



















## NCDOT Recycled Pipe Approval

Alyson Tamer, PE, CPM

March 20, 2019

#### 1- Value Engineering Program



- 1- Value Engineering Program (VEP)
- 2- Value Engineering Proposal Program

OPTIONAL REQUIRED

Contractor
Submits
Preliminary
Proposal



Preliminary Proposal Reviewed



Contractor
Submits Final
Proposal



Final Proposal Reviewed

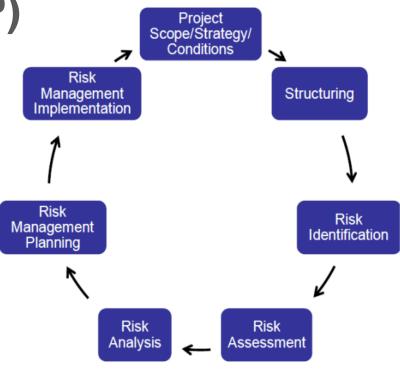
- 1- Value Engineering Program (VEP)
- 2- Value Engineering Proposal Program (VEPP)
- 3- Constructability Review Program





- 1- Value Engineering Program (VEP)
- 2- Value Engineering Proposal Program (VEPP)
- 3- Constructability Review Program (CRP)
- 4- Risk Assessment Program (RAP)

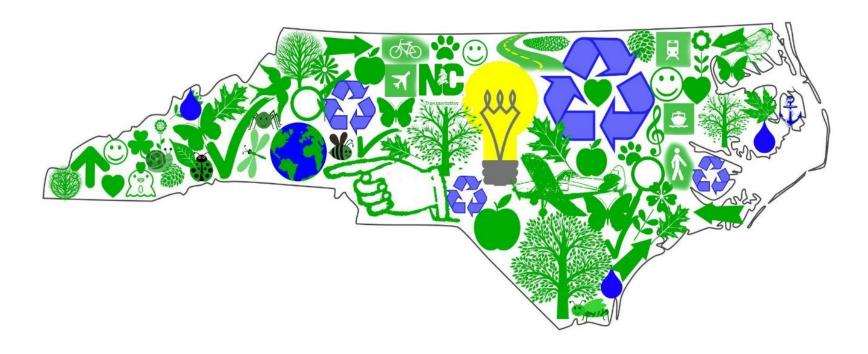




- 1- Value Engineering Program (VEP)
- 2- Value Engineering Proposal Program (VEPP)
- 3- Constructability Review Program (CRP)
- 4- Risk Assessments Program (RAP)
- 5-Communicate Lessons, Exchange Advice, Record (CLEAR)



6- Resource Conservation Program (RCP)



7- Product Evaluation Program (PEP)

Vendor submits product

Technical Work Group reviews product

Technical Work Of Status given to Vendor and shown on the APL

#### Pipe Specifications

- 1- A Site Specific QC Plan is for each facility detailing
  - Manufacturing
  - Identification
  - Storage
  - Shipping
  - Quality Control



#### Pipe Specifications

- 2- The Producer Must Supply
  - An annual Brand Registration
  - Guarantee
  - A Plant Ownership Update



### Pipe Specifications

3- Meet AASHTO Specifications (M252 and M294 for HDPE)

4- Each facility must undergo and pass annual NTPEP audits





#### Pipe with Recycled Plastic Content

- AASHTO Standard Change
- NTPEP Change in procedure
- NCDOT Change to specifications and standards

# Changes aren't always instantaneous, sometimes they are a process.

#### Pipe with Recycled Plastic Content

#### No revisions needed for

- Brand Registration
- Annual Plant Ownership Updates



#### Pipe with Recycled Plastic Content



#### Approved Producer Supplier



https://apps.ncdot.gov/vendor/ApprovedProducts/Producer.aspx

#### What questions do you have?

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