




## Greenwood's Fry Road Rain Trail





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Fry Road Rain Trail  
Greenwood, Indiana

## Project Area







Fry Road Rain Trail  
Greenwood, Indiana

## The Problem



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Greenwood, Indiana

## The Problem



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## The Problem



- Standing Water
- Erosion/Water Quality
- Pipe Failure
- Maintenance
- Aesthetics



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## The Solution



# A Pipe!



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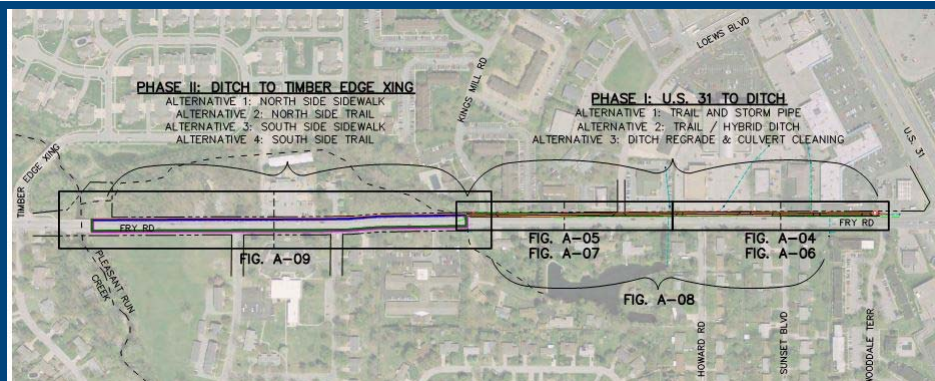
“Can we get a sidewalk too? How about a bike path? Something ‘green’ would be nice.”



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## Scoping Report



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## A New Approach

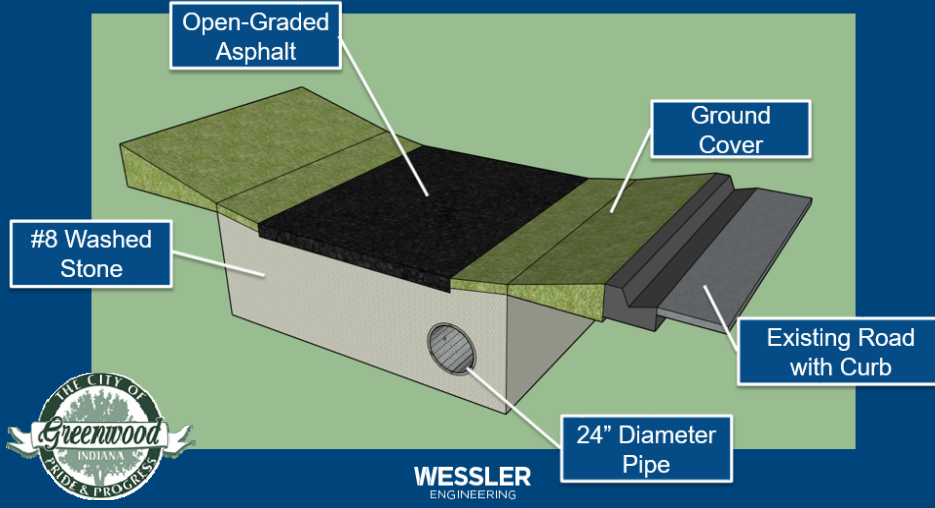
- What if the path was part of the drainage conveyance?
- If we utilize porous pavement, an aggregate recharge bed, and perforated pipe; we can reduce the size of the pipe while providing a water quality benefit.



