

Memorandum

To: Humboldt County Building & Planning Department
From: Austin Corbett, EIT Staff Engineer, OurEvolution Energy & Engineering
Date: 11/27/2018
Re: APN: 214-233-002 / Apps #12312 / CUP 16-621 Organic Humboldt, Inc.
Clarification on the amount of cultivation being applied for.

Background & Purpose:

On June 29th, 2018 the County of Humboldt Planning and Building Department Cannabis Services Division sent a letter to Vincent Patterson of Organic Humboldt, Inc. regarding application number #12312 requesting additional information to continue processing the permit application for cannabis cultivation on the subject parcel. In particular, item 3 requested "clarification and consistency on the amount of cultivation being applied for". This memo aims to provide such clarification.

Executive Summary

OurEvolution identified a number of significant errors and omissions made in the Cultivation Area Verification (CAV) document prepared by the County (Appendix A). These include:

- Complete omission of all square footage from 8 cultivation areas located primarily in the Northeast section of the parcel.
- Omission of full-sun outdoor cultivation square footage located near cultivation areas that were identified in the CAV.
- Incorrectly attributed 1,300 square feet of outdoor cultivation located on a neighboring parcel to the subject parcel.
- Incorrect total sum of the component areas identified by the CAV differing by several thousand square feet for both the mixed light and outdoor cultivation.

This document suggests the following corrections:

- Correct totals calculated from cultivation sub-areas identified in the table in the CAV document to read: 22,434 ft² mixed light and 13,455 ft² outdoor instead of 20,434 ft² mixed light and 16,155 ft² outdoor respectively.
- Assign the amount over 22,000 ft² in the new total mixed light above to authorized outdoor cultivation. (434 ft² in total)
- Subtract 1,300 ft² from authorized outdoor because cultivation from a neighboring parcel was misattributed to the subject parcel (CA#5 in CAV).
- Add missing cultivation square footage from cultivation areas CA#7 & #9-16 documented below which were omitted from the CAV document due to apparent error, totaling 26,707 ft² outdoor.

Final square footage assessment: **22,000 ft² mixed light, 41,232 ft² outdoor cultivation**

Table 1: Summary Table of Suggested Adjustments

County CAV / CAV Response Summary Table				
Cultivation Area	County CAV		CAV Response	
	Outdoor	Mixed Light	Outdoor	Mixed Light
CA#1	-	2,500	-	2,500
CA#2	4,000	5,300	4,000	5,300
CA#3	-	1,450	-	1,450
CA#4	-	300	-	300
CA#5	1,300	-	-	-
CA#6	3,200	1,250	3,200	1,250
CA#7	4,355	8,260	6,291	8,260
CA#8	600	3,374	600	3,374
CA#9	-	-	4,692	-
CA#10	-	-	4,876	-
CA#11	-	-	2,426	-
CA#12	-	-	5,691	-
CA#13	-	-	850	-
CA#14	-	-	1,836	-
CA#15	-	-	3,363	-
CA#16	-	-	2,973	-
Totals	13,455	22,434	40,798	22,434
Totals after moving excess mixed light to outdoor:	13,889	22,000	41,232	22,000

Basis of Analysis

The CAV document utilized 2014 as the basis year for the determination and Google Earth Pro for calculation of square footages with a stated aerial image date of May 28th, 2014. For consistency, this analysis has also used Google Earth Pro to estimate square footages of cultivation areas with basis year 2014 using primarily the May 29th, 2014 imagery. However, where ambiguous, this imagery has been supplemented with Terraserver imagery to reflect cultivation areas which were planted in 2014, but not until after May 29th, 2014. In particular, imagery from July 31st, 2014, while not the same quality as the May 29th 2014 imagery, clearly shows some otherwise ambiguous areas were fully utilized for cultivation in 2014.

Mapping

(See map on the following page.)

