Timber Valley Estates – Preliminary Plat

Applicant: Lundstrom, LLC (Property Owner) and Strahan Construction (Developer) represented by Bob Gibson with Civil Design Advantage

Request: Preliminary Plat Approval of a Major Subdivision Plat

Legal Description: Part of the NW¼ NE ¾ of Section 32 in Crocker Township, Polk County, Iowa, containing 32 Acres

General Location: Located approximately 350-feet northeast of the NW 37th Street and NW 75th Place intersection. (Attachment ‘A’)

Existing Zoning: “RR” Rural Residential District

Surrounding Zoning:
- North: "RR" Rural Residential District
- East: “RR” Rural Residential District
- South: “RR” Rural Residential District
- West: “RR” Rural Residential District and “OS” Open Space District

Waiver Request:
1. Maximum cul-de-sac length greater than 600-feet.
2. Flag lot size exceeding 1-acre in areas with public sanitary sewer.

PREVIOUS ACTION:
The Zoning Commission reviewed the preliminary plat of Timber Valley Estates Plat 1 on January 25, 2021 and made an approved motion (6-0) that the Zoning Commission deny the request until a State of Iowa Native American burial ground review has been completed.

UPDATE:
The Applicant’s have taken steps to coordinate with the Office of the State Archaeologist (OSA) to investigate the suspected mounds as referenced by neighbors at the previous Zoning Commission meeting. A report has been provided by the OSA outlining their conclusions from
the investigation. They have concluded that the mounds are likely push piles from modern construction/land modification, maintenance of the drainage to the south, or a combination of these events as well as natural tree falls and they reference that they are confident that they are not ancient burial mounds. They state that, “Although there is a low likelihood that ancient burials are associated with site 13PK465, and therefore a low likelihood that any would be disturbed by the Timber Valley Estates development, given that we do have evidence of a substantial prehistoric occupation there (in addition to the historic component referenced above, 13PK465 is recorded as a high-density scatter of pottery sherds and flakes indicative of stone tool manufacture) we would like to recommend as much avoidance as possible of 13PK465.” The report also made reference to the Iowa Code (per section 523I.316.6) requiring that if any human remains, or bone suspected to be human are unearthed, all ground disturbance within 100 feet must cease, the area must be protected, and the Office of the State Archaeologist, local law enforcement and the State Medical Examiner, must be contacted immediately. The area of interest is identified as 13PK465 and as noted in the documentation provided to County staff, this area is a confidential site location therefore specific details regarding the exact site are not for public distribution. See Attachment ‘C’ for a copy of the OSA report without the confidential maps as referenced.

The Applicant’s Representative has confirmed that they have reached out to adjacent neighbors who presented their concerns regarding the mounds on the subject property. Information including the report and outlined conclusions has been provided to them with contact information to personally discuss details and questions with Bob Gibson from Civil Design Advantage.

GENERAL COMMENTS:
This preliminary plat (Attachment ‘B’) proposes to create 19 single-family residential lots and three (3) outlots on a 32-acre parcel zoned "RR" Rural Residential District utilizing the Cluster Development option. The subject property is located approximately 350-feet northeast of the NW 37th Street and NW 75th Place intersection. The City of Ankeny corporate limits are approximately ½ mile to the east and the City of Johnston corporate limits are approximately ½ mile to the west. The property is currently vacant with a majority of the property covered in woodlands and a large area of floodplain surrounding Rock Creek within northern and western portions of the parcel. The subject property has approximately 800 feet of frontage along NW 37th Street, a paved collector roadway maintained by Polk County. The proposed plat includes one (1) access with two (2) proposed cul-de-sac street extensions. Lot A is an east west cul-de-sac street extension and extends 1,188-feet from NW 37th Street. The majority of the lots (14) have frontage along Street Lot A. Street Lot B is the second cul-de-sac extension, located at a north central point along Lot A, and extends south to north with a length of 1,150-feet from NW 37th Street and provides frontage to five (5) lots. The maximum cul-de-sac length is 600-feet as required by the Subdivision Ordinance. The developer has confirmed through response to review comments that the profile grade for the streets will meet the maximum street grade of 6%.

