AGENDA
Cascade Charter Township Planning Commission
Monday, December 16, 2019
7:00 pm
Cascade Library Wisner Center
2870 Jacksmith Ave. SE

ARTICLE 1. **Call the meeting to order**
Record the attendance

ARTICLE 2. **Pledge of Allegiance to the flag**

ARTICLE 3. **Approve the current Agenda**

ARTICLE 4. **Approve the Minutes of the December 2, 2019 meeting**

ARTICLE 5. **Acknowledge visitors and those wishing to speak to non-agenda items. (Comments are limited to five minutes per speaker.)**

ARTICLE 6. **Case # 19-3527 Roundhill PUD Amendments – Sentinel Pointe**
Property Address: 3000 Thornhills Ave SE
Requested Action: Amend various parts of the Roundhill portion of the Sentinel Pointe P.U.D. including, but not limited to, modifying building envelopes and changes to the storm water system.

ARTICLE 7. **Any other business**

ARTICLE 8. **Adjournment**

Meeting Format

1. ***Staff Presentation*** *Staff report and recommendation*
2. ***Project presentation-*** *Applicant presentation and explanation of project*
   a. ***PUBLIC HEARINGS***
      i. *Open Public Hearing.* *Comments are limited to five minutes per speaker; exception may be granted by the chair for representative speakers and applicants*
      ii. *Close public hearing*
3. ***Commission discussion*** – *May ask for clarification from applicant, staff or public*
4. ***Commission decision - Options***
   a. *Table the decision*
   b. *Deny*
   c. *Approve*
   d. *Approve with conditions*
   e. *Recommendation to Township Board*

MINUTES
Cascade Charter Township
Planning Commission
Monday, December 2, 2019
7:00 P.M.

ARTICLE 1. Chairman Sperla called the meeting to order at 7:00 P.M.
Members Present: Johnson, Moxley, Katsma, Sperla, Krieter, Lewis, Noordyke, Pennington, and Rissi
Members Absent:
Others Present: Community Development Director, Steve Peterson and those listed on the sign in sheet.

ARTICLE 2. **Pledge of Allegiance.**

ARTICLE 3. **Approve the current Agenda.**

Motion was made by Member Johnson to approve the Agenda. Supported by Member Katsma. Motion carried 9 to 0.

ARTICLE 4. **Approve the Minutes of the November 11, 2019 meeting.**

Motion was made by Member Lewis to approve the November 11, 2019 minutes. Supported by Member Johnson with two recommended changes. Motion carried 9 to 0.

ARTICLE 5. **Acknowledge visitors and those wishing to speak to non-agenda items.**

No visitors came forward.

ARTICLE 6. **Cascade Charter Township**
Resolution of support to adopt the Cascade Charter Township Capital Improvement Plan 2020-2025.

Township Manager Ben Swayze stated that the CIP is a planning document, not a budget document. Some projects in this plan are scheduled for years beyond 2020, and this allows Staff and Board Members to plan for and appropriate money into the budget. This is the first of a many step process for some of these projects to get done. To be included in the CIP, a project has to be consistent in one of three things. Those three requirements are: to appear in a Master Plan of the Township; to be part of a federal or stare requirement; or be part of a Township approved policy. It also needs to be above $10,000. The CIP document describes all proposals submitted by each department.

Mr. Swayze states that benefits of having a Capital Improvement Plan are that it focus' attention on the community needs, goals and capabilities, it optimizes use of taxpayers dollars, it helps guide future growth and development, and encourages the most

efficient type of government, and helps coordinate potential projects with other departments and agencies if needed. The CIP helps to maintain a sound and stable financial program for big projects that may be on the horizon, it enhances federal and state grant opportunities by showing that we are prepared for a potential project.

Each project in a plan has a prioritization rank, these ranks are as follows:

- Essential: urgent, high priority project that should be done if at all possible;
- Desirable: high priority projects that should be done as funding is available;
- Acceptable: worthwhile projects to be considered if funding is available;
- Deferrable: low priority projects that can be postponed.

Mr. Swayze states that there are 52 potential projects in this CIP, totaling to just under 25 million dollars. This has been consistent over the last few years.

Mr. Swayze then went over potential projects listed in the Capital Improvement Plan of 2020-2025.

Motion was made by Member Pennington to adopt the Cascade Charter Township Capital Improvement Plan from 2020-2025 as presented by Mr. Swayze. Supported by Member Moxley. Motion carried 9-0.

ARTICLE 7. **Cascade Charter Township**

Memorandum of the Kent County Road Commission 5-year Road Improvement Plan.

Director Peterson provided Members with the memorandum from the road Commission, and stated that it is helpful to have in order to coordinate Township and Road Commission projects.

ARTICLE 8. **Any Other Business**

ARTICLE 9. **Adjournment**

Motion was made by Member Lewis to adjourn. Supported by Member Krieter. Motion carried 9 to 0. The meeting was adjourned at 8:15 p.m.

Respectfully submitted,
Phil Johnson, Secretary

TO:	Cascade Charter Township Planning Commission
FROM:	Steve Peterson, Community Development Director
REPORT DATE:	December 10, 2019
MEETING DATE:	December 16, 2019
CASE:	#19-3527/Roundhill PUD Amendments – Sentinel Pointe

GENERAL INFORMATION

A. ***Applicant:*** *Finko LLC*

B. ***Status of Applicant:*** Owner

C. ***General Location:*** East side of Thornhills just south of 28th St.

D. ***Requested Action:*** Amend various parts of the Roundhill portion of the Sentinel Pointe P.U.D. including, but not limited to, modifying building envelopes and changes to the storm water system.

E. ***Existing Zoning on Subject Parcels:*** PUD 55

F. ***Zoning on Adjoining Parcels:***

N – PUD 36
S –PUD 55
E – R2
W – PUD 38

G. ***Parcel Size:*** Approximately 5.2 acre parcel

H. ***Existing Land Use on Subject Parcel:*** residential

I. ***Adjacent Area Land Uses:***

North - Library
East - Residential
South - Residential
West - office

STAFF ANALYSIS

1. The applicant was in front of the Planning Commission in May of 2019 for a public hearing to discuss adding decks to the units. During that meeting, we learned that they also had plans to remove the large retaining walls that were part of the original approved site plan and some concern was raised that they may have expanded beyond the approved building envelope.

2. As a result of the issues that were raised at the May 2019 meeting, the Planning Commission tabled the matter and instructed the developer to come back with all of the changes that they would like so we could do the amendment process one time.

3. In August of 2109, we asked the developer to come and give an update to the Planning Commission. At that meeting, the developer discussed the changes that they wanted to make as detailed in the August 13, 2019 letter from Hula engineering. The following attachments were included in the August 19, 2019 Planning Commission packet:

    a. Proposed revised site plan
    b. Survey showing violations of the approved building envelopes
    c. Memo from Hula engineering outlining changes from the original plan
    d. Township attorney letter dated 8/6/19 and 6/17/19
    e. Neighbor attorney letter dated 8/6/19

4. Since that meeting in May, the applicant has put together new plans. These plans now include revisions to the site engineering, which removed the large retaining walls, as well as revised building envelopes for the units.

5. Due to the number of changes being requested, the Township has re-noticed this case for another public hearing.

6. As you will recall, the developer has already built two units at the site as well as built a deck on unit 8. While the new homes have building permits, the deck does not. As of right now, the home on unit 8 has a temporary occupancy permit that is conditioned upon the settling of this zoning case. Unit 3 is not occupied and we have informed the owner that we would not be issuing an occupancy permit until this zoning case is settled. We are also not issuing any other permits in the project until the zoning case is settled.

7. As mentioned earlier, one of the things that we have learned is that the developer would like to modify the approved building envelopes. This

would not only address the units that have already been built, but would also modify the other future units well.

8. You can see on the plan by Gower Professional Surveying the impacts of the changes that the applicant would like to make to the building envelopes. That plan provides a comparison of the changes. The result of the changes is 330 sq ft of additional building for the development. You will note that the average increase is about 164 sq ft per lot, but the overall addition is rather small due to the reduction of buildable area for lots 5 and 6.

9. This new plan would also allow the units to have a minimum of a ten-foot side setback and a 25-foot rear setback. These are very normal residential setbacks for Cascade, as several other developments have similar setbacks. The front setback is 0 from the ROW, which is the same as originally approved.

10. Some other developments in Cascade with similar minimum setbacks would include:

Development	Front setback	Side setback	Rear setback
Roundhill	0	10	25
The Lanterns	0	10	25
Watermark (clubhouse units)	0	12.5	12.5
Manchester	30	10	25
Stoneshire	25	7/18	25
Burton Pointe	26' from edge of pavement	10	10
Burwood	20	10	25
Ada Moorings	30 from edge of pavement	10	25
Hunters Way	35	10	25
The Summit	20' from edge of pavement	5	25
Park Place	30 from edge of pavement	10	40
Cascade Point	25	10	20

11. The developments that have front setbacks measured from the edge of the pavement are about the same as having zero foot front setback.

12. The security gate that has been added, while not a part of the original plan, has been approved by the Fire Department. The addition of a gate

is not uncommon in Cascade and does not require approval by the Planning Commission or Township Board.

13. Landscaping on site was on the approved plan included landscaping around the entire perimeter of the site. Although we don't have landscaping requirements in our zoning ordinance for areas where residential abuts residential uses, the approved site plan included it and we required a landscape bond to ensure that it would be done. The applicant is not showing any landscaping now. However, they do mention in the Hula engineering letter dated August 13, that they will be providing 6 evergreen trees on the south side of lot 6. The Planning Commission will need to decide if any additional landscaping is warranted and if so, a landscape plan should be submitted.

14. The applicant has submitted a copy of the SESC permit from the KCRC permit number 17/079, that permit expired 10/1/19. They have also submitted a letter from the KCRC dated October 18, 2019 that extends the SESC permit until April 1, 2020.

15. The changes that they are asking for that revolve around the civil engineering plan for the site have been reviewed by the Township Engineer for compliance with our stormwater ordinance. The biggest change is the elimination of the large retaining walls on the north and south sides of the site. The Township engineer has reviewed these plans and provided a report dated December 10, 2019. This report outlines several changes to the engineering on the site. In short, the redesigned site meets our storm water requirements but the engineer has recommended several safeguards to ensure compliance with the plan.

16. The original approval of the Roundhill subdivision included the developer providing a landscape and performance bond. Both of these have recently been provided by the developer. However, our attorney has asked for revisions to these bonds. New bonds are in the process of being submitted.

17. An adjoining neighbor has filed a lawsuit regarding this case. As a result, we will have our attorneys present at the public hearing if you have any questions or concerns.

18. The developer has made several mistakes during the development of this project. Most notably, these include constructing the units outside of the approved envelopes, not obtaining a building permit for the deck before construction and not adhering to the approved site engineering. As a result, any approval of the requested changes should include more protections to make sure these problems don't happen again.

19. If the required changes are not approved, there are a few items that will need to be addressed as follows:

a. The homes on units 3 and 8 that have been built beyond the approved envelope will have to be modified to comply.

b. Remove the deck on lot 8.

c. Restore the landscaping, retaining walls and detention pond to the original design.

d. Items such as gates, visitor parking, watermain looping and legal descriptions are not items usually reviewed by the Planning Commission.

You will need to decide what you would like restored to the original design and provide a timeframe for the corrections to be made. If you are inclined to deny any or all of the requested changes, I would suggest that you issue a tentative denial so that our attorney can construct a set of conditions for you to consider as a part of your motion.

20. You may also decide to table the matter if you feel that you need more information to make a decision.

21. **Standards**

Section 16.03 of the Zoning Ordinance requires that a Planned Unit Development (or an amendment thereto) must demonstrate that:

Standard	Staff Comment
Granting of the Planned Unit Development rezoning will result in a recognizable and substantial benefit to the ultimate users of the project and to the community, where such benefit would otherwise be unfeasible or unlikely to be achieved.	The property is already zoned PUD. The changes they are asking for are consistent with the master plan and are consistent with how we treat other residential developments.
In relation to underlying zoning, the proposed type and density of use shall not result in a material increase in the need for public services, facilities and utilities, and shall not place a material burden upon the subject or surrounding land or property owners and occupants or the natural environment	This amendment would not result in a material increase in the need for public services.

The proposed development shall be compatible with the General Development Plan of the Township, and shall be consistent with the intent and spirit of this Chapter	The amendments are consistent with the master plan. The amendments would not substantially change the overall plan that permitted the subdivision.
In relation to underlying zoning, the proposed development shall not result in an unreasonable negative economic impact upon surrounding properties	The new site engineering and revised building envelopes would not result in an unreasonable negative economic impact.
The proposed development shall contain at least as much green area and usable open space as would otherwise be required by this Ordinance with respect to the most dominant use in the development	No change from the original approval.
The proposed development shall be under single ownership or control such that there is a single person or entity having responsibility for completing the project in conformity with this Ordinance. This provision shall not prohibit a transfer of ownership or control, upon due notice to the Planning Director of the Township	Both owners have requested the changes

Staff Recommendation
Staff recommends approval of the amended plan with the following conditions:

a. A site survey showing the corners of the proposed home for every approved building permit to ensure that the approved plan is adhered to during construction.

b. A new performance bond of $100,000 as indicted in the township engineering report.

c. Written verification from the design engineer that the detention pond has been cleaned and is functioning per the approved design prior to every building permit.

d. The developer to provide a design and detail of the outlet protection to the satisfaction of the Township Engineer. This would be needed prior to any new building permit being issued.

e. The completed swale near units 9 and 10 needs to completed to the satisfaction of the township engineer prior to units 9 and 10 being built.

f. Provide $20,000 in escrow to the township so that the township engineer can inspect the site on a regular basis to ensure continued compliance.

g. Provide a detailed schedule of the work to be completed, including milestones dates for the major items of work noted in the Township engineer review letter.

If approved, we will put together the P.U.D. ordinance amendments for your review, so you can make a recommendation to the Township Board.

Attachments:
May 22, 2019 Township letter
June 7, 2019 Township letter
June 17, 2019 Township Attorney letter
August 19, 2019 PC packet
August 27, 2019 Township letter
November 22, 2019 Hula Engineering letter
September 8, 2019, Gower Survey
KCRC soil erosion permit
KCRC letter dated October 18, 2019
Approval from the Cascade Fire Dept for the security gate
August 13, 2019 Hula Engineering letter
KCRC 9/4/19 SESC inspection report
Narrative summary for storm water from applicant
MTC infiltration testing results
Cross section drawings showing slope with and without retaining walls
Revised site plans dated 11/20/19
Original site plan
December 10, Township engineer letter

CASCADE CHARTER TOWNSHIP

2865 Thornhills SE Grand Rapids, Michigan 49546-7140

May 22, 2019

Tom Guisti
PO Box 441
Ada MI 49301

RE: 19-3527 Roundhill PUD Amendments

Dear Tom:

Please consider this letter as notice of the May 20, 2019 Planning Commission meeting. At that meeting, the Planning Commission Tabled your project in order for you to provide the following information.

1. Show the deck size on each unit that you want.
2. Show the impact of the removal of the retaining walls on your project and what if any engineering changes that will have on the plan.
3. A survey of lot 8 showing the approved building envelope.

Once I have these items from you, I will schedule the project for the first available meeting with the planning commission. If you have any questions please call me at 949-0224.

Sincerely,
CASCADE CHARTER TOWNSHIP

Steve Peterson,
Community Development Director

CASCADE CHARTER TOWNSHIP

2865 Thornhills SE Grand Rapids, Michigan 49546-7140

June 7, 2019

Tom Guisti
PO Box 441
Ada MI 49301

RE: 19-3527 Roundhill - Proposed PUD Amendments

Dear Tom:

Given that it has been almost three weeks since the Planning Commission meeting on May 20th, I wanted to make sure that you are progressing with the required information for the Township. After meeting with the Township's attorney regarding this matter, we believe it is reasonable for you to provide the required information to the Township within 30 days (by June 20th). In addition to the required information, our attorney would also like you to provide a survey for Lot/Unit 3, so that we may evaluate your compliance with the required building envelope.

As a reminder, below are the required items from the Planning Commission meeting on May 20th:

1. Show the deck size on each unit that you want.
2. Show the impact of the removal of the retaining walls on your project and what if any engineering changes that will have on the plan.
3. A survey drawing of Lot/Unit 8 showing the approved building envelope, including the actual location of the deck and all parts of the house.

If you have any questions please call me at 949-0224.

Sincerely,
CASCADE CHARTER TOWNSHIP

Steve Peterson,
Community Development Director

Bloom Sluggett, PC

COUNSELORS & ATTORNEYS

Clifford H. Bloom
Direct Dial (616) 965-9342
Direct Fax (616) 965-9352
cliff@bloomsluggett.com

June 17, 2019

Mr. Steve Peterson
Community Development Director
Cascade Charter Township
2865 Thornhills Avenue SE
Grand Rapids, Michigan 49546

Re: Cascade Charter Township
Roundhill PUD Development
Proposed Modifications

Dear Steve,

This letter is in response to several legal inquiries by Cascade Charter Township (the "Township") regarding the Roundhill – Sentenel Pointe development (the "Development") located to the south of the Township library.[1]

FACTS

Tom Guisti (the "Developer") owns a 5.3 acre property (the "Property") located within the existing Sentinel Pointe PUD zoning district pursuant to the Cascade Charter Zoning Ordinance (the "Zoning Ordinance"). In 2016, the Township amended the existing PUD to allow for the single family development ("PUD"). The Development was approved as a site condominium with 10 single family residential units.

The Development is subject to a number of requirements and conditions as evidenced by a written PUD Ordinance dated March 9, 2016, the approved site plan, a recorded storm water agreement and various other documents.

Pursuant to the approved PUD site plan, all houses within the Development must be built and contained within the "building envelopes." That includes any and all portions of a house, including any decks or similar structures. Unfortunately, the first house built in the Development, which is on Unit 8, has a deck which extends outside of the allowed building envelope by approximately 10 feet. The deck still meets the required general setback of 25 feet. It also appears that the northwest portion of the newly-constructed house on Unit 8 might also extend beyond or outside of the allowed building envelope. The Township has required that the

[1] The Township's general legal counsel, Mr. John Huff of Varnum, LLP, had a potential conflict of interest regarding this matter and Bloom Sluggett, PC has been retained by the Township as special legal counsel for this case.

Developer verify whether or not the house extends beyond the allowable building envelope through the Developer's surveyor/engineer.

Recently, the Developer applied for a formal amendment to the 2016 PUD and approved site plan to allow decks on houses within the Development to extend beyond the building envelope so long as all applicable property line setbacks are met. The Cascade Charter Township Planning Commission (the "Planning Commission") held a public hearing on the PUD amendment request on May 20, 2019 but tabled the matter pending the Developer providing more information to the Township. In addition, the Developer may also request an amendment to the PUD and approved site plan to allow the omission of the two retaining walls at the eastern portions of the Development or some modification thereof. However, to date, the Developer has not applied for that amendment.

Some of the neighbors to the Development are opposed to any amendment by the Township to the approved PUD or site plan. Those neighbors are concerned about several matters, including whether the condominium was varied unilaterally by the Developer, possibly increasing the allowed building envelopes for decks and storm water runoff problems associated with the Development.

DISCUSSION

1. Condominium Status.

There appears to be some confusion regarding the condominium status of the Development and what constitutes a "site condominium." MCL 559.101 *et seq*. (the "Michigan Condominium Act") regulates all condominium development within Michigan.

Until 30 or 40 years ago, most condominiums in Michigan were multi-family residences. Those condominiums involved duplexes, fourplexes, high-rises and other multi-family buildings. The units consisted of air space only -- the owners of the units typically did not own any lot, yard, etc. All of those areas were common areas, whether limited common areas or general common areas.

A few decades ago, a new type of condominium arrangement arose called a "site condominium." In most cases, site condominiums resemble a conventional single-family residential development or plat, whereby the unit owned by a property owner resembles a lot or parcel. Common elements are typically limited to common or joint properties such as private roads, parks, walkways, clubhouses or similar amenities. A landowner owns not only his or her house, but also the "lot" that comprises the overall unit.

It appears that the Development started out as a specific type of site condominium, whereby the unit was comprised of the building envelope only, with the spaces between building envelopes and the road constituting common areas. It appears that at some point in time, the

Developer converted the Development into a more conventional site condominium whereby the units appear to be more like conventional lots. Nevertheless, the building envelope contained in the PUD and approved site plan still remain intact and govern where houses can be located.

It is our legal opinion that the Developer's conversion of the Development from a smaller unit approximating the building envelope to a more conventional "lot" type site condominium does not violate the Zoning Ordinance or the approved site plan. To the extent that it does, it would constitute a minor amendment that could be approved by Township staff pursuant to Section 16.12 of the Zoning Ordinance. Furthermore, Michigan law makes it clear that a municipality cannot discriminate against a site condominium owner based on ownership. Please see MCL 559.241.

2. The Requested Amendments.

The Cascade Township Board (the "Township Board") has the authority to amend or change an approved PUD and site plan after a recommendation from the Planning Commission. Please see Section 16.12 of the Zoning Ordinance. For major amendments, a public hearing must occur. See Section 16.05 of the Zoning Ordinance.

In this situation, the Township Board clearly has the authority to amend the PUD and approved site plan as requested by the Developer. However, the Township Board has great discretion regarding whether or not it should do so.

3. Discovering Zoning Setback Violations.

Virtually every municipality in Michigan employs the "honor system" with regard to zoning setbacks once a building or structure is built. Although theoretically, a municipality could have a clause in its zoning ordinance that a professional surveyor must verify in writing that all portions of a newly completed building or structure meet all local zoning setback requirements, that is rarely done. We are not aware of any municipality with such an ordinance requirement. Furthermore, it would add a significant expense to new home owners.

