

## Board of County Commissioners

**Staff Report**

### Matters from Planning Agenda item #3: DEV2016-0003

**Meeting Date:** October 18, 2016

**Presenter:** Hamilton Smith

**Submitting Dept:** Planning

**Subject:** Snake River Canyon Ranch Resort Final Development Plan, Phase 1

**Applicant/Property Owner:** SRS Club, LLC; Cygnus Capital, Inc.; SRSC Lots, LLC; Snake River Sporting Partners, LLC

**Agent:** Jorgensen Associates, P.C.

### **REQUESTED ACTION**

Final Development Plan approval, pursuant to Section 8.3.2 of the Teton County Land Development Regulations, for the Phase One development of the Amended Snake River Canyon Ranch Resort Sub Area III. Application includes 12 proposed residential lots and 10 campground units.

### **APPLICABLE REGULATIONS (see Attachment 1)**

**Snake River Canyon Ranch Resort (SRCRR) Planned Unit Development Planned Resort (PUD-PR) Master Plan**

Section 1.3 C.3, Phasing Requirements (Complies as conditioned)

Division 2.3, Standards Applicable to Sub Area III – Resort Lodging Core (Complies)

### **Land Development Regulations (Effective 10/19/2015)**

Division 4.1, All Special Purpose Zones (Complies)

Division 5.1, Environmental Standards (Complies)

Division 5.2, Environmental Standards (Complies)

Division 6.1, Allowed Uses (Complies)

Division 6.2, Parking and Loading Standards (Complies)

Division 6.3, Employee Housing Requirements (Complies)

Division 6.4, Section 6.4.2, Refuse and Recycling (Complies)

Division 7.6, Transportation Facility Standards (Complies)

### **PROJECT DESCRIPTION**

This Final Development Plan is for the first Phase of development within Sub Area III of the Amended and Restated Snake River Canyon Ranch Resort PUD-PR Master Plan (2016; Master Plan). Phase One consists of two sub-phases. Phase 1A contains 12 platted lots that will each accommodate one single-family detached home of approximately 3,500 square feet. Each unit shall be dual use: available for single-family residential or short-term rental. Phase 1A is located on Lots 69 and 80. Phase 1B, called Discovery Village, contains 10 campground units. Discovery Village is located primarily on Lots 2 and 3, with the southeast edge of the campground overlapping Lot 4.

In accordance with Master Plan Sec. 2.3.D.2, "Required Subdivision and Development Option Permits" specific to Sub Area III, any subdivision requires a Development Plan application.

### **SITE DESCRIPTION**

**Property Location:** Lots 2, 3, 4, 69 and 80, Snake River Canyon Ranch Resort, Sub Area III. Located east of Highway 26/89 and the Snake River, approximately 2.5 miles south of the Astoria bridge and four miles southwest of Hoback Junction (S8, T38N, R116W).

DEV2016-0003

October 18, 2016

Organizational Excellence \* Environmental Stewardship \* Vibrant Community \* Economic Sustainability

**PIDN:** 22-38-16-08-1-01-002, -003, -004, -069, -080.  
**Property Size:** Total: 8.23 acres (Lot 2: 1.45 ac.; Lot 3: 1.64 ac.; Lot 4: 1.42 ac.; Lot 69: 0.34 ac.; Lot 80: 3.38 ac.)  
**Character District:** District 8: River Bottom  
**Subarea:** 8.3: Canyon Corridor  
**Classification:** Conservation  
**Zoning:** Planned Unit Development – Planned Resort PUD-PR  
**Overlay(s):** Natural Resources Overlay (NRO), Scenic Resources Overlay (SRO)

**Vicinity Map:**



**BACKGROUND**

The project area is located within an approximately 1,100-acre swath of land located south of Hoback Junction and east of the Snake River, which spans two major developments—the Snake River Canyon Ranch Resort and the Snake River Sporting Club Planned Residential Development (PRD) and golf course. Although initially owned and developed by the same entity, the two major developments were permitted and approved through separate planning processes, and have since come under different ownership.

**Snake River Canyon Ranch Resort**

The Snake River Canyon Ranch Resort (SRCRR) Planned Unit Development Planned Resort (PUD-PR) Master Plan was originally approved by the Board of County Commissioners on July 6, 1999 (DEV1999-0016). In conjunction with the 1999 PUD-PR Master Plan approval, the Teton County Official Zoning District Map was amended, rezoning approximately 195 acres of land from Rural to PUD-PR. In addition, a text amendment to the Land Development Regulations (LDRs) that reflected the new resort was approved at that time. The 1999 PUD-PR Master Plan approval allowed for a main lodge with a maximum of 28 hotel rooms, six condominiums, six single unit cabins, 16 duplex cabins, eight single family home sites, hot spring/spa facilities, platform tennis facilities, a helicopter pad and associated support and maintenance facilities for a heli-skiing operation, affordable and employee housing, and miscellaneous resort support facilities.

The Snake River Canyon Ranch Resort is one of six Resort Zones in Teton County, Wyoming, including Teton Village I, Teton Village II, Jackson Hole Golf and Tennis, Grand Targhee Resort, and Snow King Resort. Since the original approval of the resort zone, the Snake River Canyon Ranch Resort ownership went through a number of bankruptcies and ownership changes.

On September 17, 2015, the Teton County, Wyoming Board of County Commissioners approved an amendment to the SRCRR PUD-PR (PUD2015-0002) and approved an accompanying LDR Text Amendment (AMD2015-0003) and Zoning Map Amendment (ZMA2015-0002). These approvals included the removal of 101.7 acres of land within the SRCRR PUD-PR, and rezoning this removed acreage as Park and Open Space. This action was recorded on August 31, 2016. It also relocated 56 lodging units from land removed from the SRCRR PUD-PR land to an 18.5 acre receiving area previously within the Snake River Sporting Club Planned Residential Development. This 18.5 acre receiving area was subsequently rezoned PUD-PR and became part of SRCRR (the Resort). As a result of this 2015 amendment, the Resort is comprised of three Planned Resort Zone Sub Areas: Sub Area I - the 5.2 acre "Astoria Hot Spring Site", Sub Area II – the "Legacy Lots and Resort Infrastructure", and Sub Area III, the "Resort Lodging Core".

In conjunction with the approval of the SRCRR PUD-PR amendment, the Teton County Board of County Commissioners approved an overall Sketch Plan for the development of lands within the Resort (SKC2015-0001). This sketch plan approval included approval of conceptual development plans for specific areas within the Planned Resort. As a result, the thresholds for required submittal and approval of physical development permits are specific to the Resort and its Sub Areas and these physical development permit threshold requirements are described within the Master Plan.

### **Sub Area III – Resort Lodging Core**

Sub Area III of the resort consists of 18.5 acres of land comprised of Lots 2-6, 47, 69 and 80. These lots are the intended destination for the majority of the resort development, other than the facilities associated with the hot springs park amenity. A total of 62 lodging units, and up to as many as 70, are approved for Sub Area III. The total units include the following:

- 16 detached units originally approved as 3 lots in The River Homes and 13 lots in The Canyon Homes proposed at 5,000 square feet each
- 40 attached units originally approved as condominium units within the resort lodge with a proposed total size of 100,000 square feet
- 6 detached units originally approved as five lots within the Snake River Sporting Club PRD, and the golf course superintendent's residence, totaling 35,000 square feet.

## **The Amended and Restated Snake River Canyon Ranch Resort PUD-PR Master Plan (signed July 13, 2016)**

On July 13, 2016, the Planning Director signed and put into force the Certification of Amendment and Complete Restatement of Entitlements, Standards and Conditions for the Snake River Canyon Ranch Resort Planned Unit Development Planned Resort (the Master Plan). The purpose of the Snake River Canyon Ranch Resort - Planned Resort Zone is to provide for a mix of recreational, retail, and service-oriented activities which have a high degree of self-containment and provides economic and other benefits to the community. The Master Plan establishes the entitlements, standards and conditions for the development and use of the Snake River Canyon Ranch Resort (the Resort).

All development shall comply with Section 2.3 of the Master Plan. Where the Master Plan is silent, all proposed resort development will comply with Teton County LDRs effective October 19<sup>th</sup>, 2015.

### **STAFF ANALYSIS**

#### **KEY ISSUE**

##### **1. Has the applicant met the intent of the Master Plan Requirements related to Improvement Service District (ISD) formation?**

On September 17, 2015 the Board of County Commissioners approved an amendment to the Snake River Canyon Ranch Resort Master Plan (PUD2015-0002) that included the following condition of approval:

7. *Prior to issuance of a Development Plan permit for any phase of the resort, the applicant shall be required to provide the following to the County Engineering office for review, approval, or approval subject to additional conditions and requirements:*

a. *Documentation of an official agreement with the US Forest Service formalizing Johnny Counts Road/South Hoback Junction Road for emergency access and limited construction access purposes in instances where the load cannot meet the height limits of the Astoria Bridge. If an official agreement has not been reached at that time, the applicant shall either provide written documentation from the US Forest Service regarding anticipated timing for an agreement or confirmation that an agreement is not possible, to be submitted to the County Engineer.*

b. *Documents necessary for establishment of the proposed Improvement and Service District or HOA-controlled entity which will be charged with operation and maintenance of the bridge, monitoring and submittal of traffic counts as required by other conditions of this approval, development and management of the proposed community traffic awareness program, evaluation, implementation and enforcement of travel demand management strategies, including, but not limited to, those described in the June 23, 2015 memo prepared by Jorgensen Associates, and establishment of a long-term capital plan to create a reserve fund for the eventual capital needs of the bridge.*

The applicant incorporated the requirements of Condition #7 of the PUD approval into the Master Plan, which presents the regulatory framework and timelines associated with ISD formation by which the applicant must adhere, as follows:

Master Plan, **Sec. 1.3.C.3.1.b.**

*An Improvement Service District, or other entity approved by the Teton County Planning Director, shall be created within three years of the approval of the first Use, Physical Development, or Development*

*Option Permit to ensure that all landowners south of Astoria Bridge will be responsible for the safe operation and maintenance of the road and bridge infrastructure serving the Resort.*

and, Master Plan, **Sec. 1.3.C.3.1.d.**

*Prior to issuance of the first Use, Physical Development or Development Option Permit, within the Resort after adoption of this Master Plan by Teton County, the applicant shall be required to provide the following to the Teton County Engineer for review, approval or approval subject to additional conditions and requirements:*

*ii. Documents necessary for the establishment of the proposed Improvement Service District, or other entity approved by the Teton County Planning Director, which will be charged with the operation and maintenance of the Astoria Bridge, monitoring and submittal of traffic counts as required above, development and management of the proposed community traffic awareness program, evaluation implementation and enforcement of traffic demand management strategies, including, but not limited to those described in the June 23, 2015 memo prepared by Jorgensen Associates (attached to this Master Plan as Attachment 6) and establishment of a long term capital plan to create a reserve fund for the eventual capital needs of the bridge.*

Phasing requirements for the overall Resort are limited to the Resort road and infrastructure maintenance and improvement requirements. Pursuant to the Master Plan, as cited above, an Improvement Service District, or other entity approved by the Teton County Planning Director, shall be created within three years of the approval of the first Use, Physical Development, or Development Option Permit. It is noteworthy that, though three years is allowed for creation of an ISD, the applicant shall provide documents necessary for the establishment of the proposed ISD, or other entity approved by the Teton County Planning Director, to the Teton County Engineer prior to issuance of the first Use, Physical Development or Development Option Permit.

It is unclear what exactly “the documents necessary for the establishment of the proposed ISD” are. What is clear from the PUD2015-0002 approval conditions is that the BCC intent was to have the documents necessary for the establishment of the proposed ISD or HOA-controlled entity, charged with operations, maintenance, management and establishment of long-term capital plan to create a reserve fund, prior to issuance of a Development Plan permit for any phase of the resort. A conservative interpretation of “documents necessary for the establishment of the proposed ISD” would entail a Petition for ISD formation that was voted on and approved by the Membership of the ISD. Otherwise, there is no certainty that an ISD would ever be established, and the applicant will have the ability to successfully permit extensive development south of Astoria Bridge, and within the Resort, without any functional means of adhering to the responsibility of operating, maintaining, and managing the Resort infrastructure including Astoria Bridge, as required by the Phasing Requirements component of the Master Plan.

In the event that an ISD, or other Planning Director approved entity to meet this purpose, is not formed within 3 years of Final Development Plan approval, the Board would have an opportunity to ascertain whether or not the Resort is proceeding in accordance with the approved Phasing Plan pursuant to Sec. 1.3.C.2.4. of the Master Plan, which addresses Reconsideration through either Amendment (1.3.C.2.4.a) or Revocation (1.3.C.2.4.b). To address this, a timeline will be established by Staff based on the date of approval of DEV2016-0003, to track the stated performance period, indicated as “within three years of the approval of the first Use, Physical Development, or Development Option Permit.” If the Conditions of this approval related to the formation of an ISD, or other entity approved by the Teton County Planning Director, is not met within three years the application shall be found to a) have failed to proceed in general accordance with the approved phasing plan, and b) be in substantial noncompliance with the performance objectives specified in the conditions of approval. Under these circumstances, in October of 2019, Planning Staff will set a hearing date with the Board of County Commissioners for Reconsideration of the Master Plan.

An Improvement Service District (ISD) map and associated membership petition for formation of an ISD have been submitted to the Teton County Clerk's Office. The Planning Commission discussion of 9/26/2016 introduced the concept of conditioning the Development Plan approval with deference to Wyoming State Statute as a standard to determine whether the "documents necessary" for formation of an ISD are adequately met, as described in the Planning Commission Discussion section below. Planning Staff is comfortable with this approach, and a review of the ISD petition pursuant to Wyoming State Statute shall be incorporated as the mechanism to insure both the intent of the PUD approval and regulations set forth in the Master Plan are met.

### **FINDINGS FOR APPROVAL OF A DEVELOPMENT PLAN**

Pursuant to Section 8.3.2, Development of the LDRs, the Development Plan application has been evaluated against the following findings:

**1. *Is consistent with the desired future character described for the site in the Jackson/Teton County Comprehensive Plan.***

*In the future, the functionality of this district's wildlife habitat and habitat connections should be maintained or enhanced. Wildlife permeability through the district should be improved, and efforts to restore degraded habitat and preserve a network of crucial habitat will be emphasized. Non-development conservation of open spaces should be the focus of future efforts, while respecting existing private property rights. Development potential should be directed out of this district and into Complete Neighborhoods whenever possible. Development that does occur should be clustered adjacent to existing development and designed to protect wildlife habitat and wildlife movement corridors. Redevelopment efforts should focus on improving the functionality of wildlife habitat and connections. Responsible public use of the rivers and eco-tourism that maintains or enhances wildlife viability are desired. The levee system along the Snake River provides an opportunity for residents and tourists to appreciate the ecosystem and engage in public stewardship. Public and commercial access to the levee and rivers will be managed with an emphasis on conservation of wildlife habitat and movement.*

**Complies.** The subject properties are located adjacent to the Snake River and a part of a riparian corridor that provides habitat and migration corridors for elk, moose, mule deer, trumpeter swans, and raptors including the bald eagle. The existing entitlements associated with the Snake River Canyon Ranch Resort that were approved prior to adoption of the current Comprehensive Plan. Development has been located to a previously disturbed area removed from the Snake River and within and adjacent to an existing golf course and residential development. Although the proposal does not direct development out of the district and into Complete Neighborhoods, it improves clustering and reduces impacts to wildlife habitat and visual resources while respecting the existing rights associated with the resort approval. Additionally, approval of the Resort included the removal of 101.7 acres of land from within the resort boundary. This land has been rezoned to Park and shall be managed as a passive recreation area open to the public. This portion of the proposal contributes to the goal of non-development conservation of open space within the River Bottom character district.

### **POLICY OBJECTIVES**

- ***Policy 1.1.b: Protect wildlife from the impacts of development***

**Complies.** Two separate Environmental Analyses (EA) were prepared at the time of the 2015 amendment to the PUD to evaluate components of the current proposal. The area proposed for development is within an existing golf course and residential area. The 2015 EA review determined compliance with this policy objective.

- ***Policy 1.1.c: Design for wildlife Permeability***

**Complies.** The current proposal does not include any fencing and is designed for wildlife permeability.

- ***Policy 1.1.h: Promote responsible use of public lands***

**Not applicable.** The current proposal is located entirely on private lands.

- ***Policy 1.2.a: Buffer water bodies, wetlands, and riparian areas from development***

**Complies.** The proposed development meets all required wetland and waterbody buffers.

- **Policy 1.3.b: Maintain expansive hillside and foreground vistas**

**Complies.** The proposed development is screened from view from the highway and the river. There is no component to the development plan that includes development on hillsides.

- **Policy 1.4.a: Encourage non-development conservation of wildlife habitat**

**Complies.** The approval of the resort in 2015 included a requirement to remove 102 acres of land from within the resort zone, to be rezoned Park and managed as a passive recreation area. Permanent protection of this land is presently underway with the Jackson Hole Land Trust (Appendix 2). The Park zoning district limits the uses and intensity of development, allowing the land to effectively serve as non-development conservation of important wildlife habitat and movement corridors.

- **Policy 1.4.c: Encourage rural development to include quality open space**

**Complies.** The current proposal is dependent upon the concurrent rezoning of 102 acres of land within the resort to Park zoning where it will serve as open space. This rezoning was approved by the Board during the 2015 approval, and was memorialized on August 31, 2016. The land will be placed in a passive recreation park use, and per the recommendations of the EA, the use will be managed to avoid impacts to wildlife and crucial habitat.

- **Policy 3.1.b: Direct development toward suitable Complete Neighborhood subareas**

**Not applicable.** The current proposal involves approved development rights within an existing resort area.

- **Policy 3.1.c: Maintain rural character outside of Complete Neighborhoods**

**Complies.** Sub Area III of the resort was approved dependent upon the reorganization of existing development entitlements associated with an approved resort master plan. This decreased the overall intensity of use and removed over 100 acres from the resort, reserving those acres as part of a public park to protect open space and wildlife habitat. The currently proposed development is located away from the Snake River and adjacent to existing residential and golf course uses. The proposal will not alter or diminish the existing rural character of the area.

- **Policy 6.1.b: Promote eco-tourism**

**Complies.** The PUD amendments and Sketch Plan approved last fall have led to the development of a park at Astoria Hot Springs which will serve as the primary resort amenity and will be open to the public year-round, creating opportunities for recreation during the shoulder and winter seasons. In addition to hot spring soaking pools, the park will include opportunities for passive recreation along the Snake River corridor. The hot spring park amenity will contribute to opportunities for low-impact enjoyment of the Snake River canyon corridor.

**2. *Achieves the standards and objective of the Natural Resource Overlay (NRO) and Scenic Resources Overlay (SRO), if applicable.***

**Complies.** The proposed development is in the NRO and the SRO. A full analysis of the Natural and Scenic impacts was reviewed for this proposal. See Attachment 1 of this staff report, Applicable Land Development Regulations, Sections 5.2.1 and 5.3.2.

**3. *Does not have significant impact on public facilities and services, including transportation, potable water and wastewater facilities, parks, schools, police, fire, and EMS facilities.***

**Complies.** A majority of the infrastructure associated with the resort, including water and sewer systems, is privately owned and operated. An existing community water system serves the development within the Snake River Canyon Ranch Resort and the Snake River Sporting Club PRD and golf course. This system was approved and permitted by DEQ. The current proposal does not modify the overall density of development, so the existing capacity of the system should be adequate. However, the mains, pressures and flows will need to be checked, accounting for domestic use, lawn watering, and fire suppression, in order to ensure adequate supply.

The applicant is responsible for the establishment of an Improvement Service District (ISD) encompassing the properties within the Resort and SRSC as well as landowners who access their property via the bridge but are

not part of either major development. The ISD would be charged with collecting and reporting monthly traffic data, maintaining and operating the bridge, and establishing a long-term capital plan for eventual upgrade or replacement of the bridge when necessary. The establishment of the ISD provides a predictable means of ensuring maintenance and safe operation of the bridge in the future.

Per PUD2015-0002 Condition #5, If during the reporting time, vehicle stacking into the US 89 clear zone (30') is observed (with the exception of any special event that implements traffic control) the applicant shall be required to implement a mitigation plan to reduce the vehicle queuing length to be outside of the 30' clear zone of US 89. Mitigating measures including, but not limited to, installing traffic signals, controlling the number of vehicles entering the site, various traffic demand management tactics or improvements to the bridge facility shall be required.

The Employee Housing Transfer Fee Agreement, also addresses future impacts to employee housing inventory, including School District employee housing, per the terms of the agreement. After meeting an initial employee housing obligation of \$1,869,179.00 to Teton County, half of the real estate transfer fees collected in perpetuity will be dispersed to Teton County School District #1, and shall be used for the benefit of Teton County School District #1 employees for the purposes of developing, constructing and maintaining employee housing for employees of the Teton County School District #1.

Jackson Hole Fire and EMS reviewed the application, their response is included in the PRC comments section of this report. There were no comments pertaining to significant impacts on police, fire or EMS facilities.

**4. *Complies with all relevant standards of these LDRs and other County Resolutions.***

**Complies.** Based on the discussion and findings in this staff report, including Attachment 1, the proposal is compliant with all applicable LDRs and County Resolutions.

**5. *Is in substantial conformance with all standards or conditions of any prior applicable permits or approvals.***

**Complies.** This application is in conformance with the prior applicable PUD and Sketch Plan approvals and conditions.

**PLANNING COMMISSION DISCUSSION (9/12/16, continued to 9/26/16)**

Commissioner Hammer made a motion to APPROVE the Development Plan (DEV2016-0003) to implement Phase 1 of development in Sub Area III of the Amended Snake River Canyon Ranch Resort for 12 residential lots and 10 campground units, based upon finding that the application meets all applicable standards set forth in the Snake River Canyon Ranch Resort Master Plan and the Teton County Land Development Regulations and Comprehensive Plan, as outlined in the Staff Report, with the following conditions:

1. Prior to the issuance of Development Permit DEV2016-0003, the applicant shall be required to provide the following to the County Engineer: the petition for formation of an ISD pursuant to Wyoming State Statute, or other documents necessary for formation of another entity approved by the Planning Director as described in Section 1.3.C.3.1.d of the amended and restated SRSR Master Plan.
2. An Improvement Service District, or other entity approved by the Teton County Planning Director, shall be created within 3 years of approval of DEV2016-0003.

Commissioner Russell seconded the motion. There was no further discussion. Motion carried 5-0.

The initial Planning Commission hearing of 9/12/2016 was continued to 9/26/2016, as the original application was for approval of ten "Provisional" campground units—defined in the Master Plan as specifically limited to four allowed units on a temporary basis. Therefore, the application for ten Provisional Campground units did

not meet Master Plan regulations. The applicant requested a continuation of the application to 9/26/2016, with the intent to revise the application by removing all references to a “Provisional campground” Use. The revised application is for a total of ten Campground Units that are allowed to exist in perpetuity, per the Master Plan.

Details related to site and structural development associated with the application were not explored in great depth during Planning Commission discussion. Commissioners were in general agreement that the location and scale of proposed development are consistent with the entitlements associated with the PUD approval. Commissioner Rockey asked for additional information regarding the siting of development under apparent steep slopes. This was addressed by the applicant, and the Snow Avalanche Hazard Analysis was referenced as the mechanism by which future physical development will adhere to avalanche hazard standards in the County Land Development Regulations, both through siting and structural mitigation.

In contemplation of the Master Plan phasing requirements, the specifics related to formation of an ISD, or other entity approved by the Planning Director, and the timeline thereof were discussed in great detail. An initial motion to vote on a Condition of approval was passed on 9/12/2016, in which documents necessary for formation of this body were itemized as follows: *“The documents necessary are a letter from the district, petition, signature, map and legal description.”* The criticism of this approach was that these documents pertain specifically to an ISD, and would not pertain to a non-ISD approach to meeting the Master Plan phasing requirements, such as through an HOA-based entity. This Motion was rescinded on 9/26, prior to the final vote.

During the discussion of requirements for ISD formation, and specifically what the “documents necessary for formation of an ISD” should rightfully include, the State Statutes pertaining to ISD formation were read aloud by the Chair. The Commission was in agreement that the State Statute for legal formation of an ISD adequately addressed the phasing standards within the Master Plan, and this informed the final wording of the Conditions pertaining to the motion to approve. Deputy County Attorney Weismann concurred that referencing State Statute in the Condition would allow Planning Staff appropriate leverage to determine sufficiency of the ISD petition at the time of permit issuance. There was a high degree of confidence amongst the Commissioners that citing Wyoming State Statute was sufficient to insure that the applicant would provide an acceptable petition for the formation of an ISD, and that as dictated by Condition #2, the applicant would then have three (3) years to implement the petition, or failing to do so, develop another option that would require Planning Director approval.

#### **PLAN REVIEW COMMITTEE REVIEWS**

- Jackson Hole Fire EMS; Kathy Clay, Fire Marshal
- Stacy Stoker, Teton County Housing Department

#### **PUBLIC COMMENTS**

Neighbor notifications were mailed on August 12, 2016 to all property owners within 800 feet of the subject property. As of the writing of this staff report, there were no comments received.

#### **RELATIONSHIP TO STATEMENTS OF STRATEGIC INTENT**

Review of this application supports the strategic goal of Environmental Stewardship Community as outlined in the Board of County Commissioners Strategic Plan by helping to implement land use policies that preserve open space and wildlife habitat. Review of this proposal also supports the goal of Vibrant Community by fostering a well-planned and livable community that will support workforce housing opportunities through real estate transfers, in perpetuity.

## **ATTACHMENTS**

1. Applicable Regulations
2. Plan Review Comments
3. Application Materials

## **LEGAL REVIEW**

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## **RECOMMENDATION**

The Planning Director recommends **APPROVAL** of the Development Plan for Phase 1 Development at Snake River Canyon Ranch Resort for 12 proposed residential lots and 10 campground units, finding that the application meets all applicable standards set forth in Amended and Restated Snake River Canyon Ranch Resort Master Plan and the Teton County Land Development Regulations and Comprehensive Plan, as conditioned.

## **SUGGESTED MOTION**

Move to **APPROVE** the Development Plan (DEV2016-0003) to implement Phase 1 of development in Sub Area III of the Amended Snake River Canyon Ranch Resort for 12 residential lots and 10 campground units, based upon finding that the application meets all applicable standards set forth in the Amended and Restated Snake River Canyon Ranch Resort Master Plan and the Teton County Land Development Regulations and Comprehensive Plan, as outlined in the Staff Report, with the following conditions:

1. Prior to the issuance of Development Permit DEV2016-0003, the applicant shall be required to provide the following to the County Engineer: the petition for formation of an ISD pursuant to Wyoming State Statute, or other documents necessary for formation of another entity approved by the Planning Director as described in Section 1.3.C.3.1.d of the Amended and Restated Snake River Canyon Ranch Resort Master Plan.
2. An Improvement Service District, or other entity approved by the Teton County Planning Director, shall be created within three years of approval of DEV201-0003.

# ATTACHMENT 1 APPLICABLE REGULATIONS

## **APPLICABLE REGULATIONS: RELATIONSHIP TO THE AMENDED AND RESTATED SNAKE RIVER CANYON RANCH RESORT (SRCRR) PLANNED UNIT DEVELOPMENT PLANNED RESORT (PUD-PR) MASTER PLAN**

The Snake River Canyon Ranch Resort (SRCRR) Planned Unit Development Planned Resort (PUD-PR) Master Plan was originally approved by the Board of County Commissioners on July 6, 1999 (DEV1999-0016). On September 17, 2015, the Teton County, Wyoming Board of County Commissioners approved an amendment to the SRCRR PUD-PR (PUD2015-0002) and approved accompanying Land Development Regulations Text Amendment (AMD2015-0003) and Zoning Map Amendment (ZMA2015-0002). These approvals include the removal of 101.7 acres of land within the SRCRR PUD-PR, and rezoning this removed acreage as Park and Open Space. It also relocated 56 lodging units from land removed from the SRCRR PUD-PR land to an 18.5 acre receiving area previously within the Snake River Sporting Club Planned Residential Development. This Master Plan, approved by the Planning Director of Teton County, Wyoming pursuant to the Teton County Land Development Regulations (LDRs) effective October 19, 2015, establishes the entitlements, standards and conditions for the development and use of the Snake River Canyon Ranch Resort (the Resort).

### **Sec 1.3 C.3. Phasing Requirements**

**1.3.C.3.1.a.** *...the Improvement Service District, or other entity approved by the Teton County Planning Director, shall be responsible for installing appropriate signage, to be approved by the Teton County Engineer, at each bridge end.*

**Complies.** Signage is installed.

**1.3.C.3.1.b.** *An Improvement Service District, or other entity approved by the Teton County Planning Director, shall be created within three years of the approval of the first Use, Physical Development, or Development Option Permit to ensure that all landowners south of Astoria Bridge will be responsible for the safe operation and maintenance of the road and bridge infrastructure serving the Resort.*

**Complies as conditioned.** Improvement Service District (ISD) map and associated membership are submitted with the application. Ownership has completed the internal work to form the ISD. They have recently met with County Clerk to set up the next steps with the Board of County Commissioners (BCC). Prior to the issuance of Development Permit DEV2016-0003, the applicant shall be required to provide a sufficient petition for formation of an ISD pursuant to Wyoming State Statute, or other documents necessary for formation of another entity approved by the Planning Director as described in Section 1.3.C.3.1.d of the Amended and Restated Snake River Canyon Ranch Resort Master Plan.

Pursuant to the Master Plan, an Improvement Service District, or other entity approved by the Teton County Planning Director, shall be created within three years of the approval of the first Use, Physical Development, or Development Option Permit.

**1.3.C.3.1.c.** *...the ISD, or other entity approved by the Teton County Planning Director, shall install and maintain a traffic counter ... An observational traffic movement study shall be conducted annually in July during one calendar week during normal operational hours (defined as 7 am to 6 pm) to observe and document actual vehicle queuing/stacking and peak hour traffic counts for both weekday and weekend timeframes. This study shall be conducted by an independent qualified engineering firm with experience in transportation/traffic engineering. This study shall also produce a qualitative functional analysis (level of service). This annual study shall be provided by October 30th of the same calendar year to the Teton County Engineer. If during the reporting time, vehicle staking into the US 89 clear zone (30') is observed (with the exception of any special event that implements traffic control) the ISD shall be required to implement a mitigation plan to reduce the vehicle queuing length to be outside the 30' clear zone of US 89. Mitigating measures, include, but are not limited to, installing*

traffic signals, controlling the number of vehicles entering the site, various traffic demand management tactics or improvements to the bridge facility.

**Complies.** Counter is installed, and traffic movement study shall be submitted by timeline identified.

**1.3.C.3.1.d.i.** Documentation of an official agreement with the US Forest Service formalizing Jonny Counts Road/South Hoback Junction Road for emergency access and limited construction access.

**Complies.** Documentation provided.

**1.3.C.3.1.d.ii.** Documents necessary for the establishment of the proposed Improvement Service District, or other entity approved by the Teton County Planning Director, which will be charged with the operation and maintenance of the Astoria Bridge, monitoring and submittal of traffic counts as required above, development and management of the proposed community traffic awareness program, evaluation implementation and enforcement of traffic demand management strategies, including, but not limited to those described in the June 23, 2015 memo prepared by Jorgensen Associates (attached to this Master Plan as Attachment 6) and establishment of a long term capital plan to create a reserve fund for the eventual capital needs of the bridge.

**Complies as conditioned.** ISD map and associated membership is submitted with the application. All ISD documents including proof of establishment of a long term capital plan to create a reserve fund for the eventual capital needs of the bridge are currently being created and will be finished prior to BCC meeting. Staff recommends this as a condition of approval.

**Division 2.3. Standards Applicable to Sub Area III – Resort Lodging Core**

**Sec. 2.3.B.12. Required Physical Development Permits**

The following identifies the required physical development permits for development within Sub Area III:

<i>Physical Development</i>	Sketch Plan	Development Plan	Building Permit	Sign permit	Grading permit
<i>Development up to 210,000 s.f. of floor area</i>	Approved	Required	Required	Included with FDP	LDR Sec. 5.7.1

**Complies.** The applicant is following the prescribed permit tracking necessary for implementation of Phase 1 Development in Sub Area III of the Resort.

**Sec. 2.3.C.1. Allowed Uses**

**Complies.** The proposed twelve (12) residential lots that will accommodate one single-family detached home of approximately 3,500 square feet, with the option of short-term rental and the proposed Recreational Park Trailers (RPTs) within the Discovery Village Campground are Allowed Uses pursuant to Table 2.3.C.1 of the SRCRR Amended and Restated Master Plan.

**Sec. 2.3.D.3. Affordable and Employee Housing Standards**

**Complies.** Properties within Sub Area III are subject to the Employee Housing Agreement, effective August 30, 2016. The Employee Housing Transfer Fee Agreement and Restrictive Covenant between Teton County, Wyoming, and CYGNUS, SRSC, LLC, shall require a 1% transfer fee in perpetuity on each and every transfer, sale, or resale of all properties, lots, or units in Sub Area III of the Astoria/Snake River Canyon Ranch Resort Project in accord with and satisfaction of Condition No. 3 of PUD2015-0002. The Agreement is recorded in the land records of the Office of the Teton County Clerk. Campgrounds are exempt from providing any employee housing pursuant to Table 2.3.C.1 of the Master Plan.

**Sec. 2.3.D.4. Infrastructure Requirements and Standards**

**Sec. 2.3.D.4.1 Transportation Plan**

DEV2016-0003

October 18, 2016

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**Complies.** Phasing requirements for the overall Resort is limited to the Resort road and infrastructure maintenance and improvement requirements. The Resort road and bridge infrastructure phasing complies as addressed in Phasing Requirements Sec 1.3 C.3, above.

**Sec. 2.3.D.4.2 Stormwater Management Plan**

**Complies.** All stormwater shall be handled and accommodated in accordance with Section 5.7.4 of the Teton County LDRs.

**Sec. 2.3.D.4.3. Water and Sewer Management Plan**

**Complies.** The existing community water system serves the entire Resort as well as the Snake River Sporting Club PUD and golf course. The community water system was approved and permitted by Wyoming Department of Environmental Quality. It includes a 200,000 gallon water tank located on Lot 26 of the Ranch Homes, Snake River Canyon Ranch (Plat #1031). Based on calculation of density and intensity of use within the Resort that exceeds the density and intensity of use approved under this Master Plan, the capacity of the water tank exceeds the minimum storage volume requirement of 186,950 gallons by 13,050 gallons. Therefore, the capacity of the community water system is adequate to serve the Resort and the other development it is intended to serve.

The wastewater system for the Snake River Sporting Club is permitted under WYODEQ UIC 13-053 and is permitted for a discharge of up to 44,250 gallons per day (gpd). This is far in excess of Phase 1 of the development, as projections for complete buildout of golf course, homes, clubhouse and operations is 51,000 gpd. The system requires monitoring, and if discharges to the disposal fields approach capacity, permit revision with increased capacity shall be required.

**APPLICABLE REGULATIONS: RELATIONSHIP TO THE APPLICABLE LAND DEVELOPMENT REGULATIONS**

This application is being reviewed under the LDRs in effect October 19, 2015.

**Division 4.3., Planned Resort Zones**

**Complies.** The planned resort zones provide for and guide the creation or continuation of planned development configured around a major recreational activity. The Standards of the Planned Resort Zone were evaluated and confirmed through the SRCRR review and approval process, specifically the PUD2016-0003 application.

**Division 5.1, General Environmental Standards**

**Complies.** The application meets all natural resource buffers and irrigation ditch setbacks.

**Division 5.2, Environmental Standards**

**Complies.** The Resort amendment process included the preparation and approval of two interrelated Environmental Analyses. One was for the associated Astoria Hot Springs Site (EVA2014-0008), and the other (EVA2014-0010), evaluated the impacts of relocating resort development from the Astoria Hot Springs area, to the 18.5 acres Sub Area III. Both Environmental Analyses revealed that Sub Area III contains the least amount of diversity of protected resources and found that concentrating development in that area would have reduced impacts to natural resources.

**Section 5.2.1, Natural Resource Overlay (NRO) Standards**

**Complies.** The subject property is located within the NRO adjacent to the Snake River. The project area lies within the Snake River wildlife movement corridor and contains crucial winter range for elk, moose, mule deer, and trumpeter swan.

Pursuant to the EAs, the closest bald eagle nest to any portion of the project area is located approximately 845 feet from the southern edge of Lot 80, Snake River Sporting Club, which is part of Sub Area III of the amended Resort Master Plan. There are additional nests within 1-mile of Area I of the Resort. All portions of the project area are outside of the 660-foot setback buffer of eagle nests required by the LDRs. During the Resort

DEV2016-0003

October 18, 2016

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restructuring process in 2015 the USFWS indicated that there is the possibility for disturbance of eagles, defined under the Bald and Golden Eagle Protection Act. Coordination with USFWS to determine impacts and obtain necessary permits is the responsibility of the applicant.

Phase 1 development is constrained to previously disturbed ground, and therefore will not require mitigation measures pursuant to Sec. 5.2.1.E. A conceptual mitigation plan has been submitted with this application to illustrate the capability of the applicant to meet future mitigation standards on site.

**Section 5.2.1.G.3, Crucial Habitat Protection Standards; Crucial Elk Winter Habitat**

**Complies.** Crucial elk winter range occurs within the Sub Area III portion of the Resort. The relocation of up to 70 development units to Sub Area III was approved through the Master Plan approval process. The siting of Phase 1 successfully locates all proposed development within disturbed areas, with very little habitat value to wintering elk. The applicant has demonstrated that the proposed development will not detrimentally affect the food supply and/or cover provided by the crucial winter habitat to elk, or detrimentally affect the potential for survival of the elk using the crucial winter habitat.

**Section 5.2.2, Bear Conflict Standards**

**Complies.** The project area is located within Conflict Priority Area 1, known bear-occupied habitat and/or regular travel corridors and/or seasonal bear-use areas. The applicant has indicated that all specific measures for bear conflict avoidance will be adopted, including the use of bear-resistance containers and restrictions against bird feeders.

**Section 5.3.2, Scenic Resources Overlay (SRO) Standards**

**Complies.** The subject properties are located within the Scenic Resources Overlay within the Snake River Canyon Scenic Area. The application includes a Visual Resources Analysis as required by the standards of this section. Generally, the implementation of the amended resort master plan has resulted in reduced visual impacts to the scenic foreground when compared to the original master plan approval.

**Section 6.1.5, Lodging Uses**

The proposed Recreational Park Trailers (RPTs) in the Discovery Village campground are an approved Use pursuant to the definition of Campground, Sec. 6.1.5.D.1.

**Division 6.2, Parking and Loading Standards**

**Complies.** The required parking as identified in Table 2.3.C.1 of the Master Plan, indicates a minimum requirement of 2 parking spaces per detached single family residence, short-term rental unit, and campground units. This parking Standard has been identified in the application, and will be confirmed upon review of physical development permits.

**Division 6.4, Section 6.4.2, Refuse and Recycling**

**Complies.** This property is located with Conflict Area 1, which requires bear resistant trash containers or trash to be enclosed in a bear resistant enclosure.

**Division 7.6, Transportation Facility Standards**

**Complies.** All applicable transportation design standards of Sec. 7.6.4 have been met.

ATTACHMENT 2 PLAN REVIEW COMMENTS



## MEMORANDUM



To: Hamilton Smith  
*Senior Planner, Teton County Planning and Development*

From: Stacy Stoker  
*Housing Manager, Jackson Teton County Affordable Housing Dept.*

Re: Final Development Plan (DEV2016-0003)  
Snake River Sporting Club Area III Final Development Plan-- Housing Mitigation Plan

Date: August 31, 2016

---

Applicant is proposing a Final Development Plan for 12 single-family detached residential units and 10 provisional campground units located in Area III of Amended Snake River Canyon Ranch Resort. Jackson Teton County Affordable Housing Department (Housing Department) staff's review is based on Divisions 6.3 and 7.4 of the Teton County Land Development Regulations (LDRs)

### **TETON COUNTY LAND DEVELOPMENT REGULATIONS REVIEW**

**AFFORDABLE HOUSING MITIGATION PLAN (SECTION 7.4):** According to a new Employee Housing Transfer Fee Agreement and Restrictive Covenant from 2015-2016, "Area III" which consists of Lots 2, 3, 4, 5, 6, 47, 69, and 80 are being released of the previous Affordable Housing Agreement; and are now subject to this new agreement which states a 1% Transfer Fee of the gross sales price shall be collected at the closing of each lot in perpetuity.

Area III is estimated to be comprised of up to 70 Lots or Units. The Employee Housing Obligation of \$1,972,139.00 minus previous payments from Sub Area II (\$102,960.00) totaling \$1,869,179.00 will be owed to Teton County, Wyoming for SRSC's total Employee Housing Obligation for this Project.

Once the obligation of \$1,869,179 is met, there will be a 50/50 split of the 1% Transfer Fee paid to Teton County, Wyoming and Teton County School District #1 in perpetuity.

The agreement states the monies collected by Teton County, Wyoming are for the purposes of development, construction, and of employee housing for persons employed within Teton County, which may also include employee rental housing. Further, the monies collected by the School District shall be

used for the purposes of development, construction, and maintenance of employee housing for employees of Teton County School District #1, which may also include employee rental housing. There are no further Affordable Housing requirements for this application.

**EMPLOYEE HOUSING MITIGATION PLAN (SECTION 6.3):** The applicant is also proposing 10 provisional campground units located in Area III of Amended Snake River Canyon Ranch Resort. The applicant has indicated these units will be RPTs and used as short-term lodging on a temporary basis. According to the applicant this phase (1B) will be present no longer than Five (5) years. Section 6.3.2.B.6 of the LDRs states temporary uses are exempt from the standards of this division. There will be no employee housing requirements for this application.

Thank you for the opportunity to review this application. Please contact me with any questions.



MEMO

TO: Hamilton Smith, Senior Planner

FROM: Kathy Clay, Fire Marshal

DATE: August 11, 2016

SUBJECT: FDP Phase I, Snake River Canyon Club  
14170 S Wagon Road  
DEV2016-0003

This office has reviewed the Final Development Plan for Phase I Area III of the Snake River Canyon Ranch Resort.

With notice from the County Building Official and given determination of how these short term rental units are to be built – per the International Building Code or per International Residential Code – at this time, comments will be made to address the structures.

The area is mapped within the Wildland Urban Interface and shall be regulated per the International Wildland Urban Interface Code.

Please feel free to contact me if you have any further questions at [kclay@tetonwyo.org](mailto:kclay@tetonwyo.org) or 307-733-4732.

