

## Retaining Wall Provides Drainage for Parking Lot

Managing runoff is often an issue in Seattle, where hard surfaces, drainage and neighboring facilities often intersect. Such was the case in the expansion of Master Park's Lot C.

Mitigating constraints in a dense, land-use urban area is never easy, but finding space to add 659 parking stalls on sparse land that serves an expanding international airport and is constrained by two major arterial routes ups the ante. Sharing an extended property line with an established cemetery and mortuary created a new level of sensitivity.

The lot was built in a space 30 ft above the original facility, high above the Bonney Watson Memorial Park cemetery and mortuary, but a solution was needed to drain runoff. Key to meeting this challenge was finding a cost-effective method to create a grade change exceeding 30 ft within a steep slope while incorporating a variety of project needs.

Conceptualizing the solution was Sound Retaining Walls of Tacoma, Wash., which partnered with Theis Eng. of San Antonio to engineer the solution. Theis utilized the newly patented GravityStone Edge, a multi-function, 1.33-sq-ft segmental retaining wall system developed by WestBlock Systems and manufactured by White Block of Spokane,

Wash., in conjunction with Stratagrid reinforcement.

The final design balances function with aesthetics by integrating drainage into a substantial water-catching 2:1 sloped landscape zone wedged between two 16-ft tiered walls and book-ended by two 30-ft corners. Contained within the balance of the wall structure are 30-ft-deep catch basins 20 ft on center that drain destructive runoff. Providing access to the parking area is a wide, curving access road cut into the heart of the 32-ft-tall wall segment. SWS



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