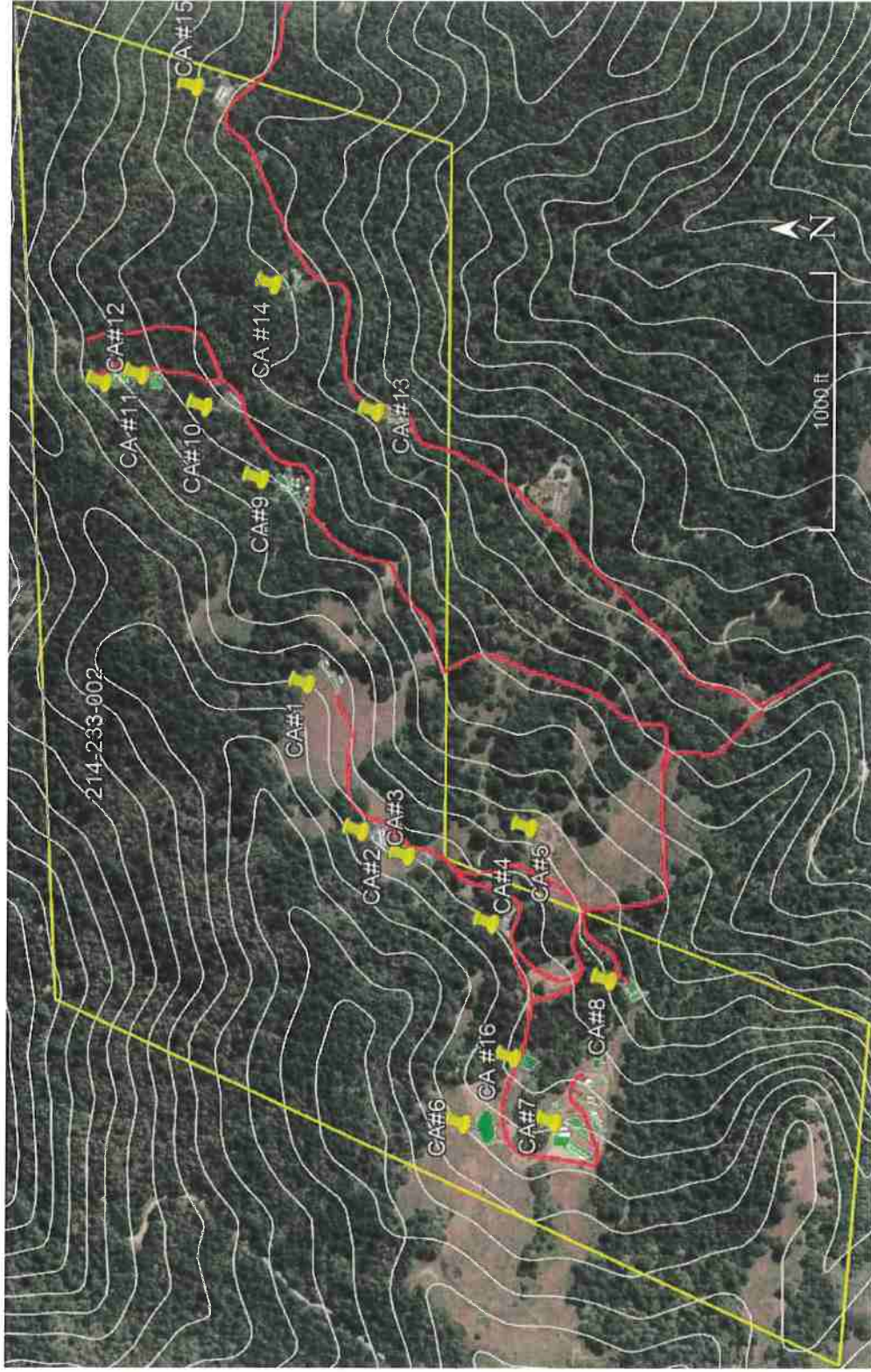


Figure 1: Map overview of cultivation areas with labels as used in this document and the CAV. Note that areas 9, 10, 11, 12, 13, 14, 15, & 16 located mostly in the Northeast section of the property were not counted at all by the County CAV document, while cultivation area 5 is located on a neighboring parcel.

Incorrect totals:

APN: 214-233-002-000	
CA #1= ~2,500 (sf) m.l.	m.l. Total= ~20,434 (sf)
CA #2= ~4,000 (sf) o.d. ~5,300 (sf) m.l.	o.d. Total= ~15,155 (sf)
CA #3= ~1,450 (sf) m.l.	
CA #4= ~300 (sf) m.l.	
CA #5= 1,300 (sf) o.d.	
CA #6= 3,200 (sf) o.d. 1,250 (sf) m.l.	
CA #7= 4,355 (sf) o.d. 8,260 (sf) m.l.	
CA #8= 600 (sf) o.d. 3,374 (sf) m.l.	