ATTACHMENT 3 APPLICATION MATERIALS



**FINAL DEVELOPMENT PLAN**  
For  
**Phase 1**  
of  
**Area III of Amended Snake River Canyon Ranch Resort**

**Applicants:**

SRS Club, LLC  
&  
Cygnus Capital, Inc.  
&  
SRSC Lots, LLC  
&  
Snake River Sporting Partners, LLC  
3060 Peachtree Road NW - Suite 1080  
Atlanta, GA 30305

**Prepared by:**



**JORGENSEN**  
*It's About People, Trust and Know How*

Jorgensen Associates, P.C.  
Engineers, Land Surveyors, & Planners  
1315 Highway 89 South, Suites 201 & 203 83001  
P.O. Box 9550  
Jackson, WY 83002  
307.733.5150

**Teton County**

**Initial Submittal Date: April 26, 2016**

Jorgensen Associates, P.C.  
Project No. 15040.01.14

# TABLE OF CONTENTS

Initial Submittal Date: April 25, 2016

- 1. SECTION 1 - COVER LETTERS, APPLICATION & CHECKLISTS**
  - A. Sufficiency Submittal.....1.1
  - B. Pre-application Conference Summary and Checklist.....1.2
  - C. Final Development Plan Application Form.....1.3
  
- 2. SECTION 2 - TITLE INFORMATION**
  - A. Copy of Latest Deeds to Property Being Developed.....2.1
  - B. Title Report - Record Document Guarantee .....2.2
  
- 3. SECTION 3 - PROJECT BACKGROUND, DEVELOPMENT PROGRAM & RESPONSE TO SUBMITTAL CHECKLIST**
  - A. Project Background & Proposal.....3.1
  - B. Owner & Project Team Information.....3.2
  - C. Development Proposal.....3.3
  - D. Findings for Approval.....3.3
  - E. Proposed Development Program.....3.4
    - 1. Development Summary
    - 2. Maximum Scale of Development
    - 3. Maximum Site Development
  - F. Phasing Plan.....3.6
  - G. Zone Specific Standards.....3.6
    - 1. Section 2.3 of Master Plan
    - 2. Section 4.3.1 & Section 4.3.6 of LDRS
  - H. Landscaping.....3.7
  - I. Environmental Standards.....3.7
    - 1. Natural Resource Buffers & Irrigation Ditch setback
    - 2. Wild Animal Feeding
    - 3. Natural Resource Overlay Standards
    - 4. Bear Conflict Area Standards
    - 5. Conceptual Mitigation Plan
  - J. Natural Hazards to Avoid.....3.8
    - 1. Steep Slopes, Areas of Unstable Soils, Fault Areas
    - 2. Floodplains
    - 3. Wildland Urban Interface
  - K. Signs.....3.8
  - L. Grading, Erosion Control, Stormwater.....3.8

M. Allowed Uses & Use Requirements.....3.9  
     1. Parking  
     2. Employees required to be housed  
 N. Allowed Subdivision and Development Options.....3.9  
 O. Residential Subdivision Requirements.....3.9  
     1. Affordable Housing  
     2. School and Parks Exactions  
 P. Infrastructure.....3.9  
     1. Transportation Facilities  
     2. Required Utilities

**4. SECTION 4 - ENGINEER’S REPORT**

A. Introduction.....4.1  
 B. Setting.....4.1  
 C. Grading, Drainage, & Stormwater.....4.1  
 D. Soils and Site Conditions.....4.2  
 E. Roads and Access.....4.2  
 F. Traffic.....4.2  
 G. Parking.....4.3  
 H. Pathways.....4.3  
 I. Water.....4.3  
 J. Wastewater.....4.3  
 K. Cable Utilities & gas.....4.4  
 L. Snow Storage.....4.4  
 M. Groundwater, Stream, & Rivers.....4.4

**5. SECTION 5 - RESPONSE TO PREVIOUS CONDITIONS OF APPROVAL**

A. Conditional Use Permit for the Golf Course - CUP-2015-0003.....5.1  
 B. Development Plan for a Planned Residential Development – DEV 2015-0002.....5.4  
 C. Planned Unit Development for Snake River Canyon Ranch Resort(SRCRR) Planned resort – PUD2015-0002.....5.6  
 D. Zoning Map Amendment for Park Zone – ZMA2015-0002.....5.9  
 E. Sketch Plan for a 5.2 acre Park and to develop 62 units at AREA III of SRCRR – SKC2015-0001.....5.10

**6. SECTION 6 –DOCUMENTS PERTINENT TO PLAT.....6.1**

A. Access and Utility Easement for Lot 80  
 B. Utility Easement for Irrigation Lines  
 C. Access and Utility Easement  
 D. 2<sup>nd</sup> Amendment to Amended and Restated Master Declaration of Covenants, Conditions and Restated of Covenants, Conditions and Restrictions for Snake River Sporting Club Community

**7. SECTION 7 - ADDITIONAL SUPPORTING INFORMATION**

- A. Final Draft of Amended and Restated Snake River Canyon Ranch Resort Master Plan dated April 18<sup>th</sup>, 2016.....7.1
- B. Avalanche report prepared by Mears and Wilbur.....7.2
- C. Geotechnical Report prepared by Jorgensen Associates, P.C. ....7.3
- D. Flood Insurance Rate Map No. 56039c3150E.....7.3
- E. Floodplain Exhibit Prepared by Meridian Engineering.....7.4
- F. Conceptual Mitigation Memo prepared by Intermountain Aquatics.....7.5
- G. Proposed Improvement Service District Exhibit.....7.6

**8. SECTION 8 - FINAL DEVELOPMENT PLAN DRAWING SET 11" X 17' FORMAT**

- A. Overview Plan.....C1.0
- B. Existing Conditions.....C1.1
- C. Proposed Conditions.....L1.0
- D. Lot 80 Overview Underground/Cable Utilities & Grading.....C2.1
- E. Discovery Village Overview Underground/Cable Utilities & Grading.....C2.2
- F. Phasing Plan.....L2.0

**Note:** One (1) 22" X 34" format copy of the Final Development Plan Drawing Set is being submitted separately.

## **SECTION 1 - COVER LETTERS, APPLICATION & CHECKLISTS**



**JORGENSEN**  
It's About People, Trust and Know How

PO Box 9550 · 1315 HWY 89 S., Suite 201  
Jackson, WY 83002  
PH: 307.733.5150  
[www.jorgeng.com](http://www.jorgeng.com)

April 26, 2016

Mr. Hamilton Smith  
Teton County Planning Dept.  
P.O. Box 1727  
200 South Willow St.  
Jackson, WY 83001

-Hand Delivered-

**RE: Final Development Plan – Area III of the Amended Snake River Canyon Ranch Resort**

Dear Hamilton,

Attached for sufficiency review, please find one copy of the Final Development Plan submittal for the Area III of the Amended Snake River Canyon Ranch Resort. Copies of this submittal will also be sent to you electronically.

- Application Fee – Check No. in the amount of \$2,500
- Submittal binder containing applications, narratives, and exhibits for the Final Development Plan and required supporting materials as outlined in the Table of Contents.
- Drawing Set - (one copy in 22" X 34" format) containing maps and engineering plans as outlined in the drawing set sheet index.

Please call me if you have any questions, or if you require additional information at this time. Once we receive a sufficiency determination, we will provide any updates you request to the application in electronic format, and/or hard copies as requested in the number and type you would like for distribution to review agencies. Thank you for your assistance.

Sincerely,

JORGENSEN ASSOCIATES, P.C.

Brendan Schulte  
Senior Land Use Project Manager

Enclosures

H:\2015\15040 - SRSC\01 - Development Transfer\Final Development Plan\  
FDP Application Base and Narratives\15040\_20160419\_FDP\_Suff\_submittal letter.doc

**PRE-SUBMITTAL STEPS.** Pre-submittal steps, such as a pre-application conference, environmental analysis, or neighborhood meeting, are required before application submittal for some application types. See Section 8.1.5, Summary of Procedures, for requirements applicable to your application package. If a pre-submittal step is required, please provide the information below. If you need assistance locating the project number or other information related to a pre-submittal step, contact the Planning Department. **If this application is amending a previous approval, indicate the original permit number.**

Pre-application Conference #: PAP2016-0012 Environmental Analysis #: EVA2014-0010  
 Original Permit #: PUD2015-0002 Date of Neighborhood Meeting: NA

**SUBMITTAL REQUIREMENTS.** One copy of the application package (this form, plus all applicable attachments) should be submitted to the Planning Department. The initial application submittal may occur electronically, but one hard copy of all materials is required for an application to be found sufficient. Please ensure all submittal requirements are included. The Planning Department will not hold or process incomplete applications. Partial or incomplete applications will be returned to the applicant.

Have you attached the following?

- Application Fee.** Fees are cumulative. Applications for multiple types of permits, or for multiple permits of the same type, require multiple fees. See the currently adopted Fee Schedule in the Administrative Manual for more information.
- Notarized Letter of Authorization.** A notarized letter of consent from the landowner is required if the applicant is not the owner, or if an agent is applying on behalf of the landowner. If the owner is a partnership or corporation, proof that the owner can sign on behalf of the partnership or corporation is also required. Please see the Letter of Authorization template in the Administrative Manual for a sample.
- Response to Submittal Checklist.** All applications require response to applicable review standards. These standards are outlined on the Submittal Checklists for each application type. If a pre-application conference is held, the Submittal Checklists will be provided at the conference. If no pre-application conference is required, please see the Administrative Manual for the applicable Checklists. The checklist is intended as a reference to assist you in submitting a sufficient application; submitting a copy of the checklist itself is not required.

**FORMAT.**

The main component of any application is demonstration of compliance with all applicable Land Development Regulations (LDRs) and Resolutions. The submittal checklists are intended to identify applicable LDR standards and to outline the information that must be submitted to sufficiently address compliance with those standards.

For some submittal components, minimum standards and formatting requirements have been established. Those are referenced on the checklists where applicable. For all other submittal components, the applicant may choose to make use of narrative statements, maps, drawings, plans and specifications, tables and/or calculations to best demonstrate compliance with a particular standard.

**Note:** Information provided by the applicant or other review agencies during the planning process may identify other requirements that were not evident at the time of application submittal or a Pre-Application Conference, if held. Staff may request additional materials during review as needed to determine compliance with the LDRs.

Under penalty of perjury, I hereby certify that I have read this application and associated checklists and state that, to the best of my knowledge, all information submitted in this request is true and correct. I agree to comply with all county and state laws relating to the subject matter of this application, and hereby authorize representatives of Teton County to enter upon the above-mentioned property during normal business hours, after making a reasonable effort to contact the owner/applicant prior to entering.

  
 \_\_\_\_\_  
 Signature of Owner or Authorized Applicant/Agent  
**Jeff Hielbrun**  
 \_\_\_\_\_  
 Name Printed

04/19/16  
 \_\_\_\_\_  
 Date  
 General Manager/Chief Operating Officer  
 \_\_\_\_\_  
 Title

## **SECTION 2 – TITLE INFORMATION**

**SPECIAL WARRANTY DEED**

RELEASED	<input checked="" type="checkbox"/>
INDEXED	<input checked="" type="checkbox"/>
ABSTRACTED	<input checked="" type="checkbox"/>
SCANNED	<input checked="" type="checkbox"/>

Snake River Sporting Club Development Company, LLC, a Delaware limited liability company qualified to conduct business in the State of Wyoming, GRANTOR, of Teton County, State of Wyoming, for and in consideration of TEN DOLLARS (\$10.00) and other good and valuable consideration, in hand paid, receipt of which is hereby acknowledged, CONVEYS AND SPECIALLY WARRANTS in the manner set forth below to Snake River Sporting Partners, LLC a Wyoming limited liability company, GRANTEE, whose address is c/o Kavanagh, Maloney & Osnato, LLP, 415 Madison Avenue, New York, New York 10017, the following described real estate, situated in the County of Teton, State of Wyoming (the "Property"), hereby waiving and releasing all rights under and by virtue of the homestead exemption laws of the State of Wyoming, to-wit:

**Lots 2, 4, 8, 31, 41 and 62 of the Snake River Sporting Club, Teton County, Wyoming, according to that plat recorded October 4, 2005 as Plat No. 1165, and Amendment to Plat recorded October 18, 2005 in Book 606 of Photo, page 36-37.**

**Lots 81, 84, and 85 of the Snake River Sporting Club Second Filing, Teton County, Wyoming, according to that plat recorded June 5, 2006 as Plat No. 1175.**

- State Parcel ID Nos.: 22-38-16-08-1-01-002  
 22-38-16-08-1-01-004  
 22-38-16-08-4-01-008  
 22-38-16-16-2-01-031  
 22-38-16-16-3-01-041  
 22-38-16-16-3-01-062  
 22-38-16-16-3-02-001  
 22-38-16-16-3-02-004  
 22-38-16-16-3-02-005

Grantor: SNAKE RIVER SPORTING CLUB\*  
 Grantee: SNAKE RIVER SPORTING PARTNERS\*  
 Doc 0705214 bk 667 pg 1004-1005 Filed at 1:47 on 06/21/07  
 Sherry L Daigle, Teton County Clerk fees: 11.00  
 By MICHELE E. FAIRHURST Deputy

*First American Title Insurance Company*



Together with all improvements and all other appurtenances and hereditaments thereunto belonging, subject, however, to taxes and all covenants, conditions, restrictions, easements, reservations, privileges, duties, responsibilities, rights and rights-of-way of sight and record, including without limitation the Snake River Sporting Club Community Amended and Restated Master Declaration of Covenants, Conditions and Restrictions, dated August 29, 2005, as the same may from time to time be amended (the "Declaration"); and reserving unto Grantor all water rights; and reserving unto Canyon Club, Inc. all oil, gas, coal and other mineral rights owned by Canyon Club, Inc., but not including the right to disturb the surface of the Property.

**Notice:**

The Property is transferred on the condition that a transfer fee shall be payable to Teton County, Wyoming and to the Teton County Education



RELEASED	
INDEXED	
ABSTRACTED	
SCANNED	

**QUITCLAIM DEED**

Cygnus Opportunity I, LLC ("Grantor"), whose address is 50 Old Ivy Road, Suite 150, Atlanta, GA 30342, for and in consideration of TEN DOLLARS (\$10.00) and other good and valuable consideration, receipt of which is hereby acknowledged, CONVEYS and QUITCLAIMS to SRSC Lots, LLC, a Georgia limited liability company ("Grantee"), whose address is 50 Old Ivy Road, Suite 150, Atlanta, GA 30342, the following described real estate and all improvements, appurtenances, tenements and hereditaments thereto, situated in Teton County, Wyoming (the "Property"):

Lot 3 of Snake River Sporting Club, Teton County, Wyoming, according to that plat recorded in the Office of the Teton County Clerk on October 4, 2005 as Plat No. 1165, with a common address of 14170 South Wagon Road, Jackson, Wyoming.

PIDN: 22-38-16-08-1-01-003

The Property is transferred on the condition that a transfer fee, if any is due, shall be payable to Teton County, Wyoming and to the Teton County Education Foundation, a Wyoming non-profit corporation, in connection with each subsequent transfer of the Property in accordance with the provisions of the Snake River Sporting Club Community Amended and Restated Master Declaration of Covenants, Conditions and Restrictions, dated September 21, 2005. The above-described covenant shall run with the land and shall be binding upon the owner of the Property and its successors and assigns.

WITNESS our hand this 15<sup>th</sup> day of November, 2013.

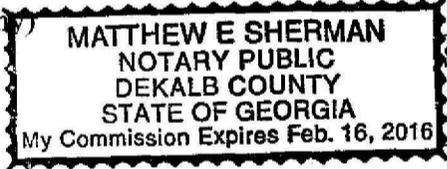
Cygnus Opportunity I, LLC

By [Signature]  
 Name: CHRISTOPHER SWANN  
 Title: MANAGING MEMBER

STATE OF Georgia )  
 ) ss.  
 COUNTY OF DeKalb )

The foregoing instrument was acknowledged before me on the 19 day of November 2013 by Christopher Swann as Managing Member of Cygnus Opportunity I, LLC.

(Seal, if any)



[Signature]  
 Signature of notarial officer

Notary Public  
 Title of notarial officer

My commission expires: 2/16/16

GRANTOR: CYGNUS OPPORTUNITY I LLC  
 GRANTEE: SRSC LOTS LLC  
 Doc 0851015 bk 861 pg 983-983 Filed At 11:19 ON 01/06/14  
 Sherry L. Daigle Teton County Clerk fees: 12.00  
 By Mary D Antrobus Deputy

RELEASED	<input type="checkbox"/>
INDEXED	<input checked="" type="checkbox"/>
ABSTRACTED	<input checked="" type="checkbox"/>
SCANNED	<input type="checkbox"/>

**QUITCLAIM DEED**

SRSC Lots, LLC, a Georgia limited liability company ("Grantor"), whose address is 50 Old Ivy Road, Suite 150, Atlanta, GA 30342, for and in consideration of TEN DOLLARS (\$10.00) and other good and valuable consideration, receipt of which is hereby acknowledged, CONVEYS and QUITCLAIMS to Cygnus Capital, Inc., a Wyoming corporation ("Grantee"), whose address is 50 Old Ivy Road, Suite 150, Atlanta, GA 30342, the following described real estate and all improvements, appurtenances, tenements and hereditaments thereto, situated in Teton County, Wyoming (the "Property"):

**Lots 5**, 21, 22, 23, 25, 27, 28, 29, 32, 48, 52, 53, 54, 55, 56, 57, 58, 59, 60 and 61 of Snake River Sporting Club, Teton County, Wyoming, according to that plat recorded in the Office of the Teton County Clerk on October 4, 2005 as Plat No. 1165; and

Lot 82 of Snake River Sporting Club Second Filing, Teton County, Wyoming, according to that plat recorded in the Office of the Teton County Clerk on June 5, 2006 as Plat No. 1175;

The Property is transferred on the condition that a transfer fee, if any is due, shall be payable to Teton County, Wyoming and to the Teton County Education Foundation, a Wyoming non-profit corporation, in connection with each subsequent transfer of the Property in accordance with the provisions of the Snake River Sporting Club Community Amended and Restated Master Declaration of Covenants, Conditions and Restrictions, dated September 21, 2005. The above-described covenant shall run with the land and shall be binding upon the owner of the Property and its successors and assigns.

WITNESS our hand this 24 day of October, 2013.

SRSC Lots, LLC, a Georgia limited liability company

By \_\_\_\_\_  
 Name: Andy Cummings  
 Title: President

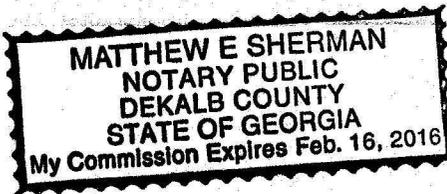
STATE OF GA )  
 ) ss.  
 COUNTY OF DeKalb )

The foregoing instrument was acknowledged before me on the 24 day of October 2013 by Andy Cummings as President of SRSC Lots, LLC.

(Seal, if any)

\_\_\_\_\_  
 Signature of notarial officer  
Notary Public  
 Title of notarial officer

My commission expires: 2/16/16



GRANTOR: SRSC LOTS LLC  
 GRANTEE: CYGNUS CAPITAL INC  
 Doc 0847446 bk 857 pg 713-713 Filed At 14:29 ON 10/31/13  
 Sherry L. Daigle Teton County Clerk fees: 23.00  
 By Mary D Antrobus Deputy



307.733.3153

**GENERAL WARRANTY DEED**

This GENERAL WARRANTY DEED is made this 2nd\_ day of February, 2015, by and between CL Bar Properties, Inc., a Wyoming corporation ("Grantor"), whose address is 1301 A Street, Ste. 900, P.O. Box 1872, Tacoma, WA 98402 and SRSC Lots, LLC, a Georgia limited liability company ("Grantee"), whose address is 3060 Peachtree Road NW, Suite 1080, Atlanta, GA 30305.

Grantor, for and in consideration of the sum of Ten dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, hereby CONVEYS, WARRANTS AND ASSIGNS to Grantee, its successors and assigns the real property located in Teton County, Wyoming described as follows:

**Lot 6** of Snake River Sporting Club, Teton County, Wyoming, according to that plat recorded in the Office of the Teton County Clerk on October 4, 2005 as Plat No. 1165 (the "Seller Land"), together with (i) all improvements and interests appurtenant to the Seller Land; (ii) all easements and rights benefitting or appurtenant to the Seller Land; and (iii) all rights and appurtenances pertaining to the foregoing, if any, including any right, title and interest of Seller, if any, in and to adjacent rights-of-way (collectively, the "Property").

*PLAT NUMBER: 22-38-16-03-1-01-006*

The Property is subject only to general taxes for the year 2015 (but not prior years) and homeowners association assessments, building and zoning regulations, city county and state subdivision and zoning laws, and subject to the easements, restrictive covenants, and, reservations of record which are described in Exhibit A attached hereto and incorporated herein.

To have and to hold the Property, together with all and singular the rights, members, and appurtenances thereof to the same belonging or in anywise appertaining to the use, benefit, and behalf of the Grantee, its successors and assigns forever in fee simple.

The Property is transferred on the condition that a transfer fee shall be payable to Teton County, Wyoming and to the Teton County Education Foundation, a Wyoming non-profit corporation, in connection with each subsequent transfer of the Property in accordance with the provisions of the Snake River Sporting Club Community Amended and Restated Master Declaration of Covenants, Conditions and Restrictions, dated September 21, 2005. The above-described covenant shall run with the land and shall be binding upon the owner of the Property and its successors and assigns.

IN WITNESS WHEREOF, Grantor has executed this General Warranty Deed on the date set forth above.

GRANTOR: CL BAR PROPERTIES INC  
GRANTEE: SRSC LOTS LLC  
Doc 0874917 bk 886 pg 1107-1108 Filed At 16:21 ON 02/02/15  
Sherry L. Daigle Teton County Clerk fees: 15.00  
By Mary Smith Deputy

GRANTOR:

Released	
Indexed	<input checked="" type="checkbox"/>
Abstracted	<input checked="" type="checkbox"/>
Scanned	

CL Bar Properties, Inc.,  
a Wyoming corporation

By:   
Name:   
Title:

STATE OF Connecticut )  
COUNTY OF Jardfield ) ss.

The foregoing instrument was acknowledged before me by CHRISTIAN HAUB, as PRESIDENT of CL Bar Properties, Inc., a Wyoming corporation, this 28th day of January, 2015.

Witness my hand and official seal.



Signature of notarial officer  
Customer Service Rep II  
Title of notarial officer

S MONICA MALHOTRA  
Notary Public  
Connecticut  
My Commission Expires Nov 30, 2017

## Exhibit A Exceptions

Covenants, conditions, restrictions, reservations, easements, including but not limited to 60 foot utility easement, encroachments, ditches, roadways, rights-of-way, common areas and building set back requirements as delineated on the recorded Plat Number(s) 1165 and Map Numbers T-458A, T-458B and T458C, records of Teton County, Wyoming.

Easement and right-of-way from Ellsworth G. and Georgia A. Crail to U. S. of America, which contains a reverter clause appearing of record in Book 4 of Deeds, Page 286, records of Teton County, Wyoming.

Easement and right-of-way from Ray Ely to U. S. of America, which contains a reverter clause appearing of record in Book 4 of Deeds, Page 288, records of Teton County, Wyoming.

Right of Deed from George Lamb to U.S. of America appearing of record in Book 4 of Deeds, Page 289, records of Teton County, Wyoming.

Memorandum of Agreement Affecting Real Property between Canyon Club, Inc. and Jackson Hole Land Trust appearing of record in Book 496 of Photo, Pages 550-552, records of Teton County, Wyoming.

The terms and conditions of that Conservation Easement appearing of record in Book 496 of Photo, Pages 489-548, records of Teton County, Wyoming.

Occupancy Deed Restriction and Agreement for Accessory Residential Units Where Use Is Primarily Nonresidential Approved Pursuant To Section 2370 (Accessory Residential Units) of the Teton County Land Development Regulations appearing of record in Book 587 of Photo, Pages 1072-1081, records of Teton County, Wyoming.

Snake River Sporting Club Community Amended and Restated Master Declaration of Covenants, Conditions and Restrictions, which includes, but is not limited to, a Housing Transfer Fee, and a Right of First Refusal, appearing of record in Book 604 of Photo, Pages 640-713; First Amendment in Book 651 of Photo, Pages 341-344, records of Teton County, Wyoming; and Assignment of Declarant Rights and Waiver of First Refusal in Book 835 of Photo, Page 847, records of Teton County, Wyoming.

Affordable Housing Agreement appearing of record in Book 604 of Photo, Pages 714-727, records of Teton County, Wyoming and Affidavit Regarding Partial Satisfaction of Terms of Affordable Housing Agreement appearing of record in Book 861 of Photo, Pages 1023-1024, records of Teton County, Wyoming.

Amended Certificate of Owner For Plat No. 1165 appearing of record in Book 606 of Photo, Pages 36-37, records of Teton County, Wyoming.

Grant of Perpetual Right To Use Access and Utility Easement appearing of record in Book 628 of Photo, Pages 532-534, records of Teton County, Wyoming.

Open Space Easement appearing of record in Book 629 of Photo, Pages 67-110, records of Teton County, Wyoming.

Assignment of Development Rights and Assignment of Rights Reserved in Teton County Plats 1030 and 1031 appearing of record in Book 848 of Photo, Pages 612-616, records of Teton County, Wyoming.

Agreement among Snake River Sporting Club Owners Association, Inc., SRS Club, LLC and Northlight Trust I appearing of record in Book 866 of Photo, Pages 703-711, records of Teton County, Wyoming.

The terms, conditions, provisions and limitations of that unrecorded U.S. Department of Agriculture Forest Service Forest Road Special Use Permit in favor of Snake River Sporting Club Owners Association dated September 13, 2013, Auth ID JAC474401.

RELEASED	<input type="checkbox"/>
INDEXED	<input checked="" type="checkbox"/>
ABSTRACTED	<input type="checkbox"/>
SCANNED	<input type="checkbox"/>



307.733.3153

**QUITCLAIM DEED**

Cygnus Capital, Inc., a Wyoming corporation (“Grantor”), whose address is 3060 Peachtree Rd. NW, Ste. 1080, Atlanta, GA 30305, for and in consideration of TEN DOLLARS (\$10.00) and other good and valuable consideration, receipt of which is hereby acknowledged, CONVEYS AND QUITCLAIMS to SRS Club, LLC, a Georgia limited liability company (“Grantee”), whose address is 3060 Peachtree Rd. NW, Ste. 1080, Atlanta, GA 30305, the following described real estate, situated in Teton County, Wyoming:

Lots 47, 63, 69, 77, 78, 79 and 80 of Snake River Sporting Club, Teton County, Wyoming, according to that plat recorded in the Office of the Teton County Clerk on October 4, 2005 as Plat No. 1165;

and Lots 94, 95, 96, 97, 98, 99 and 102 of Snake River Sporting Club Third Filing, according to that plat recorded in the Office of the Teton County Clerk on April 10, 2007 as Plat No. 1195

(collectively, the “Land”),

together with:

Released	<input type="checkbox"/>
Indexed	<input type="checkbox"/>
Abstracted	<input checked="" type="checkbox"/>
Scanned	<input type="checkbox"/>

(i) all buildings and improvements constructed or located on the Land (the “Buildings”);

(ii) all easements and rights benefitting or appurtenant to the Land, including but not limited to the following:

(a) A non-exclusive easement for vehicular ingress and egress as set forth in that Access and Utility Easement appearing of record in Book 535 of Photo, Pages 514-517, records of Teton County, Wyoming, and subject to all the terms and conditions contained therein;

(b) A non-exclusive easement for access across Lot 19 of Snake River Canyon Ranch, The River Homes, Teton County, Wyoming, as set forth on that plat recorded in the Office of the Teton County Clerk on September 18, 2001 as Plat Number 1030, and subject to all the terms and conditions contained therein;

(c) A non-exclusive easement for vehicular ingress and egress as set forth in that Access and Utility Easement appearing of record in Book 428 of Photo, Pages 368-370, records of Teton County, Wyoming, and subject to all the terms and conditions contained therein;

GRANTOR: CYGNUS CAPITAL INC

GRANTEE: SRS CLUB LLC

Doc 0873985 bk 885 pg 1079-1081 Filed At 16:36 ON 01/14/15

Sherry L. Daigle Teton County Clerk fees: 22.00

By Mary Smith Deputy

(d) A non-exclusive easement for access across Lot 28 of Snake River Canyon Ranch, The Ranch Homes, Teton County, Wyoming, as set forth on that plat recorded in the Office of the Teton County Clerk on September 18, 2001 as Plat Number 1031, and subject to all the terms and conditions contained therein;

(e) A non-exclusive easement for vehicular ingress and egress as set forth in that Access and Utility Easement appearing of record in Book 535 of Photo, Pages 518-523 and in Book 535 of Photo, Pages 524-531, records of Teton County, Wyoming, and subject to all the terms and conditions contained therein;

(f) A non-exclusive easement for access across Lots 70, 72 and 74 of Snake River Sporting Club, Teton County, Wyoming, as set forth on that plat recorded in the Office of the Teton County Clerk on October 4, 2005 as Plat Number 1165 and subject to all the terms and conditions contained therein; and

(g) A non-exclusive easement for access across Lots 93, 100 and 101 of Snake River Sporting Club Third Filing, Teton County, Wyoming, as set forth on that plat recorded in the Office of the Teton County Clerk on April 10, 2007 as Plat Number 1195 and subject to all the terms and conditions contained therein;

(iii) all rights and appurtenances pertaining to the foregoing, including any right, title and interest in and to adjacent rights-of-way;

(iv) all Leases (the "Leases") affecting the Land and the Buildings; and

(v) all appliances, fixtures, equipment, machinery, furniture, carpet, drapes and other personal property located on or about the Land and the Buildings, including but not limited to fences, gates, lighting, electrical and plumbing fixtures, heating systems and fixtures, heating stoves, fireplaces and fireplace inserts, outdoor plants, air conditioning equipment, built-in appliances, floor coverings, storm windows and doors, screens, curtain and drapery rods, garage door openers and controls, smoke and fire detection devices, television antennas, mirrors, awnings, water softeners, water pumps, water filters and other water treatment equipment, and the refrigerator, all appliances in the Buildings, and all attached floor and window coverings in the Buildings.

(collectively, the Land, Buildings, Leases and other described property being described as the "Property");

subject to all taxes and all covenants, conditions, and restrictions and all easements, encumbrances and other matters of record.





**Guarantee**

**SG 08007434**

SUBJECT TO THE EXCLUSIONS FROM COVERAGE, THE LIMITS OF LIABILITY AND OTHER PROVISIONS OF THE CONDITIONS AND STIPULATIONS HERETO ANNEXED AND MADE A PART OF THIS GUARANTEE, AND SUBJECT TO THE FURTHER EXCLUSION AND LIMITATION THAT NO GUARANTEE IS GIVEN NOR LIABILITY ASSUMED WITH RESPECT TO THE IDENTITY OF ANY PARTY NAMED OR REFERRED TO IN SCHEDULE A OR WITH RESPECT TO THE VALIDITY, LEGAL EFFECT OR PRIORITY OF ANY MATTER SHOWN THEREIN. Old Republic National Title Insurance Company, a Minnesota corporation, herein called the Company GUARANTEES the Assured named in Schedule A, against actual monetary loss or damage not exceeding the liability amount stated in Schedule A which the Assured shall sustain by reason of any incorrectness in the assurances set forth in Schedule A.

In witness whereof, Old Republic National Title Insurance Company has caused its corporate name and seal to be hereunto affixed by its duly authorized officers, the Guarantee to become valid when countersigned on Schedule A by an authorized officer or agent of the Company.

Issued through the Office of:

Jackson Hole Title & Escrow

\_\_\_\_\_  
Authorized Signature

**OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY**  
A Stock Company  
400 Second Avenue South, Minneapolis, Minnesota 55401  
(612) 371-1111

By  *Madeline A. Bilsby* President  
Attest  *David Wold* Secretary

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# GUARANTEE CONDITIONS AND STIPULATIONS

## 1. Definition of Terms.

The following terms when used in the Guarantee mean:

- (a) the "Assured": the party or parties named as the Assured in this Guarantee, or on a supplemental writing executed by the Company.
- (b) "land": the land described or referred to in Schedule (A)(C) or in Part 2, and improvements affixed thereto which by law constitute real property. The term "land" does not include any property beyond the lines of the area described or referred to in Schedule (A)(C) or in Part 2, nor any right, title, interest, estate or easement in abutting streets, roads, avenues, alleys, lanes, ways or waterways.
- (c) "mortgage": mortgage, deed of trust, trust deed, or other security instrument.
- (d) "public records": records established under state statutes at Date of Guarantee for the purpose of imparting constructive notice of matters relating to real property to purchasers for value and without knowledge.
- (e) "date": the effective date.

## 2. Exclusions from Coverage of this Guarantee.

The Company assumes no liability for loss or damage by reason of the following:

- (a) Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.
- (b) (1) Unpatented mining claims; (2) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (3) water rights, claims or title to water: whether or not the matters excluded by (1), (2) or (3) are shown by the public records.
- (c) Assurances to title to any property beyond the lines of the land expressly described in the description set forth in Schedule (A)(C) or in Part 2 of this Guarantee, or title to streets, roads, avenues, alleys, lanes, ways or waterways in which such land abuts, or the right to maintain therein vaults, tunnels, ramps or any other structure or improvement; or any rights or easements therein unless such property, rights or easements are expressly and specifically set forth in said description.
- (d) (1) Defects, liens, encumbrances, or adverse claims against the title, if assurances are provided as to such title, and as limited by such assurances.  
  
(2) Defects, liens, encumbrances, adverse claims or other matters (a) whether or not shown by the public records, and which are created, suffered, assumed or agreed to by one or more of the Assureds; (b) which result in no loss to the Assured; or (c) which do not result in the invalidity or potential invalidity of any judicial or non-judicial proceeding which is within the scope and purpose of assurances provided.

## 3. Notice of Claim to be Given by Assured Claimant.

An Assured shall notify the Company promptly in writing in case any knowledge shall come to an Assured hereunder of any claim of title or interest which is adverse to the title to the estate or interest, as stated herein, and which might cause loss or damage for which the Company may be liable by virtue of this Guarantee. If prompt notice shall not be given to the Company, then all liability of the Company shall terminate with regard to the matter or matters for which such prompt notice is required; provided, however, that failure to notify the Company shall in no case prejudice the rights of any Assured under this Guarantee unless the Company shall be prejudiced by such failure and then only to the extent of the prejudice.

## 4. No Duty to Defend or Prosecute.

The Company shall have no duty to defend or prosecute any action or proceeding to which the Assured is a party, notwithstanding the nature of any allegation in such action or proceeding.

## 5. Company's Option to Defend or Prosecute Actions; Duty of Assured Claimant to Cooperate.

Even though the Company has no duty to defend or prosecute as set forth in Paragraph 4 above:

- (a) The Company shall have the right, at its sole option and cost, to institute and prosecute any action or proceeding, interpose a defense, as limited in (b), or to do any other act which in its opinion may be necessary or desirable to establish the title

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to the estate or interest as stated herein, or to establish the lien rights of the Assured, or to prevent or reduce loss or damage to the Assured. The Company may take any appropriate action under the terms of this Guarantee, whether or not it shall be liable hereunder, and shall not thereby concede liability or waive any provision of this Guarantee. If the Company shall exercise its rights under this paragraph, it shall do so diligently.

- (b) If the Company elects to exercise its options as stated in Paragraph 5(a) the Company shall have the rights to select counsel of its choice (subject to the right of such Assured to object for reasonable cause) to represent the Assured and shall not be liable for and will not pay the fees of any other counsel, nor will the Company pay any fees, costs or expenses incurred by an Assured in the defense of those causes of action which allege matters not covered by this Guarantee.
- (c) Whenever the Company shall have brought an action or interposed a defense as permitted by the provisions of this Guarantee, the Company may pursue any litigation to final determination by a court of competent jurisdiction and expressly reserves the right, in its sole discretion, to appeal from an adverse judgment or order.
- (d) In all cases where this Guarantee permits the Company to prosecute or provide for the defense of any action or proceeding, the Assured hereunder shall secure to the Company the right to prosecute or provide defense of any action or proceeding, and all appeals therein, and permit the Company to use, at its option, the name of such Assured for this purpose. Whenever requested by the Company, an Assured, at the Company's expense, shall give the Company all reasonable aid in any action or proceeding, securing evidence, obtaining witnesses, prosecuting or defending the action or lawful act which in the opinion of the Company may be necessary or desirable to establish the title to the estate or interest as stated herein, or to establish the lien rights of the Assured. If the Company is prejudiced by the failure of the Assured to furnish the required cooperation, the Company's obligations to the Assured under the Guarantee shall terminate.

## **6. Proof of Loss or Damage.**

In addition to and after the notices required under Section 3 of these Conditions and Stipulations have been provided to the Company, a proof of loss or damage signed and sworn to by the Assured shall be furnished to the Company within 90 days after the Assured shall ascertain the facts giving rise to the loss or damage. The proof of loss or damage shall describe the matters covered by this Guarantee which constitute the basis of loss or damage and shall state, to the extent possible, the basis of calculating the amount of the loss or damage. If the Company is prejudiced by the failure of the Assured to provide the required proof of loss or damage, the Company's obligation to such assured under the Guarantee shall terminate. In addition, the Assured may reasonably be required to submit to examination under oath by any authorized representative of the Company and shall produce for examination, inspection and copying, at such reasonable times and places as may be designated by any authorized representative of the company, all records, books, ledgers, checks, correspondence and memoranda, whether bearing a date before or after Date of Guarantee, which reasonably pertain to the loss or damage. Further, if requested by any authorized representative of the Company, the Assured shall grant its permission, in writing, for any authorized representative of the Company to examine, inspect and copy all records, books, ledgers, checks, correspondence and memoranda in the custody or control of a third party, which reasonably pertain to the loss or damage. All information designated as confidential by the Assured provided to the Company pursuant to this Section shall not be disclosed to others unless, in the reasonable judgment of the Company, it is necessary in the administration of the claim. Failure of the Assured to submit for examination under oath, produce other reasonably requested information or grant permission to secure reasonably necessary information from third parties as required in the above paragraph, unless prohibited by law or governmental regulation, shall terminate any liability of the Company under this Guarantee to the Assured for that claim.

## **7. Options to Pay or Otherwise Settle Claims: Termination of Liability.**

In case of a claim under this Guarantee, the Company shall have the following additional options:

- (a) To Pay or Tender Payment of the Amount of Liability or to Purchase the Indebtedness.  
The Company shall have the option to pay or settle or compromise for or in the name of the Assured any claim which could result in loss to the Assured within the coverage of this Guarantee, or to pay the full amount of this Guarantee or, if this Guarantee is issued for the benefit of a holder of a mortgage or a lienholder, the Company shall have the option to purchase the indebtedness secured by said mortgage or said lien for the amount owing thereon, together with any costs, reasonable attorneys' fees and expenses incurred by the Assured claimant which were authorized by the Company up to the time of purchase. Such purchase, payment or tender of payment of the full amount of the Guarantee shall terminate all liability of the Company hereunder. In the event after notice of claim has been given to the Company by the Assured the Company offers to purchase the indebtedness,

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the owner of such indebtedness shall transfer and assign said indebtedness, together with any collateral security, to the Company upon payment of the purchase price.

Upon the exercise by the Company of the option provided for in Paragraph (a) the Company's obligation to the Assured under this Guarantee for the claimed loss or damage, other than to make the payment required in that paragraph, shall terminate, including any obligation to continue the defense or prosecution of any litigation for which the Company has exercised its options under Paragraph 5, and the Guarantee shall be surrendered to the Company for cancellation.

(b) **To Pay or Otherwise Settle With Parties Other Than the Assured or With the Assured Claimant.**

To pay or otherwise settle with other parties for or in the name of an Assured claimant any claim assured against under this Guarantee, together with any costs, attorneys' fees and expenses incurred by the Assured claimant which were authorized by the Company up to the time of payment and which the Company is obligated to pay.

Upon the exercise by the Company of the option provided for in Paragraph (b) the Company's obligations to the Assured under this Guarantee for the claimed loss or damage, other than to make the payment required in that paragraph, shall terminate, including any obligation to continue the defense or prosecution of any litigation for which the Company has exercised its options under Paragraph 5.

## **8. Determination and Extent of Liability.**

This Guarantee is a contract of indemnity against actual monetary loss or damage sustained or incurred by the Assured claimant who has suffered loss or damage by reason of reliance upon the assurances set forth in this Guarantee and only to the extent herein described, and subject to the exclusions stated in Paragraph 2.

The liability of the Company under this Guarantee to the Assured shall not exceed the least of:

- (a) the amount of liability stated in Schedule A;
- (b) the amount of the unpaid principal indebtedness secured by the mortgage of an Assured mortgagee, as limited or provided under Section 7 of these Conditions and Stipulations or as reduced under Section 10 of these Conditions and Stipulations, at the time the loss or damage assured against by this Guarantee occurs, together with interest thereon; or
- (c) the difference between the value of the estate or interest covered hereby as stated herein and the value of the estate or interest subject to the defect, lien or encumbrance assured against by this Guarantee.

## **9. Limitation of Liability.**

- (a) If the Company establishes the title, or removes the alleged defect, lien or encumbrance, or cures the any other matter assured against by this Guarantee in a reasonably diligent manner by any method, including litigation and the completion of any appeals therefrom, it shall have fully performed its obligations with respect to that matter and shall not be liable for any loss or damage caused thereby.
- (b) In the event of any litigation by the Company or with the Company's consent, the Company shall have no liability for loss or damage until there has been a final determination by a court of competent jurisdiction, and disposition of all appeals therefrom, adverse to the title, as stated herein.
- (c) The Company shall not be liable for loss or damage to any Assured for liability voluntarily assumed by the Assured in settling any claim or suit without the prior written consent of the Company.

## **10. Reduction of Liability or Termination of Liability.**

All payments under this Guarantee, except payments made for costs, attorneys' fees and expenses pursuant to Paragraph 5 shall reduce the amount of liability pro tanto.

## **11. Payment of Loss.**

- (a) No payment shall be made without producing this Guarantee for endorsement of the payment unless the Guarantee has been lost or destroyed, in which case proof of loss or destruction shall be furnished to the satisfaction of the Company.
- (b) When liability and the extent of loss or damage has been definitely fixed in accordance with these Conditions and Stipulations, the loss or damage shall be payable within 30 days thereafter.

## **12. Subrogation Upon Payment or Settlement.**

Whenever the Company shall have settled and paid a claim under this Guarantee, all right of subrogation shall vest in the Company unaffected by any act of the Assured claimant.

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The Company shall be subrogated to and be entitled to all rights and remedies which the Assured would have had against any person or property in respect to the claim had this Guarantee not been issued. If requested by the Company, the insured claimant shall transfer to the Company all rights and remedies against any person or property necessary in order to perfect this right of subrogation. The Assured shall permit the Company to sue, compromise or settle in the name of the Assured and to use the name of the Assured in any transaction or litigation involving these rights or remedies.

If a payment on account of a claim does not fully cover the loss of the Assured the Company shall be subrogated to all rights and remedies of the Assured after the Assured shall have recovered its principal, interest, and costs of collection.

### **13. Arbitration.**

Unless prohibited by applicable law, either the Company or the Assured may demand arbitration pursuant to the Title Insurance Arbitration Rules of the American Arbitration Association. Arbitrable matters may include, but are not limited to, any controversy or claim between the Company and the Assured arising out of or relating to this Guarantee, any service of the Company in connection with its issuance or the breach of a Guarantee provision or other obligation. All arbitrable matters when the Amount of Liability is \$1,000,000 or less shall be arbitrated at the option of either the Company or the Assured. All arbitrable matters when the Amount of Liability is in excess of \$1,000,000 shall be arbitrated only when agreed to by both the Company and the Assured. The Rules in effect at Date of Guarantee shall be binding upon the parties. The award may include attorneys' fees only if the laws of the state in which the land is located permits a court to award attorneys' fees to a prevailing party. Judgment upon the award rendered by the Arbitrator(s) may be entered in any court having jurisdiction thereof.

The law of the situs of the land shall apply to an arbitration under the Title Insurance Arbitration Rules.

A copy of the Rules may be obtained from the Company upon request.

### **14. Liability Limited to this Guarantee; Guarantee Entire Contract.**

- (a) This Guarantee together with all endorsements, if any, attached hereto by the Company is the entire Guarantee and contract between the Assured and the Company. In interpreting any provision of this Guarantee, this Guarantee shall be construed as a whole.
- (b) Any claim of loss or damage, whether or not based on negligence, or any action asserting such claim, shall be restricted to this Guarantee.
- (c) No amendment of or endorsement to this Guarantee can be made except by a writing endorsed hereon or attached hereto signed by either the President, a Vice President, the Secretary, an Assistant Secretary, or validating officer or authorized signatory of the Company.

### **15. Notices, Where Sent.**

All notices required to be given the Company and any statement in writing required to be furnished the Company shall include the number of this Guarantee and shall be addressed to: Old Republic National Title Insurance Company, 400 Second Avenue South, Minneapolis, Minnesota 55401, (612) 371-1111.



OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY

## Full Recorded Owner Guarantee - Wyoming

### Schedule A

File No.	Liability	Fee	Reference	Guarantee No.
585095JAC	\$1,000.00	\$250.00	SRSC Lots FROG	<b>SG</b> 08007434

1. Name of Assured: Jorgensen Associates
2. Date of Guarantee: 03/25/2016 at 8:00 A.M.
3. The estate or interest in the land hereinafter described is: Fee Simple
4. Title to said or estate or interest at the Date hereof is vested in:  
  
Lots 2 and 4: Snake River Sporting Partners, LLC, a Wyoming limited liability company  
Lots 3 and 6: SRSC Lots, LLC, a Georgia limited liability company  
Lot 5: Cygnus Capital, Inc., a Wyoming corporation  
Lots 47 and 80: SRS Club, LLC, a Georgia limited liability company
5. The land referred to in this Guarantee is situated in the County of Teton, State of Wyoming and is described as follows:

**Lots 2, 3, 4, 5, 6, 47 and 80 of Snake River Sporting Club, Teton County, Wyoming, according to that plat recorded in the Office of the Teton County Clerk on October 4, 2005 as Plat Number 1165.**



OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY

## Full Recorded Owner Guarantee - Wyoming

### Schedule B-I Exceptions/Recorded Documents

File No.	Liability	Fee	Reference	Guarantee No.
585095JAC	\$1,000.00	\$250.00	SRSC Lots FROG	<b>SG</b> 08007434

6. As of the Date of this Guarantee, the following exceptions reference all recorded documents which may affect title to the herein described land:

All Lots:

1. Covenants, conditions, restrictions, reservations, easements, encroachments, ditches, roadways, rights-of-way, common areas and building set back requirements as delineated on the recorded Plat Number 1165 and recorded Map Numbers T-458-A, T-458-B and T-458-C, records of Teton County, Wyoming.
2. Easement and right-of-way from Ellsworth G. and Georgia A. Crail to U. S. of America, which contains a reverter clause appearing of record in Book 4 of Deeds, Page 286, records of Teton County, Wyoming.
3. Easement and right-of-way from Ray Ely to U. S. of America, which contains a reverter clause appearing of record in Book 4 of Deeds, Page 288, records of Teton County, Wyoming.
4. Right of Deed from George Lamb to U.S. of America appearing of record in Book 4 of Deeds, Page 289, records of Teton County, Wyoming.
5. Memorandum of Agreement Affecting Real Property between Canyon Club, Inc. and Jackson Hole Land Trust appearing of record in Book 496 of Photo, Pages 550-552, records of Teton County, Wyoming.
6. The terms and conditions of that Conservation Easement appearing of record in Book 496 of Photo, Pages 489-548, records of Teton County, Wyoming.
7. Snake River Sporting Club Community Amended and Restated Master Declaration of Covenants, Conditions and Restrictions, which includes, but is not limited to, a Housing Transfer Fee, and a Right of First Refusal, appearing of record in Book 604 of Photo, Pages 640-713; First Amendment in Book 651 of Photo, Pages 341-344, records of Teton County, Wyoming; and Assignment of Declarant Rights and Waiver of First Refusal in Book 835 of Photo, Page 847, records of Teton County, Wyoming.
8. Affordable Housing Agreement appearing of record in Book 604 of Photo, Pages 714-727, records of Teton County, Wyoming and Affidavit Regarding Partial Satisfaction of Terms of Affordable Housing Agreement appearing of record in Book 861 of Photo, Pages 1023-1024, records of Teton County, Wyoming.



OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY

## Full Recorded Owner Guarantee - Wyoming

### Schedule B-I Exceptions/Recorded Documents

File No.	Liability	Fee	Reference	Guarantee No.
585095JAC	\$1,000.00	\$250.00	SRSC Lots FROG	<b>SG</b> 08007434

9. Amended Certificate of Owner for Plat No. 1165 appearing of record in Book 606 of Photo, Pages 36-37, records of Teton County, Wyoming.
10. Grant of Perpetual Right To Use Access and Utility Easement appearing of record in Book 628 of Photo, Pages 532-534, records of Teton County, Wyoming.
11. Open Space Easement appearing of record in Book 629 of Photo, Pages 67-110, records of Teton County, Wyoming.
12. Assignment of Development Rights and Assignment of Rights Reserved in Teton County Plats 1030 and 1031 appearing of record in Book 848 of Photo, Pages 612-616, records of Teton County, Wyoming.
13. The terms, conditions, provisions and limitations of that unrecorded U.S. Department of Agriculture Forest Service Forest Road Special Use Permit in favor of Snake River Sporting Club Owners Association dated September 13, 2013, Auth ID JAC474401.

Lots 2, 3, 4 and 5:

14. Landscaping Affidavit appearing of record in Book 503 of Photo, Page 168, records of Teton County, Wyoming.

As to Lots 2 and 4:

15. **Mortgage** dated June 18, 2007, to secure an original indebtedness of \$9,782,000.00, and any other amounts and/or obligations secured thereby.  
Recorded: 6/21/2007, in Book 667 of Photo, Page(s) 1006-1023  
Mortgagor: Snake River Partners, LLC, a Wyoming limited liability company  
Mortgagee: Boston Private Bank and Trust

First Amendment:

Recording Information: Book 883 of Photo, Pages 841-845

Second Amendment:

Recording Information: Book 889 of Photo, Pages 236-239



OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY

## Full Recorded Owner Guarantee - Wyoming

### Schedule B-II Informational Notes

File No.	Liability	Fee	Reference	Guarantee No.
585095JAC	\$1,000.00	\$250.00	SRSC Lots FROG	<b>SG</b> 08007434

The following is provided for informational purposes and is not part of the Assurances given under this Guarantee:

The Status of real property taxes is as follows:

Lot #	Tax ID#	2015 Tax Status	2016 Tax Status
2	01-004158	In the Amount of \$4,822.68 are <b>PAID</b>	Accruing lien not yet due or payable
3	01-004159	In the Amount of \$5,459.95 are <b>PAID</b>	Accruing lien not yet due or payable
4	01-004160	In the Amount of \$4,858.05 are <b>PAID</b>	Accruing lien not yet due or payable
5	01-004161	In the Amount of \$4,931.28 are <b>PAID</b>	Accruing lien not yet due or payable
6	01-004162	In the Amount of \$4,467.69 are <b>PAID</b>	Accruing lien not yet due or payable
47	01-004203	In the Amount of \$85.83 are <b>PAID</b>	Accruing lien not yet due or payable
80	01-004236	In the Amount of \$40.27 are <b>PAID</b>	Accruing lien not yet due or payable

We recommend that the person responsible for closing this verify this tax information prior to closing.

\*Real Estate Taxes are payable as follows

\*If making one payment: Due on or before December 31.

\*If making two payments: First half payable September 1 and delinquent November 10;  
second half due March 1 and delinquent May 10.

The PIDNs for these properties appear to be:

- Lot 2: 22-38-16-08-1-01-002
- Lot 3: 22-38-16-08-1-01-003
- Lot 4: 22-38-16-08-1-01-004
- Lot 5: 22-38-16-08-1-01-005
- Lot 6: 22-38-16-08-1-01-006
- Lot 47: 22-38-16-08-1-01-047
- Lot 80: 22-38-16-08-1-01-080



**OLD REPUBLIC NATIONAL TITLE INSURANCE AGENCY  
PRIVACY POLICY NOTICE**

**PURPOSE OF THIS NOTICE**

Title V of the Gramm-Leach-Bliley Act (GLBA) generally prohibits any financial institution, directly or through its affiliates, from sharing nonpublic personal information about you with a nonaffiliated third party unless the institution provides you with a notice of its privacy policies and practices, such as the type of information that it collects about you and the categories of persons or entities to whom it may be disclosed. In compliance with the GLBA, we are providing you with this document, which notifies you of the privacy policies and practices of Old Republic National Title Insurance Company.

We may collect nonpublic information about you from the following sources:

- Information we received from you such as on applications or other forms.
- Information about your transactions we secure from our files, or from others.
- Information we receive from a consumer reporting agency.
- Information that we receive from others involved in your transaction, such as the real estate agent or lender.

Unless it is specifically stated otherwise in an amended Privacy Policy Notice, no additional nonpublic personal information will be collected about you.

We also may disclose this information about our customers or former customers to the following types of nonaffiliated companies that perform services on our behalf or with whom we have joint market agreements:

- Financial services providers such as companies engaged in banking, consumer finance, securities and insurance.
- Non-financial companies such as envelope stuffers and other fulfillment service providers.

We do not disclose any nonpublic personal information about you with anyone for any purpose that is not specifically permitted by law.

We restrict access to nonpublic information about you to those employees who need to know that information in order to provide products or services to you. We maintain physical, electronic and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

## SECTION 3 - PROJECT BACKGROUND AND OVERVIEW

### A. PROJECT BACKGROUND

For the past few years the applicant, owners of the Snake River Sporting Club (**The Club**) and the Snake River Bend Ranch (**The Ranch**), have been working to make this area of Teton County a more viable resort and destination for visitors of Jackson Hole. More recently, a partnership with the Trust for Public Lands(TPL) helped facilitate the re-imagination of the Astoria Hot Springs Park that closed in the late 1990's prior to the previous developer's effort to create a resort in this area. This partnership created a basic development proposal that would transfer density previously entitled to be located around the Astoria Hot Springs to a more suitable location south toward the Clubhouse at Snake River Sporting Club.

Two years of planning and negotiation between stakeholders and Teton County resulted in an amendment to the Snake River Canyon Ranch Resort (**The Resort**) Planned Unit Development Planned Resort (PUD-PR). It was originally approved by the Board of County Commissioners(BCC) on July 6, 1999. In conjunction with the 1999 PUD-PR Master Plan approval, the Teton County Official Zoning District Map was amended, rezoning approximately 195 acres of land from Rural to PUD-PR. In addition, a text amendment to the Teton County Land Development Regulations that reflected the new resort was approved at that time. The 1999 PUD-PR Master Plan approval allowed for a main lodge with a maximum of 28 hotel rooms, six condominiums, six single-unit cabins, 16 duplex cabins, eight single family home sites, at total of 56 development units. Also approved were hot spring/spa facilities, platform tennis facilities, a helicopter pad and associated support and maintenance facilities for a heli-skiing operation, affordable and employee housing, and miscellaneous resort support facilities.

On September 17, 2015, the BCC approved an amendment to the Resort PUD-PR (**PUD2015-0002**), a Text Amendment (**AMD2015-0003**) to the Teton County Land Development Regulations(LDRs) and Zoning Map Amendment (**ZMA2015-0002**). These approvals resulted in the removal of approximately 95 acres of land within the Resort PUD-PR, and the rezoning of the removed acreage as Park and Open Space. It also relocated 56 lodging units from land removed from the Resort PUD-PR land to an 18.5 acre receiving area within the Snake River Sporting Club (The Club) Planned Residential Development(PRD) which was subsequently rezoned PUD-PR and became part of the Resort. As a result of the 2015 amendment, the Resort is now comprised of three Planned Resort Zone Sub Areas: Sub Area I - the 5.2 acre "Astoria Hot Spring Site" (**AREA I**), Sub Area II – the "Legacy Lots and Resort Infrastructure" (**AREA II**), and Sub Area III, the "Resort Lodging Core" (**AREA III**).

Along with the 56 units transferred from AREA I, the Club-PRD was entitled with six additional remaining units that combined for a total of 62 units constituting 210,000 square feet to be developed within the 18.5 acres of AREA III.

The Sketch Plan Approval (**SKC2015-0001**) allows for the creation of a 5.2 acre “Astoria Hot Spring Site” and 9,000 square feet of facilities, and the development the above-referenced 62 attached and detached lodging units totaling 210,000 square feet. This transfer of density triggered the necessity to amend both Conditional Use Permit(CUP-2015-0003) for the SRSC Golf Course and the development plan for the Club PRD (**DEV2015-0002**). All of these amendment applications were approved by the BCC on September 15, 2015. Section 5 of this submittal includes the final BCC motions and conditions with a response to conditions that are specifically applicable to this permit application.

This application contemplates Phase 1 of the development within Sub Area III, the “Resort Lodging Core”(AREA III).

## **B. OWNER & PROJECT TEAM INFORMATION**

### **PROPERTY OWNERS & APPLICANTS:**

SRS Club, LLC, Cygnus Capital, Inc., SRSC Lots, LLC, &  
Snake River Sporting Partners, LLC  
3060 Peachtree Road NW - Suite 1080  
Atlanta, GA 30305

### **ENGINEERING & LAND PLANNING**

Jorgensen Associates, P.C.  
1315 Highway 89 South, Suites 201 & 203; 83001  
P.O. Box 9550 Jackson, Wyoming 83002  
307-733-5150

### **SURVEYOR:**

On Sight Land Surveyors, Inc.  
155 West Gill Avenue  
P.O. Box 12290  
Jackson, Wyoming 83002  
307-734-6131

### **LAND PLANNING & LANDSCAPE ARCHITECT:**

DHM Design  
201 South Wallace Ave, Suite A-4  
Bozeman, MT 59715  
406-219-2012

### C. DEVELOPMENT PROPOSAL

This Final Development Plan is for the Phase One of development within the AREA III of the Amended Snake River Canyon Ranch Resort Master Plan approved on September 15, 2015, a Planned Unit Development in Teton County, Wyoming. Phase One consists of two sub-phases. Phase 1A contains 12 platted lots that will accommodate one single-family detached home of approximately 3,500 square feet on each new lot. Phase 1B will be called Discovery Village and contains 10 campground units/sites.

This Final Development Plan has been prepared in accordance with Dimensional Limitations established by the **Amended and Restated Snake River Canyon Ranch Resort Master Plan (Master Plan)** approved by Teton County Planning Department on \_\_\_\_\_, 2016. The final “draft” is attached in Section 7. Where the **Master Plan** is silent, all development in AREA III will comply with Teton County Land Development Regulations(LDRs) dated October 19<sup>th</sup>, 2015,

Note: The Master Plan will be filed concurrently in the Office of the Clerk of Teton County Wyoming with the new 1% transfer agreement (Condition #3 PUD 2015-0002) which is scheduled to be approved by the BCC on \_\_\_\_\_ 2016,

### D. FINDINGS FOR APPROVAL

Division 8.3.2.C Development Plan Findings for Approval

1. ***Is consistent with the desired future character for the site in the Jackson/Teton County Comprehensive Plan. Complies.*** This development falls within District 8.3: River Bottom/Canyon Corridor of the Comprehensive Plan. This section set goals to reduce impacts on wildlife and scenic resources while respecting private property rights. This development achieves these goals by locating development in AREA III which is located away from the river and screened from the highway. Additionally, the density transfer will allow for greater wildlife permeability in AREA I where the new Astoria Hot Springs park will be located.
2. ***Achieves the standards and objectives of the Natural Resource Overlay(NRO) and Scenic Resources Overlay (SRO), if applicable. Complies.*** The subject property is in both the NRO and SRO. Via the transfer of development rights from AREA I to III, this proposal locates physical development away from the more environmentally sensitive areas in AREA I to AREA III which is largely disturbed as per the Environmental Analyses(EVA2014-0008 & EVA2014-0008) submitted with previously approved permits - thus reducing the potential impact to natural resources protected by the NRO. Additionally, AREA III cannot be seen from the highway and thus reduces the impacts to scenic resource protected by the SRO.

3. ***Does not have significant impact on public facilities and services, including transportation, potable water and wastewater facilities, parks, schools, police fire, and EMS facilities. Complies.*** This project will be served by community water and wastewater systems. As conditioned in PUD 2015-0002, this development will not have significant impacts on transportation infrastructure. This proposal does not result in an increase in the development previously approved for the resort and it will not generate additional impacts on parks, schools, police, fire or EMS facilities.
4. ***Complies with all relevant standards of these LDRs and other County Resolutions. Complies.*** Based on the enclosed application materials this development plan complies with all applicable standards of the Master Plan, LDRs and other County Resolutions.
5. ***Is in substantial conformance with all standards or conditions of any prior or applicable permits or approvals. Complies.*** See Section 7 for detailed accounting of all previously approved permits, text and zoning map amendments, and the requisite conditions that carry through to this permit application.

## E. PROPOSED DEVELOPMENT PROGRAM

1. **Development Summary** - This Final Development Plan proposes development in AREA III of the Amended Snake River Canyon Ranch Resort(SRCRR) Planned Unit Development Planned Resort (PUD-PR) within the following described properties:
  - Snake River Sporting Club Plat No. 1165, Lot 2 = 1.45 acres
  - Snake River Sporting Club Plat No. 1165, Lot 3 = 1.64 acres
  - Snake River Sporting Club Plat No. 1165, Lot 4 = 1.42 acres
  - Snake River Sporting Club Plat No. 1165, Lot 5 = 1.52 acres
  - Snake River Sporting Club Plat No. 1165, Lot 6 = 1.94 acres
  - Snake River Sporting Club Plat No. 1165, Lot 47 = 6.78 acres
  - Snake River Sporting Club Plat No. 1165, Lot 69 = 0.34 acres
  - Snake River Sporting Club Plat No. 1165, Lot 80 = 3.38 acres

Area III = total 18.5 acres

Twelve (12) single-family residential lots are proposed for development by this Final Development Plan on the portion of AREA III described as Lot 80 of the Snake River Sporting Club, Teton County Plat No. 1165, recorded in said Office. This is described as **Phase 1A** of the Area III development. Each of the proposed lots will contain 1 unit of the 62 available units from the aforementioned development transfer. The unit type of is a single-family detached residential lodging unit which can be rented short term by-right. To maintain the ability to respond to market demand, the unit types of the remaining 50 units will not be designated until the development of Phases 2 through 6, as outlined in the Phasing Plan discussed herein and shown in the plan set attached in Section 8. The applicant does not contemplate constructing homes, but will sell packages with lots and architectural plans. Each new owner will be responsible for procuring a building permit prior to construction.

This Final Development Plan also proposes the development of ten (10) campground units/sites. The purpose of the proposed development is to develop “Discovery Village” in order to provide temporary lodging for prospective buyers of potential resort properties while they partake in recreational activities at, and consider investment in the Club and the Resort. This is described as **Phase 1B** of the Area III development. This phase will eventually be replaced entirely by Phase 6 of the Area III development. This sub-phase will be located on Lots 2 & 3 of SRSC Plat No. 1165. A basic use permit was filed on April 19<sup>th</sup> for the same use with only four units.

The unit type is currently being planned as Recreational Park Trailers(RPTs) which are approximately 400 square feet, built to standards of recreational vehicle, and allowed by the Master Plan. The applicant will retain the flexibility to change the unit type should economics necessitate change to any of the stated unit types within Footnote 3 of Section 2.3.C.1 of the Master Plan.

2. **Maximum Scale of Development** – Individual units within Sub Area III are limited to a maximum of 10,000 square feet as per the Master Plan.
3. **Maximum Site Development** – Maximum site development is limited to a range of 0.45 to 0.75 as per the Master Plan.
4. **Other Information** - Refer to the accompanying FINAL DEVELOPMENT PLAN DRAWING SET for information on:
  - a. Existing Site Conditions & adjoining Property
  - b. Proposed Site Plan & Infrastructure
  - c. Land Use and Environmental Protection Districts
  - d. Snake River Sporting Club Water & Sewer Information

## F. PHASING PLAN

The phasing of the construction of 62 units with a maximum of 210,000 square feet within AREA III will be driven by the market and be held to certain milestones that are denoted by the 6 separate phases detailed below. A visual representation of the phasing plan is also attached in Section 8 of this report.

1. **Phase 1** – Detailed in this application for final development plan
  - a. **Phase 1a** – 12 single-family lots with single family detached structures
  - b. **Phase 1b** – 10 campground units/sites (Recreational Park Trailers). This phase will be replaced entirely by Phase 6 of the Area III development.
2. **Phase 2** – 9 units with unit type to be determined and completion of the road and utilities that serves both phases 2 & 3.
3. **Phase 3** – 3 units with unit type to be determined.
4. **Phase 4** - 11 units with unit type to be determined with road and utilities.
5. **Phase 5** - 13 units with unit type to be determined with road and utilities.
6. **Phase 6** - 12 units with unit type to be determined with road and utilities. This will replace Phase 1b.

## G. ZONE SPECIFIC STANDARDS

1. **Section 2.3 of Master Plan** – all development shall comply with Section 2.3 of the Master Plan. Where the Master Plan is silent, all development in AREA III will comply with Teton County Land Development Regulations(LDRs) dated October 19<sup>th</sup>, 2015,
2. **Section 4.3.1 All Planned Resort Zones.D. Findings for Approval**
  - a. **Consistency with Comprehensive plan. The Planned Resort master plan is consistent with the goals and objectives of Jackson/Teton County Comprehensive Plan. Complies.** This development falls within District 8.3: River Bottom/Canyon Corridor of the Comprehensive Plan. This section set goals to reduce impacts on wildlife and scenic resources while respecting private property rights. This development achieves these goals by locating development in AREA III which is located away from the river and screened from the highway. Additionally, the density transfer will allow for greater wildlife permeability in AREA I where the new Astoria Hot Springs park will be located.
  - b. **Consistency with Purpose and Intent. The Planned Resort master plan is substantially consistent with the purpose and intent of this Section, as set forth in 4.3.1.A.** -This approved planned resort has met this finding in that it provides a mix of recreation, retail and service oriented activities with a high degree of self-containment and provides economic and other benefits to the community such that it meets all nine attributes of intent as listed in Division 4.3.1.A.
  - c. **Affordable and Employee Housing. The Planned Resort master plan ensures a**

***supply of affordable and employee housing that is in accordance with the requirements for housing created by development units within the Planned Resort.*** The master plan ensures both of these are addressed with condition #2 CUP2015-0003 and condition #3 of PUD2015-0002.

3. **Section 4.3.6 of LDRS** - This section is excerpted from the Resort Master Plan that has been amended and included herein. Phase 1 of the amended Snake River Canyon ranch resort located in Area III will comply with all standards listed in Division 4.3.6 of the LDRs and the Amended and Restated Snake River Canyon Ranch Resort Master Plan.

## H. LANDSCAPING

The applicant will provide some landscaping prior to selling each lot to enhance screening between units, however this landscaping will not interfere with or impede construction. Each new lot owner will be responsible for the required landscaping of 0.5 plant units per detached single family lot as per the Master Plan. This will be evaluated at building permit.

## I. ENVIRONMENTAL STANDARDS

1. **Natural Resource Buffers & Irrigation Ditch setback** – all development planned within this permit application complies with these buffers. See plan set in Section 8 for more detail.
2. **Wild Animal Feeding** – As per Division 5.1.3 of the LDRs Wild Animal Feeding shall be prohibited on AREA III.
3. **Natural Resource Overlay(NRO)Standards** – the entirety of AREA III is within the Natural Resource Overlay which requires that any development compile an Environmental Analysis(EA). This EA was submitted with the previously approved permits. The EA found that nearly all of AREA III was “disturbed” with the exception northeastern portion of lots 2-6. This area, depicted on the plan set in Section 8, have a Xeric-Shrub cover type, and under the standards of the NRO will need to be mitigated when they are impacted by development. Both Phases 1A and 1B have avoided this area entirely and will only impact those areas indicated by the EA as “disturbed.” Future phases may impact these cover types which is further detailed in **Section 2.1.5. Conceptual Mitigation Plan.**
4. **Bear Conflict Area Standards** – Area III is entirely within Bear Conflict Priority Area I and will comply with all standards **of Division 5.2.2 of the LDRs** which include specific measure for storage of garbage and the use of bird feeders.

5. **Conceptual Mitigation Plan** – The development proposed for Phase 1A & 1B will impact only “disturbed” areas and no mitigation is required. However, the applicant would like to plan for future phases by submitting a conceptual mitigation plan attached in Section 7. This plan estimates total impact from future phases and proposes to mitigate for those phases, in manner which is “on-site” but “out-of-kind” with a higher ordinal ranking. A mitigation site will be on the Golf Course or on the Snake River Bend Ranch. This mitigation project will likely be included in the development permit for Phase 2 of this development.

#### J. NATURAL HAZARDS TO AVOID

1. **Steep Slopes, Areas of Unstable Soils, Fault Areas** – There are avalanche paths present on this project, specifically on Lots 2, 3, 4, 5, & 6 of SRSC. These paths are mapped on the plan sheets included in Section 8 of this submittal and discussed in detail the report titled “Snow Avalanche Hazard Analysis Mapping and Design Loads” published prepared by Arthur. Mears, P.E., Inc. & Wilbur Engineering, Inc. dated February 15<sup>th</sup>, 2016. A geotechnical investigation by Jorgensen Geotechnical was conducted and issued on November 13, 2015 by Jorgensen Geotechnical. Both of these reports are attached in Section 7 of this report. Soils are also briefly discussed in the Engineer’s report - Section 4 of this report.
2. **Floodplains** – Lot 80, and all of Area III is located entirely out of Zone AE. 2013 a study was conducted by Meridian Engineering so that this area could be more accurately mapped with onsite topographic information. A copy of this map is included Section 7 of this submittal along with the National Flood Insurance Program Flood Insurance Rate Map No. 56039C3150E.
3. **Wildland Urban Interface** – Area III is entirely within the Wildland Urban Interface. Consequently, these lots shall comply with the International Wildland-Urban Interface Code, 2012 edition, as per the Fire Code Resolution of the LDRs.

- K. **SIGNS** – There are no signs proposed at this time. Future applications for signage at AREA II will comply with the Master Plan.

#### L. GRADING, EROSION CONTROL, STORMWATER

See subsequent Engineer’s report in Section 4 of this application for discussion on these items.

#### **M. ALLOWED USES & USE REQUIREMENTS**

1. **Parking** - see subsequent Engineer's report in Section 4 of this application for discussion on these items.
2. **Employees required to be housed** – 14.75 employees will be housed as part of this development. See Condition #2 of CUP2015-0003 in Section 7 for details.

#### **N. ALLOWED SUBDIVISION AND DEVELOPMENT OPTIONS**

As per the Master plan, AREA III is allowed to be further subdivided either by division of land or using the condominium/townhouse options. This will be determined with future development applications for phases 2-6. All further subdivision of land will comply with the standards of Section 2.3 of the Master Plan.

#### **O. RESIDENTIAL SUBDIVISION REQUIREMENTS**

1. **Affordable Housing** – Condition #3 of PUD2015-0002 (detailed in Section 5) provides a 1% transfer fee on the gross sales prices of properties sold within the resort. This agreement is being amended in collaboration with the Teton County Attorney's Office and will be considered for approval by the BCC on \_\_\_\_\_, 2016
2. **School and Parks Exactions** – There are no exaction fees for the 62 units being transferred into AREA III. The exaction fees were paid during previous approved applications.

#### **P. INFRASTRUCTURE**

1. **Transportation Facilities** – see plan sheets provided in Section 8.
2. **Required Utilities** – see plan sheets provided in Section 8.

## SECTION 4 - ENGINEER'S REPORT

### A. INTRODUCTION

This Final Development Plan Engineer's Report is intended to provide the engineering basis for design and to discuss engineering related issues for the development of the 12 lots on Lot 80 - Phase 1A and 10 campground units/sites or Recreational Park Trailers(RPTs) in the Discovery Village – Phase 1B. Supporting infrastructure will be extensions of the existing lines and facilities constructed as part of the Snake River Sporting Club development started in 2002 and completed in 2009. The basic layout and design elements are shown on the plan set attached in Section 8 and the general engineering items are discussed here.

### B. SETTING

Historically the site was hay meadow, range land, and natural riparian lands adjacent to the Snake River in the Snake River Canyon between Hoback Junction and Alpine. With the development of the Snake River Sporting Club and Snake River Canyon Ranch Resort, the golf course, residential home sites, and amenities were planned. Lot 80 is adjacent to the golf course, Snake River, irrigation ditches, and the golf course irrigation pond. Cottonwood, shrub, and meadow grass surround the site. Lot 80 is disturbed from golf course maintenance activities. The Discovery Village area is located on Lots 2 and 3 of the Snake River Sporting Club and is dominated by meadow grass and sage brush at the base of hillside.

Lot 80 was originally planned for the golf course maintenance area. An administration building, fuel and wash facilities, housing, the irrigation pump station, and a fire station. Only the irrigation pump house was constructed. The pump house is located in one of the proposed lots and will be relocated to the central portion of development in the cul-de-sac. Much of the infrastructure installed as planned for the maintenance site will be abandoned and new lines installed to serve the new layout.

The Discovery Village will be placed on an upland area originally planned for single family residential lots in the original master plan. Cable utility, water, and sewer connections installed for the single family lots will be used to connect the Recreational Park Trailers. The lots are located on the east side and adjacent to Wagon Road

### C. GRADING, EROSION CONTROL, DRAINAGE, & STORMWATER

Development on the two sites leaves extensive green space and natural ground. These areas are sufficient to accommodate stormwater runoff. Lot 80 is relatively flat and underlain by very permeable soils, and the units are spaced to provide generous landscape areas around the buildings. No significant runoff is expected from these units. The Recreational Park Trailers will be located on natural ground and are very small in size. The impervious area compared to the

landscape and natural ground is very small and no significant runoff is expected.

While no significant runoff from the development is expected, there will be control strategies employed to control runoff. The general control strategy is to create small detention areas throughout the site to intercept runoff before it has an opportunity to concentrate and cause damaging erosion. To do this we will evaluate the major contributors to runoff (i.e. downspouts, roof valleys) and create depressions in the landscape to intercept concentrations of runoff and allow them to infiltrate or, in a bigger event, release at a reduced rate. At which time grading activities such as installation of roads and utilities, begin a Grading and Erosion Control Permit will be submitted to Teton County for approval.

#### **D. SOILS AND SITE CONDITIONS**

A geotechnical investigation by Jorgensen Geotechnical was published on November 13, 2015. Snake River terrace deposits and alluvial deposits dominate the site. See the geotechnical investigation report for detailed information on the soil conditions at the site. Most importantly to note is the variation of soils from the Lot 80 area up to the Discovery Village.

#### **E. ROADS AND ACCESS**

Access to the site is along Wagon road, the main road through Snake River Sporting Club which is serviced by the Astoria Bridge. Long term viability and responsibility for the bridge will be assured by an Improvement Service District (ISD) which is currently being organized by the applicant. An exhibit depicting the geographic boundaries and potential stakeholders is presented in Section 7 of this submittal. This was a requirement in Condition #7 of PUD 2015-0002 located in Section 7 of this submittal. Additionally, a traffic counter has been installed as per Condition #10 of CUP2015-0003, Condition #9 of DEV2015-0002, and Condition #5 of PUD2015-0002. See Section 5 for detailed analysis of these conditions.

An existing spur road, Cottonwood Court, previously known as Dipstick Road, accesses Lot 80. Wagon Road is a two lane, 20-foot-wide road with gravel shoulders that vary in width. It is currently paved to approximately 20 feet past the bridge across the irrigation ditch feeding the golf course. Cottonwood Court is also a two lane, 20-foot-wide road and will access the 12 lots on Lot 80. A new temporary gravel road called Discovery Drive will access the 10 Discovery Village units.

#### **F. TRAFFIC**

No significant traffic changes are expected with the creation of these developments. Density for the creation of the lots on Lot 80 is being transferred from Area I so no overall change in traffic volume will occur. The density transferred is 62 units and the 10 campground units/sites (Recreational Park Trailers) along with the 12 Lot 80 lots only represent about 30% of the overall traffic generation of the 62 units. Additionally, a traffic counter has been installed as per Condition #10 of CUP2015-0003, Condition #9 of DEV2015-0002, and Condition #5 of PUD2015-0002. See Section 5 for detailed analysis of these conditions.

### **G. PARKING**

Each unit in both phases 1A (Lot 80) and 1B (Discovery Village), will have at least two parking spaces available to them as per the Master Plan. Lot 80 will have two garage spaces and two additional spaces in front of the garage. Each campground unit/site will have a 20 feet wide gravel parking area sized to accommodate two (2) vehicles.

### **H. PATHWAYS**

A new pathway is planned along Wagon Road between Cottonwood Court (aka Dipstick Road) and Lodge Cottage Drive. This path will allow pedestrian and bicycle traffic to travel between the residential area of Lot 80 and Discovery Village, to the Clubhouse a central gathering spot for the development. The Grading and Erosion Control Permit for this pathway was submitted for review on Wednesday, April 20, 2016.

### **I. WATER**

The new development will be served by the Snake River Sporting Club water system. The water system consists of two supply wells, a 200,000 gallon concrete storage tank, supply, transmission, distribution, and service piping. For redundancy and to insure an adequate water supply a third well is being planned for the system that will double the capacity from 144,000 gallon per day to almost 300,000 gallon per day of production. The water system was originally sized for development potential of the Snake River Sporting Club and the Snake River Canyon Ranch. The combined demands of those developments were used in sizing the system.

The development considered for AREA I by the Trust for Public Lands is a Park with facilities for public to enjoy and use the Astoria Hot Springs. The reconfiguration of the development in AREA I is now less intense and will reduce the water demands on the system.

Part of the water system work will be extending the main lines to serve this new development, and therefore a Wyoming Department of Environmental Quality Permit to Construct will be required. The permitting documents are being prepared and will be submitted to the DEQ prior to the first public hearing for this application.

### **J. WASTEWATER**

Wastewater treatment at the Snake River Sporting Club is accomplished using an effluent pressure sewer system with disposal of effluent in two large disposal fields (leach fields) located under the golf course driving range. This wastewater system does not serve AREA I which is served by separate system to be discussed when a development permit is filed for AREA I.

The wastewater system for the Snake River Sporting Club is permitted under WYODEQ UIC 13-053 and is permitted for a discharge of up to 44,250 gallons per day. The development at the Sporting Club is mostly second homes and wastewater generation fluctuates with occupancy. Wastewater generation projections indicate a buildout flow of 51,000 gpd for the entire development. This

projection is for buildout at full occupancy of the homes, at the clubhouse, golf course, and golf course operations. The WYDEQ permit requires reporting of discharge flows as part of the permit. If the discharges to the disposal fields were to approach the permitted volume, a permit revision would be required through the DEQ. The permit revision would likely include adding a third disposal field to the system. Preparation for a third field is being built into new infrastructure work. This planning will make adding the field easier and less disruptive to the development and the operation of the golf course. In conversations with the DEQ, they have indicated that monitoring discharged flows and insuring permit limits are not exceeded is an adequate protocol moving forward. Other permit monitoring of monitoring wells and groundwater quality is required and will continue as part of the permit compliance.

Flow monitoring has only recently been installed on the system. The data obtained only covers the most recent winter months. Effluent discharges of 3,600 gallons per day on the maximum day have been recorded. Monitoring will continue throughout this summer and in to the future and reported to DEQ as part of the permit compliance.

#### **K. CABLE UTILITIES AND GAS**

Power and Communications lines will be run to each of the Discovery Village units and to each of the Lot 80 lots. Lower Valley Energy, Century Link, and Silverstar lines will be run to serve these units. Natural gas, propane, or Charter cable television/communication service is not available nor is it planned for the future.

#### **L. SNOW STORAGE**

With 3500 sq. ft. structures on 0.25 acre lots plenty of area for snow storage exists.

#### **M. GROUNDWATER, STREAMS, & RIVERS**

High groundwater exists on Lot 80. Historic information indicates groundwater elevations fluctuate between 15 feet below ground surface to about 5 feet below ground surface. Building foundations will need to take in to account the elevation of groundwater and utility installation should be timed to avoid high groundwater the cost of dewatering.

## SECTION 5 - RESPONSE TO PREVIOUS CONDITIONS OF APPROVAL

### A. Conditional Use Permit for the Snake River Sporting Club (The Club) - CUP-2015-0003

Approved based upon finding that the application meets the findings in Section 8.4.2.C of the Teton County Land Development Regulations as discussed in the staff report with the conditions as listed in the BCC Condition column of the BCC Condition Discussion Table dated September 17, 2015.

1. *Approval of these applications is contingent upon the subsequent approval of PUD2015-0002, ZMA2015-0002, and AMD2015-0003. If those applications are not approved, this approval shall be rendered null and void. Status: Approved*
2. *Prior to November 5, 2018, the applicant shall submit an application for a Development Plan for employee housing adequate to accommodate a minimum of 14.75 employees on property located south of the Astoria bridge through construction of an employee housing building, deed restriction of lots within Area III, or a combination of these methods. The applicant may use the employee housing proposal approved in 2003 (as modified by MDV2008-0004) as a template for the proposed housing. The applicant shall not be limited to the original floor plans provided the proposed structure is determined upon review to adequately house 14.75 people. Failure to proceed through the application process and obtain necessary permits and/or to complete deed restriction of a lot by this date shall result in revocation of the Conditional Use Permit for the golf course. At the time of submittal of a grading permit, a final mitigation plan as detailed in the EA conditions shall be required to be submitted, subject to review and approval by the Planning Director. Status: Ongoing*
3. *No dike, levee or retaining wall shall be constructed in the Snake River, its floodway or floodplain for bank stabilization, erosion control, or other purpose, nor shall the bank height be altered. No bendway weir or other bank stabilization measure (but not dikes, levees or retaining walls) shall be used on the Snake River, its floodway, or floodplain unless authorized by the governmental entity having primary jurisdiction over the subject matter, or, by each governmental entity having concurrent jurisdiction over the subject matter, which includes Teton County. Status: Ongoing*
4. *All development shall be setback 15 feet from the edge of all irrigation ditches, man-made ponds, and other water features not of natural origin. Verification of compliance shall be made by field inspection upon construction. Status: Ongoing*

5. *The following mitigation measures shall be implemented (see the Development Impact Assessment by Pioneer Environmental Services dated October 2001 for original recommendations):*
- a. *Woody debris shall be retained in streams and undeveloped forested areas and firewood collection shall be prohibited.*
  - b. *Snags (standing dead trees) shall not be removed/felled during construction, operation, or use of the project area unless absolutely necessary to provide for public safety.*
  - c. *Only minimal disturbance of existing trees and natural habitat shall be permitted around homes. In cases where trees must be removed for construction, they shall be selectively cut.*
  - d. *All livestock grazing, including horses, shall be removed from sensitive riparian areas on the Canyon Club property.*
  - e. *Removal of mature trees shall be done with special devices, when feasible, that will allow them to be reestablished in appropriate areas likely to be beneficial to bald eagles.*
  - f. *Landscaping in the immediate vicinity of residential units shall consist of species not palatable to ungulates.*  
**Status: Ongoing**
6. *All fencing shall comply with Section 5.1.2, or its current equivalent, except as provided in the open space easements for River Bend Ranch properties where “elk-proof” fencing may be permitted immediately adjacent to hay storage, and except that temporary elk-proof fencing may be installed around the greens on the golf course during fall, winter and spring to prevent greens from becoming a food source for migrating ungulates. Status: Ongoing*
7. *Each year, the owner of the golf course shall submit an Annual Operation Plan and Monitoring Program in accordance with the outline approved as part of the Final Development Plan and in accordance with the requirements of LDR Section 6.1.3.D.2.e.vi, or its current equivalent.*  
**Status: Ongoing**
8. *Clubhouse shall be no more than 23,000 square feet of gross floor area, including basements and partial levels such as lofts and interior balconies. Status: Ongoing*
9. *All golf course buildings and structures over four feet in height shall be setback 50 feet from the perimeter of the golf course parcel. Status: Ongoing*

10. *A traffic counter, capable of capturing peak hour counts, shall be installed within 60 days of issuance of the permit with the capability to capture daily and hourly traffic counts during peak operations across the single lane bridge. The traffic counter shall be in place and operational year round. Traffic count reports including daily and peak hour counts shall be summarized and reported annually. An observational traffic movement study shall be conducted annually in July during one calendar week during normal operational hours (defined as 7 am to 6 pm) to observe and document actual vehicle queuing/stacking and peak hour traffic counts for both weekday and weekend timeframes. This study shall be conducted by an independent qualified engineering firm with an individual with experience in transportation/traffic engineering. This study shall also produce a qualitative functional analysis (level of service). This annual study shall be provided to the County Engineer. If during the reporting time, vehicle stacking into the US 89 clear zone (30') is observed (with the exception of any special event that implements traffic control) the applicant shall be required to implement a mitigation plan to reduce the vehicle queuing length to be outside of the 30' clear zone of US 89. Mitigating measures including, but not limited to, installing traffic signals, controlling the number of vehicles entering the site, various traffic demand management tactics or improvements to the bridge facility shall be required. **Status: Traffic Counter has been installed and is currently collecting data.***
  
11. *Prior to issuance of any physical development permit associated with the golf course, including but not limited to physical development permits required for the allowed ancillary platform tennis courts, or for the swimming pool proposed by this application, the applicant shall be required to vacate Lots 96 and 97 as originally required by DEV2013-0011 (see the staff report associated with that permit for more information). **Status: Complete***
  
12. *Should expansion of golf course operations, maintenance activities, or other ancillary uses beyond the 1.4-acre area identified in this application be proposed in the future, prior amendment of the CUP to reflect the increased area is required. **Status: Ongoing***

## **B. Development Plan for a Planned Residential Development – DEV 2015-0002**

Was approved based upon finding that the application meets the findings in Section 8.3.2.C of the Teton County Land Development Regulations as discussed in the staff report with the conditions as listed in the BCC Condition column of the BCC Condition Discussion Table dated September 17, 2015.

1. *Approval of these applications is contingent upon the subsequent approval of PUD2015-0002, ZMA2015-0002, and AMD2015-0003. If those applications are not approved, this approval shall be rendered null and void. Status: Approved*
2. *All garages shall be setback 20 feet from a vehicular access easement or road right-of-way and all other structures shall be setback a minimum of 10 feet from all vehicular access easements, road rights-of-way, and property lines. Status: Ongoing*
3. *No dike, levee or retaining wall shall be constructed in the Snake River, its floodway or floodplain for bank stabilization, erosion control, or other purpose, nor shall the bank height be altered. No bendway weir or other bank stabilization measure (but not dikes, levees or retaining walls) shall be used on the Snake River, its floodway, or floodplain unless authorized by the governmental entity having primary jurisdiction over the subject matter, or, by each governmental entity having concurrent jurisdiction over the subject matter, which includes Teton County. Status: Ongoing*
4. *Under no condition will development occur within 15 feet of Martin Creek and all vegetation in that zone shall be native. Status: Ongoing*
5. *The introduction of water in excess of 3 cfs is allowed into Martin Creek to provide for cutthroat trout spawning habitat improvement, subject to the issuance of appropriate permits by Teton County, Wyoming State Engineer, and the United States Army Corps of Engineers. The setback from Martin Creek will not be required to be greater than 15 feet. Status: Ongoing*
6. *All development shall be setback 15 feet from the edge of all irrigation ditches, man-made ponds, and other water features not of natural origin. Verification of compliance shall be made by field inspection upon construction. Status: Ongoing*
7. *The following mitigation measures shall be implemented (see the Development Impact Assessment by Pioneer Environmental Services dated October 2001 for original recommendations):*
  - a. *Woody debris shall be retained in streams and undeveloped forested areas and firewood collection shall be prohibited.*
  - b. *Snags (standing dead trees) shall not be removed/felled during construction, operation, or use of the project area unless absolutely necessary to provide for*

- public safety.*
- c. Only minimal disturbance of existing trees and natural habitat shall be permitted around homes. In cases where trees must be removed for construction, they shall be selectively cut.*
  - d. All livestock grazing, including horses, shall be removed from sensitive riparian areas on the Canyon Club property.*
  - e. Removal of mature trees shall be done with special devices, when feasible, that will allow them to be reestablished in appropriate areas likely to be beneficial to bald eagles.*
  - f. Landscaping in the immediate vicinity of residential units shall consist of species not palatable to ungulates. **Status: Ongoing***
8. *Building permit applications for structures located within any “blue zone” as shown in the Snow Avalanche Mapping and Hazard Analysis prepared in April 2002 or as subsequently updated, shall be accompanied by demonstration that the building design has received a stamp of approval by a structural engineer. The building design shall also be reviewed by an Avalanche-control engineer, or similarly qualified person, and shall be approved only if no change in the snow avalanche mapping and hazard analysis is found for potential surrounding buildings, i.e. a proposed building design shall not cause the snow avalanche mapping for a neighboring lot to change from blue zone to red zone. All platted lots in an avalanche zone shall show this on the plat and all lots accessed through an avalanche zone shall show this on the plat. **Status: Ongoing***
9. *A traffic counter, capable of capturing peak hour counts, shall be installed within 60 days of issuance of the permit with the capability to capture daily and hourly traffic counts during peak operations across the single lane bridge. The traffic counter shall be in place and operational year round. Traffic count reports including daily and peak hour counts shall be summarized and reported annually. An observational traffic movement study shall be conducted annually in July during one calendar week during normal operational hours (defined as 7 am to 6 pm) to observe and document actual vehicle queuing/stacking and peak hour traffic counts for both weekday and weekend timeframes. This study shall be conducted by an independent qualified engineering firm with an individual with experience in transportation/traffic engineering. This study shall also produce a qualitative functional analysis (level of service). This annual study shall be provided to the County Engineer. If during the reporting time, vehicle stacking into the US 89 clear zone (30’) is observed (with the exception of any special event that implements traffic control) the applicant shall be required to implement a mitigation plan to reduce the vehicle queuing length to be outside of the 30’ clear zone of US 89. Mitigating measures including, but not limited to, installing traffic signals, controlling the number of vehicles entering the site, various traffic demand management tactics or improvements to the bridge facility shall be required. **Status: Traffic Counter has been installed and is currently collecting data.***

**C. Amendment to Planned Unit Development for Snake River Canyon Ranch Resort(The Resort)  
Planned resort – PUD2015-0002**

Was approved pursuant to the standards for an amendment outlined in Section 4.3.1.E.8.a, rather than the standards for a reconsideration under Section 4.3.1.E.8.d., based upon finding that the application meets the findings in Section 8.7.3.D of the Teton County Land Development Regulations as discussed in the staff report with the conditions as listed in the BCC Condition column of the BCC Condition Discussion Table dated September 17, 2015.