Municipalities in Michigan are not guarantors of zoning or code compliance. Municipal budgets are limited and further raising zoning fees, building code fees, inspection fees and other fees (to fund additional municipal inspections and enforcement efforts) is often not an option for local municipalities.

To the extent that a developer or homeowner violates a zoning setback requirement, they proceed at their own risk. In such a situation, there is always a high probability that the developer or homeowner will either have to obtain a variance from the zoning setback requirement or remove the portion of the building or structure in violation of the zoning ordinance.

Please do not hesitate to contact us should you or any other Township official have any question regarding these matters.

Very truly,

Clifford H. Bloom
Special Legal Counsel

cc: Township Manager
Chairperson of Planning Commission

Memorandum

To:	Cascade Charter Township Planning Commission
From:	Steve Peterson, Community Development Director
Subject:	#19-3527/Roundhill PUD Amendments
Meeting date:	August 19, 2019

At the Public hearing on May 20, 2019 the Planning Commission considered a request from the developer to allow for decks to encroach outside of the building envelope. What we learned was that the developer may have already encroached outside of the approved building envelopes and was considering making other changes including the removal of the retaining walls. The result was that the matter was tabled to allow the developer time to put together all of the changes he discussed at the meeting.

While we await his final plan, the developer has provided a summary of the changes, including a survey. The plan shows how he would like to change the building envelopes to not only to address the building violation but the future buildings as well.

Our engineer is still reviewing the engineering changes they would like to make including the removal of the retaining walls.

Therefore, the Township attorney and I thought it would be helpful to allow the developer to explain what they have done and his plans to address the changes.

This is not the public hearing. That will come after the engineering plans have been reviewed and approved by the Township engineer.

Attachments: Proposed site plan
Survey showing violations of approved building envelope
Memo from Hula Engineering outlining the changes from the original plan
Township attorney letters dated 8/6/19 and 6/17/19
Neighbor attorney letter dated 8/6/19

Hula Engineering
17 West Oak Street
(616) 204-5204 Sand Lake, Michigan 49343-0194 Hulaengineering@Charter.net

MEMORANDUM

Date: August 13, 2019

To: Steve Peterson

From: Dan Hula

Subject: Round Hill Condos

Attached is a revised PUD Amendment Preliminary Plan for the Round Hill site. It should be understood that the preliminary PUD site plan is the foundation for approval, and not a construction document. Approval from the Township is necessary prior to preparation of construction documents and permit issuance. Through the process of design and development of construction plans, several agencies along with your engineer are all involved in the process. It is through this iterative process that final approval from the agencies, and your engineer working on behalf of the Township is obtained. Also some modifications are made during construction, usually with the approval of the agency responsible for the item modified. Therefore, it is not un-common to find the final constructed project is not exactly the same as the original preliminary plan.

Deviations from the original plan include:

1. A security gate has been added. The City of Grand Rapids considers gates in their easements as structures which are addressed in their standard easement document. The gate was presented to, and approved by, the Fire Chief before installation and meets the requirements of the Fire Department.

2. The retention basin configuration has changed. And the spillway was changed from concrete to reinforced turf as approved by your engineer in October 2017. The area above the basin was filled with spoil from the construction rather than hauling it off-site at the expense of trucking and street infrastructure. The basin shape was changed slightly to accommodate the fill. An as-built survey was prepared and volumes were calculated to ensure the new pond configuration exceeded the planned configuration. The fact that the plan was prepared leads me to believe that the plan was prepared to satisfy your engineer that the basin is in fact in conformance with the ordinance. Concrete spillways are rigid, and are prone to wash-outs around them. Reinforced turf spillways tend to be more flexible and conform to the earthen surface.

3. The storm sewer configuration changed from the PUD Plan, but is in conformance with the approved construction drawings. This change was made during the design process as it appears on the construction drawings prepared during the design phase of the project. The change results in the reduction of a drainage structure and only one road crossing.

4. The proposed building footprints have changed, see the attached survey from Chris Gower. This was done to allow a third garage stall. The market indicates a demand for that, and the change was in response to that market shift. The configuration of unit 5 will be addressed by the architect so the unit can be constructed within the approved setbacks.

5. The watermain loop was changed to just outside the easterly property Boundary. This change was dictated by the City of Grand Rapids as it is their system.

6. The retaining walls were not constructed. The original design intent was not to impact the neighboring properties with the construction of this project. During construction, permission was acquired to grade over the property lines in order to form a slope rather than a wall. The slopes are now constructed and have been stabilized with mulch blankets and there is substantial growth on the southwest slope. The slopes provide the same topographic elevation change as the planned walls would have, without the inherent dangers associated with retaining walls.

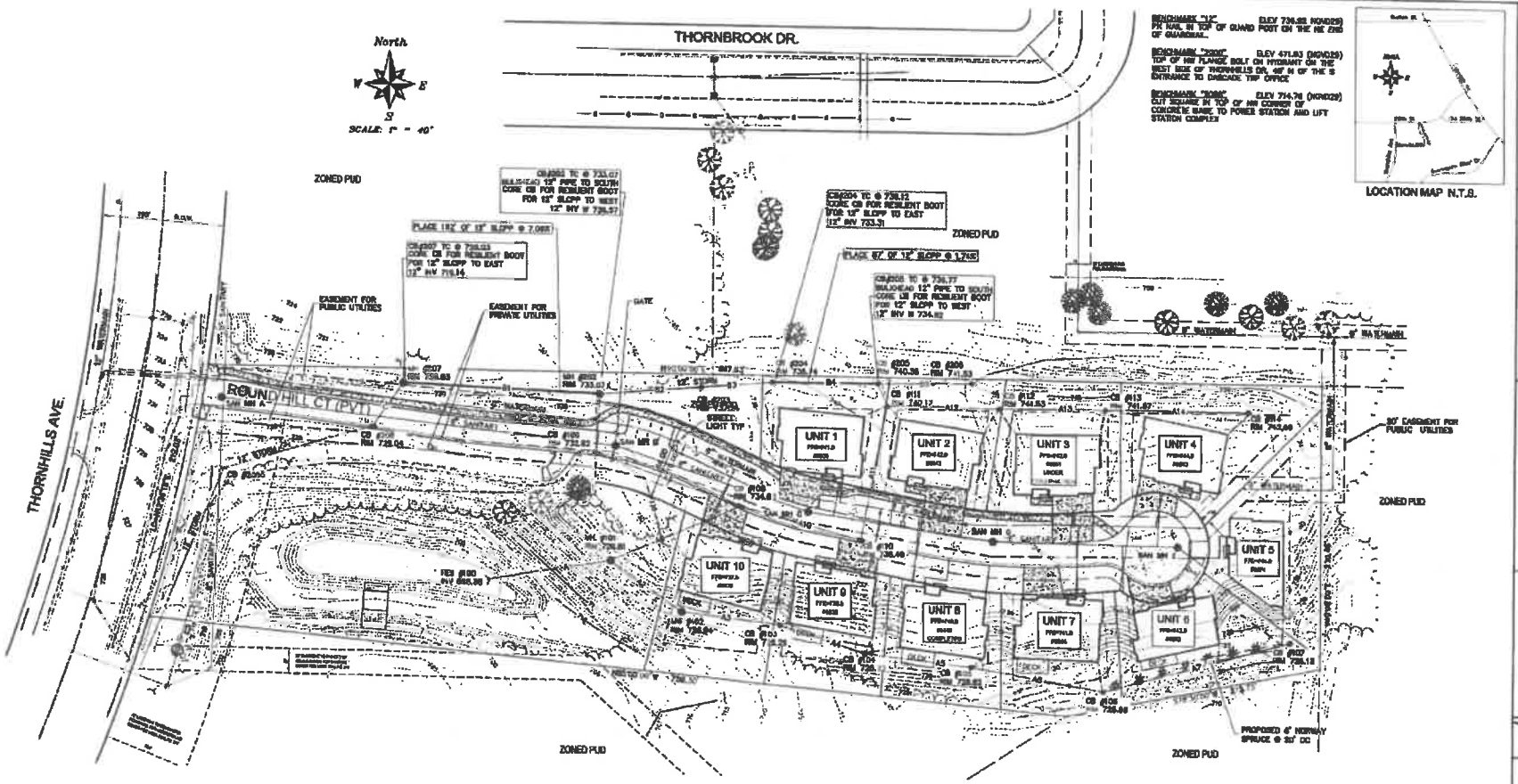
7. The visitor parking location was changed to just west of Unit one. There were two visitor parking locations on the preliminary plan, each with four spaces. On the advice of our attorney, we changed to only one visitor parking location with four spaces further away from the units. With the addition of a third stall at each unit, and anticipated visitor traffic, the number of visitor spaces is adequate.

8. The Legal description has changed. The Condominium documents have been recorded; therefore, the new description describes the original parcel.

9. The Authorized Vehicle Only signs have yet to be installed. These signs will be installed.

10. A line of Norway spruce trees has been added at the top of the bank behind unit 6. Most of the landscaping outside of the units themselves has been installed. Landscaping and sidewalks within the units will be installed as the units are built out. The added spruce trees were added as a psychological barrier at the top of the slope. This will help define the unit boundaries and provide additional screening.

Storm Sewer as-builts and revised calculations have been sent to your engineer for review and approval. There are many minor differences between the original preliminary PUD plan and the final as-built project, as evidenced by the above discussion. The calculations are now based on the project as it was constructed, and the calculations show there is not a substantial difference between the original plan and the as-built project. The design intent has been met and the system will function as planned. However, confirmation of my professional opinion by your engineer is currently being sought.



LOCATION MAP N.T.S.

LAND USE SUMMARY

SIZE OF SITE=6.344 AC
USE=SINGLE FAMILY RESIDENTIAL
NUMBER OF UNITS=10
TOTAL OPEN SPACE=1.2 AC
APPROVED TOTAL BUILDING FOOTPRINT=0.732 AC
PROPOSED TOTAL BUILDING FOOTPRINT=0.729 AC

DEVIATION FROM APPROVED PUD
1. EASTERLY WATERMAIN TAP LOCATION
2. REMOVED RETAINING WALLS
3. ADDED GATE
4. CHANGED BUILDING FOOTPRINT (SEE SURVEY BY GOMER PROFESSIONAL SURVEYING PC, FILE #2018-25, DATED JUNE 26, 2018 FOR DETAILED INFORMATION)

NOTE

INFORMATION DEPICTED HEREON IS TAKEN FROM "ROUND HILL PUD AMENDMENT PRELIMINARY PLAN", MEDEVELD PROJECT NO. 14401330, DATED SEPTEMBER 8, 2015.

AND FROM CITY OF GRAND RAPIDS AS-BUILT PLANS FOR SANITARY SEWER & WATER MAIN IN PUBLIC EASEMENT (30') ROUND HILL COURT (PVT.) (ROUND HILL CONDOMINIUMS) DATED SEPTEMBER 2017.

AND FROM A PARTIAL SITE SURVEY BY GOMER PROFESSIONAL SURVEYING PC, FILE #2018-26, DATED JUNE 26, 2018.

PUBLIC WATER AND SEWER CONSTRUCTION IS COMPLETE AND ACCEPTED BY THE CITY OF GRAND RAPIDS

STORM WATER CONTROL FACILITIES HAVE BEEN COMPLETED. ALL ROOF DRAINS SHALL BE CONNECTED TO THE STORMWATER COLLECTION SYSTEM.

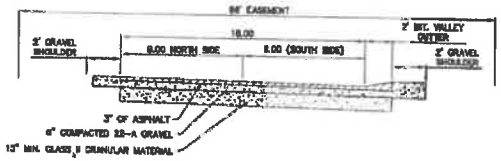
PRIVATE UTILITIES HAVE BEEN INSTALLED.

ALL LIGHTING SHALL BE SHIELDED AWAY FROM ADJACENT PROPERTIES AND SHALL CONFORM TO CASCADE TOWNSHIP REQUIREMENTS.

EX CONTOUR MINOR
EX CONTOUR MAJOR
AS-BUILT CONTOUR MINOR
AS-BUILT CONTOUR MAJOR
PROPOSED CONTOUR MINOR
PROPOSED CONTOUR MAJOR

DESCRIPTION:
ROUND HILL CONDOMINIUM KENT COUNTY CONDOMINIUM SUBDIVISION PLAN NO.1053 INSTRUMENT NO.20180427-0032540 AS AMENDED BY REPLAT NO.1 INSTRUMENT NO.20180418-0024808 SPLIT/COMBINED ON 08/27/2018 FROM 41-19-19-103-013; SPLIT/COMBINED ON 05/23/2019 FROM 41-19-19-130-008, 41-19-19-130-009, 41-19-19-130-008, 41-19-19-132-007, 41-19-19-130-006, 41-19-19-132-010

TYPICAL UNIT
SCALE: 1"=20'



18' WIDE PRIVATE ROAD CROSS SECTION
NOT TO SCALE

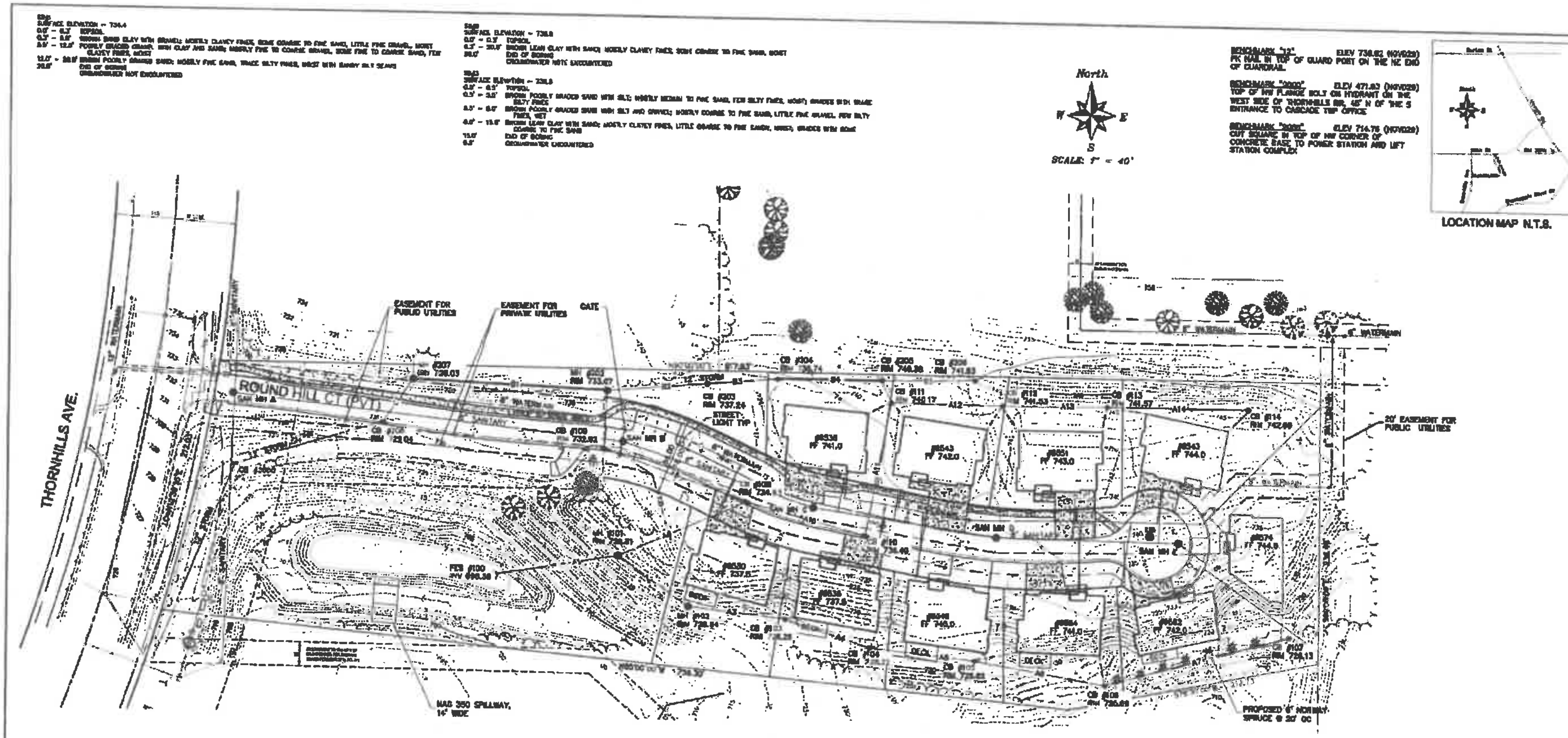
FINKO LLC
Tom Giessi
P.O. Box 441
Ada, MI 49301
616 821-5744

Hale Engineering
17 West Oak
Sand Lake, MI 49343
Hale@engineering.com
(616) 636-8264

ROUND HILL
PUD Amendment Preliminary Plan
PART OF THE NORTHWEST 1/4 OF SECTION 19, T7N, R10W
CASCADE TOWNSHIP, KENT COUNTY, MICHIGAN

Issue Date
July 15, 2019
July 17, 2019
August 12, 2019

Sheet
1 of 2



STORM SEWER DRAINAGE STRUCTURES

STRUC.	RIM	INVERTS	DIA.	TYPE
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

STORM SEWER DRAINAGE STRUCTURES

STRUC.	RIM	INVERTS	DIA.	TYPE
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

STORM SEWER DRAINAGE PIPES

#	LENGTH	DIA.	SLOPE	MATERIAL
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

NOTE

INFORMATION DEPICTED HEREON IS TAKEN FROM "ROUND HILL PUD AMENDMENT PRELIMINARY PLAN". NEDERVELD PROJECT NO. 14401338, DATED SEPTEMBER 9, 2016.

AND FROM CITY OF GRAND RAPIDS AS-BUILT PLANS FOR SANITARY SEWER & WATER MAIN IN PUBLIC EASEMENT (SE) ROUND HILL COURT (PVT.) (ROUND HILL CONDOMINIUMS) DATED SEPTEMBER 2017.

AND FROM A PARTIAL SITE SURVEY BY GOWER PROFESSIONAL SURVEYING PC, FILE #2019-26, DATED JUNE 28, 2019.

PUBLIC WATER AND SEWER CONSTRUCTION IS COMPLETE AND ACCEPTED BY THE CITY OF GRAND RAPIDS

STORM WATER CONTROL FACILITIES HAVE BEEN COMPLETED. ALL ROOF DRAINS SHALL BE CONNECTED TO THE STORMWATER COLLECTION SYSTEM.

PRIVATE UTILITIES HAVE BEEN INSTALLED.

ALL LIGHTING SHALL BE SHIELDED AWAY FROM ADJACENT PROPERTIES AND SHALL CONFORM TO CASCADE TOWNSHIP REQUIREMENTS.

DESCRIPTION:
ROUND HILL CONDOMINIUM KENT COUNTY CONDOMINIUM SUBDIVISION PLAN NO.1063 INSTRUMENT NO.20180427-0032360 AS AMENDED BY REPLAT NO.1 INSTRUMENT NO.20190415-0024886 SPLIT/COMBINED ON 09/27/2018 FROM 41-19-16-103-013; SPLIT/COMBINED ON 05/23/2019 FROM 41-19-16-120-005, 41-19-16-120-006, 41-19-16-120-008, 41-19-16-120-007, 41-19-16-120-009, 41-19-16-120-010

EX CONTOUR MINOR
EX CONTOUR MAJOR
AS-BUILT CONTOUR MINOR
AS-BUILT CONTOUR MAJOR
PROPOSED CONTOUR MINOR
PROPOSED CONTOUR MAJOR

AS-BUILT 08/12/2019
CONTRACTOR:NAGEL CONSTRUCTION
COMPLETED 2017

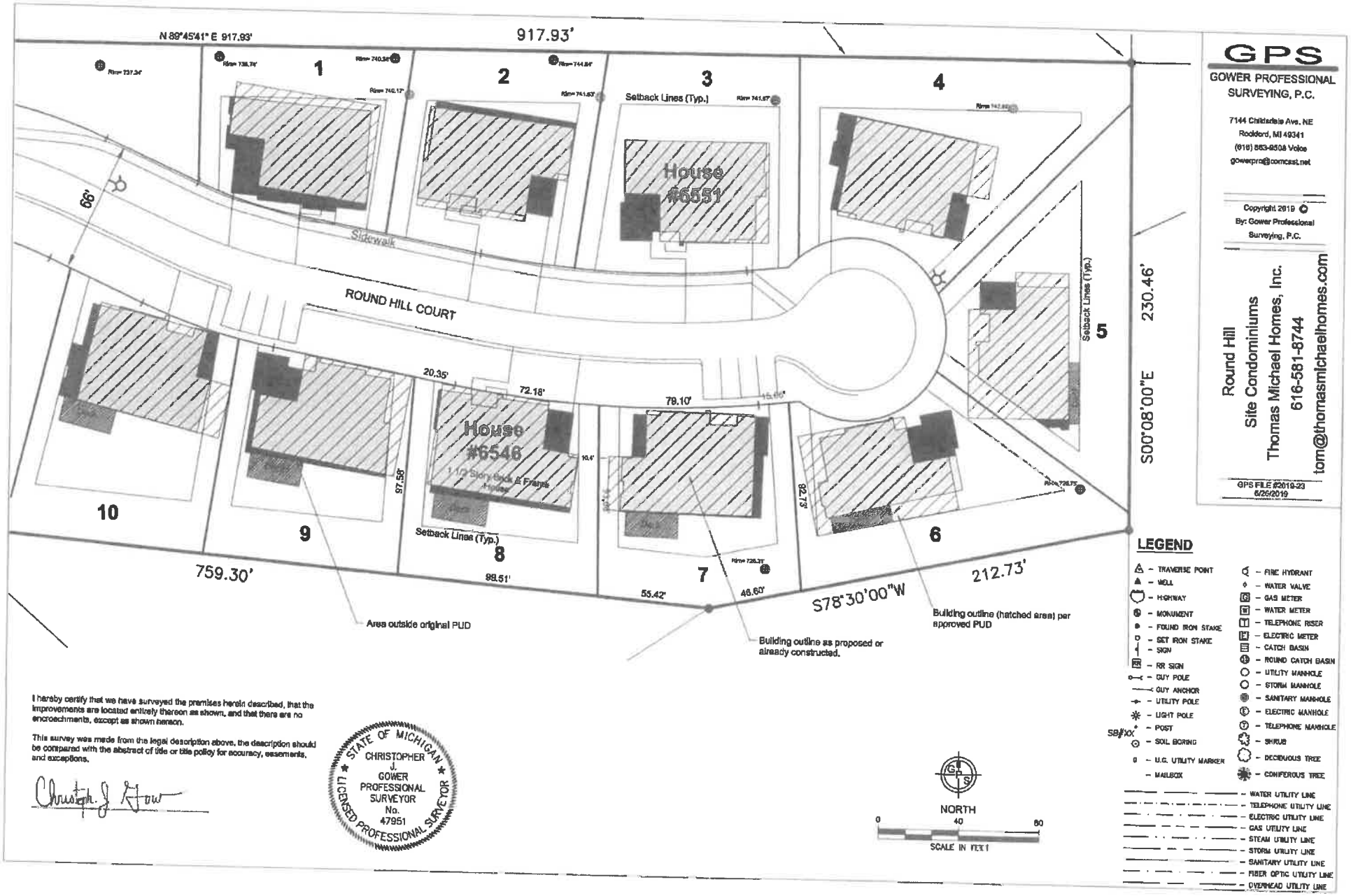
FINKO LLC
Tom Glaud
P.O. Box 441
Ada, MI 49301
616 581-5744

Hula Engineering
17 West Oak
Sand Lake, MI 49343-0194
hulaengineering@charter.net
(616) 204-6364 (616) 636-6364

ROUND HILL
PUD Amendment Preliminary Plan
PART OF THE NORTHWEST 1/4 OF SECTION 16, T6N, R10W, CASCADE TOWNSHIP, KENT COUNTY MICHIGAN

Issue Date
August 12, 2019

Sheet
2 of 2



I hereby certify that we have surveyed the premises herein described, that the improvements are located entirely thereon as shown, and that there are no encroachments, except as shown hereon.

