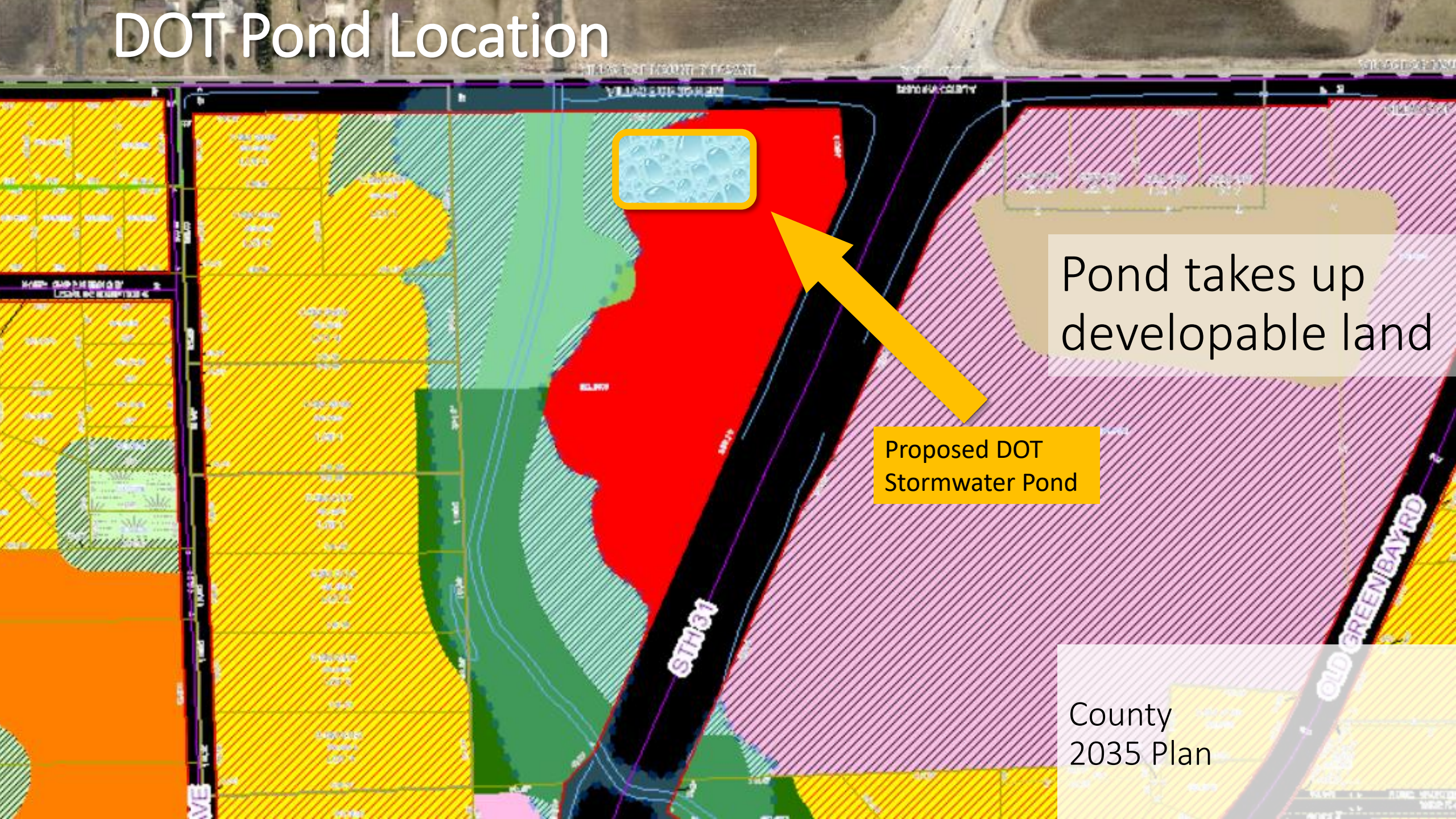


DOT Pond Location

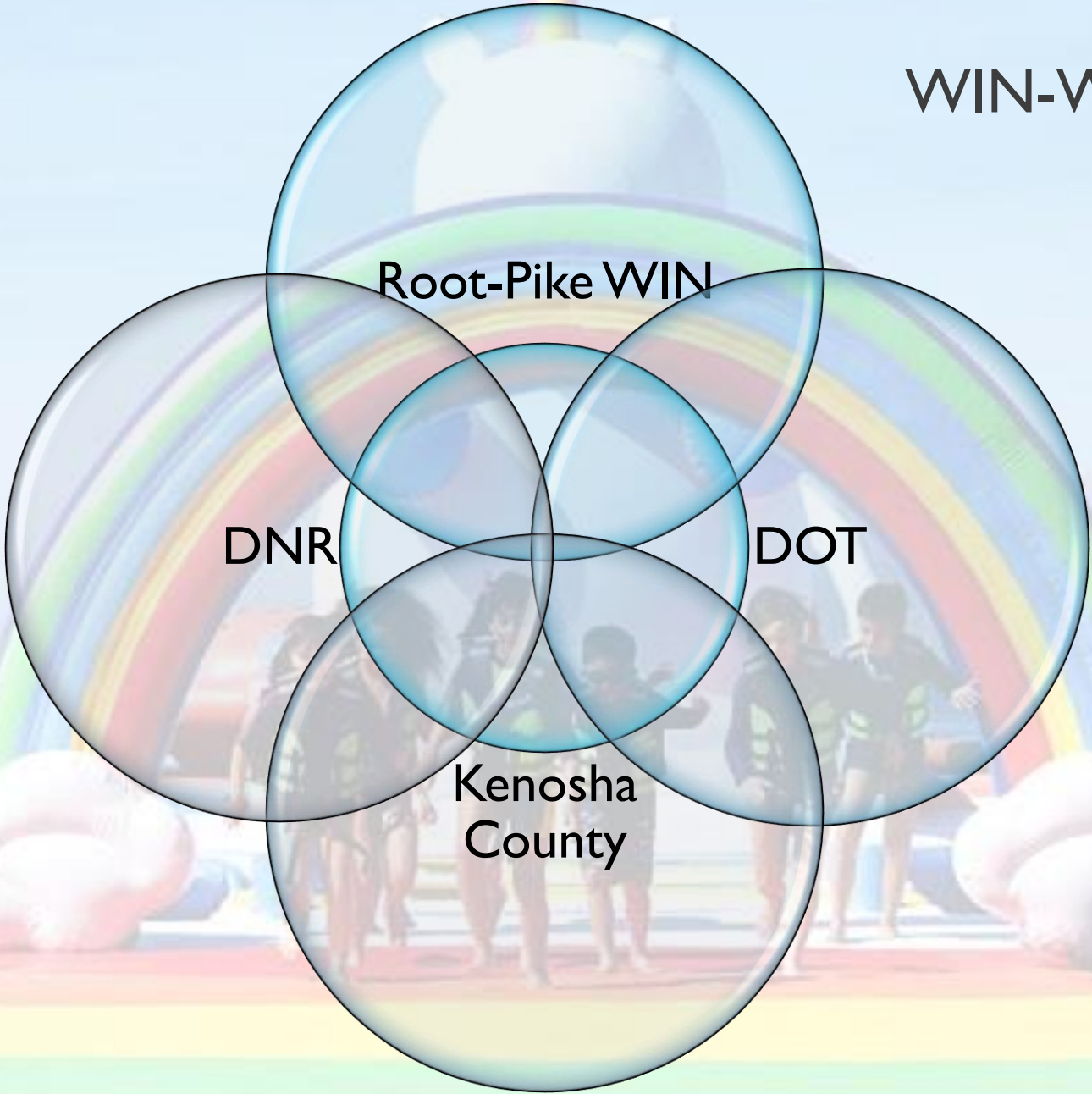


