



# HEXAGON TRANSPORTATION CONSULTANTS, INC.

## Memorandum

**Date:** April 14, 2023

**To:** Richard Dewey, RLD Land LLC

**From:** Gary Black  
Nivedha Baskarapandian

**Subject:** Transportation Review for the Residential Single-Family Home at 702 Ellsworth Place in Palo Alto, California

Hexagon Transportation Consultants, Inc. has completed a transportation review for the proposed residential single-family home at 702 Ellsworth Place in Palo Alto, California. The project site is located on the east side of Ellsworth Place adjacent to Middlefield Road. (see Figure 1.) The project would eliminate the existing eight parking spaces on the site and build a single home (see Figure 2). In a related project application, four tenant parking spaces together with a short-term delivery space would be added to the existing apartment building at 2901 Middlefield Road.

### Access Analysis

The site access and on-site circulation evaluation is based on the site plan prepared by Todd Kalbfeld Landscape Design dated March 4, 2023 (see Figure 2). Site access was evaluated to determine the adequacy of the residential home driveway with regard to geometric design and stopping sight distance. Backing out of the project home driveway would be equivalent to backing out of the other homes on Ellsworth Place. It should be noted that the number of backing maneuvers from 702 Ellsworth would be reduced since the number of parking spaces on site would be reduced from eight to two. One of the additional parking spaces added to the existing apartment building would exit onto Ellsworth Place if vehicles are parked in both tandem spaces. The garage for the new home would be located at the north end of the site, and the stopping sight distance from Middlefield Road to the driveway would be adequate.

### Ellsworth Place

Ellsworth Place is a 530 feet long private street with no turnaround area. The private street width of Ellsworth Place is 20 feet. The street has been privately maintained with the last paving performed in approximately 2003 per a neighbor. Based on a visual inspection, Ellsworth has several potholes and is not in good repair. Given the 20 feet width, the residents have an informal "no parking" agreement along the street. According to typical fire access requirements, this is wide enough to safely accommodate two-way traffic and emergency vehicles.



