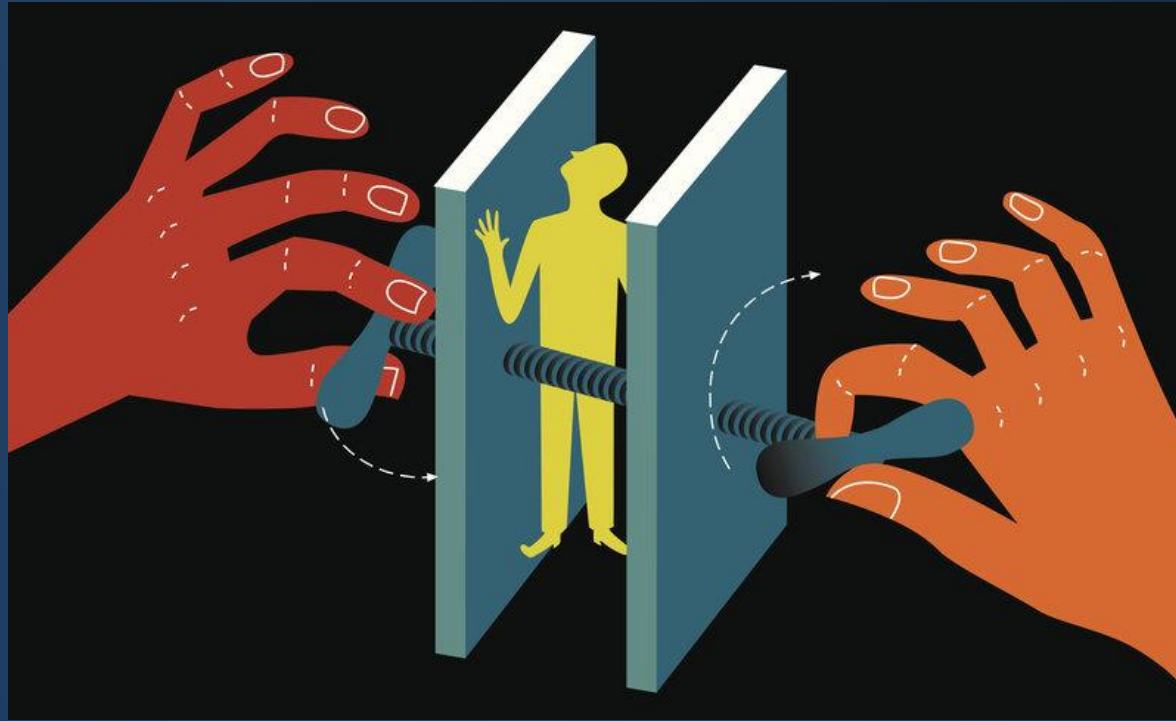




Stormwater  
Institute

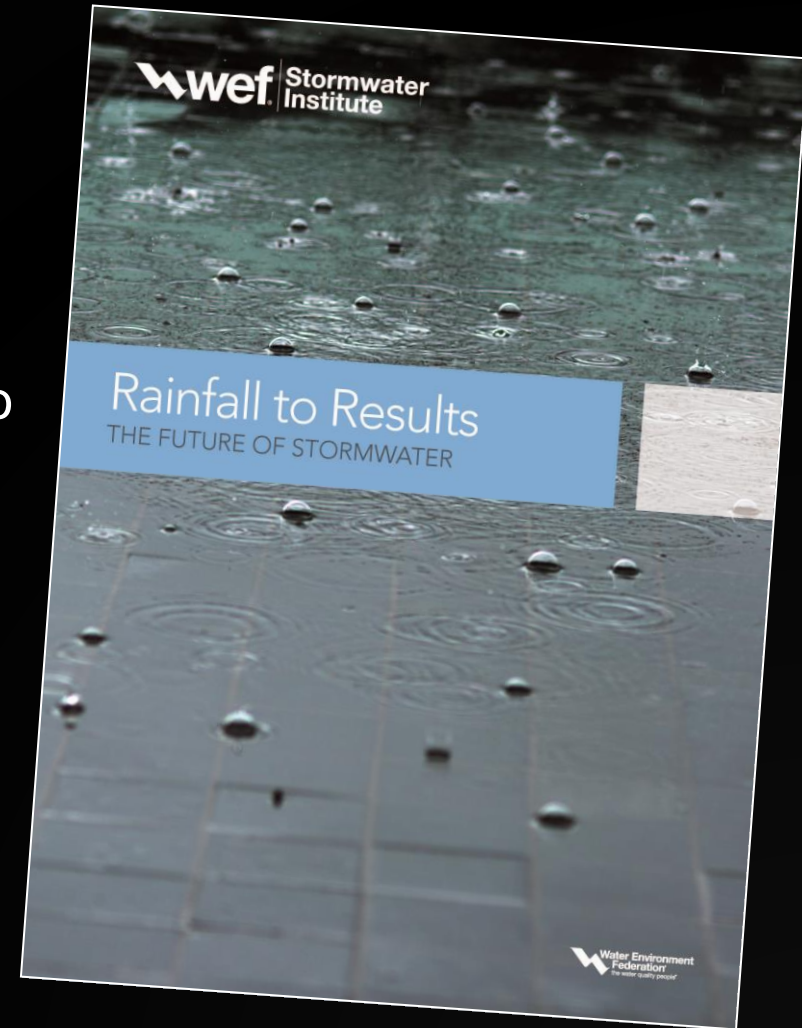
# The Stormwater Challenge



- Less mature than other water sector areas
- Significant regulatory drivers w/out adequate funding resources

# wef Stormwater Institute

- A new center of excellence and innovation housed within WEF
- Responds to MS4 professionals for a central hub on stormwater issues, and provides a platform to develop best practices and share better approaches to stormwater management
- Will leverage and be complementary to ongoing and proposed WEF stormwater programs
- Provides new options for collaboration and funding for key initiatives
- <http://wefstormwaterinstitute.org/>



# Objectives for stormwater success

Work at the watershed scale



Manage assets and resources



Close the funding gap



Transform stormwater governance



Engage the community



Support innovation and best practices



# Stormwater Financing Options Overview

- Clean Water Revolving Loan Funds
- Grants
- Supplemental Environmental Projects
- Water Quality Trading Overview
- Fairfax County, VA Stormwater Tax vs. SW Utility Fee

# Clean Water Revolving Loan Fund Program

- A federal-state partnership program
  - Federally funded
  - State implemented
- a self-perpetuating loan fund which provides a low interest financing option to cities, towns and wastewater authorities
- Can be used for upgrade, expansion, extension, replacement, repair, rehabilitation, and/or additions to public stormwater and wastewater collection/treatment facilities.

# Impact of CWRLF

- Since 1987, CWSRFs provided over:
  - \$111 billion to communities
  - 36,100 low cost loans
- Small communities received over:
  - \$25 billion
  - 24,200 loans
- Controlling pollution from nonpoint sources reached over:
  - \$4.6 billion
  - 16,200 loans
- Source: EPA, 2016 (accessed 11-14-2016)

# CWRLF & Stormwater

- The American Recovery Act of 2009 (ARRA) requires CWSRF to use a portion of their federal grant for projects that address green infrastructure, water and energy efficiency, or other environmentally innovative activities.



# Opportunity to Grow Economy

- 2016 WEF/WRF SRF Economic Impact Report
  - On average, 16.5 jobs are created for each million dollars of SRF funding, meaning that a \$34.7 billion federal investment will result in 506,000 new jobs
