November 4, 2021

Tim Thompson, AICP
Planning Director
City of Fernley
595 Silver Lace Blvd.
Fernley, NV 89408

RE: TSM21004 – Red Hawk Ranch Tentative Subdivision Map

The following letter is in response to the comments provided by the City of Fernley on the Tentative Subdivision Map for the Red Hawk Ranch Phase 1 project. We have included an overall phasing exhibit to depict the proposed phase 1 improvements as well as what will be constructed with a future phase. Changes made in addition to addressing the comments below include:

- The backbone roadway section has been modified based on the traffic analysis. The new Rodway section is included in the attached revised plan set. The main backbone roadway is proposed as two lanes with turn lanes.
- Truckee Lane has been realigned with a direct connection to the proposed backbone roadway. This created the need to re-lot the north end of the project, resulting in a loss of 5 lots. The new proposed lot count for Red Hawk Ranch Phase 1 is 282 lots. All the development stats have been updated on the revised project description attached.

Below are responses to the comments generated by Shaw Engineering and the Nevada Department of Transportation (NDOT).

Shaw Engineering Comments, dated October 5, 2021:

1. *The project proposes a significant alteration to an existing natural major drainage facility/ flood plain area and the creation of a new flood control channel to convey offsite storm flows through the project site. The proposed storm drainage system for the subdivision must be modeled together with the proposed flood control channel to ensure the street drainage system can entirely contain the 100-year flows. No surcharging of the system will be allowed. Hydrologic and hydraulic modeling shall utilize FEMA-approved methods only, and shall also include potential future development build-out within the contributing watershed area, including future vehicular and /or pedestrian crossings.*

   Response: Detailed hydrologic analyses will be performed for the final design and permitting stage of the project.

2. *The Preliminary Plans show several proposed retention ponds co-located within the proposed major flood control channel. It is unclear how these proposed facilities will function during a storm event, and where the overflow points(s) will be. It appears that the northerly "temporary flood distribution channel / retention pond" will overflow in a northerly direction across West Main Street (NDOT right-of-way) (or via an existing 18" culvert?). This alteration will require review and approval from NDOT. Potential impacts to downstream roads and properties must be clearly demonstrated. In order to ensure no negative impacts to downstream properties, connection to the existing major drainage facilities north of the Union Pacific Railroad tracks may be required.*

   Response: The combined storage capacity of the retention ponds will be designed to meet or exceed the anticipated runoff volume from the development for the 100-year, 24-hour storm event. Excess flows from a catastrophic flood event will be contained within the banks of the proposed flood control channel. The proposed channel tapers at the north end where it meets Main Street will distribute flood flows to the current limits of the approved Flood Zone AE. The intention is for Phase 2 construction to include removing these tapers and installing box culverts under Main Street and continuing flood conveyance within an improved channel to the UPRR embankment north of the project.

3. *Drainage facilities shall be constructed with improved vehicular access and be provided with safety fencing on both sides of the easement with locked access gates, etc., per the City of Fernley DPW Design Standards. We defer to City staff whether these facilities can coincide with common areas, as indicated on the Tentative Subdivision Plans. At a minimum, we recommend that the proposed 6-ft and 8-ft wide pedestrian paths be widened to 10-ft in order to accommodate maintenance vehicles. The common area / easement limits for the main south-north channel shall also be wide enough to accommodate a future 10-ft wide paved maintenance access road on the easterly side of the proposed channel.*

   Response: The design of maintenance access and security for drainage facilities will be coordinated with City engineering staff during detailed design and permitting of Phase 1 improvements. The proposed paved access roads are shown with a 12' width on the revised plans (attached). Access along the proposed flood control channel will be designed once flood modeling has been completed and final channel dimensions are determined.

4. *Storm drain infrastructure within City dedicated streets will be owned and maintained by the City in perpetuity. All drainage basin, including drainage channels within the development (including buildout development area) shall be maintained by the homeowner's association or other owner's group. An agreement for long term maintenance shall be recorded prior to the first final map.*

   Response: Comment noted.

5. *The proposed flood control channel surface shall be designed to accommodate the proposed velocities of the system during the 100-year storm event. While the DPW Design Standards require major drainage channels to be lined with concrete, we recommend that the designer consider alternate, more beneficial designs for this location, such as an unlined channel with a flat slope bottom to prevent scour, with gabion drop structures located in several locations to accommodate the required grade changes along the channel.*

   Response: The suggestions are appreciated and flood modeling and channel design will be coordinated with City engineering staff, the City's engineering consultant, and FEMA.

6. *The drainage improvements proposed shall accommodate drainage for the east end of Truckee Lane, including attenuating the roadside ditch on the west side of Stock Lane with the addition of an 18" culvert across Stock, west-to-east. Existing roadside ditches or other natural swales on the North side of Truckee Lane will also need to be expanded or otherwise repaired to ensure pre-development flow paths are maintained and no negative impacts to downstream properties.*

   Response: Final design of drainage facilities, including retention ponds, will address existing drainage infrastructure along Stock Drive and Truckee Lane and the analyses will evaluate potential contributing run-on from existing development.

