June 29, 2021
W.O. No. 20-2744

City of Spokane
Department of Engineering Services
801 W. Spokane Falls Boulevard
Spokane, WA 99201

Attn: Inga Note, P.E.

Re: Proposed Nexcore-Spokane Assisted Living as a part of the
53rd & Regal Binding Site Plan (BSP)
Trip Generation and Distribution Letter

Dear Inga,

The purpose of this document is to provide a Trip Generation and Distribution letter (TGDL) for the proposed Nexcore Spokane Assisted living to be located on the Southwest corner of 53rd Avenue & Fiske Street, within the 53rd & Regal BSP. As shown on Figure 2, Preliminary Site Plan. This letter will follow the standards for doing Trip Distribution Letters as required by the City of Spokane and the Institute of Transportation Engineers (ITE).

**PROJECT DESCRIPTION**

The proposed 53rd & Regal Binding Site Plan (BSP) includes an 8.62 ac +/- parcel, The BSP proposes to separate the parcel into four leasable areas, separated by lot lines and private driveways, with three areas along the Regal Street frontage, and the largest area to the east. The Nexcore Assisted Living project is located on the largest area. The existing parcel is primarily undeveloped with a single-family residence recently removed from the site, and the remnants of material stockpiles. The Nexcore Assisted Living Center is a 3 story 121,605 sf building that is proposed to have 145 beds.

The remainder of the BSP is intended to be commercial/retail space. While the end user is unknown at this time. Generally, we can expect two to three buildings totaling 30,000 sf (30.0 ksf) to be built under a future building permit. This analysis will consider this future development within this letter.

The BSP proposes a connecting driveway that extends from 53rd Avenue to 55th Avenue. And an offset driveway from Regal Street to the connecting driveway. The Nexcore Facility proposes a driveway access on Fiske Street that goes around the southern end of the building through a parking area and terminates into the connecting driveway. Also on the connecting driveway are two driveways that loop to the entrance of the building and allows access to the west parking area. Please See Figure 2 Preliminary Site Plan.
Vicinity / Site Plan

The site is currently listed on the Comprehensive Plan as General Commercial and zoning map as Center and Corridor (CC2-DC). The site lies on the NW ¼ of Section 03, T. 24 N., R. 43 E., W.M. within the City of Spokane, Washington. The parcel number for the site is 34032.0494. A vicinity map is included as Figure 1, along with a preliminary site plan as Figure 2.

Trip Generation and Distribution

Trip Types

The proposed land use is a residential assisted living and commercial; ITE has developed data regarding various trip types that all developments experience. These are found in several places, however, for this analysis the *Trip Generation Manual 10th Edition* as well as the Institute of transportation Engineers (ITE) *Trip Generation Handbook* were used to develop the criteria for this analysis. Generally, all existing and proposed developments will be made up of one or more of the following trip types: new (destination) trips, pass-by trips, diverted trips, and shared (internal trips).

In order to better understand the trip types available for land access a description of each specific trip type follows.

New (Destination) Trips - These types of trips occur only to access a specific land use such as a new retail development or a new residential subdivision. These types of trips will travel to and from the new site and a single other destination such as home or work. This is the only trip type that will result in a net increase in the total amount of traffic within the study area. The reason primarily is that these trips represent planned trips to a specific destination that never took trips to that part of the City prior to the development being constructed and occupied. This project will develop new trips.

Pass-by Trips - These trips represent vehicles which currently use adjacent roadways providing primary access to new land uses or projects and are trips of convenience. These trips, however, have an ultimate destination other than the project in question. They should be viewed as customers who stop in on their way home from work. An example would be on payday, where an individual generally drives by their bank every day without stopping, except on payday. On that day, this driver would drive into the bank, perform the prerequisite banking and then continue on home. In this example, the trip started from work with a destination of home, however on the way, the driver stopped at the grocery store/latte stand and/or bank directly adjacent to their path. Pass-by trips are most always associated with commercial/retail types of development along major roadways. Therefore, for this project pass-by trips may be considered.

