



CITY PLAN COMMISSION STAFF REPORT

City of Kansas City, Missouri
City Planning & Development Department
www.kcmo.gov/cpc

October 3, 2023

Project Name
Arrowhead Lakes

Docket #4

Request

- .1 – CD-CPC-2023-00074 - Area Plan Amendment
- .2 – CD-CPC-2023-00073 - Rezoning without plan
- .3 – CD-CPC-2023-00072 - Preliminary Plat

Applicant

Doug Ubben
Phelps Engineering, Inc.

Agent

Polsinelli, PC

Location	2000 E. 155 th Street
Area	About 365 acres
Zoning	R-80
Council District	6 th
County	Jackson
School District	Grandview

Surrounding Land Uses

North: single family residences on large tracts, zoned R-80.

South: Rosehill Gardens City of Belton.

East: Agricultural farmland zoned R-80 and M1 (Gotcha Covered).

West: Single Family residences and agricultural farmlands zoned R-80.

Major Street Plan

Holmes Road and Prospect Avenue are identified on the City's Major Street Plan as a local links at this location. MO Route 150 is identified as a freeway.

Land Use Plan

The Martin City Area Plan adopted by Resolution No. 200184 on March 5, 2020, recommends Residential Low Density, Medium Density and Open Space/ Buffer land use for this location.

APPROVAL PROCESS



PROJECT TIMELINE

The application for the subject request was filed on May 1, 2023. Scheduling deviations from 2023 Cycle K occurred due to:

- Incomplete application submittal (Tree Preservation Plan).
- Working with WSD to determine sanitary sewer service plan.

NEIGHBORHOOD AND CIVIC ORGANIZATIONS NOTIFIED

There are no registered neighborhood or homes associations tied to the subject site.

REQUIRED PUBLIC ENGAGEMENT

Public engagement as required by 88-505-12 applies to this request. Applicant hosted a meeting on July 11, 2023. A summary of the meeting is attached to the staff report, see Attachment #3.

EXISTING CONDITIONS

The project site is a 365-acre parcel generally bordered by 150 Hwy on the north, E. 155th Street on the south, Prospect Avenue on the east and Holmes Road on the west. This parcel is currently developed with single family residences on large tracts of land. There are five existing pond/ lakes within this quadrant, three of which are part of this development. The largest of the lake is dammed. To the north of the subject site is MO Route 150. Rosehill Gardens is to the south within the City of Belton. To the east is vacant agricultural land and to the west are existing single family residences.

SUMMARY OF REQUEST + KEY POINTS

The applicant is seeking approval of an area plan amendment, a rezoning from District R-80 to District R-7.5 and approval of a preliminary plat to allow for the creation of 580 detached residential lots and 17 tracts in 9 phases.

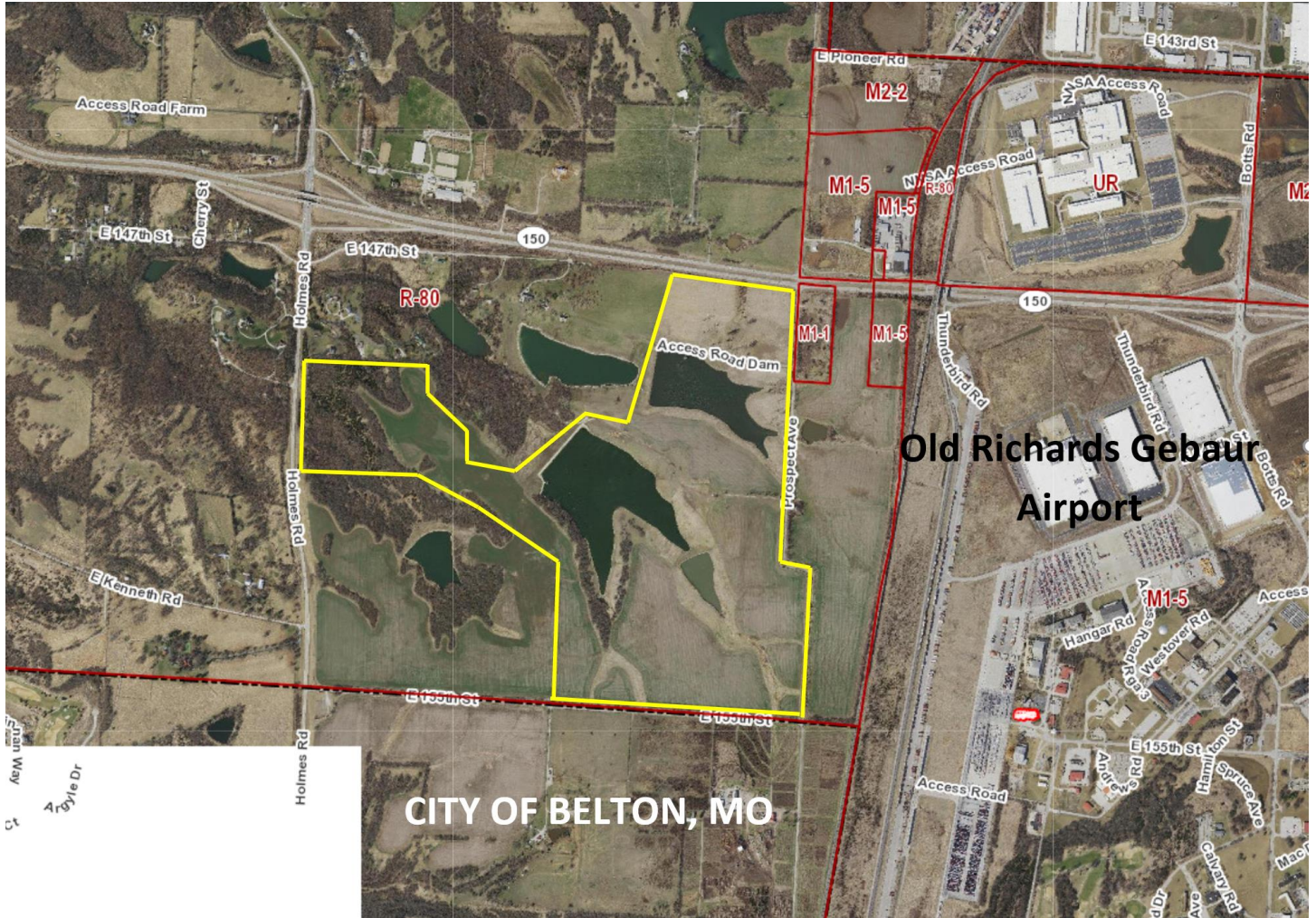
CONTROLLING

There is no controlling case for the site.

PROFESSIONAL STAFF RECOMMENDATION

- Docket #4.1 - CD-CPC-2023-0074 - **Approval**
- 4.2 - CD-CPC-2023-0073 - **Approval**
- 4.3 - CD-CPC-2023-0072 - **Approval with Conditions**

PROJECT LOCATION



PLAN REVIEW

These companion cases are necessary as the applicant is seeking approval of an area plan amendment, a rezoning from District R-80 to District R-7.5 and approval of a preliminary plat to allow for the creation of 580 detached residential lots and 17 tracts. The subject site is generally bordered MO Route 150 on the north and E. 155th Street on the south, between Prospect Avenue on the east and Holmes Road on the west.

Case No. CD-CPC-2023-00074 is a request to consider amending the Martin City Area Plan by changing the recommended land use from Residential Medium Density, Residential Low Density and Open Space Buffer land use to Residential Low Density and Open Space Buffer land use designation on about 365 acres. The Martin City Area Plan adopted by Resolution No. 200184 on March 5, 2020, recommends Residential Low Density, Residential Medium Density and Open Space/ Buffer land use for this location. This is appropriate for detached single family residential developments. This land use classification generally corresponds to the R-10 and R-7.5 zoning categories within the Zoning and Development Code. Staff is supportive of this amendment. See Attachment #2 from Long Range Planning and Preservation Department.

Case No. CD-CPC-2023-00073 is a request to consider rezoning the 365-acre parcel from District R-80 (Residential 80) to District R-7.5 (Residential 7.5). The project site is a partially vacant site comprising of 3 unplatted parcels. The proposed rezoning does not require a plan, but the applicant submitted an accompanying preliminary plat of the proposed subdivision.

Case No. CD-CPC-2023-00072 is a request to consider approval of a preliminary plat, in District R-7.5 on about 365 acres to allow for 580 detached lots and 17 tracts in 9 phases. The subdivision shows a total of 7 street connections to existing public street. It shows four public streets connections to Prospect Avenue on the east, one public street to Holmes Road on the west and three public streets to E. 155th Street on the south. The detached homes will have an average of 75 foot lot width and 13,500 square foot lot area. Setbacks are proposed to be 30 feet front and rear and 15 feet side on corner. The site does preserve about 12 acres within the treed and stream buffer area. There is an accompanying preliminary stream buffer preliminary plan.

Internal street connectivity within the proposed subdivision is hindered by the existing water bodies on the site. The developer has worked with staff to ensure that this connective is achieved by internal trail network to connect each development pod around the water bodies. The developer also submitted a street tree preservation plan which shows trees to be preserved. Staff recommends that the boundaries of these areas be clearly marked and monumented with signage that delineates the boundaries as "Do No Disturbance" areas and also shown on each final plat.

This case has been delayed due to the ongoing discussion between the developer and the city about connection of sanitary sewer to this development. The closest sanitary sewer transmission line is about 2.5 mile to the west within the Blue River basin and MO Route 150. The proposed sewer main alignment was recently approved by Water Services Department. Staff will recommend a condition that no site disturbance, or clearing and grubbing permits shall be issued for this site until the proposed sanitary sewer extension project has commenced. This means that the design, land and easement acquisition, permitting must be completed and the project underway prior to any mobilization for this project. The parcels will be flagged moving forward to ensure this condition is met.

Holmes Road and Prospect Avenue are on the Major Street Plan (MSP) so the developer is not required to construct half street improvements but pay impact fee. East 155th Street is not on the MSP as a result half street improvement will be required. The proposed plan shows the required 30-foot landscaped buffers which will screen the rear portions of the properties from the public right of way. No preliminary landscape plan was submitted.

PLAN ANALYSIS

Residential, Commercial, or Industrial Lot and Building (88-110), Use- Specific (88-300), and Development Standards (88-400)

**indicates adjustment/deviation*

Standards	Applies	Meets	More Information
Lot and Building Standards (88-110)	YES	YES	
Boulevard and Parkway Standards (88-323)	NO	N/A	
Parkland Dedication (88-408)	YES	YES	See analysis below.
Parking and Loading Standards (88-420)	YES	YES	
*Landscape and Screening Standards (88-425)	YES	NO	See analysis below.
Outdoor Lighting Standards (88-430)	NO	N/A	
Sign Standards (88-445)	YES	YES	Must comply with 88-445.
*Pedestrian Standards (88-450)	YES	NO	Need sidewalks on both sides of local internal streets. See analysis below.

Requested Waivers

NONE

Parkland Dedication:

According to Chapter 88-408 of the Zoning and Development Code, the developer can either, dedicate land for public park, provide open space for park purposes or provide money in lieu of parkland dedication. A plat is providing a need for the following:

580 single-family lots x 3.7 x 0.006 = 12.88 acres
12.88 acres x \$64,220.18 (2023 Fees) = \$826,898.27

The preliminary plat is proposing trails, a pool/ clubhouse and outdoor amenities within Tract A as part of payment in lieu of parkland dedication. Staff would like additional details on the distance of these amenities on Tract A from the existing single family residence to the north. Adequate care should be taken to make sure that there is enough distance and buffer. This could mean the relocation of impactful outdoor activities to Tract B on the south. Staff does not agree with the developer that the existing detention ponds be counted as part of these amenities.

Landscaping and Screening:

Even though the title page calls out a landscaping plan, the preliminary plat did not include a preliminary landscape plan to allow staff to review compliance with 88-405-05-F and 88-425-04-B of the Zoning and Development Code. Staff recommends submittal of a preliminary landscape plan per staff approval prior to ordinance request and a Project Plan for each Private Open Space Tract for to City Plan Commission approval. This should include proposed screening on Tract A.

SPECIFIC REVIEW CRITERIA**Zoning and Development Code Map Amendments, Rezoning (88-515-08)**

In reviewing and making decisions on proposed zoning map amendments, the City Planning and Development Director, City Plan Commission, and City Council must consider at least the following factors:

A. Conformance with adopted plans and planning policies;

The Martin City Area Plan recommends Residential Low Density, Residential Medium Density and Open Space/ Buffer land use for this location. The proposed use will be consistent with the approval of the accompanying area plan amendment. OA

B. Zoning and use of nearby property;

Nearby properties are primarily single-family homes on large tracts of land. This proposal will be compatible. OA

C. Physical character of the area in which the subject property is located;

The proposed plan will be compatible with the physical character of the area. OA

D. Whether public facilities (infrastructure) and services will be adequate to serve development allowed by the requested zoning map amendment;

Although the developer has shown an access to sanitary sewer, the adequacy and timing of availability remains in question at this time. This is critical to support the proposed density at this location. Utilities and infrastructure will be brought to City Standards, subject to the conditions in the attached report. OA

E. Suitability of the subject property for the use to which it has been restricted under the existing zoning regulations;

The current zoning designation is R-80 and the development cannot be done under the existing zoning. OA

F. Length of time the subject property has remained vacant as zoned;

The subject property has never been developed. OA

G. The extent to which approving the rezoning will detrimentally affect nearby properties; and

The rezoning is not expected to detrimentally affect nearby properties. OA

H. The gain, if any, to the public health, safety, and welfare due to denial of the application, as compared to the hardship imposed upon the landowner, if any, as a result of denial of the application.

A denial of the application would not allow the development to occur thereby limiting the ability of the developer to complete this project. OA

Development Plans, Project Plan, or Site Plan (88-516-05)

In order to be approved, a development plan, project plan, or site plan must comply with all of the following criteria:

A. The plan must comply with all standards of the Zoning and Development Code and all other applicable city ordinances and policies;

The development plan complies with the applicable sections of the Zoning and Development Code and the recommended land use of the Martin City Area Plan. OA

B. The proposed use must be allowed in the district in which it is located;

Detached houses are permitted in the R-7.5 zoning district. OA

C. Vehicular ingress and egress to and from the site, and circulation within the site must provide for safe, efficient, and convenient movement of traffic not only within the site but on adjacent roadways;

The proposed plan meets the requirements for vehicular access and circulation. OA

D. The plan must provide for safe, efficient, and convenient non-motorized travel opportunities, being pedestrian and bicycle movement, on the subject site;

The proposed preliminary plat does provide connectivity within the subdivision and to adjoining public streets. OA

E. The plan must provide for adequate utilities based on City standards for the particular development proposed.

Although the developer has shown an access to sanitary sewer, the adequacy and timing of availability remains in question at this time. This is critical to support the proposed density at this location. Utilities and infrastructure will be brought to City Standards, subject to the conditions in the attached report. OA

F. The location, orientation, and architectural features, including design and material, of buildings and other structures on the site must be designed to be compatible with adjacent properties.

The Development Plan is proposing single family homes which is compatible with the surrounding land uses. OA

G. Landscaping, berms, fences, and/or walls must be provided to buffer the site from undesirable views, noises, lighting, or other off-site negative influences and to buffer adjacent properties from negative influences that may be created by the plan.

