

**CITY OF RICHLAND DEVELOPMENT SERVICES DIVISION  
STAFF REPORT TO THE HEARING EXAMINER**

GENERAL INFORMATION:

PROPOSAL NAME: Falconridge - Preliminary Plat

LOCATION: South/southeast of the intersection of Morency Drive and Falconcrest Loop

APPLICANT: Bauder Homes LLC

FILE NO.: S2020-101

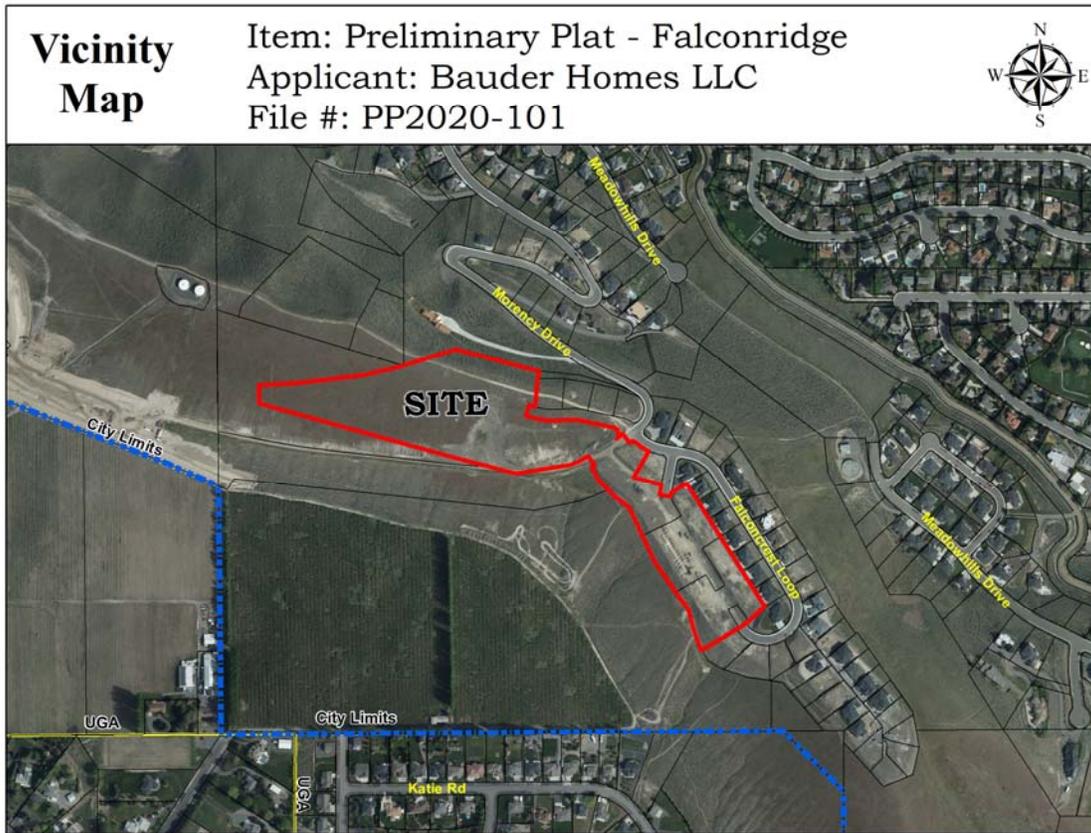
DESCRIPTION: Request to divide 19.56 acres into 27 single family residential lots and one tract.

PROJECT TYPE: Type III Preliminary Plat

HEARING DATE: May 11, 2020

REPORT BY: Shane O'Neill, Senior Planner

RECOMMENDED ACTION: Approval subject to completion of proposed conditions



**Figure 1 - Vicinity Map**

**DESCRIPTION OF PROPOSAL**

Bauder Homes LLC has filed a preliminary plat application (Exhibit 1) to divide approximately 19.5 acres into twenty seven (27) residential lots known as the plat of Falconridge (Exhibit 2). Proposed lot sizes range from 10,996 square feet to 34,050 square feet; with an average lot size of 17,769 square feet. The site is comprised of three parcels totaling 19.5-acres. Falconridge is a continuation of the plat of Falconcrest which expired prior to completion.

Access to the plat of Falconridge would come from Morency Drive generally, while lots within the plat would be accessed from extensions of Falconcrest Loop on either side of Morency Drive.

**GENERAL INFORMATION**

SURVEYOR: ROGERS SURVEYING. INC.  
ANNEXATION DATE: 2003  
COMPREHENSIVE PLAN: LOW-DENSITY RESIDENTIAL (0 TO 5 DWELLING UNITS PER ACRE)  
CURRENT ZONING: R-1-10 (SINGLE-FAMILY RESIDENTIAL)

#### PROJECT DATA

GROSS PLAT AREA:	19.56-acres
NET PLANNING AREA:	11.01-acres
NUMBER OF LOTS:	27
NUMBER OF TRACTS:	1
LAND FOR STREETS:	1.86-acres
TRACT AREA:	6.7-acres
NET DENSITY:	2.4 units/acre

#### GENERAL BACKGROUND/SITE HISTORY

Sometime around 2006-2007 the subject site was included in the approval of a larger 40.7-acre, 145-unit residential PUD named "The Crest". The Crest proposed 58 single-family lots and 87 townhomes. Considering the magnitude of development conditions applied to The Crest, development was abandoned. One of the more significant development conditions was the City's requirement to build a small segment of off-site public roadway which now exists and is named Baum Street. Then owner, Milo Bauder, alternately decided to divide the land into several larger parcels, by way of exempt segregation, which he then further divided by submitting a series of five (5) short plat applications to create 15 lots. Remnants of these short plats can still be seen in the two smaller parcels comprising the subject site.

In 2011, the subject site was included in a preliminary plat application, to subdivide a 20-acre site into 44 single-family residential lots, named Falconcrest (Exhibit 9). The 27-lot final plat of Falconcrest Phase 1 was recorded in 2012. The east node of the subject preliminary plat of Falconridge is shown as phase 2 of Falconcrest. Because preliminary plat approval of Falconcrest has since expired, the current owner, Scott Bauder, has applied for another preliminary plat approval (Falconridge) in order to complete the hilltop development.

#### PHYSICAL FEATURES

The site consists of three irregularly-shaped parcels covering the Little Badger Mountain (also called East Badger) ridge-top together with a portion of the south/west slope. For general discussion purposes the plat site consists of two nodes, an east node and a west node which are separated by Morency Drive. Of the two general "nodes" comprising the site, the east node has been previously graded and is therefore devoid of its natural vegetation. As shown in the site photos taken by staff (Exhibit 3), the east node consists of two vacant, rocky, leveled-terraces containing sewer infrastructure. Whereas the west node exhibits less signs of ground-disturbance. The west node has been partially graded for road (Falconcrest Loop) access to four existing residential lots created via short plat (#3553, Exhibit 12) in 2018. Although not readily apparent, most, if not all of the west node has been previously disturbed for access and underground utility installation.

Topographically speaking, the east node of the site has previously undergone rough grading into two terraces and is relatively flat compared to the previous natural condition. This portion of the site can generally be described as rocky. Both terraces are comprised of basalt cobble, some of which belonged to the original hilltop that

was pushed-out to create the lower terrace. The east node contains the lowest site elevation of approximately 980-feet above sea-level.

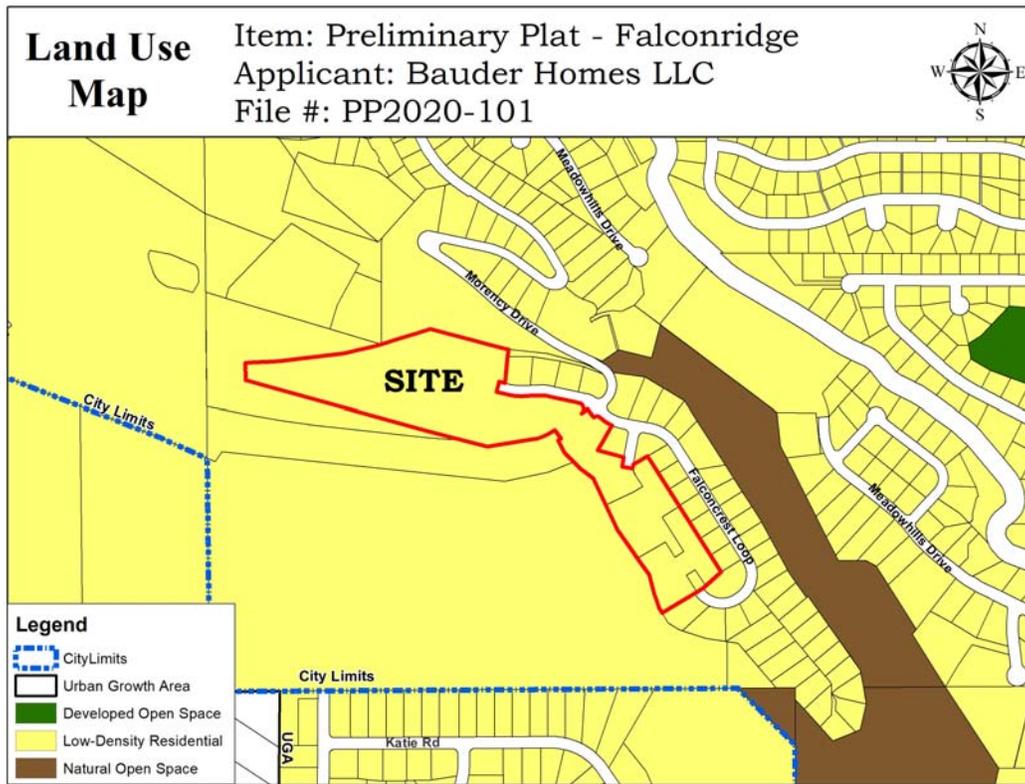
The west node of the plat lies topographically above the east node and above the intersection of Morency Drive and Falconcrest Loop. When first entering the west node from said street intersection, immediately to the right (north) there are four (4) existing lots previously created by way of Short Plat #3553 which are being developed with single-family homes at the time this report is being written. The west node has been partially graded to create the westerly extension of Falconcrest Loop serving four lots belonging to Short Plat #3553. The west node remains in a more naturally sloping condition with a relatively continuous slope down the south side of the hill from the ridge-top. The hillside adjacent to the north boundary of west node falls very sharply, beginning as a cliff perched above the roof of a single-family home. Much of the north-slope here contains natural vegetation consisting of bunch-grasses and sagebrush. The west node contains the highest site elevation of approximately 1,150-feet above sea-level.

#### SITE DESCRIPTION & ADJACENT LAND USES

The subject site is comprised of three parcels, totaling 19.56-acres, on the top of Little Badger Mountain. Little Badger Mountain is a companion hill to Badger Mountain. With a peak elevation of approximately 1,200 feet above sea-level, Little Badger Mountain forms a ridgeline running in a northwest/southeast orientation. Little Badger is one of the more significant landmarks of the Tri-Cities area in an otherwise flat landscape.

Land surrounding the site is mostly vacant with the exception of the neighboring homes on Falconcrest Loop (north) to which the subject plat will appear to be part of once developed. There is one additional home (2495 Morency Drive) adjacent to and north of the west node of the plat site which is embedded into the steep hillside, perched above the residential neighborhood of Crested Hills and below the proposed plat of Falconridge. Land to the south first falls sharply before flattening-out into an area where a cherry orchard was previously removed and is being replaced with the single-family residential plat of Westcliffe Heights. Said steep slope belongs to the plat of Westcliffe Heights and is planned to be partially developed with homes. A centrally located feature of the plat site is the public right-of-way intersection of Morency Drive and Falconcrest Loop.

For reference, site photos taken by Planning Department staff are provided herein as Exhibit 3.



**Figure 2 – Comprehensive Plan Map**

### COMPREHENSIVE PLAN

Richland's Comprehensive Plan designates the plat site for low-density residential development, allowing for residential densities ranging between 0 – 5 dwelling units per acre, equating to an average allowable residential density of 3.5 units per acre. The plat of Falconridge proposes a net residential density of 2.4 dwelling units/acre.

#### Applicable Goals & Policies

Provided below is a selected set of Comprehensive Plan goals & policies particularly applicable to the subject residential subdivision. Staff notes Natural Environment goals and policies specifically apply to Falconridge by encouraging preservation of prominent ridges and hillsides in south Richland to maintain views and to invite pedestrian access via trails. Staff does not find ways in which Falconridge attempts to preserve the ridgeline comprising the site.

**Land Use Goal 3:** Maintain a broad range of residential land use designations to accommodate a variety of lifestyles and housing opportunities.

Policy 1: Distribute residential uses and densities throughout the urban growth area consistent with the City's vision.

**Land Use Goal 5:** Ensure connectivity that enhances community access and promotes physical, social, and overall well-being so residents can live healthier and more active lives.

Policy 2: Promote pedestrian and bicycle circulation throughout the community by connecting with the infrastructure and the City's network of parks and trail system.

**Land Use Goal 8**: Address unique land use situations in the urban area with policies specific to those situations that ensure compatibility between land uses without infringing on private property rights.

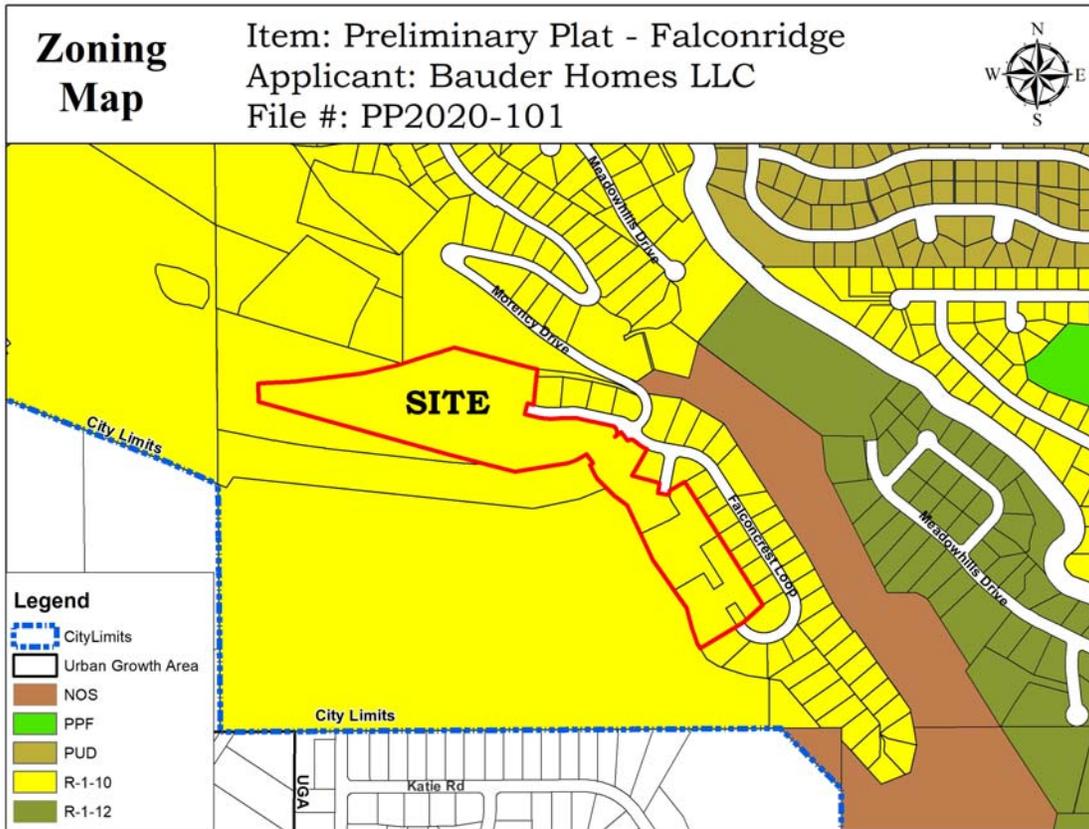
Policy 4: Identify and encourage the preservation of lands, sites, and structures that have historical or archaeological significance.

**Natural Environment Goal 1**: Promote the protection, conservation, and restoration of natural areas, shorelines, and critical areas as unique assets to the community, and provide public access for enjoyment of such facilities based on the ability of the resource to support the use.

Policy 1: Use the critical areas ordinance, SMP, the state environmental policy act (SEPA), and other ordinances, as applicable, to designate and protect the critical areas and natural environment.

Policy 4: Encourage the public and/or private acquisition of the prominent ridges in the south Richland area to preserve views, protect shrub-steppe habitat, and to provide public access. Consider the preservation of the ridges and hillside areas through various standards.

Policy 5: Develop an integrated pedestrian trail system to provide access through the City's important natural features, such as prominent ridges and river-shore areas and provide necessary trail linkages between these natural features.



**Figure 3 – Zoning Map**

**ZONING**

This preliminary plat site is zoned R-1-10 (Single-Family Residential) allowing for each lot to be developed with one single-family home and accessory structures cumulatively covering up to forty percent (40%) of the respective parcel.

The R-1-10 zone imposes an 8,000 square foot minimum lot size with a requirement for a 10,000 square foot average lot size (4.3 units/acre). The proposal adheres to said limits.

**Land Uses and Dimensional Standards**

The following **R-1-10** standards apply to the proposed plat:

Uses Permitted:	Single family homes and accessory structures
Minimum lot size:	8,000 square feet
Front yard setback:	20 feet minimum
Side yard setback:	10 feet minimum
Rear yard setback:	25 feet minimum
Maximum building height:	30 feet (mid-roof-point)

### CRITERIA FOR PRELIMINARY PLAT APPROVAL

Section 24.12.053 of the RMC sets forth the criteria that must be met before a preliminary plat application can be approved; it states:

*The hearing examiner shall not recommend approval of any preliminary plat application, unless the approval is accompanied by written findings that:*

- A. The preliminary plat conforms to the requirements of this title;*
- B. Appropriate provisions are made for the public health, safety and general welfare and for such open spaces, drainage ways, streets or roads, alleys, other public ways, transit stops, potable water supplies, sanitary wastes, parks and recreation, playgrounds, schools and school grounds and all other relevant facts, including sidewalks and other planning features that assure safe walking conditions for students who only walk to and from school;*
- C. The public use and interest will be served by the platting of such subdivision and dedication; and*
- D. The application is consistent with the requirements of RMC 19.60.095*

RMC Section 24.12.050 designates the Hearing Examiner as the hearing body responsible for conducting the review of preliminary plat applications.

### PUBLIC NOTICE

Application Date:	January 22, 2020
Notice of Hearing Mailed:	February 24, 2020
Notice of Hearing Posted:	February 24, 2020
Notice of Hearing Published:	March 1, 2020
Public Hearing:	May 11, 2020

A combined notice of application and optional SEPA determination of non-significance was provided by mailing notices to property owners within 300 feet. Public hearing notices were distributed through posting of the property, mailing of notice to property owners within 300 feet of the site and publication in the *Tri-City Herald* newspaper. Copies of the notices and affidavits are included in Exhibit 4.

Public hearing on this item was originally to be held on April 11, 2020. By way of explanation, the month of April is missing from the date schedule above due to Governor Inslee's "Stay Home-Stay Healthy" order in response to the 2020 COVID-19 incident whereby public gatherings, including public hearings, were temporarily suspended. As such the hearing was moved from April 13<sup>th</sup> to May 11<sup>th</sup>. Accordingly, public hearing notices advertising the new hearing date were re-sent to property owners within 300 feet of the site.

### UTILITIES

Much of the utility infrastructure available to serve this plat was installed as part of the neighboring short plats and the final plat of Falconcrest Phase 1 to the north which developed the Falconcrest Loop right-of-way. Generally, sewer, water and electrical power are all immediately available for extension from the boundaries of

the subject plat site. More detail about each utility service is provided below. The utility-specific discussions below indicate existing underground utility infrastructure while also mentioning the need for extension. This is because each utility is not sufficiently extended to serve all lots proposed by the subject plat and utility mains will need relatively short extensions to service the proposed lots.

### Sewer

The nearest sewer main available to serve Falconridge is located within the Falconcrest Loop right-of-way, both east and west of Morency Drive. This eight (8) inch sewer main will need to be extended into the Falconridge site to provide service. Considering portions of this plat occupy the highest elevation in Richland, approximately, there will be no need for special sewer infrastructure such as force-mains or lift-stations as gravity-fed sewer service is an available solution.

### Water

#### Potable

The nearest water main available to serve Falconridge is located within the Falconcrest Loop right-of-way, both east and west of Morency Drive. This eight (8) inch water main is sufficiently sized to serve the plat but will need to be extended into the Falconridge site to provide service.

#### Irrigation

The project site is located outside of irrigation district boundaries of both the Kennewick Irrigation District (KID) and the Badger Mountain Irrigation District (BMID). The applicant proposes to use domestic water for irrigation purposes. City code generally requires all residential developments located south of the Yakima River be served by a separate source of irrigation water. RMC Section 18.16.080 provides an exemption to this requirement for single-family residential lots containing less than 1,000 square feet of pervious area, and for sites on ground sloped greater than six percent. The applicant has either option of limiting the irrigable portions of lots to meet the 1,000 square foot exemption or to annex the site into the Badger Mountain Irrigation District to provide the required separate source of irrigation water. Conditions of approval provided by the Public Works Department intentionally exclude any requirement(s) for the project to install irrigation water service separate from city potable water. The Public Works office has therefore granted a *de facto* exemption to the requirement to provide a separate source of irrigation water.

### Electrical Power

The nearest electrical power line available to serve Falconridge is located within the Falconcrest Loop right-of-way, both east and west of Morency Drive. Power lines will need to be extended into the Falconridge site to provide service. There is sufficient capacity in the City power distribution system to service the proposed plat.

### ACCESS/TRANSPORTATION

At the approximate mid-point of the plat site lies at the intersection of Morency Drive and Flaconcrest Loop. As with the existing homes on Falconcrest Loop, the proposed project would be accessed via Morency Drive which extends from the

Crested Hills subdivision (below the site) up and over the ridge top of Little Badger Mountain. Morency Drive is classified as a “neighborhood collector” street which includes roadways serving as primary access between subdivisions and arterial/arterial collector streets.

The east node of the plat contains an undeveloped portion of right-of-way, named Falconcrest Loop, aligned in the shape of an oval. The developed portion of this road borders the adjacent homes to the north, however those homes do not gain direct vehicle access from Falconcrest Loop. The proposed plat will complete the currently incomplete segment of Falconcrest Loop.

Within the west node, a short segment of Falconcrest Loop currently extends northwesterly of Morency Drive. With development of Falconridge, Falconcrest Loop will be extended from its current temporary turn-around northwesterly to form a cul-de-sac. Plat approval is conditioned upon applying a more appropriate suffix to this segment of roadway other than “loop” as it does not form a loop in this location.

Legacy Lane extends through much of the plat of Westcliffe Heights and intersects with Queensgate Drive/Bermuda Road at the entrance to Westcliffe Heights. As future phases of the Westcliffe Heights subdivision are completed, Morency Drive will be extended slightly to the southwest where it will intersect with Legacy Lane. The description above is provided to explain that Morency Drive will be the sole means of access to Falconcrest for only a short period of time, until Legacy Lane is completed. Once this connection is achieved, residents of Falconcrest will have the option (likely the preferred option) to quickly descend the hill on Queensgate Drive instead of meandering through the narrower Morency Drive in the Crested Hills neighborhood. Some traffic generated by homes in Falconcrest will inevitably continue to use Morency Drive depending on the destination.

Staff draws the Hearing Examiner’s attention to recommended condition #55 requiring the existing “Private Drive Easement” noted on the preliminary plat to be constructed to city standards. This “roadway” was not constructed to a “city standard. If the intent of this road is to provide access to lots 21-27 then it shall be improved per Richland Municipal Code. This requires the roadway to be constructed 34-feet wide and curb, gutter and sidewalk to be installed along the lot frontages.

In regard to the level-of-service (LOS), pursuant to Sections 12.03.170 and 12.03.180 [RMC] this development proposal as submitted is in general conformance with the assumptions made for land use and scale/density. Through collection of impact fees, the project will comply with concurrency requirements of the Municipal Code.

To date, a traffic study/transportation analysis has not been prepared for the Falconridge project at-hand. Page 13 of the SEPA checklist (Exhibit 5) indicates the plat will generate approximately 270 vehicle trips per day at full build-out. The source of this trip generation volume figure is not referenced, cited or supported by additional documentation.

Staff points-out that a traffic impact analysis (TIA) was part of the 2011 Falconcrest preliminary plat record. The TIA is titled The Crest Traffic Impact Analysis because it was prepared for The Crest PUD project and was then re-used to review Falconcrest. This TIA was used in determining the value of constructing Baum Street and imposing the new roadway as a development condition. Said TIA was prepared by JUB Engineers Inc., in July of 2007 and indicates an expiration date of July 15, 2009 on the cover page.

### FIRE SAFETY

Portions of the plat are adjacent to undeveloped properties over 5-acres in size and so are subject to the City's wildland fire protection requirements. The City has wildland fire protection requirements that apply to homes built on or adjacent to steep slopes that would impact lots within the proposed plat. Recommended condition of approval #57 requires compliance with these wildland fire protection requirements together with specific requirements related to installation of new fire hydrants.

### SCHOOLS

The plat falls within the boundaries of the Richland School District. The proposed plat was routed to the district for review and commenting as part of the standard referral process. Though no comments from the district were received by the City, prior staff reports for nearby plat sites noted that the site is located within the White Bluff's district, but it is likely that future students from this development will be reassigned to either Marcus Whitman or Lewis and Clark Elementary. The elevation and slope of the access road may require students walk to a bus stop located near Morency Drive and Gage Blvd. Direct access to improved sidewalks is needed to ensure a safe walking route.

### PARKS

The previous dedication and development of the Crested Hills Park provides adequate neighborhood area parks for the projected number of residents, based on City park standards. The City of Richland owns an additional 32.8-acres of open-space land consisting of the steep slopes adjacent to and lying below the home sites along the perimeter of Falconcrest Loop. Considering both Crested Hills Park and the 32.8-acres of open-space land were previously dedicated to the City as part of other developments, municipal park impact fees will be assessed for each new home at the time of building permit issuance.

### Trails

One noteworthy feature of the Falconridge plat survey is the presence of the 15-foot [hiking] trail easement along the rear line(s) of lots 11 through 20 created by way of auditor file as part of previously recorded short plats. Said trail easement terminates/originates in the northwest corner of Lot 11. During past meetings between Planning staff and members of the local recreation group, Friends of Badger (FoB), the Planning Department understands FoB aims to achieve trail connectivity in the location of this plat. Friends of Badger wants to secure an easement extending from Lot 11, northwesterly up to the top of the ridgeline where

the hiking trail will be extended to connect with the planned trail within the plat of Westcliffe Heights. The city will not be conditioning plat approval on the developer providing new trail easements. Whether or not the applicant prefers to provide a trail easement is a private matter between interested parties.

### CRITICAL AREAS

The general vicinity of the project site, including the subject site, is identified in the City's Critical Areas Ordinance (RMC 22.10.240) as being potentially geologically hazardous due to the presence of steep slopes. Accordingly, the Falconridge preliminary plat application materials included a geotechnical evaluation by Affordable Geotech Services LLC dated January 22, 2018 (Exhibit 8). The geotechnical report generally describes on-site subsurface conditions as being sufficiently stable to support the development at full build-out. An image taken by staff labeled "cut slope" illustrating the rocky substrate is provided in the set of site photos included herein as Exhibit 3. The geotechnical report revealed no site conditions warranting mitigation measures or further investigation.

The Hearing Examiner may notice the geotechnical report by Affordable Geotech Services only applies to lots belonging to the west node of the plat. By way of explanation, official City records for the expired preliminary plat of Falconcrest include a geotechnical evaluation applicable to the east node of Falconridge as lots therein previously belonged to Falconcrest. This older geotechnical report was prepared by Intermountain Materials Testing & Geotechnical, dated Oct. 12, 2012 and is provided herein as Exhibit 9.

The site is further identified as containing intact shrub-steppe priority habitat per WA Dept. of Fish & Wildlife (WDFW) mapping resources. To address potential concerns over the impacts to shrub-steppe habitat the City solicited input from the local WDFW biologist, Michael Ritter. Mr. Ritter's response letter (Exhibit 11) indicates no significant concerns relative to the potential loss of shrub-steppe on the Falconridge plat site.

### SEPA

A SEPA checklist (Exhibit 5) addressing potential impacts of the proposed subdivision was included in the preliminary plat application. On March 26, 2020 staff issued a Determination of Non-Significance (DNS) (Exhibit 6) using the optional DNS process available under the provisions of WAC 197-11-355 whereby the SEPA comment period closes concurrent with close of the public hearing. City staff received no comments during the advertised SEPA comment period.

