

Using Green Infrastructure for Economic and Environmental Revitalization





Or... A Tale of Two Cities



- Carbon Cliff, IL
- West Union, IA





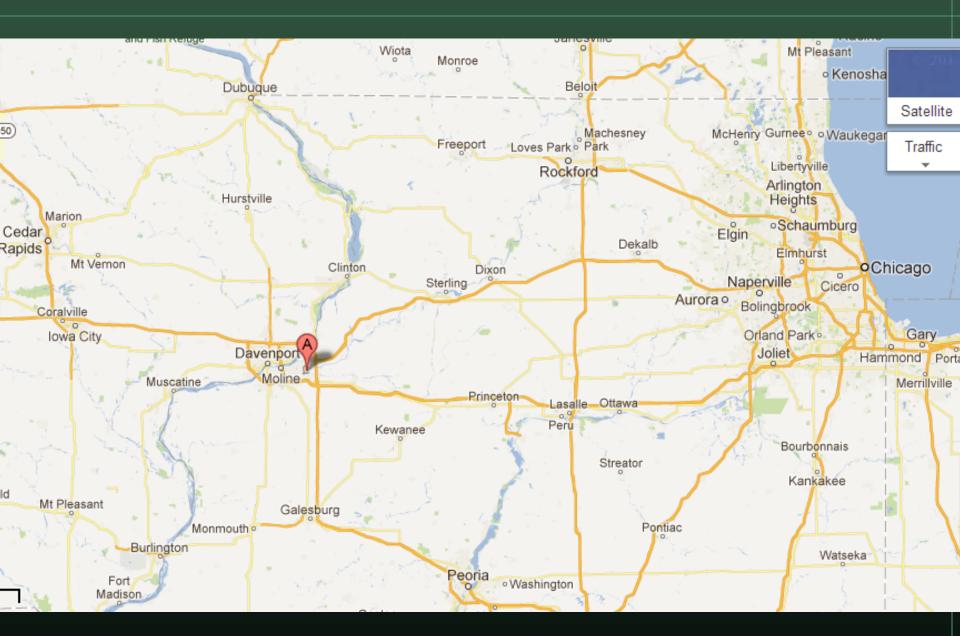
Carbon Cliff, Illinois

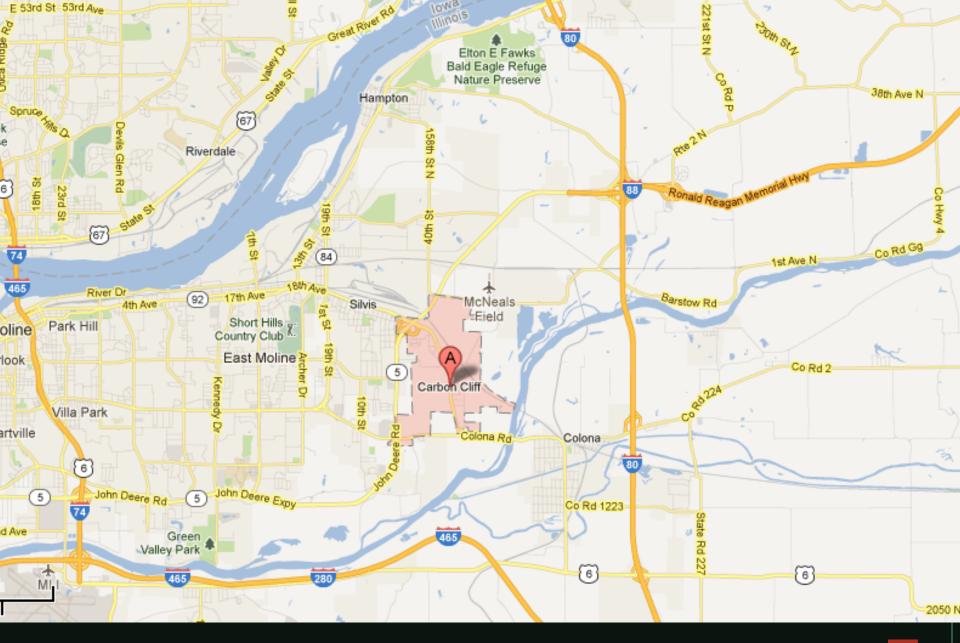