Figure 1  
Project Site Location

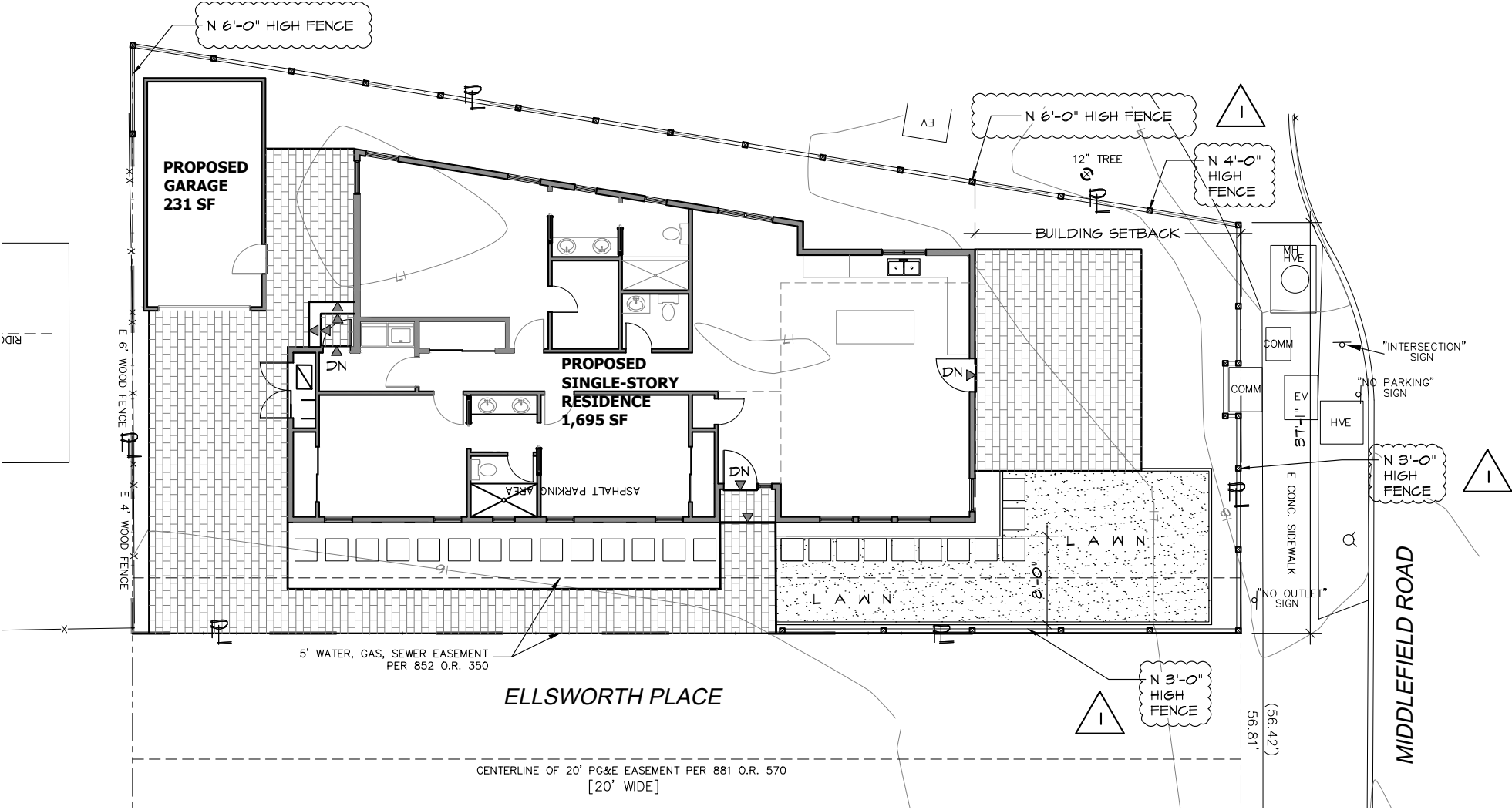


Figure 2  
Site Plan

Ellsworth Place is accessed by a 20-foot-wide dustpan style driveway. There is an existing stop sign on Ellsworth Place exiting onto Middlefield Road. Residents on Ellsworth Place have asked for a wider entrance to Ellsworth Place and a replacement of the dustpan style driveway with a curb radius design. According to Table 5 of the Palo Alto Municipal Code 18.54.070, 20 feet is the minimum width to serve residential developments<sup>1</sup>. There are trade-offs involved in driveway design. Wider driveways are easier to turn in and out of, but that means turning speeds are higher. Also, wider driveways are less safe for pedestrians to cross. The current 20-foot dustpan style driveway on Ellsworth Place at Middlefield Road requires vehicles to almost come to a stop to turn into the street. A wider driveway or elimination of the dustpan design would allow cars to make the turn onto Ellsworth Place at higher speeds, which would be detrimental to safety.

### **Sight Distance at Middlefield**

Sight distance was checked for the project home driveway and at Ellsworth Place and Middlefield Road. Sight distance recommendations vary depending on the roadway speeds. The posted speed limit on the section of Middlefield Road near Ellsworth Place is 25 miles per hour (mph). There is a private school located across the project site, and during school hours the posted speed limit is 20 mph. The recommended stopping sight distance for the intersection of Ellsworth Place and Middlefield Road is 200 feet (based on a design speed of 30 mph). There is adequate sight distance at the intersection as Middlefield Road is straight and does not allow for street parking (see Figure 3). Bicyclists share the street with vehicles as there are no bike lanes on this segment of Middlefield Road. A sight triangle as shown in Figure 4 should be established at both corners of the intersection so that exiting vehicles can see pedestrians on the sidewalk and bicycles and motor vehicles in the street. Any vegetation taller than three feet should be removed within the sight distance triangle, and the project's fence should not be taller than three feet within the sight triangle area per Palo Alto Municipal Code 16.24.040. Some neighbors have noted that bicyclists occasionally ride illegally on the sidewalk which is beyond the purview of this project. However, the City may want to address it since it is in conjunction with the private school across the street.

### **Proposed Reduced Parking**

With the proposed residential home project, eight parking spaces would be removed. The parking spaces were previously designated as "guest only" parking for the adjacent parking complex but were rarely used given that Sutter Avenue has plenty of street parking. The project would remove these spaces but would develop four additional parking spaces on the apartment complex site to comply with the current City of Palo Alto parking requirements (see Figure 5). This would allow the apartment complex to satisfy today's parking requirement on-site. The elimination of the eight guest parking spaces on the home site and moving four of these parking spaces to the apartment complex increases the safety for the apartment residents, as they no longer have to walk across Ellsworth Place. Therefore, the removal of the parking spaces at the single-family home site would not impact the apartment complex parking.

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<sup>1</sup> The intersection of Ellsworth Place and Middlefield Road has historically been accessed by a 20-foot driveway located on 702 Middlefield Road. To be conservative, this report treats the driveway approach as equivalent to an urban driveway serving over 11 multi-family units.

Looking Left



Looking Right



Figure 3  
Middlefield Road Sight Distance



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## Loading Vehicle Access

Hexagon understands that delivery trucks occasionally use the eight-space parking area for parking and turnaround because there is no parking on Middlefield Road and Ellsworth Place is too narrow for trucks to turn around. It should be noted that the current parking lot is private, and Hexagon expresses no opinion on whether this use is permitted by the current property owner. To assist with overall circulation, the project proposes to provide a delivery truck parking space across from the project site adjacent to the apartment complex (see Figure 5).