Falconridge preliminary plat application materials include a letter from Michael Ritter, Habitat Biologist with the State of Washington Department of Fish and Wildlife, confirming the project does not threaten priority habitat and species. This letter is provided as Exhibit 11.

### AGENCY COMMENTS

A number of public agencies and City departments were given an opportunity to comment on the proposal. Comments were received from: Kennewick Irrigation District only. The City of Richland Energy Services and Public Works Departments also provided respective comments. All comments received from other agencies in response to project advertisement are provided herein as Exhibit 7. Comments from Richland Energy Services and from the city Public Works/Engineering Department are entered directly into the set of recommended approval conditions listed at the end of this report.

### PUBLIC COMMENTS

At the time this report was prepared, the City received no comments from members of the general public.

### ANALYSIS

The criteria approval of a preliminary plat application (RMC 24.12.053) are reprinted here, with a summary of how the application complies with the standard:

*A. The preliminary plat conforms to the requirements of this title (RMC Title 24);*

The City's subdivision regulations set forth specific requirements for the filing of an application, how notice of the application is to be provided and requires that the Hearing Examiner conduct a public hearing and make recommendation to the City Council. These steps have been followed to date.

*B. Appropriate provisions are made for the public health, safety and general welfare and for such open spaces, drainage ways, streets or roads, alleys, other public ways, transit stops, potable water supplies, sanitary wastes, parks and recreation, playgrounds, schools and school grounds and all other relevant facts, including sidewalks and other planning features that assure safe walking conditions for students who only walk to and from school;*

- Crested Hills Park is a 5.8-acre neighborhood park located 0.7-miles north of the proposed plat site by way of vehicle travel.
- The larger 41.5-acre Badger Mountain Park is located approximately 3-miles north of the proposed plat site by way of vehicle travel. Badger Mountain Park contains outdoor sports fields and courts able to serve recreational needs of the broader surrounding vicinity.
- Badger Mountain South, to the west, is planned to contain several other open space areas including parks and trails. A direct connection will eventually be formed between Falconridge and the larger Badger Mountain South proper provided the plat of Falconridge constructs trail improvements within the 15-foot trail corridor easement (AF #'s 2011-019372 & 2012-037725) as shown on the Falconridge survey (Exhibit 2) encumbering the rear fifteen-feet of lots 11 through 20. Proposed condition of approval # 57 requires the developer construct a minimum 4-foot-wide soft surface trail within said easement.
- Contrary to the SEPA checklist, the site is not located along an existing bus route. The Ben Franklin Transit Authority provides bus service along Keene Road and Gage Blvd. approximately 3.5 miles to the east.

- The plat would be served by City domestic water lines currently existing within the boundaries of the project site. Water lines have capacity to provide for the proposed project.
- The City of Richland sanitary sewer system contains sufficient capacity to serve the proposed 27 home sites. Sanitary service will be extended to this project.
- The plat would be served by Richland Energy Services electrical power by way of service line extension.
- In accordance with City development standards, storm water drainage would have to be retained and managed on-site. The plat is designed to include an existing storm water management pond encumbering lots 7, 8 & 9.
- Richland School District was given the opportunity to comment. No comments from the District were received by the City.
- Planning staff notes a lack of contiguous sidewalk on Morency Drive available for children to walk to school or the nearest bus-stop.

*C. The public use and interest will be served by the platting of such subdivision and dedication;*

The proposed project is consistent with the Comprehensive Plan in terms of the proposed density of the plat. The project is consistent with the City's zoning regulations, and would be consistent with development patterns in the surrounding neighborhood considering existing topographic constraints. Provision of additional housing units will contribute to meeting the housing demand experienced in the Tri-Cities thereby serving public interest and demand. Completing the small segment of Morency Drive within Falconridge will provide connectivity with Legacy Lane in the neighboring plat of Westcliffe Heights.

*D. The application is consistent with the requirements of RMC 19.60.095, which states:*

*No development application for a Type II or Type III permit shall be approved by the city of Richland unless the decision to approve the permit application is supported by the following findings and conclusions:*

*1) The development application is consistent with the adopted Comprehensive Plan and meets the requirements and intent of the Richland Municipal Code.*

The proposal is generally consistent with the intent of the Comprehensive Plan and meets requirements of the Municipal Code as outlined above.

*2) Impacts of the development have been appropriately identified and mitigated under Chapter 22.09 RMC.*

Chapter 22.09 is the City's adoption of the State Environmental Policy Act provisions. The applicant filed an environmental checklist (Exhibit 5) for which the City issued and distributed a Determination of Non-Significance (Exhibit 6). Review and analysis of the proposed development reveals no compelling evidence of any potentially significant environmental impacts warranting mitigation nor further review.

*3) The development application is beneficial to the public health, safety and welfare and is in the public interest.*

The project is consistent with the City's Comprehensive Plan and development regulations and it therefore would be considered beneficial to public health, safety and welfare and would be in the public interest. As mentioned above, staff is recommending several requirements in the form of conditions, aimed at ensuring the development does not generate any significant impacts which would be detrimental to the peaceful enjoyment of existing land uses in the surrounding vicinity.

- E. *The development does not lower the level of service of transportation facilities below the level of service D, as identified in the Comprehensive Plan; provided, that if a development application is projected to decrease the level of service lower than level of service D, the development may still be approved if improvements or strategies to raise the level of service above the minimum level of service are made concurrent with development. For the purposes of this section, "concurrent with development" means that required improvements or strategies are in place at the time of occupancy of the project, or a financial commitment is in place to complete the required improvements within six years of approval of the development.*

The project would add 27 new residential lots to be accessed from newly constructed and existing roadways leading into the subdivision. Because the project is within the impact fee area, traffic studies are not required to prove level of service or identify mitigation. The fee becomes the mitigation; thereby fulfilling concurrency requirements.

- F. *Any conditions attached to a project approval are as a direct result of the impacts of the development proposal and are reasonably needed to mitigate the impacts of the development proposal.*

The conditions of approval recommended for this project are a direct result of imposing City development standards as contained in City code and are directly related to the development proposal.

### FINDINGS AND CONCLUSIONS

Staff has completed its review the preliminary plat application for Falconridge (S2020-101) and recommends approval of the request subject to conformance with the conditions of approval included below based on the following findings:

#### **Findings of Fact:**

1. The Richland Comprehensive Plan designates the project site as suitable for low-density residential development with an allowable density range of 0 to 5 units per acre.
2. R-1-10 (Single-Family Residential) zoning is applied to the site which permits residential densities of up to 5 units per acre.
3. Falconridge preliminary plat consists of 27 residential lots (averaging 17,769 square feet) representing a net residential density of 2.4 units per acre based on the net 11-acres of residentially (R-1-10) zoned land(s).
4. Preliminary plats are classified as Type III permits (RMC 19.20.010.C).
5. Morency Drive is classified as a neighborhood collector roadway in the City's Comprehensive Plan.

6. The Falconridge preliminary plat lies within the boundary of the South Richland Collector Street Financing Plan (RMC 12.03). This plat shall therefore be subject to the fees administered by the finance plan for any phase submitted for approval. Since this property is included within the Financing Plan, it is exempt from the SEPA-related traffic study requirement (TIA).
7. Section 24.12.053 of the RMC sets forth standards for review of preliminary plats that require the Hearing Examiner to consider whether appropriate provisions are made for the public health, safety and general welfare and for such open spaces, drainage ways, streets or roads, alleys other public ways, transit stops, potable water supplies, sanitary wastes, parks and recreation, playgrounds, schools and school grounds and all other relevant facts, including sidewalks and other planning features that assure safe walking conditions for students who only walk to and from school.
8. The proposed preliminary plat provides for the extension of streets consistent with the surrounding street network, includes provisions for the extension of public domestic water, sewer, irrigation water and electrical power lines.
9. Appropriate development conditions will be applied to ensure improvements proposed to serve the preliminary plat are consistent with the City's development standards.
10. City standards call for the construction of a Secondary Emergency Access Road (SEVA) to serve any development that contains 16 or more homes served by a single access road. That portion of Falconridge west of Morency Drive, including lots created by Short Plat #3553, does not propose such a configuration and thus the plat does not trigger the need for SEVA(s).
11. The City has wildland fire protection requirements that apply to homes built on or adjacent to steep slopes that would impact lots within the proposed plat. Some of the proposed lots in Falconridge trigger the need for wildland fire protection requirements. The proposed conditions of approval address the affected lots.
12. The Richland School District was invited to comment and expressed no concerns with the plat.
13. City staff and other utility providers reviewed the project and have recommended specific conditions of approval as set forth in this report.
14. The applicant filed an environmental checklist along with their preliminary plat application as required under the State Environmental Policy Act.
15. After review of the checklist and application materials, staff issued a Determination of Non-Significance on May 26, 2020 using the optional DNS process.
16. Richland's Critical Areas ordinance identifies the site as being located within a potentially hazardous area due to the presence of steep slopes/geologic hazards.
17. The Washington (State) Department of Fish & Wildlife classifies the plat site as a Priority Habitat Area due to the potential presence of shrub-steppe plant and animal associations.
18. Fish & Wildlife biologist Michael Ritter issues a letter (Exhibit 11) indicating the plat project is unlikely to have negative impacts of priority habitat.

19. The applicant submitted a geo-technical report to comply with the City's Critical Areas Ordinance (RMC 22.10.280)
20. RMC 19.60.095(D) requires that development not lower the level of service standard for transportation facilities below a level of service D.
21. The proposed project would add 27 single family lots having direct access onto roadways proposed in the plat.
22. Falconridge lies within the boundary of the South Richland Collector Street Financing Plan (RMC 12.03). This plat is therefore be subject to the fees administered by the finance plan for any phase submitted for approval. Since this property is included within the Financing Plan, it is exempt from the SEPA-related traffic study requirement (TIA).

**Conclusions of Law:**

1. The site lies within a critical area due to potential geologic hazards due to the presence steep slopes on-site. Preliminary plat application materials included a geo-technical report qualifying the site as stable and suitable for residential construction.
2. The lots within the proposed subdivision are consistent with the provisions of the City's respective (R-1-10) zoning regulations.
3. The proposed preliminary plat conforms to the density and type of land use envisioned in the land use and transportation elements of the adopted Comprehensive Plan.
4. Pursuant to RMC Chapters 22.09 and 22.10, the procedures required under the State Environmental Policy Act have been completed.
5. As conditioned, the proposed preliminary plat makes appropriate provisions for the public health, safety and general welfare and for such open spaces, drainage ways, streets or roads, alleys, other public ways, transit stops, potable water supplies, sanitary wastes, parks and recreation, playgrounds, schools and school grounds and all other relevant facts, including sidewalks and other planning features that assure safe walking conditions for students who only walk to and from school.
6. Based on the above findings and conclusions, approval of the proposed preliminary plat of Falconridge, subject to the recommended conditions listed in this report, is warranted because the project conforms to the City's adopted comprehensive plan and zoning regulations; has followed the required State Environmental Policy Act procedures; and is consistent with the requirements of the City's subdivision regulations.

**Overall Conclusion:**

**Based on the above findings and conclusions, approval of the proposed preliminary plat of Falconridge, subject to the recommended conditions listed herein, is warranted because the project conforms to the City's adopted**

**Comprehensive Plan and zoning regulations; has followed the required State Environmental Policy Act procedures; and is consistent with the requirements of the City's subdivision regulations.**

### **RECOMMENDED CONDITIONS OF APPROVAL**

#### **Public Works**

1. All final, approved plans for public improvements shall be submitted prior to pre-con on a 24" x 36" hardcopy format and also electronically in [.dwg] format compatible with the City's standard CAD software. Addendums are not allowed, all information shall be supplied in full size (and electronic) format. Electronic copies of the construction plans are required prior to the pre-con meeting along with the multiple sets of paper drawings. When construction of the public infrastructure has been substantially completed, the applicant shall provide paper and electronic record drawings in accordance with the City's "Record Drawing Requirements". The electronic record drawings shall be submitted in an AutoCAD format compatible with the City's standard CAD software. The final record drawings shall be submitted and approved by the City before the final punchlist inspection will be performed. All final punchlist items shall be completed or financially guaranteed prior to recording of the final plat.
2. Any and all necessary permits that may be required by jurisdictional entities outside of the City of Richland shall be the responsibility of the developer to obtain.
3. A copy of the construction drawings shall be submitted for review to the appropriate jurisdictions by the developer and his engineer. All required comments / conditions from all appropriate reviewing jurisdictions (e.g.: Benton County, any appropriate irrigation districts, other utilities, etc.) shall be incorporated into one comprehensive set of drawings and resubmitted (if necessary) for final permit review and issuance.
4. Any work within the public right-of-way or easements or involving public infrastructure will require the applicant to obtain a right-of-way construction permit prior to beginning work, per RMC Chapter 12.08. The applicant shall pay a plan review fee based on a cost-per-sheet of engineering infrastructure plans. This public infrastructure plan review fee shall apply each time a project is submitted for review. This fee will be different for commercial projects versus subdivision projects. Please visit the Public Works Private Development page on the City's webpage to find the current per-sheet fee. A permit fee in the amount equal to 3% of the construction costs of the work within the right-of-way or easement will be collected at the time the construction permit is issued. A stamped, itemized Engineers estimate (Opinion of probable cost) and a copy of the material submittals shall be submitted along with the approved plan submittal.

5. Public utility infrastructure located on private property will require recording of a City standard form easement prior to acceptance of the infrastructure and release of the final plat. The City requires preparation of the easement legal description by the developer two weeks prior to the scheduled date of plat acceptance. Once received, the City will prepare the easement document and provide it to the developer. The developer shall record the easement at the Benton County Assessor and return a recorded original document to the City prior to application for plat acceptance.
6. A pre-construction conference will be required prior to the start of any work within the public right-of-way or easement. Contact the Public Works Engineering Division at 942-7500 to schedule a pre-construction conference.
7. Site plan drawings which involve the construction of public infrastructure shall be drawn on a standard 24" x 36" drawing format to a scale which shall not be less than 1"=40'.
8. All plan sheets involving construction of public infrastructure shall have the stamp of a current Washington State licensed professional engineer.
9. All construction plan sheets shall include the note "CALL TWO WORKING DAYS BEFORE YOU DIG 1-800-424-5555 (or "811")." Or: <http://www.call811.com/>
10. A copy of the preliminary plat shall be supplied to the Post Office and all locations of future mailbox clusters approved prior to final platting.

Design Standards:

11. Public improvement design shall follow the following general format:
  - A. All materials and workmanship shall be in conformance with the latest revision of the City of Richland Standard Specifications and Details, Public Infrastructure Design Guidelines, and the current edition of the State of Washington Standard Specifications for Road, Bridge, and Municipal Construction. Please confirm that you have the latest set of standard specs and details by visiting the City's web page.
  - B. Water lines shall be aligned on the south and east side of street centerlines.
  - C. Sanitary sewer shall be aligned on the north and west side of street centerlines.
  - D. Storm sewer shall be aligned on the south and east side of street centerlines.

- E. Any sewer or storm manholes that are installed outside of public Right of Way shall have an acceptable 12-foot wide gravel access road (minimum) provided from a public street for maintenance vehicles.
- F. 10-foot horizontal spacing shall be maintained between domestic water and sanitary sewer mainlines and service lines.
- G. Watermains larger than 8-inches in diameter shall be ductile iron.
- H. Watermains installed outside of the City Right of Way or in very rocky native material, shall be ductile iron and may need restrained joints.
- I. Fire hydrant location shall be reviewed and approved by the City Fire Marshal.
- J. Sewer mains over 15-feet deep shall be constructed out of SDR26 PVC or C900 PVC. The entire main from manhole to manhole shall be the same material.
- K. Water valves and manholes installed on private property shall be placed so as to avoid parked cars whenever feasible.
- L. All utilities shall be extended to the adjacent property (properties) at the time of construction.
- M. The minimum centerline finish grade shall be no less than 0.30 % and the maximum centerline finish grade shall be no more than 10.0 % for local streets. 12% can be allowed for local streets for short distances.
- N. The minimum centerline radius for local streets shall be 100-feet.
- O. Any filling of low areas that may be required within the public Right of Way shall be compacted to City standards.
- P. An overall, composite utility plan shall be included in the submitted plan set if the project is phased. This comprehensive utility plan benefits all departments and maintenance groups involved in the review and inspection of the project.
- Q. A detailed grading plan shall be included in the submitted plan set.
- R. For public utilities not located within public street rights-of-way the applicant shall provide maintenance access acceptable to the City and the applicant shall provide an exclusive 10-foot wide public utility easement (minimum) to be conveyed to the City of Richland.

- S. Final design of the public improvements shall be approved at the time of the City's issuance of a Right-of-way Construction Permit for the proposed construction.
  - T. All public improvements shall comply with the State of Washington and City of Richland requirements, standards and codes.
  - U. All cul-de-sacs shall have a minimum radius of 48-feet to the face of curb (57-foot ROW) to allow for adequate turning radius of fire trucks and solid waste collection vehicles.
  - V. Curb returns at minor intersections shall have a minimum radius of 25-feet. Curb returns at major intersections should have minimum radius of 30-feet but should be evaluated on a case by case basis.
  - W. All public streets shall meet design requirements for sight distance (horizontal, vertical and intersectional).
  - X. The final engineered construction plans shall identify locations for irrigation system, street lighting, gas service, power lines, telephone lines, cable television lines, street trees and mail boxes. All electrical appurtenances such as transformers, vaults, conduit routes, and street lights (including their circuit) need to be shown in the plan view.
  - Y. Construction plans shall reference all City of Richland standard details necessary to construct all public improvements which will be owned, operated, maintained by the City or used by the general public.
  - Z. The contractor shall be responsible for any and all public infrastructure construction deficiencies for a period of one year from the date of the letter of acceptance by the City of Richland.
12. If the project will be built in phases the applicant shall submit a master plan for the sanitary sewer, domestic water, storm drainage, electrical, street lighting and irrigation system for the entire project prior to submitting plans for the first phase to assure constructability of the entire project. This includes the location and size of any storm retention ponds that may be required to handle runoff.
13. If the City Fire Marshal requires a secondary emergency vehicle access, it shall be included in the construction plan set and be designed to the following standards:
- 2-inches compacted gravel, minimum (temp. SEVA only).
  - 2% cross-slope, maximum.
  - 5% slope, maximum. Any access road steeper than 5% shall be paved or be approved by the Fire Marshal.
  - Be 20-feet in width.

- Have turning-radii accommodating those needed for City Fire apparatus.
14. Secondary emergency vehicles accesses (SEVA's) shall be 20-feet wide, as noted. Longer secondary accesses can be built to 12-feet wide with the approval of the City of Richland Fire Marshal, however turn-outs are required at a spacing acceptable to the Fire Dept. Temporary SEVA's shall be constructed with 2-inches of compacted gravel, at a minimum. Permanent SEVA's shall be paved with 2-inches of asphalt over 4-inches of gravel, at a minimum.

Survey Monument Destruction:

15. All permanent survey monuments existing on the project site shall be protected. If any monuments are destroyed by the proposed construction, the applicant shall retain a professional land surveyor to replace the monuments and file a copy of the record survey with the City.
- A. No survey monument shall be removed or destroyed (the physical disturbance or covering of a monument such that the survey point is no longer visible or readily accessible) before a permit is obtained from the Department of Natural Resources (DNR). WAC 332-120-030(2) states "It shall be the responsibility of the governmental agency or others performing construction work or other activity (including road or street resurfacing projects) to adequately search the records and the physical area of the proposed construction work or other activity for the purpose of locating and referencing any known or existing survey monuments." (RCW 58.09.130).
  - B. Any person, corporation, association, department, or subdivision of the state, county or municipality responsible for an activity that may cause a survey monument to be removed or destroyed shall be responsible for ensuring that the original survey point is perpetuated. (WAC 332-120-030(2)).
  - C. Survey monuments are those monuments marking local control points, geodetic control points, and land boundary survey corners. (WAC 332-120-030(3)).

***When a monument must be removed during an activity that might disturb or destroy it, a licensed Engineer or Land Surveyor must complete, sign, seal and the file a permit with the DNR.***

It shall be the responsibility of the designing Engineer to identify the affected monuments on the project plans and include a construction note directing them to the DNR permit.

Traffic & Streets:

16. The "Falconridge" preliminary plat lies within zone 1 of the boundary of the South Richland Collector Street Financing Plan (RMC 12.03). This plat shall therefore be subject to the fees administered by the finance plan for any phase

submitted for approval. Since this property is included within the Financing Plan boundaries, it is exempt from the SEPA-related traffic study requirement (TIA).

17. Morency Drive shall be constructed to City standards to the southernmost lot line of either Lot 11 in Phase 3 or Lot 9 in Phase 1 (whichever is the furthest south) at the time of phase 1 construction. The entire road section (curb, gutter, sidewalks and street lights) shall be built with the face of curb at 17-feet off of centerline. The end of this construction shall be perpendicular to the centerline of the road. A ten-foot public utility easement along the Morency Drive frontage shall be provided on the face of the final plat.
18. The existing "Private Drive Easement" noted on the preliminary plat provides access to existing homes in Falconcrest Phase 1. This roadway was not constructed to a "city standard" at that time. If the intent of this road is to provide access to lots 21-27 then it shall be improved per Richland municipal code. This requires the roadway to be constructed 34-foot wide and curb, gutter and sidewalk to be installed along the lot frontages.
19. The 54-foot wide Falconcrest Loop right-of-way proposed in Phase 4 implies a double frontage roadway with driveways and accesses off of the NE side of it for lots 21-27. Given the existing steep grading along those lot frontages and the likelihood of them accessing off of the "private access easement" it's doubtful they will be taking access off of Falconcrest Loop. If so this right-of-way could be reduced to a 40-foot ROW and become a "single frontage" roadway.
20. The cul-de-sac west of Morency is labeled as "Falconcrest Loop". This name may need to be changed in order to comply with municipal code.
21. Sidewalks shall be installed along all public right-of-way frontages that building lots do not front on during construction of those phases (e.g., storm drainage ponds, parks, HOA tracts, etc.). The west end of the cul-de-sac ("Tract A") will need sidewalk installed around it when phase 2 is constructed.
22. The developer and his engineer shall demonstrate on the construction plans that all future driveways, sidewalks and pedestrian ramps will meet City and ADA requirements, and also provide at least 5-feet of separation between driveway and/or pedestrian ramp transitions.
23. Pedestrian ramps shall be designed to current City standard details and A.D.A. guidelines. Adequate right-of-way shall be provided at corners to allow for at least 1-foot of ROW behind the ped. ramp landing. Crosswalks between pedestrian ramps shall be designed to City guidelines and A.D.A. guidelines. Crosswalks at stop-controlled intersections shall have cross-slopes less than 2%. Crosswalks crossing thru-streets shall have cross-slopes less than 5%. The road profile shall be designed to accommodate this.

24. All proposed right-of-ways that are narrower than 54-feet shall have parking restricted, as per City standards.
25. Any roads narrower than 34-feet shall have parking restricted on one side, and any roads 27-feet or narrower shall have parking restricted on both sides. Street signs indicating restricted parking shall be installed prior to final platting at the developer's expense. The restricted parking areas shall be indicated on the construction plans and the final plat. All signage will be installed by the developer prior to final platting.
26. The vision-clearance triangle needs to be shown on all corner lots on both the construction plans and the final plat document, in accordance with RMC Chapter 12.11.020. If the intersection is in a curve, it will have to be evaluated per AASHTO guidelines. This information may need to be designed by the engineer of record and supplied to the surveyor of record for inclusion into the final plat document.
27. All roads shall be constructed to provide for adequate fire truck & solid waste collection truck access & turnaround movements.
28. If the project is to be constructed in phases, all dead-end streets longer than 150-feet that will be continued later need to have temporary turnarounds built at the end of them. If the temporary turnaround is not located within the final plat an easement with a 50-foot radius will be required.

Domestic Water:

29. In accordance with municipal code, domestic water mains shall be extended to the adjoining properties adjacent to the preliminary plat, provided they are in the correct pressure zone.
30. The developer will be required to demonstrate that all phases are capable of delivering adequate fire flows prior to construction plans being accepted for review. This may require looping of the watermain from off-site locations, or oversizing of the main where needed.
31. The fire hydrant layout shall be approved by the City Fire Marshal.

Sanitary Sewer:

32. A 10-foot wide exclusive sanitary sewer easement shall be provided for any sewer main that is outside of the public Right-of-Way. Wider easements are required for mains that are buried deeper than 10-feet. If any manholes are located outside of the public Right-of-Way, maintenance truck access to said structure may be required.
33. Sanitary sewer shall be extended to the adjoining properties adjacent to the preliminary plat.

Storm Water:

34. All construction projects that don't meet the exemption requirements outlined in Richland Municipal Code, Section 16.06 shall comply with the requirements of the Washington State Department of Ecology issued Eastern Washington NPDES Phase II Municipal Stormwater Permit. The Developer shall be responsible for compliance with the permit conditions. All construction activities subject to this title shall be required to comply with the standards and requirements set forth in the Stormwater Management Manual for Eastern Washington (SWMMEW) and prepare a Stormwater Site Plan. In addition, a Stormwater Pollution Prevention Plan (SWPPP) or submission of a completed erosivity waiver certification is required at the time of plan submittal. The City has adopted revised standards affecting the construction of new stormwater facilities in order to comply with conditions of its NPDES General Stormwater Permit program. This project, and each phase thereof, shall comply with the requirements of the City's stormwater program in place at the time each phase is engineered. The project will require detailed erosion control plans.
35. All public storm drainage systems shall have their flow rate and storage capacity designed by a professional engineer following the core elements defined in the latest editions of the Stormwater Management Manual for Eastern Washington, the current Richland municipal codes, the Phase II Municipal Stormwater Permit, and the City's "Public Infrastructure Construction Plan Requirements and Design Guidelines". The storm water calculations shall be stamped by a professional engineer and shall include a profile of the storm system showing the hydraulic grade line. The calculations should include an accurate delineation of the contributing drainage area to accurately size the stormwater facilities. Passing the storm water downhill to an existing storm system will require an analysis of the downstream storm system to determine its capability of accepting the storm water without being overwhelmed. The applicant's design shall provide runoff protection to downstream property owners.
36. If any existing storm drainage or ground water seepage drains onto the proposed site, said storm drainage shall be considered an existing condition, and it shall be the responsibility of the property developer to design a system to contain or treat and release the off-site storm drainage.
37. Any proposed storm drainage retention facilities within the boundary of the proposed preliminary plat shall not adversely affect neighboring properties.
38. Prior to or concurrent with the submittal of the first phase the developer shall provide a Geotechnical report including the percolation rate of the soils in the area of any storm retention ponds. If the project constructs a storm retention pond then the engineer will need to demonstrate that the pond will drain itself within 72 hours after the end of a storm event, and not have standing water in it

- longer than that. Engineering solutions are available for retention ponds that do not percolate within 72 hours.
39. As this property is upslope of developed properties the stormwater system shall include provisions for possible discharge of runoff onto downslope properties from storms in excess of the design storm. Those provisions may be required to include off-site downslope conveyance facilities and/or flowage easements allowing for the conveyance of stormwater to and across downslope properties.
  40. The amount of post-development storm runoff from the proposed site shall not exceed the amount of pre-development runoff.
  41. The parcel occupied by the stormwater basin shall be identified as a separate parcel or tract on the final plat and shall be dedicated to the City stormwater utility. The design of the basin shall include access features meeting the city's needs for maintenance.
  42. The developer should consider the long-term appearance of the storm basin, particularly if it will occupy a prominent location in the development. City storm pond maintenance practices consist of semi-annual vegetation trimming and silt and debris removal, so if the developer wishes for the pond to be landscaped and visually appealing, then a homeowners association should be considered for long-term landscape maintenance responsibilities. These maintenance responsibilities shall be noted on the final plat. Basins designed as detention and evaporative basins need to include plantings that will tolerate or thrive in standing water. Planting designs for areas not routinely exposed to water shall include plants that will thrive without irrigation. At a minimum the landscaping plan should be consistent with the City's intended maintenance standard as described above.
  43. The developer shall be responsible for landscaping the storm pond and for its maintenance and the plantings through the one-year infrastructure warranty period. At 11 months after the final acceptance date the developer shall clean the storm system and basin of all accumulated oil, sediment, and debris. After this maintenance is completed and inspected the City will begin routine maintenance of the system and basin. The developer shall replace any plantings that have failed to survive the warranty period. The developer shall also perform trimmings required to control weeds in excess of 18-inches in height for the 12-months following the date of final plat acceptance.

