



ITEM FOR ENVIRONMENTAL COMMISSION AGENDA

COMMISSION MEETING DATE: May 4, 2022

NAME & NUMBER OF PROJECT: Pinnacle at Wildhorse Ranch
C8-2021-0152

NAME OF APPLICANT OR ORGANIZATION: Kimley Horn & Assoc., Kevin Burks

LOCATION: 12000 Blue Bluff Rd, Austin, TX, 78724

COUNCIL DISTRICT: District #1

ENVIRONMENTAL REVIEW STAFF: Pamela Abee-Taulli, Environmental Program Coordinator, Development Services Department, 512.974.1879, pamela.abee-taulli@austintexas.gov

WATERSHED: Gilleland Creek Watershed, Suburban Classification, Desired Development Zone

REQUEST: Variance request is as follows:

- Request to vary from LDC 25-8-341 to allow cut to 15 feet.
- Request to vary from LDC 25-8-342 to allow fill to 15 feet.

STAFF RECOMMENDATION: Staff recommends this variance, having determined the findings of fact to have been met.

STAFF CONDITION:

1. The applicant will provide enhanced vegetation for the wetland critical environmental features, to be comprised of 1 (one) canopy tree and 2 (two) understory trees per 700 square feet, to be planted in clusters, with plants no closer than 3 feet on center, in a generally tree-less area that is roughly 70,000 sf.
2. Grading over 8 feet will be stabilized by containment and/or terracing.
3. Water quality requirements will be met by using biofiltration, a green storm water quality infrastructure.



Development Services Department
Staff Recommendations Concerning Required Findings

| | |
|---------------------|---|
| Project Name: | Pinnacle at Wildhorse Ranch |
| Ordinance Standard: | Comprehensive Watershed Ordinance as modified by Planned Unit Development (PUD) Ordinance 020214-28 |
| Variance Request: | Request to vary from LDC 25-8-341 to allow cut to 15 feet. |

Include an explanation with each applicable finding of fact.

A. Land Use Commission variance determinations from Chapter 25-8-41 of the City Code:

1. The requirement will deprive the applicant of a privilege available to owners of similarly situated property with approximately contemporaneous development subject to similar code requirements.

Yes Grading variances have been deemed appropriate under similar development circumstances for sites with multiple constraints. Blue Bluff/Saddle Ridge at Wildhorse Ranch (C8-2020-0033) also received variances for cut to 15 feet and fill to 15 feet.

Both sites have topographical challenges, including slopes near or exceeding a grade of fifteen percent. This site has two wetland features as well. These constraints make it difficult to comply with Transportation Criteria Manual and Americans with Disabilities requirements for slopes, stopping sight distance, and block length maximums without variances to the Land Development Code grading regulations.

2. The variance:
 - a) Is not necessitated by the scale, layout, construction method, or other design decision made by the applicant, unless the design decision provides greater overall environmental protection than is achievable without the variance;

Yes The variance is not necessitated by a design decision. It is necessitated by the site constraints, including slopes and wetlands. The houses are located on a stretch of flatter area, and the roadway follows the topography, dodging between the steeper slopes. The proposed design preserves the natural drainage patterns by detaining and treating stormwater in multiple basins throughout the property.

- b) Is the minimum deviation from the code requirement necessary to allow a reasonable use of the property;
 - Yes The project has been designed to minimally deviate from the code to allow for accessible routes and crossings in compliance with the Americans with Disabilities Act and in compliance with the Transportation Criteria Manual's vertical roadway design criteria. The housing and roadways are located on the site so as to maximize use of the flatter areas, and the ponds are located so as to prioritize natural drainage patterns.
 - c) Does not create a significant probability of harmful environmental consequences.
 - Yes With appropriate erosion and sedimentation controls provided in accordance with Code and Criteria, the proposed cut and fill can be managed during construction, despite the slopes and proximity to wetlands. Neither will the completed project create a probability of harmful environmental consequences.
3. Development with the variance will result in water quality that is at least equal to the water quality achievable without the variance.
- Yes Water quality will be code-compliant and therefore equal to the water quality that would be provided without the variance. In addition, the proposed design preserves the natural drainage patterns by detaining and treating stormwater in multiple basins throughout the property.

B. The Land Use Commission may grant a variance from a requirement of Section 25-8-422 (*Water Supply Suburban Water Quality Transition Zone*), Section 25-8-452 (*Water Supply Rural Water Quality Transition Zone*), Section 25-8-482 (*Barton Springs Zone Water Quality Transition Zone*), Section 25-8-368 (*Restrictions on Development Impacting Lake Austin, Lady Bird Lake, and Lake Walter E. Long*), or Article 7, Division 1 (*Critical Water Quality Zone Restrictions*), after determining that::

- 1. The criteria for granting a variance in Subsection (A) are met;
N/A
- 2. The requirement for which a variance is requested prevents a reasonable, economic use of the entire property;
N/A
- 3. The variance is the minimum deviation from the code requirement necessary to allow a reasonable, economic use of the entire property.
N/A

Staff Determination: Staff determines that the findings of fact have / have not been met. Staff recommends the following condition:

- 1. The applicant will provide enhanced vegetation for the wetland critical environmental features.

2. Grading over 8 feet will be stabilized by containment and/or terracing.
3. Water quality requirements will be met by using biofiltration, a green storm water quality infrastructure.

| | | |
|---------------------------------------|--|------------------|
| Environmental Reviewer (DSD) |  _____ (Pamela Abee-Taulli) | Date: 3/17/2022 |
| Environmental Review Manager (DSD) |  _____ (Mike McDougal) | Date: 3/19/2022 |
| Deputy Environmental Officer (WPD) |  _____ (Liz Johnston) | Date: 03/28/2022 |



Development Services Department
Staff Recommendations Concerning Required Findings

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| Project Name: | Pinnacle at Wildhorse Ranch |
| Ordinance Standard: | Comprehensive Watershed Ordinance as modified by Planned Unit Development (PUD) Ordinance 020214-28 |
| Variance Request: | Request to vary from LDC 25-8-342 to allow fill to 15 feet. |

Include an explanation with each applicable finding of fact.

A. Land Use Commission variance determinations from Chapter 25-8-41 of the City Code:

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 - Yes The project has been designed to minimally deviate from the code to allow for accessible routes and crossings in compliance with the Americans with Disabilities Act and in compliance with the Transportation Criteria Manual's vertical roadway design criteria. The housing and roadways are located on the site so as to maximize use of the flatter areas, and the ponds are located so as to prioritize natural drainage patterns.
 - c) Does not create a significant probability of harmful environmental consequences.
 - Yes With appropriate erosion and sedimentation controls provided in accordance with Code and Criteria, the proposed cut and fill can be managed during construction, despite the slopes and proximity to wetlands. Neither will the completed project create a probability of harmful environmental consequences.
3. Development with the variance will result in water quality that is at least equal to the water quality achievable without the variance.
- Yes Water quality will be code-compliant and therefore equal to the water quality that would be provided without the variance. In addition, the proposed design preserves the natural drainage patterns by detaining and treating stormwater in multiple basins throughout the property.



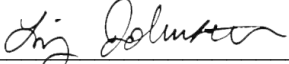
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- 2. The requirement for which a variance is requested prevents a reasonable, economic use of the entire property;
N/A
- 3. The variance is the minimum deviation from the code requirement necessary to allow a reasonable, economic use of the entire property.
N/A

Staff Determination: Staff determines that the findings of fact have / have not been met. Staff recommends the following condition:

- 1. The applicant will provide enhanced vegetation for the wetland critical environmental features.

2. Grading over 8 feet will be stabilized by containment and/or terracing.
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| Deputy Environmental Officer (WPD) |  _____ (Liz Johnston) | Date: 03/28/2022 |



ENVIRONMENTAL COMMISSION VARIANCE APPLICATION FORM

PROJECT DESCRIPTION

Applicant Contact Information

| | |
|---------------------|--|
| Name of Applicant | Kevin Burks, P.E. |
| Street Address | 10814 Jollyville Rd Building 4, Suite 200 |
| City State ZIP Code | Austin, TX 78759 |
| Work Phone | 512-418-4528 |
| E-Mail Address | Kevin.Burks@kimley-horn.com |

Variance Case Information

| | |
|---|---|
| Case Name | Pinnacle at Wildhorse Ranch |
| Case Number | C8-2021-0152PA |
| Address or Location | Along Wildhorse Ranch Trail, between Blue Bluff Road and E Parmer Lane in Austin, TX. |
| Environmental Reviewer Name | Pamela Abee-Taulli |
| Environmental Resource Management Reviewer Name | Hank Marley |
| Applicable Ordinance | 25-8-341 & 25-8-342 |
| Watershed Name | Gilleland Creek |

| | |
|---|--|
| Watershed Classification | <input type="checkbox"/> Urban <input checked="" type="checkbox"/> Suburban <input type="checkbox"/> Water Supply Suburban <input type="checkbox"/> Water Supply Rural <input type="checkbox"/> Barton Springs Zone |
| Edwards Aquifer Recharge Zone | <input type="checkbox"/> Barton Springs Segment <input type="checkbox"/> Northern Edwards Segment <input checked="" type="checkbox"/> Not in Edwards Aquifer Zones |
| Edwards Aquifer Contributing Zone | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Distance to Nearest Classified Waterway | Gilleland Creek runs just east of Preliminary Plat boundary |
| Water and Waste Water service to be provided by | Austin Water Utility |
| Request | The variance request is as follows: 25-8-341 Cut Requirements & 25-8-342 Fill Requirements |

| | | |
|---|---|----------------|
| Impervious cover | Existing | Proposed |
| square footage: | <u>0</u> | <u>288,148</u> |
| acreage: | <u>18.37</u> | <u>18.37</u> |
| percentage: | <u>0</u> | <u>36.00%</u> |
| Provide general description of the property (slope range, elevation range, summary of vegetation / trees, summary of the geology, CWQZ, WQTZ, CEFs, floodplain, heritage trees, any other notable or outstanding characteristics of the property) | <p>76.5% of the property falls within the 0% to 15% slope category. The remainder property has slopes exceeding 15% slope.</p> <p>The property ranges in elevation from 645 to 515.</p> <p>There is an assortment of Cedar Elm and Willow trees within the site; only nine of which exceed 24 caliber inches.</p> <p>On-site soils are Type D Expansive Clays and is identified as Ferris-Heiden complex and Heiden clay by the USGS web soil survey.</p> <p>Two wetland CEFs exist within the site. No Critical Water Quality Zones or Fully developed 25-year and 100-year floodplains exist within the site.</p> | |

| | |
|---|--|
| Clearly indicate in what way the proposed project does not comply with current Code (include maps and exhibits) | Per the attached cut/fill exhibit, there are areas that require cut/fills greater than 4'. |
|---|--|

FINDINGS OF FACT

As required in LDC Section 25-8-341, in order to grant a variance, the Land Use Commission must make the following findings of fact:

Include an explanation with each applicable finding of fact.

Project: Blue Bluff at Wildhorse Ranch

Ordinance: 25-8-341 Cut Requirements & 25-8-342 Fill Requirements

A. Land Use Commission variance determinations from Chapter 25-8-341 and 25-8-342 of the City Code:

1. The requirement will deprive the applicant of a privilege available to owners of similarly situated property with approximately contemporaneous development subject to similar code requirements.

