



## MEMORANDUM

Date: July 10, 2018

To: Eric Evans, PE, Engineering Director  
Emerio Design  
6445 SW Fallbrook Place  
Suite 100  
Beaverton OR 97008

From: Frank Charbonneau, PE, PTOE

Subject: Transportation Analysis Letter  
**Marquis – Oregon City Memory Care**  
City of Oregon City

FL1872

A Transportation Analysis Letter (TAL) for the Marquis of Oregon City Memory Care facility's parking improvement has been prepared as required according to the City of Oregon City's transportation standards. As the on-site parking expansion will not generate additional trips a TAL report was sufficient for the transportation analysis. Capacity analysis of nearby public intersections and the site driveways is not required. The transportation analysis letter includes a description of the site, on-site parking capacity of the existing and proposed design, verification of the driveway widths and standards, sight distance assessment, and review of the traffic safety conditions.

### Site Development

The Marquis facility is currently a memory care and rehabilitation center located in the southwesterly corner of the intersection of Molalla Avenue and Beavercreek Road at 1680 Molalla Avenue. The attached vicinity map (Figure 'a') highlights the project location. As parking demand on the site is at a high level with over-parked conditions the capacity will be increased from 42 spaces to 64 spaces. A copy of the parking plan showing the number of spaces is attached (Figure 'b'). No on-street parking is available on the two adjacent streets (Molalla Avenue & Beavercreek Road) next to the site.

No building improvements or operational changes are planned in conjunction with the site's parking modification plan.

### Site Access

The site has two driveway accesses on Molalla Avenue located south of the signalized intersection at Beavercreek Road and Molalla Avenue. Due to the on-site parking layout and traffic circulation pattern the northerly driveway effectively functions as an ingress only access. The southerly access provides two-way traffic operation. Both driveways measure between 25 feet to 28 feet in width and meet the City's non-residential width standard (Municipal Code 12.04.025 – Street Design, Driveway Curb Cuts) ranging from 15 feet to 40 feet wide.

### Trip Generation

As no building improvements or operational changes will be made to the existing memory care and rehabilitation facility the site's trip generation will not increase.

**Sight Distance**

Intersection sight distance along Molalla Avenue was reviewed in accordance with AASHTO standards. The travel speed along Molalla Avenue is posted at 35 MPH in this vicinity. Based on 35 MPH AASHTO recommends a minimum intersection sight distance of 390 feet be available.

From the Molalla Avenue site access points currently there are no sight distance obstructions and the available intersection sight distance exceeds 500 feet in both directions. Therefore the sight distance standards are met. It will be necessary to maintain the required intersection sight distance. Any obstructions such as vegetation, fencing, buildings, signage, parking, above ground utilities, or other objects that may inhibit the sightlines must be avoided for safety reasons.

**Safety Review**

Accident data within the five-year period between 01/01/12 and 12/31/16 for Molalla Avenue at the Beavercreek Road signalized intersection nearest to the site was obtained from the Oregon Department of Transportation staff and was reviewed to help identify any traffic safety problems. Copies of the accident reports are attached.

For the study period there were a total of 55 reported crashes. Some of the crashes may have been related to traffic movements occurring within or near the existing north site access since its location is within 50 feet of the signal. However, the crash frequency cannot be established specifically from the data. In order to lessen the potential for crashes in the future from occurring at or near the site driveway the parking design will be changed to eliminate five angled spaces positioned just inside the lot near the driveway. The parking modification will improve safety by reducing potential traffic conflicts within and near the driveway area adjacent to Molalla Avenue.

**Conclusion**

The transportation analysis letter for the Marquis of Oregon City Memory Care has been prepared to document the trip generation, access width, sight distance availability, and safety. The existing parking lot will be modified to increase the much needed on-site parking capacity from 42 spaces to 64 spaces. No building improvements or operational changes are planned and as a result there will be no increase to the facility's trip generation.

The site will maintain the existing driveways on Molalla Avenue located south of the Beavercreek Road intersection. Both driveways currently meet the City's width standard of between 15 feet and 40 feet.

In order to improve traffic safety near the north site driveway on Molalla Avenue parking conditions will be changed to eliminate five angled spaces just inside the lot near the driveway. The modification will improve safety by reducing potential traffic conflicts within and near the driveway area adjacent to Molalla Avenue.

Based on the results of the transportation analysis it is recommended that the City of Oregon City support the proposed parking lot design.

If there are any questions regarding this report please contact Frank Charbonneau, PE, PTOE at 503.293.1118 or email [Frank@CharbonneauEngineer.com](mailto:Frank@CharbonneauEngineer.com).

