



# Stow Road Sidewalks

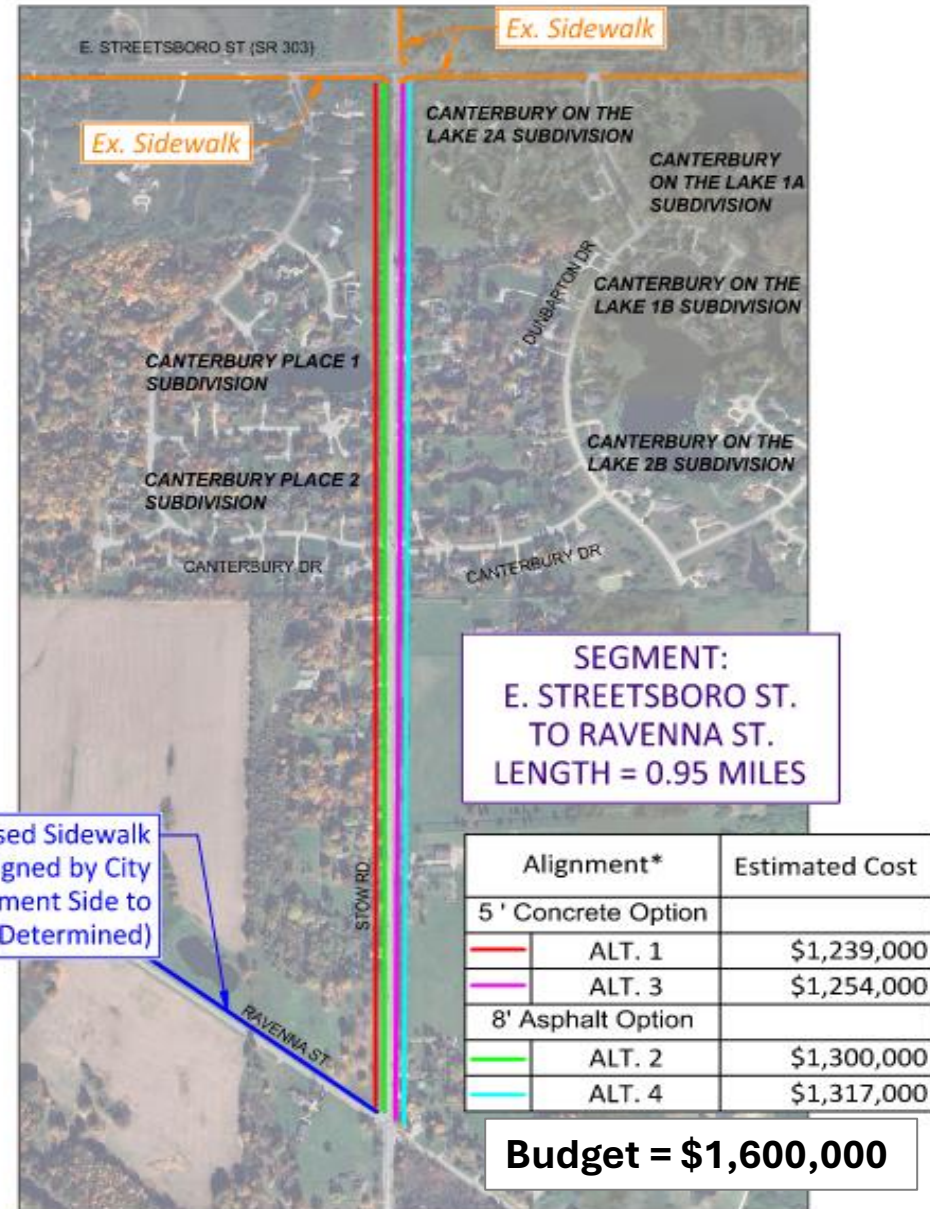


**PROJECT  
LIMITS**

# Sidewalk Alignments