The preliminary plat did not include a preliminary landscape plan to allow staff to review compliance with 88-405-05-F and 88-425-04-B of the Zoning and Development Code. Staff recommends submittal of a preliminary landscape plan per staff approval prior to ordinance request and a Project Plan for each Private Open Space Tract for to City Plan Commission approval. OA

H. The design of streets, drives, and parking areas within the project should result in a minimum of area devoted to asphalt or other impervious surfaces consistent with the needs of the project and city code requirements.

The proposed site plan provides an efficient layout for the proposed uses and does not create unnecessary impervious surfaces. OA

- I. The plan must identify trees to be removed and trees to be preserved during the development of the subject property with the goal of saving trees that are not required to be removed for the development of the property.**

The plan also includes a tree preservation and mitigation plan. The existing trees within the regulated stream area are shown on the preliminary stream buffer plan and will be preserved. OA

ATTACHMENTS

1. Conditions Report
2. Long Range Planning Report
3. Applicants Submittal
4. Public Engagement Materials

PROFESSIONAL STAFF RECOMMENDATION

City staff recommends the following as stated in the conditions report:

- 4.1- CD-CPC-2023-00074 - **Approval**
- 4.2- CD-CPC-2023-00073- **Approval**
- 4.3- CD-CPC-2023-00072- **Approval with Conditions**

Respectfully Submitted,



Olofu Agbaji
Planner



Plan Conditions

Report Date: September 29, 2023

Case Number: CD-CPC-2023-00072

Project: Arrowhead Lakes

Condition(s) by City Planning and Development Department. Contact Olofu Agbaji at (816) 513-8815 / Olofu.Agbaji@kcmo.org with questions.

1. All signage shall conform to 88-445 and shall require a sign permit prior to installation.
2. That the developer submit a Street Naming Plan to Development Management Division prior to issuance of Building Permit for any phase/ lot. Street naming plan shall be approved prior to Mylar approval of the first final plat.
3. The developer shall submit an affidavit, completed by an ISA certified arborist, an SAF certified forester, a professional engineer, or a landscape architect licensed in the State of Missouri, verifying that all trees preserved and all trees planted to meet mitigation required of the approved plan, whichever is applicable, has been installed or preserved in accordance with the plan and is healthy prior to Certificate of Occupancy.
4. The developer shall submit an affidavit, completed by a landscape architect licensed in the State of Missouri, verifying that street trees have been installed in accordance with the approved street tree planting plan and are healthy prior to Certificate of Occupancy.
5. The developer shall submit an affidavit, completed by a landscape architect licensed in the State of Missouri, verifying that all landscaping required of the approved plan has been installed in accordance with the plan and is healthy prior to Certificate of Occupancy.
6. That the developer submit an application for Project Plan to the City Plan Commission for all private open space indicating plans for landscaping, grading, detailed internal circulation, signage, lighting and a photometric study showing zero foot candles at the property lines prior to ordinance request of the first final plat for this development.
7. No site disturbance or clearing and grubbing permit shall be issued for this site until the proposed sanitary sewer extension project has commenced.
8. That the developer submit revised plan addressing the following prior to issuance ordinance request:
 - a) Provide the full alignment of the proposed sewer main to serve this site from the interceptor prior to ordinance request.
 - b) Provide additional details on the distance of the proposed amenities on Tract A from the existing single family residence to the north. Adequate care should be taken to make sure that there is enough distance and buffer.
 - c) Staff recommends that the boundaries of the tree to be preserved areas be clearly marked and monumented with signage delineating the boundaries as "Do No Disturbance" areas and also shown on each final plat. Boundary markers shall be placed similar to the standard outlined in Section 88-415-07-E.
 - d) Provide preliminary landscape plan sheet depicting the treatment of the 30-foot POS buffer with berms and evergreen trees. This should include a cross section to ensure that the rear yards are adequately buffered/ screened from the public rights of way. This should include proposed screening on Tract A.
 - e) Submit evidence of approval by MoDOT prior to ordinance request.

Condition(s) by City Planning and Development Department. Contact Terry Thomas at (816) 513-2510 / Terry.A.Thomas@kcmo.org with questions.

9. The developer shall submit verification of vertical and horizontal sight distance for the drive connection to public right-of-way to the Land Development Division and make improvements to ensure local jurisdiction and/or minimum AASHTO adequate sight distance standards are met, prior to issuance of any certificate of occupancy.
10. The developer shall submit covenants, conditions and restrictions to the Land Development Division for review by the Law Department for approval and enter into covenant agreements for the maintenance of any private open space tracts with stream buffer zones or stormwater detention area tracts, prior to recording the plat.
11. The developer shall submit plans for grading, siltation, and erosion control to Land Development Division for review and acceptance, and secure a Site Disturbance permit for any proposed disturbance area equal to one acre or more prior to beginning any construction activities.

Condition(s) by City Planning and Development Department. Contact Terry Thomas at (816) 513-2510 / Terry.A.Thomas@kcmo.org with questions.

12. The developer shall pay impact fees as required by Chapter 39 of the City's Code of ordinances as required by the Land Development Division.
13. The developer shall submit a Macro storm drainage study with the first Plat or Phase, from a Missouri-licensed civil engineer to the Land Development Division showing compliance with current adopted standards in effect at the time of submission, including Water Quality BMP's, to the Land Development Division for review and acceptance for the entire development area, and submit Micro storm drainage study with each subsequent Plat or Phase showing compliance with the approved Macro and adopted standards. The developer shall secure permits to construct any improvements as necessary to mitigate impacts from rate, volume, and quality of runoff from each proposed phase, prior to recording the plat or prior to issuance of a Building Permit, whichever occurs first as required by the Land Development Division.
14. The developer shall construct temporary off-site cul-de-sacs and grant a city approved temporary cul-de-sac easement, for that portion outside of the dedicated street right-of-way, to the City as required by the Land Development Division, prior to recording the plat.
15. The developer shall cause the area to be platted and processed in accordance with Chapter 88, Code of Ordinances of the City of Kansas City, Missouri.
16. The developer shall dedicate additional right of way [and provide easements] for Holmes Road and Prospect Ave as required by the adopted [Major Street Plan and/or Chapter 88] so as to provide a minimum of 50 feet of right of way as measured from the centerline, along those areas being platted.
17. The developer shall secure permits to extend public sanitary and storm water conveyance systems to serve all proposed lots within the development and determine adequacy of receiving systems as required by the Land Development Division, prior to recording the plat or issuance of a building permit whichever occurs first.

Condition(s) by Fire Department. Contact Michael Schroeder at (816) 513-4604 / michael.schroeder@kcmo.org with questions.

18. • The project shall meet the fire flow requirements as set forth in Appendix B of the International Fire Code 2018. (IFC-2018 § 507.1)
19. • Fire hydrants shall be installed and operable prior to the arrival of any combustible building materials onto the site. (IFC-2018 § 501.4 and 3312.1; NFPA 241-2013 § 8.7.2)
 - Fire hydrant distribution shall follow IFC-2018 Table C102.1
20. • A required fire department access roads shall be an all weather surface. (IFC-2012: § 503.2.3)
 - Fire Department access roads shall be provided prior to construction/demolition projects begin. (IFC-2018 § 501.4 and 3310.1; NFPA 241-2013 § 7.5.5)
 - Required fire department access roads shall designed to support a fire apparatus with gross axle weight of 85,000 pounds. (IFC-2018: § 503.2.3)
21. • The turning radius for fire department access roads shall be 30 feet inside and 50 feet outside radius. (IFC-2018: § 503.2.4)
 - Shall provide fire lane signage on fire access drives.
22. • One and two family residential developments exceeding 30 dwelling units shall have at least two separate and approved fire apparatus access roads (IFC-2018: § D107.1)
 - Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the lot or area to be served, measured in a straight line between accesses. (IFC-2018: § D106.3)

Phase 9 shall not exceed 30 dwelling units prior to approval and installation of a secondary access. A widened sidewalk does not meet the code for a secondary access.

Condition(s) by Parks & Recreation. Contact Richard Sanchez at (816) 513-7678 / Richard.Sanchez@kcmo.org with questions.

23. The developer shall be responsible for dedication of parkland, private open space in lieu of parkland, or payment of cash-in-lieu of either form of dedication, or any combination thereof in accordance with 88-408. Should the developer choose to pay cash-in-lieu of dedicating all or a portion of the required area, the amount due shall be based upon the 2023 acquisition rate of \$64,220.18 per acre. This requirement shall be satisfied prior to recording of the final plat.

Condition(s) by Parks & Recreation. Contact Richard Sanchez at (816) 513-7678 / Richard.Sanchez@kcmo.org with questions.

24. The developer shall submit a streetscape plan with street tree planting plan per 88-425-03 for approval and permitting by the Parks & Recreation Department's Forestry Division prior to beginning work in the public right-of-way
25. All trails to be credited towards satisfying the Parkland Dedication Requirements shall be a minimum of 7' in width and concrete in material.

Condition(s) by Public Works Department. Contact Sam Akula at (816) 513-9861 / sam.akula@kcmo.org with questions.

26. Holmes Road & Site Drive A - Construct a southbound left-turn lane with a minimum 290' of storage plus a 180' taper.
Holmes Road & 155th Street - Construct a southbound left-turn lane with a minimum 290' of storage plus a 180' taper
The following improvements will be needed once construction begins on Phase 7 of the development:
Holmes Road & 155th Street - Construct a northbound right-turn lane with a minimum 240' of storage plus a 180' taper
MO-150 & Prospect Avenue - Construct an eastbound right-turn lane with a minimum 310' of storage plus a 180' taper

Condition(s) by Water Services Department. Contact Heather Massey at (816) 513-2111 / heather.massey@kcmo.org with questions.

27. The developer shall ensure that water and fire service lines should meet current Water Services Department Rules and Regulations. Prior to C of O.
<https://www.kcwater.us/wp-content/uploads/2022/05/2022-Rules-and-Regulations-for-Water-Service-Lines-Final.pdf>

Condition(s) by Water Services Department. Contact Kirk Rome at (816) 513-0368 / kirk.rome@kcmo.org with questions.

28. The developer must submit water main extension plans prepared by a registered professional Engineer in Missouri to the main extension desk for review, acceptance and contracts per the KC Water Rules and Regulations for Water main extensions and Relocations.
(<https://www.kcwater.us/wp-content/uploads/2022/05/2022-Rules-and-Regulations-for-Water-Main-Extensions-Final2.pdf>).

Condition(s) by Water Services Department. Contact Lucas Kaspar at (816) 513-2131 / Lucas.Kaspar@kcmo.org with questions.

29. The developer shall cause the area to be platted and processed in accordance with Chapter 88, Code of Ordinances of the City of Kansas City, Missouri, as amended, commonly known as the Development Regulations.
30. The developer must submit a Macro storm drainage study with the first Plat or Phase, from a Missouri-licensed civil engineer to the Land Development Division showing compliance with current adopted standards in effect at the time of submission, including Water Quality BMP's, to the Land Development Division for review and acceptance for the disturbed area, and submit Micro storm drainage study with each subsequent Plat or Phase showing compliance with the approved Macro and adopted standards. The developer shall secure permits to construct any improvements as necessary to mitigate impacts from rate, volume, and quality of runoff from each proposed phase, prior to recording the plat or prior to issuance of a Building Permit, whichever occurs first as required by the Land Development Division.
31. The developer shall submit an analysis to verify adequate capacity of the existing sewer system as required by the Land Development Division prior to issuance of a building permit to connect private system to the public sewer main and depending on adequacy of the receiving system, other improvements may be required.
32. The developer must secure permits to extend public sanitary and storm water conveyance systems to serve all proposed lots within the development and determine adequacy of receiving systems as required by the Land Development Division, prior to recording the plat or issuance of a building permit whichever occurs first.
33. The developer shall coordinate with KC Water to determine the alignment for the sanitary sewer interceptor extension to serve the development. The final plat shall not be recorded until the sanitary sewer extension to the interceptor is bonded and under contract.
34. The developer must grant any BMP and Surface Drainage Easements to the City as required by the Land Development Division, prior to recording the plat or issuance of any building permits.
35. The developer shall submit a Preliminary Stream Buffer plan prior to approval of the plan in accordance with the Section 88-415 requirements.
36. The developer shall submit a final stream buffer plan to the Land Development Division for approval prior to issuance of any building permits and obtain permits for the Stream Buffer prior to removal of any mature riparian species within the buffer zones due to construction activities on the site, in accordance with the Section 88-415 requirements.
37. The developer must grant on City approved forms, a STREAM BUFFER Easement to the City, as required by Chapter 88 and Land Development Division, prior to issuance of any stream buffer permits.

Condition(s) by Water Services Department. Contact Lucas Kaspar at (816) 513-2131 / Lucas.Kaspar@kcmo.org with questions.

38. The developer must submit covenants, conditions and restrictions to the Land Development Division for review by the Law Department for approval and enter into covenant agreements for the maintenance of any private open space tracts with stream buffer zones or storm water detention area tracts, prior to recording the plat.

LRP Development Case Review Checklist

Case Type: Preliminary Plat

Case Number: CD-CPC-2023-00072

Address: 1400 E 147th St Unit:ROW-STR-State

Area Plan: Martin City Area Plan

Current Zoning: R-80

Current AP Designation: Res Low Density, Res Med Density

Assigned DMD Planner: Olofu Agbaji

General Info

Neighborhood Context

- Existing surrounding zonings
 - R-80 (N, E, W)
 - Out of City Limits (S)
- Existing surrounding land uses
 - Undeveloped (N, E, S, W)
- Surrounding future land use designations
 - Res Low Density (N, W)
 - Res Med Density (S)
 - Office (E)
 - Industrial (NE)
- Sub-Area Designation (if applicable)
 - N/A
- Other Plans to Reference
 - N/A
- Other Plans Guidance
 - TrailsKC Plan – proposes trail connections on TrailsKC Plan along Highway 150
- Is there an established land use pattern and will this disrupt it?
 - This area is largely undeveloped
- Will it be a “spot” zoning?
 - No

- Is there an established (or desired) architectural theme, building scale, etc. and will this complement that or disrupt it?
 - This area is largely undeveloped
- Are there appropriate transitions between uses/buildings of differing scale and intensity of use?
 - N/A

Access

- Does the site have access from a major street or a local street?
 - Yes, on Holmes and Prospect
- How much activity will the site generate? Does the level of activity match the type of street its located on?
 - The project is expected to significantly increase activity in the area, primarily residential traffic
- Street condition? (narrow/unimproved/improved)
 - Holmes is improved on the west side of the project but needs sidewalks
 - Prospect is not improved
- What kind of vehicles will be entering/exiting the site
 - Personal vehicles
- Will access to/from the site impact neighboring properties or neighborhoods?
 - No
- Is there adequate bus, pedestrian and bike access? What does the area plan recommend for the area in terms of pedestrian or transit-oriented design?
 - This area is almost entirely undeveloped
- Is it on a major transit corridor and have TOD principles been incorporated?
 - N/A
- Has a Traffic Impact Study been required by Public Works and will a Walkability Analysis be needed as part of that study?
 - Yes and yes

Area Plan Review

Land Use

- Is proposed use consistent with land use plan?
 - Yes
 - There are several regulated streams that run through the subject property. The layout of the single-family development largely avoids disrupting the areas designated in the FLU map as Open Space/Conservation

- Is there a change in zoning that would require a land use plan amendment? (If yes, include Decision Making Criteria Checklist in case review report.)
 - No
- Specific Transportation/Walkability Recommendations
 - Sidewalks are needed on Holmes and Prospect for future connections