1. *Prior to issuance of a Development Plan or Conditional Use permit for Area I of the resort, the applicant shall either record a deed restriction, in a form acceptable to the Teton County Housing Authority, limiting the use of Johnny Counts Cabin to housing and office for employees of the Astoria Hot Springs Park or otherwise employed in Teton County or build onsite housing for four Teton County or Astoria Park employees. Preference shall be given to employees of Astoria Hot Springs Park. **Status: Not applicable for AREA III and ongoing.***
2. *Prior to approval of any Use, Physical Development, or Development Option permit for any phase of the resort, the applicant shall propose amendments to the CC&Rs applicable to those seven lots to ensure the transfer fee requirement is imposed through the CC&Rs and that the applicable provisions of the CC&Rs cannot be amended without prior approval of the Board of County Commissioners. The Board of County Commissioners shall review and approve the CC&R amendments prior to recording. **Status: Ongoing***
3. *Prior to approval of any Use, Physical Development, or Development Option permit for any phase of the resort:*
  - a. *A new transfer fee agreement, which imposes a 1% transfer fee on the gross sales prices of properties sold within the resort, shall be required between the applicant and Teton County, subject to review and approval by the County Attorney's office, to reflect the lots, parcels, or units subject to the agreement, the amount of the fee-in-lieu obligation, and the structure of payments and dispersal of funds. The new transfer fee agreement shall be subject to approval and signature by the Board of County Commissioners as part of review and approval of the Development Plan for the first phase of the project.*
  - b. *The transfer fee agreement shall be recorded against all properties subject to the new transfer fee agreement, to ensure payment of the fees as required.*
  - c. *The agreement and payment structure will allow for 100% of fees collected to be paid to Teton County for purposes of fulfilling the employee housing obligation until the amount of the fee-in-lieu requirement is paid in full, at which time the agreement shall could be structured to split payment between Teton County and an entity that benefits Teton County School District employees.*
  - d. *Any new transfer fee agreement shall make clear the new obligation to pay a 1% transfer fee shall not be duplicative of any other transfer fee agreement already on*

*the property, whether a separate agreement or an applicable provision in Covenants, Conditions, and Restrictions (CC&Rs).*

**Status: To be approved by the BCC on \_\_\_\_\_, 2016.**

4. *Prior to or concurrent with any application for Development Plan or Building Permit for physical development associated with the hot springs park, the applicant shall be required to obtain a Conditional Use Permit for the entirety of the park use. **Status: Ongoing***
  
5. *A traffic counter, capable of capturing peak hour counts, shall be installed within 60 days of issuance of the permit with the capability to capture daily and hourly traffic counts during peak operations across the single lane bridge. The traffic counter shall be in place and operational year round. Traffic count reports including daily and peak hour counts shall be summarized and reported annually. An observational traffic movement study shall be conducted annually in July during one calendar week during normal operational hours (defined as 7 am to 6 pm) to observe and document actual vehicle queuing/stacking and peak hour traffic counts for both weekday and weekend timeframes. This study shall be conducted by an independent qualified engineering firm with an individual with experience in transportation/traffic engineering. This study shall also produce a qualitative functional analysis (level of service). This annual study shall be provided to the County Engineer. If during the reporting time, vehicle stacking into the US 89 clear zone (30') is observed (with the exception of any special event that implements traffic control) the applicant shall be required to implement a mitigation plan to reduce the vehicle queuing length to be outside of the 30' clear zone of US 89. Mitigating measures including, but not limited to, installing traffic signals, controlling the number of vehicles entering the site, various traffic demand management tactics or improvements to the bridge facility shall be required.  
**Status: Traffic Counter has been installed and is currently collecting data.***
  
6. *Prior to issuance of any Use, Physical Development, or Development Option permit associated with any phase of the resort, the applicant shall install appropriate signage, to be approved by the County Engineer, at each bridge end, with traffic required to yield at the SW bridge end. **Status: Complete***
  
7. *Prior to issuance of a Development Plan permit for any phase of the resort, the applicant shall be required to provide the following to the County Engineering office for review, approval, or approval subject to additional conditions and requirements:*
  - a. *Documentation of an official agreement with the US Forest Service formalizing Johnny Counts Road/South Hoback Junction Road for emergency access and limited construction access purposes in instances where the load cannot meet the height limits of the Astoria Bridge. If an official agreement has not been reached at that time, the applicant shall either provide written documentation from the US Forest Service regarding anticipated timing for an agreement or confirmation that an agreement is not possible, to be submitted to the County Engineer.*

- b. *Documents necessary for establishment of the proposed Improvement and Service District or HOA-controlled entity which will be charged with operation and maintenance of the bridge, monitoring and submittal of traffic counts as required by other conditions of this approval, development and management of the proposed community traffic awareness program, evaluation, implementation and enforcement of travel demand management strategies, including, but not limited to, those described in the June 23, 2015 memo prepared by Jorgensen Associates, and establishment of a long-term capital plan to create a reserve fund for the eventual capital needs of the bridge.*

**Status: Complete**

8. *Within one year of the date of approval of this application, subject to extension by the Planning Director for good cause shown, the applicant shall revise and consolidate the Master Plan as described in Key Issue 4 of the staff report, to the satisfaction of the Planning Director, and record both the Master Plan and Certificate of Standards as required by the LDRs. This condition shall be satisfied before applications for any future phase of the project may be submitted. **Status: Complete***
9. *Prior to recording of the approved Master Plan and Standards and Conditions, the applicant shall add sections to the supplemented version of the SRSC Design Guidelines included with this submittal. The additional sections shall address standards for pathways and walkways, landscaping and lighting of common areas, and resort-wide signage. **Status: Ongoing***
10. *Within one year of the date of approval of this application, subject to extension by the Planning Director for good cause shown, the applicant shall replat and record the conversion of the 95 acres of park zoned land, amend the CCR's to allow public access to Area I and begin the process of completing a conservation easement on the park. **Status: Ongoing***
11. *Prior to Development Plan approval for any resort development except that associated with the development of the park, the applicant shall be required to submit a revised phasing plan that incorporates necessary infrastructure improvements, any housing requirements, and a monitoring plan with performance measures as required by the LDRs. The revised phasing plan shall be subject to review and approval by the Board of County Commissioners. **Status: Ongoing***
12. *Prior to issuance of any Grading or Building Permit, Planning staff shall verify, on behalf of the Teton County Scenic Preserve Trust, that all proposed structures are located outside of the conservation easement area. **Status: Ongoing***

13. *Within one year of the date of approval of this application, subject to extension by the Planning Director for good cause shown, the applicant shall revise the Master Plan to clarify that units transferred from Area II to Area III of the Resort shall be relocated consistent with their original approvals with regard to size and mitigation requirements.*

**Status: Ongoing**

14. *Due to the highly conceptual nature of Sketch Plans, a Development Plan with full public review, as outlined in Section 8.3.2 of the LDRs, shall be required to establish unit types, footprints, circulation and parking prior to issuance of a Building Permit for any phase of resort development.* **Status: Ongoing**

15. *Within one year of the date of approval of this application, subject to extension by the Planning Director for good cause shown, the applicant shall revise the Master Plan to incorporate the dimensional limitations for Area III as presented to the Planning Commission on August 10, 2015, with the following changes:*

- a. *The standard for Maximum Impervious Surface shall be re-labeled Maximum Site Development and shall apply to the entire development, not a lot-by-lot standard. The standard shall be 0.45-0.75*
- b. *The standard regulating APOs shall be eliminated.*
- c. *The standard for minimum Right-of-Way (ROW) width shall be eliminated.*
- d. *The minimum ROW standard shall not apply to access through general common elements or areas*
- e. *A minimum wetland setback of 30 feet shall be incorporated into the dimensional limitations table.*
- f. *A footnote should be added to the dimensional limitations table specifying that in the absence of a specific standard, the currently applicable LDRs shall apply.*

**Status: Complete**

#### **D. LDR Text Amendment – AMD2015-0003**

Approved LDR Text Amendment AMD2015-0003 with staff's recommended changes to revise the text of Section 4.3.6. of the Teton County Land Development Regulations, based upon finding that with changes to the proposed text as recommended by staff the application meets the findings in Section 8.7.1.C of the Teton County Land Development Regulations as discussed in the staff report, with **no conditions**.

### **E. Zoning Map Amendment for Park Zone – ZMA2015-0002**

Approved Zoning Map Amendment ZMA2015-0002 to rezone 101.7 acres of land from Planned Unit Development-Planned Resort zoning to Park zoning, based upon finding that the application meets the findings in Section 8.7.2.C of the Teton County Land Development Regulations as discussed in the staff report with the conditions as listed in the BCC Condition column of the BCC Condition Discussion Table dated September 17, 2015.

1. *Within one year of the date of approval of this application, subject to extension by the Planning Director for good cause shown, and prior to recording of the Zoning Map Amendment with the Teton County Clerk, the applicant shall demonstrate, to the satisfaction of the Planning Director and the County Attorney, that transfer of the property to a qualified non-profit corporation has occurred.*

**Status: Complete – approved by the Teton County Planning director on \_\_\_\_\_, 2016**

### **F. Sketch Plan for a 5.2 acre Park and to develop 62 units at AREA III of SRCRR – SKC2015-0001**

Approved Sketch Plan SKC2015-0001 based upon finding that the application meets the findings in Section 8.3.1.C of the Teton County Land Development Regulations as discussed in the staff report with the conditions as listed in the BCC Condition column of the BCC Condition Discussion Table dated September 17, 2015.

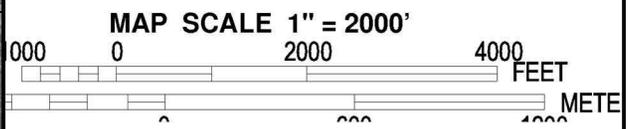
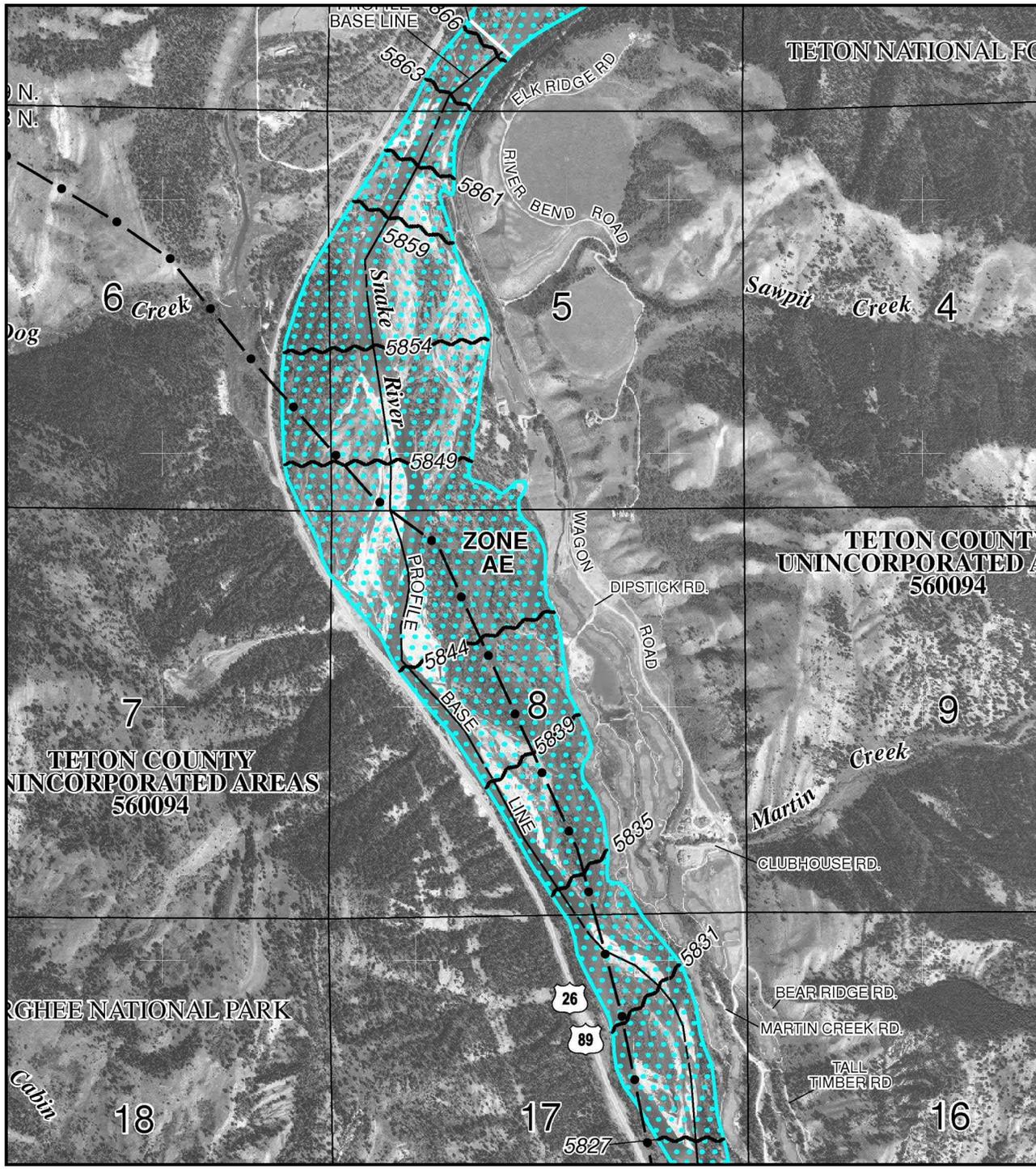
1. *At the time of Development Plan, the applicant shall be required to submit a site plan that adheres to the dimensional limitations established in the amended Resort Master Plan, being reviewed concurrently with this application. **Status: Ongoing***
2. *Prior to approval of a Development Plan or Building Permit for any phase of the resort, the applicant shall be required to provide confirmation from Wyoming DEQ regarding the adequacy of the existing wastewater and water systems or copies of permits to construct for any improvements to or expansions of existing systems or for proposed new systems. This condition does not restrict the issuance of Building Permits for lots within the Snake River Sporting Club Planned Residential Development. **Status: Ongoing – A DEQ permit is scheduled to be submitted prior to Planning Commission approval and will be approved by WYDEQ prior to BCC approval.***
3. *The applicant shall be required to obtain a Conditional Use Permit for the entirety of Astoria Hot Springs Park concurrently with the first Physical Development permit for the park. **Status: Ongoing***
4. *Prior to approval of a Development Plan for any phase of the development described in this Sketch Plan, the applicant shall be required to submit a more detailed visual analysis of the final bulk and scale proposed, to ensure that development is adequately screened and visual impacts are minimized. Building materials will be confirmed at the time of Building Permit. **Status: Ongoing***

## SECTION 6 –DOCUMENTS PERTINENT TO PLAT

- A. Access and Utility Easement for Golf Course Bathroom**– Provides access to repair and maintain utilities between Lot 8 and Lot 9, and provide pedestrian access from Cottonwood Court to the golf course bathroom.
- B. Utility Easement** - Provides access to repair and maintain utilities between Lot 5 and Lot 6 of Phase 1A.
- C. Access and Utility Easement** – Provides road access and access to install, repair and mating utilities that serve all 12 lots in Phase 1A. Also provides an area for the Gold Course pump house to be located within the cul-de-sac.
- D. 2<sup>nd</sup> Amendment to Amended and Restated Master Declaration of Covenants, Conditions and Restated of Covenants, Conditions and Restrictions for Snake River Sporting Club Community(CCRs)** – Amends the CCRs to reflect the incoming density of 62 units not to exceed 210,000 square feet all of which will be located in AREA III. Also amend CCR's in compliance with Condition #2 of PUD2015-0002 detailed in Section 5 of this submittal.

**Note: All of the above referenced documents are currently being prepared and will be presented as part of the sufficiency submittal for the Plat of Lots 1-12 of Phase 1A.**

## **SECTION 7 - ADDITIONAL SUPPORTING INFORMATION**



INFIP

PANEL 3150E

NATIONAL FLOOD INSURANCE PROGRAM

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
**TETON COUNTY,**  
**WYOMING**  
**AND INCORPORATED AREAS**

**PANEL 3150 OF 3325**  
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)  
CONTAINS:  

COMMUNITY	NUMBER	PANEL	SUFFIX
TETON COUNTY	560094	3150	E

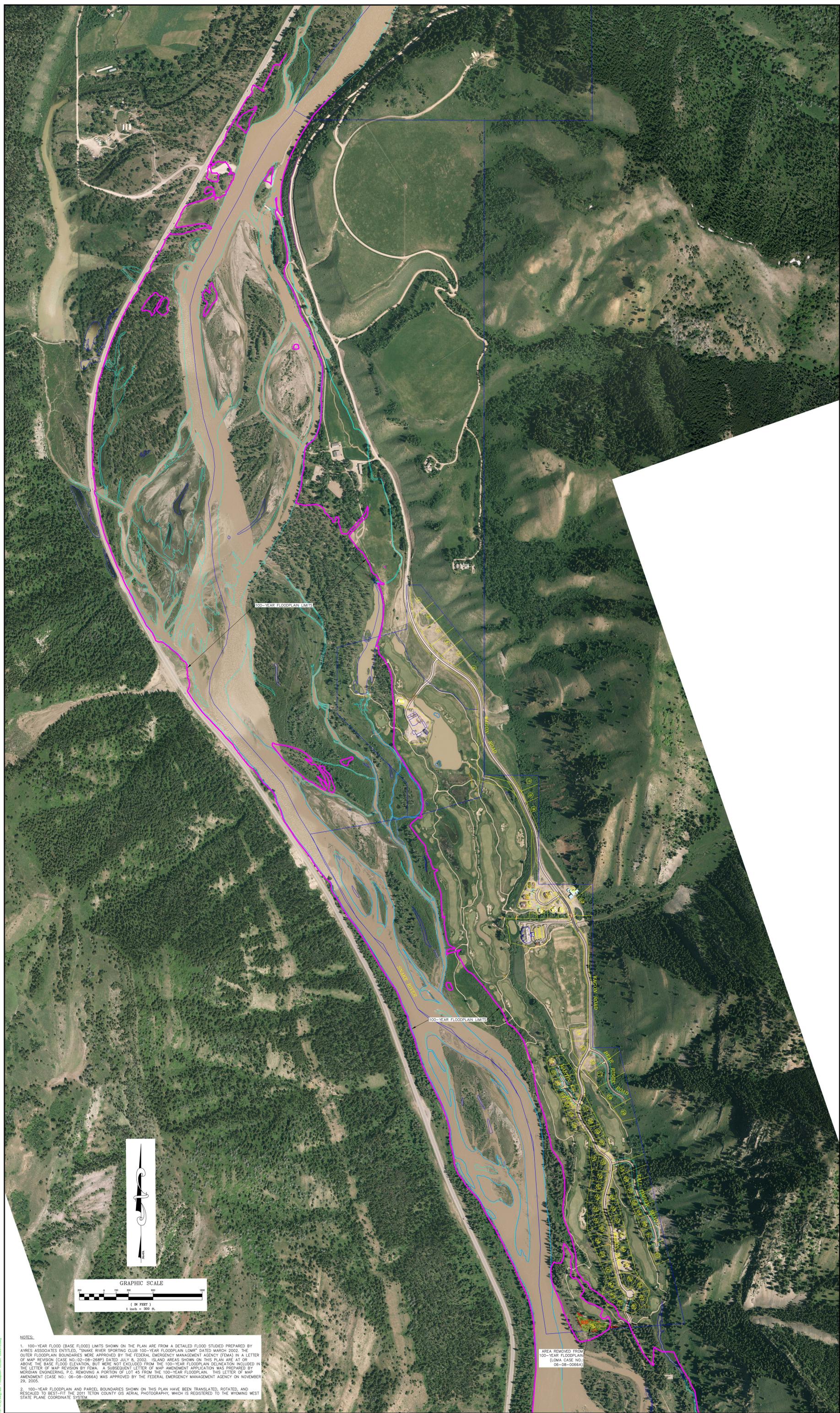
Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
**56039C3150E**  
**MAP REVISED**  
**SEPTEMBER 16, 2015**

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)



**NOTES:**

1. 100-YEAR FLOOD (BASE FLOOD) LIMITS SHOWN ON THE PLAN ARE FROM A DETAILED FLOOD STUDIED PREPARED BY AYRES ASSOCIATES ENTITLED, "SNAKE RIVER SPORTING CLUB 100-YEAR FLOODPLAIN LOMR" DATED MARCH 2002. THE OUTER FLOODPLAIN BOUNDARIES WERE APPROVED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) IN A LETTER OF MAP REVISION (CASE NO. 02-08-268P) DATED JULY 8, 2002. ISLAND AREAS SHOWN ON THIS PLAN ARE AT OR ABOVE THE BASE FLOOD ELEVATION, BUT WERE NOT EXCLUDED FROM THE 100-YEAR FLOODPLAIN DELINEATION INCLUDED IN THE LETTER OF MAP REVISION BY FEMA. A SUBSEQUENT LETTER OF MAP AMENDMENT APPLICATION WAS PREPARED BY MERIDIAN ENGINEERING, P.C. REMOVING A PORTION OF LOT 45 FROM THE 100-YEAR FLOODPLAIN. THIS LETTER OF MAP AMENDMENT (CASE NO.: 06-08-0066A) WAS APPROVED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY ON NOVEMBER 29, 2005.

2. 100-YEAR FLOODPLAIN AND PARCEL BOUNDARIES SHOWN ON THIS PLAN HAVE BEEN TRANSLATED, ROTATED, AND RESCALED TO BEST-FIT THE 2011 TETON COUNTY GIS AERIAL PHOTOGRAPHY, WHICH IS REGISTERED TO THE WYOMING WEST STATE PLANE COORDINATE SYSTEM.

AREA REMOVED FROM 100-YEAR FLOODPLAIN (LOMA CASE NO.: 06-08-0066A)

DRAWN BY: DKS  
 DATE: 6-20-13  
 DESIGNED BY:  
 DATE:  
 APPROVED BY:  
 DATE:  
 PLOT DATE:

**MERIDIAN ENGINEERING, P.C.**  
 Civil Engineering, Property Development  
 Construction Management  
 P.O. Box 6577  
 Jackson, WY 83302  
 Phone: (307) 739-0500

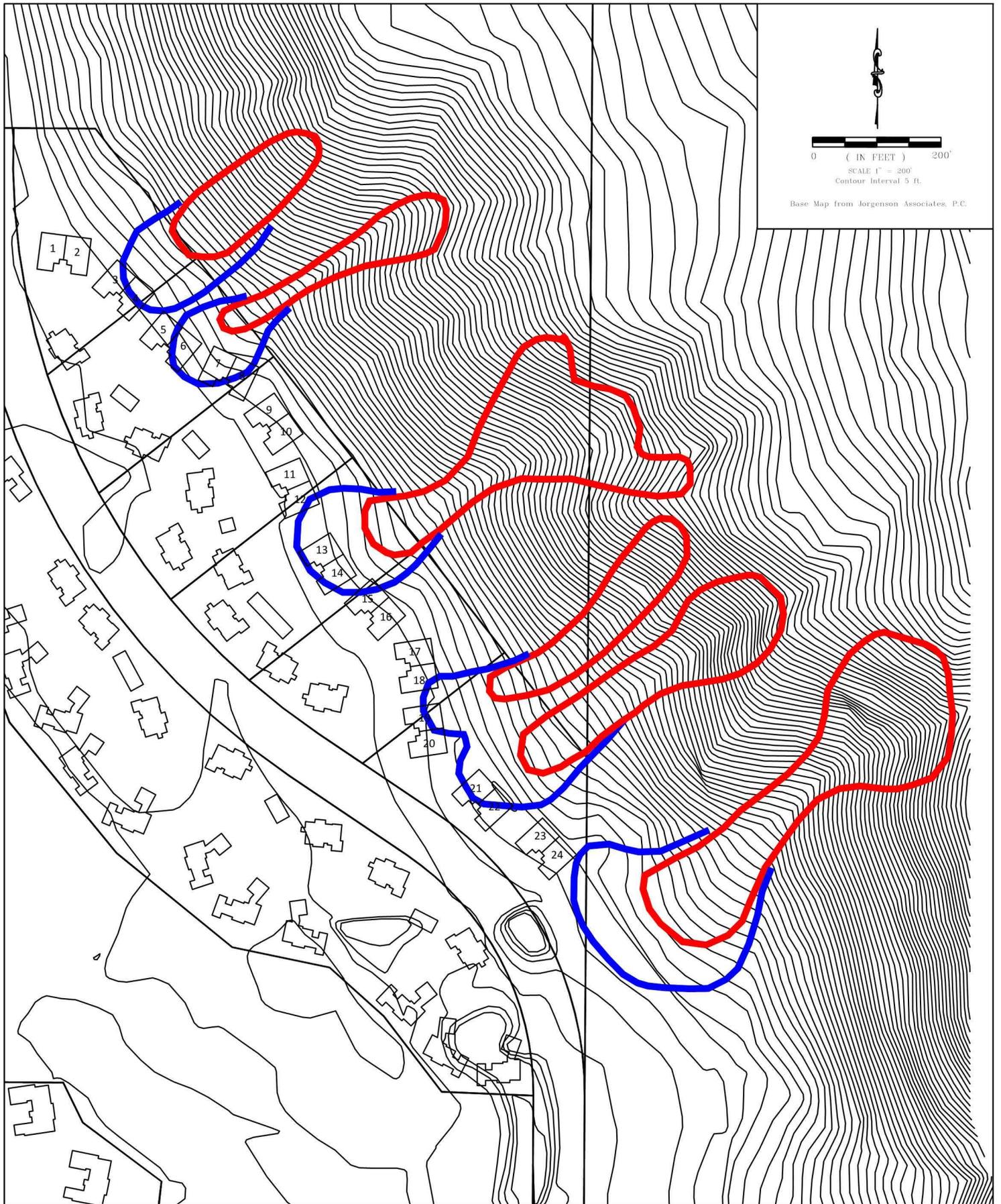
DESCRIPTION	DATE	APP.

PROJECT TITLE:  
**SNAKE RIVER SPORTING CLUB  
 & RIVER BEND RANCH  
 TETON COUNTY, WYOMING**

SHEET TITLE:  
**100-YEAR FLOODPLAIN LIMITS  
 FROM  
 AYRES ASSOCIATES**

PROJECT NO.  
 13-419  
 SHEET 1 OF 1

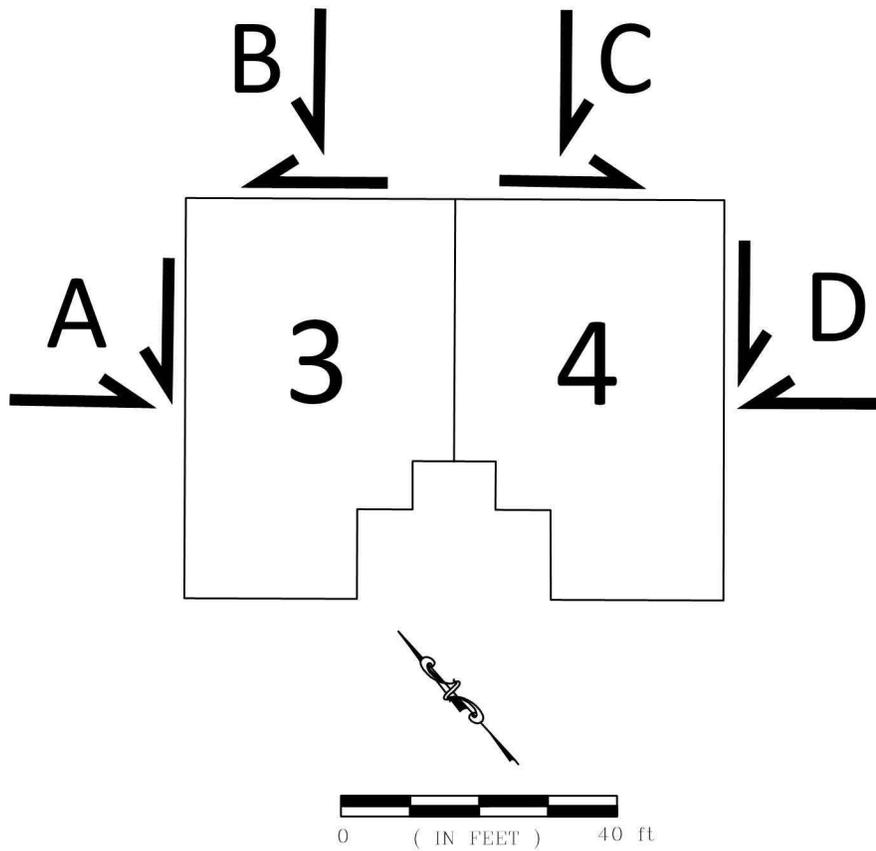
FILE NAME: C:\30100\13-419\Map\_Floodplain\_060813.dwg



# Avalanche Map Revisions with Impact Loads

Lots 1-6, Units 1-24, Snake River Sporting Club  
Teton County, Wyoming

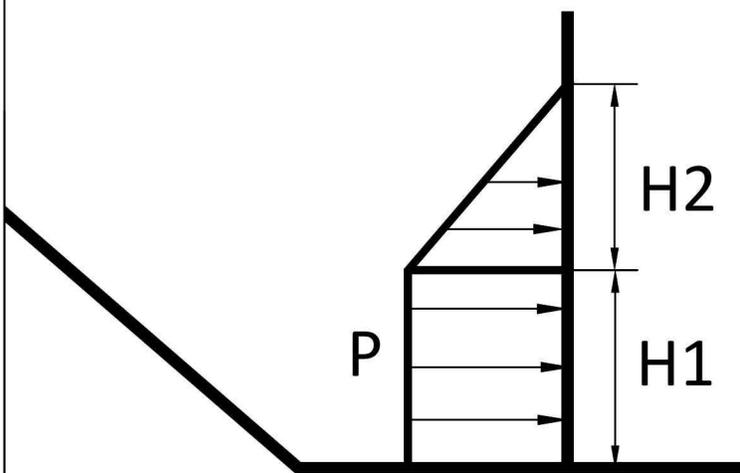
Arthur I. Mears, P.E., Inc.  
Wilbur Engineering, Inc.  
February 15, 2016



Building	Wall	H1 (ft)	H2 (ft)	$P_n$ (psf)	$P_s$ (psf)
3	A	0.0	0.0	0	0
3	B	3.5	0.5	100	50
4	C	3.5	0.5	100	50
4	D	0.0	0.0	0	0

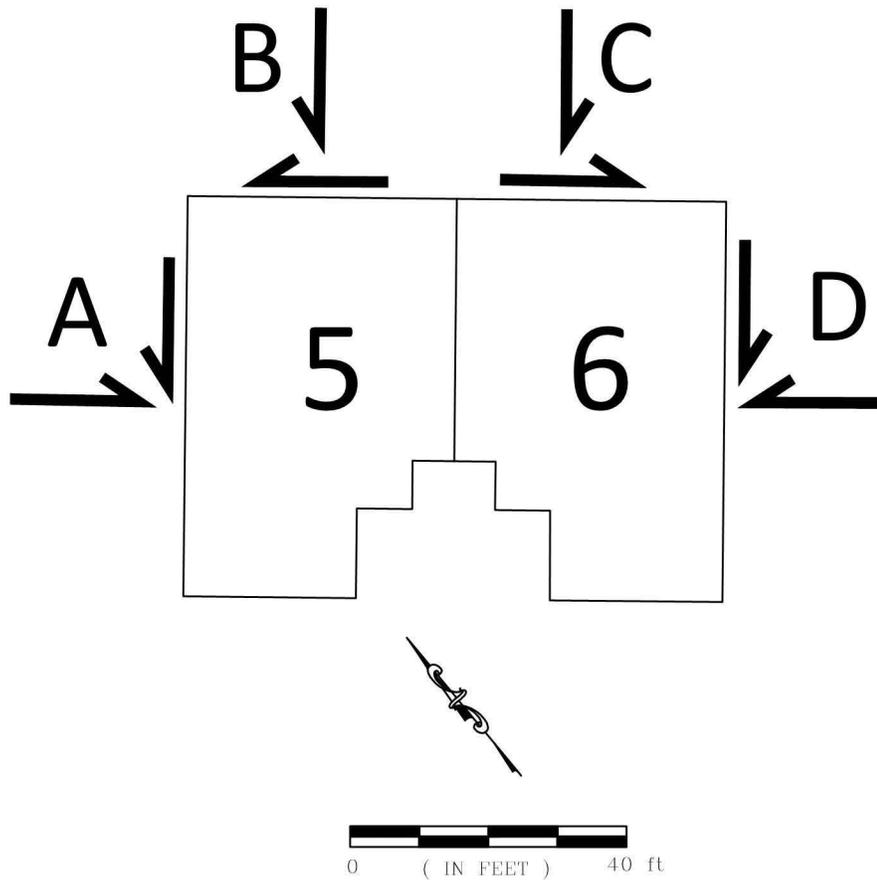
Notes:

1. Wall orientations based on site plan by DHM Designs dated 7-28-2015.
2. Shear loads ( $P_s$ ) act horizontally in the direct of the arrows shown above.
3. Loads are dynamic and have a rise time of 0.5 seconds.
4. Any protruding walls, decks, columns and other features not shown above may also be subject to avalanche loading.



**Design Avalanche Loads**  
 Lots 3-4, Snake River Sporting Club  
 Teton County, Wyoming

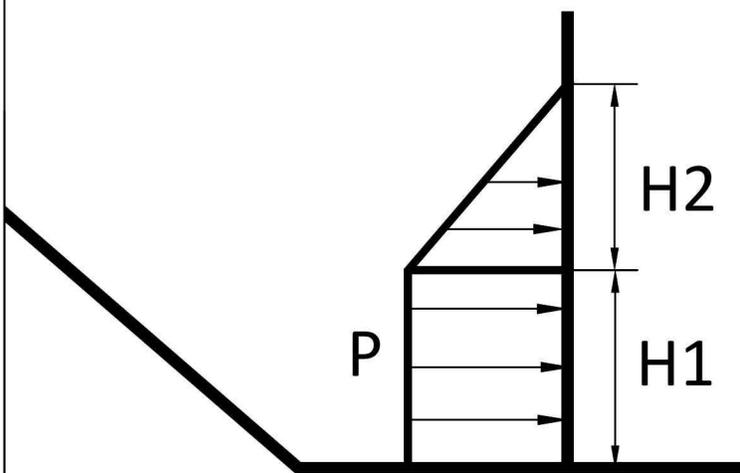
Arthur I. Mears, P.E., Inc.  
 Wilbur Engineering, Inc.  
 February 15, 2016



Building	Wall	H1 (ft)	H2 (ft)	$P_n$ (psf)	$P_s$ (psf)
5	A	0.0	0.0	0	0
5	B	2.6	0.0	20	10
6	C	3.0	0.2	30	15
6	D	0.0	0.0	0	0

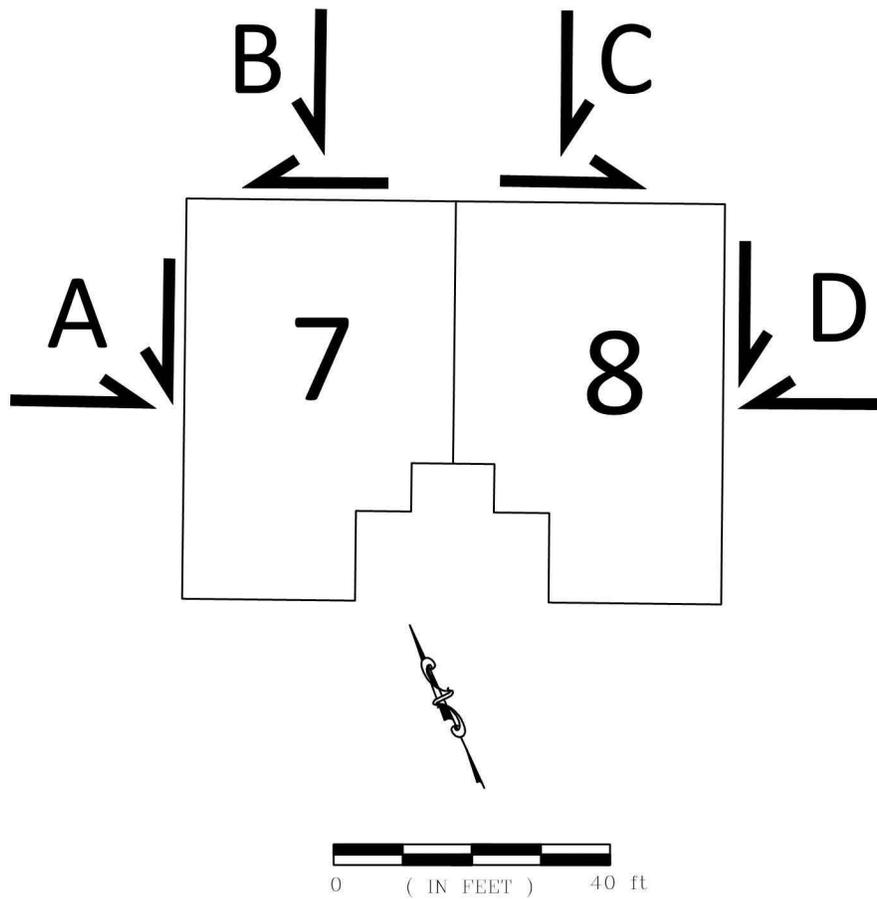
Notes:

1. Wall orientations based on site plan by DHM Designs dated 7-28-2015.
2. Shear loads ( $P_s$ ) act horizontally in the direct of the arrows shown above.
3. Loads are dynamic and have a rise time of 0.5 seconds.
4. Any protruding walls, decks, columns and other features not shown above may also be subject to avalanche loading.



**Design Avalanche Loads**  
 Lots 5-6, Snake River Sporting Club  
 Teton County, Wyoming

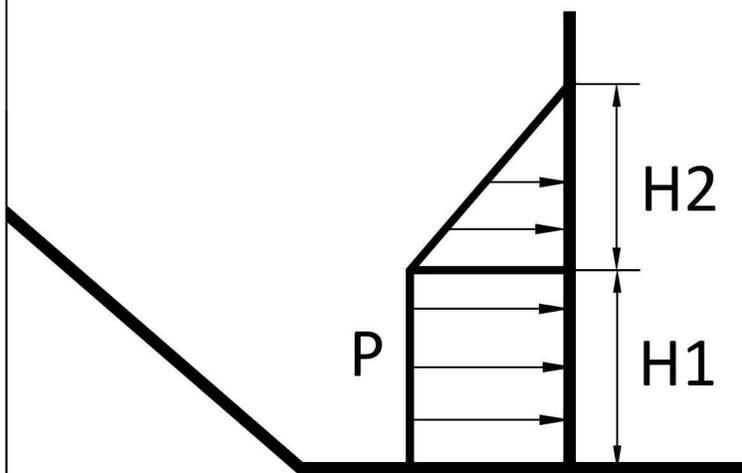
Arthur I. Mears, P.E., Inc.  
 Wilbur Engineering, Inc.  
 February 15, 2016



Building	Wall	H1 (ft)	H2 (ft)	$P_n$ (psf)	$P_s$ (psf)
7	A	0.0	0.0	0	0
7	B	3.6	0.6	100	50
8	C	3.6	0.6	100	50
8	D	0.0	0.0	0	0

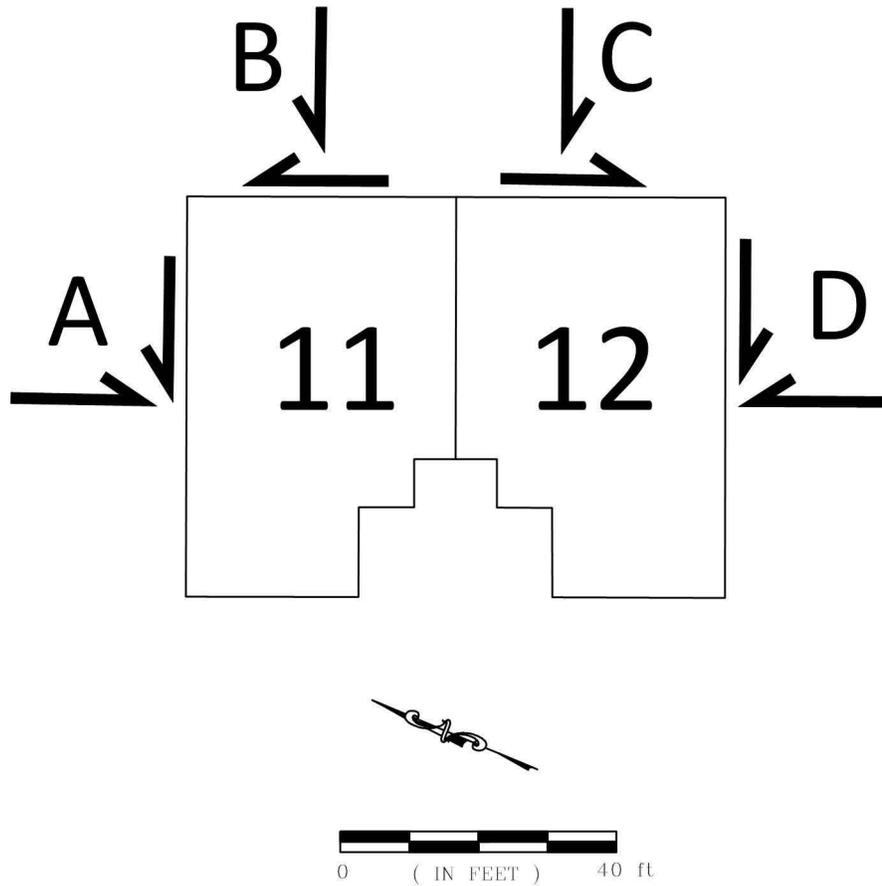
Notes:

1. Wall orientations based on site plan by DHM Designs dated 7-28-2015.
2. Shear loads ( $P_s$ ) act horizontally in the direct of the arrows shown above.
3. Loads are dynamic and have a rise time of 0.5 seconds.
4. Any protruding walls, decks, columns and other features not shown above may also be subject to avalanche loading.



**Design Avalanche Loads**  
 Lots 7-8, Snake River Sporting Club  
 Teton County, Wyoming

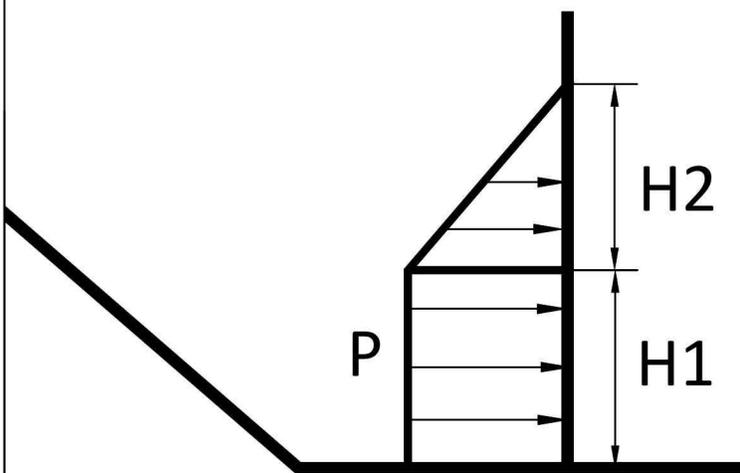
Arthur I. Mears, P.E., Inc.  
 Wilbur Engineering, Inc.  
 February 15, 2016



Building	Wall	H1 (ft)	H2 (ft)	$P_n$ (psf)	$P_s$ (psf)
11	A	0.0	0.0	0	0
11	B	0.0	0.0	0	0
12	C	3.6	0.3	50	25
12	D	0.0	0.0	0	0

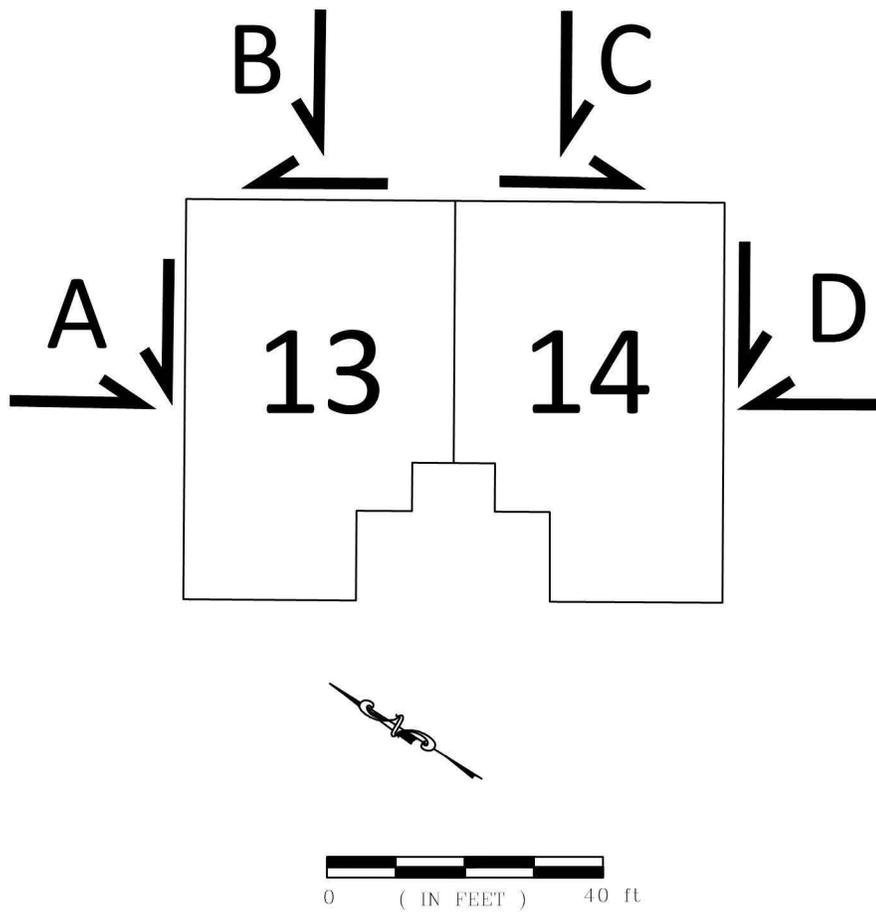
Notes:

1. Wall orientations based on site plan by DHM Designs dated 7-28-2015.
2. Shear loads ( $P_s$ ) act horizontally in the direct of the arrows shown above.
3. Loads are dynamic and have a rise time of 0.5 seconds.
4. Any protruding walls, decks, columns and other features not shown above may also be subject to avalanche loading.



