

October 23, 2013

Ms. Jen Daugherty
Community and Economic Development Department
Town of Mammoth Lakes
P.O. Box 1609
Mammoth Lakes, CA 93546

Subject: 50 Canyon Boulevard (The Inn at The Village): Valet Operation

Dear Ms. Daugherty:

LSA Associates, Inc. (LSA) is pleased to present this revised analysis of the proposed valet operation for the 50 Canyon Boulevard Project in the North Village Specific Plan (NVSP) area of the Town of Mammoth Lakes (Town). The 63 proposed resort hotel units (Building C) represent the third and final building of the 8050 Complex, which currently has 28 resort hotel units and 3,335 square feet (sf) of commercial use (Buildings A and B at 6085 Minaret Road). At project completion, 91 total resort hotel units will be provided on site.

The project will meet the Town's on-site parking requirements within the existing 171-space parking structure that serves the 8050 Complex. The 171 spaces provide for 97 required spaces for the 91 existing/proposed units, 8 required spaces for the 3,335 sf of commercial use, 50 spaces for the Fireside Homeowners Association (HOA), and an excess (or overage) of 16 spaces for residents and guests of Buildings A–C only. All residents and guests of Buildings A–C will be required to use the valet operation to access 100 percent of its parking spaces. Therefore, the proposed project meets all NVSP parking requirements (including guest access to a minimum of 10 percent of the total number of required spaces). Ingress to the project site is provided via Canyon Road and egress is provided via Minaret Road. Figure 1 (all architect plans and figures attached) illustrates the project site plan.

The purpose of this work effort is to ensure that the access design and valet parking operation do not result in vehicles queuing onto Canyon Road. A stacking analysis was conducted to determine the potential queues that may form at the project entry and valet/drop-off area. An evaluation of the subterranean parking structure drive aisles was also provided to address the adequacy of in-aisle valet parking and circulation.

Project Access Description

The project site is bound by the Village Plaza and gondola on the north, Mammoth Crossing Site 1 on the south, Minaret Road on the east, and Canyon Road on the west. Guests will access the project site by turning into the Canyon Road project driveway and turning left into the valet/drop-off area. The circular valet/drop-off area will have a circumference of approximately 200 feet (ft).

As shown on Figure 1, approximately seven vehicles could be accommodated within the valet/drop-off area, excluding the three check-in parking spaces. Approximately 45 ft is planned from the back of the Canyon Road curb to the valet/drop-off area entry, which could accommodate two additional vehicles. A total of 245 ft of inbound vehicle storage will be provided (200 ft within the proposed valet/drop-off area and 45 ft from the valet/drop-off area entry to the Canyon Road curb). A total of nine inbound vehicles could be accommodated on site.

Project Trip Generation

For purposes of the valet parking stacking analysis, LSA generated vehicle trips for the total existing and proposed resort hotel units using a surveyed trip generation rate as documented in Appendix A of the Mammoth Crossings Traffic Impact Analysis, dated May 21, 2008 (attached). The trip generation characteristics for the proposed project as well as for other similar uses within the North Village are unique to the Town. The ability to walk to the gondola, the immediate accessibility of retail and restaurant uses, and access to a transit hub with all bus routes available make it possible to park a vehicle and leave it for the duration of a trip.

The trip generation rate for the proposed resort hotel (0.28 trip per occupied unit), specifically in the Saturday p.m. peak hour, was based upon vehicular count data (inbound and outbound) at the Village Lodges (Grand Sierra, White Mountain, and Lincoln House) parking garage. The count was conducted on Saturday, February 9, 2008. The basis for using an observed/measured rate from the Village Lodges is that the data reflects the net vehicular trip generation while recognizing the proximity of its resort hotel units to the gondola and other retail and restaurant attractions in the North Village area.

As shown in Table A.1 (all tables attached), a resort hotel of 91 occupied units could generate 26 Saturday peak-hour trips (14 inbound and 12 outbound). Inbound traffic movements, which represent a portion of the total project trip generation, are used for estimating the queue formation as described below.

Valet Analysis

In order to determine the potential queues that may form at the proposed valet/drop-off area, a vehicle stacking analysis was prepared based on the methodology described in the Robert Crommelin report titled *Entrance-Exit Design and Control for Major Parking Facilities*. Applying this Poisson distribution statistical methodology, vehicular reservoir needs at a parking facility can be determined for a given traffic volume and the service rate of the control device. For purposes of this project, the control device is the proposed valet parking operation (i.e., valet parking attendant).

Based on the location/distance of the valet area in relation to the subterranean parking spaces (or more specifically, the time it would take for a valet attendant to drive a vehicle down to the subterranean structure, park it, and return to the valet area), it is estimated that the maximum valet parking service rate (average headway) is 180 seconds per vehicle, as shown in Table A.2. Based on the volume of inbound traffic and the design capacity (i.e., service rate) presented in Table A.2, the traffic intensity is determined. Traffic intensity is the ratio between the average arrival rate (volume) and average service rate per valet attendant, which results in the length (22 ft per vehicle) necessary for adequate reservoir space.

Because a resort hotel may not have uniform vehicle arrival/departure rates in the Saturday peak hour (i.e., approximately half of the peak-hour trip generation shown in Table A.1 may occur within a 15-minute period during each peak hour), a peak 15-minute valet parking stacking analysis has been prepared to evaluate these worst-case, short-term conditions.

Table A.3 presents the results of the peak 15-minute valet parking stacking analysis with three valet attendants. According to the Reservoir Needs vs. Traffic Intensity chart in the Crommelin report (attached), on average, the minimum storage length for a valet parking operation with three valet attendants should be 22 ft (equivalent to one vehicle) to accommodate the peak 15-minute inbound volume of seven vehicles, excluding the three check-in parking spaces. The 95th percentile storage length (not to be exceeded 5 times in 100) should be 44 ft (equivalent to two vehicles). The 99th percentile storage length (not to be exceeded 1

time in 100) should be 66 ft (equivalent to three vehicles). Two valet attendants would not be sufficient with the available storage capacity.

As stated above, the valet parking/drop-off area can accommodate approximately seven vehicles (equivalent to 154 ft). An additional two vehicles (equivalent to 44 ft) can be stored between the Canyon Road curb and the valet/drop-off area entry. Storage for a total of nine vehicles (or 198 ft) is provided on site. Based on this analysis, adequate storage is provided if three valet attendants are included in the valet parking operation.