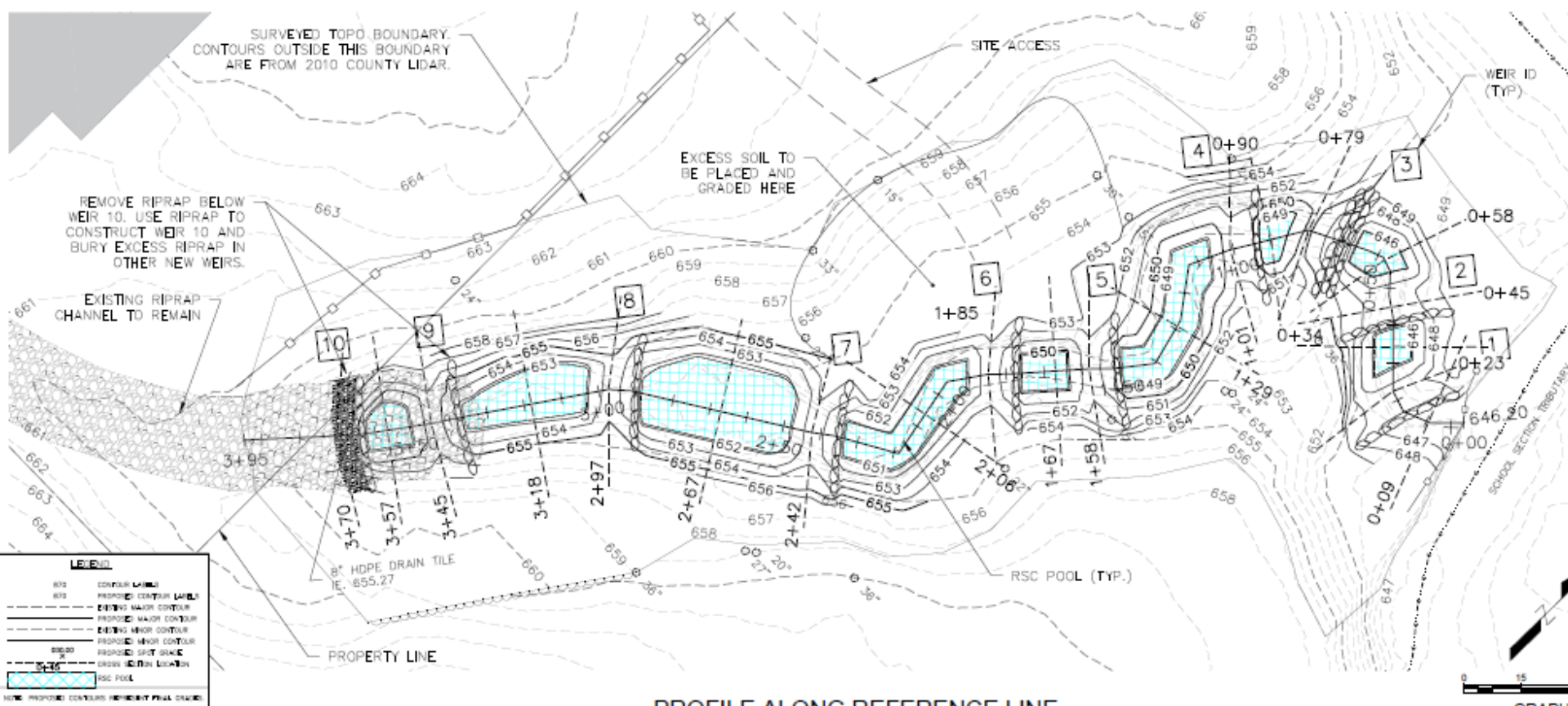
Pond takes up developable land

Proposed DOT