Applicable Development Form Guidelines

- Development form designation
 - Neighborhood
- Development Form Guidelines
 - **More connectivity is needed internally in the development.**
 - **Tracts should be used as community amenities as much as possible. Trail connections would be a great amenity here.**
 - **As many trees and existing vegetation should be preserved as possible.**
 - *Neighborhoods streets should be “calm” while also providing a high level of access for area residents without encouraging high “through” traffic or high traffic volumes or speeds within neighborhoods.*
 - *Neighborhoods should be connected by providing physical links (bike, pedestrian, and automobile connections) with other neighborhoods, corridors, nodes, and districts. Neighborhoods should have community gathering spaces for neighborhood events which help create social connections.*
 - *Homes should have prominent front doors facing the street.*
 - *Usable porches facing the street are encouraged in order to promote social interaction and provide passive “eyes on the street”. Locate houses parallel to the street to further define the street edge and public presence.*
 - *Preserve the environmental qualities (topography, mature vegetation, etc.) of the site to protect sensitive natural areas and drainage patterns.*
 - *Natural areas should be accessible to the neighborhood and connected to greenways where possible.*
 - *Dead end and cul-de-sac streets are discouraged.*
- Architectural Character
 - General Character
 - N/A
 - Massing and Scale
 - N/A
 - Materials
 - N/A
 - Structured Parking

- N/A
 - Windows/Transparency
 - N/A
 - Topography
 - N/A
- Site Arrangement
 - Building Placement
 - N/A
 - Development Pattern
 - N/A
 - Parking
 - N/A
 - Natural Resource Preservation
 - **As much trees and vegetation should be preserved as possible**
 - *Preserve the environmental qualities of the site to protect sensitive natural areas, landscape character, and drainage patterns.*
 - *Natural areas should be accessible to neighborhoods, nodes, corridors, or districts, and connected to greenways where possible.*
 - *Manage storm water runoff as part of the overall open space system.*
 - *Discourage development and grading/filling on steep slopes and in floodplains.*
- Transitions and Screening
 - Transitions
 - N/A
 - Screening
 - N/A
- Public and Semi-Public Spaces
 - Public Spaces
 - N/A
 - Streetscape
 - N/A
 - Gateways
 - **The gateways into the neighborhood should be landscaped with monument signs identifying the neighborhood.**

- *Gateways should be integrated into overall streetscape design where appropriate. Place gateways at key intersections, and entries into neighborhoods, nodes, and districts.*
 - *Gateways and intersection enhancements should include vertical architectural features or focal points constructed of high-quality materials such as stone, cast stone, tile, metal, or masonry...*
- Access and Circulation Guidelines
 - Multimodal
 - Pedestrian
 - **Crosswalks should be clearly painted/identified with signage.**
 - *Ensure that pedestrian street crossings meet Walkability Plan level of service recommendations. At a minimum provide crosswalks that:*
 - *Are well-marked and visible to vehicles*
 - *Include pedestrian and intersection amenities to notify drivers that there is a pedestrian crossing present and enhance the local urban design context and character*
 - *Provide for safety for all age/ability groups*
 - *Ensure adequate line-of-sight from pedestrian to automobile and automobile to pedestrian*
 - *Pedestrian and bike access should be provided to adjacent or onsite regional trail corridors (see TrailsKC Plan) or other established trail corridor.*
 - Vehicular
 - **The layout of the plat shows several street connections that could reasonably be made to increase overall connectivity. There needs to be more balance between cul-de-sacs and street connections.**
 - *Streets should form a network with frequent intersections and connect neighborhoods, nodes, corridors, and districts. Continue streets through to as many adjacent developments as possible or allow for future connections where topography permits. Maximize street connections in new development.*

PROJECT NAME:

ARROWHEAD LAKES

WATERSHED NAME: BLUE RIVER

PART OF THE NORTHEAST QUARTER OF SECTION 32 TOGETHER WITH SECTION 33 AND THE AND THE SOUTHEAST QUARTER OF SECTION 34, TOWNSHIP 47, RANGE 33, IN KANSAS CITY, JACKSON COUNTY, MISSOURI

PRELIMINARY PLAT

	INDEX
1	COVER SHEET
2	EXISTING CONDITIONS
3-6	PRELIMINARY PLAT
7-9	GRADING
10-12.1	UTILITY
13	PRELIMINARY VEHICULAR CIRCULATION
14	STREET NAMING PLAN
15-16	TREE PRESERVATION PLAN
L1-L4	LANDSCAPING PLAN

OWNER/DEVELOPER:

ARROWHEAD LAKES, LLC
ATTN: MICHAEL HAAS
9811 MELROSE STREET
OVERLAND PARK, KS 66214
EMAIL: MHAAS@HAAS-ENTERPRISE.NET

PREPARED & SUBMITTED BY:

PHELPS ENGINEERING, INC.
1270 N. WINCHESTER
OLATHE, KS 66061
913-393-1155 OFFICE
913-393-1166 FAX
CONTACT: JUDD CLAUSSEN, P.E.

LEGAL DESCRIPTION:

THIS DESCRIPTION WAS PREPARED BY SCOTT G. CHRISMAN, RLS #2594 ON JANUARY 31, 2023, FOR PROJECT NO. 210303. ALL THAT PART OF THE NORTHEAST QUARTER OF SECTION 32 TOGETHER WITH SECTION 33 AND THE SOUTHEAST QUARTER OF SECTION 34, ALL IN TOWNSHIP 47 NORTH, RANGE 33 WEST, IN THE CITY OF KANSAS CITY, JACKSON COUNTY, MISSOURI, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGINNING AT SOUTHWEST CORNER OF THE NORTHEAST QUARTER OF SAID SECTION 32; THENCE N 86°27'03" W, ALONG THE SOUTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 32, A DISTANCE OF 447.17 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF MISSOURI D HIGHWAY/HOLMES ROAD, AS NOW ESTABLISHED; THENCE ALONG THE EASTERLY RIGHT-OF-WAY LINE OF SAID MISSOURI D HIGHWAY/HOLMES ROAD, FOR THE FOLLOWING SIX (6) COURSES; THENCE N 32°54'42" W, A DISTANCE OF 189.84 FEET; THENCE NORTHERLY ON A CURVE TO THE RIGHT, SAID CURVE HAVING AN INITIAL TANGENT BEARING OF N 0°48'49" E AND A RADIUS OF 11349.19 FEET, AN ARC DISTANCE OF 205.92 FEET; THENCE N 21°35'38" E, A DISTANCE OF 104.90 FEET; THENCE NORTHERLY ON A CURVE TO THE RIGHT, SAID CURVE HAVING AN INITIAL TANGENT BEARING OF N 2°21'23" E AND A RADIUS OF 11314.19 FEET, AN ARC DISTANCE OF 151.41 FEET; THENCE N 14°18'41" E, A DISTANCE OF 921.53 FEET; THENCE N 14°18'41" E, A DISTANCE OF 526.53 FEET TO A POINT ON THE NORTH LINE OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION 32; THENCE S 86°22'21" E, ALONG THE NORTH LINE OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION 32, A DISTANCE OF 472.24 FEET TO THE NORTHWEST CORNER OF THE SOUTH ONE-HALF OF THE NORTHWEST QUARTER OF SAID SECTION 33; THENCE S 86°31'37" E, ALONG THE NORTH LINE OF THE SOUTH ONE-HALF OF THE NORTHWEST QUARTER OF SAID SECTION 33, A DISTANCE OF 397.77 FEET; THENCE S 23°17'38" W, A DISTANCE OF 319.68 FEET; THENCE S 48°29'38" E, A DISTANCE OF 765.36 FEET; THENCE S 3°35'38" W, A DISTANCE OF 501.78 FEET TO A POINT ON THE SOUTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 33; THENCE S 86°23'40" E, ALONG THE SOUTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 33, A DISTANCE OF 470.71 FEET; THENCE N 40°15'00" E, A DISTANCE OF 1149.13 FEET; THENCE S 72°54'17" E, A DISTANCE OF 676.21 FEET; THENCE N 42°51'16" E, A DISTANCE OF 1850.78 FEET TO A POINT ON THE SOUTHERLY RIGHT-OF-WAY LINE OF MISSOURI 150 HIGHWAY, AS NOW ESTABLISHED; THENCE ALONG THE SOUTHERLY RIGHT-OF-WAY LINE OF SAID MISSOURI 150 HIGHWAY, FOR THE FOLLOWING SIX (6) COURSES; THENCE S 81°56'27" E, A DISTANCE OF 400.19 FEET; THENCE S 83°32'39" E, A DISTANCE OF 820.74 FEET; THENCE S 87°47'53" E, A DISTANCE OF 120.58 FEET; THENCE S 83°26'26" E, A DISTANCE OF 210.36 FEET; THENCE S 72°40'41" E, A DISTANCE OF 151.90 FEET; THENCE S 53°12'27" E, A DISTANCE OF 58.70 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF PROSPECT AVENUE, AS NOW ESTABLISHED; THENCE ALONG THE WESTERLY RIGHT-OF-WAY LINE OF SAID PROSPECT AVENUE, FOR THE FOLLOWING NINE (9) COURSES; THENCE S 21°31'38" W, A DISTANCE OF 319.92 FEET; THENCE S 86°38'24" E, A DISTANCE OF 18.37 FEET; THENCE S 93°15'56" W, A DISTANCE OF 2073.10 FEET; THENCE S 31°10'05" W, A DISTANCE OF 720.93 FEET; THENCE SOUTHEASTERLY ON A CURVE TO THE LEFT, SAID CURVE BEING TANGENT TO THE LAST DESCRIBED COURSE AND HAVING A RADIUS OF 11020 FEET, AN ARC DISTANCE OF 165.07 FEET; THENCE S 82°47'56" E, A DISTANCE OF 144.37 FEET; THENCE SOUTHEASTERLY ON A CURVE TO THE RIGHT, SAID CURVE BEING TANGENT TO THE LAST DESCRIBED COURSE AND HAVING A RADIUS OF 90.00 FEET, AN ARC DISTANCE OF 135.00 FEET; THENCE S 21°10'05" W, A DISTANCE OF 189.71 FEET; THENCE SOUTHWESTERLY ON A CURVE TO THE RIGHT, SAID CURVE BEING TANGENT TO THE LAST DESCRIBED COURSE AND HAVING A RADIUS OF 40.00 FEET, AN ARC DISTANCE OF 43.20 FEET TO A POINT ON THE NORTHERLY RIGHT-OF-WAY LINE OF E. 155TH STREET, AS NOW ESTABLISHED; THENCE ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF SAID E. 155TH STREET, FOR THE FOLLOWING TWO (2) COURSES; THENCE N 86°17'09" W, A DISTANCE OF 289.64 FEET; THENCE N 86°19'25" W, A DISTANCE OF 2899.34 FEET TO A POINT ON THE WEST LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 33; THENCE N 32°52'02" E, ALONG THE WEST LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 33, A DISTANCE OF 1678.96 FEET; THENCE N 28°19'59" W, A DISTANCE OF 218.48 FEET; THENCE N 36°19'19" W, A DISTANCE OF 182.96 FEET; THENCE E 74°57'43" W, A DISTANCE OF 80.81 FEET; THENCE N 38°41'18" W, A DISTANCE OF 80.31 FEET; THENCE N 81°18'42" W, A DISTANCE OF 150.00 FEET; THENCE S 38°41'18" W, A DISTANCE OF 45.00 FEET; THENCE N 51°18'42" W, A DISTANCE OF 50.00 FEET; THENCE N 57°23'28" W, A DISTANCE OF 171.12 FEET; THENCE N 74°13'35" W, A DISTANCE OF 155.07 FEET; THENCE N 80°41'18" W, A DISTANCE OF 309.99 FEET; THENCE N 15°31'07" E, A DISTANCE OF 50.00 FEET; THENCE N 80°41'18" W, A DISTANCE OF 169.09 FEET; THENCE N 68°36'48" W, A DISTANCE OF 188.86 FEET; THENCE N 53°32'25" W, A DISTANCE OF 215.56 FEET; THENCE N 48°51'07" E, A DISTANCE OF 12.38 FEET; THENCE N 29°51'23" W, A DISTANCE OF 154.51 FEET TO A POINT ON THE SOUTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 33; THENCE N 86°23'40" W, ALONG THE SOUTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 33, A DISTANCE OF 869.71 FEET TO THE POINT OF BEGINNING, CONTAINING 363.1222 ACRES, MORE OR LESS, SUBJECT TO THAT PART IN STREETS AND ROADS.

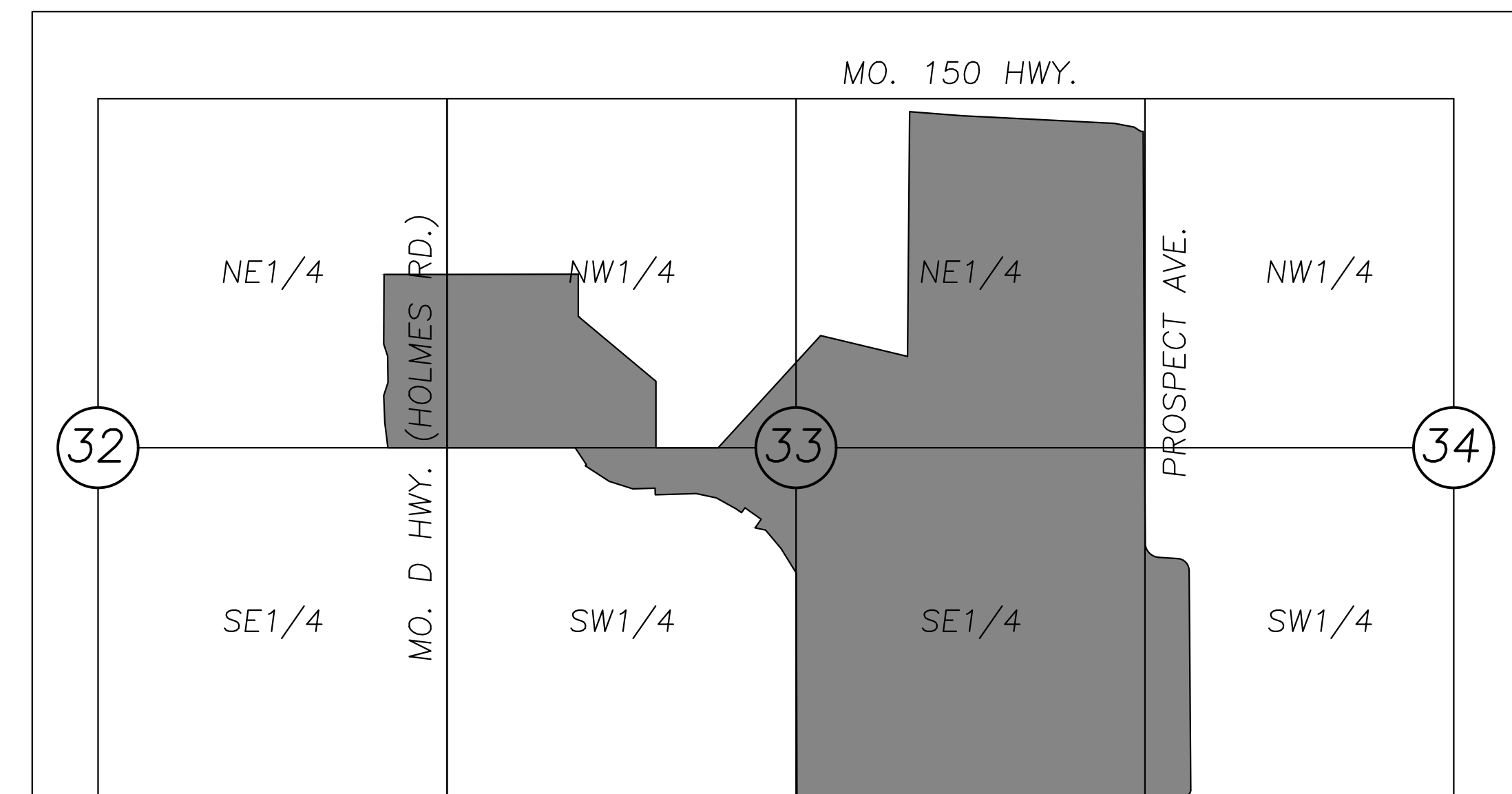
GROSS AREA = ±363.1222 ACRES

FLOOD NOTE:

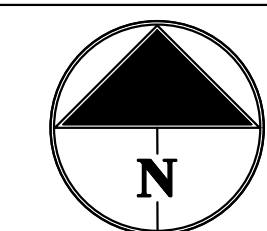
THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF KANSAS CITY, COMMUNITY NO. 29073, JACKSON COUNTY, MISSOURI, PANEL NO. 2905050202, AND DATED JANUARY 20, 2017.