Parking Structure Valet Area Aisle Widths

Figures 2a and 2b illustrate the subterranean parking plans for the upper and lower levels from the project application and set of plans. The subterranean parking structure will provide 24 ft wide drive aisles, which will be consistent with the minimum 24 ft aisle widths required by the Town of Mammoth Lakes Standard Plans for Public Works. As previously discussed, valet parking will be required for all hotel guests except as noted below. The valet operations include managed parking to utilize in-aisle parking spaces in selected drive aisles. As shown on Figures 2a and 2b, valet attendants may utilize up to 32 valet spaces within the 24 ft drive aisles.

The parking layout provides parking spaces oriented at 90 degrees from the primary 24 ft drive aisles. Valet-managed aisle parking is planned along one side of selected aisles. It should be noted that 50 self-park spaces for the Fireside HOA have been designated (and illustrated on Figure 2a) on the upper level of the parking structure; however, these spaces will not be utilized for valet parking. Valet parking (for residents and guests of Buildings A–C only) will not be provided along drive aisles adjacent to the 50 spaces dedicated to the Fireside HOA. Therefore, consistent with the Town's standards for aisle widths, the Fireside HOA will have 24 ft aisle widths available at all times when entering, exiting, and parking in the structure.

As seen on Figures 2a and 2b, a 16 ft drive aisle would be present when a vehicle is valet parked along the aisle (standard 24 ft drive aisle minus 8 ft for a parallel-parked vehicle). This 16 ft aisle is wider than a standard roadway lane (which is 12 ft) and provides adequate bypass and emergency vehicle circulation in the subterranean parking structure in the event of an emergency.

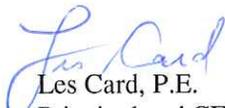
Conclusion

This analysis has determined that the proposed valet parking operation would not adversely affect the on-site circulation with three valet parking attendants. The current driveway entry and valet/drop-off area would provide adequate storage for vehicles entering the site without queuing onto Canyon Road. Adequate drive aisle width would be provided in the subterranean parking structure for vehicular circulation and valet parking operations.

If you have any questions, please call me at (949) 553-0666.

Sincerely,

LSA ASSOCIATES, INC.


Les Card, P.E.
Principal and CEO


Dean Arizabal
Senior Transportation Planner

Attachments: Appendix A of the Mammoth Crossings Traffic Impact Analysis (5 pages)
Architect Plans (5 sheets)
Figures 1, 2a, and 2b (3 sheets)
Tables A.1 through A.3 (1 page)
Robert Crommelin, Reservoir Needs vs. Traffic Intensity Chart (1 page)

**SOURCE: Mammoth Crossings Traffic Impact Analysis
(LSA Associates, Inc., May 21, 2008)**

APPENDIX A

EXISTING COUNT DATA

EXISTING COUNT DATA

Hotel Trip Generation Counts

Traffic counts were conducted on Saturday, February 9, 2008, and March 1, 2008, at the Forest Trail Entrance of The Lodges (Grand Sierra, White Mountain, and Lincoln House) from 3:30 p.m. to 5:30 p.m. and on Saturday, March 1, 2008, at the Hillside Drive entrance to the Westin Hotel from 3:30 p.m. to 5:30 p.m. Detailed count sheets are provided following this page.

Data used in this study is derived from the February 9, 2008, count at The Lodges. The peak hour is from 4:30 p.m. to 5:30 p.m., with 54 peak-hour trips, 25 inbound and 29 outbound. Data from MMSA indicated that there were 190 occupied hotel units (98 percent occupancy) that day and 17,559 skiers. This closely represents a peak winter Saturday condition. The resultant occupied hotel unit p.m. peak hour trip generation is 0.28 trips per unit. The breakdown of the 190 units is as follows:

The Lodges (Grand Sierra, White Mountain, and Lincoln House)

- 88 studios/one-bedroom units (46 percent)
- 88 two-bedroom units (46 percent)
- 11 three-bedroom units (6 percent)
- 3 four-bedroom units (2 percent)

190 units

Additional counts were taken on March 1, 2008, at The Lodges and Westin Hotel. The occupancy was 98 percent (188 units) at The Lodges and 92 percent at the Westin Hotel (130 units), with 11,582 skiers. These counts reflect a lower per-unit trip generation of 0.24 and 0.18 trip per occupied unit at The Lodges and Westin, respectively. The breakdown of the units at the Westin is as follows:

The Westin Hotel

- 117 studios/one-bedroom units (83 percent)
- 24 two-bedroom units (17 percent)

141 units

It should also be noted that the Westin trips attributed to the restaurant were isolated (4 inbound and 3 outbound), and if added to the hotel unit rate would be 0.23 trip per hotel plus restaurant.

It should further be noted that both The Lodges and The Westin have comparable amenities to The Crossings, such as offices, reception/check-in facilities, meeting spaces, and common areas.

Walking distances are also similar and within acceptable ranges. Distances from the Grand Sierra Lodge are approximately 700 ft, which are comparable to Site 1. Walking distances from Sites 2 and 3 range up to approximately 1,200 ft, but are still within acceptable lengths considering the time and expense of attempting to drive this same distance.

For comparison, the Mammoth Crossings unit mix is as follows:

Mammoth Crossings

- 319 one-bedroom units, 2 bedrooms with lock-offs units (59 percent)
 - 126 two-bedroom units (23 percent)
 - 84 three-bedroom units (16 percent)
 - 10 four-bedroom units (2 percent)
- 539 units (including lock-offs)

Village Parking summary pm (15 minute time interval)

Saturday, March 1, 2008

f o r e s t t r a i l

total 50					p a r k i n g	total 46					
3.30		3.45		4.00		3.30		3.45		4.00	
4		7		6		5		6		9	
4.15	4.30	4.45	5.00	5.15		4.15	4.30	4.45	5.00	5.15	
9	5	11	4	4		4	2	3	5	12	
Parking entering						A	parking exiting				
						B					

Westin Valet summary pm (15 minute time interval)

Saturday, March 1, 2008

h i l l s i d e

total		34		
3.30		3.45		4.00
4		2		5
4.15	4.30	4.45	5.00	5.15
5	3	3	4	8
Park entering total				

p a r k i n g

total		19		
3.30		3.45		4.00
3		2		1
4.15	4.30	4.45	5.00	5.15
1	0	0	5	7
Park exiting total				

3.30		3.45		4.00
2		1		1
4.15	4.30	4.45	5.00	5.15
2	1	1	1	1
Park enter hotel valet				