West Union, Iowa

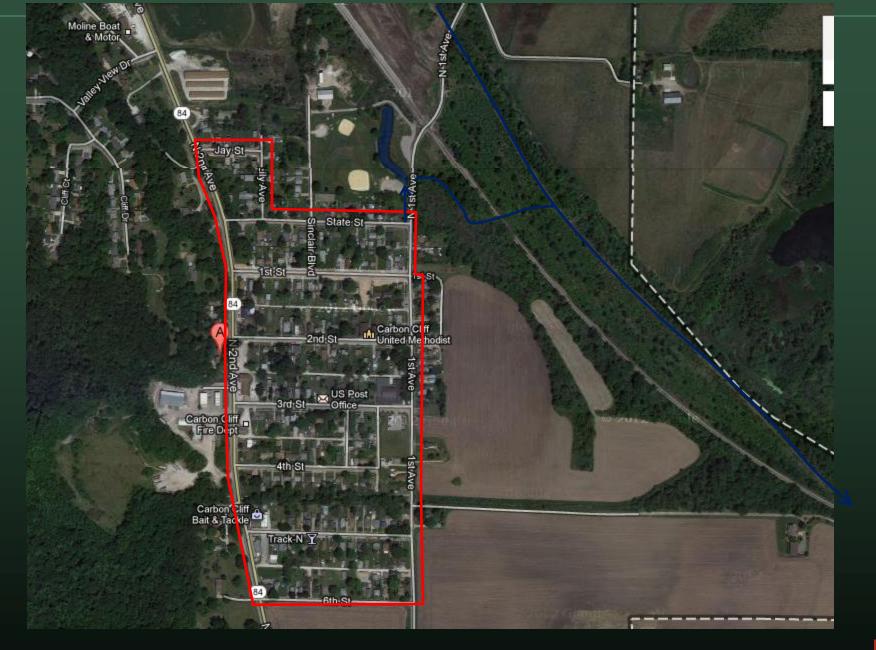


Carbon Cliff Permeable Streets





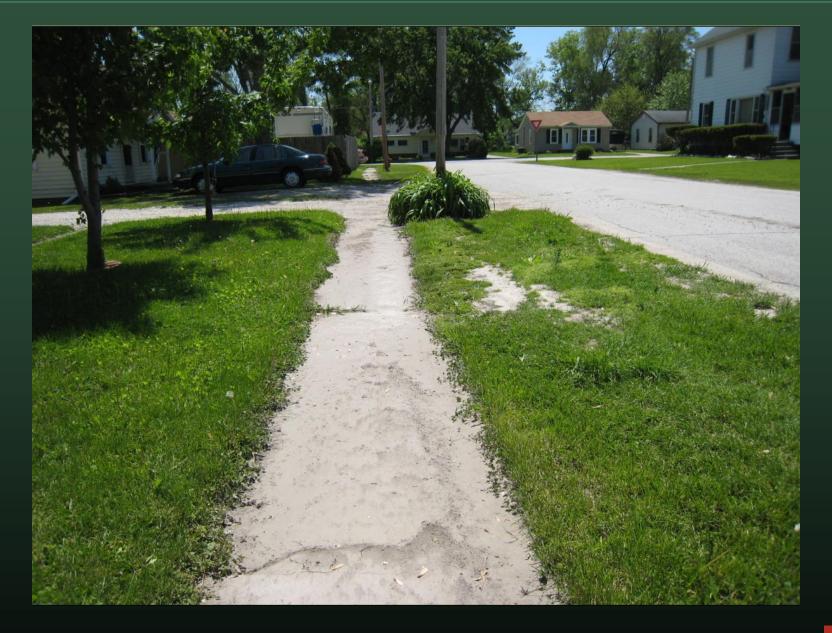




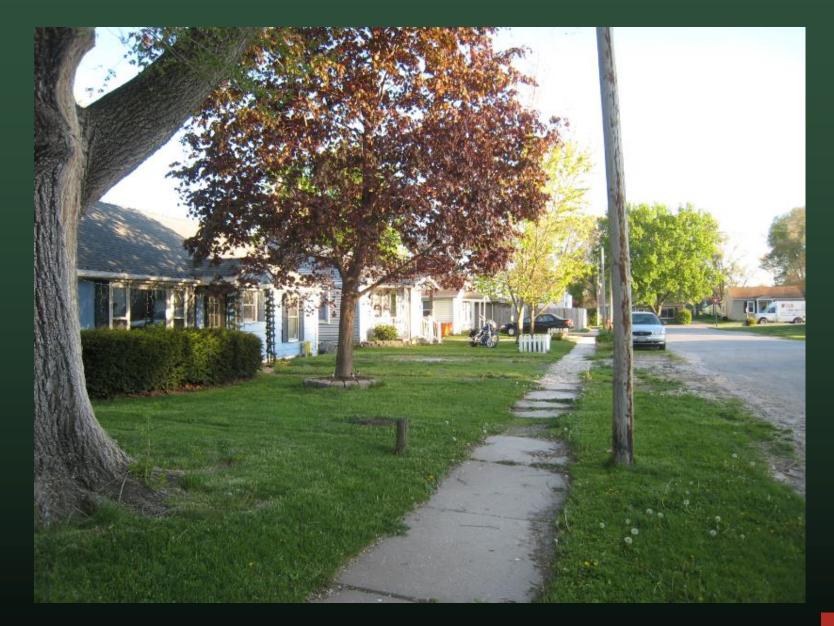
















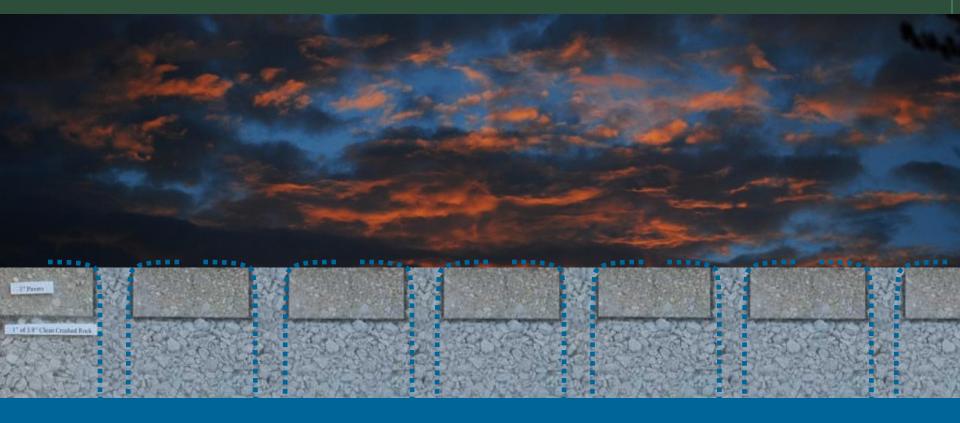