Yes

The otherwise developable land located within the 0% to 15% slope category is primarily comprised of slopes closer to 15%. In order to comply with the Americans with Disabilities Act (ADA) requiring 2% cross slope at intersection crosswalks on the local and collector roadways and to meet Transportation Criteria Manual (TCM) requirements for stopping sight distance (for vertical curves and roadway design) and block length maximums, the proposed grades will need to exceed the cut and fill allowed by Chapter 25. This applies to the single-family lots fronting the roadways meeting the ADA and TCM requirements due to access requirements for the lots. The maximum Cut is 14.7 feet. The maximum Fill is 14.9 feet.

In addition, the development of adjacent properties will be challenged by the existing topography. It's highly likely future developments will be pursuing a cut and fill variance request of this magnitude. We also requested and received

similar variances on our Saddle Ridge at Wildhorse Ranch project next door (C8-2020-0033) due to the same TCM design criteria and ADA requirements that were required as part of that subdivision.

2. The variance:

- a) Is not necessitated by the scale, layout, construction method, or other design decision made by the applicant, unless the design decision provides greater overall environmental protection than is achievable without the variance;

Yes

Pinnacle at Wildhorse Ranch is primarily a single-family residential development with roadways and lot layouts generally designed to follow the existing topography to preserve the natural character of the property. In addition, multiple water quality and detention basins have been placed in natural low areas to preserve the existing drainage patterns. We are not changing drainage patterns to route runoff to one basin, and intend to maintain adequate runoff reaching the existing wetland CEFs. This variance request is not driven by a design decision on our side.

- b) Is the minimum deviation from the code requirement necessary to allow a reasonable use of the property;

Yes

Pinnacle at Wildhorse Ranch has been designed to minimally deviate from the code to allow for accessible routes and crossings in compliance with the Americans with Disabilities Act, and meet TCM vertical roadway design criteria. The percentage of the property exceeding 8 feet for this property is 3.4%.

Specifically, the design accounts for existing constraints such as the elevation of the adjacent connecting roads at City of Austin approved locations and the minimum allowable roadway slopes to allow for ADA compliance.

The roadway network has been designed to minimize the number of cross streets to reduce the amount of cut and fill and to maintain compliance with the Transportation Criteria Manual (TCM) block-length requirement. As such, these cross-streets are required to comply with block length requirements outlined in the code.

- c) Does not create a significant probability of harmful environmental consequences.

Yes

The proposed roadways and associated drainage system have been designed to protect the natural character and function of the Critical Environmental Features by ensuring they receive the required surface water runoff quantity and quality needed to promote wetland and floodplain health. In addition, the proposed design preserves the natural drainage patterns by detaining and treating stormwater in multiple basins throughout the property.

3. Development with the variance will result in water quality that is at least equal to the water quality achievable without the variance.

Yes

The proposed design adheres to all water quality requirements outlined within the Environmental Criteria Manual and as such, will result in water quality that is at least equal to water quality achievable without the variance. In addition, the proposed design preserves the natural drainage patterns by detaining and treating stormwater in multiple basins throughout the property. Based on preliminary discussions with Staff, we are comfortable upgrading from the standard full sedimentation/filtration ponds to green water quality controls as an effort to obtain environmental superiority with this variance request.

- B. Additional Land Use Commission variance determinations for a requirement of Section 25-8-422 (Water Quality Transition Zone), Section 25-8-452 (Water Quality Transition Zone), Article 7, Division 1 (Critical Water Quality Zone Restrictions), or Section 25-8-368 (Restrictions on Development Impacting Lake Austin, Lady Bird Lake, and Lake Walter E. Long):

1. The criteria for granting a variance in Subsection (A) are met;

N/A to this variance request.

2. The requirement for which a variance is requested prevents a reasonable, economic use of the entire property;

N/A to this variance request.

3. The variance is the minimum deviation from the code requirement necessary to allow a reasonable, economic use of the entire property.

N/A to this variance request.

**Variance approval requires all above affirmative findings.

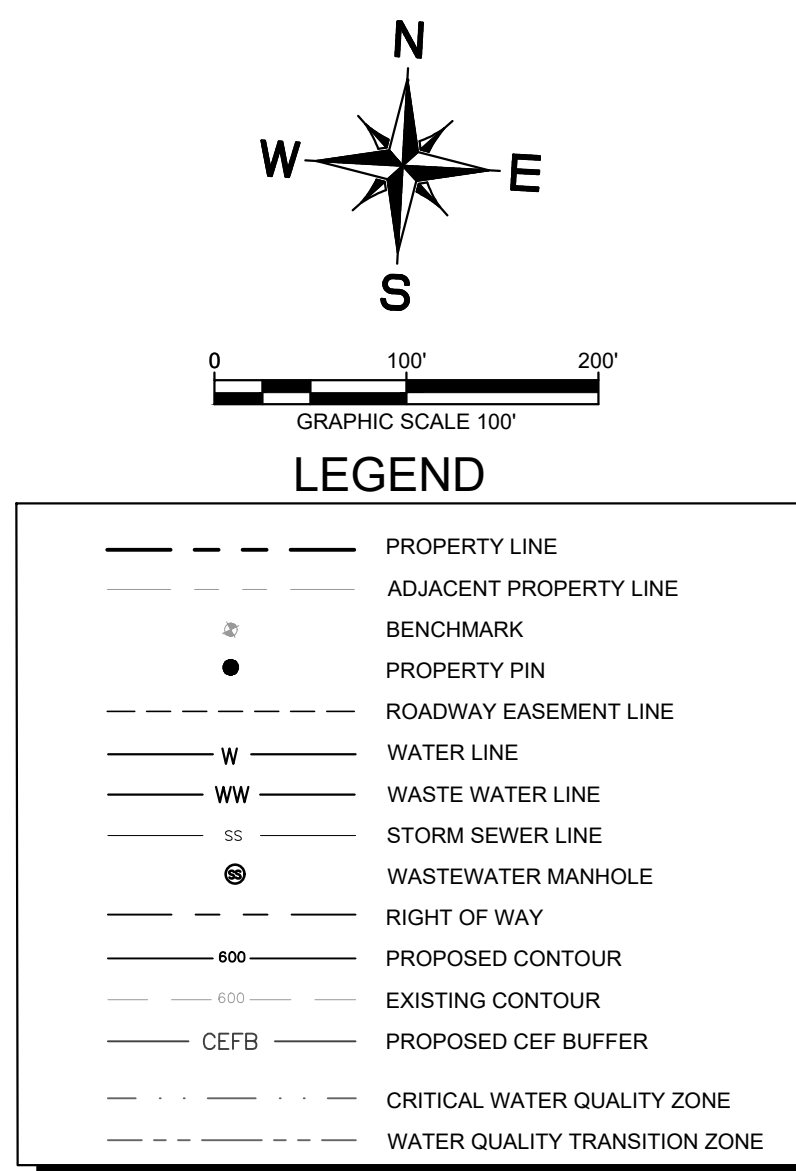
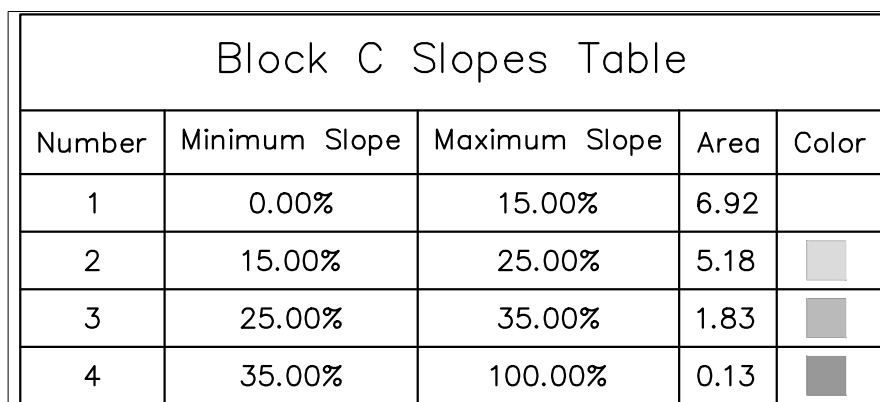


DATUM IS NAVD '88, USING GEOID 12A, BASED ON GPS OBSERVATIONS.

BM #101 "X" CUT ON THE HIGH TRANSMISSION POWER POLE BASE.
ELEV.= 554.100'

BM #27 "X" CUT ON HIGH TRANSMISSION POWER POLE BASE.
ELEV.= 640.400

SHEET NUMBER
EX



| APPENDIX Q-1 | | | | | | | | | |
|--|-------|---|---------------|----------------------|--|------------|--|-------------|--|
| PINNACLE AT WILDHORSE RANCH NET SITE AREA - BLOCK A | | | | | | | | | |
| | | | | | | | | | |
| TOTAL GROSS SITE AREA= | | 19.30 ACRES | | | | | | | |
| SITE DEDUCTIONS | | | | | | | | | |
| | | CRITICAL WATER QUALITY ZONE (CWQZ) = | | | | | | 0 ACRES | |
| | | WATER QUALITY TRANSITION ZONE (WQ TZ) = | | | | | | 0 ACRES | |
| | | WASTEWATER IRRIGATION AREAS = | | | | | | 0 ACRES | |
| | | DEDUCTION SUBTOTAL = | | | | | | 0 ACRES | |
| UPLAND AREA (GROSS SITE AREA MINUS TOTAL DEDUCTIONS) = | | 19.30 ACRES | | | | | | | |
| NET SITE AREA CALCULATION | | | | | | | | | |
| | | AREA OF UPLANDS WITH SLOPES 0 - 15% = | | | | | | 14.73 ACRES | |
| | | AREA OF UPLANDS WITH SLOPES 15 - 25% = | | | | | | 1.25 ACRES | |
| | | AREA OF UPLANDS WITH SLOPES 25 - 35% = | | | | | | 0.21 ACRES | |
| | | AREA OF UPLANDS WITH SLOPES > 35% = | | | | | | 0 ACRES | |
| | | NET SITE AREA TOTAL = | | | | | | 16.19 ACRES | |
| APPENDIX Q-2 | | | | | | | | | |
| PINNACLE AT WILDHORSE RANCH IMPERVIOUS COVER - BLOCK A | | | | | | | | | |
| | | | | | | | | | |
| ALLOWABLE IMPERVIOUS COVER | | | | | | | | | |
| Single Family | | 60% X | | 5.93 ACRES | | = | | 3.56 ACRES | |
| Drainage, Water Quality, PUE, Landscape, and Greenbelt | | 45% X | | 9.22 ACRES | | = | | 4.15 ACRES | |
| Right of Way | | 85% X | | 4.15 ACRES | | = | | 3.53 ACRES | |
| | | | | | | | | | |
| ALLOWABLE IMPERVIOUS COVER BREAKDOWN BY SLOPE CATEGORY | | | | | | | | | |
| | | TOTAL ACREAGE 15 - 25% = | | 3.12 | | X 10% = | | 0.31 ACRES | |
| PROPOSED TOTAL IMPERVIOUS COVER | | | | | | | | | |
| | | TOTAL PROPOSED IMPERVIOUS COVER | | = | | 7.10 ACRES | | = 36.76% | |
| PROPOSED IMPERVIOUS COVER ON SLOPES | | | | | | | | | |
| IMPERVIOUS COVER | | | | | | | | | |
| | | BUILDING / AND OTHER IMPERVIOUS COVER | | DRIVEWAYS / ROADWAYS | | | | | |
| SLOPE CATEGORIES | ACRES | ACRES | % OF CATEGORY | ACRES | | | | | |
| 0 - 15% | 14.73 | 3.4 | 23.1% | 2.98 | | | | | |
| 15 - 25% | 3.12 | 0.19 | 5.9% | 0.04 | | | | | |
| 25 - 35% | 1.06 | 0.00 | 0.0% | 0.00 | | | | | |
| OVER 35% | 0.39 | 0.00 | 0.0% | 0.00 | | | | | |
| TOTAL SITE AREA | | 19.30 | | | | | | | |