3.30		3.45		4.00
1				
4.15	4.30	4.45	5.00	5.15
			1	4
Park exit hotel valet				

3.30		3.45		4.00
4.15	4.30	4.45	5.00	5.15
1		1	1	2
Enter restaurant valet				

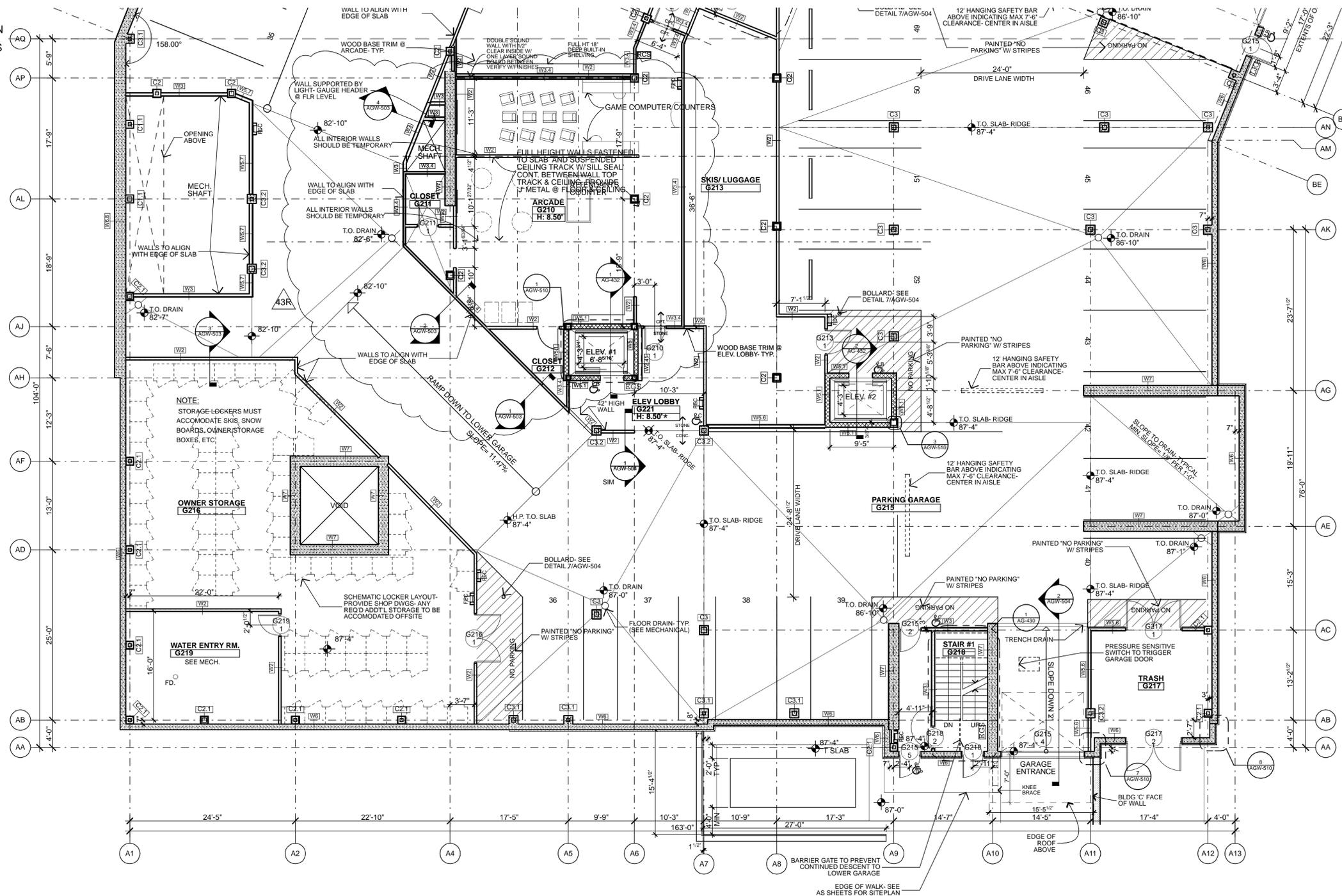
3.30		3.45		4.00
4.15	4.30	4.45	5.00	5.15
			2	1
exit restaurant valet				

3.30		3.45		4.00
2		1		4
4.15	4.30	4.45	5.00	5.15
2	2	1	2	5
Park enter self park				

3.30		3.45		4.00
2		2		1
4.15	4.30	4.45	5.00	5.15
1			2	2
Park exit self park				

NORTH GARAGE-AG102N
SOUTH GARAGE-AG102S

NORTH GARAGE-AG102N
SOUTH GARAGE-AG102S



- NOTES:
1. STAIRWAY TO COMPLY WITH SECTION 1003.3.3 OF 2001 CBC
 2. GUARDRAILS TO COMPLY WITH SECTION 509 OF 2001 CBC SEE DETAIL 3/AGP-501
 3. [Symbol] DENOTES PARTITION TYPES SEE AGA SHEETS FOR DETAILS
 4. HANDICAP SYMBOL AT PER PLANS INDICATES TACTILE SIGNAGE PER CBC 1117B.5 THROUGH 1117B.5.10 Letter designation as follows:
A - see detail 8/ASH-504
B - see detail 9/ASH-504
C - see detail 7/ASH-504
 5. [Symbol] DENOTES LOCKED KEY BOX FOR FIRE DEPARTMENT
 6. [Symbol] DENOTES EMERGENCY GUIDE SIGNAGE
 7. [Symbol] DENOTES COLUMN PARTITION TYPE SEE AGA SHEETS FOR DETAILS
 8. DIMENSION GENERAL NOTE:
A) DIMENSIONS ARE GENERALLY TO EITHER EDGE OF STUD OR CMU WALL
B) IF A WALL IS SHOWN @ A GRID LINE ASSUME EDGE OF STUD ALIGNS W/ GRIDLINE
 9. SEE AG-601 FOR DOOR & WINDOW SCHEDULES
 10. ROOM LABELS WITH H: FIELD INDICATES SUSPENDED GYP. BOARD CEILING AND ASSOCIATED HEIGHT. HEIGHTS FOLLOWED BY AN ASTERISK INDICATE A HARD CEILING FRAMED W/ MTL STUDS AND GYP BOARD. IF NO CEILING IS CALLED OUT, THEN CEILING IS EXPOSED TO STRUCTURE.

