INVER GROVE HEIGHTS
PLANNING COMMISSION AGENDA

TUESDAY, FEBRUARY 18, 2020 – 7:00 p.m.
City Council Chambers - 8150 Barbara Avenue

1. CALL TO ORDER

2. APPROVAL OF PLANNING COMMISSION MINUTES FOR JANUARY 21, 2020

3. APPLICANT REQUESTS AND PUBLIC HEARINGS

3.01 SOURCE LAND CAPITAL - CASE NO. 20-02PUD

Consider a **final plat and final PUD development** plan for Settlers Ridge North. Phase 1 consisting of 25-lot single-family lots located at the NW corner of 65th Street and South Robert Trail.

Planning Commission Action _____

3.02 CITY OF INVER GROVE HEIGHTS – CASE NO. 20-05ZA

Consider an **Ordinance Amendment** to the City Code to allow sheet or corrugated metal or shaped metal as an allowed exterior building material for accessory buildings without the need for a conditional use permit in the A and E-1 zoning districts.

Planning Commission Action _____

4. OTHER BUSINESS

5. ADJOURN

This document is available upon 3 business day request in alternate formats such as Braille, large print, audio recording, etc. Please contact Kim Fox at 651.450.2545 or kfox@invergroveheights.org

PLANNING COMMISSION MINUTES - CITY OF INVER GROVE HEIGHTS

Tuesday, January 21, 2020 – 7:00 p.m.
City Hall Chambers - 8150 Barbara Avenue

Chair Maggi called the Planning Commission meeting to order at 7:00 p.m.

Commissioners Present: Pat Simon
Tony Scales
Joan Robertson
Brett Kramer
Jonathan Weber
Elizabeth Niemioja
Armando Lissarrague
Annette Maggi
Dennis Wippermann

Commissioners Absent:

Others Present: Allan Hunting, City Planner

DRAFT

APPROVAL OF MINUTES
The minutes from the January 7, 2020 Planning Commission meeting were approved as submitted.

OUTFRONT MEDIA LLC – CASE NO. 20-01ZA

Reading of Notice
Commissioner Simon read the public hearing notice to consider the request to amend the billboard overlay district by rezoning the north half of Section 33, Township 28N, Range 22W, north of I-494 to dynamic display billboard overlay district, and to amend Title 10-15E-6 to expand the dynamic display billboard overlay district to include the north half of Section 33, Township 28N, Range 22W, north of I-494. No notices were mailed.

Presentation of Request
Allan Hunting, City Planner, explained the request as detailed in the report. He advised that the applicant owns two billboards on the north side of I-494 just east of Highway 52. They are proposing to convert the westerly most sign from a general static into a dynamic display billboard. Mr. Hunting advised that in 1993 the sign ordinance was amended to allow new billboards only along Highway 52/55 in the southern end of the city. In 2011 the City amended the code again by creating an overlay district limiting location to the same geographic area where standard billboards are allowed. For a billboard along I-494 to be converted to dynamic display requires an ordinance amendment to expand the overlay district to include the portion of Section 33 listed above. The basis for the dynamic display overlay ordinance was to address concerns such as traffic, driver distraction, and light pollution. The applicant has provided letters from other cities stating they have not experienced issues with dynamic display billboards in their cities. Mr. Hunting also checked with the IGH police department and they are not aware of any issues or traffic problems caused by the City's only dynamic display billboard on southbound Highway 52/55. If this would be allowed there could be no more dynamic displays possible on I-494 because of spacing requirements and because no new billboards are allowed along I-494. The code requires the owner to enter into an agreement with the city to provide no less than five hours per month of display for community and public service messages. The City takes advantage of that benefit with the Highway 52/55 sign which hits traffic on the southern half of the city. Allowing a dynamic display on I-494 would increase the audience regarding posting informational messages. The Planning Commission is asked to provide a recommendation to the City Council.

Chair Maggi asked Mr. Hunting if there were any billboards along Highway 52 in Section 33.

Mr. Hunting replied that he did not believe so.

Chair Maggi asked if any new billboards would be allowed in that area.

Mr. Hunting replied that any new billboards along Highway 52 would only be allowed in Sections 27 and 34 in the southern portion of the City.

Commissioner Simon asked if he was referring to all billboards or just dynamic display billboards.

Mr. Hunting replied both.

Chair Maggi asked if staff knew of any statewide research that had been done regarding potential impacts of dynamic display billboards.

Mr. Hunting replied that he was not aware of any such information.

Commissioner Kramer questioned why the proposed overlay district went so far east if no new billboards could be built along I-494.

Mr. Hunting replied they could narrow the overlay district down to have an eastern boundary of Blaine Avenue.

Commissioner Niemioja asked if the applicants were proposing a height increase from the existing billboard.

Mr. Hunting replied that his understanding is there would be no changes in sign size and height.

Opening of Public Hearing
John Bodger, Outfront Media, Minneapolis, advised he was available to answer any questions.

Chair Maggi asked the applicant if he read and understood the report.

Mr. Bodger replied in the affirmative. He advised that a Federal Highway Administration study showed no accident increase from digital signs. He added that the light from digital signs projects forward and is typically less bright than a standard LED front lit sign.

Commissioner Weber asked if the billboard would remain in a 'V' configuration which would direct the light towards the highway.

Mr. Bodger replied in the affirmative.

Commissioner Weber asked if the proposed sign would be .3-foot candles at 250 feet.

Mr. Bodger replied in the affirmative. He noted there was 500 feet between the two billboards.

Commissioner Weber noted that the sign is less than 100 feet from the residential property line to the west.

Mr. Bodger stated the billboard has been there for 30 years and the neighbor would likely not see it because of the sign angle.

DRAFT

Chair Maggi closed the public hearing.

Planning Commission Discussion
Commissioner Niemioja advised that she did some research to supplement the anecdotal evidence provided by the applicant from four other cities. She referenced a recent article in the *Pioneer Press* and a report called *The Compendium of Recent Research Studies on Distraction from Commercial Electronic Variable Message Signs*. One of their findings was that outdoor advertising signs attract drivers' attention. They state that experienced drivers can tolerate this if the billboard is in a low risk, low cognitive demand driving situation. Her concern with this particular area is that it is not a low cognitive need area; rather drivers need to be well aware of what is going on around them. According to the *Compendium* the risk increased when such signs competed for drivers' visual attention with more demanding traffic and/or unanticipated events. She requested that staff include the article from the *Pioneer Press* in the Council packet and look at the *Compendium* as she has concerns about the request.

Commissioner Robertson had concerns about adding a potential for distraction in an area that was so highly traveled.

Commissioner Scales supported the request, stating that trying to legislate a distraction-free world was impossible and it was up to drivers to keep their eyes on the road.

Chair Maggi stated she was conflicted because the Planning Commission recently approved without hesitation the request for a larger electronic sign at The Grove; however, she noted that area had much less traffic than the I-494 location being discussed.

Commissioner Robertson stated her main concern was adding a distraction to a highly dense traffic area, especially since recent laws were aimed at reducing driver distractions.

Commissioner Lissarrague stated he supported the request but understood the concerns.

Commissioner Weber asked the applicant if he would be changing the sign angles, to which Mr. Bodger replied the angles would remain the same.

Commissioner Lissarrague asked if they had ever placed signs in areas where they received neighbor complaints about their signs.

At Chair Maggi's request, Mr. Hunting provided an aerial showing where the multi-family neighborhood to the north and two single-family homes to the west were located.

Chair Maggi noted that the sign was angled away from the residential neighborhood.

Planning Commission Recommendation
Motion by Commissioner Weber, second by Commissioner Kramer, to approve the request to amend the billboard overlay district by rezoning the north half of Section 33, Township 28N, Range 22W, north of I-494 to dynamic display billboard overlay district, and to amend Title 10-15E-6 to expand the dynamic display billboard overlay district to include the north half of Section 33, Township 28N, Range 22W, north of I-494, with the overlay district being changed to depict Blaine Avenue as the eastern boundary.

Motion carried (6/3 – Niemioja, Simon, Robertson). This item goes to the City Council on February 10, 2020.

DRAFT

The meeting was unanimously adjourned at 7:26 p.m.

Respectfully submitted,

Kim Fox
Recording Secretary

DRAFT

PLANNING REPORT
CITY OF INVER GROVE HEIGHTS

CASE NO: 20-02PUD

APPLICANT: Source Land Capital

REQUEST: Final Plat and Final PUD Development Approval for Settlers Ridge North

MEETING DATE: February 18, 2020

LOCATION: Hwy 3 and 65th Street

COMPREHENSIVE PLAN: LDR

ZONING: R-1C/PUD

REVIEWING DIVISIONS: Planning
Engineering
Park and Recreation
Fire Marshall

PREPARED BY: Allan Hunting
City Planner

BACKGROUND

An application has submitted for the final plat and final development plan for Settlers Ridge North. The project received preliminary approvals under the name Windsor Ridge. The developer has changed the name to Settlers Ridge North. The overall project consists of 66 single family lots. The project is proposed in two phases. Phase 1 consists of 25 lots and the outlots for stormwater purposes. Phase 2 will consist of the balance of the plat. The applicant is requesting approval of the grading and storm water plans for the entire project and phased approvals for the platting.

The City Council approved the preliminary plat and development plans on October 28, 2019.

EVALUATION OF THE REQUEST

The final plan review is limited to a review of the plans against the preliminary plat conditions of approval for compliance. The review will address each of the 16 conditions. A copy of the resolution approving the preliminary plans, including the conditions is attached.

Condition #1 relating to consistency with preliminary plans. The submitted final plans are consistent with the preliminary plans approved by Council. The following provides some additional detail on some of the individual approved plans:

Final Plat. The lot and outlot layout are the same as the preliminary plat containing 66 lots. Phase 1 consists of 25 lots, the outlots for stormwater and public street right-of-way dedication for a portion of Agate Trail and all of Alvina Court. The outlots will be deeded to the City for stormwater purposes.

Site Plan. The site plan is consistent with the preliminary plans.

Open Space Plan. The final open space plan is consistent with the preliminary plan. All required open space, including disturbed and undisturbed and contiguous have been met.

Condition #2 relating to approval of the final grading, drainage and erosion control plans. The City Engineer has indicated the plans have addressed all the issues and comments that were included in the City Engineer memo dated 10/24/19.

Condition #3 relating to drainage and utility easements provided on the plat. The plat provides for easements over the main drainage areas. The City Engineer has reviewed the plat and finds the necessary easements are in place.

Condition #4 relating to boundaries of open space with marker posts. Engineering has created a post and sign template for developers to use to mark the open space boundary. The grading plan identifies the proposed location of the posts. The final location of the posts will be approved by Engineering and will be field inspected.

Condition #5 relating to park dedication. Park dedication will consist of a cash payment of $2,850 per lot. With the first phase of 25 lots, cash park dedication will equal $71,250. The park dedication fees are collected at time of final plat release.

Condition #6 relating to plans reviewed by the Fire Marshall. The Fire Marshall has reviewed the plans and has no issues with design and street access for emergency vehicles.

Condition #7 relating to recording of documents. A standard condition notifying all parties of what documents must be recorded with the final plat. The City Attorney's office will work with the developer and city staff to ensure all documents are recorded.

Condition #8 relating to payment of plat utility fees. The development contract will address the specific fees that the developer must pay before plat release as part of the funding for the infrastructure of the sewer and water for the Northwest Area. The Council adopted an ordinance which specifies fees to be paid at time of final plat release. There will also be additional fees collected at time of building permit for all residential structures. This condition was intended to state the developer's responsibility for paying these fees.

Condition #9 relating to payment of building permit fees. This condition was intended to state the developers are responsible for payment of building permit fees as noted in the condition. These fees are collected at time of building permit.

Condition #10 relating to acknowledgment of future city approvals. This condition was drafted by the City Attorney to clarify in all developments in the Northwest Area what changes require administrative or Council review. This language will be carried over into the development contract.

Condition # 11 relating to acknowledgement of PUD zoning. This condition was drafted by the City Attorney to indicate an acknowledgement will be recorded with the County for each development indicating the zoning and regulations placed on the property. It puts on record for any future landowners that there are special regulations on the property. This same type of notification was used in Arbor Pointe.

Condition #12 relating to entering into a development contract. A meeting with the developer will be set up prior to council review to address obligations to be covered in the developer agreement. A development contract will be drafted and reviewed by the City Council during their review of the final plan set.

Condition #13 relating to documents that must be recorded with the final plat. Standard language identifying additional documents to be recorded with the final plat.

Condition #14 relating to plans meeting the comments from the engineering consultants. The City Engineer has indicated the plans have addressed the comments from the city's consultants.

Condition #15 relating to street lighting. Street lights will be required at street intersections and at equal spacing along the road. Lights are installed by the developer and lighting costs are eventually charged to the individual lots.

Condition #16 relating to payment in lieu of tree planting for reforestation shortage. The reforestation shortage of 578 trees shall be addressed with a cash payment due at time of final plat release. The details will be addressed in the development contract.

ALTERNATIVES

A. **Approval.** If the Planning Commission finds the proposed Final plat and Final PUD development plans for Settlers Ridge North acceptable, a recommendation of approval should be made subject to the following conditions:

1. The project shall be developed in substantial conformance with the following plans on file with the Planning Department except as may be modified by the conditions below:

Preliminary PUD conditions of approval and site plan	
Final Plat (2 sheets)	
Final Site Plan	dated 1/28/20
Open Space Plan	dated 1/28/20
Grading and Erosion Control Plan	dated 2/14/20
Overall Utility Plan	dated 2/14/20
Overall Final Landscape Plan (4 sheets)	dated 2/14/20
Tree Preservation Plan	dated 2/14/20

2. All plans are subject to the review and approval of the City Engineer including comments from city consultants reviewing the plans prior to work commencing on the site.

3. Prior to any work commencing on the site, the developer shall enter into a development contract with the City. The development contract will address all other preliminary conditions of approval relating to other agreements required, park dedication, and other pertinent specific performance standards for this phase of the PUD.

B. **Denial.** If the Planning Commission does not find the application to be acceptable, a recommendation of denial should be made. Specific findings supporting a basis for denial must be stated by the Commission if such a recommendation is made.

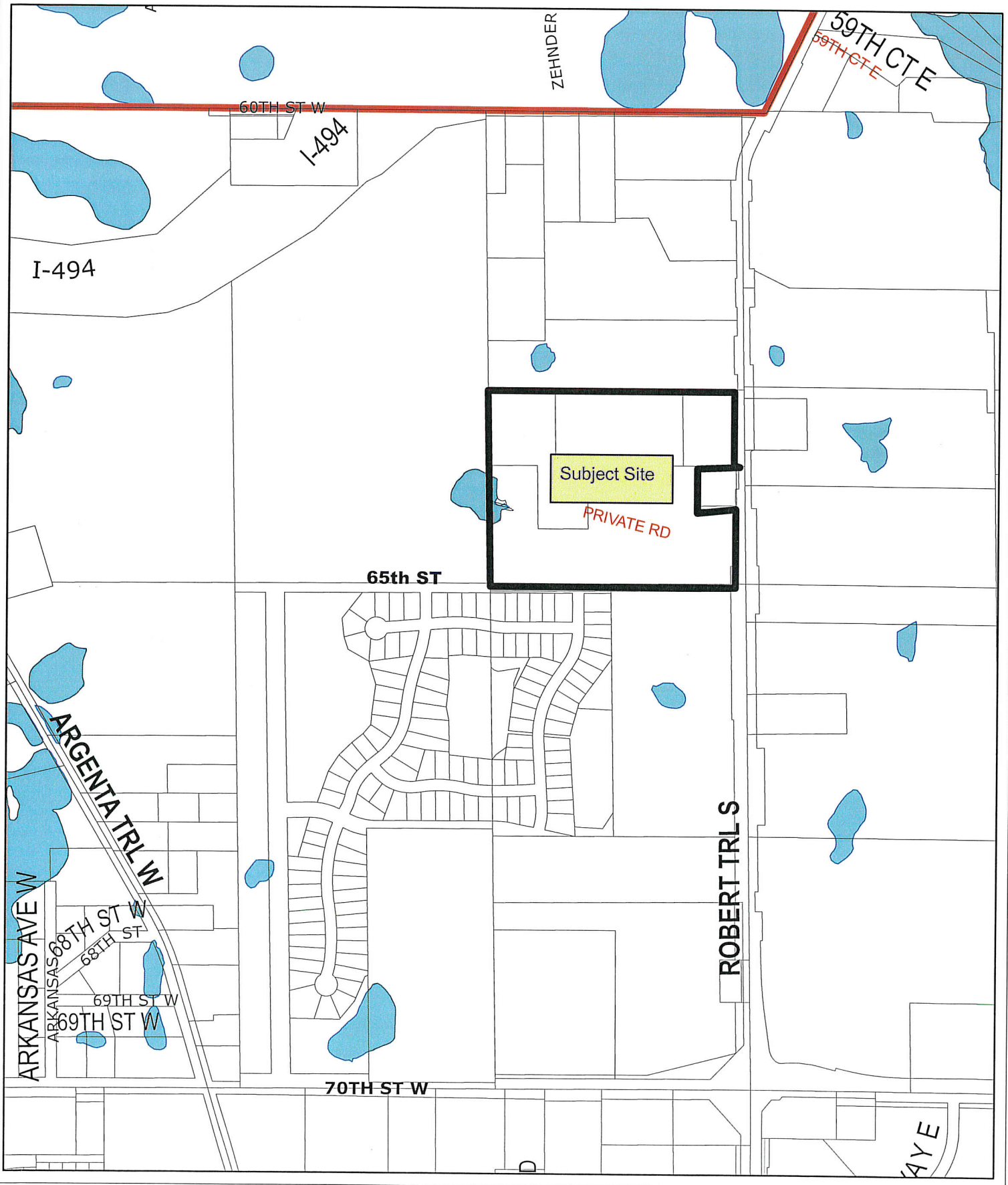
RECOMMENDATION

Based on this review, the Planning Division and Engineering recommends approval of the final plat and PUD development plans for Settlers Ridge North subject to the conditions stated above.

