Case Study

SURFACE TECH™ ARC
ARAMID REINFORCED COMPOSITE ASPHALT

Port Alberni Roundabout — Beaver Creek Road, British Columbia

Project:
Port Alberni Roundabout — Beaver Creek Road, British Columbia

Location:
Beaver Creek Rd / River Rd, Port Alberni, Vancouver Island, British Columbia

Date:
2026

Contractor / Producer:
Amrize

Surface Tech Product:
ACE XP™ 38mm Aramid Fiber (Single Dose)

What We Did

Roundabouts are where conventional asphalt goes to fail — constant turning, braking, and channelized loading concentrate shear stress like almost nothing else on a road network. For the Beaver Creek Road roundabout project in Port Alberni, Amrize is producing and placing 3,000 tonnes of ACE XP aramid fiber–reinforced asphalt built to take it.

Reinforced Mix: An aramid fiber–reinforced mix with ACE XP 38mm fibers at a single dose, produced and placed by Amrize.

Roundabout-Grade Reinforcement: Three-dimensional fiber reinforcement targeting the shoving, rutting, and shear distortion that circulating traffic inflicts on intersection pavements.

Corridor Maintenance Program: 3,000 tonnes across the roundabout and approach sections on the Beaver Creek Road corridor, placed as part of a broader rehabilitation.

Surface Tech Contact:
806 S. Coast Highway 101, Encinitas, CA 92024
+1-619-880-0265
info@surface-tech.com
www.surface-tech.com

OPEN spec — HOT-MIX ASPHALT PAVING ALTERNATIVE ARAMID REINFORCED COMPOSITE ASPHALT
ASTM INTERNATIONAL #D8359-2023
VERIFIED by SCS GLOBAL SERVICES — ENVIRONMENTAL PRODUCT DECLARATION BASED ON LCA

Case Study

SURFACE TECH™ ARC
ARAMID REINFORCED COMPOSITE ASPHALT

Project Scope & Objectives

Roundabouts concentrate the most damaging loading pattern in road paving: every vehicle turns, many brake and accelerate, and heavy vehicles track through the same channelized paths thousands of times a day. The Port Alberni project pairs Amrize's vertically integrated production and paving with ACE XP 38mm fiber reinforcement, rehabilitating the Beaver Creek Road corridor with pavement engineered for the sustained shear and torsional stresses of circulating traffic in a wet coastal climate.

Challenges Overcome

Vancouver Island's wet climate compounds the roundabout problem — moisture-weakened pavements rut and shove faster under turning loads. The aramid reinforcement distributed through every tonne of mix adds the tensile and shear capacity conventional asphalt lacks at intersections, while the single-dose addition runs through Amrize's standard production and paving operations without process changes.

Amrize's paving train placing the ACE XP–reinforced mix on the Beaver Creek Road corridor

Surface Tech Contact:
806 S. Coast Highway 101, Encinitas, CA 92024
+1-619-880-0265
info@surface-tech.com
www.surface-tech.com

OPEN spec — HOT-MIX ASPHALT PAVING ALTERNATIVE ARAMID REINFORCED COMPOSITE ASPHALT
ASTM INTERNATIONAL #D8359-2023
VERIFIED by SCS GLOBAL SERVICES — ENVIRONMENTAL PRODUCT DECLARATION BASED ON LCA

Case Study

SURFACE TECH™ ARC
ARAMID REINFORCED COMPOSITE ASPHALT

Economic & Environmental Advantages

- **Engineered for Turning Loads:** Aramid fibers resist the shoving and surface distortion caused by constant circulating and turning traffic.
- **Wet-Climate Durability:** Fiber reinforcement helps the pavement resist rutting and fatigue in Vancouver Island's high-moisture environment.
- **Vertically Integrated Delivery:** Amrize's combined production and placement kept fiber integration seamless from plant to mat.
- **No Process Changes:** Single-dose fiber addition ran through standard plant production and conventional paving equipment.
- **Lower Life-Cycle Costs:** Extended pavement life at a high-stress intersection means fewer disruptive future repairs.
- **Sustainable Pavement Design:** Longer service life reduces future construction impacts and greenhouse-gas emissions.