7. *The 24" CMP culvert south of Carol Way across Stock Lane shall be mitigated/coordinated with the design of Stock Lane. Verification of USBR ownership shall be demonstrated and mitigated as necessary. USBR and TCID approval will be required before any improvements.*

   Response: Refer to response to comment #6, above. Prior approval will be obtained for all proposed work within USBR easement(s).

8. *A maintenance access road shall be provided along the flood control channel along the southerly edge of the development.*

   Response: A 12'-wide paved combination maintenance access road and pedestrian path is provided from Stock Drive to the south flood diversion channel, and a paved ramp to the base of the channel is proposed. The final hydrologic analysis of the diversion channel will be performed prior to detailed site design, and the channel will be dimensioned with a base wide enough to provide vehicular access. Refer to revised Sheets SP-1 and CS-1 in the attached plan set.

9. *Any temporary dead-ends of water mains shall terminate with a fire hydrant.*

   Response: The only proposed temporary dead end of a water main is at the temporary cul-de-sac at the east end of the Backbone Road. This dead end will terminate with a fire hydrant and

gate valve on the development side of the tee and a 5-foot water main stub on the future extension side capped with thrust block. Refer to the Sheet U-4 in the revised plans (attached).

10. *All landscaping shall be maintained by the homeowner's association or other property owner's group. A maintenance agreement shall be coordinated with the City as required and recorded prior to the first final map.*

Response: Common area landscape and landscape within the right of way will be maintained by a homeowner's association. Landscape within front and back yards of private lots will be the responsibility of each individual home owner.

11. *Clearances between sewer and storm drain on Backbone Road appear to be limited; ensure long term maintenance and repair of both utilities is provided for.*

Response: Minimum clearances between sanitary sewer and storm drain are shown at approximately 6 feet on the Backbone Road. Final pipe clearances will be determined during detailed design and coordinated with City engineering staff and its consultant.

12. *The reconfiguration of Truckee Lane and the proposed turn at Old Hwy 40 does not appear to be a safe solution for the end of Truckee Lane. The proposed re-routing of Truckee Lane appears unreasonable for current roadway users and needs to be reconfigured.*

Response: The intersection of Truckee Lane and Old Highway 40 has been reconfigured, as shown on the revised plans (attached) and have resulted in a loss of 5 lots.

13. *Truckee Lane road sections shall provide for roadway and path drainage and separation between the roadway and the path shall be 6 feet minimum.*

Response: The path is shown either behind a curb and gutter or at 8.5 feet from the proposed edge of pavement on Truckee Lane. The exception is at the pavement taper where, if necessary, the curb can be extended along this portion during detailed design. Refer to the revised plans.

14. *The current water system layout does not satisfy City of Fernley looping requirement. A looping main along Stock Lane from the Southwest corner of Street F or a main extension from the Southeast corner of Street F to Miller Lane shall be provided.*

Response: A second point of connection to the City's water system has been provided at the reconfigured intersection of Old Highway 40 and Truckee Lane at the northwest corner of the site. Refer to Sheets U-1 and U-2 in the revised plans (attached). A third point of connection will be provided in a future phase of the project.

15. *Offsite utilities not located within a street right of way shall be within a 30-foot wide easement with a 12-foot wide all-weather access road. Easements may need to be widened to ensure sufficient clearance for maintenance and repair is provided in the case of deep utilities.*

Response: Storm drains in the Remainder Parcel 1 are shown where streets will be proposed for future phase(s) of the development. Temporary easements will be granted on the Phase 1 final subdivision map, to be relinquished upon recordation of future street rights-of-way. If storm drain alignments must be reconfigured due to a change of the preliminary design, the pipe will be replaced or relocated to the new alignment during construction of that phase. The storm drain shown in Common Area A between Lots 45 and 46 will be provided with a 12'-wide combined paved access road and pedestrian path. A 20'-wide utility and public access easement will be granted over the area with the Phase 1 final map. The off-site sewer main will be provided with a 20'-wide paved access road within a 36'-wide utility easement. Refer to the revised plans (attached).

16. *The Typical Lot Setback Detail shows an 80-foot wide typical lot, the lots on the lot and block plan are only 60 feet wide.*

Response: The minimum lot width is 60 feet and the detail has been corrected. Refer to revised Sheet T-1 in the attached plan set.

17. *A post-curb shall be provided along the landscape median in the areas of future widening of the roadway.*

Response: The right-of-way and street dimensions for the Backbone Road have been revised – there is no need for future lanes, so these have been eliminated and a median curb will be constructed with Phase 1 improvements. Refer to the revised Section A on Sheet CS-1 in the attached plan set.