ATTACHMENTS:

Location Map
Applicant Narrative
City Engineer Review Memo dated 2/14/20
Preliminary PUD conditions of approval and site plan
Final Plat
Final Site Plan
Open Space Plan
Grading Plan
Landscape Plan
Tree Preservation Plan

Location Map
Case No. 20-02PUD



SOURCE
LAND CAPITAL

January 8th, 2020

City of Inver Grove Heights
8150 Barbara Avenue
Inver Grove Heights, MN 55077

Attached please find our Final Plat application for Settlers Ridge North, a 66 lot single family residential development located at 6477 Robert Trail South (15.89 acres). There are three additional PID's that are included in this application. Additional parcels included; 20-00600-03-051 (5.22 acres), 20-00600-03-020 (6.14 acres), and 20-00600-03-034 (3.01 acres). Total gross acres in this plat application is 30.26.

Source Land Capital would like to submit this final plat application for review.

This final plat application includes all of the resolutions listed in the approved preliminary plat application. Attached is a copy of those conditions of plat.

One of the conditions listed here included approvals from MnDot. Those comments have been shared with city staff, and also incorporated in our plat application.

Source Land Capital has partnered with U.S Home Corporation (Lennar) on the project. They will complete the site grading, home building, and all other construction related responsibilities. They have requested that we work together on the developer's agreement as we attain final approvals for the site.

U.S. Home Corporation and Source Land Capital are requesting final plat approval for the entire project. However, Lennar has requested to phase the development into two additions. First addition will include the southern 25 SF lots that are served by gravity sewer. Addition two will include all of the remaining SF lots, which are served via lift station. Source and Lennar have agreed to let city staff and the consultant, Bolton & Menk, design the lift station to service these remaining lots.

18215 45TH AVE NORTH, SUITE D, PLYMOUTH, MINNESOTA 55446 * P. 763.551.0100

Thank you in advance for your consideration.

Best regards,

Patrick Hiller
Source Land Capital

MEMO

CITY OF INVER GROVE HEIGHTS

DATE: February 14, 2020

TO: Allan Hunting, City Planner

FROM: Thomas J. Kaldunski, City Engineer TJK

SUBJECT: Engineering Review of Settler's Ridge North (aka Windsor Ridge)

The City Council approved the preliminary PUD for Windsor Ridge on October 28, 2019. This approval included several items that needed further clarification in the final plat as summarized:

1. The Stormwater Management Plan needed modifications to ensure compliance with the City's NWA standards such as retaining runoff and mimicking the natural hydrologic discharges.
2. The City Council authorized EOR, a City stormwater consultant, to review modifications to the stormwater plan.
3. A MnDOT drainage report is required before construction begins.

Subsequently, the developer has submitted a final PUD application for Settler's Ridge North which will be developed in two phases. The first phase includes complete site grading, implementation of the approved stormwater plan and all improvements on Alvina Court and a portion of Agate Trail.

EOR has reviewed the Stormwater Management Plan for S.R.N. to ensure its compliance with the NWA standards. A copy of EOR's approval memo is attached. A summary of stormwater management improvements that have been done at their guidance includes:

1. Stormwater reuse system has been planned and expended for irrigation areas/green spaces in the SE quadrant to account for volumes up through large events (100-year).
2. The SW area has had soil borings done to identify infiltratable soils, the infiltration systems, and pretreatment basin have been reconfigured to promote more infiltration using the good soils.
3. Soil borings were taken throughout the proposed project and stormwater facilities to confirm and resize the distributed stormwater facilities (rain gardens, infiltration systems, and stormwater reuse systems) based on the additional soil investigations/borings.
4. The overflow and stormwater distribution systems/locations were further refined. The plan adjusted the overflow to the northeast to better balance the runoff volumes for the range of events.

Two drawings are attached to this memo to illustrate the updated stormwater management systems. The stormwater responsibility map illustrates City-maintained regional basins in green. The HOA maintained systems of pretreatment basins, infiltration basins, rain gardens and the stormwater reuse pump locations are shown in salmon color. Storm sewer systems are shown in black.

The stormwater reuse and BMP exhibit illustrates the footprint of the irrigation system on the outlots in the SE area of the PUD in red. Rain gardens and infiltration basins are shown in pink.

The illustration of the stormwater facilities as outlined will ensure compliance with the City's NWA standards. EOR, Barr Engineering, and Westwood have worked cooperatively to prepare this Stormwater Management Plan.

MnDOT has reviewed the PUD drainage plan. They established the following conditions to secure the drainage permit.

MnDOT WRE offers the following comments:

1. As proposed, the system relies on the operation of a valve to restrict the rate and volume of flow from the site. As a result of the system requiring manual operation, MnDOT has the following conditions:
   (a) The initial MnDOT drainage permit would be valid for five years and be renewed in five-year increments.
   (b) The City of Inver Grove Heights must be responsible for the operation of said valve. Documentation of this responsibility, such as a developer's agreement between the City and developer is required.
   (c) The City must contact the MnDOT Water Resources Engineer and/or MS4 Engineer 48 hours prior to opening the gate, when they have closed the gate, and report the estimated volume of water discharged.
2. The drainage report discusses using irrigation reuse on the site to control water levels. Details of the proposed system outside of the report text were provided for review. Maps showing what is proposed to be irrigated, basic calculations on water reuse, etc. are required in order to accept the modeling reports as valid. MnDOT is concerned that there does not appear to be significant park or other public areas where this would appear feasible. Irrigation will occur in outlot open spaces.
3. The alignment of the proposed outlet from pond P-01-SE appears to be mis-aligned with the existing pipe under T.H. 3 that could result in a higher erosion potential. The pipe outlet should be relocated further to the north.
4. The HydroCAD models as provided did not include the unit hydrograph file "SCS_PeakFactor400" so the reports were relied on for this review. The unit hydrograph file must be provided prior to permit approval.
5. The project plans show two rain gardens at the north east portion of the site, each with a piped outlet shown in the HydroCAD modeling but nothing shown on the project plans. Details of the proposed outlets should be provided for review.

MnDOT has indicated their schedule should allow them to issue the drainage permit about February 14, 2020. This permit should be in place before Council action on February 24, 2020.

The developer is finalizing the civil construction plans based on City comments and this updated stormwater plan. It is anticipated that the revised plans will be submitted and approved by the February 24, 2020 Council meeting.

It is my recommendation that the Planning Commission and City Council approve the PUD for Settler's Ridge North as outlined in this memo and the Engineer's October 24, 2019 letter of recommendation with conditions.

TJK/kf

cc: Mayor and City Council
Joe Lynch, City Administrator
Scott D. Thureen, Public Works Director
Tim Kuntz, City Attorney
Pat Hiller, Source Land
Joe Jablonske, Lennar
John Bender, Westwood Engineering
Brett Emmons, EOR
Greg Fransen, Barr Engineering
MnDOT Water Resources

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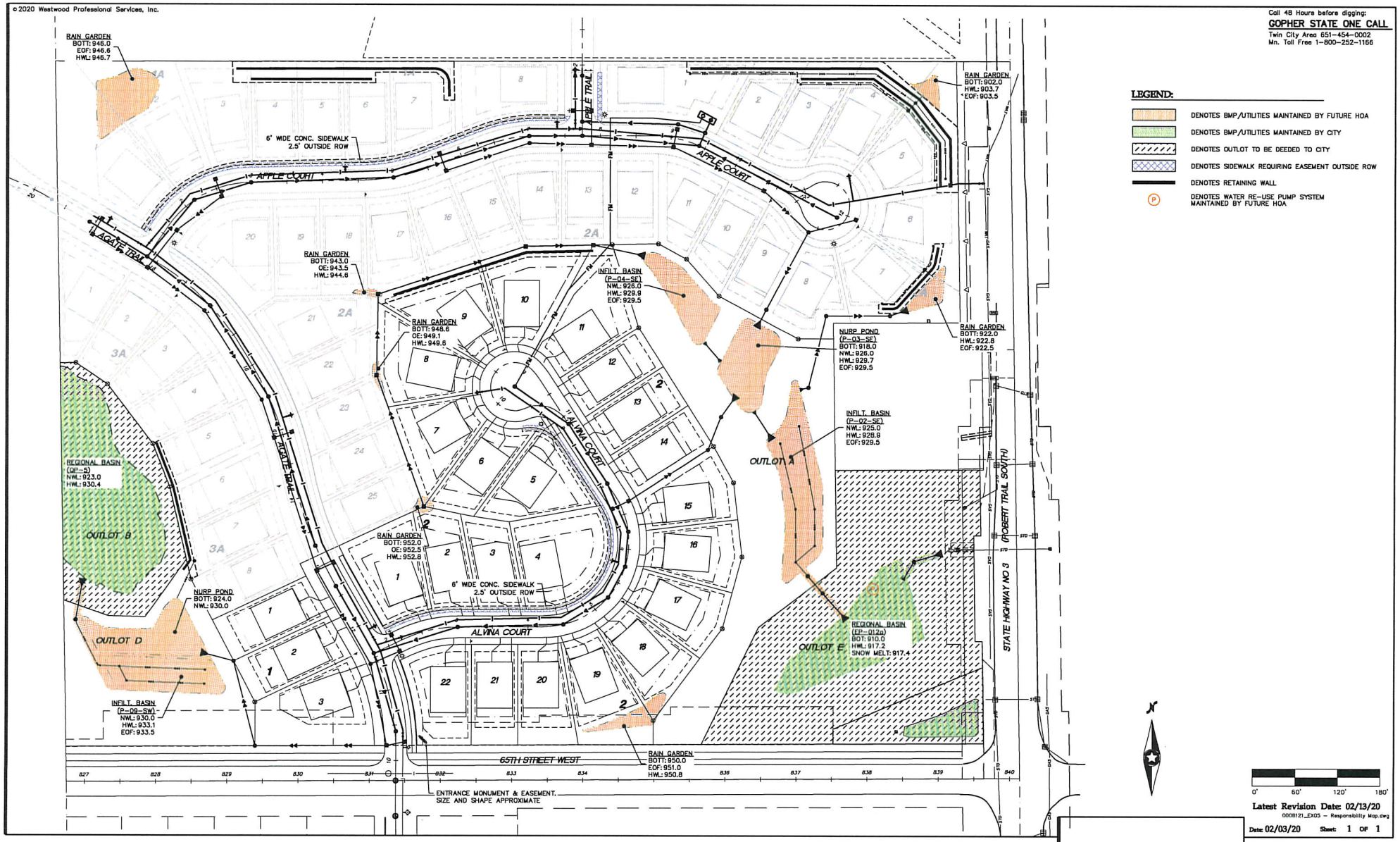
Call 48 Hours before digging:
GOPHER STATE ONE CALL
Twin City Area 651-454-0002
Mn. Toll Free 1-800-252-1166



LEGEND:

- DENOTES BMP/UTILITIES MAINTAINED BY FUTURE HOA
- DENOTES BMP/UTILITIES MAINTAINED BY CITY
- DENOTES OUTLOT TO BE DEEDED TO CITY
- DENOTES SIDEWALK REQUIRING EASEMENT OUTSIDE ROW
- DENOTES RETAINING WALL
- (P) DENOTES WATER RE-USE PUMP SYSTEM MAINTAINED BY FUTURE HOA

0' 60' 120' 180'

Latest Revision Date: 02/13/20
0008121_EX05 – Responsibility Map.dwg

Date: 02/03/20 Sheet: 1 OF 1

Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

Revisions:
02/13/20 City Comments

Designed: JHB
Checked: JHB
Drawn: CTY
Record Drawing by/date:

Prepared for:

Source Land Capital
18215 45th Avenue North, Suite D
Plymouth, Minnesota 55446

Settlers Ridge North

Inver Grove Heights, Minnesota

Responsibility Map

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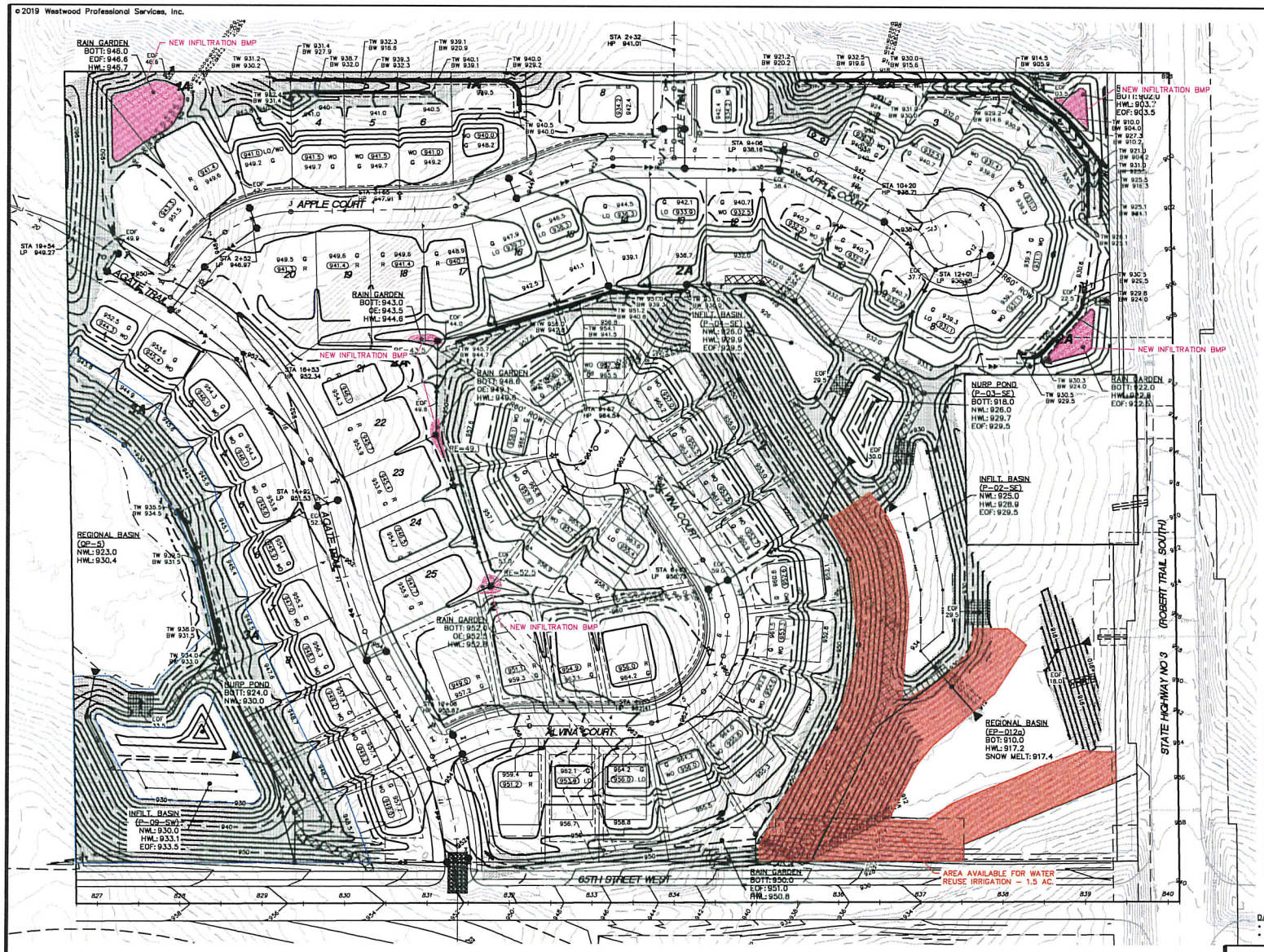

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Mn. Toll Free 1-800-252-1166

EROSION CONTROL NOTES:

- ALL SILT FENCE AND OTHER EROSION CONTROL FEATURES SHALL BE IN-PLACE PRIOR TO ANY EXCAVATION/CONSTRUCTION AND SHALL BE MAINTAINED UNTIL VIABLE TURF OR GROUND COVER HAS BEEN ESTABLISHED. EXISTING SILT FENCE ON-SITE SHALL BE MAINTAINED AND OR REMOVED AND SHALL BE CONSIDERED INCIDENTAL TO THE GRADING CONTRACT. IT IS OF EXTREME IMPORTANCE TO BE AWARE OF CURRENT FIELD CONDITIONS WITH RESPECT TO EROSION CONTROL. TEMPORARY PONDING, DIKES, HAY BALES, ETC., REQUIRED BY THE CITY SHALL BE INCIDENTAL TO THE GRADING CONTRACT.
- ALL STREETS DISTURBED DURING WORKING HOURS MUST BE CLEANED AT THE END OF EACH WORKING DAY. A ROCK ENTRANCE TO THE SITE MUST BE PROVIDED ACCORDING TO DETAILS TO REDUCE TRACKING OF DIRT ONTO PUBLIC STREETS.
- SILT FENCE TO BE MNDOT HEAVY DUTY IN POND AREAS. 2 METHODS OF SEDIMENT/EROSION CONTROL TO BE USED ADJACENT TO WATER BODIES AND BASINS.
- ALL SLOPES TO WATER WAYS MUST BE STABILIZED WITHIN 24 HOURS OF DISTURBANCE.
- ALL 3:1 SLOPES SHALL BE STABILIZED WITH EROSION CONTROL BLANKET.