**Design Avalanche Loads**  
 Lots 11-12, Snake River Sporting Club  
 Teton County, Wyoming

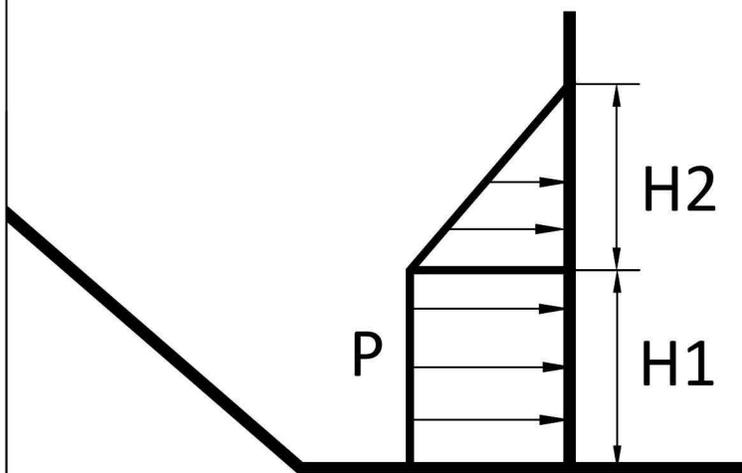
Arthur I. Mears, P.E., Inc.  
 Wilbur Engineering, Inc.  
 February 15, 2016

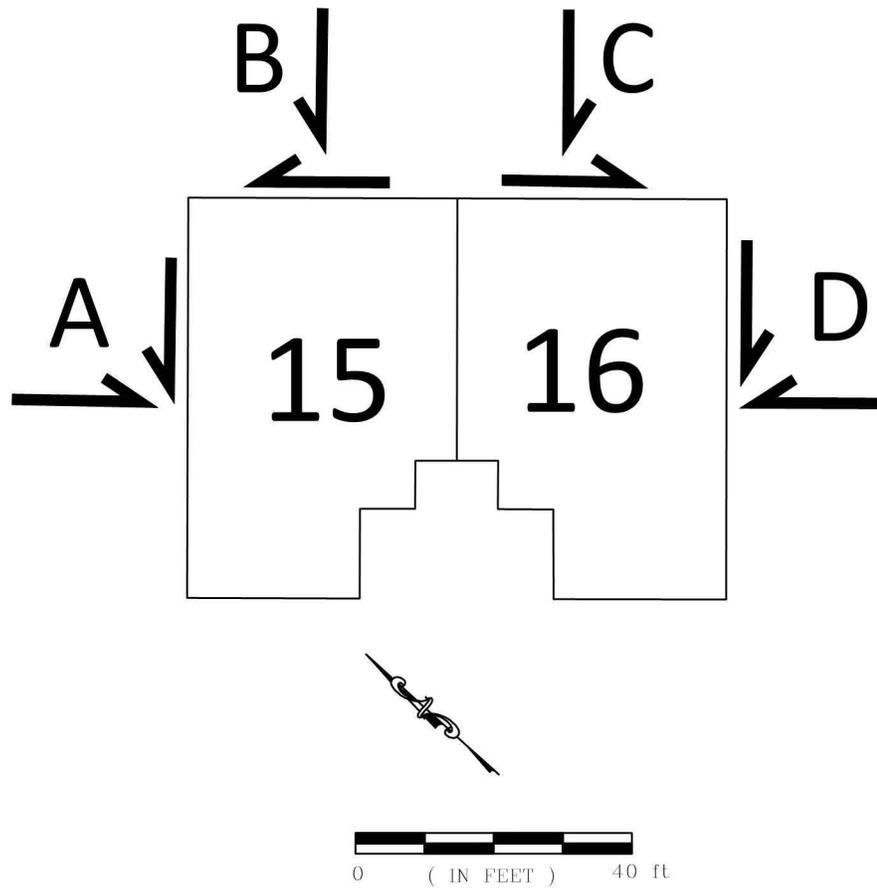


Building	Wall	H1 (ft)	H2 (ft)	$P_n$ (psf)	$P_s$ (psf)
13	A	0.0	0.0	0	0
13	B	5.6	1.2	200	100
14	C	4.3	1.3	250	120
14	D	0.0	0.0	0	0

Notes:

1. Wall orientations based on site plan by DHM Designs dated 7-28-2015.
2. Shear loads ( $P_s$ ) act horizontally in the direct of the arrows shown above.
3. Loads are dynamic and have a rise time of 0.5 seconds.
4. Any protruding walls, decks, columns and other features not shown above may also be subject to avalanche loading.

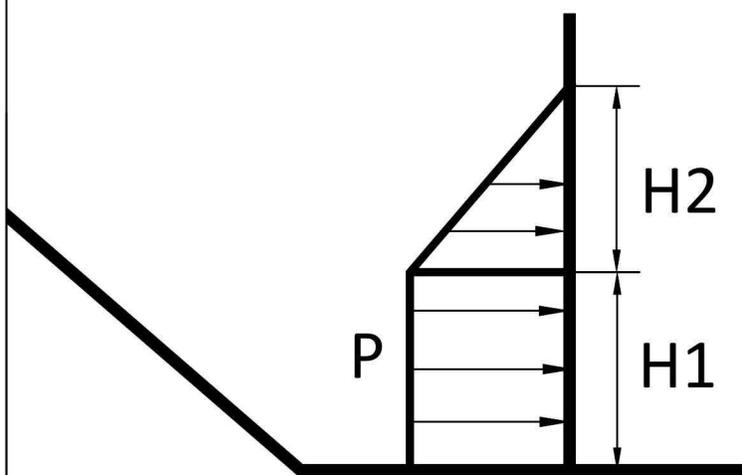




Building	Wall	H1 (ft)	H2 (ft)	$P_n$ (psf)	$P_s$ (psf)
15	A	0.0	0.0	0	0
15	B	2.6	0.0	7	4
16	C	0.0	0.8	0	0
16	D	0.0	0.0	0	0

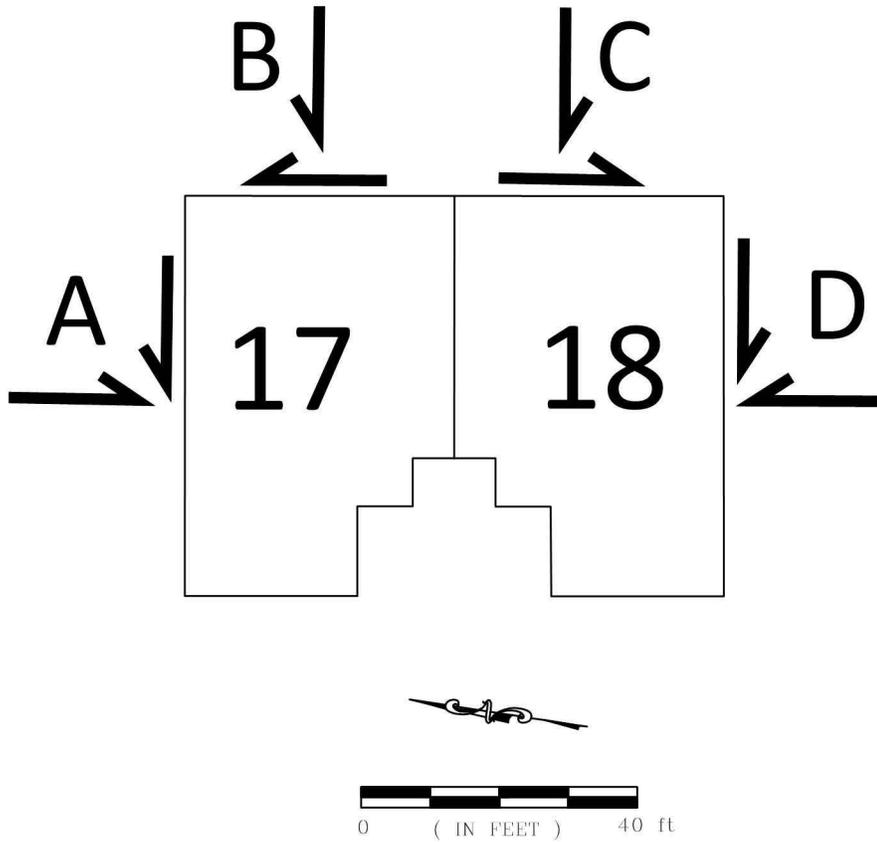
Notes:

1. Wall orientations based on site plan by DHM Designs dated 7-28-2015.
2. Shear loads ( $P_s$ ) act horizontally in the direct of the arrows shown above.
3. Loads are dynamic and have a rise time of 0.5 seconds.
4. Any protruding walls, decks, columns and other features not shown above may also be subject to avalanche loading.



**Design Avalanche Loads**  
 Lots 15-16, Snake River Sporting Club  
 Teton County, Wyoming

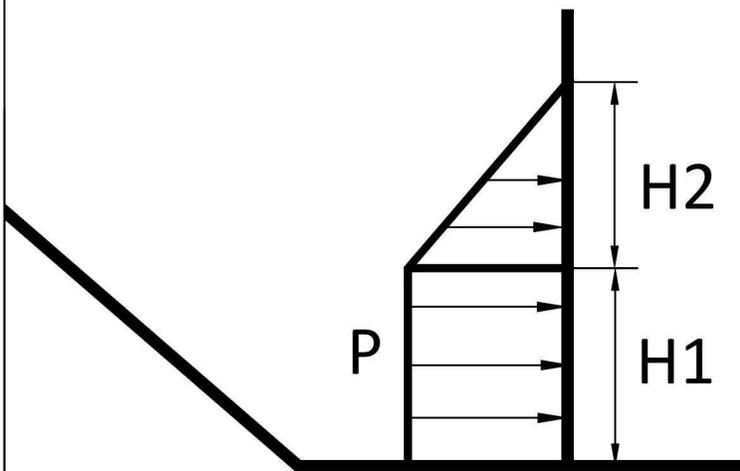
Arthur I. Mears, P.E., Inc.  
 Wilbur Engineering, Inc.  
 February 15, 2016



Building	Wall	H1 (ft)	H2 (ft)	$P_n$ (psf)	$P_s$ (psf)
17	A	0.0	1.3	0	0
17	B	0.0	0.0	0	0
18	C	3.6	0.8	150	75
18	D	0.0	0.0	0	0

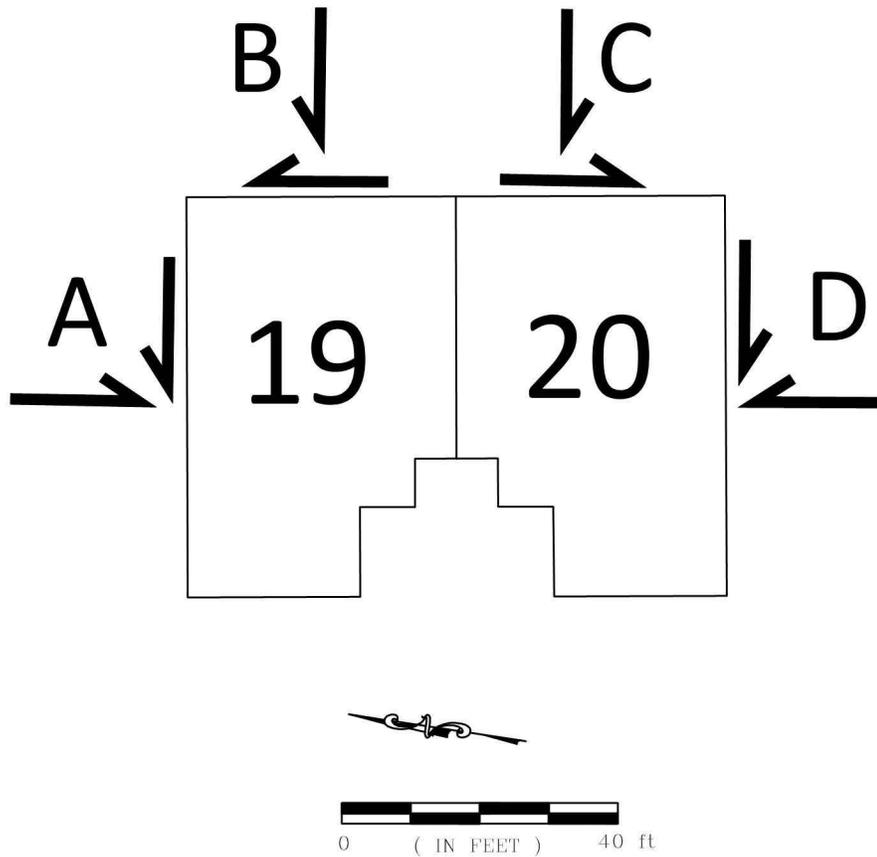
Notes:

1. Wall orientations based on site plan by DHM Designs dated 7-28-2015.
2. Shear loads ( $P_s$ ) act horizontally in the direct of the arrows shown above.
3. Loads are dynamic and have a rise time of 0.5 seconds.
4. Any protruding walls, decks, columns and other features not shown above may also be subject to avalanche loading.



**Design Avalanche Loads**  
 Lots 17-18, Snake River Sporting Club  
 Teton County, Wyoming

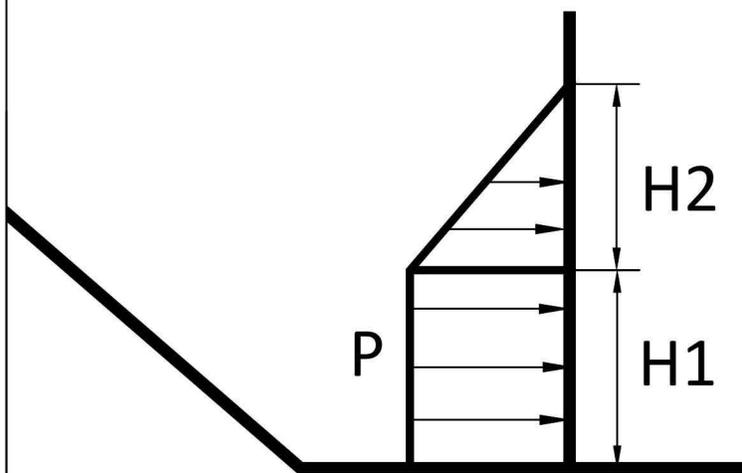
Arthur I. Mears, P.E., Inc.  
 Wilbur Engineering, Inc.  
 February 15, 2016



Building	Wall	H1 (ft)	H2 (ft)	$P_n$ (psf)	$P_s$ (psf)
19	A	0.0	0.0	0	0
19	B	4.9	1.3	250	120
20	C	4.9	1.2	220	110
20	D	0.0	0.0	0	0

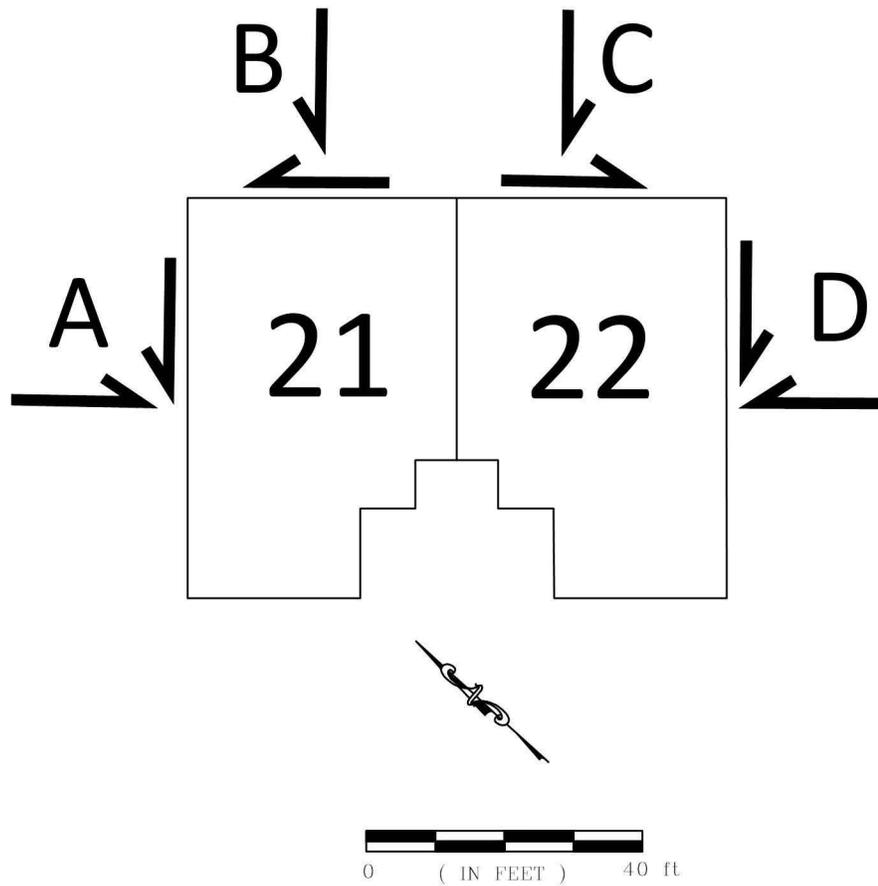
Notes:

1. Wall orientations based on site plan by DHM Designs dated 7-28-2015.
2. Shear loads ( $P_s$ ) act horizontally in the direct of the arrows shown above.
3. Loads are dynamic and have a rise time of 0.5 seconds.
4. Any protruding walls, decks, columns and other features not shown above may also be subject to avalanche loading.



**Design Avalanche Loads**  
 Lots 19-20, Snake River Sporting Club  
 Teton County, Wyoming

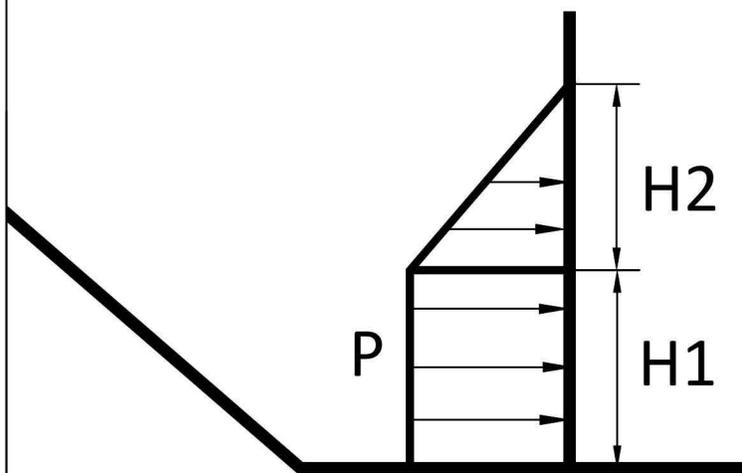
Arthur I. Mears, P.E., Inc.  
 Wilbur Engineering, Inc.  
 February 15, 2016



Building	Wall	H1 (ft)	H2 (ft)	$P_n$ (psf)	$P_s$ (psf)
21	A	0.0	0.0	0	0
21	B	5.6	1.5	270	135
22	C	4.9	1.5	270	135
22	D	0.0	0.0	0	0

Notes:

1. Wall orientations based on site plan by DHM Designs dated 7-28-2015.
2. Shear loads ( $P_s$ ) act horizontally in the direct of the arrows shown above.
3. Loads are dynamic and have a rise time of 0.5 seconds.
4. Any protruding walls, decks, columns and other features not shown above may also be subject to avalanche loading.



**Design Avalanche Loads**  
 Lots 21-22, Snake River Sporting Club  
 Teton County, Wyoming

Arthur I. Mears, P.E., Inc.  
 Wilbur Engineering, Inc.  
 February 15, 2016



# JORGENSEN GEOTECHNICAL, LLC

PO Box 9550 · 1315 HWY 89 S., Suite 201  
Jackson, WY 83002  
PH: 307.733.5150  
[www.jorgeng.com](http://www.jorgeng.com)

November 13, 2015

Snake River Sporting Club  
14885 Sporting Club Road  
Jackson, WY 83002

**RE: GEOTECHNICAL INVESTIGATION REPORT, 2015 HOUSING DEVELOPMENT, POOL, AND  
TENNIS COURTS, SNAKE RIVER SPORTING CLUB, TETON COUNTY WYOMING**

Dear Sirs:

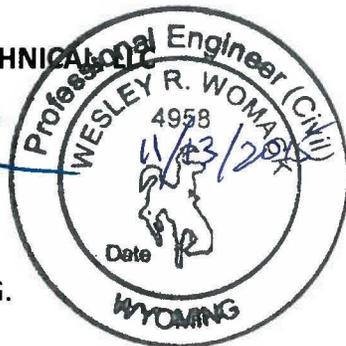
We are pleased to present this report of our Geotechnical Site Investigation for the proposed new Housing Development, Pool, and Tennis Courts located on Lots 1 through 6, Lot 47, Lot 63, Lot 77, and Lot 80 at the Snake River Sporting Club, in Teton County, Wyoming. The report describes site conditions and presents conclusions and recommendations to support the design and construction of foundation elements.

If you have any questions about this report, or if we may provide other services to you, please contact us. As the project progresses, we will be available to answer questions.

Respectfully submitted,

JORGENSEN GEOTECHNICAL, LLC

Ray Womack, P.E., P.G.



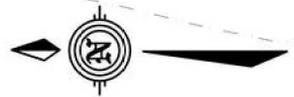
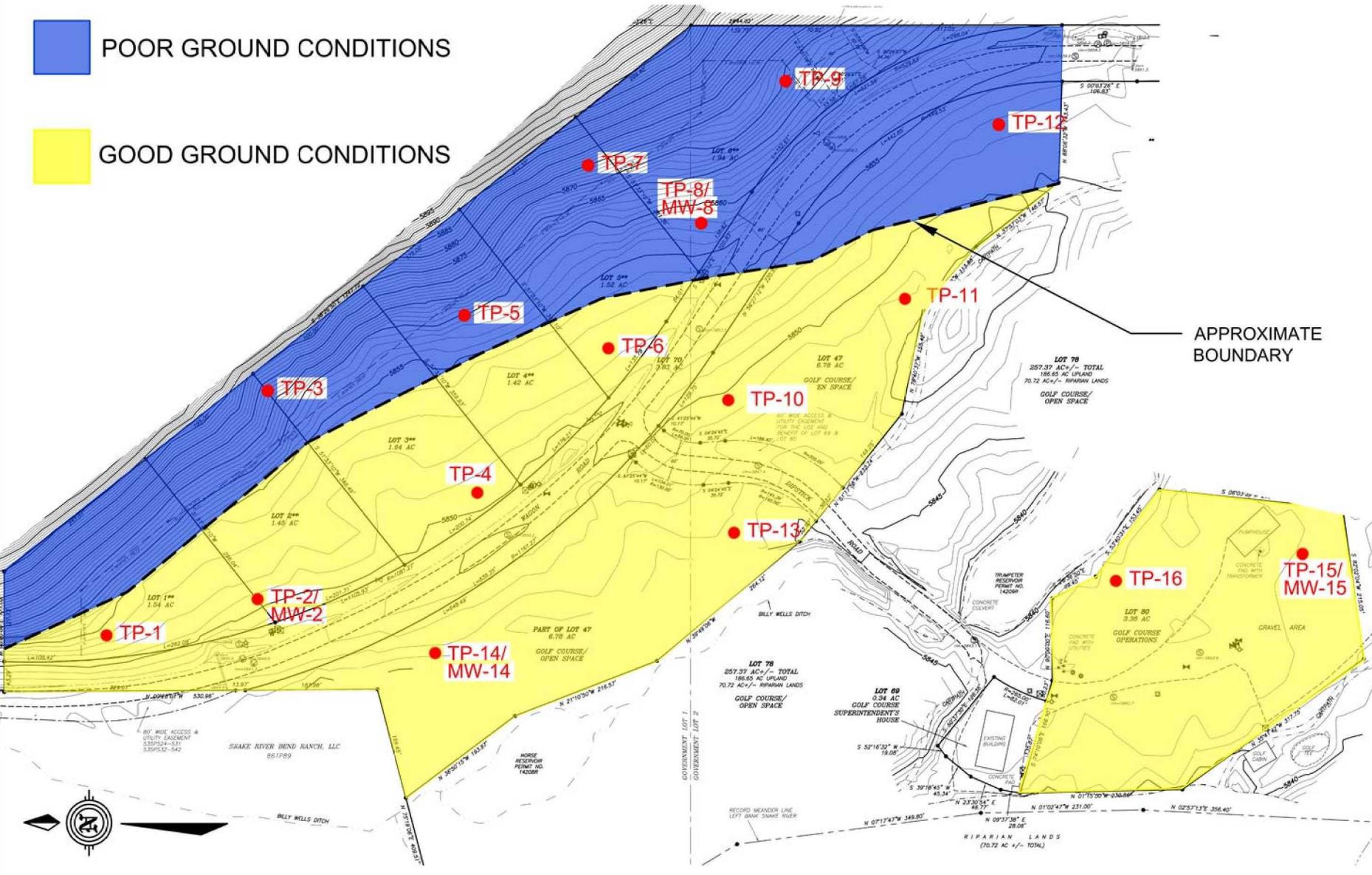
Enclosure: Report

cc: Christopher Swann and Jeff Heilbrun



UPDATE TIME: /M/W / /H:\2015\15040\01-Dev Transfer\Geotech\Figures\Fig 2 TP Map

POOR GROUND CONDITIONS  
GOOD GROUND CONDITIONS



Scale: 1"=200'

Geotechnical Investigation Report  
Snake River Sporting Club  
Lots 1-6, 47 and 80  
Teton County, Wyoming

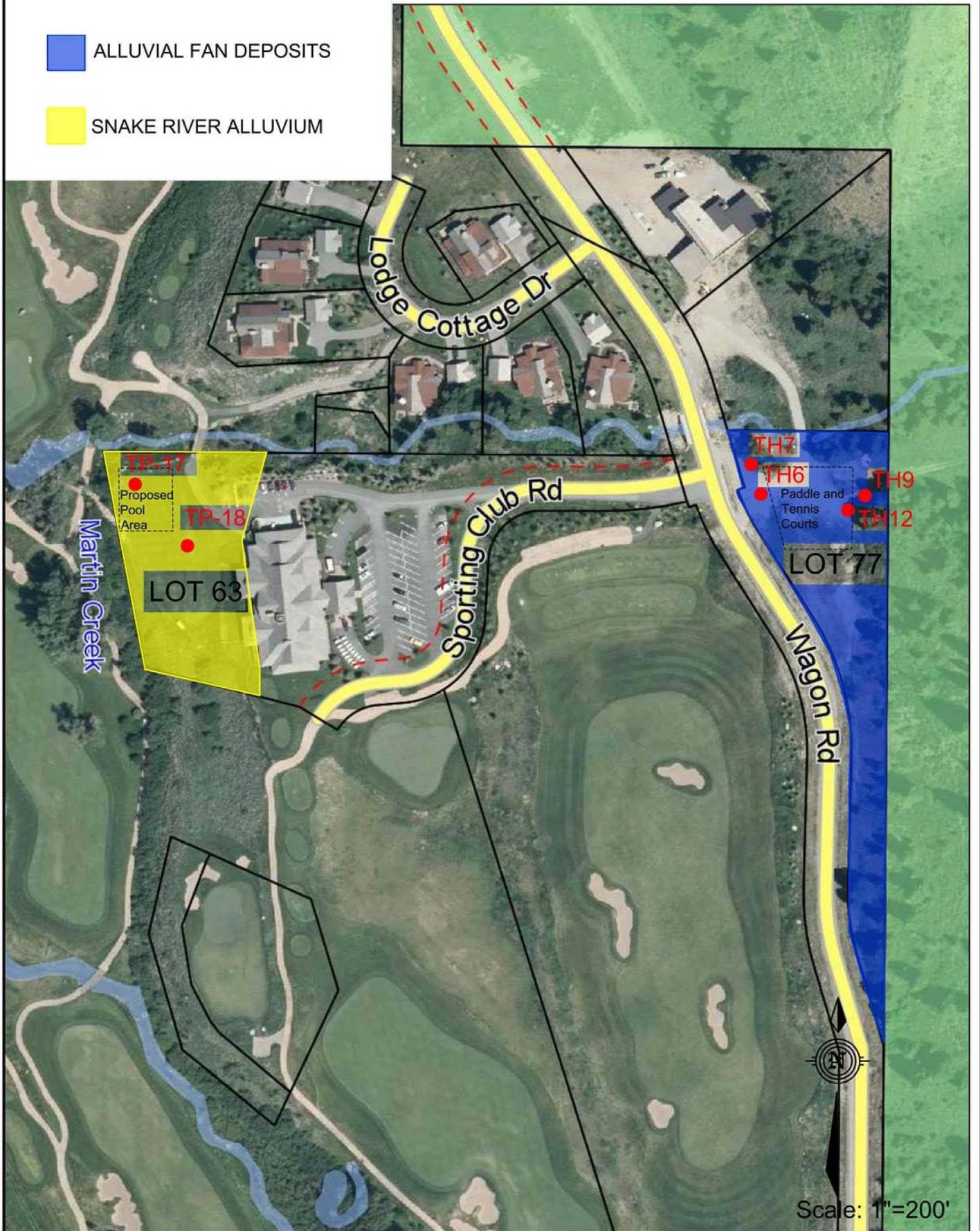
Housing Development  
Test Pit Location Map

FIGURE  
2

Jorgensen Geotechnical, LLC

ALLUVIAL FAN DEPOSITS

SNAKE RIVER ALLUVIUM



Geotechnical Investigation Report  
 Snake River Sporting Club  
 Lots 63 and 77  
 Teton County, Wyoming

Pool and Tennis Courts  
 Test Pit Location Map

FIGURE

3

UPDATE TIME:

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Jorgensen Geotechnical, LLC

# USGS Design Maps Summary Report

## User-Specified Input

**Report Title** Snake River Sporting Club Lots 1-6, Lot 47, Lot 80, Lot 63 and Lot 77  
Tue November 3, 2015 22:45:29 UTC

**Building Code Reference Document** 2012 International Building Code  
(which utilizes USGS hazard data available in 2008)

**Site Coordinates** 43.2704°N, 110.7782°W

**Site Soil Classification** Site Class D – “Stiff Soil”

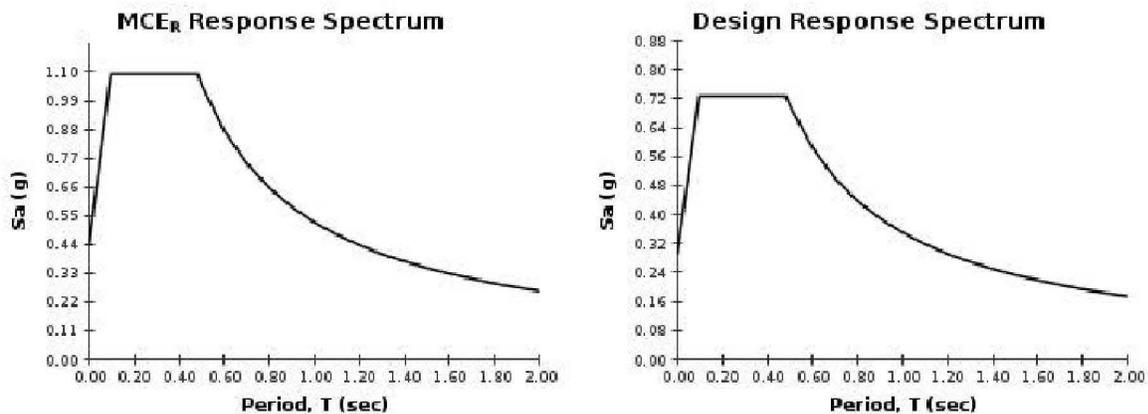
**Risk Category** I/II/III



## USGS-Provided Output

$S_s = 0.987 \text{ g}$	$S_{MS} = 1.091 \text{ g}$	$S_{0.5} = 0.727 \text{ g}$
$S_1 = 0.287 \text{ g}$	$S_{M1} = 0.524 \text{ g}$	$S_{0.1} = 0.350 \text{ g}$

For information on how the  $S_s$  and  $S_1$  values above have been calculated from probabilistic (risk-targeted) and deterministic ground motions in the direction of maximum horizontal response, please return to the application and select the “2009 NEHRP” building code reference document.



Although this information is a product of the U.S. Geological Survey, we provide no warranty, expressed or implied, as to the accuracy of the data contained therein. This tool is not a substitute for technical subject-matter knowledge.

Geotechnical Investigation Report  
Snake River Sporting Club  
Lots 1-6, 47, 63, 77 and 80  
Teton County, Wyoming

Seismic Design  
Spectral Response

FIGURE

4

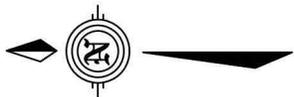
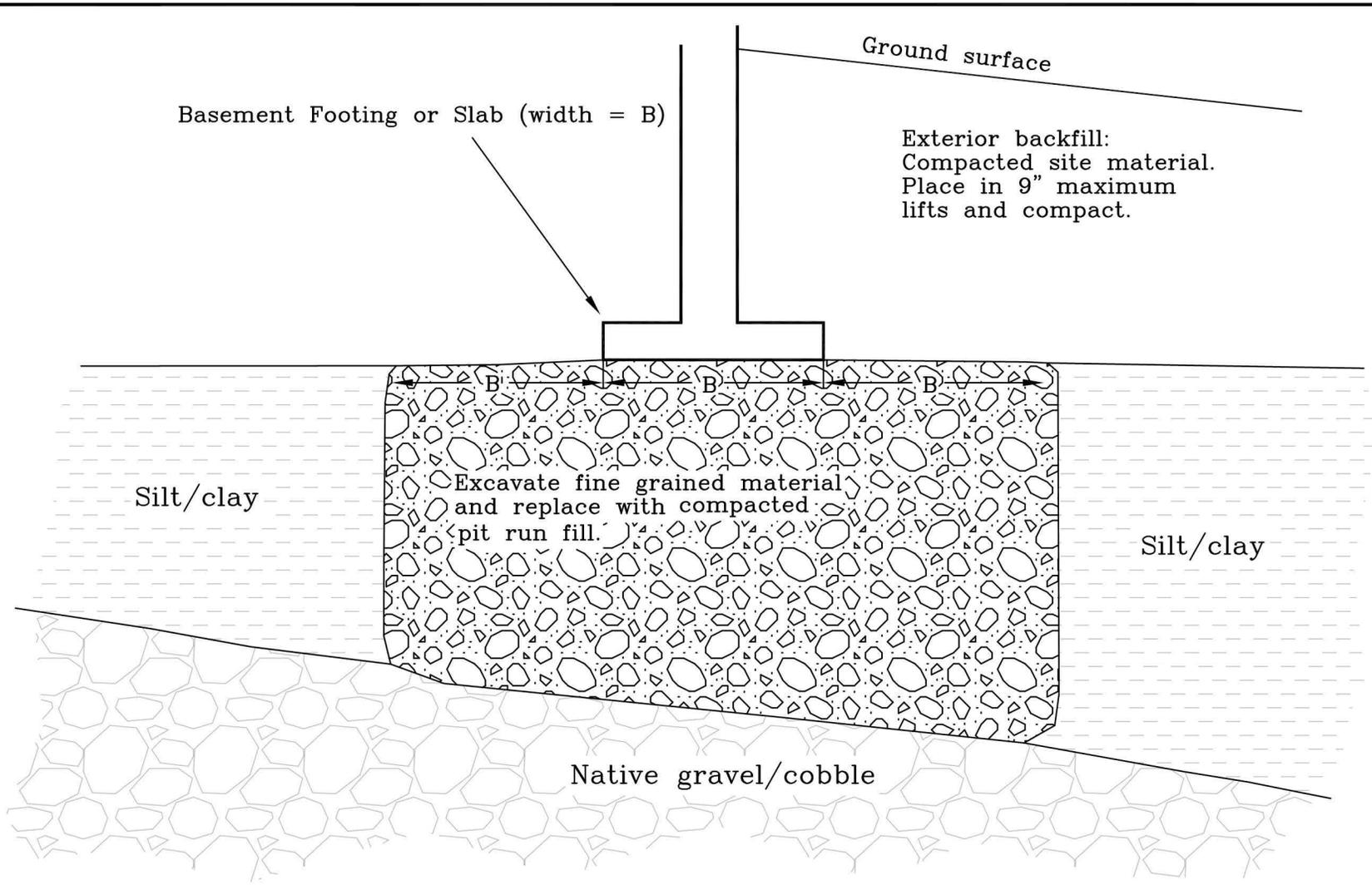
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Jorgensen Geotechnical, LLC

UPDATE TIME: /m/w / /H:\2015\15040\01-Dev Transfer\Geotech\Figures\Fig 2 TP Map



NOT TO SCALE

Geotechnical Investigation Report  
Snake River Sporting Club  
Lots 1-6, 47, 63, 77 and 80  
Teton County, Wyoming

Over-Ex and Replace

FIGURE  
5



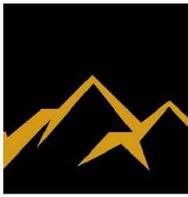
Jorgensen Geotechnical  
 P.O. Box 9550  
 Telephone: 307-733-5150  
 Fax: 307-733-5187

# TEST HOLE LOG

PAGE 1 OF 1

PROJECT NAME: Snake River Sporting Club Lots							DATE: 9/30/15						
PROJECT LOCATION: Teton County, Wyoming							HOLE NO.: TP-1						
TEST HOLE LOCATION: See site map													
ELEVATION G.S. (ft.):			TOTAL DEPTH (ft.): 8.2			GROUNDWATER LEVEL (ft.): NA			MEASURED FROM: Surface				
DRILL TYPE: Cat 303.5 Mini Excavator				HAMMER:			DRILL CO: SRSC			DRILLER: Tino		LOGGED BY: hc	
DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
0.0-0.8ft								0.0-0.8ft Sandy SILT with gravel: Dry, brown, angular to subrounded fine gravel, loose, many roots [TOPSOIL/SOD]					
0.8-1.2ft								0.8-1.2ft Silty clayey GRAVEL/COBBLE: Slightly moist to moist, dark brown, medium dense, subrounded to rounded fine gravel with clasts up to 3" diameter, matrix supported, clay with silt [ALLUVIUM]					
1.2-2.2ft								1.2-2.2ft CLAY with silt: Slightly moist to moist, dark brown, medium stiff to stiff [ALLUVIUM]					
2.2-8.2ft								2.2-8.2ft Silty clayey GRAVEL/COBBLE: Slightly moist to moist, dark brown, medium dense, stratified, 30% clay with silt, 70% rounded to subrounded gravel and cobble with clasts up to 6" diameter [ALLUVIUM]					
Note: Stopped at limits of excavator. No groundwater observed at time of digging. Backfilled pit with spoils.													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													

TEST HOLE LOG JORGENSEN GEO SRSC 6+ LOTS.GPJ JORGENSEN GEO 08-2015.GDT 11/13/15



Jorgensen Geotechnical  
 P.O. Box 9550  
 Telephone: 307-733-5150  
 Fax: 307-733-5187

# TEST HOLE LOG

PAGE 1 OF 1

PROJECT NAME: Snake River Sporting Club Lots							DATE: 9/30/15						
PROJECT LOCATION: Teton County, Wyoming							HOLE NO.: TP-2 MW-2						
TEST HOLE LOCATION: See site map													
ELEVATION G.S. (ft.):			TOTAL DEPTH (ft.): 9.8			GROUNDWATER LEVEL (ft.): NA			MEASURED FROM: Surface				
DRILL TYPE: Cat 303.5 Mini Excavator				HAMMER:			DRILL CO: SRSC			DRILLER: Tino		LOGGED BY: hc	
DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
1								0.0-0.8ft Sandy SILT with gravel: Dry, brown, angular to subrounded fine gravel, loose, many roots [TOPSOIL/SOD]					
2								0.8-4.2ft Sandy clayey silty GRAVEL/COBBLE: Slightly moist, dark brown, medium dense, stratified, 5-10% sand with clayey silt, 90-95% gravel cobble boulders to 14" diameter [ALLUVIUM]					
3								4.2-9.8ft Silty clayey GRAVEL/COBBLE: Slightly moist to moist, dark brown, medium dense, stratified, 30% clay with silt, 70% rounded to subrounded gravel and cobble to 6" diameter [ALLUVIUM]					
4								Note: Pit walls caving. Installed monitoring well of 4" PVC perforated pipe to 11.6', 2.5' stickup. No groundwater observed at time of digging. Backfilled pit with spoils.					
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													

TEST HOLE LOG JORGENSEN GEO SRSC 6+ LOTS.GPJ JORGENSEN GEO 08-2015.GDT 11/13/15



Jorgensen Geotechnical  
 P.O. Box 9550  
 Telephone: 307-733-5150  
 Fax: 307-733-5187

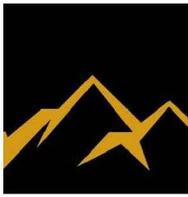
# TEST HOLE LOG

PAGE 1 OF 1

PROJECT NAME: Snake River Sporting Club Lots			DATE: 9/30/15		
PROJECT LOCATION: Teton County, Wyoming			HOLE NO.: TP-3		
TEST HOLE LOCATION: See site map					
ELEVATION G.S. (ft.):		TOTAL DEPTH (ft.): 9.4	GROUNDWATER LEVEL (ft.): NA		MEASURED FROM: Surface
DRILL TYPE: Cat 303.5 Mini Excavator		HAMMER:		DRILL CO: SRSC	DRILLER: Tino
LOGGED BY: hc					

DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
0.0-0.9ft								SILT: Dry, light, brown, very soft to soft, many roots [LOESS]					
0.9-6.4ft		U1				>4.0	GC	Clayey GRAVEL with sand: Dry, light brown, very stiff, 40% silt and clay, 30% subangular to subrounded gravel and cobble, 30% sand, massive [ALLUVIAL FAN]	5.2	77.6	27	8	
6.4-9.4ft								Silty clayey GRAVEL/COBBLE: Slightly moist to moist, dark brown, medium dense, stratified, 10-15% clay with silt, 85-90% rounded to subrounded gravel and cobble to 6" diameter [ALLUVIUM]					
Note: Stopped at limits of excavator. No groundwater observed at time of digging. Backfilled pit with spoils.													