The proposed 19 single-family residential lots generally have widths between 110 and 271 feet and areas ranging from 21,274 square feet to 107,781 square feet (2.47 acres). The minimum
lot size is 20,000 square feet and the minimum lot width requirement is 100-feet for standard lots within the Cluster Development option. The average size of the proposed lots is approximately 30,000 square feet with most of the lots being much larger than the minimum allowable lot size minimizing impact and providing greater protection of natural resources. The Cluster Development option requires 25% permanent open space to be maintained on the subject property. The proposal provides 42% open space within Outlots ‘X’, ‘Y’ and ‘Z’. Flag lots shall not exceed one (1) acre in size in areas with public sanitary sewer as required by the Subdivision Ordinance. Both Lots 10 and 11 exceed the one (1) acre standard with Lot 10 proposed as 1.71-acres in size and Lot 11 proposed as 2.47-acres in size.

The site has a significant variation in topography with a high point of 906 feet within the southeast corner of the site and a low point of 810 feet along the stream of Rock Creek in the north and northwest portions of the site. The topography of the site introduces unique challenges in providing streets and utility services. An existing WRA Polk County trunk sanitary sewer line and associated 30-foot wide sanitary sewer easement diagonally bisects the subject property. The proposal requires approval from the WRA for fill depths and locations of crossing the trunk sanitary sewer for the proposed streets.

Staff is working with the Engineer on review comments and will address compliance with the Polk County Stormwater Control Ordinance. Outlots ‘Y’ and ‘Z’ include Rock Creek and the existing FEMA floodway and 100-year floodplain on the property. A mapped wetland as determined by the National Wetland inventory is also located within the northeast corner of Outlot ‘Z’. Woodland Protection easements are identified throughout the development to provide protection for existing young and mature woodlands. Woodland mitigation is also proposed due to the significant grading of the property. The proposal identifies 13.9-acres of mature woodlands on site with a 33% impact (4.6-acres) and 1.1-acres of mitigation provided. There are 7.6-acres of young woodlands on site with a 62.6% (4.76-acres) impact and .96-acres of mitigation provided. Staff is continuing to work with the Engineer on review comments to ensure compliance with mitigation requirements for the removal of woodlands on this site. The subject property has steep slopes and significant grading is proposed due to topographical challenges. A safe slope setback line is identified for Lots 1-16 for significant slopes on the property. Any construction within the safe slope setback shall require foundation design by a professional structural engineer and slope stabilization review and design by a professional geotechnical engineer. A geotechnical report has been submitted and is currently under review by the Polk County Engineering Division.

Water service will be provided by Des Moines Water Works. The developer is required to construct a northerly extension from the 8” DMWW water main located along the south side of NW 75th Place. A 12” water main extension is proposed along the east side of NW 37th Street to serve this development. The developer is required to coordinate the design and installation with Des Moines Water Works. An existing WRA Polk County sanitary trunk sanitary sewer will provide sanitary sewer services to the proposed lots via 8” mains constructed from the existing 42” trunk sewer. All lots except lots 10 and 11 have an available outlet to an adjacent public storm sewer within the right-of-way. Lots 10 and 11 will have sump lines that outlet to the rear yards with maintenance of the private sump lines to be provided by the Homeowner’s
Association. Storm water detention is provided through Private Overland Flowage and Detention Easements located within existing natural low points on the property and designated on Outlot ‘Y’ and Outlot ‘Z’. The development will be provided with standard hydrant spacing for fire protection.

STAFF REVIEW:
Staff has reviewed this plat for compliance with the Polk County Zoning and Subdivision Ordinances as a major subdivision plat submittal. Lot density, dimensions, frontage, access, and potential waivers have been reviewed. Pending approval, re-submittals will be needed to address staff comments. At this stage, the Commission’s action would affirm, deny, or amend the overall plat layout and the requested waivers. The current layout would require waivers from the maximum cul-de-sac length of 600-feet and from the flag lot size exceeding one (1) acre in areas with public sanitary sewer.