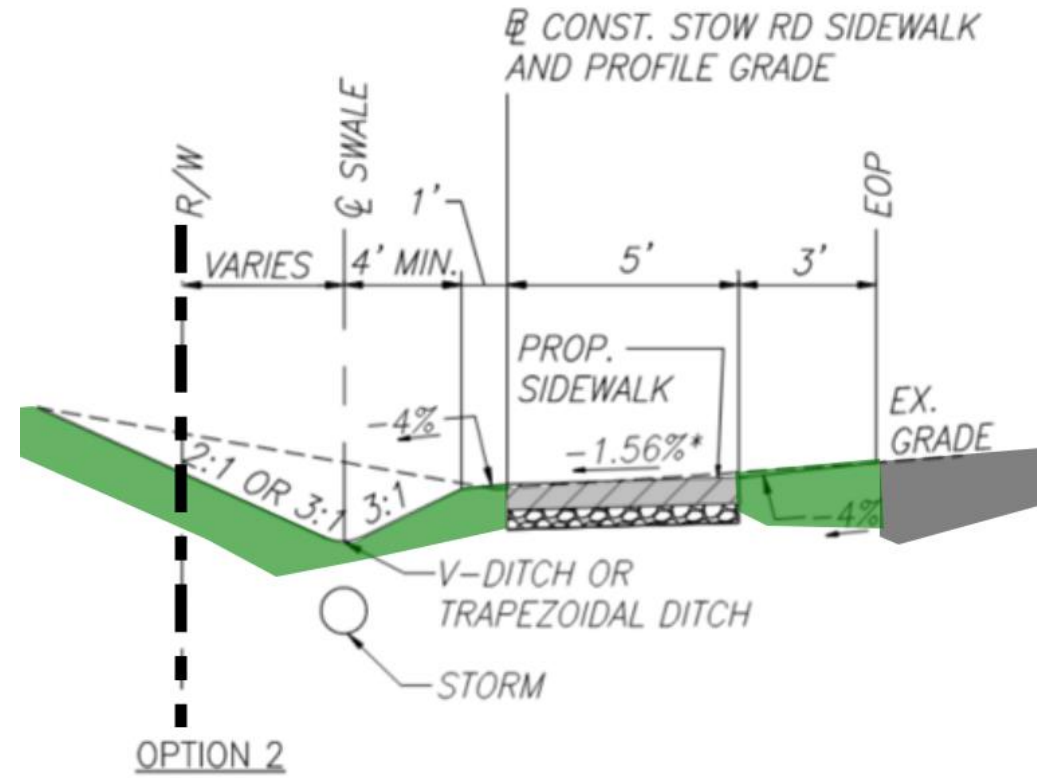
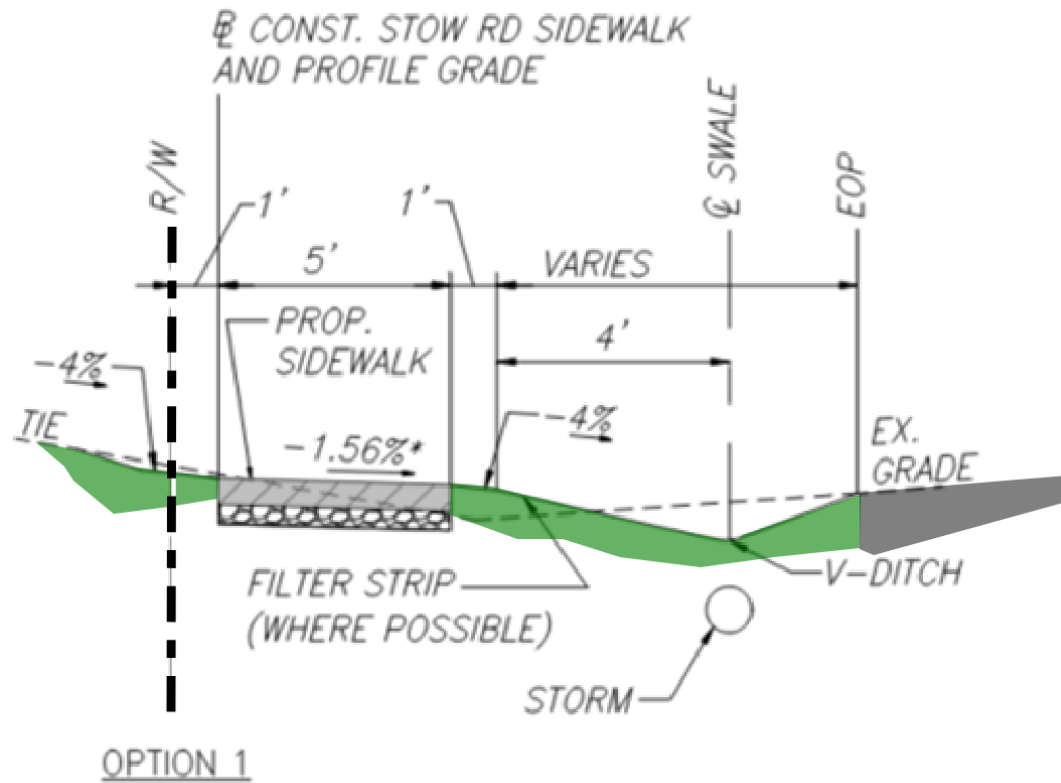
Four (4) alternatives considered