Stormwater Pond

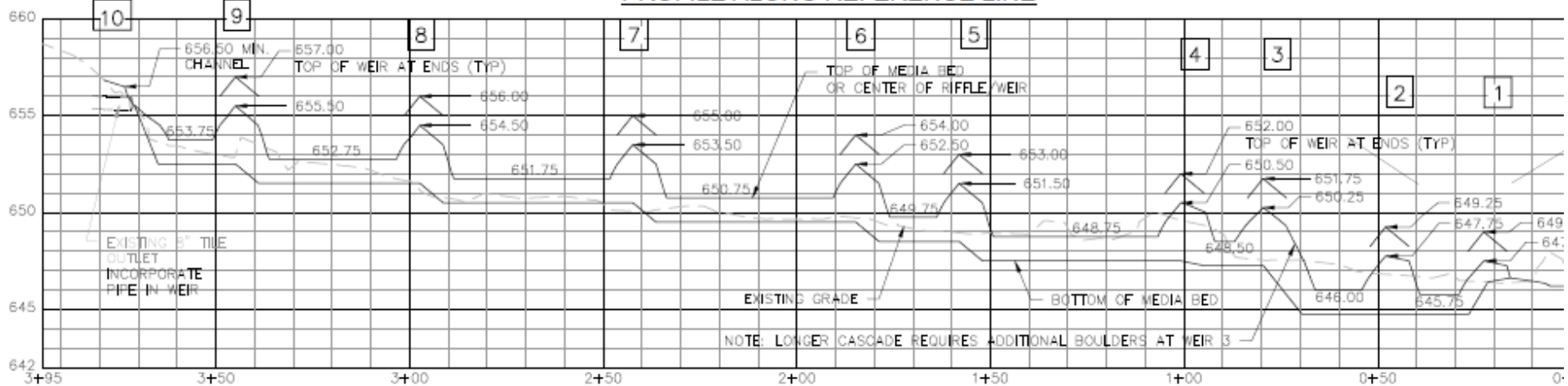
County 2035 Plan

WIN-WIN-WIN-WIN?