The Developer is requesting two (2) waivers. The waivers are for the cul-de-sac length increase from 600 feet to 1,150 feet (Lot B) and 1,188 feet (Lot A) and for the flag lot size exceeding one (1) acre in areas with public sanitary sewer. The developer has responded to staff comments and is working toward compliance with all of the review comments. The number of lots was reduced from 20 to 19 lots between the first and second submittal of the preliminary plat. Adjustments continue to be made to limit impact on the floodplain and provide appropriate buffers and protection easements. The proposal includes two (2) flag lots being greater than one (1) acre in size including Lot 10 at 1.71-acres and Lot 11 at 2.47-acres. Both of these lots are shown with Woodland Protection Easements and appear to offer additional undisturbed woodland protection with the larger lot size. The number of lots proposed for the subdivision is within the allowed 24 dwellings in a residential district to be served by a single cul-de-sac.

In review of the adjacent developments to the south and the east, it appears that there are multiple cul-de-sac extensions that exceed 600-feet and are closer to 1,000-feet in length. The subject property has topographic limitations as well as limited access along the frontage of the property and in relationship to existing floodplain locations on the property.

If the developer can continue to work towards meeting the review comments and Ordinance requirements applicable to the proposal then the waivers can be supported by Staff. The staff review took into careful consideration the constraints for future development in this area, including existing topography, woodlands, and FEMA Flood Zone along Rock Creek. These constraints limit the ability to make significant future street connections. The unique nature of the subject property, which includes steep terrain and significant topographical and environmental challenges along with the limited access to the existing public street, supports the requested waivers from these requirements.

The property lies within the two-mile review authority of the City of Ankeny and the City of Johnston. The City of Johnston has an exemption for reviewing plats east of the Des Moines River/Saylorville Lake and therefore will not review this plat. The City of Ankeny has indicated that this property is located outside of their planning boundary identified in the Ankeny Plan 2040 Comprehensive Plan therefore, the City of Ankeny waives its extraterritorial review for this area.
RECOMMENDATION:
Staff recommends approval of the Preliminary Plat of Timber Valley Estates subject to the approval of the required subdivision waivers for the cul-de-sac length increase from 600 feet to 1,150 feet (Lot B) and 1,188 feet (Lot A) and the waiver for the flag lot size being greater than one (1) acre in areas with sanitary sewer for lots 10 and 11. Prior to official approval of the preliminary plat by the Board of Supervisors, all remaining staff comments must be addressed. Furthermore, prior to any construction activity, staff will need to review and approve construction plans for all plat improvements. The Developer shall take precautions in areas proximate to the archaeological sensitive area as noted by the OSA. The Final Plat shall note lots proximate to this area as having special care taken during both the development and lot development.
MAJOR PRELIMINARY PLAT FOR:
TIMBER VALLEY ESTATES
POLK COUNTY, IOWA

PRELIMINARY PLAT DESCRIPTION

TYPICAL SECTION - 26' P.C.C. ROADWAY WITH 60' ROW

LEGEND

TYPICAL SWALE SECTION

NOTES:

1. The preliminary plat shows the approximate location of streets, sidewalks, and other facilities.
2. The developer is responsible for obtaining all necessary permits and approvals from local authorities.
3. The plat is subject to change based on surveys and field inspections.