Proposed Sidewalk  
- Designed by City  
(Alignment Side to be Determined)



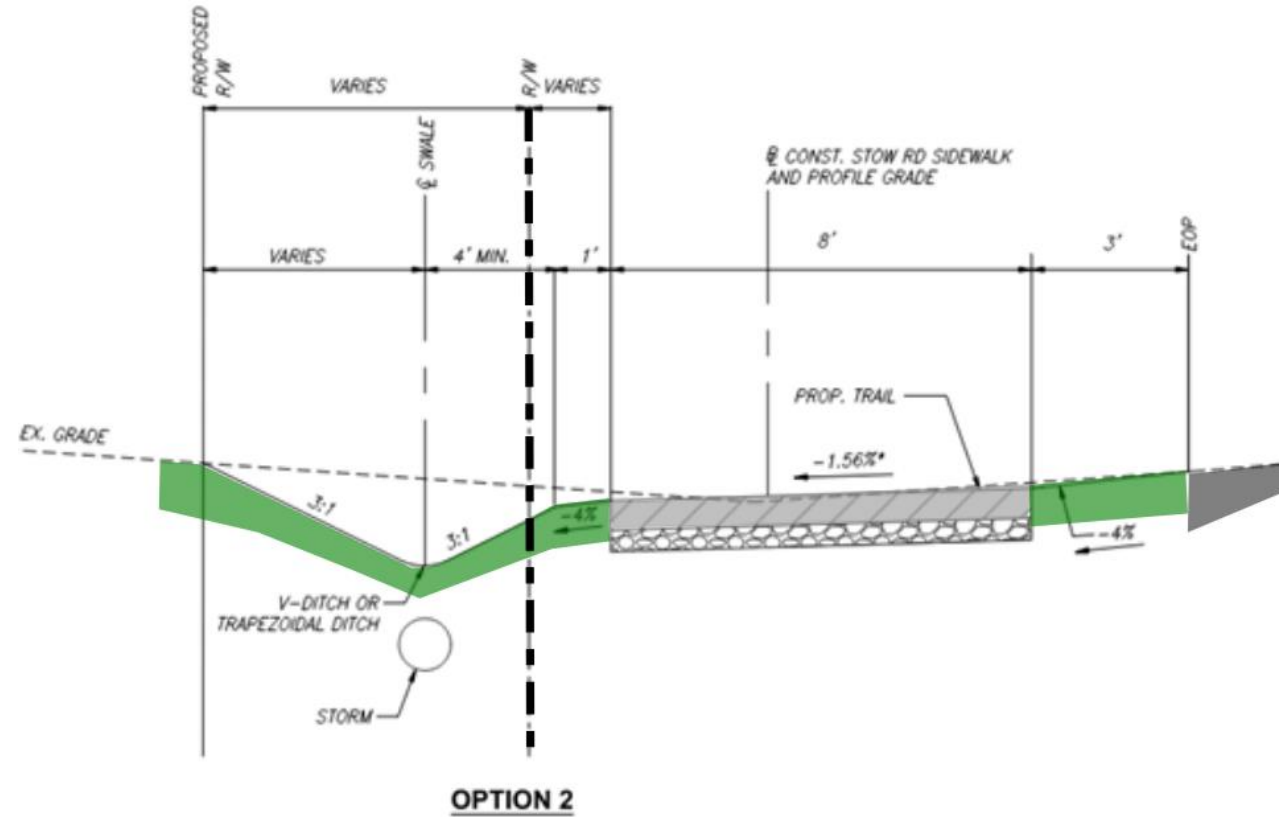
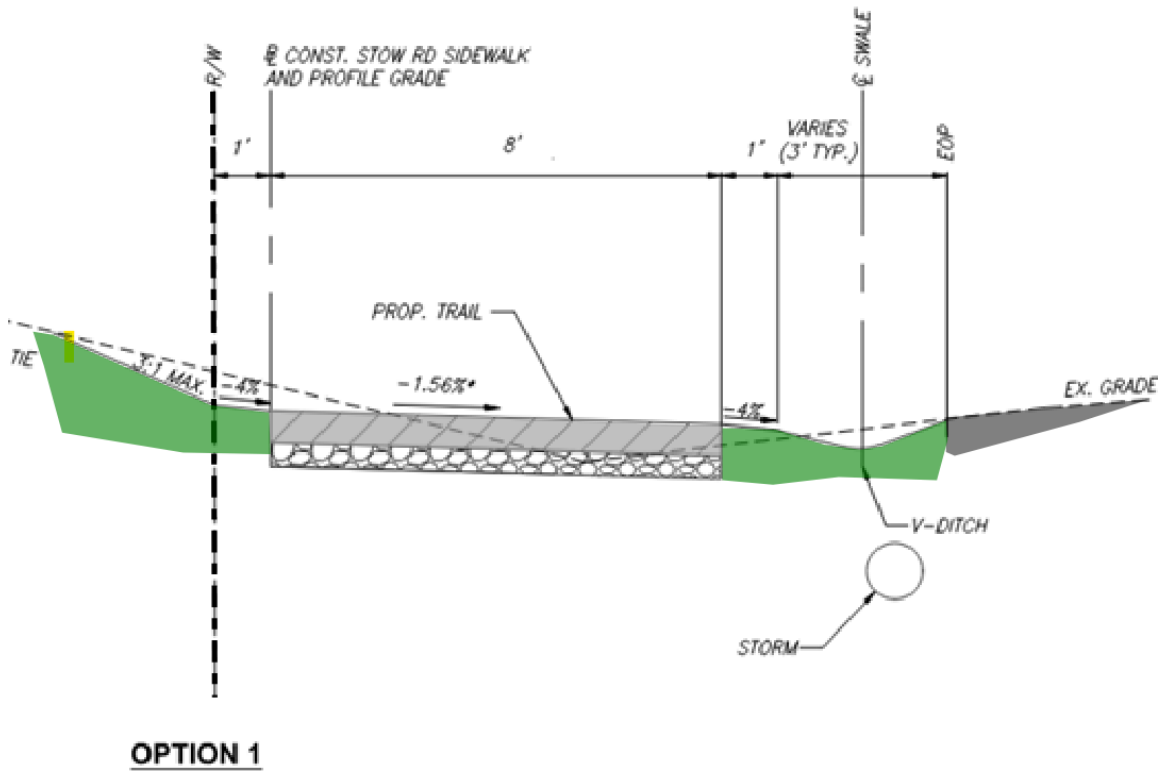
# Alignment Options

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# Typical Sections (5' Sidewalk)

- Preferred typical section (Option 1)
- Allows greater distance between sidewalk and road
- Allows for placement of grass filter strip



# Typical Sections (8' Path/Trail)

- Preferred typical section (Option 1)
- Allows greater distance between sidewalk and road
- Limits right-of-way impacts

# Decision Matrix

**CONSTRUCTION BUDGET= \$1,600,000**

**Recommendation:**

Based on the above evaluation GAI's recommendation is for:

