



MEMORANDUM

To: Caron Bricks, Village Planner

From: Kristin Mehl, Village Engineer/ Assistant Public Works Director

Date: 04-06-2021

Re: Timberleaf Development Preliminary Plan Review #3 (7N601 Rodenburg Rd)

Public Works and HR Green have reviewed the following items as submitted on March 19, 2021:

- Timberleaf Preliminary Engineering Plans - Haeger Engineering (Revised 3/19/2021)
- Preliminary Stormwater Management Report - Haeger Engineering (Revised 3/19/2021)
- Timberleaf Preliminary Landscape Plan - Dickson Design Studio (Revised 3/19/2021)
- Fire Truck Turning Exhibit – Haeger Engineering (3/19/2021)
- Preliminary Plat of Subdivision – Haeger Engineering (Revised 3/19/2021)
- Preliminary PUD Site Plan – Haeger Engineering (Revised 3/19/2021)
- Public and Private Utility Delineation Exhibit – Haeger Engineering (3/19/2021)

Preliminary Engineering Plans

Existing Conditions

1. Resolved

Geometry/Utility Plan

1. – 6. Resolved
7. All utilities (watermain, sanitary sewer, storm sewer) to be maintained by the Village of Roselle must be located a minimum of 20 feet from the any wall, foundation or footing. (KM)
 - *Haeger Response:* We are proposing the watermain and sanitary sewer will be maintained by the Village of Roselle. We have provided 20 feet minimum of separation from foundations to the sanitary sewer, and 15 feet minimum of separation from foundations to the watermain. A section has been provided on C3.3 to clarify the depth and horizontal separation of these utilities.
 - *Village Response:* Not adequately addressed. The Village required minimum separation of 20 feet from watermain to foundations has not been met per the response, yet it seems possible to provide. Watermain shall be located outside of the driveways and in the roadway pavement. Watermain quality pipe may be used as necessary for the storm sewer. Vertical information is needed for the storm and sanitary sewers. (KM)

- *Haeger Response:* Per our discussion with Village staff on 3/10, we have revised the water main in front of building 5 to be 20 feet away from the foundation and out of the driveways. It is our understanding that 15 feet of separation is acceptable on the sides of the buildings.
- *Village Response:* OK, per prior phone call. Provide dimension from watermain to SW corner of Lot 3 Building. (KM)

8. Resolved

9. Sanitary service connections must be staggered. The current plan shows four services tying into the mainline in close proximity. This will not be permitted. (EL)

- *Haeger Response:* Sanitary service connections have been staggered to address this concern.
- *Village Response:* Not adequately addressed. It is unclear as to the separation being provided between services. (HRG)
- *Haeger Response:* Typical dimensions have been provided illustrating the separation between the services. Further details on the proposed wyes and risers used to facilitate the connection will be provided in final engineering.
- *Village Response:* OK, will be completed in final engineering. (EL)

10. Resolved

11. Monument sign shall be located a minimum of 10 feet from any utility to be maintained by the Village. (KM)

- *Haeger Response:* The (1) monument sign for this proposed development is now located off the SWC of building #1, it sits parallel to Rodenburg Road and is a minimum of 10' from any utility to be maintained by the Village. (Dickson)
- *Village Response:* At the north end, the watermain shall go straight instead of jogging out into the pavement around the sign. This may require modifications to the location of the sign. (MS)
- *Haeger Response:* Per our discussion with Village staff on 3/10, we are maintaining the location of the monument sign as this location provides the greatest visibility for the subdivision. We have revised the watermain jog to 22.5-degree bends to reduce the sharpness of the transition.
- *Village Response:* Not adequately addressed, while the monument sign appears to be more than 10 feet from watermain it is less than 10 feet from back of storm inlet. Dimensions from near side of sign to watermain and to storm inlet should be added to the plan. (HRG)

12. Sewer and Water Demand calculations should be provided and capacity of existing facilities to be used by this site should be verified including fire flow adequacy calculations. (KM)

- *Haeger Response:* PE calculations have been included in this submittal for the proposed development. We will work with your water network consultant to verify the fire flow adequacy calculations.