  - Every \$1 million of SRF spending results in \$2.95 million in U.S. economic input
  - <http://www.wef.org/wef-wra-srf-economic-impact-study-report-april-29-2016>

# Grants

- Provides an opportunity to obtain funding for large and small stormwater projects
- Chesapeake Bay region experience – many grants tend to focus on retrofit projects
- Many grants are highly competitive and there are limited funds available to meet the need
- Grants available to local and state government agencies as well as non-government organizations
- Opportunities for partnerships with NGOs exist for MS4 communities

# Supplemental Environmental Projects

- The forgotten source of one time funds
- SEPs are the result of regulatory enforcement actions where a fine is imposed on a discharger (public, private, or industrial)
- The discharger can propose a portion of the fines be used towards an eligible environmental project
  - can not be used for permit compliance or to cover corrective actions from pollution incident
- Depending on the level enforcement fine, the SEP funding can be quite large
  - E.g Virginia Environmental Endowment was created due to a SEP

# Recommendation re Grants & SEPs

- Create a running list of projects that could be implemented – your wish list
- The closer you can be towards a “shovel ready” project, the better.
- Regulatory agencies generally do not want to keep a list of possible projects themselves
  - Could be perceived as favoritism
- Develop relationships with your public utilities, industries and developers
- Additionally, develop relationships with NGOs who can act as a fiscal agent for grants

# Water Quality Trading and Stormwater Offsets

- Has the potential to provide significant improvements in regional water quality
- Trading programs have been slow to develop
- Point-source to point-source most common
- Point-source to Nonpoint-source is coming

# Water Quality Trading and Stormwater Offsets

- Opportunity – tool for developers & communities to meet regulatory obligations in locations where there are site limitations
- Challenge – new program
  - Skepticism abounds
  - Concerns regarding local vs. regional water quality standard attainment
  - Program structural needs to ensure on-site BMPs are first option vs. automatically using trading
  - NPS to NPS trading; not yet well defined
    - Long term maintenance considerations
    - Term limited practices?