5' concrete sidewalk on the west side of Stow Rd - **Alternative No. 1**

8' asphalt trail on the west side of Stow Rd - **Alternative No. 2**

5' concrete sidewalk on the east side of Stow Rd - **Alternative No. 3**

8' asphalt trail on the east side of Stow Rd - **Alternative No. 4**

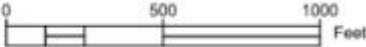
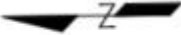
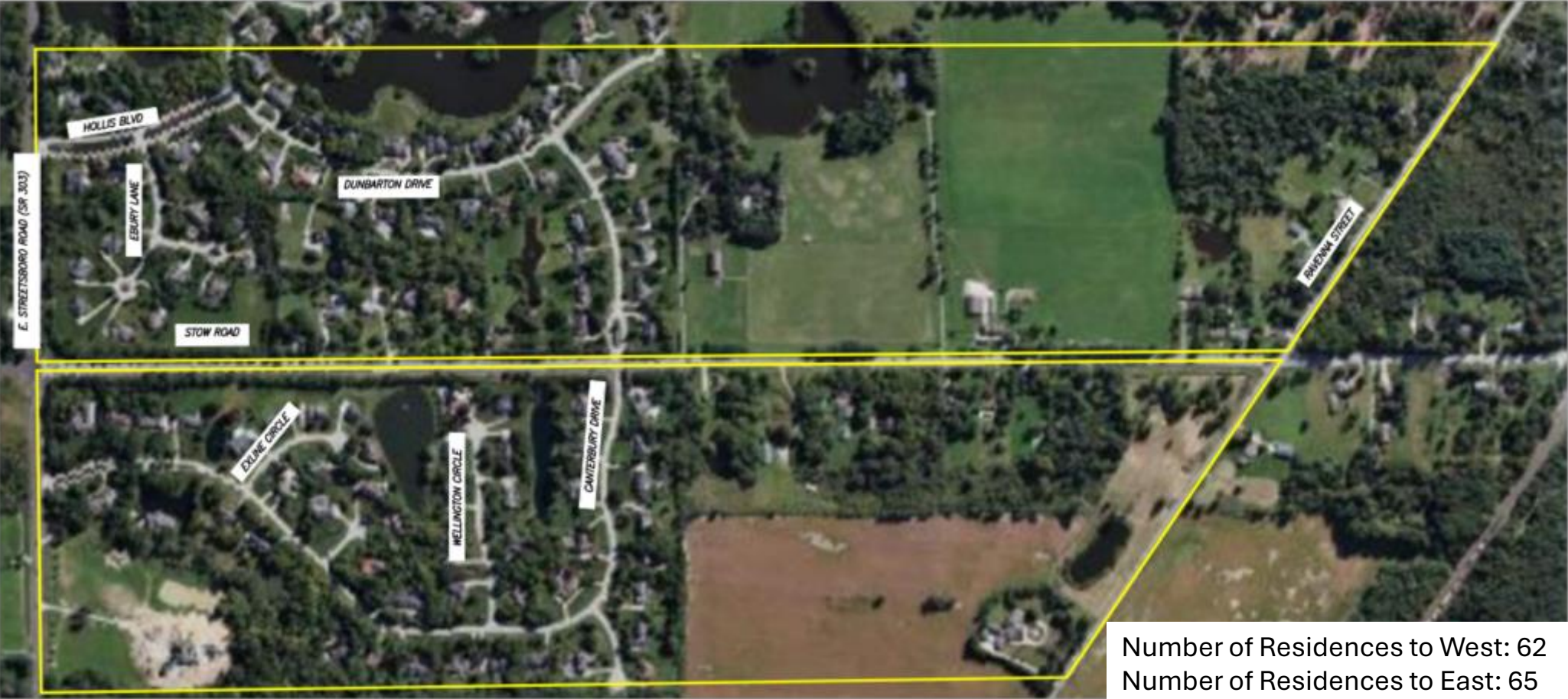
**ALTERNATIVE RANKING MATRIX FOR STOW ROAD SIDEWALK PROJECT: BEGINNING AT RAVENNA ST/STOW RD INTERSECTION, TERMINATING AT SR-303/STOW RD INTERSECTION**