DATE	ISSUE
11/26/2003	Land Use Permit
12/05/2003	Use Permit Review
06/04/2004	Amended Use Permit
07/16/2004	DD Review Set
08/23/2004	Building Permit Review Set
10/05/2004	Building Permit Revised Set
11/05/2004	Building Permit Review Set
12/01/2004	Building Permit
12/15/2004	Lender Review Set
01/25/2005	Review
02/07/2005	For Construction

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SHEET TITLE
UPPER GARAGE
SOUTH

1 UPPER GARAGE LEVEL
1/8" = 1'-0"

REVISION KEY

ASI-8	04/29/05
PR-3	05/19/05
ASI-15	06/10/05
ASI-15R	07/13/05

AG-102S

DATE	ISSUE
11/26/2003	Land Use Permit
12/05/2003	Use Permit Review
06/04/2004	Amended Use Permit
07/16/2004	DD Review Set
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11/05/2004	Building Permit Revised Set
12/01/2004	Building Permit
12/15/2004	Lender Review Set
01/25/2005	Review
02/07/2005	For Construction

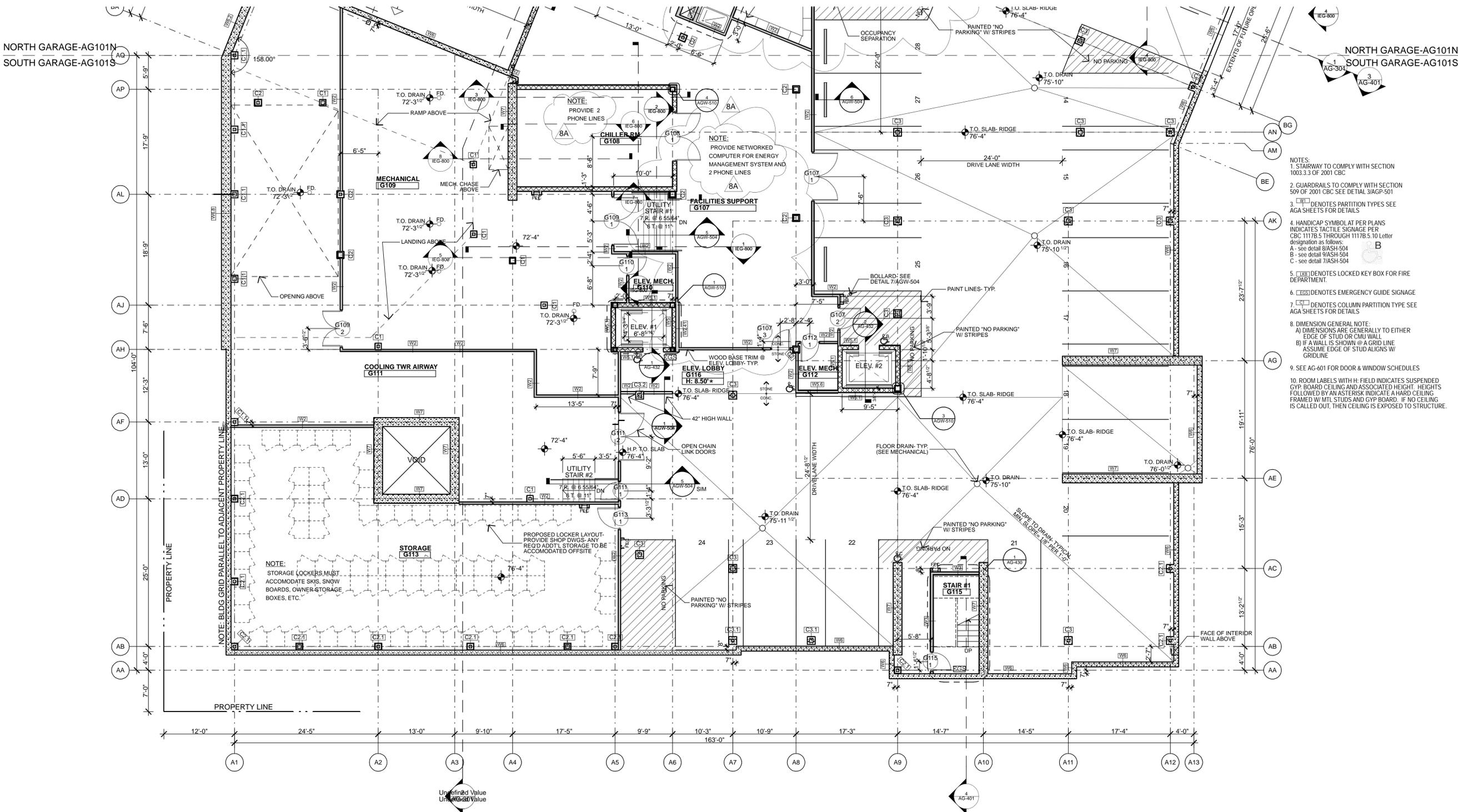
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SHEET TITLE
LOWER GARAGE SOUTH

AG-101S



- NOTES:
1. STAIRWAY TO COMPLY WITH SECTION 1003.3.3 OF 2001 CBC
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1 LOWER GARAGE LEVEL
1/8" = 1'-0"