This survey was made from the legal description above, the description should be compared with the abstract of title or title policy for accuracy, easements, and exceptions.

Christopher J. Gower

STATE OF MICHIGAN
CHRISTOPHER J. GOWER
PROFESSIONAL SURVEYOR
No. 47951
LICENSED PROFESSIONAL SURVEYOR

LEGEND

- TRAVERSE POINT
- WELL
- HIGHWAY
- MONUMENT
- FOUND IRON STAKE
- SET IRON STAKE
- SIGN
- RR SIGN
- GUY POLE
- GUY ANCHOR
- UTILITY POLE
- LIGHT POLE
- POST
- SOIL BORING
- U.G. UTILITY MARKER
- MAILBOX
- FIRE HYDRANT
- WATER VALVE
- GAS METER
- WATER METER
- TELEPHONE RISER
- ELECTRIC METER
- CATCH BASIN
- ROUND CATCH BASIN
- UTILITY MANHOLE
- STORM MANHOLE
- SANITARY MANHOLE
- ELECTRIC MANHOLE
- TELEPHONE MANHOLE
- SHRUB
- DECIDUOUS TREE
- CONIFEROUS TREE
- WATER UTILITY LINE
- TELEPHONE UTILITY LINE
- ELECTRIC UTILITY LINE
- GAS UTILITY LINE
- STEAM UTILITY LINE
- STORM UTILITY LINE
- SANITARY UTILITY LINE
- FIBER OPTIC UTILITY LINE
- OVERHEAD UTILITY LINE

GPS
GOWER PROFESSIONAL SURVEYING, P.C.
7144 Childsdale Ave. NE
Rockford, MI 49341
(616) 863-9508 Voice
gowerpro@comcast.net

Round Hill
Site Condominiums
Thomas Michael Homes, Inc.
616-581-8744
tom@thomasmichaelhomes.com

GPS FILE #2019-23
6/25/2019

Bloom Sluggett, PC

COUNSELORS & ATTORNEYS

Clifford H. Bloom
Direct Dial (616) 965-9342
Direct Fax (616) 965-9352
cliff@bloomsluggett.com

June 17, 2019

Mr. Steve Peterson
Community Development Director
Cascade Charter Township
2865 Thornhills Avenue SE
Grand Rapids, Michigan 49546

Re: Cascade Charter Township
Roundhill PUD Development
Proposed Modifications

Dear Steve,

This letter is in response to several legal inquiries by Cascade Charter Township (the "Township") regarding the Roundhill – Sentenel Pointe development (the "Development") located to the south of the Township library.[1]

FACTS

Tom Guisti (the "Developer") owns a 5.3 acre property (the "Property") located within the existing Sentinel Pointe PUD zoning district pursuant to the Cascade Charter Zoning Ordinance (the "Zoning Ordinance"). In 2016, the Township amended the existing PUD to allow for the single family development ("PUD"). The Development was approved as a site condominium with 10 single family residential units.

The Development is subject to a number of requirements and conditions as evidenced by a written PUD Ordinance dated March 9, 2016, the approved site plan, a recorded storm water agreement and various other documents.

Pursuant to the approved PUD site plan, all houses within the Development must be built and contained within the "building envelopes." That includes any and all portions of a house, including any decks or similar structures. Unfortunately, the first house built in the Development, which is on Unit 8, has a deck which extends outside of the allowed building envelope by approximately 10 feet. The deck still meets the required general setback of 25 feet. It also appears that the northwest portion of the newly-constructed house on Unit 8 might also extend beyond or outside of the allowed building envelope. The Township has required that the

[1] The Township's general legal counsel, Mr. John Huff of Varnum, LLP, had a potential conflict of interest regarding this matter and Bloom Sluggett, PC has been retained by the Township as special legal counsel for this case.

Developer verify whether or not the house extends beyond the allowable building envelope through the Developer's surveyor/engineer.

Recently, the Developer applied for a formal amendment to the 2016 PUD and approved site plan to allow decks on houses within the Development to extend beyond the building envelope so long as all applicable property line setbacks are met. The Cascade Charter Township Planning Commission (the "Planning Commission") held a public hearing on the PUD amendment request on May 20, 2019 but tabled the matter pending the Developer providing more information to the Township. In addition, the Developer may also request an amendment to the PUD and approved site plan to allow the omission of the two retaining walls at the eastern portions of the Development or some modification thereof. However, to date, the Developer has not applied for that amendment.

Some of the neighbors to the Development are opposed to any amendment by the Township to the approved PUD or site plan. Those neighbors are concerned about several matters, including whether the condominium was varied unilaterally by the Developer, possibly increasing the allowed building envelopes for decks and storm water runoff problems associated with the Development.

DISCUSSION

1. Condominium Status.

There appears to be some confusion regarding the condominium status of the Development and what constitutes a "site condominium." MCL 559.101 *et seq.* (the "Michigan Condominium Act") regulates all condominium development within Michigan.

Until 30 or 40 years ago, most condominiums in Michigan were multi-family residences. Those condominiums involved duplexes, fourplexes, high-rises and other multi-family buildings. The units consisted of air space only – the owners of the units typically did not own any lot, yard, etc. All of those areas were common areas, whether limited common areas or general common areas.

A few decades ago, a new type of condominium arrangement arose called a "site condominium." In most cases, site condominiums resemble a conventional single-family residential development or plat, whereby the unit owned by a property owner resembles a lot or parcel. Common elements are typically limited to common or joint properties such as private roads, parks, walkways, clubhouses or similar amenities. A landowner owns not only his or her house, but also the "lot" that comprises the overall unit.

It appears that the Development started out as a specific type of site condominium, whereby the unit was comprised of the building envelope only, with the spaces between building envelopes and the road constituting common areas. It appears that at some point in time, the

Developer converted the Development into a more conventional site condominium whereby the units appear to be more like conventional lots. Nevertheless, the building envelope contained in the PUD and approved site plan still remain intact and govern where houses can be located.

It is our legal opinion that the Developer's conversion of the Development from a smaller unit approximating the building envelope to a more conventional "lot" type site condominium does not violate the Zoning Ordinance or the approved site plan. To the extent that it does, it would constitute a minor amendment that could be approved by Township staff pursuant to Section 16.12 of the Zoning Ordinance. Furthermore, Michigan law makes it clear that a municipality cannot discriminate against a site condominium owner based on ownership. Please see MCL 559.241.

2. The Requested Amendments.

The Cascade Township Board (the "Township Board") has the authority to amend or change an approved PUD and site plan after a recommendation from the Planning Commission. Please see Section 16.12 of the Zoning Ordinance. For major amendments, a public hearing must occur. See Section 16.05 of the Zoning Ordinance.

In this situation, the Township Board clearly has the authority to amend the PUD and approved site plan as requested by the Developer. However, the Township Board has great discretion regarding whether or not it should do so.

3. Discovering Zoning Setback Violations.

Virtually every municipality in Michigan employs the "honor system" with regard to zoning setbacks once a building or structure is built. Although theoretically, a municipality could have a clause in its zoning ordinance that a professional surveyor must verify in writing that all portions of a newly completed building or structure meet all local zoning setback requirements, that is rarely done. We are not aware of any municipality with such an ordinance requirement. Furthermore, it would add a significant expense to new home owners.

Municipalities in Michigan are not guarantors of zoning or code compliance. Municipal budgets are limited and further raising zoning fees, building code fees, inspection fees and other fees (to fund additional municipal inspections and enforcement efforts) is often not an option for local municipalities.

To the extent that a developer or homeowner violates a zoning setback requirement, they proceed at their own risk. In such a situation, there is always a high probability that the developer or homeowner will either have to obtain a variance from the zoning setback requirement or remove the portion of the building or structure in violation of the zoning ordinance.

Please do not hesitate to contact us should you or any other Township official have any question regarding these matters.

Very truly,

Clifford H. Bloom
Special Legal Counsel

cc: Township Manager
Chairperson of Planning Commission

HILGER HAMMOND
ATTORNEYS

49 Monroe Center NW, Suite 200 • Grand Rapids, Michigan •49503
Office 616.458.3600 • Fax 616.284.3067 • hilgerhammond.com

Stephen A. Hilger*
Benjamin H. Hammond
Aileen M. Leipprandt
Mark A. Rysberg
Daniel J. Hatch
Christopher E. Nyenhuis**
*Also admitted in Florida
**Also admitted in Wisconsin

August 6, 2019

Via Hand Delivery and Email

Cascade Township Board
c/o Robert Beahan
Cascade Township Supervisor
2865 Thornhills SE
Grand Rapids, Michigan 49546-7140

REQUEST FOR TOWNSHIP ACTION

Re: Round Hill Development
Our File No. 2284.01

Dear Mr. Beahan:

We have been retained to represent the interests of Mr. and Mrs. Rohde, property owners adjacent to an ongoing PUD development called Round Hill. Because of the developer's and contractor's failure to adhere to requirements of Cascade Township Ordinances, failure to construct the development in compliance with the site plan approved by the Township, and consequent ongoing damages to the Rohdes, we request that the Township Board immediately place consideration of the Round Hill development on its next meeting agenda, withdraw approval of Ordinance No. 1 of 2016 amending the Sentinel Pointe PUD, direct the Planning Director to issue a Cease and Desist Order halting activity on the site, and direct the Building Inspector to revoke the Building Permit for Unit 3 and revoke the Occupancy Permit for Unit 8.

Introduction

In 2016, the Township Board approved an amendment to Sentinel Pointe Ordinance #1 of 1980 to allow the construction of a traditional condominium, commonly called Round Hill located at 3000 Thornhills Avenue, just south of the Township offices. (**Attachment A,** Ordinance 1 of 2016). The project consists of ten single-family residential units and is part of the existing Sentinel Pointe PUD.[1] Following the Township's amendment of the Sentinel Pointe PUD, the developer, Finko LLC, and the contractor building units in the development, Thomas Michael Homes, LLC (Tom Giusti)[2], failed to comply with requirements of the PUD and deviated from the approved site

[1] Tom Giusti, on behalf of RJV Ventures, applied for the PUD Amendment. At the time, 2880 Thornhills, LLC owned the property subject to the proposed amendment. After the Township approved the amendment, 2800 Thornhills sold the property to Finko, LLC. Finko, sold Unit 8 to Lexton, LLC (owned by Giusti), who in turn sold Unit 8 to a third party.

[2] Tom Giusti is the Qualifying Officer for Thomas Michael Homes, LLC and self identifies as a spokesperson for Finko LLC.

plan (Site Plan) without prior written approval of the Township. Per the express provisions of the PUD, Finko and Giusti's failure to comply with the Site Plan and failure to comply with conditions of approval "shall" be deemed a nuisance *per se* and a violation of the Cascade Township Ordinances.[3] Examples of Finko and Giusti's violations are briefly summarized below.

1.
Regulatory Non-Compliance

Finko/Giusti have not complied with regulatory requirements to ensure the project is constructed in accordance with the amended PUD and in accordance with the approved Site Plan.[4] For example:

- Finko must sign and date the PUD and affirm a statement that Finko read, understood, and agreed to abide by all requirements of PUD.[5] Cascade Township's response to FOIA requests confirm that the Developer never signed the PUD, nor did its assigns.

- Finko must record the PUD with the Kent County Register of Deeds (KCRD) and provide a copy of the recorded document to Cascade Township. [6] A review of the KCRD records confirms the Developer never recorded the Ordinance. The Township's response to FOIA requests confirms the Township does not have a signed, recorded copy of the amended PUD.

These regulatory requirements are critical for control of the development, enforcement of ordinance requirements, and protection of purchasers and adjoining landowners. The amended PUD expressly states that failure to comply with each of these conditions of approval "shall be deemed to be both a nuisance *per se* and a violation of the Cascade Charter Township Zoning ordinance." Consequently, the Township Board should withdraw approval of the Amendment to Sentinel Pointe PUD. In the alternative, the Board should direct the Planning Director to issue a Cease and Desist Order, halting all work on the site.

2
Earth Retention System Not Constructed

The amended PUD and the Township Ordinance require Finko and Giusti to construct the project in "exact accordance" with the approved site plan (Site Plan) with all "buildings and structures" to be "placed within the building footprint area as shown on the final approved site plan..."[7]

---

[3] Ordinance 1 of 2016, §V.F.
[4] The PUD identifies the Developer as Driftwood Ventures, LLC or its assigns. The members of Driftwood Ventures, LLC include Tom Giusti and Amy Giusti.
[5] Ordinance 1 of 2016, §V.G and p. 10; Ordinance, §16.09.
[6] Ordinance 1 of 2016, §V.E.
[7] Ordinance 1 of 2016, §V(D); VII; VII(C)1; Ordinance, §21. 03(2).

During the site plan approval process, Township staff noted that the property had "interesting challenges," including the "topography of the site."[8] The Township's engineer noted that the property had challenging topography, as the site sloped "severely from north to south towards the Thornapple Hills County Drain. Several of the proposed lots have grade differences from front to back of 15 ft to 20+ ft."[9] Because the site has "several areas of moderately steep slopes (3:1)," "[c]are should be taken following construction to properly stabilize these areas."[10] The Amended PUD required Finko show all temporary and permanent soil erosion control measures to be taken before, during and after construction.[11]

Importantly, the Site Plan approved by the Township showed massive earth retention walls around half of the units. (**Attachment B** – Site Plan). The earth retention system required by the PUD, Site Plan, and Sediment, Erosion & Soil Control Plan was a critical element, designed to secure the severe grades on the property. These retaining walls border Units 2, 3, and 4 on the north side of the property, Unit 5 on the east side of the property, and Unit 6 and a portion of Unit 7 on the south side of the property. The walls total approximately 700 linear feet with a top height of 10+ feet.[12] Giusti submitted photographs to the Township Board of the typical concrete walls it intended to construct.[13] (**Attachment C** – Photos). The height and breadth of the required retaining walls underscores the magnitude of the concern.

To date, neither Finko nor Giusti have constructed any of the earth retention walls, despite multiple demands from the Kent County Road Commission to install the walls to address severe drainage problems.[14] (**Attachment D** – KCRC reports). In the fall of 2018, the Kent County Road Commission strongly recommended that an engineer visit the site and revise the soil erosion plans.[15] Giusti represented to the KCRC that the retaining walls would be started by November 15, 2018 and completed by December 15, 2018. (See Attachment D). Giusti never did the work. As constructed, the steep slopes at the south and east property lines, made steeper through unapproved changes in the Site Plan, have created an unreasonable and negative impact and burden on adjacent property owners. The massive erosion on the steep slopes created a series of ravines that direct a significant quantity of water and silt down the slopes, overwhelming the silt fences in multiple locations.

The absence of the earth retention system and proper SESC measures has had a significant impact upon the Rohdes' as large mature trees on the condominium toppled onto the Rohdes' property and soil erosion damaged the established root systems of large Red Maples, Sugar Maples, Elms, and Walnut trees on the Rohde property. (**Attachment E** – Photos). Facing no response from Giusti, at the request of the Kent County Road Commission, the Township issued

---

[8] 2-20-15, Township Staff Report.
[9] 2-12-15, Fishbeck Thompson, Carr, & Huber (FTCH) Correspondence, February 12, 2015.
[10] 7-16-15, FTCH Correspondence.
[11] Ordinance 1 of 2016, §XII.
[12] 8-17-15, Comments, Steve Peterson, Planning Commission (PC) Mtg. Minutes; Drawing, C-205.
[13] Photographs, attached to Township Board Agenda, for 1-13-16 Township Board Meeting.
[14] Kent County Road Commission inspection notes document KCRC's urgent requests that the permanent retaining walls be built, per plan, as soon as possible. (May 15, 2018, June 11, 2018, June 15, 2018, July 19, 2018, August 1, 2018, August 9, 2018, September 18, 2018).
[15] See Kent County Road Commission correspondence to Tom Giusti, October 5, 2018.

a Stop Work Order on the project. The Road Commission also fined Giusti's company, Thomas Michael Homes, LLC. Meanwhile, adjoining property owners, the Rohdes, are left with an ongoing maintenance problem.

The most recent grading and soil erosion control plan submitted by Giusti in the Fall of 2018 identifies all the retaining walls "to be installed." However, at a Planning Commission meeting on May 20, 2019, Giusti informed the Planning Commission that he was "opting to probably not do [install]" the earth retention system. When questioned by the Commission about all the complaints from neighbors about erosion and whether the retaining walls would help, Giusti admitted, "yeah, we could put a dent in it; we are talking about a big retaining wall." Yes, we are.

Retaining walls are not optional. Finko/Giusti must install them per the approved Site Plan and per the approved Soil Erosion and Sedimentation Control Plan. Furthermore, the Ordinances require that all provisions of the site condominium plan approved by the Board be incorporated into the Master Deed.[16] Finko failed to incorporate any earth retention system into Exhibit B of the Master Deed, another significant violation.

Finally, because of the change in grades on the site and the steep slopes on the south boundary of this development, sediment continues to pile up against silt fences. Some of the fill / silt is so deep at the property line, and with steep grades extending right to the property line, two rows of silt fences are located on the adjacent Rohde property to properly situate the fencing away from the toe of the slopes. This is not a permanent solution!

The amended PUD and the Township Ordinances require Finko and Giusti to construct the project in "exact accordance" with the approved Site Plan.[17] Finko's and Giusti's failure to comply with the Site Plan "shall be deemed to be both a nuisance *per se* and a violation of the Cascade Charter Township Zoning Ordinance."[18] Consequently, the Township Board should withdraw approval of the Amendment to Sentinel Pointe PUD.[19] In the alternative, the Board should direct the Planning Director to Issue a Cease and Desist Order, [20] halting all work on the Round Hill development, compelling Finko/Giusti to submit an engineer-stamped drawing setting forth the permanent earth retention system as shown on the approved Site Plan, including all required structural treatments to address steep slopes, and compelling completion of the earth retention system within the next 90 days.

3.

Unapproved Expansion of Building Envelopes

The amended PUD and the Township Ordinance require Finko and Giusti to construct the project in "exact accordance" with the approved Site Plan with all "buildings and structures" to be "placed within the building footprint area as shown on the final approved site plan....".[21] The Site Plan showed L-shaped units, with a front yard for each unit, and a two-stall garage, which

---

[16] Ordinance, §16.11(9).
[17] Ordinance 1 of 2016, §V(D); VII; Ordinance, §21. 03(2).
[18] Ordinance 1 of 2016, §V(D).
[19] Ordinance 1 of 2016, §V(C).
[20] Ordinance, 24.02(4).
[21] Ordinance 1 of 2016, §V(D); VII; VII(C)1; Ordinance, §21. 03(2).