RANKING CATEGORY	Weighting Factor <sup>1</sup>	ALTERNATIVE NO. 1: 5' SIDEWALK - WEST		ALTERNATIVE NO. 2: 8' TRAIL - WEST		ALTERNATIVE NO. 3: 5' SIDEWALK - EAST		ALTERNATIVE NO. 4: 8' TRAIL - EAST	
		Comments Cost Estimate = \$1,238,830	Rank Weighted Score	Comments Cost Estimate = \$1,300,100	Rank Weighted Score	Comments Cost Estimate = \$1,253,065	Rank Weighted Score	Comments Cost Estimate = \$1,316,800	Rank Weighted Score
Connectivity	5	62 homes are located within a 1/4 mile corridor to the west. Refer to exhibit for more detail.	3 15	62 homes are located within a 1/4 mile corridor to the west. Refer to exhibit for more detail.	3 15	65 homes are located within a 1/4 mile corridor to the west. Refer to exhibit for more detail.	4 20	65 homes are located within a 1/4 mile corridor to the west. Refer to exhibit for more detail.	4 20
Construction Cost	5	Least expensive Major costs: Concrete, storm sewers, temp. ROW	4 20	2nd Most Expensive Major costs: Asphalt, storm sewers, temp. ROW, permanent ROW, structural BMPs	2 10	2nd Least Expensive Major costs: Concrete, storm sewers, temp. ROW	3 15	Most Expensive Major costs: Asphalt, storm sewers, temp. ROW, permanent ROW, structural BMPs	1 5
Maintenance Cost	5	Design life~25-30 years	4 20	Design life~15-20 years	3 15	Design life~25-30 years	4 20	Design life~15-20 years	3 15
Estimated ROW Impacts	5	Temp. ROW: 24 parcels, 1.00 acre affected Perm. ROW: 2 parcels, 0.01 acre affected	4 20	Temp. ROW: 24 parcels, 1.00 acre affected Perm. ROW: 2-24 parcels, 0.02-0.60 acre affected May require additional ROW for structural BMPs	2 10	Temp. ROW: 22 parcels, 1.20 acres affected Perm. ROW: 1 parcel, 0.01 acre affected	4 20	Temp. ROW: 22 parcels, 1.32 acres affected Perm. ROW: 6-22 parcels, 0.05-0.55 acres affected May require additional ROW for structural BMPs	1 5
Safety	5	Two road crossings: Canterbury Dr, Stow Rd at Canterbury Dr	4 20	Two road crossings: Canterbury Dr, Stow Rd at Canterbury Dr	4 20	Three road crossings: Canterbury Dr, Stow Rd at Canterbury Dr, Ravenna St	2 10	Three road crossings: Canterbury Dr, Stow Rd at Canterbury Dr, Ravenna St	2 10
Utility Impact	5	Pole relocation - min. 3 poles, Possible gas line relocation - approx. 3,000 LF	4 20	Pole relocation - min. 3 poles, Possible gas line relocation - approx. 3,000 LF	3 15	Pole relocation - up to 15 poles Possible gas line relocation - approx. 3,300 LF Possible impacts to fiber optic line	2 10	Pole relocation - up to 28 poles Possible gas line relocation - approx. 3,300 LF Possible impacts to fiber optic line	1 5
Storm Water Quality	4	BMP requirements can likely be achieved using non-structural means.	4 16	Likely to require structural BMPs	1 4	BMP requirements can likely be achieved using non-structural means.	3 12	Likely to require structural BMPs	2 8
Schedule (Utility Relocation and Construction)	3	Similar construction timeframes, least utility coordination anticipated	4 12	Similar construction timeframes, 2nd least utility coordination anticipated	3 9	Similar construction timeframes, more utility coordination anticipated	2 6	Similar construction timeframes, significant utility coordination anticipated (most)	1 3
Wetland Impacts	2	No wetland impacts are anticipated in any Alternative. All items are scored evenly to account for this.	4 8	No wetland impacts are anticipated in any Alternative. All items are scored evenly to account for this.	4 8	No wetland impacts are anticipated in any Alternative. All items are scored evenly to account for this.	4 8	No wetland impacts are anticipated in any Alternative. All items are scored evenly to account for this.	4 8
<b>TOTAL WEIGHTED SCORE</b>			<b>151</b>		<b>106</b>		<b>121</b>		<b>79</b>

<sup>1</sup>Weighted Factors: Factors ranked from 1-5, with 1 being least important and 5 being most important. Each item ranked from 1-4, with 4 being preferred and 1 being not preferred. If items were considered equal, the same ranking was given.

