

## INTERNATIONAL DESIGN GROUP

January 18, 2020

Wang-Cao Residence Monte Verde, 2 SW of 2<sup>nd</sup> Avenue Block: II, Lot(s): 39 APN: 010-223-034

## SHADE STUDY

The Shade study was conducted to verify the effect the Wang-Cao proposed two-story residence may have on the sunlight path on the neighbor property located next door to the north.

The Wang-Cao property is located in the City of Carmel-by-the-Sea, California, on a north to south axis. The new residence is setback from the northern property line 7'-5", more than the minimum 7'-0" required. The north neighboring residence is setback from the southern property line  $\pm$  2'-2", less than the minimum 3'-0" required. The distance between the proposed residence and the northern neighbor residence is  $\pm$ 12'-6", more than the required 10'-0" minimum distance between buildings.

The current Shade study was based on the months when the sun is at its lowest elevation from the horizon, focusing on the months of January, February, November and December 2020. Using the Sun Status program with exact latitude and longitude of Wang-Cao property in AutoCAD the renderings (see below) were created to show the shadow cast on neighboring property. Mass and bulk of neighboring residence is an estimation from Photos and the Wang-Cao property survey, which provided the corner of single-story portion at southern property line and elevation points.

The renderings provided do not take into account the shade cast from trees and overcast days. Photos provided to show the site conditions, vegetation and trees surrounding the neighbor's property. As well as a Daylight Duration Table for the whole year of 2020 for reference, table information was gathered from Timeanddate.com.

In conclusion, the proposed project will not impact shading patterns due to existing mature vegetation and northerly exposure of the adjacent property.

Thank you,

Amy Denney Project Manager IDG, Inc.

Enclosures: Exhibit A: Daylight Table Exhibit B: AutoCAD Renderings Exhibit C: North Neighbor Photos

## CARMEL-BY-THE-SEA, CALIFORNIA Pacific Standard Time

## Duration of Daylight for 2020 (Total 4,454.7 hours of daylight)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
1	9:42	10:23	11:25	12:37	13:42	14:30	14:36	13:58	12:55	11:46	10:30	9:50
2	9:43	10:25	11:27	12:40	13:44	14:31	14:35	13:56	12:53	11:44	10:36	9:49
3	9:44	10:27	11:30	12:42	13:46	14:32	14:35	13:55	12:50	11:42	10:34	9:48
4	9:45	10:29	11:32	12:44	13:48	14:32	14:34	13:53	12:48	11:39	10:32	9:47
5	9:45	10:31	11:34	12:46	13:50	14:33	14:33	13:51	12:46	11:37	10:30	9:46
6	9:46	10:33	11:37	12:49	13:52	14:34	14:33	13:49	12:44	11:35	10:28	9:45
7	9:47	10:35	11:39	12:51	13:54	14:35	14:32	13:47	12:41	11:32	10:26	9:44
8	9:48	10:37	11:41	12:53	13:56	14:35	14:31	13:45	12:39	11:30	10:24	9:44
9	9:49	10:39	11:44	12:55	13:58	14:36	14:30	13:43	12:37	11:28	10:23	9:43
10	9:50	10:41	11:46	12:58	13:59	14:36	14:29	13:41	12:35	11:26	10:21	9:42
11	9:51	10:43	11:48	13:00	14:01	14:37	14:28	13:39	12:32	11:23	10:19	9:42
12	9:52	10:45	11:51	13:02	14:03	14:37	14:27	13:37	12:30	11:21	10:17	9:41
13	9:53	10:47	11:53	13:04	14:04	14:38	14:26	13:35	12:28	11:19	10:15	9:41
14	9:55	10:49	11:55	13:07	14:06	14:38	14:25	13:33	12:25	11:17	10:14	9:40
15	9:56	10:51	11:58	13:09	14:08	14:38	14:24	13:31	12:23	11:14	10:12	9:40
16	9:57	10:54	12:00	13:11	14:09	14:39	14:22	13:29	12:21	11:12	10:10	9:40
17	9:59	10:56	12:02	13:13	14:11	14:39	14:21	13:27	12:18	11:10	10:09	9:40
18	10:00	10:58	12:05	13:15	14:12	14:39	14:20	13:25	12:16	11:08	10:07	9:39
19	10:01	11:00	12:07	13:18	14:14	14:39	14:18	13:23	12:14	11:06	10:06	9:39
20	10:03	11:02	12:09	13:20	14:15	14:39	14:17	13:21	12:12	11:03	10:04	9:39
21	10:04	11:05	12:12	13:22	14:17	14:39	14:16	13:19	12:09	11:01	10:03	9:39
22	10:06	11:07	12:14	13:24	14:18	14:39	14:14	13:17	12:07	10:59	10:01	9:39
23	10:07	11:09	12:16	13:26	14:20	14:39	14:13	13:15	12:05	10:57	10:00	9:39
24	10:09	11:11	12:19	13:28	14:21	14:39	14:11	13:12	12:02	10:55	9:58	9:40
25	10:11	11:14	12:21	13:30	14:22	14:38	14:10	13:10	12:00	10:53	9:57	9:40
26	10:12	11:16	12:23	13:32	14:23	14:38	14:08	13:08	11:58	10:50	9:56	9:40
27	10:14	11:18	12:26	13:34	14:25	14:38	14:07	13:06	11:55	10:48	9:54	9:40
28	10:16	11:20	12:28	13:37	14:26	14:37	14:05	13:04	11:53	10:46	9:53	9:41
29	10:18	11:23	12:30	13:39	14:27	14:37	14:03	13:01	11:51	10:44	9:52	9:41
30	10:19		12:33	13:41	14:28	14:37	14:02	12:59	11:49	10:42	9:51	9:42
31	10:21		12:35		14:29		14:00	12:57		10:40		9:42
	309:23:00	315:08:00	372:00:00	394:47:00	438:08:00	438:18:00	444:45:00	417:46:00	370:56:00	347:27:00	306:02:00	300:02:00







January 30, 2020 at 12:00pm



January 30, 2020 at 2:00pm



January 30, 2020 at 4:00pm







February 15, 2020 at 12:00pm



February 15, 2020 at 2:00pm



February 15, 2020 at 4:00pm











February 29, 2020 at 4:00pm







November 1, 2020 at 12:00pm



November 1, 2020 at 2:00pm



November 1, 2020 at 4:00pm







November 15, 2020 at 12:00pm



November 15, 2020 at 2:00pm



November 15, 2020 at 4:00pm







November 30, 2020 at 12:00pm



November 30, 2020 at 2:00pm



November 30, 2020 at 4:00pm







December 15, 2020 at 12:00pm







December 15, 2020 at 4:00pm











December 31, 2020 at 2:00pm



December 31, 2020 at 4:00pm

EXHIBIT C





January 17, 2020 @ 2:30pm