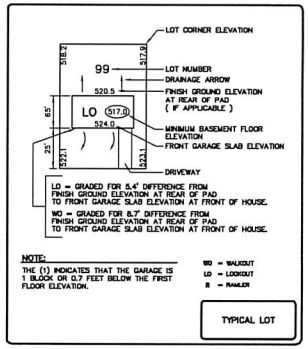
GENERAL GRADING & DRAINAGE NOTES:

- ALL CONTOURS AND SPOT ELEVATIONS ARE SHOWN TO FINISHED SURFACE/GUTTER GRADES UNLESS OTHERWISE NOTED.
- REFER TO THE SITE PLAN/RECORD PLAT FOR MOST CURRENT HORIZONTAL SITE DIMENSIONS AND LAYOUT.
- THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES WITH THE OWNERS AND FIELD-VERIFY PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR VARIATIONS FROM PLAN.
- ALL CONSTRUCTION SHALL CONFORM TO LOCAL RULES.
- POSITIVE DRAINAGE FROM THE SITE MUST BE PROVIDED AT ALL TIMES.
- RETAINING WALLS 4' HIGH OR TALL REQUIRE A SEPARATE BUILDING PERMIT.

LEGEND:

- DENOTES SOIL BORING
- SF — DENOTES SILT FENCE
- PSF — DENOTES POST CONSTRUCTION SILT FENCE
- 980 — DENOTES EXISTING CONTOURS
- 980 — DENOTES PROPOSED CONTOURS
- DENOTES EXISTING STORM SEWER
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED DRAINTILE
- DENOTES EXISTING TREE LINE
- DENOTES APPROXIMATE TREE REMOVAL LIMITS
- x 856.3 — DENOTES EXISTING SPOT ELEVATION
- 86.30 — DENOTES PROPOSED SPOT ELEVATION
- DENOTES BIO-ROLL EROSION CHECKS
- E.O.F. — DENOTES EMERGENCY OVERFLOW ELEVATION
- DENOTES EROSION CONTROL BLANKET
- DENOTES POND MAINTENANCE ACCESS

TOTAL APPROXIMATED EXCAVATION: 226,985 CY
TOTAL APPROXIMATED FILL (CV): 223,592 CY



0' 60' 120' 180'

DATUM NOTES:
- 1983 NAD (86 adj) DAKOTA COUNTY US FEET
- 1988 NAVD US FEET

0008121_EX03 – Water Reuse & BMP Exhibit 2020-02-13.dwg

Date: 2/13/2020 Sheet: 1 OF 1

Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

Revisions:

Designed: BB
Checked: BB
Drawn: CTY
Record Drawing by/date

Prepared for:
Source Land Capital
18215 45th Avenue North, Suite D
Plymouth, Minnesota 55446

Windsor Ridge

Inver Grove Heights, Minnesota

Water Reuse & BMP Exhibit

memo

Project Name |	Windsor Ridge Development	**Date** |	02/14/20
To / Contact info |	Tom Kaldunski IGH		
Cc / Contact info |	Greg Fransen, Barr Engr.		
From / Contact info |	Brett H. Emmons, PE EOR Paula Kalinosky, PE EOR Christian Burnson, PE EOR		
Regarding |	Stormwater Management Review, Final Plat, Settler's Ridge North		

Review of Final Stormwater Management Submittal for Settler's Ridge PUD

This memo contains engineering review comments on the proposed Settlers Ridge development (formerly known as Windsor's Ridge) to be located within the City of Inver Grove Heights Northwest Area (NWA). This memo is an update of engineering review comments previously provided by EOR in memos dated 6/13/19 and 10/24/19. The comments provided are based on review of items included in the final construction plan submittal including:

- Construction plans prepared by Westwood Professional Services, dated 1/6/20 including:
  - Grading, Drainage, and Erosion Control Plans
  - Sanitary Sewer, Water Main, Storm Sewer, and Street Plans
  - Micro Drainage Map for Settlers Ridge North
- Comments prepared by City Engineer regarding the above referenced construction plans
- Storm Sewer Calculations prepared by Westwood Professional Services, Inc. dated 1/6/20
- Water Reuse & BMP Exhibit prepared by Westwood, dated 10/18/19
- Stormwater Management Plan for Settlers Ridge North prepared by Barr Engineering dated January 2020
- Stormwater modeling files (HydroCAD) prepared by Barr Engineering, dated 01/06/2020
- Materials included in the preliminary PUD application submittal
- Supplemental information and clarifications provided by Greg Fransen, Barr Engineering through email and telephone communications with EOR

The items listed above were reviewed for conformance with the Inver Grove Heights Northwest Area Stormwater Ordinances and Manual. Per Ordinance 10-13J-5H, the stormwater manual is fully incorporated by reference into the Stormwater Management Ordinance for Planned Unit Development in the Northwest Area Overlay District (City of Inver Grove Heights, §10-13J-5.H.5).

Distributed-LID Stormwater Management Approach

☒ Meets the intent of the NWA Standards

☐ Some clarifications and/or revisions required

☐ Does not meet the intent of the NWA Standards

Additional distributed stormwater practices have been incorporated into the latest iteration of the plan. These include:

- Infiltration rock trenches adjacent to street curb lines along Agate Trail (*to be removed, once reconfigured basin design is verified*)
- Raingardens in backyard areas (*to be expanded and inlets moved*)
- Stormwater harvest and use for irrigation on 2.6 acres green space

A portion of the site's runoff is treated with distributed infiltration BMPs. Additional volume control benefits are derived from stormwater harvest and use/reuse – which is a relatively new approach and is considered in this case as a distributed practice.

Regional Basins

☒Regional Basin Management Standards satisfied – **EP-010a(F), EP-010b, QP-5**

☒Proposed impacts require are acceptable if approval by the City Engineer – **EP-012a(F), EP-012b(F)**

☐Some clarifications and/or revisions needed

☐Does not meet the intent of the NWA Manual

The site is intersected by the 100-year flood plain of three Regional Basins, QP-5, EP-012a(F), and EP-12b(F). Regional basins EP-012a(F) and EP-012b(F) are located entirely within the site boundary. These basins have a 'flex' (F) designation, indicating that, with the approval of the City Engineer, basin storage volumes/infiltration capacity may be manipulated if in-kind mitigation is provided on site within the same drainage area.

In addition to the three regional basins that intersect the site boundary, portions of the existing site drain to two offsite basins – EP-010a and EP-010b.

Table 1. Regional Basin Data, Windsor Ridge PUD

Basin ID	Overflow Category	Existing Conditions			Contributing Drainage Area within Project Boundary (ac)[3]	
		100 year HWL[1] (ft)	NOF[1] (ft)	NWL[1] (ft)	Existing	Proposed
EP-012a (F)	1	907.4	906.9[2]	906	7.78	6.53 (+11.53)[4, 5]
EP-012b (F)	1	931.3	933	926	5.02	11.54[4]
QP-5	2	930.5	939	923	8.85	8.69
EP-010b	1	908.3	911	897	5.29	1.90
EP-010a	1	897.0	897.0	880	4.36	2.63
				TOTAL	**31.3**	**31.3**

[1]Robert Watershed Corridor Regional Basin Map, August, 2018 and IGH 4th Generation WRMP for QP-5. (4th Generation Plan values for EP-12a and EP-12b are not included and different for others.)

[2]Elevation of existing 24-inch culvert from Robert Watershed Corridor PCSWMM model (Wenck, 2019).

[3]Existing and proposed drainage areas, per Settler's Ridge North HydroCAD model, January 2020.

[4]EP-12b drainage is included for both EP-12a & EP-12b. Under proposed conditions, Regional Basin EP-012b is modified with the NOF lowered and overflows routed to Regional Basin EP-012a, effectively increasing the drainage area of EP-12a.

[5]Overflow from Regional Basin EP-012a is directed to EP-013 via an existing MNDOT culvert under T.H. 3.

Comments:

1. Under proposed conditions, drainage boundaries between regional basins will shift (typically not done) resulting in decreased drainage to basins QP-5, EP-101b, and EP-10a and increased drainage directed to regional basin EP-012b (Table 1. Regional Basin Data, Windsor Ridge PUD) compared to existing conditions. This modification requires approval by the City Engineer.
2. Under proposed conditions regional basins EP-12a(F) and EP-012b(F) will be modified with the bulk of storage capacity being provided by stormwater harvest and reuse pond P-01-SE (roughly in location of EP-12a).

Wetlands

☒Meets the NWA standard for Wetland Management
☐Some clarifications and/or revisions required
☐Does not meet the NWA standard for Wetland Management

One wetland, Regional Basin QP-5, is located partially within the project boundary (Table 3). Wetland buffer and retaining wall setbacks were approved during by the City Engineer under the preliminary PUD approval.

Table 2. Wetlands located within/partially within the proposed project boundary.

Wetland ID	Management Classification	Required Buffer (ft)	100 –year Bounce Elevation[1]	Structural Setback from Edge of Buffer
QP-5	3	20	No requirement	10'

[1]100-year, 24 hour rainfall event, Atlas 14 depth (7.43").

Existing & Proposed Hydrology

☐ Hydrologic modeling is consistent with guidance in the NWA Manual
☒ Some clarifications are needed in the final construction plan/stormwater plan
☐ Hydrologic modeling is NOT consistent with guidance in the NWA Manual

Catchment delineations, proposed CNs (*pending final stormwater plan review*), and Tc values are consistent with guidance in the Chapter 9 of the NWA manual and Section 9-5-8 of the City Code. Rainfall events have been modeled using Atlas-14 Precipitation-Frequency and storm distribution updates.

Comments:

3. Land covers for several catchments include areas of amended soils. Submit a soil amendment and restoration specification so that proposed CN value can be confirmed.
4. Show areas of proposed soil amendment on the Erosion Control and Restorations Plans.

Soils and Design Infiltration Rates

☐ Proposed stormwater management utilizes appropriate soil infiltration rates
☒ Design infiltration rates are appropriate contingent on verification of design revisions reported by the developer in verbal communications.
☐ Soil infiltration rates are not adequately supported by soils data

An additional nine soil borings were collected at the site since the preliminary plat submittal in October 2019. Soil boring logs with hydrometer analyses for SM soils were included in the revised stormwater memo. A summary of modeled infiltration rates and corresponding rates from NWA guidance documents is shown in Table 3 below.

The report discusses the use of infiltrometer testing to confirm soil infiltration rates used in the modeling during rough grading operations. Although additional testing may allow for a more accurate design, we recommend caution in the approach since it is not clear how the infiltration rates would be certified during construction and how designs might be modified after City approval is

granted for the development. A better approach would be to use conservative infiltration rates, as outlined in the NWA manual. This would account for the worst-case scenario with respect to restrictive soil layers. If better soils are encountered during construction, the project would still be in compliance with the performance criteria.

Comments:

5. Quantify composition and quantity of backfill for infiltration P-08-SE. Poor quality fill, if used in this location and/or adjacent areas, will inhibit infiltration.
6. A higher infiltration rate may be used in P-09-SW if the basin can be configured in a manner that allows the infiltration area to intersect SP-SM soils found consistently in borings on the eastern portion of the facility (soil boring SB-10-, SB-11, SB-12, SB-6).
7. Revise infiltration rates in the stormwater model per NWA guidance and/or provide additional detail regarding how BMPs will interface with preferable soil layers. Recommended design infiltration rates are summarized in Table 3.
8. Include instructions for field testing soils so that construction phase changes can be accommodated.

Table 3. Stormwater BMP Infiltration Rate Summary

Infiltration rates applied in the HydroCAD model that are shown in **bold red font** exceed the recommended rate from NWA guidance.

Infiltration Facility	Practice Description	Additional Soils Provided Jan 2020	Design Infiltration Rate (in/hr)		Updated Soil Boring Comments
			HydroCAD	NWA Guidance	
P-02-SE	Infiltration area in WS PrSite-10	SB-1007	0.45[A]	0.2 - 0.7	SB-1007 indicates SM with <5-12% clay (0.2 in/hr) at practice elevation and depth. Previous borings (SB-6, SB7, SB8, SB9) indicate variable fines context at practice depth, but potential to interface with SP-SM soil (SB-8, 1/22/19) in some areas (0.7 in/hr)[A].
P-04-SE	Infiltration area upstream of P-03-SE Wet Pond	n/a	**0.3**	<0.2	Soils borings indicate clayey soils from the practice invert to a depth of 7.5 feet (SB-8 [B]) or greater (end of boring @14.5 feet, SB-4[B]).
P-05-SE	Backyard inf. area	n/a	0.1✓		No boring at this location. Based on soils in boring SB-4 (1/23/2019) modeled rate is reasonable.
P-06-SE			0.2✓	0.2	SB-4 (1/21/19), ML soils at facility elevation and depth.
P-07-SE			0.2✓	0.2	SB-6 (1/22/19), ML soils at facility elevation and depth.
P-08-SE	Backyard inf. area	SB-1008	**0.45[C]**	<0.2 - 0.2	Proposed practice invert (950 ft) is 13 feet above existing ground elevation (937.2 ft). Boring SB-1008 [B] indicates sandy lean clay to a depth of 4 feet.
P-09-SW	Infiltration Area upstream of QP-5	n/a	0.45✓	0.3 – 0.7	Configure practice to intersect SP-SM soils found at SB-10[B], SB-11[B], SB-12[B], and SB-6[B].
P-10-SW	*Rock Trench*	*SB-1001 SB-1002 SB-1003*	***0.3***	*0.2*	*Soil boring indicate SM layers have variable fines ranging from 17% - 55% at applicable elevations. NWA guidance varies from <0.2 - 0.2 in/hr based on soil layer and boring variability.*
P-11-NW	NW Infiltration Area	SB-1004 SB-1004A	0.1✓	<0.2	Soils are very fine grained in this area >50% passing #200. NWA guidance <0.2 in/hr.
P-12-NE	Backyard inf. Area in NE corner of plat	SB-1006	0.45✓	0.2 – 0.6	Soil boring SB-1006 [B] indicates potential for lateral migration of water (SP soils at elevation 903 – 900 feet); but soils with greater fines content below (31.3% silt,/12% clay @ 896.3 feet)
P-13-NE	Infiltration area going to MNDOT Ditch	SB-1005	**0.45**	<0.2	Soils boring SB-1005 [B] (11/13/2019) indicates high clay content at facility elevation and depth (SM soil 3.4% silt; 14.4% clay).

[A] Include excavation depth needed to connect to SP-SM soils and outline backfill method that will be used to preserve hydraulic connection in facility detail.

[B] Soil boring log included in the appendices to this memo.

[C] Soils at existing grade (937 ft) do not support modeled design infiltration rate. Quantify composition and volume of backfill to justify higher infiltration rate.

5-year Volume Control Standard

☐ Proposed stormwater management achieves the 5-year volume control standard

☒ Approval contingent on verification of plan revisions reported by the developer through verbal communications.

☐ Proposed stormwater management does not achieve the 5-year volume control standard

Per City Ordinance 10-13J-5.H.1, all development in the northwest area overlay district shall be designed such that post development runoff volumes are treated with volume control BMPs to match predevelopment runoff volumes for the 5-year 24-hour rainfall event. This applies to all developed areas. Due to the proposed shift in drainage boundaries within the site (see Regional Basins), the City Council has also required that the design provide volume control for the 100-year rainfall events to protect downstream properties from flooding and flow impacts.

The status of volume control requirement is summarized in Table 4. Since the design includes proposed changes to regional basin drainage boundaries volume control for the 100-year snowmelt event is also included in the table. We anticipate that, with some minor adjustments, the current design can meet the 5-year volume control standard and the 100-year volume control requirement; however some clarifications and revisions are needed before compliance with the standard can be confirmed.

Table 4. Status of volume control requirements by site discharge point.

Site Discharge to Regional Basin	5-year Volume Control Standard Met?	Special Volume Control	
		100-year, 24 hour Rainfall	100-year snowmelt event
EP-010a	TBD[A]	TBD	**Yes**
QP-5	TBD	TBD	**Yes**
EP-012a (toEP-013)[B]	**Yes**	**Yes**	**Yes**
EP-010b	TBD	**Yes**	**Yes**

[A] TBD = Volume control to be re-evaluate when comments in the memo have been addressed.

[B] Volume control is achieve through stormwater harvest and use at proposed basin P-01-SE. See the Stromwater Harvest and Use Section for additional comments.

Comments:

Five-year Volume Control

9. SW Quadrant (draining to QP-5) basins are reconfigured to utilize better infiltrating soils, which is appropriate. Need to confirm infiltration rates and sizing meet standards and thus removing infiltration trenches along street meets volume control standards.