# Fairfax County, VA Stormwater Tax

- Yes – it's a tax, not a Stormwater Utility Fee

# Program History

- 1998 – County Studied Creating a Utility
- 2001 – County Studied Creating a Utility
- 2005 – Citizen Task Force Recommended a Utility
- 2006 – Board Dedicated the Stormwater Penny = \$18m
- 2007 – Stormwater Penny = \$22m
- 2009 – Operations Moved to Stormwater Penny
- 2010 – Created Stormwater Service Tax District @ \$0.01
- 2011 – Raised Stormwater Tax to \$0.015
- 2013 – Raised Stormwater Tax to \$0.02
- 2014 – Board adopted 5 year CIP
- 2015 = FY16 budget adopted @ \$0.025



# Proposal - 2010

- Shifted existing program costs from the General Fund to a Dedicated Revenue Source, to provide a more stable funding mechanism
- Created a "Service District", as authorized by Va. Code Ann. §§ 15.2-2400 to -2403.1 (2008)
- The district encompassed the entire county with the exception of Fort Belvoir
- Established a district tax of \$0.01 per \$100 of assessed valuation
- A tax was much less costly to establish and administer

# Property Owner Impacts

- A rate of \$0.025 per \$100 results in an annual charge per single family residential property of \$125 based on \$500,000 home
- Based on a \$500,000 property the \$0.025 costs \$10.42 per month and will show as \$62.50 on the semi-annual tax bill
- A Service District Tax may be deductible from state and federal income tax, offsetting its impact to property owners
- The intent was not to increase the tax burden but to shift the program to a dedicated funding stream

