

3. Recommend that the Board of Supervisors **APPROVE** the General Plan Amendment (GP-18-02), Rezone Petition (Z-18-01) and Tentative Subdivision Map (S-18-02) subject to the findings and conditions of approval in Section G & H of this report.

EXECUTIVE SUMMARY:

The Lands of Morgan subdivision is a 19-lot rural residential subdivision in the English Hills community. The project proposes a mix of lot sizes that range between 2.9 - 35.6 acres. More than half of the lots are 20 acres or larger and 1 lot is 2.9 acres. The remaining lots are between 6.6 - 11.7 acres in size. Refer to Exhibit D for the proposed development tables. The proposed land use designation and zoning is consistent with required densities and lot sizes.

The subdivision design protects the integrity of the English Hills ridgeline and viewshed by restricting homesites atop knolls and ridgelines, and on slopes less than 25% grade. Driveways to the homesites conform to the natural topography. To ensure safety, ingress and egress on to Gibson Canyon Road and Cantelow Road, is limited to the existing driveways, and two new private roads, Gibson Canyon and Turkey Hollow Court. Additional driveways or roads are not allowed for the subdivision.

The project is conditioned to construct infrastructure such as public water lines, meters, roadway improvements and fire hydrants, prior to the recordation or sale of the individual lots. Public water service by Rural North Vacaville Water District is proposed for 18 lots. Use of the existing well water on Lot 3 is permissible if the existing well passes the pump and yield test. If the well fails, public water service is required. The subdivider owner owns three water rights. Evidence of additional water rights will be required prior to final map recordation.

BACKGROUND:

- A. **Applicant/Owner/Subdivider:** Bill Morgan
- B. **Surrounding General Plan, Zoning and Land Uses:**

	General Plan	Zoning	Land Use
Property	Agriculture/Specific Project Area/Rural Residential	A-20	Residential
North	Agriculture/Rural Residential	RR 2.5/A-20	Residential
South	Rural Residential	RR 2.5/RR-5/A-20	Residential
East	Rural Residential	RR-5/A-20	Residential
West	Rural Residential	RR-2.5/A-20	Residential

ANALYSIS:

- A. **Environmental Setting & Location:**
 The property is located north of Vacaville, California, bordered by Cantelow Road to the north and Gibson Canyon Road to the east. Portions of the property are located on the northside of Cantelow adjacent to English Creek. The project location is shown on Exhibit A.

The 310.5-acre property, known as Pippo Ranch, is characterized with rolling hills and steep hillsides. Approximately 184 acres is steep (more than 25% slope) and the steep hillside is a part of the English Hills ridgeline which is a highly prominent feature of the community. Elevations ranging from 190 feet to 612 feet at the highest peak. Twelve (12) ephemeral streams run through the site, and two stock

ponds are located on the north side. The property is primarily vegetated with grasslands and mixture of Oak Woodland, Oak Savannah and riparian forest. English Creek runs along the north and western boundaries of the property. The Rural North Vacaville Water District water tank is located on the western portion of the site and high voltage PG&E overhead lines traverse the southeastern portion of the property. The property is developed with three residences and outbuildings that are proposed to remain.

B. Project Description:

The Lands of Morgan project is a 19 lot, single-family residential subdivision on 310.5 acres. The applicant proposes to amend the General Plan land use designations and rezone portions of the property in order to subdivide the land into 19 lots ranging in size between 2.9 acres to 35.6 acres. Project access will be restricted to the existing driveways and two new private roads, Turkey Hollow and Gibson Canyon Court paved with double chip seal. The property is located in a groundwater scarce area, Zone A, the lowest probability of success to develop well water, therefore, public water service by the Rural North Vacaville Water District is proposed for 18 lots to ensure adequate domestic water supply. Use of the existing well on Lot 3 is proposed. Individual sewage disposal systems are proposed to treat wastewater and detention ponds are proposed to treat stormwater runoff, constructed and maintained by the individual homeowners. The Water System Plan and the Detention Pond Plans are included in the Initial Study/Mitigated Negative Declaration.

The subdivision is proposed in three (3) phases:

- Phase 1 - Total of 4 lots (Lot 11-13 and 19). Lot sizes range between 2.9 -21.5 acres.
- Phase 2 - Total of 10 lots (Lot1-5 and 14-18). Lot sizes range between 6.6 - 21.2 acres; and construction of Gibson Canyon Court, private road.
- Phase 3 - Total of 5 lots. (Lot 6-10). Lot sizes range between 20 - 35.6 acres; and construction of Turkey Hollow Court, private road.

Infrastructure such as private roads, culverts, street signs, water lines and meters, and fire hydrants, will be installed per phase prior to Final Map recordation. Street lighting is not proposed. The lots will be sold to individuals and homes to be constructed at the individual owner's pace. Phase 1 is anticipated to be completed by August 2020 and the timeline for Phase 2 and 3 is unknown. The proposed phased development and zoning table is included as Exhibit D.

C. General Plan Amendment:

The property contains multiple General Plan land use designations such as Agriculture, Rural Residential 1-10 acres/dwelling unit (ac/du) and Specific Project Area. Refer to Exhibit B for the breakdown of existing and proposed land use designations. Approximately 200 acres of the existing Agriculture and Rural Residential land use designation will remain unchanged. The request to amend the land use designations specifically, applies to the Specific Project Area land use designation, applied to the northwest portion of the property, totaling approximately 88.53 acres. The Specific Project Area is proposed to change to the Rural Residential (64 acres) and Agriculture (24 acres) land use designation.

The Specific Project Area land use designation is a policy that provides for future development after adoption of a specific plan, policy plan or completion of special plans and studies. This designation is applied to areas where future development and conservation objectives have not been fully defined and will be subject to future planning studies. Planned densities and intensities for each area are assumed for purposes of evaluation the environmental impacts associated with future development pursuant to implementation of the General Plan. Within the County, the Specific Project Area applies to Middle Green Valley, Lambie Industrial Park, North Vacaville Limited Industrial Area and the subject property - Pippo Ranch. Rural residential is assumed for the development of the Pippo Ranch property and any future subdivision is subject to completion of a master circulation plan and water service plan.