PROFILE ALONG REFERENCE LINE



Using RSC in Somers

This project due to start in Q1-20' will be the first RSC in the basin and a 1/2 mile from KR.



1. Can we get an RSC to work instead of pond for the DOT?
2. This innovation could be repeated throughout Wisconsin where applicable.
3. Innovation can be communicated as part the DOT/DNRs environmental stewardship.



ALTERNATIVE TO PONDS

REGENERATIVE
STORMWATER
CONVEYANCE (RSC)

USED BY DOT'S OUR EAST!

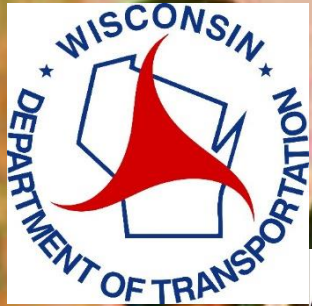
BETTER THAN PONDS? REGENERATIVE STORMWATER CONVEYANCE SYSTEMS

“Exploring Regenerative Stormwater Conveyances for Tennessee”

DRY CHANNEL								
Summary of Previous RSC Monitoring Results								
	Location	HSG	Surface Flow Volume Reductions	Peak Flow Reductions	TSS	TP	TN	Additional Findings
Cizek (2014)	Brunswick Co, NC	A	94-100%	90-96%	na	na	na	Able to mimic predevelopment hydrograph for events 1 year or less, but not all events. High water table.
Cizek (2014)	Alamance Co, NC	D	84%	80%	72%	28%	30%	Able to mimic predevelopment hydrograph and flow pathways. Low water table for majority of system and high water table in last section.
Koryto (2016)	Durham Co, NC	D	8%	49%	17%	17%	3%	Hydrologic reductions were only seen for rainfall less than 12.7 mm. High water table.

“Hydrologic and water quality of a RSC in the Piedmont (Alamance County) ecoregion of North Carolina was monitored from July 2013–June 2014. The Alamance RSC reduced volume and peak flow by a median 78 and 76%, respectively, while mimicking both predevelopment hydrograph shape and hydrologic flow pathways.”

University of Tennessee (2015)



SO HAPPY TOGETHER!

FINDING WIN-WIN-WIN-WIN

WisDOT

- Manage stormwater quality (TSS) and flow from highway
- Cost similar to conventional practices (i.e. pond)

WDNR

- Manage stormwater quality (TSS) and flow from highway
- Protect Pike River and Watershed from degradation

Kenosha County

- Maintain value of developable parcel where BMP is located
- Cost similar to conventional practices (i.e. pond)

RPW

- Restore, protect, sustain Pike River Watershed
- Find solutions that meet goals of a variety of stakeholders

