



Chinquapin

Alternate Railing

(Design Study)

May 18, 2014

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There are 29 Carport units in Chinquapin. Seven (3) unit buildings in the area known as Tennis Court Row. These are units 72 through 92. There are also two (4) unit buildings on the right side just past the real estate office, units 183 through 190. They are similar in many ways, but there are a few differences. The similarity is that they all have carports with the main living space and a front deck above. The differences are more subtle, mostly esthetic having to do with the style of railing, and how they are constructed.

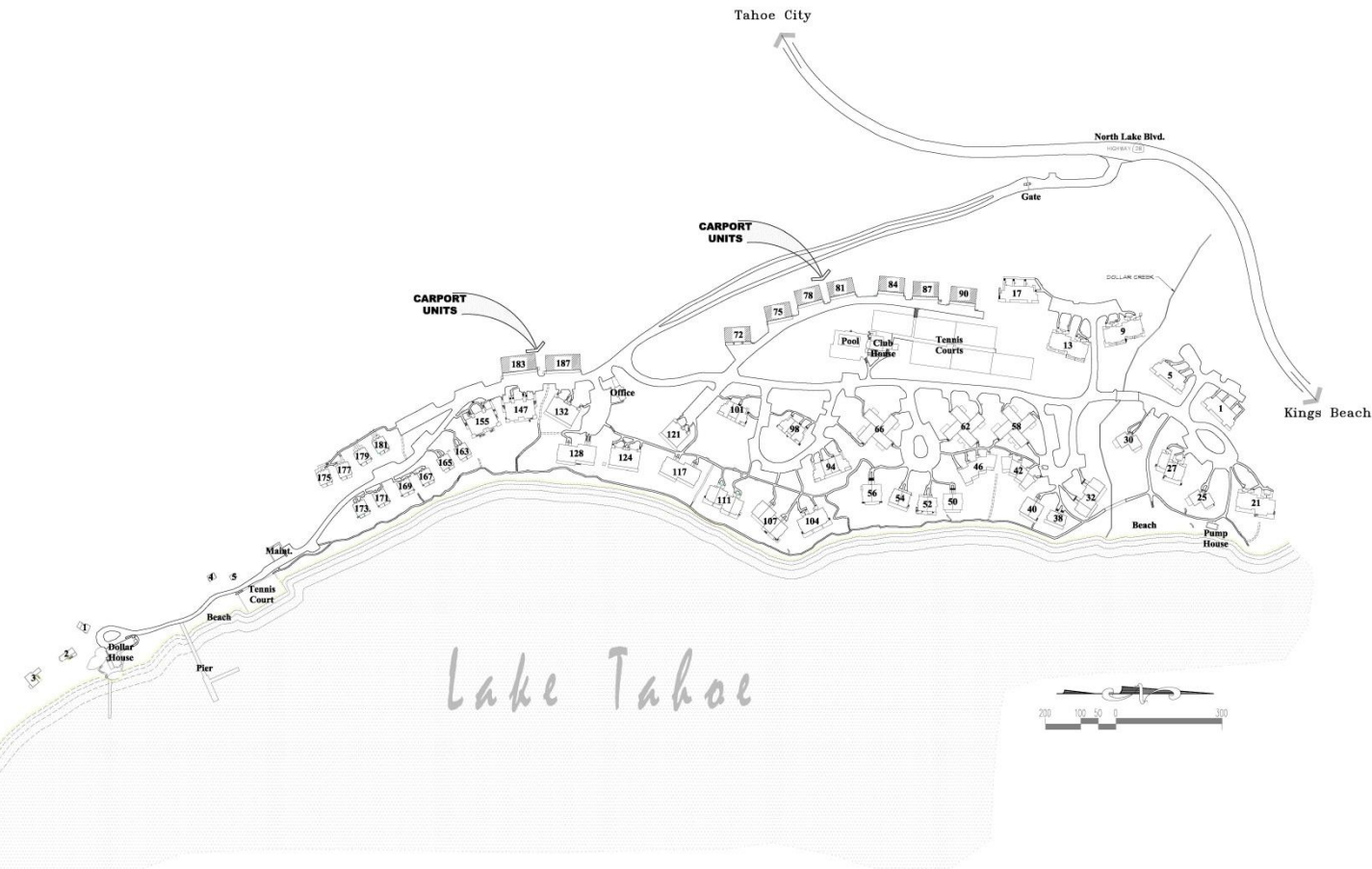
In looking at the existing railings on the 'Carport units' there are effectively three styles, picket, solid panel & horizontal rails. The decks on these units are original, structurally most are in o.k. shape, but being over 30 years old they no longer comply with current building codes. This has left many homeowners to add additional pickets or wire mesh to lessen the size of gaps. Since not all the deck railings are the same different solutions have made. This creates a more haphazard less cohesive appearance.