- *Village Response:* Pending verification of fire flow adequacy (HRG)
- *Haeger Response:* We will verify fire flow adequacy with your water network consultant in final engineering.
- *Village Response:* Pending verification of fire flow adequacy (KM)

13. Resolved

14. The Village standard watermain material is PVC C900 with tracing wire. Plans shall be revised accordingly. (MS)

- *Haeger Response:* The plans have been revised to note that the watermain material is PVC C900 with tracing wire.
- *Village Response:* OK

15. There are two sanitary sewer manholes proposed in sidewalk. These must be relocated outside of the sidewalk to prevent pedestrian safety concerns. (HRG)

- *Haeger Response:* The sanitary alignment has been revised to eliminate the manholes in the sidewalk.
- *Village Response:* OK

16. The proposed sanitary sewer along Travis Parkway must be relocated to the south side parkway of Travis Parkway to minimize pavement open cut of the roadway. There is also an existing twenty-foot (20') utility easement located on the south R.O.W. (See attached marked Sheet C3.5) (JJ)

- *Haeger Response:* The sanitary alignment has been revised into the south side parkway as requested and sidewalk replacement is shown as necessary.
- *Village Response:* OK (JJ)

17. Most of the storm sewer is shown as private; however, information regarding storm sewer size and inverts must be provided on the plans. (HRG)

- *Haeger Response:* This information will be provided in final engineering when we complete the storm sewer design.
- *Village Response:* OK, pending final engineering (KM)

18. There are three segments of proposed private storm sewer passing under proposed retaining walls. Elevations must be provided to ensure clearance under wall footings and consideration given for casing to allow easier access for maintenance if required. (HRG)

- *Haeger Response:* This information will be provided in final engineering when we complete the storm sewer design.
- *Village Response:* OK, pending final engineering (KM)

19. Will the buildings be individually metered and sprinkled? If there is a common sprinkler, there is no need to 1 ½" service lines to each unit. (MS)

- *Haeger Response:* Units will be individually sprinklered so the 1 ½” service lines are being maintained.
- *Village Response:* OK (MS)

20. B-Boxes must be labelled with the address that the service line feeds. This will need a detail on the final plans. (MS)

- *Haeger Response:* We will provide b-box tags in final engineering.
- *Village Response:* OK, pending final engineering (KM)

Additional Comments

21. Provide an update on the status of the easement to allow for the looping of the watermain through the subdivision on the west side of Rodenburg Road. (KM)

Grading Plan

1. Preliminary Grading Plan should include compensatory storage excavation area. (HRG)

- *Haeger Response:* The plans have been revised to include the compensatory storage grading area.
- *Village Response:* Not adequately addressed. The compensatory storage should be at 1:2 due to downstream drainage and flooding problems. Plans are showing 1.55:1. (HRG, JJ)
- *Haeger Response:* Per email correspondence and our meeting with Village staff on 3/5 and 3/10, we understand that the 1.55:1 compensatory storage ratio is acceptable.
- *Village Response:* As discussed at the meeting on 3/10, 1.55:1 compensatory storage ratio is acceptable with the statement and assurance from the developer’s engineer indicating that the proposed improvements will lessen the flooding impact to the downstream tributary area. (JJ)

2. – 3. Resolved

Preliminary Landscape Plans

1. – 2. Resolved

3. The following trees shall be noted to be removed: 237, 238, 269, 281, 282, 285, 286, 287, 288, 289, 290, 293, 294, 295, 302, 305, 343, 346, 347, 353, 354, 357, 358, 367, 369, 379, 391, 395, 396, 397, 398, 412, 431, 432, 436, 467. (MS)

- *Haeger Response:* As requested, these additional trees are now slated for removal, except for trees #237, 238, 431 & 432 as these are offsite trees, not located on the subject property. Additionally, existing trees within the limits of the compensatory storage area have now been slated for removal. (Dickson)
- *Village Response:* Tree 269 is listed to be preserved on Sheet L1.4 and shown to be removed on Sheet L1.2. Please revise Sheet L1.4 to show the removed of this tree.

