

TECHNICAL MEMORANDUM

DATE: November, 18 2019

TO: Karen Melby
Development Services Manager, City of Sparks

RE: Wingfield Commons – Traffic Study

FROM: Marc N. Belanger, P.E.
Shaw Engineering

The previous Traffic Study for Wingfield Commons, prepared by Solaegui Engineers, LTD, July 2018 was prepared for 450 proposed dwelling units. The current Tentative Map shows 454 proposed dwelling units.

Per e-mail conversation with Paul Solaegui, this minor change results in an ADT increase of 38 trips, with an increase of 3 AM peak hour trips and 4 PM peak hour trips. (See attached pages from July 2018 traffic study for reference).

A revised letter will be provided with additional analysis and detail once the Tentative Map process is complete, and the final lot count has been determined.

The Vista Boulevard/Homerun Drive/Scorpius Drive intersection is a signalized four-leg intersection with protected phasing for the eastbound and westbound left turn movements. The north approach contains one shared left turn-through-right turn lane. The south approach contains one left turn lane and one shared through-right turn lane. The east approach contains one left turn lane, one through lane, and one shared through-right turn lane. The west approach contains one left turn lane, two through lanes, and one right turn lane.

The Homerun Drive/Touchdown Drive intersection is an unsignalized three-leg intersections with stop control at the east approach. The intersection contains one shared left turn-through lane at the north approach, one shared through-right turn lane at the south approach, and one shared left turn-right turn lane at the east approach.

The Touchdown Drive/Project Access intersection does not exist but will be constructed as an unsignalized three-leg intersections with stop control at the east approach. At a minimum, the intersection will be analyzed with one shared left turn-through lane at the north approach, one shared through-right turn lane at the south approach, and one shared left turn-right turn lane at the east approach. This new intersection will be located south of an existing access intersection that will be removed.

TRIP GENERATION

In order to assess the magnitude of traffic impacts of the proposed project on the key intersections, trip generation rates and peak hours had to be determined. Trip generation was calculated based on rates obtained from the *10th Edition of ITE Trip Generation (2017)* for Land Use 210: Single Family Detached Housing. Trips generated by the project were calculated for the weekday peak hours occurring between 7:00 and 9:00 AM and 4:00 and 6:00 PM, which correspond to the peak hours of adjacent street traffic, and the Saturday peak hour of generator which is assumed to correspond to the afternoon peak hour of the Golden Eagle Regional Park. *ITE Trip Generation* does not contain rates for a Saturday AM peak hour. Existing counts on Vista Boulevard indicate that Saturday AM peak hour traffic volumes are approximately 51% of weekday AM peak hour traffic volumes. The AM peak hour trip generation for Saturday was therefore assumed to be 51% of the weekday AM peak hour trip generation. Table 1 shows a summary of the average daily traffic (ADT) volumes and peak hour volumes generated by the project for a weekday and Saturday. The trip generation worksheets are included in the Appendix.

LAND USE	ADT	AM PEAK HOUR			PM PEAK HOUR		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Single Family Detached Housing (450 D.U.)							
Weekday	4,248	83	250	333	281	165	446
Saturday	4,293	42	128	170	226	193	419



Washoe County School District

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Board of Trustees: Katy Simon Holland, President * Malena Raymond, Vice President * Angela Taylor, Clerk
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03-Dec-19

Ian Crittenden, Senior Planner
City of Sparks
431 Prater Way
Sparks, NV 89431

RE: **PCN19-0038/STM19-0004 (Wingfield Commons)**

Dear Mr. Crittenden,

Wingfield Commons, which proposes **454** new single-family residential units, will impact Washoe County School District facilities. This project is currently zoned for the following schools:

Van Gorder Elementary School

Van Gorder ES has **2** portable buildings (**4** classrooms) in use that provide temporary space for an additional **100** students.

- **Estimated Wingfield Commons impact = ##** new ES students (**##** single-family units x **0.244** ES students per unit)
- **Base Capacity = 739**
- **Current Enrolment = 789**
- **% of Base Capacity = 107%**

- **Current Enrolment including Wingfield Commons = 883**
- **% of Base Capacity including Wingfield Commons = 120%**
- **Projected enrolment 2024/2025 School Year = 621/84% Capacity**
- **Projected enrolment 2029/2030 School Year = 623/84% Capacity**

- Bohach Elementary School will open to the public in the Fall of 2020 which will provide overcrowding relief of Van Gorder by approximately 15%. In addition to this, the school district owns property (APN 526-460-02) that is intended for an elementary school as area elementary school enrollment capacities increase to a point of prompting its construction. An elementary

school at property APN 526-460-02 would likely provide elementary school educational services to students generated by Wingfield Commons.

Sky Ranch Middle School

- **Estimated Wingfield Commons impact = 40** new MS students (454 single-family units x 0.088 MS students per unit)
- **Base Capacity = 1,412**
- **Current Enrolment = 1,366**
- **% of Base Capacity = 97%**

- **Current Enrolment including Wingfield Commons = 1,406**
- **% of Base Capacity including Wingfield Commons = 100%**
- **Projected enrolment 2024/2025 School Year = 1,475/104% Capacity**
- **Projected enrolment 2029/2030 School Year = 1,603/114% Capacity**

Spanish Springs High School

Spanish Springs HS has 5 portable buildings (10 classrooms) in use that provide temporary space for an additional 250 students.