REVISION KEY
ASI-8 04/29/05



Legend

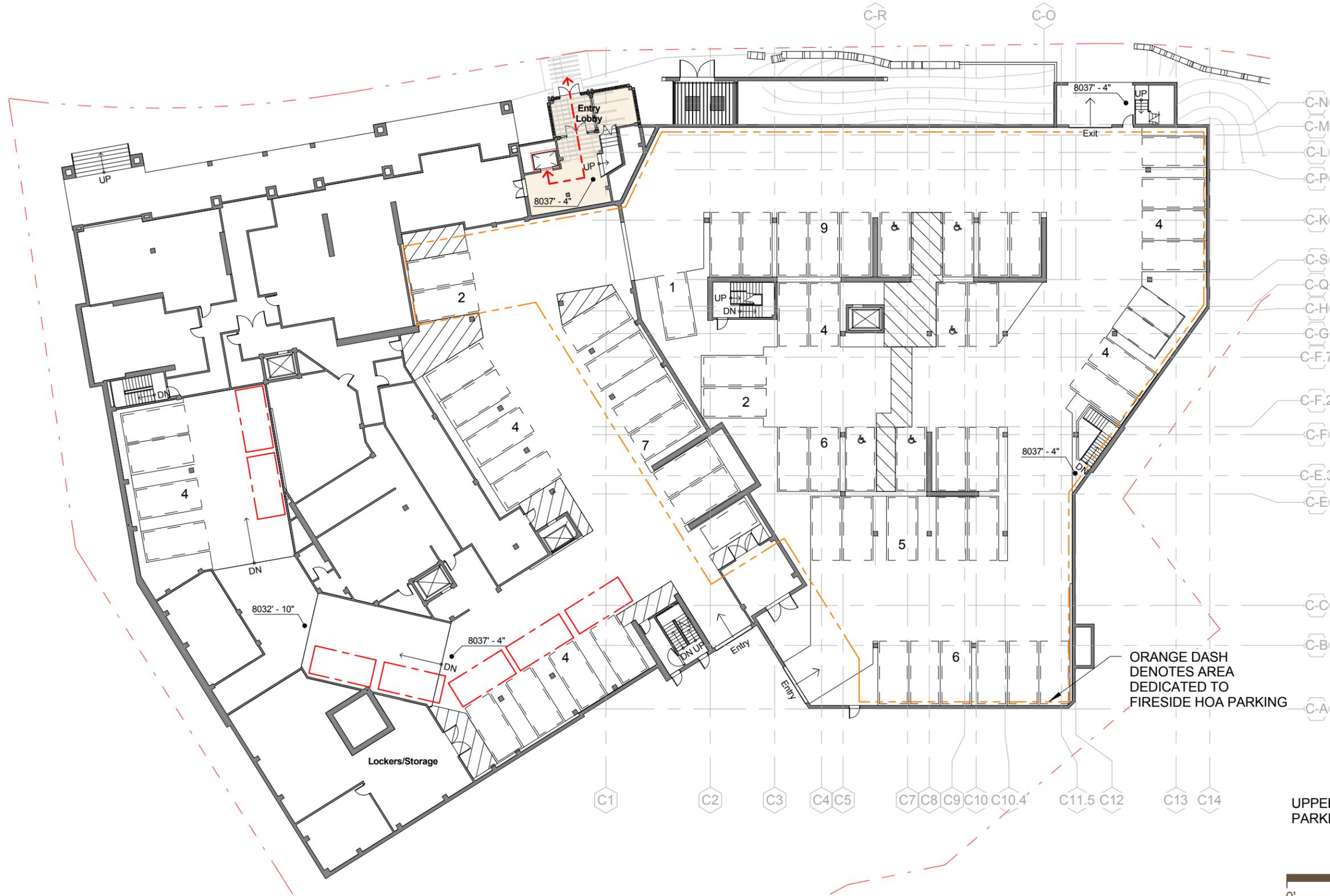
Program Areas

- BOH/Admin
- Circulation
- Common Area
- Fitness/Spa
- Kitchen

← - - - → Accessible Route

CHECK-IN PARKING SPACES





Legend

Program Areas

Circulation

Accessible Route

Valet Parking Space

Standard Parking Space

Parking Requirements & Tabulation per NVSP:

Room Type:	1-Bedroom	2-Bedroom	3+-Bedroom
Req'd Parking/Unit	1 space	1 space	1.5 spaces
8050 Building			
Building "A"	5	4	9
Building "B"	3	7	0
Building "C"	59	1	3
Subtotals:	67	12	12

Residential Parking Required: 67 spaces + 12 spaces + 18 spaces = 97 spaces
 Building "B" Commercial Parking Required: 3,335sf @ 2.4 spaces/1,000sf = 8 spaces
Total Parking Required: 105 spaces

Existing 8050 Parking Structure Capacity:

Lower Level	74 spaces	
Upper Level	62 spaces	
Valet Parking	32 spaces	
Street Level	3 spaces	
Total Capacity:	171 cars	
Less Fireside HOA	-50 cars	(Per agreement by and between iStar and Fireside Condominium HOA)

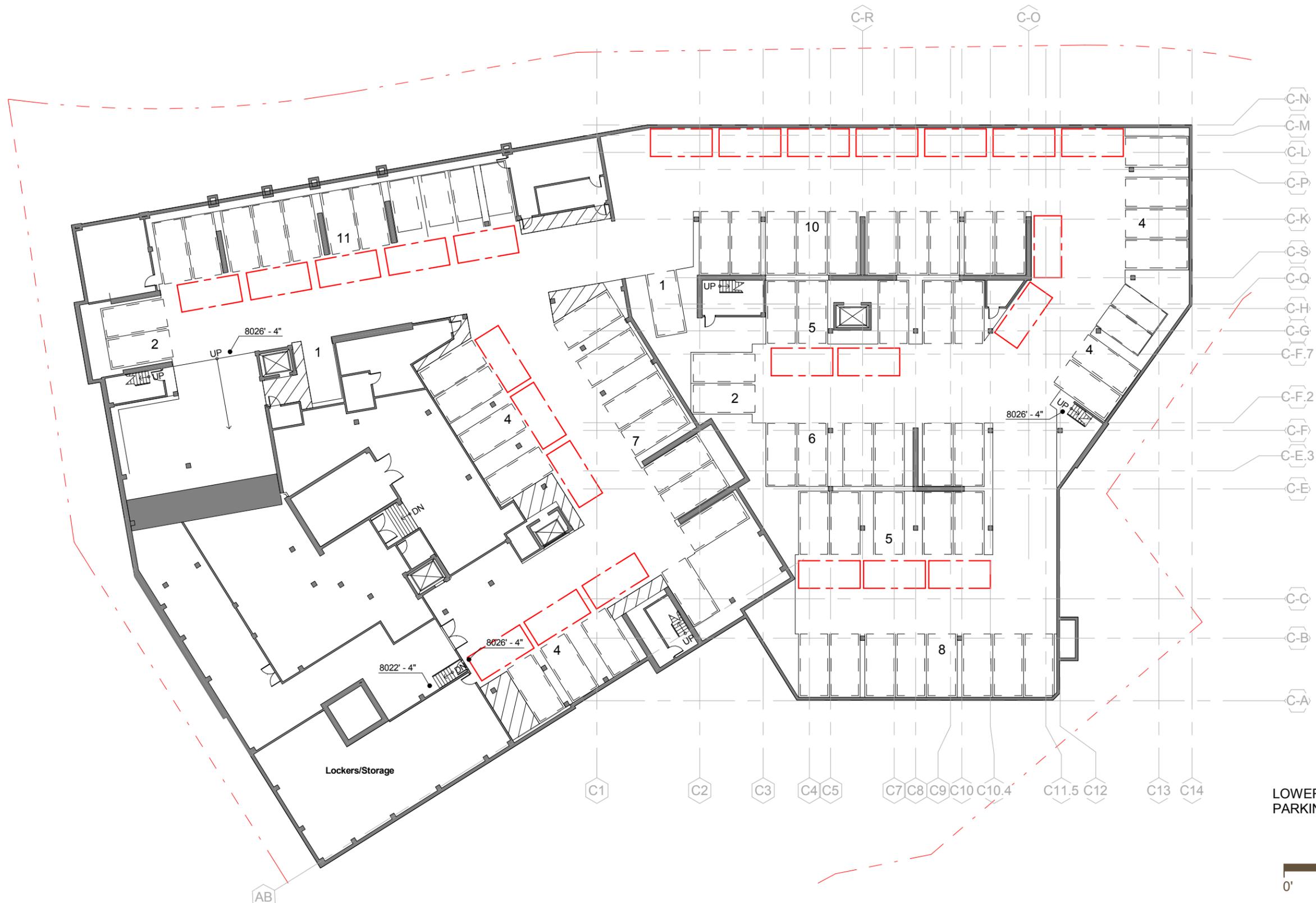
Total Available Capacity: 121 cars
 Parking Req'd (per above): 105 cars
 Overage: 16 cars