- *Haeger Response:* The tree inventory has been updated to reflect the removal of Tree #269.
 - *Village Response:* OK (MS)
4. Resolved
5. Additional space must be provided at the dead ends to provide a place to push snow. This is of particular concern in the two dead ends on the south side of the property. (MS)
- *Haeger Response:* The fence in both locations indicated has been shifted back 1'-6" and the shrubs and perennials previously indicated have been replaced with a shallow row of ornamental grasses, upon which snow can be stored without consequences.
 - *Village Response:* OK (MS)
6. Tree species and varieties must be provided before final approval. (MS)
- *Haeger Response:* Noted. Specifics will be provided for review with submittal of Final Plans.
 - *Village Response:* OK
7. On Sheet C1.0, the project title property address 7N601 Rodenburg Lane must be revised to 7N601 Rodenburg Road. (JJ)
- *Haeger Response:* Sheet C1.0 has been revised accordingly.
 - *Village Response:* OK
8. On Sheets C3.0 – C3.5, the Paving Legend: The Standard Bituminous Structural Number (SN = 2.2) is not in compliance with the Village Ordinance. Per Section 9.01 of the Ordinance, the minimum pavement design Structural Number for residential, minor streets and marginal access is 3.0. Portland Cement Concrete curb and gutter are required for all subdivision streets and curbs for residential streets shall be mountable (M3.18) type with minimum eighteen inches (18") gutter flange. (JJ)
- *Haeger Response:* Timberleaf Circle has been revised to M3.18 curb and gutter. We are proposing that the alleys maintain the 12" gutter flange with an M.12 curb and gutter and depressed curb through the driveways. Per our discussion with Village staff, we understand that the Structural number of 2.2 is acceptable for the alley pavement and we note that all roadways will be privately maintained.
 - *Village Response:* OK as noted in the response. (JJ)
9. No parking will be permitted on any portion of Timberleaf Circle as this would impact the ability for fire trucks to navigate the roadway. (KM)
- *Haeger Response:* Noted, signage will be added to the final plans restricting parking.
 - *Village Response:* OK, pending final engineering (KM)

Traffic Impact Study

1. - 4. Resolved
5. AutoTurn Exhibits must be submitted. (KM)
 - *Haeger Response:* AutoTurn exhibits for the proposed fire truck specifications have been included in this submittal.
 - *Village Response:* Not adequately addressed. The exhibit must be revised to also show the following movements: southbound fire truck turning left to enter the north access and fire truck entering and exiting the parking areas between buildings. (KM)
 - *Haeger Response:* The AutoTurn Exhibit has been revised to provide these additional movements.
 - *Village Response:* Not adequately addressed. Autoturn did not include all drive aisles between buildings. (HRG)

Stormwater Management

1. – 2. Resolved
3. Based on current drainage and flooding problems downstream of the project area, instead of using the post development site condition release rate of 0.10 cfs/acre per the DuPage County Ordinance, use 0.05 cfs/acre.(JJ)
 - *Haeger Response:* Refer to the response to Stormwater Management comment 2 above. We are providing a regional benefit to the existing drainage and flooding problems with the design 0.10 cfs/acre release rate per County requirements.
 - *Village Response:* The release rate of 0.10 cfs/acre will be acceptable if the 1:2 ratio fill to cut for compensatory storage is met. (JJ)
 - *Haeger Response:* Per email correspondence and our meeting with Village staff on 3/5 and 3/10, we understand that the 1.55:1 compensatory storage ratio with the 0.10 cfs/acre release rate is acceptable.
 - *Village Response:* As discussed on 3/10 meeting, 1.55:1 compensatory storage ratio with 0.10 cfs/acre release rate is acceptable with the statement and assurance from the developer's engineer indicating that the proposed improvements will lessen the flooding impact to the downstream tributary area. (JJ)
4. Based on current drainage and flooding problems downstream of the project area, instead of using 1:1 ratio for the compensatory storage, use 1:2. (JJ)
 - *Haeger Response:* To enhance the regional benefit towards drainage this development is providing, we are proposing a 1 to 1.5 ratio for compensatory storage. The plans, calculations, and modeling have been revised to reflect this.
 - *Village Response:* The compensatory storage should be 1:2.0 for all fill to cut ratio due to downstream drainage and flooding problems. (HRG, JJ)

- *Haeger Response:* Per email correspondence and our meeting with Village staff on 3/5 and 3/10, we understand that the 1.55:1 compensatory storage ratio is acceptable.
- *Village Response:* OK (JJ)

5. Information on the site's outlet to the south and verify there is an adequate overland flow route from the site shall be provided. (HRG)