100-year Volume Control (Special Requirement)

10. Provide detail for a wet well or pump station bay in basin P-01-SE/EP-12a to demonstrate that storage capacity in P-01-SE/EP-12a above the pump operation elevation is sufficient to contain runoff during the 100-year snowmelt event. See also comments under Stormwater Harvest and Use.
11. We recommend that a catch basin be installed on the south end of the retaining wall along Regional Basin QP-5 at the wall corner to prevent flow from scouring areas around the edge of the retaining wall.

Stormwater Harvest and Use

☒ Proposed harvest and use is sized appropriately
☐Some clarifications and/or revisions are needed

Volume control for discharge to basin EP-012a (to EP-013) relies on stormwater harvest and reuse for irrigation in pond P-01-SE.

The developer proposes to use water retained in this pond to irrigate approximately 1.5 acres of green space within the site. Regular draw down of the pond through use for irrigation will preserve storage capacity in the pond that is necessary to meet the 5-year volume control standard at this discharge location as well as the special requirement to meet volume control for the 100-year rainfall and snowmelt events.

Comments:

12. Submit full irrigation plan for detailed review prior to implementation .

Peak Rate Control Standard

☐ Proposed peak rates are consistent with the NWA stormwater ordinance
☒ Proposed peak rates are consistent with the NWA stormwater ordinance contingent on verification of design revisions reported by the developer in verbal communications.
☐ Proposed peak rates are inconsistent with the NWA stormwater ordinance

In the current model, some peak rates exceed the predevelopment levels. Small discrepancies in pre- and post- development peak rate may be acceptable if discharge rates are not erosive and volume control standards have been met. Peak rates will be reevaluated when storm water modeling has been revised per previous comments in this memo.

Comments:

13. Provided an updated summary of existing and proposed peak runoff rates.

Pretreatment Standard

☐ Proposed pretreatment is consistent with guidance in the NWA Manual
☒Some clarifications and/or revisions needed regarding proposed pretreatment
☐ Proposed pretreatment is not consistent with performance standards for the NWA.

Under proposed conditions, runoff from all impervious surfaces is directed to pervious areas, routed through grassed swales, or directed to other pretreatment BMPs prior to being discharged to infiltration practices or offsite. Pretreatment is not quantified in the drainage report, but based on a preliminary assessment likely meets the NWA standards

Comments:

14. Provide calculations summarizing sizing for all pre-treatment BMPs.

Flood Levels and Low Floor Elevations

☐ Low floors are consistent with guidance in the NWA Manual
☒Some clarifications and/or revisions needed regarding low flow elevations
☐ Low floor elevations are not consistent with freeboard requirements for the NWA.

Low floors were evaluated from the construction plans and stormwater model output. Low floor elevations should be rechecked when revision to infiltration rates have been made and are incorporated into the report. In its current form, freeboard requirements are met for the majority of the development, with the exception of several lots located northeast of the stormwater facilities P-03-SE and P-04-SE [approximate EP-12b(F) location]. Freeboard requirements for low floors are listed in Table 5

Table 5. Freeboard requirements for regional basins, Settler's Ridge North.

Basin ID	Overflow Category	Low Floor Elevation
EP-012a (F)	1	Elevation TBD based on final design (Maximum of HWL + 2 ft OR NOF + 1 ft)
EP-012b	1	
QP-5	2	936.5 feet (HWL + 6 feet)
Storm Basins	Maximum of HWL + 2 ft OR EOF + 1 ft	
All Basins	Back-to-back 100 year HWL + 1 foot FB for protection of structures	

Comments:

15. Summarize minimum low floor elevations for each facility after stormwater modeling has been updated per comments in this memo.
16. Provide results for back-to-back 100 year rainfall HWL + 1 foot FB in revised stormwater plan.

Facility Design

Due to recent design changes, review and comment on facility design are in progress. Full comments will be provided and should be addressed prior to issuance of a grading permit.

Comments:

17. The surface are of rain gardens in backyard areas (PR-05-SE, PR-06,-SE, and PR-07-SE) should be increase to take advantage of open space in these areas and increase the volume control benefit provided by he these facilities.
18. The outlet structures in backyard rain garden facilities should be located in the embankment/slope of the facility to prevent leakage and improved aesthetics.

10-year Storm Sewer Calculations

No critical issues were flagged regarding 10-year design storm calculation. Review and comments on recent revision is in progress. Comments will be provided and should be addressed prior to issuance of a grading permit.

Erosion and Sediment Control

Review and comment on Erosion and Sediment Control plans are in progress. Comments will be provided and should be addressed prior to issuance of a grading permit.

Comments:

19. Please provide a complete SWPPP for the proposed development. Items that should be reviewed include (but may not be limited to):
    a. Temporary seeding plan
    b. Temporary sedimentation basins
    c. Treatment of steep slopes

d. Pumping in P-01-SE during the construction phase (as needed)

Landscape, Seeding, and Restoration Plans (stormwater facilities)

Review and comment on Landscape and Seeding plans are in progress. Comments will be provided and should be addressed prior to issuance of a grading permit.

Summary

Through verbal communication, the developer has provided changes to address the primary design deficiencies described in recent engineering comments previously submitted by EOR and additional comment shared with the developer during this review. The following summarizes some of the main changes made:

1. Reuse SE – Expand irrigation area/green space in the SE quadrant [EP-12a(F)] to account for volumes up through large events (100-yr).
2. SW Quadrant (draining to QP-5) – Reconfiguration of basins to utilize better infiltrating soils (see additional borings). Plan to remove infiltration trenches along street once they demonstrate the reconfigured infiltration system is sufficient for volume control. Reuse in SW quadrant was considered but may not be necessary if reconfigured basins meet standard.
3. Soil Borings Added – Confirming the sizing/resizing of distributed practices
4. Overflow Configuration Refined – Adjusted the overflow to the northeast (NE) [to EP-10a] to better balance volumes for range of events

As a condition of approval, final plans, stormwater report, and modeling shall be provided showing compliance with the NWA volume control and regional basin management standards. Revisions should be verified prior to issuance of a grading permit. Engineering comments on detailed matters are in progress for smaller design consideration, particularly comprehensive erosion control plans (including phasing) and landscape plans. We recommend that the additional comments described in this memo be addressed along with verification of design revisions as a condition of the grading permit.

PRELIMINARY PLAT
RESOLUTION

CITY OF INVER GROVE HEIGHTS
DAKOTA COUNTY, MINNESOTA

RESOLUTION NO. _____

A RESOLUTION APPROVING A PRELIMINARY PLAT AND PRELIMINARY PUD DEVELOPMENT PLAN CONSISTING OF 66 SINGLE FAMILY LOTS AND TWO (2) OUTLOTS FOR THE PLANNED DEVELOMENT TO BE KNOWN AS WINDSOR RIDGE

CASE NO. 19-14ZPD

WHEREAS, a preliminary plat and preliminary PUD development plan application has been submitted to the City for property legally described as;

SEE EXHIBIT A

WHEREAS, a public hearing concerning the preliminary plat and preliminary PUD development plan was held before the Inver Grove Heights Planning Commission in accordance with Minnesota Statues, Section 462.357, Subdivision 3 on May 7 and May 21, 2019;

NOW, THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF INVER GROVE HEIGHTS that, the Preliminary Plat and Preliminary PUD development plan for the planned development of Windsor Ridge is hereby approved subject to the following conditions:

1. The final plat and accompanying site plans shall be in substantial conformance with the following plans on file with the Planning Department except as may be modified by the conditions below.

Preliminary Plat	10/18/19
Preliminary Open Space Plan	10/18/19
Preliminary Grading Plan	10/18/19
Preliminary Utility Plan	10/18/19
Preliminary Sanitary/Watermain Plan (4 sheets)	10/18/19
Preliminary Street and Storm Sewer Plan (4/sheets)	10/18/19
Preliminary Storm Sewer Plan	10/18/19
Preliminary Overall Tree Preservation Plan	10/18/19
Preliminary Landscape Plan	10/18/19

2. Prior to final plat and plan approval, the final grading, drainage and erosion control, and utility plans shall be approved by the ~~Director of Public Works~~ **City Engineer including addressing comments from the City Engineer's memo dated 10/24/19.**

3. Drainage and utility easements shall be provided on the final plat as required by the Director of Public Works.

4. The developer shall be responsible for installing marker posts at reasonable locations to define the boundary of the open space. This provides identification for future land owners to know boundaries of the open space areas. The final PUD plans must show the location of the marker posts.

5. Park dedication shall consist of a cash contribution in the amount of the rates in effect at the time the final plat is approved.

6. All plans shall be subject to the review and approval of the Fire Marshal.

7. Prior to execution of the plat by the City and prior to recording of the plat with the County, the Owner shall execute a Storm Water Facilities Maintenance Agreement with the City whereby the developer shall be responsible for the maintenance of storm water improvements on such lots. **The control valve in Regional Basin EP-12A shall remain closed unless the City determines an emergency exists or anticipates an emergency or landowner to the east request the valve be open. The City shall have the authority to utilize this gate valve as part of its normal operation and maintenance of the regional basin.**

8. Prior to execution of the plat by the City and prior to recording of the plat with the County, the Developer must pay the City utility plat connection fees consisting of a Water Utility Fee, Sanitary Sewer Utility fee and Storm Water Sewer Utility fee according to the formulas adopted by city ordinance.

9. In the Development Contract, the Developer and Owner shall acknowledge that at the time the building permits are obtained additional connection fees for the water utility system and sanitary sewer utility system are due and owing. Final details of the amounts to be paid shall be part of the final PUD plan review.

10. In the Development Contract, the Developer and Owner shall agree that the following elements of the Planned Unit Development shall not be altered, changed or removed without first obtaining the following consents:

Site Plan Element	Consent Required By
Building Location	City Council
Driveways and Private Roads	Planning Department
Landscaping	Planning Department
Location of Utilities	Engineering Department

Location of Conservation Easement and Open Space	City Council

11. The Developer and Owner shall execute an Acknowledgement of Planned Unit Development Zoning. This Acknowledgement shall state that property within the plat is subject to the approved PUD plans and PUD zoning and that the development on the property must conform to the PUD plans and PUD zoning. This Acknowledgement shall be recorded when the plat is recorded.

12. The Developer and Owner shall enter into a Development Contract with the City. The form of Development Contract shall substantially comply with the model Development Contract which is part of the Administrative Code, taking into account the particular requirements of the Planned Unit Development plans.

13. The following documents shall be recorded when the plat is recorded:
    - Development Contract;
    - Storm Water Facilities Maintenance Agreement;
    - Acknowledgement of PUD Zoning;
    - **Open Space Agreement;**
    - **Water Reuse Agreement.**

14. Prior to City Council review of the final PUD development plans, the Developer must respond to all the comments from all memos from the City Engineer, Barr Engineering and from the EOR memo dated 10/24/19.

15. Street lighting shall be required along all public streets. The street lighting plans shall be approved by the City prior to installation.

16. The reforestation shortage of 642 trees shall be addressed as required by the City Council.

Passed this 28th day of October, 2019.

AYES:
NAYS:

_____
George Tourville, Mayor

ATTEST:

_____
Joseph Lynch, Interim Deputy Clerk

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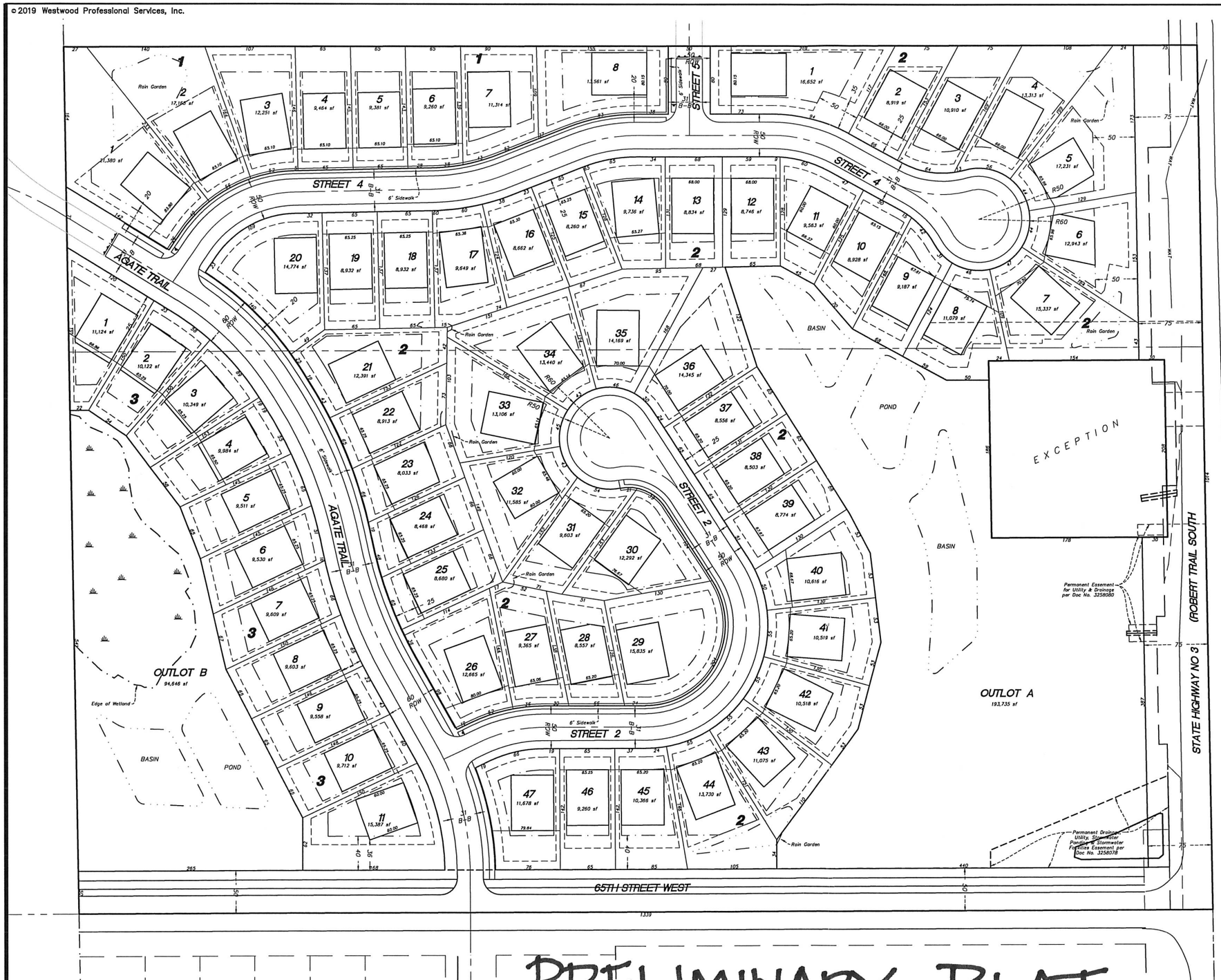


Property Description:

See Existing Conditions sheet for property description.

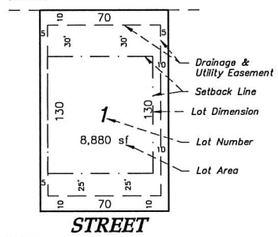
REGISTRATION OF THE PROPERTY IS IN PROCESS

Development Data

EXISTING ZONING	AGRICULTURE
PROPOSED ZONING	R-1C (PUD)
SITE AREA	30.25 ac
PROPOSED HOMES	66
GROSS DENSITY	2.18 un/ac
PROPOSED SETBACKS (minimums)	
FRONT	20 ft min; 30 ft max; 25 ft typical
SIDE	7.5/7.5 ft (15 ft total)
SIDE CORNER	20 ft
REAR	30 ft
HWY 3	50 ft
65TH STREET	40 ft (except as noted, L11B3)
NET DEVELOPABLE AREA:	
GROSS AREA	31.25 AC
LESS EXCEPTION AREA	1.0 AC
LESS MAJOR R/W (HWY 3)	1.61 AC
LESS WETLANDS	0.92 AC
NET DEVELOPABLE	27.72 AC
REQUIRED OPEN SPACE: (20% of net developable)	5.54 AC
-CONTIGUOUS OPEN SPACE: (75% of required open space)	4.16 AC
-UNDISTURBED OPEN SPACE: (50% of required open space)	2.77 AC
PROVIDED OPEN SPACE: (25% of net developable)	6.61 AC
-CONTIGUOUS OPEN SPACE: (Outlot A)	4.45 AC
-UNDISTURBED OPEN SPACE: (Outlot A undisturbed; 2.20 ac) (Outlot B undisturbed; 0.99 ac)	3.19 AC

Typical SF Lot Detail

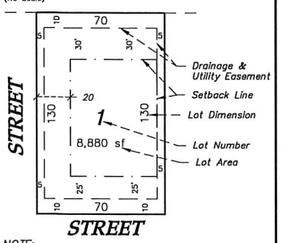
(No Scale)



NOTE:
65' Lot width

Typical Corner Lot Detail

(No Scale)



NOTE:
65' Lot width

Development Notes

1.) ALL LOT DIMENSIONS ARE ROUNDED TO THE NEAREST FOOT.
2.) ALL AREAS ARE ROUNDED TO THE NEAREST SQUARE FOOT.
3.) STREET NAMES ARE SUBJECT TO APPROVAL BY THE CITY.
4.) DRAINAGE AND UTILITY EASEMENTS SHALL BE PROVIDED AS REQUIRED.
5.) STREET WIDTHS SHOWN ARE FROM BACK OF CURB TO BACK OF CURB.