Total Accessible Spaces: 6 spaces

ORANGE DASH DENOTES AREA DEDICATED TO FIRESIDE HOA PARKING

UPPER GARAGE LEVEL EXISTING PARKING STALLS: 62 SPACES





LOWER GARAGE LEVEL EXISTING
PARKING STALLS: 74 SPACES



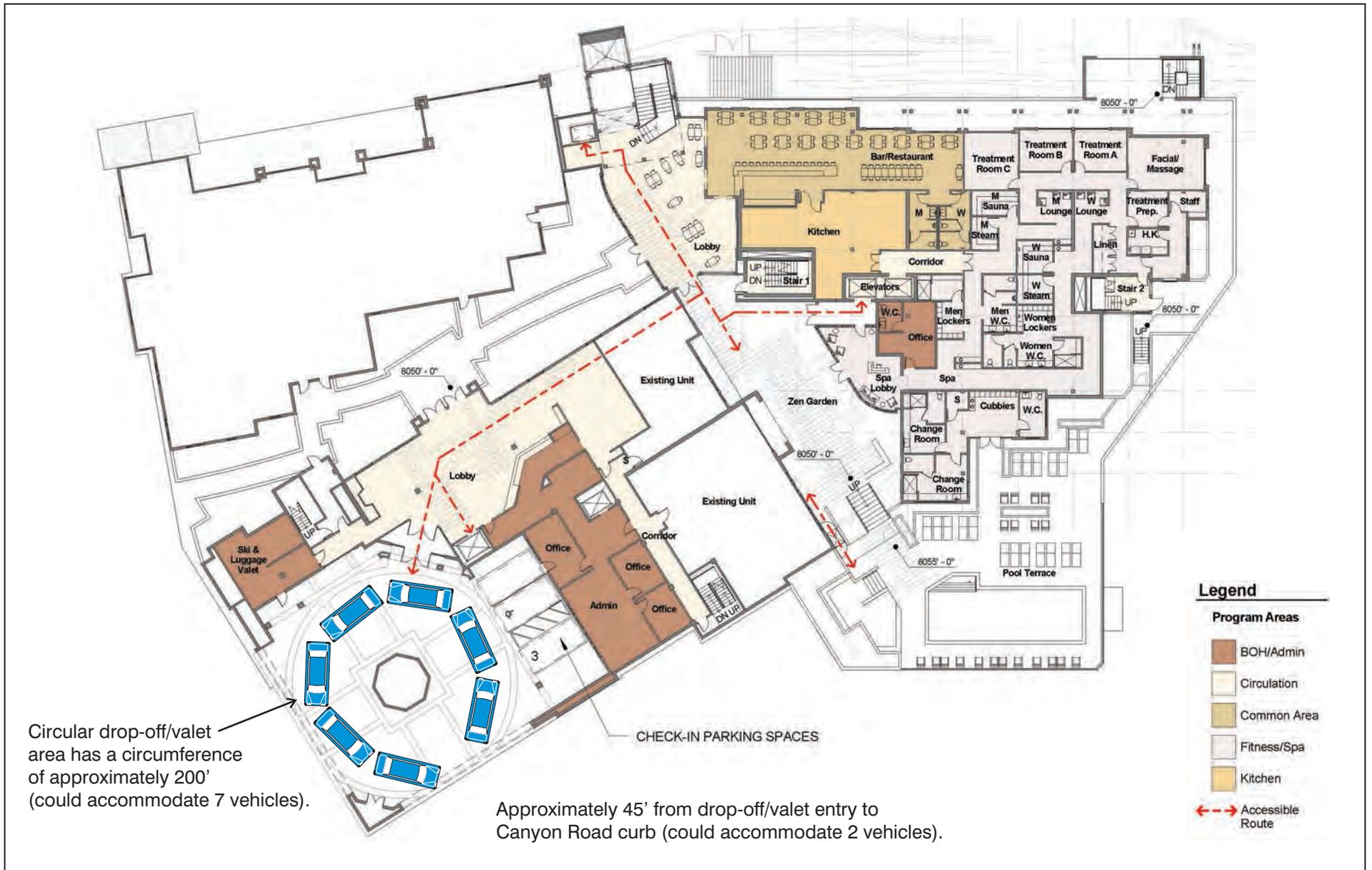
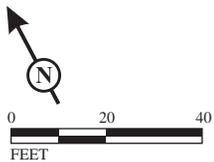


FIGURE 1

LSA



SOURCE: Bull Stockwell Allen

I:\SMM1301\G\Site Plan.cdr (9/6/13)