When the waterfront decks were designed extending the decks was considered to incentivize owners to upgrade their decks. Looking at these Carport units some decks could be extended. It is difficult to determine exactly how much further because not all units are parallel to the traveled way creating different pinch points. It is not just the 20 foot minimum width that is needed for the fire lane, but maneuvering for deliveries and snow removal may be impacted. Looking at it from another angle, the structural improvements needed to support a deeper deck would require beefier framing and footings. This would be a substantial and costly endeavor and one that I can not recommend.

The decks on these units are all framed the same with only a slight difference in the depth of usable deck area. The decks on the Tennis Row units are about five inches deeper than those of the four unit buildings because of how the railings are attached. I have played with this a bit and come up with a way to increase the decks 6 to 11 inches by attaching the guard rail supports similarly to how they are done on the waterfront decks. This slight increase in deck size could be done without any structural changes, see attached diagrams.

The success of the waterfront replacement decks use of a panel within a standard metal frame makes this an obvious choice for these decks. The proposed materials would be the same for all decks with a 3x8 IPE top cap supported on 6x6 painted supports with metal powder coated metal frames bolted to the supports. Within these frames is a choice of glass, mesh, gapped or a solid IPE panels. The question is whether to require all of the units within a building to use the same infill panel, or can each homeowner select the infill panel of their choosing?

On the following pages are drawings & pictures to help understand the existing conditions and possible replacement designs.



Chinquapin Site Diagram

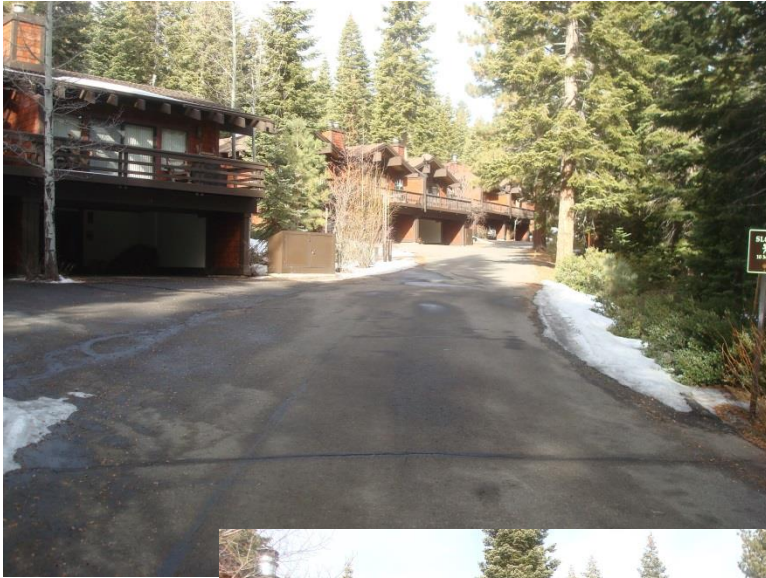
1 inch = 300 feet

(Carport Units)

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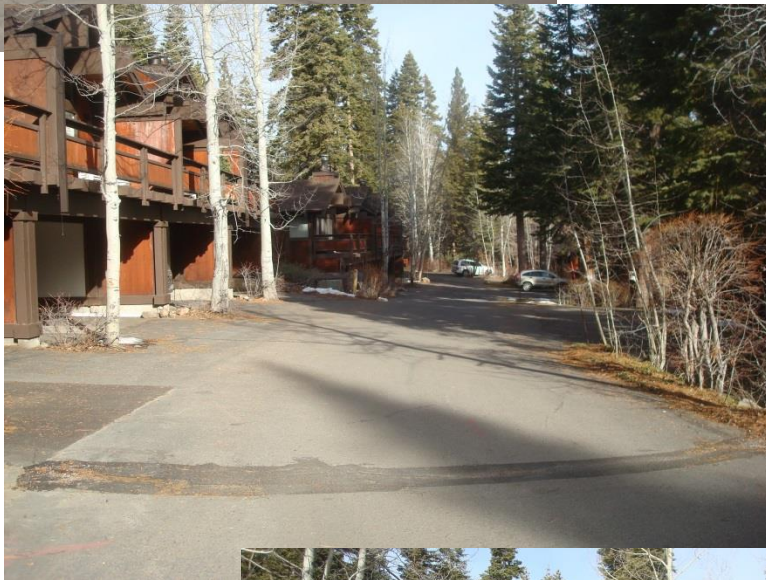