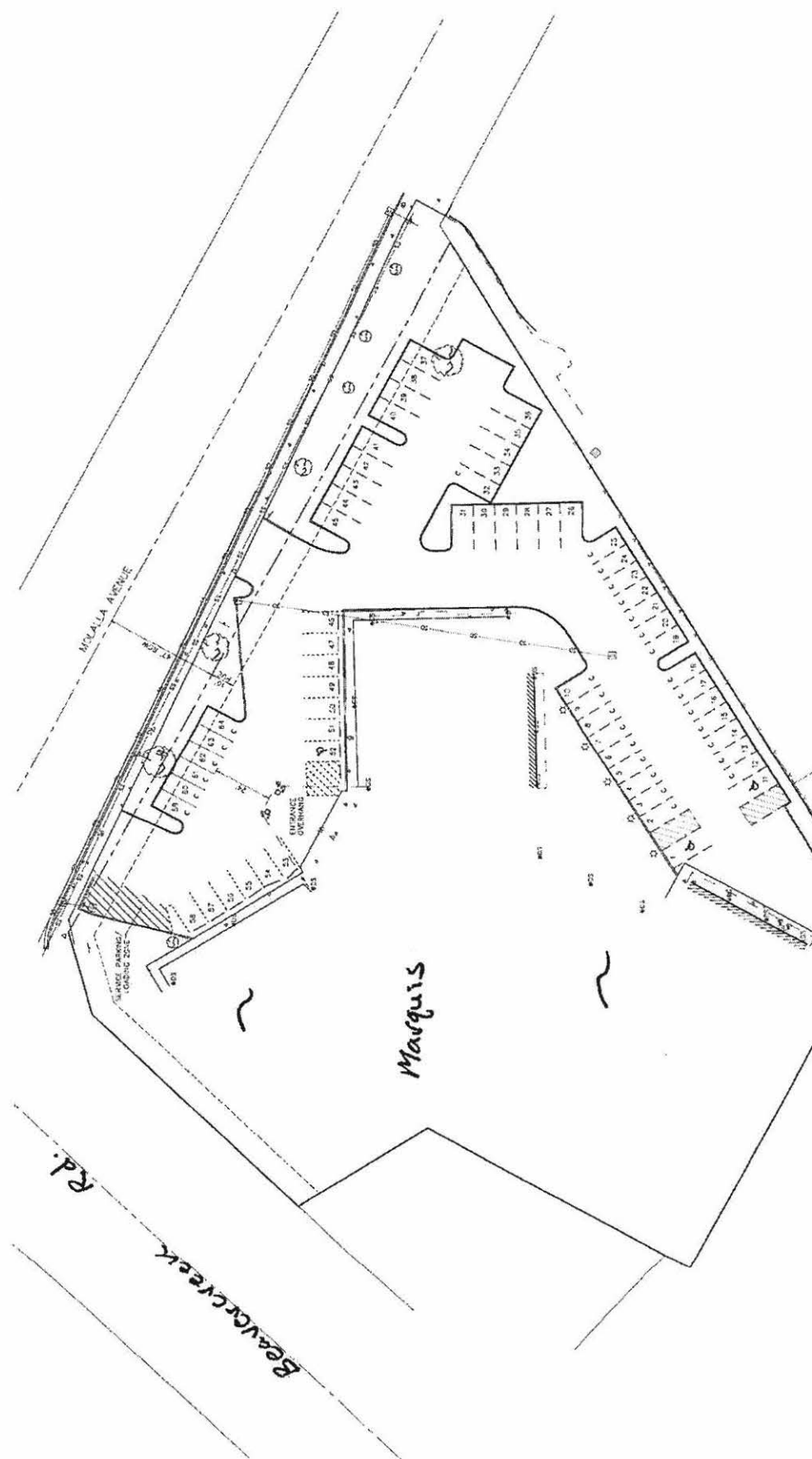
**Attachments**

Figure 'a' Vicinity Map  
Figure 'b' Parking Lot Plan (furnished by Emerio Design)  
Safety - Accident History Report (furnished by ODOT)





↑ N



PARKING LOT PLAN	FIGURE
MARQUIS - OREGON CITY MEMORY CARE	b

Project No. 18-27

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION  
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT  
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Molalla Ave & Beavercreek Rd  
January 1, 2012 through December 31, 2016

COLLISION TYPE	FATAL CRASHES	NON- FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER- SECTION	INTER- SECTION RELATED	OFF- ROAD
YEAR: 2016														
FIXED / OTHER OBJECT	0	1	0	1	0	1	0	1	0	1	0	1	0	1
REAR-END	0	1	1	2	0	1	0	2	0	2	0	2	0	0
TURNING MOVEMENTS	0	5	6	11	0	8	0	9	2	7	4	11	0	0
2016 TOTAL	0	7	7	14	0	10	0	12	2	10	4	14	0	1
YEAR: 2015														
ANGLE	0	0	1	1	0	0	0	0	1	1	0	1	0	0
REAR-END	0	3	1	4	0	3	0	3	1	4	0	4	0	0
TURNING MOVEMENTS	0	2	0	2	0	2	0	1	1	0	2	2	0	0
2015 TOTAL	0	5	2	7	0	5	0	4	3	5	2	7	0	0
YEAR: 2014														
ANGLE	0	1	0	1	0	1	0	1	0	1	0	1	0	0
BACKING	0	1	0	1	0	1	0	0	0	1	0	1	0	0
REAR-END	0	3	3	6	0	6	0	3	3	5	1	6	0	0
SIDESWIPE - OVERTAKING	0	1	0	1	0	2	0	0	1	0	1	1	0	0
TURNING MOVEMENTS	0	4	3	7	0	7	0	6	1	5	2	7	0	0
2014 TOTAL	0	10	6	16	0	17	0	10	5	12	4	16	0	0
YEAR: 2013														
REAR-END	0	0	3	3	0	0	0	2	1	2	1	3	0	0
TURNING MOVEMENTS	0	4	1	5	0	11	0	3	2	1	4	5	0	0
2013 TOTAL	0	4	4	8	0	11	0	5	3	3	5	8	0	0
YEAR: 2012														
REAR-END	0	4	4	8	0	8	0	6	2	6	2	8	0	0
TURNING MOVEMENTS	0	1	1	2	0	1	0	1	1	2	0	2	0	0
2012 TOTAL	0	5	5	10	0	9	0	7	3	8	2	10	0	0
FINAL TOTAL	0	31	24	55	0	52	0	38	16	38	17	55	0	1

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.