0' 60' 120' 180'

PRELIMINARY

NOT FOR CONSTRUCTION
Latest Revision Date: 10/18/19
0008121PPP01.dwg

PRELIMINARY PLAT

Date: 04/08/19 Sheet: 3 OF 25

Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly licensed PROFESSIONAL SURVEYOR under the laws of the State of Minnesota.

Craig W. Morse
Date: 10/18/19 License No. 23021

Revisions:
04/26/19 City Comments
05/15/19 City Comments

Designed:	SRS
Checked:	CWM
Drawn:	SRS
Record Drawing by/date:	

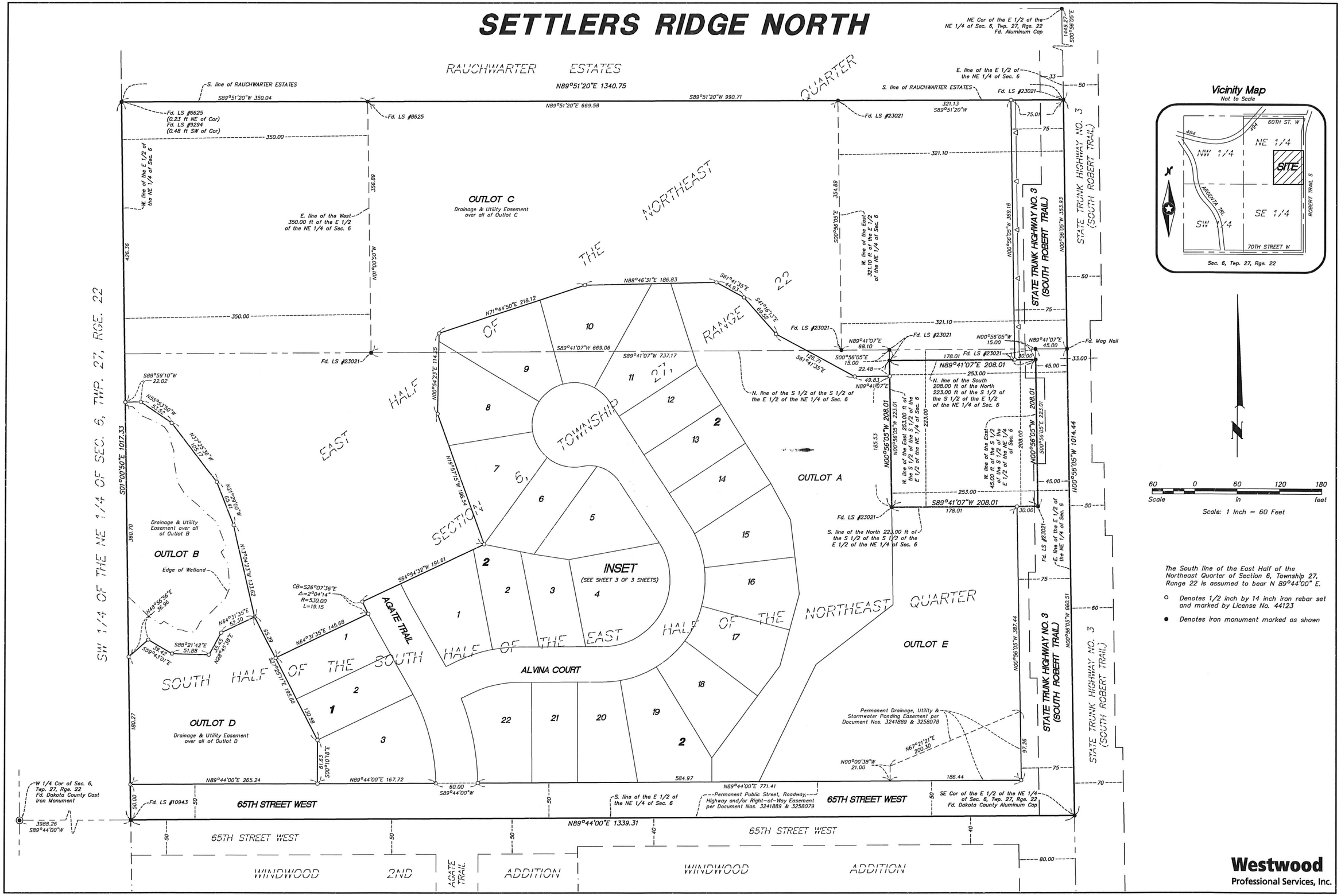
Prepared for:

Source Land Capital
18215 45th Avenue North, Suite D
Plymouth, Minnesota 55446

Windsor Ridge
Inver Grove Heights, Minnesota

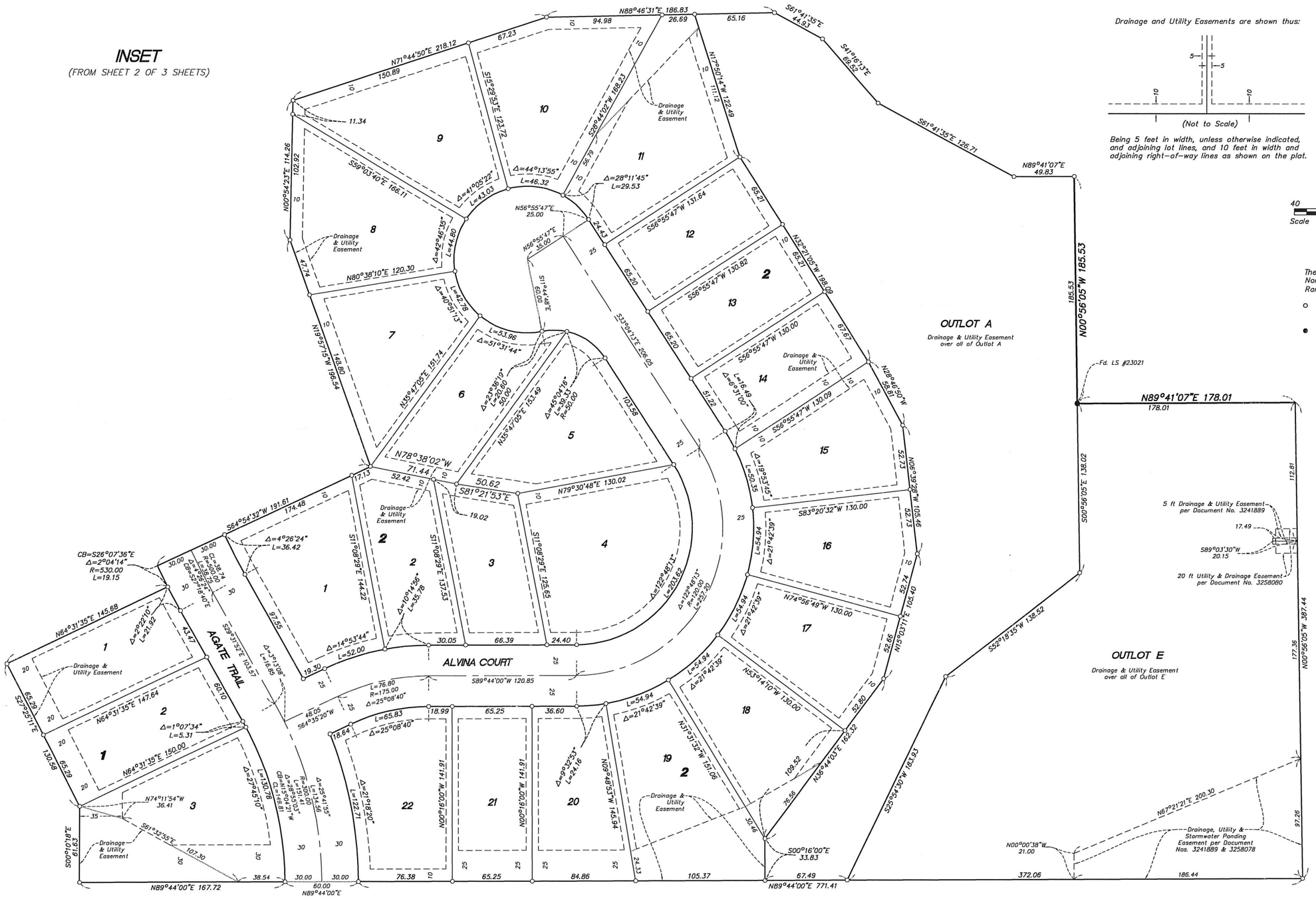
Preliminary Plat

SETTLERS RIDGE NORTH



SETTLERS RIDGE NORTH

INSET
(FROM SHEET 2 OF 3 SHEETS)



Drainage and Utility Easements are shown thus:

(Not to Scale)

Being 5 feet in width, unless otherwise indicated, and adjoining lot lines, and 10 feet in width and adjoining right-of-way lines as shown on the plat.

N

40 0 40 80 120
Scale in feet

Scale: 1 Inch = 40 Feet

The South line of the East Half of the Northeast Quarter of Section 6, Township 27, Range 22 is assumed to bear N 89°44'00" E.

○ Denotes 1/2 inch by 14 inch iron rebar set and marked by License No. 44123

● Denotes iron monument marked as shown

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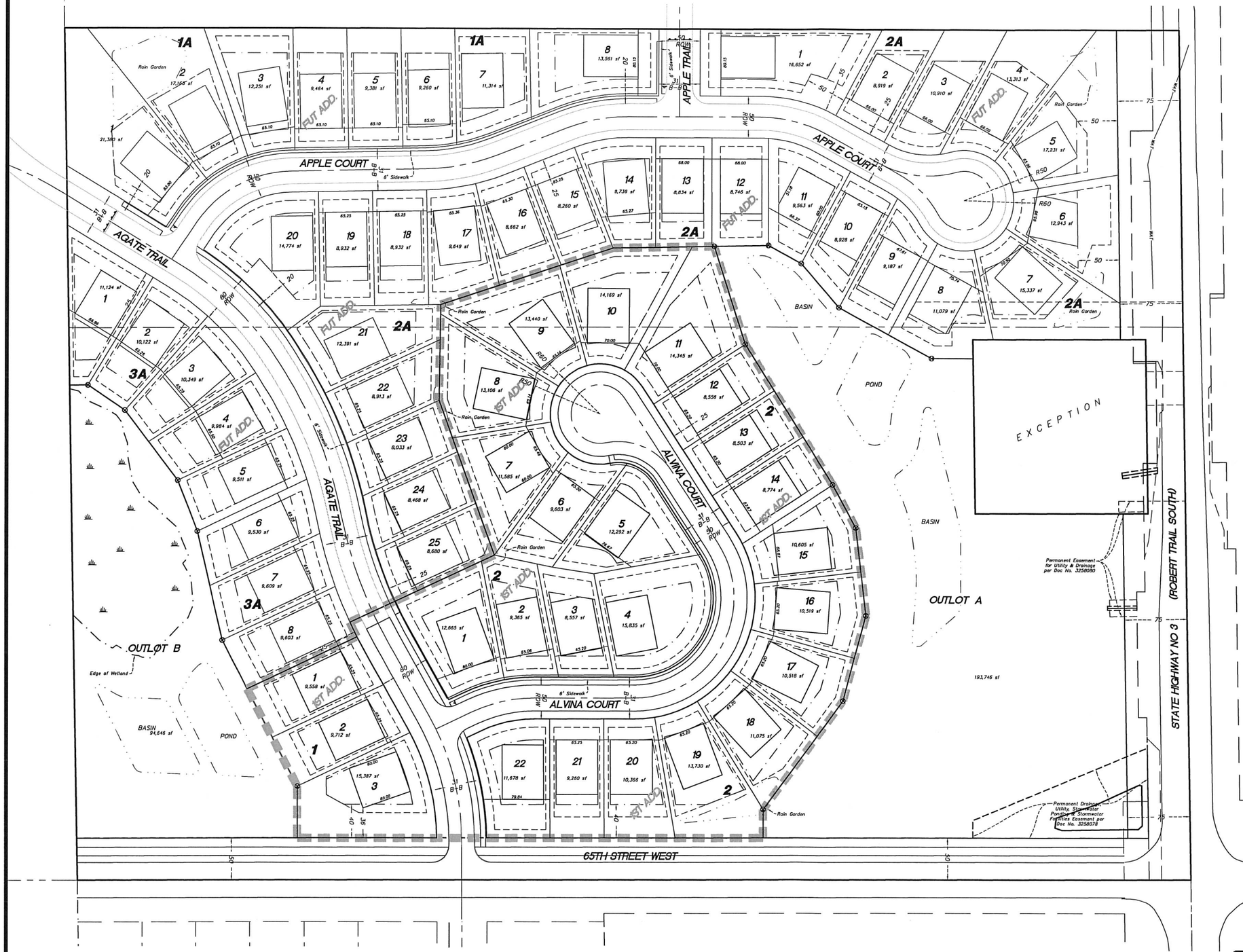


Property Description:

See Existing Conditions sheet for property description.

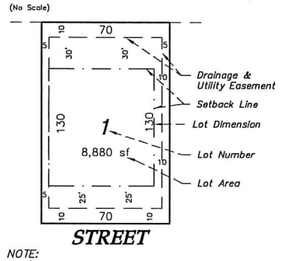
REGISTRATION OF THE PROPERTY IS IN PROCESS

Development Data

EXISTING ZONING	AGRICULTURE
PROPOSED ZONING	R-1C (PUD)
SITE AREA	30.25 ac
PROPOSED HOMES	66
GROSS DENSITY	2.18 un/ac
PROPOSED SETBACKS (minimums)	
FRONT	20 ft min; 30 ft max; 25 ft typical
SIDE	7.5/7.5 ft (15 ft total)
SIDE CORNER	20 ft
REAR	30 ft
HWY 3	50 ft
65TH STREET	40 ft (except as noted, L11B3)
NET DEVELOPABLE AREA:	
GROSS AREA	31.25 AC
LESS EXCEPTION AREA	1.0 AC
LESS MAJOR R/W (HWY 3)	1.61 AC
LESS WETLANDS	0.70 AC
NET DEVELOPABLE	27.94 AC
REQUIRED OPEN SPACE: (20% of net developable)	5.59 AC
-CONTIGUOUS OPEN SPACE: (75% of required open space)	4.19 AC
-UNDISTURBED OPEN SPACE: (50% of required open space)	2.80 AC
PROVIDED OPEN SPACE: (25% of net developable)	6.54 AC
-CONTIGUOUS OPEN SPACE: (Outlot A)	4.45 AC
-UNDISTURBED OPEN SPACE: (Outlot A undisturbed; 2.20 ac) (Outlot B undisturbed; 0.99 ac)	2.80 AC

Typical SF Lot Detail

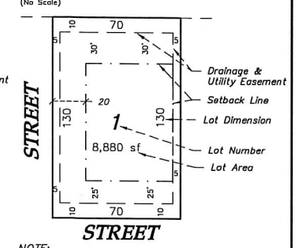
(No Scale)



NOTE:
65 'Lot width

Typical Corner Lot Detail

(No Scale)



NOTE:
65' Lot width

Development Notes

1.) ALL LOT DIMENSIONS ARE ROUNDED TO THE NEAREST FOOT.
2.) ALL AREAS ARE ROUNDED TO THE NEAREST SQUARE FOOT.
3.) STREET NAMES ARE SUBJECT TO APPROVAL BY THE CITY.
4.) DRAINAGE AND UTILITY EASEMENTS SHALL BE PROVIDED AS REQUIRED.
5.) STREET WIDTHS SHOWN ARE FROM BACK OF CURB TO BACK OF CURB.

0' 60' 120' 180'

NOT FOR CONSTRUCTION

0008121PPF01.dwg

Date: 1/28/2020 Sheet: 1 OF 1

Westwood

Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
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Toll Free (888) 937-5150 westwoodps.com

Westwood Professional Services, Inc.

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly licensed PROFESSIONAL SURVEYOR under the laws of the State of Minnesota.

Craig W. Morse

Date: _____ License No. _____

Revisions:
1/28/20 Rev. Open Space Calcs

Designed:
Checked: CWM
Drawn: SRM
Record Drawing by/date:

Prepared for:

Source Land Capital
18215 45th Avenue North, Suite D
Plymouth, Minnesota 55446

Settlers Ridge North

Inver Grove Heights, Minnesota

PUD Site Plan

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Property Description:

See Existing Conditions sheet for property description.