Diverted (Linked) Trips - These trips occur when a vehicle takes a different route than normal to access a specific facility. Diverted trips are similar to pass-by trips, but diverted trips occur from roadways, which do not provide direct access to the site. Instead, one or more streets must be utilized to get to and from the site. For this project, because of the many different routes that can be taken to and from the site, we believe that these would be difficult to track and verify. Therefore, no diverted trips were acknowledged for this analysis.
Shared Trips - These are trips which occur on the site where a vehicle/consumer will stop at more than one place on the site. For example, someone destined for a certain shop at a commercial site may stop at a bank just before or after they visit the shop that they went to the site to visit. This trip type reduces the number of new trips generated on the public road system and is most commonly used for commercial developments. Determining these trip types is more difficult to quantify and without specific guidance are usually determined by engineering judgment on a project-by-project basis. Although some shared trips between future land uses may occur with this project, there is no supporting data to justify a large, shared trip reduction. Therefore, to be conservative no shared trips were credited for this project.
**Trip Generation Characteristics for the Existing and Proposed land uses**

As noted earlier, trip generation rates for the AM and PM peak hours are determined by the use of the *Trip Generation Manual, 10th Edition* published by the Institute of Transportation Engineers (ITE). The purpose of the *Trip Generation Manual* is to compile and quantify empirical data into trip generation rates for specific land uses within the US, UK and Canada.

For the proposed 145 bed Assisted Living Building, Land Use Code LUC#254, Assisted Living was used to establish the number of potential trips generated by the proposed land use. Based upon Section 4.4 in Trip Generation Handbook, the average rate was used to calculate new project trips. The average rate equation and the anticipated number of AM & PM peak hour trips for the proposed land use are shown on Table 1.

**Table 1 - Trip Generation Rates for LUC 254 Assisted living (Figure 3 & 4)**

<table>
<thead>
<tr>
<th>Beds</th>
<th>AM Peak Hour Trips</th>
<th>PM Peak Hour Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vol. @ 0.19 trips/Bed</td>
<td>Directional Distribution</td>
</tr>
<tr>
<td></td>
<td>63% In</td>
<td>37% Out</td>
</tr>
<tr>
<td>145</td>
<td>28</td>
<td>18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Average Daily Trip Ends (ADT)</th>
<th>Beds</th>
<th>Rate</th>
<th>ADT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>145</td>
<td>2.6</td>
<td>377</td>
</tr>
</tbody>
</table>

As shown on Table 1, the proposed land use is anticipated to generate 28 trips in the AM peak hour with 18 trips entering the site and 10 trips exiting the site. In the PM peak hour, the proposed land use is anticipated to generate a total of 38 trips, with 14 trips entering the site and 24 trips exiting the site. The proposed development is anticipated to generate a total of 377 average daily trip ends to/from the site.

For the proposed 30,000 sf (30.0 ksf) of retail services, Land Use Code LUC#820, Shopping Center was used to establish the number of potential trips generated by the proposed land use. Based upon Section 4.4 in Trip Generation Handbook, the average rate was used to calculate new project trips. The Fitted Curve equation and the anticipated number of AM & PM peak hour trips for the proposed land use are shown on Table 2.

**Table 2 - Trip Generation Rates for LUC 820 Shopping Center (Figure 5 & 6)**

<table>
<thead>
<tr>
<th>Thousand Square Feet (KSF)</th>
<th>AM Peak Hour Trips</th>
<th>PM Peak Hour Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fitted Curve</td>
<td>Directional Distribution</td>
</tr>
<tr>
<td></td>
<td>62% In</td>
<td>38% Out</td>
</tr>
<tr>
<td>30.0</td>
<td>167</td>
<td>104</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Average Daily Trip Ends (ADT)</th>
<th>KSF</th>
<th>Fitted Curve</th>
<th>ADT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>30.0</td>
<td>2,652</td>
<td></td>
</tr>
</tbody>
</table>

As shown on Table 2, the proposed land use is anticipated to generate 167 trips in the AM peak hour with 104 trips entering the site and 63 trips exiting the site. In the PM peak hour, the proposed land use is anticipated to generate a total of 223 trips, with 107 trips entering the site and 116 trips exiting the site. The proposed development is anticipated to generate a total of 2,652 average daily trip ends to/from the site.

Fitted Curve Equations:
- AM T = 0.50(X) +151.78
- PM ln(T) = 0.74 ln (x) +2.89
- ADT ln (T) = 0.68 Ln(X) + 5.57
As shown on Table 2, the proposed land use is anticipated to generate 167 trips in the AM peak hour with 104 trips entering the site and 63 trips exiting the site. In the PM peak hour, the proposed land use is anticipated to generate 223 trips, with 107 trips entering the site and 116 trips exiting the site. The proposed land use is anticipated to generate 2,652 average daily trip ends to/from the site.