- **Estimated Project Name impact = 43** new HS students (454 single-family units x 0.094 HS students per unit)
- **Base Capacity = 2,312**
- **Current Enrolment = 2,486**
- **% of Base Capacity = 108%**

- **Current Enrolment including Wingfield Commons = 2,529**
- **% of Base Capacity including Wingfield Commons = 109%**
- **Projected enrolment 2024/2025 School Year = 1,877/81% Capacity**
- **Projected enrolment 2029/2030 School Year = 2,129/92% Capacity**

- The school district will open Hug High School at Wildcreek golf course in the Fall of 2022 which is intended to alleviate of Spanish Springs High School's overcrowded enrollments.

Thank you for the opportunity to comment. Please communicate any further questions and/or comments.

Brett A. Rodela

Brett A. Rodela, GIS Analyst

Washoe County School District Capital Projects

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December 2, 2019

Ian Crittenden, Senior Planner
City of Sparks
Planning and Development Division
PO Box 11130
Reno, NV 89520-0027

RE: Wingfield Commons; APNs 084-550-02, 07 and 08
Tentative Subdivision Map; PCN19-0038/STM19-0004

Dear Mr. Crittenden:

The Washoe County Health District, Environmental Health Services Division (WCHD) has reviewed the above referenced project. Approval by the WCHD is subject to the following conditions:

Tentative Map Review and Final Map Conditions per NAC 278

The WCHD requires the following conditions to be completed prior to review and approval of any final map:

1. Applicant must pull abandonment permit for the onsite sewage disposal system located on parcel 084-550-08.
2. Applicant must pull abandonment permit for domestic well on parcel 084-550-08.
3. Prior to any final grading or other civil site improvements, a complete water system plan and Water Project submittal for the referenced proposal must be submitted to Health District. The plan must show that the water system will conform to the State of Nevada Design, Construction, Operation and Maintenance Regulations for Public Water Systems, NAC Chapter 445A, and the State of Nevada Regulations Governing Review of Plans for Subdivisions, Condominiums, and Planned Unit Developments, NAC 278.400 and 278.410.
 - a. The application for a Water Project shall conform to the requirements of NAC 445A.66695.
 - b. Two copies of complete construction plans are required for review. All plans must include an overall site plan, additional phases that will eventually be built to indicate that the water system will be looped, all proposed final grading, utilities, and improvements for the proposed application.
4. Mass grading may proceed after approval of the Tentative Map and after a favorable review by this Health District of a grading permit application.
 - a. The final map submittal shall include a Truckee Meadows Water Authority annexation and discovery with the mass grading permit.
5. Improvement plans for the water system may be constructed prior to final map submittal only after Water Project approval by this Health District.



- a. For improvement plans approved prior to final map submittal, the Developer shall provide certification by the Professional Engineer of record that the improvement plans were not altered subsequent to final map submittal.
- b. Any changes to previously approved improvement plans made prior to final map submittal shall be resubmitted to this Health District for approval per NAC 278.290 and NAC 445A.66715.

The WCHD requires the following to be submitted with the final map application for review and approval:

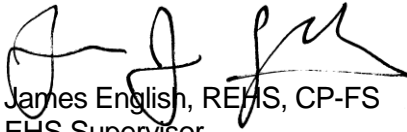
1. Construction plans for the development must be submitted to this Health District for approval. The construction drawings must conform to the State of Nevada Regulations Concerning Review of Plans for Subdivisions, Condominiums and Planned Unit Developments, and any applicable requirements of this Health District.
2. Prior to approval of a final map for the referenced project and pursuant to NAC 278.370, the developer must have the design engineer or a third person submit to the satisfaction this Health District an inspection plan for periodic inspection of the construction of the systems for water supply and community sewerage. The inspection plan must address the following and be included with the final map submittal:
 - a. The inspection plan must indicate if an authorized agency, city or county is performing inspection of the construction of the systems for water supply and community sewerage;
 - b. The design engineer or third person shall, pursuant to the approved inspection plan, periodically certify in writing to this Health District that the improvements are being installed in accordance with the approved plans and recognized practices of the trade;
 - c. The developer must bear the cost of the inspections; and
 - d. The developer may select a third-person inspector but the selection must be approved by the Health District or local agency. A third-person inspector must be a disinterested person who is not an employee of the developer.
3. Prior to final map approval, a "Commitment for Service" letter from the sewage purveyor committing sewer service for the entire proposed development shall be submitted to this Health District. The letter must indicate that the community facility for treatment will not be caused to exceed its capacity and the discharge permit requirements by this added service, or the facility will be expanded to provide for the added service.
 - a. A copy of this letter must be included with the final map submittal.
4. Prior to final map approval, a "Commitment for Water Service" letter from the water purveyor committing adequate water service for the entire proposed development must be submitted to this Health District.
 - a. A copy of this letter must be included with the final map submittal.
5. The final map submittal must include a letter from Nevada Division of Environmental Protection to the Health District certifying their approval of the final map.
6. The final map application packet must include a letter from Division of Water Resources certifying their approval of the final map.
7. Pursuant to NAC 278.360 of the State of Nevada Regulations Governing Review of plans for Subdivision, Condominiums, and Planned Unit Developments, the development of the subdivision must be carried on in a manner which will minimize water pollution.
 - a. Construction plans shall clearly show how the subdivision will comply with NAC 278.360.
8. Prior to approval of the final map, the applicant must submit to the Health District the final map fee.

Date
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Tentative Map; STM19-0004
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9. All grading and development activities must be in compliance with the DBOH Regulations Governing the Prevention of Vector-Borne Diseases.

If you have any questions or would like clarification regarding the foregoing, please contact James English, Environmental Health Specialist Supervisor at jenglish@washoecounty.us regarding all Health District comments.

Sincerely,



James English, REHS, CP-FS
EHS Supervisor
Land Development Program

cc: File - Washoe County Health District