Final Platting / Project Acceptance Requirements:

44. When the construction is substantially complete a paper set of "record drawings" shall be prepared by a licensed surveyor and include all changes and deviations. Please reference the Public Works document "RECORD DRAWING REQUIREMENTS & PROCEDURES" for a complete description of

- the record drawing process. All final punchlist items shall be completed or financially guaranteed prior to recording of the final plat.
45. Public utility infrastructure located on private property will require recording of a City standard form easement prior to acceptance of the infrastructure and release of a certificate of occupancy. The City requires preparation of the easement legal description by the developer two weeks prior to the scheduled date of final acceptance. Off-site (“third party”) easements or right-of-ways for City infrastructure are the responsibility of the developer to obtain. Once received, the City will prepare the easement document and provide it to the developer. The developer shall record the easement at the Benton County Assessor and return a recorded original document to the City prior to application for final occupancy.
  46. Any off-site easements or permits necessary for this project shall be obtained and secured by the applicant and supplied to the City at the time of plat construction and prior to final plat acceptance by the City.
  47. Ten-foot wide public utility easements will be required on the final plat along both sides of all Right-of-Ways within the proposed plat.
  48. The vision-clearance triangle needs to be shown on all corner lots on the final plat document, in accordance with RMC Chapter 12.11.020. If the intersection is in a curve, it will have to be evaluated per AASHTO guidelines. This information may need to be designed by the engineer of record and supplied to the surveyor of record for inclusion into the final plat document.
  49. The final plat shall include notes identifying all common areas including the private streets and tracts and acknowledging the ownership and maintenance responsibility by the homeowners association. A note shall be added to the face of the final plat that states: “The private roadways are for the use and benefit of the homeowners abutting said roads, and are to be maintained by said owners. The City of Richland accepts no maintenance responsibility for these roadways”.
  50. A note shall be added to the face of the plat that states: “The private drives within this plat are fire lanes and parking may be restricted. The required no-parking signs shall be installed by the developer where applicable.”
  51. Any roads narrower than 34-feet shall have parking restricted on one side, and any roads 27-feet or narrower shall have parking restricted on both sides. Street signs indicating restricted parking shall be installed prior to final platting at the developers expense. The restricted parking areas shall be indicated on the final plats.
  52. All landscaped areas within the plat that are in the public right-of-way shall be the responsibility of the homeowners to maintain.

53. Property with an unpaid L.I.D. assessment towards it must be paid in full or segregated per Richland Municipal Code 3.12.095.
54. Addressing brackets [ ] are needed on all lots and tracts in subsequent final plat submittals.
55. The intended use and ownership of all tracts within the plat shall be noted on subsequent final plat(s).
56. To ensure site grading provides for a useable trail corridor, a soft-surface trail no less than four (4) feet-wide shall be constructed within the trail corridor easement (AF#'s 2011-019372 & 2012-037725) encumbering the rear fifteen (15) feet of lots 11 through 20.
57. Subsequent final plat(s) shall contain a note advising future buyers of lot numbers 1, 2 & 16-20, as numbered on the preliminary plat survey, of the following construction-related requirements:
  - a) *All structures within 30 feet of a property line adjoining a wild-land area shall have noncombustible siding, soffit, and skirting on the side adjacent to the wild-land area.*
  - b) *Decks and porches 36 inches or less in height shall have skirting if within 30 feet of adjacent wild-land areas.*
  - c) *Skirting shall be sufficiently constructed so as not to allow the accumulation of combustible material under the deck or porch. The area under the deck or porch shall not be used for storage.*

#### **Building Department**

58. Grading shall be permitted by the City and performed in accordance with the Geotechnical Engineering report by Affordable Geotechnical Services and with Appendix J [IBC 2015]. Any specific geotechnical requirements regarding foundations and/or site slopes shall be noted on the (final) plat along with reference to the geotechnical investigation report.

#### **Fire Department**

59. Wild-land areas are areas which are undeveloped, uncultivated or unfit for cultivation, or considered by the city of Richland to be wasteland or desert, or which are any combination of these descriptions and which are deemed by the city of Richland as a hazard for wild fire purposes. The following requirements apply to buildings and structures constructed on, in, or near wild-land areas:
  - a) All structures within 30 feet of a property line adjoining a wild-land area shall have noncombustible siding, soffit, and skirting on the side adjacent to the wild-land area when the wild-land area is in excess of five contiguous acres.

This requirement shall not apply to interior lots of platted parcels of land and development phases whose streets are accessible and whose water system is operational.

- b) Decks and porches 36 inches or less in height shall have skirting if within 30 feet of adjacent wild-land areas when the wild-land area is in excess of five contiguous acres. Skirting shall be sufficiently constructed so as not to allow the accumulation of combustible material under the deck or porch. The area under the deck or porch shall not be used for storage.

The preliminary plat submitted has been determine to fall within the requirements listed above.

- 60. As determined by the Fire marshal, noncombustible siding or soffit material shall be required on the downhill side(s) of a structure that is within 30 feet of a grade that is 15 percent or greater in steepness. The grade shall be determined by the predominate slope on the downhill side measured from the structure or building and extending a maximum of 300 feet.

*\* Note: Fire Department condition numbers 60 & 61 (above) will be satisfied by applying the final plat note describe in condition #57.*

#### EXHIBIT LIST

1. Application
2. Preliminary Plat Survey
3. Site Photos
4. Public Notice & Affidavits
5. Environmental Checklist
6. Determination of Non-Significance
7. Agency Comments
8. Geotechnical Report by Affordable Geotechnical Services
9. Geotechnical Report by Intermountain Materials Testing & Geotechnical
10. Falconcrest Phase 1 Final Plat & As-Built Drawings
11. DFW Letter
12. Short Plat #3553



City of Richland  
Development Services

625 Swift Blvd. MS-35  
Richland, WA 99352  
(509) 942-7794  
(509) 942-7764

FP2020-101  
Preliminary Plat Application

Note: A Pre-Application meeting is required prior to submittal of an application.

<b>PROPERTY OWNER INFORMATION</b>		<input checked="" type="checkbox"/> Contact Person
Owner: Bauder Homes LLC		
Address: 2472 Falconcrest Loop, Richland, WA 99352		
Phone: 509-727-8282	Email:	

<b>APPLICANT/CONTRACTOR INFORMATION (if different)</b>		<input type="checkbox"/> Contact Person
Company:	UBI#	
Contact:		
Address:		
Phone:	Email:	

<b>SURVEYOR INFORMATION</b>	
Contact: David Baalman, Rogers Surveying Inc.	
Address: 1455 Columbia Park Trail, Suite 201, Richland WA 99352	
Phone: 509-783-4141	Email: dbaalman@rogerssurveying.com

<b>ENGINEER INFORMATION</b>	
Contact: Steve Spink, Spink Engineering	
Address: 1623 Terminal Drive, Richland WA 99352	
Phone: 509-946-1581	Email:

<b>PROJECT DESCRIPTION</b>
Long Plat

<b>PROPERTY INFORMATION</b>		
Parcel #: 1-3598-300-0001-048; 1-3598-301-3342-007; 1-3598-301-3341-006	Zoning: R-1-10	
Legal Description: See attached		
Proposed Subdivision Name: Falconridge		
Gross Plat Acreage: 19.56 AC	Number of Lots: 27	Smallest Lot Size: 10,996 SQ FT
Net Lot Area Acreage: 11.01	Avg Lot Size: 17,769 SQ FT	Largest Lot Size: 34,050 SQ FT
Domestic Water Supply: <input checked="" type="checkbox"/> City <input type="checkbox"/> Private Well	Sewage Disposal: <input checked="" type="checkbox"/> City <input type="checkbox"/> Septic	
Irrigation Source: <input type="checkbox"/> City <input type="checkbox"/> Private Well <input type="checkbox"/> Columbia Irrig District <input type="checkbox"/> Kennewick Irrig District	<input checked="" type="checkbox"/> BMID	
SEPA Checklist Submitted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Title Report (Subdivision Guarantee) Submitted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	



**APPLICATION MUST INCLUDE**

1. Completed Application and Filing Fee
2. 6- Full Size Copies & the .pdf file
3. 1 – 11" x 17" copy of proposed survey
4. Title Report showing ownership, easements, restrictions and accurate legal description of the property involved
5. SEPA Checklist
6. Other information as determined by the Administrator

I authorize employees and officials of the City of Richland the right to enter and remain on the property in question to determine whether a permit should be issued and whether special conditions should be placed on any issued permit. I have the legal authority to grant such access to the property in question.

I also acknowledge that if a permit is issued for land development activities, no terms of the permit can be violated without further approval by the permitting entity. I understand that the granting of a permit does not authorize anyone to violate in any way any federal, state, or local law/regulation pertaining to development activities associated with a permit.

I hereby certify under penalty of perjury under the laws of the State of Washington that the following is true and correct:

1. I have read and examined this permit application and have documented all applicable requirements on the site plan.
2. The information provided in this application contains no misstatement of fact.
3. I am the owner(s), the authorized agent(s) of the owner(s) of the above referenced property, or I am currently a licensed contractor or specialty contractor under Chapter 18.27 RCW or I am exempt from the requirements of the Chapter 18.27 RCW.
4. I understand this permit is subject to all other local, state, and federal regulations.

*Note: This application will not be processed unless the above certification is endorsed by an authorized agent of the owner(s) of the property in question and/or the owner(s) themselves. If the City of Richland has reason to believe that erroneous information has been supplied by an authorized agent of the owner(s) of the property in question and/or by the owner(s) themselves, processing of the application may be suspended.*

Applicant Printed Name: Scot Bowler

Applicant Signature:  Date 1/21/20



# Looking North



# Looking East



**SITE**  
(east node)

Approx. Prop. Line

# Looking South

Rachel Rd

Plat of Westcliffe Heights



# Looking West

Approx. Prop. Line

(west node)

**SITE**



# Cut Slope





# CITY OF RICHLAND NOTICE OF APPLICATION, PUBLIC HEARING AND OPTIONAL DNS (S2020-101 & EA2020-105)

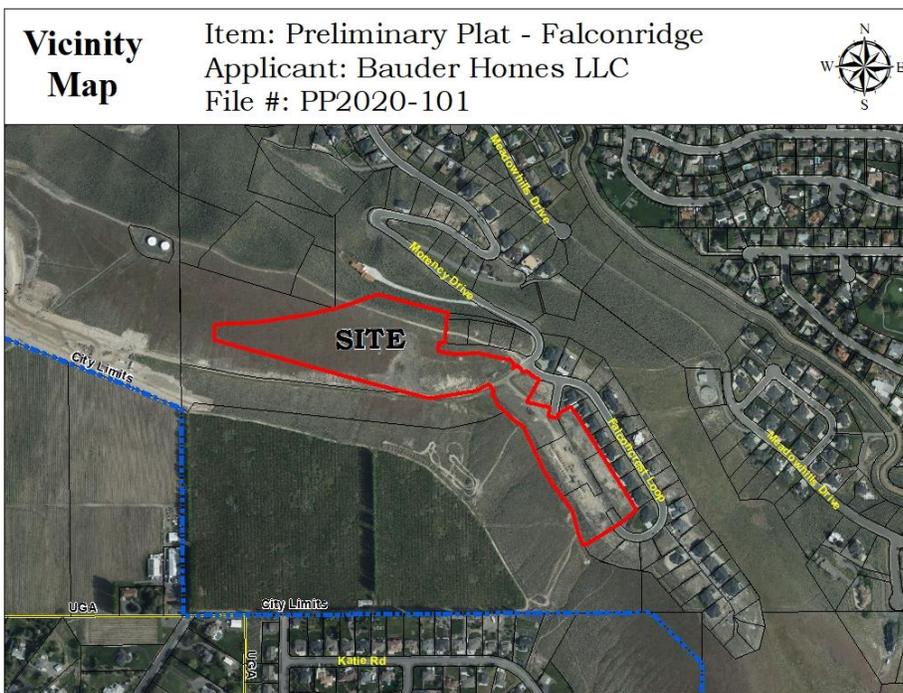
Notice is hereby given that Bauder Homes LLC (Scot Bauder) has filed a preliminary plat application to subdivide an approximately 19.56 acre site into 27 residential lots (Preliminary Plat of Falconridge). The project site is located near the intersection of Morency Drive and Falconcrest Loop upon Assessor's Parcel Numbers 135983000001048, 135983013342007 and 135983013341006. The proposed plat will have an average lot size of 17,769 square feet.

The Richland Hearings Examiner will conduct a public hearing and review of the application at 6:00 p.m., Monday, April 13, 2020 in the Richland City Hall Council Chambers, 625 Swift Boulevard. All interested parties are invited to attend and present testimony at the public hearing.

**Environmental Review:** The proposal is subject to environmental review. The City of Richland is lead agency for the proposal under the State Environmental Policy Act (SEPA) and has reviewed the proposed project for probable adverse environmental impacts and expects to issue a determination of non-significance (DNS) for this project. The optional DNS process in WAC 197-11-355 is being used. This may be your only opportunity to comment on the environmental impacts of the proposed development. The environmental checklist and related file information are available to the public and can be viewed at [www.ci.richland.wa.us](http://www.ci.richland.wa.us).

Any person desiring to express their views or to be notified of any decisions pertaining to this application should notify Shane O'Neill, Senior Planner, 625 Swift Boulevard, MS-35, Richland, WA 99352. Comments may also be faxed to (509) 942-7764 or emailed to [soneill@ci.richland.wa.us](mailto:soneill@ci.richland.wa.us). Written comments should be received no later than 5:00 p.m. on Friday, March 20, 2020 to be incorporated into the staff report. Comments received after that date will be entered into the record at the hearing.

The application will be reviewed in accordance with the regulations in RMC Title 19 Development Regulations Administration and Title 24 Plats and Subdivisions. Appeal procedures of decisions related to the above referenced application are set forth in RMC Chapter 19.70. Contact the Richland Planning Division at the above referenced address with questions related to the available appeal process.



Please publish the following:

Type of Legal Ad: Public Hearing Notice  
Date(s) of Publication: Sunday, March 1, 2020  
Richland's TCH Account:  
450543  
**For Invoice Text Box on TCH Invoice** PC PHN – S2020-101  
(Richland MUNIS Description)  
**For PO Box on TCH Invoice** D2586000 4401  
(Richland Account No. - MUNIS)  
Attention: Jana Duncan (TF)

\*\*\*\*\*

**CITY OF RICHLAND  
NOTICE OF APPLICATION, PUBLIC HEARING AND OPTIONAL DNS**

The City of Richland received a preliminary plat application from Bauder Homes LLC to subdivide an approximately 19.56 acre site into 27 lots (Preliminary Plat of Falconridge). The project site is located near the intersection of Morency Drive and Falconcrest Loop upon Assessor's Parcel Numbers 135983000001048, 135983013342007 and 135983013341006.

The Richland Hearings Examiner will conduct a public hearing and review of the application at 6:00 p.m., Monday, April 13, 2020 in the Richland City Hall Council Chambers, 625 Swift Boulevard. All interested parties are invited to attend and present testimony at the public hearing.

The proposal is subject to environmental review. The City of Richland is lead agency for the proposal under the State Environmental Policy Act (SEPA) and has reviewed the proposed project for probable adverse environmental impacts and expects to issue a determination of non-significance (DNS) for this project. The optional DNS process in WAC 197-11-355 is being used. This may be your only opportunity to comment on the environmental impacts of the proposed development. The environmental checklist and related file information are available to the public and can be viewed at [www.ci.richland.wa.us](http://www.ci.richland.wa.us).

Any person desiring to express their views or to be notified of any decisions pertaining to this application should notify Shane O'Neill, Senior Planner, 625 Swift Boulevard, MS-35, Richland, WA 99352. Comments may also be faxed to (509) 942-7764 or emailed to [soneill@ci.richland.wa.us](mailto:soneill@ci.richland.wa.us). Written comments should be received no later than 5:00 p.m. on Friday, March 20, 2020 to be incorporated into the staff report. Comments received after that date will be entered into the record at the hearing.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

**AFFIDAVIT OF MAILING**

STATE OF WASHINGTON )  
 ) ss.  
COUNTY OF BENTON )

COMES NOW, Briana Ghbein, who, being first duly sworn upon oath deposes and says:

1. I am an employee in the Planning & Development Department for the City of Richland.
2. On the 24<sup>th</sup> day of February, 2020, I mailed a copy of the attached NOTICE OF APPLICATION, PUBLIC HEARING AND OPTIONAL DNS (S2020-101 & EA2020-105) to the attached list of individuals via regular USPS on the date indicated above. The Richland Hearing Examiner will conduct a public hearing at 6:00 PM on Monday, April 13, 2020 in the Richland City Council Chambers, 625 Swift Boulevard.

  
Signed: Briana Ghbein

SIGNED AND SWORN to before me this 24<sup>th</sup> day of February, 2020 by Jennifer Schuster.



  
Notary Public in and for the State of Washington,  
  
Print Name  
Residing at 625 Swift Blvd  
My appointment expires: 4-25-23



## CITY OF RICHLAND NOTICE OF APPLICATION, PUBLIC HEARING AND OPTIONAL DNS (S2020-101 & EA2020-105)

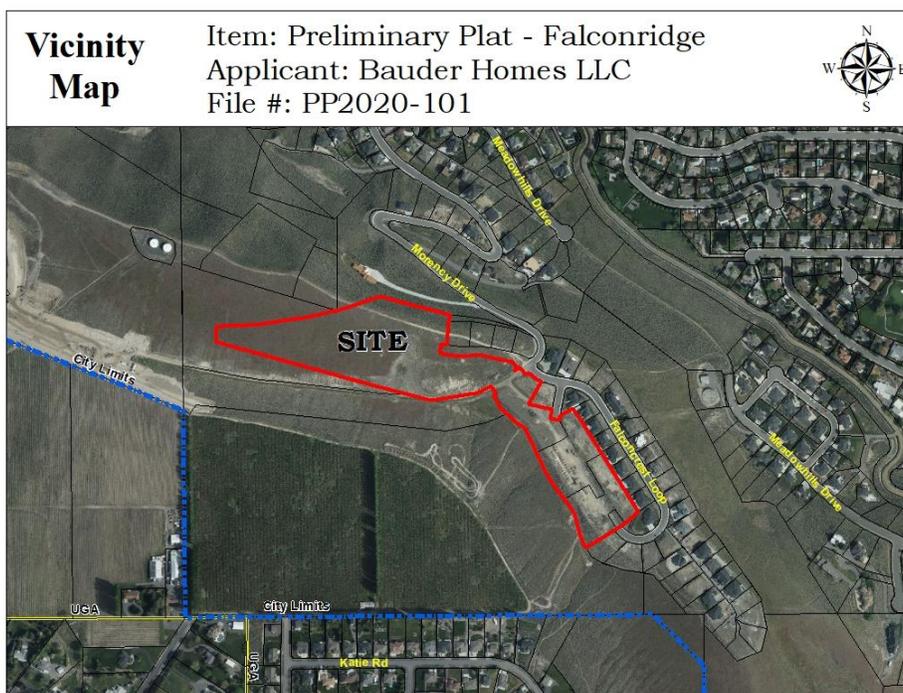
Notice is hereby given that Bauder Homes LLC (Scot Bauder) has filed a preliminary plat application to subdivide an approximately 19.56 acre site into 27 residential lots (Preliminary Plat of Falconridge). The project site is located near the intersection of Morency Drive and Falconcrest Loop upon Assessor's Parcel Numbers 135983000001048, 135983013342007 and 135983013341006. The proposed plat will have an average lot size of 17,769 square feet.

The Richland Hearings Examiner will conduct a public hearing and review of the application at 6:00 p.m., Monday, April 13, 2020 in the Richland City Hall Council Chambers, 625 Swift Boulevard. All interested parties are invited to attend and present testimony at the public hearing.

**Environmental Review:** The proposal is subject to environmental review. The City of Richland is lead agency for the proposal under the State Environmental Policy Act (SEPA) and has reviewed the proposed project for probable adverse environmental impacts and expects to issue a determination of non-significance (DNS) for this project. The optional DNS process in WAC 197-11-355 is being used. This may be your only opportunity to comment on the environmental impacts of the proposed development. The environmental checklist and related file information are available to the public and can be viewed at [www.ci.richland.wa.us](http://www.ci.richland.wa.us).

Any person desiring to express their views or to be notified of any decisions pertaining to this application should notify Shane O'Neill, Senior Planner, 625 Swift Boulevard, MS-35, Richland, WA 99352. Comments may also be faxed to (509) 942-7764 or emailed to [soneill@ci.richland.wa.us](mailto:soneill@ci.richland.wa.us). Written comments should be received no later than 5:00 p.m. on Friday, March 20, 2020 to be incorporated into the staff report. Comments received after that date will be entered into the record at the hearing.

The application will be reviewed in accordance with the regulations in RMC Title 19 Development Regulations Administration and Title 24 Plats and Subdivisions. Appeal procedures of decisions related to the above referenced application are set forth in RMC Chapter 19.70. Contact the Richland Planning Division at the above referenced address with questions related to the available appeal process.



<b>Owner</b>	<b>Mail Address</b>	<b>City</b>	<b>State</b>	<b>Zip</b>
BAUDER HOMES LLC	2495 MORENCY DR	RICHLAND	WA	99352
FRIENDS OF BADGER MOUNTAIN	PO BOX 24	RICHLAND	WA	99352
BAUDER LAND AND DEVELOPMENT INC	823 SUMMIT ST	RICHLAND	WA	99352
BAUDER SCOT J & CORTNEY L	2472 FALCONCREST LOOP	RICHLAND	WA	99352
BAUDER MILO	2495 MORENCY DR	RICHLAND	WA	99352
LUKE JULIE	1495 BADGER MTN LOOP	RICHLAND	WA	99352
BAUDER ESTATE LLC	6855 W CLEARWATER #101-153	KENNEWICK	WA	99336
SULLIVAN CORNELIUS J	2521 FALCONCREST LOOP	RICHLAND	WA	99352
WANG ZHEMING	2525 FALCONCREST LOOP	RICHLAND	WA	99352
AZUMA MIE	2591 FALCONCREST LP	RICHLAND	WA	99352
SANTANA ANTHONY A	2517 FALCONCREST LOOP	RICHLAND	WA	99352
ALVARADO CHAVEZ YOVANNY & MONICA L	2513 FALCONCREST LOOP	RICHLAND	WA	99352
HANSON DONALD W & SALLY O	2539 FALCONCREST LOOP	RICHLAND	WA	99352
CATS KARLEE R	2551 FALCONCREST LOOP	RICHLAND	WA	99352
HANSENS JOHN E	2531 FALCONCREST LOOP	RICHLAND	WA	99352
HERRIN JOHN G & EARLENE J	2535 FALCONCREST LOOP	RICHLAND	WA	99352

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

**AFFIDAVIT OF POSTING**

STATE OF WASHINGTON )  
 ) ss.  
COUNTY OF BENTON )

COMES NOW, **Michael Stevens**, who, being first duly sworn upon oath deposes and says:

1. I am an employee in the Planning Division of the Development Services Department for the City of Richland.

2. On the 24<sup>th</sup> day of February, 2020, I posted the attached NOTICE OF PUBLIC HEARING, File Number S2020-101 (Falconridge Preliminary Plat) in the following locations:

Northwest corner of the intersection of Falconcrest Loop and Morency Drive, Richland, WA

Signed: Michael Stevens

SIGNED AND SWORN to before me this 11<sup>th</sup> day of March, 2020, by Michael Stevens.

Signature of Notary

Briana C. Gibein  
Printed Name

Notary Public in and for the State of Washington,

Residing in Benton County

My appointment expires: 4-25-23





## AFFIDAVIT OF PUBLICATION

Account #	Ad Number	Identification	PO	Amount	Cols	Depth
450543	0004582055	PC PHN – S2020-101 (Richland MUNIS Descript	D2586000 4401	\$135.95	1	4.97 In

**Attention:** Jana Duncan (TF)

RICHLAND CITY OF/LEGALS  
 625 SWIFT BLVD.  
 RICHLAND, WA 99352

**CITY OF RICHLAND  
 NOTICE OF APPLICATION,  
 PUBLIC HEARING AND OPTIONAL  
 DNS**

The City of Richland received a preliminary plat application from Bauder Homes LLC to subdivide an approximately 19.56 acre site into 27 lots (Preliminary Plat of Falconridge). The project site is located near the intersection of Morency Drive and Falconcrest Loop upon Assessor's Parcel Numbers 135983000001048, 135983013342007 and 135983013341006.

The Richland Hearings Examiner will conduct a public hearing and review of the application at 6:00 p.m. on Monday, April 13, 2020 in the Richland City Hall Council Chambers, 625 Swift Boulevard. All interested parties are invited to attend and present testimony at the public hearing.

The proposal is subject to environmental review. The City of Richland is lead agency for the proposal under the State Environmental Policy Act (SEPA) and has reviewed the proposed project for probable adverse environmental impacts and expects to issue a determination of non-significance (DNS) for this project. The optional DNS process in WAC 197-11-355 is being used. This may be your only opportunity to comment on the environmental impacts of the proposed development. The environmental checklist and related file information are available to the public and can be viewed at [www.ci.richland.wa.us](http://www.ci.richland.wa.us).

Any person desiring to express their views or to be notified of any decisions pertaining to this application should notify Shane O'Neill, Senior Planner, 625 Swift Boulevard, MS-35, Richland, WA 99352. Comments may also be faxed to (509) 942-7764 or emailed to [sonell@ci.richland.wa.us](mailto:sonell@ci.richland.wa.us). Written comments should be received no later than 5:00 p.m. on Friday, March 20, 2020 to be incorporated into the staff report. Comments received after that date will be entered into the record at the hearing.  
 Published: Sunday, March 1, 2020

COUNTY OF BENTON)

.SS

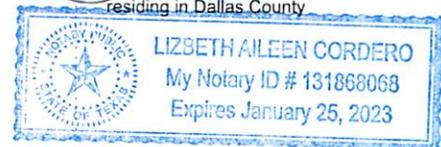
STATE OF WASHINGTON)

Victoria Rodela, being duly sworn, deposes and says, I am the Legals Clerk of The Tri-City Herald, a daily newspaper. That said newspaper is a local newspaper and has been approved as a legal newspaper by order of the superior court in the county in which it is published and it is now and has been for more than six months prior to the date of the publications hereinafter referred to, published continually as a daily newspaper in Benton County, Washington. That the attached is a true copy as it was printed in the regular and entire issue of the Tri-City Herald and not in a supplement thereof, ran 1 time(s) commencing on 03/01/2020, and ending on 03/01/2020, and that said newspaper was regularly distributed to its subscribers during all of this period.

(Signature of Legals Clerk)

SUBSCRIBED AND SWORN BEFORE  
 ME THIS 2nd DAY OF March, 2020

Notary Public in and for the State of Texas  
 residing in Dallas County



## **SEPA ENVIRONMENTAL CHECKLIST**

### **Purpose of checklist:**

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

### **Instructions for applicants:**

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

### **Instructions for Lead Agencies:**

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

### **USE OF CHECKLIST FOR NONPROJECT PROPOSALS:**

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

## A. BACKGROUND

1. Name of proposed project, if applicable: Plat of Falconridge
2. Name of applicant: Bauder Homes LLC
3. Address and phone number of applicant and contact person:  
2742 Falconcrest Loop, Richland WA 99352
4. Date checklist prepared: 1-20-2020
5. Agency requesting checklist: City of Richland Planning Department
6. Proposed timing or schedule (including phasing, if applicable):  
Summer 2020-Fall 2022 (tentative)
7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.  
No
8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.  
None
9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.  
No
10. List any government approvals or permits that will be needed for your proposal, if known.  
Planning department approval of subdivision, Public Works department approval of construction plans
11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)  
27 lot Long Plat

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

Intersection of Falconcrest and Morency

---

---

---

---

---

## B. ENVIRONMENTAL ELEMENTS

### 1. EARTH

a. General description of the site:

(circle one): Flat, rolling, hilly, steep slopes, mountainous, other \_\_\_\_\_

b. What is the steepest slope on the site (approximate percent slope)?

25%

---

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Gravel, rock, clay

---

---

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No

---

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

Minor grading for new roads & house pads (mostly completed already under prior permits)

---

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

No

---

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? 10%

---

---

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Engineered storm drain system to be installed as part of road construction

---

## 2. AIR

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Minor dust during construction phase

---

---

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No

---

---

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Dust control during construction including water trucks & sprinklers

---

---

## 3. WATER

- a. Surface Water:

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

No

---

---

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

No

---

---

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

None

---

---

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

No

---

---

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

No

---

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

No

---

---

b. Ground Water:

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

No

---

---

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

None

---

---

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Storm water only; flow will be to engineered storm drain system

---

---

2) Could waste materials enter ground or surface waters? If so, generally describe.