PRELIMINARY SUBDIVISION APPROVAL SHEET ____ OF 2
FILE NUMBER: C8-20210152.PA APPLICATION DATE _____
APPROVED BY COMMISSION ON _____, 2022.
EXPIRATION DATE (LDC 25-4-62) _____
CASE MANAGER: _____

Denise Lucas, Director, Development Services Department
Final plot must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

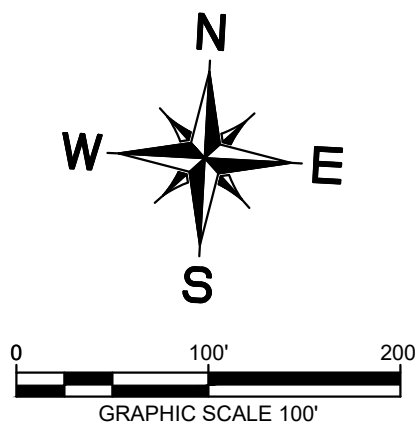
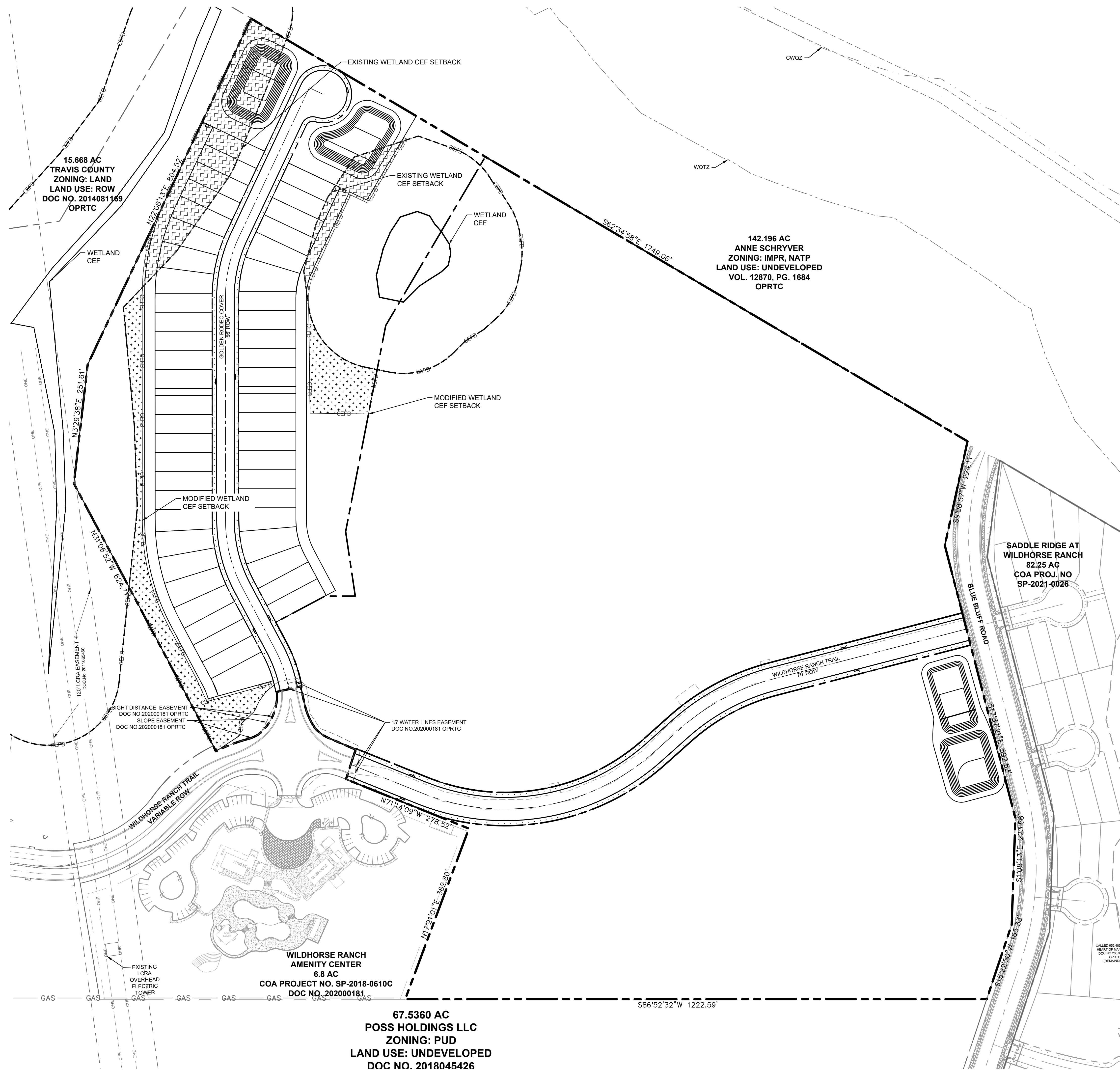
BENCHMARKS

DATUM IS NAVD '88, USING GEOID 12A, BASED ON GPS OBSERVATIONS.

| | |
|---------|--|
| BM #101 | "X" CUT ON THE HIGH TRANSMISSION POWER POLE BASE. ELEV. = 554.100' |
| BM #27 | "X" CUT ON HIGH TRANSMISSION POWER POLE BASE. ELEV. = 640.400 |



Know what's below.
Call before you dig.



LEGEND

The diagram illustrates a cross-section of a water body and its adjacent land areas. The components are as follows:

- PROPERTY LINE:** Indicated by a solid black line at the top.
- ADJACENT PROPERTY LINE:** Indicated by a dashed line below the property line.
- BENCHMARK:** Indicated by a circle with a cross inside, located below the adjacent property line.
- ROADWAY EASEMENT LINE:** Indicated by a solid black line below the benchmark.
- WATER LINE:** Indicated by a solid black line below the roadway easement line.
- WASTE WATER LINE:** Indicated by a solid black line below the water line.
- SS (STORM SEWER LINE):** Indicated by a solid black line below the waste water line.
- WASTEWATER MANHOLE:** Indicated by a circle with a cross inside, located below the SS line.
- RIGHT OF WAY:** Indicated by a solid black line below the wastewater manhole.
- PROPOSED CONTOUR:** Indicated by a dashed line below the right of way line.
- EXISTING CONTOUR:** Indicated by a solid black line below the proposed contour line.
- PROPOSED CEF BUFFER:** Indicated by a dashed line below the existing contour line.
- CEF BUFFER TO BE REMOVED:** Indicated by a hatched area below the proposed CEF buffer line.
- CEF BUFFER TO BE ADDED:** Indicated by a dotted area below the hatched area.
- PLANTING AREAS ADDED:** Indicated by a solid grey area below the dotted area.
- WATER QUALITY TRANSITION ZONE:** Indicated by a dashed line below the planting areas.
- CRITICAL WATER QUALITY ZONE:** Indicated by a solid black line at the bottom.

CEF Buffer & Mitigation

| | | |
|-----------------------------|-------|-----|
| Standard 150' CEF A Setback | 3.49 | AC |
| Standard 150' CEF B Setback | 12.93 | AC |
| TOTAL = | 16.42 | AC |
| Proposed CEF A Setback | 4.25 | AC |
| Proposed CEF B Setback | 12.31 | AC |
| TOTAL = | 16.56 | AC* |

*Proposed CEF setback plus restoration area is equal to or greater than existing standard 150' setback area.

PRELIMINARY SUBDIVISION APPROVAL SHEET ____ OF ____
FILE NUMBER _____ APPLICATION DATE _____
APPROVED BY COMMISSION ON _____, 2022.
EXPIRATION DATE (LDC 25-4-62) _____
CASE MANAGER: _____

Denise Lucas, Director, Development Services Department

Final plan must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

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ELEV. = 554.10'

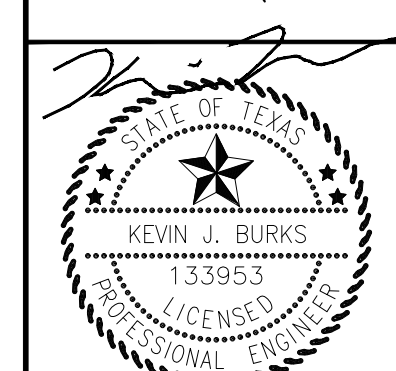
BM #27 "X" CUT ON HIGH TRANSMISSION POWER POLE BASE.
ELEV. = 640.400



Know what's **below**.
Call before you dig.

[illegible]

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10814 JOLLYVILLE ROAD, AVALLON IV, SUITE 200, AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928



03/01/2022

| |
|--------------------------|
| KHA PROJECT 069244531 |
| DATE FEBRUARY 2022 |
| SCALE: AS SHOWN |
| DESIGNED BY: JMW |
| DRAWN BY: MCC |
| CHECKED BY: KJB |