TEST HOLE LOG JORGENSEN GEO SRSC 6+ LOTS.GPJ JORGENSEN GEO 08-2015.GDT 11/13/15



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# TEST HOLE LOG

PAGE 1 OF 1

PROJECT NAME: Snake River Sporting Club Lots							DATE: 9/30/15						
PROJECT LOCATION: Teton County, Wyoming							HOLE NO.: TP-4						
TEST HOLE LOCATION: See site map													
ELEVATION G.S. (ft.):			TOTAL DEPTH (ft.): 9.1			GROUNDWATER LEVEL (ft.): NA			MEASURED FROM: Surface				
DRILL TYPE: Cat 303.5 Mini Excavator			HAMMER:			DRILL CO: SRSC			DRILLER: Tino		LOGGED BY: hc		
DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
0.0-0.8ft								0.0-0.8ft Sandy SILT with gravel: Dry, brown, angular to subrounded fine gravel, loose to medium dense, many roots [TOPSOIL/SOD]					
0.8-9.1ft								0.8-9.1ft Silty clayey GRAVEL/COBBLE: Slightly moist to moist, dark brown, medium dense, stratified, 30% clay with silt, 70% rounded to subrounded gravel and cobble to 6" diameter [ALLUVIUM]					
<p>Note: Pit walls not caving. Stopped at limits of backhoe.          No groundwater observed at time of digging.          Backfilled pit with spoils.</p>													

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# TEST HOLE LOG

PAGE 1 OF 1

PROJECT NAME: Snake River Sporting Club Lots							DATE: 9/30/15						
PROJECT LOCATION: Teton County, Wyoming							HOLE NO.: TP-5						
TEST HOLE LOCATION: See site map													
ELEVATION G.S. (ft.):			TOTAL DEPTH (ft.): 9.1			GROUNDWATER LEVEL (ft.): NA			MEASURED FROM: Surface				
DRILL TYPE: Cat 303.5 Mini Excavator				HAMMER:			DRILL CO: SRSC			DRILLER: Tino		LOGGED BY: hc	
DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
1								0.0-1.0ft Sandy SILT with gravel: Dry, brown, angular to subrounded fine gravel, loose, many roots [TOPSOIL/SOD]					
2							GC	1.0-7.8ft Clayey GRAVEL with sand: Slightly moist to moist, dark brown, very stiff, massive, 40% clay with silt, 30% subrounded to rounded fine to coarse gravel, 30% sand [ALLUVIAL FAN]					
3								7.8-9.1ft Silty clayey GRAVEL/COBBLE: Slightly moist to moist, dark brown, medium dense, stratified, 30% clay with silt, 70% rounded to subrounded gravel and cobble to 6" diameter [ALLUVIUM]					
4								Note: Stopped at limits of excavator. No groundwater observed at time of digging. Backfilled pit with spoils.					
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TEST HOLE LOG JORGENSEN GEO SRSC 6+ LOTS.GPJ JORGENSEN GEO 08-2015.GDT 11/13/15



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# TEST HOLE LOG

PAGE 1 OF 1

PROJECT NAME: Snake River Sporting Club Lots							DATE: 10/1/15						
PROJECT LOCATION: Teton County, Wyoming							HOLE NO.: TP-6						
TEST HOLE LOCATION: See site map													
ELEVATION G.S. (ft.):			TOTAL DEPTH (ft.): 8			GROUNDWATER LEVEL (ft.): NA			MEASURED FROM: Surface				
DRILL TYPE: Cat 303.5 Mini Excavator			HAMMER:			DRILL CO: SRSC			DRILLER: Tino		LOGGED BY: hc		
DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
1								0.0-1.0ft Sandy GRAVEL: Dry, light brown, loose, subangular to subrounded fine gravel, silty sand matrix [TOPSOIL]					
2								1.0-2.6ft Silty clayey GRAVEL: Slightly moist, dark brown, dense, 30-35% silt with clay, 65-70% subrounded to rounded coarse gravel and cobble, matrix supported [ALLUVIUM]					
3								2.6-8.0ft Sandy silty GRAVEL/COBBLE: Slightly moist, dark brown, medium dense to dense, 15-20% sand with silt, 80-85% subrounded to rounded gravel and cobble, stratified [ALLUVIUM]					
4								Note: Pit walls collapsing at 2.6'. Stopped at limits of excavator. Backfilled with spoils.					
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TEST HOLE LOG JORGENSEN GEO SRSC 6+ LOTS.GPJ JORGENSEN GEO 08-2015.GDT 11/13/15



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# TEST HOLE LOG

PAGE 1 OF 1

PROJECT NAME: Snake River Sporting Club Lots							DATE: 10/1/15						
PROJECT LOCATION: Teton County, Wyoming							HOLE NO.: TP-7						
TEST HOLE LOCATION: See site map													
ELEVATION G.S. (ft.):			TOTAL DEPTH (ft.): 9.8			GROUNDWATER LEVEL (ft.): NA			MEASURED FROM: Surface				
DRILL TYPE: Cat 303.5 Mini Excavator			HAMMER:			DRILL CO: SRSC			DRILLER: Tino		LOGGED BY: hc		
DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
1								0.0-1.0ft Silty SAND: Dry, dark brown, firm, many roots [TOPSOIL/SOD]					
2							GC	1.0-9.8ft Clayey GRAVEL with sand: Dry, light brown, medium dense, 40% clayey silt, 30% angular to subrounded gravel and cobble to 6" diameter, 30% sand, matrix supported, massive [ALLUVIAL FAN]  Note: Pit walls remained vertical. Stopped at limit of excavator. No groundwater observed at time of digging. Backfilled pit with spoils.					
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TEST HOLE LOG JORGENSEN GEO SRSC 6+ LOTS.GPJ JORGENSEN GEO 08-2015.GDT 11/13/15



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# TEST HOLE LOG

PAGE 1 OF 1

PROJECT NAME: Snake River Sporting Club Lots			DATE: 10/1/15		
PROJECT LOCATION: Teton County, Wyoming			HOLE NO.: TP-8 MW-8		
TEST HOLE LOCATION: See site map					
ELEVATION G.S. (ft.):		TOTAL DEPTH (ft.): 12.2	GROUNDWATER LEVEL (ft.): NA		MEASURED FROM: Surface
DRILL TYPE: Cat 303.5 Mini Excavator		HAMMER:	DRILL CO: SRSC		DRILLER: Tino
LOGGED BY: hc					

DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
0.0-1.3ft								Sandy SILT with gravel: Dry, brown, angular to subrounded fine gravel, loose, many roots [TOPSOIL/SOD]					
1.3-3.2ft								Sandy lean CLAY with gravel: Dry, light brown, medium dense 60% silty clay, 10% subangular to subrounded gravel, 30% sand [ALLUVIAL FAN]					
3.2-10.4ft								Silty clayey SAND: Slightly moist, reddish brown, medium dense to stiff, massive [ALLUVIAL FAN]					
6.0-6.2ft		U3					CL		14.1	73.7	28	8	
10.4-12.2ft								Silty GRAVEL/COBBLE: Slightly moist to moist, brown, medium dense to dense, 20-25% silty with sand, 75-80% gravel and cobble to 4" diameter, stratified [ALLUVIUM]					
<p>Note: Pit walls stable to 10.4', collapsing below. Installed monitoring well of 4" perforated PVC pipe to 12.2', stickup 2.9'. Backfilled with spoils. No groundwater observed at time of digging.</p>													

TEST HOLE LOG JORGENSEN GEO SRSC 6+ LOTS.GPJ JORGENSEN GEO 08-2015.GDT 11/13/15



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# TEST HOLE LOG

PAGE 1 OF 1

PROJECT NAME: Snake River Sporting Club Lots							DATE: 10/1/15						
PROJECT LOCATION: Teton County, Wyoming							HOLE NO.: TP-9						
TEST HOLE LOCATION: See site map													
ELEVATION G.S. (ft.):			TOTAL DEPTH (ft.): 9.2			GROUNDWATER LEVEL (ft.): NA			MEASURED FROM: Surface				
DRILL TYPE: Cat 303.5 Mini Excavator			HAMMER:			DRILL CO: SRSC			DRILLER: Tino		LOGGED BY: hc		
DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
1								0.0-1.2ft Silty SAND: Dry, dark brown, firm, many roots [TOPSOIL/SOD]					
2							CL	1.2-9.2ft Sandy clayey silty GRAVEL/COBBLE: Dry, light brown, medium dense, 30-35% sandy clayey silt, 65-70% angular to subrounded gravel and cobble to 8" diameter, matrix supported [ALLUVIAL FAN]					
3								Note: Pit walls remained vertical. Stopped at limit of excavator. No groundwater observed at time of digging. Backfilled pit with spoils.					
4													
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TEST HOLE LOG JORGENSEN GEO SRSC 6+ LOTS.GPJ JORGENSEN GEO 08-2015.GDT 11/13/15



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# TEST HOLE LOG

PAGE 1 OF 1

PROJECT NAME: Snake River Sporting Club Lots							DATE: 10/1/15						
PROJECT LOCATION: Teton County, Wyoming							HOLE NO.: TP-10						
TEST HOLE LOCATION: See site map													
ELEVATION G.S. (ft.):			TOTAL DEPTH (ft.): 11.6			GROUNDWATER LEVEL (ft.): NA			MEASURED FROM: Surface				
DRILL TYPE: Cat 303.5 Mini Excavator			HAMMER:			DRILL CO: SRSC			DRILLER: Tino		LOGGED BY: hc		
DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
0-1								0.0-1.3ft Silty GRAVEL: Dry, light brown, loose to medium dense [TOPSOIL/SOD]					
1-2								1.3-2.6ft Clayey GRAVEL: Slightly moist, dark brown, very dense/stiff, stratified, 25-30% plastic clay, 70-75% subrounded to rounded gravel, matrix supported [ALLUVIUM]					
2-8								2.6-8.6ft Silty clayey GRAVEL/COBBLE: Slightly moist, brown, medium dense to dense, stratified, 10-15% silty clay, 85-90% gravel/cobble to 5" diameter [ALLUVIUM]					
8-11.6		D1						8.6-11.6ft SAND with gravel: Slightly moist to moist, gray to brown, loose to medium dense, 85-90% clean sand, 10-15% gravel and cobble to 5" diameter [ALLUVIUM]  Note: Stopped at limit of excavator. Backfilled pit with spoils. No groundwater observed at time of digging. Pit walls stayed vertical at time of excavation.					
12													
13													
14													

TEST HOLE LOG JORGENSEN GEO SRSC 6+ LOTS.GPJ JORGENSEN GEO 08-2015.GDT 11/13/15



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# TEST HOLE LOG

PAGE 1 OF 1

PROJECT NAME: Snake River Sporting Club Lots							DATE: 10/1/15						
PROJECT LOCATION: Teton County, Wyoming							HOLE NO.: TP-11						
TEST HOLE LOCATION: See site map													
ELEVATION G.S. (ft.):			TOTAL DEPTH (ft.): 10.4			GROUNDWATER LEVEL (ft.): NA			MEASURED FROM: Surface				
DRILL TYPE: Cat 303.5 Mini Excavator			HAMMER:			DRILL CO: SRSC			DRILLER: Tino		LOGGED BY: hc		
DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
0-1								0.0-1.2ft Silty GRAVEL: Dry, light brown, loose to medium dense [TOPSOIL/SOD]					
1.2-6.0								1.2-6.0ft Silty clayey GRAVEL/COBBLE: Slightly moist, brown, medium dense to dense, stratified, 10-15% silty clay, 85-90% gravel/cobble to 5" diameter [ALLUVIUM]					
6.0-10.4								6.0-10.4ft SAND with gravel: Slightly moist to moist, gray to brown, loose to medium dense, 85-90% clean sand, 10-15% gravel and cobble to 12" diameter [ALLUVIUM]  Note: Stopped at limit of excavator. Backfilled pit with spoils. No groundwater observed at time of digging. Pit walls caving slightly. Digging difficult at bottom of pit.					
10.4-11.0													
11.0-12.0													
12.0-13.0													
13.0-14.0													

TEST HOLE LOG JORGENSEN GEO SRSC 6+ LOTS.GPJ JORGENSEN GEO 08-2015.GDT 11/13/15



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# TEST HOLE LOG

PAGE 1 OF 1

PROJECT NAME: Snake River Sporting Club Lots							DATE: 10/1/15						
PROJECT LOCATION: Teton County, Wyoming							HOLE NO.: TP-12						
TEST HOLE LOCATION: See site map													
ELEVATION G.S. (ft.):			TOTAL DEPTH (ft.): 10.4			GROUNDWATER LEVEL (ft.): NA			MEASURED FROM: Surface				
DRILL TYPE: Cat 303.5 Mini Excavator			HAMMER:			DRILL CO: SRSC			DRILLER: Tino		LOGGED BY: hc		
DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
0.0-0.6ft								0.0-0.6ft Silty GRAVEL: Dry, light brown, loose to medium dense [TOPSOIL/SOD]					
0.6-5.8ft							CL	0.6-5.8ft Lean CLAY: Slightly moist, light brown to brown, very stiff, massive, lean clay [ALLUVIAL FAN]	13.1	118.4	25	8	
5.8-10.4ft						>4.5		5.8-10.4ft Sandy clayey GRAVEL: Slightly moist to wet at bottom of pit, dark brown, medium dense to dense, 45-50% clay with sand, 50-55% gravel/cobble/boulder, clasts up to 14" diameter, matrix supported [ALLUVIUM]					
Note: Pit walls collapsing at 5.6'. No groundwater observed at time of digging. Backfilled pit with spoils.													

TEST HOLE LOG JORGENSEN GEO SRSC 6+ LOTS.GPJ JORGENSEN GEO 08-2015.GDT 11/13/15



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# TEST HOLE LOG

PAGE 1 OF 1

PROJECT NAME: Snake River Sporting Club Lots							DATE: 10/5/15						
PROJECT LOCATION: Teton County, Wyoming							HOLE NO.: TP-13						
TEST HOLE LOCATION: See site map													
ELEVATION G.S. (ft.):			TOTAL DEPTH (ft.): 9.4			GROUNDWATER LEVEL (ft.): NA			MEASURED FROM: Surface				
DRILL TYPE: Cat 303.5 Mini Excavator				HAMMER:			DRILL CO: SRSC		DRILLER: Tino		LOGGED BY: hc		
DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
0.0-0.8ft								0.0-0.8ft SAND with silt: Slightly moist, light brown to dark brown, soft to medium stiff [TOPSOIL]					
0.8-2.4ft								0.8-2.4ft Clayey SILT with gravel: Slightly moist, dark brown, very dense/stiff, stratified, 75-80% clayey silt, 20-25% subrounded to rounded gravel and cobble to 4" diameter, matrix supported [ALLUVIAL FAN]					
2.4-3.7ft								2.4-3.7ft Lean CLAY with silt: Slightly moist, grayish brown, very stiff, massive [ALLUVIAL FAN]					
3.7-9.0ft								3.7-9.0ft SAND: Slightly moist, brown, dense to very dense, massive, with trace fines [ALLUVIUM]					
9.0-9.4ft								9.0-9.4ft GRAVEL/COBBLE: Moist, dark brown, dense to very dense, stratified, sand with trace amounts of fines, matrix supported [ALLUVIUM]					
<p>Note: Pit walls remained vertical at time of digging. Stopped at refusal. Backfilled pit with spoils. No groundwater observed at time of digging.</p>													

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# TEST HOLE LOG

PROJECT NAME: Snake River Sporting Club Lots							DATE: 10/5/15						
PROJECT LOCATION: Teton County, Wyoming							HOLE NO.: TP-14 MW-14						
TEST HOLE LOCATION: See site map													
ELEVATION G.S. (ft.):			TOTAL DEPTH (ft.): 9.1			GROUNDWATER LEVEL (ft.): 8.9			MEASURED FROM: Surface				
DRILL TYPE: Cat 303.5 Mini Excavator				HAMMER:			DRILL CO: SRSC			DRILLER: Tino		LOGGED BY: hc	
DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
0.0-0.4ft								0.0-0.4ft SAND with silt: Slightly moist, light brown to dark brown, soft to firm [TOPSOIL]					
0.4-3.3ft								0.4-3.3ft Clayey SILT with gravel: Slightly moist, dark brown, very dense/stiff, stratified, 75-80% clayey silt, 20-25% subrounded to rounded gravel and cobble to 4" diameter, matrix supported [ALLUVIUM]					
3.3-9.1ft								3.3-9.1ft Sandy GRAVEL/COBBLE/BOULDER: Slightly moist to moist, grayish brown, massive, dense to very dense, sand with a clay matrix, matrix supported [ALLUVIUM]					
								Note: Stopped at refusal. Pit walls remained vertical. Backfilled with spoils. Groundwater observed at 8.9' at time of digging. Installed monitoring well of perforated 4" PVC to 9.2', stickup 3.2'.  ▼					

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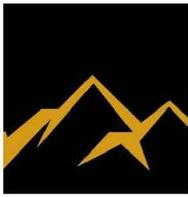
# TEST HOLE LOG

PROJECT NAME: Snake River Sporting Club Lots	DATE: 10/5/15
PROJECT LOCATION: Teton County, Wyoming	HOLE NO.: TP-15 MW-15
TEST HOLE LOCATION: See site map	

ELEVATION G.S. (ft.):	TOTAL DEPTH (ft.): 9.9	GROUNDWATER LEVEL (ft.): 9.7	MEASURED FROM: Surface
DRILL TYPE: Cat 303.5 Mini Excavator	HAMMER:	DRILL CO: SRSC	DRILLER: Tino
			LOGGED BY: hc

DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
1	[Hatched pattern]							0.0-1.6ft SAND with GRAVEL/COBBLE: Slightly moist, dark brown, medium dense to dense, massive [FILL]					[Hatched pattern]
2	[Hatched pattern]							1.6-4.3ft Sandy clayey GRAVEL/COBBLE: Slightly moist to moist, grayish brown, medium dense to dense, massive, 15-20% sandy clay, 80-85% subrounded to rounded gravel/cobble [ALLUVIUM]					[Hatched pattern]
3	[Hatched pattern]							4.3-9.9ft GRAVEL/COBBLE: Moist to wet, brown, dense to very dense, massive, subrounded to rounded clasts to 14" diameter [ALLUVIUM]					[Hatched pattern]
4	[Hatched pattern]							Note: Stopped at request. Installed monitoring well of perforated 4" PVC pipe to 9.9', stickup 2.8'. Groundwater observed at 9.7' at time of digging. Backfilled with spoils.					[Hatched pattern]
5	[Hatched pattern]												[Hatched pattern]
6	[Hatched pattern]												[Hatched pattern]
7	[Hatched pattern]												[Hatched pattern]
8	[Hatched pattern]							▼					[Hatched pattern]
9	[Hatched pattern]												[Hatched pattern]
10	[Hatched pattern]												[Hatched pattern]
11	[Hatched pattern]												[Hatched pattern]
12	[Hatched pattern]												[Hatched pattern]
13	[Hatched pattern]												[Hatched pattern]
14	[Hatched pattern]												[Hatched pattern]

TEST HOLE LOG JORGENSEN GEO SRSC 6+ LOTS.GPJ JORGENSEN GEO 08-2015.GDT 11/13/15



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# TEST HOLE LOG

PAGE 1 OF 1

PROJECT NAME: Snake River Sporting Club Lots							DATE: 10/5/15						
PROJECT LOCATION: Teton County, Wyoming							HOLE NO.: TP-16						
TEST HOLE LOCATION: See site map													
ELEVATION G.S. (ft.):			TOTAL DEPTH (ft.): 9			GROUNDWATER LEVEL (ft.): 8.9			MEASURED FROM: Surface				
DRILL TYPE: Cat 303.5 Mini Excavator				HAMMER:			DRILL CO: SRSC			DRILLER: Tino		LOGGED BY: hc	
DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
1								0.0-1.3ft Sandy GRAVEL: Dry to slightly moist, dark brown, massive, medium dense to dense, trace					
2								1.3-4.6ft Sandy clayey GRAVEL/COBBLE: Slightly moist to mist, dark brown, massive, medium dense to dense, 15-20% sand with clay, 80-85% subrounded to rounded gravel/cobble [ALLUVIUM]					
3								4.6-9.0ft Sandy GRAVEL/COBBLE: Moist to wet, dark brown, stratified, medium dense, 35-40% sand with trace fines, 60-65% rounded gravel clasts to 6" diameter, matrix supported [ALLUVIUM]					
4								Note: Stopped at request. Pit walls remained vertical at time of digging. Backfilled with spoils. Groundwater observed at 8.9' at time of digging.					
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													

TEST HOLE LOG JORGENSEN GEO SRSC 6+ LOTS.GPJ JORGENSEN GEO 08-2015.GDT 11/13/15



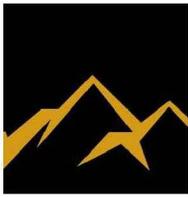
Jorgensen Geotechnical  
 P.O. Box 9550  
 Telephone: 307-733-5150  
 Fax: 307-733-5187

# TEST HOLE LOG

PAGE 1 OF 1

PROJECT NAME: Snake River Sporting Club Lots							DATE: 10/5/15						
PROJECT LOCATION: Teton County, Wyoming							HOLE NO.: TP-17						
TEST HOLE LOCATION: See site map													
ELEVATION G.S. (ft.):			TOTAL DEPTH (ft.): 6.6			GROUNDWATER LEVEL (ft.): NA			MEASURED FROM: Surface				
DRILL TYPE: Cat 303.5 Mini Excavator			HAMMER:			DRILL CO: SRSC			DRILLER: Tino		LOGGED BY: hc		
DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
0.0-0.6ft	[Hatched pattern]							SAND: Slightly moist, brown, loose to medium dense, massive, clean sand [FILL]					
0.6-1.8ft	[Cross-hatched pattern]							GRAVEL: Slightly moist, brown, loose to medium dense, massive, clean gravel [FILL]					
1.8-4.6ft	[Stippled pattern with circles]							Sandy GRAVEL/COBBLE/BOULDER: Slightly moist, brown, dense to very dense, massive, 15-20% sand with silty clay, 80-85% angular clasts to 14" diameter [COLLUVIUM]					
4.6-6.6ft	[Stippled pattern with circles]							GRAVEL/COBBLE: Slightly moist, brown, dense to very dense, massive, subangular to subrounded clasts [ALLUVIUM]					
								Note: Stopped at refusal. Pit walls remained vertical at time of digging. Backfilled pit with spoils. No groundwater observed at time of digging.					
7													
8													
9													
10													
11													
12													
13													
14													

TEST HOLE LOG JORGENSEN GEO SRSC 6+ LOTS.GPJ JORGENSEN GEO 08-2015.GDT 11/13/15



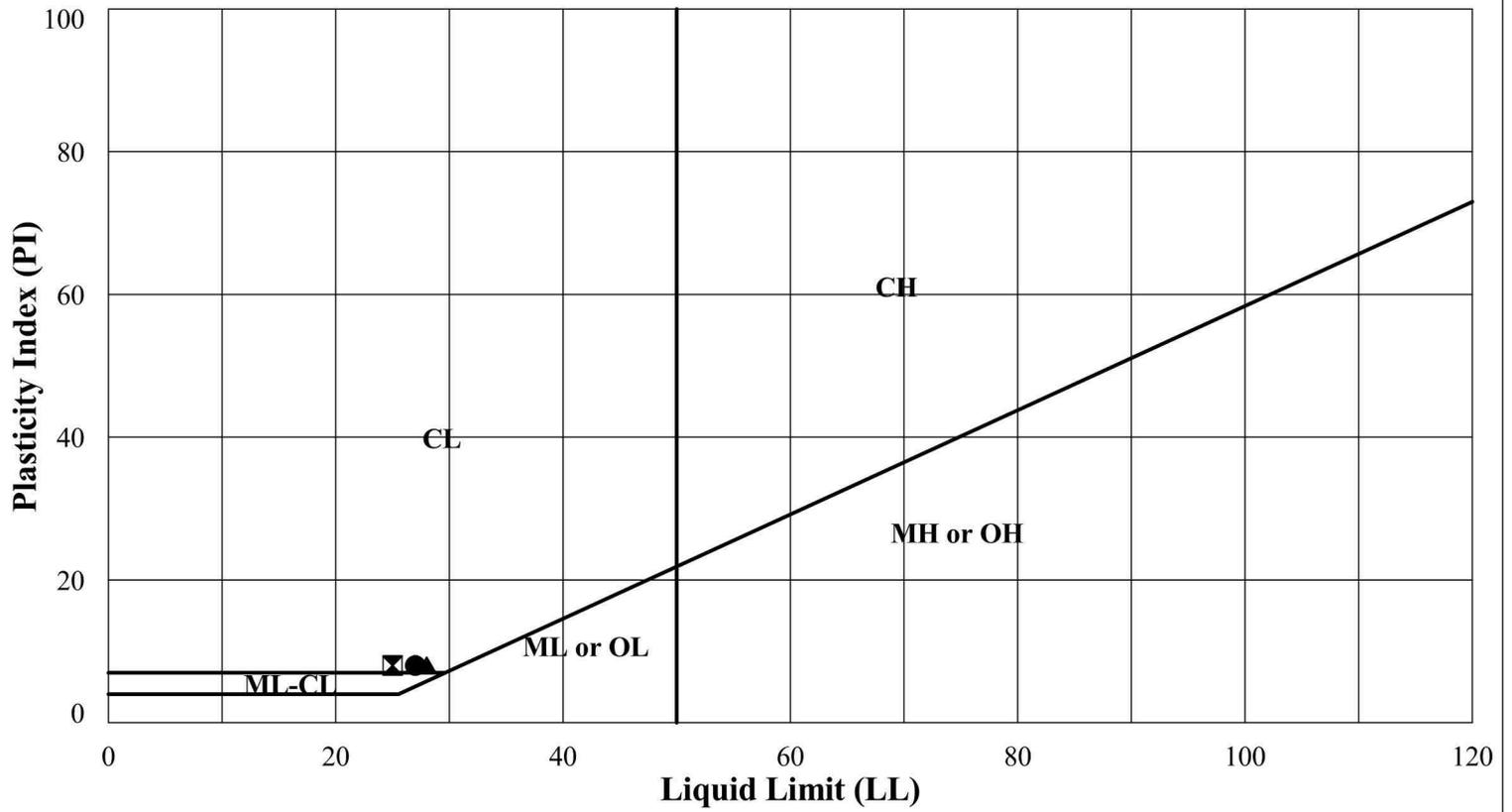
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# TEST HOLE LOG

PAGE 1 OF 1

PROJECT NAME: Snake River Sporting Club Lots							DATE: 10/5/15						
PROJECT LOCATION: Teton County, Wyoming							HOLE NO.: TP-18						
TEST HOLE LOCATION: See site map													
ELEVATION G.S. (ft.):			TOTAL DEPTH (ft.): 7.7			GROUNDWATER LEVEL (ft.): NA			MEASURED FROM: Surface				
DRILL TYPE: Cat 303.5 Mini Excavator			HAMMER:			DRILL CO: SRSC			DRILLER: Tino		LOGGED BY: hc		
DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
0.0-0.8ft								0.0-0.8ft SAND: Slightly moist, brown, loose to medium dense, massive, clean sand [FILL]					
0.8-1.4ft								0.8-1.4ft GRAVEL: Slightly moist, brown, loose to medium dense, massive, clean gravel [FILL]					
1.4-7.7ft								1.4-7.7ft Sandy GRAVEL/COBBLE/BOULDER: Slightly moist, brown, dense to very dense, massive, 15-20% sand with silty clay, 80-85% angular clasts to 14" diameter [COLLUVIUM]					
Note: Stopped at request. Backfilled with spoils. No groundwater observed at time of digging. Pit walls remained vertical at time of digging.													
8													
9													
10													
11													
12													
13													
14													

TEST HOLE LOG JORGENSEN GEO SRSC 6+ LOTS.GPJ JORGENSEN GEO 08-2015.GDT 11/13/15



Legend	Boring	Sample No.	Depth	LL	PL	PI	P 200, %	MC	Classification
●	TP-3/U-1	TW	3-4 ft.	27	19	8	41.0	5.2%	GC
⊠	TP-12/U-2	TW	2.5-3.5 ft.	25	17	8	90.0	13.1%	CL
▲	TP-8/U-3	TW	5.2-6.2 ft.	28	20	8	61.0	14.1%	CL

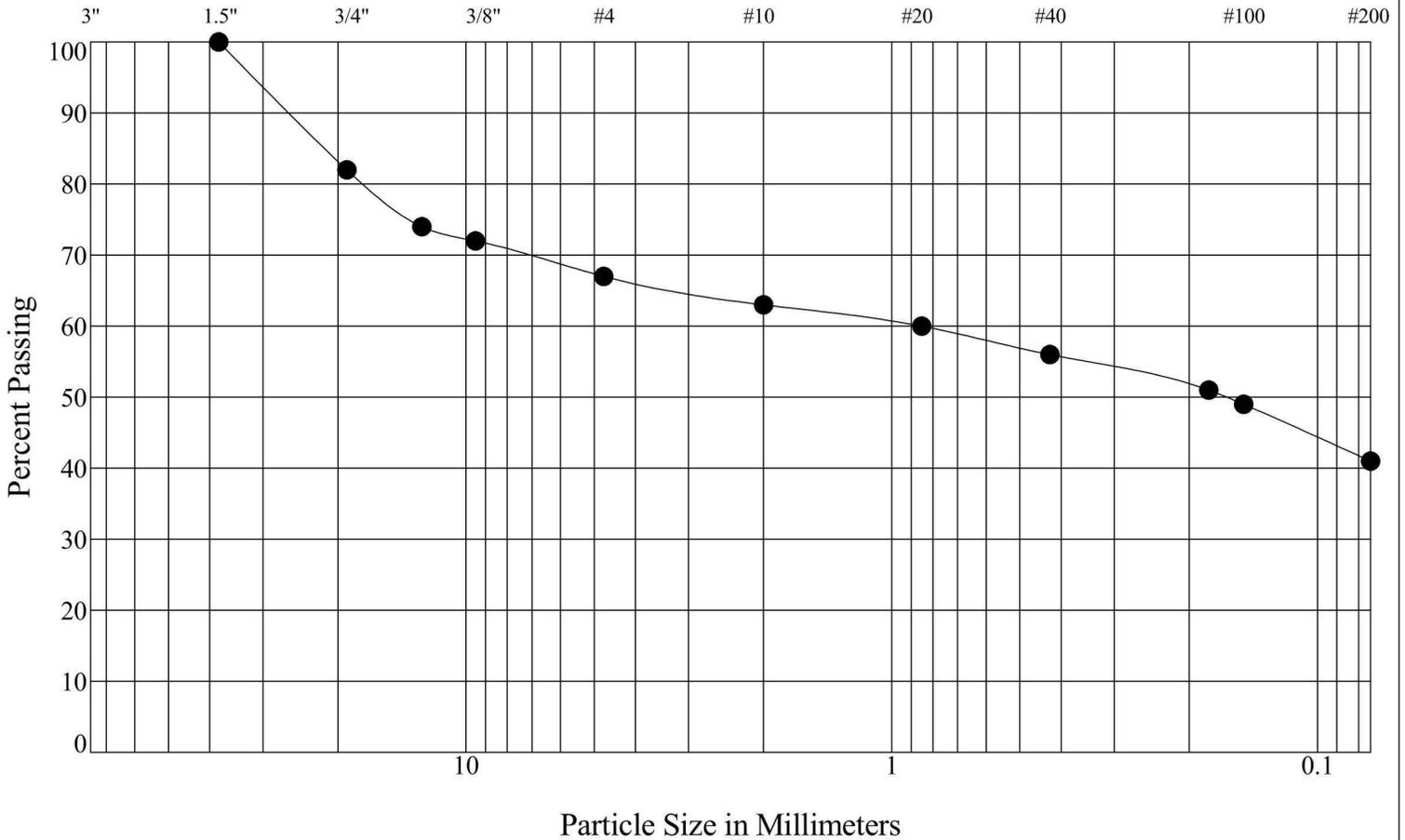


2511 Holman Avenue  
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Billings, MT 59108-0190  
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### Atterberg Limits' Tests

Project Number: 15-3404L  
15040

### Sieve Size



Gravel		Sand		
coarse	fine	coarse	medium	fine

#### Percent Passing U.S. Standard Sieve Size

3"	1 1/2"	3/4"	3/8"	#4	#10	#20	#40	#80	#100	#200
100	82	72	67	63	60	56	51	49	41	

Boring No.: TP-3/U-1  
 Sample No.: TW  
 Depth: 3-4 ft.

Date Received: 10/16/2015

Liquid Limit: 27

Plastic Limit: 19

Plasticity Index: 8

Classification: GC

Moisture Content: 5.2%

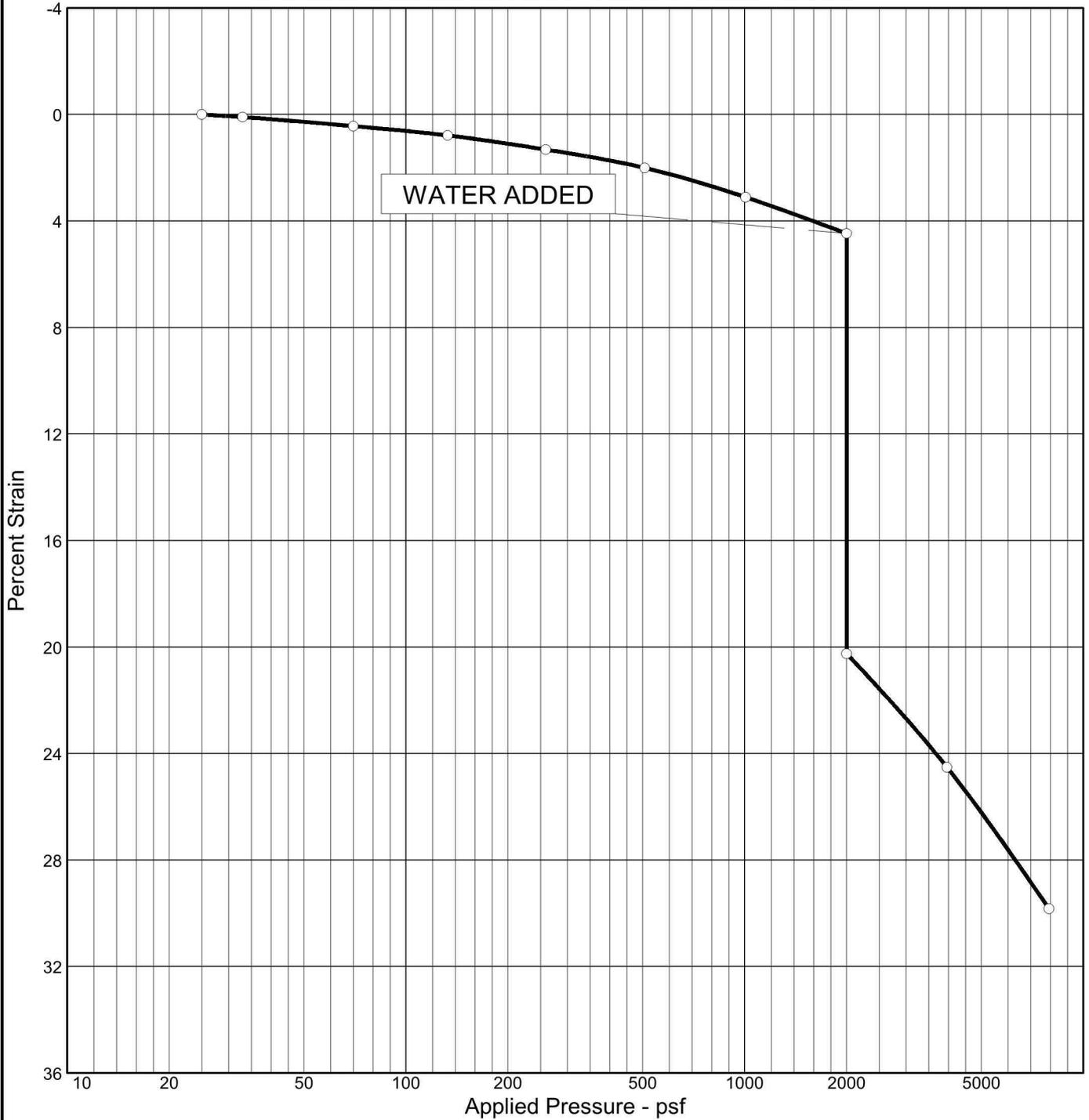
Percent Gravel: 33.0  
 Percent Sand: 26.0  
 Percent Silt + Clay: 41.0  
 ASTM Group Name: CLAYEY GRAVEL with SAND



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**Sieve Analysis**  
 Project Number: 15-3404L  
 15040

# CONSOLIDATION TEST REPORT

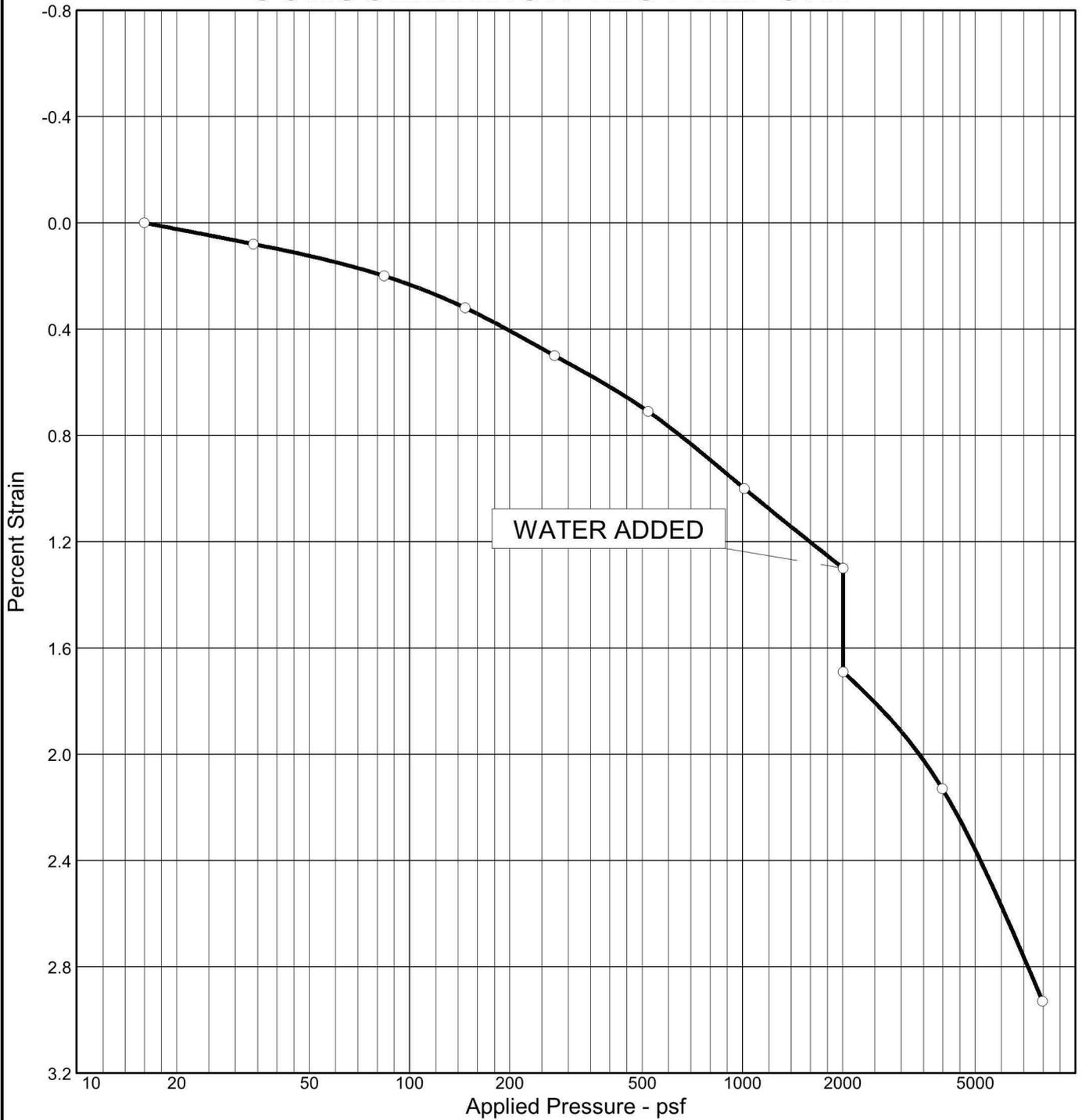


Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (psf)	P <sub>c</sub> (psf)	C <sub>c</sub>	C <sub>r</sub>	Swell Press. (psf)	Clpse. %	e <sub>o</sub>
Sat.	Moist.											
12.2 %	5.2 %	77.6	27	8	2.65		222	0.38			15.8	1.132

MATERIAL DESCRIPTION	USCS	AASHTO
Clayey gravel with sand, fine to coarse, low plasticity, trace roots, orangish brown, rather dry, very loose	GC	

<p><b>Project No.</b> 15-3404L      <b>Client:</b> Jorgensen Associates, Inc.</p> <p><b>Project:</b> 15040</p> <p><b>Location:</b> TP-3/U-1    Depth: 3-4 ft.</p>	<p><b>Remarks:</b></p>
<p>CONSOLIDATION TEST REPORT</p> <p><b>SK GEOTECHNICAL CORP.</b></p>	
<p>Figure</p>	

# CONSOLIDATION TEST REPORT

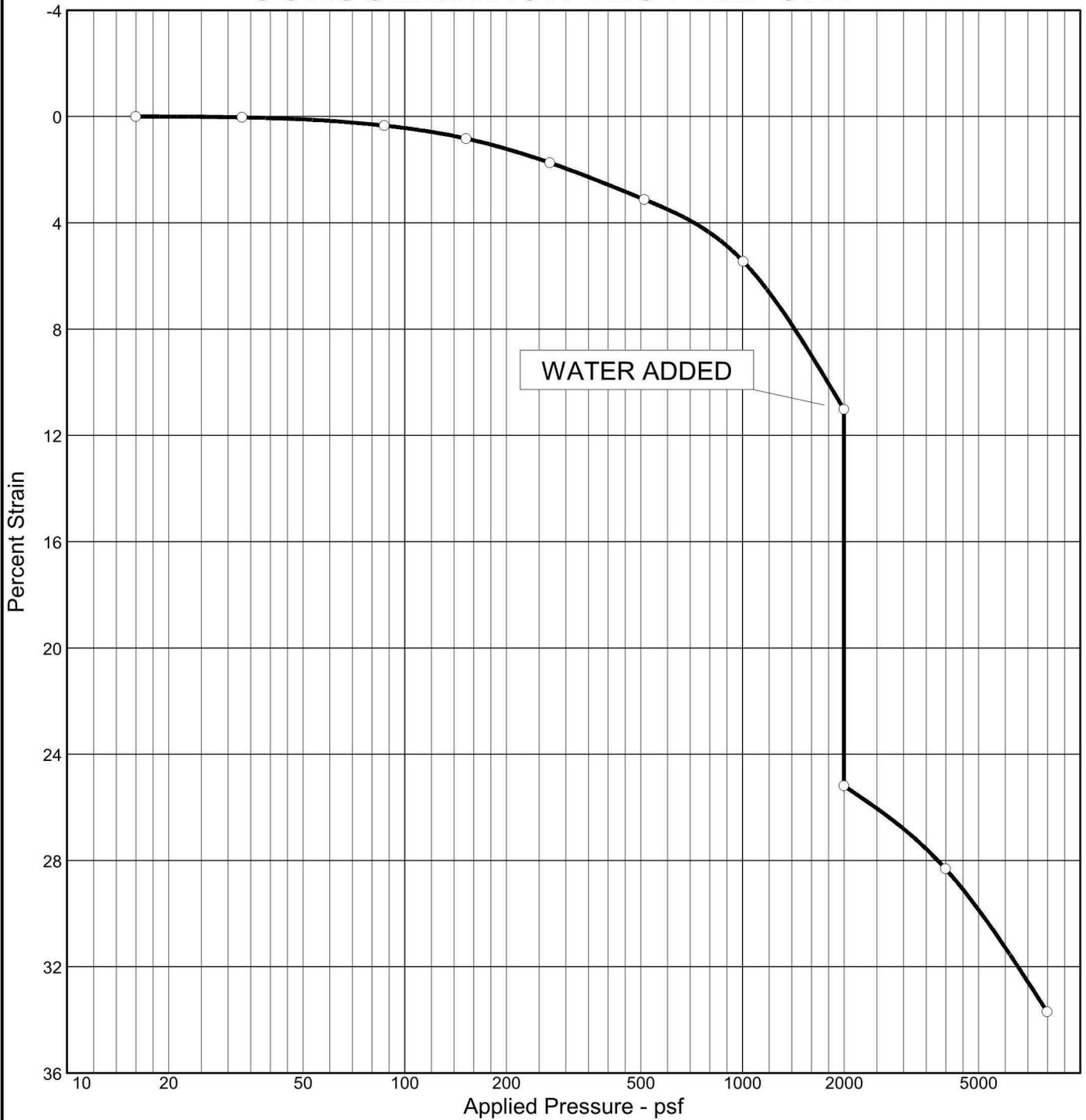


Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (psf)	$P_c$ (psf)	$C_c$	$C_r$	Swell Press. (psf)	Clpse. %	$e_o$
Sat.	Moist.											
87.4 %	13.1 %	118.4	25	8	2.65		816	0.04			0.4	0.397

MATERIAL DESCRIPTION	USCS	AASHTO
Lean clay, low plasticity, trace sand, orangish brown, rather dry, medium dense	CL	

<p><b>Project No.</b> 15-3404L      <b>Client:</b> Jorgensen Associates, Inc.</p> <p><b>Project:</b> 15040</p> <p><b>Location:</b> TP-12/U-2    Depth: 2.5-3.5 ft.</p>	<p><b>Remarks:</b></p>
<p>CONSOLIDATION TEST REPORT</p> <p><b>SK GEOTECHNICAL CORP.</b></p>	
<p>Figure</p>	

# CONSOLIDATION TEST REPORT

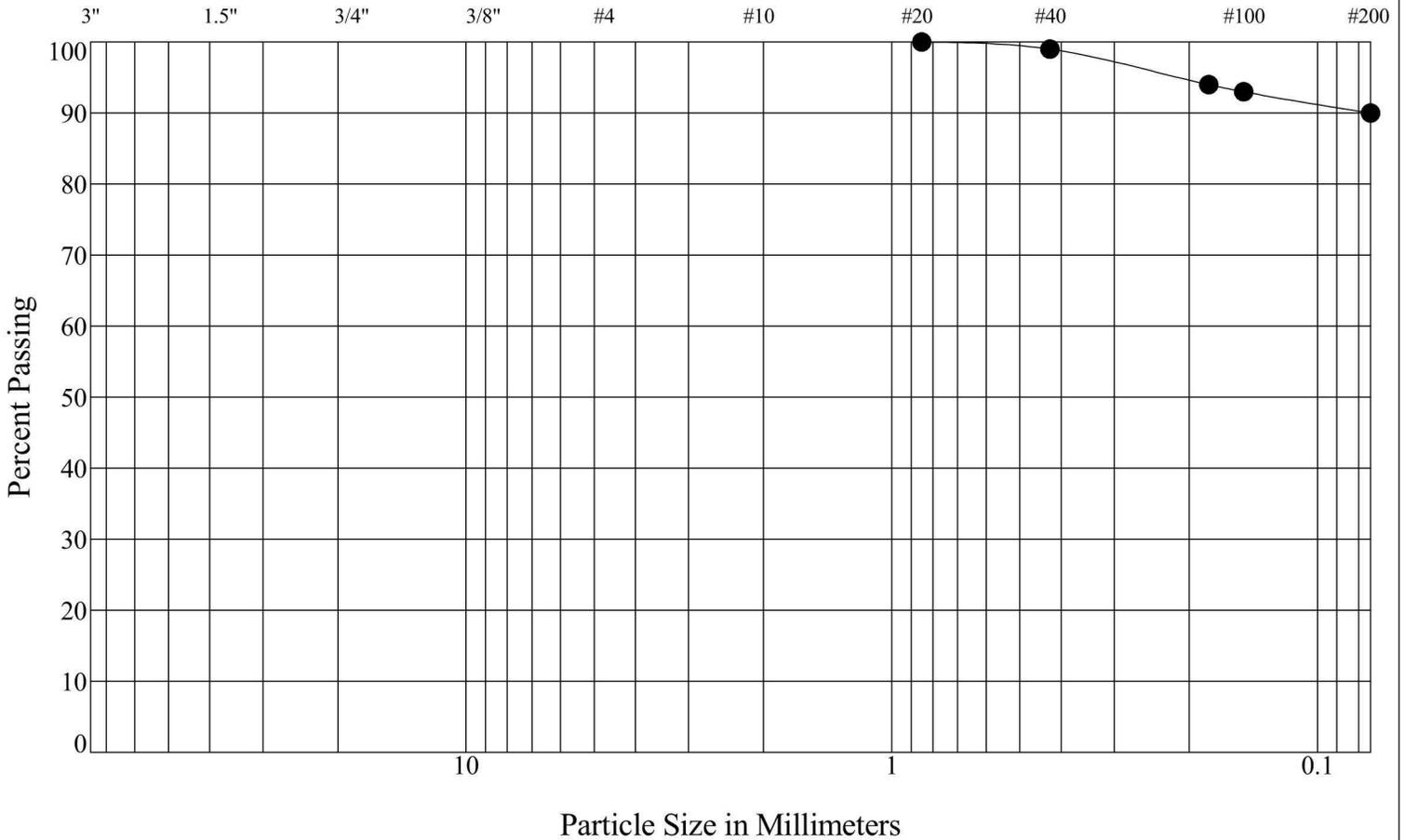


Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (psf)	$P_c$ (psf)	$C_c$	$C_r$	Swell Press. (psf)	Clpse. %	$e_o$
Sat.	Moist.											
30.0 %	14.1 %	73.7	28	8	2.65		118	0.41			14.2	1.246

MATERIAL DESCRIPTION	USCS	AASHTO
Sandy lean clay, low plasticity, trace gravel, orangish brown, moist, loose	CL	

<b>Project No.</b> 15-3404L <b>Client:</b> Jorgensen Associates, Inc. <b>Project:</b> 15040  <b>Location:</b> TP-8/U-3    Depth: 5.2-6.2 ft.	<b>Remarks:</b>   
CONSOLIDATION TEST REPORT <b>SK GEOTECHNICAL CORP.</b>	
<b>Figure</b>	

### Sieve Size



Gravel		Sand		
coarse	fine	coarse	medium	fine
0.0	0.0	10.0	84.0	6.0

#### Percent Passing U.S. Standard Sieve Size

3"	1 1/2"	3/4"	3/8"	#4	#10	#20	#40	#80	#100	#200
						100	99	94	93	90

Boring No.: TP-12/U-2  
 Sample No.: TW  
 Depth: 2.5-3.5 ft.