Tennis Court Row

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Panel



Horizontal Rail



Vertical Picket



Vinyl Mesh



Steel Mesh

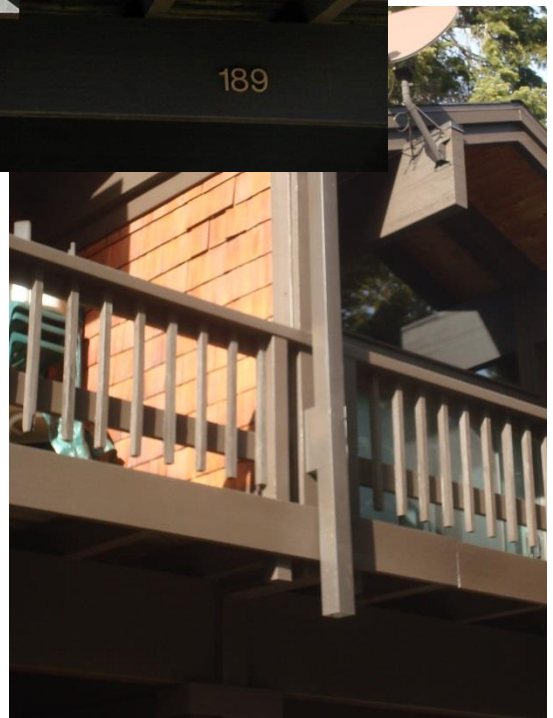


Added Rail

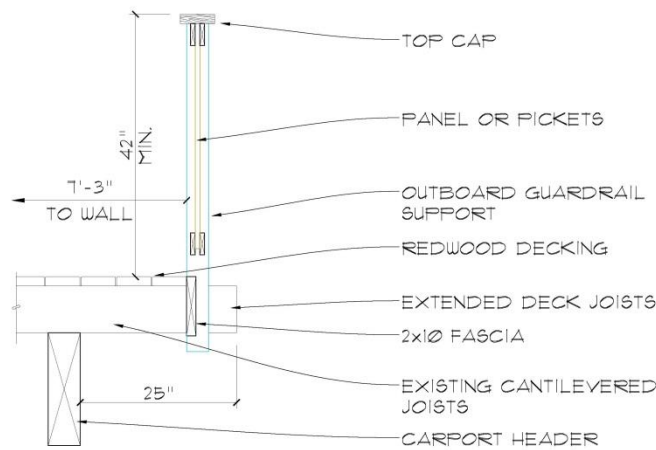
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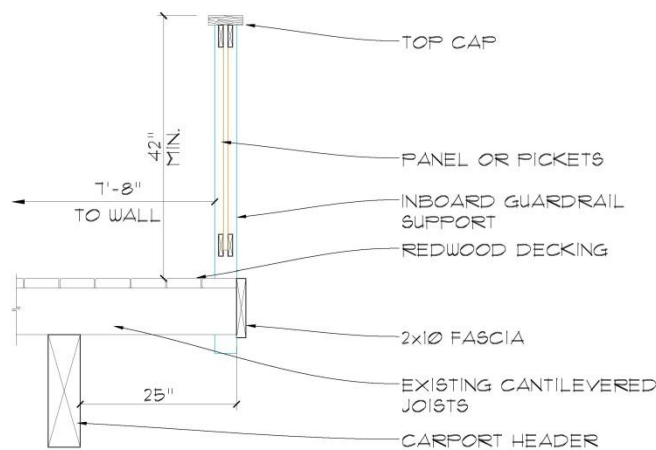
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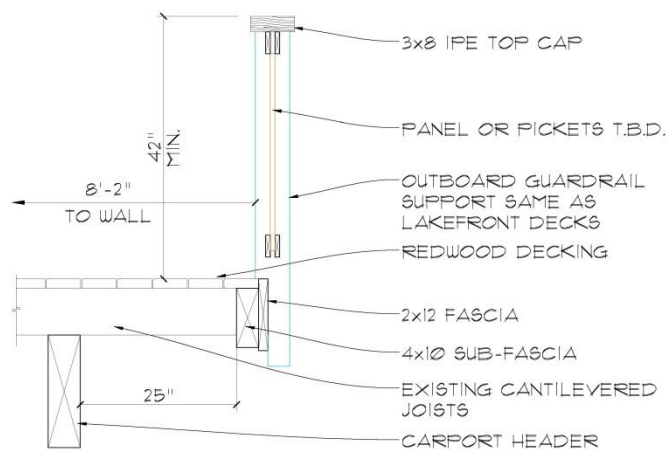
Existing Deck Framing Details