No

---

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

No

---

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

Engineered storm drain system

---

---

#### 4. PLANTS

a. Check the types of vegetation found on the site:

- deciduous tree: alder, maple, aspen, other
- evergreen tree: fir, cedar, pine, other
- shrubs
- grass
- pasture
- crop or grain
- Orchards, vineyards or other permanent crops.
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

Minimal - site is mostly cleared & grubbed already

---



---

c. List threatened and endangered species known to be on or near the site.

None

---



---

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Landscaping around 27 single family homes

---



---

e. List all noxious weeds and invasive species known to be on or near the site.

None

---



---

## 5. ANIMALS

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site.

Examples include:

birds: hawk, heron, eagle, songbirds, other:

mammals: deer, bear, elk, beaver, other:

fish: bass, salmon, trout, herring, shellfish, other \_\_\_\_\_

Songbirds

---



---

b. List any threatened and endangered species known to be on or near the site.

None

---

c. Is the site part of a migration route? If so, explain.

No

---

d. Proposed measures to preserve or enhance wildlife, if any:

None

---

e. List any invasive animal species known to be on or near the site.

None

---

## 6. ENERGY AND NATURAL RESOURCES

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Electric

---

---

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No

---

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

Energy efficient house design

---

## 7. ENVIRONMENTAL HEALTH

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

1) Describe any known or possible contamination at the site from present or past uses.

None

---

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

None

---

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

None

---

4) Describe special emergency services that might be required.

---

5) Proposed measures to reduce or control environmental health hazards, if any:

None

---

---

**B. NOISE**

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

Traffic

---

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

None

---

3) Proposed measures to reduce or control noise impacts, if any:

None

---

**8. LAND AND SHORELINE USE**

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

Site is currently vacant. Adjoining parcels are single family homes

---

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

No

---

---

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

No

---

---

c. Describe any structures on the site.

None

---

---

d. Will any structures be demolished? If so, what?

No

---

---

e. What is the current zoning classification of the site?

R-1-10

---

f. What is the current comprehensive plan designation of the site?

---

g. If applicable, what is the current shoreline master program designation of the site?

NA

---

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

No

---

i. Approximately how many people would reside or work in the completed project?

100

---

j. Approximately how many people would the completed project displace?

None

---

k. Proposed measures to avoid or reduce displacement impacts, if any:

None

---

---

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

None

---

---

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

None

---

---

**9. HOUSING**

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

27 middle income single family homes

---

- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None

---

- c. Proposed measures to reduce or control housing impacts, if any:

None

---

**10. AESTHETICS**

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

30'

---

- b. What views in the immediate vicinity would be altered or obstructed?

None

---

- c. Proposed measures to reduce or control aesthetic impacts, if any:

None

---

**11. LIGHT AND GLARE**

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Normal household lighting

---

---

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

No

---

---

- c. What existing off-site sources of light or glare may affect your proposal?

None

---

---

- d. Proposed measures to reduce or control light and glare impacts, if any:

None

---

---

**12. RECREATION**

a. What designated and informal recreational opportunities are in the immediate vicinity?

Hiking on Friends of Badger Mountain & City of Richland hiking trails

---

---

b. Would the proposed project displace any existing recreational uses? If so, describe.

No

---

---

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

None

---

---

**13. HISTORIC AND CULTURAL PRESERVATION**

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers ? If so, specifically describe.

No

---

---

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

No

---

---

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

None

---

---

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

None

---

---

**14. TRANSPORTATION**

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

Morency Dr; Falconcrest Loop. New roads will connect to existing

---

---

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

Yes, part of Ben Franklin Transit system. Nearest stop 1.5 miles

---

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

None

---

- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

Construction of new public roads

---

- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No

---

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

270 trips per day, mostly during peak use hours

---

---

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

No

---

---

- h. Proposed measures to reduce or control transportation impacts, if any:

None

---

---

**15. PUBLIC SERVICES**

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

No

---

---

b. Proposed measures to reduce or control direct impacts on public services, if any.

None

## 16. UTILITIES

a. Circle utilities currently available at the site:

electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system,  
other \_\_\_\_\_

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Electricity, water, sewer, cable TV, telephone

## C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: \_\_\_\_\_

Name of signee \_\_\_\_\_

Position and Agency/Organization \_\_\_\_\_

Date Submitted: \_\_\_\_\_

File No. EA2020-105

**CITY OF RICHLAND**  
**Determination of Non-Significance**

**Description of Proposal:** Preliminary Plat of Falconridge.

**Proponent:** Bauder Homes, LLC

**Location of Proposal:** The project site is located near the intersection of Morency Drive and Falconcrest Loop upon Assessor's Parcel Numbers 135983000001048, 135983013342007 and 135983013341006.

**Lead Agency:** City of Richland

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

( ) There is no comment for the DNS.

( ) This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal for fourteen days from the date of issuance.

( X ) This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS.

**Responsible Official:** Mike Stevens

**Position/Title:** Planning Manager

**Address:** 625 Swift Blvd., MS #35, Richland, WA 99352

**Date:** March 26, 2020

**Signature** 



2015 South Ely Street  
Kennewick, WA 99337  
Customer Service 509-586-9111  
Business 509-586-6012  
FAX 509-586-7663  
[www.kid.org](http://www.kid.org)

March 19, 2020

Shane O'Neill  
Senior Planner  
**City of Richland**  
505 Swift Blvd.  
Kennewick, WA 99352

Subject: S2020-101 – Falconridge Preliminary Plat - Review Comments

Dear Mr. O'Neill:

This letter provides Kennewick Irrigation District (KID) review comments for Falconridge Preliminary Plat. The proposed Preliminary Plat is located outside of the KID Boundary, but is located above the Badger East Canal in the WE Quarter of Section 35, Township 09 North, Range 28 East, W.M.

1) Conditions Related to Design, Grading and Construction:

- a. Stormwater systems for the project should be designed to retain, at minimum, a 100-year storm event above the Badger East Lateral Canal and to minimize the introduction of water into the soils upgrading from the canal.

If you have any questions regarding these comments, please contact me at the address/phone number listed below.

Sincerely,

A handwritten signature in blue ink, appearing to read "Rebecca S. Hiles".

Rebecca S. Hiles  
Staff Engineer



## AFFORDABLE GEOTECH SERVICES, LLC

3019 Duportail Street, Suite 174  
Richland, WA 99352  
(509) 948-1770 • (509) 890-8811

Exhibit 8

Mr. Milo Bauder  
2495 Morency Avenue  
Richland, WA 99352

January 22, 2018

Project Number 18003

RE: REPORT  
Geotechnical Evaluation  
Proposed Falconridge Residential Development  
Richland, WA

Dear Milo,

Affordable Geotech Services (AGS) has completed our geotechnical evaluation for the proposed residences located at Falconridge Residential Development in Richland, Washington. The location of the project is shown on the attached Vicinity Map, Figure 1. The purpose of our evaluation was to explore and evaluate subsurface conditions at the site and to provide you with recommendations to assist with the design of the proposed development and residential structures. This report presents the results of our field evaluation, laboratory test results, conclusions and recommendations.

### PROJECT UNDERSTANDING

We understand the project consists of the development of a 4-lot short plat and a 9-lot long plat in Richland according to the plans submitted to us by Spink Engineering titled "Falconridge Grading, Sheets 1 of 2 and 2 of 2" undated. The project site is located west of the intersection of Morency Drive and Falconcrest Loop. The project will include the construction of Falconridge Lane and associated stormwater disposal facilities. We anticipate that the proposed residential structures will likely be a one- to two-story, wood-framed structures. We anticipate that structural loads will be on the order of 1 to 2 kips per lineal foot of wall, and column loads, if any, on the order of 30 kips or less.

### FIELD EXPLORATIONS

We evaluated subsurface conditions at the site by excavating seven test pits (TP-1 through TP-7) on January 9, 2018. The test pits were excavated at locations selected by us and located in the field by Spink Engineering. The test pit locations are shown on the attached Site and Exploration Plan, Figure 2. Infiltration testing was not conducted during our field explorations, as up to 16 feet of material is needed to be excavated from the proposed storm drainage retention pond before infiltration testing can be conducted.

The test pits were excavated to between approximately 2½ and 8 feet below existing site grade with a track-mounted excavator using a 3-foot-wide bucket provided by Mahaffey Enterprises, Inc. under subcontract to Mr. Bauder. All of the test pits were terminated due to refusal on basalt bedrock. An engineer from our firm continuously observed the excavation of the test pits, logged the subsurface conditions, and obtained representative soil samples. The soils encountered in the test pits were visually described and classified in general accordance with ASTM D-2488. Logs of the test pits are presented on the Test Pit Log sheets attached to this report. Soil samples obtained from the test pits were stored in watertight containers and transported to a laboratory for further visual examination and testing.

The test pits were backfilled at the completion of the field evaluation. The backfill was compacted to the degree possible with the bucket on the backhoe, but will settle with time. We recommend that the backfill be removed and replaced with structural fill as recommended herein.

## **LABORATORY TESTING**

Laboratory testing was performed on a representative soil sample obtained from the test pits. The test performed consisted of particle size analysis testing (ASTM C 136). This test was used to assist in soil classification and in the evaluation and formulation of engineering recommendations. The results of the laboratory test performed are attached to this report.

## **SITE CONDITIONS**

### **Location and Surface Conditions**

The project site is located west of the intersection of Morency Drive and Falconcrest Loop. The site is situated atop the middle of Little Badger Mountain. Specifically, the property is located in the southwest quarter of Section 35, Township 9 North, Range 28 East, W.M. approximately as shown on the attached Vicinity Map Figure 1. The site is currently undeveloped and covered with grass and sagebrush. The site slopes down to the south at an approximate 4H:1V (horizontal to vertical) slope, and to the north at an approximate 2H:1V slope.

### **General Soil Conditions**

The USDA Natural Resources Conservation Service (NRCS) has mapped the soils on and around the site in the Soil Survey of Benton County, Washington as Kiona very stony silt loam, 0 to 30 percent slopes (KnE) and 30 to 65 percent slopes (KnF), and Shano silt loam, 30 to 65 percent slopes (ShF).

The Kiona series consists of well-drained, very stony, medium-textured soils underlain by basalt rubble. These soils developed under bunch grasses in a mixture of windblown deposits and basalt residuum. Drainage is good, and permeability is moderate. Runoff is reported as very slow to very rapid, depending on the slope. The hazard of water erosion is reported as slight to very severe, also dependent on the slope.

The Shano series consists of well-drained, medium-textured soils that developed under bunch grasses in silty, windblown deposits. Drainage is good, and permeability is moderate. Runoff is reported as rapid to very rapid, and the hazard of water erosion is severe to very severe. The site soils are shown on the attached NRCS Soil Map, Figure 3.

### **Subsurface Conditions**

We encountered generally similar subsurface conditions at each of the test pit locations. Beneath the surficial vegetation at test pits TP-1, TP-2, TP-3, TP-6 and TP-7, we encountered sandy silt (ML). The sandy silt had varying amounts of gravel in it. We described the sandy silt as being moist to dry, and medium dense. The sandy silt extended to depths ranging between 1 and 7 feet below grade, but generally extended to depths between 1 and 3 feet.

Beneath the sandy silt, and at the ground surface at TP-5, we encountered a silty gravel (GM). We generally described the silty gravel as fine to coarse grained with cobbles, dry and dense. The silty gravel general ranged from 1 to 2.5 feet in thickness. In TP-7, an approximate 1.5-foot layer of sandy silt was encountered within the silty gravel.

Underlying the silty gravel, and at the ground surface at TP-4, we encountered basalt bedrock. The basalt was encountered at depths ranging between about 2.5 to 8 feet below the ground surface. At TP-4, the surficial soils had been removed from atop the bedrock. We generally described the basalt bedrock as dark grey, moderately fractured, and slightly to moderately weathered. All of the test pits were terminated in the basalt bedrock.

Groundwater was not encountered in the test pits. Detailed descriptions of the soil and geologic conditions encountered in the test pits are presented on the test pit logs attached with this report. The Unified Soil Classification System chart is also included for reference.

### **Liquefaction**

Liquefaction may occur in loose, saturated cohesionless soils when they are subjected to earthquake ground motions. Liquefaction potential at the site was evaluated using the DCP (N-value) based method outlined in Seed and Harden (1990) and using the subsurface information from the test pits. The site soils are generally comprised of sandy silt that is medium dense, and in our opinion, the groundwater table is well below the site to influence the soils during a seismic event. Additionally, the mapped maximum earthquake  $S_s$  is less than 0.5g, therefore no liquefaction analysis is required for the site. In our opinion, the chance of liquefaction occurring at the site is extremely unlikely.

### **Slope Stability**

We developed a slope profile based on the proposed grading plan and soil information. We estimated the soil strength parameters based on our experience with similar soils. We based our slope profile on soil conditions and ground surface elevations as they currently exist with the residential improvements constructed. We evaluated the slope stability using the computer program STB2006. Over 100 critical failure areas were analyzed and reviewed. In general, geotechnical professionals consider a slope with a 1.5 or greater safety factor stable for long term conditions.

The results indicate the residential improvements have a safety factor greater than 1.5; therefore, the slope is considered stable for long term conditions. No indications of slope instability were observed during our field investigation. Based on our analysis, the placement of the structures on the property does not adversely impact the stability of the slope.

## **CONCLUSION AND RECOMMENDATIONS**

### **General**

Based on the results of our site explorations and general understanding of the proposed construction, it is our opinion that that the proposed residential development can generally be constructed as envisioned. Our conclusions and recommendations are based on our project understanding and experience with similar soil conditions. If soil conditions are encountered during construction that differ from those described in this report, we should be notified so that we may update our opinions and recommendations, if necessary. Specific recommendations for project design and construction are included in the following paragraphs of this report.

### **Pre-Wetting**

Because of the dry soil conditions at the site, moisture conditioning will be necessary to facilitate the compaction of structural fill at the site and for dust control. We recommend pre-watering the areas to be excavated. By pre-watering, the moisture content of the soil can be brought to near optimum moisture content, thereby reducing the need to add water during the placement of the structural fill. Significant savings in time and effort during compaction can often be realized through pre-watering the excavation areas.

### **Site Preparation**

Initial site preparation will include the removal of any existing vegetation from the site. We recommend that all vegetation and root zone be excavated and removed from the proposed construction area. After clearing and stripping operations are complete, we recommend that the exposed soil be scarified, moisture-conditioned, and compacted to at least 92 percent of the maximum dry density as determined by ASTM D 1557 (modified proctor) prior to construction or the placement of structural fill. Soft or pumping areas which cannot be adequately compacted should be over-excavated to firm soil or to a depth of 2 feet, whichever is less, and replaced with structural fill compacted to 95 percent of the modified proctor maximum dry density.

### **Structural Fill**

Based on our explorations, it is our opinion that the native sandy silt and silty sand at the site are generally suitable for reuse as structural fill provided the materials are moisture conditioned for compaction and free of debris, organic material, and frozen soil. In our opinion, excavated basalt bedrock is also suitable for reuse as structural fill provided rock particles greater than about 10 inches in diameter are screened or graded out.

We recommend imported structural fill consist of granular material such as sands or gravels containing less than about 10 percent fines (material passing a No. 200 sieve). Imported structural fill should also be free of debris, organic material, frozen soil and rock particles greater than about 4 inches in diameter.

We recommend structural fill be moisture conditioned within about 2 percentage points of optimum moisture content and placed in horizontal lifts no thicker than 8 inches before compaction. We recommend structural fill be compacted to at least 95 percent of the maximum dry density as determined by ASTM D 1557 (modified proctor). For structural fill too coarse to permit density testing, greater than 30 percent retained on the  $\frac{3}{4}$ -inch sieve (basalt shot rock), we recommend evaluation of compaction be accomplished through visual observation of proof-rolling. We recommend the proof-rolling be observed by a qualified geotechnical engineer to determine if the intent of the compaction specification has been achieved.

Non-structural fill should be placed in loose lifts not exceeding 12 inches in thickness and compacted to at least 85 percent of maximum dry density. Structural fill should not be placed on or over topsoil, non-structural fill, wet or frozen soils, or other unsuitable materials.

### **Temporary Excavations**

Based on our subsurface explorations, it is our opinion the native soils can be excavated with standard soil excavation equipment. We characterized the soils encountered as Type C soils according to OSHA guidelines. We therefore recommend excavations greater than four feet deep be sloped no steeper than 1½H:1V (horizontal to vertical). Alternatively, deeper excavations may be shored or braced in accordance with OSHA specifications and local codes. We recommend excavations within fractured bedrock be sloped no steeper than ½H:1V. The project contractor will be responsible for ensuring that excavations are properly constructed for worker protection.

### **Slope Construction**

Fill placed on slopes steeper than 5H:1V should be keyed and benched into the existing native soils or basalt bedrock. We recommend keyways be constructed 10 feet horizontally and a minimum of 5 feet vertically in locations where fill will be placed where it is greater than 5 feet in thickness. We recommend that benches be cut into the native slope a minimum of 10 feet horizontally and a minimum of 2 feet vertically. We recommend that the exposed soil of each bench be scarified, moisture-conditioned, and compacted to at least 92 percent of the maximum dry density prior to the placement of structural fill. If excavations for cut slopes expose basalt bedrock, the exposed surface should be proof-rolled as recommended above.

Fill slopes should be constructed with suitable structural fill prepared, placed and compacted as recommended above. We recommend that permanent cut and fill slopes be inclined no steeper than 2H:1V. Fill slopes should be overbuilt and then trimmed back to uniformly compacted material. The final slope surface should be track-walked or grid rolled to improve the slope's resistance to erosion. We recommend that surface drainage be directed away from all slope faces.

### **Slope Protection**

The site soils are prone to erosion and will require protection and maintenance. Since the site soils are susceptible to wind and water erosion, it is strongly recommended that erosion control measures such as proper grading, erosion control blankets or fabrics, sprayed tackifiers, the rapid establishment of new vegetation or some combination of these, be utilized on all slopes comprised of the native soils within this project.

### **Foundations**

Based on the data obtained from our field explorations and the test pit logs, it is our opinion that foundations for the proposed residential structures can be supported on compacted native soils, basalt bedrock, or structural fill placed on the compacted native soils or basalt bedrock. In order to reduce the potential for differential settlement, we do not recommend that foundations bear on a combination of native soils and basalt bedrock or basalt shot rock structural fill. We recommend that exterior foundations bear at least 24 inches below the exposed ground surface for frost protection or as required by local building codes.

We recommend that exposed foundation subgrades be compacted to 95 percent of the modified proctor maximum dry density. Foundation subgrades should be compacted to at least 12 inches horizontally beyond the footing perimeter. We recommend that foundation bearing surfaces be free of loose soil and debris. Foundations should not bear on topsoil, non-structural fill, or other unsuitable materials. We recommend that an experienced geotechnical engineer observe foundation subgrades to evaluate if suitable bearing soils are exposed and prepared as recommended prior to having the footing forms placed.

It is our opinion that foundations bearing on native soil prepared as recommended above may be designed using an allowable net soil bearing pressure of 1,500 pounds per square foot (psf). Foundations bearing on basalt bedrock or basalt shot rock structural fill may be designed using an allowable net bearing pressure of 4,000 psf. These bearing pressures may be increased by one-third for short-term wind and seismic conditions.

If the previous recommendations are implemented, it is our opinion that total settlement will be approximately 1 inch or less and that differential settlement will be less than ½ inch. We estimate that settlement of the native soil or structural fill occur rapidly with the application of loads during construction. If foundation subgrades become disturbed during construction and loose soil is not removed, settlements larger than those estimated may occur.

We recommend that all backfill placed on the exterior sides of the foundation walls be compacted to a minimum of 90 percent of the modified proctor maximum dry density. Beneath pads, slabs and steps, backfill should be compacted to a minimum of 95 percent of the modified proctor maximum dry density. Backfill should be brought up uniformly on both sides of foundation walls to minimize the potential for displacement.

### **Slope Setbacks**

In accordance with IBC 2015 Section 1808.7.2 *Foundation Setback from Descending Slope Surface*, “Foundations on or adjacent to slope surfaces shall be founded in firm material with an embedment and setback from the slope surface sufficient to provide vertical and lateral support for the foundation without detrimental settlement. Where the slope is steeper than 1 unit vertical in 1 unit horizontal (100-percent slope), the required set back shall be measured from an imaginary plane 45 degrees to the horizontal, projected upward from the toe of the slope.” We recommend that the building footprint shall be setback from the top of the slope for a distance of a minimum of 10 feet and 10 feet from the bottom of the slope. The long term performance of the structure near slopes is dependent on the protection of slopes from erosion or over steepening by cutting into the toe of the slope. Lots should be maintained to prevent erosion or undermining the toe. If the slopes will be modified from their constructed configuration, we recommend properly designed retaining walls should be used.

### **Seismic Conditions**

Based on our test pits and our review of well logs in the vicinity of the site, we interpret the site to be classified as Site Class D in accordance with Table 20.3-1 of Chapter 20 of ASCE 7. The spectral response accelerations for short periods ( $S_s$ ) and a 1-second period ( $S_1$ ) in the vicinity of the site were determined from Figures 1613.3.1(1) and 1613.3.1(2) of the 2015 IBC, respectively. The mapped  $S_s$  coefficient for the site is 0.424 and the mapped  $S_1$  coefficient for the site is 0.163.

### **Lateral Foundation Resistance**

Lateral foundation loads will be resisted by friction against the base of the foundation and the passive earth pressure acting against the sides of the foundation. For sliding resistance at the base of foundations, we recommend using a frictional coefficient of 0.4 for the contact between the foundation concrete and basalt bedrock or basalt shot rock structural fill. The passive earth pressure resulting from compacted soil backfill against the sides of foundations can be calculated as an equivalent fluid pressure using a fluid unit weight of 230 pounds per cubic foot (pcf). Both of the above values include a safety factor of about 1.5.

### **Concrete Slabs-On-Grade**

We anticipate slab subgrades will consist of compacted native soils or structural fill. We recommend that slab subgrades be compacted to a minimum of 95 percent of the modified proctor maximum dry density. We recommend concrete slabs-on-grade be underlain by a minimum of 6 inches of crushed aggregate base. We recommend using Washington Department of Transportation (WSDOT) crushed surfacing below slabs (Standard Specification 9-03.9(3)). The crushed surfacing should be compacted to a minimum of 95 percent of the modified proctor maximum dry density.

## EVALUATION LIMITATIONS

This report is for the exclusive use of Mr. Milo Bauder and his agents for use in design of the proposed project and preparation of construction documents. This report has been prepared to assist with the design and construction of the proposed Falconridge Residential Development in Richland, Washington. The information contained herein is not applicable to other sites. In the absence of our written approval, we make no representations and assume no responsibility to other parties regarding this report. The data, analyses, and recommendations presented may not be appropriate for other structures or purposes.

The analyses and recommendations submitted in this report are based on the data obtained from the test pits excavated at the locations indicated on the attached Site and Exploration Plan, Figure 2. It should be recognized that the explorations performed for this evaluation reveal subsurface conditions only at specific locations on the project site and that conditions in other areas could vary. Furthermore, the nature and extent of any such variations would not become evident until additional explorations are performed or until construction activities have begun. If significant variations are observed at that time, we may need to modify the conclusions and recommendations contained in this report to reflect the actual conditions encountered.

If there is a substantial lapse of time between the submission of this report and the start of work at the site, or if site conditions have changed due to natural causes or construction operations at or adjacent to the site, or if the basic project design is significantly modified from that assumed, we recommend that this report be reviewed to determine if the conclusions and recommendations contained herein are still applicable. Please see Important Information about Your Geotechnical Engineering Report attached to this report.

Our services consist of professional opinions and conclusions made in accordance with generally accepted geotechnical engineering principles and practices. This acknowledgement is in lieu of all warranties either expressed or implied.

We appreciate the opportunity to be of service. If you have any questions regarding this report or need additional information, please call us at (509) 890-8811.

Sincerely,

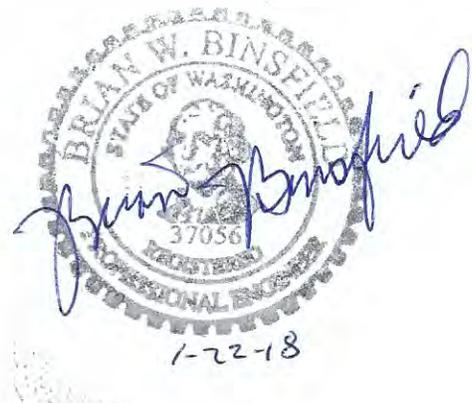
**AFFORDABLE GEOTECH SERVICES, LLC**



Brian W. Binsfield, P.E.  
Principal Engineer

BWB/gsl

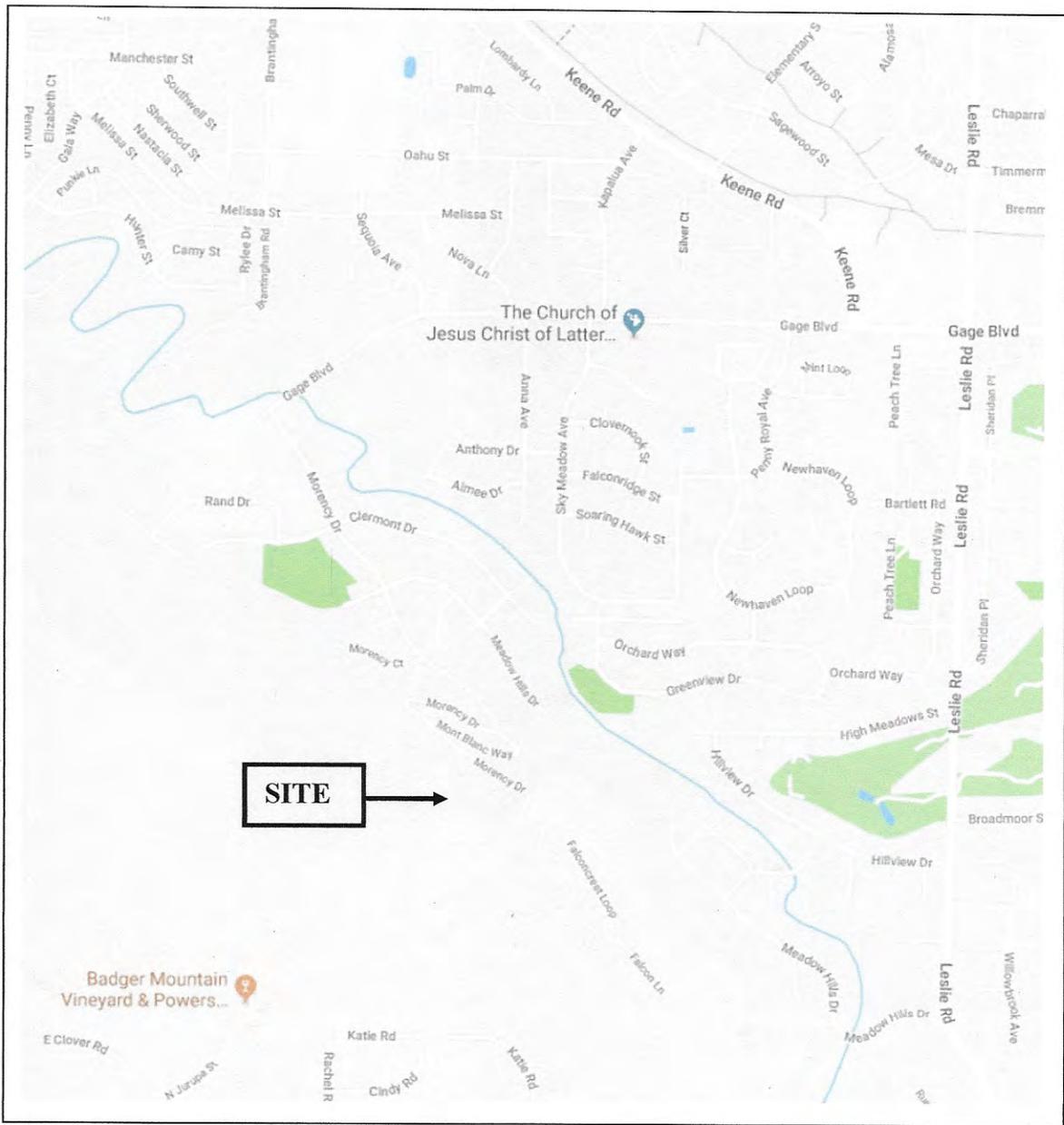
Addressee – MBauder2001@charter.net  
scotbauder@gmail.com