Porous Pavement: Infiltration (Retention) and Detention Capacity



Detention Volume

Retention Volume







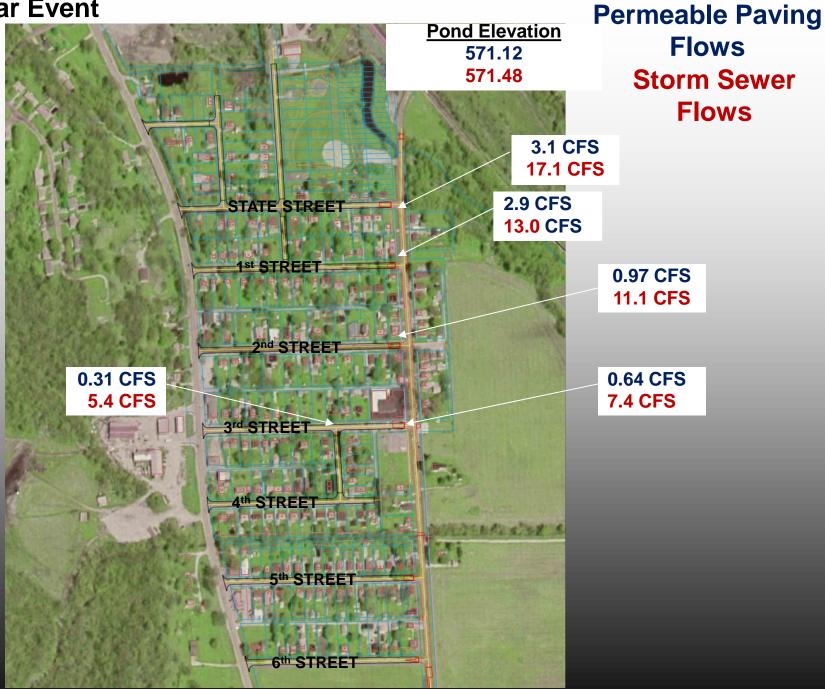




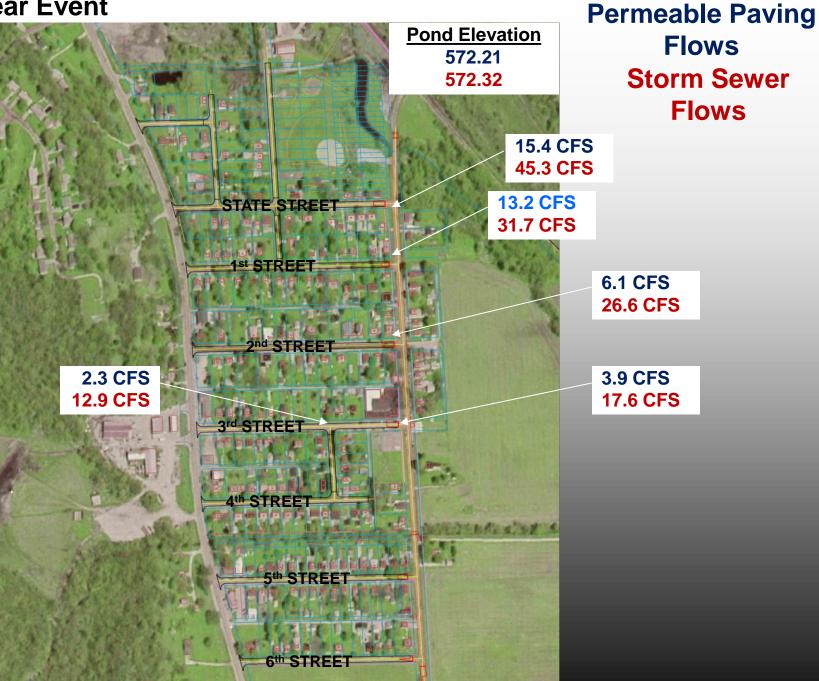




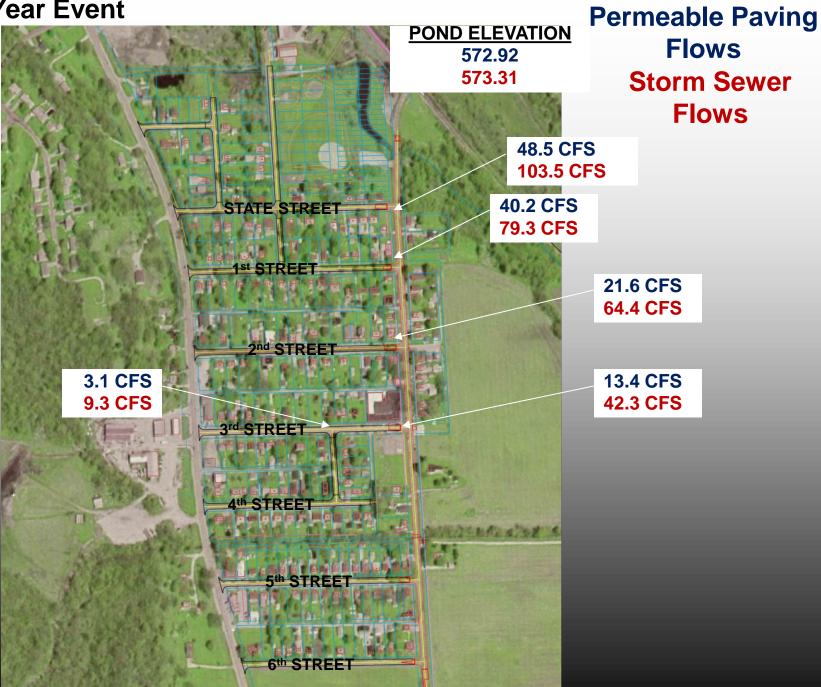