1 GUARDRAIL DETAIL
3/4" = 1'-0"
4 UNIT BUILDINGS



2 GUARDRAIL DETAIL
3/4" = 1'-0"
3 UNIT BUILDINGS

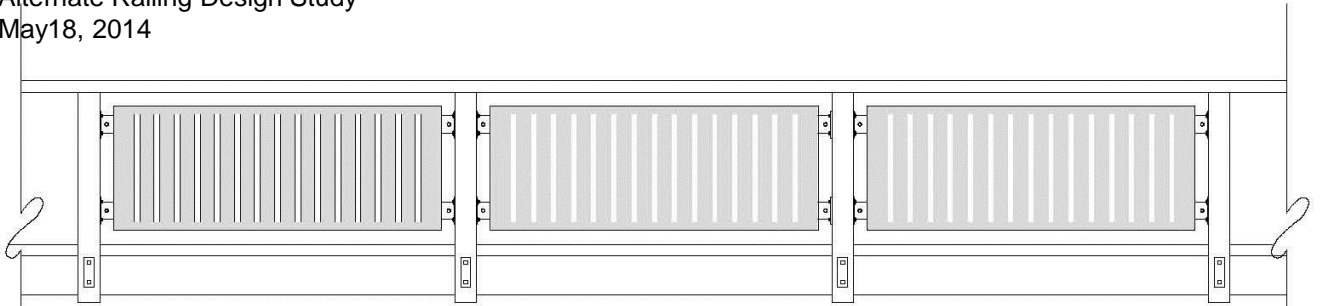


3 GUARDRAIL DETAIL
3/4" = 1'-0"
PROPOSED

Chinquapin

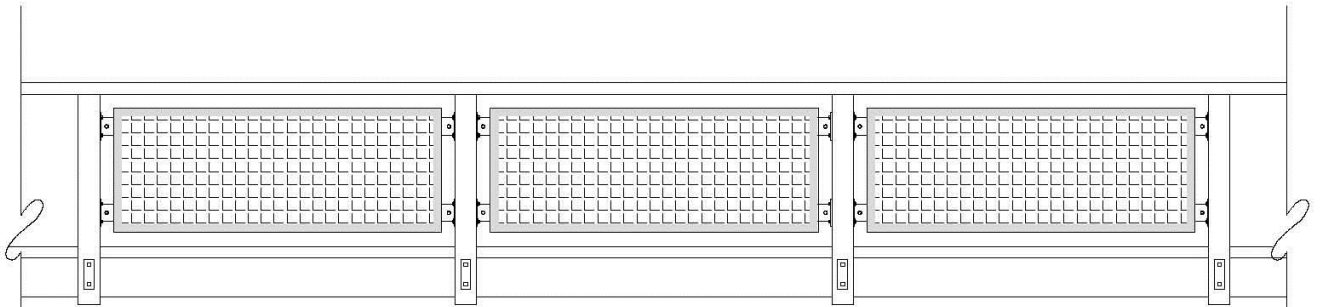
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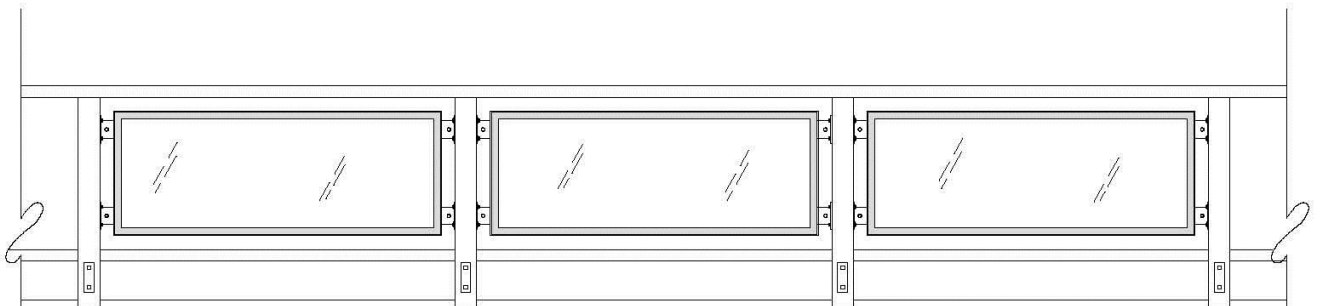
WOOD PANELS

1x IPE BOARDS MOUNTED WITHIN A
METAL FRAME BETWEEN SUPPORTS -
BOARDS CAN BE GAPPED OR SOLID.



MESH PANELS

2" WIRE MESH WITHIN A METAL FRAME
BETWEEN SUPPORTS.



GLASS PANELS

TEMPERED GLASS WITHIN A METAL
FRAME BETWEEN SUPPORTS.

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Glass Panels



Mesh Panels

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Glass & Mesh Panels



Mesh & Slat Panels

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Tennis Court Row

First building with gapped IPE next building with mesh