Giusti represented would be 477 square feet.[22] Giusti represented to the Township that the units would be constructed as typical ranch-style homes, approximately 2,700 square feet (plus a garage), with a price point of $500,000 to $600,000.[23]

Contrary to requirements of the PUD, Finko and Giusti have deviated substantially from the Site Plan and deviated substantially from representations to the Township about the project. A recent survey confirms that every unit will be expanded beyond the building envelopes approved by the Township. (**Attachment F**). The first unit built (Unit 8)[24] is rectangular in shape, the building envelope has been expanded to include a three-stall garage, a portion of the front yard and side yard are eliminated, and there is substantially more concrete surface attendant to the additional driveway necessitated by the expanded garage. These unauthorized changes reduce what limited green space there was on the street. Now, one will encounter a sea of concrete driveway for units that are located, at the most, 20' from the road. Unit 3, the second house currently under construction, likewise deviates from the Site Plan in similar ways.

Finko and Giusti made these deviations from the Site Plan without Township approval.[25] These unauthorized expansions all but eliminate front yards, impact side yards of the units, and impact the setback between the unit building envelopes. Six of the ten units, now differently configured from the approved L-shape units, violate side yard setback requirements. The building envelope for Unit 5 now actually extends to the Unit 6 property line. Expanded building envelopes on the south side of the project call into question whether developer can even install the street tree landscaping as represented in its plans submitted to the Planning Commission.[26]

Aside from the blatant deviations from the Site Plan, Finko and Giusti are developing this project substantially different from their representations to the Township, nearly doubling the square footage of the units and doubling the sale price. Giusti is now advertising units of up to 5118 square feet, priced at $1.3 million, not 2,700 square feet and $500,00-$600,000 as represented. This changes the entire look and feel of the project.

In May 2019, Mr. Giusti approached the Planning Commission requesting amendment to the PUD to permit further expansion beyond the building envelopes to allow for construction of outdoor decks on all the units, claiming he "forgot" to include a deck when he submitted plans for a building permit for Unit 8, a $1M+ house. Contrary to Giusti's representations to the Planning Commission, Giusti submitted building plans for Unit 8 showing a main floor level with an exterior slider exiting to a slab on grade concrete porch, not a deck. The plans also showed a lower level with daylight windows. Instead of building according to the plans submitted, Giusti changed the design to a walkout basement. That is, Giusti did not build the unit in accordance with the drawings submitted to the Township, without permission built a deck at least 27' long and 13' wide, and

---

[22] Undated Developer Narrative in response to Steve Peterson, March 3, 2015 Review Letter.
[23] Comments by Tom Giusti at PC Meetings March 2, 2015 and August 17, 2015, as documented in PC Meeting Minutes.
[24] Finko, sold Unit 8 to Lexton, LLC (owned by Giusti), who in turn sold Unit 8 to a third party.
[25] Cascade Township's response to FOIA requests confirm no approval of these deviations from the Site Plan.
[26] See Street Tree Landscape Plan, submitted by Giusti to Township per Township's written request of March 3, 2015.

now claims a mistake for which Giusti seeks the Township to excuse through amendment of the PUD. It appears Giusti did an end run around the Planning Commission deeming it better to ask forgiveness than seek permission. For now, the Planning Commission has tabled the requested amendment.

The amended PUD and the Ordinance require that the project be developed in exact accordance with the approved Site Plan. Finko and Giusti's failure to comply with the Site Plan "shall be deemed to be both a nuisance *per se* and a violation of the Cascade Charter Township Zoning Ordinance."[27] Consequently, the Township Board should withdraw approval of the Amendment to the Sentinel Pointe PUD, direct the Planning Director to issue a Cease and Desist Order on all construction operations, and direct the Building Inspector to revoke the Building Permit for Unit 3, and revoke the Occupancy Permit for Unit 8.

4.
Round Hill Condominium Subdivision Plan (Exhibit B)
Does Not Conform to the Approved Site Plan

Round Hill was conceived and approved as a traditional condominium, without separate lots.[28] The Staff Analysis presented to the Board for its consideration stated:

> The new project is being developed as a condominium project, which basically means that they will not have individual lots for each unit. Essentially the property [has] common areas outside of each structure."[29]

Under a traditional condominium, each owner owns its unit only (the enclosed space within their structure) and is responsible for the maintenance of that unit. Generally, the remainder of the property is "shared," and all owners contribute to the maintenance of the shared property. Under this method of development, the association, not the individual owner, has responsibility to maintain common areas, collect assessments, and administer the common affairs of the development.

On April 27, 2018, Finko recorded the Master Deed of Round Hill Condominium with the Kent County Register of Deeds.[30] Exhibit B to the Master Deed is the Condominium Subdivision Plan. That subdivision plan deviates substantially from the approved Site Plan in numerous respects.

First, Finko altered the Site Plan to divide the single parcel subject to the amended PUD into several parcels, creating site condominiums with lot lines, placing the common area land surrounding the units within the lot lines, thereby removing the surrounding land as a common element or limited common element. Consequently, it is left to the individual unit owner to insure and maintain those areas within its lot lines.

---

[27] Ordinance 1 of 2016, §V(D).
[28] 3-2-15, PC Mtg. Minutes, summary of Township Staff Comments; Undated Township Staff Analysis, attached to PC Agenda for 8-17-15 PC Meeting.
[29] Undated Staff Analysis, attached to Township Board Agenda for 1-13-16 Township Board Meeting.
[30] Master Deed.

Second, the Master Deed fails to include earth retention structures that are required by the Site Plan. As described above, the Site Plan requires installation of more than 700 feet of linear retaining walls. As previously conceived and approved as a traditional condominium, the condominium association would have the power to repair and maintain these structures. The condominium association would be required to establish a reserve fund for major repairs and replacement of these and other common elements.[31] As developed, the association no longer has responsibility to maintain, repair, or insure these areas within the individual lots, placing this burden on the individual lot/unit owner.

Third, on April 15, 2019, Finko recorded an amendment to the Master Deed modifying the boundaries and lot sizes of six of the ten lots, dramatically decreasing the size of at least one lot, and dramatically increasing the size of another lot. Several of these new lots are affected by retaining walls. On Unit 5, Finko reduced the lot width dimension at the road from 52.92 feet, to 39.68 feet, calling into question the ability to install anything in the front yard, other than concrete driveways. The developer's most recent survey confirms that the building envelope for Unit 5 extends significantly beyond the building envelope approved by the Township.

Fourth, the amended PUD contemplated that "the Project will be under single ownership or control." By converting the project to a site condominium, Finko is relinquishing single ownership and control over certain areas of the project formally shown as common areas. This lack of single ownership and control is a deviation from the amended PUD.[32] Furthermore, since the property has been subdivided without Township approval and is now no longer under single ownership or control as required by the Township, given the proximity of the multiple new lots to the Thornapple Drain and Thornapple River, each Unit/Lot requires a Soil Erosion and Sedimentation Control permit.

5.
Failure to Account for Landscaping Plan

The Township Board required the developer to install a landscape buffer as part of the approved PUD.[33] Changes in the site grades on the south boundary of Round Hill have not taken into account the required Landscape Plan. Instead of grades tapering to a level area where landscaping could be installed, the grades on the south and east property lines extend down to the property line itself, preventing the installation of the required landscape buffer. The Planning Commission further required Finko to post a $8,200 Landscaping Bond,[34] however, Township records produced in response to FOIA requests did not produce a copy of this bond. Given the substantial grade changes and lack of earth retention system, the required bond appears woefully

---

[31] The Michigan Administrative Code further requires that the reserve fund, at a minimum, be equal to 10% of the condominium association's annual budget on a non-cumulative basis.
[32] There are other obvious inconsistencies between the Master Deed and PUD requirements. For instance, the Master Deed states that the number of units may not exceed twenty, whereas, the approved Site Plan only allows 10 units. Master Deed, IX(b). Similarly, the Master Deed reserves a right to the Developer to subdivide units; subdivision of units is not permitted by the PUD. Master Deed, X(a)1.
[33] 1-13-16 Township Board Meeting Minutes; 2-1-16 P.C. Meeting Minutes; Ordinance 1 of 2016, §XI.
[34] 2-1-16 P.C. Meeting Minutes.

inadequate to protect adjoining landowners. Unit 8 has been sold twice, and still Finko/Giusti have not installed the landscape buffer at the south property line of Unit 8 as required by the approved Landscape Plan.[35]

6.
Site Engineering Changes Requiring Amendment of PUD

Finko/Giusti started construction without submitting revised site engineering drawings depicting significant changes in the approved site engineering plan and without the required amendment to the PUD. Specifically, Finko/Giusti changed the detention pond to a retention pond, changed the height and depth of the retention pond, and eliminated a spillway from the plan. These changes are not "minor" and require amendment of the PUD.

Summary

This correspondence summarizes only some of the challenges and violations involving Round Hill development. In light of the multiple violations of PUD 1 of 2016 and multiple violations of Cascade Township Ordinances, the Rhodes request that the Township Board immediately rescind approval of the amendment to Sentinel Pointe (Ordinance 1 of 2016),[36] direct the Planning Administrator to immediately issue a Cease & Desist Order halting all work on the project,[37] direct the Building Inspector to revoke the Building Permit for Unit 3 and revoke the Occupancy Permit for Unit 8.[38] In lieu of this requested action, the Rohdes are willing to meet with the Township within the next seven days to discuss options to address multiple violations by Finko, Thomas Michael Homes, LLC, and Tom Giusti.

Very truly yours,

HILGER HAMMOND

Aileen M. Leipprandt

Enclosures
AML/slm
c: Trustee Tom M Donald (w/enc. via email to tmcdonald@cascadetwp.com)
Trustee Jim Koessel (w/enc. via email to jkoessel@cascadetwp.com)
Trustee Jack Lewis (w/enc. via email to jlewis@cascadetwp.com)
Trustee John Shipley (w/enc. via email to jshipley@cascadetwp.com)
Clerk Sue Slater (w/enc. via email to sslater@cascadetwp.com)
Treasurer Ken Peirce (w/enc. via email to kpeirce@cascadetwp.com)
Ben Swayze, Cascade Twp Manager (w/enc. via email to bswayze@cascadetwp.com)
Attorney Clifford Bloom (w/enc. via email to cliff@bloomsluggett.com)

[35] Finko sold Unit 8 to Lexton, LLC (owned by Giusti), who in turn sold Unit 8 to a third party.
[36] Ordinance 1 of 2016, §V(C).
[37] Ordinance, 24.02(4).
[38] Ordinance, 24.02(4)(b)(3).

Bloom Sluggett, PC
COUNSELORS & ATTORNEYS

Clifford H. Bloom
Direct Dial: (616) 965-9342
Direct Fax: (616) 965-9352
cliff@bloomsluggett.com

August 15, 2019

Ms. Aileen M. Leipprandt
Hilger Hammond
220 Lyon Street NW, Suite 410
Grand Rapids, Michigan 49503

Re: Cascade Charter Township
RoundHill - PUD - possible violation

Dear Ms. Leipprandt:

This is a follow up of our discussion of last week regarding your letter to Cascade Charter Township (the "Township") officials of August 6, 2019 (and the supplemental letter of August 14, 2019), which contains a number of claimed violations of the Cascade Charter Township Zoning Ordinance (the "Zoning Ordinance"), and specifically, of the Planned Unit Development ("PUD") conditions and requirements for the RoundHill PUD approval ("RoundHill"). As we discussed, Township staff has reviewed the alleged violations and has determined that all of the purported violations would be violations of the conditions of approval for the PUD, not specific regulations or requirements contained in the Zoning Ordinance. As such, the Township Board (upon a recommendation by the Planning Commission) does have the option and authority to formally amend one or more of the conditions of the PUD approval. To the extent that one or more of the alleged violations involve conditions that are ultimately amended by the Township Board, some or all of the purported violation would likely be "cured."

Your clients have strongly asserted that the Township should take enforcement action immediately regarding what appear to be violations of the PUD conditions of approval for RoundHill. As we discussed, with a PUD or similar other zoning approval by the Township with conditions, the Township typically does not commence legal enforcement proceedings if there is a pending or imminent amendment request by the developer or landowner to modify one or more of the conditions that are apparently being violated. That is the current situation. Once the amendment request by the developer of RoundHill has completed its journey through the legal process and the Township Board has made a final decision regarding the requested amendments, the Township will revisit the issue of whether or not RoundHill remains in violations of any of the modified or unmodified conditions of the PUD approval. In the meantime, the developer continues to work on the development and individual houses at his or its own risk.

Why doesn't the Township take immediate enforcement action now, such as issuing municipal civil infraction ticket/citations or filing a Kent County Circuit Court lawsuit? There

are essentially two reasons. First, depending upon what the Township Board ultimately decides regarding the requested amendments to the PUD conditions of approval, any violations may be "cured" and the matter would be moot. Either the District Court or Kent County Circuit Court could view any interim enforcement proceedings as being premature, moot or wasting the Court's time and resources. Second, the Township is reluctant to incur significant attorney fees and costs regarding an interim enforcement effort, only to have the matter become moot after the Township Board acts.

The Township has been very transparent and forthcoming with you and your clients regarding the apparent violations of some of the conditions of the PUD approval for RoundHill. Part of the reason that the RoundHill matter is being put on the agenda for the Planning Commission's upcoming August 19, 2019 meeting is so that members of the Planning Commission can be made aware of the alleged violations, seek input from Township staff, the developer and the public (to the extent determined by the Planning Commission) and to discuss the Township's options going forward.

Please do not hesitate to contact me should you or your clients have any questions in the interim.

Very truly,

Clifford H. Bloom
Special Township Legal Counsel

cc: Township Supervisor
Township Manager
Community Development Director
Chairperson of the Planning Commission

CASCADE CHARTER TOWNSHIP

2865 Thornhills SE Grand Rapids, Michigan 49546-7140

August 27, 2019

Tom Guisti
PO Box 441
Ada MI 49301

RE: 19-3527 Roundhill PUD Amendments

Dear Tom:

Please be informed that until we resolve the PUD Amendments the Township will not be issuing an occupancy permit for the home under construction or any other permits for the development. Please make sure any other interested parties are aware of this.

If you have any questions please call me at 949-0224.

Sincerely,
CASCADE CHARTER TOWNSHIP

Steve Peterson,
Community Development Director

Hula Engineering
17 West Oak Street
(616) 204-5204 Sand Lake, Michigan 49343-0194 Hulaengineering@Charter.net

MEMORANDUM

Date: November 22, 2019

To: Steve Peterson

From: Dan Hula

Subject: Round Hill Revisions

In an effort to put all the requested information in one place at one time, we have prepared the following submittal:

Material submitted for the August 19, 2019 Planning Commission meeting;

- Cover Memo Peterson 08 13 2019.pdf
- PUD Plan 08 12 2019 1.pdf
- PUD Plan 08 12 2019 2.pdf
- Unit Deviations.pdf

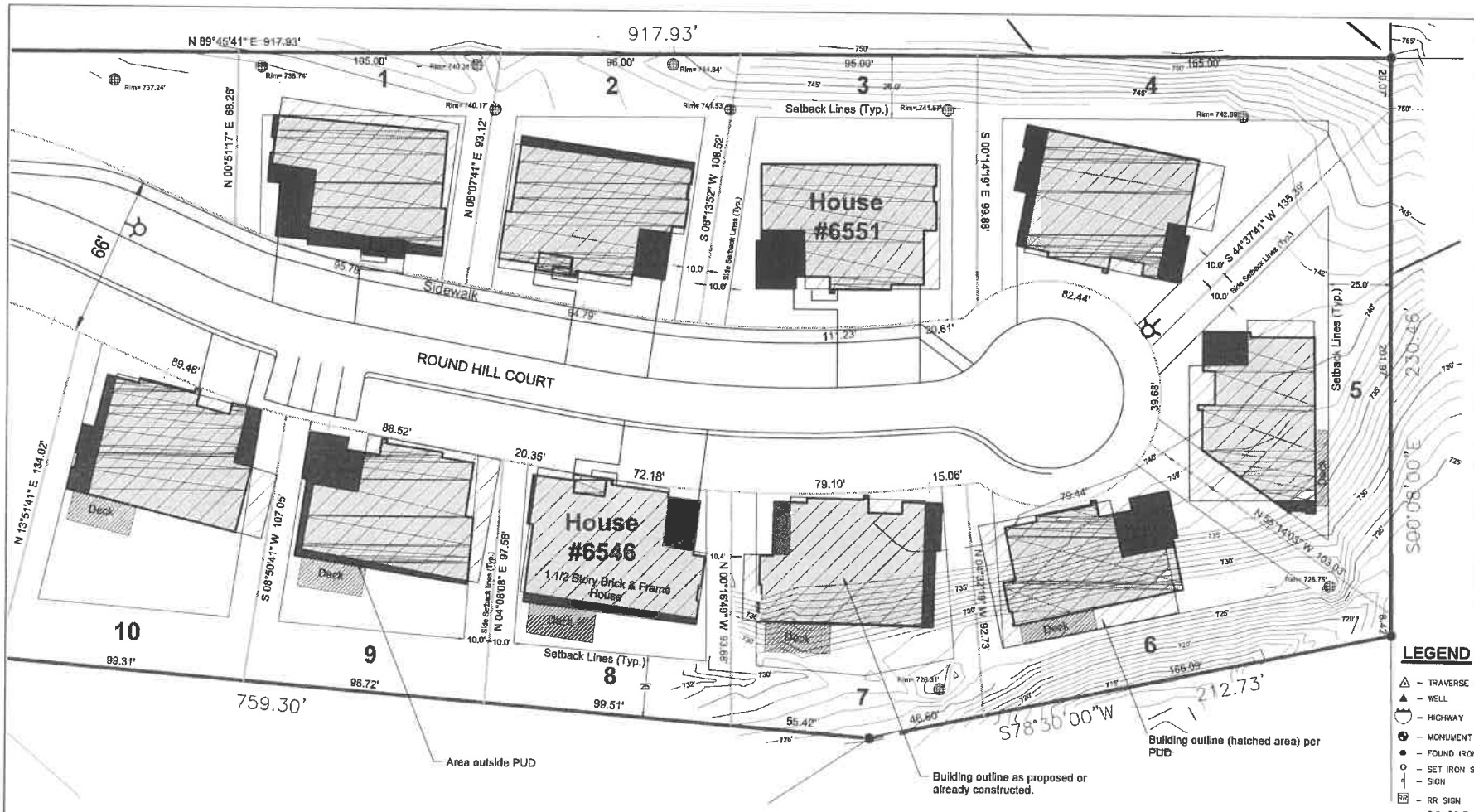
Subsequent to the meeting;

- PC letter from update meeting.pdf

The following were prepared in response to various other requests and are submitted for consideration by the Planning Commission;

- Round Hill Plans 11 21 2019.pdf
- Round Hill Drainage 11 20 2019
- C350 Spillway
- Unit Areas 9 17 2019
- Cross Sections.pdf

Hula Engineering had no role in soil erosion and sedimentation control; therefore, we have no correspondence or plans on that subject.



GPS
GOWER PROFESSIONAL SURVEYING, P.C.

7144 Childsdale Ave. NE
Rockford, MI 49341
(616) 863-9508 Voice
gowerpro@comcast.net

Round Hill
Site Condominiums
Thomas Michael Homes, Inc.
616-581-8744
tom@thomasmichaelhomes.com

GPS FILE #2019-23
8/26/2019
Revised 9/08/2019

I hereby certify that we have surveyed the premises herein described, that the improvements are located entirely thereon as shown, and that there are no encroachments, except as shown hereon.

This survey was made from the legal description above, the description should be compared with the abstract of title or title policy for accuracy, easements, and exceptions.

Christopher J. Gower

STATE OF MICHIGAN
CHRISTOPHER J. GOWER
PROFESSIONAL SURVEYOR
No. 47951
LICENSED PROFESSIONAL SURVEYOR

BUILDING SIZING COMPARISON CHART

Unit #	PUD Home Area	PUD Unit Area	% Lot Area Coverage	Prop. Home Area	% Lot Area Coverage	Diff. Area Sq. Feet	% Lot Area Difference
1	3161	8210	38.5%	3318	40.4%	157	1.9%
2	3161	9641	32.8%	3318	34.4%	157	1.6%
3	3148	11085	28.4%	3320	30.0%	172	1.6%
4	3162	13128	24.1%	3318	25.3%	156	1.2%
5	3168	11429	27.7%	2660	23.3%	-508	-4.4%
6	3143	10808	29.1%	2662	24.6%	-481	-4.5%
7	3160	9323	33.9%	3318	35.6%	158	1.7%
8	3153	9030	34.9%	3398	37.6%	246	2.7%
9	3157	9430	33.5%	3301	35.0%	144	1.5%
10	3130	11118	28.2%	3261	29.3%	131	1.2%

NORTH
0 40 80
SCALE IN FEET

LEGEND

- TRAVERSE POINT
- WELL
- HIGHWAY
- MONUMENT
- FOUND IRON STAKE
- SET IRON STAKE
- SIGN
- RR SIGN
- GUY POLE
- GUY ANCHOR
- UTILITY POLE
- LIGHT POLE
- POST
- SOIL BORING
- U.G. UTILITY MARKER
- MAILBOX
- FIRE HYDRANT
- WATER VALVE
- GAS METER
- WATER METER
- TELEPHONE RISER
- ELECTRIC METER
- CATCH BASIN
- ROUND CATCH BASIN
- UTILITY MANHOLE
- STORM MANHOLE
- SANITARY MANHOLE
- ELECTRIC MANHOLE
- TELEPHONE MANHOLE
- SHRUB
- DECIDUOUS TREE
- CONIFEROUS TREE
- WATER UTILITY LINE
- TELEPHONE UTILITY LINE
- ELECTRIC UTILITY LINE
- GAS UTILITY LINE
- STEAM UTILITY LINE
- STORM UTILITY LINE
- SANITARY UTILITY LINE
- FIBER OPTIC UTILITY LINE
- OVERHEAD UTILITY LINE

KENT COUNTY ROAD COMMISSION
1500 SCRIBNER AVE. N.W.
GRAND RAPIDS, MI 49504
(616 242-6910

SOIL EROSION AND SEDIMENTATION CONTROL
SITE INSPECTION FIELD REPORT

Name THOMAS MICHAEL HOMES Permit Number: 17 / 079

Address PO BOX 441 Date Issued: 3/13/17 Open ☐

City ADA State MI Zip 49301 Expiration Date: 10/1/19 Closed ☐

Telephone 616-581-8744 Fax _____ E-mail Address tomhomesllc@aol.com

The project location is described as: 3000 THORNHILLS AVE SE

City or Township of CASCADE Section 16 Surface Water THORNAPPLE RIVER

Responsible On-Site Party TOM GIUSTI Telephone 616-581-8744

Project Description: PRIVATE ROAD AND UTILITIES - ROUND HILL CT - 4+ ACRES

Inspector's notes:

- ☐ Project not started.
- ☐ Earth change has begun, site is stable and erosion and sedimentation controls are correctly installed.
- ☐ Earth change has begun, controls **not** installed per plan. Location: _____
- ☒ Construction continues and the site is stable.
- ☐ There is potential for sediment to leave the site. Location: _____
- ☐ Sediment is leaving the site. Location: _____
- ☒ Slopes need final grading and seeding to stabilize soil surface.
- ☐ The earth change is complete but vegetation needs to be established. Location: _____
- ☐ The permit has expired and an extension is necessary, call (616) 242-6910.
- ☐ Project is complete and growth is sufficient. Please remove all temporary soil erosion controls.
- ☐ Permit is closed

Additional comments:

House construction continues
The slope on the South East corner of the site is vegetating and the slope appears stable at this time. The temporary controls at the bottom of the slope are in place, clean out and maintain as needed. There are still washouts that will need to be repaired on the slopes near the detention basin, but sediment does not appear to be leaving the site at this time.