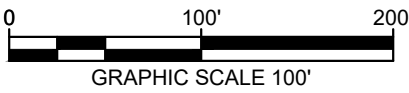
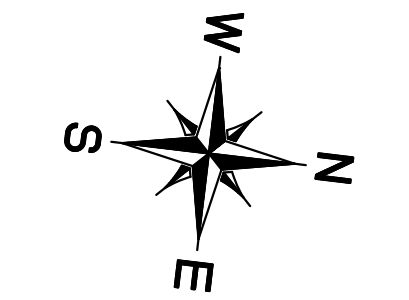
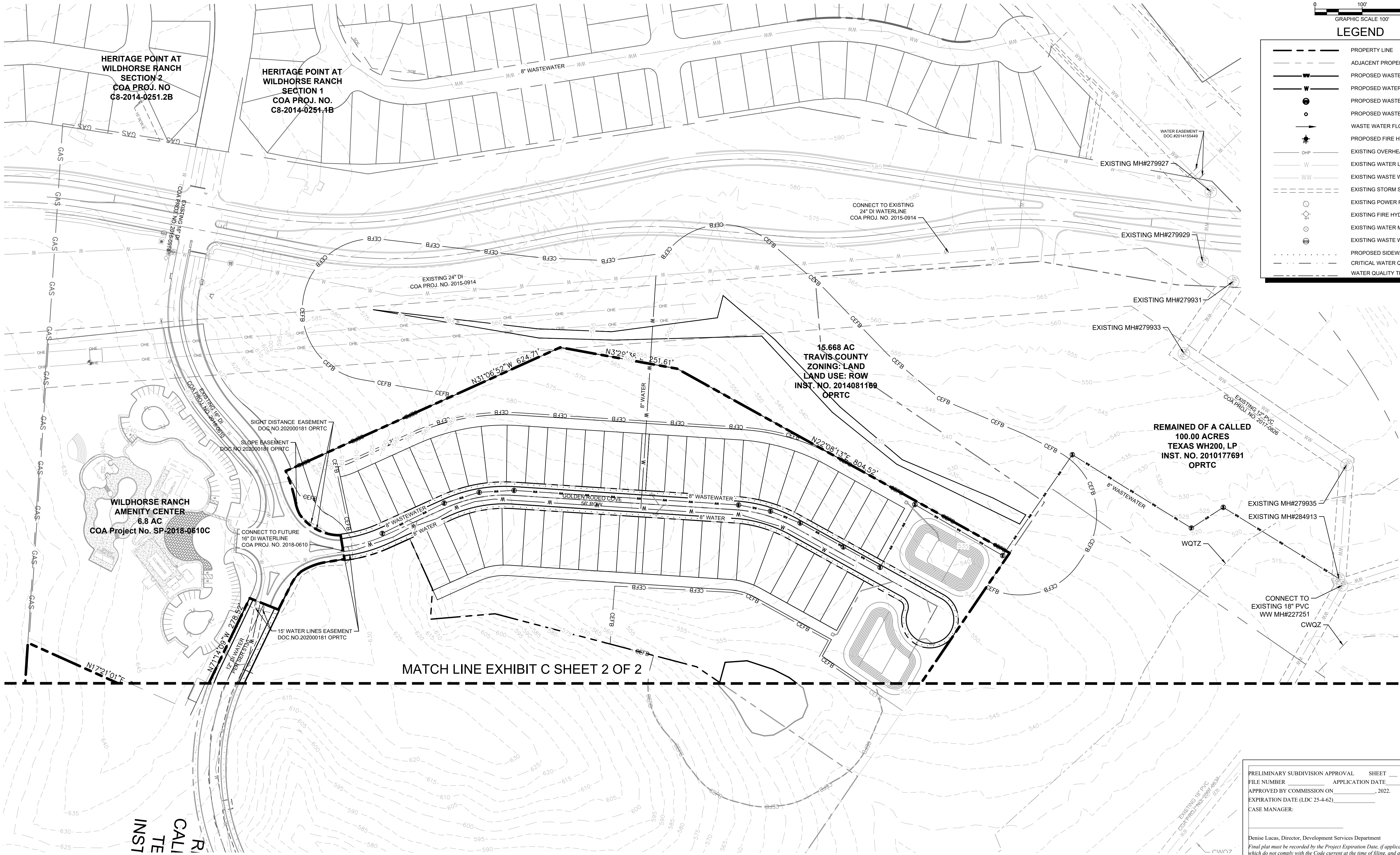
EXHIBIT B - CEF
MITIGATION SHEET

THE PINNACLE AT
WILDHORSE RANCH
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
EX

Plotted By: Jones, Dean Date: March 01, 2022 10:54:52am File Path: K:\AUS-Civil\069244531-Pinnacle at Wildhorse Ranch Prelim Plan\Grid\PlanSheets\EX C - Water & Wastewater Planning

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

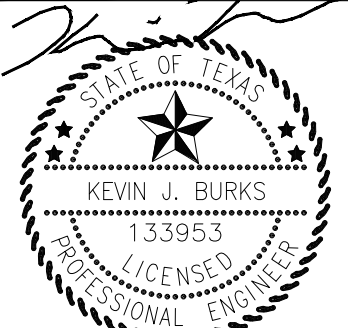


LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- PROPOSED WASTE WATER LINE
- PROPOSED WATER LINE
- PROPOSED WASTE WATER MANHOLE
- PROPOSED WASTE WATER CLEANOUT
- WASTE WATER FLOW DIRECTION
- PROPOSED FIRE HYDRANT
- EXISTING OVERHEAD POWER LINE
- EXISTING WATER LINE
- EXISTING WASTE WATER LINE
- EXISTING STORM SEWER LINE
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING WASTE WATER MANHOLE
- PROPOSED SIDEWALK
- CRITICAL WATER QUALITY ZONE
- WATER QUALITY TRANSITION ZONE

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TEXAS REGISTERED ENGINEERING FIRM F-928



| | |
|-------------|---------------|
| KHA PROJECT | 069244531 |
| DATE | FEBRUARY 2022 |
| SCALE | AS SHOWN |
| DESIGNED BY | JMW |
| DRAWN BY | MCC |
| CHECKED BY | KJB |

EXHIBIT C - WATER & WASTEWATER PLAN
(SHEET 1 OF 2)

THE PINNACLE AT
WILDHORSE RANCH
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
EX

PRELIMINARY SUBDIVISION APPROVAL SHEET ____ OF ____
FILE NUMBER APPLICATION DATE _____
APPROVED BY COMMISSION ON _____, 2022.
EXPIRATION DATE (LDC 25-4-62) _____
CASE MANAGER: _____

Denise Lucas, Director, Development Services Department
Final plan must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

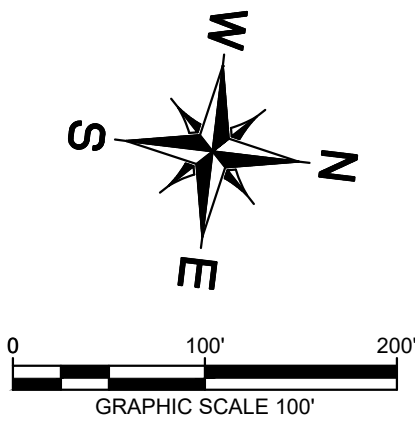
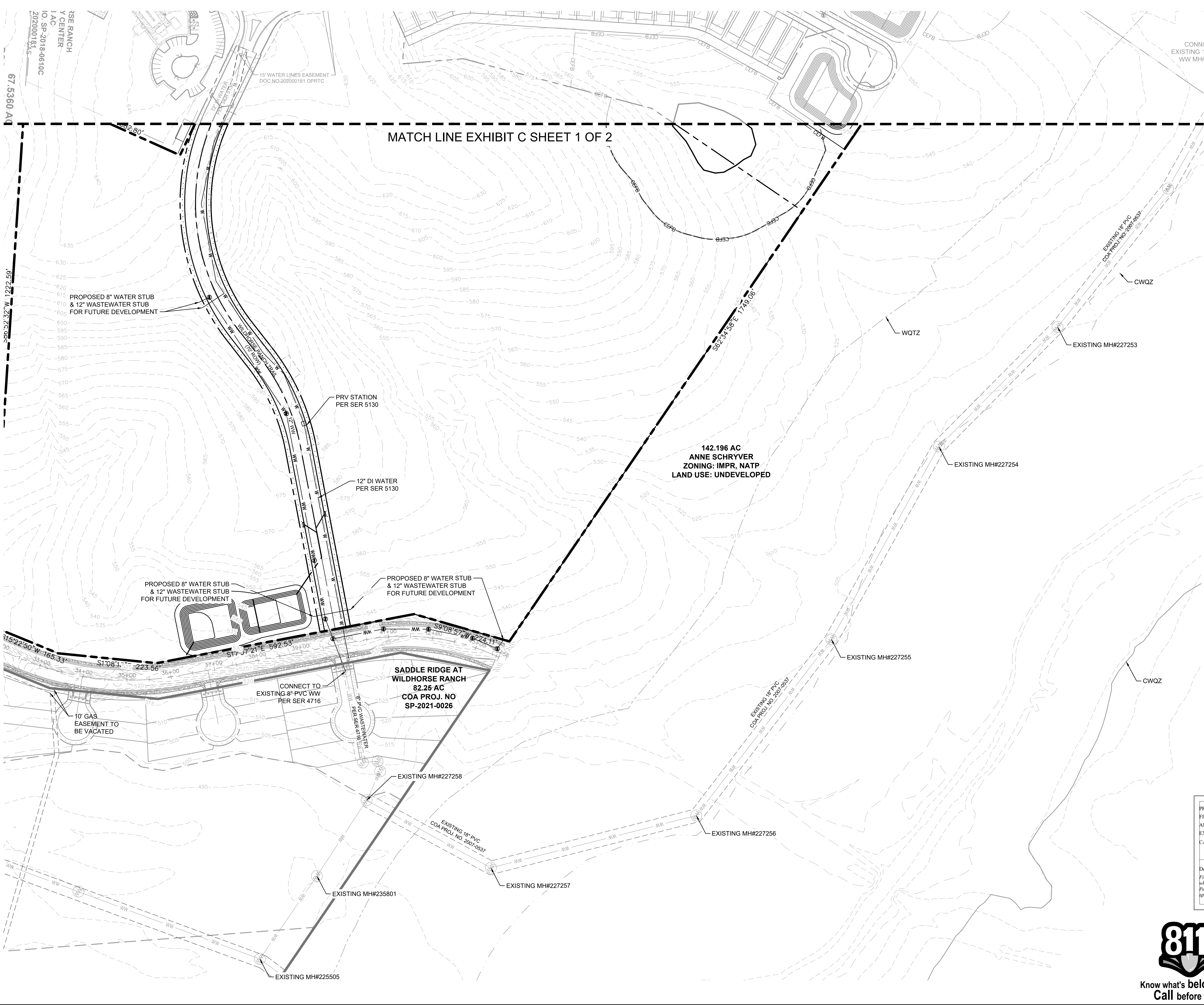


BENCHMARKS

| | |
|--|---|
| DATUM IS NAVD '88, USING GEOID 12A, BASED ON GPS OBSERVATIONS. | |
| BM #101 | "X" CUT ON THE HIGH TRANSMISSION POWER POLE BASE. ELEV = 554.100' |
| BM #27 | "X" CUT ON HIGH TRANSMISSION POWER POLE BASE. ELEV = 640.400' |

Plotted By: Jones, Dean Date: March 01, 2022 10:54:57am File Path: K:\AUS_Civil\069244531-Pinnacle at Wildhorse Ranch Prelim Plan\Code\PlanSheets\EX C - Water & Wastewater Planning

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| LEGEND | |
|--------|--------------------------------------|
| | PROPERTY LINE |
| | ADJACENT PROPERTY LINE |
| | PROPOSED WASTE WATER LINE |
| | PROPOSED WATER LINE |
| | PROPOSED WASTE WATER MANHOLE |
| | PROPOSED WASTE WATER CLEANOUT |
| | WASTE WATER FLOW DIRECTION |
| | CRITICAL WATER QUALITY ZONE(CWQZ) |
| | WATER QUALITY TRANSITION ZONE (WQTZ) |
| | PROPOSED FIRE HYDRANT |
| | EXISTING OVERHEAD POWER LINE |
| | EXISTING WATER LINE |
| | EXISTING WASTE WATER LINE |
| | EXISTING STORM SEWER LINE |
| | EXISTING POWER POLE |
| | EXISTING FIRE HYDRANT |
| | EXISTING WATER METER |
| | EXISTING WASTE WATER MANHOLE |
| | PROPOSED SIDEWALK |

| | |
|----------------------------------|--------------------|
| PRELIMINARY SUBDIVISION APPROVAL | SHEET ____ OF ____ |
| FILE NUMBER | APPLICATION DATE |
| APPROVED BY COMMISSION ON | , 2022. |
| EXPIRATION DATE (LDC 25-4-62) | |
| CASE MANAGER: | |

Denise Lucas, Director, Development Services Department

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Know what's below.
Call before you dig.