GENERAL NOTES:

- EXISTING ZONING: R-80
PROPOSED ZONING: R-7.5
- PROPOSED CONTOURS, GRADES, AND UTILITIES ARE SUBJECT TO FINAL ENGINEERING DESIGN AND APPROVAL BY DEVELOPMENT SERVICES, PRIVATE UTILITY COMPANIES, AND PERMIT PLAN APPROVALS.
- FINAL DESIGN OF STORMWATER DETENTION & BMP'S SHALL BE PER APPROVED STORM DRAINAGE STUDY. STORMWATER STUDY WILL IDENTIFY DETENTION, VOLUME CONTROL, AND TREATMENT AREAS.



VICINITY MAP
SEC. 34-47-33
SEC. 33-47-33
SEC. 32-47-33



SCALE: 1"=1000'

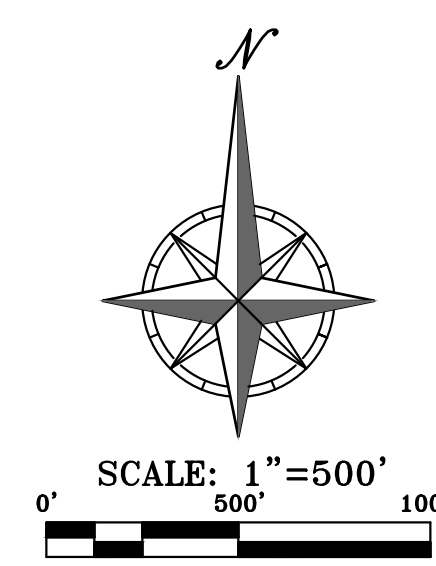


UTILITY NOTES:
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN.
UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.

Know what's below.
Call before you dig.

LEGEND

PROPERTY BOUNDARY



CONSTRUCTION PERMIT FILE NO. _____

- FOR CONSTRUCTION
- NOT FOR CONSTRUCTION

PHELPS ENGINEERING, INC.
1270 N. WINCHESTER
OLATHE, KANSAS 66061
(913) 393-1155
WWW.PHELPSENGINEERING.COM

PLANNING
ENGINEERING
IMPLEMENTATION

PEI

COVER SHEET
ARROWHEAD LAKES
CITY OF KANSAS CITY, JACKSON COUNTY, MISSOURI

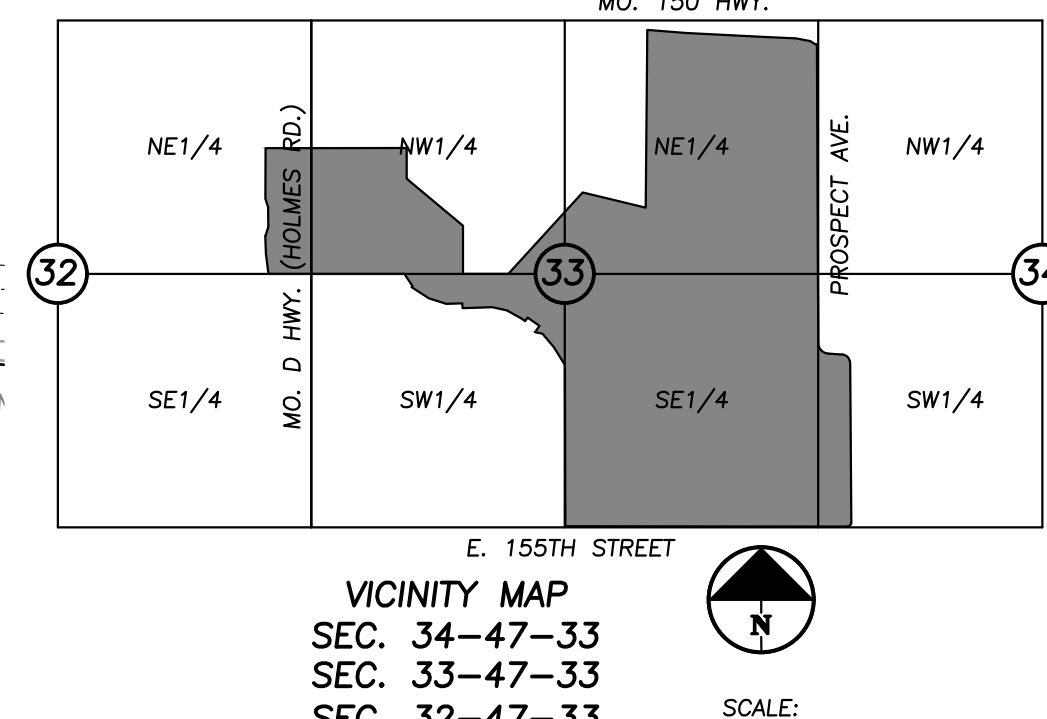
PROJECT NO.	DATE	BY	APP.	REVISIONS
210303	7/14/23	DAC	DEU	REVISED PER CITY COMMENTS
	9/18/23	BAG	DEU	REVISED PER CITY COMMENTS

SHEET
1



NOTES:
 EXISTING CONDITIONS OBTAINED VIA COMBINATION OF JACKSON COUNTY GIS AND FIELD SURVEY.

FLOOD NOTE:
 THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF KANSAS CITY, COMMUNITY NO. 290173, JACKSON COUNTY, MISSOURI, PANEL NO. 2909502020, AND DATED JANUARY 20, 2017.



- LEGEND**
- I = FOUND CURB CUT
 - = FOUND MANHOLE & SHOWER
 - = FOUND SURVEY MONUMENT (ORIGIN UNKNOWN UNLESS DESCRIBED)
 - = SET 1/2"x24" REBAR WITH "MOLDS200700128" PLASTIC CAP
 - = BURIED GAS MARKER
 - = BURIED TELEPHONE MARKER
 - ER ○ = ELECTRIC RISER
 - ET □ = ELECTRIC TRANSFORMER
 - EH □ = FIRE HYDRANT
 - GW ○ = GUY WIRE
 - LP ○ = LIGHT POLE
 - MB □ = MAIL BOX
 - MH ○ = MANHOLE (WELL)
 - MW ○ = MONITORING WELL
 - PP ○ = POWER POLE
 - PPTR ○ = POWER POLE WITH TRANSFORMER(S)
 - PROR ○ = PVC RISER
 - SS ○ = STREET SIGN
 - SSMH ○ = SANITARY SEWER MANHOLE
 - SSMR ○ = STORM SEWER MANHOLE
 - TR ○ = TELEPHONE RISER
 - TVR ○ = TELEVISION RISER
 - WV ○ = WATER VALVE
 - G.I. = GRATE INLET
 - C.I. = CURB INLET
 - A.I. = AREA INLET
 - J.B. = JUNCTION BOX
 - R/W = RIGHT-OF-WAY
 - (P) = PLATTED
 - (D) = DEEDED
 - (M) = MEASURED
 - AE = APPARENT ENCROACHMENT
 - OP = OVERHEAD POWER LINE
 - = PROPERTY LINE
 - = RIGHT-OF-WAY LINE
 - = SANITARY SEWER LINE
 - = STORM SEWER LINE
 - = FENCE LINE
 - = EXISTING INTERMEDIATE CONTOURS
 - = EXISTING INDEX CONTOURS



±363.1222 ACRES

PHILIPS ENGINEERING, INC.
 1000 N. Winchester
 Clinton, Kansas 66001
 (913) 399-1935
 www.philipsengineering.com

PLANNING
 ENGINEERING
 IMPLEMENTATION

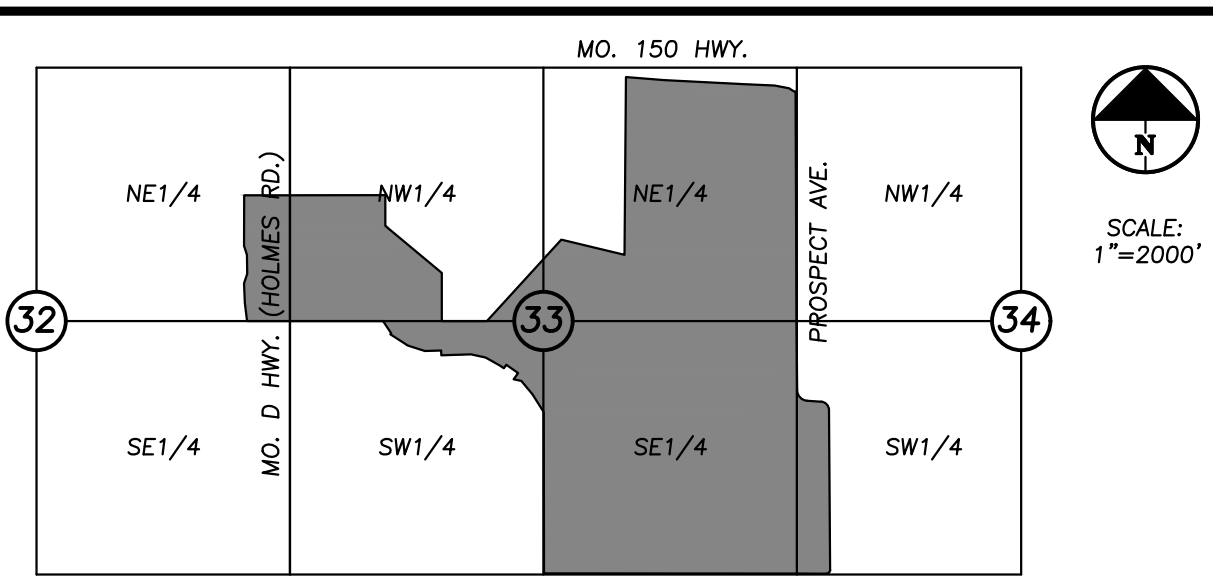
PEI

EXISTING CONDITIONS
 ARROWHEAD LAKES
 CITY OF KANSAS CITY, JACKSON COUNTY, MISSOURI

By	App.	Date	Revisions
DAC	DEU	7/14/23	REVISED PER CITY COMMENTS
BAG	DEU	9/18/23	REVISED PER CITY COMMENTS

PROJECT NO. 210303
 DATE: 12/29/23
 CHECKED: DEU
 DATE OF APPROVAL: 1/10/24
 DRAWN BY: DEU
 DATE OF APPROVAL: 1/10/24
 SCALE: 1"=200'

SHEET
 2



VICINITY MAP
 SEC. 34-47-33
 SEC. 33-47-33
 SEC. 32-47-33

DESCRIPTION:
 THIS DESCRIPTION WAS PREPARED BY SCOTT G. CHRISMAN, RLS #2994 ON JANUARY 31, 2023, FOR PROJECT NO. 210303. ALL THAT PART OF THE NORTHEAST QUARTER OF SECTION 32 TOGETHER WITH SECTION 33 AND THE SOUTHWEST QUARTER OF SECTION 34 ALL IN TOWNSHIP 47 NORTH, RANGE 33 WEST, IN THE CITY OF KANSAS CITY, JACKSON COUNTY, MISSOURI, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