SSE SERVICES PROVIDED

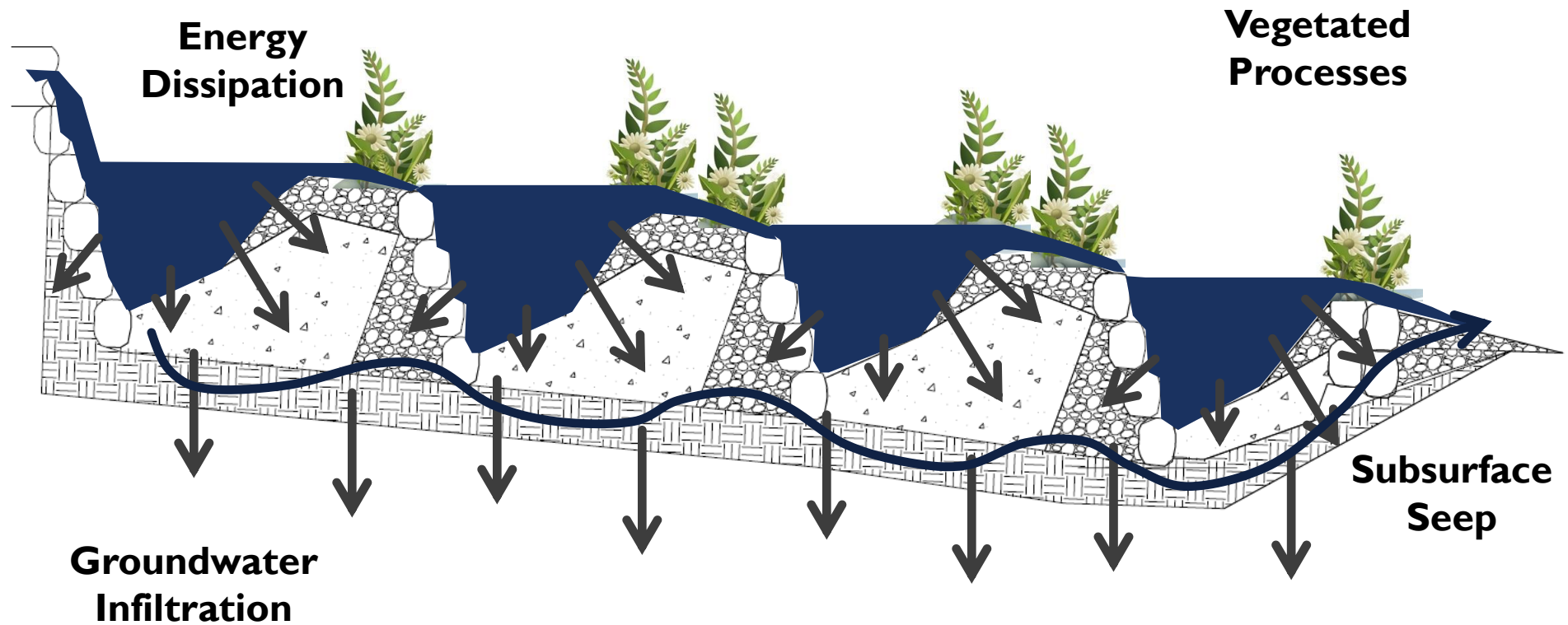
Stormwater Management
Green Infrastructure Design
Stormwater-integrated Site Design
Drainage Design, and Erosion Control
Hydraulic Analysis and Reports
Aquatic Organism Passage
Stream Restoration
Regenerative Stormwater Conveyance (RSC)
Bacteria Management