Figure 2: Summary table as appearing in the County CAV document with incorrect totals

The following table summarizes the information contained in the figure above and calculates the correct totals for cultivation area.

Table 2: CAV Cultivation area summary table with corrected totals at the bottom.

CAV Document Table		
Cultivation Area	Outdoor (ft ²)	Mixed Light (ft ²)
CA#1	0	2500
CA#2	4000	5300
CA#3	0	1450
CA#4	0	300
CA#5	1300	0
CA#6	3200	1250
CA#7	4355	8260
CA#8	600	3374
Total	13455	22434

CA #1-4, 6, & 8

No corrections suggested at this time.

CA #5

This cultivation area is located on a neighboring parcel and therefore excluded from OE's recommended square-footage total.

CA #7

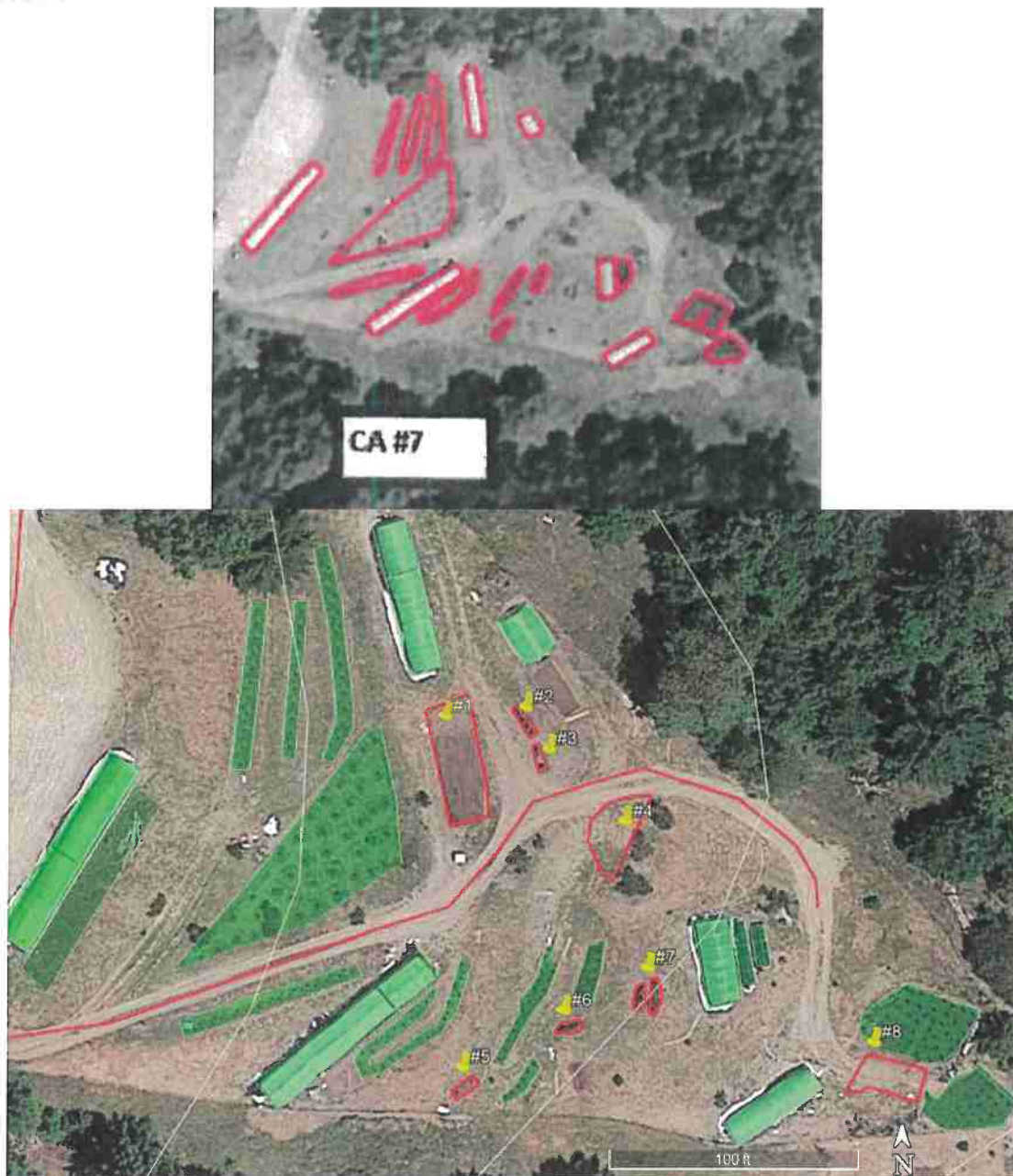


Figure 3: Numbered areas #1-8 highlighted in red in the bottom image do not appear in the official cultivation verification shown in top image. Bottom image is sourced from Google Earth and dated May 29th, 2014. Areas #2, #3, #5, #6, & #7 show cultivation in the figure above. Areas labeled #1, #4, & #8 with no apparent cultivation in this figure do show cultivation later in the 2014 season, as evidenced in the following figure from Terraserver.



Figure 4: Terra server figure showing cultivation areas 1, 4, & 8 (As labeled from figure 3, previous) show evidence of cultivation later in the same 2014 season. (Image date: 7/31/2014)

Table 3: Additional cultivation sub-areas not included in the original CAV for CA#7