REGISTRATION OF THE PROPERTY IS IN PROCESS

Development Data

EXISTING ZONING	AGRICULTURE
PROPOSED ZONING	R-1C (PUD)
SITE AREA	30.25 ac
PROPOSED HOMES	66
GROSS DENSITY	2.18 un/ac
PROPOSED SETBACKS (minimums)	
FRONT	20 ft min; 30 ft max; 25 ft typical
SIDE	7.5/7.5 ft (15 ft total)
SIDE CORNER	20 ft
REAR	30 ft
HWY 3	50 ft
65TH STREET	40 ft (except as noted, L11B3)
NET DEVELOPABLE AREA:	
GROSS AREA	31.25 AC
LESS EXCEPTION AREA	1.0 AC
LESS MAJOR R/W (HWY 3)	1.61 AC
LESS WETLANDS	0.70 AC
NET DEVELOPABLE	27.94 AC
REQUIRED OPEN SPACE: (20% of net developable)	5.59 AC
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PROVIDED OPEN SPACE: (25% of net developable)	6.54 AC
-CONTIGUOUS OPEN SPACE: (Outlot A)	4.45 AC
-UNDISTURBED OPEN SPACE: (Outlot A undisturbed; 2.20 ac) (Outlot B undisturbed; 0.99 ac)	2.80 AC
-DISTURBED OPEN SPACE: (Outlot A disturbed; 2.25 ac) (Outlot B disturbed; 1.18 ac)	3.74 AC

0' 60' 120' 180'

NOT FOR CONSTRUCTION

0008121_EX01_OS.dwg

Date: 01/28/2020 Sheet: 1 OF 1

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Westwood Professional Services, Inc.

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly licensed LANDSCAPE ARCHITECT under the laws of the State of Minnesota.

Cory Meyer

Date: _____ License No. 26971

Revisions:
1/28/19 Rev. Hwy 3 Setback

Designed: SAR
Checked: NTM
Drawn: SAR
Record Drawing by/date:

Prepared for:

Source Land Capital
18215 45th Avenue North, Suite D
Plymouth, Minnesota 55446

Settlers Ridge North

Inver Grove Heights, Minnesota

Open Space Exhibit

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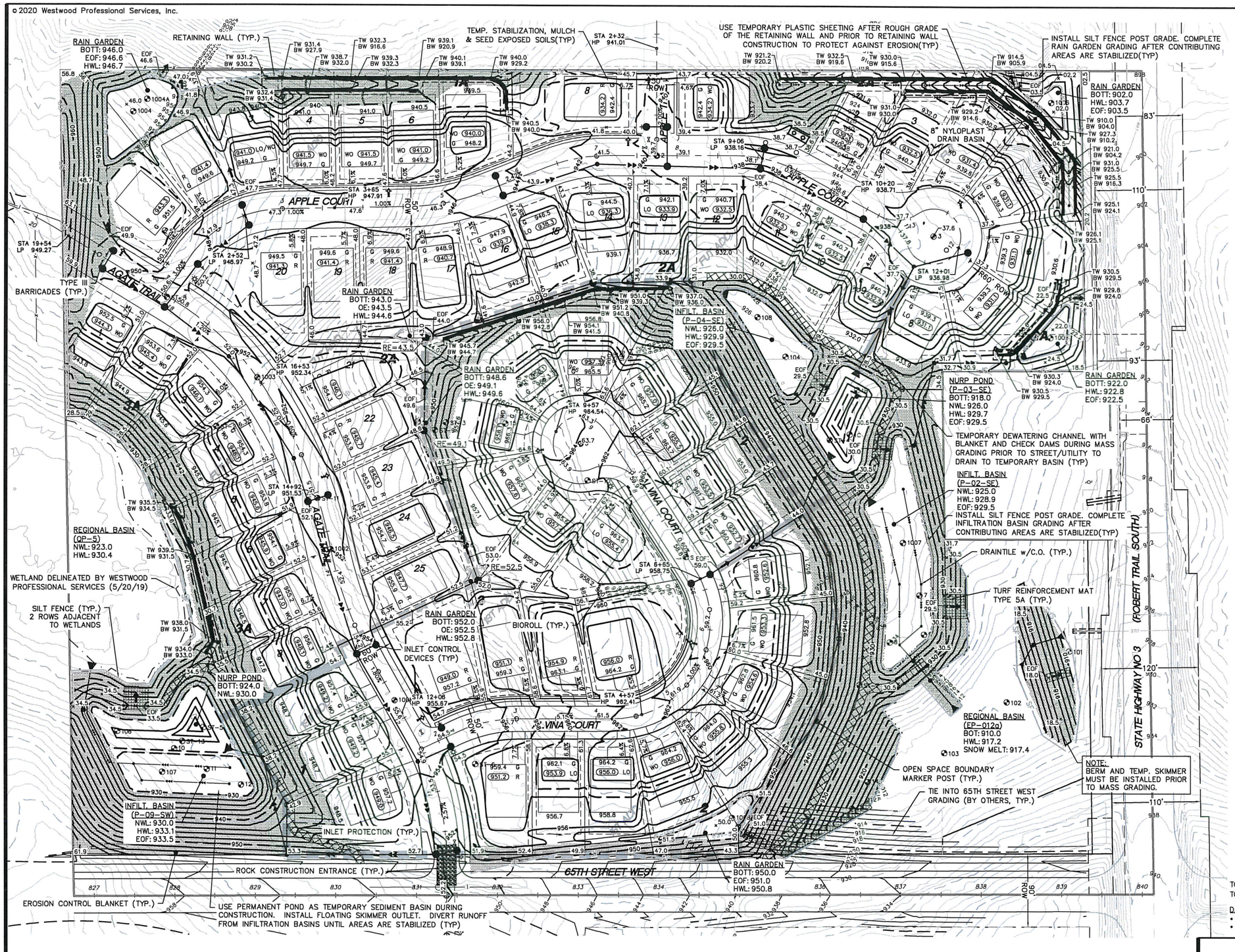


Call 48 Hours before digging:

GOPHER STATE ONE CALL

Twin City Area 651-454-0002
Mn. Toll Free 1-800-252-1166

EROSION CONTROL NOTES:

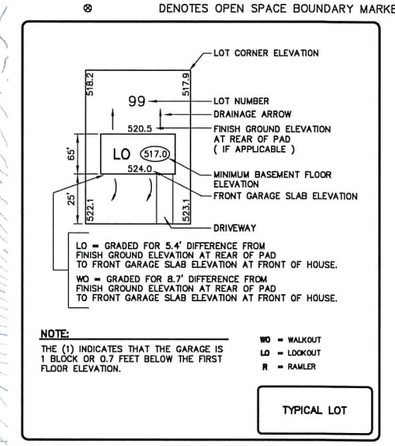
- ALL SILT FENCE AND OTHER EROSION CONTROL FEATURES SHALL BE IN-PLACE PRIOR TO ANY EXCAVATION/CONSTRUCTION AND SHALL BE MAINTAINED UNTIL VIABLE TURF OR GROUND COVER HAS BEEN ESTABLISHED. EXISTING SILT FENCE ON-SITE SHALL BE MAINTAINED AND OR REMOVED AND SHALL BE CONSIDERED INCIDENTAL TO THE GRADING CONTRACT. IT IS OF EXTREME IMPORTANCE TO BE AWARE OF CURRENT FIELD CONDITIONS WITH RESPECT TO EROSION CONTROL. TEMPORARY PONDING, DIKES, HAY BALES, ETC., REQUIRED BY THE CITY SHALL BE INCIDENTAL TO THE GRADING CONTRACT.
- ALL STREETS DISTURBED DURING WORKING HOURS MUST BE CLEANED AT THE END OF EACH WORKING DAY. A ROCK ENTRANCE TO THE SITE MUST BE PROVIDED ACCORDING TO DETAILS TO REDUCE TRACKING OF DIRT ONTO PUBLIC STREETS.
- SILT FENCE TO BE MNDOT HEAVY DUTY IN POND AREAS. 2 METHODS OF SEDIMENT/EROSION CONTROL TO BE USED ADJACENT TO WATER BODIES AND BASINS.
- ALL SLOPES TO WATER WAYS MUST BE STABILIZED WITHIN 24 HOURS OF DISTURBANCE.
- ALL 3:1 SLOPES SHALL BE STABILIZED WITH EROSION CONTROL BLANKET.
- SILT FENCE TO BE MNDOT HEAVY DUTY IN POND AREAS. 2 METHODS OF EROSION CONTROL TO BE USED ADJACENT TO WATER BODIES AND BASINS.
- ALL DISTURBED GREEN SPACE TO BE AMENDED w/2.5" COMPOST ROTOTILLED TO TOP 8" OF SOIL AFTER GRADING CONSTRUCTION IS SUBSTANTIALLY COMPLETE.

GENERAL GRADING & DRAINAGE NOTES:

- ALL CONTOURS AND SPOT ELEVATIONS ARE SHOWN TO FINISHED SURFACE/GUTTER GRADES UNLESS OTHERWISE NOTED.
- REFER TO THE SITE PLAN/RECORD PLAT FOR MOST CURRENT HORIZONTAL SITE DIMENSIONS AND LAYOUT.
- THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES WITH THE OWNERS AND FIELD-VERIFY PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR VARIATIONS FROM PLAN.
- ALL CONSTRUCTION SHALL CONFORM TO LOCAL RULES.
- POSITIVE DRAINAGE FROM THE SITE MUST BE PROVIDED AT ALL TIMES.
- SEE SHEET 5 FOR ADDITIONAL RETAINING WALL AND INFILTRATION BASIN NOTES.

LEGEND:

	DENOTES SOIL BORING
SF	DENOTES SILT FENCE
PST-SF	DENOTES POST CONSTRUCTION SILT FENCE
980	DENOTES EXISTING CONTOURS
980	DENOTES PROPOSED CONTOURS
	DENOTES EXISTING STORM SEWER
	DENOTES PROPOSED STORM SEWER
	DENOTES PROPOSED DRAINTILE
	DENOTES EXISTING TREE LINE
	DENOTES APPROXIMATE TREE REMOVAL LIMITS
× 856.3	DENOTES EXISTING SPOT ELEVATION
86.30	DENOTES PROPOSED SPOT ELEVATION
	DENOTES BIO-ROLL EROSION CHECKS
E.O.F.	DENOTES EMERGENCY OVERFLOW ELEVATION
	DENOTES EROSION CONTROL BLANKET – NATURAL NETTING AND STITCHING (SLOPES STEEPER THAN 4:1)
	DENOTES POND MAINTENANCE ACCESS
	DENOTES TURF REINFORCEMENT MAT TYPE 5A
⊗	DENOTES OPEN SPACE BOUNDARY MARKER POST



NOTE:
THE (1) INDICATES THAT THE GARAGE IS 1 BLOCK OR 0.7 FEET BELOW THE FIRST FLOOR ELEVATION.

WO = WALKOUT
LO = LOOKOUT
R = RAMLER

TYPICAL LOT

TOTAL APPROXIMATED EXCAVATION: 239,895 CY
TOTAL APPROXIMATED FILL (CV): 239,531 CY

DATUM NOTES:
- 1983 NAD (86 adj) DAKOTA COUNTY US FEET
- 1988 NAVD US FEET

0' 60' 120' 180'

Latest Revision Date: 02/14/20

0008121GDF01.dwg

Date: 01/06/2020 Sheet: 3 OF 10

Westwood

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Westwood Professional Services, Inc.

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly licensed PROFESSIONAL ENGINEER under the laws of the State of Minnesota.

John Bender

Date: 02/14/20 License No. 43358

Revisions:
01/14/20 REV ESC & POND INFO
02/14/20 CITY COMMENTS

Designed: JHB
Checked: JHB
Drawn: CTY
Record Drawing by/date:

Prepared for:

Source Land Capital
18215 45th Avenue North, Suite D
Plymouth, Minnesota 55446

Settlers Ridge North

Inver Grove Heights, Minnesota

Grading & Erosion Control Plan

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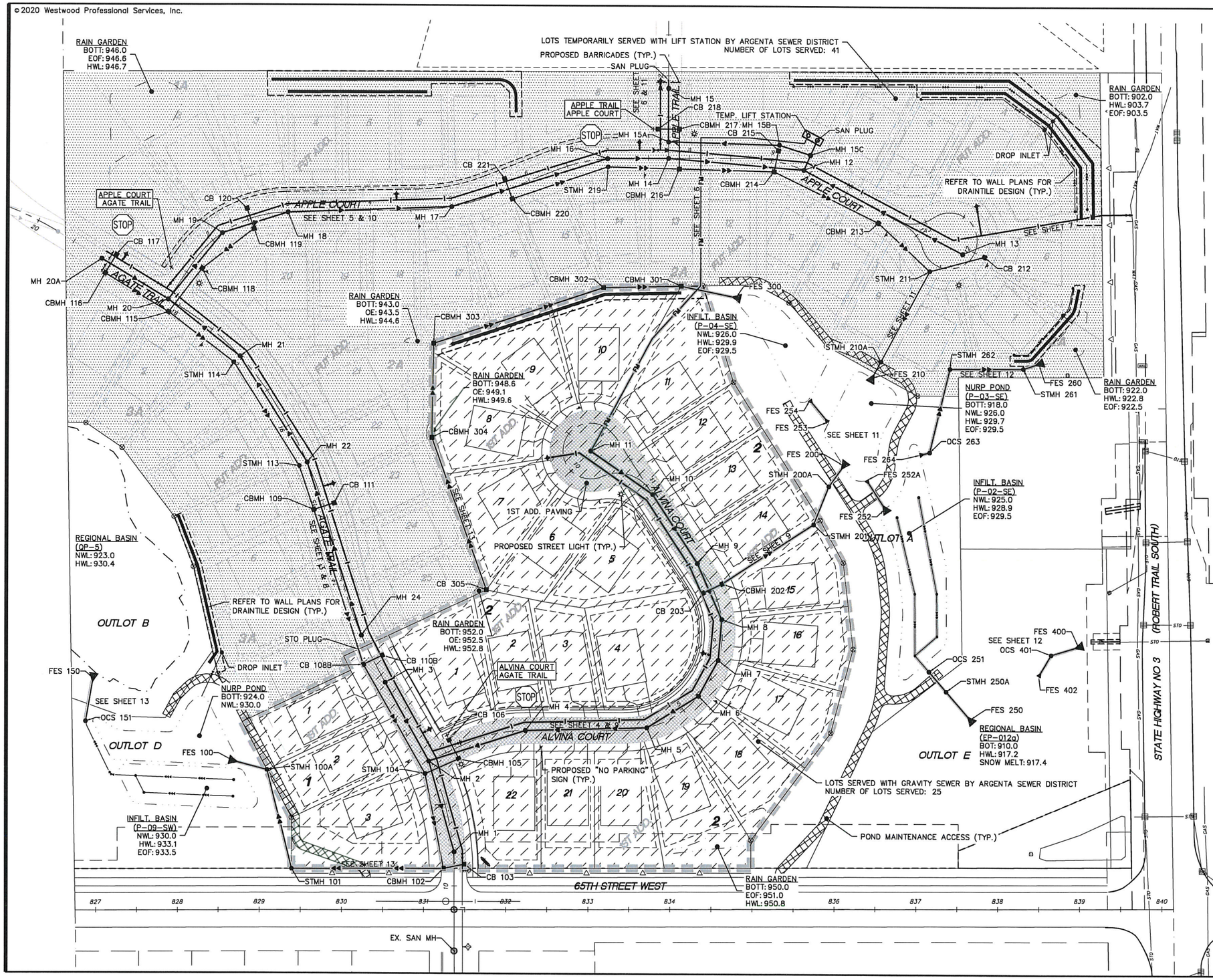

Call 48 Hours before digging:
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Twin City Area 651-454-0002
Mn. Toll Free 1-800-252-1166

GENERAL UTILITY NOTES:

- THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE OWNER OF ANY DIFFERENCES.
- UNLESS OTHERWISE NOTED, ALL MATERIALS, CONST. TECHNIQUES AND TESTING SHALL CONFORM TO THE CITY OF **INVER GROVE HEIGHTS** STANDARD DETAIL PLATES AND TO THE "STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION" MINN. DEPT. OF TRANS., 2018 INCLUDING THE CURRENT ADDENDUM.
- THE CONTRACTOR SHALL RECEIVE THE NECESSARY PERMITS FOR ALL WORK OUTSIDE OF THE PROPERTY LIMITS.
- VERIFY EXISTING INVERT LOC. & ELEV. PRIOR TO BEGINNING CONSTRUCTION.
- THE WATER SERVICE SHALL BE INSTALLED WITH A MIN. OF 7.5 FT. OF COVER. THE CONTRACTOR SHALL VERIFY THE CITY AS-BUILT CONSTRUCTION PLANS TO CHECK LOCATION AND MATERIAL TYPE.
- ALL STORM SEWER PIPE SHALL BE CLASS 5 UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL CONTACT "GOPHER STATE ONE CALL" FOR FOR UTILITY LOCATIONS PRIOR TO UTILITY INSTALLATION.
- TEMPORARY LIFT STATION TO BE REMOVED ONCE FUTURE DEVELOPMENT HAS ALLOWED GRAVITY SEWER DRAINAGE TO THE NORTH.