**Trip Generation Summary - BSP**

The BSP when fully developed is anticipated to generate the following total number of trips:

<table>
<thead>
<tr>
<th>Land Use Code (LUC)</th>
<th>AM Peak Hour Trips</th>
<th>PM Peak Hour Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Per LUC Directional Distribution</td>
<td>Per LUC Directional Distribution</td>
</tr>
<tr>
<td></td>
<td>In  Out</td>
<td>In  Out</td>
</tr>
<tr>
<td>LUC 254 Assisted Living</td>
<td>28 18 10</td>
<td>38 14 24</td>
</tr>
<tr>
<td>LUC 820 Shopping Center</td>
<td>167 104 63</td>
<td>223 107 116</td>
</tr>
<tr>
<td>Total</td>
<td>195 122 73</td>
<td>261 121 140</td>
</tr>
</tbody>
</table>

As shown on Table 3, the proposed BSP is anticipated to generate a total of 195 trips in the AM peak hour with 122 trips entering the site and 73 trips exiting the site. In the PM peak hour, the proposed BSP is anticipated to generate a total of 261 trips, with 121 trips entering the site and 140 trips exiting the site. The proposed BSP is anticipated to generate a total of 3,029 average daily trip ends to/from the site.

**Trip Distribution**

As previously discussed, and as shown on the site plan (Figure 2), the site will be accessed from all surrounding roadways Regal Street, Fiske Street, 53rd Avenue, and 55th Avenue.

**Regal Street** is a North/South, two-way, 3 & 4-lane urban minor arterial / neighborhood collector in Spokane County and an urban principal arterial in the City of Spokane. South Regal Street extends from 29th Avenue to 65th Avenue. South Regal Street serves generally commercial and multi-family residential uses as well as Ferris High School located at the corner of 37th Avenue & Regal Street. The posted speed limit on Regal Street within the City of Spokane is 30 MPH, within Spokane County the speed limit is 35 MPH.
**Fiske Street** is a North/South, two-way 2-lane local access road that connects 53rd Avenue to 55th Avenue. Fiske Street serves residential land uses. The speed limit on Fiske Street is 25 MPH.

**53rd Avenue** is an East/West, two-way, 2-lane local access road that extends east from Perry Street, jogs North at Madelia Street, and continues through Centerline and Regal Streets where 53rd Avenue terminates about 600 feet to the east of Fiske Street. 53rd Avenue serves primarily residential land uses with commercial uses adjacent to Regal Street. The speed limit on 53rd Avenue is 25 MPH.

**55th Avenue** is an East/West, two-way, 2-lane, urban local access road in Spokane County. 55th Avenue extends east from Crestline Street through Regal Street to Palouse Highway. 55th Avenue serves various residential land uses and the posted speed limit within the study area is 25 MPH.

It is anticipated that 60% of the trips will go to/from the North, and 20% of the trips will go to/from South via Regal Street. It is anticipated that 15% of the trips will go to/from the East via 55th Avenue, and 5% of the trips will go to/from the West via 53rd or 55th Avenues.

The above-mentioned traffic distribution percentages are based on engineering judgment and actual traffic observations.

**Existing Transit System**
The existing bus route surrounding the project site is Route 4 Monroe-Regal. The nearest bus stops from the project site to the route are located on Regal Street. The bus stops can be accessed by pedestrian sidewalks from the project site. Please see the attached route map.
TRAFFIC IMPACT FEE

The City of Spokane code has established transportation impact fees under Spokane Municipal Code Title 17 Chapter 17D.030. The proposed project is within the South Service area and as such is subject to the current Impact Fee Schedule (included the appendix) the following table calculates the anticipated Impact fee for the proposed project.

Table 4 – Existing Land Use Impact Fee

<table>
<thead>
<tr>
<th>Land Use</th>
<th>LUC</th>
<th>Quantity</th>
<th>Unit of Measure</th>
<th>Fee per unit</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assisted Living</td>
<td>254</td>
<td>145</td>
<td>Beds</td>
<td>$202.96</td>
<td>$29,429.20</td>
</tr>
<tr>
<td>Shopping Center</td>
<td>820</td>
<td>30,000</td>
<td>Square Feet</td>
<td>$1.55</td>
<td>$46,500.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td><strong>$75,929.20</strong></td>
</tr>
</tbody>
</table>

As shown in Table 4 the proposed BSP under the current fee schedule is anticipated to generate a total of an impact fee of $75,929.20. It is anticipated that the fee for each project current and future will be paid at the time of building permit.
CONCLUSIONS AND RECOMMENDATIONS

It is anticipated that this project will generate 195 new AM peak hour trips and 261 new PM peak hour trips; the anticipated impact fee per City of Spokane impact fee schedule for the BSP is anticipated to be $75,929.20.

Based upon the number of anticipated trips, distribution of those trips on South Regal Street and 55th Avenue we believe that the proposed project will not have an impact on the transportation system. Therefore, we recommend that the project pay the City of Spokane impact fee at the time of building permit and be allowed to move forward without further traffic analysis.

