

5631 N 52<sup>nd</sup> Place

Retaining Walls / Pool Spa Variance Application

Narrative and Inventory of Materials

1) In order to improve aesthetics and structural integrity, we propose a new wall to stand in front of the existing one. Details as per drawings / structural engineer.

2) Walls are anchored by a concrete walkway; this will be 4 feet wide and at least 18" deep, on average. Again, this is not only cosmetic, but a functional structural component to further extend the footing for the wall.

2a) Drainage addressed as per formula provided by Mr. Paul Mood, town engineer: Volume (ft<sup>3</sup>) = (Area of new hard surface) x 2.82" x (0.95-0.70) / 12; walkway is approximately 70 x 4 ft, or 300 square feet, the calculation is as follows: V(ft<sup>3</sup>) = 300 x 2.82 x 0.25 / 12 = 25.38. Since the proposed swale will run along the edge of the "walkway", it will also be 70 feet long. Cross sectional area is therefore 25.38 / 70 = 0.36 square feet. Radius for semicircle is thus Square root of (0.36 / PI / 2) = Square root of 0.23 = 0.48; the swale will thus have to be 6" deep and 12" wide if a semicircle; if squared, it will be 8x8", the preferred embodiment.

NB: staff informs me that their estimate of the volume (ft<sup>3</sup>) is 17. In that case, the cross-sectional area will be 17 ft<sup>3</sup> / 70 ft = 0.24 ft<sup>2</sup>, resulting in a radius of 0.387 ft, or depth of 4.6 inches with an overall width of 0.776 inches, or approximately 0.5 feet by 0.5 feet for squared off gutter (6" x 6").

3) Wall and walkway will be bare natural-textured concrete as resulting from the natural product of the forms (i.e: as they result from the imprint of the wooden forms); a matte concrete sealer will be used; expansion gaps as indicated. The walls will then be painted with a matte color as specified to match the hillside (see appended sample).

4) Stairs will be necessary to span height differential. I have adjusted the height of the stairs to comply with code (7.5" max height). See schematics.

5) Concrete retaining wall painted color of hill to blend in with low reflective (matte paint as specified).

6) Stainless steel handrails to at least 36" height (will be purchasing 42", the maximum allowed by code).

7) The wall in the right of way will be modified to match the new walls (detailed plans as per Najib).

8) Any part of the current retaining wall #2 which may extend west and south into the Town's right-of-way would remain and would be requested as part of the

encroachment permit. Modifications would occur via the second, reinforced concrete wall. From what I can tell from the current plans, the wall appears to reside on the property in its entirety, albeit not complying with setbacks.

9) The retaining wall will be 10" wide.

10) The triangular space between the two walls will be filled with dirt.

11) A sample board will be constructed in time for the meeting Monday (except for the brushed stainless, which you already have).

12) There will be no additional hardscape or walking areas in the currently existing dirt fill uphill from the retaining walls.

13) There will be a total of 9 up-lights (with an additional 4 lights pre-existing), all of which will be less than 150 lumens (standard Home Depot product, see appended; bulbs will be selected to comply with 150 lumen limit).

14) There will be a total of 8 down lights, all of which will comply with the 250 lumen limit. Bulbs will be selected to comply with this limit. Standard Home Depot product, see appended info sheets.

15) The cacti replanted were removed originally when the dirt was deposited. They are queen of the night and will be replanted where they were (indicated on schematic). There are nine of these cacti. There will be a further 3 barrel cacti grouped next to one of the existing trees, for a total of 12 plants (these were small cacti removed originally when the dirt was deposited and then died, so will be replaced).

16) Similarly, aloe was removed from around the existing palm tree. They will be replanted more peripheral to the walls as noted on the schematics. They are blue elf aloe and there are about 20 of them.

In summary, the changes are as follows:

1) A new reinforced concrete retaining wall to be built.

2) Said retaining wall to be anchored by an 18" deep walkway.

3) Wall to be painted to match hillside; walkway bare concrete.

4) Details submitted regarding replanted xeriscape, up and down lighting and stepping-stone walkways.

5) Handrail noted will be brushed stainless, conforming in height to code (36" – 42") with at least 80% open aspect ratio.

6) Original retaining walls will not be altered.