50 Canyon Boulevard
Site Plan

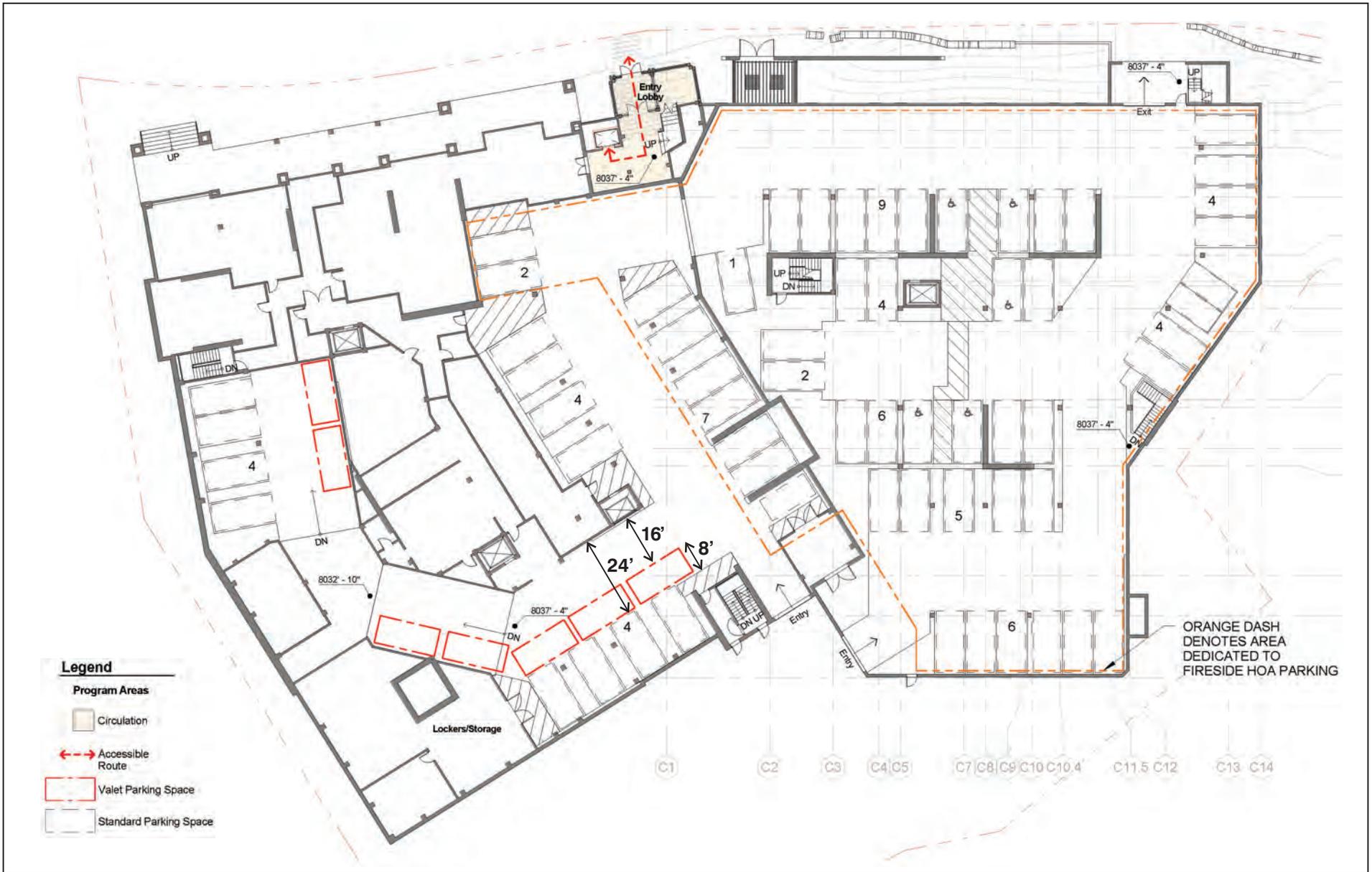
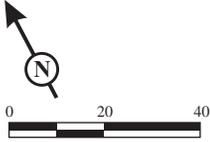


FIGURE 2a

LSA



SOURCE: Bull Stockwell Allen

50 Canyon Boulevard
Subterranean Parking Plan (Upper Level)

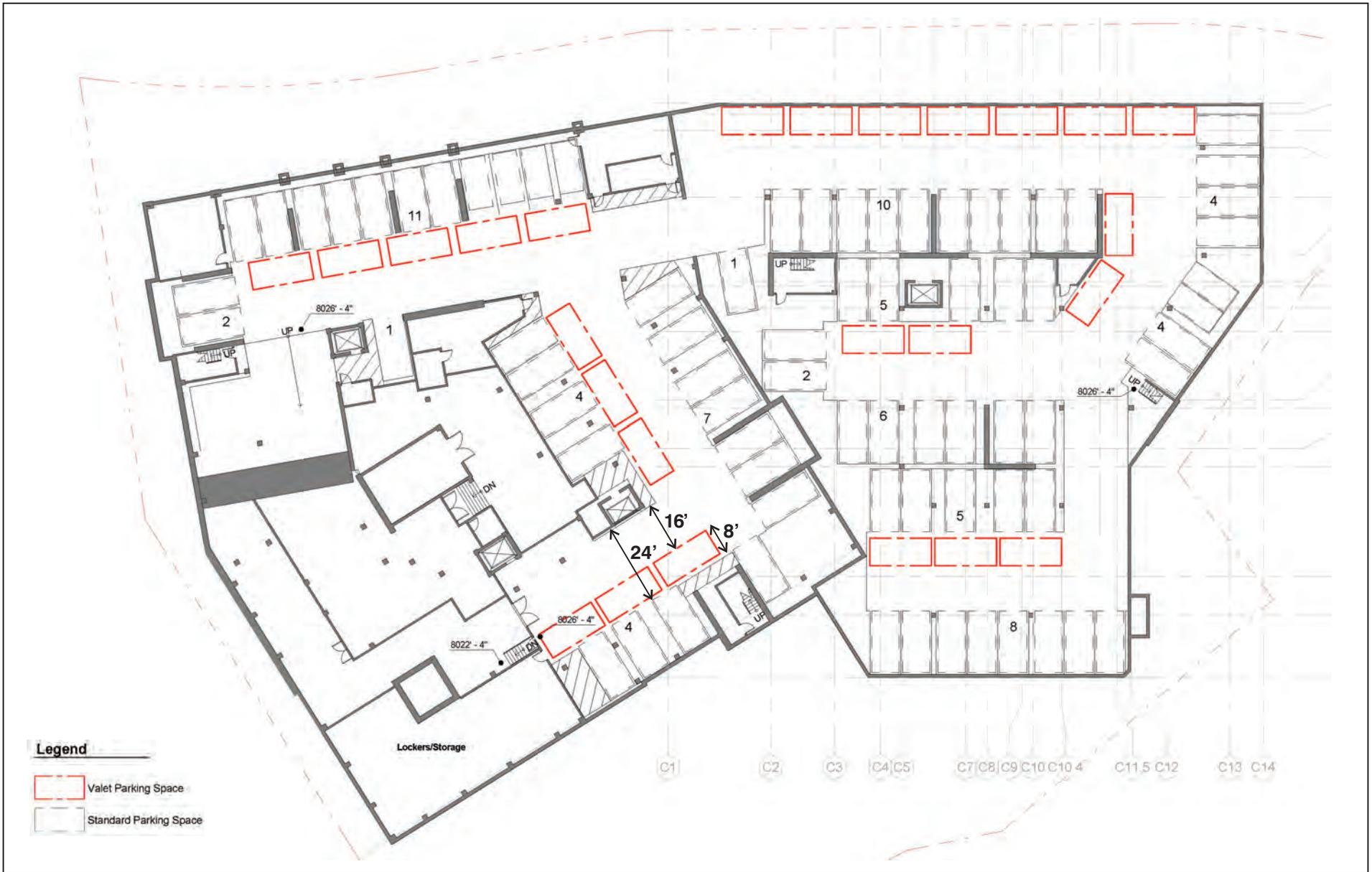
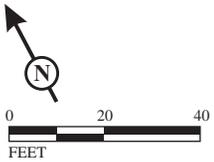


FIGURE 2b

LSA



SOURCE: Bull Stockwell Allen

50 Canyon Boulevard
Subterranean Parking Plan (Lower Level)

Table A.1: 8050 Complex Project Trip Generation

Land Use	Size	Unit	Saturday Peak Hour		
			In	Out	Total
Trip Rates¹					
Condominium		unit	0.151	0.129	0.280
Project Trip Generation					
Condominium	91	unit	14	12	26

¹ Trip rate referenced from observed Intrawest North Village (Grand Sierra, White Mountain, and Lincoln House) count on February 9, 2008 for the Mammoth Crossings Traffic Impact Analysis (May 21, 2008).