- *Haeger Response:* Additional survey work has been completed in this area and the modeling has been updated to reflect the field conditions for the sewer and overland discharge from the wetland.
- *Village Response:* Not adequately addressed. An additional overflow route was added to the existing overflow route in the proposed condition between lots 35/36 that is not shown on the grading plan. The plans indicate there is a 15' wide drainage easement and the proposed grading in the plans indicates 18". Design Engineer shall provide an explanation as to why there are two different overflow route elevations between the same homes. Additional survey information shall be provided to the outlet basin downstream of the site to verify the information used in the modeling. The survey shown on the plans is incomplete, there is no outlet surveyed for the 18" pipe. The pipe will need to be cleaned and surveyed. The 18" pipe size should be labelled on the plans. The modeling uses a 12" and 18" outlet, but the 18" is downstream of the 12". The 12" and 18" outlets are restricted by inlets. Inlet capacity calculations should be provided and used as a basis for the release rate if less than the pipe capacity. The pipe capacity/overflow route outlet tables used in the calculations should be provided. (HRG)
- *Haeger Response:* A detail has been added to sheet C4.5 showing the surveyed outfall conditions. Additional calculations and information have been provided in the stormwater narrative discussing the outlet control conditions of the wetland. We have analyzed the drain tile base flow, grate capacity of the existing rear yard inlets in the Hampton Park subdivision, 12" sewer discharge rate and the 18" sewer discharge rate. Our analysis has shown that for flood stages up to 783.97 (0.90 feet about the wetland NWL), grate capacity and the drain tile base flow will control the discharge from the wetland. Above this elevation, the 18" sewer flowing under pressure from the water head will control the discharge. The modeling has been revised to reflect this condition.

Two overflow weirs are modeled based on the existing topography between Lots 35 and 36. No grading is proposed between these lots. Due to software limitations, it is necessary to model the weirs separately due to the isolated low points.

Additional information can be found in the "Site Specific Floodplain" section of the narrative and Appendix C of the report.

- *Village Response:* The 18" pipe should be jetted and surveyed, based on the bottom elevation of the inlet, the downstream invert and the assumption that the 18" pipe is flat, the pipe would be visible in the inlet. The 18" outlet capacity is critical to the model, provide a storm sewer HGL that will verify the stage-discharge for the 18" under pressure flow to the outlet. There is insufficient survey to indicate if the secondary overflow will start to flow at the 786.75 elevation modeled. There is a 787 contour on the north side of lot 35 indicating that overflow into the secondary weir will not occur until 787 at a minimum. The secondary weir is also outside of the drainage easement and could be filled in by the property owner or a landscape wall constructed to prevent flow onto the property. Also, the 100-year discharge is not being contained within the overflow route, which justifies the additional compensatory storage being requested to mitigate the potential flooding. (HRG)

6. The modeling for the BFE analysis needs to include and exhibit with the showing the all of the contributing basin volumes with stage-storage-discharge calculations for each contributing area. The basis of the elevation-discharge tables and elevation-storage tables used in the modeling needs to be provided. Supporting survey data for the extrapolation used for wetland 1 needs to be provided. (HRG)
 - *Haeger Response:* The data used in the modeling has been clarified. Areas, curve numbers and times of concentration have been provided on the exhibits included in Appendix C of the stormwater report. Additionally, the stage-storage tables have been revised based on the GIS data compiled from Cook and DuPage counties, and the topographic survey prepared by Haeger Engineering. Discharge conditions have been modeled in PondPack. Please refer to the PondPack reports for additional information regarding the modeled discharge.
 - *Village Response:* Not adequately addressed. The outlet tables used in the modeling should be provided. The input was provided but not the output. (HRG)
 - *Haeger Response:* Outlet tables illustrating the modeled flow rates have been provided in Appendix C of the report.
 - *Village Response:* OK, outlet tables provided. (HRG)
7. Resolved
8. An exhibit shall be provided showing the pervious and impervious areas used to determine the area used for detention calculations. (HRG)
 - *Haeger Response:* An exhibit was previously included in Appendix B of the stormwater report. This exhibit has been revised and clarified based on the revisions to the site plan and engineering.
 - *Village Response:* The areas should be indicated on the exhibit. The areas are highlighted, but the square footage of the areas is not indicated on the exhibit. (HRG)
 - *Haeger Response:* The exhibit has been revised to provide areas.
 - *Village Response:* OK, exhibit updated. (HRG)
9. Sizing calculations for the equalizer pipe shall be provided. (HRG)
 - *Haeger Response:* PondPack modeling has been prepared to analyze the equalizer pipe sizing. Please refer to the reports and chart provided in Appendix B. Our modeling shows that a 12" pipe is sufficient to equalize the ponds for all 100-year storm events.
 - *Village Response:* Not adequately address. The input for the equalizer was provided, but the output rating curve was not provided. There will also be significant portions of the site routed through the pipe that will need to be considered in the design since it is not acting as only an equalizer. There is over 100 cfs inflow from the site into the basins that will need to be split between them and the then be conveyed/equalized through the pipe connecting the basins. Also, the basin was modeled as one complete volume when the basins will be filling at different rates and only releasing out of one basin. The basin was input with only 2 elevations, the actual tables should be input since the volume at lower elevations will be less per increment than at higher elevations. (HRG)