DESCRIPTION:
 BEGINNING AT SOUTHEAST CORNER OF THE NORTHEAST QUARTER OF SAID SECTION 32; THENCE N 86°27'03" W, ALONG THE SOUTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 32, A DISTANCE OF 147.17 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF MISSOURI D HIGHWAY/HOLMES ROAD, AS NOW ESTABLISHED; THENCE ALONG THE EASTERLY RIGHT-OF-WAY LINE OF SAID MISSOURI D HIGHWAY/HOLMES ROAD, FOR THE FOLLOWING SIX (6) COURSES; THENCE N 32°54'42" W, A DISTANCE OF 189.84 FEET; THENCE NORTHERLY ON A CURVE TO THE RIGHT, SAID CURVE HAVING AN INITIAL TANGENT BEARING OF N 08°45'18" E AND A RADIUS OF 1148.19 FEET, AN ARC DISTANCE OF 205.92 FEET; THENCE N 21°35'38" E, A DISTANCE OF 104.90 FEET; THENCE NORTHERLY ON A CURVE TO THE RIGHT, SAID CURVE HAVING AN INITIAL TANGENT BEARING OF N 21°23'23" E AND A RADIUS OF 1134.19 FEET, AN ARC DISTANCE OF 197.47 FEET; THENCE N 14°19'40" W, A DISTANCE OF 97.53 FEET; THENCE N 03°49'21" E, A DISTANCE OF 526.53 FEET TO A POINT ON THE NORTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 32; THENCE S 86°22'21" E, ALONG THE NORTH LINE OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION 32, A DISTANCE OF 472.24 FEET TO THE SOUTHWEST CORNER OF THE SOUTH ONE-HALF OF THE NORTHEAST QUARTER OF SAID SECTION 32; THENCE S 86°31'37" E, ALONG THE NORTH LINE OF THE SOUTH ONE-HALF OF THE NORTHEAST QUARTER OF SAID SECTION 32, A DISTANCE OF 997.77 FEET; THENCE S 37°37'39" W, A DISTANCE OF 318.66 FEET; THENCE S 46°29'36" E, A DISTANCE OF 765.36 FEET; THENCE S 35°38'38" W, A DISTANCE OF 501.19 FEET TO A POINT ON THE SOUTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 32; THENCE S 86°22'40" E, ALONG THE SOUTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 32, A DISTANCE OF 470.71 FEET; THENCE N 48°19'51" E, A DISTANCE OF 1149.13 FEET; THENCE S 72°54'17" E, A DISTANCE OF 676.21 FEET; THENCE N 43°51'16" E, A DISTANCE OF 1850.78 FEET TO A POINT ON THE SOUTHERLY RIGHT-OF-WAY LINE OF MISSOURI 150 HIGHWAY, AS NOW ESTABLISHED; THENCE ALONG THE SOUTHERLY RIGHT-OF-WAY LINE OF SAID MISSOURI 150 HIGHWAY, FOR THE FOLLOWING SIX (6) COURSES; THENCE S 81°56'47" E, A DISTANCE OF 400.19 FEET; THENCE S 83°32'39" E, A DISTANCE OF 820.74 FEET; THENCE S 83°47'53" E, A DISTANCE OF 120.58 FEET; THENCE S 83°28'26" E, A DISTANCE OF 210.36 FEET; THENCE S 72°04'41" E, A DISTANCE OF 151.90 FEET; THENCE S 53°17'22" E, A DISTANCE OF 58.70 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF PROSPECT AVENUE, AS NOW ESTABLISHED; THENCE ALONG THE WESTERLY RIGHT-OF-WAY LINE OF SAID PROSPECT AVENUE, FOR THE FOLLOWING NINE (9) COURSES; THENCE S 27°17'38" W, A DISTANCE OF 319.92 FEET; THENCE S 86°58'47" E, A DISTANCE OF 193.37 FEET; THENCE S 18°37'10" W, A DISTANCE OF 2073.10 FEET; THENCE S 31°11'05" W, A DISTANCE OF 720.93 FEET; THENCE SOUTHEASTERLY ON A CURVE TO THE LEFT, SAID CURVE BEING TANGENT TO THE LAST DESCRIBED COURSE AND HAVING A RADIUS OF 40.00 FEET, AN ARC DISTANCE OF 165.07 FEET; THENCE S 82°47'56" E, A DISTANCE OF 144.37 FEET; THENCE SOUTHEASTERLY ON A CURVE TO THE RIGHT, SAID CURVE BEING TANGENT TO THE LAST DESCRIBED COURSE AND HAVING A RADIUS OF 80.00 FEET, AN ARC DISTANCE OF 135.06 FEET; THENCE S 31°10'51" W, A DISTANCE OF 1662.71 FEET; THENCE SOUTHWESTERLY ON A CURVE TO THE RIGHT, SAID CURVE BEING TANGENT TO THE LAST DESCRIBED COURSE AND HAVING A RADIUS OF 40.00 FEET, AN ARC DISTANCE OF 63.20 FEET TO A POINT ON THE NORTHERLY RIGHT-OF-WAY LINE OF E. 155TH STREET, AS NOW ESTABLISHED; THENCE ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF SAID E. 155TH STREET, FOR THE FOLLOWING TWO (2) COURSES; THENCE N 86°19'25" W, A DISTANCE OF 269.54 FEET; THENCE N 86°19'25" W, A DISTANCE OF 269.54 FEET TO A POINT ON THE WEST LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 33; THENCE N 32°52'32" E, ALONG THE WEST LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 33, A DISTANCE OF 1678.96 FEET; THENCE N 28°19'59" W, A DISTANCE OF 218.48 FEET; THENCE N 36°19'19" W, A DISTANCE OF 182.96 FEET; THENCE N 74°57'43" W, A DISTANCE OF 60.81 FEET; THENCE N 86°41'16" E, A DISTANCE OF 80.31 FEET; THENCE N 51°18'42" W, A DISTANCE OF 150.00 FEET; THENCE N 38°41'18" W, A DISTANCE OF 45.00 FEET; THENCE N 51°18'42" W, A DISTANCE OF 50.00 FEET; THENCE N 37°22'29" W, A DISTANCE OF 171.12 FEET; THENCE N 41°35'57" W, A DISTANCE OF 518.42" W, A DISTANCE OF 150.00 FEET; THENCE N 38°41'18" W, A DISTANCE OF 155.07 FEET; THENCE N 88°06'41" W, A DISTANCE OF 309.99 FEET; THENCE N 15°19'19" W, A DISTANCE OF 50.00 FEET; THENCE N 88°06'41" W, A DISTANCE OF 188.09 FEET; THENCE N 88°06'41" W, A DISTANCE OF 188.09 FEET; THENCE N 53°32'25" W, A DISTANCE OF 215.56 FEET; THENCE N 48°59'10" E, A DISTANCE OF 12.36 FEET; THENCE N 29°51'23" W, A DISTANCE OF 154.31 FEET TO A POINT ON THE WEST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 33; THENCE N 86°23'40" W, ALONG THE SOUTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 33, A DISTANCE OF 999.77 FEET TO THE POINT OF BEGINNING, CONTAINING 363.1222 ACRES, MORE OR LESS, SUBJECT TO THAT PART IN STREETS AND ROADS.

PROJECT NOTE:
 1. ALL TRACTS AS SHOWN HEREON SHALL BE DEDICATED AS PRIVATE OPEN SPACE, COMMON AREAS AND MAY INCLUDE BUT NOT LIMITED TO LANDSCAPING, FENCING, SUBVISION MONUMENTS, STORM WATER DETENTION AND AMENITIES AND WILL BE OWNED AND MAINTAINED BY THE HOMES ASSOCIATION.
 2. ALL STREETS ARE PUBLIC.

FLOOD NOTE:
 THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF KANSAS CITY, COMMUNITY NO. 290173, JACKSON COUNTY, MISSOURI, PANEL NO. 290950502G, AND DATED JANUARY 20, 2017

SITE DATA TABLE:

GROSS AREA	363.1222 ACRES
EXISTING ZONING	R-7
PROPOSED ZONING	R-7.5
PROPOSED NUMBER OF LOTS	574
PROPOSED LAND USE	SINGLE FAMILY RESIDENTIAL
DENSITY	1.6 LOTS PER ACRE

R-7.5 CONVENTIONAL DEVELOPMENT SETBACKS

MIN. LOT AREA	7,500 S.F.
MIN. LOT WIDTH	50 FEET
FRONT SETBACK	30 FEET
REAR SETBACK	10 FEET
SIDE SETBACK	10% EACH SIDE - 8 FEET MAX
STREET SIDE SETBACK	15 FEET

DEVIATION REQUEST:
 LOTS 493-574 DO NOT HAVE TWO FIRE APPARATUS ACCESS ROADS EITHER SIDE OF THE LONGEST DIAGONAL. A DEVIATION REQUEST TO ALLOW THESE FIRE APPARATUS ACCESS ROADS ON THE SAME SIDE OF THE DIAGONAL IS REQUESTED.

LEGEND

— PL	PROPERTY LINE
— LL	LOT LINE
— R/W	RIGHT-OF-WAY
— OHP	EXISTING OVERHEAD POWER LINE
—	BUILDING SETBACKS
—	PHASE LINE

CONTRACT OWNER/DEVELOPER:
 ARROWHEAD LAKES, LLC
 ATTN: MICHAEL HAAS
 9811 MIDCOURT STREET
 OVERLAND PARK, KS 66214
 EMAIL: MHAAS@HAAS-ENTERPRISES.NET

ENGINEER/APPLICANT:
 PHELPS ENGINEERING, INC.
 1270 W. WINCHESTER
 OLAHE, KS. 66061
 (913) 393-1155
 (913) 393-1166 FAX
 www.phelpsengineering.com

DEVELOPMENT DATA TABLE

PHASE	LAND USE DESCRIPTION	GROSS ACRES	STREET R/W (AC)	OPEN SPACE (AC)	DETENTION (AC)	NET ACRES	UNITS	AVG. DU NET ACRES	DJ PER ACRE (NET)	DJ PER ACRE (GROSS)	PARKLAND DEDICATION ACRES	COMMENCE DATE	COMPLETION DATE
1	SINGLE FAMILY	83.9863	8.9198	6.1376	31.6608	37.2681	95	0.3923	2.5491	1.1311	8.7925	2024	2025
2	SINGLE FAMILY	20.0949	2.0981	8.9704	0.0000	9.0264	31	0.2912	3.4344	1.5427	0.0000	2026	2027
3	SINGLE FAMILY	18.4579	2.4095	3.4810	0.0000	12.5674	33	0.3808	2.6358	1.7879	0.7800	2027	2028
4	SINGLE FAMILY	11.0179	1.6231	5.3330	0.0000	4.0618	20	0.2031	4.9239	1.8152	0.0000	2028	2029
5	SINGLE FAMILY	43.0745	6.4601	11.5940	0.0000	25.0204	79	0.3167	3.1574	1.8340	0.0000	2030	2031
6	SINGLE FAMILY	29.2158	4.1690	0.0000	0.0000	25.0468	65	0.3853	2.5951	2.2248	0.0000	2033	2034
7	SINGLE FAMILY	51.4221	7.3612	5.4008	3.8387	34.8213	91	0.3827	2.6133	1.7697	0.0000	2035	2036
8	SINGLE FAMILY	36.0566	6.2755	1.0578	0.0000	28.7234	72	0.3989	2.5067	1.9969	0.1274	2038	2039
9	SINGLE FAMILY	69.7962	6.9926	9.4430	18.1926	35.1679	88	0.3996	2.5023	1.2608	3.8239	2039	2040
TOTAL		363.1222	46.3089	51.4176	53.6922	211.7034	574	0.3688	2.7113	1.5807	13.5238		

PHELPS ENGINEERING, INC.
 1270 W. WINCHESTER
 OLAHE, KANSAS 66061
 (913) 393-1155
 (913) 393-1166 FAX
 www.phelpsengineering.com

PLANNING ENGINEERING IMPLEMENTATION

PRELIMINARY PLAT
 ARROWHEAD LAKES
 CITY OF KANSAS CITY, JACKSON COUNTY, MISSOURI

By: [Signature] Date: 7/14/23
 DAD [Signature] Date: 7/14/23
 BAO [Signature] Date: 7/14/23

Revisions:
 1. [Signature] Date: 7/14/23
 2. [Signature] Date: 7/14/23

PROJECT NO. 210303
 DATE: 7/14/23
 CHECKED: [Signature]
 DRAWN: [Signature]
 DATE OF PREPARATION: 7/14/23
 DATE OF REVISION: 7/14/23
 SCALE: AS SHOWN

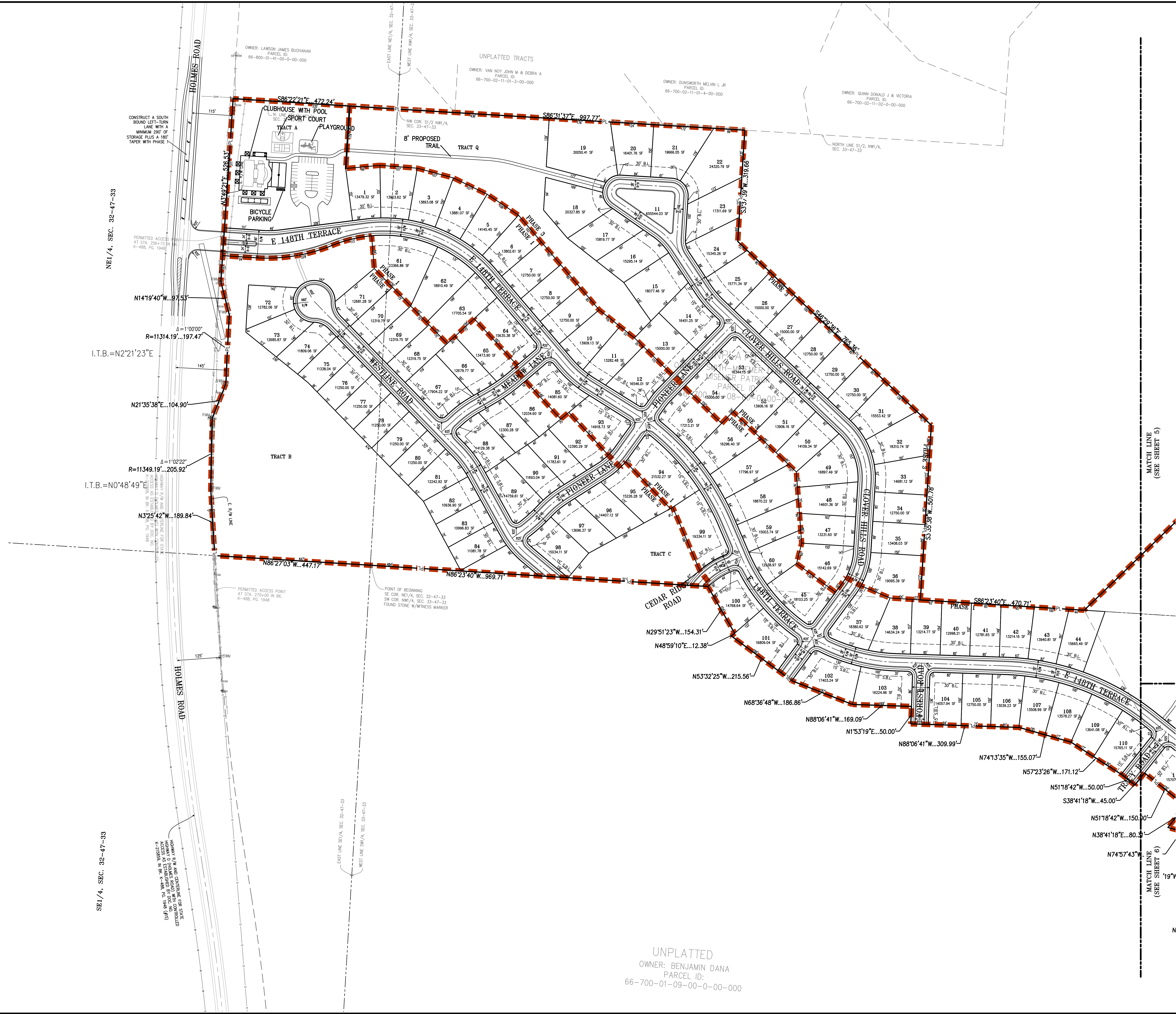
SHEET 3

\\pds-servers\projects\1\210303\eng\preliminary\pl\47-33\47-33.dwg - Enlarged - 7/14/23 - 7:58am - Brady Caut

SE1/4, SEC. 32-47-33

NE1/4, SEC. 32-47-33

UNPLATTED
OWNER: BENJAMIN DANA
PARCEL ID:
66-700-01-09-00-0-00-000

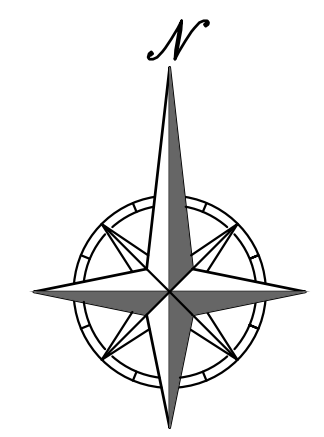


MATCH LINE
(SEE SHEET 5)

MATCH LINE
(SEE SHEET 6)

LEGEND

- PL — PROPERTY LINE
- - - LL - - - LOT LINE
- - - R/W - - - RIGHT-OF-WAY
- - - P - - - EXISTING OVERHEAD POWER LINE
- - - B - - - BUILDING SETBACKS
- - - PH - - - PHASE LINE



SCALE: 1"=100'
0' 100' 200'
BEARING BASIS: STATE PLANE 1983
MISSOURI WEST ZONE #2433

PEI
PHILIPS ENGINEERING, INC.
PLANNING
ENGINEERING
IMPLEMENTATION
1020 N. Winchester
Olathe, Kansas 66061
(913) 339-1935
www.philipsengineering.com

ENLARGED PRELIMINARY PLAT
ARROWHEAD LAKES
CITY OF KANSAS CITY, JACKSON COUNTY, MISSOURI

PROJECT NO.	DATE	BY	APP.	REVISIONS
210303	7/14/23	DAC	DEU	REVISED PER CITY COMMENTS
	7/14/23	DAC	DEU	REVISED PER CITY COMMENTS