# Comparing Utility Fee versus Tax

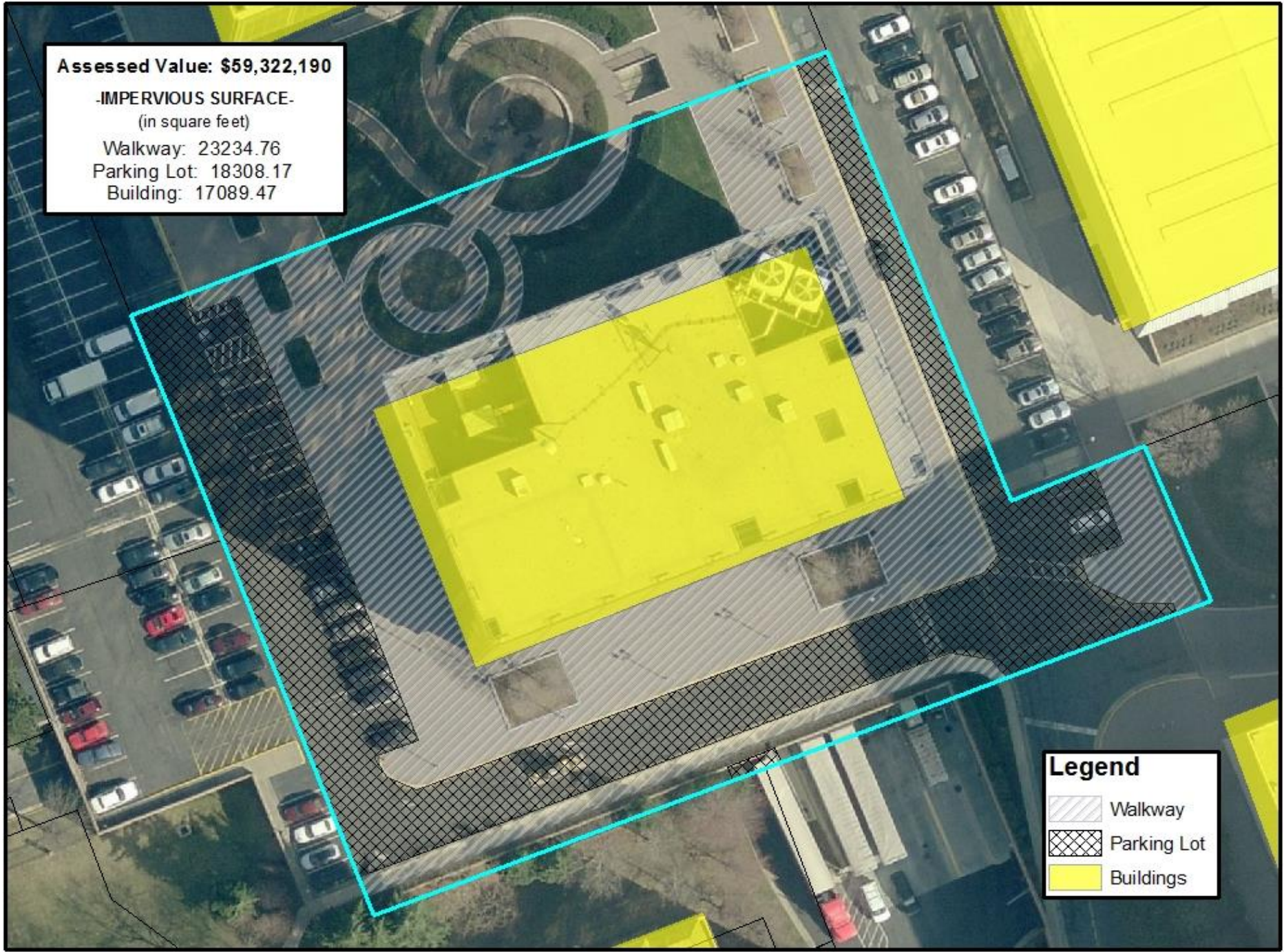
**Assessed Value: \$59,322,190**

**-IMPERVIOUS SURFACE-**  
(in square feet)

Walkway: 23234.76

Parking Lot: 18308.17

Building: 17089.47



**Legend**

-  Walkway
-  Parking Lot
-  Buildings

**Assessed Value: \$17,630,750**

**-IMPERVIOUS SURFACE-**  
(in square feet)

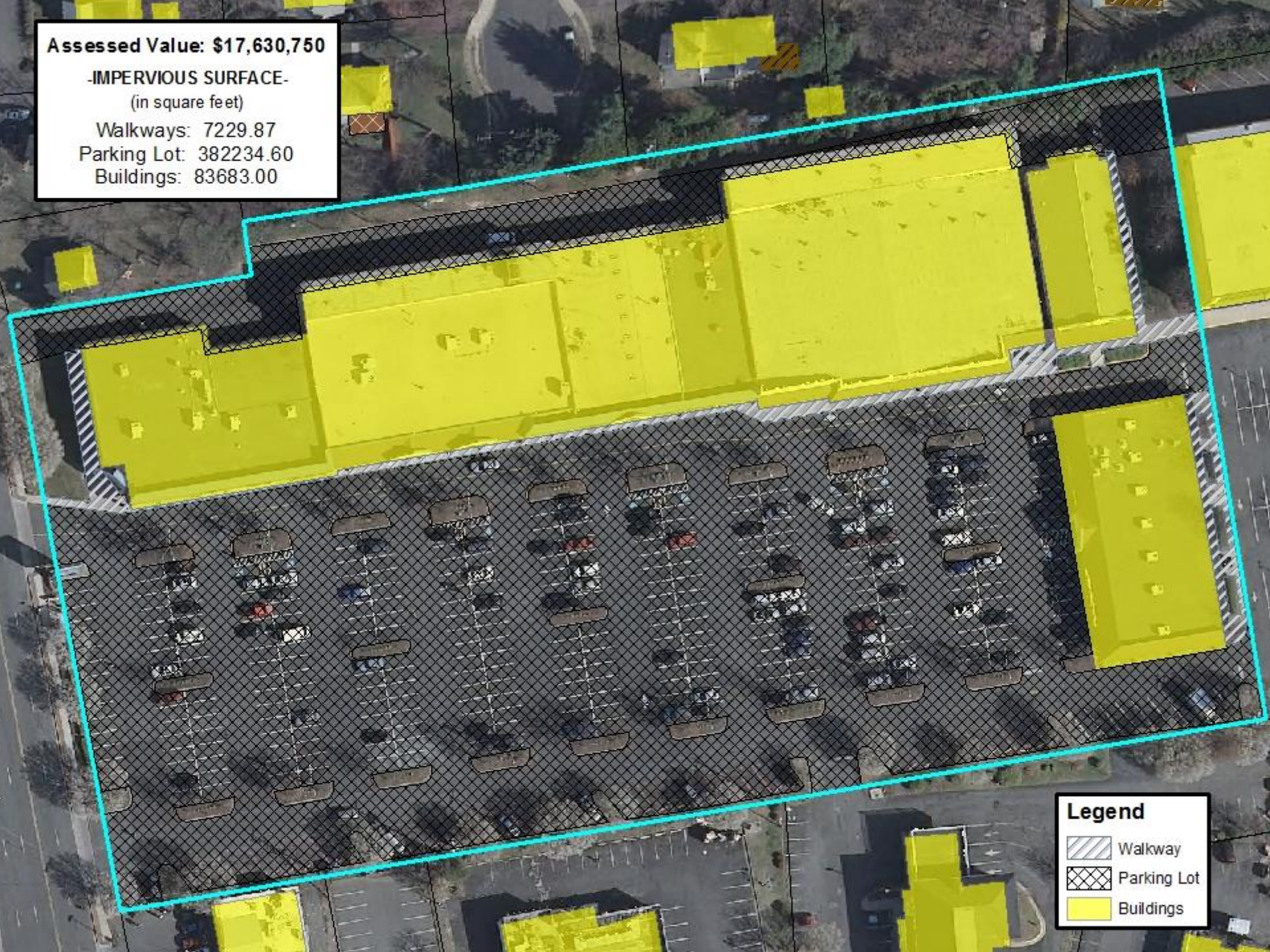
Walkways: 7229.87

Parking Lot: 382234.60

Buildings: 83683.00

**Legend**

	Walkway
	Parking Lot
	Buildings



## COMPARING COMMERCIAL PARCELS

Assessed Value	Impervious Area (square feet)	Number of Equivalent Residential Units ERU=3398/sq.ft.)	Billing Unit Rate/ERU	Total Stormwater Utility Fee	Stormwater District Tax Rate (2.5 Cents/\$100 of assessed value)
\$ 59,322,190	58,632	17	\$125	\$2,125	\$14,830
\$ 17,630,750	473,147	139	\$125	\$17,375	\$4,407

**Assessed Value: \$357,110**

**-IMPERVIOUS SURFACE-  
(in square feet)**

Building: 1977.81

Building Additions: 228.42

Driveway: 562.06

**Legend**

-  Buildings
-  Paved Driveway
- Building Additions**
-  Deck
-  Other
-  Patio
-  Pool



**Assessed Value: \$493,130**

**-IMPERVIOUS SURFACE-**  
(in square feet)

Building: 2113.72

Building Additions: 483.20

Driveway: 437.22

**Legend**

-  Buildings
-  Paved Driveway
- Building Additions**
-  Deck
-  Other
-  Patio
-  Pool





**Assessed Value: \$764,630**

**-IMPERVIOUS SURFACE-**  
(in square feet)

Building: 3471.32

Building Additions: 651.80

Driveway: 2866.45

**Legend**

-  Buildings
-  Paved Driveway
- Building Additions**
-  Deck
-  Other
-  Patio
-  Pool