# Connectivity

RESIDENCES WITHIN A 1/4 MILE EAST/WEST AREA



# Right-of-Way Impacts

- *\*Does not include potential right-of-way impacts for structural stormwater quality treatment*
- *\*\*Final design may increase/decrease right-of-way impacts*

	Alternative 1 (Sidewalk on West Side)	Alternative 2 (Trail on West Side)	Alternative 3 (Sidewalk on East Side)	Alternative 4 (Trail on East Side)
Temporary Right-of-Way**	1.00 AC	1.00 AC	1.20 AC	1.20 AC
# Parcels Impacted	24	24	22	22
Permanent Right-of-Way**	0.01 AC*	0.02 AC*	0.01 AC*	0.05 AC*
# Parcels Impacted	2	3	1	6
Permanent Right-of-Way (Worst Case)**	0.01 AC	0.60 AC*	0.06 AC*	0.55 AC*
# Parcels Impacted (Worst Case)	2	<b>24</b>	4	22



# Safety

## Roadway Crossings

- Alternatives 1 and 2:
  - West Side of Stow Road
  - 2 Crossings – Canterbury Drive, Stow Rd at Canterbury Dr
- Alternatives 3 and 4:
  - East Side of Stow Road
  - 3 Crossings – Canterbury Dr, Stow Rd at Canterbury Dr, Stow Rd at Ravenna St

## Proximity to Roadway

- Wider sidewalk/path will need to be closer to edge of pavement to avoid right-of-way impacts
- Wide asphalt path within close proximity to the roadway may look like an extension of the roadway pavement to a confused driver

# Utility Impacts

## Alternatives 1 and 2:

- Electric – Relocation of up to 3 poles at north end of Stow Rd
- Gas: Potential relocation (approx. 3,000 LF), depends on Enbridge requirements
- Fiber Optic: No Impacts
- Water: No Impacts
- Sanitary: No Impacts

## Alternatives 3 and 4:

- Electric – Relocation of up to 30 poles
- Gas: Potential relocation (approx. 3,300 LF), depends on Enbridge requirements
- Fiber Optic: Relocation
- Water: No Impacts
- Sanitary: No Impacts