☐ **Corrections must be completed by:** _____ / _____ / _____

☐ Violation notice recommended: _____ ☒ Report mailed to: **THOMAS MICHAEL HOMES**

☐ Violation notice sent to: _____ ☒ Copies sent to: **Wayne Harrall; Steve Peterson**

☐ Permittee notified by telephone: ☐ Others participating during inspection _____

INSPECTORS NAME Andrew Reinhardt DATE 09 / 04 / 19 INSPECTION NO. 25

PERMITTEE'S COPY ☐ INSPECTORS'COPY ☐ OFFICE COPY ☐

Kent County Road Commission

October 18, 2019

Thomas Michael Homes
PO Box 441
Ada, MI 49301

RE: Soil Erosion and Sedimentation Control Permit #17-079
Private Road & Utilities / 3000 Thornhills Ave SE
Cascade Township, Section 16, Kent County

To whom it may concern:

This letter is written to extend this soil erosion and sedimentation permit until April 1, 2020 in order to complete the project and to establish growth on all disturbed areas. All requirements remain the same as stated on the permit issued March 13, 2017.

Sincerely,

Amy Koets
Engineering Department

Andrew Reinhardt, Inspector

KENT COUNTY ROAD COMMISSION
1500 SCRIBNER AVE. N.W.
GRAND RAPIDS, MICHIGAN 49504
(616) 242-6910

SOIL EROSION AND SEDIMENTATION CONTROL PERMIT

Pursuant to Part 91, Soil Erosion and Sedimentation Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, approval of the Soil Erosion and Sedimentation Control Plan and **Application is hereby granted to:**

Name THOMAS MICHAEL HOMES Permit Number: 17 \ 079

Address PO BOX 441 Date Issued: 3/13/17 Open ☐

City ADA State MI Zip 49301 Expiration Date: 4/1/20 Closed ☐

Telephone 616-581-8744 Fax _____ E-mail Address tomhomesllc@aol.com

The project location is described as: 3000 THORNHILLS AVE SE

City or Township of CASCADE Section 16 Surface Water THORNAPPLE RIVER

Responsible On-Site Party TOM GIUSTI Telephone 616-581-8744

Project Description: PRIVATE ROAD AND UTILITIES - ROUND HILL CT - 4+ ACRES

☒ **Install controls as specified on the SESC plan:** _____

☒ **Silt fence installed between earth change and surface water or wetland area.** PROPERLY TRENCHED INTO THE GROUND

☒ **Maintain minimum** 30 **foot vegetated buffer between earth change and surface water or wetland area.** _____

☒ **Install catch basin controls i.e. sediment bag, etc.** PROTECT ADJACENT CATCH BASINS WITH INLET PROTECTION

☒ **Establish growth on all disturbed area's by** ASAP / _____ / _____ **or within 5 days of final grading.**

☒ **Keep road clean of sediment during construction.** CONTROL TRACKING OF SOILS ONTO ROADS; SWEEP DAILY

☒ **Install mulch blankets on slopes.** 1 ON 3 SLOPES OR GREATER

☒ **Install mulch blankets or geotextile fabric on areas of concentrated flow.** _____

☒ **Other controls required:** AS REQUESTED BY INSPECTOR

☒ **Performance Deposit:** A performance deposit is required on **all** commercial projects.
The form of deposit is LOC #OSB.009657 **and the amount for this earth change project is $** 5,000.00

Permit Conditions:

1. The permitted activity shall be completed in accordance with the approved specifications, attached general and specific conditions, and approved plans dated: _____
2. This permit does not waive the necessity for obtaining all other required federal, state, or local permits.
3. Permittee shall notify the Kent County Road Commission within **one week** after completing the permitted activity or **one week prior to the permit expiration date**, whichever comes first.

Please read General Conditions listed on the back of this permit.

PERMITTING AGENT: WAYNE HARRALL DATE 3 / 8 / 2017
INSPECTOR: SCOTT MILLER

THIS PERMIT MUST BE AT PROJECT SITE AND AVAILABLE FOR INSPECTION

PERMITTEE'S COPY ☐ INSPECTOR'S COPY ☐ LOCAL GOVERNMENT DIVISION ☐ OFFICE COPY ☐

From: Doug Poolman
DP
To: tom@thomasmichael... Hide
Cc: Steve

Gate at Roundhill

Today at 3:13 PM

Tom,
After inspection, the gated entrance meets the requirements of the fire department for clearance and access.
Thanks,

Doug Poolman – Fire Inspector / Investigator
Cascade Fire Department
2865 Thornhills Ave. S.E.
Grand Rapids, MI 49546

Direct (616) 259-7033
Cell (616) 325-6283
Fax (616) 285-2330
Email: dppoolman@cascadetwp.com

Hula Engineering
17 West Oak Street
(616) 204-5204 Sand Lake, Michigan 49343-0194 Hulaengineering@Charter.net

MEMORANDUM

Date: August 13, 2019

To: Steve Peterson

From: Dan Hula

Subject: Round Hill Condos

Attached is a revised PUD Amendment Preliminary Plan for the Round Hill site. It should be understood that the preliminary PUD site plan is the foundation for approval, and not a construction document. Approval from the Township is necessary prior to preparation of construction documents and permit issuance. Through the process of design and development of construction plans, several agencies along with your engineer are all involved in the process. It is through this iterative process that final approval from the agencies, and your engineer working on behalf of the Township is obtained. Also some modifications are made during construction, usually with the approval of the agency responsible for the item modified. Therefore, it is not un-common to find the final constructed project is not exactly the same as the original preliminary plan.

Deviations from the original plan include:

1. A security gate has been added. The City of Grand Rapids considers gates in their easements as structures which are addressed in their standard easement document. The gate was presented to, and approved by, the Fire Chief before installation and meets the requirements of the Fire Department.

2. The retention basin configuration has changed. And the spillway was changed from concrete to reinforced turf as approved by your engineer in October 2017. The area above the basin was filled with spoil from the construction rather than hauling it off-site at the expense of trucking and street infrastructure. The basin shape was changed slightly to accommodate the fill. An as-built survey was prepared and volumes were calculated to ensure the new pond configuration exceeded the planned configuration. The fact that the plan was prepared leads me to believe that the plan was prepared to satisfy your engineer that the basin is in fact in conformance with the ordinance. Concrete spillways are rigid, and are prone to wash-outs around them. Reinforced turf spillways tend to be more flexible and conform to the earthen surface.

3. The storm sewer configuration changed from the PUD Plan, but is in conformance with the approved construction drawings. This change was made during the design process as it appears on the construction drawings prepared during the design phase of the project. The change results in the reduction of a drainage structure and only one road crossing.

4. The proposed building footprints have changed, see the attached survey from Chris Gower. This was done to allow a third garage stall. The market indicates a demand for that, and the change was in response to that market shift. The configuration of unit 5 will be addressed by the architect so the unit can be constructed within the approved setbacks.

5. The watermain loop was changed to just outside the easterly property Boundary. This change was dictated by the City of Grand Rapids as it is their system.

6. The retaining walls were not constructed. The original design intent was not to impact the neighboring properties with the construction of this project. During construction, permission was acquired to grade over the property lines in order to form a slope rather than a wall. The slopes are now constructed and have been stabilized with mulch blankets and there is substantial growth on the southwest slope. The slopes provide the same topographic elevation change as the planned walls would have, without the inherent dangers associated with retaining walls.

7. The visitor parking location was changed to just west of Unit one. There were two visitor parking locations on the preliminary plan, each with four spaces. On the advice of our attorney, we changed to only one visitor parking location with four spaces further away from the units. With the addition of a third stall at each unit, and anticipated visitor traffic, the number of visitor spaces is adequate.

8. The Legal description has changed. The Condominium documents have been recorded; therefore, the new description describes the original parcel.

9. The Authorized Vehicle Only signs have yet to be installed. These signs will be installed.

10. A line of Norway spruce trees has been added at the top of the bank behind unit 6. Most of the landscaping outside of the units themselves has been installed. Landscaping and sidewalks within the units will be installed as the units are built out. The added spruce trees were added as a psychological barrier at the top of the slope. This will help define the unit boundaries and provide additional screening.

Storm Sewer as-builts and revised calculations have been sent to your engineer for review and approval. There are many minor differences between the original preliminary PUD plan and the final as-built project, as evidenced by the above discussion. The calculations are now based on the project as it was constructed, and the calculations show there is not a substantial difference between the original plan and the as-built project. The design intent has been met and the system will function as planned. However, confirmation of my professional opinion by your engineer is currently being sought.

KENT COUNTY ROAD COMMISSION
1500 SCRIBNER AVE. N.W.
GRAND RAPIDS, MI 49504
(616 242-6910

SOIL EROSION AND SEDIMENTATION CONTROL
SITE INSPECTION FIELD REPORT

Name THOMAS MICHAEL HOMES Permit Number: 17 / 079

Address PO BOX 441 Date Issued: 3/13/17 Open ☐

City ADA State MI Zip 49301 Expiration Date: 10/1/19 Closed ☐

Telephone 616-581-8744 Fax _____ E-mail Address tomhomesllc@aol.com

The project location is described as: 3000 THORNHILLS AVE SE

City or Township of CASCADE Section 16 Surface Water THORNAPPLE RIVER

Responsible On-Site Party TOM GIUSTI Telephone 616-581-8744

Project Description: PRIVATE ROAD AND UTILITIES - ROUND HILL CT - 4+ ACRES

Inspector's notes:

- ☐ Project not started.
- ☐ Earth change has begun, site is stable and erosion and sedimentation controls are correctly installed.
- ☐ Earth change has begun, controls **not** installed per plan. Location: _____
- ☒ Construction continues and the site is stable.
- ☐ There is potential for sediment to leave the site. Location: _____
- ☐ Sediment is leaving the site. Location: _____
- ☒ Slopes need final grading and seeding to stabilize soil surface.
- ☐ The earth change is complete but vegetation needs to be established. Location: _____
- ☐ The permit has expired and an extension is necessary, call (616) 242-6910.
- ☐ Project is complete and growth is sufficient. Please remove all temporary soil erosion controls.
- ☐ Permit is closed

Additional comments:

House construction continues

The slope on the South East corner of the site is vegetating and the slope appears stable at this time. The temporary controls at the bottom of the slope are in place, clean out and maintain as needed. There are still washouts that will need to be repaired on the slopes near the detention basin, but sediment does not appear to be leaving the site at this time.

☐ **Corrections must be completed by:** ____ / ____ / ____

☐ Violation notice recommended: _____ ☒ Report mailed to: **THOMAS MICHAEL HOMES**

☐ Violation notice sent to: _____ ☒ Copies sent to: **Wayne Harrall; Steve Peterson**

☐ Permittee notified by telephone: ☐ Others participating during inspection _____

INSPECTORS NAME Andrew Reinhardt DATE 09 / 04 / 19 INSPECTION NO. 25

PERMITTEE'S COPY ☐ INSPECTORS'COPY ☐ OFFICE COPY ☐

NARRATIVE SUMMARY

Location: Round Hill is a single-family PUD in Section 16, Cascade Township, Kent County, Michigan. The PUD covers approximately 5.24 acres.

Terrain: Existing elevations on this property vary from an existing high point of 758 feet near the northeast corner of the site to an existing low elevation of 696 feet near the southeast corner of the site.

Soils: Soils on the site consist mostly of sandy clay.

Current Drainage: The east approximately 1/3 of the site sheet flows toward the southeast corner of the site. Approximately 1.6 acres of off-site area and approximately 1.8 acres within the north and west portion of the site are collected by existing storm sewer within the west portion of the site. This storm sewer currently discharges to enclosed storm sewer within Thornhills Avenue. Approximately 1.73 acres within the south and west portion of the site sheet flows to the existing low spot on the property and flows onto the adjoining parcel to the south, toward the Thornapple Creek.

Retention Provisions: Stormwater runoff will be collected via storm sewer and discharged to a retention basin constructed within the existing low spot of the site. The retention basin has been sized for the 100-year storm event. Two (2) soil samples collected from this low area provided an average infiltration rate of 6.9 in/hr. A conservative 3 in/hr infiltration rate was utilized for the stormwater calculations. A spillway with a 100-year capacity was provided along the south side of the retention basin.

A storage volume of 27,613 cu. ft. is required for the 100-year storm event. A storage volume of 31,280 cu. ft. is provided at an elevation equal to the crest of the spillway. The overall water depth within the basin in a 100'year storm event is calculated at 5.00'.

An area of 4,677 sq. ft., representing the area of the retention basin 2' above the bottom of the basin, was utilized as the effective infiltration area. This area conservatively accounts for sidewall infiltration of the basin.

Storm Sewer Design Standard: The storm sewer system for the project is designed to collect the 10-year storm runoff from the front yards, roads, roofs, and rear yards. Design flows are calculated with the rational method. Manning's equation is used to determine a hydraulic grade elevation in the system.

Off-site Flow: Approximately 0.624 acres of off-site area flows onto the site. The stormwater runoff from this adjoining property is collected within a swale and catch basins located along the north property line. This off-site stormwater discharged into existing storm sewer within the west portion of the site. This existing storm has historically collected this off-site runoff as well as runoff from the central portion of the site. The storm sewer collecting the off-site flow has been appropriately sized to convey the runoff from a 25-year storm event.

North American Green
5401 St. Wendel-Cynthiana Rd.
Poseyville, Indiana 47633
Tel. 800.772.2040
>Fax 812.867.0247
www.nagreen.com
ECMDS v7.0

CHANNEL ANALYSIS

> > > Spillway

Name	Spillway
Discharge	14
Peak Flow Period	4
Channel Slope	0.3333
Channel Bottom Width	14
Left Side Slope	3
Right Side Slope	3
Low Flow Liner	
Retardence Class	C 6-12 in
Vegetation Type	Mix (Sod and Bunch)
Vegetation Density	Good 75-95%
Soil Type	Sandy Loam (GM)

C350

Phase	Reach	Discharge	Velocity	Normal Depth	Mannings N	Permissable Shear Stress	Calculated Shear Stress	Safety Factor	Remarks	Staple Pattern
C350 Unvegetated	Straight	14 cfs	7.66 ft/s	0.13 ft	0.028	3.2 lbs/ft2	2.64 lbs/ft2	1.21	STABLE	E
Underlying Substrate	Straight	14 cfs	7.66 ft/s	0.13 ft	0.028	3.03 lbs/ft2	2.57 lbs/ft2	1.18	STABLE	E
C350 Reinforced Vegetation	Straight	14 cfs	7.13 ft/s	0.14 ft	0.031	12 lbs/ft2	2.84 lbs/ft2	4.23	STABLE	E
Underlying Substrate	Straight	14 cfs	7.13 ft/s	0.14 ft	0.031	3.2 lbs/ft2	2.75 lbs/ft2	1.16	STABLE	E

Round Hill Condominiums						
	As-Built				As Designed	
Structure	Hard 1	Green 0.22	Areas Acres	C Factor	Areas Acres	C Factor
Storm System to Pond						
102	1235	0	0.028	1.00	0.000	0.22
103	2986	1670	0.107	0.72	0.890	0.80
104	2728	3615	0.146	0.56	0.700	0.70
105	2470	1526	0.092	0.70	0.098	0.60
106	2385	5185	0.174	0.47	0.128	0.60
107	2231	2754	0.114	0.57	0.209	0.60
108	7364	4481	0.272	0.70	0.316	0.70
109	4684	6799	0.264	0.54	0.261	0.50
110	23406	19127	0.976	0.65	0.924	0.57
111	4221	2374	0.151	0.72	0.089	0.49
112	2728	4250	0.160	0.52	0.115	0.43
113	2470	6203	0.199	0.44	0.122	0.40
114	1493	7093	0.197	0.36	0.093	0.40
Direct to Basin						
	Water	Green				
100	9310	28159	0.860	0.41		
Total Site						
	69711	93236	3.741	0.55	3.945	0.59

Basin Bypass Storm System						
	As-Built				As Designed	
Structure	Hard 1	Green 0.22	Areas Acres	C Factor	Areas Acres	C Factor
2050	290	8957	0.212	0.24		
208	8533	2648	0.257	0.82	1.257	0.60
203	0	5214	0.120	0.22	0.013	0.60
204	0	9013	0.207	0.22	0.201	0.60
205	0	8396	0.193	0.22	0.176	0.60
206	0	4684	0.108	0.22	0.356	0.60

11/20/2019

Round Hill Condominiums

Developed Rational Coeffficient	0.55	
Drainage Area	3.741	ac
Permeability	3.00	in/hr
Infiltration Area	4677	sft
Infiltration Rate	0.325	cfs

T	T	I(100)	Q_{in}	Q_{out}	$Q_{in} - Q_{out}$	Storage
(min)	(hrs)	(in/hr)	(cfs)	(cfs)	(cfs)	(cft)
10	0.17	7.74	15.93	0.325	15.60	9360
20	0.33	5.77	11.87	0.325	11.55	13856
30	0.50	4.56	9.38	0.325	9.06	16303
40	0.67	3.80	7.82	0.325	7.49	17985
50	0.83	3.30	6.79	0.325	6.46	19395
60	1.00	2.89	5.95	0.325	5.62	20237
75	1.25	2.50	5.14	0.325	4.82	21685
90	1.50	2.20	4.53	0.325	4.20	22689
105	1.75	1.95	4.01	0.325	3.69	23230
120	2.00	1.78	3.66	0.325	3.34	24030
150	2.50	1.50	3.09	0.325	2.76	24852
180	3.00	1.31	2.70	0.325	2.37	25600
240	4.00	1.05	2.16	0.325	1.84	26430
300	5.00	0.89	1.83	0.325	1.51	27112
360	6.00	0.77	1.58	0.325	1.26	27201
420	7.00	0.69	1.42	0.325	1.09	27587
480	8.00	0.62	1.28	0.325	0.95	27380
540	9.00	0.57	1.17	0.325	0.85	27469
600	10.00	0.52	1.07	0.325	0.74	26817
660	11.00	0.48	0.99	0.325	0.66	26240
720	12.00	0.44	0.91	0.325	0.58	25070
780	13.00	0.43	0.88	0.325	0.56	26196
840	14.00	0.41	0.84	0.325	0.52	26137
900	15.00	0.40	0.82	0.325	0.50	26893
960	16.00	0.38	0.78	0.325	0.46	26316
1020	17.00	0.37	0.76	0.325	0.44	26701
1080	18.00	0.35	0.72	0.325	0.40	25605
1140	19.00	0.34	0.70	0.325	0.37	25620
1200	20.00	0.32	0.66	0.325	0.33	24006
1260	21.00	0.31	0.64	0.325	0.31	23651
1320	22.00	0.29	0.60	0.325	0.27	21518
1380	23.00	0.28	0.58	0.325	0.25	20792
450	7.50	0.655	1.35	0.325	1.02	27613

Hula Engineering
11/20/2019

Round Hill Condos				
STAGE STORAGE TABLE				
ELEV	AREA (sq. ft.)	DEPTH (ft)	INC. VOL. (cu. ft.)	TOTAL VOL. (cu. ft.)
698.00	2341.00	0.00	0.00	0.00
699.00	3481.00	1.00	2911.00	2911.00
700.00	4677.00	1.00	4079.00	6990.00
701.00	5930.00	1.00	5303.50	12293.50
702.00	7240.00	1.00	6585.00	18878.50
703.00	8606.00	1.00	7923.00	26801.50
703.50	9310.00	0.50	4479.00	31280.50

Emergency Spillway

I(100)	6.64
C(Dev)	0.55
T_C	15
Area	3.714
Q	13.56

Design Equation for Rectangular Weir

$Q = CLH^{3/2}$

C = 3.3 for sharp crested weirs (e.g. sheet piling)

C = 3.0 for broad crested weirs (e.g. earth berm)