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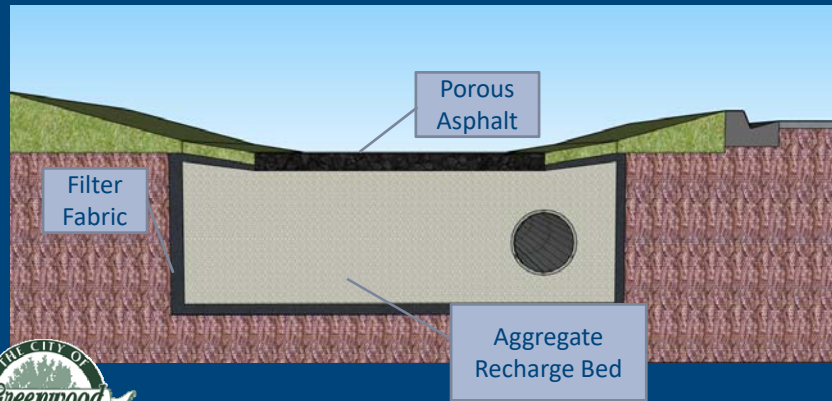
## Introducing: The Rain Trail



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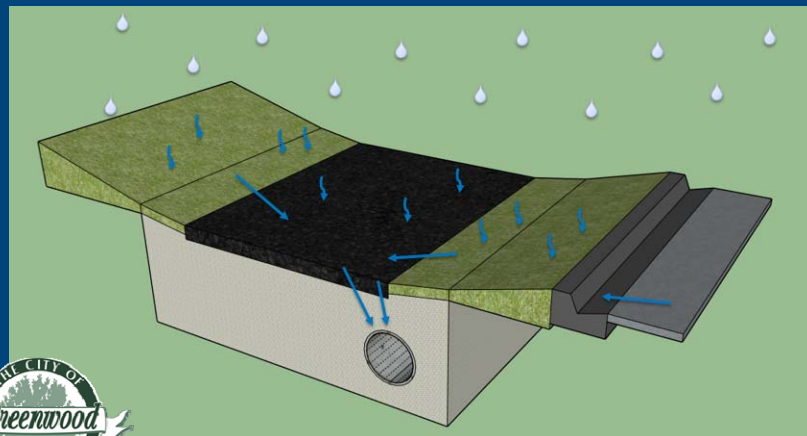
## Introducing: The Rain Trail



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## How Does it Work?

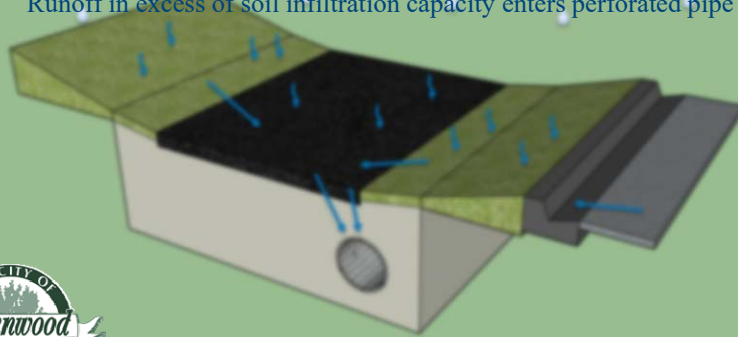


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## How Does it Work?



- Runoff percolates through pavement
- Stored in Aggregate Recharge Bed
- Runoff in excess of soil infiltration capacity enters perforated pipe



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## Design



- Hydraulic Modeling
- Open Grate Castings
- 10-year Storm within re-charge bed
- 100-year storm within “banks”



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## Construction



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## The Finished Product



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## The Finished Product



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## Challenges & Obstacles



- Utilities
- Constructability & Durability
  - Asphalt mix is difficult to work with
  - Sections adjacent to approaches required replacement
  - Some degradation occurred after 1<sup>st</sup> winter
  - Require 3-year maintenance bond



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## Challenges & Obstacles



- Maintenance
  - Porous Asphalt must be vacuum cleaned
  - Fry Road trail was too narrow (8') for Greenwood's street sweeper. Recommend 10' wide trail.
  - Third-party contract maintenance with regenerative air sweeper.



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