- *Haeger Response:* Per our discussion with Village staff on 3/10, we understand that additional analysis and information on the equalizer pipe can be provided in final engineering.
- *Village Response:* OK, pending final engineering. (KM)

10. – 11. Resolved

12. Design Engineer to verify less than 5% of the development site is not being routed through the detention basin. (15-72.G). (HRG)

- *Haeger Response:* As currently designed, approximately 10% of the development site is unrestricted. The detention basins have been sized based on the overall disturbed area of this development, with the allowable release rate calculated only for the detained area, excluding the unrestricted area. Additionally, upstream bypass area approximately equivalent to the unrestricted area is being routed through the basins. As noted above, the current design utilizes the full detention provided with the development and provides a regional benefit to the existing drainage and flooding problems for all storm events in the 100-year critical duration analysis.
- *Village Response:* Not adequately addressed. Due to downstream drainage problems, the narrative should discuss the storage being based on the overall developed area and the offsite area being route through the basin will provide some offset to the site area that is bypassing the area, making the net area bypassing the basin less than 5%. (HRG)
- *Haeger Response:* The “Stormwater Management” section of the narrative has been revised to provide additional details on how the upstream tributary area will offset the unrestricted area. The net unrestricted area of the development is 0.5% when accounting for the upstream offset.
- *Village Response:* OK, the net unrestricted area is 0.037 acres, approximately 0.6% of the developed site area of 6.43 acres. (HRG)

13. Resolved

Wetland Delineation Report

1. This will need to be submitted to DuPage County for review. (KM)

- *Haeger Response:* A Tab 4 & 5 DuPage County submittal will be prepared together with final engineering. (Midwest)
- *Village Response:* Conversations with the County need to be initiated and documentation provided to the Village. See attached review memo from HR Green. (KM)
- *Haeger Response:* The Corps of Engineers has determined that the delineated wetland is an Exempt Waters and not under the Jurisdiction of the Corps of Engineers. An official boundary verification request has been submitted to the County to verify wetland boundaries.

Discussion with the County is ongoing and they have indicated that they are open to continuing conversations and investigation into acceptance of the land donation. Once the

boundary has been confirmed, MEI will complete Tab 4 & 5 submittal in accordance with the DuPage County Stormwater Ordinance.

- *Village Response:* Pending.

2. Provide a Wetland Mitigation Plan. (KM)

- *Haeger Response:* A wetland mitigation plan will be developed once all wetland impacts are known. The mitigation plan will be completed together with final engineering. (Midwest)
- *Village Response:* See attached review memo from HR Green. (KM)
- *Haeger Response:* A wetland mitigation plan is being drafted but will not be finalized until final engineering is completed. Restoration of the wetland and buffer will be highlighted in detail on the Dixon Design Landscaping Plan.
- *Village Response:* Pending.

Preliminary Plat of Subdivision

1. All proposed Public Utility Easements, various required certifications and associated declarations must be added and shown on the plat. (JJ)

- *Haeger Response:* We are proposing that Lot 12 is a “Common Area/Blanket Easement” for Ingress/Egress, Public Utilities, Private Utilities, and Drainage. We will coordinate the required certifications and declarations with the Village when the Final Plat of Subdivision is prepared.
- *Village Response:* Details and specifics of the required certifications and declarations must be discussed and finalized by Developer and the Village Staff and approved by the Village Board prior to the preparation of the Final Plat of Subdivision. (JJ)
- *Haeger Response:* Per our discussion with Village staff on 3/10, we understand certifications and declarations can be provided in final engineering after Board approval.
- *Village Response:* OK, pending final engineering. (KM)

2. – 3. Resolved.

4. Due to the timing of this project and the proposed improvements along Rodenburg Road, the Village is requesting an additional 10 foot grading easement be established along the entire frontage of the property to allow any minor grading as necessary to incorporate the development into the roadway project. (KM)

- *Haeger Response:* A 10 foot grading easement has been provided along the frontage of the development.
- *Village Response:* OK (KM)

Other Items

1. – 2. Resolved