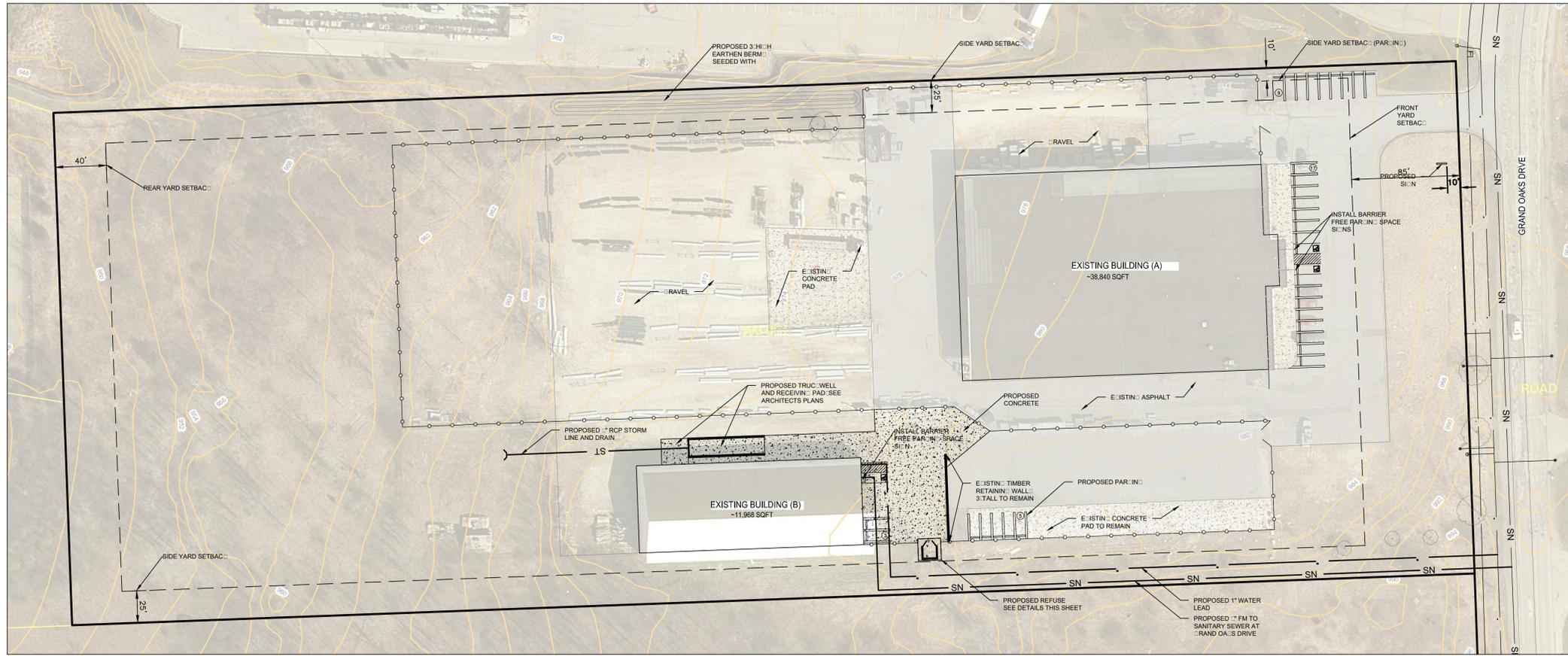
BEBOSS
Engineering
Engineers Surveyors Planners Landscape Architects
3121 E. GRAND RIVER AVE.
HOWELL, MI. 48843
800.246.6735 FAX 517.548.1670

PROJECT: 19-292
PREPARED FOR: JOHNSTONE SUPPLY
830 GRAND OAKS DRIVE
GENOA TOWNSHIP, MICHIGAN, 48843
586.914.4433
TITLE: EXISTING CONDITIONS AND DEMOLITION