Q	C	L	H	
14.849	3	14	0.5	Calculate Q
13.56	3	14	0.471	Calculate H
13.56	3	12.784	0.5	Calculate L

Hula Engineering

11/20/2019

Round Hill Condos
As-built
10/29/2019

From	To	New Acres Added	Weighted C	Acum. Acres	Accum. Weighted C	Time (min.)	Intensity (in./hr.)	"Q" (cfs) Accum.	Q_{cap} (cfs)	Grade (ft./ft.)	K ($Q/s^{1/2}$)	Size (in.)	Velocity (fps)	Length (ft.)	Travel Time (min.)	Upstream Invert	Downstream Invert	Run Number
107	106	0.116	0.61	0.116	0.61	10	4.44	0.31	2.89	0.0056	38.70	12	3.39	160	0.8	724.65	723.76	A7
106	105	0.205	0.56	0.321	0.58	11	4.44	0.82	0.97	0.0006	38.70	12	1.14	111	1.6	723.71	723.64	A6
105	104	0.082	0.76	0.403	0.62	12	4.12	1.02	1.37	0.0013	38.70	12	1.61	88	0.9	723.64	723.53	A5
104	103	0.129	0.63	0.532	0.62	13	4.12	1.36	2.29	0.0035	38.70	12	2.70	74	0.5	723.34	723.08	A4
103	102	0.114	0.76	0.646	0.64	14	4.12	1.71	2.90	0.0056	38.70	12	3.41	82	0.4	722.99	722.53	A3
102	101	0.045	0.72	0.691	0.65	14	4.00	1.79	2.33	0.0036	38.70	12	2.73	72	0.4	722.46	722.20	A2
		0	0.00	0.691	0.65	10	1.00	0.45	3.87	0.0100	38.70	12	4.55	0	0.0			
114	113	0.197	0.37	0.119	0.61	10	4.44	0.32	4.38	0.0128	38.70	12	5.15	118	0.4	739.53	738.02	A14
113	112	0.2	0.44	0.319	0.50	10	4.44	0.71	3.87	0.0100	38.70	12	4.55	88	0.3	737.97	737.09	A13
112	111	0.161	0.55	0.48	0.52	11	4.27	1.07	3.72	0.0092	38.70	12	4.37	93	0.4	737.03	736.17	A12
111	110	0.153	0.76	0.633	0.58	11	4.27	1.56	5.62	0.0211	38.70	12	6.60	112	0.3	735.71	733.35	A11
110	108	0.964	0.62	1.597	0.60	11	4.27	4.11	6.51	0.0283	38.70	12	7.66	102	0.2	733.12	730.23	A10
109	108	0.262	0.59	1.859	0.60	12	4.12	4.64	3.38	0.0076	38.70	12	3.98	127	0.5	730.87	729.90	A9
108	101	0.29	0.68	2.149	0.61	12	4.12	5.42	9.89	0.0654	38.70	12	11.63	114	0.2	729.55	722.10	A8
		0	0.00	2.149	0.61	10	1.00	1.32	3.87	0.0100	38.70	12	4.55	100	0.0			
101	100	3.728	0.56	3.766	0.55	13	4.00	8.35	18.80	0.2361	38.70	12	22.10	100	0.1	721.99	698.38	A1
		0	0.00	3.766	0.55	13	1.00	2.09	3.87	0.0100	38.70	12	4.55	100	0.0			
109	108	0.262	0.59	0.264	0.54	10	4.44	0.63	3.87	0.0100	38.70	12	4.55	102	0.4	730.87	729.90	A9
		0	1.00	0.264	0.54	10	1.00	0.14	3.87	0.0100	38.70	12	4.55	100	0.4			
		0	1.00	0.264	0.54	11	1.00	0.14	3.87	0.0100	38.70	12	4.55	100	0.4			
206	205	0.141	0.22	0.141	0.22	10	5.58	0.17	9.71	0.0630	38.70	12	11.42	77	0.1	740.84	735.99	B5
205	204	0.157	0.22	0.298	0.22	10	5.58	0.37	4.75	0.0151	38.70	12	5.58	87	0.3	735.99	734.68	B4
204	203	0.241	0.22	0.539	0.22	10	5.58	0.66	1.90	0.0024	38.70	12	2.23	58	0.4	733.31	733.17	B3
203	202	0.084	0.22	0.623	0.22	11	5.37	0.74	4.53	0.0137	38.70	12	5.32	84	0.3	733.09	731.94	B2
202	207	0	1.00	0.623	0.22	11	5.37	0.74	9.70	0.0628	38.70	12	11.40	162	0.2	730.57	720.40	B1
207	208	0	1.00	0.623	0.22	11	5.37	0.74	6.73	0.0302	38.70	12	7.91	44	0.1	720.30	718.97	C1
208	2050	0.249	0.83	0.872	0.39	11	5.37	1.85	10.23	0.0698	38.70	12	12.02	128	0.2	719.86	710.92	Exist
2050	Outlet	0.204	0.49	1.076	0.41	12	5.19	2.30	4.41	0.0130	38.70	12	5.19	100	0.3	710.92	709.62	Outlet
		0	1.00	1.076	0.41	12	1.00	0.44	3.87	0.0100	38.70	12	4.55	100	0.4			
		0	1.00	1.076	0.41	12	1.00	0.44	3.87	0.0100	38.70	12	4.55	100	0.4			
		0	1.00	1.076	0.41	13			3.87	0.0100	38.70	12	4.55					

Materials Testing Consultants
www.mtc-test.com • 800.968.8378

Project No.: 141577
Test No.: 1
Date: 03/12/15

Project: Proposed Round Hill Development
Client: RJF Ventures
Contractor:
Engineer/Architect:

DOUBLE RING INFILTROMETER TEST - SEMCOG METHOD

PRE-TEST SOAKING DURATION (MIN): 60
INNER DIAMETER (IN): 3
OUTER DIAMETER (IN): 6

GROUND SURFACE ELEV. (FT): 0
TEST ELEV. (FT): -2.75
GROUNDWATER ELEV. (FT): NA

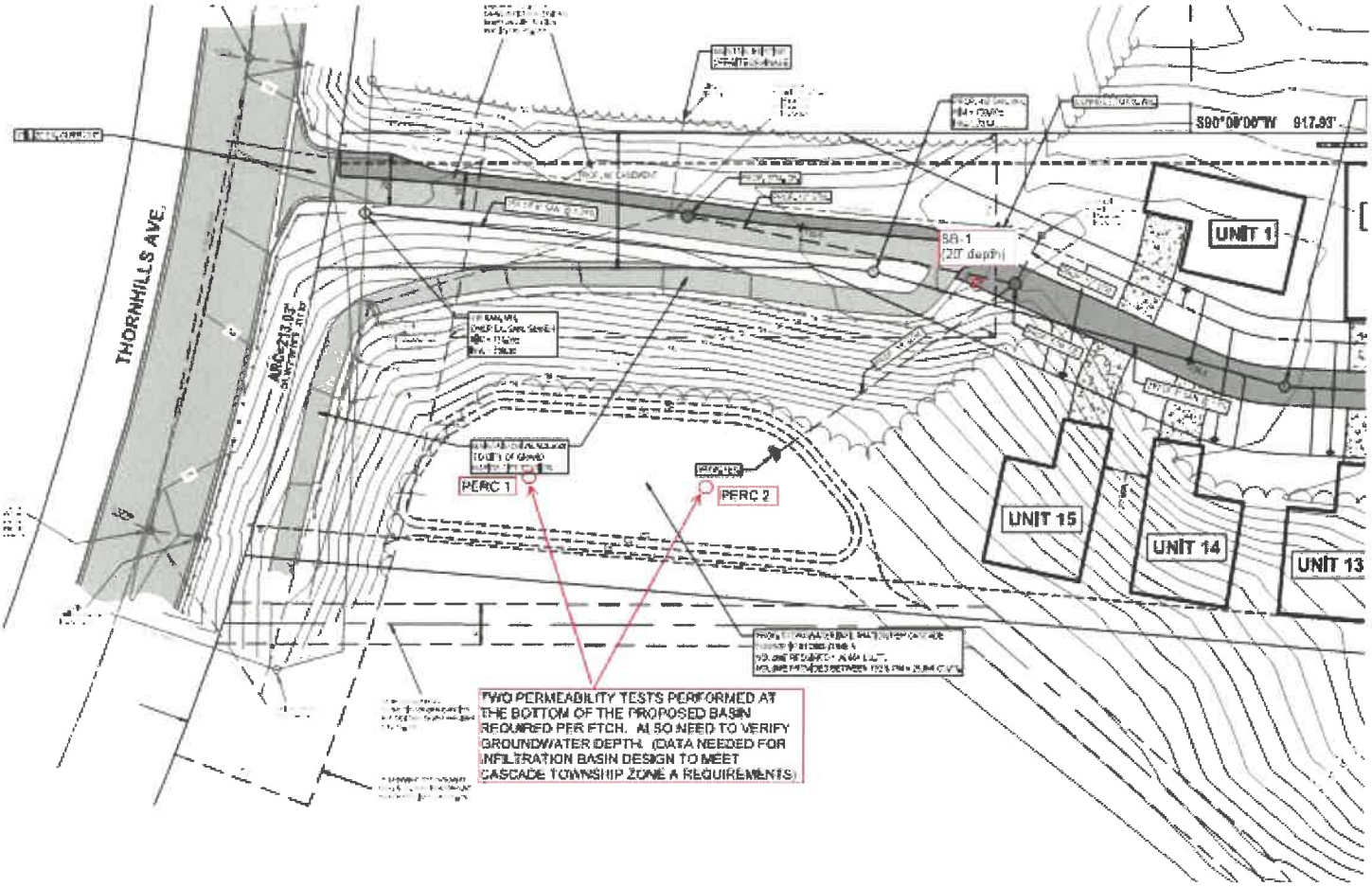
SOIL DESCRIPTION: Dark brown poorly graded SAND with silt (SP-SM)

TABLE 1: TEST DATA

TIME (MIN:SEC)	WATER DROP (IN)	TIME INTERVAL (MIN)	PERCOLATION RATE* (IN/HR)
0:00			
10:00	3/4	10	4.5
20:00	3/4	10	4.5
30:00	3/4	10	4.5
40:00	1	10	6.0

REMARKS:

TESTED BY: T. Hanna
REVIEWED BY: A. Vanderhill


THORNHILLS AVE.
S90°00'00"W 917.93'
UNIT 1
SB-1
(20' depth)
PERC 1
PERC 2
UNIT 15
UNIT 14
UNIT 13
TWO PERMEABILITY TESTS PERFORMED AT THE BOTTOM OF THE PROPOSED BASIN REQUIRED PER ETCH. ALSO NEED TO VERIFY GROUNDWATER DEPTH. (DATA NEEDED FOR INFILTRATION BASIN DESIGN TO MEET CASCADE TOWNSHIP ZONE A REQUIREMENTS)

Materials Testing Consultants
www.mtc-test.com • 800.968.8378

Project No.: 141577
Test No.: 2
Date: 03/12/15

Project: Proposed Round Hill Development
Client: RJF Ventures
Contractor:
Engineer/Architect:

DOUBLE RING INFILTROMETER TEST - SEMCOG METHOD

PRE-TEST SOAKING DURATION (MIN): 60
INNER DIAMETER (IN): 3
OUTER DIAMETER (IN): 6.0

GROUND SURFACE ELEV. (FT): 0
TEST ELEV. (FT): -3.0
GROUNDWATER ELEV. (FT): NA

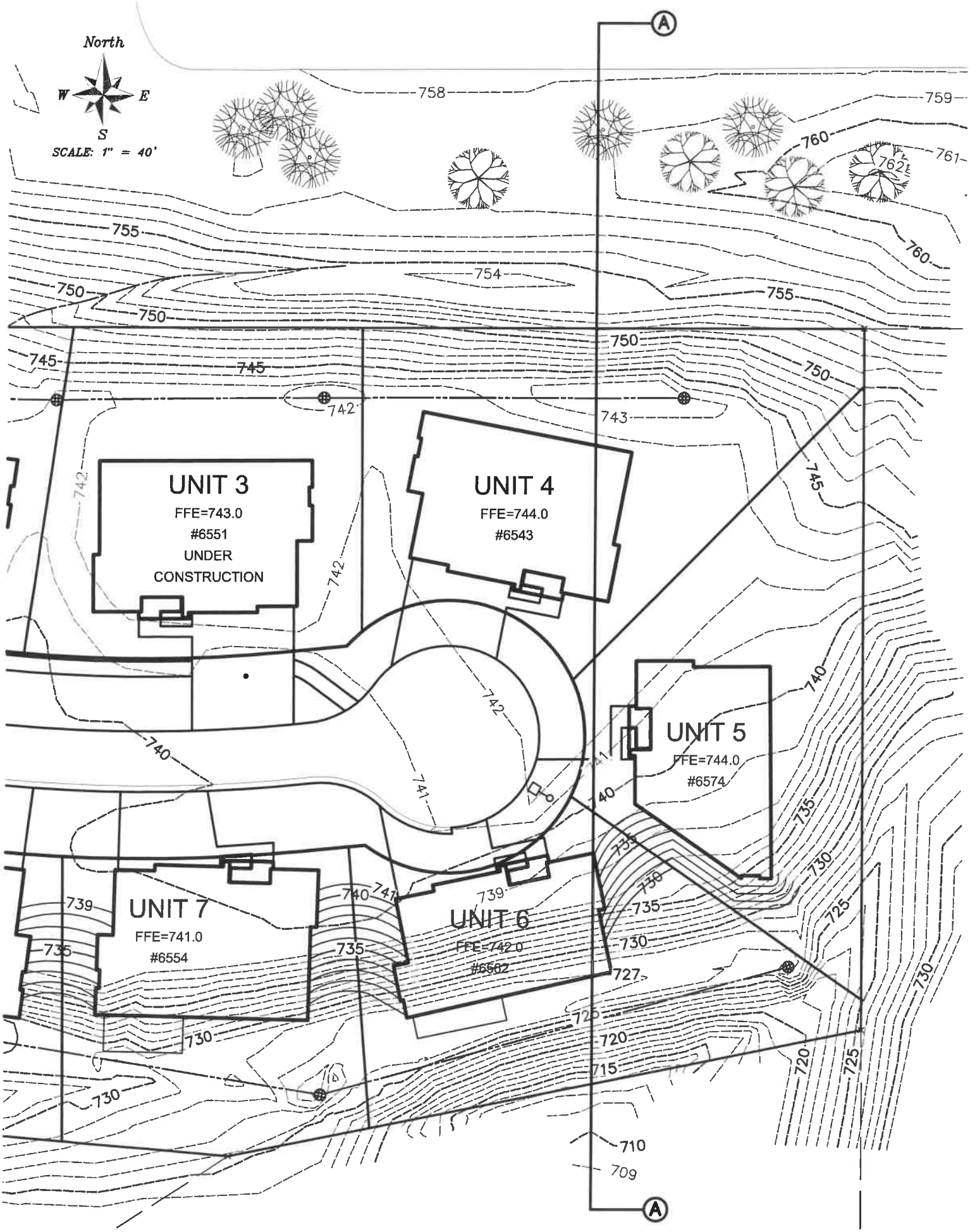
SOIL DESCRIPTION: Brown poorly graded SAND with silt (SP-SM)

TABLE 1: TEST DATA

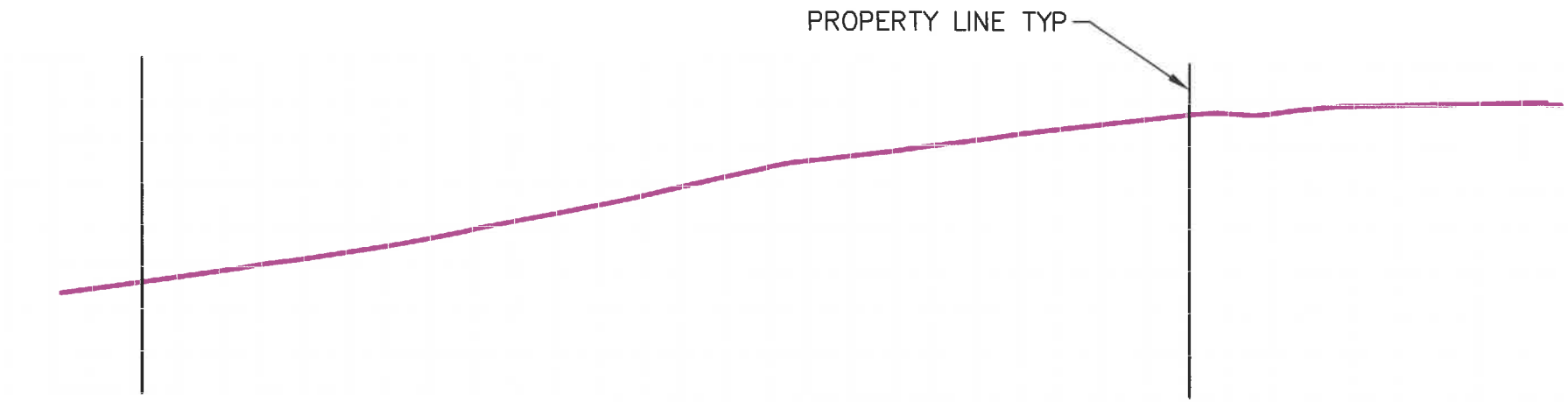
TIME (MIN:SEC)	WATER DROP (IN)	TIME INTERVAL (MIN)	PERCOLATION RATE* (IN/HR)
0:00			
10:00	1.0	10	6
20:00	2.0	10	12
30:00	1.5	10	9
40:00	1.5	10	9
50:00	1.5	10	9
60:00	1.5	10	9

REMARKS:

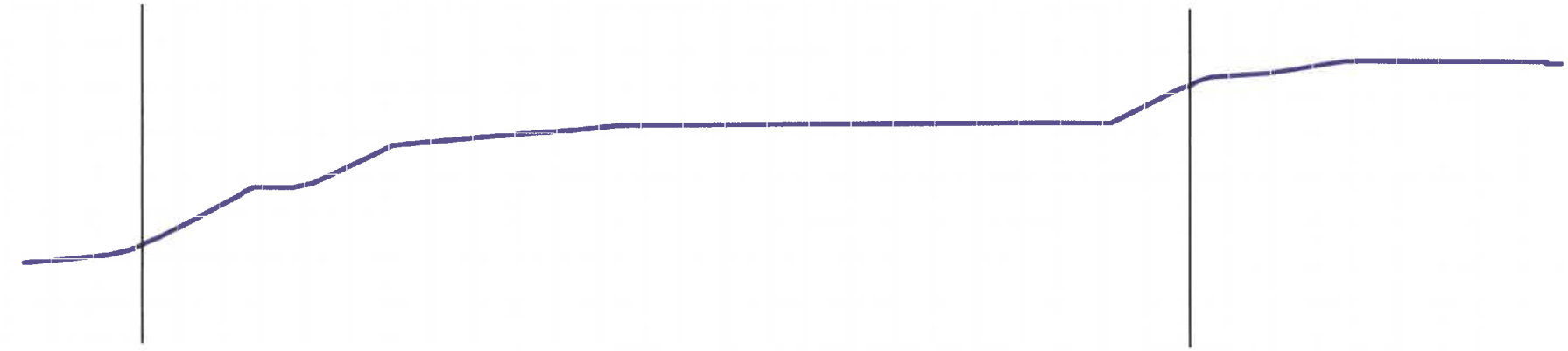
TESTED BY: T. Hanna
REVIEWED BY: A. Vanderhill



