

# ATTACHMENT J

## MEMO REGARDING: SCHEMATIC DESIGN CIVIL DESIGN NARRATIVE

Farmstead at Long Meadow Ranch Lodging

Sherwood Design Engineers  
May 1, 2017

## MEMORANDUM

Date	5/01/17
To:	Ted Hall
Cc:	Chris Hall
From:	Cody Anderson
Project Name:	Farmstead at Long Meadow Ranch Lodging
Project No:	16-163
Re:	<b>Schematic Design Civil Design Narrative</b>

The following summary describes proposed site improvements for the Farmstead at Long Meadow Ranch Lodging project. Narratives reflect the level of detail associated with schematic design level analyses, which will evolve as the project progresses through the design process.

### 1.0 Site Demolition

Demolition will involve clearing and grubbing of the existing site, which is currently fallow farmland with relatively little existing vegetation. Existing topsoil will be removed and stockpiled for amendment and reuse. If the site is to remain inactive between demolition and construction it will be properly stabilized against soil loss due to wind or stormwater.

### 2.0 Grading and Earthwork

Grading activities will be executed to accommodate new building pads and associated adjacent hardscaping and landscaping. Building elevations will be raised above existing grade, but will generally follow the existing gradual west-to-east slope, with grades conforming to existing elevations at the site perimeter. In order to raise grades to the desired elevations, imported fill will be required. Preliminary estimates yield approximately 8,000 cubic yards of fill to be placed on site, including base material and other fill. It is assumed that any cut material generated on-site will be reused in landscape berms. Existing top soil will be stockpiled and stored for reuse in landscaping.

### 3.0 Stormwater Management

Onsite stormwater management will include conveyances to protect buildings and structures from inundation mitigation measures to meet the current MS4 Permit per the regulations in the BASMAA Post-Construction Manual and limit post-construction runoff to pre-construction rates for the 10-yr storm. Management measures will include collection of building roof runoff and conveyance in storm drain pipes to localized raingardens. Permeable pavements are used instead of conventional pavement where feasible, including for parking stalls along the new driveway and for site courtyards and walks. Overflow volumes will be conveyed to existing City drainage infrastructure in La Fata Street, or will be discharged to infiltrate in the farm area in the northern portion of the site. Reports included in this submittal demonstrate the feasibility of proposed measures to meet City requirements. Building permit and construction documents may vary slightly from this planning level submittal but will demonstrate full compliance with City regulations and include final details for construction.

The project disturbs over one acre and will require a Stormwater Pollution Prevention Plan during the construction phase.

#### 4.0 Utilities

##### *Domestic Water:*

The potable water demand associated with the proposed site improvements will be met by connecting to the existing City water service in La Fata Street, south of the project entrance. Potable water will be distributed throughout the site to supply the multi-purpose building, guest rooms, and fitness center. It is anticipated that approximately 5.4 acre-feet will be required annually. The 8" water line extended from La Fata Street will branch at the property line into the metered domestic supply system for the property and a separate fire protection loop that will feed hydrants and building sprinkler systems. Additionally, a new 8" line will be extended down Mill Street to connect to the existing water line in Hwy 29, creating a looped system.

Final sizes of site utilities will be determined during the future design phases and documented in the building permit submittal documents.

##### *Irrigation Water:*

Landscape and farm irrigation water will be supplied by two existing on-site wells. Preliminary estimates indicate approximately 3.5 acre-feet will be required annually. Existing wells have more than adequate capacity to meet projected irrigation demands and do not require any modification. This submittal includes well reports documenting well production.

##### *Fire Protection:*

A new fire protection loop will connect to the existing 8" line at La Fata Street, south of the project entrance. The fire line will supply four new fire hydrants and fire suppression sprinkler systems at the new buildings. Fire department connections will be provided in two locations with direct connections to the individual buildings.

As requested by the City of St. Helena, a new 8" water line will be installed to connect to the existing lines at La Fata Street and Hwy 29, creating a looped system.

##### *Sanitary Sewer*

A new gravity collection system will be installed to serve the proposed site improvements. Given the flatness of the site and distance to the nearest adjacent SS manhole (420' +/- south in La Fata), it is anticipated that one or more pump sumps will be required within the project boundary. The design intent is to return pumped effluent to gravity flow at the property line where it will then flow through a new SS line installed down La Fata Street. The report included in this submittal indicates that the existing system has adequate capacity to handle flows from this project.

*Electric and Telecom*

New electric and telecom service will be established for the proposed site improvements. The new electric and telecom services will connect to existing vaults on Mills Lane and a new underground site distribution system will be constructed. Routing to be determined by Civil Engineer once the equipment location is set, but conduit, line and trench content details shall be determined by the Electrical Engineer.

*Natural Gas*

A new gas connection will be established along Mills Lane and will route to the proposed buildings, including new micro-turbines located in the fitness center building. Location and size of new connection are to be determined.