SHEET
4

NORTH 1/4 CORNER, SEC. 33-47-33

NORTH LINE NE1/4, SEC. 33-47-33

NE CORNER NE1/4, SEC. 33-47-33

PROJECT NO. 20230202020 (P&I)
DATE: 12/23/23
DRAWN BY: B. WINDHEATER
CHECKED BY: J. WINDHEATER
DATE: 12/23/23
PROJECT NO. 20230202020 (P&I)

EAST LINE NW1/4, SEC. 33-47-33
WEST LINE NE1/4, SEC. 33-47-33

CENTER CORNER, SEC. 33-47-33
CALCULATED POSITION IN LAKE
NO MONUMENT FOUND

MATCH LINE
(SEE SHEET 6)

MATCH LINE
(SEE SHEET 4)

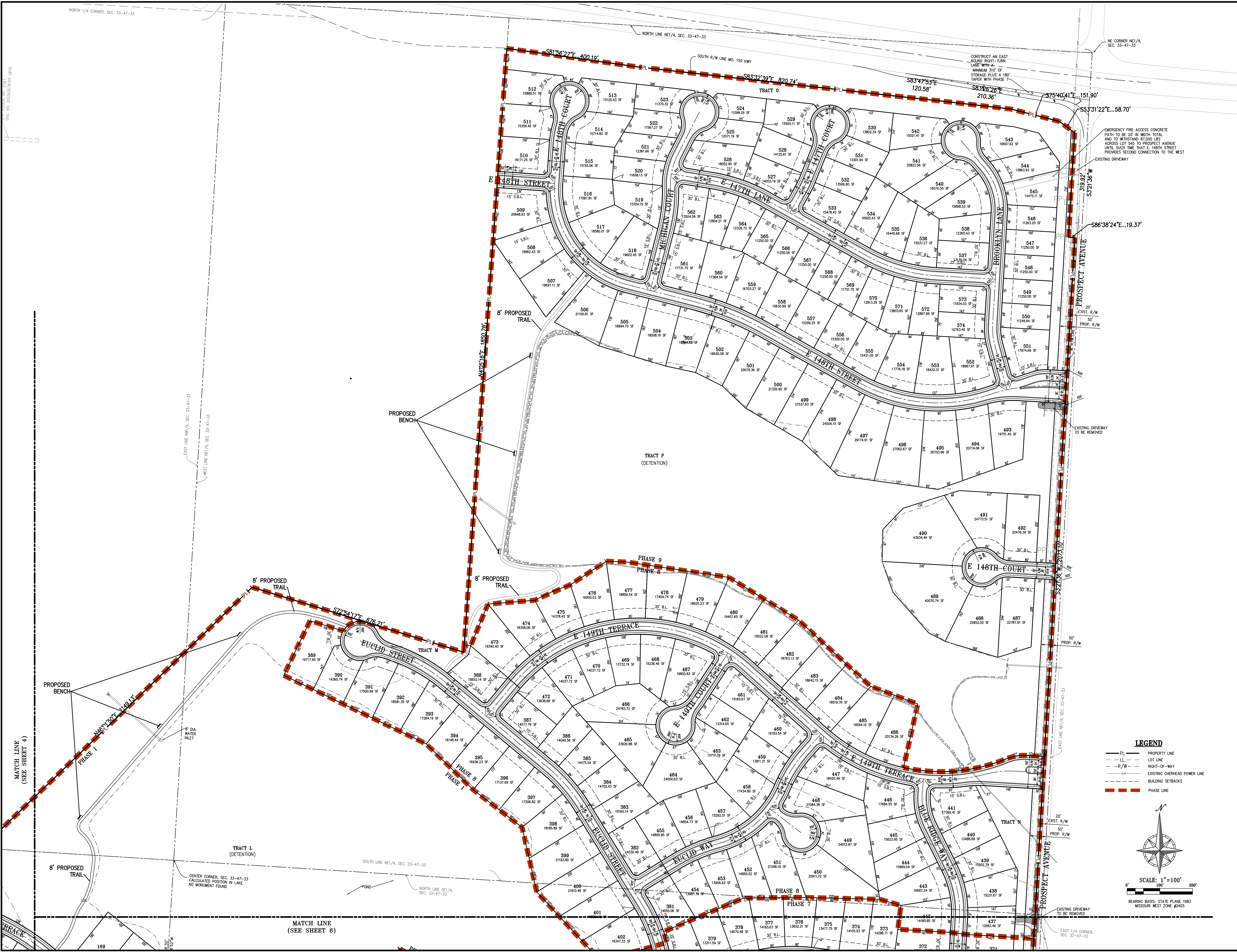
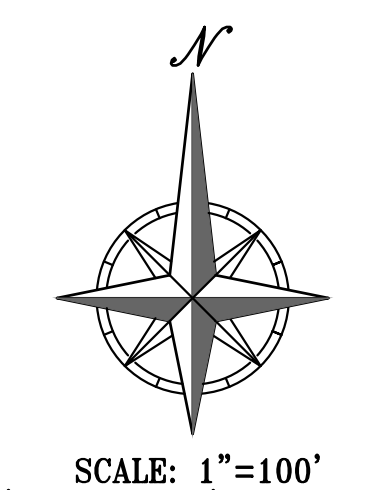
EMERGENCY FIRE ACCESS CONCRETE
PATH TO BE 20' IN WIDTH TOTAL
AND TO WITHSTAND 67,000 LBS
ACROSS LOT 545 TO PROSPECT AVENUE
UNTIL SUCH TIME THAT E-148TH STREET
PROVIDES SECOND CONNECTION TO THE WEST
EXISTING DRIVEWAY

EXISTING DRIVEWAY
TO BE REMOVED

EXISTING DRIVEWAY
TO BE REMOVED

EXISTING DRIVEWAY
TO BE REMOVED

- LEGEND**
- PL — PROPERTY LINE
 - LL — LOT LINE
 - R/W — RIGHT-OF-WAY
 - OP — EXISTING OVERHEAD POWER LINE
 - — BUILDING SETBACKS
 - — PHASE LINE



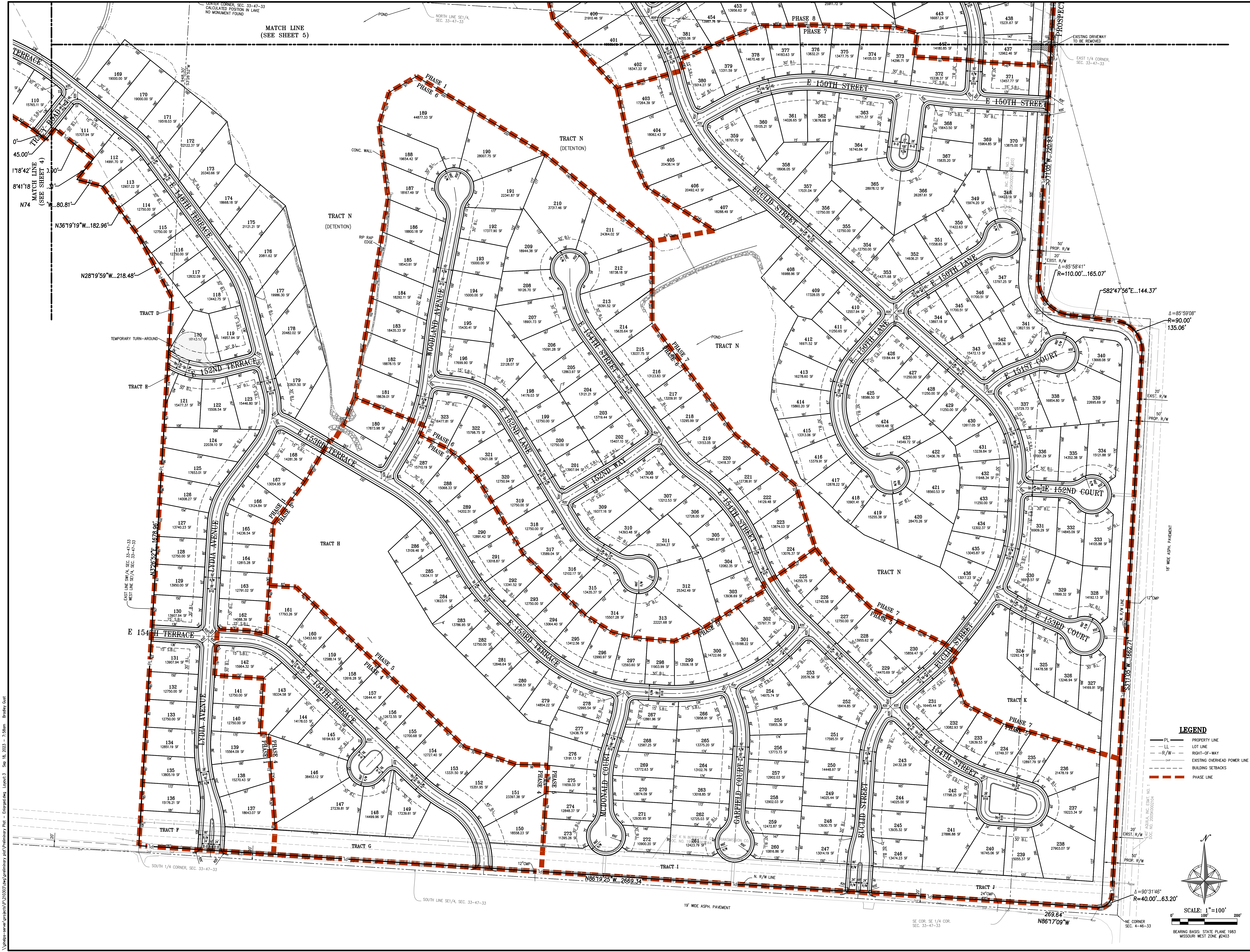
PHILIP ENGINEERING, INC.
c/o M. Windheater
Olathe, Kansas 66061
(913) 399-1935
www.philipengineering.com



ENLARGED PRELIMINARY PLAT
ARROWHEAD LAKES
CITY OF KANSAS CITY, JACKSON COUNTY, MISSOURI

Revisions:	No.	Date	By	App.
DATE: 12/23/23 (BWIN: BJC)	1	7/14/23	DAC (DU)	
CHECKED: (DU) APPROVED: (DU)	2	9/18/23	BAC (DU)	
MANAGER OF AUTHORIZATION				
ENGINEER-IN-CHARGE				
GEOMETRIC ENGINEER				
DATE: 12/23/23				

SHEET
5



MATCH LINE (SEE SHEET 5)

TERRACE

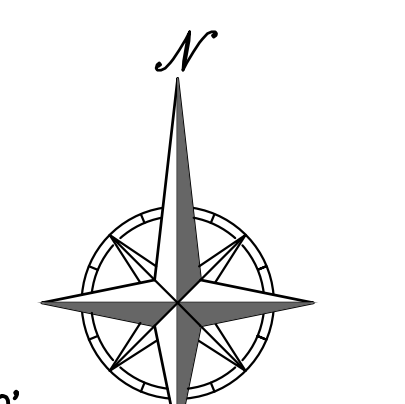
MATCH LINE (SEE SHEET 4)

- LEGEND**
- PL PROPERTY LINE
 - LL LOT LINE
 - R/W RIGHT-OF-WAY
 - EXH EXISTING OVERHEAD POWER LINE
 - BUILDING SETBACKS
 - PHASE LINE

PROJECT NO.	DATE	DESCRIPTION	BY	APP.
210103	7/14/23	REVISED PER CITY COMMENTS	DAG	DEU
	7/14/23	REVISED PER CITY COMMENTS	DAG	DEU
	7/19/23	REVISED PER CITY COMMENTS	DAG	DEU
	8/1/23	REVISED PER CITY COMMENTS	DAG	DEU

No.	Date	DESCRIPTION	BY	APP.
1	7/14/23	PREPARED FOR	DAG	DEU
2	7/14/23	CHECKED	DEU	DEU
3	7/14/23	DESIGNED	DEU	DEU
4	7/14/23	ENGINEERING	DEU	DEU

PROJECT NO.	DATE	DESCRIPTION	BY	APP.
210103	7/14/23	REVISED PER CITY COMMENTS	DAG	DEU
	7/14/23	REVISED PER CITY COMMENTS	DAG	DEU
	7/19/23	REVISED PER CITY COMMENTS	DAG	DEU
	8/1/23	REVISED PER CITY COMMENTS	DAG	DEU



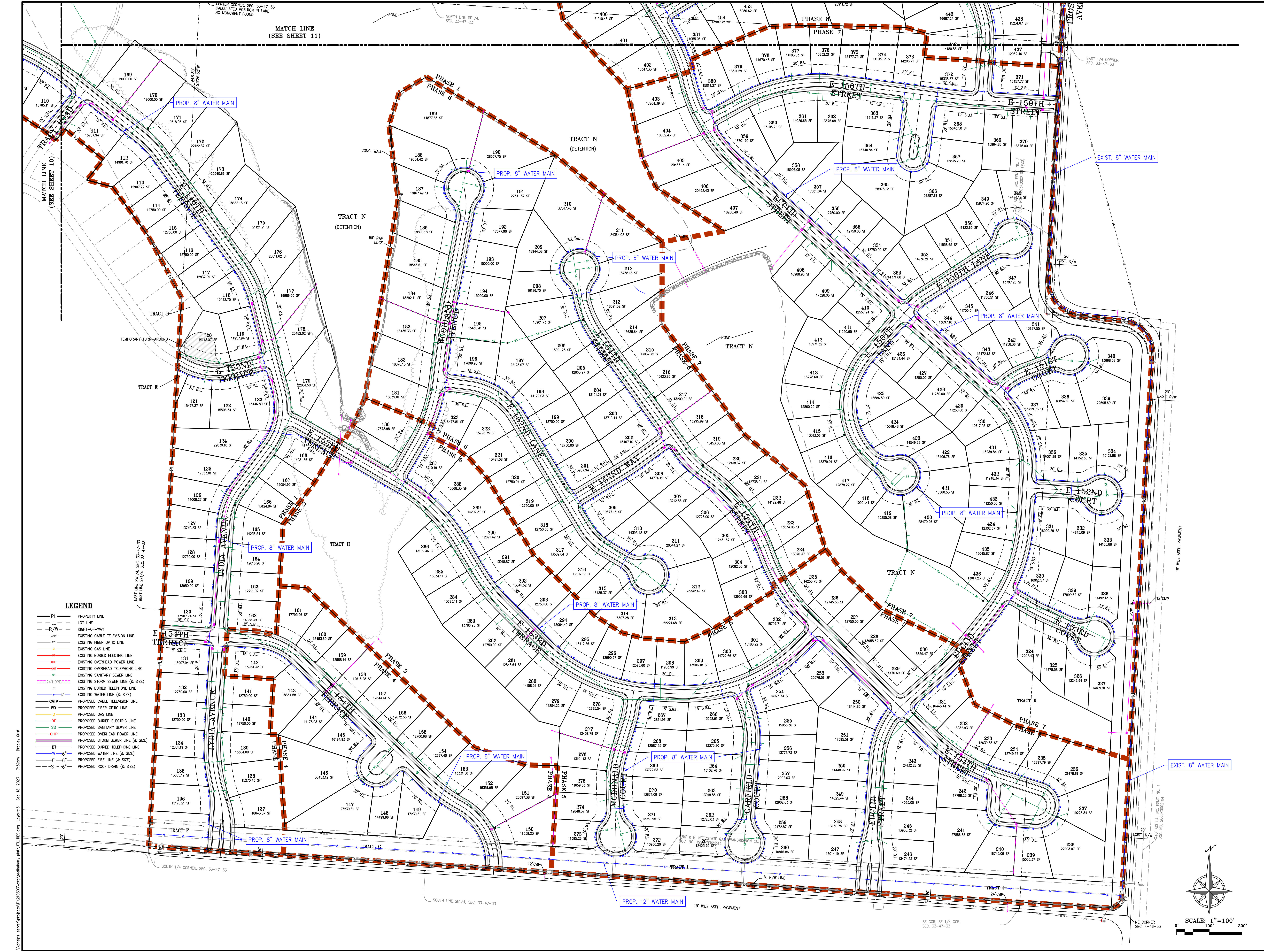
SCALE: 1"=100'
 BEARING BASIS: STATE PLANE 1983
 MISSOURI WEST ZONE #2403

PHILIPS ENGINEERING, INC.
 5500 N. Winchester
 Olathe, Kansas 66061
 (913) 339-1955
 philipsengineering.com