ROUND HILL: PLAN VIEW FOR CROSS SECTIONS



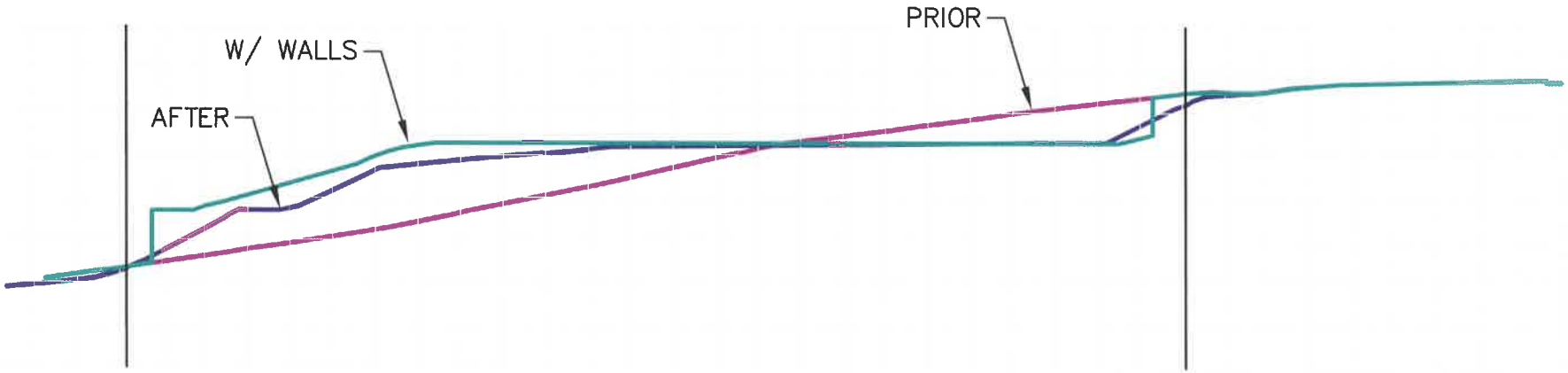
PRIOR TO CONSTRUCTION



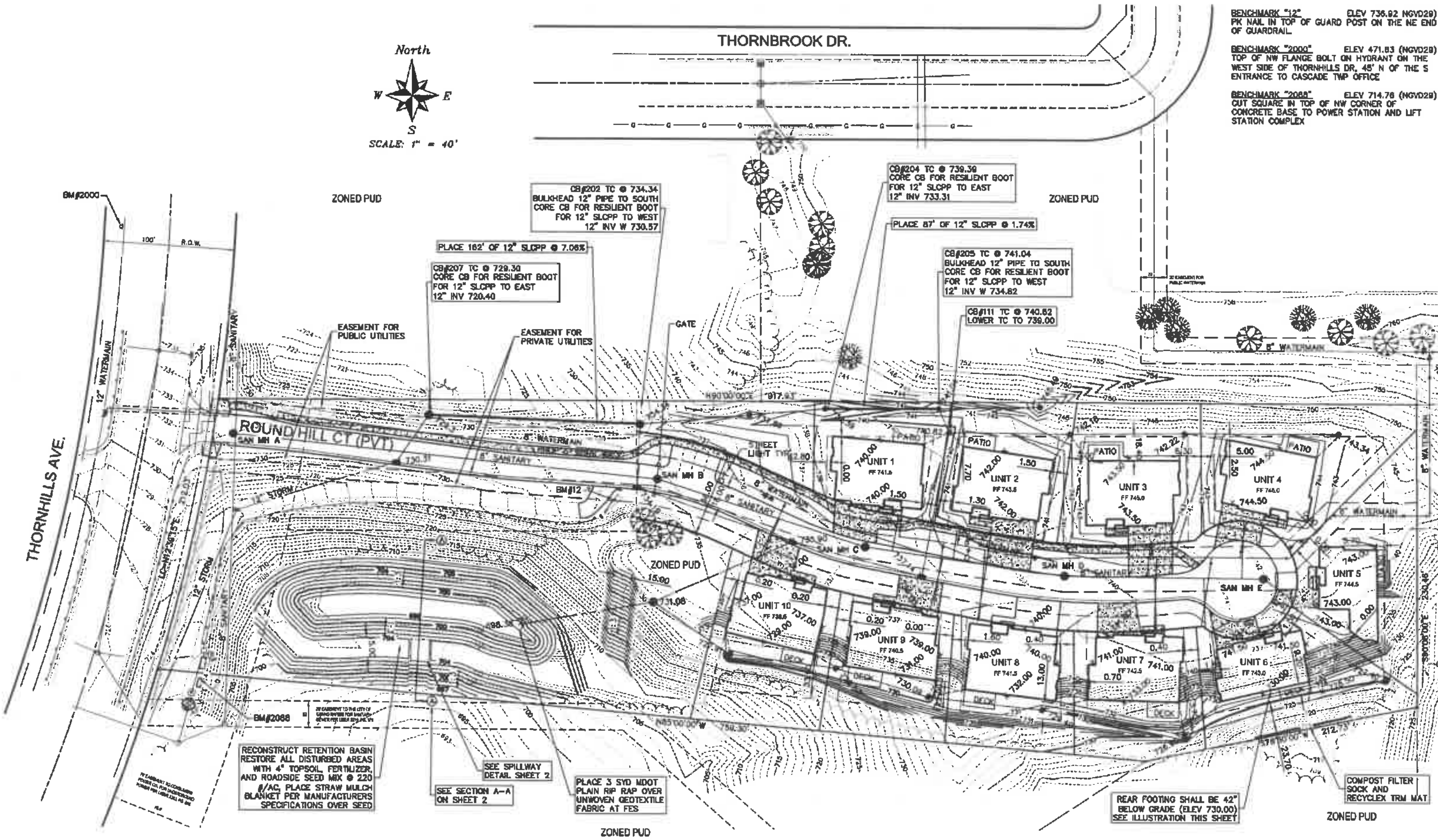
POST CONSTRUCTION

WITH WALLS

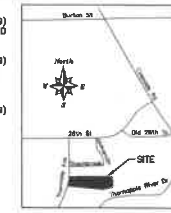
40 SCALE 5' GRID



40 SCALE 5' GRID



BENCHMARK "12" ELEV 736.92 (NGVD29) PK NAIL IN TOP OF GUARD POST ON THE NE END OF GUARDRAIL
BENCHMARK "2000" ELEV 471.83 (NGVD29) TOP OF NW FLANGE BOLT ON HYDRANT ON THE WEST SIDE OF THORNHILLS DR, 45' N OF THE S ENTRANCE TO CASCADE TWP OFFICE
BENCHMARK "2088" ELEV 714.76 (NGVD29) CUT SQUARE IN TOP OF NW CORNER OF CONCRETE BASE TO POWER STATION AND LIFT STATION COMPLEX
THORNBROOK DR.
THORNHILLS AVE.
North
W
E
S
SCALE: 1" = 40'
ZONED PUD
BM#2000
100' R.O.W.
12" WATERMAIN
8" SANITARY
12" STORM
ROUND HILL CT (PVT)
SAN MH A
SAN MH B
SAN MH C
SAN MH D
SAN MH E
BM#12
BM#2088
GATE
STREET LIGHT TYP.
EASEMENT FOR PUBLIC UTILITIES
EASEMENT FOR PRIVATE UTILITIES
CB#207 TC @ 729.30 CORE CB FOR RESILIENT BOOT FOR 12" SLCPP TO EAST 12" INV 720.40
PLACE 162' OF 12" SLCPP @ 7.06%
CB#202 TC @ 734.34 BULKHEAD 12" PIPE TO SOUTH CORE CB FOR RESILIENT BOOT FOR 12" SLCPP TO WEST 12" INV W 730.57
CB#204 TC @ 739.39 CORE CB FOR RESILIENT BOOT FOR 12" SLCPP TO EAST 12" INV 733.31
PLACE 87' OF 12" SLCPP @ 1.74%
CB#205 TC @ 741.04 BULKHEAD 12" PIPE TO SOUTH CORE CB FOR RESILIENT BOOT FOR 12" SLCPP TO WEST 12" INV W 734.82
CB#111 TC @ 740.82 LOWER TC TO 739.00
20' EASEMENT FOR PUBLIC UTILITIES
8" WATERMAIN
UNIT 1
UNIT 2
UNIT 3
UNIT 4
UNIT 5
UNIT 6
UNIT 7
UNIT 8
UNIT 9
UNIT 10
PATIO
DECK
RECONSTRUCT RETENTION BASIN RESTORE ALL DISTURBED AREAS WITH 4" TOPSOIL, FERTILIZER, AND ROADSIDE SEED MIX @ 220 #/AC. PLACE STRAW MULCH BLANKET PER MANUFACTURERS SPECIFICATIONS OVER SEED
SEE SECTION A-A ON SHEET 2
SEE SPILLWAY DETAIL SHEET 2
PLACE 3 SYD MDOT PLAIN RIP RAP OVER UNWOVEN GEOTEXTILE FABRIC AT FES
REAR FOOTING SHALL BE 42" BELOW GRADE (ELEV 730.00) SEE ILLUSTRATION THIS SHEET
COMPOST FILTER SOCK AND RECYCLEX TRM MAT



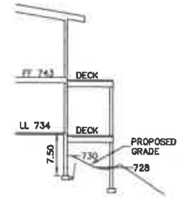
LOCATION MAP N.T.S.

LAND USE SUMMARY

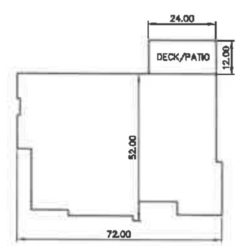
SIZE OF SITE=6.244 AC
USE=SINGLE FAMILY RESIDENTIAL
NUMBER OF UNITS=10
TOTAL OPEN SPACE=1.2 AC
APPROVED TOTAL BUILDING FOOTPRINT=0.729 AC
PROPOSED TOTAL BUILDING FOOTPRINT=0.726 AC
REAR YARD SETBACK = 25'
SIDE YARD SETBACK = 10'

STAGE STORAGE TABLE

ELEV	AREA (sq. ft.)	DEPTH (ft)	INC. VOL. (cu. ft.)	TOTAL VOL. (cu. ft.)
698.00	2341.00	0.00	0.00	0.00
699.00	3481.00	1.00	2911.00	2911.00
700.00	4677.00	1.00	4079.00	6990.00
701.00	5990.00	1.00	5303.50	12293.50
702.00	7240.00	1.00	6585.00	18878.50
703.00	8606.00	1.00	7923.00	26801.50
703.50	9310.00	0.50	4479.00	31280.50



UNIT 6 REAR WALL
SCALE: 1"=10'



TYPICAL UNIT
SCALE: 1"=20'

NOTE

INFORMATION DEPICTED HEREON IS TAKEN FROM "ROUND HILL PUD AMENDMENT PRELIMINARY PLAN". NEDERVELD PROJECT NO. 14401335, DATED SEPTEMBER 9, 2015.

AND FROM RETENTION POND AS-BUILT SURVEY NEDERVELD PROJECT NO. 14401335 DATED JANUARY 23, 2018

AND FROM CITY OF GRAND RAPIDS AS-BUILT PLANS FOR SANITARY SEWER & WATER MAIN IN PUBLIC EASEMENT (SE) ROUND HILL COURT (PVT.) (ROUND HILL CONDOMINIUMS) DATED SEPTEMBER 2017.

AND FROM A PARTIAL SITE SURVEY BY GOWER PROFESSIONAL SURVEYING PC, FILE #2019-26, DATED JUNE 26, 2019.

AND FROM A STORM SEWER AS-BUILT SURVEY BY GOWER PROFESSIONAL SURVEYING PC, FILE #2019-23, DATED JULY 25, 2019.

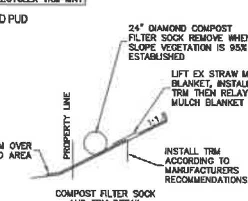
PUBLIC WATER AND SEWER CONSTRUCTION IS COMPLETE AND ACCEPTED BY THE CITY OF GRAND RAPIDS

STORM WATER CONTROL FACILITIES ARE PARTIALLY COMPLETE. ALL ROOF DRAINS SHALL BE CONNECTED TO THE STORMWATER COLLECTION SYSTEM.

PRIVATE UTILITIES HAVE BEEN INSTALLED.

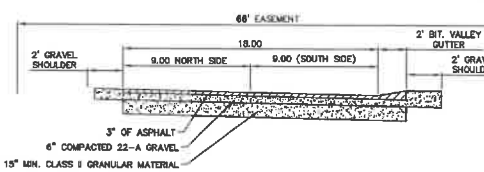
ALL LIGHTING SHALL BE SHIELDED AWAY FROM ADJACENT PROPERTIES AND SHALL CONFORM TO CASCADE TOWNSHIP REQUIREMENTS.

DESCRIPTION:
ROUND HILL CONDOMINIUM KENT COUNTY CONDOMINIUM SUBDIVISION PLAN NO.1053 INSTRUMENT NO.20180427-0032560 AS AMENDED BY REPLAT NO.1 INSTRUMENT NO.20190415-0024988 SPLIT/COMBINED ON 06/27/2018 FROM 41-19-16-103-013; SPLIT/COMBINED ON 05/23/2019 FROM 41-19-16-120-005, 41-19-16-120-006, 41-19-16-120-008, 41-19-16-120-007, 41-19-16-120-009, 41-19-16-120-010



24" DIAMOND COMPOST FILTER SOCK REMOVE WHEN SLOPE VEGETATION IS 95% ESTABLISHED
LIFT EX STRAW MULCH BLANKET, INSTALL TRM THEN RELAY EX MULCH BLANKET
PROPERTY LINE
EXTEND TRM OVER ENTIRE DISTURBED AREA
INSTALL TRM ACCORDING TO MANUFACTURERS RECOMMENDATIONS

COMPOST FILTER SOCK AND TRM DETAIL
SCALE: 1"=5'



18' WIDE PRIVATE ROAD CROSS SECTION
NOT TO SCALE

STATE OF MICHIGAN · DANIEL L. HULA ENGINEER No. 35548 · PROFESSIONAL

PLOTTED ON 11/21/2019 FOR TOWNSHIP APPROVAL

FINKO LLC
Tom Giusti
P.O. Box 441
Ada, MI 49301
616 581-8744

Hula Engineering
17 West Oak
Sand Lake, MI 49343-0194
HulaEngineering@charter.net
(616) 204-5264 (616) 636-5204

ROUND HILL
PUD Amendment Preliminary Plan
PART OF THE NORTHWEST ¼ OF SECTION 16, T6N, R10W, CASCADE TOWNSHIP, KENT COUNTY MICHIGAN

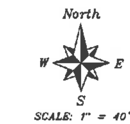
Issue Date
July 15, 2019
July 17, 2019
August 12, 2019
August 30, 2019
September 11, 2019
September 17, 2019
September 18, 2019
October 29, 2019
November 14, 2019
November 20, 2019

Sheet
1 of 2

SB#1
SURFACE ELEVATION ~ 734.4
0.0' – 0.3' TOPSOIL
0.3' – 5.5' BROWN SAND CLAY WITH GRAVEL; MOSTLY CLAYEY FINES, SOME COARSE TO FINE SAND, LITTLE FINE GRAVEL, MOIST
5.5' – 12.0' POORLY GRADED GRAVEL WITH CLAY AND SAND; MOSTLY FINE TO COARSE GRAVEL, SOME FINE TO COARSE SAND, FEW CLAYEY FINES, MOIST
12.0' – 20.0' BROWN POORLY GRADED SAND; MOSTLY FINE SAND, TRACE SILTY FINES, MOIST WITH SANDY SILT SEAMS
20.0' END OF BORING
GROUNDWATER NOT ENCOUNTERED

SB#2
SURFACE ELEVATION ~ 738.8
0.0' – 0.3' TOPSOIL
0.3' – 20.0' BROWN LEAN CLAY WITH SAND; MOSTLY CLAYEY FINES, SOME COARSE TO FINE SAND, MOIST
20.0' END OF BORING
GROUNDWATER NOTE ENCOUNTERED

SB#3
SURFACE ELEVATION ~ 738.8
0.0' – 0.5' TOPSOIL
0.5' – 5.5' BROWN POORLY GRADED SAND WITH SILT; MOSTLY MEDIUM TO FINE SAND, FEW SILTY FINES, MOIST; GRADES WITH TRACE SILTY FINES
5.5' – 8.0' BROWN POORLY GRADED SAND WITH SILT AND GRAVEL; MOSTLY COARSE TO FINE SAND, LITTLE FINE GRAVEL, FEW SILTY FINES, WET
8.0' – 15.0' BROWN LEAN CLAY WITH SAND; MOSTLY CLAYEY FINES, LITTLE COARSE TO FINE SANDY, MOIST; GRADES WITH SOME COARSE TO FINE SAND
15.0' END OF BORING
8.9' GROUNDWATER ENCOUNTERED

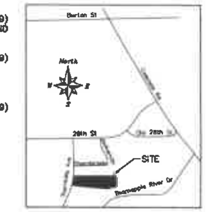


SCALE: 1" = 40'

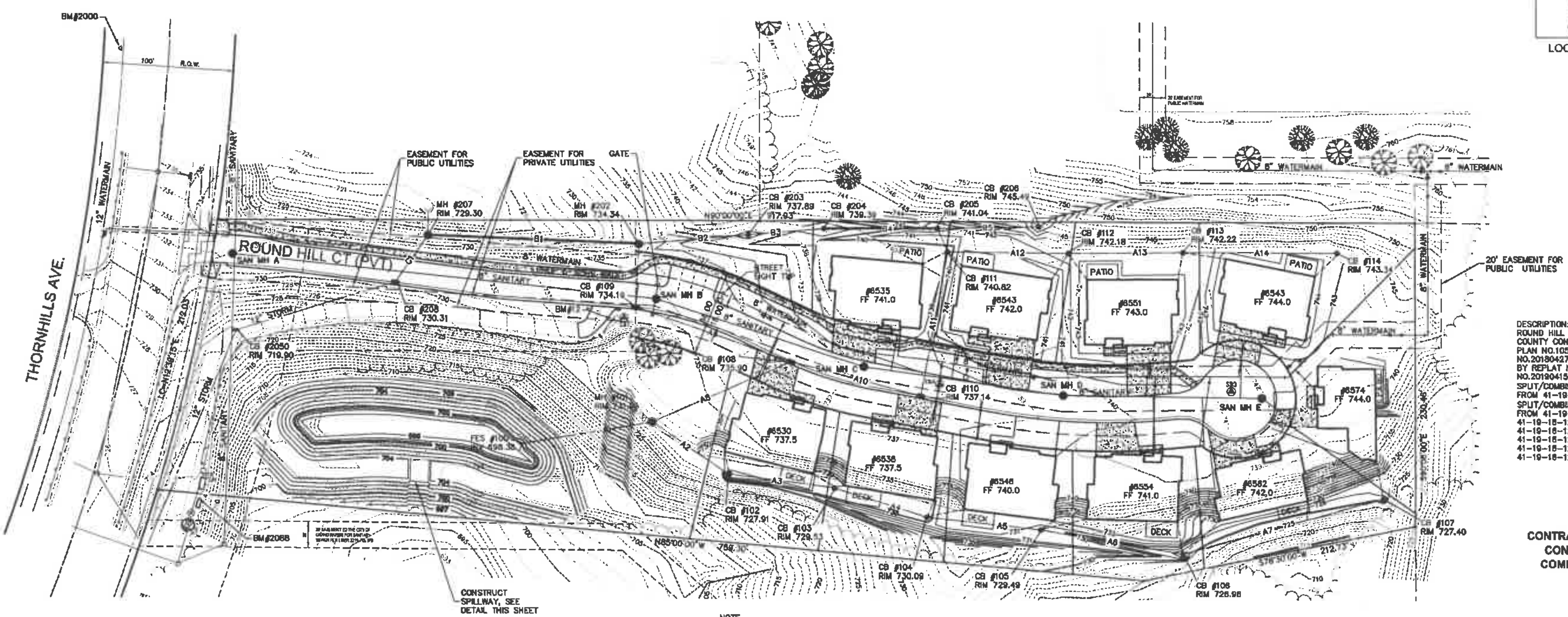
BENCHMARK "12" ELEV 736.92 (NGVD29)
PK NAIL IN TOP OF GUARD POST ON THE NE END OF GUARDRAIL.

BENCHMARK "2000" ELEV 471.63 (NGVD29)
TOP OF NW FLANGE BOLT ON HYDRANT ON THE WEST SIDE OF THORNHILLS DR, 45' N OF THE S ENTRANCE TO CASCADE TWP OFFICE

BENCHMARK "2088" ELEV 714.76 (NGVD29)
CUT SQUARE IN TOP OF NW CORNER OF CONCRETE BASE TO POWER STATION AND LIFT STATION COMPLEX



LOCATION MAP N.T.S.



DESCRIPTION:
ROUND HILL CONDOMINIUM KENT COUNTY CONDOMINIUM SUBDIVISION PLAN NO.1053 INSTRUMENT NO.20180427-0032560 AS AMENDED BY REPLAT NO.1 INSTRUMENT NO.20190415-0024968
SPLIT/COMBINED ON 06/27/2018 FROM 41-19-16-103-013;
SPLIT/COMBINED ON 05/23/2019 FROM 41-19-16-120-005,
41-19-16-120-006,
41-19-16-120-008,
41-19-16-120-007,
41-19-16-120-009,
41-19-16-120-010

CONTRACTOR: NAGEL CONSTRUCTION COMPLETED 2017

NOTE

INFORMATION DEPICTED HEREON IS TAKEN FROM "ROUND HILL PUD AMENDMENT PRELIMINARY PLAN", NEDERVELD PROJECT NO. 14401335, DATED SEPTEMBER 9, 2015.

AND FROM RETENTION POND AS-BUILT SURVEY NEDERVELD PROJECT NO. 14401335 DATED JANUARY 23, 2018

AND FROM CITY OF GRAND RAPIDS AS-BUILT PLANS FOR SANITARY SEWER & WATER MAIN IN PUBLIC EASEMENT (SE) ROUND HILL COURT (PVT.) (ROUND HILL CONDOMINIUMS) DATED SEPTEMBER 2017.

AND FROM A PARTIAL SITE SURVEY BY GOWER PROFESSIONAL SURVEYING PC, FILE #2019-26, DATED JUNE 26, 2019.

AND FROM A STORM SEWER AS-BUILT SURVEY BY GOWER PROFESSIONAL SURVEYING PC, FILE #2019-23, DATED JULY 25, 2019.

PUBLIC WATER AND SEWER CONSTRUCTION IS COMPLETE AND ACCEPTED BY THE CITY OF GRAND RAPIDS

STORM WATER CONTROL FACILITIES ARE PARTIALLY COMPLETE, ALL ROOF DRAINS SHALL BE CONNECTED TO THE STORMWATER COLLECTION SYSTEM.

PRIVATE UTILITIES HAVE BEEN INSTALLED.

ALL LIGHTING SHALL BE SHIELDED AWAY FROM ADJACENT PROPERTIES AND SHALL CONFORM TO CASCADE TOWNSHIP REQUIREMENTS.