Date Received: 10/16/2015

Liquid Limit: 25

Plastic Limit: 17

Plasticity Index: 8

Classification: CL

Moisture Content: 13.1%

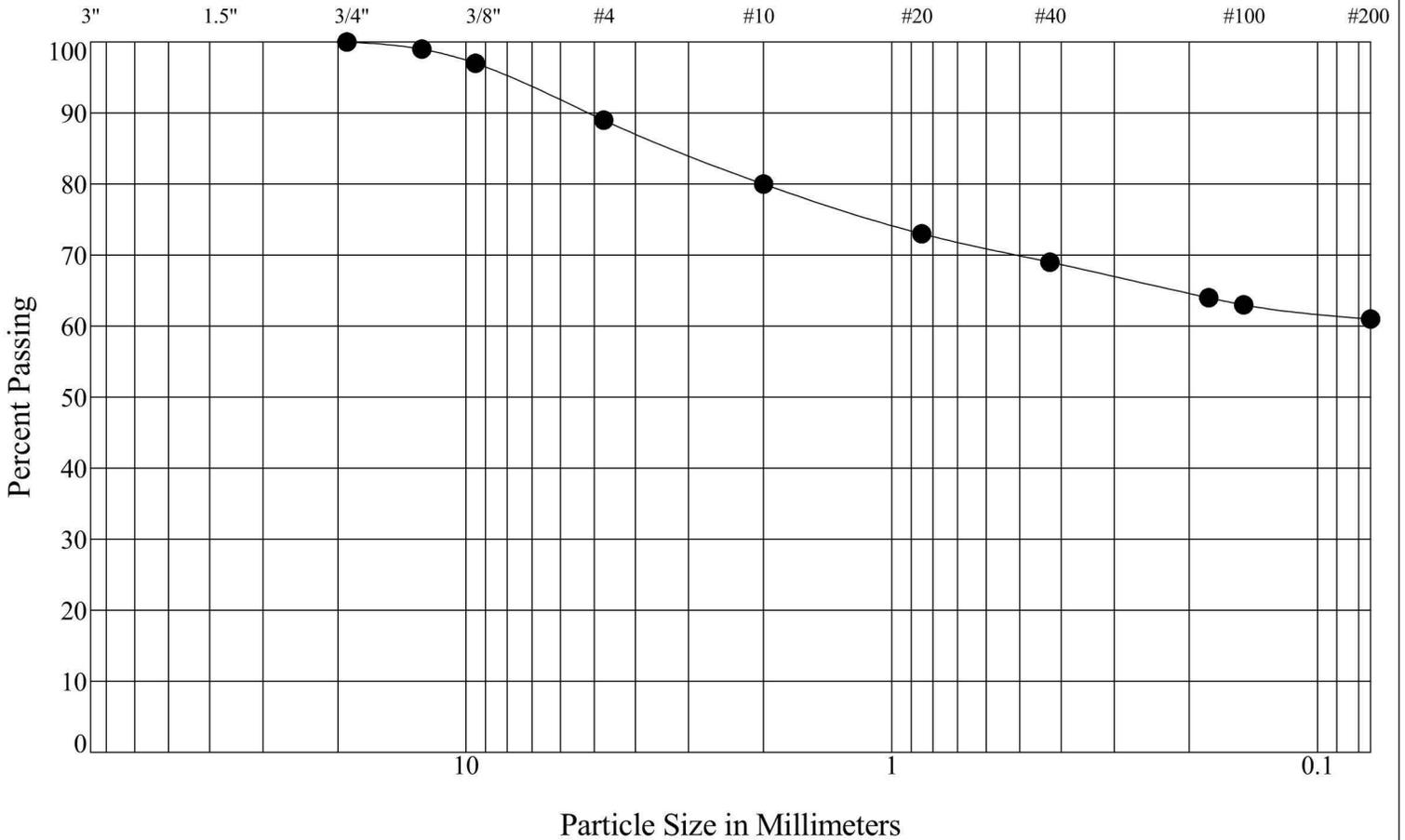
Percent Gravel: 0.0  
 Percent Sand: 10.0  
 Percent Silt + Clay: 90.0  
 ASTM Group Name: LEAN CLAY



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**Sieve Analysis**  
 Project Number: 15-3404L  
 15040

### Sieve Size



Gravel		Sand		
coarse	fine	coarse	medium	fine

#### Percent Passing U.S. Standard Sieve Size

3"	1 1/2"	3/4"	3/8"	#4	#10	#20	#40	#80	#100	#200
		100	97	89	80	73	69	64	63	61

Boring No.: TP-8/U-3  
 Sample No.: TW  
 Depth: 5.2-6.2 ft.

Date Received: 10/23/2015

Liquid Limit: 28

Plastic Limit: 20

Plasticity Index: 8

Classification: CL

Moisture Content: 14.1%

Percent Gravel: 11.0  
 Percent Sand: 28.0  
 Percent Silt + Clay: 61.0  
 ASTM Group Name: SANDY LEAN CLAY



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**Sieve Analysis**  
 Project Number: 15-3404L  
 15040

# Controlling curling and cracking in floors to receive coverings

Do you worry about excessive cracking or curling in concrete floor slabs placed directly on a vapor retarder? Here are some hints on using reinforcing steel to minimize these defects and avoid floor-covering failures.

BY JERRY A. HOLLAND AND WAYNE WALKER

**B**ecause of an increasing number of moisture-related floor-covering failures in the past several years, some designers now recommend eliminating the granular blotter layer that's often used between the concrete and the vapor retarder or vapor barrier. Though a blotter layer offers several advantages, it can hold water from many possible sources and cause problems if the floor will receive moisture-sensitive coverings such as sheet vinyl, rubber, wood or similar materials (see reference).

Many designers, however, are reluctant to place concrete directly on a vapor retarder because they fear the floor slab will curl or crack excessively. These defects also can cause floor-covering failures that, in some cases, require remedial work after the building is in service. However, with the correct positioning and amount of reinforcing steel, both curling and cracking can be controlled.

## Positioning is key

Cracks in a slab-on-grade floor surface are wider at the top than at the bottom. For the best crack control, then, you want the reinforcing steel to be as close to the surface as possible. And you must be able to



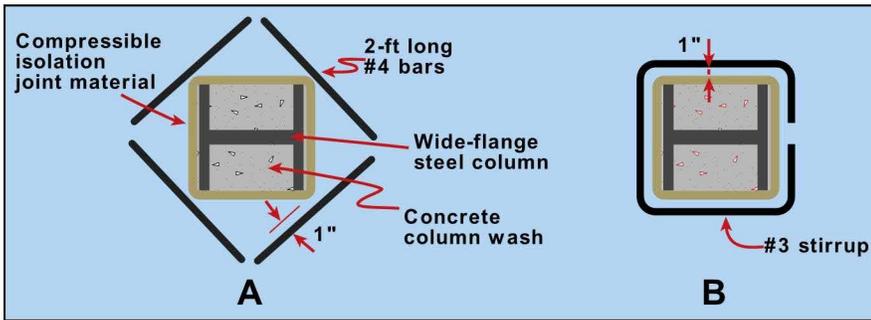
Rebar in concrete slabs placed directly on a vapor retarder help to control slab curling and cracking. Use supported deformed bars no smaller than #4, and space the bars far enough apart so workers can step between them.

control the location of the steel so it doesn't change during floor construction. Because of this, I prefer to use supported deformed bars no smaller than #4 instead of light-gauge mesh. Smaller-diameter bars are too limber, requiring too many bar supports, and light-gauge mesh is difficult to keep in the correct location.

For a 5-inch-thick floor slab, I prefer to use #4 bars near the top with 1 inch of clear cover, or #5 bars with 1½ inches of clear cover. For #5 bars,

greater cover depth is needed to control plastic settlement cracking over the bar.

Typically, I specify #4 bars spaced 18 inches on center both ways. This amount of steel holds crack faces together tightly enough for nonrigid floor coverings by maintaining aggregate interlock and significantly reducing slab curling. In some instances, closer spacing or larger-diameter bars may be needed. Constructability becomes an issue when bar spacing is so close that workers



Eliminate the normal isolation-joint box outs at wide-flange steel columns by wrapping the column with compressible material and using 2-foot lengths of #4 bars (A) to control cracking at the reentrant corners. To speed up steel placement at the columns, have the rebar supplier fabricate continuous #3 stirrups that workers can easily bend open to fit around the column (B). In either case, the steel should be positioned with a top-and-side clear cover of 1 inch.

can't step into openings between bars. Then larger-diameter bars may be the better choice.

## Eliminate joints

Because the reinforcing steel limits crack width, I prefer to eliminate contraction joints and the traditional diamond-shaped isolation joints at columns when floors will receive a covering. I suggest wrapping wide-flange steel columns for the full floor depth with  $\frac{1}{8}$ - to  $\frac{1}{4}$ -inch-thick compressible isolation-joint material. For floors receiving coverings that won't tolerate wide cracks, such as ceramic tile, I also suggest placing four 2-foot-long #4 bars near the floor surface, with a top-and-side clear cover of 1 inch to control reentrant-corner cracking (Fig. A). As an alternative, the rebar supplier can fabricate #3 bars as a continuous stirrup that can easily be bent open so the ironworker can fit it around the column (Fig. B). This speeds placement of the steel when there are many columns to be treated. The stirrups also should have a 1-inch top-and-side clear cover.

Carpeting or other floor coverings can tolerate larger crack widths in the concrete subfloor without noticeable distress. When these coverings are used, crack-control measures at columns may not be needed. Simply wrap the columns to isolate them from the slab.

## Construction considerations

Some designers use an upper and lower layer of reinforcing steel in the slab to control cracking at both the top and bottom. However, bottom-crack width doesn't affect floor-covering performance. And some of the advantages of these double layers of rebar are offset by placement difficulties; workers spreading the concrete have trouble stepping around the rebar and may displace it during concrete placement.

If the concrete is tailgated or struck off by a self-propelled laser-guided screed, ironworkers can lay out a single layer of steel on the vapor retarder and chair it up as concrete placement and strike-off proceeds. To prevent damage to the vapor retarder, workers can lay down thin sheets of plywood or several folds of plastic sheeting beneath the tires of the concrete truck or the screed. These materials are then moved back as the pour proceeds. The same procedure will help prevent damage to the vapor retarder if motorized buggies are used to place the concrete.

If the concrete is placed by pump or conveyor, all the steel can be chaired up before the pour begins, provided there's enough space between the rebar for workers' feet. If control of crack width requires rebar spacings of a foot or less both ways, I

sometimes require placement of a heavy-gauge welded-wire fabric (4x4-inch spacing of 4-gauge wire) on top of the bars. Workers can easily walk on this mesh without sinking into the concrete or twisting their ankles. The closely spaced mesh wires improve crack control, and the material cost is about the same because you can reduce the rebar diameter and maintain about the same steel cross-sectional area.

## Weighing the costs

Although controlling curling and cracking by using rebar in the way I've described increases project costs by requiring more than the normal amount of steel, part of this cost increase is offset by savings in other areas. You eliminate the costs associated with overexcavation to accommodate the blotter-layer thickness and for purchasing, placing and compacting the granular material used for the layer. You also save money because workers don't have to cut contraction joints and fill them with a sealant. Nor do they have to form and strip column box outs and place the in-fill concrete later.

Use of a blotter layer is still a viable alternative for controlling curling and cracking. But if the floor will receive a moisture-sensitive floor covering and the blotter layer picks up excessive moisture before, during or after floor construction, a flooring failure is likely. The cost of correcting the failure almost always will be much higher than the cost of using more reinforcing steel. 🏗️

Jerry A. Holland is structural engineering consultant and Wayne Walker is senior structural engineer for Lockwood Greene Engineers Inc., Atlanta. Holland has more than 30 years of experience and Walker has 20 years of experience designing and troubleshooting concrete slabs on grade.

## Reference

Bruce A. Suprenant and Ward R. Malisch, "Where to Locate the Vapor Retarder," *Concrete Construction*, May 1998, pp. 427-433.

# Where to place the vapor retarder

**For slabs on grade, should the vapor retarder be located under a granular layer or directly under the concrete? Here are the pros and cons of each location.**

BY BRUCE A. SUPRENANT AND WARD R. MALISCH

In the real estate industry, location is everything. The importance of location also applies to a hotly debated topic in the concrete industry—where to place the vapor retarder (or vapor barrier) for slabs on grade. Some specifiers require concrete to be placed directly on the vapor retarder, and others require placement of a granular blotter layer between the concrete and the vapor retarder. Advocates of each option argue that their preference results in a better concrete slab.

Like all engineering decisions, the location of a vapor retarder often is a compromise between minimizing water-vapor movement through the slab and providing the desired short- and long-term concrete properties. However, specifiers must consider the benefits and liabilities of the choice they make.

## The case for a granular layer

Finishers prefer concrete placed on a granular base because the base absorbs mix water, shortens the bleeding period and allows floating to start earlier. Australian researchers noted that 4½-inch-slump concrete placed on a granular base lost its bleedwater sheen about two hours

faster than the same concrete placed directly on a vapor barrier (Ref. 1).

Base conditions also affect concrete stiffening. In tests performed by The Aberdeen Group, 2½-inch-slump concrete was used for two 4x4-foot, 4-inch-thick slabs. One slab was placed directly on a vapor re-

tarder and the other on a crushed-stone base. Technicians periodically set a steel-shot-filled rubber boot weighing 75 pounds on the surface and measured the footprint indentation (Fig. 1). Concrete on the stone base had stiffened enough after 90 minutes to allow a ¼-inch footprint



Figure 1. Concrete is generally considered to be ready for floating when finishers leave a ¼-inch-deep footprint in the surface. Using a boot filled with steel shot (inset) to produce footprints, we found that 2½-inch-slump concrete placed on a stone base was ready for floating about 45 minutes earlier than the same concrete placed directly on a vapor retarder.

indentation, an indication that floating could begin. Concrete placed directly on the vapor retarder required 45 more minutes of stiffening time before it was ready for floating.

Specifiers who require a granular blotter layer cite additional benefits, saying there is less chance of :

- Puncturing the vapor retarder
- Surface blistering or delaminations caused by an extended bleeding period
- Settlement cracking over reinforcing steel
- Slab curling during drying
- Cracking caused by plastic or drying shrinkage

Many specifiers recommend a 3- or 4-inch-thick layer of trimmable, compactible, self-draining granular fill for the blotter layer. Although concrete sand is sometimes recommended, it doesn't provide a stable working platform. Concrete placement and workers walking on the sand can disturb the surface enough to cause irregular floor thickness and create sand lenses in the concrete.

### The case for placing concrete on a vapor retarder

Floor-covering contractors prefer to install their products on concrete slabs that are placed directly on a vapor retarder. If the vapor retarder effectively reduces moisture inflow from external sources, only water in the concrete pores must exit the slab. They believe the often-required vapor-emission rate of 3 pounds/1,000 square feet/24 hours is achieved faster under these conditions. They also believe the uncovered vapor retarder acts as a slip sheet, reducing slab restraint and thus reducing random cracking.

Placing concrete directly on a vapor retarder also eliminates a potential water reservoir that's created when using a blotter layer. Because more subgrade soil must be removed to accommodate the additional 3- to 4-inch-thick blotter layer, the layer is more likely to be placed below finished-grade level, thus increasing the chance of its holding water.

Specifiers who require concrete to

**Table 1. Amount of water in granular layer per 1,000 square feet of floor\***

Layer thickness	Water absorbed	Water in voids	Total water
2 in.	220 lbs	2,080 lbs	2,300 lbs
3 in.	330 lbs	3,120 lbs	3,450 lbs
4 in.	440 lbs	4,160 lbs	4,600 lbs

\*Well-graded, compactible granular-base material with assumed density of 130 pounds per cubic foot, 1% absorption capacity and 20% voids. A 7% to 8% moisture content would normally be needed to achieve the compaction density typically required.

be placed directly on the vapor retarder cite these additional advantages:

- Reduced costs because of less excavation and no need for additional granular material
- Better curing of the slab bottom, since the vapor retarder minimizes moisture loss
- Less chance of floor moisture problems caused by water being trapped in the granular layer
- Less radon-gas infiltration

These specifiers recommend using a low water-cement-ratio concrete and water-reducing admixtures to reduce bleeding, shrinkage and curling of concrete placed directly on the vapor retarder. They believe the higher-quality concrete and better curing reduces cracking and produces a better floor.

### Granular layer as a water reservoir

When a low-permeability floor covering will be installed on a concrete floor, special care is needed during construction to control moisture content of the subgrade, sub-base or granular layer (if used over the vapor retarder). It's best to place the floor after the building is enclosed and the roof is watertight. On many projects, however, this isn't possible, and the granular layer can become a water reservoir.

Water sources and access points. To provide unrestricted floor access for construction activities such as

tilt-up panel forming and casting, columns sometimes aren't erected and column blockouts aren't filled until months after floor placement. But rainwater can enter column blockouts that are left open. It can also penetrate joints and cracks, utility penetrations or open closure strips, and increase the moisture content of the subgrade, capillary break or granular layer.

Excessive sprinkling of a granular layer before concrete placement can create a moisture reservoir that will delay drying of the concrete floor. ACI 302.1R-96 (Ref. 2) recommends that the base be dry at the time of concreting unless severe drying conditions exist.

Wet-curing methods such as ponding or continuous sprinkling allow water to enter joints, cracks and other openings, again contributing to a higher than necessary moisture content beneath the floor slab.

Water from construction operations on a newly placed slab also can increase the granular-layer moisture content by entering joints, cracks or slab openings. Such operations include joint sawing, abrasive wet blasting or wet grinding, which may be needed to achieve a flatter floor profile. Sometimes power washing is used to clean debris or other contaminants from the floor.

Most slabs are constructed using a strip-placement sequence that leaves the granular layer exposed to rainwater in uncompleted portions of

the slab. Rollings (Ref. 3) determined that a tile-floor failure was caused by rainwater accumulating in a 3-inch-thick sand layer placed between a 5-inch-thick concrete slab and a polyethylene vapor retarder. One portion of the slab had been left uncompleted for an extended period, exposing the sand layer to prolonged rain and turning it into a reservoir of trapped water.

Water capacity of the granular layer. Table 1 shows the maximum amount of water that can be held in a layer of well-graded, compactible granular-base-course material of various thicknesses. If the floor concrete contained 250 pounds of mix water per cubic yard, 1,000 square feet of 6-inch-thick floor would contain 4,630 pounds of mix water. As shown in Table 1, a 4-inch-thick granular layer under the floor can contain about the same amount of water. And if sand or other high-void-content granular materials are used, the water capacity is much higher.

If the 250 pounds of mix water are used in concrete with a water-cement ratio of 0.50, about 100 pounds of the water will be free water that must evaporate as the floor dries (Ref. 4). Thus a 6-inch-thick, 1,000-square-foot floor slab would hold 1,850 pounds of free (evaporable) water.

Based on Brewer's work (Ref. 5), it would take about 82 days, or roughly three months, for enough free water to evaporate and produce a water-vapor emission rate of 3 lbs/1,000 sf/24 hours. A saturated 2-inch-thick granular layer would need to lose as much water as the concrete. And the water in the layer must move through the concrete. Thus it's likely that a 2-inch-thick saturated, well-graded granular layer could double the time required for the slab vapor-emission rate to reach 3 lbs/1,000 sf/24 hrs. It could even prevent the slab from ever reaching that emission rate.

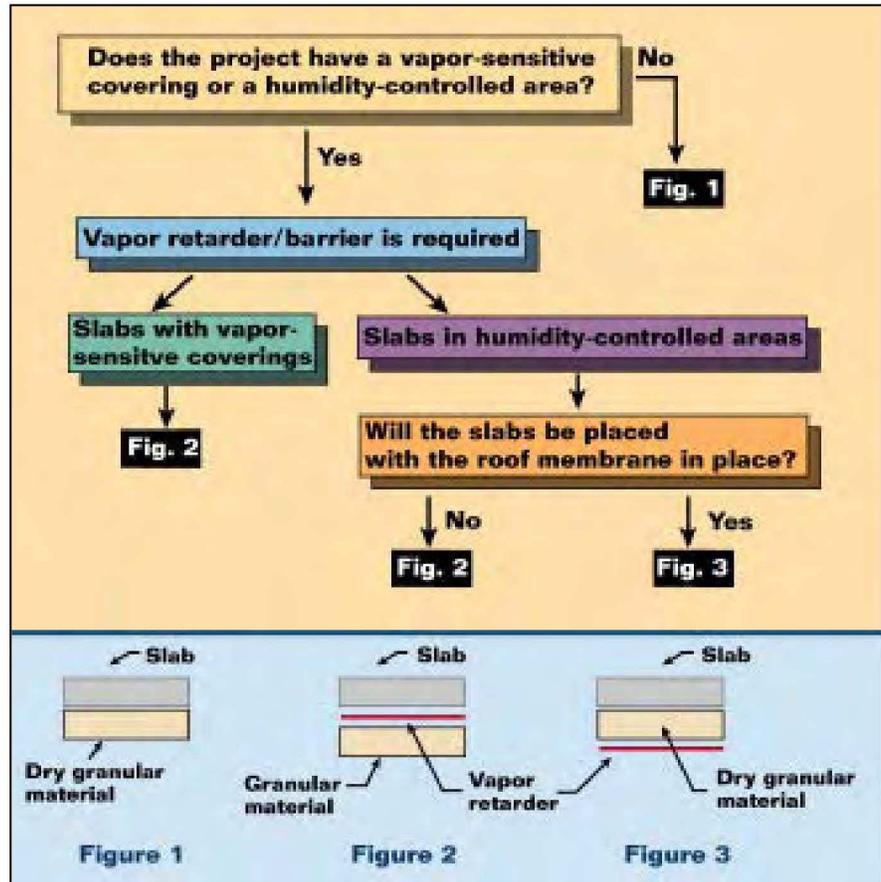


Figure 2. This flow chart helps designers decide if a vapor retarder or barrier is needed and where it should be placed.

### Weighing the alternatives

Consulting engineers Jerry Holland and Wayne Walker, Lockwood-Greene Engineers, Atlanta, have developed a flow chart to help designers decide if a vapor retarder is required and, if so, where to place it (Fig. 2).

The chart gives designers the following three options based on the floor's in-service environment and the presence or absence of a vapor-sensitive floor covering:

- Use no vapor retarder
- Use a vapor retarder directly below the slab
- Sandwich a granular layer between the vapor retarder and the slab

ACI Committee 360 is considering inclusion of the flow chart in ACI 360R, *Design of Slabs on Grade*. Because curling is a major concern when concrete is placed directly on the vapor retarder or barrier, notes

in the flow chart will provide suggested design options for minimizing curling effects.

### Establishing responsibility for moisture-related floor problems

Consider the following scenario based on a concrete subcontractor's actual experience. The subcontractor places and finishes a concrete floor. Flatness and levelness measurements show specification compliance, and test reports indicate the 28-day compressive strength is acceptable. He leaves the job and submits his bill.

Two months later, he's called back by the general contractor. Rainwater has penetrated the slab, which has curled. The floor-covering contractor is concerned about high water-vapor emission rates, and the general contractor worries that the required slab drying time will delay project completion.

The concrete subcontractor is being held responsible for:

- Curling, even though floor flatness met specifications when measured within 72 hours after concrete placement as required by ACI 117-90, *Standard Specification for Tolerances for Concrete Construction and Materials*
- Protecting the slab from external moisture, even though he has completed all the concrete work and is no longer at the site
- Water-vapor emissions from the slab, even though the general contractor followed specification requirements by placing a granular layer over a vapor retarder
- Delays in completion of the project due to these problems

Sound familiar? On this project, the floor contractor returned at his own expense to grind the slabs and minimize curl. Luckily, he was able to convince the design team that the other issues were not his responsibility.

All of these issues should be resolved with the general contractor,

design team and owner *before* the slab is placed. Concrete subcontractors should be held responsible for flatness and levelness within the time frame designated by ACI tolerance standards, but not longer. General contractors should be responsible for protecting the slab from external moisture. Only they can coordinate and direct the services of the roofer, excavator and other subcontractors who can help to minimize moisture infiltration. And, unlike the concrete subcontractor, the general is on the project from start to finish.

Concrete subcontractors need to resolve these issues at prepour planning meetings. If they don't, they had better be prepared for the phone call telling them they're responsible for fixing problems caused by rain-water infiltration. To avoid that call, add the items discussed here to your prepour conference checklist. 🏠

#### **Editor's note**

Discussions, pro and con, for differing vapor-retarder installation op-

tions are also given in ASTM E 1643, *Standard Practice for Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill under Concrete Slabs*.

#### **References**

1. T. Anderson and H. Roper, "Influence of an Impervious Membrane Beneath Concrete Slabs on Grade," Concrete Symposium, Brisbane, Australia, 1977, p. 51.
2. ACI 302.1R-96, *Guide for Concrete Floor and Slab Construction*, American Concrete Institute, Farmington Hills, Mich., February 1997.
3. Raymond S. Rollings, "Retail-Grocery — Floor Failure," *Journal of the Performance of Constructed Facilities*, American Society of Civil Engineers, Reston, Va., May 1995.
4. Herman G. Protze, III, "Construction of Concrete Slabs-On-Grade: Moisture Emission Problems," *Solving Moisture-Related Problems with Slabs-On-Grade*, Seminar 24-63, World of Concrete 1997.
5. Bruce A. Suprenant, "Moisture Movement through Concrete Slabs," *Concrete Construction*, November 1997, pp. 879-885.

# Don't use loose sand under concrete slabs

**A thin, loose sand layer reduces subgrade support, which can lead to increased slab cracking and poor joint performance**

BY BRUCE A. SUPRENT AND WARD R. MALISCH

Over the past five years, we've received phone calls from contractors who had built floors under which the specifier required a thin sand layer, with no compaction requirement for the sand. The contractors had been called back to repair cracks and joints 6 to 24 months after the slab was placed. The cracks didn't appear to be caused by drying shrinkage, and the joints were showing more than normal deterioration.

The problems occurred primarily in slabs subjected to forklift traffic.

The contractors were being held responsible for the repair costs, and they asked, "Is it possible that the sand layer reduces subgrade or subbase support, causing cracking and poor joint performance, especially under repeated loading such as forklift traffic?"



Figure 1. A technician applies load to a compacted soil specimen in a CBR mold. Specimens were loaded with and without sand layers to determine the effect of differing sand-layer thicknesses.

**Table 1 Soil sample properties**

Soil sample	Dry density (pcf)/ moisture content (%)			Compaction test (standard Proctor) Density/ moisture	Soil classification
	No sand	1-in. sand	2-in. sand		
1A	100.1/19.2	99.8/19.6	100.6/19.0	104.9 pcf/19.5%	SC: A-6(5)
1B	100.1/19.7	99.7/19.8	99.8/19.6		
2A	109.5/14.5	109.5/14.5	109.8/14.4	115.0 pcf/14.7%	SC: A-6(3)
2B	109.3/14.6	109.5/14.6	109.4/14.7		
3A	125.4/8.9	125.1/9.1	125.7/9.1	131.9 pcf/9.1%	SC: A-2-4(0)
3B	125.2/9.0	125.1/9.2	125.3/9.0		

*The soil is a sand with silty clay and a trace of gravel. The SC is a sand-plastic fines soil classification based on the Unified Soil Classification System. The A-soil classification system is based on the AASHTO soil classification system.*

We developed a testing program to gather data that could help answer this question.

### Testing subgrade support

To assess the effect of a thin, loose sand layer on subgrade support, we performed duplicate California Bearing Ratio tests (see “What’s a CBR Test”) using three soil samples with varying dry densities. Each test specimen was tested with no sand, a 1-inch sand layer and a 2-inch sand layer. In addition, we placed 1- and 2-inch sand layers over a steel base and tested that combination to show how the sand would affect subgrade support over a very stiff base.

To start the test, a technician placed the soil into a 6-inch-diameter cylinder mold and compacted it. After compaction, he removed the top extension collar and trimmed the soil to a 4½-inch height. He then inverted the mold and added a 10-pound surcharge weight to the top

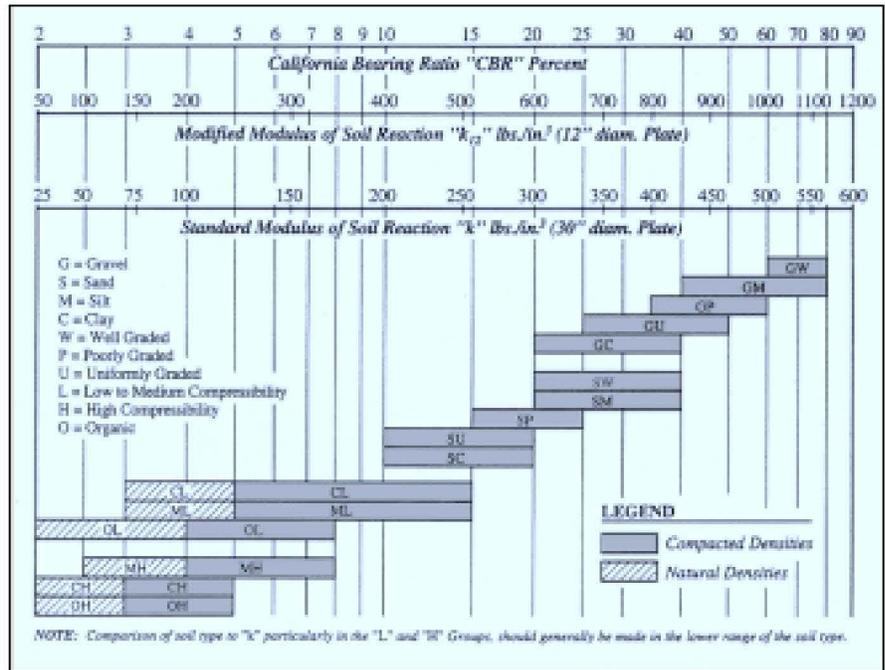


Figure 2. Interrelationships of CBR, k-values and soil classification (from Ref. 2).

surface. Consisting of steel discs with holes in the center to accom-

Soil sample	CBR value, %		
	No sand	1-in. sand	2-in. sand
1A	4.0	2.6	1.0
1B	4.0	3.1	2.1
Average	4.0	2.9	1.6
% of no-sand value	100	73	40
2A	8.1	6.3	4.9
2B	8.0	5.6	3.9
Average	8.1	6.0	4.4
% of no-sand value	100	74	54
3A	11.4	4.6	2.5
3B	11.5	4.8	2.6
Average	11.5	4.7	2.6
% of no-sand value	100	41	23
Steel base - A	100*	5.2	2.5
Steel base - B	100	4.9	2.6
Average	100	5.1	2.6
% of no-sand value	100	5.1	2.6

\* Not tested; maximum CBR is 100.

### What's a CBR test?

• • • • •

The California Bearing Ratio test, described in ASTM D 1883 (Ref. 1), is a penetration test commonly used to evaluate the potential strength of subgrade, subbase and base course material. To perform the test, a technician uses a cylindrical piston with a 3-square-inch cross section to penetrate the soil at a rate of 0.05 inch per minute. At each 0.1 inch penetration up to 0.5 inch, the technician records the stress needed to push the piston into the soil. The CBR value is the ratio of this stress at different penetration levels to the bearing value of a standard crushed rock. In most cases, CBR decreases as the penetration increases, so the ratio at 0.1-inch penetration is used as the recorded CBR value. Sometimes designers use this value to choose an appropriate slab thickness for anticipated loadings.

modate the piston, the surcharge weight is nearly equivalent to that of a 4½-inch-thick concrete slab. At this point in the test, it's possible to include a four-day wet soaking period. However, we omitted this step since we weren't interested in the CBR of a wet subgrade.

The soil specimen contained in the mold and loaded by the surcharge weights was placed in a testing machine (Fig. 1) that applied load to the piston. A technician measured load and piston penetration distances and used the resulting stress-vs.-penetration curve to compute the CBR values.

To measure the sand-layer effect, the technician placed loose concrete sand in the mold to completely and uniformly cover the compacted subgrade to a depth of 1 or 2 inches. For the steel base used to simulate a stiff base, the technician placed loose

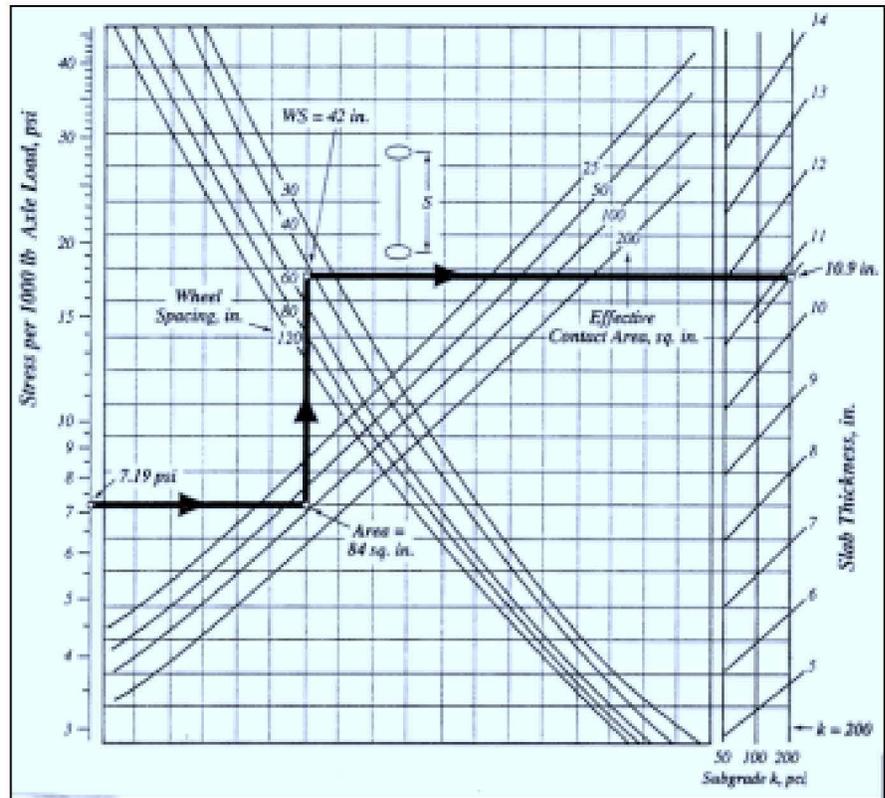


Figure 3. The example in this chart shows that decreasing the k-value from 200 to 50 increases the required slab thickness about an inch. For lighter loadings that yield a thinner slab, the same k-value reduction would still increase thickness about an inch.

sand over the base and added the surcharge weights before applying load to the piston.

The density and moisture content of the compacted specimens also were determined. A comparison of standard Proctor dry-density values shown in Table 1 with the dry densities of the soil samples, also given in the table, shows that all the CBR specimens reached about 95% compaction. Great care was exercised in making sure that the compacted density for a set of specimens was essentially the same. Thus, any measured changes in CBR value would be the result of the presence of a sand layer and not a change in specimen density.

For all the soil samples tested, CBR values decreased dramatically when a thin layer of loose sand was placed over the compacted sample

**Table 3** Effect of sand layer on k-values\*

Soil sample	No sand	1-in. sand	2-in. sand
1A	100	50	10**
1B	100	75	25
Average	100	63	18**
% of no-sand value	100	63	18
2A	175	145	125
2B	175	135	100
Average	175	140	113
% of no-sand value	100	80	64
3A	210	125	50
3B	210	125	50
Average	210	125	50
% of no-sand value	100	60	24
Steel base - A	650**	125	50
Steel base - B	650	125	50
Average	650	125	50
% of no-sand value	100	19	8

\*The k-value is a modulus of soil reaction in lbs/in.<sup>3</sup> for a 30-inch-diameter plate and was estimated using the CBR values shown in Table 2.

\*\* Off the chart. In Figure 2, minimum k-value is 25 and maximum is 600. Since a CBR of 100 is possible, a k-value of 650 was estimated.

(Table 2). The decrease was especially large for the sand layer placed over the steel base. For soil sample No. 1 (lowest density), the 1-inch and 2-inch sand layers decreased CBR values to 73% and 40% of the original values, respectively. For sample No. 3 (highest density), the CBR decreases were to 41% and 23% of the original values.

The CBR values for sand layers placed over a steel base provided an interesting comparison. Percentage loss in CBR was very high, but the raw CBR values appear to show that the highest-density soil provided almost as stiff a base as the steel when

a sand layer was added. The CBR values for the lowest-density soil with a sand layer are lower, which is understandable given the weaker subgrade support. The CBR values for soil sample No. 2 don't follow this pattern, and we don't know whether this was the result of soil or sand variability or the variability of the test itself. The steel-base values do seem to indicate that if a designer uses a sand layer, the maximum CBR values he could reasonably expect to attain are about 5 and 2.5 for a 1- or 2-inch-thick layer, respectively.

### Slab design: Using

### loose sand requires more concrete

CBR values are sometimes used by floor designers to estimate the modulus of soil reaction (lbs/in.<sup>3</sup>), or k-value. Using Figure 2, we converted the CBR values from our study to k-values, as shown in Table 3. The k-values are used in slab-thickness design charts to represent the support of the underlying subgrade-subbase combination.

Figure 3 is a design chart from the Portland Cement Association's commonly used slab-on-grade design method. As Table 3 shows, the estimated k-value for soil sample No. 3 decreased from 210 to 50 when a 2-inch sand layer was used. The example problem shown on the chart illustrates the effect of this decrease. For a k of 200, the design slab thickness is about 11 inches, but for a k of 50 it increases to 12 inches (see Reference 3 for the complete example). For lighter loadings that yield thinner slabs, required thickness would still increase by about an inch for a k-value decrease from 200 to 50. For soil sample No. 1, the average k-value with a 2-inch sand layer is 18, which is lower than the lowest value (50) on the design chart.

What's the significance of an extra inch of concrete floor thickness? A value-engineering audit for a floor design sometimes results in slab-thickness decreases as small as 1/2 inch. Increasing the thickness of a 100,000-square-foot warehouse floor slab by 1 inch would cost about \$20,000. The cost of the extra concrete (more than 300 cubic yards) would be about equal to what the concrete floor contractor would be paid for placing and finishing.

What happens if the concrete slab is designed without considering the effect of the sand layer? Based on the design charts and other information (Refs. 2 and 3) for the example shown in Figure 3, the use of a loose sand layer that decreases the k-value from 200 to 50 would result in:

- A flexural stress increase of 25%
- A safety factor decrease from 2.0

### Reasons to avoid using sand

There are many reasons for not placing a sand layer under a concrete slab (Ref. 1). These include difficulty in:

- Maintaining a flat, level sand surface during concrete placement
- Maintaining the specified reinforcing steel or dowel basket elevation due to sinking chair supports
- Producing a uniform slab thickness due to shifting sand displaced by concrete

In addition, one engineer (Ref. 2) has linked a sand layer to poor joint performance. He found that under forklift traffic, shifting sand beneath the joint resulted in reduced load-transfer efficiency across the joint. This was especially true at joints where aggregate interlock was the only means of load transfer.

ACI 302.1R-96 (Ref. 3) also discourages the use of a sand layer: "Base material should be a compactible, easy-to-trim, granular fill that will remain stable and support construction traffic. The use of so-called cushion sand or clean sand with uniform particle size, such as concrete sand meeting ASTM C 33, will not be adequate.

