

March 7, 2023

Matt Faucher, Current Planner
Residential Development Services
City of Vernon
3001 32nd Avenue
Vernon, BC V1T 2L5

Dear: Mr. Faucher:

**RE: PLEASANT VALLEY MHP INC.
DP000841 & DVP00468 Referral Review Response – 12 Site Infill_Rev-2
Our File: 2273.002-300**

Introduction

Kerr Wood Leidal Associates (KWL) has been retained by Pleasant Valley MHP Inc. (Owner) to assist with developing the Phase 3, 12 site infill, of their manufactured home park located at 4701 Pleasant Valley Road (Lot 1, Plan KAP 83899 Section 2, TP 8, ODYD). The following letter is provided in response to the City's referral letter for DP000841 and DVP00468 dated April 25, 2022 and has been revised based on City staff comments and meetings with City staff December 15th, 2022 and March 6th, 2023.

Proposed Development

The proposed infill area is located on a treed hillside within the 6.63 hectare (ha) Pleasant Valley Road Manufactured Home Park (PV MHP) and is zoned R7: Mobile Home Residential. The additional 12 sites proposed would increase the number and density of units in the park from 71 units (10.7 units / ha) to 83 units (12.5 units / ha). This increase is within the allowable maximum density of 20 units / ha. Also, the additional 12 sites proposed would increase the existing site coverage from 1.71 ha (25%) to 2.2 ha (33%) which is within the maximum allowable coverage of 40%.

The proposed Phase 3 development will not bring the manufactured home park's density or site coverage close to the maximum allowable density for the zoning maintaining the existing feel of the park's community while providing much needed affordable housing. Efforts will be made to limit tree removals as outlined in the proposed environmental mitigation measures section below.

Access

The primary access road to the proposed Phase 3 infill area is a curbed 7.0 m wide paved drive aisle connecting to existing roads within the park. The new road will connect to a new, second access, at the north property line which continues to Silver Star Road. The second access off Silver Star Road is provided to reduce the length of the dead-end road and give a much-needed secondary emergency egress for the entire park. The second access is a 7.0 m wide paved drive aisle on a 6.1 m wide easement in favour of Pleasant Valley MHP Inc. and has been constructed by the Silver Star Gateway project through their development to the property's north boundary. The 6.1 m easement width meets the requirements for fire truck access and is registered on address 5012 Silver Star Road (Lot 1, Plan 87603, Section 2, TP 8, ODYD). Site Servicing Figure attached shows the proposed accesses.

Prior to the City's upgrades to Pleasant Valley Road along the PV MHP frontage there was an existing gravel access to the PV MHP property north of the main access off Pleasant Valley Road. This gravel access was removed during the City's upgrades as is no longer useable.



Bike Parking and Storage

Class 1 bike long-term parking and storage will be provided in the garages of the proposed 12 units. There are 40 existing garages and carports within PV MHP which provide Class 1 bike storage for a total of 52 parking and storage spaces exceeding the minimum 42 required.

Servicing

Servicing will be provided by connecting to the existing sanitary, water, and shallow utilities within the park. Storm water management will be done by infiltration chambers located within the park and major overflow routing along the existing roads within the park to Pleasant Valley Road.

Environmental Mitigation Measures

The proposed site grading for the infill access road and manufactured home sites has taken into consideration protection of the two Environmentally Sensitive Areas (ESAs) and two Natural areas outlined in the Environmental Assessment report *Western Water Associates Pleasant Valley Manufactured Home Community Ecosystem Impact Assessment, September 2019*. Proposed site grading does not encroach upon or disturb these areas.

Other proposed mitigative measures outlined in Western Water's report will be accommodated during detailed design. Consultation with a Qualified Environmental Professional (QEP) prior to construction will be done to look for species at risk and bird nesting trees. An environmental mitigation plan will be developed and followed during construction and post construction under the supervision of a Qualified Environmental Professional following Best Management Practices. Revegetation of the disturbed 2:1 cut slope above the proposed soil nail wall with native plantings and grasses is proposed to restore this area to its natural state.

Development Variances

The following variances are requested for the 12 proposed sites in the Phase 3 infill portion of the manufactured home park only and will not apply to the remainder of the park's sites or undeveloped areas.

Manufactured Home Site Depths

Two meetings were held with City planning staff on June 4 and September 25, 2019 to discuss site layouts for Phase 3. City staff expressed concerns about constructing the primary access road and home sites on steep slopes. The Owner proposes narrower sites with homes orientated parallel to the road instead of the traditional perpendicular orientation to reduce construction impacts on the steeper treed slopes. See Slope Analysis Figures A and B attached for road and site locations on the slopes.

The proposed development is in an Environmental Management Area (EMA) yellow zone which indicates moderate environmental sensitivity. An ecosystem impact assessment (EIA) performed on the subject area recommended reducing development along the southern portion of Phase 3 in two environmentally sensitive areas (ESA). See Western Water Associates Ltd. September 26, 2019 Ecosystem Impact Assessment attached. Reduction of site depths would condense the development along the north property line limiting disturbance of the ESAs and natural areas below them. Site Grading Plan Figures A and B attached show preliminary site grading and proposed retaining walls in relation to the ESAs and natural areas.

A development variance permit is required to reduce the minimum mobile home site depth from 25.0 m as required in Zoning Bylaw #5000, 2003 Section 9.8.6, to a minimum depth of 18.2 m.