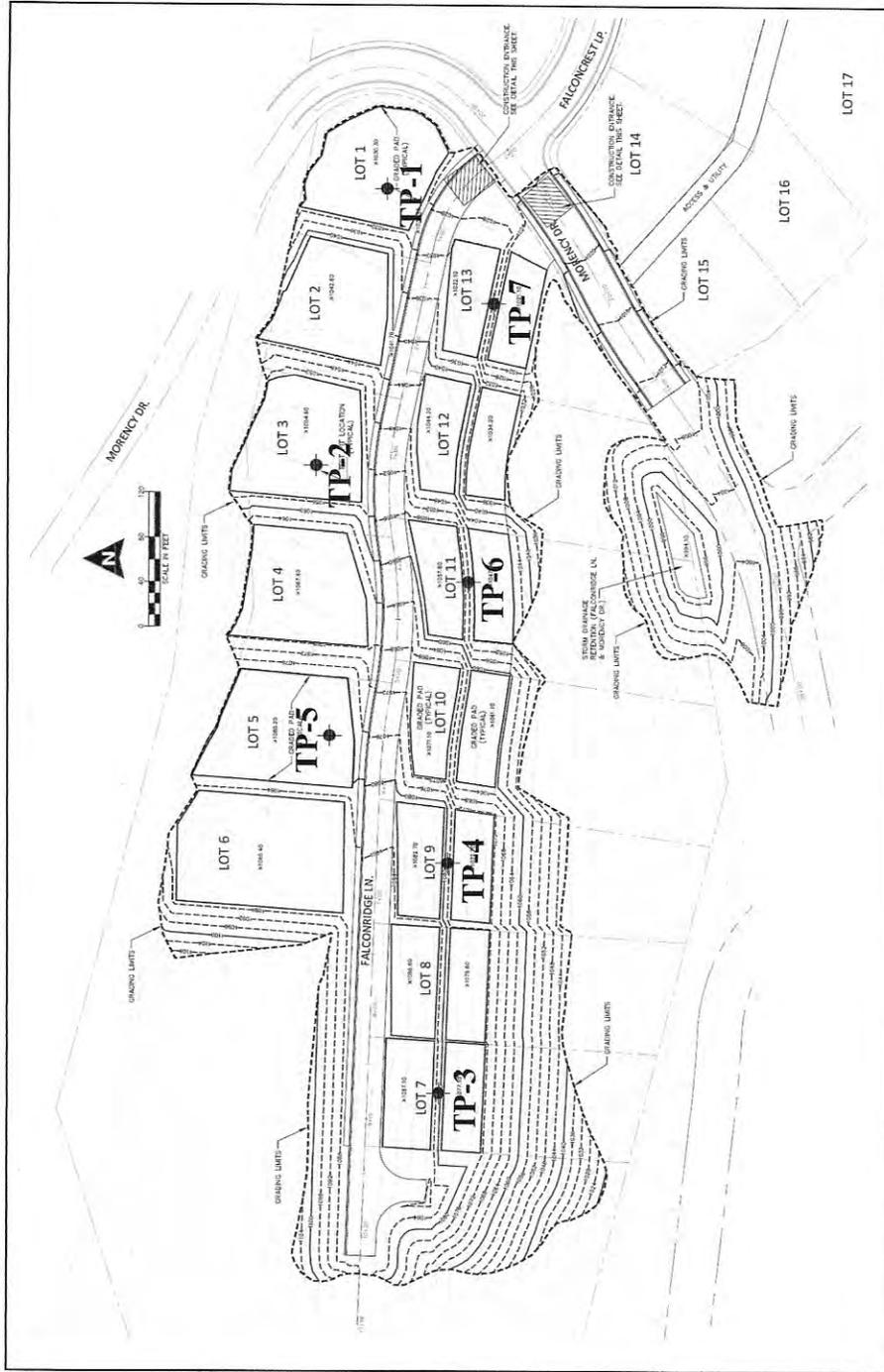
**Affordable Geotech Services**

• Geotechnical • Geological • Retaining Walls • Construction Observation •

Attachments: Figure 1, Vicinity Map  
Figure 2, Site and Exploration Plan  
Figure 3, NRCS Soil Map  
Test Pit Logs (2)  
Unified Soil Classification System  
Sieve Analysis  
Important Information About Your Geotechnical Engineering Report



	<b>VICINITY MAP</b>		<b>Figure</b>  <b>1</b>
	Falconridge Residential Development Richland, Washington		
	January 2018	Project No. 18003	



## SITE AND EXPLORATION PLAN

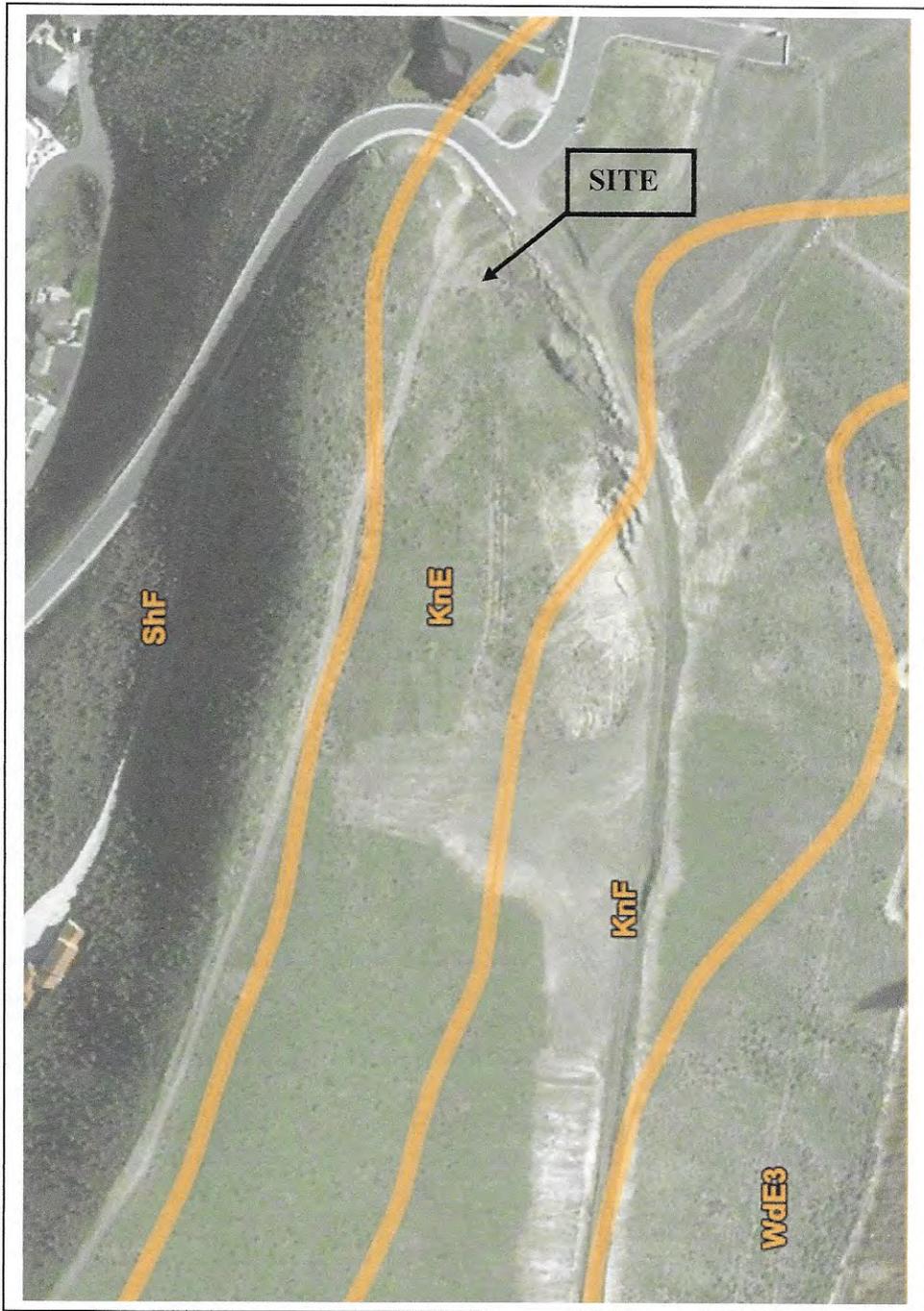
Falconridge Residential Development  
 Richland, Washington

January 2018

Project No. 18003

Figure

2



**NRCS SOIL MAP**

Falconridge Residential Development  
Richland, Washington

January 2018

Project No. 18003

**Figure**

**3**

## TEST PIT LOGS

<u>Depth (feet)</u>	<u>USCS Soil Classification</u>	<u>Location &amp; Description</u>
<b><u>TP-1</u></b>		
Lot 1, Ground Surface Elevation: 1,035.5		
0.0 – 3.0	ML	SANDY SILT w/ GRAVEL, lt. brown, moist to dry, medium dense
3.0 – 4.0	GM	SILTY GRAVEL, fine to coarse grained, with cobbles, lt. brown, dry, dense
4.0 – 6.0	Bedrock	BASALT, dk. grey, moderately fractured, moderately weathered
<p>Test pit terminated due to refusal at 6 feet depth on 01/09/18            No Groundwater observed            No caving observed</p>		
<b><u>TP-2</u></b>		
Lot 3, Approximate Ground Surface Elevation: 1,060		
0.0 – 1.5	ML	SANDY SILT w/ GRAVEL, lt. brown, moist to dry, medium dense
1.5 – 3.0	GM	SILTY GRAVEL, fine to coarse grained, with cobbles, brownish white, dry, dense
3.0 – 4.0	GM	SILTY GRAVEL, fine to coarse grained, with cobbles, lt. brown, moist to dry, dense
4.0 – 7.0	Bedrock	BASALT, brown and grey, moderately fractured, moderately weathered
<p>Test pit terminated due to refusal at 7 feet on 01/09/18            No Groundwater observed            No caving observed</p>		
<b><u>TP-3</u></b>		
Lot 7, Ground Surface Elevation: 1,070		
0.0 – 1.5	ML	SANDY SILT, some gravel, lt. brown, moist, medium dense
1.5 – 2.5	GM	SILTY GRAVEL, fine to coarse grained, with cobbles, brownish white, dry, dense
2.5 – 2.7	Bedrock	BASALT, dk. grey, moderately fractured, slightly weathered
<p>Test pit terminated due to refusal at 2.7 feet depth on 01/09/18            No Groundwater observed            No caving observed</p>		
<b><u>TP-4</u></b>		
Lot 9, Approximate Ground Surface Elevation: 1,070		
0.0 – 2.5	Bedrock	BASALT, grey, moderately fractured, moderately weathered
<p>Test pit terminated due to refusal at 2.5 feet on 01/09/18            No Groundwater observed            No caving observed</p>		

**TEST PIT LOGS**  
 (continued)

<b>Depth (feet)</b>	<b>USCS Soil Classification</b>	<b>Location &amp; Description</b>
<b><u>TP-5</u></b>		
Lot 5, Ground Surface Elevation: 1,086.5		
0.0 – 2.3	GM	SILTY GRAVEL, fine to coarse grained, with cobbles, brown, moist, dense
2.3 – 2.5	Bedrock	BASALT, dk. grey, slightly fractured, slightly weathered
Test pit terminated due to refusal at 2.5 feet depth on 01/09/18 No Groundwater observed No caving observed		
<b><u>TP-6</u></b>		
Lot 11, Ground Surface Elevation: 1,050		
0.0 – 7.0	ML	SANDY SILT, some gravel, lt. brown, moist to dry, medium dense
7.0 – 8.0	GM	SILTY GRAVEL, fine to coarse grained, with cobbles, brownish white, dry, dense
8.0 – 8.5	Bedrock	BASALT, dk. grey, moderately fractured, slightly weathered
Test pit terminated due to refusal at 8.5 feet depth on 01/09/18 No Groundwater observed No caving observed Bulk soil sample obtained at 2 feet depth (72.7% passing the #200 sieve)		
<b><u>TP-7</u></b>		
Lot 13, Ground Surface Elevation: 1,029.4		
0.0 – 1.0	ML	SANDY SILT, trace gravel, brown, moist, medium dense
1.0 – 3.5	GM	SILTY GRAVEL, fine to coarse grained, with cobbles, lt. brown, dry, dense
3.5 – 5.0	ML	SANDY SILT, trace gravel, lt. brown, dry, loose to medium dense
5.0 – 7.0	GM	SILTY GRAVEL, fine to coarse grained, brownish white, dry, dense
7.0 – 7.5	Bedrock	BASALT, dk. grey, moderately fractured, slightly weathered
Test pit terminated due to refusal at 7.5 feet depth on 01/09/18 No Groundwater observed No caving observed Bulk soil sample obtained at 3½ feet depth		

## UNIFIED SOIL CLASSIFICATION SYSTEM - ASTM D2488

MAJOR DIVISION		GROUP SYMBOL	LETTER SYMBOL	GROUP NAME	
COARSE GRAINED SOILS CONTAINS MORE THAN 50% FINES	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVEL WITH * 5% FINES		GW	Well-graded GRAVEL
				GP	Poorly graded GRAVEL
		GRAVEL WITH BETWEEN 5% AND 15% FINES		GW-GM	Well-graded GRAVEL with silt
				GW-GC	Well-graded GRAVEL with clay
				GP-GM	Poorly graded GRAVEL with silt
				GP-GC	Poorly graded GRAVEL with clay
	GRAVEL WITH ≥ 15% FINES		GM	Silty GRAVEL	
			GC	Clayey GRAVEL	
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	SAND WITH * 5% FINES		SW	Well-graded SAND
				SP	Poorly graded SAND
		SAND WITH BETWEEN 5% AND 15% FINES		SW-SM	Well-graded SAND with silt
				SW-SC	Well-graded SAND with clay
				SP-SM	Poorly graded SAND with silt
				SP-SC	Poorly graded SAND with clay
SAND WITH ≥ 15% FINES			SM	Silty SAND	
			SC	Clayey SAND	
FINE GRAINED SOILS CONTAINS MORE THAN 50% FINES	SILT AND CLAY	LIQUID LIMIT LESS THAN 50		ML	Inorganic SILT with low plasticity
				CL	Lean inorganic CLAY with low plasticity
				OL	Organic SILT with low plasticity
	LIQUID LIMIT GREATER THAN 50		MH	Elastic inorganic SILT with moderate to high plasticity	
			CH	Fat inorganic CLAY with moderate to high plasticity	
			OH	Organic SILT or CLAY with moderate to high plasticity	
HIGHLY ORGANIC SOILS			PT	PEAT soils with high organic contents	

**NOTES:**

- 1) Sample descriptions are based on visual field and laboratory observations using classification methods of ASTM D2488. Where laboratory data are available, classifications are in accordance with ASTM D2487.
- 2) Solid lines between soil descriptions indicate change in interpreted geologic unit. Dashed lines indicate stratigraphic change within the unit.
- 3) Fines are material passing the U.S. Std. #200 Sieve.

**Affordable Geotech Services**

• Geotechnical • Geological • Retaining Walls • Construction Observation •

Environmental Services    
  Geotechnical Engineering    
  Construction Materials Testing    
  Special Inspections

Brian Binsfield  
 Affordable Geotech Services, LLC  
 3019 Duportail Street, Suite 174  
 Richland, WA 99352

Phone: 509-948-1770  
 Fax:  
 Other: E-REPORTS ONLY

**Project: Falcon Ridge Development- Lab Testing**  
**Project Manager: Eric Howard**  
**Lab Technician: David Taylor**  
**Test Date: January 11, 2018**

As requested MTI has performed sieve analysis testing on the sample referenced below. The testing was performed in accordance with current standards indicated below. The results obtained in our laboratory were as follows:

<b>Source and Description:</b>	TP-6 2-2 ½ Feet, Sandy Silt							
<b>Date Obtained:</b>	01/09/2018							
<b>Sample ID:</b>	18-2001							
<b>Sampling and Preparation:</b>	ASTM D75:	X	AASHTO T2:		ASTM D421:		AASHTO T87:	
<b>Test Standard:</b>	ASTM C117:		AASHTO T11:		ASTM D1140:		ASTM D5444:	
	ASTM C136:	X	AASHTO T27:		ASTM D422:		AASHTO T88:	

Sieve Size	Percent Passing
2"	
1.5"	
1"	
¾"	
½"	
3/8"	
#4	100
#8	99
#10	99
#16	98
#30	94
#40	92
#50	90
#100	85
#200	72.7

If there are questions concerning this report (R180001L-011418=L=S-S182001.pdf), please contact the project manager at 971-217-3815.

Respectfully submitted,  
**MATERIALS TESTING & INSPECTION, INC.**

*Howard D Vitkus*

Howard D. Vitkus, PE  
 Technical Director - Portland

cc:

# Important Information about Your Geotechnical Engineering Report

## Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one – not even you – should apply the report for any purpose or project except the one originally contemplated.*

## A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,
- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership

As a general rule, *always* inform your geotechnical engineer of project changes – even minor ones – and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

## Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

## Most Geotechnical Findings are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ – sometimes significantly – from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

## A Report's Recommendations Are Not Final

Do not over rely on the construction recommendations included in your report. *Those recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.*

### Affordable Geotech Services

• Geotechnical • Geological • Retaining Walls • Construction Observation •

### **A Geotechnical Engineering Report Is Subject to Misinterpretation**

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having our geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

### **Do Not Redraw the Engineer's Logs**

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

### **Give Contractors a Complete Report and Guidance**

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time* to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

### **Contactors are Responsible for Site Safety on their Own Construction Projects**

Geotechnical engineers' recommendations are not intended to direct the contractor's procedures, methods, schedule or management of the work site. The contractor is solely responsible for job site safety and for managing construction operations to minimize risks to on-site personnel and to adjacent properties.

### **Read Responsibility Provisions Closely**

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineer's responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

### **Environmental Concerns Are Not Covered**

The equipment, techniques, and personnel used to perform an *environmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

## **Affordable Geotech Services**

• Geotechnical • Geological • Retaining Walls • Construction Observation •

**INTERMOUNTAIN MATERIALS TESTING & GEOTECHNICAL**

PO Box 2801  
Pasco, WA 99302  
(509) 545-9217 • (509) 545-9243 FAX

Page 1 of 2

Milo Bauder  
120 Meadow Hills Drive  
Kennewick, WA 99336

October 12, 2012

Project Number M11251

**PROJECT:** Falconcrest  
Richland, WA

**SUBJECT:** Summary of field observations  
Summary Report # 1  
August 2, 2011 through September 5, 2012

At your request, we have provided field and laboratory testing services for the subject project. Services were limited to the examination and testing of specific construction components, selected at your discretion. An evaluation of Lots 1 through 16 and 42 through 44 was documented by ALLWEST Testing & Engineering and summarized in their evaluation report dated April 12, 2012. This letter summarizes the results of our observations on the remaining lots within the development, which includes: Lots 1, 2, and 3 of Short Plat 3343, Lots 1, 2, and 3 of Short Plat 3344, and Lots 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, and 41 of the Long Plat.

Our involvement for this project has been limited to observation of earthwork during the placement of structural fill on the lots within the development. The results of our observations were documented in our Reports #1 through Report #30. Due to the coarse, granular nature of the structural fill placed on the lots (greater than 30% retained on the ¾" sieve) conventional maximum density and compaction testing was not appropriate. Compaction of the structural fill was therefore evaluated through visual observation and proof-rolling.

It is our understanding that mass grading on the lots is now complete. We understand, however, that boulder retaining walls are proposed along the lot lines between lots 25 through 30. Based on the results of our observations, it is our opinion that the fill placed on the subject lots within the development has been compacted to the intent of the recommendations presented in ALLWEST's Geotechnical Engineering Evaluation Addendum report dated December 31, 2008. Based on our observations, it is our opinion that the lots are suitable for the construction of single family residences. We recommend that single-family residences constructed on the lots be constructed in accordance with the requirements of the latest versions of the International Building Code, International Residential Code, and City of Richland building code.

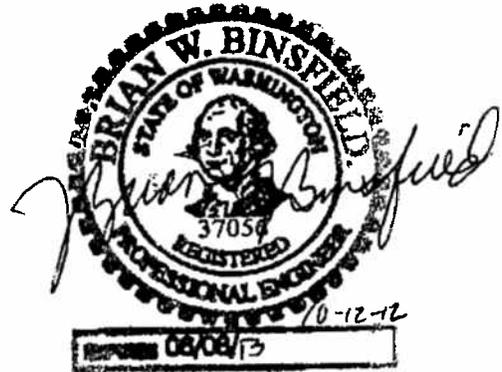
If you have any questions regarding this report, please call.

Respectfully Submitted:  
INTERMOUNTAIN MATERIALS TESTING



Brian W. Binsfield, PE, LG  
Mgr. Engineering Services

SLW/saf  
Addressee - 2  
[Mbauder2001@charter.net](mailto:Mbauder2001@charter.net)  
[dmccarty@ci.richland.wa.us](mailto:dmccarty@ci.richland.wa.us)  
[emaedig@msn.com](mailto:emaedig@msn.com)





Materials Testing  
Geotechnical Engineering  
Environmental Services

---

April 12, 2012  
Project No. 212-018G

Mr. Milo Bauder  
120 Meadow Hills Drive  
Richland, Washington 99352

Re: Geotechnical Engineering Evaluation of Lot Grading  
Falcon Crest Lots 1 through 16 and 42 through 44  
Richland, Washington

Dear Mr. Bauder:

As you requested, we have completed a geotechnical evaluation of the lot grading for the proposed residential structures at the above-referenced sites in Richland, Washington. The purpose of the evaluation is to evaluate the grading for conformance to the recommendations of our Geotechnical Engineering Evaluation Addendum report to you dated December 31, 2008. This report summarizes the results of our observations and opinions.

#### PROJECT DESCRIPTION

The sites are located in the Falcon Crest subdivision in Richland, Washington. We understand that the proposed structures will be one- to two-story, wood-frame buildings with conventional foundations and either slab-on-grade or joist-supported floors. We anticipate that structural loads will be relatively light, on the order of 1 to 2 kips per lineal foot of wall and column loads, if any, on the order of 30 kips or less

## AVAILABLE INFORMATION

We were provided drawings of the project from Rogers Surveying, Inc. and Spink Engineering, LLC. These drawings included a plat map for Falcon Crest which was prepared by Rogers Surveying, Inc. and was dated November 2, 2011. This plan showed plan views of the lots including the property lines, the proposed roadways, and existing ground surface elevation contours.

Spink Engineering, LLC provided us grading plans for Falcon Crest and the adjacent short plats. These plans showed the existing and proposed ground surface elevation contours, proposed lots, and proposed roadways. These plans were dated August 10, 2011. A copy of the plat is attached (see Figure 2). Lots 1 through 16 and 42 through 44 that are addressed by this report are indicated by a red "X" on the specific lots.

## FIELD OBSERVATIONS

A geotechnical engineer from our firm visited the site on February 9, 2012 to visually observe the site features. Site grading activities were ongoing at the time of our visit. The overburden soils were being excavated and removed from the lots. We observed that the subject lots were excavated into the basalt bedrock. The exposed bedrock consisted of highly fractured to slightly fractured basalt.

## OPINIONS AND RECOMMENDATIONS

Our observations of the site grading indicate that foundations will bear on basalt bedrock on the subject lots. Based on our field observations and review of the plans, it is our opinion that the basalt bedrock is suitable for support of the anticipated foundation loads. However, if foundations will be located within 15 feet of the crest of the slope, we recommend that a licensed geotechnical engineer evaluate the proposed construction relative to stability of the foundations.

We recommend that bedrock be removed from below footings to provide a uniform subgrade. We recommend placing a minimum 12-inch cushion of fill compacted to a minimum of 92 percent of the maximum dry density determined in accordance with the American Society for Testing and Materials (ASTM) Method of Test D 1557 (modified Proctor).

We recommend that all hard surfaces (i.e., driveways, sidewalks, slabs, etc.) be underlain by structural fill or bedrock. We recommend the structural fill consist of granular material such as sands or sandy gravels with minor amounts of fines (material passing a 200 sieve). Structural fill should be free of organic matter, frozen soil and deleterious debris. Material with 15 percent or greater fines will need to be moisture conditioned to near optimum moisture content for compaction to be achieved. In wet weather or spring conditions, using silty to clayey soils for structural fill may delay construction and increase costs. The on-site soils may be used as structural fill provided particles larger than six inches are removed. The site soils which will be reused as backfill or fill are likely to be near to dry of the optimum moisture content. These soils may require wetting to achieve adequate compaction.

### **Site Grading and Drainage**

Because of the depth of excavation for the basements, we recommend dampproofing all below-grade walls adjacent to habitable space. We also recommend installation of perimeter draitile to protect against water-related problems (primarily from seepage in the foundation wall backfill). The draitile should be placed adjacent to the footings at or below bottom-of-footing elevation. The draitile should be covered with a free-draining aggregate (e.g., pea gravel, ¾-inch nominal crushed gravel, etc.) to a minimum of 6 inches above the top of the pipe. The aggregate should be wrapped in a water-permeable geotextile fabric to prevent migration of fines and to reduce the potential for clogging. Draitile should be routed to an interior sump (with pump) or can be outletted down-slope from the structures to allow for gravity drainage, if site grades allow.

We recommend that the site be graded such that storm run-off water is directed away from the structures. We recommend that landscape areas be sloped a minimum of 6 inches within 10 feet of the building and that slabs be sloped a minimum of 2 inches. In addition, we recommend gutters and downspouts with long splash blocks or extensions. We do not recommend directing roof drains into a foundation draitile system.

## **REPORT LIMITATIONS**

This report has been prepared to assist in the design and construction of the proposed residential structures on Falcon Crest Lots 1 through 16 and 42 through 44 in Richland, Washington. Our services consist of professional opinions and conclusions made in accordance with generally accepted geotechnical engineering principles and practices. This acknowledgement is in lieu of all warranties either expressed or implied.

## REMARKS

It has been a pleasure being of service to you on this project. If you have any questions or need additional information, please do not hesitate to call us at your convenience.