Area Number (From Figure 3)	Square Footage Omitted in CAV (ft ²)
1	844
2	47
3	36
4	465
5	49
6	41
7	98
8	356
TOTAL:	1,936

CA #9



Figure 5: Left: May 29th, 2014 image date sourced from Google Earth. Right: Same image with cultivation areas added in. Note, see the following image below for additional evidence that full-sun areas were utilized for cultivation in 2014 where the dirt beds have been planted.



Figure 6: Cultivation area 9. Image date 7/31/2014 sourced from Terraserver.

CA #9		
Greenhouse / Fullsun	Canopy Area (FT ²)	Total (FT ²)
GH	548	2824
GH	850	
GH	1151	
GH	275	
FS	395	1868
FS	274	
FS	252	
FS	72	
FS	434	
FS	303	
FS	138	

CA #10



Figure 7: Cultivation area 10. Left: May 29th, 2014 image date sourced from Google Earth. Right: Same image with cultivation areas added in. Note, see the following image below for additional evidence that full-sun areas were utilized for cultivation in 2014.



Figure 8: Cultivation Area #10. Image date July 31st, 2014 sourced from Terraserver. Map is oriented with North pointing up. Note rows of vegetated plants North of greenhouse.

CA #10			
Greenhouse Fullsun	/	Canopy (FT ²)	Area Total (FT ²)
GH		896	896
FS		3316	3980
FS		664	

CA #11



Figure 9: Cultivation area 11. Left: May 29th, 2014 image date sourced from Google Earth. Right: Same image with cultivation areas added in.

CA #11				
Greenhouse Fullsun	/	Canopy (FT ²)	Area	Total (FT ²)
GH			902	2426
GH			914	
GH			610	