Building Height

Sites 7 to 10 are situated above the environmentally sensitive and natural areas that are to be left undisturbed. A 4.0 m high basement is proposed for homes on these sites to reduce the extents of fill, thus, decreasing disturbance to these areas. A development variance permit is required to increase the maximum building height from the lesser of 7.6 m or 1 storey as outlined in Zoning Bylaw #5000, 2003 Section 9.8.6 to lesser of 8.0 m or 2.0 storeys.

Hillside Development

A slope analysis of the subject property has been performed and indicates areas with slopes over 30% (see Slope Analysis Figures A and B attached). The property is within the Hillside Development Permit Area and the City's Hillside Development Guidelines state that 'hillsides are defined as land in their natural state that have a slope of 12% or greater'.

The Owner proposes to construct a road and some structures on slopes greater than 30%. However, the access road and sites have been densified on the flat ground along the north property line, as much as possible, to:

- preserve the natural vegetation in valuable environmental areas identified;
- retain undisturbed natural green space buffer between new sites and existing sites below; and
- reduce site grading requirements.

It is worth noting that this development is located on a small hillside within the City, surrounded by development and will not pose visual scarring of the hillside nor will it obstruct views from residences above or below the proposed development. An ecosystem impact assessment (EIA) was performed on the subject area and the recommendations in the report have been incorporated into the development layout. See Western Water Associates Ltd. September 26, 2019 Ecosystem Impact Assessment attached. A Geotechnical review of the area has been performed and there are no immediate concerns about the proposed development.

Retaining Wall Height

Two retaining walls; a soil nail wall and a lock block wall, with continuous heights greater than 1.2 m are required to construct the 12 Phase 3 sites. A development variance permit is required to construct retaining walls with heights exceeding 1.2 m as outlined in Zoning Bylaw #5000, 2003 Section 6.5.1 ii) and 6.5.1 iii). It is anticipated that the maximum continuous wall height for both walls would be 4.5 m and a development variance permit is required to increase the maximum wall height to 4.5 m.

Silver Star Gateway Soil Anchor (Nail) Wall Extension

The developer of Silver Star Gateway Phase 1 has constructed Building 2 at a finished floor elevation of 438.0 m. The southeast corner of the proposed building is approximately 7.0 m below the existing ground elevation of 445.0 m requiring installation of a soil anchor wall along their south property line adjacent to PV MHP.

An agreement was reached between the developer of the Silver Star Gateway property and the Owner to eliminate the wall along the property line and extend it south from the southeast corner of Building 2 at a 3:1 slope to grade into the PV MHP Phase 3 area to an elevation range of 438.0 to 439.2 m. A continuous vertical wall height of 4.5 m will be required in this area to complete the soil nail wall along the proposed hammer head vehicle turn around area and east end of access road.

This wall will be visible from homes on sites 6 to 8 only and homes on sites 7 and 8 will screen the wall from view by the rest of the park. Soil Nail Wall Variance Figure attached shows preliminary alignments, profiles, and cross-sections for the wall. Irrigated vegetation plantings at the toe of the wall will be incorporated into the grading design to provide a screen for the wall and soften its visual appearance.



Lock Block Retaining Wall Sites 10 to 12

Site grading is constrained by existing homes south of proposed sites 10 to 12. A 58 m long lock block retaining wall with a continuous vertical height varying from 2.0 m to a maximum 4.5 m is required to reduce the extents of the fill slope in this area. One section of the wall 9.0 m long will have a height of 4.5 m, the remainder of the wall will be less than 4.0 m high. Lock Block Wall Variance Figure attached shows preliminary alignments, profiles, and cross-sections for the wall. Irrigated vegetation plantings at the toe of the wall will be incorporated into the grading design to provide a screen for the wall and soften its visual appearance.

The City recently approved construction of a significant lock block retaining wall for the Silver Star Gateway project along PV MHP's north property line. The wall is approximately 100 m long and has an estimated height of 5.5 m for a majority of its length and a maximum height of 7.5 m. This wall is visible from the entire manufactured home park and is directly above the proposed lock block wall location. It is anticipated that the addition of the proposed lock block wall in front of it will not change the aesthetics of the north property line area. The photo below shows the wall as seen from the Pleasant Valley Park Main Road in the center of the park.



Silver Star Gateway Lock Block Wall Along North Property Line

Construction of a manufactured home on Site 12 will screen a portion of the east end of the Silver Star Gateway wall with the building and will break up the featureless continual appearance of the wall. The proposed lock block wall for Sites 11 and 12 will be below the height of the existing buildings and have limited visibility from the road and other sites in the park. Irrigated vegetation plantings at the toe of the wall will be incorporated into the grading design to provide a screen for the wall and soften its visual appearance.



Closing

We trust this letter addresses the City's DP000841 and DVP00468 referral review items and planning staff comments. If further information is needed, please contact Bruce Van Calsteren by:

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Yours truly,

KERR WOOD LEIDAL ASSOCIATES LTD.

Bruce Van Calsteren, P.L.Eng., ASCT
Project Manager

BVC/tdl/cjf

Encl. Enclosure A: Site Servicing Figure
 Site Grading Figures A and B
 Lock Block Wall Variance Figure
 Soil Nail Wall Variance Figure
 Slope Analysis Figures A and B
 Enclosure B: Western Water Associates Ltd. September 26, 2019 Ecosystem Impact Assessment
 Enclosure C: Geotechnical Review Letter