Master Park's Lot C - SeaTac, WA

WESTBLOCK SYSTEMS

DRAINAGE AND PARKING NEEDS

Seattle based MasterPark, Inc. was up against a need for over 600 parking spaces, expensive land around an international airport, drainage issues, heavy traffic and a 100-year-old cemetery adjacent to the proposed expansion. The limitation of the land was constrained by two major arterial routes into the expanding SeaTac International Airport, and made the challenge to create a flat and safe surface for their shuttle and parking service at the northern end of Highway 99. The project is located 16025 International Boulevard SeaTac, Washington.

COST, LOCATION AND WATER RUN OFF PRODUCES CHALLENGES

Theis Engineering and Sound Retaining Walls worked together on a cost effective method to create a change of grade that exceeded 30 feet within a steep slope, while meeting MasterPark's operational needs: to remain open during the construction of the expansion. Initially a project designed using MSE, the existing plan was pushing the budget, not maximizing space, had limited excavation and had added costs even in using the existing soils. To combat those issues, and along with General Contractor Goodfellow Brothers, they began to look at GravityStone® Edge, a new and highly versatile 1.33 square foot segmental retaining wall unit by WestBlock Systems.

All walls have designed drainage; however, MasterPark was unique in that 15 acres of parking lot run off was purposely directed to the retaining walls. Because, contained within the balance of the wall structure were 50 - 30-foot vertical catch basins, 20 feet on center, that drained away the run-off. Additionally, there were French drains between each vertical catch basin. There is 2 to 1 sloped landscape zone wedged between 2 - 16 foot tiered walls and bookended by 2 - 30 foot corners.

GravityStone® Edge. A unique, multi-functional single block designed to construct an MSE or Modular gravity wall.

FUNCTION AND ASETHETICS IN ONE

The face of the block has an Abraded Score giving the appearance of a 3 piece wall system. Coupled with the planted green spaces between walls, curving driveway to the upper parking lot, the final design nicely balances function with aesthics.

ADDITIONAL DEMANDS OF SRW'S

Sound Retaining Walls and Goodfellow Brothers worked very closely together. As Sound Retaining walls installed the 20, 000 square feet of wall and placed 18,000 cubic yards of imported fill, Goodfellow Brothers simultaneously tied in every inch of the paved lots drainage right in behind the tallest portion of the wall while also installing the substantial drainage system. All of this was done within 29 working days.

Success can be attributed to the working relationship between the owner, general contractor, wall installer and WestBlock Systems' technical support staff.

MEASURING SUCCESS

The project challenges were clearly defined and the solutions artfully implemented: MasterPark remained open for business, there was minimal impact to the cemetry adjacent to the site and the nearby Bonney Watson Memorial Park, and successful mitigation of all additional water runoff generated from the parking lot was implemented using an intricate drainage system.

Name of Project: MasterPark's Lot C Expansion

Owner: Master Park, Inc. Seattle, Washington

City: SeaTac State: Washington

Engineering Firm: Theis Engineering

Contact: Tim Theis, P.E.

Geotechnical / Testing Firm:

Contact:

Wall Design Engineer: Theis Engineering

Contact: Tim Theis, P.E.

General Contractor: Goodfellow Brothers

Contact: Lane Shinnick

Excavation Contractor: **Goodfellow Brothers**

Contact: Lane Shinnick

Wall Installer: Sound Retaining Walls

Contact: Tyler Gillis

Wall System: WestBlock Systems

Contact: Jim Hammer

Geosynthetic Supplier: **Strata Grid**

Contact: Elizabeth Nicholson