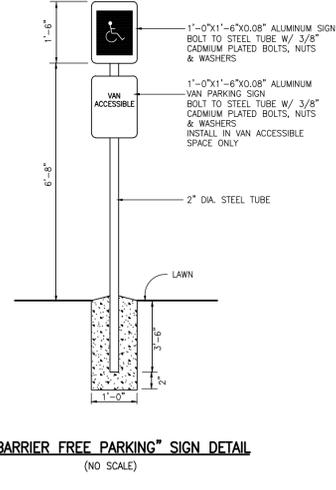
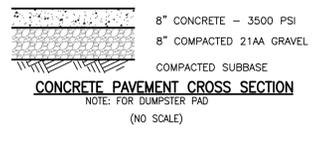
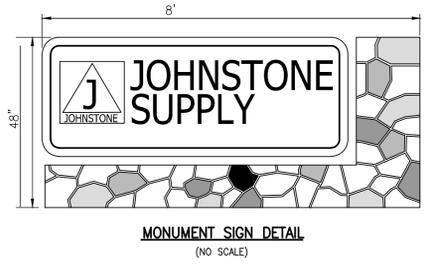
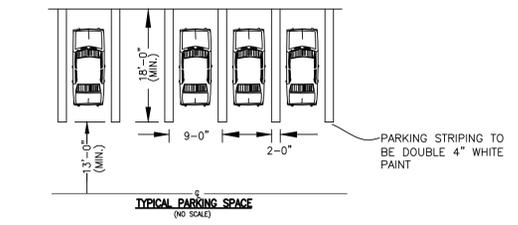
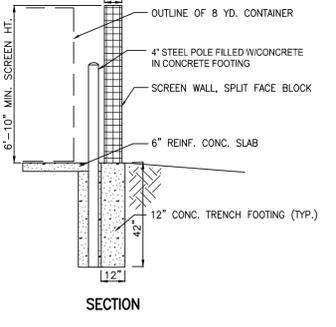
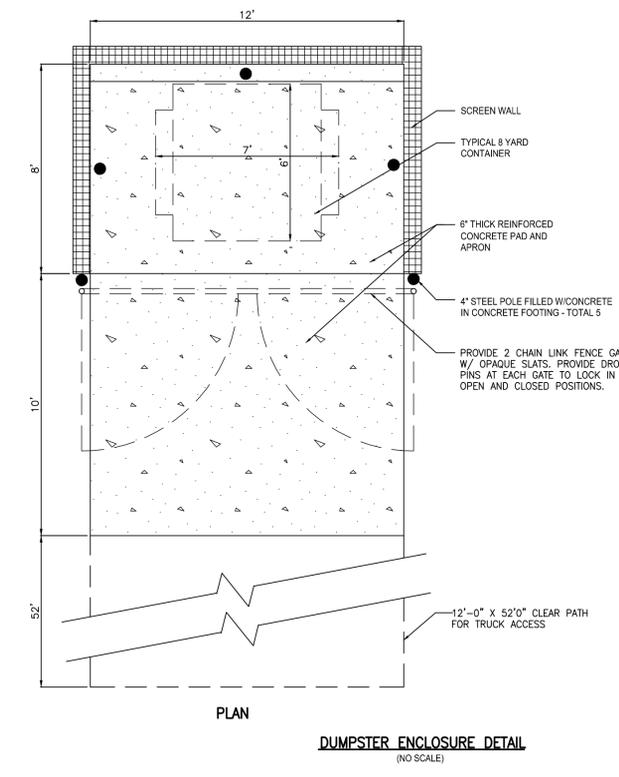
NO	BY	PER TOWNSHIP REVIEW	REVISION	DATE
1	JH			8-21-2019

DESIGNED BY: JH
DRAWN BY: JH
CHECKED BY: BL
SCALE: 1" = 50'
JOB NO. 19-292
DATE: 08/21/2019
SHEET NO. C2





THE USER SHALL BE RESPONSIBLE FOR VERIFYING ALL UTILITIES SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE ACCURACY OF THESE UTILITIES. THE USER SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES. THE USER SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS ARE FROM THE PLAN, FIELD SURVEY OR BOTH BEFORE SIGNIFICANTLY FROM THE PLAN. BEFORE YOU DIG CALL MISS DIG 1-800-485-5111

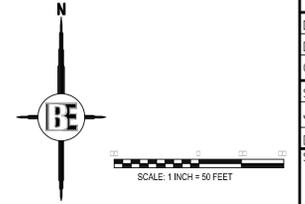


SITE DATA

- ZONING : IND - INDUSTRIAL
- SITE AREA - 10.10 AC
- MAX. BLDG. HT. ALLOWED - 30 FT/2 STORIES PROVIDED: NO CHANGE
- MAX LOT COVERAGE - 40% BUILDING, 85% IMPERVIOUS PROVIDED: 11.6% BUILDING, 50% IMPERVIOUS
- SETBACKS
FRONT - 85 FT, 50 FT IF NO PARKING
SIDE - 25', 10 FT. AT PARKING LOT
REAR - 40 FT.
- PARKING:
WAREHOUSE A - 1 SPACE PER 1500 SQ. FT. GROSS FLOOR SPACE.
PARKING REQUIRED = 38,840. FT/ 1500 SOFT = 26 SPACES
PARKING PROVIDED = 26 SPACES (INCLUDING 2 BARRIER FREE SPACES)
WAREHOUSE B - 1 SPACE PER 1500 SQ. FT. GROSS FLOOR SPACE.
PARKING REQUIRED = 11,968. FT/ 1500 SOFT = 8 SPACES
PARKING PROVIDED = 8 SPACES (INCLUDING 1 BARRIER FREE SPACE)
- ALL BUILDING SIGNAGE SHALL COMPLY WITH THE GENOA TOWNSHIP ZONING ORDINANCE.