The applicant proposes to eliminate the Specific Project Area designation and proposes project densities consistent with the Rural Residential 1-10 acres per dwelling unit and Agriculture 1 dwelling unit per 20 acres. A Water Service System Plan is proposed and the project as conditioned will address domestic water supply. No other General Plan policy conflicts have been identified. Approval of the General Plan amendment includes strikeout of the reference to Pippo Ranch property in Table LU-5 of the General Plan Land Use Chapter 2.

D. Rezone:

The property is currently zoned Exclusive Agriculture "A-20" and the rezoning petition will establish RR-2.5, RR-5 and RR-10 zoning to allow development of the project as proposed. The project is consistent with the lot size and densities of the proposed zoning. The proposed lot sizes, zoning and densities are listed in Exhibit D. Surrounding developed properties are zoned RR-2.5, RR-5 and A-20, and similar to the rural residential and agricultural zoning of the surrounding properties. The project is compatible with surrounding zoning, and in keeping with the rural character of the community.

E. Subdivision Regulations (Chapter 26, County Code):

Several tentative map designs were considered during application processing. Earlier versions were not sensitive to existing landforms and included building pads which could result in mass grading along the ridgeline and visual intrusions into the view corridor. Planning staff worked with the applicant to revise the design in order to achieve a project that is sensitive to natural features and in conformance with Hillside and Visually Sensitive Area design guidelines of the Subdivision Ordinance. The proposed tentative subdivision map satisfies the design guidelines, however, in order to ensure proper siting of future development in this sensitive area, Planning staff recommends that the construction of individual homes comply with Hillside and Visually Sensitive Area design guidelines (Section 26-73) that restrict homesites atop knolls and ridgelines, on slopes less than 25% grade, contouring of graded areas that are sensitive to existing terrain.

Additionally, the site is susceptible to landsliding and approximate locations of debris flow or landslide are shown on the tentative map. Construction downslope of such areas are restricted as recommended by the Geotechnical Report and mitigation measures.

The project meets the standards pertaining access to public roads or approved private roads and minimum buildable area. However, several lots are irregular in shape and exceed the 3:1 lot depth to width ratio. The unusual size and shape of the lots are justified due to the steep terrain and hillside topography of the site.

Street lighting is not proposed for the subdivision. Due to the rural location, street lighting for the subdivision is not necessary and in keeping with the rural character. Section 26-112.5 requires underground utility lines; however, electric power supply lines may be above ground due to the large size lots and underground electrical lines would be unreasonable costly.

The tentative map shows relocation of existing gate on Turkey Hollow Court and Cantelow Road for access to the Rural North Vacaville Water District Tank. According to G. Stanskowski, District General Manager, relocating the gate is not necessary and conditioning the project is not required.

Domestic Water Supply: The property is located within a groundwater scarce area. Public water service by Rural North Vacaville Water District is proposed by the applicant/property owner to ensure adequate water supply. The property owner has 1 water right, purchased 2 water rights and reserved 16 water rights from the District through an agreement which will expire August 14, 2020. Evidence of water rights shall be provided to the Planning Services Division prior to final map recordation of each phase. Well water usage may be allowed on Lot 3, if the existing well passes the pump test. If the

water test fails, Lot 3 shall be connected to public water.

Septic System: Site and Soil evaluation reports were submitted for the undeveloped lots and prior site and soil evaluations were prepared for the developed lots. The Environmental Health Services Division is satisfied that alternative septic systems will be required on the undeveloped lots. Compliance with Chapter 6.4 Sewage Standards of the County Code will reduce impacts to a less than significant impacts are anticipated.

F. Environmental Determination:

The Department of Resource Management has completed an environmental Initial Study for the project, which recommends that a Mitigated Negative Declaration be adopted. The Initial Study examines all of the potentially significant environmental effects of the project, and alternatives and/or mitigation measures to reduce or avoid those significant impacts. The Mitigated Negative Declaration concludes that there could be significant adverse environmental impacts in the areas of air quality, biological resources, cultural resources, geology and hazards, hydrology/water quality, water supply, noise, and public services, but mitigation measures are proposed to reduce the impacts to less than significant levels. All mitigation measures, including the monitoring responsibilities, have been incorporated into the project as recommended conditions of approval and in the mitigation monitoring plan. Each of the conditions has been listed under the County departments and other agencies responsible for their implementation.

The Mitigated Negative Declaration was released for the 30-day agency/public review, which began on December 24, 2019 and ended on January 27, 2020. The Planning Commission is requested to recommend the Board certify the Mitigated Negative Declaration as a complete, accurate, and objective analysis prior to taking action on the proposed project applications.

Public comments received: A letter opposing the project was received which indicated concerns regarding density, added traffic and accidents on to Gibson Canyon Road, water supply and preference for Exclusive Agriculture 20-acre or 40-acre zoning only. The comment letter is attached to the report.

G: RECOMMENDED FINDINGS:

1. The tentative map is consistent with the Solano County General Plan.

- a. The proposed subdivision is consistent with the Agriculture and proposed Rural Residential land use designations, which allow residential development on lots of the sizes proposed in the tentative map. The design of the subdivision allocates appropriate densities consistent with proposed land use designations. As conditioned, the proposed map is consistent with all applicable policies of the General Plan.
- b. The proposed development is in scale and harmonious with existing and future development adjacent to the site and in the vicinity, and with the land forms, natural features and vegetation in the vicinity of the site. The applicant proposes to develop the site as a residential subdivision that is compatible with the surrounding residential development.

2. The design and improvement of the proposed subdivision are consistent with the General Plan.

- a. The property is designated by the General Plan for agricultural and rural residential development, which allows for single family residences and accessory uses. The design of the proposed subdivision, construction of new roads, provisions for domestic water supply and wastewater disposal, and the development density satisfy the intent of the General Plan.

b. As proposed and conditioned, the design of the subdivision is in conformance with the provisions of Article VII (Design Requirements) of the Solano County Subdivision Ordinance.