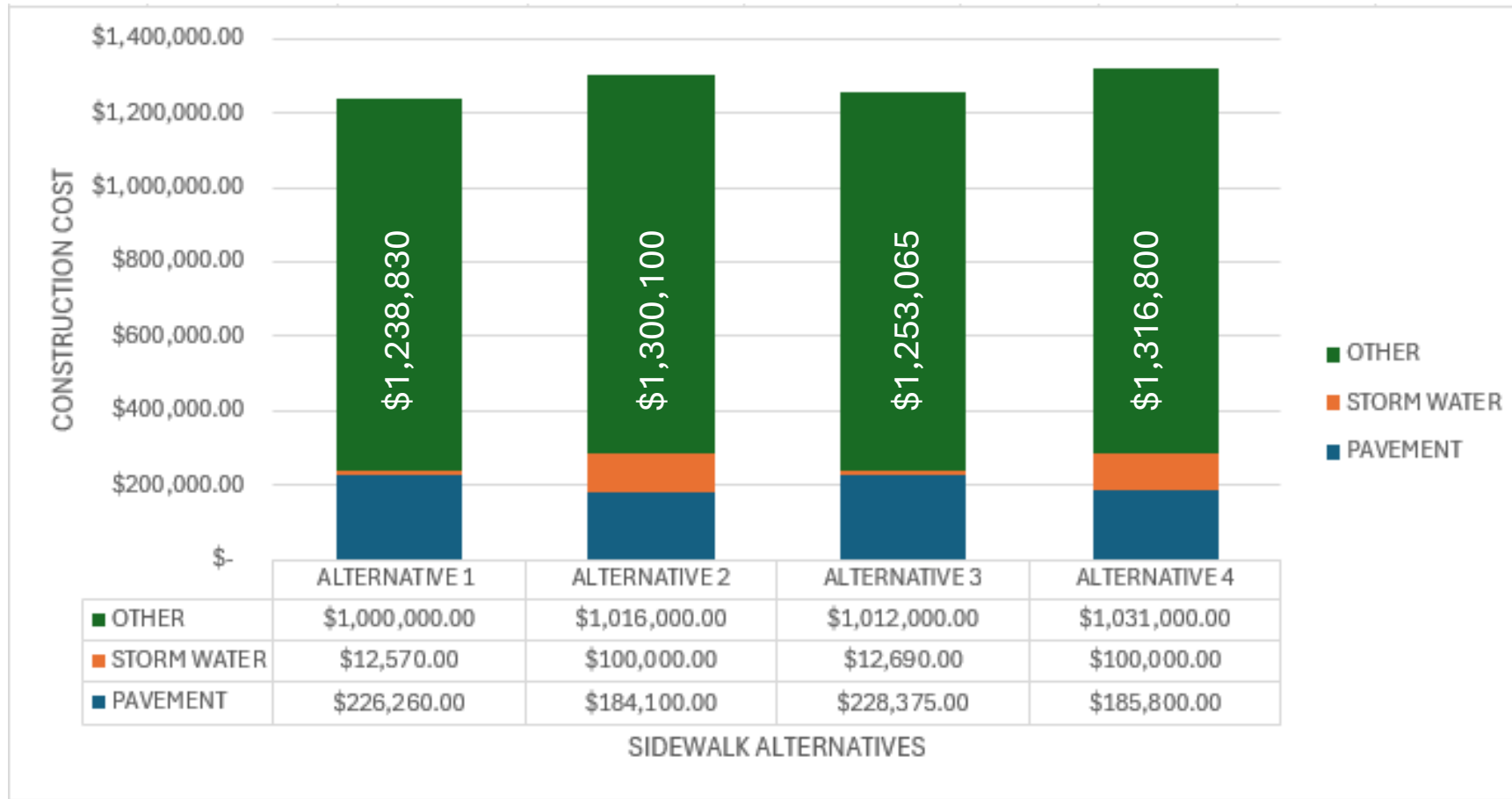
# Storm Water Quality

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- Storm Water Quality and Best Management Practices (BMPs): grass filter strips vs structural BMP
  - Grass filter strip: Grass area of designated width that storm water runoff is required to flow across
  - Structural BMPs:
    - Hydrodynamic Separator – storm water quality unit that traps trash, sediment, and oil from storm water using non-blocking screen technology
  - Other BMPs considered but eliminated:
    - Infiltration Trench – soil types not a good candidate, cost
    - Storm Water Pond – right-of-way acquisition (\$1/CF typ. cost)
    - Underground Detention – right-of-way acquisition, cost (\$10-12/CF), elevation/fall
    - Permeable pavement – cost (approximately double the cost of traditional concrete)
    - Vegetated Biofilter/swale - cost

# Preliminary Construction Cost Estimates

## Budget = \$1,600,000



*\*Preliminary costs do not include right-of-way acquisition or right-of-way plan preparation*

# Maintenance

Concrete	Design life of 25-30 years
Asphalt	Design life of 15-20 years Crack sealing throughout design life
Snow removal	5' vs 8' width Sidewalk at rear of some properties, property lines indistinguishable
Storm Water Quality and BMPs	Grass filter strip: mowing only, low cost Hydrodynamic Separator: requires periodic maintenance

# Schedule

## Major Impacts:

- Utility Coordination/Relocation
- Sidewalk Material: Asphalt vs Concrete
- Storm Water Quality (BMPs)
- Right-of-Way Impacts

# Environmental Impacts

## Wetlands

- Wetlands: 0.01 AC located at the NW quadrant of the Ravenna St/ Stow Rd intersection- avoid

## Trees

- Attempt to minimize tree clearing (landscaping screen/noise abatement) while keeping tree roots away from sidewalk