CA#12

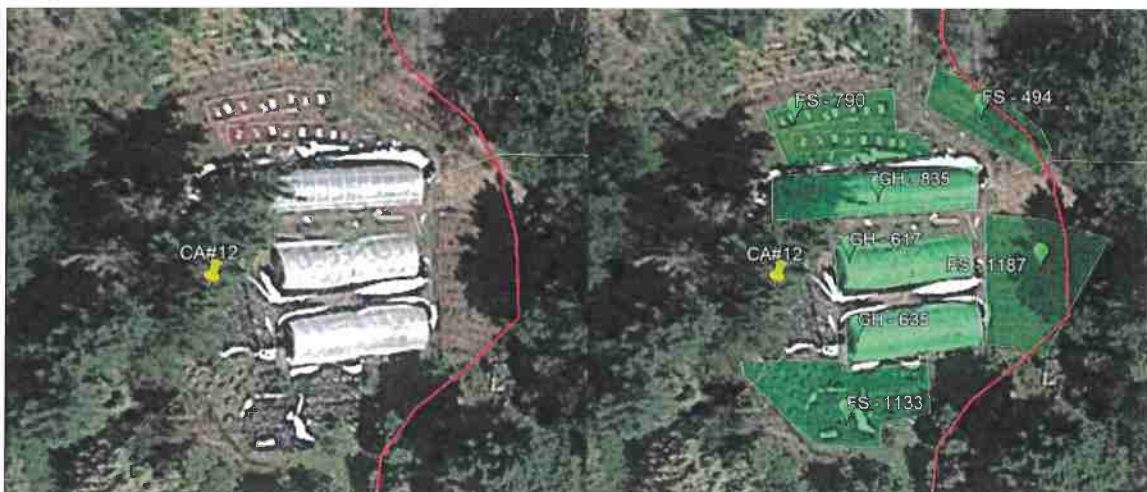


Figure 10: Cultivation area 12. Left: May 29th, 2014 image date sourced from Google Earth. Right: Same image with cultivation areas added in. Note, see the following image below for additional evidence that full-sun areas were utilized for cultivation in 2014.

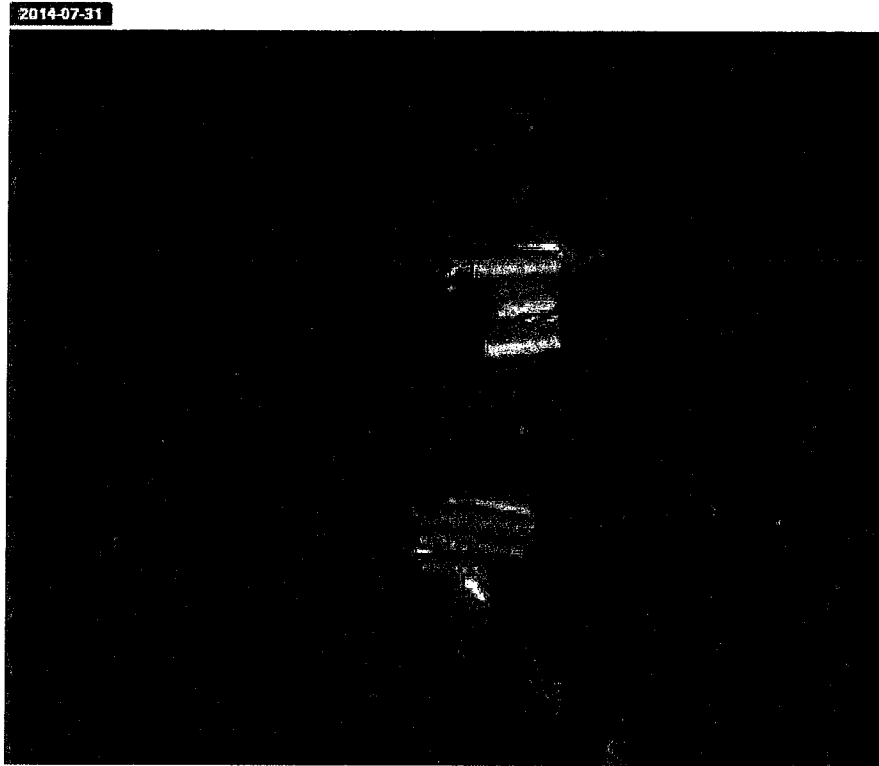


Figure 11: Cultivation areas 11 (bottom) and 12 (top). Note rows of now vegetated pots in the full sun areas identified in the image of CA #12 above. Image date 7/31/2014 sourced from Terraserver.

CA #12				
Greenhouse Fullsun	/	Canopy (FT ²)	Area	Total (FT ²)
GH			835	2087
GH			617	
GH			635	
FS			790	3604
FS			494	
FS			1187	
FS			1133	

CA #13



Figure 12: Cultivation area 13. May 29th, 2014 image date sourced from Google Earth.

CA #13				
Greenhouse	/	Canopy	Area	Total
Fullsun		(FT ²)		(FT ²)
GH			850	850

CA #14



Figure 13: Cultivation area 14. Left: May 29th, 2014 image date sourced from Google Earth. Right: Same image with cultivation areas added in.



Figure 14: Cultivation Area 14. While greenhouse shown in the previous figure is partially obscured by trees/ shadow due to image angle, the pots show growing plants. Image source: Terraserver Image date: 7/31/2014.