EMERGENCY ACCESS ROUTE NOTE:
THE EMERGENCY ACCESS ROUTE AROUND THE PROPOSED DEVELOPMENT HAS BEEN DESIGNED TO MAINTAIN A MINIMUM TURNING RADIUS OF 30' INSIDE AND 50' OUTSIDE AND SHALL ALLOW A MINIMUM VERTICAL CLEARANCE OF 13.5 FT.

BUILDING ADDRESS NOTE:
THE BUILDING IS TO HAVE THE ADDRESS NUMBERS ON THE BUILDING. THE NUMBERS ARE TO BE A MINIMUM OF 6" HIGH AND OF CONTRASTING COLORS AND BE CLEARLY VISIBLE FROM THE STREET (LATSON ROAD). THE LOCATION AND SIZE SHALL BE VERIFIED PRIOR TO INSTALLATION.



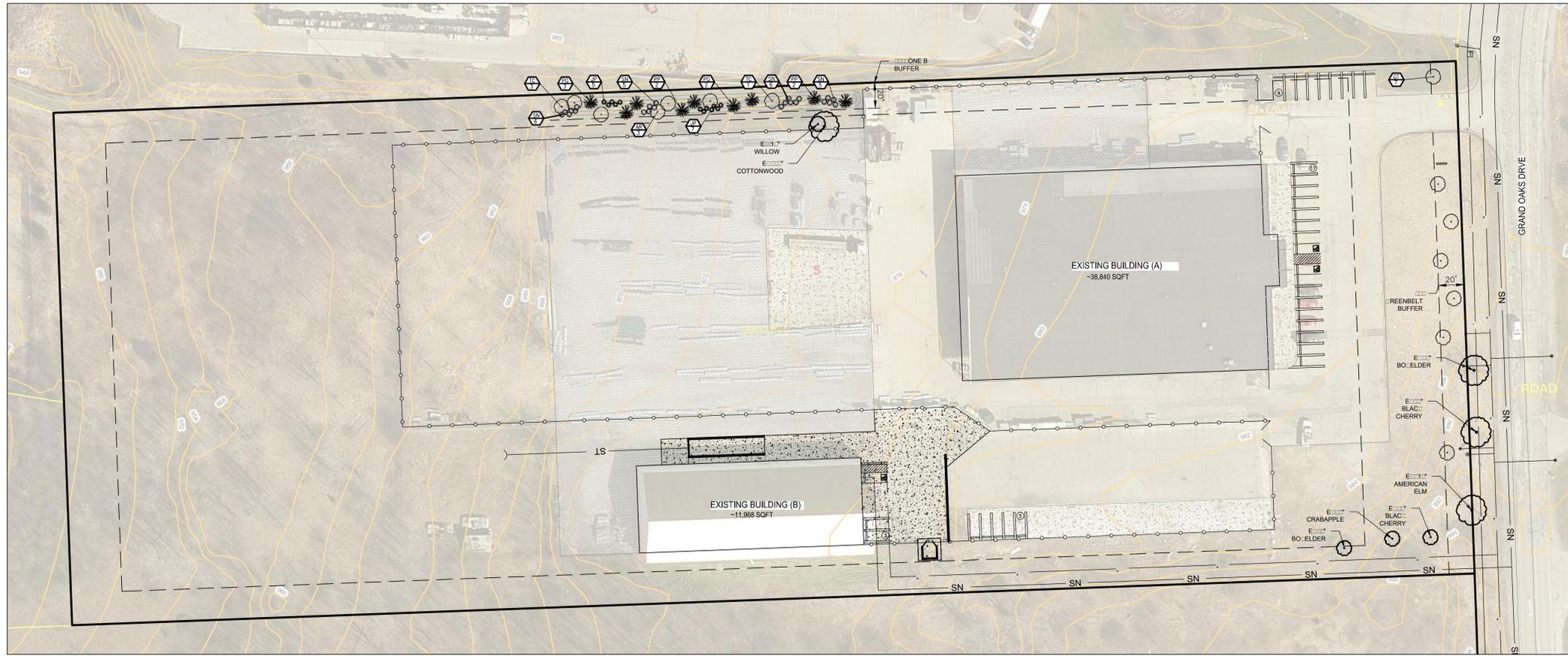
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19-292
JOHNSTONE SUPPLY
830 GRAND OAKS DRIVE
GENOA TOWNSHIP, MICHIGAN, 48843
586.914.4433