3. The site is physically suitable for the proposed type of development.

The project as proposed can accommodate the proposed home sites, particularly regarding roadway development, grading, building pad development and installation of on-site sewage disposal systems. Additionally, the site is located in a groundwater scarce area and public water is to be provided by the Rural North Vacaville Water District, which would ensure adequate domestic water supply for 19 homes.

4. The site is physically suitable for the proposed density of development.

The project site can accommodate the proposed subdivision with 19 homes, resulting in a development density of one primary dwelling unit per 16.34 acres. The new parcels will utilize RNVWD water for domestic purposes. All residential parcels will utilize on-site sewage disposal systems meeting County standards. The new parcels meet the minimum lot size allowed by the proposed zoning.

5. The design of the subdivision will not cause substantial environmental damage or substantially injure fish or wildlife or their habitat.

A Mitigated Negative Declaration was drafted and circulated for public review and comment. Mitigation measures recommended by the Mitigated Negative Declaration are implemented by and incorporated into Conditions of Approval attached hereto. With implementation of these recommended mitigation measures, the project will not cause significant adverse impacts to the environment.

6. The design of the subdivision will not cause serious public health problems.

The project is a new subdivision with nineteen (19) residential lots and as proposed is in compliance with the General Plan and Zoning Regulations, as proposed to be amended, and the Subdivision Ordinance. The Mitigated Negative Declaration reviewed the project for possible health or environmental problems and with mitigation as proposed the project will not cause serious public health problems.

7. The design of the subdivision and the type of improvements will not conflict with any public easements.

The project as conditioned and evident on the Tentative Subdivision Map will not conflict with any public easements.

7. The proposed subdivision will not discharge waste into a community sewer system.

7. The property does not front on or along any public waterway, public river, public stream, coastline, shoreline, publicly owned lake or publicly owned reservoir.

7. No portion of the parent parcel is subject to a contract entered into pursuant to the California Land Conservation Act of 1965.

7. The proposed subdivision is consistent with the County Hazardous Waste Management Plan.

The Solano County Hazardous Waste Management Plan has no provisions applicable to residential subdivisions.

7. The proposed subdivision is not located within a special studies zone established pursuant to

the Alquist-Priolo Special Studies Zone Act.

7. **The proposed subdivision comprises of steep topography and large lots; thereby, undergrounding of power lines would be unreasonably costly and not feasible. Overhead power lines are permitted for the subdivision.**
7. **The proposed subdivision is consistent with the State Board of Forestry and Fire Protection's SRA Fire Safe Regulations.**
7. **Structural fire protection and suppression services will be available for the subdivision through the Vacaville Fire Protection District.**
7. **The Mitigated Negative Declaration prepared by the Department of Resource Management is adequate and complete. Implementation of the mitigation monitoring plan will minimize impacts to a less than significant level.**

H. RECOMMENDED CONDITIONS OF APPROVAL:

General

1. Approval of this Tentative Map is contingent upon Board of Supervisor approval of General Plan Amendment Petition GP-18-01 and Rezoning Petition No. Z-18-01. Approval of the Tentative Map will not be effective until both General Plan amendment and zoning approvals become effective.
2. Pursuant to Section 26-98.1 of the Solano County Subdivision Ordinance, a Final Subdivision Map shall be recorded within twenty-four (24) months from the date of approval of the Tentative Subdivision Map. Failure to do so will result in the expiration of the approved Tentative Subdivision Map unless extended pursuant to Section 26-98.2 of the Solano County Subdivision Ordinance.
3. Phased final maps shall be permitted and shall be in substantial compliance with the phased Tentative Subdivision Map labeled "TENTATIVE SUBDIVISION MAP - LANDS OF MORGAN," prepared by FCE Foulk Civil Engineering, with a date of December 18, 2019 and received by the Solano County Planning Division on December 20, 2018, except as modified herein.
4. The design of the subdivision and construction of subdivision improvements shall be substantially consistent with the following:
 - a) Tentative Subdivision Map (S-18-02), prepared by FCE Foulk Civil Engineering, December 18, 2019,
 - b) Water System Plan, prepared by FCE Foulk Civil Engineering, December 18, 2019 as modified herein,
 - c) Preliminary Detention Pond Plan, prepared by FCE Foulk Civil Engineering, December 18, 2019,
 - d) Geotechnical Report, prepared by KC Engineering Company, February 16, 2018
 - e) Biological Resources Study Report, prepared by LSA, February 2019,
 - f) Cultural Resource Inventory Report, prepared by Solano Archeological Services, August 2018,
 - g) These conditions of approval.

5. Prior to filing each Phased Final Map, provide evidence to the Planning Services Division that water rights from the Rural North Vacaville Water District are secured for each lot.
6. Prior to filing each Phased Final Map, obtain improvement plan approval from the Department of Resource Management and install public improvements such as drainage and erosion control, stormwater drainage improvements, public water supply infrastructure subject to the Rural North Vacaville Water District's approval, fire hydrants and gated or locked connections subject to the approval of the Vacaville Fire Protection District. The Subdivider shall incur the costs for improvement plan approval and installation of the improvements.
7. In order to maintain the rural character of the community, street lights are not permitted in this subdivision. Above ground electrical powerlines are permitted in this development.
8. The Final Map shall include a Supplemental Map Sheet that states: In order to protect the English Hills ridgeline and prevent excessive grading in the subdivision, siting of residences and accessory structures shall be consistent with the standards and design guidelines for Hillside and Visually Sensitive Areas, Section 26-73 of Chapter 26, Article VII of Solano County Code.