Sincerely,

ALLWEST Testing & Engineering, LLC

Paul T. Nelson, P.E.  
Senior Geotechnical Engineer

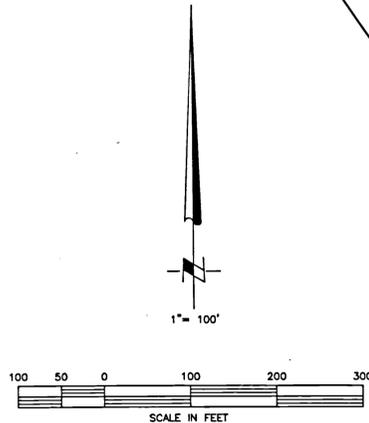
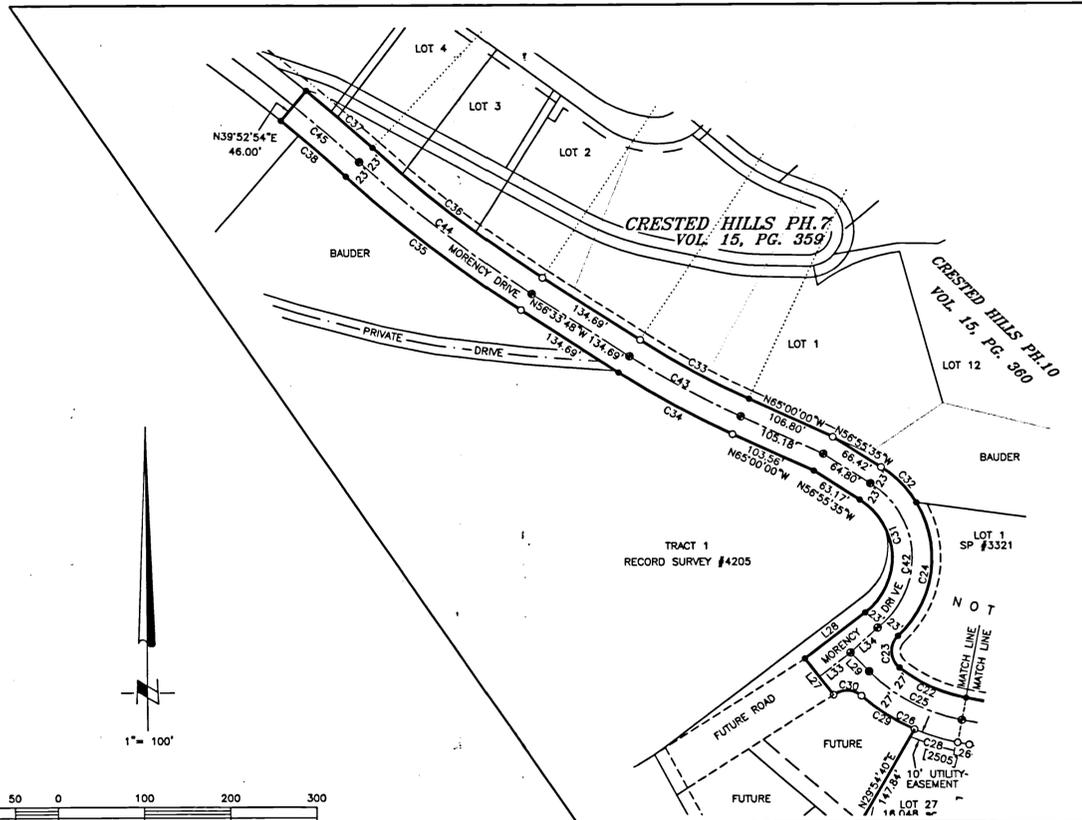
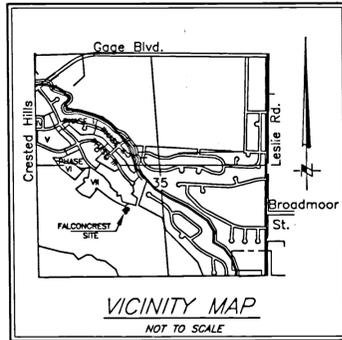
Chris C. Beck, P.E.  
Principal Engineer

Attachments: Figure 1, Site Location Map  
Figure 2, Plat Map



# PLAT OF FALCONCREST PHASE 1

LOCATED IN A PORTION OF THE NE 1/4 OF SECTION 02, TOWNSHIP 8 NORTH, RANGE 28 EAST, W.M.  
AND ALSO IN A PORTION OF THE SOUTH 1/2 OF SECTION 35, TOWNSHIP 9 NORTH, RANGE 28 EAST, W.M.  
CITY OF RICHLAND, BENTON COUNTY, WASHINGTON



### CITY OF RICHLAND NOTES

- ADDRESSES SHOWN IN BRACKETS [ ] ARE SUBJECT TO CHANGE BY THE CITY OF RICHLAND, ZIP CODE 99352.
- CENTRALIZED DELIVERY UNITS (CBU/MAILBOX) TO BE INSTALLED PRIOR TO ISSUANCE OF ANY BUILDING PERMIT. CONTACT USPS FOR CRITERIA.
- HOME BUILDERS CONSTRUCTING HOMES ADJACENT TO THE PUBLIC ACCESS TRAIL EASEMENT ON THE SOUTH-WEST SIDE OF THE PLAT SHALL ERECT A TEMPORARY DEBRIS FENCE ALONG THE SOUTH, WEST AND EAST SIDES OF THEIR LOTS TO PREVENT DEBRIS FROM HOME CONSTRUCTION FROM FALLING TOWARD THE EASEMENT AREA.
- LOT OWNERS ADJACENT TO THE PUBLIC ACCESS TRAIL EASEMENT SHALL NOT MAKE ANY LOT IMPROVEMENTS INCLUDING GRADING WHICH WOULD INTERFERE WITH PUBLIC ACCESS ALONG THE EASEMENT OR STEEPEN THE SLOPE ADJACENT TO THE TRAIL WITHOUT CITY OF RICHLAND APPROVAL.
- THE FALCONCREST PLAT LIES WITHIN THE BOUNDARY OF THE SOUTH RICHLAND COLLECTOR STREET FINANCING PLAN (RMC 12.03). AS SUCH, EACH BUILDING PERMIT WITHIN THE PLAT SHALL THEREFORE BE SUBJECT TO THE FEES ADMINISTERED BY THE FINANCE PLAN FOR ANY PHASE SUBMITTED FOR APPROVAL.
- THE PRIVATE DRIVES WITHIN THIS PLAT ARE FIRE LANES AND PARKING IS RESTRICTED. THE REQUIRED NO-PARKING SIGNS SHALL BE INSTALLED BY THE DEVELOPER WHERE APPLICABLE.
- THE PRIVATE ROADS ARE FOR THE USE OF AND BENEFIT OF THE HOMEOWNERS THAT ABUT SAID ROADS, AND ARE TO BE MAINTAINED BY SAID OWNERS. THE CITY OF RICHLAND ACCEPTS NO MAINTENANCE RESPONSIBILITY FOR THESE PRIVATE ROADS.
- ALL RESIDENTIAL BUILDING CONSTRUCTION THAT LIES ADJACENT TO UNPLATTED PROPERTY, SHALL BE SUBJECT TO COMPLIANCE WITH THE CITY OF RICHLAND'S WILD LAND FIRE PROTECTION REQUIREMENTS AS SPECIFIED IN RICHLAND MUNICIPAL CODE SECTION 21.010.030.

### GENERAL NOTES

- BASIS OF BEARINGS: THE SOUTH LINE OF SECTION 35, TOWNSHIP 9 NORTH, RANGE 28 EAST, W.M., BENTON COUNTY, WASHINGTON.
- = SET 5/8" REBAR W/YELLOW PLASTIC CAP STAMPED "RSI MCF 34587".
- = FOUND 5/8" REBAR.
- (R) = RECORD (SHORT PLAT 1729) (M) = MEASURED



### SURVEYOR'S CERTIFICATION

I, MICHAEL C. FOWLER, A REGISTERED LAND SURVEYOR IN THE STATE OF WASHINGTON, (REG.#34587) HEREBY CERTIFY THAT THE PLAT OF FALCONCREST PHASE 1 AS SHOWN HEREON IS BASED UPON ACTUAL FIELD SURVEY OF THE LAND DESCRIBED AND THAT ALL ANGLES, DISTANCES, AND COURSES ARE CORRECTLY SHOWN AND THAT THE MONUMENTS HAVE BEEN SET AND THE LOT CORNERS STAKED AS SHOWN ON THE PLAT.

*Michael C. Fowler*  
MICHAEL C. FOWLER  
DATE 12/17/12

### OWNERS CERTIFICATE

KNOW ALL PERSONS BY THESE PRESENTS THAT BAUDER FAMILY LIVING TRUST, OWNER OF THE LAND SHOWN ON THE PLAT OF FALCONCREST PHASE 1, HEREBY DECLARE SAID PLAT AND DEDICATE TO THE PUBLIC, FOR THE USE OF THE PUBLIC FOREVER, ALL EASEMENTS AND RIGHT OF WAYS AS SHOWN HEREON.

*Milo B. Bauder*  
MILO B. BAUDER, TRUSTEE  
BAUDER FAMILY LIVING TRUST

### ACKNOWLEDGMENT

STATE OF WASHINGTON } S.S.  
COUNTY OF BENTON }  
I CERTIFY THAT I KNOW OR HAVE SATISFACTORY EVIDENCE THAT MILO BAUDER SIGNED THIS INSTRUMENT, ON OATH STATED THAT HE/SHE WAS AUTHORIZED TO EXECUTE THE INSTRUMENT AND ACKNOWLEDGED IT AS THE TRUSTEE OF THE BAUDER FAMILY LIVING TRUST TO BE THE FREE AND VOLUNTARY ACT OF SUCH PARTY FOR THE USES AND PURPOSES MENTIONED IN THE INSTRUMENT.  
DATED: 12-18-12 *Nancy D. Eby*  
NOTARY PUBLIC AND FOR THE STATE OF WASHINGTON  
TITLE: NOTARY  
MY APPOINTMENT EXPIRES: MAY 09, 2013



### APPROVALS

THIS PLAT IS HEREBY APPROVED BY AND FOR THE CITY OF RICHLAND, CO. OF BENTON, STATE OF WASHINGTON.

<i>William K. ...</i> CITY MANAGER	12/21/2012
<i>Dan C. ...</i> CITY CLERK	12/21/12
<i>Mike R. ...</i> CITY ENGINEER	12/20/2012
<i>Marshall ...</i> CHAIRMAN CITY PLANNING COMMISSION	12/19/12

### TREASURER'S CERTIFICATE

I HEREBY CERTIFY THAT THE TAXES ON THE LAND DESCRIBED HEREON HAVE BEEN PAID TO AND INCLUDING THE YEAR 2012. Advance Taxes 2013  
*Diane A. Davidson by Kim R. ...* 12-27-2012  
BENTON COUNTY TREASURER  
*Barbara Wagner by George Kelly* 12-27-2012  
BENTON COUNTY ASSESSOR

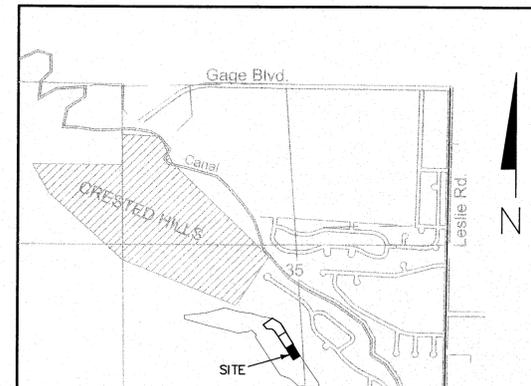
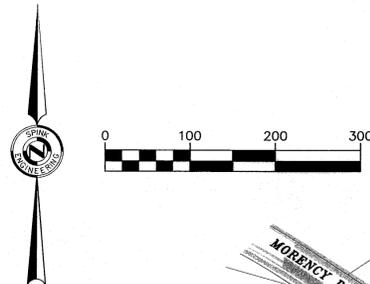
- 1-3598-300-0001-023 Ptn.
- 1-3598-300-0001-028 Ptn.
- 1-3598-301-3321-004 Ptn.
- 1-3598-301-3341-004 Ptn.
- 1-3598-301-3342-004 Ptn.
- 1-3598-401-3343-004 All
- 1-3598-401-3343-005 All
- 1-3598-301-3344-004 Ptn.

### AUDITOR'S CERTIFICATE

FILED FOR RECORD THIS 27th DAY OF December, 2012, AT 55 MINUTES PAST 2 P. M. AND RECORDED IN VOLUME 15 OF PLATS, PAGE 454, AT THE REQUEST OF MILO BAUDER.  
*Bronck Chilton*  
BENTON COUNTY AUDITOR  
*Debbie ...*  
BY DEPUTY

2012-040924  
FEE NUMBER

SHEET 2 OF 2  
PROJECT: 02812  
REVISION: NONE



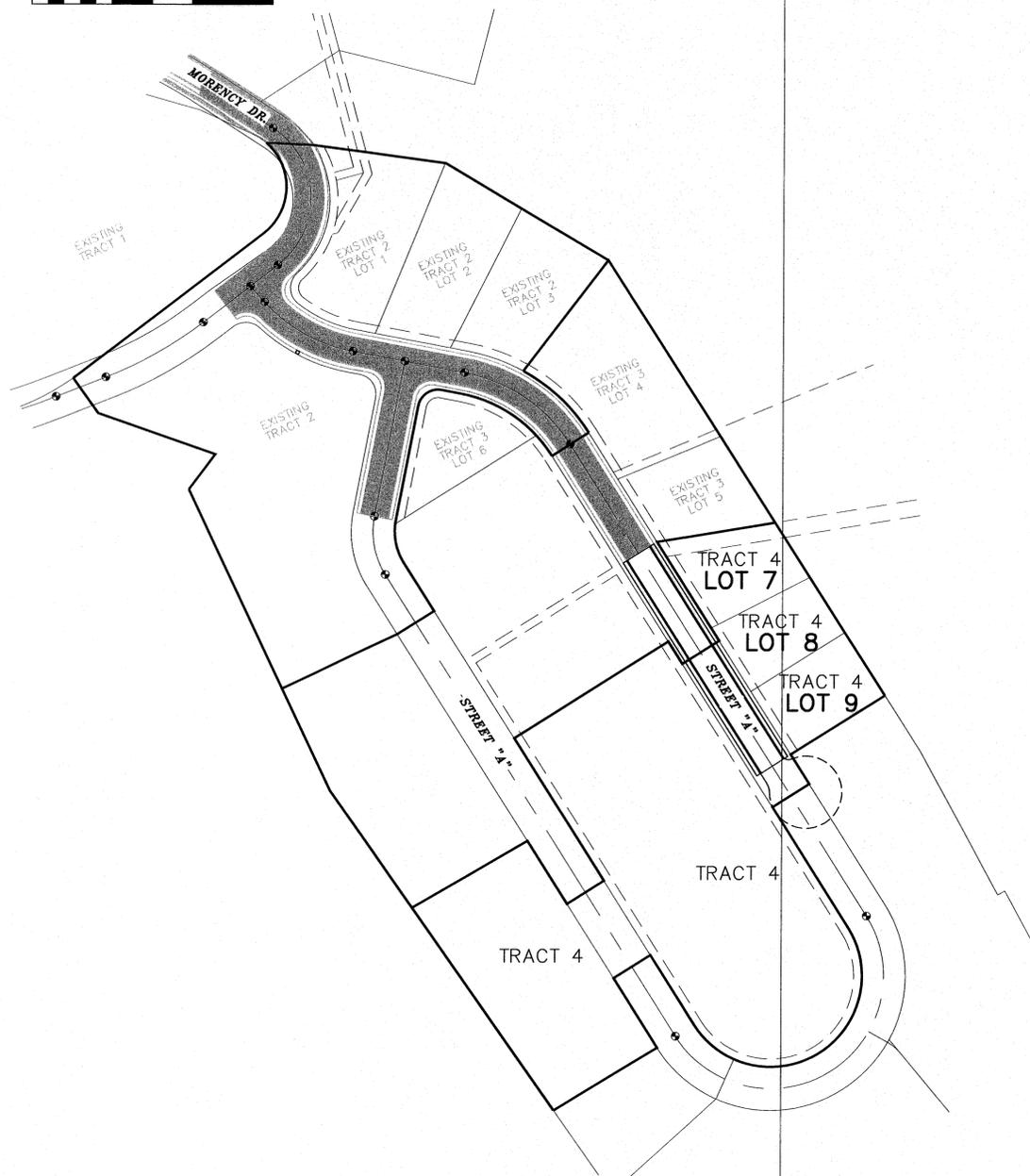
VICINITY MAP



VERTICAL DATUM IS CITY OF RICHLAND. BENCHMARK IS EXISTING BRASS CAP MONUMENT AT INTERSECTION OF BAUM ST. & CLERMONT DR., ELEV. 695.80.

**GENERAL CONSTRUCTION NOTES**

- ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE LATEST REVISION OF THE CITY OF RICHLAND STANDARD SPECIFICATIONS AND DETAILS AND THE CURRENT ADDITION OF THE STATE OF WASHINGTON STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION. PLEASE CONFIRM THAT YOU HAVE THE LATEST CITY STANDARD SPECIFICATIONS BY VISITING THE CITY'S WEB PAGE.
- ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY, UTILITY EASEMENT, OR INVOLVING THE CONSTRUCTION OF PUBLIC INFRASTRUCTURE WILL REQUIRE THE APPLICANT TO OBTAIN A RIGHT-OF-WAY PERMIT PRIOR TO CONSTRUCTION. A PLAN REVIEW AND INSPECTION FEE IN THE AMOUNT EQUAL TO 5% OF THE CONSTRUCTION COSTS OF THE WORK THAT WILL BE ACCEPTED AS PUBLIC INFRASTRUCTURE OR IS WITHIN THE RIGHT-OF-WAY OR EASEMENT WILL BE COLLECTED AT THE TIME THE PERMIT IS ISSUED. A STAMPED, ITEMIZED ENGINEERS ESTIMATE (OPINION OF PROBABLE COST) SHALL BE USED TO CALCULATE THE 5% FEE.
- ONCE THE PLANS HAVE BEEN ACCEPTED BY THIS DEPARTMENT, A PRE-CONSTRUCTION CONFERENCE WILL BE REQUIRED PRIOR TO THE START OF ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY OR EASEMENT. CONTACT THE CIVIL AND UTILITY ENGINEERING DIVISION AT 942-7500 OR 942-7742 TO SCHEDULE A PRE-CONSTRUCTION CONFERENCE.
- WHEN THE CONSTRUCTION OF THE INFRASTRUCTURE HAS BEEN SUBSTANTIALLY COMPLETED, THE APPLICANT SHALL PROVIDE 3 MIL MYLAR RECORD DRAWINGS TO THE CITY, AND ALSO AN ELECTRONIC COPY OF SAID RECORD DRAWINGS IN A FORMAT COMPLIANT WITH THE CITY'S CADD SOFTWARE. THE MYLAR RECORD DRAWINGS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER AND SHALL BE SUBMITTED AND APPROVED BY THE CITY BEFORE THE FINAL PUNCHLIST INSPECTION WILL BE PERFORMED. ALL FINAL PUNCHLIST ITEMS SHALL BE COMPLETED OR FINANCIALLY GUARANTEED PRIOR TO RECORDING THE FINAL PLAT. MYLAR RECORD DRAWINGS OF STREET LIGHTS ARE ALSO REQUIRED PRIOR TO FINAL INSPECTION.
- NO WORK ON THIS PROJECT SHALL COMMENCE UNTIL A CITY OF RICHLAND RIGHT-OF-WAY PERMIT HAS BEEN ISSUED.
- ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS."
- THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL HAVE A CURRENT CITY OF RICHLAND BUSINESS LICENSE.
- THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL BE LICENSED BY THE STATE OF WASHINGTON AND BONDED TO DO WORK IN THE PUBLIC RIGHT-OF-WAY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL CONSTRUCTION DEFICIENCIES FOR A PERIOD OF ONE-YEAR FROM THE DATE OF ACCEPTANCE BY THE CITY OF RICHLAND.
- THE CONTRACTOR SHALL BE REQUIRED TO CALL 1-800-424-5555 OR "811" A MINIMUM OF TWO WORKING DAYS PRIOR TO COMMENCING ANY EXCAVATION ACTIVITIES TO DETERMINE FIELD LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES.
- ANY CHANGES OR MODIFICATIONS TO THE PROJECT PLANS SHALL FIRST BE APPROVED BY THE CITY ENGINEER OR HIS REPRESENTATIVE.
- THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE ASSOCIATED WITH THE FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- THE FACE OF CURB SHALL BE STAMPED AT ALL UTILITY CROSSINGS, MAIN LINES AND SERVICE LINES AS FOLLOWS:  
 "S" - SANITARY SEWER      "I" - IRRIGATION      "G" - GAS  
 "W" - WATER              "C" - CONDUITS        "D" - STORM
- ALL FIRE HYDRANTS AND GUARD POSTS SHALL BE PAINTED OSHA SAFETY YELLOW, QUICKSET ENAMEL NO. 3472 HYDRANT YELLOW AS MANUFACTURED BY "FARWEST MANUFACTURING COMPANY" OR APPROVED EQUAL.
- FIRE HYDRANTS AND STREET LIGHTS SHALL BE INSTALLED 2- FEET BEHIND THE BACK OF SIDEWALK TO THE FACE OF EQUIPMENT WHERE THE SIDEWALK IS ADJACENT TO THE CURB AND 6- FEET BEHIND THE BACK OF CURB WHERE THE SIDEWALK IS NOT ADJACENT TO THE CURB UNLESS OTHERWISE NOTED ON THE PLANS.
- ANY DAMAGED OR BADLY DETERIORATED CONCRETE CURB, GUTTER AND SIDEWALK WITHIN PUBLIC RIGHT-OF-WAY SHALL BE REMOVED AND REPLACED. THIS INCLUDES ANY CURB DAMAGED BY CONSTRUCTION EQUIPMENT DURING THE PROJECT.
- 2-INCHES OF CRUSHED GRAVEL SHALL BE PLACED AND COMPACTED BENEATH ALL SIDEWALKS PRIOR TO PLACEMENT OF CONCRETE.
- ALL STORM DRAINAGE MANHOLES SHALL BE CONSTRUCTED WITH A "SUMP" IN THE BOTTOM OF THEM, IN ACCORDANCE WITH THE STANDARD DETAILS.
- IRRIGATION VALVE BOXES OR LIDS WITHIN THE ROADWAY OR PUBLIC RIGHT-OF-WAY SHALL BE PER CITY OF RICHLAND SPECIFICATION "RICH 931" CAST IRON LID AND SHALL HAVE "IRR" CAST INTO TOP.
- A MINIMUM HORIZONTAL SEPARATION OF TEN- FEET SHALL BE MAINTAINED BETWEEN WATER MAINS AND SEWER MAINS AND SERVICE LINES. WATER MAINS SHOULD CROSS OVER THE TOP OF SEWER MAINS WITH A MINIMUM VERTICAL SEPARATION OF 18-INCHES. ANY CROSSING WITH A VERTICAL SEPARATION OF LESS THAN 18-INCHES OR ANY CROSSING IN WHICH THE WATER MAIN CROSSES BELOW THE SEWER MAIN SHALL BE IN ACCORDANCE WITH WASHINGTON STATE DEPARTMENT OF ECOLOGY STANDARDS. PRESSURIZED SEWER MAINS SHALL NOT CROSS OVER POTABLE WATER MAINS IN ANY CASE. IF A MINIMUM VERTICAL SEPARATION OF 12-INCHES CANNOT BE MAINTAINED BETWEEN MAINLINE PIPES, CDF OR CONCRETE SHALL BE USED AS BACKFILL IN PLACE OF NATIVE SOILS OR GRAVEL.
- RESIDENTIAL SEWER SERVICES SHALL BE 4-INCHES IN DIAMETER AND SHALL EXTEND 10- FEET BEYOND THE RIGHT-OF-WAY INTO THE LOT. THE END SHALL BE MARKED WITH A MARKER POST INSTALLED IN ACCORDANCE WITH THE CITY STANDARD DETAILS.
- RESIDENTIAL WATER SERVICES SHALL BE 1-INCH IN DIAMETER AND SHALL EXTEND 1- FOOT BEYOND THE BACK OF SIDEWALK THROUGH THE CURB STOP. THE END SHALL BE MARKED WITH A MARKER POST INSTALLED IN ACCORDANCE WITH THE CITY STANDARD DETAILS.
- THE CONTRACTOR SHALL TAKE ANY NECESSARY MEANS TO KEEP FROM TRACKING MUD AND DEBRIS OUT ONTO THE EXISTING STREETS, AND SHALL KEEP MUD AND ANY OTHER DEBRIS FROM THIS SITE FROM ENTERING THE EXISTING PUBLIC STORM DRAINAGE SYSTEM.
- THE CONTRACTOR SHALL SUPPLY A DUST CONTROL PLAN PRIOR TO STARTING WORK IN ACCORDANCE WITH RMC CHAPTER 9.16.046, SECTION J.
- ALL DISTURBED AREAS SHALL BE HYDRO- SEEDED AT THE COMPLETION OF THE PROJECT.
- THE CONTRACTOR SHALL TAKE CARE TO PREVENT CONSTRUCTION SITE RUNOFF FROM ENTERING INTO THE CITY'S STORM WATER SYSTEM IN ACCORDANCE WITH RMC CHAPTER 16.05. CONSTRUCTION MATERIALS THAT MAY INTRODUCE SEDIMENT INTO THE STORM WATER SYSTEM MAY NOT BE STOCKPILED IN THE STREET. SUCH MATERIALS MAY INCLUDE, BUT ARE NOT LIMITED TO, CONSTRUCTION MATERIALS, SOIL, SAND, GRAVELS, ETC.



**COMPACTION STANDARDS**

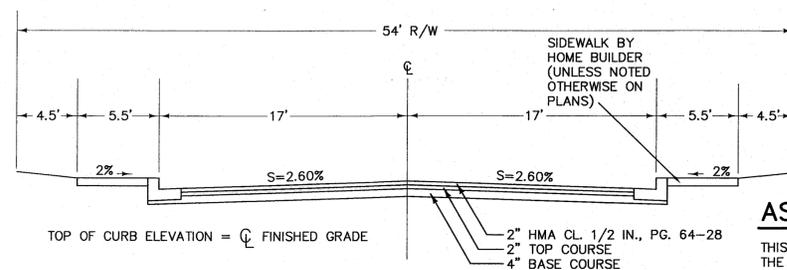
HMA	- 92% MAX. DENSITY ASSHTO T230-68
CRUSHED SURFACING	- 98% MAX. DENSITY ASTM D-698
TOP 8" SUBGRADE & STREET EMBANKMENT	- 98% MAX. DENSITY ASTM D-698
LOT EMBANKMENTS	- 98% MAX. DENSITY ASTM D-698
TRENCH BACKFILL	- 98% MAX. DENSITY ASTM D-698

**SHEET INDEX**

SHEET 1	COVER SHEET
SHEET 2	STREET "A" PLAN & PROFILE
SHEET 3	STREET LIGHT PLAN
SHEET 4	GRADING PLAN
SHEET 5	GRADING PLAN

**CONTACT LIST**

DEVELOPER	MILO BAUDER (509) 521-1608
LAND SURVEYOR	ROGERS SURVEYING MIKE FOWLER (509) 783-4141
DESIGN ENGINEER	SPINK ENGINEERING STEVE SPINK (509) 946-1581
SEWER, WATER & STREETS	CITY OF RICHLAND JASON REATHAFORD (509) 942-7742
ELECTRICAL	CITY OF RICHLAND ENERGY SERVICES KELLY HILL (509) 942-7416
TELEPHONE	FRONTIER SHAWN MCVAY (509) 735-5318
TV	CHARTER COMMUNICATIONS DEAN KELLEY (509) 222-2665
GAS	CASCADE NATURAL GAS ARNIE GARZA (509) 735-7333



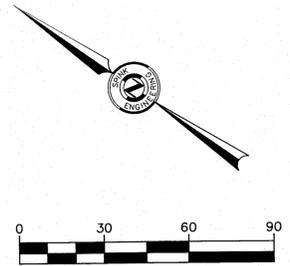
TYPICAL ROADWAY SECTION

**AS-BUILT PLANS**

THIS DRAWING IS A TRUE AND ACCURATE REPRESENTATION OF THE ACTUAL CONSTRUCTION TO THE BEST OF OUR KNOWLEDGE. IT IS SUGGESTED THAT THIS PLAN BE USED IN CONJUNCTION WITH FIELD VERIFICATION OF LOCATION AND ELEVATION OF IMPROVEMENTS IN QUESTION.

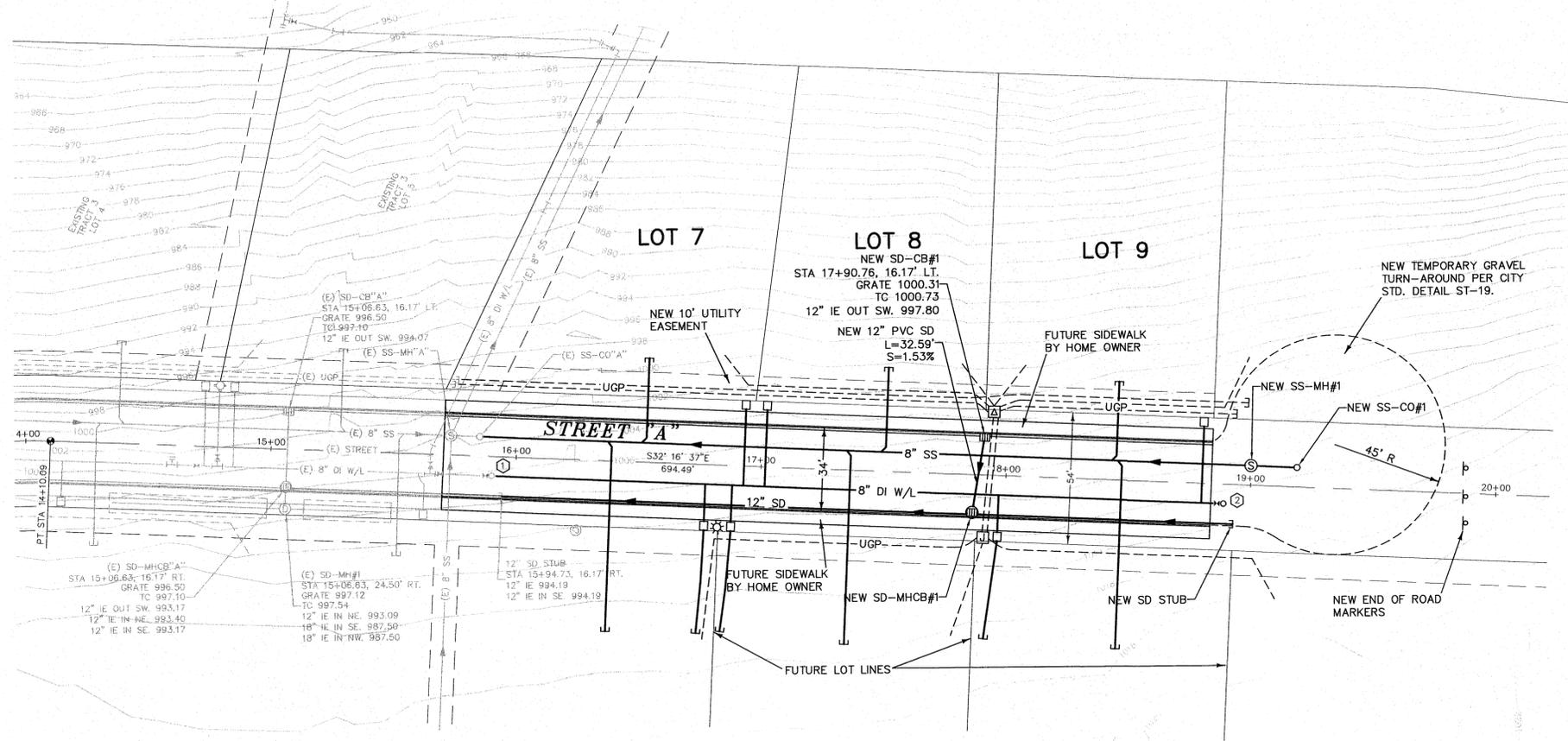
<b>CREST TRACT 4</b>	DESIGN FOR: <b>MILO BAUDER</b> 2495 MORENCY DR. RICHLAND, WA 99352 (509) 521-1608	<b>SPINK ENGINEERING, LLC.</b> 1045 JADWIN AVE., SUITE E RICHLAND, WASHINGTON 99352 (509) 946-1581	10136-PH3.DWG DATE: 6/12/11 DRAWN BY: SWS	SHEET 1 OF 5 JOB # 11-125
----------------------	---	---	---	------------------------------

CALL 1-800-424-5555 AND NON-MEMBER UTILITIES FOR UTILITY LOCATE 2 BUSINESS DAYS PRIOR TO EXCAVATION



**WATER FITTING SCHEDULE**

- ① STA 15+90.30, 8.00' RT. REMOVE (E) 2" TEMP. BLOW-OFF ASSEMBLY. CONNECT TO (E) 8" W/L.
- ② STA 18+89.13, 8.00' RT. NEW 2" TEMP. BLOW-OFF ASSEMBLY. THRUST BLOCK.