LEGEND

EXISTING UTILITIES

SANITARY SEWER — SAN
WATER — WAT
HYD. W/VALVE
STORM SEWER — STO

1ST ADDITION UTILITIES

SANITARY SEWER
WATER
HYD. W/VALVE
STORM SEWER
6" PERFORATED PVC DRAINTILE

FUTURE ADDITION UTILITIES

SANITARY SEWER
WATER
HYD. W/VALVE
STORM SEWER
6" PERFORATED PVC DRAINTILE

INFILTRATION BASIN NOTES

- INFILTRATION/FILTRATION BASINS SHALL BE CONSTRUCTED TO DCSWCD STANDARDS. USE 4" DRAINTILE WITH KNIT SOCK, VALVES AND CLEANOUTS (SCREW CAP). CLEANOUTS SHALL BE PROTECTED WITH A FORD A-1 COVER. ALL BASINS SHALL HAVE A 4" INSPECTION TUBE WITH SCREW CAP INSTALLED. THE REPLACEMENT SOILS SHALL BE A WELL BLENDED MIXTURE OF 80% ASTM C-33 COURSE WASHED SAND (MNDOT 3126) AND 20% LEAF LITTER COMPOST (MNDOT 3890 – GRADE 2).
- INFILTRATION BASINS SHALL NOT BE CONSTRUCTED UNTIL THE CONTRIBUTORY DRAINAGE AREAS ARE ESTABLISHED.
- INFILTRATION BASINS SHALL NOT BE EXCAVATED UNTIL THEY ARE READY FOR CONSTRUCTION.
- INFILTRATION BASIN LOCATIONS SHALL BE PROTECTED FROM COMPACTION AND SILTATION DURING SITE GRADING AND HOME CONSTRUCTION ACTIVITIES.

STORM SEWER CASTING SCHEDULE

STRUCTURE			CASTING TYPE
NUMBER	TYPE	DIA.	
100	FES	21"	TRASHGUARD
100A	STMH	48"	R-1642B
101	STMH	48"	R-1642B
102	CBMH	60"	R-3067-VB
103 *	CB	2'x3'	R-3067-VB
104	STMH	48"	R-1642B
105	CBMH	48"	R-3067-V
106 *	CBMH	2'x3'	R-3067-VB
107	STMH	48"	R-1642B
108	STMH	48"	R-1642B
108A	STMH	48"	R-1642B
108B	CB	48"	R-3067-V
108C	STMH	48"	R-1642B
108D	STMH	48"	R-1642B
109	CB	2'x3'	R-3067-VB
110 *	STMH	48"	R-1642B
110A *	STMH	48"	R-1642B
110B *	CB	48"	R-3067-V
110C	STMH	48"	R-1642B
111 *	CB	2'x3'	R-3067-VB
112	STMH	48"	R-1642B
113	STMH	48"	R-3067-V
114	STMH	48"	R-3067-V
115	CBMH	48"	R-3067-V
116	CBMH	48"	R-3067-V
117 *	CB	2'x3'	R-3067-V
118	CBMH	48"	R-3067-V
119	CBMH	48"	R-3067-VB
120 *	CB	2'x3'	R-3067-VB
150	FES	15"	–
151	OCS	48"	SEE DETAIL
200	FES	18"	–
200A	STMH	48"	R-1642B
201	STMH	48"	R-1642B
202	CBMH	48"	R-3067-VB
203 *	CB	2'x3"	R-3067-VB
210	FES	18"	–
210A	STMH	48"	R-1642B
211	STMH	48"	R-1642B
212	CB	2'x3'	R-3067-VB
213	CBMH	48"	R-3067-V
214	CBMH	48"	R-3067-VB
215 *	CB	2'x3'	R-3067-VB
216	CBMH	48"	R-3067-V
217	CBMH	48"	R-3067-V
218	CB	2'x3'	R-3067-VB
219	STMH	48"	R-1642B
220	CBMH	48"	R-3067-V
221 *	CB	2'x3'	R-3067-V
250	FES	18"	–
250A	STMH	48"	R-1642B
251	OCS	48"	SEE DETAIL
252	FES	18"	–
252A	FES	18"	TRASHGUARD
253	FES	18"	–
254	FES	18"	TRASHGUARD
260	FES	15"	–
261	STMH	48"	R-1642B
262	STMH	48"	R-1642B
263	OCS	48"	SEE DETAIL
264	FES	15"	TRASHGUARD
300	FES	18"	–
301	CBMH	48"	R-4342
302	CBMH	48"	R-4342
303	CBMH	48"	R-4342
304	CBMH	48"	R-4342
305	CB	27"	R-4342
400	FES	24"	TRASHGUARD
401	OCS	48"	SEE DETAIL
402	FES	24"	TRASHGUARD

* STORM STRUCTURES WITHIN 10' OF WATERMAIN TO HAVE WATER TIGHT CONNECTIONS PER MDH REQUIREMENTS.
SEE WATERSTOP GROUTING RINGS DETAIL

N

0' 60' 120' 180'

Latest Revision Date: 02/14/20

00081210AF01.dwg

Date: 01/06/2020 Sheet: 2 OF 20

Westwood
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John Bender
Date: 02/14/20 License No. 43358

Revisions:
01/14/20 REV. POND INFO
02/14/20 CITY COMMENTS

Designed: JHB
Checked: JHB
Drawn: CTY
Record Drawing by/date:

Prepared for:
Source Land Capital
18215 45th Avenue North, Suite D
Plymouth, Minnesota 55446

Settlers Ridge North

Inver Grove Heights, Minnesota

Overall Utility, Signage & Lighting Plan

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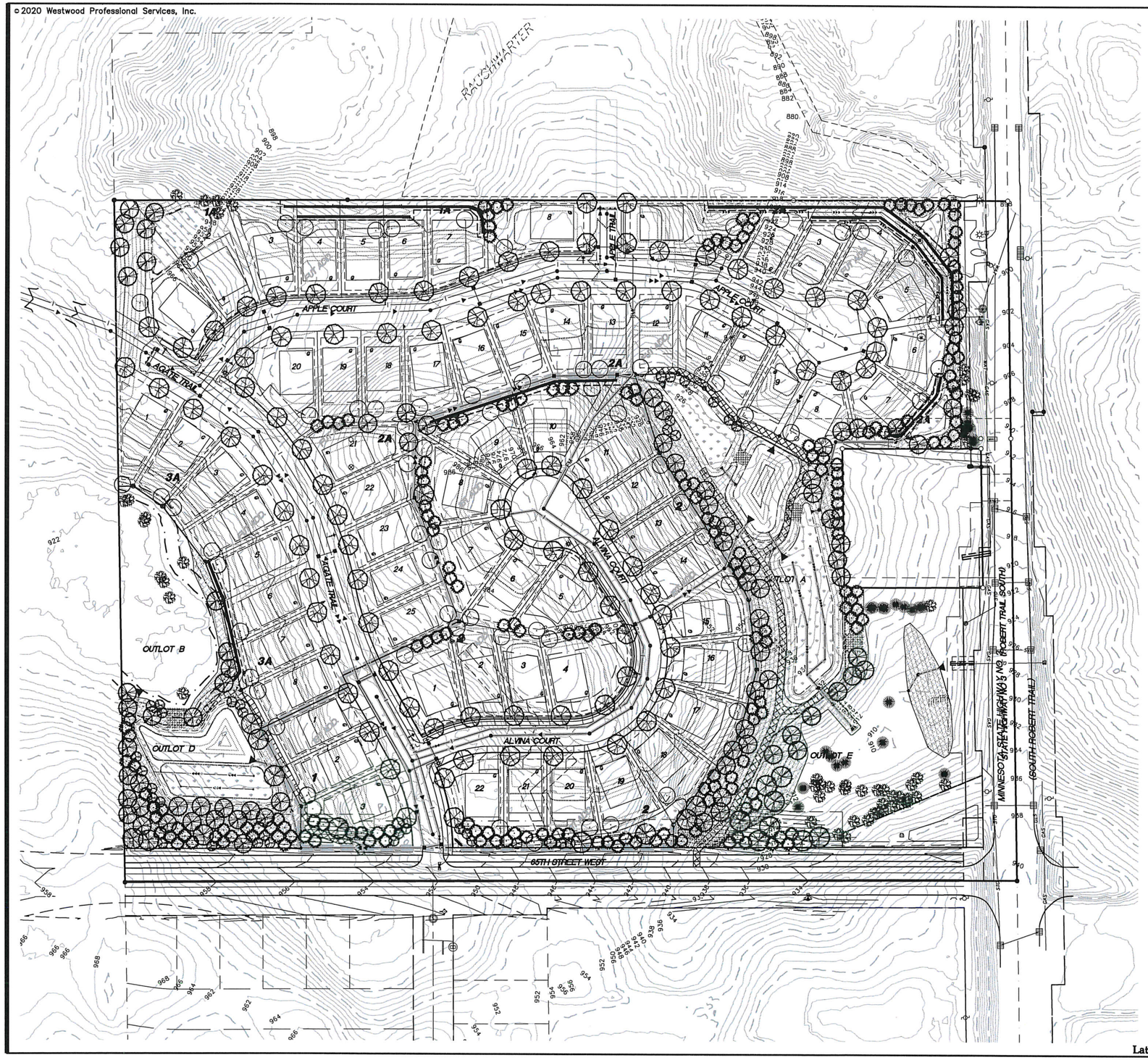

Plant Schedule

CODE	QTY.	COMMON/BOTANICAL NAME	SIZE	SPACING O.C.	MATURE SIZE
OVERSTORY	194				
ABM	15	Autumn Blaze Maple / Acer x freemanii 'Jeffersred'	2.5" BB	AS SHOWN	H 40'–55' W 30'–40'
SGM	13	Sienna Glen Maple / Acer x freemanii 'Sienna'	2.5" BB	AS SHOWN	H 50'–60' W 40'
SWO	15	Swamp White Oak / Quercus bicolor	2.5" BB	AS SHOWN	H 50'–60' W 40'–50'
NWM	9	Northwood Maple / Acer rubrum 'Northwood'	2.5" BB	AS SHOWN	H 40'–60' W 40'
FFM	12	Fall Fiesta Maple / Acer saccharum 'Bailsta'	2.5" BB	AS SHOWN	H 60'–75' W 50'
BUO	10	Bur Oak / Quercus macrocarpa	2.5" BB	AS SHOWN	H 60'–80' W 60'–80'
REO	16	Red Oak / Quercus rubra	2.5" BB	AS SHOWN	H 50'–70' W 50'–70'
AGG	12	Autumn Gold Ginkgo / Ginkgo biloba 'Autumn Gold'	2.5" BB	AS SHOWN	H 50' W 30'
BOL	13	Boulevard Linden / Tilia americana 'Boulevard'	2.5" BB	AS SHOWN	H 50'–60' W 25'–30'
RVB	12	River Birch / Betula nigra	10' HT., BB CLUMP	AS SHOWN	H 40'–60' W 30'–40'
PRE	17	Princeton Elm / Ulmus americana 'Princeton'	2.5" BB	AS SHOWN	H 60' W 40'–50'
ACE	19	Accolade Elm / Ulmus japonica x wilsoniana 'Morton'	2.5" BB	AS SHOWN	H 70' W 40'–50'
HAK	16	Hackberry / Celtis occidentalis	2.5" BB	AS SHOWN	H 40'–60' W 40'
SKH	15	Skyline Honeylocust / Gleditsia tricanthos var. inermis 'Skycole'	2.5" BB	AS SHOWN	H 50' W 30'–35'
ORNAMENTAL	34				
SSC	4	Spring Snow Crab / Malus 'Spring Snow'	1.5" BB	AS SHOWN	H 25'–30' W 15'–20'
RSC	4	Red Splendor Crab / Malus 'Red Splendor'	1.5" BB	AS SHOWN	H 25'–30' W 15'–20'
PFC	6	Prairiefire Crab / Malus 'Prairiefire'	1.5" BB	AS SHOWN	H 25'–30' W 15'–20'
TCH	8	Thornless Cockspur Hawthorn / Crataegus crusgalli 'Inermis'	1.5" BB	AS SHOWN	H 25'–30' W 15'–20'
QUA	5	Quaking Aspen / Populus tremuloides	1.5" BB	AS SHOWN	H 25'–30' W 15'–20'
ALS	7	Allegheny Serviceberry / Amelanchier laevis	1.5" BB	AS SHOWN	H 25'–30' W 15'–20'
EVERGREEN	192				
BHS	37	Black Hills Spruce / Picea glauca densata	6' HT., BB	AS SHOWN	H 30'–40' W 20'–30'
NOS	35	Norway Spruce / Picea abies	6' HT., BB	AS SHOWN	H 60'–80' W 25'–30'
POP	31	Ponderosa Pine / Pinus ponderosa	6' HT., BB	AS SHOWN	H 60'–80' W 25'–30'
NOP	23	Norway Pine / Pinus resinosa	6' HT., BB	AS SHOWN	H 50'–80' W 30'–40'
CCF	29	Concolor Fir / Abies concolor	6' HT., BB	AS SHOWN	H 30'–50' W 25'–30'
WHP	36	White Pine / Pinus strobus	6' HT., BB	AS SHOWN	H 50'–80' W 30'–40'

NOTE: QUANTITIES ON PLAN SUPERSEDE LIST QUANTITIES IN THE EVENT OF A DISCREPANCY.

Landscape Requirements

LANDSCAPE REQUIREMENTS: 66 TREES
•1 OVERSTORY TREE PER LOT
(66 PROPOSED UNITS)

Tree Preservation Requirements

TREE REPLACEMENTS REQUIREMENTS: 1059 TREES
•SEE TREE PRESERVATION PLAN FOR COMPLETE CALCULATIONS

Landscape Provisions

TOTAL LANDSCAPING PROVIDED:	485 TREES
• STREET TREES:	92 TREES
• BUFFER DECIDUOUS TREES:	102 TREES
• BUFFER EVERGREEN TREES:	191 TREES
• BUFFER ORNAMENTAL TREES:	34 TREES
• FUTURE REAR YARD TREES (BY BUILDER):	66 TREES

Native Seeding Legend

• ALL DISTURBED AREAS TO BE SODDED UNLESS NOTED OTHERWISE

DENOTES STORMWATER NATIVE
SEED MIX (33–261)
TOTAL AREA (1.5 AC)

MESIC PRAIRIE GENERAL
SEED MIX (35–241)
TOTAL AREA (2.8 AC)

0' 80' 160' 240'

Call 48 Hours before digging:
GOPHER STATE ONE CALL
Twin City Area 651–454–0002
Mn. Toll Free 1–800–252–1166

000B121PLF01.dwg

Latest Revision Date: 02/14/2020

Date: 01/17/2020 Sheet: 1 OF 4

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I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly licensed LANDSCAPE ARCHITECT under the laws of the State of Minnesota.

Corey Meyer
Date 02/14/2020 License No. 26971

Revisions:
02/14/2020 – City Comments

Designed: NTM
Checked: NTM
Drawn: EAC
Record Drawing by/date

Prepared for:

Source Land Capital
18215 45th Avenue North, Suite D
Plymouth, Minnesota 55446

Settlers Ridge North

Inver Grove Heights, Minnesota

Overall Final Landscape Plan

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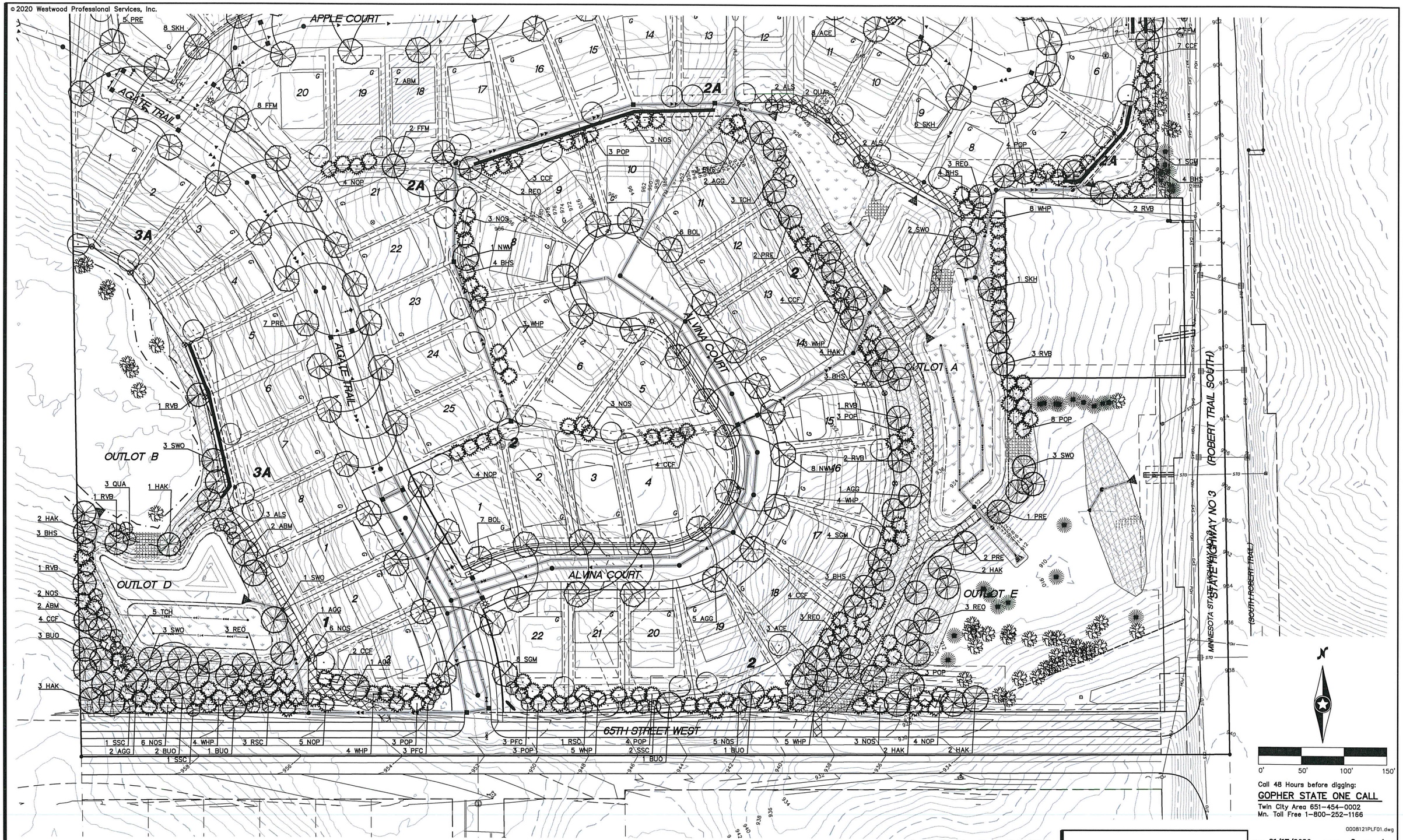