PROJECT	PREPARED FOR	TITLE
19-292	JOHNSTONE SUPPLY	SITE PLAN

NO	BY	PER TOWNSHIP REVIEW	DATE
1	JH		8-21-2019

DESIGNED BY:	JH
DRAWN BY:	JH
CHECKED BY:	BL
SCALE	1" = 50'
JOB NO.	19-292
DATE	08/21/2019
SHEET NO.	C3

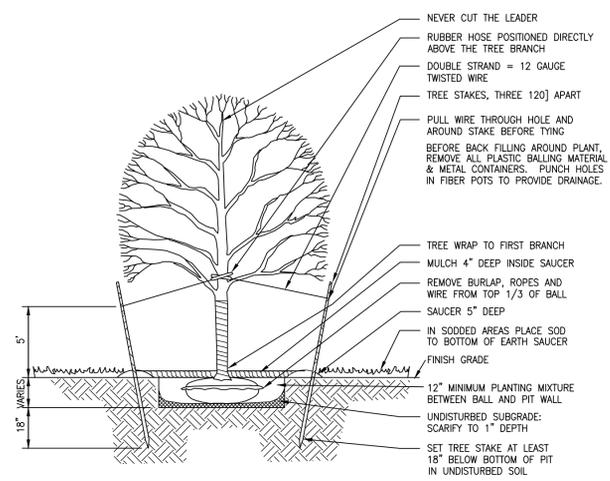


GENERAL LANDSCAPE NOTES:

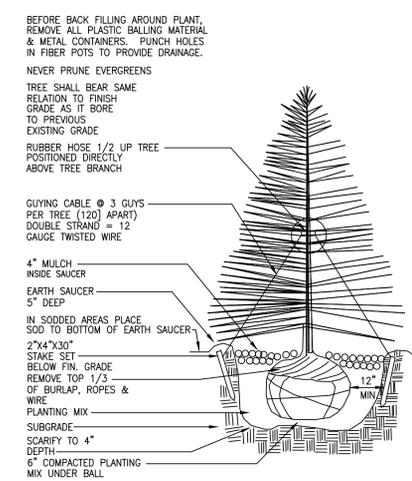
- ALL PLANT MATERIAL SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF THE GOVERNING MUNICIPALITY AND SHALL BE NURSERY GROWN. ALL SIZES AND MEASUREMENTS SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS. ALL PLANT MATERIAL SHALL BE OF SELECTED SPECIMEN QUALITY AND HAVE A NORMAL HABIT OF GROWTH. ALL PLANT MATERIAL IS SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT.
- ALL PLANT MATERIALS SHALL BE BALLED AND BURLAPPED STOCK OR CONTAINER STOCK. NO BARE ROOT STOCK IS PERMITTED. ALL PLANT BALLS SHALL BE FIRM, INTACT AND SECURELY WRAPPED AND BOUND.
- ALL PLANT BEDS SHALL BE EXCAVATED OF ALL BUILDING MATERIALS AND OTHER EXTRANEOUS OBJECTS AND POOR SOILS TO A MINIMUM DEPTH OF 12 INCHES AND BACKFILLED TO GRADE WITH PLANTING MIX (SEE BELOW).
- PLANTING MIXTURE SHALL CONSIST OF 4 PARTS TOPSOIL FROM ON SITE, 1 PART PEAT, AND 5 POUNDS OF SUPERPHOSPHATE PER CUBIC YARD OF MIX. INGREDIENTS SHALL BE THOROUGHLY BLENDED TO A UNIFORM CONSISTENCY.
- ALL PLANT BEDS AND INDIVIDUAL PLANTS SHALL BE MULCHED WITH A 4 INCH LAYER OF SHREDDED BARK MULCH.
- ALL PLANTS AND PLANT BEDS SHALL BE THOROUGHLY WATERED UPON COMPLETION OF PLANTING AND STAKING OPERATIONS.
- THE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR A PERIOD OF 1 YEAR FROM THE DATE THE WORK IS ACCEPTED, IN WRITING, BY THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL REPLACE, WITHOUT COST TO THE OWNER, WITHIN A SPECIFIED PERIOD TIME, ALL DEAD PLANTS, AND ALL PLANTS NOT IN A VIGOROUS, THRIVING CONDITION, AS DETERMINED BY THE LANDSCAPE ARCHITECT DURING AND AT THE END OF THE GUARANTEE PERIOD. REPLACEMENT STOCK SHALL CONFORM TO THE ORIGINAL REQUIREMENTS.
- EDGING, WHERE NOTED ON THE PLANS, SHALL BE BLACK ALUMINUM EDGING, 3/16" x 4". INSTALL PER MANUFACTURER'S INSTRUCTIONS. ALL EDGING SHALL BE INSTALLED IN STRAIGHT LINES OR SMOOTH CURVES WITHOUT IRREGULARITIES.
- SOD SHALL BE DENSE, WELL ROOTED TURF, FREE OF WEEDS. IT SHALL BE COMPRISED OF A BLEND OF AT LEAST TWO KENTUCKY BLUEGRASSES AND ONE FESCUE. IT SHALL HAVE A UNIFORM THICKNESS OF 3/4 INCH, AND CUT IN UNIFORM STRIPS NOT LESS THAN 10 INCHES BY 18 INCHES. SOD SHALL BE KEPT MOIST AND LAID WITHIN 36 HOURS AFTER CUTTING.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A DENSE LAWN OF PERMANENT GRASSES, FREE OF LUMPS AND DEPRESSIONS. ALL SODDED AREAS THAT BROWN OUT OR HAVE NOT FIRMLY KNITTED TO THE SOIL BASE WITHIN A PERIOD OF ONE MONTH SHALL BE REPLACED BY THE CONTRACTOR, AT NO COST TO THE OWNER.
- ALL AREAS OF THE SITE THAT BECOME DISTURBED DURING CONSTRUCTION AND ARE NOT TO BE PAVED, STONED, LANDSCAPED, OR SODDED SHALL BE SEEDED AND MULCHED. SEED MIXTURE SHALL BE AS FOLLOWS:
 KENTUCKY BLUEGRASS (CHOOSE 3 VARIETIES):
 ADELPHI, RUGBY, GLADE OR PARADE 30%
 RUBY RED OR DAWSON RED FINE FESCUE 30%
 ATLANTA RED FESCUE 20%
 PENNFINE PERENNIAL RYE 20%
 THE ABOVE SEED MIXTURE SHALL BE SOWN AT A RATE OF 250 POUNDS PER ACRE. PRIOR TO SEEDING, THE TOPSOIL LAYER SHALL BE FERTILIZED WITH A COMMERCIAL FERTILIZER WITH A 10-20-10 ANALYSIS:
 10% NITROGEN: A MINIMUM OF 25% FROM A UREA-FORMALDEHYDE SOURCE
 20% PHOSPHATE
 10% POTASH: SOURCE TO BE POTASSIUM SULFATE OR POTASSIUM NITRATE.
 THE FIRST FERTILIZER APPLICATION SHALL BE AT A RATE OF 10 POUNDS OF BULK FERTILIZER PER 1000 SQUARE FEET.
 IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A DENSE LAWN OF PERMANENT GRASSES, FREE OF LUMPS AND DEPRESSIONS. ANY PART OF THE AREA THAT FAILS TO SHOW A UNIFORM GERMINATION SHALL BE RESEEDED AND SUCH RESEEDING SHALL CONTINUE UNTIL A DENSE LAWN IS ESTABLISHED. DAMAGE TO SEEDED AREAS RESULTING FROM EROSION SHALL BE REPAIRED BY THE CONTRACTOR.
- ALL AREAS OF THE SITE SCHEDULED FOR SEEDING OR SODDING SHALL FIRST RECEIVE A 4 INCH LAYER OF CLEAN, FRIABLE TOPSOIL. THIS SOIL SHALL BE DISCED AND SHALL BE GRADED IN CONFORMANCE WITH THE GRADING PLAN.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL UTILITIES AND TO INFORM THE LANDSCAPE ARCHITECT OF ANY CONFLICTS PRIOR TO COMMENCING LANDSCAPING.
- ALL PLANT MATERIALS SHALL BE FREE OF WEEDS, INSECTS AND DISEASE.