**Assessed Value: \$1,045,950**

**-IMPERVIOUS SURFACE-**  
(in square feet)

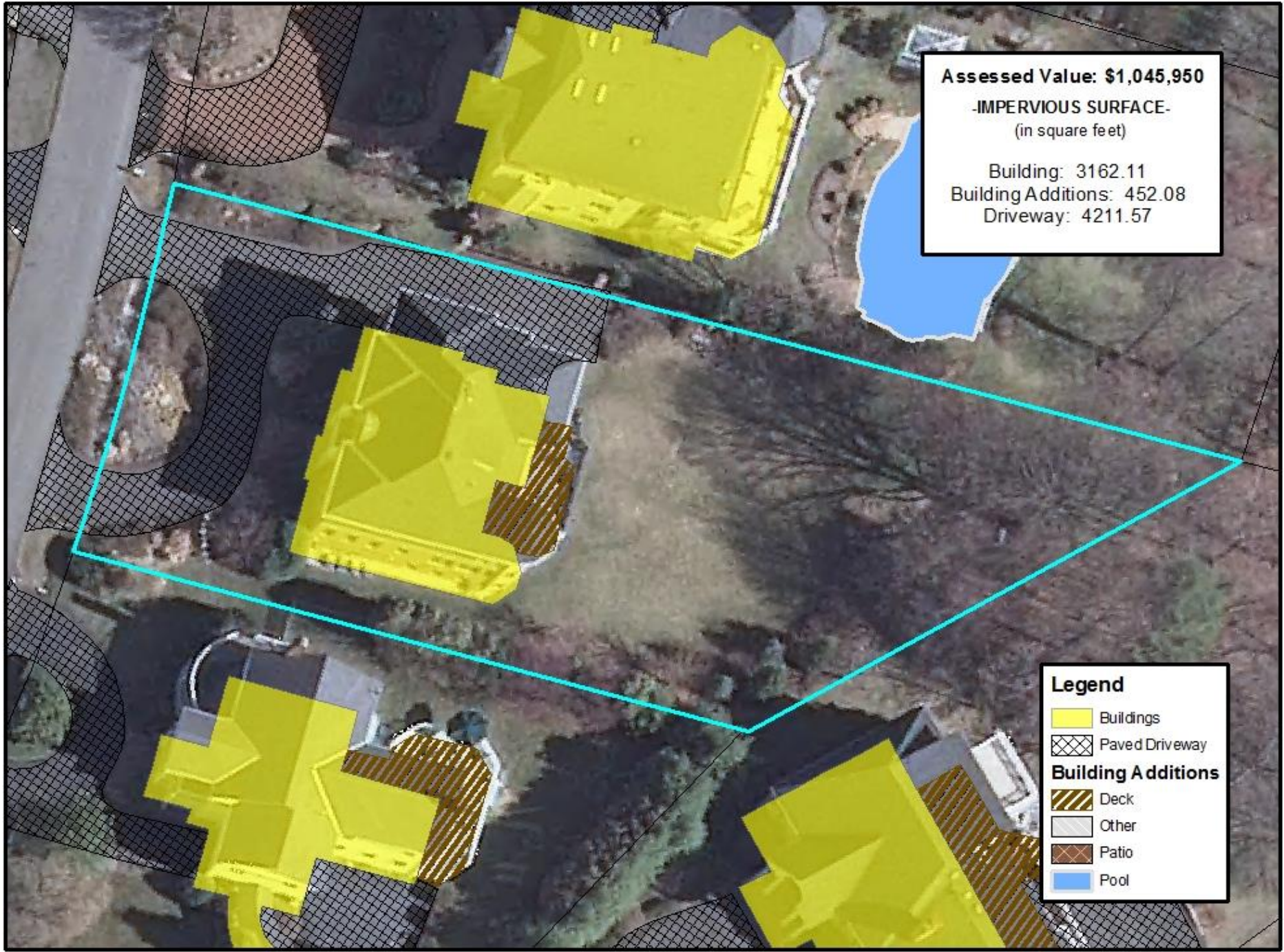
Building: 3162.11

Building Additions: 452.08

Driveway: 4211.57

**Legend**

-  Buildings
-  Paved Driveway
- Building Additions**
-  Deck
-  Other
-  Patio
-  Pool



**Assessed Value: \$6,703,430**

**-IMPERVIOUS SURFACE-**  
(in square feet)

Building: 9425.35

Building Additions: 1588.87

Driveway: 4774.84

Recreational: 1635.21

**Legend**

- Buildings
- Paved Driveway

**Building Additions**

- Deck
- Other
- Patio
- Pool

**Recreational Features**

- Basketball Court
- Other
- Tennis Court



## COMPARING RESIDENTIAL PARCELS

Assessed Value	Impervious Area (square feet)	Number of Equivalent Residential Units ERU=3398/sq.ft.)	Billing Unit Rate/ERU	Total Stormwater Utility Fee	Stormwater District Tax Rate (2.5 Cents/\$100 of assessed value)
\$357,110	2,768	0.81	\$125	\$101	\$89
\$493,130	3,034	0.89	\$125	\$111	\$123
\$764,630	6,989	2.06	\$125	\$257	\$191
\$1,045,950	7,825	2.30	\$125	\$287	\$261
\$6,703,430	16,498	4.86	\$125	\$607	\$1675

**Lord of Life Lutheran Church**  
**Assessed Value: \$1,914,000**  
**-IMPERVIOUS SURFACE-**  
(in square feet)  
Total Parcel Area: 138,719.76  
Walkway: 6,418.31  
Parking Lot: 42,169.78  
Building: 16,124.89