| BENCHMARKS | |
|--|--|
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| BM #27 | *"X" CUT ON HIGH TRANSMISSION POWER POLE BASE. ELEV = 640.400' |

| REVISIONS | | DATE | BY |
|-----------|--|------|----|
| No. | | | |

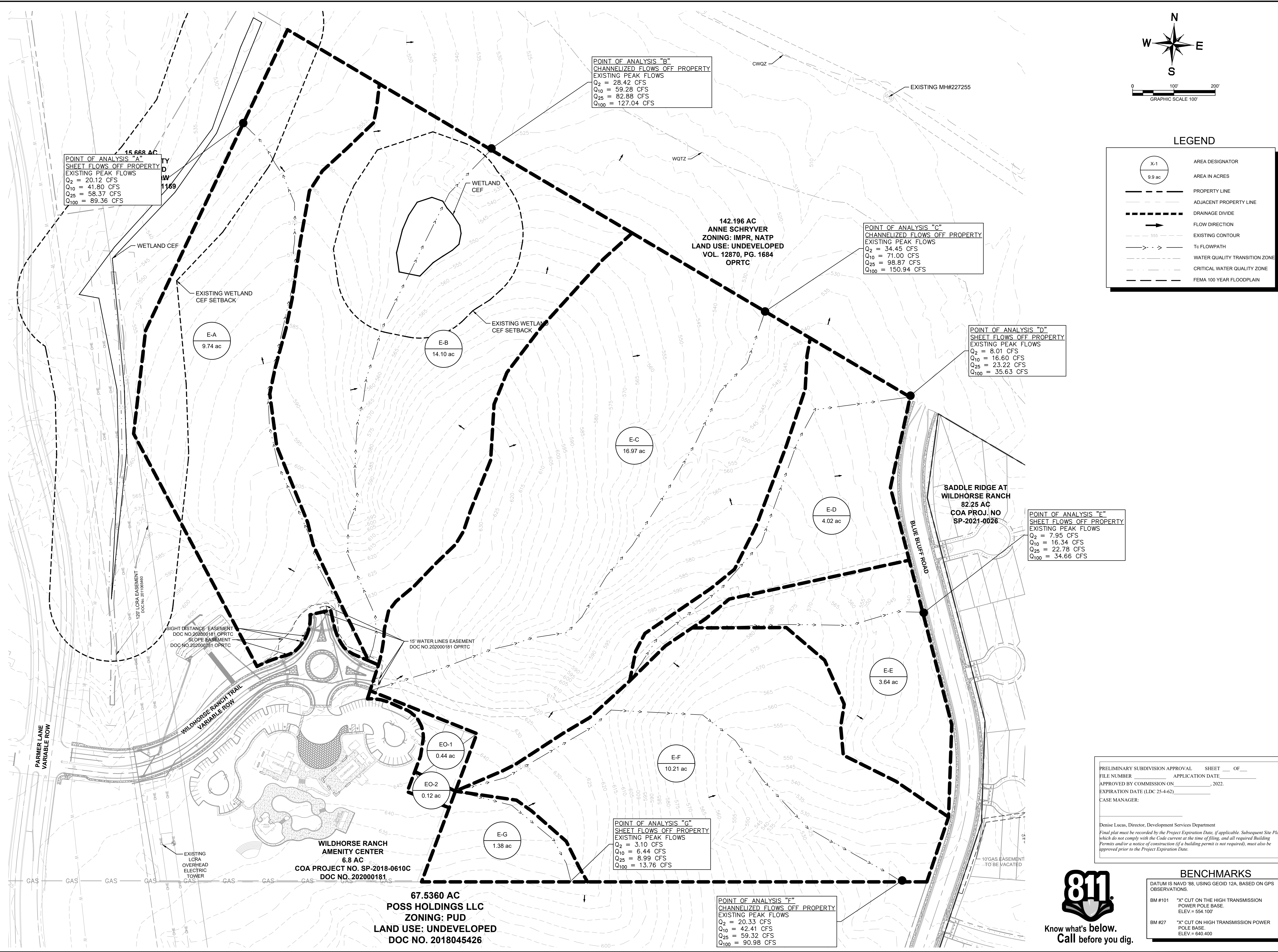
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| | |
|-----------------------|-----------------|
| KHA PROJECT 069244531 | |
| DATE FEBRUARY 2022 | SCALE: AS SHOWN |
| DESIGNED BY: JMW | DRAWN BY: MCC |
| CHECKED BY: KJB | |

EXHIBIT C - WATER & WASTEWATER PLAN
(SHEET 2 OF 2)

THE PINNACLE AT
WILDHORSE RANCH
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
EX



Plotted By: Jones, Dean Date: March 01, 2022 10:56:08am File Path: K:\AUS_Civil\069244531--Pinnacle at Wildhorse Ranch Prelim Plan\Map\Map\Map.dwg
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LEGEND

- X-1 9.9 ac AREA DESIGNATOR AREA IN ACRES
- PROPERTY LINE
- ADJACENT PROPERTY LINE
- TC FLOW PATH
- PROPOSED DRAINAGE DIVIDE
- PROPOSED FLOW DIRECTION
- PROPOSED CONTOUR
- EXISTING CONTOUR
- INTERIM FLOW AREA

NOTE: DETENTION AND WATER QUALITY FOR POINTS OF ANALYSIS C, D, F, AND G SHALL BE PROVIDED WITH THEIR INDIVIDUAL SITE PLANS. FULL POND DESIGNS FOR DRAINAGE AREAS D-A, D-B, AND D-E1 SHALL BE PROVIDED WITH THE SUBDIVISION CONSTRUCTION PLANS.

BENCHMARKS

DATUM IS NAVD '88, USING GEOID 12A, BASED ON GPS OBSERVATIONS.

BM #101 "X" CUT ON THE HIGH TRANSMISSION POWER POLE BASE. ELEV = 554.100'

BM #27 "X" CUT ON HIGH TRANSMISSION POWER POLE BASE. ELEV = 640.400'

811

Know what's below. Call before you dig.

THE PINNACLE AT WILDHORSE RANCH

EXHIBIT E - PROPOSED DRAINAGE AREA MAP

CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
EX

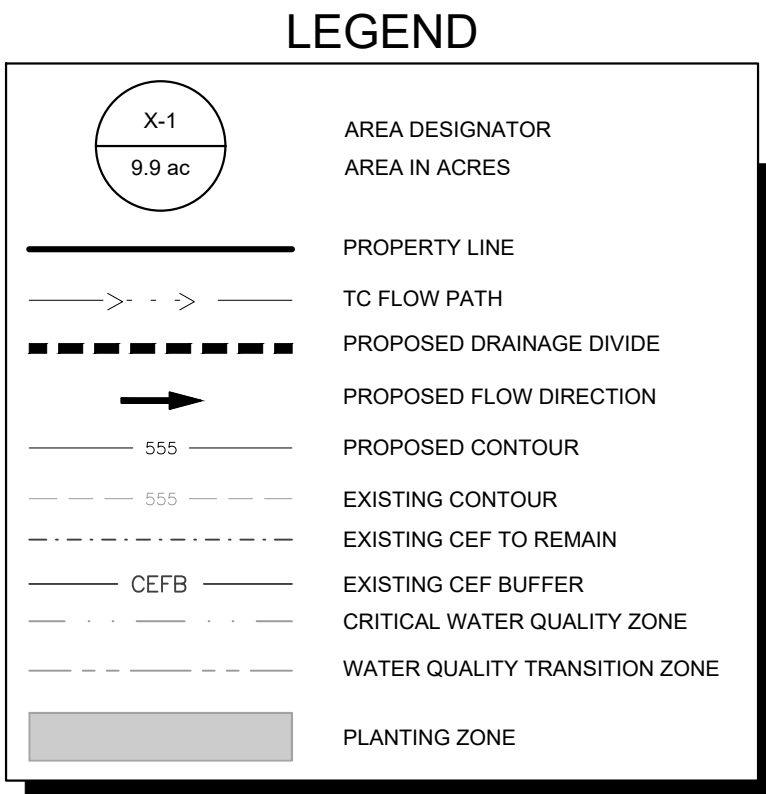
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KEVIN J. BURKS
133953
PROFESSIONAL ENGINEER

03/01/2022

KHA PROJECT 069244531
DATE FEBRUARY 2022
SCALE: AS SHOWN
DESIGNED BY: JMW
DRAWN BY: MCC
CHECKED BY: KJB



NOTE: DETENTION AND WATER QUALITY FOR POINTS OF ANALYSIS C, D, F, AND G SHALL BE PROVIDED WITH THEIR INDIVIDUAL SITE PLANS. FULL POND DESIGNS FOR DRAINAGE AREAS D-A, D-B, AND D-E1 SHALL BE PROVIDED WITH THE SUBDIVISION CONSTRUCTION PLANS.

| CEF FLOW MITIGATION | |
|-----------------------------|----------|
| EXISTING FLOW TO CEF A | 9.74 AC |
| WQ TREATMENT AREA TO CEF A | 6.69 AC |
| ADDITIONAL PLANTING ZONE | 3.57 AC |
| PROPOSED FLOW TO CEF A | 10.26 AC |
| | |
| EXISTING FLOW TO CEF B | 14.1 AC |
| WQ TREATMENT AREA TO CEF B | 3.85 AC |
| PROPOSED FLOW PER EXHIBIT E | 11.07 AC |
| PROPOSED FLOW TO CEF B | 14.92 AC |

| Appendix R-6 | | |
|---|------------------------|------------------------|
| Biofiltration Pond Calculations for Development Permits | | |
| Drainage Area Data: | | |
| WATER QUALITY POND 2 | | |
| Drainage Area to Control (DA) | | 3.85 AC. |
| Drainage Area Percent Impervious Cover | | 41% |
| Capture Depth (CD) | | 0.80 IN. |
| <u>Water Quality Control Calculations:</u> | <u>Required</u> | <u>Provided</u> |
| The Water Quality Control is to be Full Biofiltration | | |
| 25 Year Peak Flow Rate to Control (Q25) | 98.48 CFS | |
| 100 Year Peak Flow Rate to Control (Q100) | 142.64 CFS | |
| Water Quality Volume (WQV=CD*DA*3630) | 11135 CF | 20320 CF |
| Maximum Ponded Depth Above Sand Bed (H) | | 3.00 FT |
| Sedimentation Pond Volume | 11135 CF | 14231 CF |
| Filtration Pond Area (WQV/(7+2.33*H)) | 764 SF | 1430 SF |

| Appendix R-2 | | |
|---|-----------------|-----------------|
| Full Sedimentation/Filtration Pond Calculations for Development Permits | | |
| Drainage Area Data: | | |
| WATER QUALITY POND 3 | | |
| Drainage Area to Control (DA) | 4.17 AC. | |
| Drainage Area Percent Impervious Cover | 61% | |
| Capture Depth (CD) | 1.06 IN. | |
| | | |
| Water Quality Control Calculations: | Required | Provided |
| The Water Quality Control is to be Full Sedimentation/Filtration | | |
| 25 Year Peak Flow Rate to Control (Q25) | 21.81 CFS | |
| 100 Year Peak Flow Rate to Control (Q100) | 31.21 CFS | |
| | | |
| Water Quality Volume (WQV=CD*DA*3630) | 16107 CF | 18854 CF |
| Maximum Ponded Depth Above Sand Bed (H) | | 5.00 FT |
| Sedimentation Pond Area | 1611 CF | 2,657 SF |
| Sedimentation Pond Volume | 16107 CF | 18854 CF |
| Filtration Pond Area (WQV/(7+2.33*H)) | 837 SF | 915 CF |
| Filtration Pond Volume (minimum 20% of WQV) | 3221 CF | 5933 CF |