LANDSCAPE REQUIREMENTS:

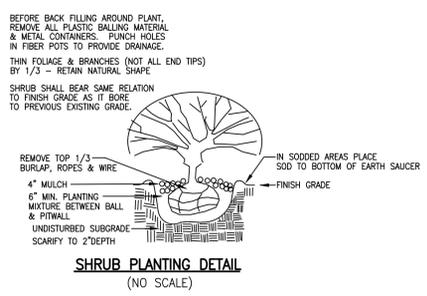
- GREENBELT:**
 EAST GREENBELT REQUIREMENT - 20' WIDE GREENBELT ALONG RIGHT OF WAY AND 1 CANOPY TREE FOR EVERY 40LF OF FRONTAGE.
 EAST GREENBELT PROVIDED - 400LF
 10 CANOPY TREES REQUIRED - (10 NEW TREES PROVIDED)
- BUFFER ZONES:**
 NORTH BUFFER REQUIREMENTS = BUFFER ZONE B:
 20' WIDE BUFFER WITH A 3' HIGH BERM OR 6" HIGH WALL, PLUS 1 CANOPY TREE, 1 EVERGREEN TREE, AND 4 SHRUBS PER EACH 30LF ALONG PROPERTY LINE.
 NORTH BUFFER PROVIDED = 250LF
 9 CANOPY TREES REQUIRED - (7 NEW TREES PROVIDED, PLUS 2 EXISTING)
 9 EVERGREEN TREES REQUIRED - (9 NEW TREES PROVIDED)
 34 SHRUBS REQUIRED - (34 NEW SHRUBS PROVIDED)
- SUBSURFACE UTILITIES ARE DRAWN PER RECORD; OTHER UTILITIES MAY EXIST. IT IS THE RESPONSIBILITY OF THE OWNER OF THE RESPECTIVE UTILITY TO ACCURATELY LOCATE SUCH UTILITIES.
- EASEMENTS OR RESTRICTIONS OF RECORD NOT DEPICTED ON THIS DRAWING MAY EXIST.
- CONTOURS ARE SHOWN AT 2 FOOT INTERVALS.
- SUBJECT PROPERTY IS DESIGNATED AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAN (ZONE X) ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), FLOOD INSURANCE RATE MAP (FIRM), FOR GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN, WITH AN EFFECTIVE DATE OF AUGUST 21, 2019.
- THE LOCATIONS OF STORM SEWER, SANITARY SEWER & WATERMAIN, AS SHOWN ON THIS DRAWING ARE APPROXIMATE. THE LOCATIONS ARE BASED ON PHYSICAL FIELD LOCATIONS ALONG WITH DRAWINGS SUPPLIED BY GENOA TOWNSHIP.
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- ALLOW THREE WORKING DAYS BEFORE YOU DIG, CALL MISS DIG TOLL FREE 1-800-482-7171.