	Walkways
	Pavement
	Building

**Mount Vernon Unitarian Church**

**Assessed Value: \$3,657,960**

**-IMPERVIOUS SURFACE-**

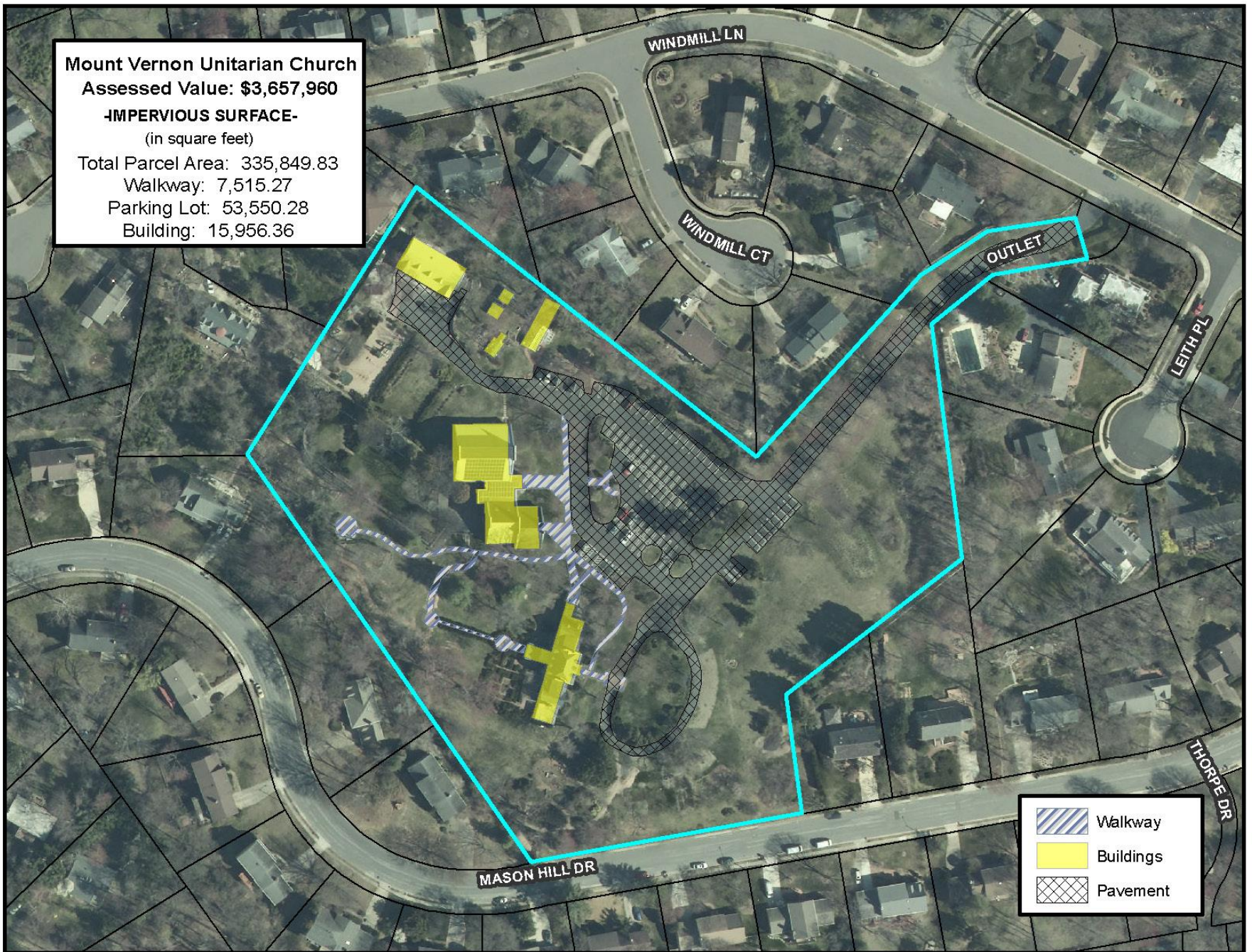
(in square feet)