18. *Due to passing intervals required by ADA for sidewalks, recommend widening sidewalk on Backbone Roadway to 5-feet.*

Response: The sidewalk on the west side of the Backbone Road has been increased to a 5' width. A proposed 8' paved pedestrian path will be constructed on the east side of the street when that phase is developed in the future. Refer to the revised Section A on Sheet CS-1 in the attached plan set

19. *Recommend coordinating with the City for converting Backbone Roadway to have parkway strips.*

Response: Final design of the Backbone Road and landscaping will be coordinated with the City during detailed design and permitting of Phase 1 improvements.

20. *Per Appendix D of the 2018 International Fire Code, the temporary cut-de-sac shall be 96- foot diameter.*

Response: Although reference is made to the City's standard detail 133, the temporary cul-de-sac is shown with a 96-foot diameter.

21. *Traffic: NDOT requires intersections to be at a level of service (LOS) D or better. When project traffic impacts are analyzed for existing traffic volumes as well as future volumes there is an opportunity to spread required roadway capacity improvement costs over all projects which affect capacity of the roadway network, as well as allow the impacts to be funded slowly before the LOS violations occur. The traffic study presented shows the Main St/US95A estimated to operate at LOS E under future conditions and LOS F under the 20- year horizon with project trips. There is also a future LOS F estimate for the Main Street / Miller Lane Intersection. Although not included with the traffic study, it is estimated similar conditions, if not worse, would occur at the Main Street / Pilot Road intersection. In addition, as was discussed in the traffic study, the City of Fernley Transportation Master Plan identified a need for intersection control evaluations. Due to known current and estimated future capacity concerns with these intersections, intersection upgrades will be required. It is recommended the traffic study be updated to include impacts to the Pilot Road Intersection as part of the final map process and the City develop a pro-rata share cost contribution for Red Hawk Ranch to contribute towards intersection improvements. The intersection improvements will vary and the updated traffic study should include recommendations for restriping, widening approaches, adding turning lanes, etc. for these three intersections. At a minimum Main Street shall be widened for a two way left hand turn lane between Truckee Lane and Miller Lane.*

Response: The traffic study will be updated to include the Main Street/Pilot Road intersection. However, the project does not add traffic to the Pilot/Logan side-streets and therefore is not anticipated to cause any significant impact nor have any notable pro-rata share of improvements at Pilot Road. We generally encourage the City to utilize pro-rata contribution methods to fund long-term improvements and further encourage that the methodology and requirement be applied to all projects which contribute to an intersection for which the City seeks pro-rata contributions.

This project appropriately focuses on improvement of Truckee Lane and the Truckee Lane/Main Street intersection. Main Street between Truckee Lane and Miller Lane will be addressed with a future project phase which includes the Main Street frontage as there is not sufficient nexus between this project phase and constructing a two-way-left turn lane on Main Street. If desired, pro-rata share calculations can be provided for the Miller Lane/Main Street and US95A/Main Street intersections

NDOT Comments, dated September 24, 2021:

1. *The project proposes access and will likely cause impacts to Main Street. Main St is an NDOT maintained road that is officially designated as State Route 427 (SR-427) and functionally classified as an urban minor arterial.*

   Response: Comment noted.

2. *NDOT requires the use of permitted accesses to the state highway system. A NDOT occupancy permit will be required for the proposed improvements within and adjacent to the SR-427 right of way.*

   Response: An approved occupancy permit will be obtained for proposed improvements within the NDOT right-of-way.

3. *All work proposed within or adjacent to the SR-427 right of way must comply with NDOT's Standard Plans, Access Management System and Standards, Terms and Conditions Relating to Right-of-Way Occupancy Permits, and Drainage Manual current version at the time of application. Please contact the NDOT District II Permits Office at (775) 834-8330 for information about obtaining NDOT occupancy permits.*

   Response: Plans and specifications meeting NDOT standards will be prepared for all improvements proposed within the NDOT right-of-way and an occupancy permit will be obtained.

4. *The State defers to municipal government for land use development decisions. Public involvement for community development related improvements within or adjacent to NDOT right of way should be considered during the municipal land use development process. Significant improvements proposed within NDOT right of way may require additional public involvement. It is the responsibility of the applicant to perform such additional public involvement.*

   Response: Comment noted.

5. *This letter does not provide for approval or disapproval of any improvements proposed by the project. NDOT review during the occupancy permit process may result in modification to the proposed improvements or denial.*

   Response: Comment noted.

I appreciate your time and help on this project. If you have any additional questions or concerns, please contact me at 775-771-0066 or dkirkland@woodrodgers.com. A revised plan set is attached with this letter.

Sincerely,

Derek Kirkland, AICP
Associate - Planning
Wood Rodgers, Inc.

Attachments:

- Revised Project Description
- New Red Hawk Ranch Phasing Exhibit
- Revised Plan Set
- Revised Sewer Report
- Revised Drainage Report
- Digital Copy of Revisions