2-Year Event



10-Year Event



100-Year Event



40' Right of Way Street Jay St. & Lily Ave.





48' & 50' Right of Way Street

Sinclair, State, Denhardt, 4th, 5th, & 6th





60' & 66' Right of Way Street

1st, 2nd 3rd St. & 1st Ave.



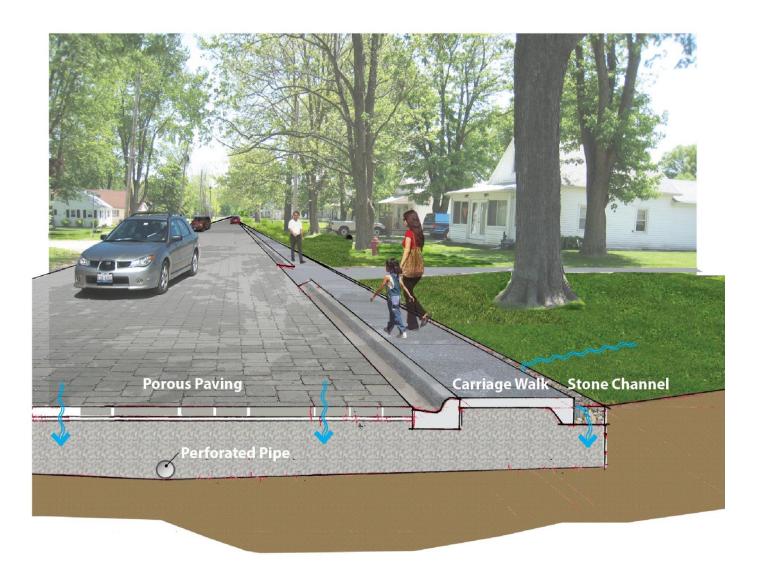


Street View Character - 48/50/60/66' Right-of-Way Streets Existing Conditions





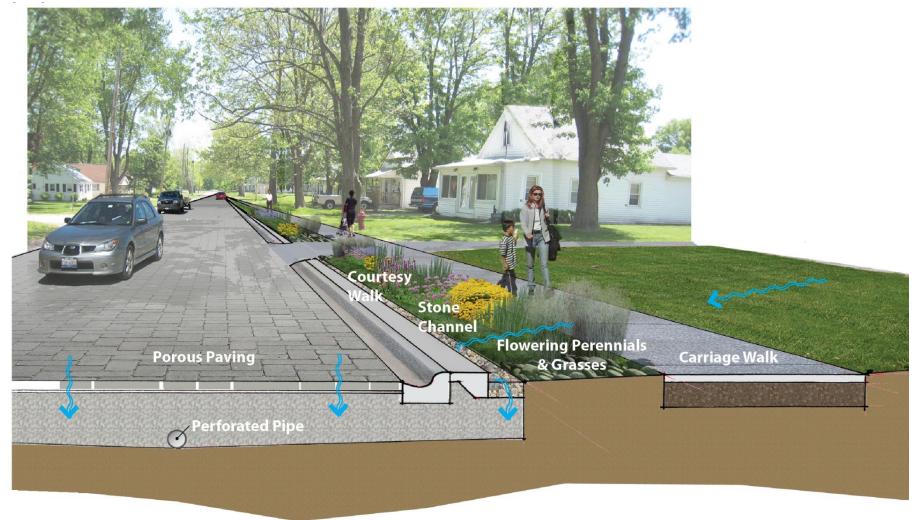
Street View Character - 48/50/60/66' Right-of-Way Streets Proposed Alternate 1