UTILITY PROVIDERS

- ELECTRIC
- GAS
- WATER
- SEWER

COVER SHEET

PRELIMINARY SUBMITTAL

1/12/20

SECOND SUBMITTAL

1/14/21

THIRD SUBMITTAL

3/23/21

REVISIONS

REV 1

OWNER

POLK COUNTY, IOWA

DEVELOPER

TYPICAL SECTION - 26' P.C.C. ROADWAY WITH 60' ROW

VICINITY MAP (1"=2000')
### Curve Data

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MATURE WOODLANDS IMPACT
4.6 ACRES (33%)
1990 AERIAL PHOTOGRAPHY

YOUNG WOODLANDS IMPACT
4.76 ACRES (62.6%)
2018 AERIAL PHOTOGRAPHY

OVERALL IMPACTED AREA

IMPACTED YOUNG WOODLANDS

1990 TREES (MATURE WOODLANDS)

2018 TREES (YOUNG WOODLANDS)

IMPACTED MATURE WOODLANDS

1990 TREES (MATURE WOODLANDS)

2018 TREES (YOUNG WOODLANDS)

TOTAL MITIGATION AREA REQUIRED: 2.0 ACRES

MATURE WOODLANDS, BASED ON 1990 AERIAL PHOTOGRAPHY:
13.0 ACRES
MAX. ALLOWABLE IMPACT WITHOUT MITIGATION: 3.5 ACRES (25%)
MAX. ALLOWABLE IMPACT WITH MITIGATION: 4.4 ACRES (33%)

YOUNG WOODLANDS, BASED ON 2018 AERIAL PHOTOGRAPHY:
7.6 ACRES
MAX. ALLOWABLE IMPACT WITHOUT MITIGATION: 3.8 ACRES (50%)
MAX. ALLOWABLE IMPACT WITH MITIGATION: 5.7 ACRES (75%)

MATURE WOODLANDS IMPACTED:
4.60 ACRES (33%)
EXCEEDS ALLOWABLE IMPACT WITHOUT MITIGATION BY 1.1 ACRES.
MITIGATION REQUIRED: 1.1 ACRES

YOUNG WOODLANDS IMPACTED:
4.76 ACRES (62.6%)
EXCEEDS ALLOWABLE IMPACT WITHOUT MITIGATION BY .9 ACRES.
MITIGATION REQUIRED: .96 ACRES

TOTAL MITIGATION AREA REQUIRED: 2.0 ACRES
MITIGATION AREA

AREA A: 1.59 AC

TOTAL: 2.03 AC

REFERENCE SOURCES FROM 1990 AND 2018 AERIAL PHOTOGRAPHY

MATURE WOODLANDS, BASED ON 1990 AERIAL PHOTOGRAPHY:
13.6 ACRES

MAX. ALLOWABLE IMPACT WITHOUT MITIGATION:
3.4 ACRES (25%)

MAX. ALLOWABLE IMPACT WITH MITIGATION:
6.8 ACRES (50%)

YOUNG WOODLANDS, BASED ON 2018 AERIAL PHOTOGRAPHY:
7.6 ACRES

MAX. ALLOWABLE IMPACT WITHOUT MITIGATION:
3.8 ACRES (50%)

MAX. ALLOWABLE IMPACT WITH MITIGATION:
5.7 ACRES (75%)

AREA A

MATURE WOODLANDS IMPACTED:
4.6 ACRES (33%)

EXCEEDS ALLOWABLE IMPACT WITHOUT MITIGATION BY 1.1 ACRES.

MITIGATION REQUIRED:
1.1 ACRES

TREES REQUIRED:
17 CANOPY TREES @ 1.5" CAL*
66 CANOPY TREES @ 5' HIGH WHIP
22 UNDERSTORY TREES @ 5' HIGH WHIP

YOUNG WOODLANDS IMPACTED:
4.76 ACRES (62.6%)

EXCEEDS ALLOWABLE IMPACT WITHOUT MITIGATION BY 1.29 ACRES.

MITIGATION REQUIRED:
.96 ACRES

TREES REQUIRED:
14 CANOPY TREES @ 1.5" CAL*
58 CANOPY TREES @ 5' HIGH WHIP
19 UNDERSTORY TREES @ 5' HIGH WHIP

TOTAL MITIGATION REQUIRED:
2.0 ACRES

TOTAL TREES REQUIRED:
31 CANOPY TREES @ 1.5" CAL*
124 CANOPY TREES @ 5' HIGH WHIP
41 UNDERSTORY TREES @ 5' HIGH WHIP

1. ALL DISTURBED AREAS SHALL BE SEEDED WITH SUPERTURF II LS, AVAILABLE FROM UNITED SEEDS.
2. SLOPES 4:1 AND GREATER SHALL BE MULCHED WITH A TEMPORARY ROLLED EROSION CONTROL PRODUCT