**CONSTRUCTION NOTES**

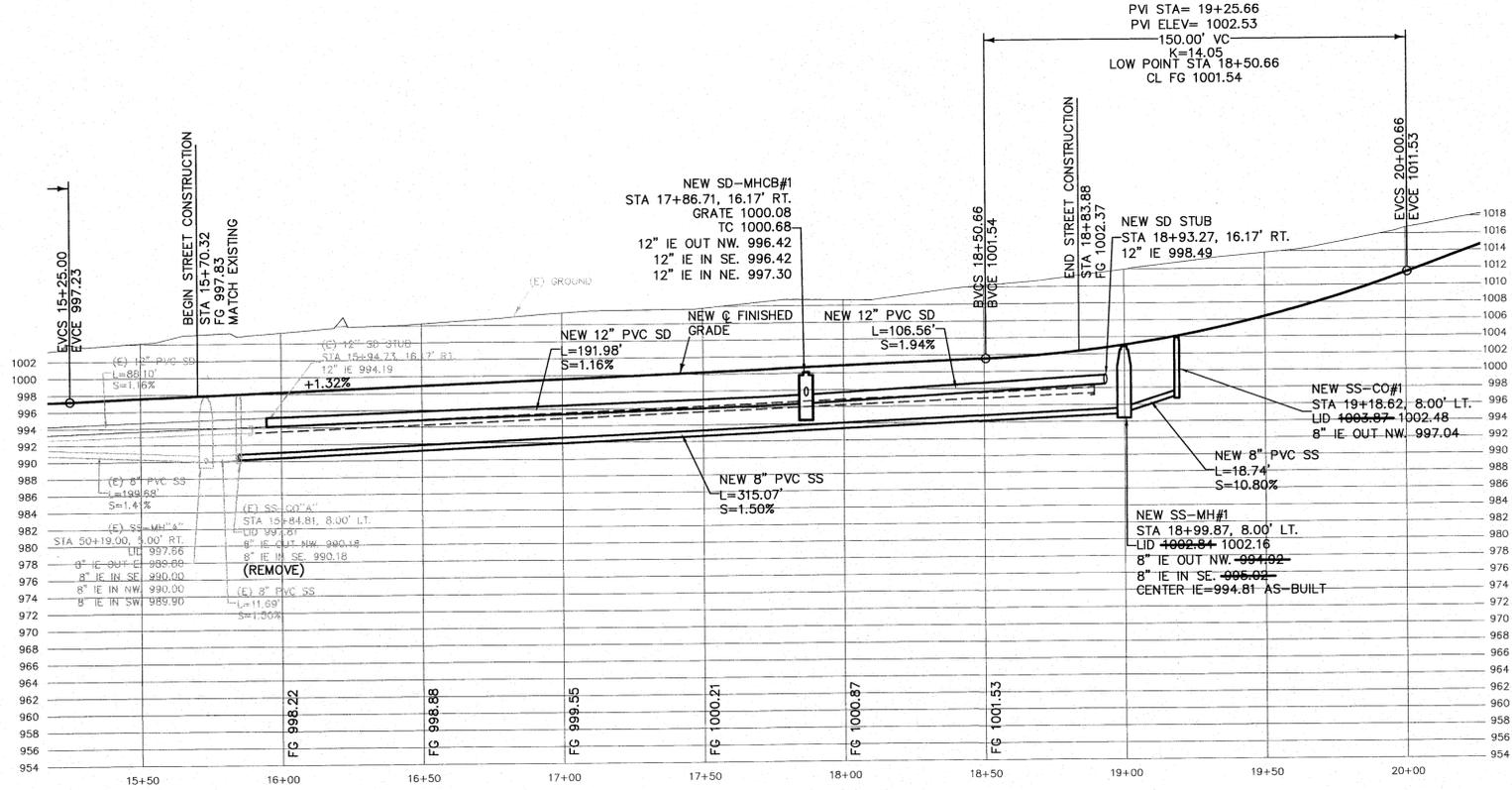
1. CONTRACTOR SHALL MAINTAIN A MIN. OF 4 FEET OF COVER OVER NEW AND EXISTING WATER AND SEWER MAINS.
2. CONTRACTOR SHALL INSTALL MAIL BOX CLUSTER UNITS PER RICHLAND POST OFFICE STANDARDS. CONTRACTOR SHALL INSTALL 10 LF OF SIDEWALK IN FRONT OF MAIL BOX CLUSTER UNITS.
3. SANITARY WATER MAINS SHALL BE DUCTILE IRON CLASS 50 OR C900 PVC PIPE. SANITARY SEWER MAINS UP TO 15 FEET DEEP SHALL BE PVC SDR PIPE MEETING THE REQUIREMENTS OF ASTM D3034 AND D1869. SANITARY SEWER MAINS DEEPER THAN 15 FEET SHALL BE C900 PVC OR SDR 26 PVC, 115 PSI, MEETING THE REQUIREMENTS OF ASTM F679. STORM DRAIN LINES SHALL BE SDR 35 PVC OR CONCRETE AND SHALL MEET THE REQUIREMENTS OF ASTM D3034.
4. CONTRACTOR SHALL ADJUST NEW AND EXISTING VALVE BOXES TO GRADE AFTER PAVING.
5. LIVE WATERLINE TAPS OR CUT-IN TAPS TO EXISTING PUBLIC WATERLINES TO BE PERFORMED BY CITY CREWS AT THE DEVELOPER'S EXPENSE.
6. CONTRACTOR SHALL COORDINATE LOCATION AND CONSTRUCTION OF POWER, TELEPHONE, GAS AND TV CABLE LINES AND SERVICES WITH VARIOUS UTILITIES.
7. STORM DRAIN CATCH BASIN AND CATCH BASIN/MANHOLE STATION AND OFFSETS SHOWN ON THESE PLANS ARE TO CENTER OF GRATE.
8. PEDESTRIAN RAMPS SHALL BE TYPE 2A PER CITY OF RICHLAND STANDARD DETAIL ST-5. CONTRACTOR SHALL PROVIDE RAMP CURB CUTS ONLY, UNLESS SIDEWALK IS BEING CONSTRUCTED BY DEVELOPER.
9. ALL FIXTURES THAT REQUIRE ADJUSTMENT TO GRADE THAT ARE LOCATED OUTSIDE OF PAVED AREAS SHALL HAVE A 30"x 30"x 8" THICK CONCRETE COLLAR PER CITY STANDARDS.
10. ALL CURB RETURN RADII ARE 25 FEET TO FACE OF CURB.
11. WATER SERVICE LINES LONGER THAN 50 FEET SHALL BE UPSIZED TO 1-1/2" DIAMETER AND SHALL BE CONTINUOUS PIECES OF PIPE WITH NO COUPLINGS.
12. CONTRACTOR SHALL REMOVE AND WASTE ALL ON-SITE DEBRIS PRIOR TO CONSTRUCTION.

**LEGEND**

- ⊕ EXISTING FIRE HYDRANT
- ⊕ EXISTING VALVE
- ⊕ NEW VALVE
- ⊕ NEW FIRE HYDRANT
- NEW WATER SERVICE
- ⊕ EXISTING SEWER MANHOLE
- ⊕ NEW SEWER MANHOLE
- NEW SEWER SERVICE
- ⊕ NEW STORM DRAIN MANHOLE
- ⊕ NEW STORM DRAIN MANHOLE w/CATCH BASIN GRATE
- ⊕ NEW STORM DRAIN CATCH BASIN
- NEW IRRIGATION SERVICE
- ⊕ NEW STREET LIGHT
- ▶ NEW PIPE FLOW ARROW
- ⊕ NEW MONUMENT
- ⊕ NEW POWER TRANSFORMER
- ⊕ NEW POWER VAULT
- ⊕ NEW POWER JUNCTION BOX

**ABBREVIATIONS**

- (E) EXISTING
- SS SANITARY SEWER
- SD STORM DRAIN
- MH MANHOLE
- CB CATCH BASIN
- W/L WATERLINE
- STA STATION
- IE INVERT ELEVATION
- L LENGTH
- R RADIUS
- S SLOPE
- VC VERTICAL CURVE
- BVCS BEGIN VERTICAL CURVE STATION
- EVCS END VERTICAL CURVE ELEVATION
- EVCS END VERTICAL CURVE STATION
- IRR IRRIGATION
- UGP UNDERGROUND POWER
- ACP ASPHALT CONCRETE PAVEMENT
- FG FINISHED GRADE
- PR PEDESTRIAN RAMP
- HMA HOT MIXED ASPHALT
- LS LANDSCAPING
- R/W RIGHT-OF-WAY



**STREET "A" PROFILE**

SCALE: 1"=30' HORIZ.  
1"=10' VERT.

**AS-BUILT PLANS**

THIS DRAWING IS A TRUE AND ACCURATE REPRESENTATION OF THE ACTUAL CONSTRUCTION TO THE BEST OF OUR KNOWLEDGE. IT IS SUGGESTED THAT THIS PLAN BE USED IN CONJUNCTION WITH FIELD VERIFICATION OF LOCATION AND ELEVATION OF IMPROVEMENTS IN QUESTION.

**CREST TRACT 4**  
RICHLAND WASHINGTON

DESIGN FOR:  
**MILO BAUDER**  
2495 MORENCY DR.  
RICHLAND, WA 99352  
(509) 521-1608

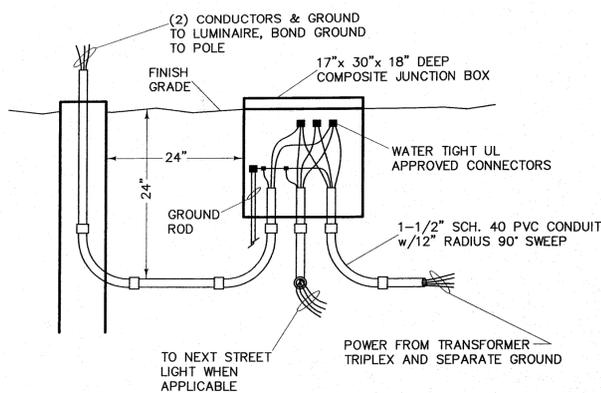
REV#	DATE	DESCRIPTION	BY	APP'D
2	12/5/11	RECORD DRAWING AS-BUILTS	SWS	RJS
1	7/18/11	REVISED PER CITY REVIEW	SWS	RJS

**SPINK ENGINEERING, LLC.**  
1045 JADWIN AVE., SUITE E  
RICHLAND, WASHINGTON 99352  
(509) 946-1581

**ST. "A" PLAN & PROFILE**

10136-PH3.DWG	SHEET 2 OF 5
DATE: 6/12/11	JOB # 11-125
DRAWN BY: SWS	





**STREET LIGHT JUNCTION BOX DETAIL**

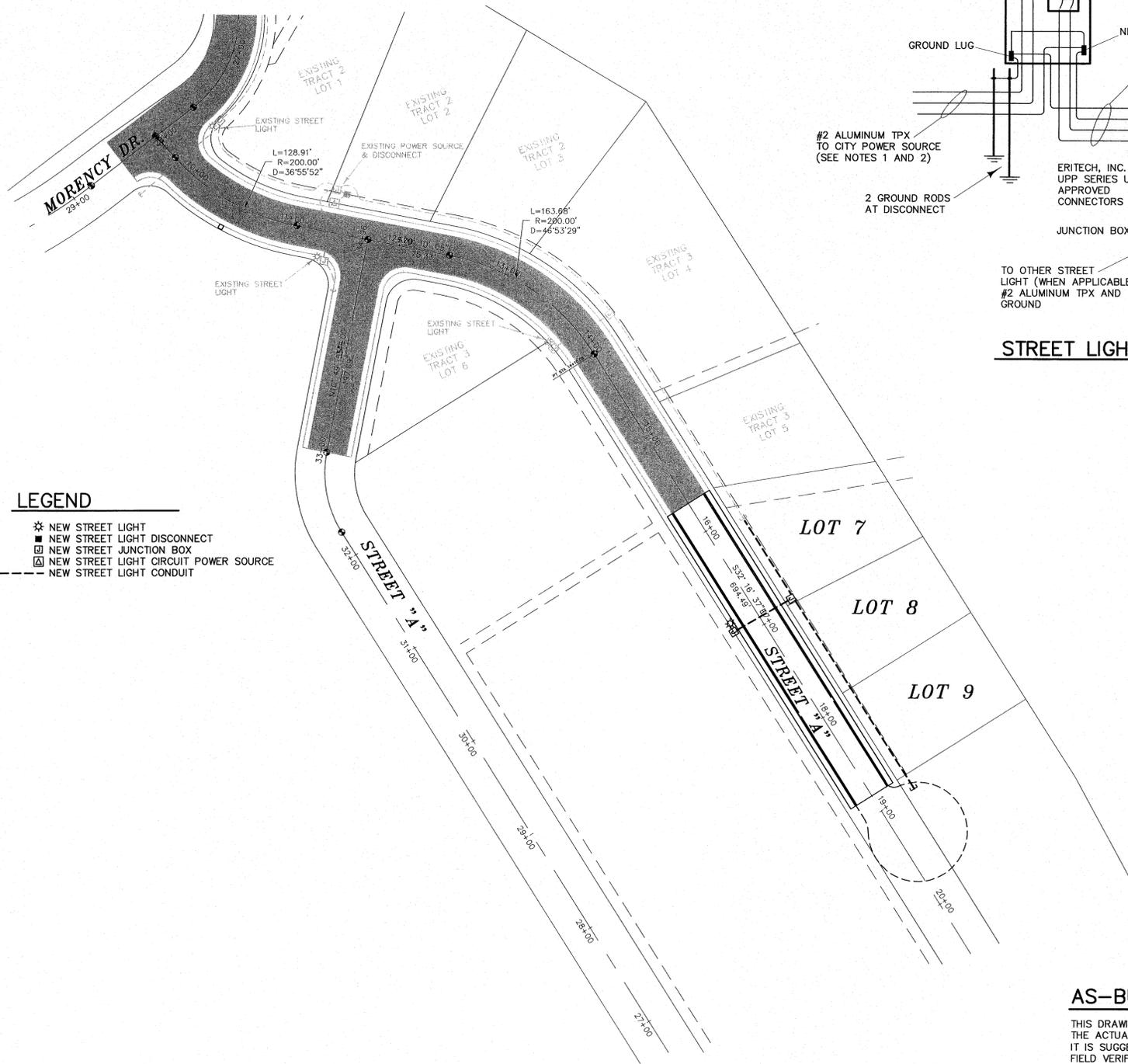
1. SET JUNCTION BOX IN THE PROPER LOCATION SUCH THAT IT IS AS LITTLE OVER 24" FROM STREET LIGHT FOUNDATION AS POSSIBLE. SOIL UNDER BOX SHALL BE RESTORED TO 95% COMPACTION. SET BOX AT AN ELEVATION SUCH THAT THE TOP OF THE BOX COVER IS APPROXIMATELY 2" ABOVE FINISHED GRADE UNLESS BOX IS TO BE SURROUNDED BY ASPHALT OR CONCRETE. SET BOX LEVEL WITH AND PARALLEL TO STREET.
2. SWEEP CONDUIT UP INTO JUNCTION BOX A MINIMUM OF 6". INSTALL BELL ENDS OR BUSHINGS ON ALL EXPOSED CONDUIT ENDS IN JUNCTION BOX.
3. ALLOW SUFFICIENT SLACK IN CONDUCTORS SUCH THAT SPLICES MAY BE REMOVED A MINIMUM 36" FROM SPLICE BOX.
4. JUNCTION BOXES SHALL BE COMPOSOLITE AS MANUFACTURED BY QUAZITE CORPORATION OR APPROVED EQUAL. BOXES SHALL BE CONCRETE GRAY COLOR IN APPEARANCE. COVER SHALL UTILIZE A PENTA-HEAD BOLT TO SECURE IT TO BOX. THE COVER SHALL HAVE THE LOGO "STREET LIGHTING" PERMANENTLY MARKED ON IT.

**STREET LIGHTING NOTES**

1. STREET LIGHT SYSTEM TO BE FURNISHED AND INSTALLED IN CONFORMANCE WITH CITY OF RICHLAND ENERGY SERVICES STANDARD SPECIFICATIONS REGARDING INSTALLATION AND MATERIALS.
2. CONTRACTOR TO OBTAIN AND HAVE ON-SITE TECHNICAL SPECIFICATIONS TS-STRLT AND MATERIAL SPECIFICATIONS MS-STRLT. COPIES ARE AVAILABLE AT THE CITY OF RICHLAND ENERGY SERVICES DEPARTMENT.
3. LUMINAIRE MOUNTING HEIGHT - 28'  
LAMP WATTAGE - 100 WPS 120 V
4. THE INSTALLING ELECTRICIAN MUST GET A PERMIT FROM THE STATE DEPARTMENT OF LABOR AND INDUSTRIES AND HAVE THEIR APPROVAL OF THE SYSTEM PRIOR TO THE CITY HOOKING UP POWER.
5. AFTER CONSTRUCTION IS COMPLETED, THE FOLLOWING MUST BE PERFORMED PRIOR TO CITY HOOK-UP (ENERGIZATION).
  - A. ELECTRICIAN MUST PERFORM MEGGER TEST IN THE PRESENCE OF AN EMPLOYEE OF RICHLAND'S ELECTRICAL ENGINEERING DEPT.
  - B. ELECTRICIAN MUST PERFORM A FUNCTIONAL TEST OF THE LIGHTING SYSTEM IN THE PRESENCE OF AN EMPLOYEE OF RICHLAND'S ELECTRICAL ENGINEERING DEPT.
  - C. MYLAR AS-BUILT DRAWINGS MUST BE PROVIDED TO THE CITY. DRAWINGS ARE TO BE 24"x 36" MYLAR AND SUBMITTED TO CIVIL AND ENVIRONMENTAL ENGINEERING DEPARTMENT OF THE CITY. THE DRAWINGS MUST DENOTE EACH AND ALL (BUT NOT LIMITED TO) THE FOLLOWING: WIRE SIZE, CONDUIT SIZE, DISCONNECT(S), JUNCTION BOXES, POLE HEIGHTS AND POINT OF FEED, LIGHT SIZE AND TYPE MUST ALSO BE INCLUDED AS WELL AS MATERIAL CATALOG/PRODUCT NUMBERS.
6. CITY OF RICHLAND ELECTRICAL DEPARTMENT WILL PROVIDE ELECTRICAL SERVICE TO POINT OF CONNECTION OF LIGHTING SYSTEM. COST OF SERVICE IS TO BE PAID BY CONTRACTOR.
7. CONTRACTOR SHALL WARRANT, IN WRITING, THE LIGHTING SYSTEM FOR ONE YEAR AFTER ENERGIZATION OF THE SYSTEM.
8. CENTER OF STREET LIGHT POLES TO BE LOCATED 2' BEHIND THE BACK OF CURB.
9. CONTRACTOR TO ACQUIRE POLE NUMBER TAGS FROM WAREHOUSE AT CITY SHOPS AND ATTACH TAGS TO STREET SIDE OF POLES PER CITY OF RICHLAND SPECIFICATIONS. POLES TO BE NUMBERED AS SHOWN ON PLAN.

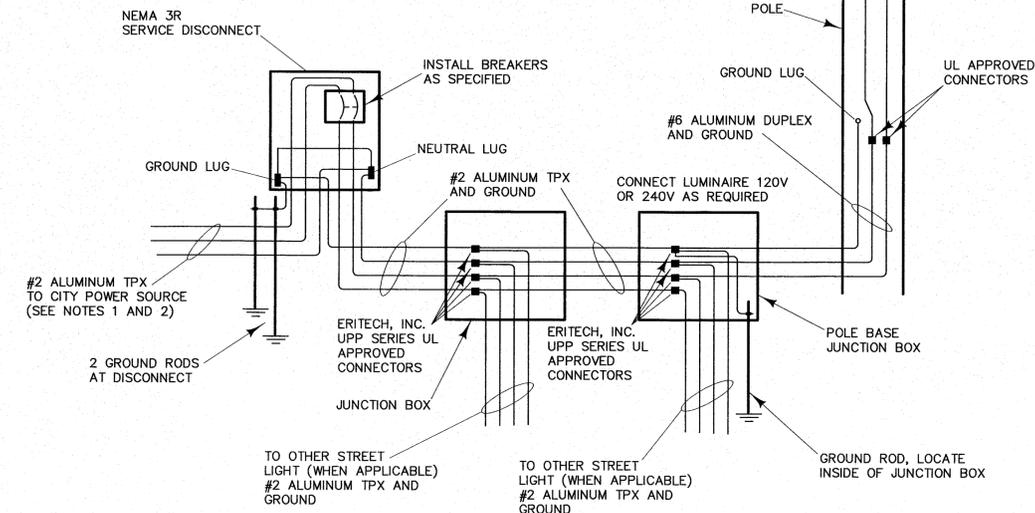
**LEGEND**

- ✱ NEW STREET LIGHT
- NEW STREET LIGHT DISCONNECT
- NEW STREET JUNCTION BOX
- ▣ NEW STREET LIGHT CIRCUIT POWER SOURCE
- NEW STREET LIGHT CONDUIT



**NOTES**

1. IF POWER SOURCE IS OVERHEAD POWER LINE, EXTEND CONDUIT TO WITHIN 1' OF CITY POLE AND LEAVE APPROXIMATELY 50' OF #2 ALUM. TPX HANGING OUT OF CONDUIT FOR CITY CONNECTION.
- IF POWER SOURCE IS PAD MOUNT TRANSFORMER OR UNDERGROUND JUNCTION BOX, EXTEND CONDUIT INTO VAULT OR JUNCTION BOX WITH CITY OVERSIGHT AND LEAVE 5' OF #2 ALUM. TPX FOR CITY CONNECTION.
2. CITY OF RICHLAND TO PROVIDE POWER SOURCE CONNECTIONS.



**STREET LIGHT STANDARD WIRING DIAGRAM**

**AS-BUILT PLANS**

THIS DRAWING IS A TRUE AND ACCURATE REPRESENTATION OF THE ACTUAL CONSTRUCTION TO THE BEST OF OUR KNOWLEDGE. IT IS SUGGESTED THAT THIS PLAN BE USED IN CONJUNCTION WITH FIELD VERIFICATION OF LOCATION AND ELEVATION OF IMPROVEMENTS IN QUESTION.

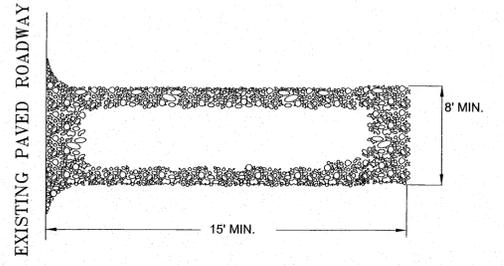
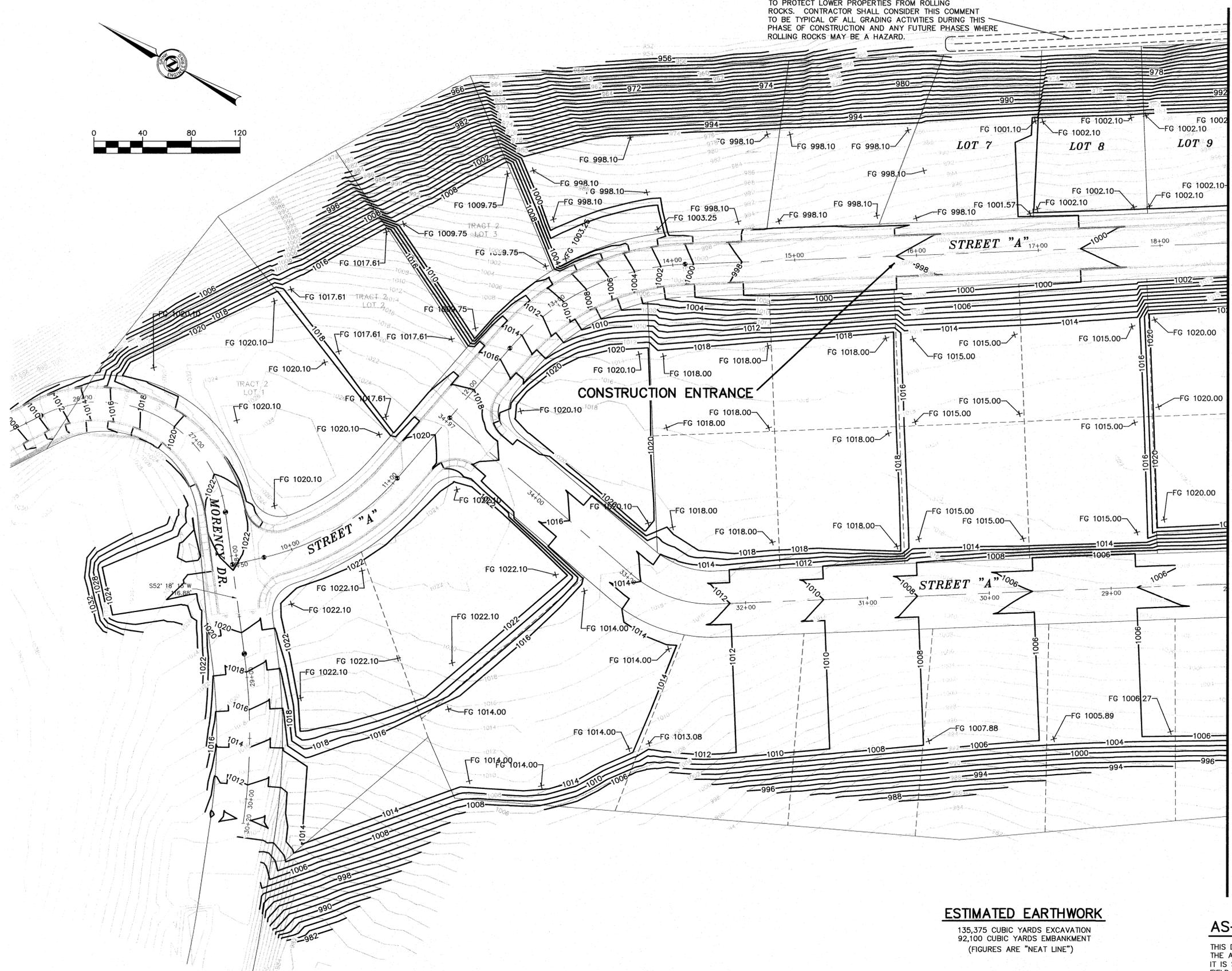
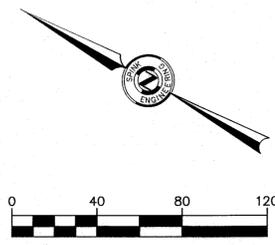


**STREET LIGHT PLAN**

<p><b>CREST TRACT 4</b></p> <p>RICHLAND WASHINGTON</p>		<p>DESIGN FOR:</p> <p><b>MILO BAUDER</b></p> <p>2495 MORENCY DR. RICHLAND, WA 99352 (509) 521-1608</p>		<p>1 12/5/11 RECORD DRAWING AS-BUILTS SWS RJS</p> <p>REV. DATE DESCRIPTION BY APP'D</p>		<p><b>SPINK ENGINEERING, LLC.</b></p> <p>1045 JADWIN AVE., SUITE E RICHLAND, WASHINGTON 99352 (509) 946-1581</p>		<p>10136-PH3.DWG</p> <p>DATE: 6/12/11 SHEET 3 OF 5</p> <p>DRAWN BY: SWS JOB # 11-125</p>	
--	--	--	--	---	--	--	--	--	--

CALL 1-800-424-5555 AND NON-MEMBER UTILITIES FOR UTILITY LOCATE 2 BUSINESS DAYS PRIOR TO EXCAVATION

CONTRACTOR TO CONSTRUCT EARTH BERM TO PROTECT LOWER PROPERTIES FROM ROLLING ROCKS. CONTRACTOR SHALL CONSIDER THIS COMMENT TO BE TYPICAL OF ALL GRADING ACTIVITIES DURING THIS PHASE OF CONSTRUCTION AND ANY FUTURE PHASES WHERE ROLLING ROCKS MAY BE A HAZARD.