Street View Character - 48/50/60/66' Right-of-Way Streets

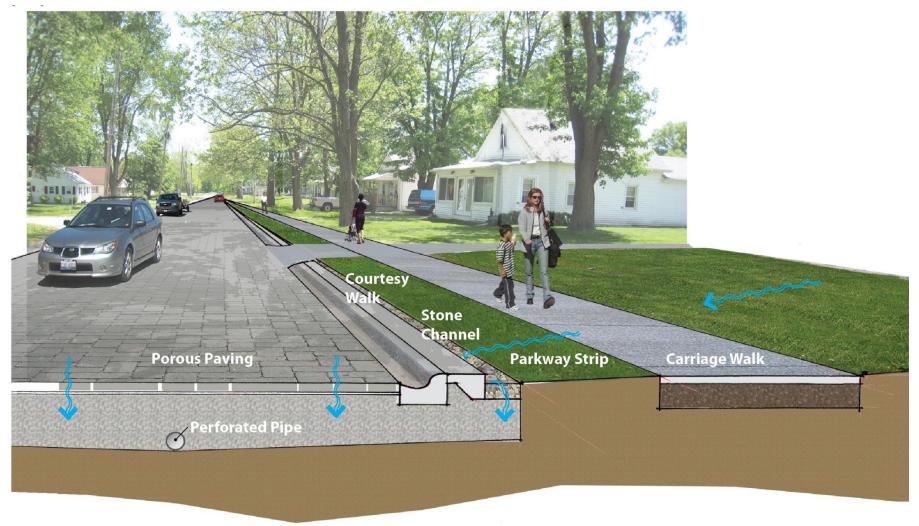
Proposed Alternate 2: perennial edge





Street View Character - 48/50/60/66' Right-of-Way Streets

Proposed Alternate 2: turf edge







Population

Equalized Assessed Valuation

1980 – 1,578	1981:	\$ 5,169,832.00
1990 – 1,492	2004:	\$11,716,490. ⁰⁰
2000 – 1,689	2009:	\$14,706,762.00
2010 - 2,134	2012:	\$ 24,138,135.00

TIMELINE

- 12/31/1986 Adopted Tax Increment Financing # 1
- 1988 Adopted Tax Increment Financing # 2
- 1997 Start Discussion Of Downtown Drainage
 - Streets
 - Sidewalks
 - Storm Sewers
 - Improvements To Pond
- 2002 Adopt Ordinance Establishing Hotel Accommodation Tax (5%)
- 2003 Pass Referendum Establishing 0.5% Non-Home Rule Sales Tax
- 2004 Execute Contract Agreement With McClure Engineering Downtown Streets &
 Drainage Improvement Project
 - Topography Survey
 - Preliminary Design
 - Final Design & Plans, Phase 1
 - Bid Letting
 - Construction Services



Statutory Debt Limit (8.625% of E.A.V.)

2004 E.A.V. S.D.L. \$11,716,490.⁰⁰ \$1,010,547.⁰⁰



TIMELINE (CONT.)

- 2006 Pass Home Rule Referendum
- 2009 Execute Scope Of Services Contract With Conservation Design Forum, Inc.
 - Background Analysis And Base Map
 - Intended Outcome Meeting
 - Plan Review & Recommended Design Solutions
 - Draft and Final Reports
- 2011 Adopt Ordinance Instituting Home Rule MFT
 - (0.01¢ Per Gallon)

