

Memo

To: Ruji Ding, P.E.
From: Joe Taflin, P.E.
CC: Wes Geisbrecht
 Phil McCullough, McCullough Architects
Date: December 2, 2025

Subject: Sears Plat – Proposed Stormwater Conditions at Lot 1

The Lot 1 house plans for the Sears Plat short plat development, located at 7414 78th Ave SE in Mercer Island, have been submitted for building permit. This memo serves to document the proposed stormwater management conditions proposed for Lot 1 and conformance with the requirements established with the approved Preliminary Plat, dated February 7, 2024 (SUB23-001), and the Final Engineering Plans, dated August 14, 2024 (2403-206).

Planned Conditions

The Sears Plat development is a 4-lot single family residential development located at 7414 78th Ave SE in Mercer Island, Washington. The development has been mass graded and utilities have been installed per the approved Final Engineering Plans, dated August 143, 2024. Per the approved plat, the development of the lots shall conform to the following coverage requirements:

Table 1: Lot Information

LOT INFORMATION								
LOT #	GROSS FLOOR AREA CALCULATIONS		LOT SLOPE CALCULATIONS				LOT COVERAGE CALCULATIONS	
	LOT AREA	MAX GROSS FLOOR AREA (SF)	HIGHEST ELEVATION (FT)	LOWEST ELEVATION (FT)	SHORTEST DISTANCE (FT)	LOT SLOPE (%)	NET MAX LOT COVERAGE (%)	NET MAX LOT COVERAGE (SF)
1	16,254	6,502	308.6	291.7	272.7	6.20%	40%	6,502
2	12,959	5,184	311.6	295.7	341.3	4.65%	40%	5,184
3	12,498	4,999	320.5	310.2	129.8	8.00%	40%	4,999
4	15,924*	6,370	328.2	315.9	211.9	5.82%	40%	5,059

*(GROSS LOT AREA) – (EASEMENT AREA) = NET LOT AREA
 15,924 – 3,277 = 12,647 SF

Lot 1 has been highlighted in Table 1 above.

Lot 1 as proposed with this building permit submittal is as follows:

LOT INFORMATION					
		LOT COVERAGE CALCULATIONS			
LOT#	LOT AREA (SF)	GROSS MAX LOT COVERAGE ALLOWED (% / SF)		GROSS MAX LOT COVERAGE PROVIDED (% / SF)	
1	16,256	40%	6,502	32%	5,200

As illustrated in the table above, the gross lot coverage is 32%, which is less than the maximum amount allowed. Gross Floor Areas are documented by the architect in the house building plans.

Proposed Stormwater Management

The Lot 1 house roof area runoff will be collected in roof drains and routed down to a below-grade drainage pipe that will wrap around the house and connect to the storm stub connection from the drainage main in the drive aisle that was constructed with the Final Engineering Plans. The storm stub connects to the detention vault further west in the development after routing through a water quality treatment facility. The storm stub invert is 299.39 while the main floor elevation is proposed to be 304.13.