Table A.2: Peak 15-Minute Valet Parking Service Rates

Service Rates per Lane		
Average Headway (sec/veh) ¹	Design Capacity (veh/0.25 hr) ²	Maximum Capacity (veh/0.25 hr) ³
180.0	4	5

¹ Average Headway is based on approximate time for valet attendant to park a vehicle in the subterranean garage and return to the valet pick-up/drop-off area.

² Design Capacity is 80 percent of the Maximum Capacity, as explained in the Crommelin report.

³ Maximum Capacity is determined by dividing 900 seconds (15 minutes) by the Average Headway.

sec/veh = seconds per vehicle

veh/0.25 hr = vehicles per 0.25 hour

Table A.3: Peak 15-Minute Valet Parking Stacking Analysis

Valet Attendants	Service Rate ¹	Arrival Rate (Peak 15-Min Volume)	Traffic Intensity ²	Reservoir Required (ft) ³	
				Average	95th %
3	4	7	0.58	22	44

¹ The Service Rate is the Design Capacity.

² Traffic Intensity is the Arrival Rate (peak-hour volume) ÷ Service Rate per the "Reservoir Needs vs. Traffic Intensity" table in the Crommelin report. Traffic Intensity is also a function of the number of valet attendants; therefore, Traffic Intensity = Arrival Rate ÷ (Service Rate * Valet Attendants).

³ Number of feet indicated in the "Reservoir Needs vs. Traffic Intensity" table (based on the highest of the AM, PM, and Saturday Traffic Intensity). 22 feet equates to 1 vehicle.

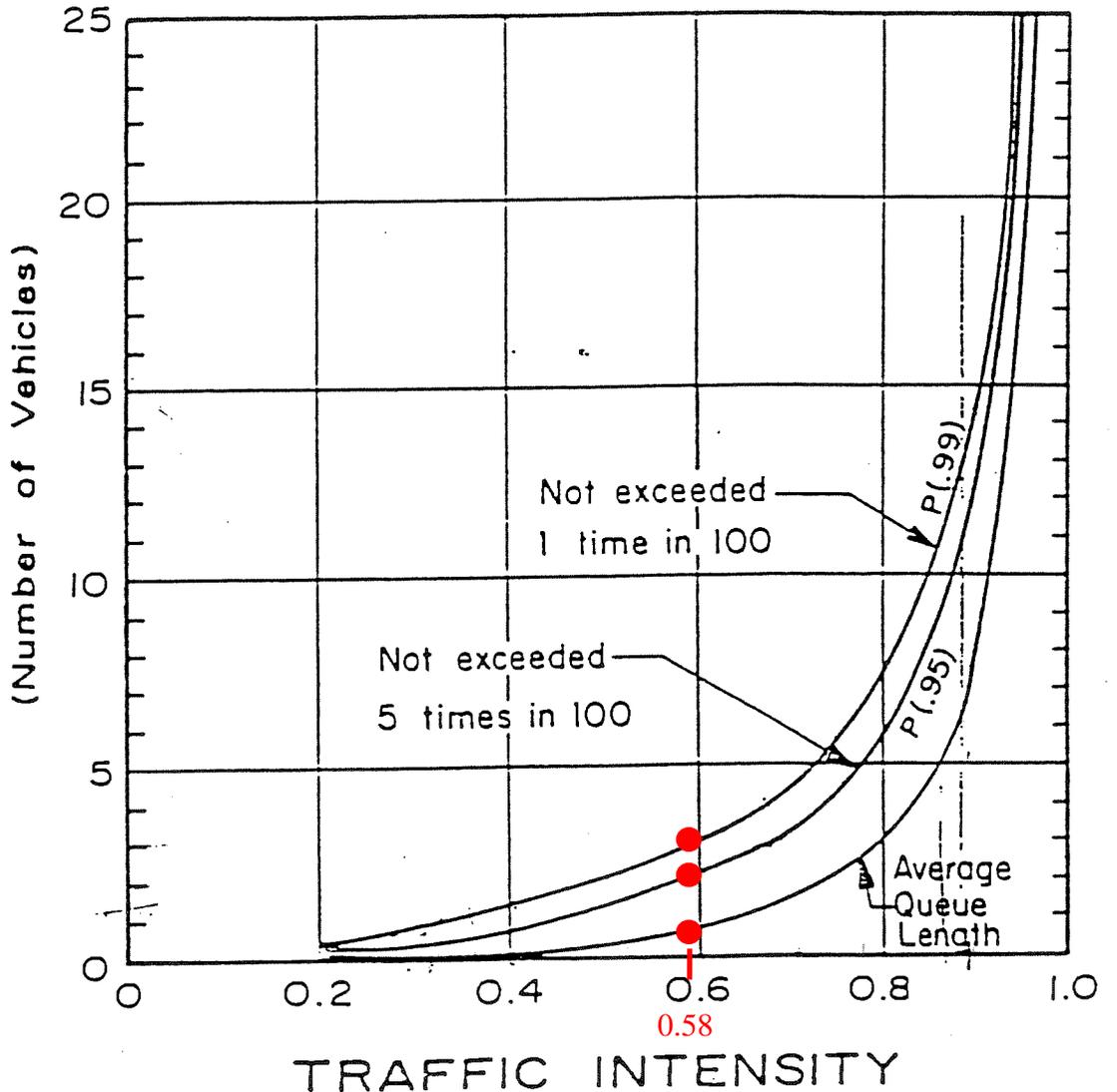
"Average" is the reservoir required for the average queue, "95th %" is the reservoir required so a queue does not exceed the reservoir 5 times in 100.

Min = minute

ft = feet

RESERVOIR NEEDS VS TRAFFIC INTENSITY

RESERVOIR BEHIND SERVICE POSITION



(Average Arrival Rate ÷ Average Service Rate)

— 3 valet parking attendants

Assumptions:

1. Arrivals follow a Poisson Distribution
2. Service rate can be represented by an exponential probability function.
3. Flow is equally divided between each lane if more than one is available.

Note: To obtain reservoir length, use 22 feet per vehicle.