COLORADO DEPARTMENT OF TRANSPORTATION

PRE-APPROVED PRODUCT EVALUATION REQUEST & SUMMARY

APL Reference No. 3671-13

Product Evaluation Coordinator
Colorado Department of Transportation
4670 North Holly Street, Unit A
Denver, Colorado 80216

Material code: 604.04.04.01

FOR INTERNAL CDOT USE

Material code description full name: Storm Water Separator, Regular Flow

PART 1

Product name: V2B1

Product category: Drainage\Storm Water Separator\Regular Flow Hydrodynamic

Product representative (name & address):
Attn: Dino Pezzimenti
Environment 21, LLC
8713 Read Road, (P.O. Box 55)
East Pembroke, NY 14056-0055
Phone: (585) 815-4714 FAX: (585) 815-4715

Manufacturer (name & address):
Attn: Dino Pezzimenti
Environment 21, LLC
8713 Read Road
East Pembroke, NY 14056-0055
Phone: (585) 815-4700 FAX: (585) 815-4701

Web-site address: www.env21.com

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Description of the product: (Include specific quantifiable details from tech data sheet. Advertising generalities are not appropriate.)
The V2B1 is a two-stage (dual manhole) hydrodynamic separator. The first manhole has a tangential inlet, when combined with the center draw elbow maximizes sediment removal. The second manhole is divided into two chambers by a water-lock baffle wall. Hydrocarbons and floatable debris are prevented from traveling past this chamber. Additional sediment removal occurs in this chamber and the second chamber of the second manhole. The second chamber directs the flow from the system. The two manholes are connected by a transfer pipe and an optional internal bypass pipe. The V2B1 can accept multiple inlet and outlet pipes and a drop inlet, and can handle offset inlet/outlet pipe configurations in addition to 180 degree configurations. The V2B1 is available in 22 model sizes that treat flows from 0 to 13.47 cfs and bypass online flows to 40 cfs. It can be installed online, online with an internal bypass, offline with a splitter/junction manhole, and offline with a splitter manhole and a junction manhole. The V2B1 has a shallow sump (inlet invert to floor) that may be adjusted for increased sediment storage as needed. A pumper truck with standard length of hose can be used for maintenance because of the shallow sumps.

Restrictions, (installation and/or use):

Use of the product, (be specific to CDOT highway activities only):
The V2B1 is used to treat highway runoff by removing the required annual percentage of sediments, hydrocarbons, and floatable debris.

Benefits to CDOT, (how will your product enhance quality, improve safety, save money, be a better value then other manufacturer's products):
The V2B1 is sized to remove the required net annual Total Suspended Sediment (TSS), hydrocarbons, and floatable debris. In addition, the V2B1 removes a percentage of nutrients and heavy metals. For most applications, the V2B1 can be installed with smaller equipment (e.g., backhoe) than a crane. The V2B1 has no inserts and is constructed completely with locally obtained materials (increased LEED credits). The V2B1 can be configured to handle most all pipe arrangements in an online configuration. Personnel entry is not required for maintenance. Due to the lack of an insert, the V2B1 provides full unobstructed inspection and maintenance.

Specifications, (listing those applicable is required) **& Certificate of Compliance** (required to certify compliance with listed specifications):

- ☐ CDOT :
- ☐ ASTM :
- ☐ AASHTO :
- ☐ FHWA :
- ☐ other :

Product testing, (from national/independent laboratories or universities) **& Certified Test Report** (CTR required to validate all claims):

- ☐ NTPEP-AASHTO :
- ☐ FHWA :
- ☒ other : CPG-Franz Environmental Inc. (June 1, 2007), NJCAT Technology Verification (March 2009)
- ☒ other : University of Minnesota, St. Anthony Falls Laboratory (March 2010)

State DOT Approvals, (current documentation required):
Connecticut, North Carolina, Utah

Sample submitted: ☐ yes ☐ no ☒ n/a | Materials Safety Data Sheets (MSDS): ☐ yes ☐ no ☒ n/a

Notes/Additional Comments
The size of the V2B1 varies with the project site flows and required treatments.