Should you have any questions related to this document please do not hesitate to call at 893-2617.

Sincerely,

Todd R. Whipple, P.E.

TRW/bng

encl. Appendix (Vicinity Map, Site Plan, Trip Dist.)

cc: Sponsor
File
APPENDIX

1. Vicinity Map
2. Preliminary Site Plan
3. AM Trip Distribution - Assisted Living
4. PM Trip Distribution – Assisted Living
5. AM Trip Distribution - Retail
6. PM Trip Distribution - Retail
7. AM Total Trip Distribution
8. PM Total Trip Distribution
TRIP GENERATION

<table>
<thead>
<tr>
<th></th>
<th>TOTAL</th>
<th>IN</th>
<th>OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM PEAK</td>
<td>28</td>
<td>18</td>
<td>10</td>
</tr>
</tbody>
</table>

**LEGEND**

- **ROUTE OF TRAVEL**
- **AM(IN/OUT)**

**TRIP SITE**

- **53RD AVENUE**
- **55TH AVENUE**
- **REGAL STREET**
- **57TH AVENUE**

**PROJECT SITE**

**ASSISTED LIVING AM TRIP DISTRIBUTION**

**FIGURE 3**

**NEXCORE ASSISTED LIVING**

53RD & REGAL BSP
SPokane, WashINgtoN

**DATE:** 06/29/21
**DRAWN:** BNG
**APPROVED:** TRW

**PROJ #:** 20-2744

**WHITTLE CONSULTING ENGINEERS**
CIVIL AND TRANSPORTATION ENGINEERING
21 S. PINES ROAD
SPOKANE VALLEY, WASHINGTON 99206
PH: 509-893-2617  FAX: 509-926-0227

**NOT TO SCALE**
TRIP GENERATION

<table>
<thead>
<tr>
<th></th>
<th>TOTAL</th>
<th>IN</th>
<th>OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM PEAK</td>
<td>38</td>
<td>14</td>
<td>24</td>
</tr>
</tbody>
</table>

LEGEND

- ROUTE OF TRAVEL
- PM (IN/OUT)

PROJECT SITE

TRIP GENERATION AND DISTRIBUTION
nexcore ASSISTED LIVING
53RD & REGAL BSP
SPOKANE, WASHINGTON

ASSISTED LIVING PM TRIP DISTRIBUTION

FIGURE 4

PROJ #: 20-2744
DATE: 06/29/21
DRAWN: BNG
APPROVED: TRW
TRIP GENERATION

<table>
<thead>
<tr>
<th>TOTAL</th>
<th>IN</th>
<th>OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM PEAK</td>
<td>167</td>
<td>104</td>
</tr>
</tbody>
</table>

**LEGEND**

- **ROUTE OF TRAVEL**
- **AM(IN/OUT)**

**PROJECT SITE**

- **PALOUSE HIGHWAY**
- **FREYA STREET**
- **57TH AVENUE**
- **55TH AVENUE**
- **53RD AVENUE**
- **REGAL STREET**

**TRIP GENERATION AND DISTRIBUTION**

**NEXCORE ASSISTED LIVING**

**53RD & REGAL BSP**

**SPOKANE, WASHINGTON**

**FIGURE 5**

**RETAIL AM TRIP DISTRIBUTION**

**DRAWN:** BNG

**APPROVED:** TRW

**DATE:** 06/29/21

**PROJ #:** 20-2744

**NOT TO SCALE**

WHIPPLE CONSULTING ENGINEERS

CIVIL AND TRANSPORTATION ENGINEERING

21 S. PINES ROAD

SPOKANE VALLEY, WASHINGTON 99206

PH: 509-830-2617  FAX: 509-626-0227
TRIP GENERATION

<table>
<thead>
<tr>
<th>TOTAL</th>
<th>IN</th>
<th>OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM PEAK</td>
<td>195</td>
<td>122</td>
</tr>
</tbody>
</table>

LEGEND
- W - WHIPPLE CONSULTING ENGINEERS
- E - CIVIL AND TRANSPORTATION ENGINEERING
- T - 21 S. PINES ROAD
- W - SPOKANE VALLEY, WASHINGTON 99206
- E - PH: 509-893-2617  FAX: 509-926-0227

PROJECT SITE

TRIP GENERATION AND DISTRIBUTION
NEXCORE ASSISTED LIVING
53RD & REGAL BSP
SPOKANE, WASHINGTON

FIGURE 7
TOTAL AM TRIP DISTRIBUTION

PROJ #: 20-2744
DATE: 06/29/21
DRAWN: BNG
APPROVED: TRW