STORM SEWER DRAINAGE STRUCTURES

PROP.	RIM	INVERTS	DIA.	TYPE
100		12" NE. INV.=698.38		CONC. F.E.S.
101	731.09	12" NE. INV.=722.10 12" SW. INV.=721.99 12" SE. INV.=722.20	4'	E.J.I.W. #1040 W/ SOLID COVER
102	727.91	12" NW. INV.=722.45 12" E. INV.=722.83	4'	E.J.I.W. #1040 W/ SOLID COVER
103	728.53	12" W. INV.=722.85 12" E. INV.=723.08	4'	E.J.I.W. #1040 TYPE N
104	730.09	12" W. INV.=723.04 12" E. INV.=723.64	4'	E.J.I.W. #1040 TYPE N
105	729.49	12" W. INV.=723.34 12" E. INV.=723.53	4'	E.J.I.W. #1040 TYPE N
106	728.98	12" W. INV.=723.71 12" E. INV.=723.78	4'	E.J.I.W. #1040 TYPE N
107	727.40	12" W. INV.=724.86	4'	E.J.I.W. #1040 TYPE N
108	735.90	12" SE. INV.=730.23 12" SW. INV.=729.85 12" NW. INV.=729.90	4'	E.J.I.W. #7030
109	734.19	12" N. INV.=731.01 12" SE. INV.=730.87	4'	E.J.I.W. #7030
110	737.14	12" N. INV.=733.35 12" W. INV.=733.12	4'	E.J.I.W. #7030
111	740.82	12" E. INV.=736.17 12" SW. INV.=735.71 12" NW. INV.=736.03	4'	E.J.I.W. #1040 TYPE N

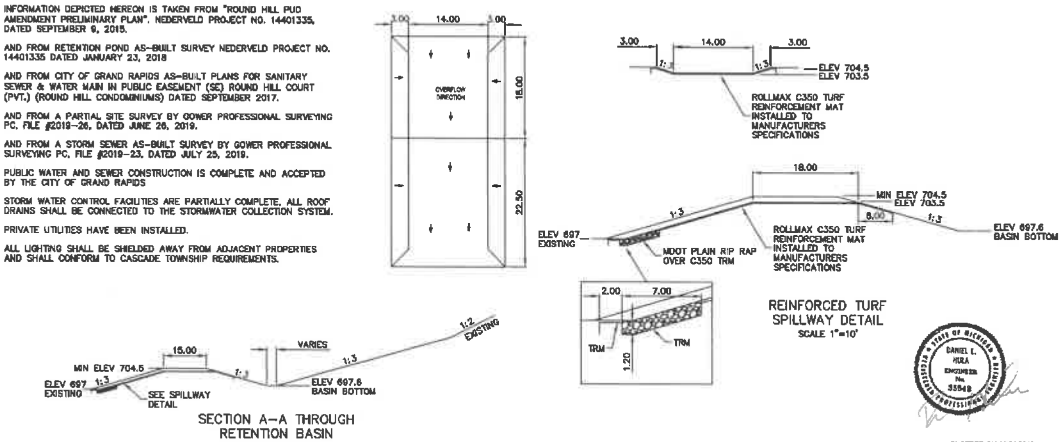
STORM SEWER DRAINAGE STRUCTURES

PROP.	RIM	INVERTS	DIA.	TYPE
112	742.18	12" W. INV.=737.03 12" E. INV.=737.88	4'	E.J.I.W. #1040 TYPE N
113	742.22	12" E. INV.=738.02 12" W. INV.=737.87	4'	E.J.I.W. #1040 TYPE N
114	743.34	12" W. INV.=738.83	4'	E.J.I.W. #1040 TYPE N
202	734.34	12" NE. INV.=731.34 12" S. INV.=731.84 B 12" W. INV. 730.57 C	4'	E.J.I.W. #1040 W/ SOLID COVER
203	737.89	12" E. INV.=733.17 12" W. INV.=733.09	4'	E.J.I.W. #1040 TYPE N
204	739.39	12" W. INV.=734.08 12" E. INV. 733.31 C	4'	E.J.I.W. #1040 TYPE N
205	741.04	12" S. INV.=736.09 B 12" E. INV.=735.59 12" W. INV. 734.82 C	4'	E.J.I.W. #1040 TYPE N
206	745.49	12" W. INV.=740.84	4'	E.J.I.W. #1040 TYPE N
207	729.30	12" SW. INV.=720.30 12" N. INV.=726.50 12" E. INV. 720.40 C	4'	E.J.I.W. #1040 W/ SOLID COVER
208	730.31	12" NE. INV.=718.80 12" SW. INV.=718.86	4'	E.J.I.W. #7030
Z EX 2050 (2)	719.90	12" E. INV.=710.57	4'	Concentric Cylindrical Structure

B = BULKHEAD
C = CORE

STORM SEWER DRAINAGE PIPES

#	LENGTH	DIA.	SLOPE	MATERIAL
A1	160'	12"	23.61%	SLCPP
A2	12'	12"	0.30%	SLCPP
A3	62'	12"	0.30%	SLCPP
A4	74'	12"	0.36%	SLCPP
A5	66'	12"	0.13%	SLCPP
A6	111'	12"	0.06%	SLCPP
A7	160'	12"	0.56%	SLCPP
A8	114'	12"	0.54%	SLCPP
A9	127'	12"	0.76%	SLCPP
A10	162'	12"	2.03%	SLCPP
A11	112'	12"	2.11%	SLCPP
A12	93'	12"	0.82%	SLCPP
A13	86'	12"	1.00%	SLCPP
A14	118'	12"	1.28%	SLCPP
B1	162'	12"	6.26%	SLCPP
B2	84'	12"	1.37%	SLCPP
B3	58'	12"	0.34%	SLCPP
B4	87'	12"	1.51%	SLCPP
B5	77'	12"	6.39%	SLCPP
C1	44'	12"	3.02%	SLCPP
Z-2050	128'	12"	6.08%	Concrete Pipe
Z-OUTLET	18'	12"	1.30%	Concrete Pipe



REINFORCED TURF SPILLWAY DETAIL
SCALE 1"=10'

SECTION A–A THROUGH RETENTION BASIN
SCALE 1"=20'

STATE OF MICHIGAN
DANIEL L. HULA
ENGINEER
No. 35548
PROFESSIONAL ENGINEER

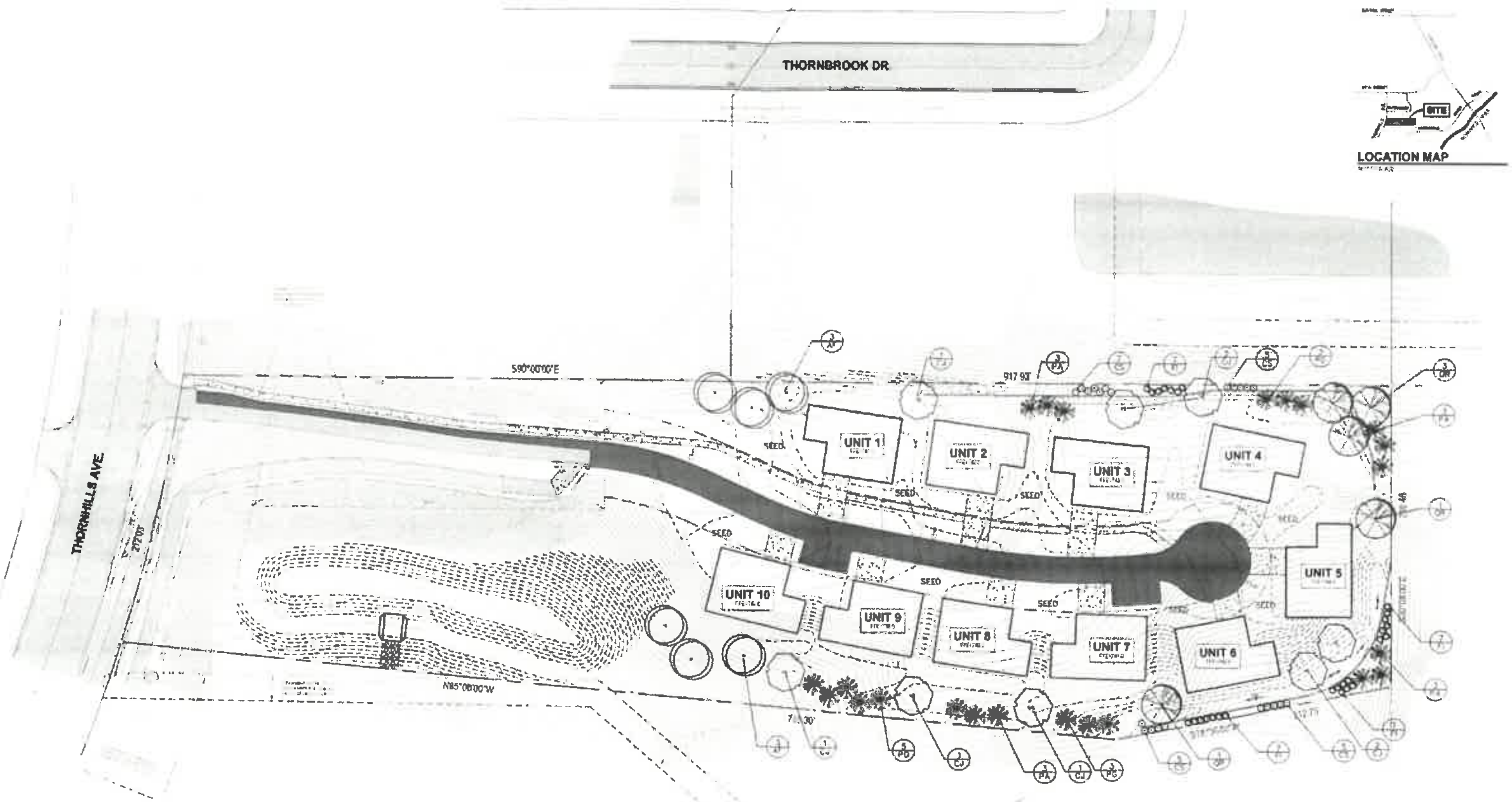
PLOTTED ON 11/21/2019 FOR TOWNSHIP APPROVAL

FINKO LLC
Tom Giusti
P.O. Box 441
Ada, MI 49301
616 581-8744

Hula Engineering
17 West Oak
Sand Lake, MI 49343-0194
HulaEngineering@charter.net
(616) 264-5204 (616) 636-5204

ROUND HILL
PUD Amendment Preliminary Plan
PART OF THE NORTHWEST 1/4 OF SECTION 16, T6N, R10W, CASCADE TOWNSHIP, KENT COUNTY MICHIGAN

Issue Date
August 12, 2019
August 30, 2019
October 29, 2019
November 14, 2019
November 20, 2019



LANDSCAPE PLAN

SCALE IN FEET
0 40' 80'

PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	COMMENTS
	DECIDUOUS CANOPY TREES				
AF	ACER FREEMANII 'CELEBRATION'	CELEBRATION MAPLE	4	2 1/2" CAL.	B. & B.
CJ	CERCIDIPHYLLUM JAPONICUM	KATSURA TREE	6	2 1/2" CAL.	B. & B.
QR	QUERCUS RUBRA	RED OAK	4	2 1/2" CAL.	B. & B.
	EVERGREEN TREES				
PA	PICEA ABIES	NORWAY SPRUCE	12	6' HT.	B. & B.
PG	PICEA PUNGENS GLAUCA	COLORADO BLUE SPRUCE	11	6' HT.	B. & B.
	SHRUBS				
CS	CORNUS SERICEA	RED OSIER DOGWOOD	32	24" HT.	[illegible] GAL. CONTAINER
FI	FORSYTHIA X INTERMEDIA 'LYNWOOD GOLD'	LYNWOOD GOLD FORSYTHIA	39	24" HT.	[illegible] GAL. CONTAINER

PLANTING NOTES

1. LANDSCAPING SHALL BE INSTALLED WITH NINETY (90) DAYS OF COMPLETION OF THE ROAD
2. CONTRACTOR SHALL NOTIFY MISS DIG TO LOCATE ANY UNDERGROUND UTILITY LINES OR STRUCTURES PRIOR TO STARTING CONSTRUCTION
3. CONTRACTOR SHALL PROVIDE SPECIFIED SHRUBS AND OTHER PLANT MATERIALS THAT COMPLY WITH ALL RECOMMENDATIONS AND REQUIREMENTS OF ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK". PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS STOCK, GROWN WITH GOOD HORTICULTURAL PRACTICE AND INSTALLED IN ACCORDANCE WITH METHODS ESTABLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN
4. ALL LANDSCAPE AREAS SHALL BE IRRIGATED WITH UNDERGROUND AUTOMATIC IRRIGATION SYSTEM. TREES AND SHRUBS WILL BE IRRIGATED BY A SEPARATE ZONE FROM SOD/GRASS. THIS INCLUDES TREES PLANTED IN SOD/GRASS AREA. THE IRRIGATION SYSTEM IS TO HAVE A RAIN SENSOR SHUTOFF INSTALLED
5. ALL PLANTINGS AND LANDSCAPE IMPROVEMENTS SHALL BE CONSISTENT WITH CASCADE TOWNSHIP ZONING REQUIREMENTS
6. SEED SHALL BE PLACED OVER 4" TOPSOIL IN ALL PROPOSED NOTED SEED AREAS AND ALL AREAS DISTURBED BY CONSTRUCTION. SEED MIXES SHALL BE AS FOLLOWS

SEED A
10% TALL FESCUE
20% PERENNIAL RYE GRASS
30% CREEPING RED FESCUE
40% KENTUCKY BLUEGRASS
AT 6 LBS. PER 1000 S.F.

Original

RJM Design
Land Planning • Landscape Architecture

Landscape Plan
Round Hill
Cascade Township, Kent County, Mi

DATE	ISSUED FOR
1/22/2018	TOWNSHIP REVIEW
P.I.C.	R. JAMES MORGAN
P.M.	C. [illegible]
DESIGN	C. [illegible]

RJM PROJECT NUMBER
16004
SHEET NAME
LANDSCAPE PLAN
SHEET NUMBER
L100

fishbeck
Engineers | Architects | Scientists | Constructors

1515 Arboretum Drive, SE
Grand Rapids, Michigan 49546

616.575.3824 | fishbeck.com

December 10, 2019
Project No. 170168

Mr. Steve Peterson
Township Planner
Cascade Charter Township
2865 Thornhills Avenue
Grand Rapids, MI 49546

Round Hill, 3000 Thornhills Avenue
Site Plan Review

Dear Steve:

We have reviewed the revised site plan for the Round Hill development located at 3000 Thornhills Avenue prepared by Hula Engineering. The current revised site plan and the basis of this review is dated November 20, 2019.

A previous site plan for this location was approved in 2015 with construction onsite occurring since that time. The developer did not construct several elements according to the approved 2015 site plan. The current site plan resembles the previously approved site plan; however, there are several changes that have occurred since 2015. We believe that most people involved with this site plan are aware of the number of changes and history with the site; therefore, we will attempt to limit our review to the changes and updated site plan and provide some history only where necessary for clarification purposes.

The developer appeared before the Planning Commission (PC) in August of 2019 for an update on their site. Since that time, there have been several revisions to the site plan as we reviewed and provided comments. The seven revision and submittal dates can be seen on the lower right-hand corner of the site plan drawing.

Non-Reviewed Items

The following items are not part of this engineering review because they have either been resolved previously or are reviewed by others.

1. The water main has been accepted by the City of Grand Rapids. It should be noted that there was a change from the original 2015 site plan on the east end due to easement issues with the Township Thornapple River Drive utility project. This change was not at the request of the developer.
2. The sanitary sewer has been accepted by the City of Grand Rapids.
3. The private roadway appears to have been constructed according to the 2015 site.
4. Sidewalk and parking area locations.
5. Lot sizes, setback of buildings, changes in building envelope sizes or any other zoning items unless there is an impact to the grading or other site elements as noted, below.

Items being Reviewed

The following elements have been revised on the site plan either due to proposed changes by the developer or due to something not being constructed according to the 2015 approved site plan.

Storm Sewer System and Grading along North Property Line

The as-built survey identified that portions of the storm sewer along the north property line designed to capture offsite runoff were not constructed according to the 2015 approved plan. This storm sewer and grading are critical to the design and function of the retention basin. The site plan includes two sections of storm sewer (MH 202 to MH 207 and CB 205 to CB 204), as well as grading around existing structures CBs 203, 204, 205, and 206. The plan as shown is acceptable and should accomplish the original goal of routing the offsite runoff around the new retention basin provided the grading work is constructed properly.

Retention Basin

The current retention basin was not constructed according the 2015 approved plan. Upon inspection, the slopes were steeper than 1:3, the overflow spillway erosion mat was not in place and the restoration was non-existent. The original 2015 site plan required a maximum of 1:3 slopes to allow the basin to be maintained. The developer has redesigned the basin to include the 1:3 slopes with a 1:3 route down to the basin for maintenance purposes. The developer revised the calculations for the new layout of the basin. Those calculations were reviewed and are acceptable. Provided the basin and slopes are constructed according to the plan, they would be acceptable. There is one minor item that needs to be corrected. The plan sheet 1 of 2 restoration note indicates to "restore all disturbed areas with 4" topsoil, fertilizer..." The bottom of the basin should not be restored with topsoil, seed and fertilizer as this can impede infiltration. **The plan should note "Bottom of basin to be roughened and uncompacted to promote infiltration." Additionally, the plan should identify the maintenance route to the basin from the roadway**

Storm Sewer Outlet at Retention Basin

The storm sewer between MH 101 and Flared End Section 100 was placed with a steeper slope than on the original 2015 site plan resulting in higher velocities than expected. Those high velocities have the potential for increased erosion at the outlet which will require future maintenance. We requested some type of specific permanent erosion control measures in this location and the developer proposed 3 SYD of MDOT plain riprap over unwoven geotextile fabric. We think the intent here is good however with discharge velocities over 20 feet per second and discharge volume over 8 cubic feet per second we are concerned the MDOT plain riprap will be insufficient. Additionally, if the riprap is not placed correctly the protection will not be effective. **The developer to provide a design and detail of the outlet protection that follows established best practices by MDOT or EGLE.**

Basin Emergency Overflow

The revised plan includes details for the overflow spillway for the retention basin. It should be noted the basin is designed for the 100-year rain event and if functioning properly the spillway would only be needed in the rare 100-year or larger event. The developer proposed a permanent turf reinforcement mat with riprap at the bottom of the slope. The developer consulted with a trusted local supplier on product selection and provided calculations to determine the suitability of the product. Details and notes are included on the drawings that indicate the importance of proper construction. We are comfortable with their approach provided the details are followed during construction.

Grading South of Units 6 through 10

The revised site plan shows grading details behind Units 6 through 10. It appears the intent is to capture the runoff north of this location in a swale that will drain to CBs 102 through 106. A portion of the swale is already

constructed from the last time we were onsite this fall; however, some of the swale near Units 9 and 10 was not complete. If constructed according to the plan, then the approach is acceptable. This swale construction should be completed before Units 9 and 10 are built.

Slope Restoration South of Unit 6

Plan Sheet 1 of 2 contains notes and details for slope restoration south of Unit 6 where a retaining wall was previously planned. The detail includes a permanent turf reinforcement mat and a temporary compost filter sock that will be removed once vegetation is established. The developer consulted with a trusted local supplier on material selection and we agree with the approach; however, it is imperative the details are followed during construction. One item to note is the developer is proposing work on the neighboring parcel due to the disturbed area. This should be viewed as a positive since it is restoring disturbed area; however, they should obtain the property owner's permission to complete the work off their property as shown. **Provide the adjacent property owner's permission for work on the adjacent property**. (If no permission is granted the plan is still acceptable; however, there would be an area that would be unrestored and may result in an erosion issue)

Conclusion

The developer has completed the revisions we have requested except for those items noted above. As history has proven, we can recommend approval of a site plan; however, that does not guarantee the site will be constructed according to the approved site plan.

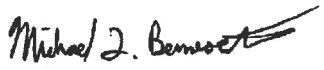
We suggest the following requirements if the current site plan is approved:

1. The developer must address the items in bold above and resubmit the site plan for approval. These items may seem relatively minor; however, the details are important.
2. The developer maintains a SESC permit and satisfies the KCRC requirements with respect to the SESC permit.
3. The developer must provide a detailed schedule of the work to be completed, including milestone dates for the major items of work noted in this review letter. It is expected that if approved; the work would take place in the Spring 2020 with restoration established before July of 2020.
4. The developer must provide a bond to the Township in case the work is not completed according to the approved plan within a specified time frame. Timing of the construction is critical in order to obtain acceptable vegetative growth and reduce the amount of sediment entering the retention basin. We recommend a $100,000 bond at a minimum.
5. The site improvements should be inspected by the Township on a regular basis until final completion. There is no way to ignore the fact that the site was not constructed according to the 2015 approved site plan. Given the history, we would not be comfortable recommending an approval without some sort of additional oversight. That oversight can be completed by Township staff or if Fishbeck is expected to provide that oversight, then an escrow account should be established similar to what is done for City utility inspections. We suggest a minimum of $20,000 be placed in the escrow. If the developer follows the approved plan, then the costs should be minimal. If the plan is not followed, then additional funds will need to be placed in escrow or the performance bond can be used for inspections and completing the construction work according to the plan.
6. Once the basin is regraded and vegetation is established, we recommend infiltration tests on the bottom of the basin to confirm the design conditions. If the test results are not consistent with the design requirements, then the developer will need to agree to amend the soil and achieve the desired test results and function of the basin as designed before additional construction can continue.

We recognize that these requirements are more comprehensive than is typical for a site plan approval. However, this developer has proven they do not pay attention to the details and do not follow previously approved plans. In our opinion, there needs to be something in place to ensure that they complete the work in accordance with the approved plan and other requirements.

If you have any questions or require additional information, please contact me at 616.464.3927 or mberrevoets@fishbeck.com.

Sincerely,



Michael L. Berrevoets, PE
Vice President/Senior Civil Engineer

By email
Copy: Tom Guisti – Finko LLC
Dan Hula – Hula Engineering