Public Works Division

9. Grant the County access rights along Cantelow and Gibson Canyon Road, except for the driveways and private road access connections (Turkey Hollow Court and Gibson Canyon Court) as shown on the Tentative Map dated 12/18/2019.
10. Prior to the recordation of the Final Map or a First Phase Final Map, the Subdivider shall either construct public improvements or execute a Public Improvement Agreement with Solano County for the widening of Gibson Canyon Road from Cantelow Road to the southern subdivision limits. Deferral of the improvements in the Agreement will require that improvements be built within 3 years with bonding to cover the costs of the work if not completed within the terms. Gibson Canyon Road shall be constructed to provide four-foot (4') graded shoulder and drainage ditch realignment along the side of the Gibson Canyon Road that fronts the subdivision, in accordance with the Solano County Road Improvement and Land Development Requirements.
11. Prior to the recordation of each phased Final Map, the Subdivider shall construct private improvements including, but not limited to, construction of private roadways, street signs, roadside ditches and storm water detention ponds within the phase as shown on the Tentative Map dated 12/12/19. Private roadways shall be twenty feet (20') wide with a double chip seal surface and shall have four-foot (4') graded shoulders.
12. Public water lines and/or other underground utilities under roadways shall be constructed/installed prior to the final surfacing of the roads.
13. Subdivider shall apply for, secure and abide by the conditions of encroachment permits for all work within the Solano County rights-of-way including, but not limited to, access connections along Gibson Canyon Road and Cantelow Road, and Gibson Canyon Road shoulder improvements.
14. Subdivider shall apply for, secure and abide by the conditions of a grading permit for the construction of the private roads, ditches, detention ponds and access improvements as shown on the Tentative Map, as well as any onsite grading.
15. Prior to the filing of each phased Final Map, a road maintenance agreement(s) shall be recorded that requires participation from owners of all lots within the subdivision phase as shown on Tentative Map.

The maintenance agreement(s) shall include all roadway improvements, culverts, drainage ditches and storm water detention ponds within the subdivision phase. The agreement(s) shall be submitted and approved by Public Works Engineering prior to recordation. The agreement(s) shall be noted in a supplemental sheet on the Final Map for the subdivision.

16. Prior to filing of the first Final Map, the Subdivider shall offer right-of-way as an easement to the County of Solano, free of encumbrances, necessary for a thirty-foot (30') right-of-way radius on the southwest corner at the intersection of Gibson Canyon Road and Cantelow Road.
17. Prior to filing of the first Final Map, the Subdivider shall offer right-of-way as an easement to the County of Solano, free of encumbrances, necessary to provide a thirty-five (35') foot right-of-way half-width on any side of the road that fronts the subdivision, for the full length of the property within the subdivision boundary along Gibson Canyon Road, Cantelow Road, and Steiger Hill Road.
18. A Final Map, as defined in the State Subdivision Map Act and prepared by a licensed surveyor or civil engineer, showing all easements and parcels shall be filed with the Solano County Surveyor for each phase of the subdivision.
19. The Private Road Easements shown on the Tentative Map shall be widened as necessary to contain the road base, all cuts and fills, and the required roadside drainage.
20. The Final Map for each phase shall include supplemental map sheets that state: The property is subject to payment of the English Hills Transportation Impact Fee, Vacaville Unified School District Impact Fee and Vacaville Fire Protection District Impact Fee in accordance to Chapter 11, Solano County Code, prior to issuance of building permits.

Rural North Vacaville Water District (District)

21. The Subdivider has signed a Rural North Vacaville Water District Work Order for processing the subdivision map. The work order is the mechanism to which all fees and charges associated with District staff time and/or materials will be charged for reimbursement from the landowner(s). Prior to review of the improvement plans for each phase, the Subdivider must pay a plan review deposit to be determined by the Rural North Vacaville Water District. It is estimated that the plan review deposit will be \$300 per connection. The deposit will be due for the total number of planned connections and submitted with the approved Work Order.
 - a. Prior to approval of the improvement plans for each phase, the Subdivider must pay an inspection deposit for 7% of the Engineer's estimate.
22. Prior to approval of improvement plans for each phase, the Subdivider shall supply the following Bonds:
 - a. Performance Bond for 110% of the Engineer's estimate for the necessary water system improvements.
 - b. Maintenance Bond for 50% of the Engineer's estimate for the required warranty period of the new facilities.
23. The Subdivider shall secure Rural North Vacaville Water District review and approval of improvement plans shall for each phase:
 - a. The drainage along Turkey Hollow Court and the detention pond shall be designed to handle overflow from Tank 3 (Lot 8). The maximum flow is 700 gallons per minute, and may take four (4) hours to shut down. Developer shall connect existing tank overflow to the new drainage

system.

- b. The Subdivider must have its Engineer design the necessary system improvements to accommodate service to each newly created parcel. The design shall include, but is not limited to, new services, new water mains, upgrades of existing water mains, and/or upgrades to the District's pumping and storage facilities.
- c. The Subdivider shall construct a new water service, including extending water mains, construct water service lateral(s), and setting meter boxes to each of the newly created parcels for each phase of the subdivision.
- d. Water services shall be connected to water mains adjacent to property. Extending water services through neighboring properties will not be allowed. Revise the Water System Plan so that water service for lot 10 should come off Cantelow Road, not run through lot 9.
- e. All new water mains shall be located within minimum 20-foot wide easements and depicted on each phase Final Map.
- f. All new water mains serving fire hydrants within Gibson Canyon Court shall be minimum 8" diameter.
- g. All water services shall be equipped with reduced pressure principal backflow preventers and pressure regulating valves.
- h. For any work proposed in existing high voltage electric power easement (between lots 4 and 5), Subdivider shall submit copy of approval to work within said easement prior to approval of Improvement Plans. Any appurtenances within the PG&E high voltage power easement shall have separate grounding rods.
- i. Fire flow shall meet Vacaville Fire Protection District requirements.
- j. Subdivider shall submit to the District two (2) full size sets of improvement plans, and one electronic copy (PDF) for each review.