This type of sand will be difficult, if not impossible, to compact and maintain until concrete placement is complete."

In revising its "Concrete In Practice" series, the National Ready Mixed Concrete Association is eliminating references to a sand layer and using ACI 302 terminology for base material. But specifiers still call for sand cushions, and some articles and publications still suggest using a sand layer under a concrete slab (Refs. 4 and 5).

#### References

1. Carl Bimel, "No Sand, Please," *The Construction Specifier*, June 1995, p. 26.
2. William J. Brickley, "Try Crushed Stone Under Slabs-on-Grade," *The Construction Specifier*, July 1990, p. 9.
3. ACI 302.1R-96, "Guide for Concrete Floor and Slab Construction," American Concrete Institute, Farmington Hills, Mich., 1996, p. 16.
4. "Concrete Slab Surface Defects: Causes, Prevention, Repair," Portland Cement Association, Skokie, Ill., 1987, pp. 4, 7, 10.
5. Gregory Dobson, "Concrete Floor Slabs: Recognizing Problems Before They Happen," *Concrete International*, June 1995, p. 46.

to 1.6

- An actual flexural stress that exceeds the fatigue limit, meaning that floor failure would now be determined by load repetitions rather than maximum load
- Failure at 14,000 load repetitions, though the floor was designed for an unlimited number of load repetitions

When specifiers require contractors to place concrete over a sand layer, the contractors don't know if the designer has increased the slab thickness to account for the weaker sand-layer support shown by our data. If the slab thickness wasn't increased, more later-age cracking and poorer joint performance may result, especially for slabs subjected to

heavy construction loads, such as cranes or concrete trucks.

There are many good reasons for not using a sand layer under a concrete slab (see sidebar). If specifications call for a sand layer, contractors should discuss the implications with the architect and engineer before the project begins, and request that the sand layer be replaced with a compactible stone base. Based on our data, repair costs for slabs placed on thicker sand layers shouldn't necessarily be borne by the contractor.



#### References

1. ASTM D 1883-92 "Standard Test Method for CBR (California Bearing Ratio) of Laboratory-Compacted Soils,"

ASTM, West Conshohocken, Pa., 1992.

2. Boyd C. Ringo and Robert B. Andersen, *Designing Floor Slabs on Grade*, 2nd ed., The Aberdeen Group, 1996.

3. ACI 360R-92, "Design of Slabs on Grade," American Concrete Institute, Farmington Hills, Mich., 1997.

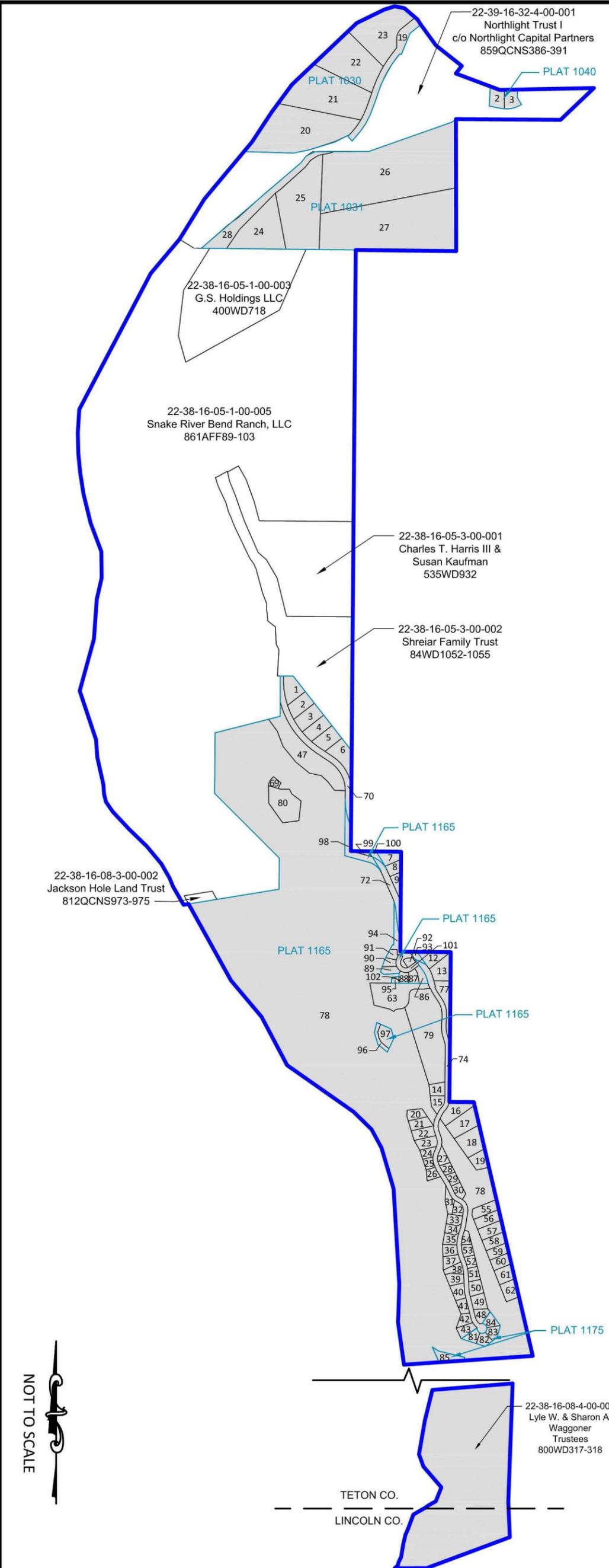
#### Acknowledgment

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1165	63	22-38-16-08-4-01-063	SRS CLUB, LLC	885 QCNS 1079-81
1165	69	22-38-16-08-1-01-069	SRS CLUB, LLC	885 QCNS 1079-81
1165	70	22-38-16-08-1-01-070	SNAKE RIVER SPORTING CLUB INC. C/O CYGNUS SRSC NOTES, LLC	891 WDNS 914-915
1165	72	22-38-16-08-4-01-072	SNAKE RIVER SPORTING CLUB INC. C/O CYGNUS SRSC NOTES, LLC	891 WDNS 914-915
1165	74	22-38-16-08-4-01-074	SNAKE RIVER SPORTING CLUB INC. C/O CYGNUS SRSC NOTES, LLC	891 WDNS 914-915
1165	77	22-38-16-08-4-01-077	SRS CLUB, LLC	885 QCNS 1079-81
1165	78	22-38-16-08-4-01-078	SRS CLUB, LLC	885 QCNS 1079-81
1165	79	22-38-16-08-4-01-079	SRS CLUB, LLC	885 QCNS 1079-81
1165	80	22-38-16-08-1-01-080	SRS CLUB, LLC	885 QCNS 1079-81
1175	81	22-38-16-16-3-02-001	SNAKE RIVER SPORTING PARTNERS, LLC C/O STEPHEN C. SCHRAM	667 SWD 1004-05
1175	82	22-38-16-16-3-02-002	CYGNUS CAPITAL, INC.	857 QCNS 713
1175	83	22-38-16-16-3-02-003	SSP PARTNERS, LLC C/O STEVE SCHRAM	633 WD 219-220
1175	84	22-38-16-16-3-02-004	SNAKE RIVER SPORTING PARTNERS, LLC C/O STEPHEN C. SCHRAM	667 SWD 1004-05
1175	85	22-38-16-16-3-02-005	SNAKE RIVER SPORTING PARTNERS, LLC C/O STEPHEN C. SCHRAM	667 SWD 1004-05
1195	86	22-38-16-08-4-02-001	KLARE LIVING TRUST	877 WD 108
1195	87	22-38-16-08-4-02-002	GOMEZ, RICHARD L.	871 SWD 838
1195	88	22-38-16-08-4-02-003	OLSON, DAVID D. TRUSTEE	878 WD 472
1195	89	22-38-16-08-4-02-004	HIRSCH, P. THOMAS & CYNTHIA S.	696 SWD 568-569
1195	90	22-38-16-08-4-02-005	O'NEIL, WILLIAM E. & JANET M.	823 SWD 257-258
1195	91	22-38-16-08-4-02-006	PROEHEL, ROBERT W. & GENOWFA MARTA	882 WD 1038-39
1195	92	22-38-16-08-4-02-007	SB PARTNERS, LLC	698 WD 1118-19
1195	93	22-38-16-08-4-02-008	SNAKE RIVER SPORTING CLUB INC. C/O CYGNUS SRSC NOTES, LLC	862 AFF 847-854
1195	94	22-38-16-08-4-02-009	SRS CLUB, LLC	885 QCNS 1079-81
1195	95	22-38-16-08-4-02-010	SRS CLUB, LLC	885 QCNS 1079-81
1195	96	22-38-16-08-4-02-011	SRS CLUB, LLC	885 QCNS 1079-81
1195	97	22-38-16-08-4-02-012	SRS CLUB, LLC	885 QCNS 1079-81
1195	98	22-38-16-08-1-02-001	SRS CLUB, LLC	885 QCNS 1079-81
1195	99	22-38-16-08-4-02-013	SRS CLUB, LLC	885 QCNS 1079-81
1195	100	22-38-16-08-4-02-014	SNAKE RIVER SPORTING CLUB INC. C/O CYGNUS SRSC NOTES, LLC	862 AFF 847-854
1195	101	22-38-16-08-4-02-015	SNAKE RIVER SPORTING CLUB INC. C/O CYGNUS SRSC NOTES, LLC	862 AFF 847-854
1195	102	22-38-16-08-4-02-016	SRS CLUB, LLC	885 QCNS 1079-81

NOT TO SCALE

SHEET 1 of 1	PROJECT NUMBER 15040	DATE 12/23/2015	PLAN VERSION PRELIMINARY	DRAFTED BY: ALB	SHEET TITLE: <b>PROPOSED I.S.D. LINCOLN COUNTY &amp; TETON COUNTY, WYOMING</b>	PROJECT TITLE: <b>SNAKE RIVER SPORTING CLUB</b>	
				REVIEWED BY:			

**SECTION 8 - FINAL DEVELOPMENT PLAN DRAWING SET 11" X 17' FORMAT**

**LAND USE & ENVIRONMENTAL PROTECTION DISTRICTS**

**ZONE DISTRICT**  
Sub-Area III of the Amended Snake River Canyon Ranch Resort  
Planned Unit Development Planned Resort (PUD-PR)

**ZONE OVERLAY DISTRICT**  
Scenic Resource Overlay (SRO)  
Natural Resource Overlay (NRO)

**PROJECT LAND USE SUMMARY**

PHASE ONE OF SUB-AREA III OF THE AMENDED SNAKE RIVER CANYON RANCH RESORT PLANNED UNIT DEVELOPMENT PLANNED RESORT (PUD-PR) IS PLANNED FOR DEVELOPMENT AS DESCRIBED BELOW:

**THE DEVELOPMENT PROGRAM**

TWELVE (12) SINGLE-FAMILY RESIDENTIAL LOTS ARE PROPOSED FOR DEVELOPMENT BY THIS FINAL DEVELOPMENT PLAN ON THE PORTION OF AREA III DESCRIBED AS LOT 80 OF THE SNAKE RIVER SPORTING CLUB, TETON COUNTY PLAT NO. 1165, RECORDED IN SAID OFFICE. THIS IS DESCRIBED AS PHASE 1A OF THE AREA III DEVELOPMENT. EACH OF THE PROPOSED LOTS WILL CONTAIN 1 UNIT OF THE 62 AVAILABLE UNITS FROM THE AFOREMENTIONED DEVELOPMENT TRANSFER. THE UNIT TYPE OF IS A SINGLE-FAMILY DETACHED RESIDENTIAL LODGING UNIT WHICH CAN BE RENTED SHORT TERM BY-RIGHT. TO MAINTAIN THE ABILITY TO RESPOND TO MARKET DEMAND, THE UNIT TYPES OF THE REMAINING 50 UNITS WILL NOT BE DESIGNATED UNTIL THE DEVELOPMENT OF PHASES 2 THROUGH 6, AS OUTLINED IN THE PHASING PLAN ATTACHED HEREIN.

AS SHOWN ON SHEET L.1 OF THIS DRAWING SET, THIS DEVELOPMENT IS PROPOSED FOR DIVISION INTO DETACHED SINGLE-FAMILY LOTS BY A PLAT SUBSEQUENT TO THE APPLICATION.

THIS FINAL DEVELOPMENT PLAN ALSO PROPOSES THE DEVELOPMENT OF TEN (10) PROVISIONAL CAMPGROUND UNITS. THE PURPOSE OF THE PROPOSED DEVELOPMENT IS TO DEVELOP "DISCOVERY VILLAGE" IN ORDER TO PROVIDE TEMPORARY LODGING FOR PROSPECTIVE BUYERS OF POTENTIAL RESORT PROPERTIES. THIS IS DESCRIBED AS PHASE 1B OF THE AREA III DEVELOPMENT. THIS PHASE WILL BE PRESENT NO LONGER THAN FIVE (5) YEARS AS PER THE MASTER PLAN, OR REPLACED ENTIRELY BY PHASE 6 OF THE AREA III DEVELOPMENT, WHICHEVER COMES FIRST. THIS SUB-PHASE WILL BE LOCATED ON LOTS 2 & 3 OF SNAKE RIVER SPORTING CLUB, PLAT NO. 1165. A BASIC USE PERMIT WAS FILED ON APRIL 19TH FOR THE SAME USE WITH ONLY FOUR UNITS.

THE UNIT TYPE IS CURRENTLY BEING PLANNED AS RECREATIONAL PARK TRAILERS(RPTS) WHICH ARE APPROXIMATELY 400 SQUARE FEET AND BUILT TO STANDARDS OF RECREATIONAL VEHICLE. THE APPLICANT WILL RETAIN THE FLEXIBILITY TO CHANGE THE UNIT TYPE SHOULD ECONOMICS NECESSITATE CHANGE TO ANY OF THE STATED UNIT TYPES WITHIN FOOTNOTE 3 OF SECTION 2.3.C OF THE MASTER PLAN. THESE INCLUDE MOBILE OR MANUFACTURED HOMES, TRADITIONAL CAMPING UNITS, INCLUDING TENTS, AND RECREATIONAL PARK TRAILERS.

**PROJECT AREA SUMMARY**

AREA III OF THE SNAKE RIVER CANYON RANCH RESORT PLANNED UNIT DEVELOPMENT: 18.5 ACRES

This Final Development Plan proposes development in AREA III of the Amended Snake River Canyon Ranch Resort(SRCRR) Planned Unit Development Planned Resort (PUD-PR) within the following described properties:

- Snake River Sporting Club Plat No. 1165, Lot 2 = 1.45 acres
  - Snake River Sporting Club Plat No. 1165, Lot 3 = 1.64 acres
  - Snake River Sporting Club Plat No. 1165, Lot 4 = 1.42 acres
  - Snake River Sporting Club Plat No. 1165, Lot 5 = 1.52 acres
  - Snake River Sporting Club Plat No. 1165, Lot 6 = 1.94 acres
  - Snake River Sporting Club Plat No. 1165, Lot 47 = 6.78 acres
  - Snake River Sporting Club Plat No. 1165, Lot 69 = 0.34 acres
  - Snake River Sporting Club Plat No. 1165, Lot 80 = 3.38 acres
- Area III = total 18.5 acres

**SOURCE OF DATA**

BOUNDARIES SHOWN HEREON DETERMINED FROM A SURVEY PERFORMED BY AND UNDER THE DIRECTION OF WYOMING PROFESSIONAL LAND SURVEYOR NO. 6447 IN 2005, AND FROM DATA OF RECORD IN THE OFFICE OF THE CLERK OF TETON COUNTY, WYOMING.

GROUND FEATURES AND TOPOGRAPHY BASED ON A SURVEYS PERFORMED BY AND UNDER THE DIRECTION OF WYOMING PROFESSIONAL LAND SURVEYOR NO. 6447 IN 2007, 2008, 2015, AND 2016.

**GENERAL NOTES**

ON SEPTEMBER 17, 2015, THE TETON COUNTY BOARD OF COMMISSIONERS APPROVED AN AMENDMENT TO THE SNAKE RIVER CANYON RANCH RESORT PLANNED UNIT DEVELOPMENT PLANNED RESORT (PUD-PR)(PUD2015-0002), A TEXT AMENDMENT (AMD2015-0003) TO THE TETON COUNTY LAND DEVELOPMENT REGULATIONS(LDRS) AND ZONING MAP AMENDMENT (ZMA2015-0002). THESE APPROVALS RESULTED IN THE REMOVAL OF APPROXIMATELY 95 ACRES OF LAND WITHIN THE RESORT PUD-PR, AND THE REZONING OF THE REMOVED ACREAGE AS PARK AND OPEN SPACE. IT ALSO RELOCATED 56 LODGING UNITS FROM LAND REMOVED FROM THE RESORT PUD-PR LAND TO AN 18.5 ACRE RECEIVING AREA PREVIOUSLY WITHIN THE SNAKE RIVER SPORTING CLUB (THE CLUB) PLANNED RESIDENTIAL DEVELOPMENT(PRD) WHICH WAS SUBSEQUENTLY REZONED PUD-PR AND BECAME PART OF THE RESORT. AS A RESULT OF THE 2015 AMENDMENT, THE RESORT IS COMPRISED OF THREE PLANNED RESORT ZONE SUB AREAS: SUB AREA I - THE 5.2 ACRE "ASTORIA HOT SPRING SITE"(AREA I), SUB AREA II - THE "LEGACY LOTS AND RESORT INFRASTRUCTURE"(AREA II), AND SUB AREA III, THE "RESORT LODGING CORE"(AREA III).

ALONG WITH THE 56 UNITS TRANSFERRED FROM AREA I, THE SNAKE RIVER SPORTING CLUB PLANNED RESIDENTIAL DEVELOPMENT (PRD), DEV2002-0024 HAD SIX ADDITIONAL REMAINING UNITS. THIS AS AMENDED IN DEV 2015-0002 TO COMBINE WITH THE 56 UNITS FOR A TOTAL OF 62 UNITS CONSTITUTING 210,000 SQUARE FEET TO BE DEVELOPED WITHIN THE 18.5 ACRES OF AREA III.

THE SKETCH PLAN APPROVAL (SKC2015-0001) ALLOWS FOR THE CREATION OF A 5.2 ACRE PARK AND 9,000 SQUARE FEET OF FACILITIES, AND THE DEVELOPMENT THE ABOVE-REFERENCED 62 ATTACHED AND DETACHED LODGING UNITS TOTALING 210,000 SQUARE FEET. THIS TRANSFER OF DENSITY TRIGGERED THE NECESSITY TO AMEND BOTH CONDITIONAL USE PERMIT(CUP-2015-0003) FOR THE SNAKE RIVER SPORTING CLUB AND THE DEVELOPMENT PLAN FOR THE SNAKE RIVER SPORTING CLUB PRD (DEV2015-0002). ALL OF THESE AMENDMENT APPLICATIONS WERE APPROVED BY THE BCC ON SEPTEMBER 15, 2015. SECTION 5 OF THIS SUBMITTAL INCLUDES THE FINAL BCC MOTIONS AND CONDITIONS WITH A RESPONSE TO CONDITIONS THAT ARE SPECIFICALLY APPLICABLE TO THIS PERMIT APPLICATION.

THIS APPLICATION CONTEMPLATES PHASE 1 OF THE DEVELOPMENT WITHIN SUB AREA III, THE RESORT LODGING CORE(AREA III).

ACCORDING TO PANEL 3150 OF THE TETON COUNTY, WYOMING AND INCORPORATED AREAS FLOOD INSURANCE RATE MAP (FIRM) WITH EFFECTIVE DATE OF SEPTEMBER 16, 2015 PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), THE 100 YEAR FLOODWAY OR FLOODPLAIN IN THE AREA OF THE SUBJECT PARCEL IS ASSOCIATED WITH THE SNAKE RIVER. ZONE AE IS CLOSE BUT DOES NOT CROSS ANY PORTION OF THE LOT LINES FOR LOT 80.

AREA III IS LOCATED IN THE TETON COUNTY WILDLAND-URBAN INTERFACE. ALL PHASE ONE CONSTRUCTION MUST BE IN ACCORD WITH IR 3 STANDARDS OF THE 2012 EDITION INTERNATIONAL WILDLAND-URBAN INTERFACE CODE.

**APPLICANT & OWNER:**

SRS Club, LLC, Cygnus Capital, Inc.  
SRSC Lots, LLC, &  
Snake River Sporting Partners, LLC  
3060 Peachtree Road NW - Suite 1080  
Atlanta, GA 30305  
307-201-2560

**ENGINEER & LAND PLANNER:**

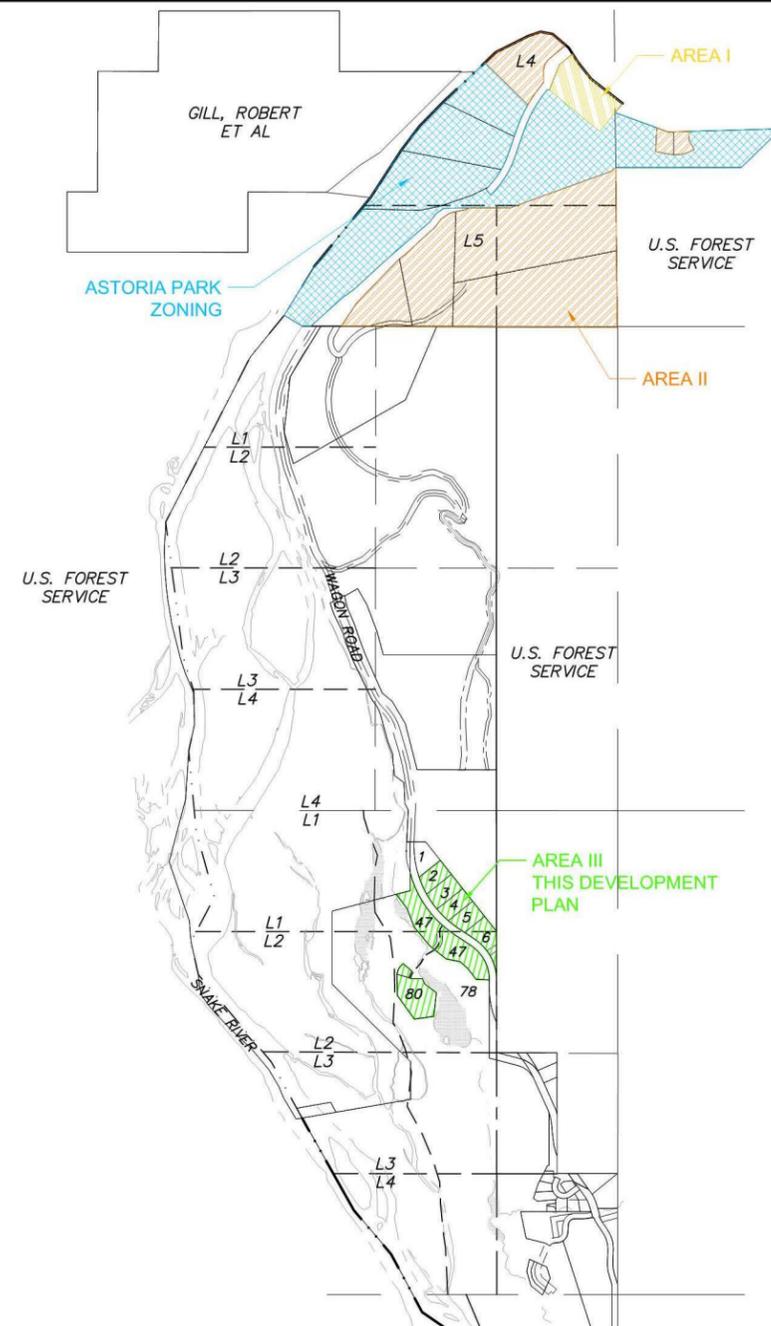
Jorgensen Associates, P.C.  
1315 South Highway 89  
P.O. Box 9550  
Jackson, Wyoming 83002  
307-733-5150

**LANDSCAPE ARCHITECT & LAND PLANNER:**

DHM DESIGN  
201 South Wallace Avenue,  
Suite A-4  
Bozeman, MT 59715  
406-219-2012

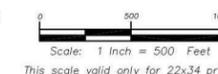
**LAND SURVEYOR:**

On Sight Land Surveyors, INC.  
265 North Glenwood  
P.O. Box 12290  
Jackson, Wyoming 83002  
307-733-6131



**VICINITY MAP**

LOCATED WITHIN SECTION 8 HOMESTEAD ENTRY SURVEY No. 187 & 127 PARTS OF GOVERNMENT LOTS 1 & 2 T38N, R116W, 6TH P.M., TETON COUNTY, WYOMING



**DRAWINGS TO ACCOMPANY APPLICATION FOR FINAL DEVELOPMENT PLAN FOR PHASE ONE OF AREA III OF THE AMENDED SNAKE RIVER CANYON RANCH RESORT BEING COINCIDENT WITH OF THE LOTS 2, 3, 4, 5, 6, 47, 69 & 80 SNAKE RIVER SPORTING CLUB, PLAT NO. 1165 LOCATED WITHIN SECTION 8 HOMESTEAD ENTRY SURVEY No. 187 & 127 PARTS OF GOVERNMENT LOTS 1 & 2 T38N, R116W, 6TH P.M., TETON COUNTY, WYOMING**

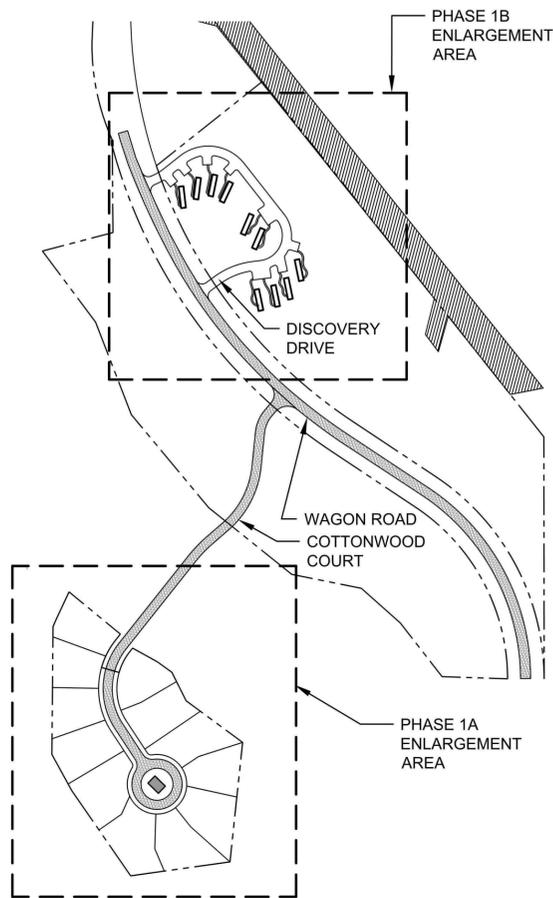
- PROPERTY LINE COINCIDENT WITH THE THALWEG OF THE SNAKE RIVER
- SECTION LINE
- QUARTER-SECTION LINE
- SIXTEENTH-SECTION LINE OR GOVERNMENT LOT LINE
- HOMESTEAD ENTRY SURVEY LINE
- EASEMENT
- EDGE OF WATER FROM HORIZONS, INC. (MAY 18, 2000)
- APPROXIMATE HIGH WATER LINE OF PROPOSED POND; CENTERLINE OF PROPOSED OR EXISTING DITCH OR CREEK
- RECORD MEANDER LINE, LEFT BANK OF SNAKE RIVER

**SHEET INDEX**

SHEET	CONTENTS
C1.0	VICINITY MAP, SHEET INDEX, LAND USE NOTES, AND OWNER, APPLICANT & CONSULTANT INFORMATION
C1.1	EXISTING CONDITIONS MAP
L.1	PROPOSED CONDITIONS MAP
C2.1	LOT 80 - UNDERGROUND UTILITIES, CABLE UTILITIES, AND GRADING
C2.2	DISCOVERY VILLAGE - UNDERGROUND UTILITIES, CABLE UTILITIES, AND GRADING
L.2	PHASING PLAN



**KEY PLAN**

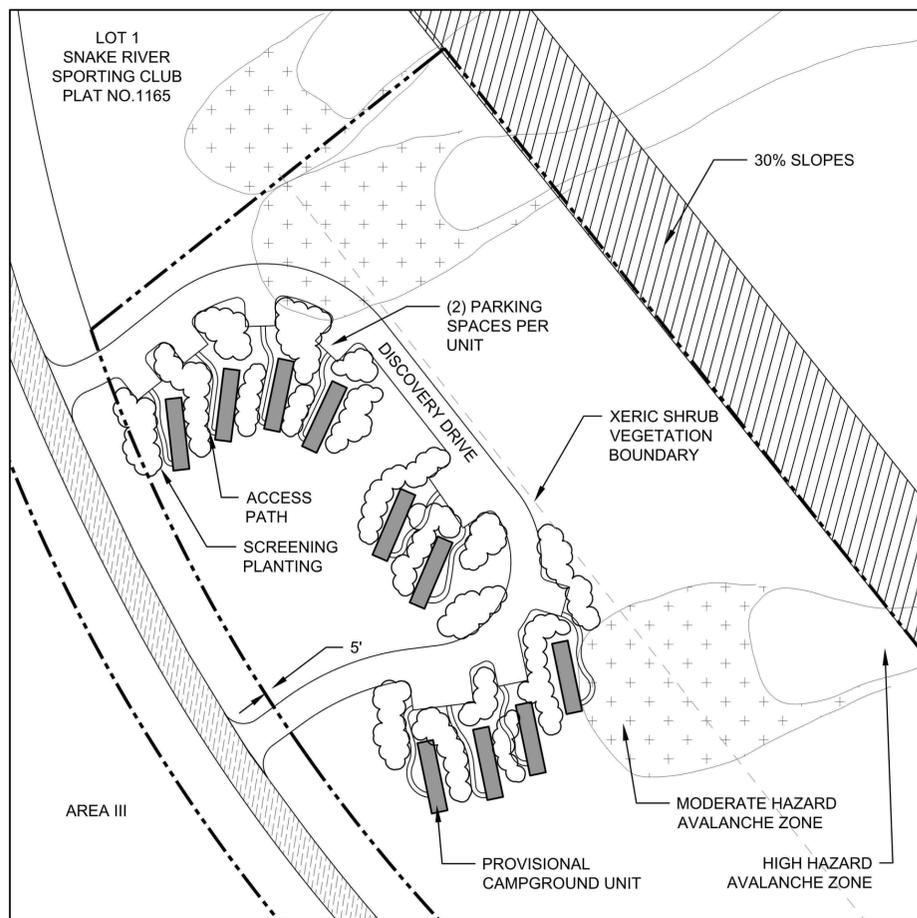


Scale: 1" = 100'

**NOTES**

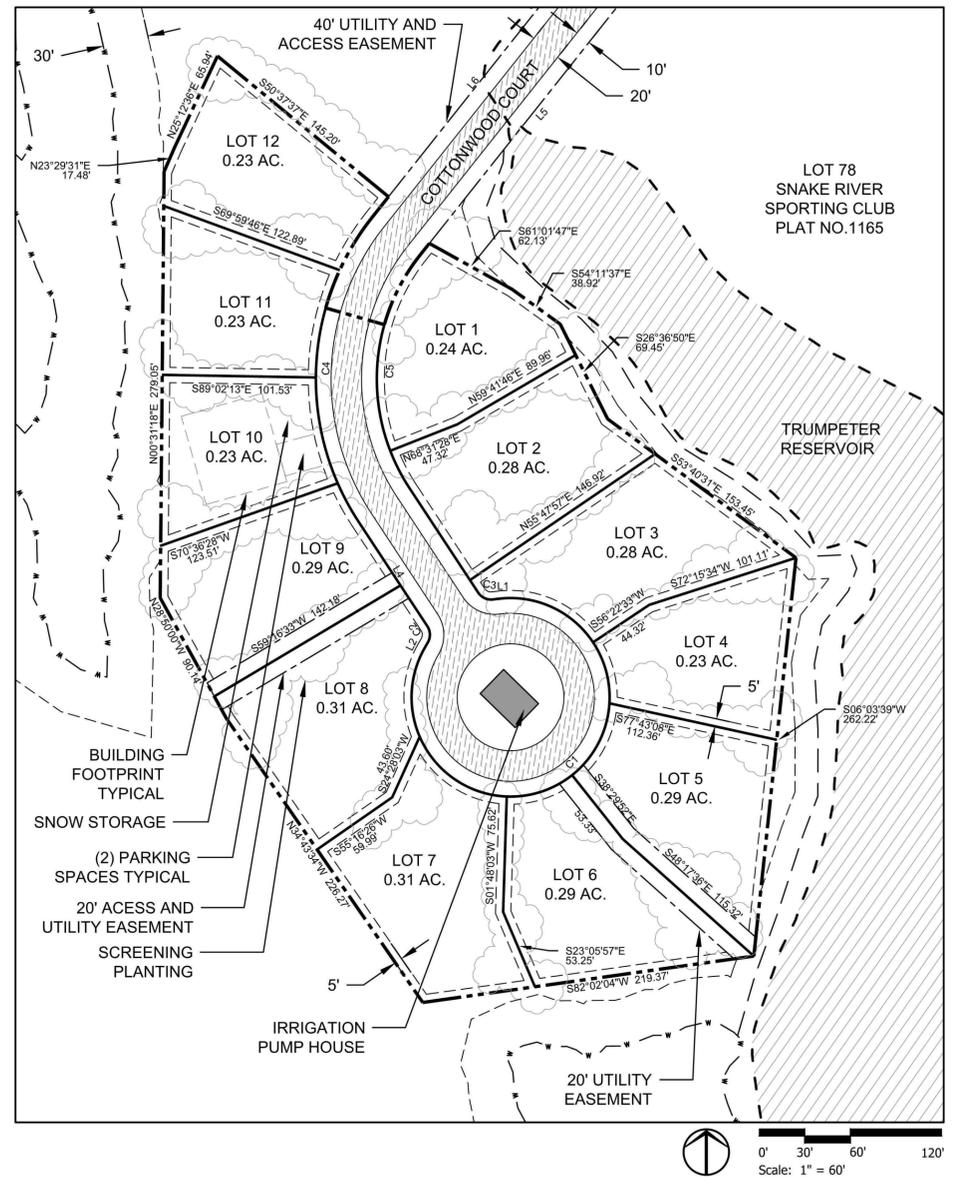
1. AREA III IS A 18.5 ACRE AREA COMPRISED OF LOTS 2-6, 47, 69, AND 80 OF SNAKE RIVER SPORTING CLUB, PLAT 1165.
2. MORE DETAILED INFORMATION ABOUT AVALANCHE HAZARDS CAN BE FOUND IN THE SNOW AVALANCHE HAZARD ANALYSIS MAPPING AND DESIGN LOADS FOR LOTS 1-6, SNAKE RIVER SPORTING CLUB, TETON COUNTY, WYOMING ATTACHED HEREIN.
3. INDIVIDUAL UNITS WITHIN SUB AREA III ARE LIMITED TO A MAXIMUM OF 10,000 SQUARE FEET AS PER THE MASTER PLAN.
4. MAXIMUM SITE DEVELOPMENT IS LIMITED TO A RANGE OF 0.45 TO 0.75 AS PER THE MASTER PLAN.
5. THE APPLICANT MAY PROVIDE SOME LANDSCAPING PRIOR TO SELLING EACH LOT TO ENHANCE SCREENING BETWEEN UNITS, HOWEVER THIS LANDSCAPING WILL NOT INTERFERE WITH OR IMPEDE CONSTRUCTION. EACH NEW LOT OWNER WILL BE RESPONSIBLE FOR THE REQUIRED LANDSCAPING OF 0.5 PLANT UNITS PER DETACHED SINGLE FAMILY LOT AS PER THE MASTER PLAN. THIS WILL BE EVALUATED AT BUILDING PERMIT.
6. EACH UNIT IN BOTH PHASES 1A (LOT 80) AND 1B (DISCOVERY VILLAGE), WILL HAVE AT LEAST TWO PARKING SPACES AVAILABLE TO THEM AS PER THE MASTER PLAN. LOT 80 WILL HAVE TWO GARAGE SPACES AND TWO ADDITIONAL SPACES IN FRONT OF THE GARAGE. EACH PROVISIONAL CAMPGROUND UNIT WILL HAVE A 20 FOOT WIDE GRAVEL PARKING AREA SIZED TO ACCOMMODATE TWO (2) VEHICLES.
7. ADEQUATE AREA REMAINS FOR SNOW STORAGE EXISTS ON EACH LOT AS DEMONSTRATED HEREON.
8. REFER TO CIVIL PLANS FOR GRADING, CULVERT/DRAINAGE INFRASTRUCTURE, AND UTILITY LOCATIONS.
9. ALL DISTURBED AREAS TO RECEIVE TOPSOIL AND SEED MIX.
10. IMMEDIATELY FOLLOWING SEEDING OPERATIONS OF SPECIFIC ZONES, THE AREAS SHALL BE PROTECTED FROM TRAFFIC OR OTHER ACTIVITIES- EXCEPT WEED CONTROL.
11. NOXIOUS VEGETATION SHALL BE CONTROLLED BY THE CONTRACTOR THROUGHOUT THE SEEDING ZONES AS WELL AS THE ENTIRE PROJECT SITE UNTIL FINAL ACCEPTANCE OR THROUGH THE MAINTENANCE PERIOD, WHICH EVER IS LONGER.
12. ALL PLANT MATERIAL SHALL BE HEALTHY, SOUND AND FREE OF DISEASE. ALL PLANT MATERIAL TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
13. COORDINATE UTILITY LOCATIONS OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.

**PHASE 1B ENLARGEMENT AREA**



Scale: 1" = 60'

**PHASE 1A ENLARGEMENT AREA**



Scale: 1" = 60'

Curve Table						
CURVE	ARC LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD LENGTH	TANGENT
C1	348.87	65.00	307°31'	N56°35'43"E	57.48	32.04
C2	11.06	10.00	63°22'	N1°43'03"W	10.51	6.17
C3	11.06	10.00	63°22'	S85°05'31"E	10.51	6.17
C4	213.41	170.00	71°56'	S2°33'28"W	199.67	123.34
C5	163.19	130.00	71°56'	S2°33'28"W	152.69	94.32

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N83°13'15"E	3.60
L2	N29°58'11"E	3.60
L4	N33°24'17"W	81.94
L5	S38°31'13"W	243.11
L6	N38°31'13"E	243.11

**LEGEND**

- AREA III BOUNDARY
- LOT LINE
- ADJACENT LOT LINE
- SETBACK
- EASEMENT
- TOP OF BANK
- EDGE OF WATER
- WETLAND
- [Hatched Box] ASPHALT ROAD
- [White Box] GRAVEL ROAD
- [Diagonal Lines Box] HIGH HAZARD AVALANCHE ZONE
- [Cross-hatch Box] MODERATE HAZARD AVALANCHE ZONE
- [Cloud Box] PROPOSED PLANTING



201 South Wallace Ave., Suite A-4  
Bozeman, MT 59715 | 406.219.2012

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**PHASE 1 - AREA III OF THE AMENDED SNAKE RIVER CANYON RANCH RESORT**  
FINAL DEVELOPMENT PLAN  
TETON COUNTY, WY

PROJECT NO. 15214.00  
ISSUE: FINAL DEVELOPMENT PLAN  
2016.04.22

DRAWN BY: KO  
CHECKED BY: CK

SHEET TITLE:  
**PROPOSED CONDITIONS PLAN**

SHEET NUMBER:

**L1.0**

SHEET \_\_\_ OF \_\_\_





**PHASE 1 - AREA III OF THE AMENDED  
SNAKE RIVER CANYON RANCH RESORT**  
FINAL DEVELOPMENT PLAN  
TETON COUNTY, WY

PROJECT NO. 15214.00  
ISSUE: FINAL DEVELOPMENT PLAN  
2016.04.22

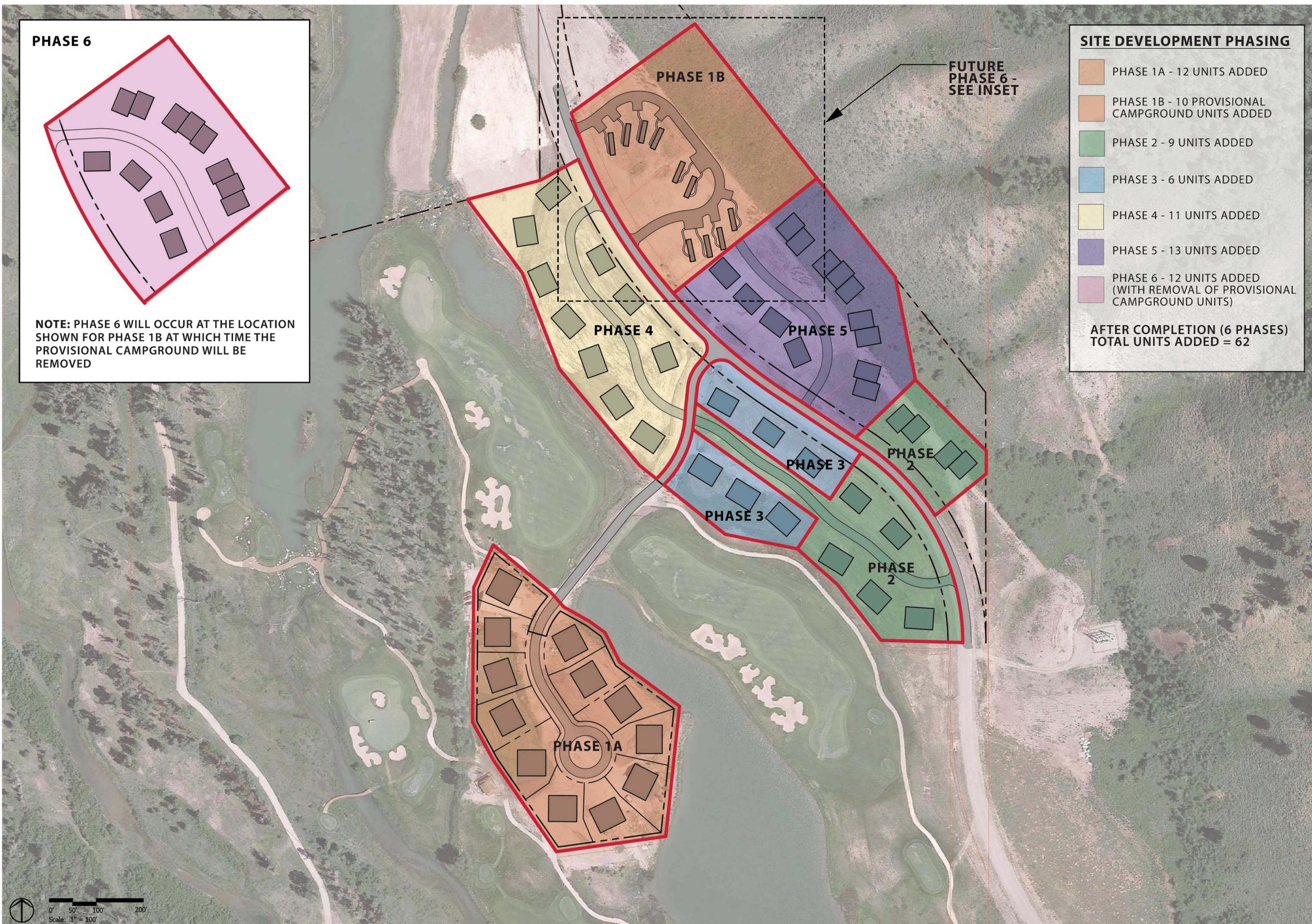
DRAWN BY: KO  
CHECKED BY: CK

SHEET TITLE:  
**PHASING  
PLAN**

SHEET NUMBER:

**L2.0**

SHEET \_\_\_ OF \_\_\_



**PHASE 6**

**NOTE: PHASE 6 WILL OCCUR AT THE LOCATION SHOWN FOR PHASE 1B AT WHICH TIME THE PROVISIONAL CAMPGROUND WILL BE REMOVED**

**SITE DEVELOPMENT PHASING**

- PHASE 1A - 12 UNITS ADDED
- PHASE 1B - 10 PROVISIONAL CAMPGROUND UNITS ADDED
- PHASE 2 - 9 UNITS ADDED
- PHASE 3 - 6 UNITS ADDED
- PHASE 4 - 11 UNITS ADDED
- PHASE 5 - 13 UNITS ADDED
- PHASE 6 - 12 UNITS ADDED (WITH REMOVAL OF PROVISIONAL CAMPGROUND UNITS)

**AFTER COMPLETION (6 PHASES)  
TOTAL UNITS ADDED = 62**