## Conclusions

The results of the transportation review for the 702 Ellsworth Place single-family home project are summarized below.

- The proposed home design shows adequate space to back out of the garage and adequate spacing from Middlefield Road for sight distance.
- The existing 20 feet width of Ellsworth Place is adequate for two-way traffic and emergency vehicles access.
- The existing intersection of Ellsworth Place with Middlefield Road has adequate width. An adequate 35 feet sight distance triangle (per Palo Alto Municipal Code 16.24.040) should be created and maintained for exiting vehicles. Trees and fences within the sight triangle should be reduced to three feet.
- A space for delivery vehicles would be created across from the new home at the apartment complex which will improve circulation in the area.
- On-site parking spaces would be added to the apartment complex to comply with the current City of Palo Alto parking requirements for multi-family residential.

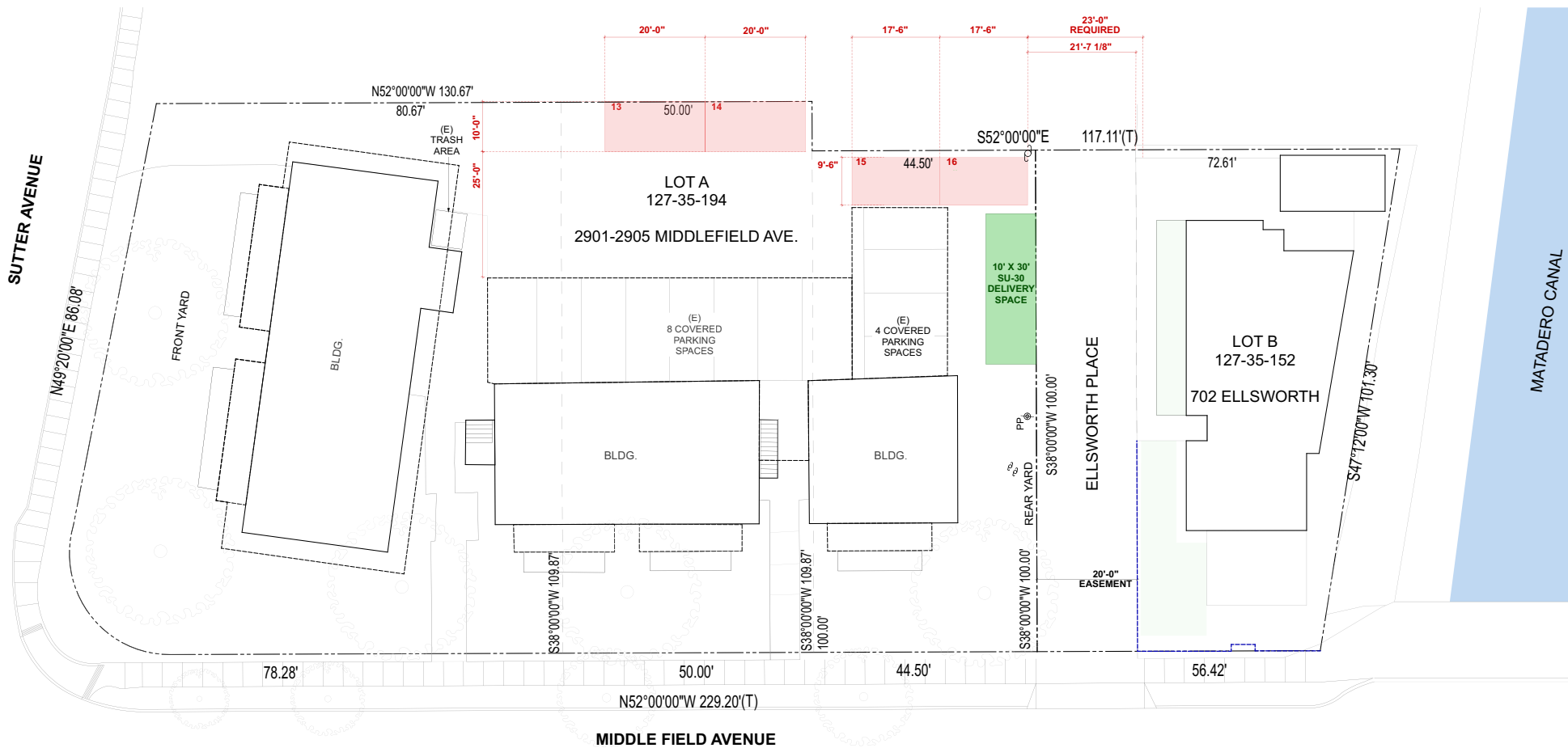


Figure 5  
Apartment Complex Site Plan