24. Rural North Vacaville Water District requirements regarding the Final Map:

- a. Each phased Final Map shall include the Rural North Vacaville Water District's Statement for District approval.
- b. Prior to recordation of the First Phase Final Map, where existing water facility easements are tied only to the pipeline (through lots 6, 7, 8, and 9) or do not exist (through lots 4 and 5), the Subdivider shall retain an underground facility locator to locate the water mains. Water mains shall be surveyed and new plat maps and legal descriptions that tie the easement to property boundaries shall be prepared and recorded as "amended accurate" or new easements as necessary to cover all existing water mains within the Project.
- c. Prior to recordation of the First Phase Final Map the Subdivider shall prepare plat maps and legal descriptions for the for Tank 3 Site and Access Road easements in which the access easement is contiguous with proposed private road easement and the existing north and west lines of the tank site remain the same and the south and east lines are contiguous with the proposed road easement. This easement shall be recorded as "amended accurate" Tank Site Station 3 easement.

- d. Prior to recordation of the phased Final Map (Phase 3), a drainage easement shall be provided to accommodate the drainage system designed to handle overflow from Tank 3 as detailed in COA no. 22 (c).
 - e. No fences or other permanent or semi-permanent facilities shall be constructed in water facility easements.
25. Rural North Vacaville Water District requirements regarding construction for each phase of the subdivision:
- a. All improvements shall be constructed by the Subdivider and inspected by the District at the Subdivider's expense.
 - b. The Subdivider shall secure a District Encroachment Permit prior to beginning any construction activities.
 - c. The Subdivider shall secure a Solano County Encroachment Permit prior to working on any District facilities in existing County right-of-way.
 - d. After approval of all plans and prior to construction, the Subdivider's engineer shall provide the District with two (2) full sized improvement plan sets, and one (1) PDF copy of the plan sets.
 - e. A preconstruction field meeting must be held with the Subdivider, the Subdivider's contractor, and District staff prior to beginning any construction.
 - f. The Subdivider shall submit material specification sheets for all materials required for the proposed improvements. The District must review and approve the material submittals prior to material procurement.
 - g. The District will furnish, at the Subdivider's expense, the meter, pressure regulating valve, and backflow prevention device to be installed by the Subdivider.
26. All costs for project administration, design, review, construction, inspection, and other work related to the project shall at the Subdivider's expense.
27. Prior to approval of any plans or maps, the Subdivider must be paid current on all accounts and assessments.
28. District GIS files will be updated accordingly, by the District, and at the Subdivider's expense.
29. Electronic AutoCAD files are required upon the completion of the project showing "as-builts" for electronic archiving.

Environmental Health Division

30. Each of the undeveloped parcels shall have a declaration recorded with the phased Final Map, stating the soil testing to date will require the use of engineered, alternative type on-site sewage disposal systems, for each of the proposed parcels. Such systems must be operated, monitored, and maintained in accordance with Solano County Code, Chapter 6.4 Sewage Disposal Standards.

Vacaville Fire Protection District (VFPD)

31. Prior to recordation of each phased Final Map, Subdivider shall provide to the Solano County

Department of Resource Management written verification from the Vacaville Fire Protection District that all required improvements have been installed pursuant to the Fire District's requirements.

32. Prior to recordation of each phased Final Map, the Subdivider shall comply with the following:
 - a. All roads **shall be built and maintained to Public Road Standards** as specified in the "Subdivision Ordinance". Sec. 26-75.2
 - i. All roads and driveways shall be constructed prior to the issuance of any building permit. Section 8704.2, California Fire Code (CFC)
 - ii. If the interior roads are not publicly maintained, a road maintenance agreement that requires all lot owners in the subdivision to participate in the maintenance of the private roads shall be recorded. The maintenance agreement, which shall include a long-term maintenance program, funding mechanism, and budget, shall be approved by Public Works - Engineering prior to recordation of the Final Map. The maintenance agreement shall be incorporated into the project CC&Rs or a separately recorded road maintenance agreement prior to recordation of the Final Map.
 - iii. Cul-de-Sac - Wherever a dead-end road is permitted, an adequate turning area shall be provided. Sec 1-2.10 Road Improvement Standards and Land Development & Subdivision Requirements.
33. Prior to the issuance of the first building permit for the project, the Subdivider shall have completed all of the required improvements and road construction.
34. Street or road signs shall be identified with approved signs. 505.2 CFC
35. Vacaville Fire Protection District requirements regarding driveways:
 - a) Fire apparatus access shall be provided and maintained in accordance with the provisions of the California Fire Code (CFC) as adopted by the Vacaville Fire Protection District.
 - b) To provide year-round, all weather access for heavy fire engines and other emergency equipment to residential building sites that are not covered in the Solano County Road and Street Standards, these minimum access road specifications shall apply:
 - i. Plans for access shall be submitted to the District for review and approval prior to construction.
 - ii. Driveways shall extend from each building site to a public or private roadway and shall have an unobstructed width of not less than 20 feet (6096 mm) with suitable base material.
 - iii. The maximum gradient is 16 percent. 503.2.7 CFC
 - iv. Surface designed and maintained to support a 75,000 lb. Load.
 - v. Driveways exceeding 150 feet in length, but less than 800 feet in length, shall provide a turnout near the midpoint of the driveway. Where the driveway exceeds 800 feet, turnouts shall be provided no more than 400 feet apart.
 - vi. Turnouts shall be a minimum of 12 feet wide and 30 feet long with a minimum 25-foot taper on each end.