PRELIMINARY SUBDIVISION APPROVAL SHEET ____ OF ____
FILE NUMBER _____ APPLICATION DATE _____
APPROVED BY COMMISSION ON _____, 2022.
EXPIRATION DATE (LDC 25-4-62) _____
CASE MANAGER: _____

Denise Lusa, Director, Development Services Department

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BENCHMARKS

DATUM IS NAVD '88, USING GEOID 12A, BASED ON GPS OBSERVATIONS.

| | |
|---------|---|
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| BM #27 | "X" CUT ON HIGH TRANSMISSION POWER POLE BASE. ELEV. = 640.400 |

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03/01/2022








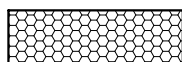










| | | | | | |
|--------------------------|-----------------------|-----------------|------------------|---------------|-----------------|
| KHA PROJECT 069244531 | DATE FEBRUARY 2022 | SCALE: AS SHOWN | DESIGNED BY: JMW | DRAWN BY: MCC | CHECKED BY: KJB |
|--------------------------|-----------------------|-----------------|------------------|---------------|-----------------|

EXHIBIT F - DRAINAGE & WATER QUALITY PLAN

THE PINNACLE AT
WILDHORSE RANCH
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
EX



| | |
|---|--|
|  | PROPERTY LINE |
|  | ADJACENT PROPERTY LINE |
|  | PROPOSED CONTOUR |
|  | EXISTING CONTOUR |
|   | SILT FENCE |
|   | STABILIZED CONSTRUCTION ENTRANCE/EXIT |
|   | INLET PROTECTION |
|   | ROCK BERM |
|    | LIMITS OF CONSTRUCTION |
|  | EROSION CONTROL STAGING BOUNDARY |
|  | CRITICAL WATER QUALITY ZONE |
|  | WATER QUALITY TRANSITION ZONE |

NOTES

1. IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING [ECM 1.4.4.B.C, SECTION 5.]
2. ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN-COMPLIANCE WITH THE CITY OF AUSTIN RULES AND REGULATIONS. [DOC 25-8-183]
3. CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER ECM 1.4.4.5(A). AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
4. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY [ECM 1.4.4.D.4]
5. ALL SPOILS TO BE PLACED BACK IN TRENCH EVERY NIGHT; OR IF SPOILS PILES ARE TO REMAIN OVERNIGHT, SPOILS MUST BE PLACED ON THE UPHILL SIDE OF TRENCH WITHIN THE LOC.
6. CONTRACTOR TO INSTALL CURLEX ON ALL 3:1 SLOPES EXCEEDING 4' IN HEIGHT.

PRELIMINARY SUBDIVISION APPROVAL SHEET ____ OF ____
FILE NUMBER _____ APPLICATION DATE _____
APPROVED BY COMMISSION ON _____, 2022.
EXPIRATION DATE (LDC 25-6-2) _____
CASE MANAGER: _____

Denise Lucas, Director, Development Services Department

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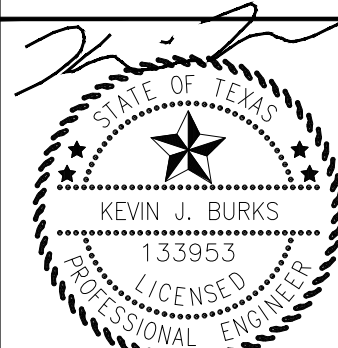
BENCHMARKS

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[illegible]

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| KHA PROJECT 069244531 |
| DATE FEBRUARY 2022 |
| SCALE: AS SHOWN |
| DESIGNED BY: JMW |
| DRAWN BY: MCC |
| CHECKED BY: KJB |

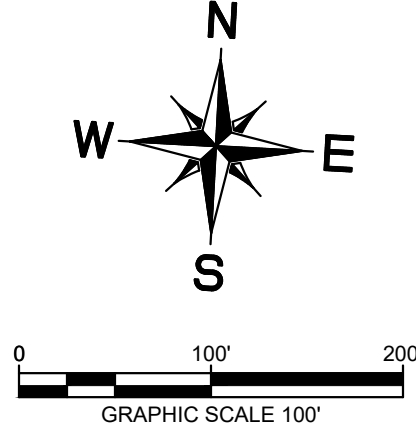
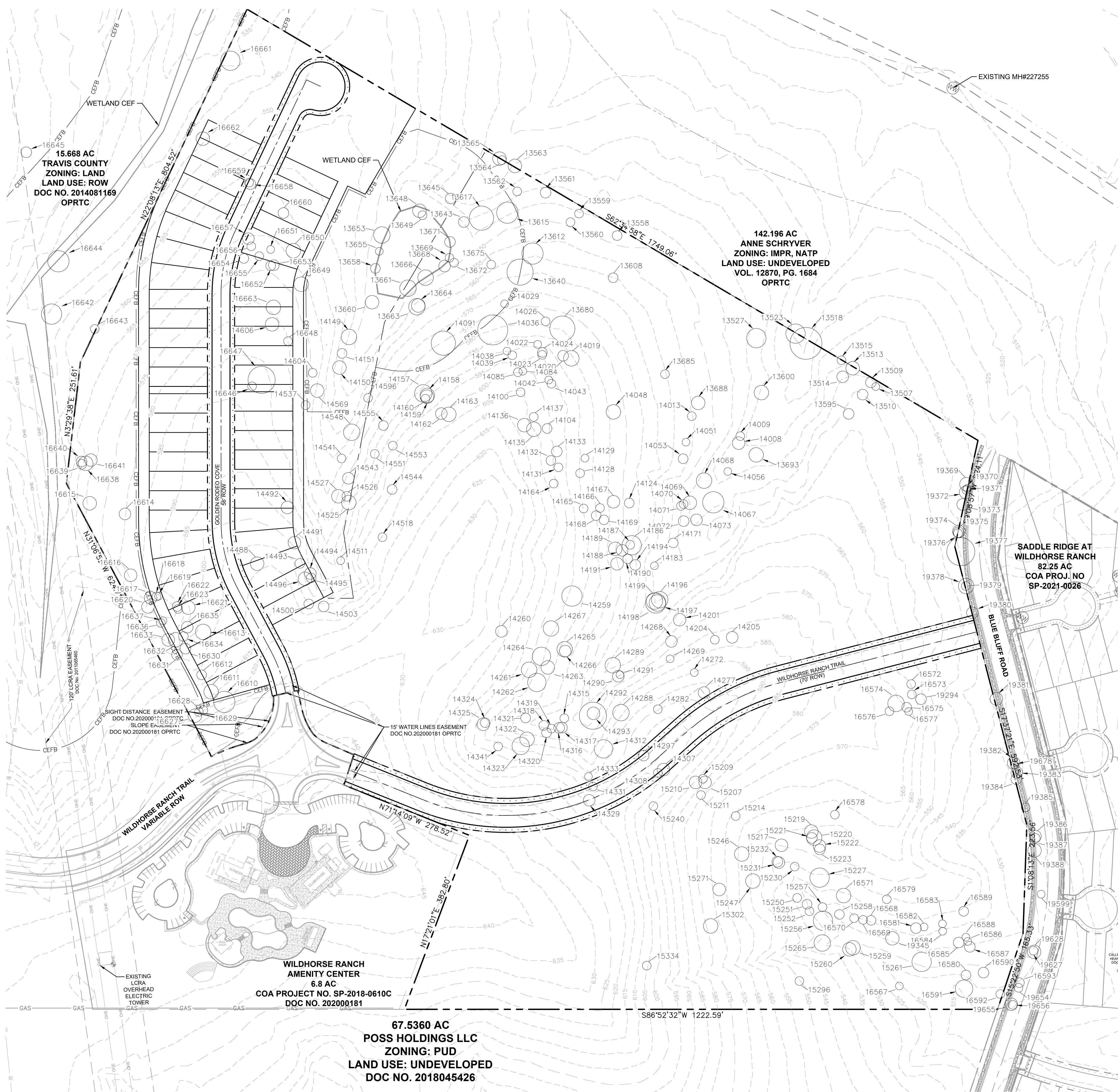
EXHIBIT G - EROSION CONTROL PLAN

THE PINNACLE AT
WILDHORSE RANCH
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
EX

Plotted By: Jones, Dean Date: March 01, 2022 10:57:31am File Path: K:\AUS-Civil\069244531-Pinnacle at Wildhorse Ranch Prelim Plan\Grid\PlanSheets\EX H - Tree Information.dwg

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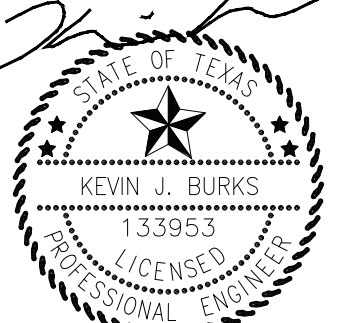
LEGEND

| | |
|--|---------------------------------|
| | PROPERTY LINE |
| | ADJACENT PROPERTY LINE |
| | PROPOSED WASTE WATER LINE |
| | PROPOSED WATER LINE |
| | PROPOSED WASTE WATER MANHOLE |
| | PROPOSED WASTE WATER CLEANOUT |
| | WASTE WATER FLOW DIRECTION |
| | PROPOSED FIRE HYDRANT |
| | PROPOSED TAPPING SLEEVE & VALVE |
| | IRRIGATION SLEEVE |
| | EXISTING OVERHEAD POWER LINE |
| | EXISTING WATER LINE |
| | EXISTING WASTE WATER LINE |
| | EXISTING STORM SEWER LINE |
| | EXISTING POWER POLE |
| | EXISTING FIRE HYDRANT |
| | EXISTING WATER METER |
| | EXISTING WASTE WATER MANHOLE |
| | CRITICAL WATER QUALITY ZONE |
| | WATER QUALITY TRANSITION ZONE |

NOTE: IF ANY EXISTING TREES ARE REQUIRED TO BE REMOVED DURING THE COURSE OF CONSTRUCTION, MITIGATION WILL BE PROVIDED IN ACCORDANCE WITH THE CITY OF AUSTIN'S STANDARDS.