CA #14			
Greenhouse (GH) or Fullsun (FS)	Canopy (FT ²)	Area	Total (FT ²)
GH		526	526
FS		500	1310
FS		810	

CA #15



Figure 15: Cultivation area 15. Left: May 29th, 2014 image date sourced from Google Earth. Right: Same image with cultivation areas added in.

CA #15				
Greenhouse Fullsun	/	Canopy (FT ²)	Area	Total (FT ²)
GH			891	2926
GH			831	
GH			366	
GH			332	
GH			160	
GH			346	
FS			172	437
FS			96	
FS			91	
FS			78	

CA#16



Figure 16: Cultivation area 16. Image date 5/29/2014 sourced from Google Earth Pro. Note that the unplanted beds have been planted later in the season (See the following figure)



Figure 17: Cultivation area 16. Image date 7/31/2014 sourced from Terraserver. Note the clear evidence of activity by comparing nearby tarps/supplies between the May 29th and July 31st photos. Also note apparent rows of plants in beds. Tarps suggest mixed light but no greenhouse frame is apparent so this was counted as full-sun outdoor.

CA #16			
Greenhouse Fullsun	/	Canopy (FT ²)	Area Total (FT ²)
FS		2973	2973

APPENDIX A: County Cultivation Area Verification (CAV) Document

Cultivation Area Verification (CAV)¹

Apps# 12312 / APN: 214-233-002

1) Amount and type applied for:

Application Outdoor Square Footage: 43,560

Application Mixed Light Square Footage: 22,000

2) Enter amount of verified cultivation area:

Existing Outdoor Square Footage: 16,155

Existing Mixed Light Square Footage: 20,434

3) Enter base year date and source (e.g. 10/27/15 - TerraServer or May 28, 2014 - Google Earth etc)

Base Year Date and Source: 5/28/14 Google Earth Pro

4) Enter person performing verification:

Verified By: TC

5) Enter date of verification (e.g. current date)

Date Verified: 3/21/18

6) Attach Evidence of Verification (e.g. TerraServer photos w/ polygons etc.)

7) Write "CAV" on the outside of the project file.

8) Please note any observed expansions, relocations, timber conversions, or ground disturbances:

Notes: _____

¹ (55.4.7 Definitions) "Cultivation Area" means the sum of the area(s) of cannabis cultivation as measured around the perimeter of each discrete area of cannabis cultivation on a single premises, as defined herein. Area of cannabis cultivation is the physical space where cannabis is grown and includes, but is not limited to, garden beds or plots, the exterior dimensions of hoop houses or green houses, and the total area of each of the pots and bags containing cannabis plants on the premises. The cultivation area shall include the maximum anticipated extent of all vegetative growth of cannabis plants to be grown on the premises.



Places

- GH #18 ~1,000 (sf)
- GH #19 ~700 (sf)
- GH #20 ~450 (sf)
- GH #21 ~500 (sf)
- GH #22 ~300 (sf)
- CA #8 ~3,200 (sf)
- CA #9 ~1,000 (sf)
- CA #10 ~500
- CA #11 ~700 (sf)
- CA #12 ~460 (sf)
- CA #13 ~400 (sf)
- CA #14 ~300 (sf)
- CA #15 ~150 (sf)
- CA #16 ~400 (sf)
- CA #17 ~150 (sf)
- GH #23 & 24 ~250 (sf)
- CA #17 ~450 (sf)

- Layers
- Primary Database
 - Borders and Labels
 - Places
 - Photos
 - Roads
 - 3D Buildings
 - Ocean
 - Weather
 - Gallery
 - Global Awareness
 - More
 - Terrain

APN: 214-233-002-000

CA #1 = ~2,500 (sf) m.l.

CA #2 = ~4,000 (sf) o.d.

CA #3 = ~1,450 (sf) m.l.

CA #4 = ~300 (sf) m.l.

CA #5 = ~1,300 (sf) o.d.

CA #6 = ~3,200 (sf) o.d.

CA #7 = ~4,355 (sf) m.l.

CA #8 = 600 (sf) m.l.

3,374 (sf) m.l.

m.l. Total = ~20,434 (sf)

o.d. Total = ~16,155 (sf)