- vii. Minimum centerline curve radius of 40 feet.
 - viii. Necessary drainage improvements.
 - ix. Turn-around facilities shall be provided at all building sites on driveways over 300 feet in length and shall be within 50 feet of the building. The minimum turning radius for a turnaround shall be 40 feet from the center line of the road. If hammerhead/T is used, the top of the "T" shall be a minimum of 60 feet in length.
 - x. Any required culverts or bridges shall have a minimum load carrying capacity of 75, 000 lb. and certified by an engineer. Vehicle load limits shall be posted at both entrances to bridges.
 - xi. Overhead clearance of limbs, trees etc. shall be a minimum of 15 feet. Title 14 CCR Div. 1.5, Chapter 7, Subchapter 2, Articles 1-5
36. Vacaville Fire Protection District requirements regarding fire hydrants: Residences shall be no more than 1000 road feet from a fire hydrant. Hydrants shall be of approved type and contain two 2 ½" and one 4 ½' NHS external thread outlets.
- a. Fire hydrants shall be installed and operational prior to the issuance of any building permit. 8704.3 CFC
 - b. Hydrant fire flow shall conform to Fire District standards.
 - c. Fire hydrants shall be clearly identified in an approved manner to prevent obstruction by parking and other obstructions. 901.4.3 CFC.
 - d. Fire hydrants shall be identified by the installation of blue reflective markers located in the center of the roadway. 901.4.3 CFC
 - e. Fire hydrants subject to possible vehicular damage shall be adequately protected with guard posts in accordance with Section 8001.11.3 CFC
 - f. A 3-foot (914.4 mm) clear space shall be maintained around the circumference of fire hydrants. 1001.7.2 CFC
 - g. The center of a hose outlet shall not be less than 18 in. (457 mm) above final grade. NFPA 24

Environmental Mitigation Measures

33. **Air Quality (MM AQ-1)** - Prior to issuance of a grading/improvement plan permit, the Subdivider shall require its construction contractor to prepare and implement a Dust Control and Construction Exhaust Mitigation Plan subject to the satisfaction of the Public Works Division and Yolo Solano Air Quality Management District.
34. **Biological Resources (MM Bio-1, American Badger)** - Prior to issuance of a grading/improvement plan permit, the Subdivider, shall hire a qualified biologist to survey the areas for development for the presence of the American Badger and develop a monitoring plan to keep the badgers out of the area during construction activities involving roads, driveways, residences or accessory structures including swimming pools. The survey shall be conducted no more than 30 days prior to construction. The biologist report and monitoring plan shall be submitted to the Department of Resource Management prior to issuance of a grading permit or building permit.

35. Biological Resources (MM Bio - 2, Burrowing Owls) - Prior to issuance of grading/improvement plan permit, pre-construction burrowing owl surveys shall be conducted in all areas that may provide suitable nesting habitat according to the California Department of Fish and Wildlife (CDFW) (1995) guidelines, shall be implemented by the Subdivider or individual lot owners, prior to construction. Pre-construction burrowing owl surveys shall be conducted in all areas that may provide suitable nesting habitat according to CDFW (1995) guidelines.

- i. No more than 30 days before construction, a habitat survey including documentation of burrows and burrowing owls shall be conducted by a qualified wildlife biologist within 500 feet of the construction area in areas suitable for burrowing owls.
- ii. The survey shall conform to the protocol described by the California Burrowing Owl Consortium, which includes up to four surveys on different dates if there are suitable burrows present. The CDFW shall be consulted by the Subdivider prior to survey initiation to ensure the most current pre-construction survey methodologies are utilized.
- iii. The CDFW defines impacts as disturbance within approximately 160 feet of occupied burrows during the non-breeding season of September 1 through January 31, or within approximately 250 feet during the breeding season of February 1 through August 31. Even when these buffer distances are maintained, the alteration of breeding and behavioral patterns of burrowing owls during construction activities shall be considered adverse disturbance to the owls, as determined by the Subdivider.
- iv. The Subdivider shall avoid disturbing active burrowing owl nests and occupied nesting burrows and shall implement standard CDFW mitigation guidelines.
- v. If, as determined by the qualified wildlife biologist, construction activities will not adversely affect occupied burrows or disrupt breeding behavior, construction may proceed without any restriction or mitigation measures for burrowing owls.
- vi. If, as determined by the qualified wildlife biologist, in consultation with CDFW, construction could adversely affect occupied burrows during the September 1 through January 31 non-breeding season, the subject owls may be passively relocated from the occupied burrow(s) using one-way doors, according to CDFW guidelines, using the following measures:
 - vi. There shall be at least two unoccupied burrows suitable for burrowing owl within 300 feet of the occupied burrow before one-way doors are installed in the occupied burrow.
 - vii. The unoccupied burrows shall also be located at least 160 feet from construction activities and can be natural burrows or artificial burrows constructed according to current design specifications.
 - viii. If artificial burrows are created, these burrows shall be in place at least 1 week before one-way doors are installed on the currently occupied burrows.
 - ix. One-way doors must be in place for a minimum of 48 hours to ensure that owls have left the burrow before the burrow is excavated.
 - x. Mitigation for the loss of occupied habitat shall be based upon the recommendations of the qualified biologist in consultation with CDFW.