PLANNING
 ENGINEERING
 IMPLEMENTATION

ENLARGED PRELIMINARY PLAT
ARROWHEAD LAKES
 CITY OF KANSAS CITY, JACKSON COUNTY, MISSOURI

SHEET
6



- LEGEND**
- PL PROPERTY LINE
 - LL LOT LINE
 - R/W RIGHT-OF-WAY
 - CATV EXISTING CABLE TELEVISION LINE
 - FO EXISTING FIBER OPTIC LINE
 - EG EXISTING GAS LINE
 - EE EXISTING BURIED ELECTRIC LINE
 - EP EXISTING OVERHEAD POWER LINE
 - ET EXISTING OVERHEAD TELEPHONE LINE
 - ES EXISTING SANITARY SEWER LINE
 - ES24 EXISTING STORM SEWER LINE (& SIZE)
 - ET EXISTING BURIED TELEPHONE LINE
 - EW EXISTING WATER LINE (& SIZE)
 - CATV PROPOSED CABLE TELEVISION LINE
 - FO PROPOSED FIBER OPTIC LINE
 - EG PROPOSED GAS LINE
 - EE PROPOSED BURIED ELECTRIC LINE
 - EP PROPOSED OVERHEAD POWER LINE
 - ES PROPOSED SANITARY SEWER LINE
 - ES24 PROPOSED STORM SEWER LINE (& SIZE)
 - ET PROPOSED BURIED TELEPHONE LINE
 - EW PROPOSED WATER LINE (& SIZE)
 - FW PROPOSED FIRE LINE (& SIZE)
 - FD PROPOSED ROOF DRAIN (& SIZE)

UTILITY PLAN
ARROWHEAD LAKES
CITY OF KANSAS CITY, JACKSON COUNTY, MISSOURI

PHILIPS ENGINEERING, INC.
1000 N. Winchester
Olathe, Kansas 66061
(913) 399-1935
www.philipsengineering.com

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IMPLEMENTATION

PE

PROJECT NO.	DATE	BY	APP.	REVISIONS
210303	7/14/23	DAC	DEU	REVISED PER CITY COMMENTS
210303	9/18/23	BAG	DEU	REVISED PER CITY COMMENTS

DATE: 7/28/23
DRAWN: BAC
CHECKED: DEU
DESIGNED: DEU
MANAGER OF AUTHORIZATION: PHILIPS ENGINEERING, INC.
GEOMETRIC OF AUTHORIZATION: PHILIPS ENGINEERING, INC.
DATE: 7/28/23

SHEET
12



SE COR. SEC. 1/4 COR.
SEC. 33-47-33

NE CORNER
SEC. 4-46-33

SOUTH LINE SE1/4, SEC. 33-47-33

SOUTH 1/4 CORNER, SEC. 33-47-33

EAST LINE SW1/4, SEC. 33-47-33
WEST LINE SW1/4, SEC. 33-47-33

CENTER CORNER, SEC. 33-47-33
CALCULATED POSITION IN LAKE
NO MONUMENT FOUND

EAST 1/4 CORNER,
SEC. 33-47-33

NORTH LINE SE1/4,
SEC. 33-47-33

MATCH LINE
(SEE SHEET 11)

MATCH LINE
(SEE SHEET 10)

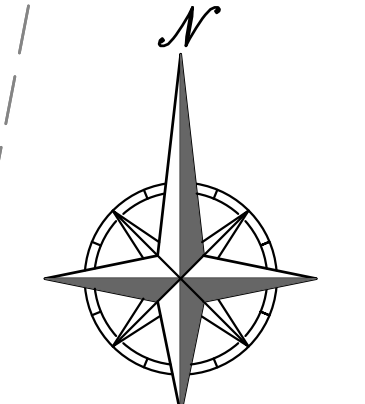
\\pds01\shared\projects\210303\Utility\Utility\UTR12.dwg, Layer:13 Sep 18, 2023 7:25am Bradley Gault

\\pds\server\projects\121003\Utility\Utility\UTILES.dwg, Layout1 - Sep 18, 2023 - 7:59am - Brouley, David



LEGEND

- PL — PROPERTY LINE
- LL — LOT LINE
- - - R/W - RIGHT-OF-WAY
- CATV — EXISTING CABLE TELEVISION LINE
- FO — EXISTING FIBER OPTIC LINE
- G — EXISTING GAS LINE
- BE — EXISTING BURIED ELECTRIC LINE
- OHP — EXISTING OVERHEAD POWER LINE
- OHT — EXISTING OVERHEAD TELEPHONE LINE
- SS — EXISTING SANITARY SEWER LINE
- SSS — EXISTING STORM SEWER LINE (& SIZE)
- BT — EXISTING BURIED TELEPHONE LINE
- W — EXISTING WATER LINE (& SIZE)
- CATV — PROPOSED CABLE TELEVISION LINE
- FO — PROPOSED FIBER OPTIC LINE
- G — PROPOSED GAS LINE
- BE — PROPOSED BURIED ELECTRIC LINE
- SS — PROPOSED SANITARY SEWER LINE
- OHP — PROPOSED OVERHEAD POWER LINE
- BT — PROPOSED BURIED TELEPHONE LINE
- W — PROPOSED WATER LINE (& SIZE)
- F — PROPOSED FIRE LINE (& SIZE)
- ST — PROPOSED ROOF DRAIN (& SIZE)



SCALE: 1"=100'
0' 100' 200'

MATCH LINE
(SEE SHEET 10)

NE 1/4, SEC. 32-47-33

PHILIPS ENGINEERING, INC
2500 N. Winchester
Olathe, Kansas 66061
(913) 299-9195
www.philipsengineering.com

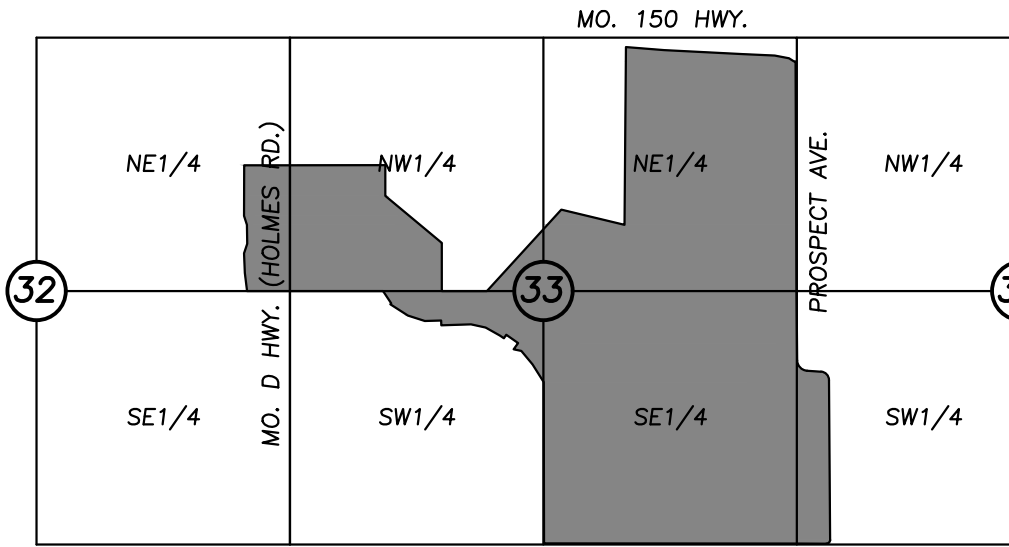
PLANNING
ENGINEERING
IMPLEMENTATION

UTILITY PLAN
ARROWHEAD LAKES
CITY OF KANSAS CITY, JACKSON COUNTY, MISSOURI

By	App.	Date	Revisions:
DAG	DEU	7/14/23	REVISED PER CITY COMMENTS
BAG	DEU	9/18/23	REVISED PER CITY COMMENTS

PROJECT NO.	DATE	BY	APP.	DESCRIPTION
210303	7/14/23	DAG	DEU	DATE 4/28/23 [DMM: BJC] 1
	7/14/23	DAG	DEU	CHECKED: DEU [APPROVED: DEU] 2
	9/18/23	BAG	DEU	MANAGER OF AUTHORIZATION
				ENGINEER: T. J. [SE]
				GEOMETRIC OF AUTHORIZATION
				DATE: 9/18/23

SHEET
12.1



VICINITY MAP
 SEC. 34-47-33
 SEC. 33-47-33
 SEC. 32-47-33

2.82 AC PARKLAND DEDICATION
 (CLUBHOUSE, POOL, SPORT COURTS)

0.78 AC PARKLAND DEDICATION
 (TRAIL)

3.83 AC PARKLAND DEDICATION
 (TRAIL)

2.07 AC PARKLAND DEDICATION
 (LAKE FEATURE INCLUDING ACCESS
 INCLUDING FISHING, KAYAKING, ETC)

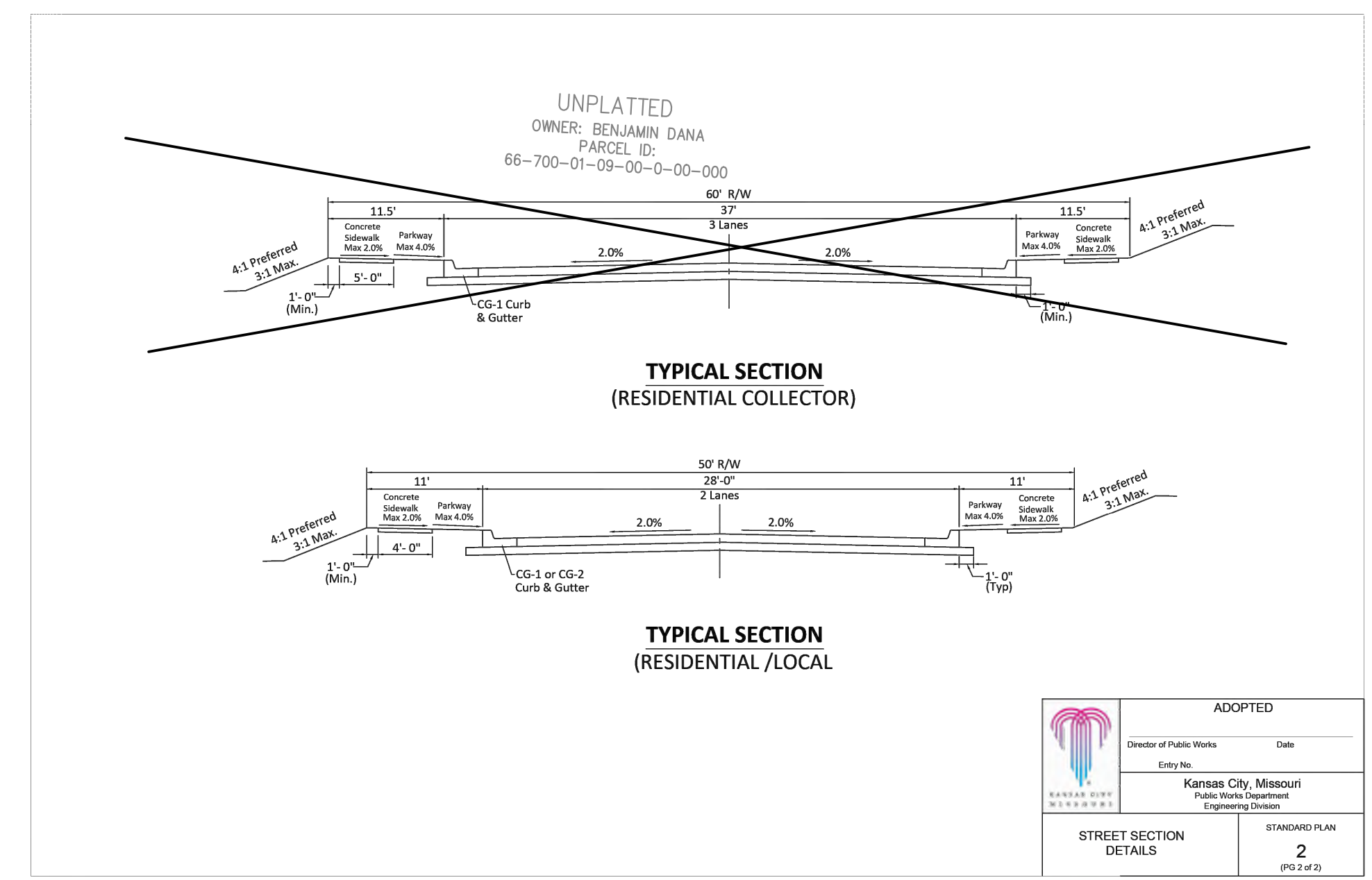
4.02 AC PARKLAND DEDICATION
 (LAKE FEATURE INCLUDING ACCESS
 INCLUDING FISHING, KAYAKING, ETC)

LEGEND

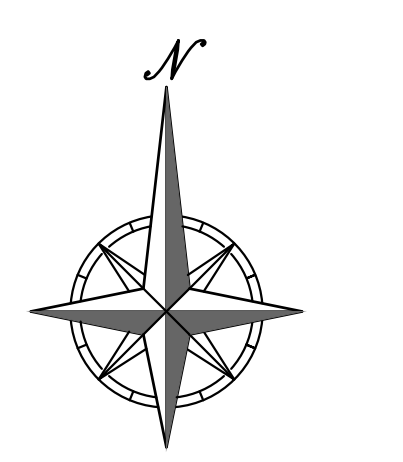
- RESIDENTIAL LOCAL (50' RIGHT-OF-WAY)
- NEIGHBORHOOD AMENITIES (2.82 AC.)
 ACRES TO BE DEDICATED FOR PARKLAND PURPOSES.
- NEIGHBORHOOD LAKES (6.09 AC.)
 ACRES TO BE DEDICATED FOR PARKLAND PURPOSES.
- TRAILS (4.082 LF x 50' = 4.89 AC.)
 2.86 ACRES TO BE DEDICATED FOR PARKLAND PURPOSES.