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Date: 01/17/2020 Sheet: 2 OF 4

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Inver Grove Heights, Minnesota

Final Landscape Plan - South

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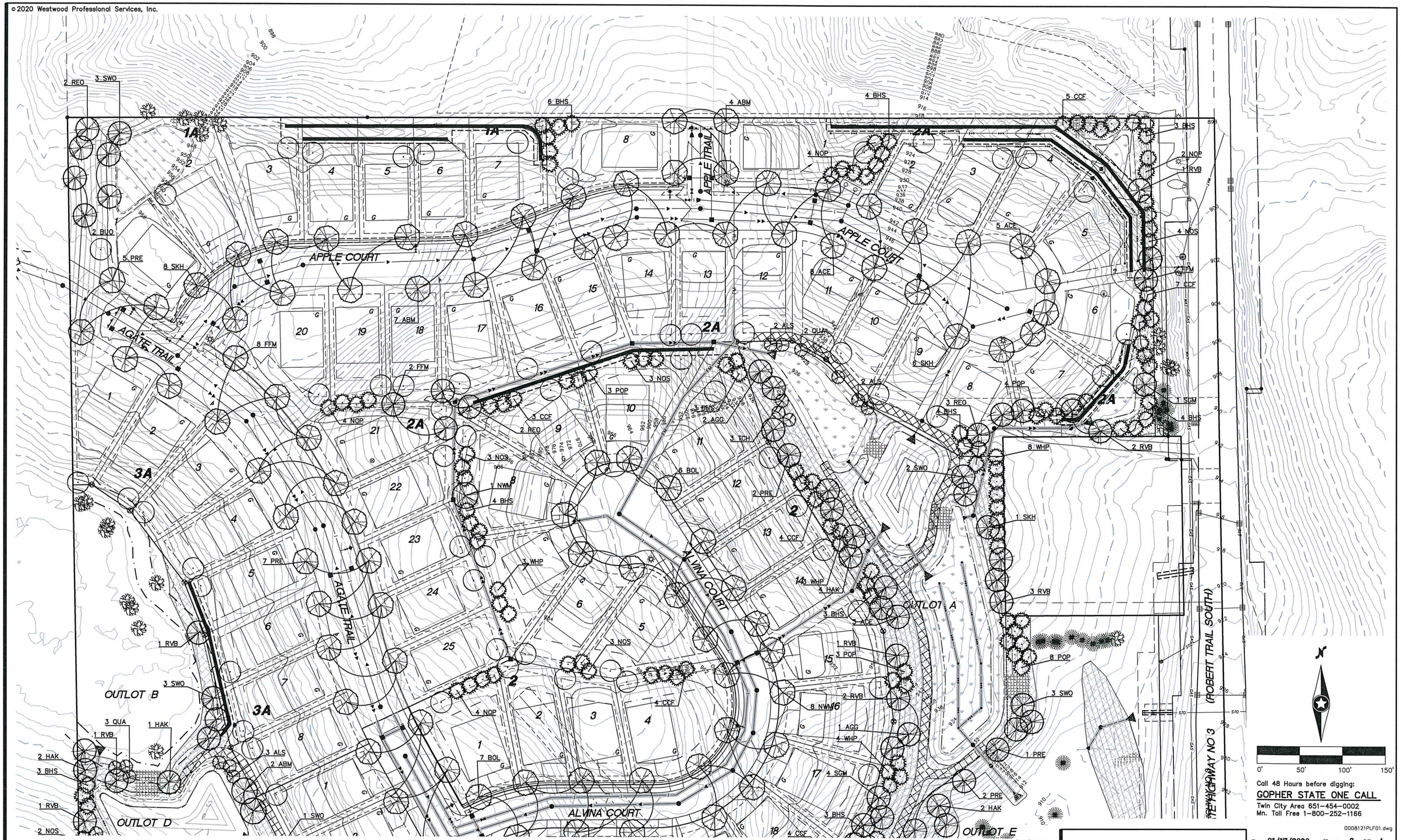

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Latest Revision Date: 02/14/2020

Date: 01/17/2020 Sheet: 3 OF 4

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Settlers Ridge North

Inver Grove Heights, Minnesota

Final Landscape Plan - North

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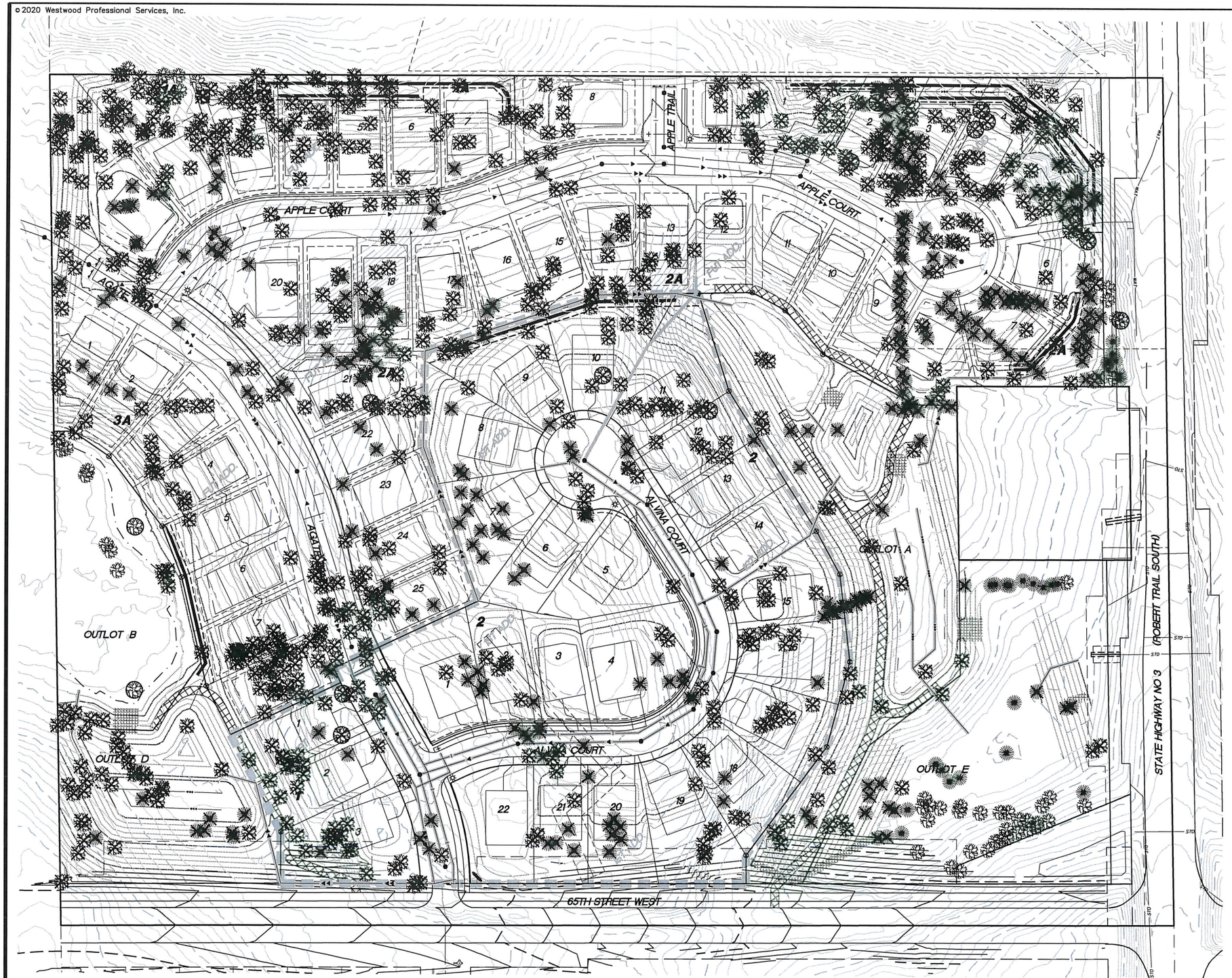

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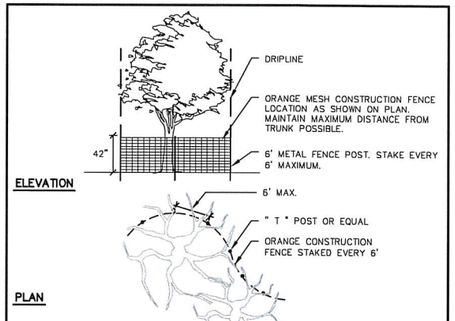

NOTES:

1. PRUNING WILL BE DONE BY PROFESSIONALS DURING APPROPRIATE PRUNING SEASON.
2. NO STORAGE OF MATERIALS, OPERATION OF MACHINERY, OR DEVELOPMENT OF ANY SORT WILL OCCUR WITHIN THE FENCE-LINE WITHOUT APPROVAL IN WRITING FROM THE CITY.
3. SITE GRADING TO BE DONE ONLY AFTER PROTECTIVE MEASURES HAVE BEEN TAKEN. CITY HAS APPROVED FENCING LOCATIONS, AND ALL CONTRACTORS HAVE BEEN BRIEFED ON TREE PRESERVATION TECHNIQUES.

Westwood	TREE PROTECTION	LAST REVISED: 05/28/15 TP08

TREE REPLACEMENT CALCULATIONS		
TOTAL SIGNIFICANT DBH INCHES		8354 DBH IN.
ALLOWABLE TREE REMOVAL (50%)		4177 DBH IN.
TOTAL SIGNIFCANT HEALTHY DBH INCHES REMOVED		7635 DBH IN.
CLASS A TREES REMOVED		1364 DBH IN.
CLASS B TREES REMOVED		5885 DBH IN.
CLASS C TREES REMOVED (HERITAGE)		386 DBH IN.
EXCESS TREE REMOVAL:		3458 DBH IN.
TREE REPLACEMENT	RATE	2776 DBH IN.
CLASS A TREES	50%	682 DBH IN.
CLASS B TREES	100%	2094 DBH IN.
CLASS C TREES	100%	0 DBH IN.

* Allowable tree removal shall be deducted from the removed Class C trees first, then Class B, and then Class A. If trees removals are in excess of the allowable limit they shall be replaced at the specified rate.

SAVED HERITAGE TREE CREDIT	128 DBH IN.
HERITAGE TREE DBH SAVED	64 DBH IN.
HERITAGE TREE CREDIT (2:1 IN. SAVED)	128 DBH IN.
TOTAL DBH TO BE REPLACED	2648 DBH IN.
TOTAL TREES TO BE REPLACED	1059.2 TREES

* Replacement trees calculated at 2.5" deciduous / 6' evergreen
* Heritage trees to be replaced with identical or equivalent species
* Siberian Elm, Black Locust (invasive species) and any removed Ash (emerald ash borer - no longer recommended for planting) are excluded from total signifcant inches on site.
* Planted evergreens for landscape or windbreak purposes that are removed are not counted as significant trees.

Legend

- DENOTES EXISTING TREE TO REMAIN
- DENOTES EXISTING TREE TO BE REMOVED
- DENOTES HERITAGE TREE

N

0' 60' 120' 180'

Latest Revision Date: 02/14/20
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Date: 01/06/2020 Sheet: 6 OF 10

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Cory Meyer
Date 02/14/20 License No. 26971

Revisions:
01/14/20 REV ESC & POND INFO
02/14/20 CITY COMMENTS

Designed: NTM
Checked: NTM
Drawn: NTM
Record Drawing by/date:

Prepared for:
Source Land Capital
18215 45th Avenue North, Suite D
Plymouth, Minnesota 55446

Settlers Ridge North

Inver Grove Heights, Minnesota

Preliminary Overall Tree Preservation Plan

PLANNING REPORT
CITY OF INVER GROVE HEIGHTS

HEARING DATE: February 18, 2020 **CASE NO:** 20-05ZA

APPLICANT: City of Inver Grove Heights

REQUEST: Exterior building materials ordinance amendment

REVIEWING DIVISIONS: Planning **PREPARED BY:** Heather Botten
Associate Planner

BACKGROUND

It has been suggested to staff to be cognizant of procedures and find ways to streamline processes within the City. Staff is suggesting a review of the exterior building material requirements to allow sheet metal, corrugated metal or shaped metal siding as a permitted type of material on accessory buildings in the A and E-1 zoning districts.

ANALYSIS

Currently, sheet metal, corrugated metal and shaped metal are prohibited within residential districts except by conditional use permit (CUP) in the Agricultural and E-1, Estate Residential zoning districts. The CUP process requires neighbor notification and review by the Planning Commission and City Council for this type of siding, along with a 6-8-week application process.

Discussions of pole buildings and sheet metal siding date back to the 80's when they were allowed with no restrictions. In 1989, an ordinance was adopted to prohibit sheet metal siding on accessory structures in all residential districts, except by variance. In 2000, an ordinance was adopted to allow sheet, corrugated, and shaped metal by CUP in the A and E-1 zoning districts. Since regulation, the City has been consistently not allowing sheet, corrugated, or shaped metal in urban areas. Generally, the A and E-1 zoning districts are larger lots that are rural in nature.

Staff reviewed land use applications from the last 10 years and found that nine conditional use permit requests were applied for and all were approved to allow sheet metal siding on an accessory building. The zoning code requirements of the metal having a thickness of at least 29-gauge and coming with a 20-year warranty is now an industry standard and would still be required for all metal sided buildings.

Current Regulations.

10-15-17C. Residential Accessory Structures:

2. Allowed Materials: Exterior walls of all accessory structures in all residential zoning districts (R, A and E districts) must be covered only with siding (e.g., wood, vinyl, aluminum or metal horizontal lap), stucco, brick, glass, composite plastic or other comparable material as approved by the city planner. Provided, however, sheet metal,

corrugated metal or shaped metal material may also be used to cover exterior walls of accessory structures under one hundred twenty (120) square feet in all residential zoning districts (R, A and E districts).

4. Conditional Use Permit: Except for structures under one hundred twenty (120) square feet, sheet metal, corrugated metal or shaped metal material used to cover exterior walls shall be prohibited on all residential detached accessory structures, unless a conditional use permit is approved for its use by the city council. A conditional use permit may only be issued by the city council for sheet metal, corrugated metal or shaped metal material siding for lots in the A or E-1 zoning districts, and only if the sheet metal, corrugated metal or shaped metal material siding has a thickness of at least 29-gauge, and comes with a manufacturer's warranty of at least twenty (20) years.

Proposed Ordinance Language.

2. Allowed Materials: Exterior walls of all accessory structures in all residential zoning districts (R, A and E districts) must be covered only with siding (e.g., wood, vinyl, aluminum or metal horizontal lap), stucco, brick, glass, composite plastic or other comparable material as approved by the city planner. ~~Provided, however,~~ Sheet metal, corrugated metal or shaped metal material may also be used to cover exterior walls of accessory structures provided:

a. The structure is under one hundred twenty (120) square feet in any ~~all~~ residential zoning district (R, A and E districts).

b. On structures over 120 square feet on lots only in the A or E-1 zoning district, the material siding has a thickness of at least 29-gauge, and comes with a manufacturer's warranty of at least twenty (20) years.

~~4. Conditional Use Permit: Except for structures under one hundred twenty (120) square feet, sheet metal, corrugated metal or shaped metal material used to cover exterior walls shall be prohibited on all residential detached accessory structures, unless a conditional use permit is approved for its use by the city council. A conditional use permit may only be issued by the city council for sheet metal, corrugated metal or shaped metal material siding for lots in the A or E-1 zoning districts, and only if the sheet metal, corrugated metal or shaped metal material siding has a thickness of at least 29-gauge, and comes with a manufacturer's warranty of at least twenty (20) years.~~

ALTERNATIVES

The Planning Commission has the following actions available for the proposed request:

A. **Approval.** If the Planning Commission finds the proposed amendment language to be acceptable, the Commission could recommend approval of the ordinance change.

B. **Denial.** If the Planning Commission does not find it necessary to modify the existing language, the Commission could recommend denial of the proposed ordinance amendment.

RECOMMENDATION

Since all CUP requests over the last 10 years for sheet metal siding have been approved and the required metal criteria is an industry standard, staff believes modifying the ordinance would not have an impact to the Agricultural or E-1, Estate zoning districts. Staff recommends approval of the ordinance amendment as presented.