36. **Biological Resources (MM Bio - 3, Western Pond Turtle)** - Prior to issuance of grading/improvement plan permit and no more than 30 days prior to construction, a qualified biologist shall conduct surveys for western pond turtles within the creeks or ponds. If nests or active basking sites are found, then the biologist shall implement a plan to relocate or protect the species, in consultation with California Department of Fish and Wildlife (CDFW). The biologist shall also conduct on-site training to the construction foreman and construction workers to educate them on identifying this species of turtle and location of potential basking, nesting and/or estivation sites that may be present during construction.
37. **Biological Resources (MM Bio - 4, Swainson Hawk & Preconstruction Foraging Habitat)**
- A. Prior to recordation of the First phased Final Map, the Subdivider shall compensate for the loss of 4.8 acres of Swainson Hawk of foraging habitat at a ratio of 1:1 (1 acre for every 1 acre removed).
 - B. Mitigation may be in the form of fee-title or a conservation easement or credits, held by a non-profit land management organization, on lands containing suitable Swainson's hawk foraging habitat and as approved by the CDFW in Solano County. The purchase of Swainson's Hawk mitigation credits at a mitigation bank or conservation area located in Solano County is acceptable.
38. **Biological Resources (MM Bio - 5, Avoidance of avian nests and protected avian species):**
- A. If construction activities are scheduled to occur during the breeding season (February 1- August 31), a qualified wildlife biologist shall conduct pre-construction surveys of all potential suitable nesting habitat within 0.5 miles of active construction areas, including trees, shrubs, grassland and wetland vegetation. The qualified wildlife biologist shall determine the timing of the preconstruction surveys based upon the time of year and habitats that are present. The qualified wildlife biologist shall conduct surveys no more than 30 days prior to construction.
 - B. If active nests are found, maintain a no disturbance buffer zone around the active nests during the breeding season or until it is determined that the young have fledged. The no disturbance buffer zone from active Swainson Hawk nest(s) or any protected avian specie shall be 0.5 miles or as may otherwise be determined by the Planning Services Division, Department of Resource Management, in consultation with a qualified biologist, United States Fish and Wildlife Service (USFWS) and CDFW as appropriate.
39. **Biological Resources (MM Bio - 6, Special Status Plants)** - Prior to issuance of grading/improvement plan permit, survey the site for special status plant species. The survey area should include staging areas, roadways (internal access and driveways), ponds and drainage corridors. A qualified biologist shall time the survey appropriately and submit a report to the Department of Resource Management. Special status plants shall be avoided and if removed or harmed, the qualified biologist shall recommend on-site mitigation measures.
40. **Biological Resources (MM Bio- 7, Aquatic Resource/Potential waters of the USA)**
- A. Prior to the issuance of any grading/improvement plan permit, obtain and comply with all necessary Clean Water Act 404 (United States Army Corp of Engineers), 401 (California Regional Water Quality Control Board) and California Fish and Game Section 1600 permits in advance of project construction. Submit evidence of final verification from the Army Corp of Engineers of the preliminary jurisdictional delineation to the Department of Resource Management.
 - B. Avoid any impacts or loss to an aquatic resource/potential waters of the United States (seasonal wetlands or seasonal swale) by either:

- i. Relocate Gibson Canyon Court, detention ponds, driveways, primary and accessory structures or septic systems/leachfields on the subject property, to avoid any alteration of an aquatic resource, or
 - ii. Compensate by purchasing wetland mitigation credit created for the permanent impacts related to the construction of Gibson Canyon Court, detention ponds as shown on the tentative subdivision map. The actual acreage shall be determined in consultation with the Army Corp of Engineers. The Subdivider shall submit evidence in the form of a sales agreement or receipt, of the purchase, prior to issuance of a grading/improvement plan and recordation of the phased Final Map.
- C. Construction staging areas shall be located 100 feet from any jurisdictional waters of the USA.
- D. Identify all aquatic resource and the 100-foot setback from the aquatic resource on the grading & improvement plans.
- E. Prior to construction activity or ground disturbance, stake or flag the boundaries of the seasonal and non-seasonal wetlands, and tributaries, as areas to be avoided. Exclusion flagging and signs that can be read 20 feet away shall be placed 100 feet away, to indicate clearly where areas must be avoided by construction activities. This task shall be under the direct supervision of a qualified biologist with 6 years of field experience.
- F. Record a declaration on the phased Final Map that each individual lot owner shall be responsible for implementing mitigation measure Bio - 7 C, D, and E, prior to issuance of any grading/improvement plan or building permit for construction of the driveways leading to the primary or accessory residence, and/or any accessory structures.
41. **Biological Resources (MM Bio- 8, Riparian Corridor)** - In order to protect the riparian corridor and the tributaries, delineate on the phased Final Map a 100-foot wide setback, measured from the centerline of the tributaries or creek. Development including any structures, sewage disposal areas, swimming pool, residences, patio or driveways, shall be prohibited within the setback.
42. **Biological Resources (MM Bio-9, Wildlife Migration)** - In order to allow wildlife migration and improve passage, record on the phased Final Map that perimeter fencing between the lots and along the drainage corridor English Creek and Gibson Canyon Creek, shall not harm wildlife or preclude passage. Solid fencing, barb wire or other sharp material are prohibited. Fencing shall be open and made of materials that do not harm wildlife.
43. **Biological Resources (MM Bio-10, Oaks/Riparian Vegetation)**
- A. In order to protect and preserve Oak Woodlands and Heritage trees, prior to issuance of a grading permit/improvement plans or recordation of each phased Final Map, Subdivider shall comply with the following:
 - i. Prior to improvement plan approval for Lot 9 and 10, hire a qualified and certified Arborist to prepare a tree inventory/resources report. Identify all Oak species 6"dbh or greater, on the grading/improvement plan to be retained or removed. Identify heritage trees on the plans. Consistent with General Plan policy RS. I-3, heritage trees are defined as (a) trees with a trunk diameter of 15 inches or more measured at 54 inches above natural grade, (b) any oak tree native to California with a diameter of 10 inches above natural grade, or (c) any tree or group of trees special significance in consultation with the Department of Resource Management. The

Arborist shall recommend and monitor specific measures to protect Oak trees 6" dbh or greater or heritage trees from construction impacts. If Oak trees or heritage trees are not identified by the Arborist, then Mitigation Measure Bio-10 shall not apply.

- ii. Any loss of oak trees 6 inches or greater dbh shall be compensated on site subject to a mitigation and replanting plan prepared by the certified Arborist. Compensation shall be with in-kind species at ratio of recommended by the Arborist in consultation with the Department of Resource Management. The replanting shall be on-site and a landscape plan with irrigation shall be submitted to the Planning Services Division for review and approval.