FINANCING

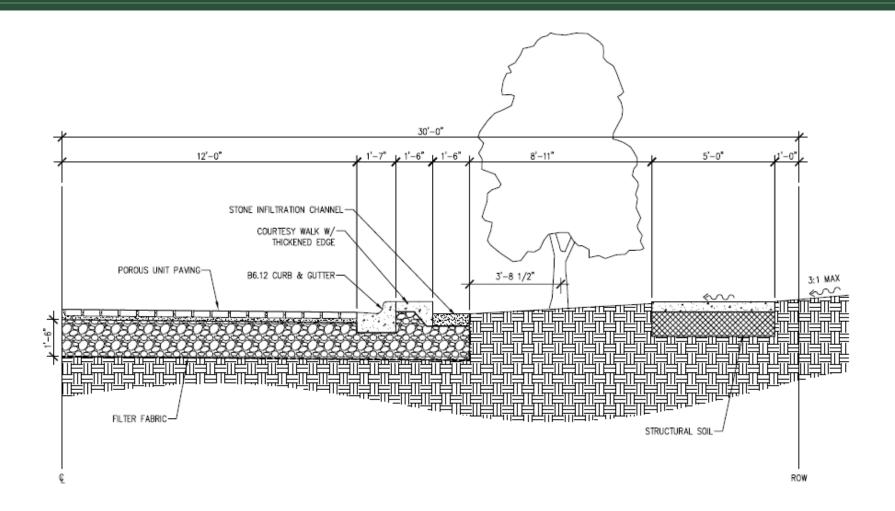
 Illinois Jobs Now! Capital Bill Program MFT Emergency Road Repair

\$ 400,000.00

 319 EPA Grant (Permeable Streets, Best Management Practices Have Been Installed To Improve The Water Quality of the Rock River Watershed)