DECIDUOUS TREE PLANTING DETAIL
(NO SCALE)



EVERGREEN TREE PLANTING DETAIL
(NO SCALE)



SHRUB PLANTING DETAIL
(NO SCALE)

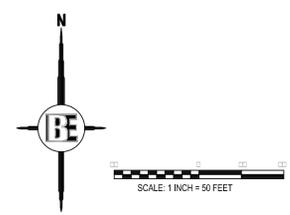
KEY	QUAN.	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
TREES					
AR	3	<i>Acer rubrum</i> 'Red Sunset'	Red Sunset Red Maple	2.5" cal.	B - B
GT	7	<i>Gleditsia tricanthos</i> var. <i>inermis</i>	Thornless Honeylocust	2.5" cal.	B - B
PG	5	<i>Picea glauca</i>	White Spruce	6' ht.	B - B
PP	4	<i>Picea pungens</i> 'Pendula'	Colorado Blue Spruce	6' ht.	B - B
TC	4	<i>Tilia cordata</i>	Littleleaf Linden	6' ht.	B - B
SHRUBS					
JP	12	<i>Juniperus</i> x <i>pfitzeriana</i> 'Sea Green'	Sea Green Juniper	24" ht.	Cont.
SN	22	<i>Spiraea nipponica</i> 'Snowmound'	Snowmound Spirea	24" sprd.	Cont.

THE CONTRACTOR HAS BEEN ADVISED BY THE ENGINEER OF ANY UTILITIES SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS FROM THE PLANS PRIOR TO COMMENCING CONSTRUCTION. BEFORE YOU DIG CALL MISS DIG 1-800-482-7171

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19-292
JOHNSTONE SUPPLY
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 GENOA TOWNSHIP, MICHIGAN, 48843
 586.914.4433
LANDSCAPE PLAN

DESIGNED BY:	JH
DRAWN BY:	JH
CHECKED BY:	BL
SCALE:	1" = 50'
JOB NO.:	19-292
DATE:	08/21/2019
SHEET NO.:	C4



**GENOA CHARTER TOWNSHIP
PLANNING COMMISSION
PUBLIC HEARING
AUGUST 12, 2019
6:30 P.M.
MINUTES**

CALL TO ORDER: The meeting of the Genoa Charter Township Planning Commission was called to order at 6:30 p.m. Present were Chairman Doug Brown, Marianne McCreary, Jim Mortensen, Chris Grajek, Eric Rauch, Jeff Dhaenens, and Jill Rickard. Also present was Kelly VanMarter, Community Development Director/Assistant Township Manager, Brian Borden of SafeBuilt Studio, and Gary Markstrom of Tetra Tech. There were seven audience members present.

PLEDGE OF ALLEGIANCE: The pledge of allegiance was recited.

APPROVAL OF AGENDA:

Moved by Commissioner McCreary, seconded by Commissioner Grajek, to approve the agenda as presented.

CALL TO THE PUBLIC: The call to the public was made at 6:31 pm with no response.

NEW BUSINESS:

OPEN PUBLIC HEARING #1... Review of a site plan for a proposed 19-unit site condominium. The property in question is located on approximately 30.8 acres at 4242 Bauer Road (Parcel #4711-26-200-002) on the west side of Bauer Road, between White Pines Drive and Challis Road. The request is petitioned by John Moretti.

- A. Recommendation of Environmental Impact Assessment (6-13-19)
- B. Recommendation of Final Site Condominium Plan (7-22-19)

Mr. John Moretti and Mr. Bruce Silver, operations manager, were present. Mr. Moretti provided a brief review of the project. It is a site condominium consisting of 19 one-acre plus lots. He has made some changes since he was last before the Planning Commission. The 10-acre parcel is now two five-acre parcels and the detention pond is larger. He noted that the two five-acre parcels will be participating in the association as it relates to road maintenance, but they will not be part of the association.

Commissioner Mortensen noted that both lots will require easements to the proposed private road. Mr. Moretti agreed. There was a discussion on how the enforcement of

the payments for the road maintenance will be handled. The Township's attorney will work with Mr. Moretti's attorney to ensure the enforcement language is recorded and included in the road easement.

Mr. Borden reviewed his letter of August 6, 2019.