- NOTES:**
1. INSTALL AS SOON AS POSSIBLE, PRIOR TO BEGINNING CLEARING OR GRADING.
  2. USE 2-TO-3 INCH FRACTURED AGGREGATE STONE WITH MINIMAL FINES.
  3. ENTRANCE MUSE BE AT LEAST 8- FEET WIDE AND 15- FEET LONG.
  4. REPLACE AS NEEDED WHEN FULL OF SEDIMENT, AND TO MAINTAIN SIX-INCH DEPTH.

**STABILIZED CONSTRUCTION ENTRANCE**  
NOT TO SCALE

**EROSION/SEDIMENTATION CONTROL (ESC) NOTES**

1. THE CONTRACTOR SHALL BE RESPONSIBLE, AT ALL TIMES, DURING CONSTRUCTION FOR EROSION AND SEDIMENTATION CONTROL. THE CONTRACTOR SHALL INSTALL A SILT FENCE AND/OR STRAW BALES AROUND PERIMETER OF PROJECT SITE, IF NEEDED, TO PROTECT ADJACENT PROPERTIES FROM WIND BLOWN DUST & SAND AND FROM SEDIMENTATION TRANSPORTED BY WATER RUN-OFF.
2. THE ESC FACILITIES, IF NEEDED, MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.
3. DURING THE CONSTRUCTION PERIOD ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO INSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DOES NOT LEAVE THE SITE.
4. AT NO TIME SHALL MORE THAN 1 FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
5. ALL DISTURBED AREAS SHALL BE HYDRO-SEEDING AT THE COMPLETION OF THIS PROJECT.

**GENERAL NOTES**

1. CONTOURS SHOWN ON THIS PLAN ARE FINISHED GRADE.
2. GRADING CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL EVALUATION PREPARED BY "ALLWEST MATERIALS TESTING," DATED DECEMBER 31, 2008, AND ALL ADDENDA.

**ESTIMATED EARTHWORK**

135,375 CUBIC YARDS EXCAVATION  
92,100 CUBIC YARDS EMBANKMENT  
(FIGURES ARE "NEAT LINE")

**AS-BUILT PLANS**

THIS DRAWING IS A TRUE AND ACCURATE REPRESENTATION OF THE ACTUAL CONSTRUCTION TO THE BEST OF OUR KNOWLEDGE. IT IS SUGGESTED THAT THIS PLAN BE USED IN CONJUNCTION WITH FIELD VERIFICATION OF LOCATION AND ELEVATION OF IMPROVEMENTS IN QUESTION.



**OVERALL GRADING PLAN**

**CREST TRACT 4**  
LOTS 7, 8, & 9  
RICHLAND WASHINGTON

DESIGN FOR:  
**MILO BAUDER**  
2495 MORENCY DR.  
RICHLAND, WA 99352  
(509) 521-1608

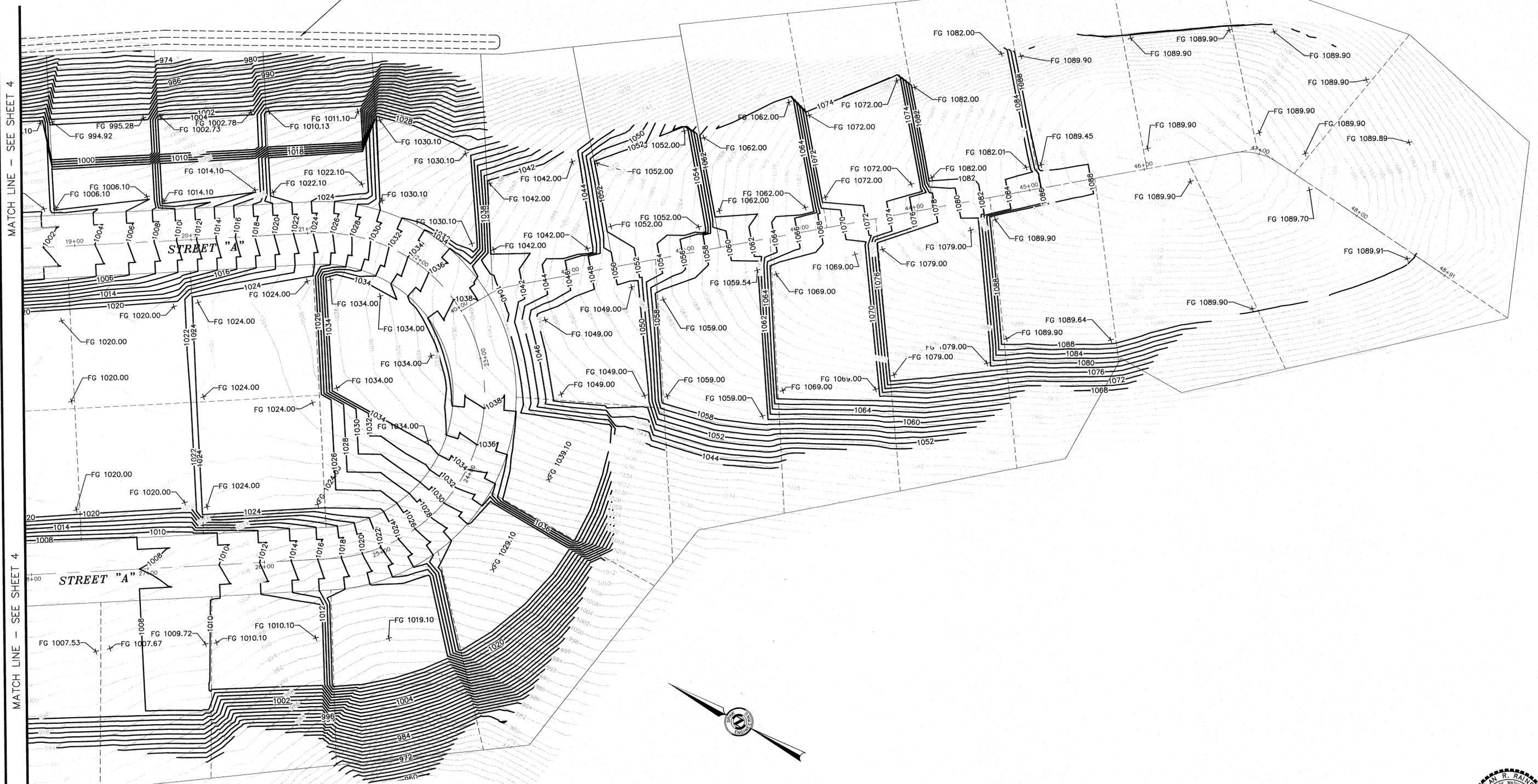
REV.	DATE	DESCRIPTION	SWS	RJS	APP'D
1	12/5/11	RECORD DRAWING AS-BUILTS			

**SPINK ENGINEERING, LLC.**  
1045 JADWIN AVE., SUITE E  
RICHLAND, WASHINGTON 99352  
(509) 946-1581

10136.DWG	DATE: 6/12/11	SHEET 4 OF 5
DRAWN BY: SWS	JOB # 11-125	

CALL 1-800-424-5555 AND NON-MEMBER UTILITIES FOR UTILITY LOCATE 2 BUSINESS DAYS PRIOR TO EXCAVATION

CONTRACTOR TO CONSTRUCT EARTH BERM TO PROTECT LOWER PROPERTIES FROM ROLLING ROCKS. CONTRACTOR SHALL CONSIDER THIS COMMENT TO BE TYPICAL OF ALL GRADING ACTIVITIES DURING THIS PHASE OF CONSTRUCTION AND ANY FUTURE PHASES WHERE ROLLING ROCKS MAY BE A HAZARD.



MATCH LINE - SEE SHEET 4

MATCH LINE - SEE SHEET 4



**AS-BUILT PLANS**

THIS DRAWING IS A TRUE AND ACCURATE REPRESENTATION OF THE ACTUAL CONSTRUCTION TO THE BEST OF OUR KNOWLEDGE. IT IS SUGGESTED THAT THIS PLAN BE USED IN CONJUNCTION WITH FIELD VERIFICATION OF LOCATION AND ELEVATION OF IMPROVEMENTS IN QUESTION.



**OVERALL GRADING PLAN**

<p><b>CREST TRACT 4</b> LOTS 7, 8, &amp; 9</p>		<p>DESIGN FOR: <b>MILO BAUDER</b> 2495 MORENCY DR. RICHLAND, WA 99352 (509) 521-1608</p>		<p>1 12/5/11 RECORD DRAWING AS-BUILTS SWS RJS REV. DATE DESCRIPTION BY APP'D</p>		<p><b>SPINK ENGINEERING, LLC.</b> 1045 JADWIN AVE., SUITE E RICHLAND, WASHINGTON 99352 (509) 946-1581</p>		<p>10136.DWG</p>	<p>DATE: 6/12/11 SHEET 5 OF 5</p>
<p>RICHLAND</p>	<p>WASHINGTON</p>					<p>DRAWN BY: SWS</p>	<p>JOB # 11-125</p>		



State of Washington  
**Department of Fish and Wildlife**  
Habitat Program  
2620 North Commercial Avenue, Pasco, WA 99301  
Phone: (509) 543-3319, E-mail, Michael.Ritter@dfw.wa.gov

MWR-10-19

June 5, 2019

Spink Engineering  
Steve Spink  
Richland, WA 99352

Dear Mr. Spink,

Thank you for contacting the Washington Department of Fish and Wildlife (WDFW) regarding the plat submittal packages in the City of Richland for Skyline South and Falcon Ridge II.

WDFW appreciates the foresight by the City to have you contact us as an initial step to identify and address any issues related to Priority Habitats and Species (PHS), and other important natural resources.

Based on my review of the WDFW PHS database and Google Earth, there are no PHS issues such as shrub-steppe habitat or animal species occurrences associated with either preliminary plat.

While the PHS databases identifies that entire ridgeline and hill sides of Falcon Ridge II as priority shrub-steppe habitat, Google earth reveals that most if not all of the land are for Falcon Ridge II was previously disturbed.

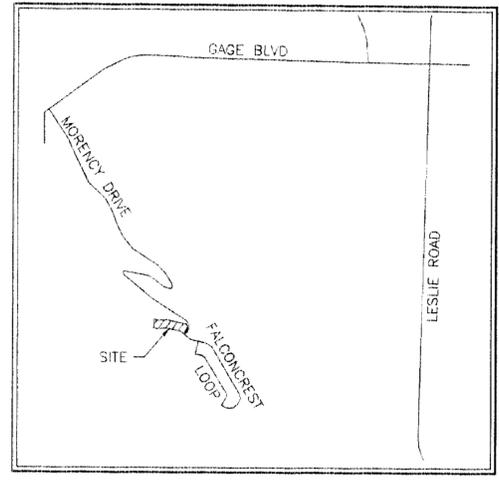
Please contact me with any questions.

Sincerely,

Michael Ritter  
Habitat Biologist

**CITY OF RICHLAND NOTES:**

1. ADDRESS NUMBERS [NOTED IN BRACKETS] ARE SUBJECT TO CHANGE BY THE CITY OF RICHLAND. ZIP CODE: 99352.
2. THE UTILITY EASEMENTS SHOWN HEREON ARE HEREBY GRANTED FOR THE USE, ACCESS AND MAINTENANCE BY THE SHORT PLATTED PROPERTY'S CURRENT UTILITY PROVIDER. SAID UTILITY EASEMENTS ARE FOR THE USE, ACCESS AND MAINTENANCE OF ELECTRIC POWER, TELEPHONE, CABLE AND OTHER DEFINED UTILITIES, TO AND OR THROUGH SAID LOTS.
3. NO BUILDING PERMITS FOR THE PROPOSED LOTS SHALL BE ISSUED FOR ANY STRUCTURE REQUIRING POTABLE WATER AND SANITARY SEWER SERVICE UNTIL AN APPROVED WATER AND SEWER DISTRIBUTION SYSTEM THAT WILL PROVIDE SERVICES TO THE LOT THAT THE STRUCTURE WILL BE BUILT UPON HAS BEEN DESIGNED AND ACCEPTED BY THE CITY OF RICHLAND ENGINEERING DEPARTMENT. NO CERTIFICATE OF OCCUPANCY SHALL BE ISSUED FOR ANY STRUCTURE UNTIL SAID SYSTEM IS CONSTRUCTED AND ACCEPTED BY THE CITY OF RICHLAND ENGINEERING DEPARTMENT, AND PROOF OF SUCH BE SUBMITTED TO THE DEVELOPMENT SERVICES DEPARTMENT. UTILITY INFORMATION IS AVAILABLE THROUGH THE CITY OF RICHLAND.
4. A SITE SPECIFIC GEOTECHNICAL STUDY AND REPORT PREPARED BY A LICENSED GEOTECHNICAL ENGINEER SHALL BE SUBMITTED TO THE CITY OF RICHLAND PRIOR TO THE ISSUANCE OF ANY GRADING OR BUILDING PERMITS BY THE CITY.
5. ALL LOTS WITHIN THE PLAT ARE SUBJECT TO THE CITY'S WILD LAND FIRE PROTECTION REQUIREMENTS AS DELINEATED IN RICHLAND MUNICIPAL CODE SECTION 21.01.030 OR AS THEY MAY BE SUBSEQUENTLY MODIFIED. ALL STRUCTURES MUST BE DEVELOPED WITH NON-COMBUSTIBLE SIDING, SOFFIT AND SKIRTING ON THE SIDE ADJACENT TO THE WILD-LAND AREA. DECKS OR PORCHES 36 INCHES OR LESS IN HEIGHT SHALL HAVE SKIRTING IF WITHIN 30 FEET OF ADJACENT WILD-LAND AREAS WHEN THE WILD-LAND AREA IS IN EXCESS OF FIVE CONTIGUOUS ACRES. SKIRTING SHALL BE SUFFICIENTLY CONSTRUCTED SO AS NOT TO ALLOW THE ACCUMULATION OF COMBUSTIBLE MATERIAL UNDER THE DECK OR PORCH. THE AREA UNDER THE DECK OR PORCH SHALL NOT BE USED FOR STORAGE.



**SHORT PLAT NO. 3553**

PREPARED UNDER CITY OF RICHLAND SHORT PLAT ORDINANCE LOCATED IN THE NE 1/4 OF THE SW 1/4 OF SECTION 35, TOWNSHIP 9 NORTH, RANGE 28 EAST, W.M. CITY OF RICHLAND, BENTON COUNTY, WA

**LEGAL DESCRIPTION**

THAT PORTION OF THE SOUTHWEST QUARTER OF SECTION 35, TOWNSHIP 9 NORTH, RANGE 28 EAST, W.M., CITY OF RICHLAND, BENTON COUNTY, WASHINGTON DESCRIBED AS FOLLOWS:  
 BEGINNING AT THE INTERSECTION OF FALCONCREST LOOP AND MORENCY DRIVE, AS SHOWN ON THE PLAT OF FALCONCREST PHASE 1, RECORDED IN VOLUME 15 OF PLATS, PAGE 454, RECORDS OF BENTON COUNTY, WASHINGTON; THENCE NORTH 46°59'00" EAST 43.10 FEET ALONG THE CENTERLINE OF SAID MORENCY DRIVE TO A POINT OF CURVATURE MONUMENT; THENCE NORTH 43°01'00" WEST 23.00 FEET TO THE NORTH-WESTERLY RIGHT OF WAY MARGIN OF SAID MORENCY DRIVE AND THE TRUE POINT OF BEGINNING; THENCE SOUTH 52°18'13" WEST 43.31 FEET ALONG SAID RIGHT OF WAY MARGIN TO THE BEGINNING OF A NON-TANGENT CURVE, CONCAVE TO THE SOUTHWEST, HAVING A RADIUS OF 125.00 FEET (THE LONG CHORD OF SAID CURVE BEARS NORTH 58°12'50" WEST 85.06 FEET); THENCE NORTH-WESTERLY 86.79 FEET ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 39°48'57"; THENCE NORTH 78°06'19" WEST 158.51 FEET TO THE BEGINNING OF A CURVE, CONCAVE TO THE SOUTH, HAVING A RADIUS OF 300.00 FEET; THENCE WESTERLY 103.34 FEET ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 19°44'08"; THENCE SOUTH 82°09'33" WEST 12.27 FEET TO THE BEGINNING OF A CURVE, CONCAVE TO THE NORTH, HAVING A RADIUS OF 400.00 FEET; THENCE WESTERLY 118.82 FEET ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 17°01'12"; THENCE NORTH 5°06'33" EAST 139.37 FEET; THENCE SOUTH 74°42'56" EAST 56.82 FEET; THENCE NORTH 87°18'45" EAST 147.74 FEET; THENCE SOUTH 77°43'35" EAST 295.31 FEET TO SAID NORTH-WESTERLY RIGHT OF WAY MARGIN, SAID POINT BEING ON A NON-TANGENT CURVE, CONCAVE TO THE WEST, HAVING A RADIUS OF 82.00 FEET (THE LONG CHORD OF SAID CURVE BEARS SOUTH 3°54'58" WEST 122.62 FEET); THENCE SOUTHERLY 138.50 FEET ALONG THE ARC OF SAID CURVE AND ALONG SAID NORTH-WESTERLY RIGHT OF WAY MARGIN THROUGH A CENTRAL ANGLE OF 96°46'34" TO THE TRUE POINT OF BEGINNING.

CONTAINS 87,261 SQUARE FEET, MORE OR LESS

**OWNERS CERTIFICATE**

WE, THE UNDERSIGNED, HEREBY CERTIFY THAT WE ARE THE OWNERS OF THE TRACT OF LAND DESCRIBED HEREON, THAT WE HAVE CAUSED SAID LAND TO BE SURVEYED AND SHORT PLATTED INTO LOTS AS SHOWN WITH OUR CONSENT AND IN ACCORDANCE WITH OUR DESIRES AND THAT THE EASEMENTS ON THE SHORT PLAT ARE HEREBY GRANTED FOR THE USES SHOWN THEREON.

*Milo Bauder*  
 MILO BAUDER, MEMBER  
 BAUDER HOMES, LLC

**ACKNOWLEDGMENT**

STATE OF WASHINGTON } S.S.  
 COUNTY OF BENTON }  
 I CERTIFY THAT I KNOW OR HAVE SATISFACTORY EVIDENCE THAT Milo Bauder SIGNED THIS INSTRUMENT, ON OATH STATED THAT HE/SHE WAS AUTHORIZED TO EXECUTE THE INSTRUMENT AND ACKNOWLEDGED IT AS THE MEMBER OF BAUDER HOMES, LLC TO BE THE FREE AND VOLUNTARY ACT OF SUCH PARTY FOR THE USES AND PURPOSES MENTIONED IN THE INSTRUMENT.

DATED: 12-27-17 Karol A. Melde  
 NOTARY PUBLIC IN AND FOR THE STATE OF WASHINGTON

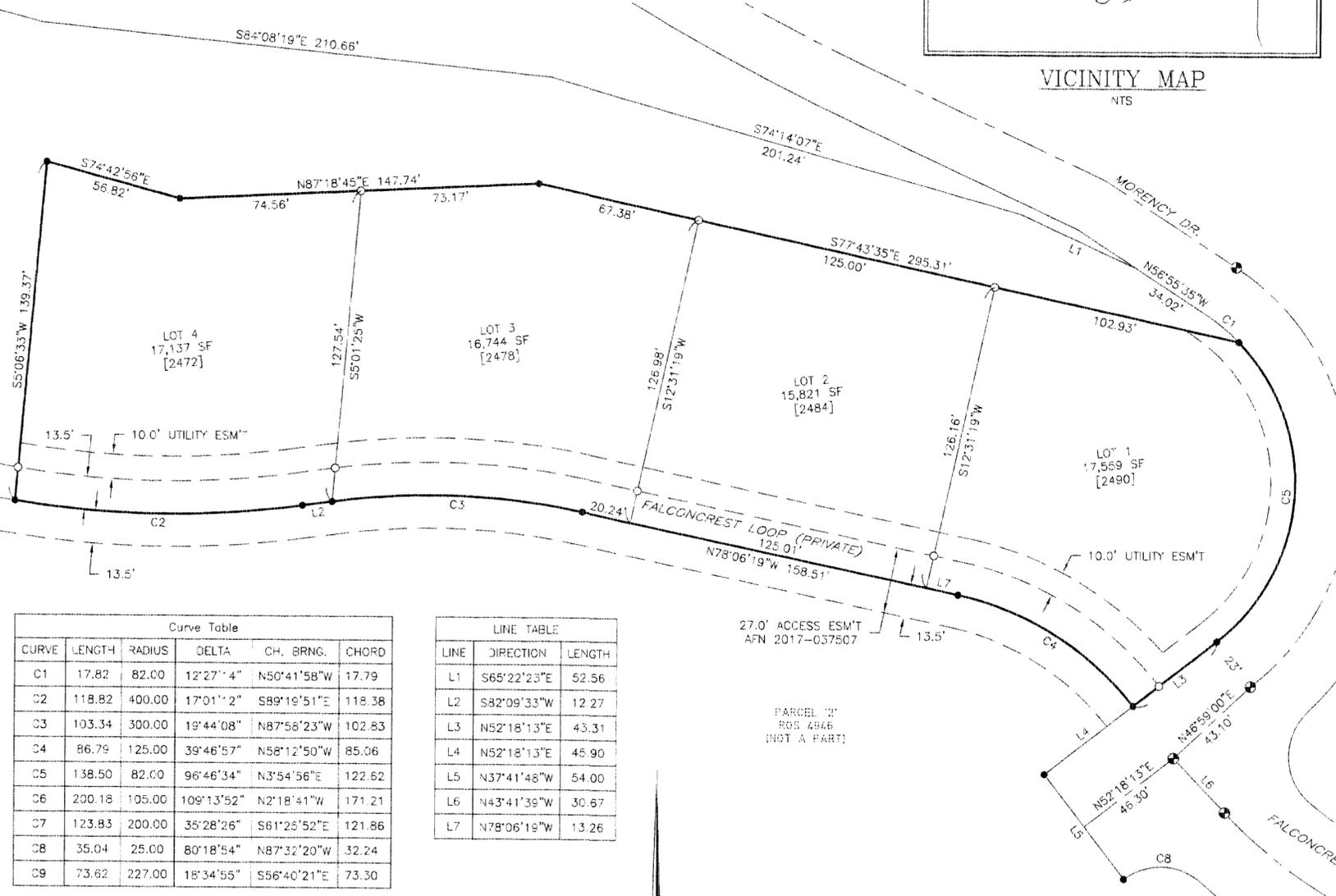
TITLE: Notary Public  
 MY APPOINTMENT EXPIRES: 1-29-18

**APPROVALS**

I HEREBY CERTIFY THAT ALL CHARGEABLE REGULAR AND SPECIAL ASSESSMENTS COLLECTIBLE BY THIS OFFICE THAT ARE DUE AND OWING ON THE PROPERTY DESCRIBED HEREON ON THE DATE OF THIS CERTIFICATION HAVE BEEN PAID.  
 DATED THIS 3rd DAY OF January, 2018.  
 PARCEL NUMBER 1-3598-300-0001-047  
Kenneth Spencer by Debra 01/03/2018  
 BENTON COUNTY TREASURER DATE  
 THE ANNEXED SHORT PLAT IS HEREBY APPROVED BY AND FOR THE CITY OF RICHLAND, COUNTY OF BENTON, STATE OF WASHINGTON.  
St J 12/27/2017  
 CITY OF RICHLAND CITY ENGINEER DATE

**AUDITOR'S CERTIFICATE**

FILED FOR RECORD AT THE REQUEST OF ROGERS SURVEYING AT 10:48 A.M., THIS 3 DAY OF January, 2018 A.D., AND RECORDED IN VOLUME 1 OF SHORT PLATS, AT PAGE 3553, RECORDS OF BENTON COUNTY, WASHINGTON.  
BRENDA CHILTON by Jillie 2017-000186  
 BENTON COUNTY AUDITOR DEPUTY AUDITOR FILE NUMBER REV: 12/06/17 BAG



Curve Table					
CURVE	LENGTH	RADIUS	DELTA	CH. BRNG.	CHORD
C1	17.82	82.00	12°27'4"	N50°41'58"W	17.79
C2	118.82	400.00	17°01'2"	S89°19'51"E	118.38
C3	103.34	300.00	19°44'08"	N87°58'23"W	102.83
C4	86.79	125.00	39°46'57"	N58°12'50"W	85.06
C5	138.50	82.00	96°46'34"	N3°54'56"E	122.62
C6	200.18	105.00	109°13'52"	N2°18'41"W	171.21
C7	123.83	200.00	35°28'26"	S61°26'52"E	121.86
C8	35.04	25.00	80°18'54"	N87°32'20"W	32.24
C9	73.62	227.00	18°34'55"	S56°40'21"E	73.30

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S65°22'23"E	52.56
L2	S82°09'33"W	12.27
L3	N52°18'13"E	43.31
L4	N52°18'13"E	45.90
L5	N37°41'48"W	54.00
L6	N43°41'39"W	30.67
L7	N78°06'19"W	13.26

**SURVEYOR'S NOTES:**

1. BASIS OF BEARINGS IS THE PLAT OF FALCONCREST PHASE 1, RECORDED IN VOLUME 15 OF PLATS, PAGE 454, RECORDS OF BENTON COUNTY, WASHINGTON.
2. ○ = SET 5/8" REBAR WITH ORANGE CAP STAMPED "RSI DPB 41028"
3. ● = FOUND 5/8" REBAR "RSI DPB 41028" OR MONUMENT AS NOTED.
4. ⊕ = FOUND 3" BRASS CAP IN MONUMENT CASE PER PLAT OF FALCONCREST PH 1
5. (R) = RECORD, (C) = COMPUTED, (M) = MEASURED, (P) = PLAT
6. EQUIPMENT AND PROCEDURES USED: DUAL FREQUENCY GPS RECEIVERS USING REAL TIME KINEMATIC METHODS & A 5" [2mm + 2ppm] TOTAL STATION USING CLOSED TRAVERSE & RADIAL SURVEY METHODS.

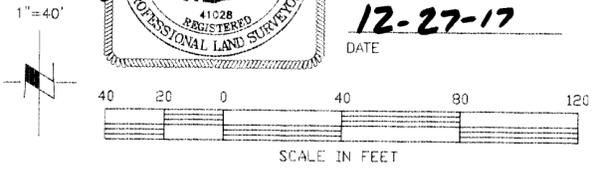
**SURVEYOR'S CERTIFICATION**

I, DAVID P. BAALMAN, A PROFESSIONAL LAND SURVEYOR IN THE STATE OF WASHINGTON, (REG# 41028) HEREBY CERTIFY THAT THE SHORT PLAT AS SHOWN HEREON IS BASED ON AN ACTUAL FIELD SURVEY OF THE LAND DESCRIBED AND THAT ALL CORNERS AND DIMENSIONS ARE CORRECTLY SHOWN AND THAT SAID SHORT PLAT IS STAKED ON THE GROUND AS INDICATED HEREON.



*David P. Baalman*  
 DAVID P. BAALMAN

12-27-17  
 DATE



2018-000186 B: 01 P: 3553 SP  
 01/03/2018 10:48 AM Pages: 1 Fee: \$158.00  
 Benton County Auditor's Office

**RSI ROGERS SURVEYING INC., P.S.**  
 1455 COLUMBIA PARK TRAIL  
 RICHLAND, WA. 99352  
 PHONE (509) 783-4141  
 FAX: (509) 783-8994  
 www.rogerssurveying.com

CLIENT	BAUDER HOMES, LLC		JOB	23517			
PROJECT	SHORT PLAT						
	SW 1/4, S35, T.9N., R.28E., W.M.						
DRN. BY	BAG	SCALE	"= 100'	ACAD VER	NONE	SHEET	1
APPROVED	DPB	DATE	11/14/17	F.B. NO	C3D17	OF	1
				FILE:	23517-SP.DWG		