REQUIRED PARKLAND CALCULATION:
 SINGLE-FAMILY
 (574 D.U.) x 3.7 x 0.006 = 12.74 ACRES REQUIRED

TOTAL:
 12.74 AC. REQUIRED
 13.52 AC. PROVIDED



STREET SECTION DETAILS	STANDARD PLAN
2	2023.01.0



SCALE: 1"=200'
 BEARING BASIS: STATE PLANE 1883
 MISSOURI WEST ZONE #2403

PHILIPS ENGINEERING, INC.
 1000 N. Winchester
 Olathe, Kansas 66061
 (913) 339-9135
 www.philipsengineering.com

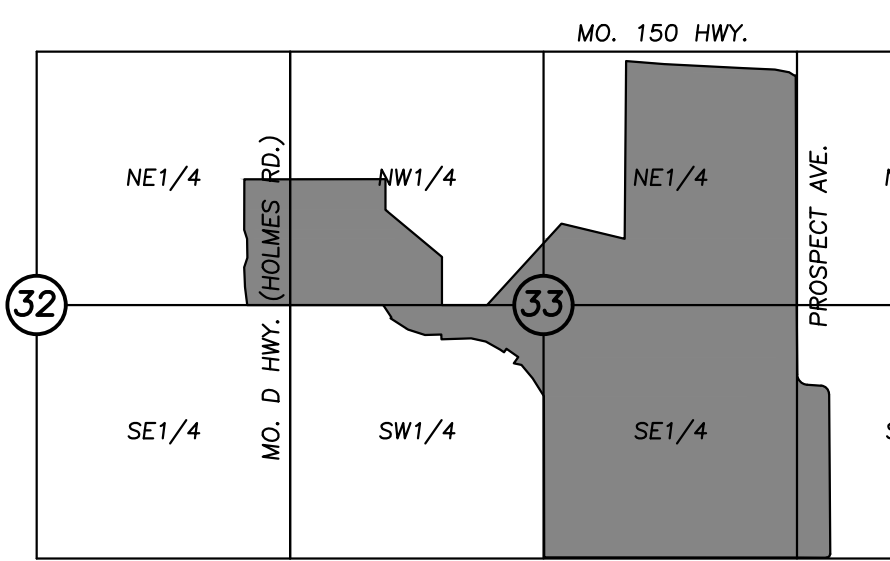
PLANNING
 ENGINEERING
 IMPLEMENTATION

VEHICULAR CIRCULATION / ROADWAY CLASSIFICATION
 ARROWHEAD LAKES
 CITY OF KANSAS CITY, JACKSON COUNTY, MISSOURI

PROJECT NO.	DATE	BY	APP.	REVISIONS
210303	7/14/23	DAC/DEU	DAC/DEU	REVISED PER CITY COMMENTS
	9/18/23	BAD/DEU	BAD/DEU	REVISED PER CITY COMMENTS

DATE: 9/18/23
 DRAWN: BJC
 CHECKED: DEU
 IN CHARGE OF AUTHORIZATION: PHILIPS ENGINEERING, INC.
 AUTHORITY OF AUTHORIZATION: MISSOURI REGISTERED PROFESSIONAL ENGINEER NO. 202303018
 LICENSE EXPIRES: 12/31/2026

SHEET
 13

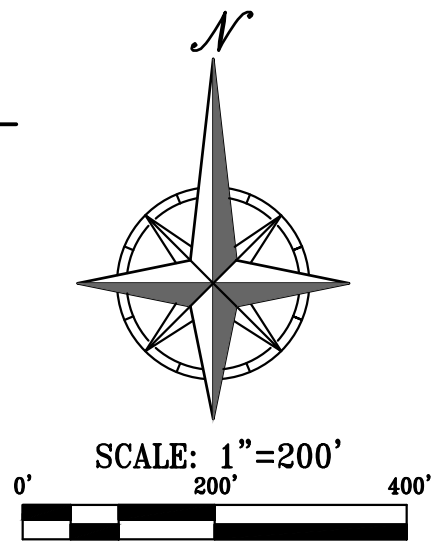


VICINITY MAP
 SEC. 34-47-33
 SEC. 33-47-33
 SEC. 32-47-33

- LEGEND**
- PL — PROPERTY LINE
 - LL — LOT LINE
 - R/W — RIGHT-OF-WAY
 - EOP — EXISTING OVERHEAD POWER LINE
 - ET — EXISTING TREES
 - ET ≥ 1 ACRE — EXISTING TREE CANOPY ≥ 1 ACRE

CONTRACT OWNER/DEVELOPER:
 ARROWHEAD LAKES, LLC
 ATTN: MICHAEL HAAS
 981 MELROSE STREET
 OVERLAND PARK, KS 66214
 EMAIL: MHAAS@HAAS-ENTERPRISES.NET

ENGINEER/APPLICANT:
 PHELPS ENGINEERING, INC.
 1270 N. WINCHESTER
 OLAH, KS 66061
 (913) 393-1155
 (913) 393-1166 FAX



TOTAL AREA OF EXISTING TREE CANOPY 43.2 AC.

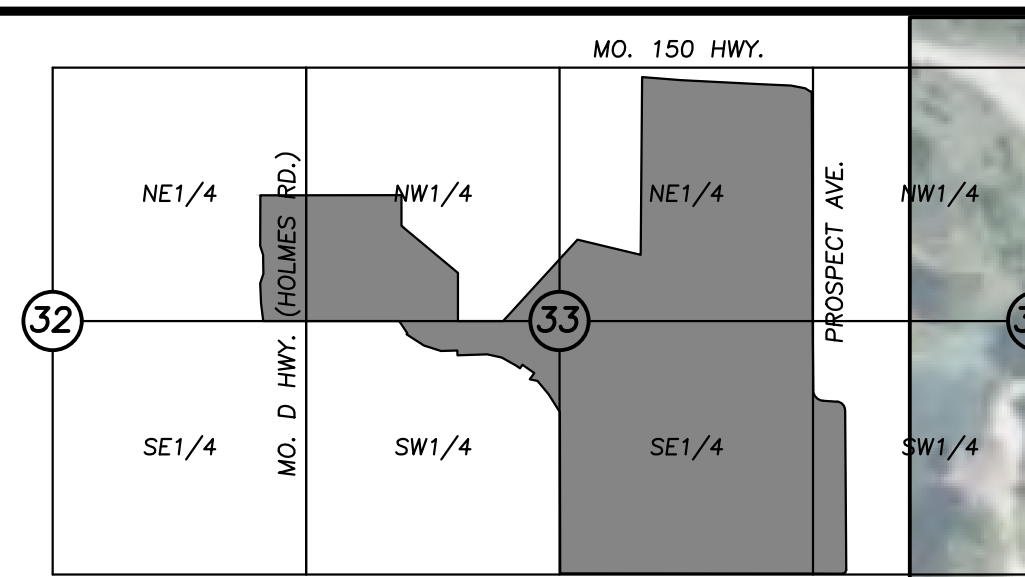
NOTES:
 1. NO MITIGATION SHALL BE REQUIRED IF CONTIGUOUS TREE CANOPY COVER IS LESS THAN ONE ACRE.

PHELPS ENGINEERING, INC.
 1270 N. WINCHESTER
 OLAH, KANSAS 66061
 (913) 393-1155
 www.phelpsengineering.com

EXISTING CONDITIONS TREE PLAN
 ARROWHEAD LAKES
 CITY OF KANSAS CITY, JACKSON COUNTY, MISSOURI

By	App.	No.	Date	Revisions:
DAC	DEU	1	7/14/23	REVISED PER CITY COMMENTS
BAG	DEU	2	9/18/23	REVISED PER CITY COMMENTS

\\pds\server\projects\1\210303\env\TREE PRESERVATION PLAN\Tree Preservation.dwg Layout:EXISTING Sep 18, 2023 8:00am Bradley Galt

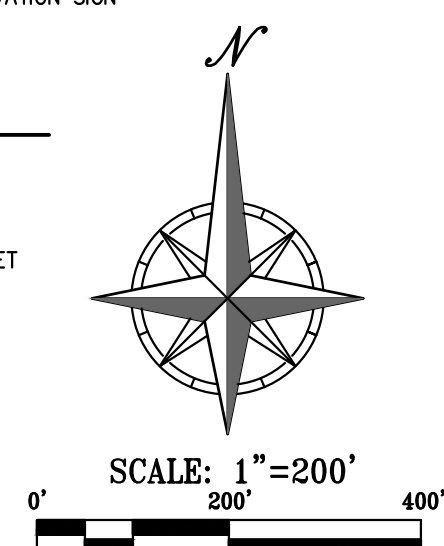


VICINITY MAP
SEC. 34-47-33
SEC. 33-47-33
SEC. 32-47-33

- LEGEND**
- PL — PROPERTY LINE
 - LL — LOT LINE
 - R/W — RIGHT-OF-WAY
 - — EXISTING OVERHEAD POWER LINE
 - — EXISTING TREES
 - — EXISTING TREE CANOPY ≥ 1 ACRE
 - — EXISTING TREE CANOPY TO BE REMOVED
 - — STREAM SIDE ZONE
 - — OUTER ZONE DISTURBED AREA
 - — OUTER ZONE
 - * — TREE PRESERVATION SIGN

CONTRACT OWNER/DEVELOPER:
ARROWHEAD LAKES, LLC
ATTN: MICHAEL HAAS
3911 MEDROSE STREET
OVERLAND PARK, KS 66214
EMAIL: MHAAS@HAAS-ENTERPRISES.NET

ENGINEER/APPLICANT:
PHELPS ENGINEERING, INC.
1270 N. WINCHESTER
GLAINE, KS 66081
(913) 393-1155
(913) 393-1166 FAX



LOT	NUMBER OF SIGNS REQUIRED
1	1
2	1
3	1
4	1
5	1
6	1
7	1
8	1
9	1
10	1
11	1
12	1
13	1
14	1
15	1
16	1
17	1
18	2
19	1

OVERALL TREE PRESERVATION SUMMARY

TOTAL AREA OF EXISTING TREE CANOPY	43.2 AC.
EXISTING TREE CANOPY AREA TO BE REMOVED	31.0 AC.
EXISTING TREE CANOPY AREA PRESERVED	12.0 AC.

MITIGATION RATE REQUIRED

STEP 1 (31.0 ACRES TO BE REMOVED—4.1 ACRES PRESERVED OUTSIDE OF STREAM BUFFERS)	=26.9 ACRES
STEP 2 (8.1 ACRES UNDISTURBED IN STREAM BUFFERS)	=18.8 ACRES
STEP 3 x(0.35)	=6.58 ACRES
STEP 4 x(150 CALIPER INCHES PER ACRE)	=987 CALIPER INCHES (MITIGATION REQUIRED)

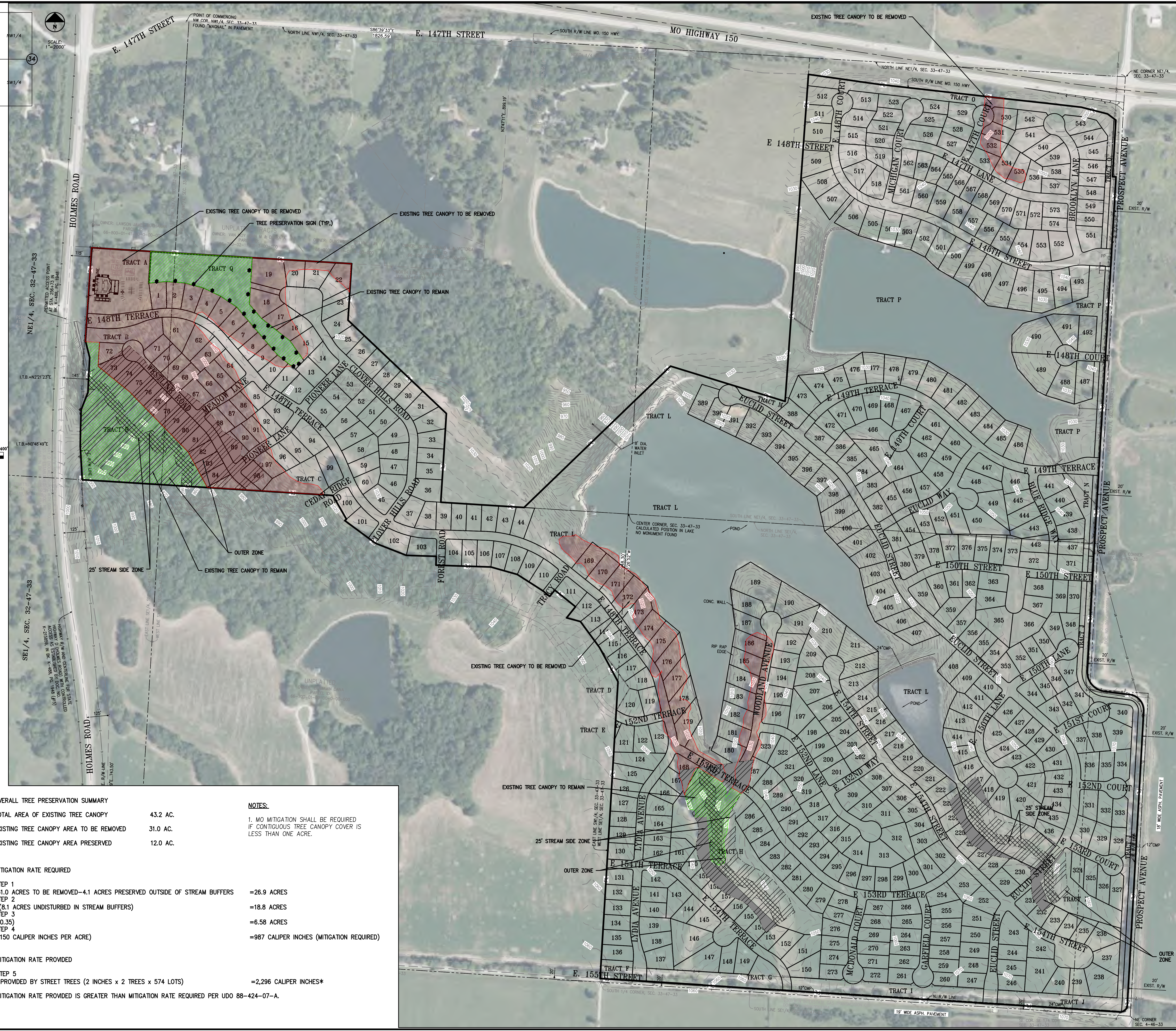
MITIGATION RATE PROVIDED

STEP 5 —PROVIDED BY STREET TREES (2 INCHES x 2 TREES x 574 LOTS)	=2,296 CALIPER INCHES*
---	------------------------

*MITIGATION RATE PROVIDED IS GREATER THAN MITIGATION RATE REQUIRED PER UDO 88-424-07-A.

NOTES:

1. NO MITIGATION SHALL BE REQUIRED IF CONTIGUOUS TREE CANOPY COVER IS LESS THAN ONE ACRE.



TREE PRESERVATION AND MITIGATION PLAN
ARROWHEAD LAKES
CITY OF KANSAS CITY, JACKSON COUNTY, MISSOURI

PHELPS ENGINEERING, INC.
1270 N. WINCHESTER
GLAINE, KANSAS 66081
(913) 393-1155
WWW.PHELPSENGINEERING.COM

PE

PLANNING
ENGINEERING
IMPLEMENTATION

By	App.	Date	No.	Revisions:
DAC	DEU	7/14/23	1	REVISED PER CITY COMMENTS
BAD	DEU	9/18/23	2	REVISED PER CITY COMMENTS

PROJECT NO. 210303
DATE: 1/29/23
DRAWN: BJC
CHECKED: DEU
APPROVED: DEU
MANAGER OF AUTHORIZATION: PHELPS ENGINEERING, INC.
QUALITY CONTROL: DEU
DATE OF AUTHORIZATION: 1/29/23
SCALE: AS SHOWN

SHEET
16