- The applicant must comply with any conditions included with outside agency approvals, such as the Road Commissioner, Drain Commissioner's Office, etc.
- The applicant must address any comments provided by the Township Attorney with respect to the condominium documents.
- Tree protection fencing must be provided around the existing wooded and natural areas to be preserved prior to the beginning of construction.
- Sample building elevations should be provided.
- Details of the residential entrance signage must be provided and a permit shall be obtained from the Township.
- He is suggesting that the cluster mailbox be separated from the private road via an access drive so that residents accessing their mailbox do not disrupt traffic flow. Mr. Moretti stated they have some flexibility to possibly move it further into the development. He will need to check with the post office to see if they prefer it on one side or the other. Ms. VanMarter stated that the Brighton Postmaster is requiring cluster mailboxes for all residential developments.
- The Impact Assessment still refers to the development as Moretti Estates, as opposed to The Ridge.

Mr. Markstrom reviewed his letter of August 5, 2019.

- The proposed private road is not in the middle of the proposed ROW, and at the entryway, some of the proposed road improvements on the north side of the drive are not within the road ROW. Also, the landscaping plan includes proposed landscaping that is not inside the road ROW. Any proposed landscaping improvements for the entryway should be within a dedicated easement or road easement. There was a discussion that perhaps a landscape easement can be granted for the condominiums by the property to the east.
- The petitioner is proposing to install an asphalt pavement sidewalk. He suggests concrete sidewalks, which will allow for the installation of ADA approaches and approach warning devices. Mr. Moretti agrees.
- The on-site road pavement section shown on the plans should match the road pavement design required in the Genoa Township Engineering Standards. There are other locations where road cross sections are not consistent.
- Over 100 feet of Mountain Ridge Drive is at a 10-percent grade and around 300 feet of Ridge Lake Court is at an 8-percent grade. The maximum grade for local roads is noted as 6 percent in the Genoa Township Engineering Standards and

this deviation from the standard road grades will need to be approved by the Township.

- After site plan approval, the petitioner will need to submit private road construction plans for review and approval.
- The well placement in Lot 1 is within the storm easement for the infiltration structure. This is a concern due to the possibility of having standing water around the well head. The well should be relocated and additional approval from the LCHD should be obtained for this lot. Mr. Moretti agrees to relocate it.
- Instead of running the storm sewer easement through front yards, the petitioner should consider running the storm sewer north through the proposed cul-de-sac and then turning east when the storm sewer reaches the shared drive. This will permit easier access for maintenance and not encumber the lots with additional easements in their front yards.
- The culvert under the driveway in Lot 3 should be designed for the non-typical flow it will see from both Mountain Ridge Drive and the backyard drainage from Lots 4 through 7. This flow suggests that a standard 12-inch culvert will be overwhelmed and block the flow in the ditch line. The petitioner should look at all driveway culverts to ensure they are properly sized.
- The catch basin diameters are not consistent on the plans.
- The plans should be updated to reflect that a storage tank will be used for fire suppression.

Mr. Markstrom noted that these are minor changes and should be corrected before this item goes before the Township Board for approval.

Commissioner Rauch noted that the storm sewer line is encroaching into the required 25-foot setback requirement of the regulated wetland. Mr. Markstrom agrees and Mr. Moretti will make the change.

Commissioner Mortensen noted that the Health Department's letter states that Lot #8 is unbuildable. Mr. Moretti stated this lot did not perk and it will need an engineered field; however, he will not be able to have this information before he goes before the Township Board. Ms. VanMarter stated the Township does not create lots that are not buildable. Commissioner Rickard is not comfortable recommending this item for approval if this lot is not buildable.

He also noted that the by-laws state that two lots can be combined, and one home can be built, but that property owner will only pay road maintenance for one lot. Mr. Moretti stated he will change the document to state that if this occurs, that owner will pay the road maintenance amount equivalent for two lots.

Commissioner Mortensen would like the Master Deed to state that the ordinances of Genoa Township shall override what is in the document, if the Township's is stricter.

Commissioner Rickard is concerned about the road ROW at the entrance and that the plans are shown with landscaping out of the ROW. She would like the applicant's engineer to address the Township engineer's concerns before the Planning Commission makes a recommendation to the Township Board. Commissioner Rauch agrees. He would like to see a clean set of plans before making a recommendation for approval.

Mr. Moretti stated the biggest issue is with Lot #8, but the other items are easy to address.

The call to the public was made at 7:45 pm with no response.

Moved by Commissioner Mortensen, seconded by Commissioner Rickard, to postpone Agenda Item #1 for The Ridge Subdivision to allow the petitioner to address the following items:

- The need for easements at the entry
- Location of the cluster mailbox
- Storm sewer location
- Buildability of Lot #8

The motion carried unanimously.

OPEN PUBLIC HEARING #2... Review of a site plan and environmental impact assessment for 106 attached residential units within 29 buildings for Westbury Phase II. The property in question is located north of the intersection of Whitehorse Drive and Arundell Drive. This property is located within the Lorenzen Planned Unit Development and was previously approved for 137 apartment units. The request is petitioned by Singh Development Company.