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| | |
|--------------|---------------|
| KHA PROJECT | 069244531 |
| DATE | FEBRUARY 2022 |
| SCALE | AS SHOWN |
| DESIGNED BY: | JMW |
| DRAWN BY: | MCC |
| CHECKED BY: | KJB |

EXHIBIT H - TREE
INFORMATION
(SHEET 1 OF 2)

THE PINNACLE AT
WILDHORSE RANCH
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
EX

| | |
|----------------------------------|--------------------|
| PRELIMINARY SUBDIVISION APPROVAL | SHEET ____ OF ____ |
| FILE NUMBER | APPLICATION DATE |
| APPROVED BY COMMISSION ON | , 2022. |
| EXPIRATION DATE (LDC 25-4-62) | |
| CASE MANAGER: | |

Denise Lucas, Director, Development Services Department

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| BM #27 | "X" CUT ON HIGH TRANSMISSION POWER POLE BASE. ELEV = 640.400' |

| Tag # | Species | Diameter(in) |
|-------|------------|--------------|
| 13507 | CEDAR ELM | 8 |
| 13509 | CEDAR ELM | 11 |
| 13510 | CEDAR ELM | 11 |
| 13513 | CEDAR ELM | 14 |
| 13514 | CEDAR ELM | 12 |
| 13515 | CEDAR ELM | 9 |
| 13518 | CEDAR ELM | 33 |
| 13523 | CEDAR ELM | 20 |
| 13527 | CEDAR ELM | 20 |
| 13558 | CEDAR ELM | 10 |
| 13559 | CEDAR ELM | 9 |
| 13560 | CEDAR ELM | 9 |
| 13561 | CEDAR ELM | 11 |
| 13562 | CEDAR ELM | 9 |
| 13563 | CEDAR ELM | 14 |
| 13564 | CEDAR ELM | 9 |
| 13565 | CEDAR ELM | 14 |
| 13595 | CEDAR ELM | 11 |
| 13600 | CEDAR ELM | 15 |
| 13608 | CEDAR ELM | 10 |
| 13612 | CEDAR ELM | 22 |
| 13615 | CEDAR ELM | 22 |
| 13617 | CEDAR ELM | 25 |
| 13640 | CEDAR ELM | 27 |
| 13643 | CEDAR ELM | 11 |
| 13645 | CEDAR ELM | 11 |
| 13648 | WILLLOW | 14 |
| 13649 | WILLLOW | 9 |
| 13653 | WILLLOW | 17 |
| 13655 | WILLLOW | 8 |
| 13658 | WILLLOW | 10 |
| 13660 | CEDAR ELM | 14 |
| 13661 | WILLLOW | 17 |
| 13663 | CEDAR ELM | 17 |
| 13664 | CEDAR ELM | 14 |
| 13666 | WILLLOW | 16 |
| 13668 | CEDAR ELM | 12 |
| 13669 | WILLLOW | 9 |
| 13671 | WILLLOW | 11 |
| 13672 | CEDAR ELM | 9 |
| 13675 | CEDAR ELM | 9 |
| 13680 | CEDAR ELM | 26 |
| 13685 | MESQUITE | 9 |
| 13688 | CEDAR ELM | 14 |
| 13693 | CEDAR ELM | 15 |
| 14008 | CEDAR ELM | 13 |
| 14009 | CEDAR ELM | 9 |
| 14013 | CEDAR ELM | 9 |
| 14019 | CEDAR | 16 |
| 14020 | CEDAR | 11 |
| 14022 | CEDAR ELM | 8 |
| 14023 | CEDAR ELM | 9 |
| 14024 | CEDAR ELM | 10 |
| 14026 | CEDAR ELM | 9 |
| 14029 | CEDAR ELM | 8 |
| 14036 | CEDAR ELM | 31 |
| 14038 | CEDAR ELM | 8 |
| 14039 | CEDAR ELM | 9 |
| 14042 | CEDAR ELM | 8 |
| 14043 | CEDAR ELM | 9 |
| 14048 | CEDAR ELM | 15 |
| 14051 | CEDAR ELM | 8 |
| 14053 | CEDAR ELM | 10 |
| 14056 | CEDAR ELM | 8 |
| 14067 | CEDAR ELM | 22 |
| 14068 | CEDAR ELM | 16 |
| 14069 | CEDAR ELM | 14 |
| 14070 | CEDAR ELM | 9 |
| 14071 | CEDAR ELM | 9 |
| 14072 | CEDAR ELM | 11 |
| 14073 | CEDAR ELM | 12 |
| 14084 | CEDAR ELM | 8 |
| 14085 | CEDAR ELM | 9 |
| 14091 | CEDAR ELM | 25 |
| 14100 | CHINABERRY | 9 |
| 14104 | CEDAR ELM | 10 |
| 14124 | CEDAR ELM | 10 |
| 14128 | CEDAR ELM | 9 |
| 14129 | CEDAR ELM | 8 |
| 14131 | CEDAR ELM | 8 |

| Tag # | Species | Diameter(in) |
|-------|------------|--------------|
| 14132 | CEDAR ELM | 10 |
| 14133 | CEDAR ELM | 11 |
| 14135 | CEDAR ELM | 15 |
| 14136 | CEDAR | 14 |
| 14137 | CEDAR | 9 |
| 14149 | CEDAR ELM | 16 |
| 14150 | CEDAR ELM | 14 |
| 14151 | CEDAR ELM | 10 |
| 14157 | CEDAR ELM | 18 |
| 14158 | CEDAR ELM | 15 |
| 14159 | CEDAR ELM | 14 |
| 14160 | CEDAR ELM | 9 |
| 14162 | CEDAR | 12 |
| 14163 | CEDAR ELM | 15 |
| 14164 | CEDAR ELM | 9 |
| 14165 | CEDAR ELM | 9 |
| 14166 | CEDAR ELM | 9 |
| 14167 | CEDAR ELM | 13 |
| 14168 | CEDAR ELM | 10 |
| 14169 | CEDAR ELM | 10 |
| 14171 | CEDAR ELM | 10 |
| 14183 | CEDAR ELM | 8 |
| 14186 | MESQUITE | 20 |
| 14187 | MESQUITE | 9 |
| 14188 | HACKBERRY | 12 |
| 14189 | CEDAR ELM | 14 |
| 14190 | HACKBERRY | 10 |
| 14191 | CEDAR ELM | 13 |
| 14194 | HACKBERRY | 11 |
| 14196 | CEDAR ELM | 17 |
| 14197 | CEDAR ELM | 17 |
| 14198 | CEDAR ELM | 21 |
| 14199 | CEDAR ELM | 17 |
| 14201 | CEDAR | 13 |
| 14204 | CEDAR ELM | 9 |
| 14205 | CEDAR ELM | 12 |
| 14259 | CEDAR ELM | 21 |
| 14260 | CEDAR ELM | 12 |
| 14261 | CEDAR ELM | 16 |
| 14262 | CEDAR ELM | 19 |
| 14263 | CEDAR ELM | 14 |
| 14264 | CEDAR ELM | 19 |
| 14265 | CEDAR ELM | 16 |
| 14266 | CEDAR ELM | 12 |
| 14267 | CEDAR ELM | 16 |
| 14268 | CEDAR ELM | 12 |
| 14269 | CEDAR ELM | 8 |
| 14272 | CEDAR ELM | 8 |
| 14277 | CEDAR ELM | 12 |
| 14282 | CEDAR ELM | 9 |
| 14288 | CEDAR ELM | 17 |
| 14289 | BOIS D'ARC | 16 |
| 14290 | CEDAR ELM | 12 |
| 14291 | CEDAR ELM | 8 |
| 14292 | BOIS D'ARC | 28 |
| 14293 | BOIS D'ARC | 13 |
| 14297 | CEDAR ELM | 11 |
| 14307 | CEDAR ELM | 13 |
| 14308 | CEDAR ELM | 9 |
| 14312 | CEDAR ELM | 19 |
| 14315 | HACKBERRY | 9 |
| 14316 | CEDAR ELM | 11 |
| 14317 | CEDAR ELM | 11 |
| 14318 | CEDAR ELM | 10 |
| 14319 | CEDAR ELM | 9 |
| 14320 | CEDAR | 10 |
| 14321 | CEDAR ELM | 10 |
| 14322 | CEDAR ELM | 15 |
| 14323 | CEDAR | 12 |
| 14324 | CEDAR ELM | 10 |
| 14325 | HACKBERRY | 13 |
| 14329 | CEDAR ELM | 12 |
| 14331 | CEDAR ELM | 9 |
| 14333 | CEDAR ELM | 8 |
| 14341 | CEDAR ELM | 9 |
| 14488 | CEDAR ELM | 14 |
| 14491 | CEDAR ELM | 13 |
| 14492 | CEDAR | 13 |
| 14493 | CEDAR ELM | 10 |
| 14494 | CEDAR ELM | 12 |

| Tag # | Species | Diameter(in) |
|-------|-----------|--------------|
| 14495 | CEDAR ELM | 10 |
| 14496 | CEDAR | 14 |
| 14500 | CEDAR ELM | 10 |
| 14503 | CEDAR ELM | 11 |
| 14511 | CEDAR ELM | 8 |
| 14518 | CEDAR ELM | 9 |
| 14525 | CEDAR | 15 |
| 14526 | CEDAR ELM | 10 |
| 14527 | CEDAR ELM | 14 |
| 14537 | HACKBERRY | 9 |
| 14541 | CEDAR ELM | 9 |
| 14543 | CEDAR ELM | 12 |
| 14544 | CEDAR | 10 |
| 14548 | CEDAR ELM | 17 |
| 14551 | CEDAR ELM | 9 |
| 14553 | CEDAR ELM | 9 |
| 14555 | CEDAR ELM | 10 |
| 14569 | CEDAR | 14 |
| 14596 | CEDAR ELM | 9 |
| 14604 | CEDAR ELM | 9 |
| 14606 | CEDAR ELM | 14 |
| 15207 | CEDAR ELM | 13 |
| 15209 | CEDAR ELM | 9 |
| 15210 | CEDAR ELM | 13 |
| 15211 | CEDAR ELM | 9 |
| 15214 | CEDAR ELM | 9 |
| 15217 | CEDAR ELM | 13 |
| 15219 | CEDAR ELM | 14 |
| 15220 | CEDAR ELM | 16 |
| 15221 | CEDAR ELM | 11 |
| 15222 | CEDAR ELM | 13 |
| 15223 | CEDAR ELM | 11 |
| 15227 | CEDAR ELM | 20 |
| 15230 | CEDAR ELM | 9 |
| 15231 | CEDAR ELM | 12 |
| 15232 | CEDAR ELM | 11 |
| 15240 | CEDAR ELM | 9 |
| 15246 | CEDAR ELM | 15 |
| 15247 | CEDAR ELM | 9 |
| 15250 | CEDAR ELM | 15 |
| 15251 | CEDAR ELM | 10 |
| 15252 | CEDAR ELM | 9 |
| 15256 | CEDAR ELM | 20 |
| 15257 | CEDAR ELM | 9 |
| 15258 | CEDAR ELM | 10 |
| 15259 | CEDAR ELM | 15 |
| 15260 | CEDAR ELM | 14 |
| 15261 | CEDAR ELM | 20 |
| 15265 | CEDAR ELM | 17 |
| 15271 | CEDAR ELM | 13 |
| 15296 | CEDAR ELM | 9 |
| 15302 | CEDAR ELM | 15 |
| 15334 | CEDAR ELM | 9 |
| 16567 | CEDAR ELM | 8 |
| 16568 | CEDAR ELM | 10 |
| 16569 | CEDAR ELM | 9 |
| 16570 | CEDAR ELM | 9 |
| 16571 | CEDAR ELM | 15 |
| 16572 | CEDAR ELM | 9 |
| 16573 | CEDAR ELM | 9 |
| 16574 | CEDAR ELM | 17 |
| 16575 | CEDAR ELM | 10 |
| 16576 | CEDAR ELM | 9 |
| 16577 | CEDAR ELM | 8 |
| 16578 | CEDAR ELM | 9 |
| 16579 | CEDAR ELM | 9 |
| 16580 | CEDAR ELM | 10 |
| 16581 | CEDAR ELM | 11 |
| 16582 | CEDAR ELM | 8 |
| 16583 | CEDAR ELM | 8 |
| 16584 | CEDAR ELM | 8 |
| 16585 | CEDAR ELM | 11 |
| 16586 | CEDAR ELM | 8 |
| 16587 | CEDAR ELM | 11 |
| 16588 | CEDAR ELM | 8 |
| 16589 | CEDAR ELM | 10 |
| 16590 | CEDAR ELM | 11 |
| 16591 | CEDAR ELM | 18 |
| 16592 | CEDAR ELM | 9 |
| 16593 | CEDAR ELM | 9 |