44. Cultural Resources (CR-1, Cultural Resources)

- A. Prior to issuance of grading permit/improvement plan approval, a qualified archeologist shall provide training to the construction personnel and periodic construction monitoring to identify artifacts.
- B. Prior to improvement plan approval/grading permit Lot 5, for any ground disturbances within 50 feet of the western portion of P-47-000167, a qualified archeologist shall conduct archeological testing and evaluation to properly assess the resource for CRHR eligibility criteria.
- C. Prior to issuance of building permit for modifications to the residence (SAS-004) at 4142 Cantelow Road/APN 0105170150), a researcher meeting the federal Secretary of the Interior's Professional Qualifications Standards in history/architectural history shall conduct a California Register of Historic Resources evaluation of the structure.
- D. In the event that presently undocumented buried archeological deposits are encountered during any Project-associated construction activity, work must cease within 50-foot radius of the discovery. A qualified archeologist must be retained to document the discovery, assess its significance, and recommend treatment. If human remains or any associated funerary artifacts are discovered during construction, all work must cease within the immediate vicinity of the discovery. In accordance with the California Health and Safety Code (Section 7050.5), the Solano County Sheriff/Coroner must be contacted immediately. If the Coroner determines the remains to be Native American, the Coroner will notify the Native American Heritage Commission which will in turn appoint a Most Likely Descendent (MLD) to act as a Tribal Representative. The MLD will work with the Subdivider and a qualified archeologist to determine the proper treatment of the human remains and associated funerary objects. Construction activities will not resume until either the human remains are exhumed, or the remains are avoided via project construction design change.

45. Geology/Hazards (MM Geo-1):

- A. In order to protect property and persons from future landslides, delineate areas of debris flow or earthflow landslide identified by the Geotechnical Report prepared by KC Engineering Company, dated February 16, 2018, on each phased Final Map. Placement of structures (primary or accessory structures including swimming pools) and driveways shall not be located in the downslope of the currently mapped shallow land sliding, as recommended by the Geotechnical Report.
- B. In order to protect property and persons from the susceptibility of soil erosion and landslide susceptibility, record on each phased Final Map that grading on slopes of 25% or greater at natural grade shall be prohibited. Grading of roadway or driveway grading shall follow the natural topography. Cut and fill will require erosion control measures subject to the approval of the Public Works Division, Department of Resource Management prior to issuance of a grading/improvement plan or building permit.

- C. Prior to issuance of building permits or grading permits for primary or accessory structures including swimming pool and driveways, parcel specific geotechnical recommendations shall be prepared by a Geotechnical Engineer licensed in California, and submitted to the Building Division for approval.

46. Stormwater run-off (MM HYDRO-1):

- A. A storm water maintenance program for detention basins and drainage facilities shall be included in a Road Improvement Maintenance Agreement recorded on each lot within the subdivision. Responsibility for maintenance of storm water facilities shall reside with the property owner on which the storm water facility is located. Said facilities shall be periodically inspected to the satisfaction of Public Works Engineering. The Subdivider shall demonstrate, to the satisfaction of Public Works Engineering, that contractual agreements have been reached with all affected parties to implement said inspection prior to the performance of any grading work associated with the subdivision.
- B. Prior to issuance of a grading/improvement plan, the Subdivider shall develop a storm water maintenance program to the satisfaction of Solano County Public Works Engineering that shall include, at a minimum, the following requirements:
 - i. Periodic cleaning of the drainages, culverts, detention basins and related facilities.
 - ii. Periodic maintenance of the embankments, spillways and piping.
 - iii. Contingencies for anticipated and unexpected repair and/or replacement of the above as applicable.
 - iv. Annual inspections by an independent engineer of the detention basins, embankments and spillways to verify that the facilities are in sound condition. A copy of the annual inspection report shall be furnished to Public Works Engineering upon completion.
- C. Subdivider or property owner must obtain a grading permit from Solano County Public Works Engineering prior to performance of any grading work associated with the subdivision improvements or individual lot improvements,
- D. Prior to recordation of each phased Final Map, Subdivider shall complete all storm water detention and discharge improvements relating to the phased development, subject to the final approval of Public Works Engineering.
- E. All watercourses where flows will be increased at final build out must have controls installed to retain sediment or restrict flows to predevelopment levels.
- F. All detention ponds must be maintained with emergency overflows that are lined with non-erosive materials.

47. Water Supply (MM WS-1):

- A. Prior to recordation of the Final Map for Phase 2, submit updated water quantity test results to the Environmental Health Division which demonstrates that ample water for domestic purposes is available for Lot 3, pursuant to Section 26-80 of the County Code. A minimum yield of 3 gallons per minute shall be deemed acceptable for domestic use provided that a note is included on the Final Map or parcel map that at least 500 gallons of water storage capacity will be required at the time of lot development. A yield of five gallons per minute shall be deemed acceptable for residential development with no

additional storage requirements for drinking water supplies; however, additional storage may be required to meet the current fire code. If the water test fails, installation of public water service and connection is required for Lot 3. The recorded map shall indicate whether Lot 3 may be served by public water or well water service.

B. Prior to the recordation of each phased Final Map, complete all engineering and construction related to the public water system, according to the terms of agreement with the Rural North Vacaville Water District, in compliance with the rules and regulations of the Rural North Vacaville District. Submit evidence to the Department of Resource Management that the engineering plans and necessary infrastructure installation is complete to the satisfaction of the Rural North Vacaville Water District.

48. Noise (MM - Noise - 1) - Construction shall only occur during the hours of 8 a.m. to 5 p.m., Monday through Friday; and 9 a.m. to 4 p.m. on Saturdays, and no work should occur on Sundays and Federal holidays.

49. Public Services (MM PS-1) - Prior to each phased Final Map recordation, install the fire hydrants and necessary infrastructure required by the Vacaville Fire Protection District. Submit evidence to the Department of Resource Management that installation of the infrastructure is completed to the satisfaction of the Vacaville Fire Protection District.

ATTACHMENTS:

- Exhibit A - Project Location Map
- Exhibit B - General Plan Amendment and Rezone
- Exhibit C - Tentative Subdivision Map
- Exhibit D - Proposed Development Table by Phase & General Plan & Zoning
- Exhibit E - Draft Resolution - General Plan amendment and Rezone
- Exhibit F - Initial Study/Mitigated Negative Declaration
- Exhibit G - Comments and Letters
- Exhibit H - Water System Plan
- Exhibit I - Preliminary Detention Pond Plan