SLOPE TYPE 2 (LC) PER SUDAS
March 10, 2021

Reid Strahan
Strahan Construction
reidstrahan@strahanconstruction.com

Dear Reid,

Thanks for your time and for meeting with us at the suspected mounds on the southern edge of the Timber Valley Estates property that were reported by adjacent landowner, Anders Hagberg. Thanks also for your consideration of our request to proceed with the housing development with caution given these possible mounds. The following is a report of my March 8, 2021 investigation. I have concluded that the possible mounds are most likely push piles from modern construction/land modification, maintenance of the drainage to the south, or a combination of these events as well as natural tree falls.

Given what is visible of the mounds on lidar, their shapes, their placement on the landscape, and that there was a historic structure documented in the immediate vicinity, I am confident that they are not ancient burial mounds. During my visit I noted that the anomalies that Anders had noted were irregular in shape, not uniformly conical or linear like burial mounds, and relatively small in relation to documented burial mounds. They were also made of loose, sandy fill that was consistent with the surrounding forest floor and therefore revealed no prehistoric construction techniques. I conducted two 1” diameter soil probe tests on the forest floor off of the mounds, which revealed dark brown loam with a high sand content to a depth of 80cm. While one soil probe test on the mound revealed mottled yellowish brown and dark brown sandy loam indicative of soil mixing, that mound was within the site boundaries of 13PK465, which is a site that included a roughly 10x10 ft brick and stone foundation that seems to have been removed sometime between 1985 and 2009. The source of the soil mixing is most likely recent disturbance. All other soil probe tests I conducted on the possible mounds revealed the same consistently dark brown sandy loam, areas of non-compact soil also consistent with recent disturbance, and large remnant tree roots. The 1985 report that documented site 13PK465 also noted evidence of tree grubbing in the area, so yet another possible source of the push piles.

I also took three GPS points (the yellow dots on the attached maps) along the line of the possible mounds to examine their locations on our aerial maps and in relation to our lidar (3D ground surface) image of the area. Inspection of aerial maps did not show any evidence of the historic disturbance that caused the piles, however, the area has been pretty consistently in forest since the 1930s. Lidar anomalies also confirmed their irregular shapes and that they basically parallel the drainage there, which is not typical of prehistoric mound configurations and is more consistent with excavation to maintain the drainage.

Although there is a low likelihood that ancient burials are associated with site 13PK465, and therefore a low likelihood that any would be disturbed by the Timber Valley Estates development, given that we do have evidence of a substantial prehistoric occupation there (in addition to the historic component referenced above, 13PK465 is recorded as a high-density scatter of pottery sherds and flakes indicative of stone tool manufacture) we would like to recommend as much avoidance as possible of 13PK465. I don’t have a georeferenced version of the development plans, but have estimated the path of the road (with the
orange outline) in the additional lidar map, and it seems that it could be oriented (if not already) to just hug the border of the northern edge of the site boundary. This, in addition to limited ground disturbance within the site boundary would be ideal.

If you would like to discuss this further in relation to your development plans, I’d be happy to arrange a meeting with you and including Dr. John Doershuk, the State Archaeologist, and any others necessary.

Again, although the likelihood of your project encountering ancient human remains is low, the Iowa Code requires that if any human remains, or bone suspected to be human are unearthed, all ground disturbance within 100ft must cease, the area must be protected, and the Office of the State Archaeologist, local law enforcement and the State Medical Examiner, must be contacted immediately (per section 523I.316.6).

Many thanks again for your time and your cooperation in this matter.

Sincerely,

Lara K. Noldner, PhD
Bioarchaeology Director
Office of the State Archaeologist
University of Iowa, 700 S Clinton St., Iowa City, IA
lara-noldner@uiowa.edu
319-384-0740

Cc: John Doershuk, PhD – State Archaeologist