Grant	\$ 732,200. ⁰⁰
-------	---------------------------

Non Home Rule Sales Tax	\$ 71	000.00
-------------------------	-------	--------



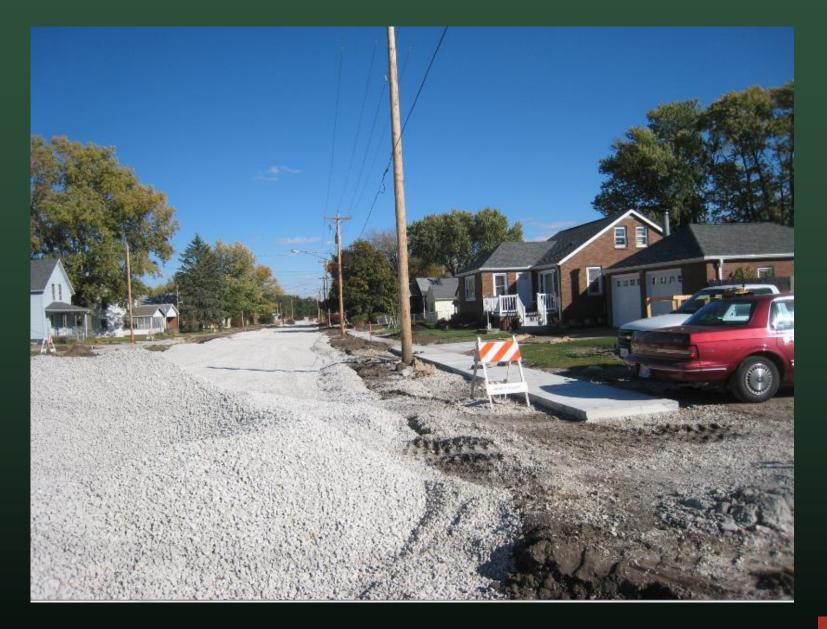
60-FOOT RIGHT-OF-WAY

© 2009 by Conservation Design Forum, Inc

3/8"=1'-0" 60-ft ROW_SepSW_DToBC



























West Union – Iowa's Green Street Pilot Project

Green Pilot Streetscape ProjectA Sustainable Vision for West Union







The City of West Union

Main Street West Union

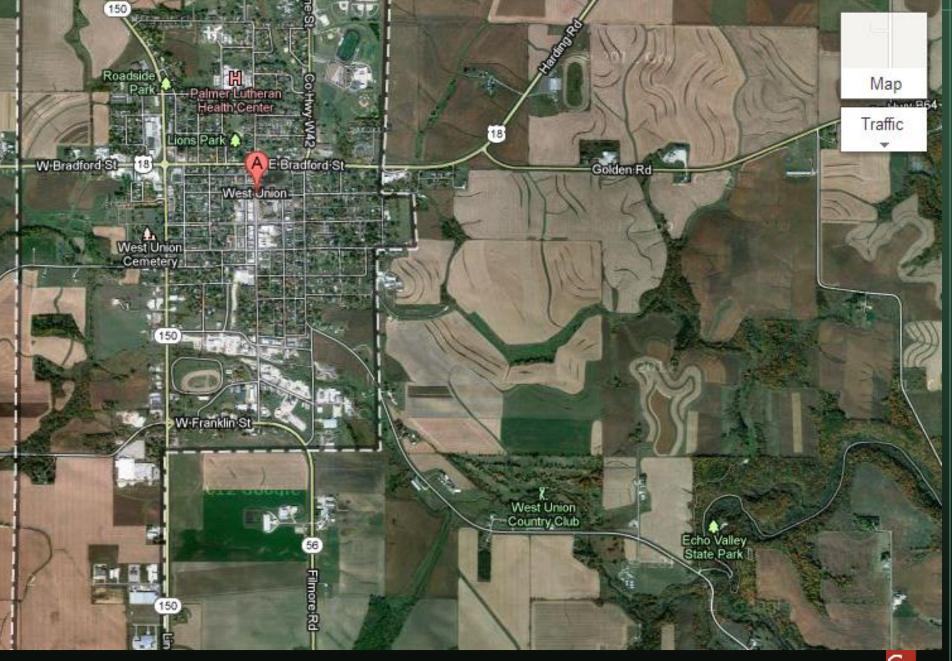
lowa Department of Economic Development







































Stormwater Materials



Street Permeable Paver: *Eco-Optilock*



Sidewalk Permeable Paver: *Eco-Prioriα*

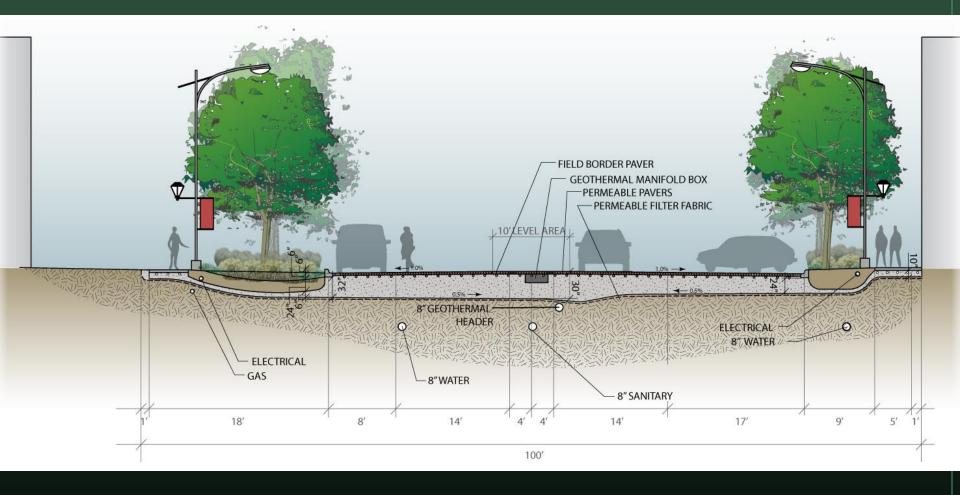


Bioretention Areas





Street Section



















Summary of Results

	Pre-Project	Post-Project	% Reduction
Threshold Event	0.05"	1"	-
2-Year Event (2.91" rain)			
Runoff Volume (inches)	2.2	1.38	37%
Peak Flow (cfs)	19.2	3.8	80%
10-Year Event (4.31" rain)			
Runoff Volume (inches)	3.49	2.53	28%
Peak Flow (cfs)	29.8	5.8	81%
100-Year Event (6.36" rain)			
Runoff Volume (inches)	5.44	4.35	20%
Peak Flow (cfs)	45.8	8.3	82%



Questions?

www.cdfinc.com www.carbon-cliff.com