Client Feedback and Results

Placement is underway, with the reinforced mat going down clean across the roundabout and corridor sections — adding a high-stress intersection application to Surface Tech's growing Canadian project portfolio with Amrize.

Surface Tech Contact:
806 S. Coast Highway 101, Encinitas, CA 92024
+1-619-880-0265
info@surface-tech.com
www.surface-tech.com

OPEN spec
HOT-MIX ASPHALT PAVING ALTERNATIVE ARAMID REINFORCED COMPOSITE ASPHALT

ASTM INTERNATIONAL
#D8359-2023

VERIFIED by SCS GLOBAL SERVICES
ENVIRONMENTAL PRODUCT DECLARATION
BASED ON LCA

Case Study

SURFACE TECH™ ARC
ARAMID REINFORCED COMPOSITE ASPHALT

Project Photos

Field documentation from JOB-2026-838 — 3,000 tonnes of ACE XP 38mm-reinforced mix, Port Alberni, BC.

Fresh reinforced mat on the Beaver Creek Road approach.

The new ACE XP-reinforced lane against fresh curb and gutter.

Surface Tech Contact:
806 S. Coast Highway 101, Encinitas, CA 92024
+1-619-880-0265
info@surface-tech.com
www.surface-tech.com

OPEN spec — HOT-MIX ASPHALT PAVING ALTERNATIVE ARAMID REINFORCED COMPOSITE ASPHALT

ASTM INTERNATIONAL #D8359-2023

VERIFIED by SCS GLOBAL SERVICES — ENVIRONMENTAL PRODUCT DECLARATION BASED ON LCA

Case Study

SURFACE TECH™ ARC
ARAMID REINFORCED COMPOSITE ASPHALT

Reinforced pavement placed through the corridor — haul truck feeding beyond.

Amrize's paver placing the fiber-reinforced mix.

Surface Tech Contact:
806 S. Coast Highway 101, Encinitas, CA 92024
+1-619-880-0265
info@surface-tech.com
www.surface-tech.com

OPEN spec HOT-MIX ASPHALT PAVING ALTERNATIVE ARAMID REINFORCED COMPOSITE ASPHALT

ASTM INTERNATIONAL #D8359-2023

VERIFIED by SCS GLOBAL SERVICES ENVIRONMENTAL PRODUCT DECLARATION BASED ON LCA

Case Study

SURFACE TECH™ ARC
ARAMID REINFORCED COMPOSITE ASPHALT

Fresh mat against the new curb line — uniform, tightly bound surface.

The reinforced corridor taking shape through Port Alberni.

Mat texture detail along the curb transition.

The fiber-reinforced lift — clean edges and consistent texture.

Surface Tech Contact:
806 S. Coast Highway 101, Encinitas, CA 92024
+1-619-880-0265
info@surface-tech.com
www.surface-tech.com

OPEN spec HOT-MIX ASPHALT PAVING ALTERNATIVE ARAMID REINFORCED COMPOSITE ASPHALT

ASTM INTERNATIONAL #D8359-2023

VERIFIED by SCS GLOBAL SERVICES ENVIRONMENTAL PRODUCT DECLARATION BASED ON LCA

Case Study

SURFACE TECH™ ARC
ARAMID REINFORCED COMPOSITE ASPHALT

Completed section of the reinforced placement along the new curb.

Surface Tech Contact:
806 S. Coast Highway 101, Encinitas, CA 92024
+1-619-880-0265
info@surface-tech.com
www.surface-tech.com

OPEN spec HOT-MIX ASPHALT PAVING ALTERNATIVE ARAMID REINFORCED COMPOSITE ASPHALT

ASTM INTERNATIONAL #D8359-2023

VERIFIED by SCS GLOBAL SERVICES ENVIRONMENTAL PRODUCT DECLARATION BASED ON LCA