- B. Recommendation of Environmental Impact Assessment. (6-28-19)
- C. Recommendation of Preliminary Site Condominium Plan (7-24-19)

Mr. Vipul Desai, the engineer, and Sunny Grewal from Singh Development, were present. Mr. Desai provided a brief review of the project. It is Phase II of Westbury Development, which is 107 units of attached condominiums for sale. Phase I is apartments.

They received the consultant's comments and addressed their concerns. They are aware that there are additional review letters.

Mr. Borden reviewed his letter of August 6, 2019.

- If preliminary condominium site plan approval is granted, the applicant must provide the following items with the final condominium plan submittal:
 - Condominium documents (master deed and by-laws)
 - A private road maintenance agreement, including financial and maintenance assurances
 - A detailed lighting plan
 - Details of residential identification signage.
- The Planning Commission is able to grant a reduction in the road width. He noted that this can be addressed further by the Township engineer.
- The applicant must obtain authorization for a road connection with the development to the north.
- The total number of trees depicted on the landscape plan exceeds Ordinance requirements; however, the types and planting locations are not fully compliant. The applicant must modify the plan; however, the Planning Commission has the discretion to modify the specific requirements.
- The applicant proposes to allow access to existing recreational features / structures for Phase II residents. He believes this access will suffice in lieu of additional recreational features/structures that are required, which would be park/open space of approximately 3.65 acres
- There is a discrepancy in the lot area for Phase II between the site plan (16.35 acres) and Impact Assessment (17.42 acres).

Mr. Markstrom reviewed his letter of August 2, 2019. He noted that since this is preliminary site plan review, most of his comments can be addressed before final site plan approval.

- The existing stretch of Arundell Avenue from White Horse Lane to Grand River Avenue is in poor condition and the petitioner noted on the plans that improvements to Arundell Avenue would be included on the construction plans.
- The petitioner is proposing to extend the two existing private roads of Arundell Avenue and Westbury Boulevard. After site plan approval, the petitioner must submit private road construction plans for review.
- The proposed road cross section shown on the plan notes a 50-foot-wide road ROW. The Township's Engineering Design Standards require that local roads have a minimum road ROW of 66 feet; however the proposed 50-footwide road ROW matches the previously approved road ROW in Westbury Phase I.
- After final site plan approval, the petitioner will be required to submit construction plans to MHOG Sewer and Water Authority for review and approval.

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- The construction plan review phase is only for sanitary sewer, water main, and private road improvements; however, it is important that storm sewers and detentions are sized correctly as part of the site plans, as it could affect the proposed arrangement of the site. The petitioner should provide storm sewer and detention calculations for the existing detention basin as part of the final site plans.
- Prior to obtaining Livingston County Soil Erosion and Sedimentation Control Permit from the Drain Commissioner, petitioner will need to obtain a drainage review letter from the Township indicating the improvements were designed to County standards.

Commissioner Rauch recommends traffic calming devices be placed throughout the site because the roadways are very straight and long and the sidewalks are close to the roadway. Mr. Desai agrees and they will look into this.

Chairman Brown feels that a new Impact Assessment should have been created for this phase of the development instead of having it continually reference the one from Phase I. There should be more detail.

The call to the public was made at 8:30 pm with no response.

Moved by Commissioner Mortensen, seconded by Commissioner Rickard, to recommend to the Township Board approval of the Environmental Impact Assessment dated June 28, 2019 for Westbury Condominiums Phase II. **The motion carried unanimously.**

Moved by Commissioner Grajek, seconded by Commissioner Dhaenens, to recommend to the Township Board approval of the Preliminary Site Condominium Plan dated July 24, 2019, with the following conditions:

- The following items shall be provided with the final condominium plan submittal:
 - Condominium documents (master deed and by-laws);
 - A private road maintenance agreement, including financial and maintenance assurances
 - A detailed lighting plan
 - Details of residential identification signage.
- The applicant must obtain authorization for a road connection with the development to the north
- The conditions stated in the Township Engineer's letter dated August 2 shall be met.

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- The conditions stated in the Brighton Area Fire Authority's letter dated August 2 shall be met.
- Arundell Avenue from White Horse Lane to Grand River Avenue will be repaved.

The motion carried unanimously.

ADMINISTRATIVE BUSINESS

Staff Report

Ms. VanMarter anticipates that Home Depot and Lowe's will be on the September meeting agenda.

Approval of the July 8, 2019 Planning Commission meeting minutes

Moved by Commissioner McCreary, seconded by Commissioner Dhaenens, to approve the minutes of the July 8, 2019 Planning Commission Meeting as presented. **The motion carried unanimously.**

Member Discussion

Commissioner Grajek expressed his concern with members of the audience speaking out during an applicant's presentation or discussion between the Commission and the applicant.

Adjournment

Moved by Commissioner Rickard, seconded by Commissioner Rauch, to adjourn the meeting at 8:46 pm. **The motion carried unanimously.**

Respectfully Submitted,

Patty Thomas, Recording Secretary