Total Parcel Area: 335,849.83

Walkway: 7,515.27

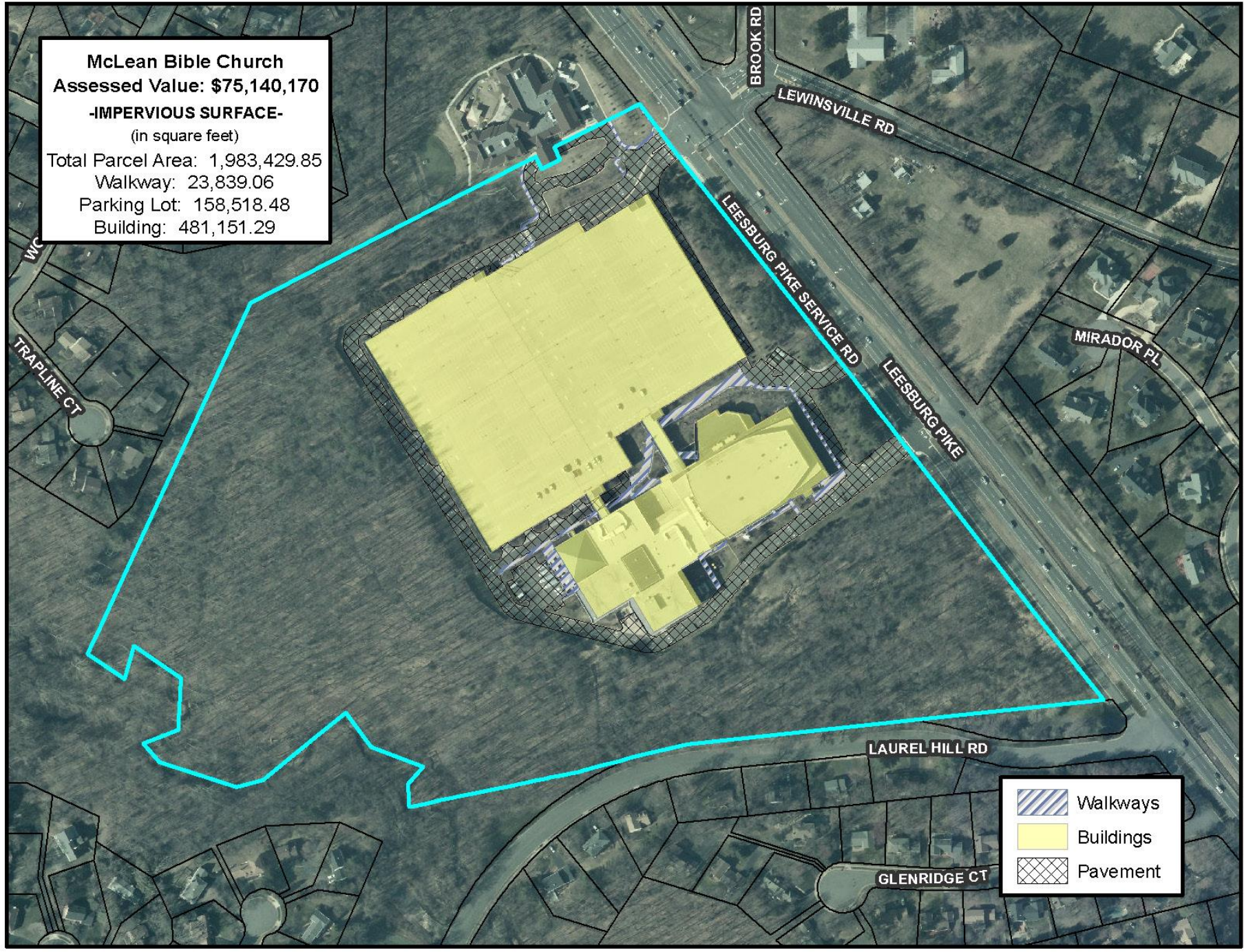
Parking Lot: 53,550.28

Building: 15,956.36



	Walkway
	Buildings
	Pavement

**McLean Bible Church**  
**Assessed Value: \$75,140,170**  
**-IMPERVIOUS SURFACE-**  
(in square feet)  
Total Parcel Area: 1,983,429.85  
Walkway: 23,839.06  
Parking Lot: 158,518.48  
Building: 481,151.29



	Walkways
	Buildings
	Pavement

## COMPARING CHURCH PARCELS

Assessed Value	Impervious Area (square feet)	Number of Equivalent Residential Units ERU=3398/sq.ft.)	Billing Unit Rate/ERU	Total Stormwater Utility Fee	Stormwater District Tax Rate (2.5 Cents/\$100 of assessed value)
<b>\$1,914,000</b>	<b>64,711</b>	<b>19</b>	<b>\$125</b>	<b>\$2380</b>	<b>0</b>
<b>\$ 3,657,960</b>	<b>77,201</b>	<b>23</b>	<b>\$125</b>	<b>\$2839</b>	<b>0</b>
<b>\$75,140,170</b>	<b>663,508</b>	<b>195</b>	<b>\$125</b>	<b>\$24,408</b>	<b>0</b>



# Stormwater Program

Program Title	FY 2016 2.5 Cent Rate	Full Program* 5.0 Cent Rate
Stormwater Regulatory Program	\$6,000	\$7,000
Emergency and Flood Response Projects	\$1,000	\$1,000
Dam Safety and Facility Rehabilitation	\$6,500	\$16,600
Conveyance System Rehabilitation	\$6,000	\$10,000
Stream and Water Quality Improvements	\$15,240	\$36,500
Stormwater Contributories & towns	\$971	\$700
Operations	\$20,789	\$28,200
<p style="text-align: center;"><b>Stormwater Program Total</b></p>	<p style="text-align: center;"><b>\$56,500</b></p>	<p style="text-align: center;"><b>\$100,000</b></p>
*Based on 2010 Estimate		\$ in thousands

# Take Aways

- Stormwater Financing needs to be a “all hands on deck” approach
- A constant system of adaptive management through program evaluation and re-evaluation of community needs is necessary
- While the challenge is great, numerous tools to develop sustainable stormwater management programs exist and are being created





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