| Tag # | Species | Diameter(in) |
|-------|-----------|--------------|
| 16610 | CEDAR ELM | 22 |
| 16611 | CEDAR ELM | 15 |
| 16612 | CEDAR ELM | 10 |
| 16613 | CEDAR ELM | 16 |
| 16614 | CEDAR ELM | 12 |
| 16615 | CEDAR ELM | 14 |
| 16616 | CEDAR ELM | 13 |
| 16617 | CEDAR ELM | 13 |
| 16618 | CEDAR ELM | 9 |
| 16619 | CEDAR ELM | 8 |
| 16620 | CEDAR ELM | 13 |
| 16621 | CEDAR ELM | 14 |
| 16622 | CEDAR ELM | 10 |
| 16623 | CEDAR ELM | 9 |
| 16627 | CEDAR | 14 |
| 16628 | HACKBERRY | 9 |
| 16629 | HACKBERRY | 9 |
| 16630 | CEDAR ELM | 11 |
| 16631 | CEDAR ELM | 11 |
| 16632 | CEDAR ELM | 15 |
| 16633 | CEDAR ELM | 13 |
| 16634 | CEDAR ELM | 10 |
| 16635 | CEDAR ELM | 12 |
| 16636 | CEDAR ELM | 9 |
| 16637 | CEDAR ELM | 8 |
| 16638 | CEDAR ELM | 15 |
| 16639 | CEDAR ELM | 10 |
| 16640 | CEDAR ELM | 11 |
| 16641 | CEDAR ELM | 13 |
| 16642 | CEDAR ELM | 21 |
| 16643 | CEDAR ELM | 9 |
| 16644 | CEDAR ELM | 22 |
| 16645 | CEDAR ELM | 11 |
| 16646 | CEDAR ELM | 9 |
| 16647 | CEDAR ELM | 28 |
| 16648 | CEDAR ELM | 9 |
| 16649 | CEDAR ELM | 15 |
| 16650 | CEDAR ELM | 15 |
| 16651 | CEDAR ELM | 8 |
| 16652 | CEDAR ELM | 10 |
| 16653 | CEDAR ELM | 11 |
| 16654 | CEDAR ELM | 10 |
| 16655 | CEDAR ELM | 9 |
| 16656 | CEDAR ELM | 9 |
| 16657 | CEDAR ELM | 12 |
| 16658 | CEDAR ELM | 11 |
| 16659 | CEDAR ELM | 9 |
| 16660 | CEDAR ELM | 11 |
| 16661 | CEDAR ELM | 20 |
| 16662 | CEDAR ELM | 14 |
| 16663 | CEDAR ELM | 15 |
| 19294 | CEDAR ELM | 11 |
| 19345 | CEDAR ELM | 14 |
| 19369 | CEDAR ELM | 14 |
| 19370 | CEDAR ELM | 8 |
| 19371 | CEDAR ELM | 9 |
| 19372 | CEDAR ELM | 13 |
| 19373 | CEDAR ELM | 12 |
| 19374 | CEDAR ELM | 13 |
| 19375 | CEDAR ELM | 11 |
| 19376 | CEDAR ELM | 9 |
| 19377 | CEDAR ELM | 9 |
| 19378 | CEDAR ELM | 16 |
| 19379 | CEDAR ELM | 9 |
| 19380 | CEDAR ELM | 12 |
| 19381 | CEDAR ELM | 13 |
| 19382 | CEDAR ELM | 13 |
| 19383 | CEDAR ELM | 12 |
| 19384 | CEDAR ELM | 11 |
| 19385 | CEDAR | 9 |
| 19386 | CEDAR ELM | 12 |
| 19387 | CEDAR ELM | 10 |
| 19388 | CEDAR ELM | 14 |
| 19599 | CEDAR ELM | 8 |
| 19627 | CEDAR ELM | 9 |
| 19628 | MESQUITE | 14 |
| 19654 | CEDAR ELM | 9 |
| 19655 | CEDAR ELM | 13 |
| 19656 | CEDAR ELM | 9 |
| 19678 | CEDAR ELM | 9 |

PRELIMINARY SUBDIVISION APPROVAL SHEET ____ OF ____
FILE NUMBER _____ APPLICATION DATE _____
APPROVED BY COMMISSION ON _____, 2022.
EXPIRATION DATE (LDC 25-4-62) _____
CASE NUMBER: _____

Denise Lucas, Director, Development Services Department

Final plan must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

BENCHMARKS

| | |
|---|---|
| DATUM IS NAVD 88, USING GEOID 12A, BASED ON GPS OBSERVATIONS. | |
| BM #101 | "X" CUT ON THE HIGH TRANSMISSION POWER POLE BASE. ELEV. = 554.100' |
| BM #27 | "X" CUT ON HIGH TRANSMISSION POWER POLE BASE. ELEV. = 640.400 |

[illegible]

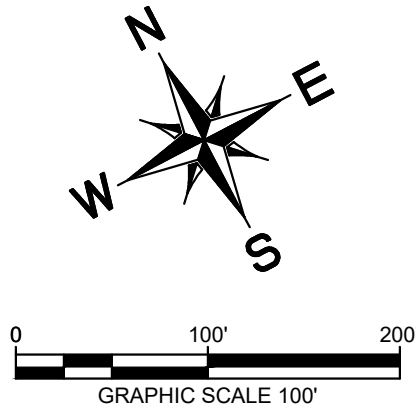
Plotted By: Jones, Dean. Date: March 28, 2022. 10:51:55am File Path: K:\AUS_Civil\069244531--Pinnacle at Wildhorse Ranch\Plan\Grid\Exhibits\PlanSheets\Pinnacle Tree Exhibit.dwg

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| PINNACLE LOT 1 TREES | | |
|----------------------|---------|-----------|
| TAG NO. | SPECIES | DIA. (in) |
| 13645 | CELM | 11 |
| 13648 | WIL | 14 |
| 13649 | WIL | 9 |
| 13653 | WIL | 17 |
| 13655 | WIL | 8 |
| 13658 | WIL | 10 |
| 13660 | CELM | 14 |
| 13661 | WIL | 17 |
| 14149 | CELM | 16 |
| 14150 | CELM | 14 |
| 14151 | CELM | 10 |
| 14297 | CELM | 11 |
| 14307 | CELM | 13 |
| 14308 | CELM | 9 |
| 14329 | CELM | 12 |
| 14331 | CELM | 9 |
| 14488 | CELM | 14 |
| 14491 | CELM | 13 |
| 14492 | CE | 13 |
| 14493 | CELM | 10 |
| 14494 | CELM | 12 |
| 14495 | CELM | 10 |
| 14496 | CE | 14 |
| 14500 | CELM | 10 |
| 14511 | CELM | 8 |
| 14525 | CE | 15 |
| 14526 | CELM | 10 |
| 14527 | CELM | 14 |
| 14537 | HA 9 | 10 |
| 14541 | CELM | 9 |
| 14543 | CELM | 12 |
| 14548 | CELM | 17 |
| 14569 | CE | 14 |
| 14596 | CELM | 9 |
| 14604 | CELM | 9 |
| 14606 | CELM | 14 |
| 16610 | CELM | 22 |
| 16611 | CELM | 15 |
| 16612 | CELM | 10 |
| 16613 | CELM | 16 |
| 16614 | CELM | 12 |
| 16615 | CELM | 14 |
| 16616 | CELM | 13 |
| 16617 | CELM | 13 |
| 16618 | CELM | 9 |
| 16619 | CELM | 8 |
| 16620 | CELM | 13 |
| 16621 | CELM | 14 |
| 16622 | CELM | 10 |
| 16623 | CELM | 9 |
| 16627 | CE | 14 |
| 16628 | HA | 9 |
| 16629 | HA | 9 |
| 16630 | CELM | 11 |
| 16631 | CELM | 11 |
| 16632 | CELM | 15 |
| 16633 | CELM | 13 |
| 16634 | CELM | 10 |
| 16635 | CELM | 12 |
| 16636 | CELM | 9 |
| 16637 | CELM | 8 |
| 16638 | CELM | 15 |
| 16639 | CELM | 10 |
| 16640 | CELM | 11 |
| 16641 | CELM | 13 |
| 16643 | CELM | 9 |
| 16646 | CELM | 9 |
| 16647 | CELM | 28 |
| 16648 | CELM | 9 |
| 16649 | CELM | 15 |
| 16650 | CELM | 15 |
| 16651 | CELM | 8 |
| 16652 | CELM | 10 |
| 16653 | CELM | 11 |
| 16654 | CELM | 10 |
| 16655 | CELM | 9 |
| 16656 | CELM | 9 |
| 16657 | CELM | 12 |
| 16658 | CELM | 11 |
| 16659 | CELM | 9 |
| 16660 | CELM | 11 |
| 16661 | CELM | 20 |
| 16662 | CELM | 14 |
| 16663 | CELM | 15 |
| 19380 | CELM | 12 |

R = TO BE REMOVED



LEGEND

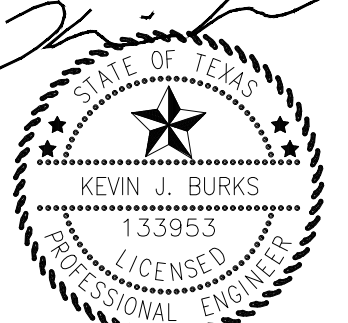
- PROPERTY LINE
- ADJACENT PROPERTY LINE
- BENCHMARK
- PROPERTY PIN
- ROADWAY EASEMENT LINE
- WATER LINE
- WASTE WATER LINE
- STORM SEWER LINE
- WASTEWATER MANHOLE
- RIGHT OF WAY
- PROPOSED CONTOUR
- EXISTING CONTOUR
- EXISTING CEF BUFFER
- EXISTING TREE
- ATLAS 14 25 YEAR FLOODPLAIN
- ATLAS 14 100 YEAR FLOODPLAIN
- FEMA 100 YEAR FLOODPLAIN
- CRITICAL WATER QUALITY ZONE
- WATER QUALITY TRANSITION ZONE
- CREEK CENTERLINE
- 14.99- 8 FEET OF CUT
- 8 - 4 FEET OF CUT
- 4 - 8 FEET OF FILL
- 8 - 14.99 FEET OF FILL

BENCHMARKS

- DATUM IS NAVD '88, USING GEOID 12A, BASED ON GPS OBSERVATIONS.
- BM #101 "X" CUT ON THE HIGH TRANSMISSION POWER POLE BASE. ELEV = 554.100'
- BM #27 "X" CUT ON HIGH TRANSMISSION POWER POLE BASE. ELEV = 640.400'

Kimley»Horn

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WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928



03/28/2022

| | |
|--------------|------------|
| KHA PROJECT | 069244531 |
| DATE | MARCH 2022 |
| SCALE | AS SHOWN |
| DESIGNED BY: | JMW |
| DRAWN BY: | MCC |
| CHECKED BY: | KJB |

CUT/FILL EXHIBIT:
COMBINED

THE PINNACLE AT
WILDHORSE RANCH
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
EX

REVISIONS

No.

DATE

BY