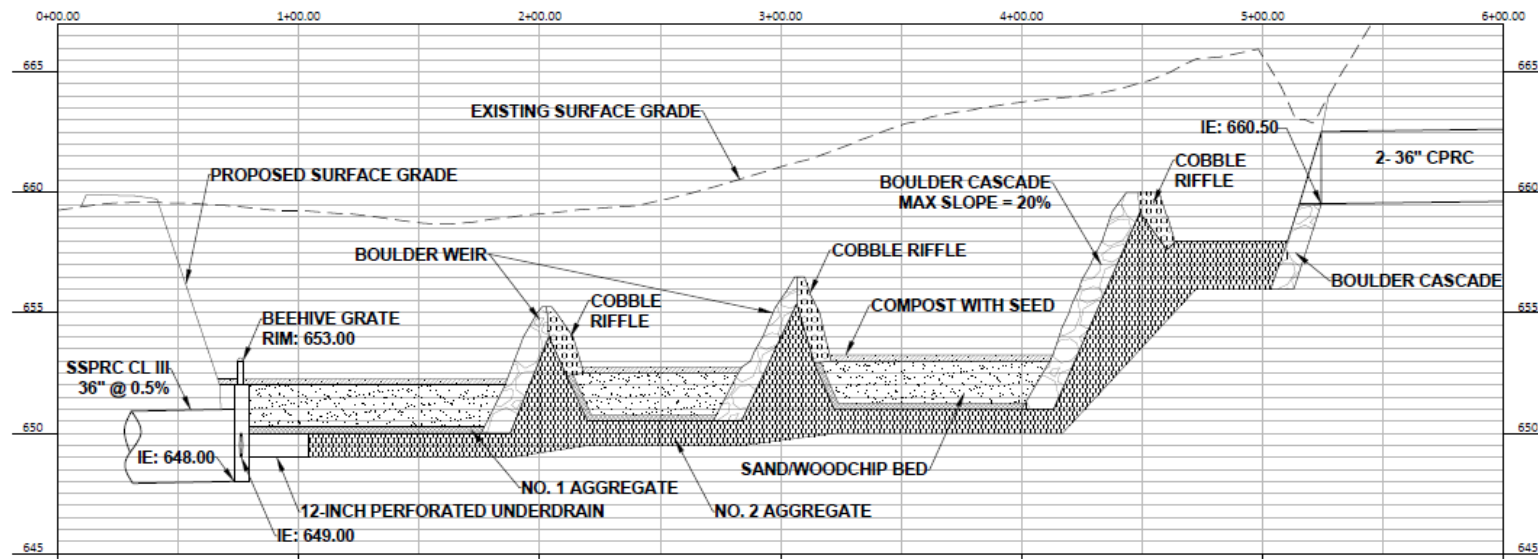
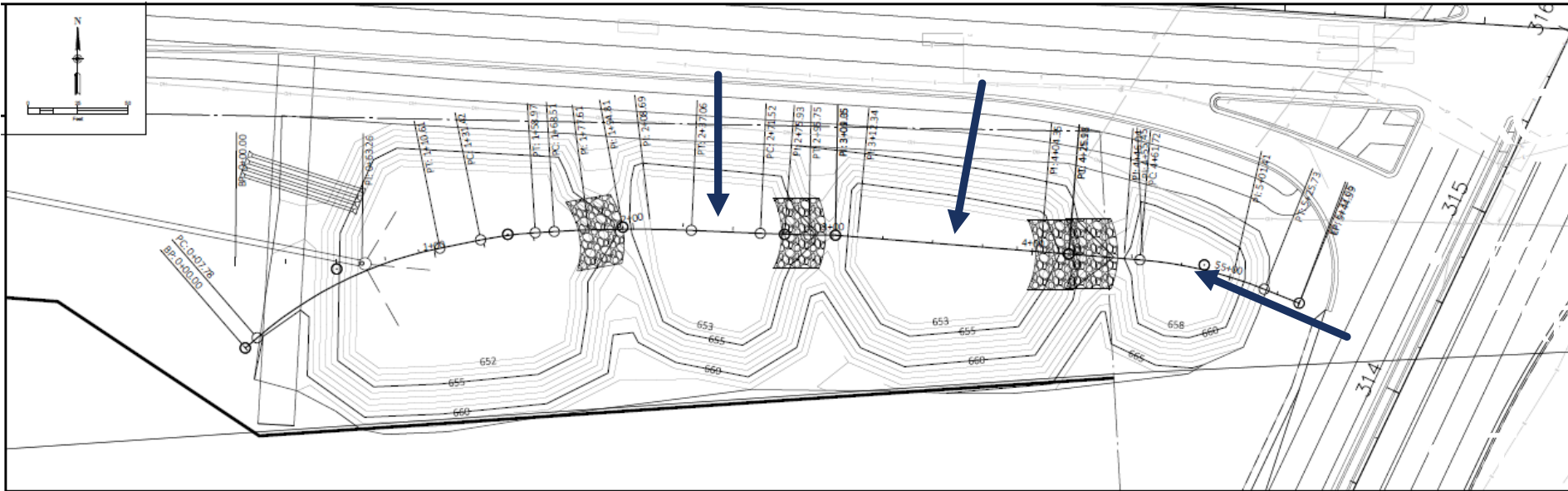
- ***Low Impact Development (LID)/Green Infrastructure (GI)*** alternative to swales, pipes, media filtration and in some cases, retention/detention structures.



RSC IS A SERIES OF POOLS AND RIFFLES DESIGNED TO CONVEY, MANAGE, AND TREAT STORMWATER RUNOFF



POSED RSC



PROJECT NO: 3763-00-74 | HWY: CTH KR | COUNTY: RACINE | PLAN AND PROFILE: CTH KR | SHEET | E

FILE NAME: S:\2019\WISDOT KR\CADD FILES\EXHIBITS\SSR_WISDOT KR RSC_PLAN-PROFILE_NEW.DWG | PLOT DATE: 7/16/2019 | PLOT BY: ARC | PLOT NAME: | PLOT SCALE: 1:50 | WISDOT\CADD SHEET XX